

**INSTITUT CATALÀ
DE PALEONTOLOGIA,
FUNDACIÓ PRIVADA INFORME D'AUDITORIA
COMPTEΣ ANUALS AL
31 DE DESEMBRE DE 2019**

INFORME D'AUDITORIA DE COMPTES ANUALS EMÉS PER UN AUDITOR INDEPENDENT DE CONFORMATITAT AMB LA NORMATIVA DE FINANCES DE LA GENERALITAT DE CATALUNYA

Al Patronat de l'Institut Català de Paleontologia, Fundació Privada:

Opinió.

Hem auditat als comptes anuals de l'**Institut Català de Paleontologia, Fundació Privada** (l'Entitat), que comprenen el balanç de situació a 31 de desembre de 2019, el compte de pèrdues i guanys, l'estat de canvis en el patrimoni net, l'estat de la liquidació de pressupost i la memòria corresponents a l'exercici acabat en aquesta data.

En la nostra opinió, els comptes anuals adjuntes expressen, en tots els aspectes significatius, la imatge fidel del patrimoni i de la situació financera de l'Entitat a 31 de desembre de 2019, així com dels seus resultats i fluxos d'efectiu corresponents a l'exercici acabat en aquesta data, de conformitat amb el marc normatiu d'informació financera que resulta d'aplicació (que s'identifica en la nota 2 de la memòria adjunta) i, en particular, amb els principis i criteris comptables continguts en el mateix.

Fonament de l'opinió.

Aquesta auditoria ha estat realitzada dins del marc que preveu la Resolució de la Intervenció General de 15 de gener de 2020, per la qual s'aprova la Instrucció 1/2020 sobre el règim general a seguir en l'exercici del control financer, de conformitat amb la Llei de Finances Públiques de Catalunya, així com la normativa reguladora de l'activitat d'auditoria de comptes per al Sector Públic estatal vigent. Les nostres responsabilitats d'acord amb aquestes normes es descriuen més endavant en la secció **Responsabilitats de l'auditor en relació a l'auditoria de comptes anuals** del nostre informe..

Som independents de l'Entitat de conformitat amb els requeriments d'ètica, inclosos els de independència, que són aplicables a la nostra auditoria dels comptes anuals a Espanya segons el que s'exigeix per la normativa reguladora de l'activitat d'auditoria de comptes. En aquest sentit, no hem prestat serveis diferents als de l'auditoria de comptes ni han concorregut situacions o circumstàncies que, d'acord amb el que s'estableix en la esmentada normativa reguladora, hagin afectat a la necessària independència de manera que s'hagi vist compromesa.

Considerem que l'evidència d'auditoria que hem obtingut proporciona una base suficient i adequada per a la nostra opinió.

Tel. (+34) 93 414 59 28 | Fax (+34) 93 414 02 48

E-mail: audiec@pkf.es | www.pkf.es

PKF-Audiec, S.A.P. | Av. Diagonal, 612, 7º | 08021 Barcelona, Spain

Aspectes més rellevants de l'auditoria.

Els aspectes més rellevants de l'auditoria són aquells que, segons el nostre judici professional, han estat considerats com els riscos d'incorrectitud material més significatius en la nostra auditoria dels comptes anuals del període actual. Aquests riscos han estat tractats en el context de la nostra auditoria dels comptes anuals en el seu conjunt, i en la formació de la nostra opinió sobre aquestes, i no exprem una opinió per separat sobre aquests riscos.

Valoració inicial i posterior dels elements de l'immobilitzat (veure les notes 5 i 6 de la memòria adjunta).

Descripció:

Tal i com es comenta a la nota 5 de la memòria adjunta, en els últims anys l'Entitat ha portat a terme un considerable volum de inversions, tant en l'immobilitzat intangible com material, així com a actuacions que es poden catalogar de reparacions i manteniment. Dintre d'aquest procés s'han pres decisions relatives a la naturalesa activable o no de cada actuació, així com al moment en que s'ha de iniciar el seu procés de reconeixement comptable de la seva pèrdua de valor, es a dir, l'inici de la amortització o deteriorament comptable de cada element.

Resposta d'auditoria:

A fi de respondre a aquesta qüestió clau, hem desenvolupat i executat els procediments d'auditoria per avaluar l'eficàcia dels procediments i controls més rellevants aplicats per l'Entitat en aquestes àrees, i posteriorment hem desenvolupat i aplicat procediments substantius sobre les estimacions de les correccions valoratives per deterioracions o per amortització dels corresponents costs de les immobilitzacions.

Per això hem aplicat procediments per entendre tant les diferents fases del procés de reconeixement de les pèrdues de valor comptable, com els controls rellevants dissenyats per l' Entitat i la constatació de l'eficàcia dels mateixos.

Sobre la base de l'anteriorment descrit, hem observat que l'enfocament aplicat per la Direcció de l'Entitat està suportat i és consistent amb l'evidència d'auditoria obtinguda.

Reconeixement dels ingressos (veure les notes 9, 11 i 17 de la memòria adjunta)

Descripció:

Donat l'elevat volum d'imports rebuts per tota mena de subvencions, el reconeixement dels ingressos derivats de les subvencions rebudes, considerem que es tracta d'una àrea significativa i rellevant amb relació als comptes anuals de l'exercici 2019.

Resposta d'auditoria:

A fi de respondre a aquesta qüestió, hem aplicat els procediments d'auditoria necessaris per avaluar l'eficàcia dels procediments i controls més rellevants aplicats per l'Entitat en aquesta àrea, així com hem aplicat procediments substantius sobre una mostra de les imputacions de les subvencions al compte de pèrdues i guanys de l'exercici 2019.

Sobre la base de l'anteriorment descrit, hem constatat que l'enfocament aplicat per la Direcció de l'Entitat està suportat i és consistent amb l'evidència d'auditoria obtinguda, sense que s'hagi detectat la necessitat de modificar o ajustar els imports enregistrats per l'Entitat.

Paràgraf d'èmfasi.

Cridem l'atenció respecte del comentat a l'últim apartat de la nota 13 de la memòria adjunta, en la qual es comenta la situació en la que es troben les liquidacions d' IVA dels anys 2011 a 2016 que van ser objecte de inspecció per part de les autoritats fiscals i van aixecar les corresponents actes, que van ser signades en disconformitat per la Fundació. Aquesta qüestió no modifica la nostra opinió.

Responsabilitat del Patronat en relació amb els comptes anuals.

Els membres del Patronat son responsables de formular els comptes anuals adjunts, de manera que expressin la imatge fidel del patrimoni, de la situació financer i dels resultats de l'Entitat, de conformitat amb el marc normatiu d'informació financer aplicable a l'Entitat a Espanya, i del control intern que consideri necessari per permetre la preparació de comptes anuals lliures d'incorrecció material, deguda a frau o error.

En la preparació dels comptes anuals, els patrons son responsables de la valoració de la capacitat de l'Entitat per continuar com a empresa en funcionament, revelant, segons correspongui, les qüestions relacionades amb l'empresa en funcionament i utilitzant el principi comptable d'empresa en funcionament excepte si el Patronat té intenció de liquidar l'Entitat o de cessar les seves operacions, o bé no existeix una altra alternativa realista.

Responsabilitats de l'auditor en relació amb l'auditoria dels comptes anuals.

Els nostres objectius són obtenir una seguretat raonable que els comptes anuals en el seu conjunt estan lliures d'incorrecció material, deguda a frau o error, i emetre un informe d'auditoria que conté la nostra opinió. Seguretat raonable és un alt grau de seguretat però no garanteix que una auditoria realitzada de conformitat amb la normativa reguladora de l'activitat d'auditoria de comptes vigent a Espanya sempre detecti una incorrecció material quan existeix. Les incorreccions es poden deure a frau o error i es consideren materials si, individualment o de forma agregada, es pot preveure raonablement que influeixin en les decisions econòmiques que els usuaris prenen basant-se en els comptes anuals.

Com a part d'una auditoria de conformitat amb la normativa reguladora de l'activitat d'auditoria de comptes vigent a Espanya, apliquem el nostre judici professional i mantenim una actitud d'escepticisme professional durant tota l'auditoria. També:

- Identifiquem i valorem els riscos d'incorrecció material en els comptes anuals, deguts a frau o error, dissenyem i apliquem procediments d'auditoria per respondre a aquests riscos i obtenim evidència d'auditoria suficient i adequada per proporcionar una base per a la nostra opinió. El risc de no detectar una incorrecció material deguda a frau és més elevat que en el cas d'una incorrecció material deguda a error, ja que el frau pot implicar col·lisió, falsificació, omissions deliberades, manifestacions intencionadament errònies, o la elusió del control intern.

- Obtenim coneixement del control intern rellevant per a l'auditoria amb la finalitat de dissenyar procediments d'auditoria que siguin adequats en funció de les circumstàncies, i no amb la finalitat d'expressar una opinió sobre l'eficàcia del control intern de l'entitat.
- Avaluem si les polítiques comptables aplicades són adequades i la raonabilitat de les estimacions comptables i la corresponent informació revelada pel patronat.
- Concloem sobre si és adequada la utilització, pels membres del Patronat, del principi comptable d'empresa en funcionament i, basant-nos en l'evidència d'auditoria obtinguda, concloem sobre si existeix o no una incertesa material relacionada amb fets o amb condicions que poden generar dubtes significatius sobre la capacitat de l'Entitat per continuar com a empresa en funcionament. Si concloem que existeix una incertesa material, es requereix que cridem l'atenció en el nostre informe d'auditoria sobre la corresponent informació revelada en els comptes anuals o, si aquestes revelacions no són adequades, que expremem una opinió modificada. Les nostres conclusions es basen en l'evidència d'auditoria obtinguda fins avui del nostre informe d'auditoria. No obstant això, els fets o condicions futurs poden ser la causa que l' Entitat deixi de ser una empresa en funcionament.
- Avaluem la presentació global, l'estructura i el contingut dels comptes anuals, inclosa la informació revelada, i si els comptes anuals representen les transaccions i fets subjacents d'una manera que aconsegueixen expressar la imatge fidel.

Ens comuniquem amb el Patronat de l'Entitat en relació amb, entre altres qüestions, l'abast i el moment de realització de l'auditoria planificats i les troballes significatives de l'auditoria, així com qualsevol deficiència significativa del control intern que identifiquem en el transcurs de l'auditoria.

Entre els riscos significatius que han estat objecte de comunicació als membres del Patronat de l'Entitat, determinem els que han estat de la major significativitat en l'auditoria dels comptes anuals del període actual i que són, en conseqüència, els riscos considerats més significatius.

Descrivim aquests riscos en el nostre informe d'auditoria tret que les disposicions legals o reglamentàries prohibeixin revelar públicament la qüestió.



PKF-AUDIEC, S.A.P.

2020 Núm. 20/20/03715

SELLO CORPORATIVO: 96,00 EUR

Informe de auditoría de cuentas sujeto
a la normativa de auditoría de cuentas
española o internacional

Barcelona, 29 de maig de 2020.

PKF-Audiec, S.A.P.
Inscrita en el R.O.A.C nº S0647



Carles Ginesta
Inscrit en el R.O.A.C. nº 17.031

INSTITUT CATALÀ DE PALEONTOLOGIA, FUNDACIÓ PRIVADA

COMPTES ANUALS AL 31 DE DESEMBRE DE 2019:

- **BALANÇ.**
- **COMPTE DE PÈRDUES I GUANYS.**
- **ESTAT DE CANVIS PATRIMONI NET.**
- **MEMÒRIA.**
- **APROVACIÓ DELS COMPTES ANUALS.**
- **LIQUIDACIÓ DEL PRESSUPOST.**

INSTITUT CATALÀ DE PALEONTOLOGIA CIF: G-64.361.322

núm. de comptes	ACTIU	Notes de la memòria	exercici 2019	exercici 2018
A. ACTIU NO CORRENT			4.090.074,00	4.199.968,00
I Immobilitzat intangible		5	10,34	10,34
206. APLICACIONS INFORMÀTIQUES			40.400,72	40.400,72
208. DRETS SOBRE ACTIUS CEDITS EN ÚS			0,00	0,00
280. AMORTITZACIÓ ACUMULADA INMOB. INTANGIBLE			-40.390,38	-40.390,38
II Immobilitzat materials		5	4.090.063,66	4.199.957,66
211. CONSTRUCCIONS			5.025.200,65	5.025.200,65
212. ESPAIS EXPOSITIUS			248.929,77	248.929,77
213. MAQUINÀRIA			847.638,37	847.638,37
214. UTILLATGE			370.812,41	370.812,41
216. MOBILIARI			80.490,13	80.490,13
217. EQUIPS INFORMÀTICS			187.573,56	178.608,21
218. ELEMENTS DE TRANSPORT			10.363,61	10.363,61
281. AMORTITZACIÓ ACUMULADA IMMOB. MATERIAL			-2.680.944,84	-2.562.085,49
231. CONSTRUCCIONS EN CURS			0,00	0,00
239. ANTICIPS PER IMMOBILITZACIONS MATERIALS			0,00	0,00
VI Inversions financeres a llarg termini		7	0,00	0,00
260. FIANCES DIPOSITADES			0,00	0,00
B. ACTIU CORRENT			1.878.613,20	1.969.370,13
I Existències			34.406,88	34.406,88
300. EXISTÈNCIES			34.406,88	34.406,88
II Usuaris, patrocinadors i deutors de les activitats			1.475.983,60	1.577.798,37
430. USUARIS PER PRESTACIÓ DE SERVEIS		8	164.585,98	61.920,84
470. DEUTORS PER SUBVENCIONS		8	921.103,11	1.091.951,87
470. HISENDA DEUTORA PER IVA			390.294,51	423.925,66
IV Inversions financeres a curt termini		7	0,00	0,00
548. IMPOSICIONS A CURT TERMINI			0,00	0,00
VI Efectiu			368.222,72	357.164,88
570. CAIXA €UROS			433,11	151,56
572. BANCS I INST. DE CRÈDIT			367.789,61	357.013,32
	TOTAL ACTIU		5.968.687,20	6.169.338,13

Les notes 1 a 22 de la Memòria adjunta forman part d'aquest estat financer al 31 de desembre de 2019.

INSTITUT CATALÀ DE PALEONTOLOGIA CIF: G-64.361.322

núm. de comptes	PATRIMONI NET I PASSIU	exercici 2019	exercici 2.018
A. PATRIMONI NET		3.402.370,71	3.191.966,77
A-1) Fons propis		-56.135,51	-56.135,51
I Fons dotacionals		35.000,00	35.000,00
100. FONS DOTACIONALS		35.000,00	35.000,00
III EXCEDENT D'EXERCICIS ANTERIORIS		-91.135,51	-91.135,51
120. Romanent		-91.135,51	-91.135,51
V Excedent de l'exercici		0,00	0,00
129. EXCEDENT DE L'EXERCICI		0,00	0,00
A-2) Subvencions, donacions i llegats rebuts		3.458.506,22	3.248.102,28
130. SUBVENCIONS OFICIALS DE CAPITAL		3.458.506,22	3.248.102,28
B. PASSIU NO CORRENT		1.586.507,16	1.999.482,62
II Deutes a llarg termini		1.586.507,16	1.999.482,62
170. CREDITORS A LLARG TERMINI		756.318,00	1.008.424,00
172. DEUTES A LLARG TERMINI TRANSF. EN SUBVENCIONS		429.103,60	571.058,62
173. PROVEÏDORS DE IMMOBILITZAT A LLARG TERMINI		401.085,56	420.000,00
C. PASSIU CORRENT		979.809,33	977.888,74
II Deutes a curt termini		788.301,55	769.711,13
520. DEUTES A CURT TERMINI AMB ENTITATS DE CRÈDIT		252.106,00	252.106,00
522. DEUTES A CURT TERMINI TRANSF. EN SUBVENCIONS		536.195,55	517.605,13
IV Creditors per activitats i comptes a pagar		191.507,78	208.177,61
400. PROVEÏDORS		116.776,01	159.633,67
4109. FACTURES PENDENTS DE REBRE		0,00	0,00
465. (PERSONAL) REMUNERACIONS PENDENTS DE PAGAMENT		0,00	64,53
475. HISENDA PÚBLICA CREDITORA PER CONCEPT. FISCALES		41.519,52	30.602,02
476. ORGANISMES DE LA SEGURETAT SOCIAL CREDITORS		33.212,25	17.877,39
TOTAL PATRIMONI NET I PASSIU		5.968.687,20	6.169.338,13

Les notes 1 a 22 de la Memòria adjunta forman part d'aquest estat financer al 31 de desembre de

m. de comptes	COMPTE DE RESULTATS ABREUJ.	Notes de la memòria	exercici 2019	exercici 2.018
1 ingressos per les activitats			1.713.242,60	1.527.623,29
705. VENDES I PRESTACIÓ DE SERVEIS	17		281.202,43	182.292,21
724. SUBVENCIONS OFICIALS A LES ACTIVITATS	17		1.431.540,17	1.345.331,08
728. DONACIONS I ALTRES INGRESSOS PER A ACTIVITATS			500,00	0,00
5 aprovisionaments			-20.803,97	-27.491,70
600. CONSUMS I DETERIORAMENT D'EXISTÈNCIES			-4.981,97	-3.844,32
607. TREBALLS REALITZATS PER ALTRES ENTITATS			-15.822,00	-23.647,38
7 despeses de personal	14		-1.160.653,18	-948.260,98
a) Sous salari i assimilats			-949.118,36	-756.237,01
640. SOUS I SALARIS			-884.678,28	-756.237,01
641. INDEMNITZACIONS			-64.440,08	0,00
b) Càrregues socials			-211.534,82	-192.023,97
642. CÀRREGUES SOCIALS			-211.034,82	-188.903,97
649. ALTRES DESPESES SOCIALS			-500,00	-3.120,00
8 altres despeses d'explotació			-518.275,52	-511.712,59
a) Serveis exterior	17		-513.065,53	-508.572,82
620. INVESTIGACIÓ I DESENVOLUPAMENT			-267.414,62	-268.583,42
621. ARRENDAMENTS I CÀNONS			-2.560,00	-1.875,00
622. REPARACIÓNS I CONSERVACIÓ			-85.044,85	-102.926,45
623. SERVEIS DE PROFESSIONALS INDEPENDENTS			-75.351,44	-67.851,24
625. PRIMES D'ASSEGURANCES			-12.407,47	-10.293,03
626. SERVEIS BANCARIS I SIMILARS			-1.428,62	-483,47
628. SUBMINISTRAMENTS			-42.193,65	-41.502,51
629. ALTRES SERVEIS			-26.664,88	-15.057,70
b) Tributs	17		-5.209,99	-3.139,77
631. ALTRES TRIBUTS			-5.209,99	-3.139,77
d) Altres despeses de gestió corrent			0,00	0,00
659. ALTRES PÈRDUES EN GESTIÓ CORRENT			0,00	0,00
9 amortització d'immobilitzat	5		-118.859,35	-369.565,10
681. AMORTITZACIÓ DE L'IMMOBILITZAT IMMATERIAL			0,00	0,00
682. AMORTITZACIÓ DE L'IMMOBILITZAT MATERIAL			-118.859,35	-369.565,10
10 Subvencions, donacions i llegats traspassats a resultat	5 i 17		118.859,35	369.565,10
725. SUBVENCIONS CAPITAL IMPUTATS AL RESULTAT			118.859,35	369.565,10
13 Altres resultats			0,00	-20.948,18
778. INGRESSOS EXTRAORDINARIS			0,00	875,04
678. DESPESES EXTRAORDINÀRIES			0,00	0,00
699. SUBVENCIÓ DECO			0,00	-21.823,22
I RESULTAT D'EXPLOTACIÓ			13.509,93	19.209,84
14 Ingressos financers			111,38	681,23
769. INTERESSOS DE COMPTES			111,38	681,23
15 Despeses financeres	17		-13.621,31	-19.891,07
662. INTERESSOS DE DEUTES A LLARG TERMINI			-13.621,31	-19.891,07
663. INTERESSOS DE DEUTES A CURT TERMINI			0,00	0,00
II RESULTAT FINANCER			-13.509,93	-19.209,84
IV RESULTAT DE L'EXERCICI			0,00	0,00

Les notes 1 a 22 de la Memòria adjunta forman part d'aquest estat financer al 31 de desembre de 2019.

INSTITUT CATALÀ DE PALEONTOLOGIA CIF: G-64.361.322

Estat de canvis en el Patrimoni net de l' exercici 2019

A) Estat d' Ingressos i Despeses reconeguts

(expressat en euros)

	Notes de la Memòria	Exercici 2019	Exercici 2018
A) Resultat del Compte de Pèrdues i Guanys		0,00	0,00
Ingressos i despeses imputats directament al patrimoni net:			
Subvencions, donacions i llegats rebuts		282.106,00	252.106,00
Efecte impositiu		0,00	0,00
B) Total ingressos i despeses imputats directament al patrimoni net		282.106,00	252.106,00
Transferències al Compte de pèrdues i guanys:			
Subvencions, donacions i llegats rebuts	5 i 17	71.702,06	347.741,88
Efecte impositiu		0,00	0,00
C) Total transferències al Compte de pèrdues i guanys		71.702,06	347.741,88
TOTAL INGRESSOS I DESPESES RECONEGUTS		353.808,06	599.847,88

Les notes 1 a 22 de la Memòria adjunta forman part d'aquest estat financer al 31 de desembre de 2019.

INSTITUT CATALÀ DE PALEONTOLOGIA CIF: G-64.361.322

Estat de canvis en el Patrimoni net de l' exercici 2019

B) Estat Total de canvis en el Patrimoni net

(expressat en euros)

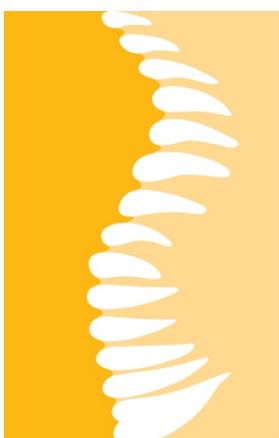
	Capital	Prima d' emissió	Reserves	Excedent exercici	Ajustos per canvis de valor	Subvencions, donacions i llegats	Totals
Saldo final de l' exercici 2017	35.000,00	0,00	(45.085,77)	(46.049,74)	0,00	3.343.738,16	3.287.602,65
Ajustos per canvis de criteri							0,00
Ajustos per errors							0,00
Saldo ajustat a l' inici de l' exercici 2018	35.000,00	0,00	(45.085,77)	(46.049,74)	0,00	3.343.738,16	3.287.602,65
Total ingressos i despeses reconeguts				0,00		252.106,00	252.106,00
Total ingressos i despeses reconeguts en el Patrimoni Net						(347.741,88)	(347.741,88)
Operacions amb socis o propietaris			(46.049,74)	46.049,74			0,00
Saldo final de l' exercici 2018	35.000,00	0,00	(91.135,51)	0,00	0,00	3.248.102,28	3.191.966,77
Ajustos per canvis de criteri							0,00
Ajustos per errors							
Saldo ajustat a l' inici de l' exercici 2019	35.000,00	0,00	(91.135,51)	0,00	0,00	3.248.102,28	3.191.966,77
Total ingressos i despeses reconeguts				0,00		282.106,00	282.106,00
Total ingressos i despeses reconeguts en el Patrimoni Net						(71.702,06)	(71.702,06)
Operacions amb socis o propietaris			0,00	(0,00)			0,00
Saldo final de l' exercici 2019	35.000,00	0,00	(91.135,51)	0,00	0,00	3.458.506,22	3.402.370,71

Les notes 1 a 22 de la Memòria adjunta forman part d'aquest estat financer al 31 de desembre de 2019.

ANNUAL REPORT

2019

February 2020

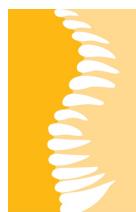


KCP^R

**Institut Català de Paleontologia
Miquel Crusafont**

ANNUAL REPORT 2019

INSTITUT CATALÀ DE PALEONTOLOGIA MIQUEL CRUSA FONT



ICP^R

Institut Català de Paleontologia
Miquel Crusafont



HR EXCELLENCE IN RESEARCH

DAVID M. ALBA

Director

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Institut Català de Paleontologia
Miquel Crusafont

Institut Català de Paleontologia Miquel Crusafont (ICP),
Universitat Autònoma de Barcelona.
Edifici ICTA-ICP, c/ Columnes s/n, Campus de la UAB,
08193 Cerdanyola del Vallès, Barcelona.

Museu de l'ICP
c/ Escola Industrial 23,
08201 Sabadell, Barcelona.

Patrons:



Member of:



WELCOME TO THE ICP

Greetings from the Director

At the ICP we are convinced that Paleontology, as a discipline halfway between Biology and Geology, should make fundamental contributions not only to the history of life, but also to evolutionary theory. Therefore, the research performed at the ICP clearly follows a paleobiological approach. In other words, for us it is not enough to know how past living beings were and what are their kinship relationships with extant ones. We also aim to know how they lived, how they moved, what they ate, how they developed and reproduced, how they interacted with one another, what environment they inhabited and, ultimately, how past interactions between organisms and environment have shaped the ecosystems that we know today. It is precisely the access to deep time (or geological time, the one which is measured in millions and millions of years), by means of the study of fossil remains, what provides Paleobiology with a unique perspective of utmost importance for understanding why and how living beings have evolved in relation to the environment than surrounds them through Earth's history.

For our research team, it is important to perform all the various steps of paleontological research, beginning with fieldwork (excavations and samplings), continuing with the study and analysis of fossil remains, and ending with the publication and dissemination of the results. In these regards, the basic task of description and taxonomic identification of the remains is still an essential aspect of our work. However, more and more, the study and analysis of the fossils is carried out using more sophisticated and computer-assisted techniques. Most noteworthy among them are virtual paleontology and three-dimensional visualization techniques, such as X-ray computed tomography, which enables the non-invasive study of the internal anatomy preserved by fossil remains. Also particularly remarkable are the analytical techniques allowing for quantitative comparisons and analyses, such as 3D geometric morphometrics, phylogenetic reconstruction software, or numerical analyses of paleobiodiversity dynamics, just to mention a few examples.

The specialized technicians of the ICP, in turn, perform a fundamental step between fieldwork and research, consisting in the preparation and conservation of the fossil remains that constitute the paleontological collections of our Institute. These collections are continuously growing thanks to the excavations and samplings performed by our researchers. However, before being able to study a particular specimen, it is required that specialized technicians carry out a process of paleontological preparation (cleaning, consolidation and, if necessary, reintegration). The process of paleontological preparation not only enables the manipulation of fossils, but it also guarantees their proper conservation once deposited in the collections. This process is of utmost significance, given that fossils are our main source of data. In this regard, the ICP aims to become the benchmark center in Catalonia with regard to the conservation of

the paleontological heritage of vertebrates. This is why we offer our technical advice, in this and any other paleontological matter, to those institutions and companies that request it.

Besides paleontological research, preparation and conservation, at the ICP we further place particular importance to outreach activities to popularize paleontological heritage. In this regard, exhibiting the fossils is not enough; it is required to disseminate to the general public our research results, so as to make understandable the stories that hide in all these petrified bones. Transmitting paleontological knowledge to society, especially based on the finds and research results of our investigators, is for us a heartwarming moral obligation. In the words of the late North-American paleontologist Stephen Jay Gould: "Science is an integral part of culture. It's not this foreign thing, done by an arcane priesthood. It's one of the glories of the human intellectual tradition". This is why at the ICP we have the vocation to make it available to those who are interested the conceptual and material tools that enable a cultural and ludic use of paleontological heritage. And we do so not only by means of the exhibition halls of the ICP Museum, located at the center of Sabadell, but also by collaborating in the establishment and management of a network of local paleontological interpretation centers all over the country. Moreover, at these times of rampant antiscientific and creationist offensive, we feel a duty to help disseminating one of the most relevant scientific facts to comprehend the place of human being in nature: organic evolution.

I do not want to finish without addressing those youngsters that, captivated by the secrets of evolution, perceive the grandeur in this view of life (the one alluded by Charles Darwin on the last sentence of the Origin of Species) and aim to devote themselves to Paleontology. Becoming a researcher, from any discipline, is not an easy task... It requires a lot of study, tenacity, and sacrifice. And yet, if your fascination for fossils and your curiosity for evolution transcend any logical argument, if it is already too late for you, then I can only advise you to let yourselves be guided by your vocation. That you get trained in life and earth sciences, that you be ambitious and realistic at the same time, and that you try to put your talent at the service of paleontological research. You, as young people, are the future, not only of the ICP, but of the paleontological profession and of the scientific community as a whole. And only you, if you choose the correct questions, might hope to answer the multiple enigmas about the history of life that thus far remain unsettled.

With my warmest greetings,



David M. Alba
Director

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FOREWORD

On the right path

Following the replacement of the former Director and the design of new policies and strategic aims for years to come, 2017 was a year of turnover and intensive planning at the Institut Català de Paleontologia Miquel Crusafont (ICP). In turn, 2018 was a year of very intense work with the main aim to take the ICP out of the ‘survival model’ in which it had been installed for several years, as a result of the budget downsizing caused by the economical crisis. Many of the work performed was aligned with the aims of the new Strategic Plan (2018-2021) and/or with the HRS4R Action Plan following the Human Resources Excellence Award of the EU granted to the ICP in March 2018. Also very significant was the evaluation of the ICP performed by the CERCA institution at the end of the 2018, which confirmed that the ICP was performing well but had still plenty of room for improvement.

During 2019, the ICP has worked hard to continue implementing the Strategic Plan and the HRS4R Action Plan, and further devised a plan to implement the multiple recommendations provided by the CERCA Evaluation Committee at the end of 2018. One year ago, I already asserted that I was fully convinced that the ICP had already started to fix its minor drawbacks and that we would be able to significantly improve further our performance in the near future. The results presented in the 2019 report reaffirm such asserting in multiple aspects of the institution’s performance—ranging from the excellent results from the viewpoint of scientific outputs and the spectacular increase in service provision, to the application of the recruitment protocol elaborated in 2018 or to the confection of new valuable documents (such as a manual of best practices in research, intellectual property and scientific authorship) in the framework of HRS4R implementation.

I am certain that we are on the right track and I would like to thank all the ICP personnel for the great effort devoted to consolidating further the ICP as one of the most prominent and leading institutions in vertebrate and human paleobiology worldwide.

PART 1

OVERVIEW OF THE ICP

Established as a CERCA center in 2006, the ICP is the heir of a longstanding tradition of vertebrate paleontology research in Catalonia. It owes its existence to several succeeding generations of paleobiologists devoted to deciphering the intricacies of the history of life based on the extraordinary fossil record from Catalonia. Our mission is focused on research, conservation and dissemination of vertebrate and human paleontology at the highest international level.

INTRODUCTION

Research, conservation, and dissemination in vertebrate paleontology

History

The Institut Català de Paleontologia Miquel Crusafont (ICP) is the heir of a longstanding tradition of vertebrate paleontology research in Catalonia. It owes its existence to several succeeding generations of paleontologists that have devoted their professional careers to decipher the intricacies of the history of life and the paleobiology of extinct organisms based on the extraordinary Catalan fossil record.

The ICP is the successor of the former Instituto Provincial de Paleontología de Sabadell (IPS), founded in 1969 under the auspices of the Diputació de Barcelona thanks to the efforts and charisma of paleontologist Miquel Crusafont—the ‘father’ of the Catalan school of vertebrate paleontology. After being renamed in his honor after Crusafont’s decease in 1983, and coinciding with the incorporation of a new generation of researchers, the Institut de Paleontologia M. Crusafont witnessed a couple of successful decades. Nonetheless, by the early 2000s it was in peril of becoming a local museum and its prospects were most uncertain.

The situation of the IPS was reverted in 2006, thanks to the refoundation of the ICP within the framework of the CERCA program (Research Centers of Catalonia) of the Generalitat de Catalunya. The last decade has been most successful in terms of research, but not exempt of problems due to the effects of global financial crisis since 2012, which have restrained the growth of the ICP and the implementation of several other aspects.

Mission

Our mission is focused on research, conservation and dissemination of vertebrate and human paleontology at the highest international level. We perform research based on the following premises:

- Fieldwork and collection-based research, focused on the extraordinarily rich fossil vertebrate record from Catalonia.
 - Adherence to a paleobiological approach that departs from the classical descriptive paleontology (oriented toward stratigraphy), and instead aims to test evolutionary and macroecological hypotheses within the framework of life sciences.
 - The use of modern visualization and analytical techniques (from CT to paleohistology).
 - The distinction of different research groups, each one with clear research aims and scope.
- Other important aspects of our mission include:
- The conservation of the paleontological heritage of Catalonia.
 - The communication of the research results to the general public by means of scientific dissemination.

- The transfer of paleontological knowledge to the benefit of society as a whole by means of training and outreach activities, as well as the provision of services.

Scientific view

Our view of paleontological research is based on the following premises:

- A modern approach to paleontological research must be grounded on the paleobiological approach, which envisions paleontology as deeply entrenched among life sciences.
- Among life sciences, paleobiology has a voice of its own by uniquely providing direct access to life in the past, thereby adding a deep-time perspective that is essential for testing hypotheses on a geological timescale.
- Paleobiology is not only an idiosyncratic (descriptive) discipline that contributes to the progress in the knowledge of the history of life on Earth, but also a nomothetic discipline based on a rigorous and quantitative hypothesis-testing framework.
- Paleobiological research must be therefore guided by clear research aims and specific hypotheses to be tested.
- Vertebrates have the greatest potential among continental animals and therefore the study of their fossil record is most promising for investigating the evolution of terrestrial ecosystems in relation to paleoenvironmental changes through time.
- Although paleobiology is mostly devoted to basic (fundamental) research, it has important implications for other disciplines among life sciences, such as evolutionary biology, ecology and conservation (paleo)biology.
- Furthermore, paleobiological research is not devoid of applicability and has a great potential with regard to knowledge transfer related to cultural heritage.
- Finally, human origins and evolution need to be approached following the same scientific methods as that for any other group of animals, as regularly done in the subdisciplines of paleoprimatology and paleoanthropology.

Vision

The ICP vision includes the following challenges:

- Perform high-impact paleobiological research at the international level.
- Promote the international visibility of the ICP as a worldwide renowned and benchmark center in vertebrate paleontology and paleoanthropology research.
- Contribute to the recuperation, conservation and dissemination of the paleontological heritage of Catalonia, including its valorization through research and the promotion of paleontological tourism based on it.
- Contribute to solving current societal challenges, with emphasis on the development of more efficient environmental policies to face climatic change, by means of providing data on a geological timescale as well as by testing macroecological and evolutionary hypotheses.

- Make paleontological knowledge and its evolutionary implications accessible to the society as a whole, by means of scientific dissemination, outreach, and training activities, with emphasis on humankind's origins and place in nature.
- Perform knowledge transfer activities by providing specialized paleontological services to research and educational institutions, public administrations, and private companies.

ORGANIZATION

Research groups, research support, communication and management

Legal structure

The ICP is a public research institute established as a non-profit foundation endowed with public funds, with the Generalitat de Catalunya and the Universitat Autònoma de Barcelona as patrons. The staff is composed of ca. 50 people (researchers, technicians and administrative staff), including a Director and a General Manager with executive powers delegated by the patrons. As currently conceived, the ICP is an autonomous research institute from the CERCA institution (Research Centers of Catalonia), which has scientific excellence as its main objective. It is supervised by its patrons and an external Scientific Advisory Board, and guided by a Director, who plans the scientific policy and strategic goals.

Organization chart

A new Organization Chart, proposed by the Director, was approved by the Steering Committee in late 2017 and subsequently ratified by the Board of Trustees in 2018, with the aim to facilitate the coordination between technical areas toward the attainment of common strategic goals. An update of this Organization Chart, with minor adjustments, was also approved in late 2018 by the Steering Committee, being subsequently ratified by the Board of Trustees in May 2019. At the end of this year, further amendments were approved by the Board of Trustees, aimed to expand the number of research groups and reorganize them into fewer research areas. These changes, which are in agreement with the proposal made in the action plan aimed to implement the recommendations provided by the CERCA Evaluation Committee in 2018 (approved by the Board of Trustees in 2019), are reflected in the next pages.

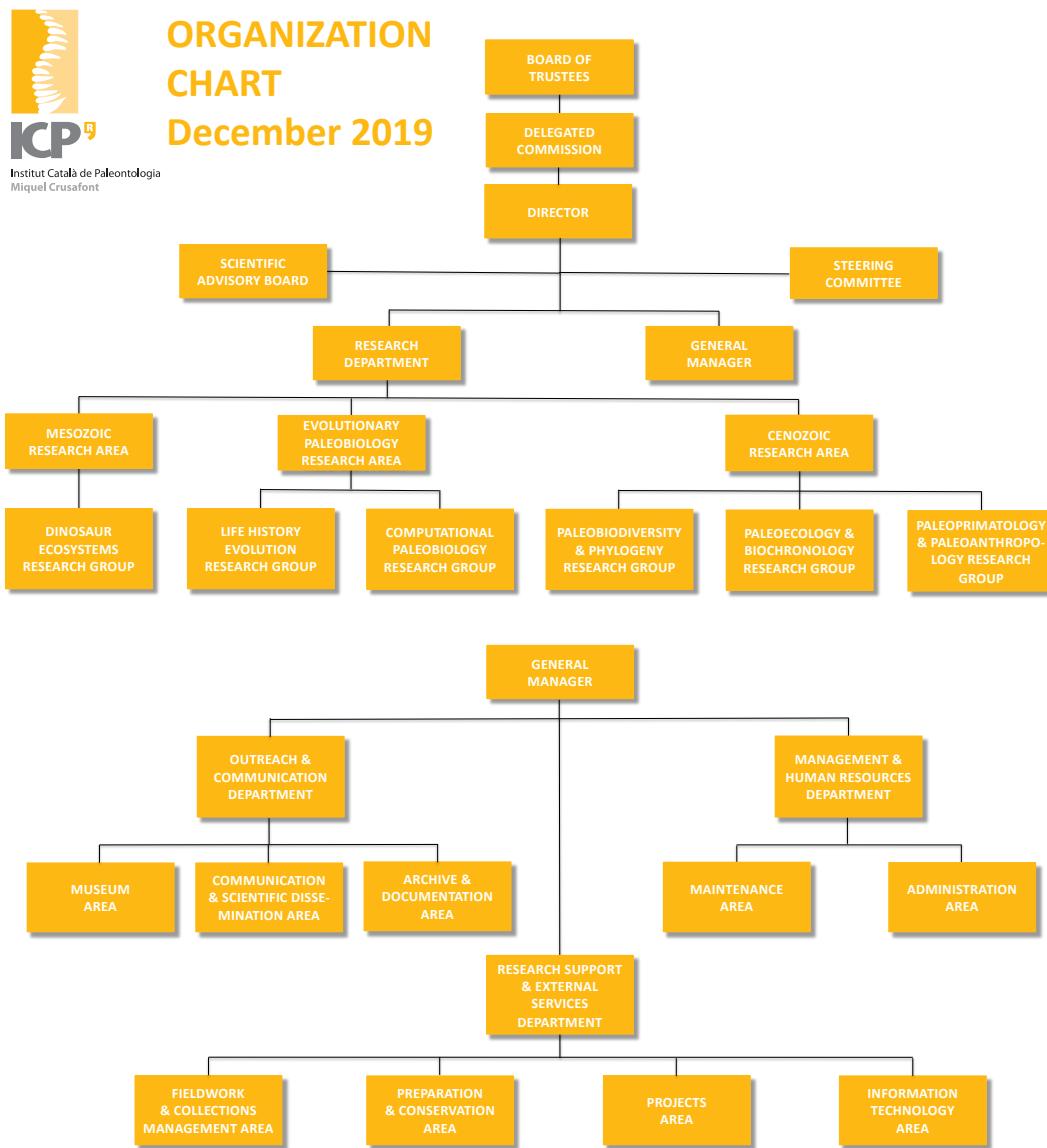
The hierarchical structure of our organization can be subdivided into the following bodies:

- Governing organs.
- Executive positions.
- Research groups.
- Technical departments.

GOVERNING ORGANS	EXECUTIVE POSITIONS	RESEARCH AREAS	TECHNICAL DEPARTMENTS
Board of Patrons	Scientific Directorship	Mesozoic	Outreach & Communication
Delegated Commission	General Managership	Cenozoic	Management & Human Resources
Scientific Advisory Board	Steering Committee	Evolutionary Paleobiology	Research Support & External Services
Directorship			

Governing organs

- **Board of Trustees:** It is the highest governing, administrative and representative organ, without prejudice that some of its functions may be delegated.
 - **Delegated Commission:** Designated by the Board of Patrons to delegate some of its functions.
 - **Scientific Advisory Board:** Advisory organ designated by the Board of Trustees.
 - ✓ **Director:** Designated by the Board of Trustees.
 - **Steering Committee:** Consulting and decision-making organ, designated by the Director.
 - **Scientific Director:** Designated by the Director (if different).
 - **Managership:** Designated by the Director.



Board of Patrons. It is composed of five patrons: three from the Generalitat de Catalunya (60%) and two from the Universitat Autònoma de Barcelona (UAB, 40%). Two patrons are permanent and three are designated.

BOARD OF PATRONS		
TYPE	POSITION	NAME
Permanent	Minister from the Generalitat de Catalunya in charge of research	Àngels Chacón
Permanent	Rector of the UAB	Dr. Margarita Arboix Arzo
Designated	Secretary of Universities and Research, Generalitat de Catalunya	Dr. Francesc Xavier Grau
Designated	Director General of Research, Generalitat de Catalunya	Dr. Joan Gómez Pallarès
Designated	A Vice-Rector of the UAB	Armand Sánchez Bonastre

The main functions of the Board of Trustees are the following:

- Approval of our annual budget and investment plan, inventory, and annual financial accounts, ensuring the accomplishment of the endowment and the correct destination of our assets to our foundational aims.
- Highest representation and definition of our general program of action.
- Appointment of the Director, of the General Manager (upon proposal by the Director), the President of the Delegated Commission, and the President of the Scientific Advisory Board, and establishment of the remuneration of executive positions.
- Hiring of works, services and supplies, and approval of the rules of internal functioning, collaboration agreements with other entities, etc.

Scientific Advisory Board. It is constituted by seven senior researchers from several countries, including Spain, France, Italy and the USA. A renewal of the Scientific Advisory Board composition is planned for the next years, according to the action plan for the implementation of CERCA recommendations approved by the Board of Trustees in 2019. The next meeting is planned for late 2020.

SCIENTIFIC ADVISORY BOARD		
TYPE	NAME	AFFILIATION
President	Prof. José Luis Sanz	Universidad Autónoma de Madrid, Spain
Member	Prof. Michel Brunet	Université de Poitiers, France
Member	Prof. Jorge Morales	Museo Nacional de Ciencias Naturales-CSIC, Spain
Member	Prof. Brian McNab	University of Florida, USA
Member	Prof. David Pilbeam	Harvard University, USA
Member	Prof. Lorenzo Rook	Università di Firenze, Italy
Member	Prof. Elisabeth Vrba	Yale University, USA

The main functions of the Scientific Advisory Board are the following:

- Providing advice with regard to our scientific activities.
- Participation in the periodic evaluation of the ICP.

- Eventual participation in specific advisory commissions.

Executive and managerial hierarchy

- Director: Dr. David M. Alba.
 - Steering Committee: Director, General Manager, Heads of Department.
 - Scientific Director: Dr. David M. Alba.
 - ✓ Research Department:
 - Mesozoic Research Area: Dr. Àngel Galobart (Head of Area).
 - Cenozoic Research Area: Dr. David M. Alba (Head of Area).
 - Evolutionary Paleobiology Research Area: Prof. Meike Köhler (Head of Area).
 - General Manager: Enric Menéndez.
 - ✓ Departments:
 - Outreach & Communication: Pere Figuerola (Head of Dept.).
 - Management & Human Resources: Enric Menéndez (Head of Dept.).
 - Research Support & External Services: Dr. Josep Fortuny (Head of Dept.).

Both the Director and the General Manager have multiple functions and responsibilities, including some specific of these positions, as well as others delegated by the Board of Trustees.

The Director. In brief, the Director has chief executive officer functions, including the direction, organization management, execution and inspection of our research activities, as well as the determination of the strategic aims of the ICP and the proposal of a Strategic Plan to the Board of Trustees. The Director is appointed by the Board of Trustees following an open, transparent and merit-based selection process at the international level.

The General Manager. In turn, the General Manager has chief administrative officer functions, including the financial, accounting and treasury management, as well as administrative contracting and preparation of the documentation required to elaborate the annual accounts and balance sheet. It is appointed by the Board of Trustees upon proposal by the Director.

Committees and commissions

The ICP has several committees and commissions, aimed to boost the internal coordination as well as to promote the participation of the ICP staff in decision-making.

Committees. They are the following:

- **Steering Committee**: Involved in planning, organizational, foresight, strategic, decision-making and advisory functions.

- **Information Systems Security Committee:** Involved in guaranteeing the security of information systems, the safeguard of data, and the fulfillment of personal data protection laws.
- **HRS4R Implementation Committee & Working Group:** Involved in the implementation of the Human Resources Strategy for Researchers (HRS4R) of the European Union.
- **Non-Discrimination Committee:** Involved in the improvement and implementation of the Equality Plan.

STEERING COMMITTEE		
POSITION	NAME	ICP POSITION
Chair	Dr. David M. Alba	Director
Vice-Chair	Enric Menéndez	General Manager
Rapporteur	Pere Figuerola	Head of the Outreach & Communication Dept.
Member	Dr. Josep Fortuny	Head of the Research Support & External Services Dpt.

INFORMATION SYSTEMS SECURITY COMMITTEE		
POSITION	NAME	ICP POSITION
Chair	Dr. David M. Alba	Director
Rapporteur	Pere Figuerola	Head of the Outreach & Communication Dept.
Member	Enric Menéndez	General Manager
IT External Consultant	Josep Torres	External

HRS4R IMPLEMENTATION COMMITTEE & WORKING GROUP		
POSITION	NAME	ICP POSITION
Chair	Enric Menéndez	General Manager
Vice-Chair	Dr. David M. Alba	Director
Rapporteur	Xènia Aymerich	Head of the Preparation & Conservation Area
Member	Dr. Josep Fortuny	Interim Project Manager
Member	Pere Figuerola	Head of the Outreach & Communication Dept.
Member	Teresa Esquirol	Head of the Museum Area
Member	Dr. Judit Marigó	Rapporteur of the Researchers Commission

NON-DISCRIMINATION COMMITTEE		
POSITION	NAME	ICP POSITION
Chair	Xènia Aymerich	Head of the Preparation & Conservation Area
Vice-Chair	Dr. Judit Marigó	Rapporteur of the Researchers Commission
Rapporteur	Pere Figuerola	Head of the Outreach & Communication Dept.
Member	Manuel Fernández	Technician

Commissions. They are the following:

- **Researchers Commission:** Involved in providing advice to the Director, the Steering Committee, and other committees on HRS4R implementation and other aspects related to researchers.
- **Fieldwork Commission:** Internal coordination of resources for paleontological fieldwork performed and provision of external services to third parties.

RESEARCHERS COMMISSION		
Chair	Dr. Salvador Moyà-Solà	Representative of R4 (senior experienced researchers)
Vice-Chair	Dr. Albert Prieto-Márquez	Representative of R3 (experienced researchers)
Rapporteur	Dr. Judit Marigó	Representative of R2 (postdoctoral researchers)
Member	Sílvia Jovells-Vaqué	Representative of R1 (predoctoral researchers)

FIELDWORK COMMISSION		
Chair	Dr. Josep Fortuny	Head of the Research Support & External Services Dpt.
Vice-Chair	Dr. Josep M. Robles	Fieldwork Officer
Rapporteur	Jordi Galindo	Head of the Fieldwork Management Area

Coordination meetings. In parallel to the meetings of the established committees and commissions, coordination meetings will take place on a quarterly basis, including the Director, the General Manager, the Heads of Research Groups, Departments and Areas, and the persons in charge of remaining Areas.

Persons in charge. Some staff members have specific functions in addition to those corresponding to their respective positions in the Organization Chart or in the committees and commissions:

- Person in charge of Information Systems Security.
- Ombudsperson.
- Person in charge of University Teaching Coordination.

PERSONS IN CHARGE		
Information Systems Security	Pere Figuerola	Head of the Outreach & Communication Dept.
Ombudspersons	Laila Pilgren	Project Manager
University Teaching Coordination	Pere Figuerola	Head of the Outreach & Communication Dept.
	Dr. Marc Furió	Researcher

Personnel

Our personnel can be divided into the following categories:

- **Staff sensu stricto:** Either tenured (with a permanent contract), temporary (with a fixed-term contract), or in tenure-track (with a fixed-term contract that may become permanent).
 - ✓ **Own staff:** With a contractual employment relationship with the ICP.
 - ✓ **Seconded staff:** With a contractual relationship with other institutions (civil servants from the Generalitat de Catalunya, research professors from the Institució Catalana de Recerca i Estudis Avançats), but ascribed to the ICP.
- **Other personnel:** Without a contractual relationship or formal ascription to the ICP:
 - ✓ **Research Associates:** With a written agreement that implies ICP affiliation.
 - ✓ **Research Collaborators:** With a verbal agreement that implies ICP affiliation, including grantees (scholarship holders without a contractual relationship with the ICP) and PhD students without grant.

- ✓ **Other:** Trainees, visiting researchers, master and bachelor students, volunteers, etc.

Researcher categories. We distinguish several professional categories of researchers based on the EU researcher profiles (R1–R4) specified on the European Framework for Research Careers of the European Union. They are divided into early-stage researchers (R1 & R2) and experienced researchers (R3 & R4):

- **R1:** First Stage Researchers (up to the point of PhD).
- **R2:** Recognized Researchers (PhD holders not yet fully independent).
- **R3:** Established Researchers (with a certain level of independence).
- **R4:** Leading Researchers (leaders in their area or field).

RESEARCHER CATEGORIES			
ICP CATEGORY	PROFILE	TYPE	TYPE OF CONTRACT
Predoctoral Researcher	R1	Early-stage	ICP predoc / External agency fixed-term (e.g., FI, FPI, FPU)
Postdoctoral Researcher	R2	Early-stage	ICP postdoc / External agency fixed-term (e.g., JdC, BP, ERC Starting Grant)
Researcher	R3	Experienced	ICP tenured or tenure-track / Civil servant / External agency tenure-track (e.g., RyC, ERC Consolidator Grant)
Senior Researcher	R4	Experienced	ICP distinguished researcher / Civil servant / External agency permanent (e.g., ICREA, ERC Advanced Grant)
Research Collaborator	R1	Early-stage	Verbal agreement
Research Associate	R2–R4	Early-stage/ Experienced	Written agreement
Lab Technician	R1	Experienced	ICP technician / External agency fixed-term (e.g., PTA)

RESEARCH

Six research groups with definite aims and scope within three research areas

Scientific policy

Main guiding principles. The research performed at the ICP pivots on the following three main guiding principles:

- Collection- and fieldwork-based research focused on the study of fossils as the main source of raw data, with emphasis on the rich and varied vertebrate fossil record from Catalonia—especially for the Permo-Trias, the Late Cretaceous, the Eocene, the Miocene, and the Pleistocene—and with particular relevance of the paleoichnological record of the latest dinosaurs from Europe and the extraordinary record of Miocene apes.
- A paleobiological approach that clearly situates paleontology well within the framework of life sciences in general, and of evolutionary biology in particular, and which emphasizes a quantitative and nomothetic approach based on hypothesis testing—thereby far from the more classical descriptive approach to paleontology (largely oriented toward its stratigraphic implications).
- The application of modern techniques and methodological approaches to paleontological research, such as paleohistological analysis to infer the life-history of extinct organisms, computer-assisted imaging techniques that enable the non-invasive study of internal anatomy, or theoretical approaches to quantitatively analyze the dynamics of paleobiodiversity through time.

Research areas and groups. Since its refoundation as a CERCA center, the research performed at the ICP was organized around four research groups. However, the recommendations provided by the CERCA Evaluation Committee in late 2018 included the need to define a strategy to replace the two group leaders that will retire during the next few years. The action plan elaborated by the ICP Steering Committee to cope with the CERCA recommendations, approved by the Board of Trustees in May 2019, proposed to reorganize the structure of the ICP research groups within more stable strategic research areas within a single Research Department. This would enable for more flexibility in terms of the number of research groups at the ICP and their specific aims, while ensuring the continuity of the main research lines on the long term. These changes were introduced in the new Organization Chart approved by the Steering Committee in late 2019, which expanded the number of research groups from four to six but at the same time reunited them into three research areas:

- Mesozoic Research Area (Head of Area: Dr. Àngel Galobart).

- Dinosaur Ecosystems Research Group (Senior Group Leader: Dr. Àngel Galobart).
- Cenozoic Research Area (Head of Area: Dr. David M. Alba).
 - Paleobiodiversity & Phylogeny Research Group (Senior Group Leader: Dr. David M. Alba).
 - Paleoecology & Biochronology Research Group (Junior Group Leader: Dr. Isaac Casanovas-Vilar).
 - Paleoprimatology & Paleoanthropology Research Group (Senior Group Leader: Prof. Salvador Moyà-Solà).
- Evolutionary Paleobiology Research Area (Head of Area: Prof. Meike Köhler).
 - Life History Evolution Research Group (Senior Group Leader: Prof. Meike Köhler).
 - Computational Paleobiology (Junior Group Leader: Dr. Josep Fortuny).

The Head of the Research Department is established as the current Director of the ICP, although it must not necessarily be that way, being equivalent to the optional figure of Scientific Director as recognized in the Organization Chart. Each research area is led by a head of area, who is a senior researcher (R4), and may include one or more research groups, each led by the group leader, who may be a senior researcher (R4) or another (experienced) permanent researcher (R3). Each group may include other researchers (R3) and/or postdoctoral researchers (R2), predoctoral researchers (R1), as well as research associates, collaborators and technicians. The Mesozoic Research Area is focused on dinosaurs and associated faunas, and currently includes a single research group (Dinosaur Ecosystems, formerly Mesozoic Faunas), although it has possibilities to grow on the mid-term. The Cenozoic Research Area, in turn, is focused on primates and associated faunas, and currently includes three different groups: Paleobiodiversity & Phylogeny (formerly Neogene & Quaternary Faunas), Paleoecology & Biochronology (newly established with a junior group leader), and Paleoprimatology & Paleoanthropology (formerly Paleoprimatology & Human Paleontology). Finally, the Evolutionary Paleobiology Research Area, unlike the two former areas, has no temporal bounds and currently includes two different groups: Life History Evolution (formerly Evolutionary Paleobiology) and Computational Paleobiology (corresponding to the former semitechnical Virtual Paleontology Area, formerly allocated in the Research Support & External Services Department).

Mesozoic Research Area

The Mesozoic Research Area focuses on the paleobiodiversity and paleoecology of terrestrial ecosystems during the Mesozoic era (252-66 Ma), with emphasis on those time intervals best represented in the fossil record of Catalonia, which include the Permo-Trias and the latest Cretaceous. Both the Permian-Triassic and the Cretaceous-Tertiary boundaries reflect important mass extinction events that took place, respectively, at 252 Ma (end-Permian extinction or 'Great Dying') and 66 Ma (K-T extinction). These mass extinctions wiped out a large proportion of terrestrial vertebrates (including the disappearance of non-avian dinosaurs at the K-T extinction), and therefore the study of the associated paleoecological changes at the community

level is of utmost relevance. The Dinosaur Ecosystems Research Group builds on the extraordinary fossil record from the Catalan Pyrenees of the latest dinosaurs from Europe and the associated fauna. Besides bony remains, the former also consists of an exceptional paleoichnological record (including eggs, tracks and even skin impressions), which overall provides a unique window to dinosaur paleobiology. Furthermore, the group takes a multidisciplinary approach that, besides paleontologists specializing in several groups and ichnological remains, also involves paleobotanists, geologists and ecologists, in order to provide with accurate datings and paleoenvironmental reconstructions, as well as to apply trophic network modeling techniques.

RESEARCH GROUP OF MESOZOIC FAUNAS				
NAME	POSITION	CATEGORY	PROFILE	TYPE OF CONTRACT
Dr. Àngel Galobart	Research Group Head	Senior Researcher	R4	Civil Servant (GC)
Dr. Albert Prieto-Márquez	'Ramón y Cajal'	Researcher	R3	Tenure-track (GE)
Dr. Diego Castanera§	Beatriu de Pinós	Postdoctoral researcher	R2	Fixed-term (AGAUR)
Dr. Bernat Vila*	Postdoc	Postdoctoral Researcher	R2	Fixed-term (ICP)
Dr. Albert G. Sellés*	Postdoc	Postdoctoral Researcher	R2	Fixed-term (ICP)
Rafel Matamales-Andreu	FPU Predoc	Predoctoral Researcher	R1	Fixed-term (AGAUR)
Dr. Fabio M. Dalla Vecchia	Researcher	Research Associate	R3	—
Dr. Nicolas Malchus	Researcher	Research Associate	R3	—
Dr. Víctor Fondevilla	Postdoc	Research Associate	R2	—

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Cenozoic Research Area

The Cenozoic Research Area focuses on the paleobiodiversity, evolution and paleobiology of continental vertebrates from the Cenozoic era (66 Ma to present, including the Paleogene, Neogene and Quaternary periods), with emphasis on the rich fossil record of mammals from Catalonia and nearby areas.

The Paleobiodiversity & Phylogeny Research Group is devoted to the reconstruction of the evolutionary history of continental vertebrates during this time interval, with emphasis on the rich Miocene and Pleistocene record from the Vallès-Penedès Basin. Besides investigating the phylogenetic relationships and adaptations of various vertebrate taxa, the group further takes a more holistic approach by focusing on the dynamics of paleobiodiversity in relation to global climate change and local paleoenvironmental indicators through time. In relation to the latter, both the Miocene and the Pleistocene record important faunal turnover events—such as the Vallesian Crisis and the Mid-Pleistocene Revolution, respectively. Therefore, the extraordinarily complete, abundantly sampled and accurately dated vertebrate record from these periods in the Vallès-Penedès Basin provides a unique opportunity to test evolutionary hypotheses on the mechanisms and interactions between biotic and abiotic factors that drive the course of evolution on a geological timescale—with significant implications to predict the future and future viability of extant terrestrial ecosystems in the light of current global climate change.

RESEARCH GROUP OF PALEOBIODIVERSITY & PHYLOGENY				
NAME	POSITION	CATEGORY	PROFILE	TYPE OF CONTRACT
Dr. David M. Alba	Research Group Head	Senior Researcher	R4	Permanent (ICP)
Dr. Joan Madurell-Malapeira	Researcher	Researcher	R3	Permanent (ICP)
Dr. Antonio Sánchez-Marco*	Researcher	Researcher	R3	Permanent (ICP)
Dr. Juan Abellat	‘Beatriu de Pinós’	Postdoctoral Researcher	R2	Fixed-term (AGAUR)
Dr. Josep M. Robles	Postdoc	Postdoctoral Researcher	R2	Fixed-term (ICP)
Dr. Ana Rosa Gómez Cano*†	Postdoc	Postdoctoral Researcher	R2	Fixed-term (ICP)
Sharrah McKenzie	FI Predoc	Predoctoral Researcher	R1	Fixed-term (other)
Guillem Pons-Monjo	Lab Technician	Technician	R1	Fixed-term (PTA)
Dr. Massimo Delfino	Researcher	Research Associate	R3	—
Dr. Israel M. Sánchez	Researcher	Research Associate	R3	—
Dr. Daniel DeMiguel	Researcher	Research Associate	R3	—
Dr. Àngel H. Luján	Postdoc	Research Associate	R2	—
Josep Aurell	Freelance	Research Collaborator	R1	—
Jordi Balaguer	Freelance	Research Collaborator	R1	—

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The Paleoecology & Biochronology Research Group emphasizes the study of fossils in time and space. It provides the necessary temporal background for the fossil record and one of its main goals is the precise dating of main biological and environmental events. In this regard it takes a multidisciplinary approach, using index fossils to correlate sites and rock units in combination with various geological techniques. Concerning paleoecology, it considers two different approaches. On the one hand, it studies the interrelationships between ancient organisms and the environments in which they lived to unravel not only the function of single organisms but also the structure of fossil communities. In addition, it also analyzes ecological phenomena through protracted intervals of geological time. This approach, termed evolutionary paleoecology, makes use of biochronological information and provides an approach not available to ecologists working in the present day. In both cases multidisciplinary techniques, including for example geochemical methods, are applied to the fossil record. This research group mostly—but not exclusively—focuses on the rich and continuous Miocene small mammal record of Europe, which is ideal for addressing these ecological questions. In addition, small mammals are key elements in Cenozoic continental chronology.

RESEARCH GROUP OF PALEOECOLOGY & BIOCHRONOLOGY				
NAME	POSITION	CATEGORY	PROFILE	TYPE OF CONTRACT
Dr. Isaac Casanovas-Vilar‡	Junior Group Leader	Researcher	R3	Permanent (ICP)
Dr. Marc Furió	Researcher	Researcher	R3	Permanent (ICP)
Sílvia Jovells-Vaqué	FI Predoc	Predoctoral Researcher	R1	Fixed-term (AGAUR)
Dr. Chiara Angelone	Researcher	Research Associate	R3	—
Dr. Jan van Dam	Researcher	Research Associate	R3	—
Dr. Israel García-Paredes	Researcher	Research Associate	R3	—

Anneke Madern	Predoc	Research Collaborator	R1	—
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The Paleoprimatology & Paleoanthropology Research Group, in turns, covers the entire evolutionary history of primates throughout the Cenozoic, with three main lines of research focused on the exceptionally rich primate fossil record from Catalonia and other nearby areas: Eocene primates; Miocene catarrhines, with emphasis on apes; and the Plio-Pleistocene record of monkeys and humans. The group studies the paleobiodiversity and phylogenetic relationships of these groups, as well as their paleobiology (diet, locomotion, etc.). Associated faunas are also investigated to contextualize the primate finds from a paleoenvironmental and chronological viewpoint, in collaboration with researchers from other groups within the Cenozoic area. Of particular relevance is the line of research focused on the evolution of hominoids—the group that includes lesser apes, great apes, and humans—with emphasis on the hotly debated phylogenetic and paleobiogeographic hypotheses on the origin and evolution of the great-ape-and-human clade, with further implications for deciphering the origin of gibbons, reconstructing the last common ancestor of apes and humans, and evaluating the importance of homoplasy in hominoid evolution.

RESEARCH GROUP OF PALEOPRIMATOLOGY & PALEOANTHROPOLOGY				
NAME	POSITION	CATEGORY	PROFILE	TYPE OF CONTRACT
Prof. Salvador Moyà-Solà	Senior Group Leader	Senior Researcher	R4	Permanent (ICREA)
Dr. Judit Marigó‡	‘Beatriu de Pinós’	Postdoctoral Researcher	R2	Fixed-term (GE)
Alessandro Urciuoli‡	Predoc	Predocitoral Researcher	R1	Fixed-term (GE)
Florian Bouchet§	FPI Predoc	Predocitoral Researcher	R1	Fixed-term (GE)
Dr. Víctor Fondevilla*	Lab Technician	Technician	R2	Fixed-term (ICP)
Dr. Esther Lizano	Lab Technician	Technician	R2	Fixed-term (ICP)
Prof. Eric Delson	Senior Researcher	Research Associate	R4	—
Dr. Tomàs Marquès-Bonet	Senior Researcher	Research Associate	R4	—
Dr. Sergio Almécija	Senior Researcher	Research Associate	R4	—
Dr. Raef Minwer-Barakat	Researcher	Research Associate	R3	—
Dr. Marta Pina	Postdoc	Research Associate	R2	—
Dr. Arnau Bolet	Postdoc	Research Associate	R2	—
Ivette Susanna	Predoc	Research Collaborator	R1	—
Joan Femenias-Gual	Predoc	Research Collaborator	R1	—

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Evolutionary Paleobiology Research Area

The Evolutionary Biology Research Area is not restricted to a particular time span, but rather focused on the study of the patterns and causes of evolutionary change and extinction by combining fossil evidence with the biology of extant organisms.

The Life History Evolution Research Group is mostly devoted to the evolution of mammalian life-histories under changing ecological conditions. The group takes advantage of the unique deep-time perspective that only paleontology can provide to test hypotheses on the evolution of life-history strategies from the viewpoint of adaptation. To do so, this group takes a methodological approach that mostly relies on the paleohistological study of hard tissues (bone and teeth) of extinct mammals within the analytical framework provided by life history theory of biological evolution—which combines ecology, demography, physiology and adaptation, and further has significant implications for conservation biology (extinction) as well as evolutionary developmental biology (aging). By means of the study of skeletochronological markers and body mass estimation, the group can reconstruct the growth and developmental trajectories of extinct mammals and test the correlation of key life-history traits with environmental indicators, in order to test the evolutionary hypotheses of interest. Particularly relevant for this group is the study of the differential responses provided by large and small mammals to the peculiar ecological conditions provided by insular ecosystems, with emphasis on the study of extinct mammals from the fossil Mediterranean islands of the Mio-Pliocene.

RESEARCH GROUP OF LIFE HISTORY EVOLUTION				
NAME	POSITION	CATEGORY	PROFILE	TYPE OF CONTRACT
Prof. Meike Köhler	Senior Group Leader	Senior Researcher	R4	Permanent (ICREA)
Dr. Josep Quintana*	Researcher	Researcher	R3	Permanent (ICP)
Dr. Carmen Nacarino†	Postdoc	Research Associate	R2	—
Guillem Orlandi‡	FI Predoc	Predoctoral Researcher	R1	Fixed-term (AGAUR)
Teresa Calderón	FPI Predoc	Predoctoral Researcher	R1	Fixed-term (GE)
Manuel Fernández	Lab Technician	Technician	R1	Permanent (ICP)

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Finally, the Computational Paleobiology Research Group encompasses computational approaches that aim to digitally obtain paleobiological and evolutionary data of extinct organisms based on a wide range of techniques from imaging to functional approaches. To pursue these goals, the research group combines fossil evidence (particularly from Iberian fossil record, but also taking advantage of digital techniques to analyze fossil samples from all over the world) and biological samples. The researchers of this group are devoted to different groups of extant and extinct vertebrates, mainly (but not exclusively) amphibians and reptiles, with their efforts focused on the functional morphology, ontogeny, and evolutionary history of these groups—and, when applicable, implications for conservation (paleo)biology. Of particular interest for the lines of research of this group are feeding ecology studies based on 3D masticatory mechanic models using finite element analysis (FEA) and multibody dynamic analysis (MDA), as well as inferences on past environmental conditions (given the great potential of ectothermic vertebrates in this regard).

RESEARCH GROUP OF COMPUTATIONAL PALEOBIOLOGY				
NAME	POSITION	CATEGORY	PROFILE	TYPE OF CONTRACT
Dr. Josep Fortuny	Junior Group Leader	Researcher	R3	Permanent (ICP)
Sergio Llacer*	Lab Technician	Technician	R2	Permanent (ICP)
Dr. Jordi Marcé-Nogué	Researcher	Research Associate	R3	—
Dr. Soledad De Esteban-Trivigno	Researcher	Research Associate	R2	—
Eudald Mujal	Postdoc	Research Associate	R2	—
Joan Cartanyà	Freelance	Research Collaborator	R1	—

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Research associates

Research associates are researchers that lack an employment relationship with the ICP but nevertheless actively contribute to the research performed at our institution. The terms of this collaboration (including the ICP and the researcher's commitments) are stipulated on a written agreement that further stipulates the scope of the collaboration and can be more or less personalized depending on the strategic significance of the collaboration.

RESEARCH ASSOCIATES (2019)					
NAME	PRIMARY AFFILIATION	POSITION	R.G.	START DATE	END DATE
Dr. Sergio Almécija	American Museum of Natural History, New York, USA	Senior Researcher (R4)	PPPA	20/10/2017	20/10/2022
Prof. Eric Delson	Lehman College, City University of New York, USA	Senior Researcher (R4)	PPPA	24/10/2017	24/10/2021
Dr. Tomàs Marquès-Bonet	ICREA-Universitat Pompeu Fabra, Barcelona, Spain	Senior Researcher (R4)	PPPA	21/09/2018	21/09/2022
Dr. Massimo Delfino	Università degli Studi di Torino, Turin, Italy	Researcher (R3)	PBDP	01/01/2011	01/01/2023
Dr. Chiara Angelone	Università di Roma Tre, Rome, Italy	Researcher (R3)	PEBC	01/01/2012	01/01/2021
Dr. Fabio M. Dalla Vecchia	Museo Friulano di Storia Naturale, Udine, Italy	Researcher (R3)	DE	15/07/2013	10/11/2022
Dr. Israel M. Sánchez	ICP (independent researcher)	Researcher (R3)	PBDP	01/06/2016	01/06/2022
Dr. Jan van Dam	Utrecht University, The Netherlands	Researcher (R3)	PEBC	01/11/2017	01/11/2022
Dr. Daniel DeMiguel	ARAID-Universidad de Zaragoza, Spain	Researcher (R3)	PBDP	01/11/2017	01/11/2022
Dr. Nicolas Malchus	ICP (independent researcher)	Researcher (R3)	DE	01/11/2017	01/11/2022
Dr. Raef Minwer-Barakat	Universidad de Granada, Spain	Researcher (R3)	PPPA	01/12/2017	01/12/2022
Dr. Israel García-Paredes	Universidad Complutense de Madrid, Spain	Researcher (R3)	PEBC	12/01/2018	12/01/2022
Dr. Arnau Bolet	School of Earth Sciences, Bristol University, UK	Postdoc (R2)	PPPA	20/09/2013	22/11/2021
Dr. Marta Pina	Kyoto University, Japan	Postdoc (R2)	PPPA	01/11/2016	11/11/2022
Dr. Víctor Fondevilla	ICP (independent researcher)	Postdoc (R2)	DE	03/03/2017	03/03/2020
Dr. Àngel H. Luján	Masaryk University, Czech Republic	Postdoc (R2)	PBDP	01/11/2017	01/11/2022
Dr. Jordi Marcé-Nogué	Centrum für Naturkunde, Universität Hamburg, Germany	Postdoc (R2)	CPB	22/12/2017	22/12/2021
Dr. Eudald Mujal	Staatliches Museum für Naturkunde Stuttgart, Germany	Postdoc (R2)	CPB	10/01/2018	10/01/2022
Dr. Soledad De Esteban-Trivigno	Transmitting Science, Piera, Spain	Postdoc (R2)	CPB	01/06/2018	01/06/2022

Abbreviations of Research Groups (R.G.): DE = Dinosaur Ecosystems; PBDP = Paleobiodiversity & Phylogeny; PEBC = Paleoecology & Biochronology; PPPA = Paleoprimatology & Paleoanthropology; LHE = Life History Evolution; CPB = Computational Paleobiology.

Only research associates active at the end of 2019 are reported in the table above. They include 19 research associates, most with a different primary affiliation; 8 are from Spain, 3 from

Italy, 2 from the USA, 2 from Germany, 1 from The Netherlands, 1 from the UK, 1 from Japan, and 1 from the Czech Republic.

Current research associates. A complete list of current research associates is provided above. Note that the status of research associate is restricted to R2-R4 researchers (i.e., PhD). PhD students and other people that actively collaborate with ICP research but lack an employment relationship with the institution may be considered ‘collaborators’, a figure that does not require a written agreement but further implies signing research outputs with ICP affiliation. Note that many agreements are dated to 2017; in most instances this is merely the date in which previous verbal agreements were formalized.

New research line. One of the most promising research areas thus far underexplored at the ICP is that of paleogenetics and paleoproteomics, in the framework of phylogenetics (i.e., the reconstruction of the evolutionary relationships between living organisms, either extant or extinct). During the last decade, the possibility to extract and sequence mitochondrial and nuclear DNA from ancient organisms from several hundred thousands years ago has prompted a revolution in vertebrate phylogenetics in general, and in human evolutionary studies in particular. Although such studies are limited further back in time, paleoproteomics (the recovery and sequencing of structural proteins, such as collagen, preserved in fossil remains from millions of years ago) offers even more revolutionary prospects for phylogenetic reconstruction based on extinct organisms in decades to come.

In agreement with the ICP vision and scientific policy, the ICP aims to progressively implement a new line of research of paleogenetics and paleoproteomics. Initially, this line will be devoted to the study of primate and human evolution within the Paleoprimatology & Human Paleontology Research Group. However, if successful enough it could be further extended progressively to other vertebrate groups, eventually leading to the creation of a new Paleogenetics & Paleoproteomics Research Group at the ICP.

With these aims in mind, research collaboration agreement with ICREA Research Professor Tomàs Marquès-Bonet (Institut de Biología Evolutiva, CSIC-UPF) was signed in September 2018. By virtue of this agreement, Dr. Marquès-Bonet has become research associate of the ICP and beginning in 2019 the center has provided him some funds to initiate the above-mentioned line of research. This collaboration was further consolidated in 2019 thanks to a European Training Network (H2020-MSCA-ITN-ETN) project on paleoproteomics, which was granted to the University of Copenhagen (to begin in the spring of 2020), in which both Dr. Marquès-Bonet and various ICP researchers participate.

Research on paleoproteomics will represent a most significant broadening of the scientific focus of the ICP in years to come, even if fully compatible (and complementary) with the various lines of research already pursued at the ICP. Such strategic move, which is totally coherent with the ICP vision that paleobiology is deeply entrenched among the life sciences (and particularly evolutionary biology), is considered of upmost significance to further promote the ICP as one of

the leading and benchmark centers of vertebrate and human paleobiology at an international level, because it offers the promise to boost the visibility, impact and competitiveness of the ICP much beyond their current levels.

TECHNICAL DEPARTMENTS

Three departments to make the institute and museum work

Departmental organization

The ICP has three technical departments (Outreach & Communication, Management & Human Resources, and Research Support & External Services), each one directed by a Head of Department. They are supervised by and formally depend upon the General Manager. However, the Steering Committee (which includes the Director and the three Heads of Department) further contributes significantly to the coordination among these departments as well as between them and the various research groups. Each department includes several areas, which may have a Head of Area when an intermediate hierarchical level is required to coordinate the personnel included within.

- Outreach & Communication Dept.: Pere Figuerola (Head of Dept.).
 - ✓ Communication and Scientific Dissemination: Pere Figuerola (Head of Area).
 - ✓ Museum Area: Teresa Esquirol (Head of Area).
 - ✓ Archive & Documentation Area: Teresa Requena (Archivist & Documentalist).
- Management & Human Resources: Enric Menéndez (Head of Dept.).
 - ✓ Maintenance Area: Manel Llenas (Maintenance Technician).
 - ✓ Administration Area: Maria Pérez (Administrative Officer).
- Research Support & External Services: Dr. Josep Fortuny (Head of Dept.).
 - ✓ Fieldwork & Collections Management Area: Jordi Galindo (Head of Area).
 - ✓ Preparation & Conservation Area: Xènia Aymerich (Head of Area).
 - ✓ Projects Area: Dr. Josep Fortuny (Interim Project Manager).
 - ✓ Information Technology Area: Josep Torres (IT External Consultant).

Outreach & Communication

This department has the aim to improve internal communication as well as to better coordinate external communication, scientific dissemination and outreach activities. It includes the following areas:

- Communication & Scientific Dissemination.
- Museum.
- Archive & Documentation Area.

DEPARTMENT OF OUTREACH & COMMUNICATION			
NAME	POSITION	AREA	TYPE OF CONTRACT
Pere Figuerola	Head of Dept. & Area	Communication & Scientific Dissemination	Permanent (ICP)
Teresa Esquirol	Head of Area	Museum	Civil Servant (GC)
Mònica Cucurella*	Receptionist	Museum	Permanent (ICP)
María Pereira*	Receptionist	Museum	Permanent (ICP)
Mònica Ferré	Receptionist (Dinosfera)	Museum	Fixed-term (ICP)
Pilar Argerich	Receptionist (Dinosfera)	Museum	Fixed-term (ICP)
Teresa Requena	Archivist & Documentalist	Archive & Documentation Area	Civil Servant (GC)

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Management & Human Resources

This department has the aim to improve and give visibility to our human resources policies within the context of the implementation of HRS4R. It includes the following areas:

- Maintenance.
- Administration.

DEPARTMENT OF MANAGEMENT & HUMAN RESOURCES			
NAME	POSITION	AREA	TYPE OF CONTRACT
Enric Menéndez	Head of Dept.	—	Permanent (ICP)
Manel Llenas	Maintenance Technician	Maintenance	Civil Servant (GC)
Maria Pérez	Administrative Officer	Administration	Permanent (ICP)
Mònica Vincent	Interim Administrative Officer	Administration	Fixed-term (ICP)

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Research Support & External Services

This department has the aim to boost remunerated external services provided to third parties, as well as to improve the coordination between the various areas involved in research support. It includes the following areas:

- Fieldwork & Collections Management.
- Preparation & Conservation.
- Projects.
- Information Technology.

DEPARTMENT OF RESEARCH SUPPORT & EXTERNAL SERVICES			
NAME	POSITION	AREA	TYPE OF CONTRACT
Dr. Josep Fortuny	Head of Dept.	Projects	Permanent (ICP)
Jordi Galindo	Head of Area	Fieldwork & Collections Mgmt.	Permanent (ICP)
Dr. Josep M. Robles	Fieldwork Officer & Interim Collection Manager	Fieldwork & Collections Mgmt.	Fixed-term (ICP)

Manel Llenas	Field Technician	Fieldwork & Collections Mgmt.	Civil Servant (GC)
Dr. Víctor Vinuesa§	Field Technician	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Manel Méndez	Field Assistant	Fieldwork & Collections Mgmt.	Permanent (ICP)
Franso Chabier de Jaimes	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Miguel Guijarro§†	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Itziar Llopars§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Alejandro Gil Delgado§†	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Esteban Meseguer-Despons§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Ángel García Pérez§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Victor Ignacio Morenos§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Bernat-Josep Vázquez§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Sergi Cano§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Montserrat Graus§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Montse Garcia§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Albert Egea§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Alejandro Martínez§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
David Rodríguez§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Guillem Orlandi-Oliveras§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Roger Llopars§	Field Assistant	Fieldwork & Collections Mgmt.	Fixed-term (ICP)
Xènia Aymerich	Head of Area	Preparation & Conservation	Fixed-term (PTA)
Marta Vallst†	Preparation Technician	Preparation & Conservation	Permanent (ICP)
Núria Guerrero	Preparation Technician	Preparation & Conservation	Permanent (ICP)
Marina Rull	Preparation Technician	Preparation & Conservation	Fixed-term (PTA)
Laila Pilgent†	Project Manager	Projects Area	Permanent (ICP)
Josep Torres*	IT External Consultant	Information Technology	—

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PART 2

ICP ACTIVITIES 2019

In 2019, the ICP has improved further its scientific production and productivity while persisting in the recovery, conservation and dissemination of the paleontological heritage from Catalonia. Outreach and communication activities have pivoted around the ICP webpage and Museum; fundraising has significantly increased thanks to service provision; and managerial activities have focused on HRS4R implementation, the goals of the Strategic Plan, and the recommendations by CERCA.

RESEARCH OUTPUTS

High productivity and quality in scientific publications

Publications

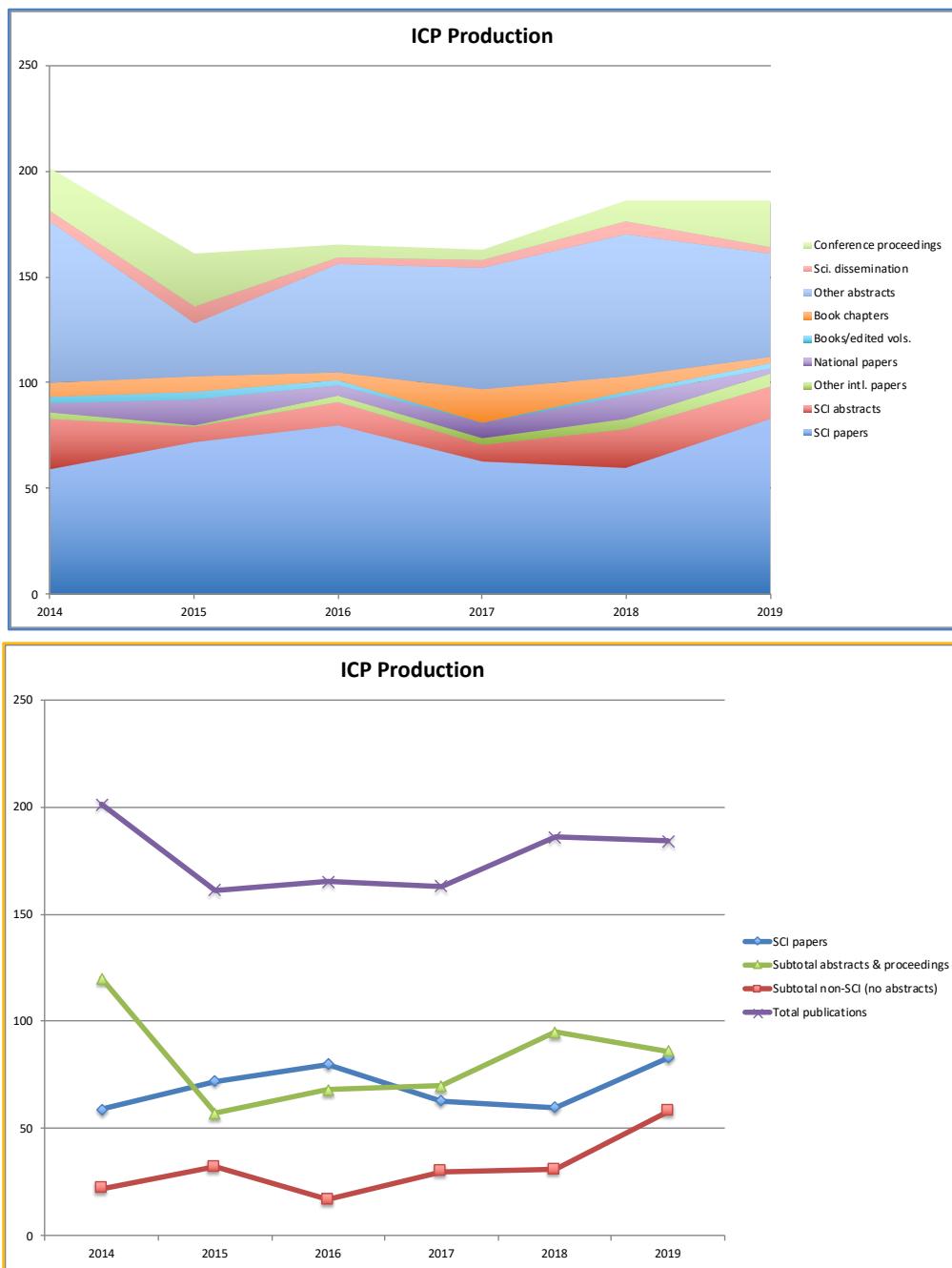
The publications of the ICP in 2019 are reported in the Appendix at the end of this document, being divided into the following categories (SCI refers to journals from the Science Citation Index, i.e., indexed by the Journal Citation Reports, JCR):

- SCI papers.
- SCI abstracts.
- Papers in other international journals.
- Papers in national journals.
- Books and edited volumes.
- Book chapters.
- Conference proceedings.
- Other abstracts.
- Scientific dissemination papers.

ICP PUBLICATIONS (2014–2018 vs. 2019)							
PUBLICATION CATEGORIES	2014	2015	2016	2017	2018	AVERAGE	2019
SCI papers	59	72	80	63	60	66.8	83
SCI abstracts	24	7	11	8	18	13.6	15
Papers in other international journals	3	1	3	3	5	3.0	6
Papers in national journals	4	12	5	7	11	7.8	4
Books and edited volumes	3	4	2	0	2	2.2	2
Book chapters	7	7	4	16	7	8.2	3
Conference proceedings	20	25	6	5	10	13.2	22
Other abstracts	76	25	51	57	67	55.2	49
Scientific dissemination papers	5	8	3	4	6	5.2	3
TOTAL	201	161	165	163	186	175.2	186

The numbers of total publications (187) is very similar to that of the previous year (186) and slightly above the average for the preceding five years (175), but the number of SCI papers published in 2019 (83) is well above the average for 2014–2018 (67), and even higher than the previous peak attained in 2016 (80). In other words, 2019 represents the best year of ICP history in terms of production quantity.

When publications are grouped into three main categories (SCI papers, non-SCI papers, and abstracts/conference proceedings), it can be seen that, with some fluctuations they are all quite stable, except for a major (2014) and a minor (2018) peaks in contributions meetings, and the recent increase (2019) in other publications (both SCI and non-SCI) beyond previous maximum levels.



Contributions to meetings

The number of published abstracts and conference proceedings (see above) is a good proxy for contributions to meetings (although there can be some delay in the publication of conference proceedings). The number of abstracts/conference proceedings published in 2019 (86) is slightly above the average for the five preceding years (82), although below the figures attained in 2018 and, especially, 2014.

In particular, in 2019 ICP authors coauthored up to 82 contributions (four contributions resulted in both an abstract and a subsequently published extended abstract, hence the total of 86 abstract/conference proceedings) to a total of 21 meetings, of which 53 (65%) in 14 international meetings held outside Spain. Most noteworthy is the presence of the ICP at the

Conference of the European Association of Vertebrate Palaeontologists, the International Congress of Vertebrate Morphology, the Annual Meeting of the American Association of Physical Anthropologists, and the Annual Meeting of the Palaeontological Association, with 16, 7, 6 and 6 communications, respectively.

MEETING	CITY (COUNTRY)	COMMS.
XVII Conference of the European Association of Vertebrate Palaeontologists	Brussels (Belgium)	16
XXXV Jornadas de la Sociedad Española de Paleontología	Baza (Spain)	8
12th International Congress of Vertebrate Morphology	Prague (Czech Republic)	7
88th Annual Meeting of the American Association of Physical Anthropologists	Cleveland (USA)	6
XX European Congress of Herpetology	Milan (Italy)	6
63 rd Annual Meeting - The Palaeontological Association	Valencia (Spain)	6
VIII Jornadas Internacionales sobre Paleontología de Dinosaurios y Su Entorno	Salas de los Infantes (Spain)	6
XIX Edizione delle Giornate di Paleontologia	Benevento/Pietraroja (Italy)	5
XVII Encuentro de Jóvenes Investigadores en Paleontología	Nájera (Spain)	4
79th Annual Meeting Society of Vertebrate Paleontology	Brisbane (Australia)	2
9th Annual Meeting of the European Society for the Study of Human Evolution	Liège (Belgium)	2
XXXII Jornadas Científicas SEDEK "El Karst de la región del Conflent"	Prada de Conflent (France)	2
5th International Symposium on Palaeohistology	Cape Town (South Africa)	2
Regional Committee on Mediterranean Neogene Stratigraphy Interim Colloquium	Granada (Spain)	2
XXIII Bienal de la Real Sociedad Española de Historia Natural	Barcelona (Spain)	2
Geological Society of America Annual Meeting	Arizona (USA)	1
3rd International Conference of Continental Ichnology	Halle (Germany)	1
73 rd Annual Meeting of the Anthropological Association of Nippon	Saga (Japan)	1
19th International Congress on the Carboniferous and Permian	Cologne (Germany)	1
International Meeting on Paleoclimate: Change and Adaptation	Coimbra (Portugal)	1
XV Reunión Nacional Cuaternario	Bilbao (Spain)	1

Scientific production, productivity, and impact

Methods. Whereas 'production' refers to the number of scientific outputs published in 2018, 'productivity' refers to the ratio between production and the total number of authors that have coauthored these publications with ICP affiliation. To compare the production, productivity, and quality/impact of ICP research outputs in 2019 with that of the five previous years, this report focuses on SCI 'papers', which include all publications (articles, technical notes, etc.) except abstracts in journals indexed by the JCR. Bibliometric indicators for these journals have been taken from the JCR of the year of definitive publication, except for 2019, which were taken from 2018 (since the 2019 edition of JCR has not been published yet). The following aspects and metrics were considered for each journal:

- Journal category (if several, the most favorable with respect to journal ranking).
- Journal impact factor (IF).

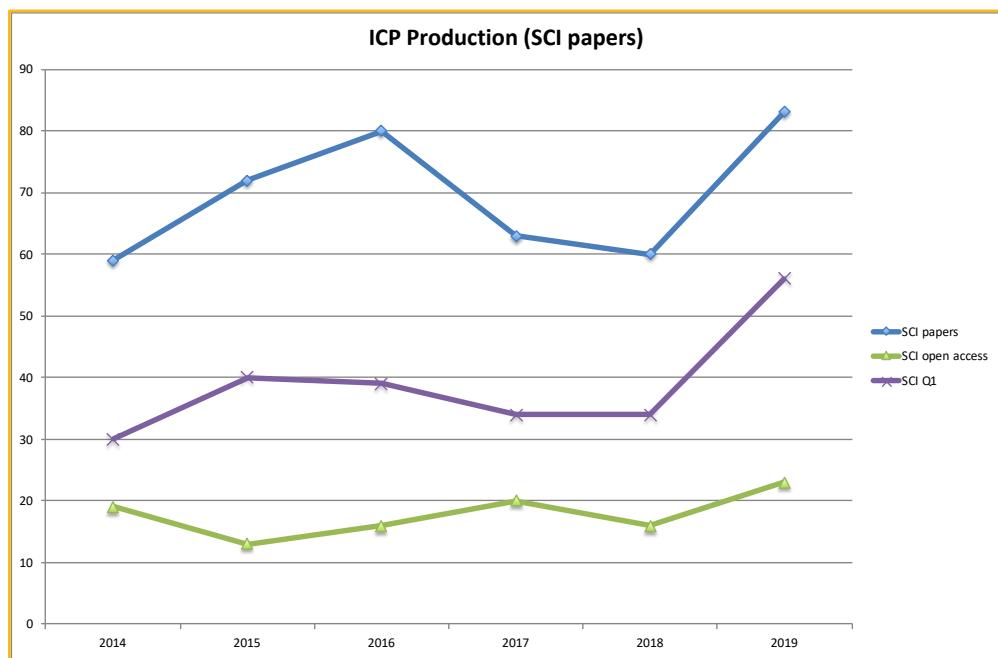
- Journal quartile (Q1 = first quartile, Q2 = second quartile, etc.).
- Journal impact factor percentile (JIF%).
- Open access (excluding green open access).

The following metrics of production, productivity and impact were computed for 2019:

- SCI = total number of SCI papers (excluding abstracts) coauthored by ICP authors.
- SCI productivity = SCI / number of ICP authors (those with ICP affiliation in SCI papers).
- Q1 = total number of Q1 papers coauthored by ICP authors.
- OA = total number of open access SCI papers coauthored by ICP authors.
- Q1 productivity = Q1 / number of ICP authors.
- Q1 ratio = Q1 / Production x 100 (in %).
- OA ratio = OA / Production x 100 (in %).
- Median JIF%.
- IF geometric mean (IFGM).

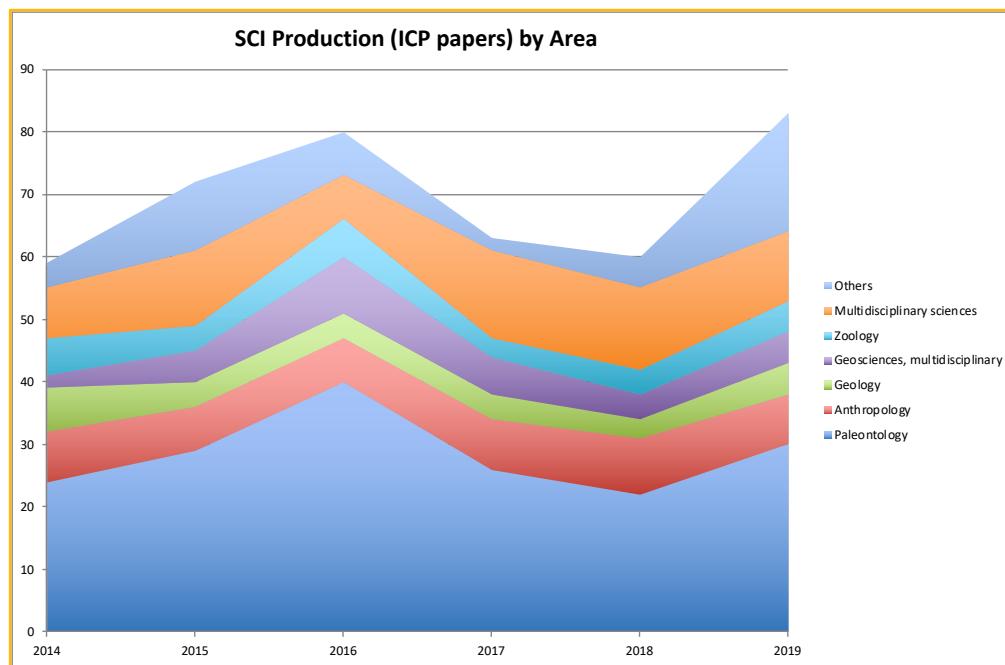
Production. The production of the ICP in terms of total SCI papers during 2019 is well above the average value for the preceding five years, and only similar (even though slightly higher) to the figure attained in 2016. The production in terms of first quartile SCI papers, in turn, is even more clearly above that of all previous years. Finally, open access production in 2019 is also somewhat higher than in all the preceding years.

SCI PRODUCTION (2014–2018 vs. 2019)							
METRICS	2014	2015	2016	2017	2018	AVERAGE	2019
SCI	59	72	80	63	60	66.8	83
Q1	30	40	39	34	34	35.4	56
OA	19	13	16	20	16	16.8	23



If SCI production is broken down by research areas of the JCR, it can be seen that a large proportion of ICP production corresponds to journals from the area of Paleontology (ca. 36%), followed by Multidisciplinary sciences, Anthropology, Geology, Geosciences multidisciplinary, and Zoology. The percentages for each category in 2018 are generally similar to the corresponding averages for the preceding five years, although with a slight decrease in all these categories, resulting in more than double publications in other categories overall.

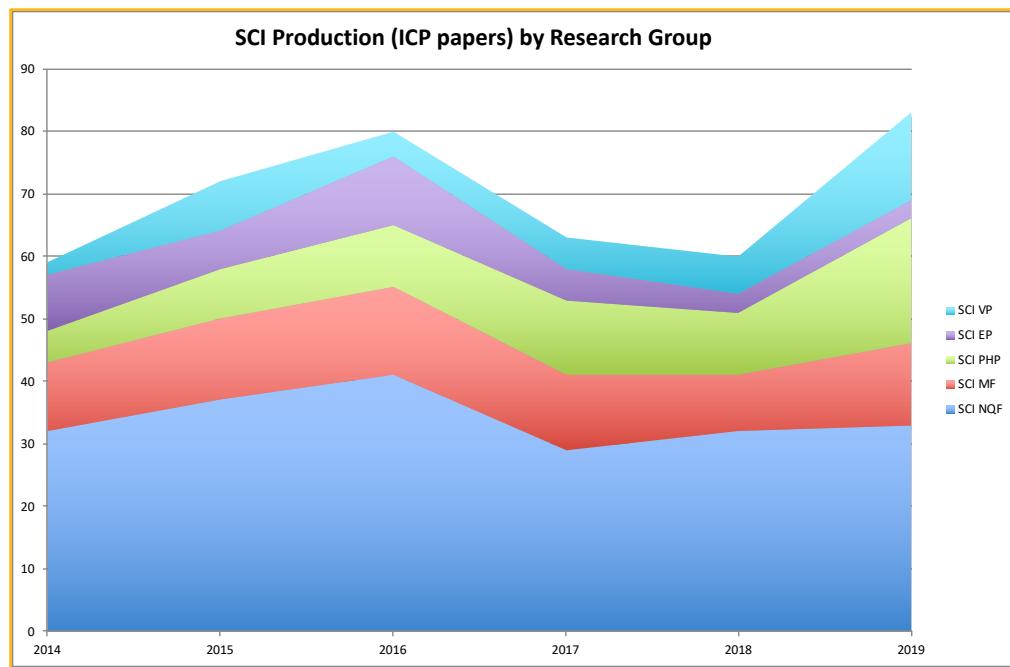
JCR AREAS	SCI PRODUCTION BY AREAS (2014–2018 vs. 2019)						
	2014	2015	2016	2017	2018	AVERAGE	2019
Paleontology	24	29	40	26	22	28.2	30
Anthropology	8	7	7	8	9	7.8	8
Geology	7	4	4	4	3	4.0	5
Geosciences, multidisciplinary	2	5	9	6	4	5.2	5
Zoology	6	4	6	3	4	4.6	5
Multidisciplinary sciences	8	12	7	14	13	10.8	11
Others	4	11	7	2	5	5.8	19
%Paleontology	40.7	40.3	50.0	41.3	36.7	42.2	36.1
%Anthropology	13.6	9.7	8.8	12.7	15.0	11.7	9.6
%Geology	11.9	5.6	5.0	6.3	5.0	6.6	6.0
%Geosciences, multidisciplinary	3.4	6.9	11.3	9.5	6.7	7.8	6.0
%Zoology	10.2	5.6	7.5	4.8	6.7	6.9	6.0
%Multidisciplinary sciences	13.6	16.7	8.8	22.2	21.7	16.2	13.3
%Others	6.8	15.3	8.8	3.2	8.3	8.7	22.9



By research group, the percentages for 2019 show some differences compared to the preceding five years. Note that these results are based on the four research groups distinguished up to November 2019, further including the former semitechnical area of Virtual Paleontology.

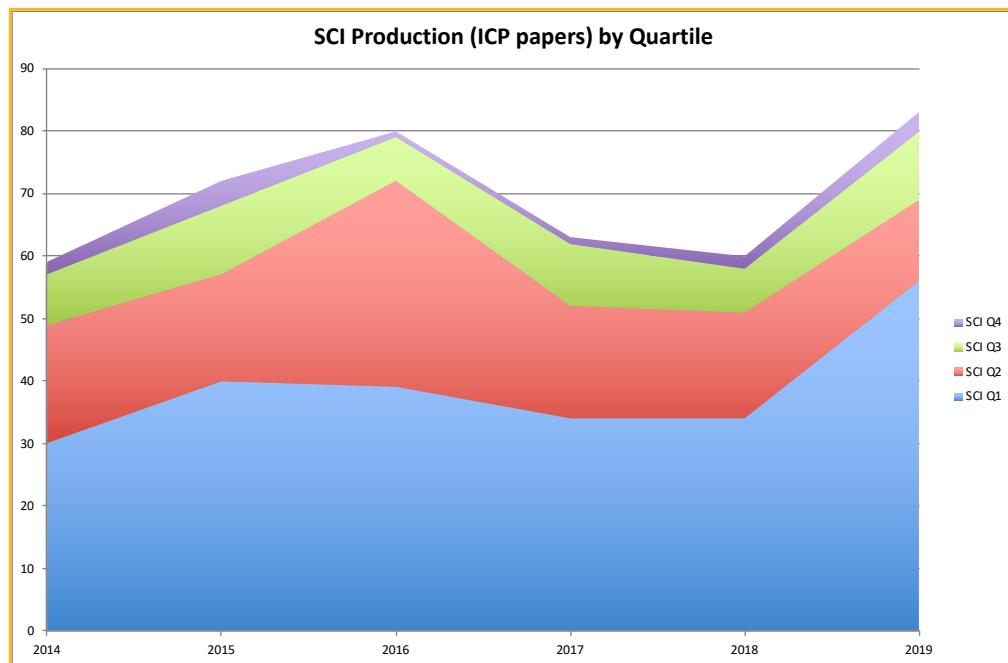
Starting in 2020, the production results will be broken down based on the six research groups currently distinguished since late 2019. The production led by the Neogene & Quaternary Faunas (NQF) group is lower than in previous years in relative terms, but still making up to about 40% of SCI papers and very similar to the 2014–2018 average in absolute terms. It can be observed that the increase in the SCI production of the ICP in 2019 is attributable to the Paleoprimatology & Human Paleontology (PHP) and Virtual Paleontology (VP) groups, while the Mesozoic Faunas (MF) group remains stationary and the Evolutionary Paleobiology (EP) consolidates further a reduction in production figures, both in absolute and relative terms.

SCI PRODUCTION BY RESEARCH GROUPS (2014–2018 vs. 2019)							
RESEARCH GROUP	2014	2015	2016	2017	2018	AVERAGE	2019
SCI MF	11	13	14	12	9	11.8	13
SCI NQF	32	37	41	29	32	34.2	33
SCI PHP	5	8	10	12	10	9.0	20
SCI EP	9	6	11	5	3	6.8	3
SCI VP	2	8	4	5	6	5.0	14
SCI MF %	18.6	18.1	17.5	19.0	15.0	17.7	15.7
SCI NQF %	54.2	51.4	51.3	46.0	53.3	51.2	39.8
SCI PHP %	8.5	11.1	12.5	19.0	16.7	13.5	24.1
SCI EP %	15.3	8.3	13.8	7.9	5.0	10.2	3.6
SCI VP %	3.4	11.1	5.0	7.9	10.0	7.5	16.9



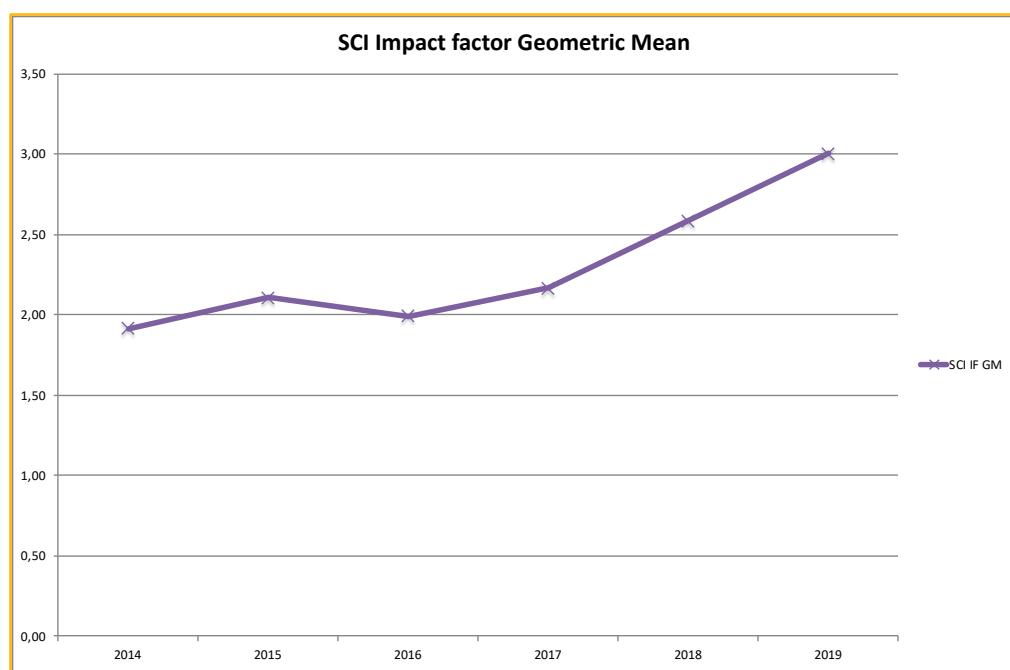
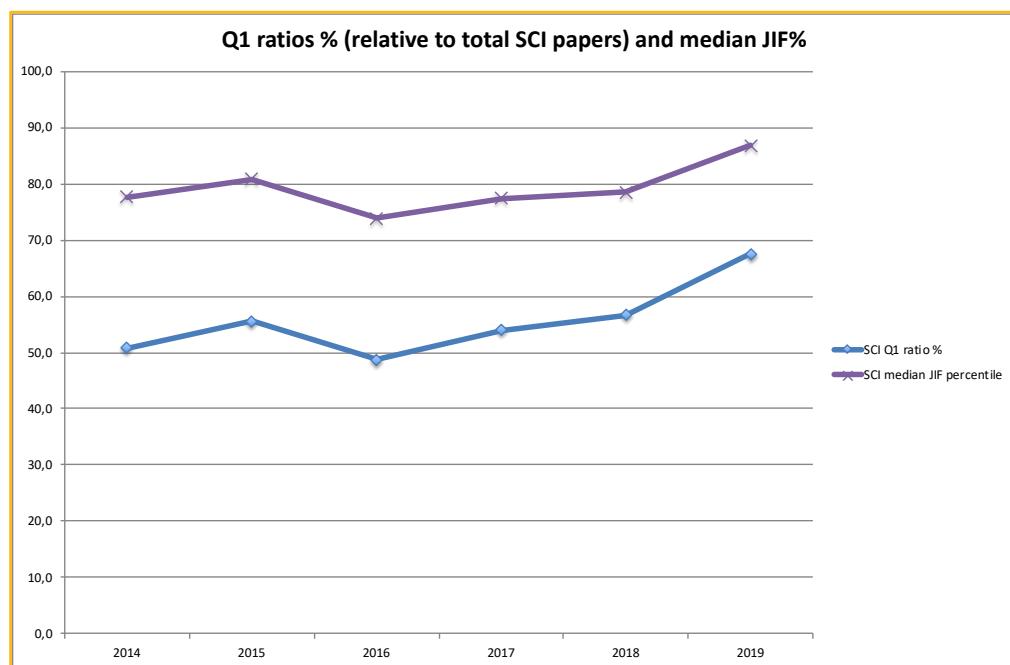
Quality and impact. If production is broken down by quartiles, it becomes obvious that most of ICP production in SCI journals is concentrated on the Q1 and that the increase in SCI production during 2019 is mostly attributable to a greater number of published papers in Q1 journals.

QUARTILE	SCI PRODUCTION BY QUARTILES (2014–2018 vs. 2019)						
	2014	2015	2016	2017	2018	AVERAGE	2019
Q1	30	40	39	34	34	34.5	56
Q2	19	17	33	18	17	20.8	13
Q3	8	11	7	10	7	8.6	11
Q4	2	4	1	1	2	2.0	3



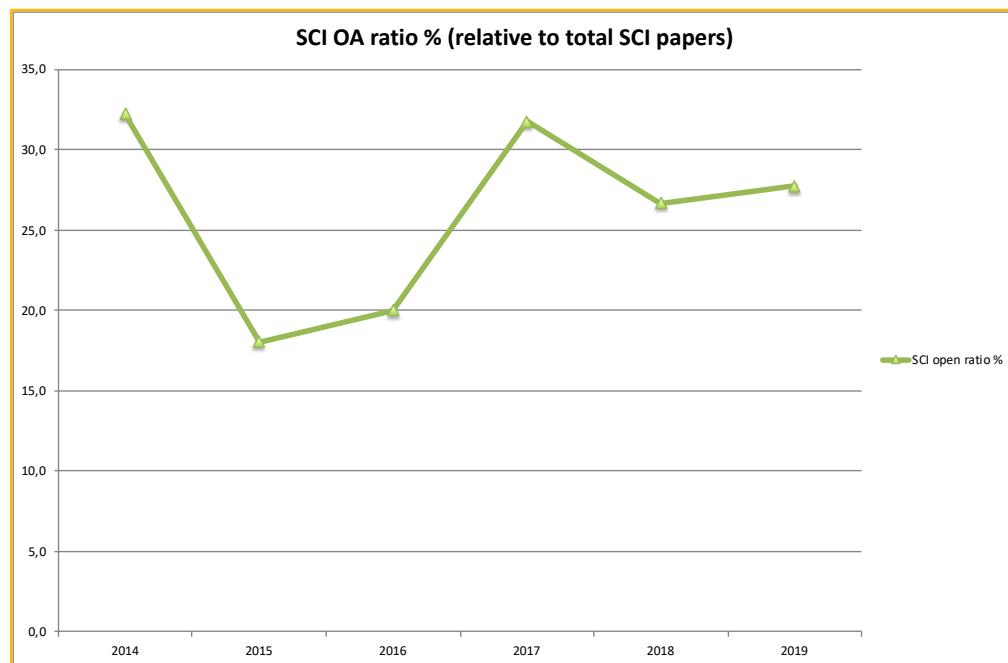
While the average Q1 ratio for 2014–2018 indicates that slightly more than half SCI papers were published in the Q1, the results for 2019 represent a significant increase and indicate that more than two-thirds of SCI papers were published in Q1 journals. This is further reflected in the two other indicators of impact/quality: while the median JIF percentile was more or less stationary during the preceding years, the 2019 figure of 86.8 represents an important increase; in turn, the impact factor geometric mean, which in 2014–2017 fluctuated slightly around 2.0, consolidates in 2019 (3.0) the increase that was already evidenced in 2018 (2.6). These figures represent the best quality/impact results for the SCI production of the ICP since 2007, which is particularly noteworthy given that 2019 represents the year in which highest levels of production (see above) and productivity (see below) were attained.

METRICS	SCI PRODUCTION IMPACT & QUALITY (2014–2018 vs. 2019)						
	2014	2015	2016	2017	2018	AVERAGE	2019
Q1 ratio	50.8	55.6	48.8	54.0	56.7	53.0	57.5
Median JIF%	77.6	80.8	73.8	77.3	78.5	75.8	86.8
IFGM	1.91	2.11	1.99	2.17	2.58	2.13	3.00

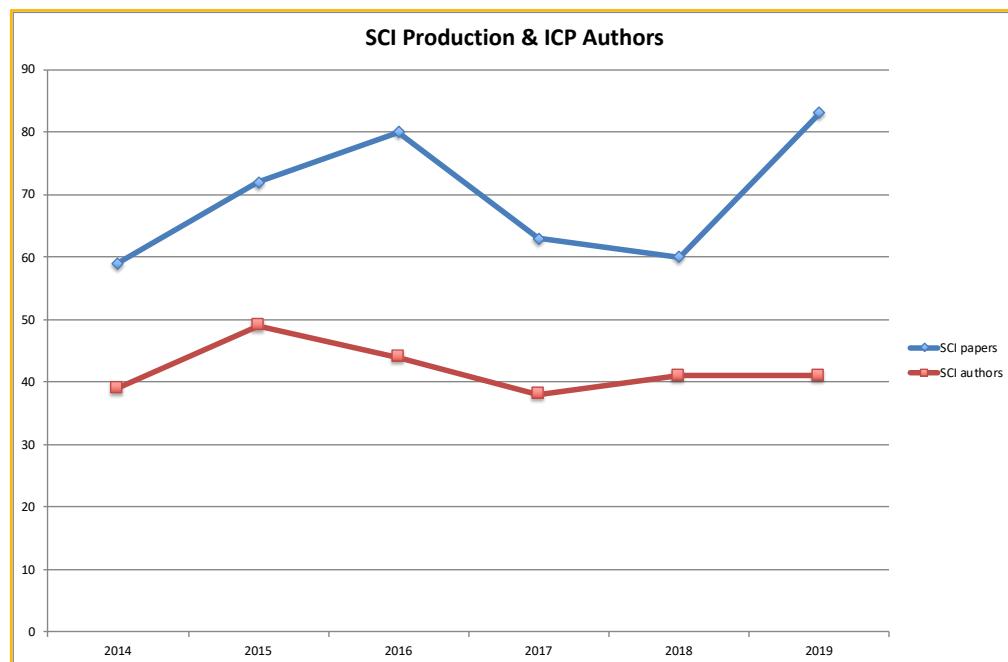


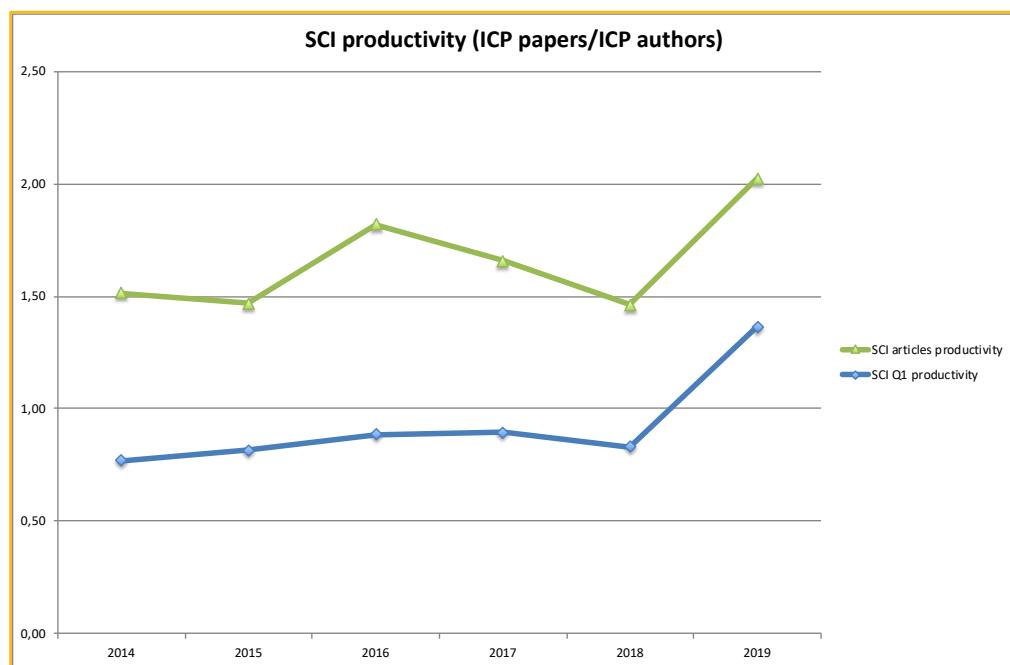
With regard to the open access ratio, current values are very slightly above the average for the five preceding years, which despite marked fluctuations indicates overall that about a quarter of the SCI production of the ICP is published in open access (excluding postprints subsequently posted in digital repositories, i.e., green open access).

OPEN ACCESS (2014–2018 vs. 2019)							
Metrics	2014	2015	2016	2017	2018	Average	2019
OA ratio	32.2	18.1	20.0	31.8	26.7	25.1	27.7



Productivity. The number of ICP authors (including researchers, research associates, collaborators, etc.) is lower than that of SCI papers published each year. As in 2018, the number of ICP authors for 2019 (41) is slightly below the average for the preceding five years (42). The increase in the absolute number of SCI and Q1 publications therefore results in a relative increase in SCI productivity (production/authors) as compared to the average values for the five preceding five years (2.0 and 1.4 vs. 1.6 and 0.8, respectively). Indeed, these are the best results in productivity terms for the ICP ever.





SCI PRODUCTIVITY (2014–2018 vs. 2019)							
METRICS	2014	2015	2016	2017	2018	AVERAGE	2019
ICP authors	39	49	44	38	41	42.2	41
SCI productivity	1.51	1.47	1.82	1.66	1.46	1.56	2.02
Q1 productivity	0.77	0.82	0.89	0.89	0.83	0.84	1.37

Leadership, collaborations, and internationalization

Methods. To measure leadership in publication, this report focuses on corresponding authors with ICP affiliation in SCI papers. The following metrics were computed:

- SCI leadership = total number of SCI papers with ICP corresponding author.
- Q1 leadership = total number of Q1 papers with ICP corresponding author.
- SCI leadership ratio = SCI leadership / SCI x 100 (in %).
- Q1 leadership ratio = Q1 leadership / SCI x 100 (in %).

In turn, to measure collaborations (with emphasis on international ones), as a first approximation SCI papers are divided into three categories based on the affiliations of the coauthors from other institutions (i.e., excluding other affiliations of ICP researchers or research associates with more than a single affiliation):

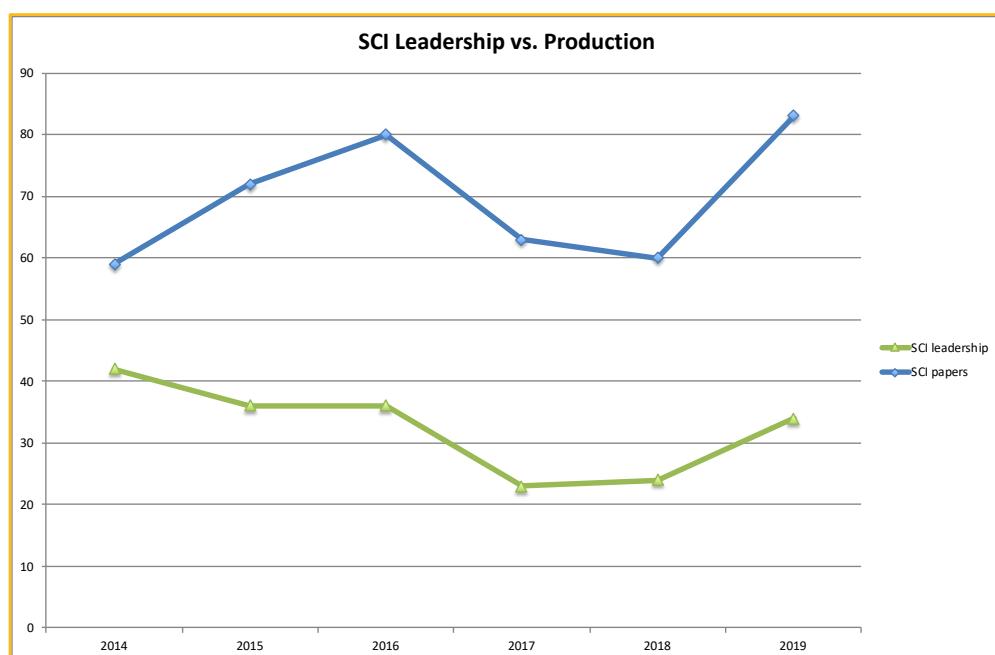
- ICP only: without other affiliations.
- Non-international collaborations: with other national affiliations.
- International collaborations: with foreign affiliations (irrespective of whether there are also other national affiliations or not).

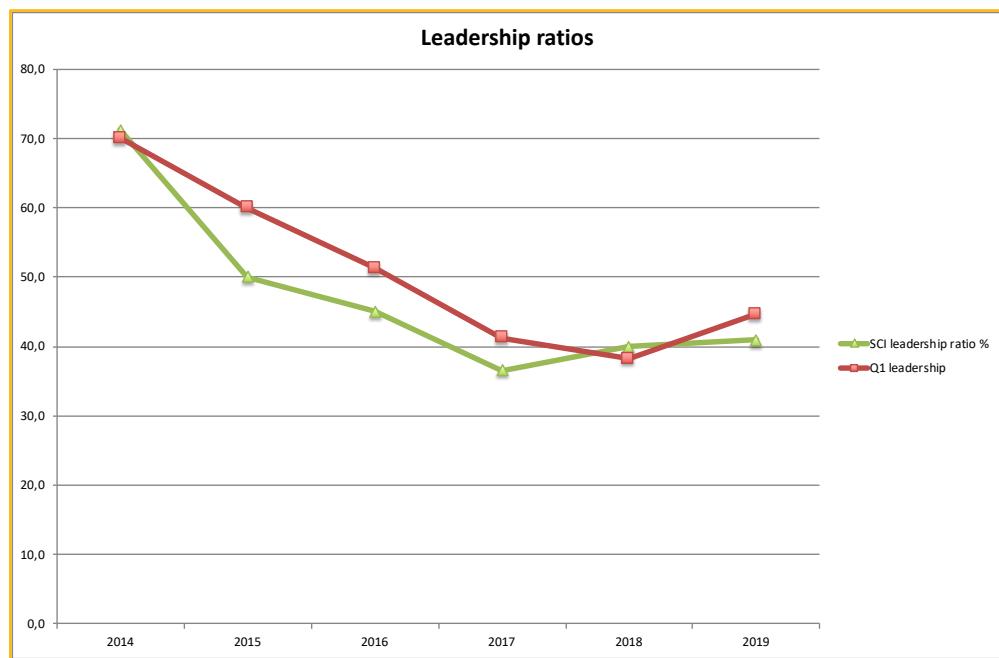
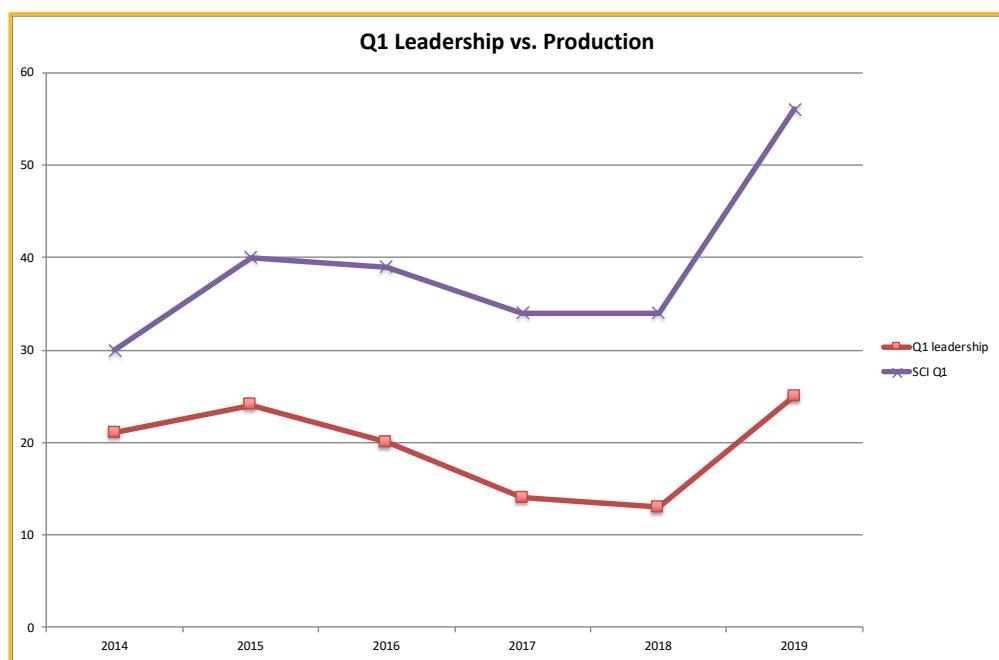
As a second, more refined approximation to collaborations, two different metrics are computed:

- Collaborations-1: number of non-ICP affiliations in SCI papers coauthored by ICP researchers, counting them repeatedly if present in different papers, but irrespective of the number of authors with such affiliations in each paper and excluding those from ICP research associates.
- Collaborations-2: number of non-ICP affiliations in SCI papers coauthored by ICP researchers in a given year, without counting them repeatedly if present in different papers, irrespective of the number of authors with such affiliations and excluding those from ICP research associates.

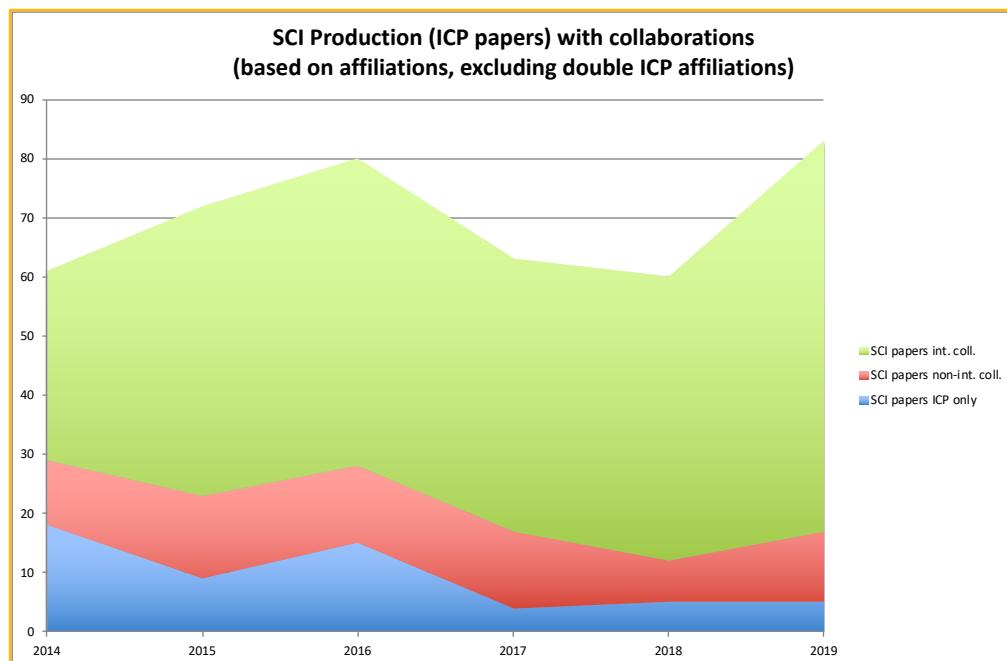
Leadership. Values of leadership for 2019 are lower than the average for the five preceding years. This holds for both total SCI and Q1 leadership, irrespective of whether absolute or relative values are considered, although it is remarkable that the figures for 2019 are somewhat better than those for the two previous years. To a large extent, the leadership curves in absolute terms mimic those of production (particularly for Q1), although with a progressive decrease in leadership percentages until 2017. This decreasing trend stopped 2018 and slightly improved in 2019, although it is too early to discern whether the situation has started to revert or just stabilized. Given the trend toward increasing collaborations, it is unlikely that leadership in publication will ever attain again the levels from five years ago, although there is probably some room for improvement in this regard in the following years.

SCI LEADERSHIP (2014–2018 vs. 2019)							
LEADERSHIP	2014	2015	2016	2017	2018	AVERAGE	2019
SCI leadership	42	36	36	23	24	32.2	34
Q1 leadership	21	24	20	14	13	18.4	25
SCI leadership ratio (%)	71.2	50.0	45.0	36.5	40.0	48.2	41.0
Q1 leadership ratio (%)	70.0	60.0	51.3	41.2	38.2	52.0	44.6

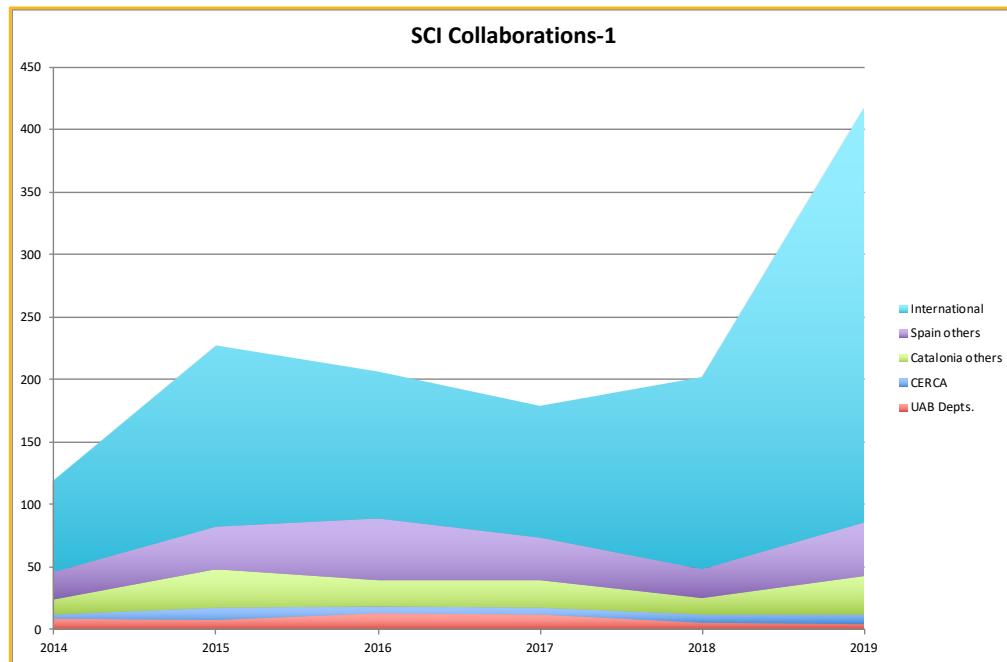


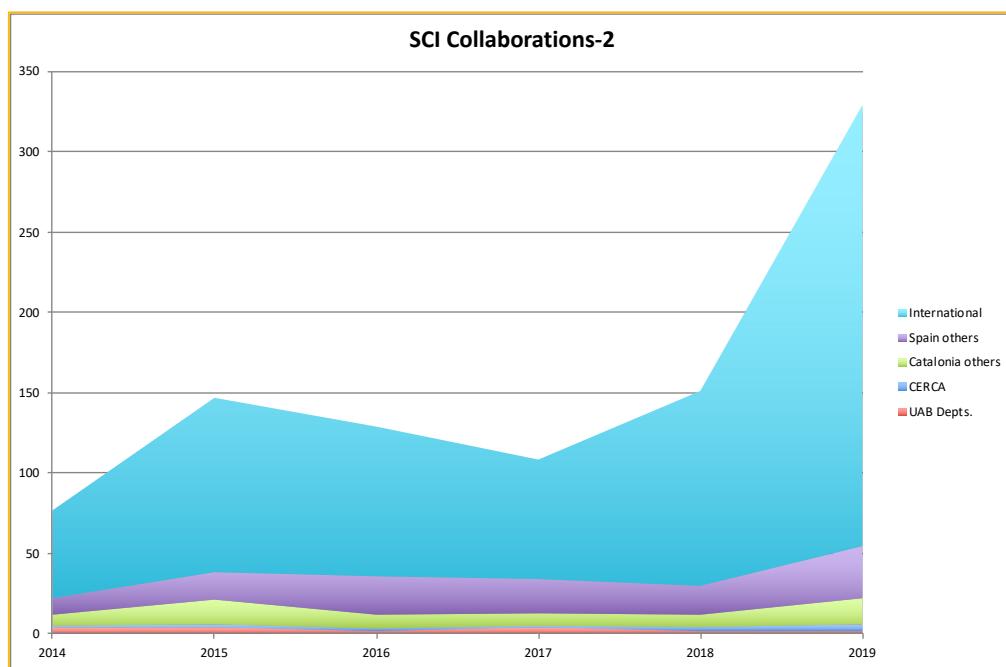


Collaborations. As measured by the number of papers with or without collaborations, there is a clear trend toward increasing international collaborations and decreasing ICP only papers. In particular, publications with international collaborations in 2019 were higher in both absolute and terms than the average of the five preceding years, and indeed higher than ever in absolute terms (which comparable in percentage to the figure of 2018).

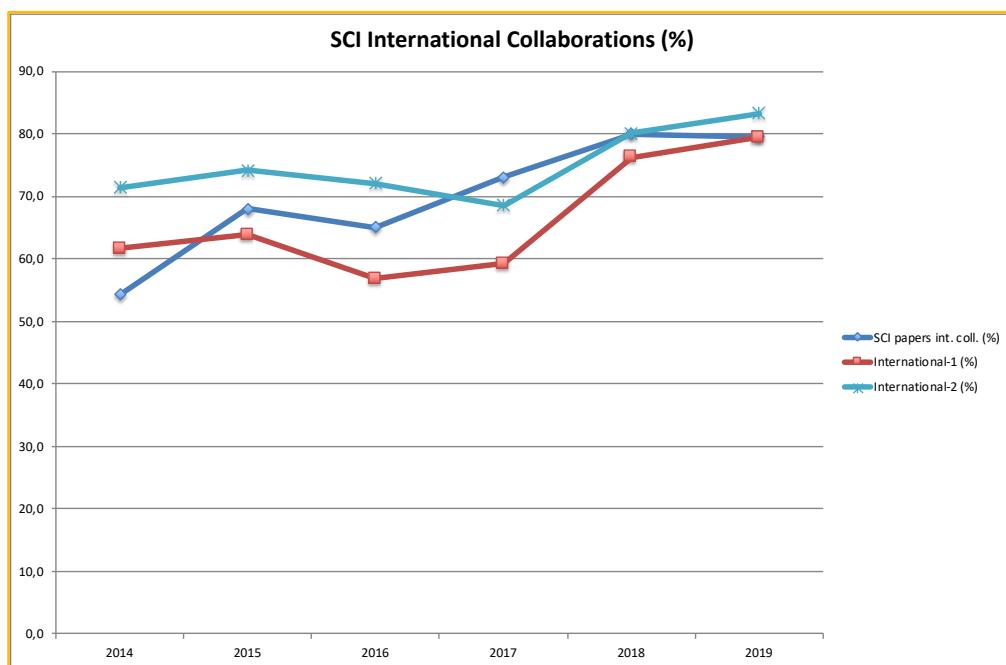


PRODUCTION ACCORDING TO COLLABORATIONS	2014	2015	2016	2017	2018	AVERAGE	2019
SCI papers – ICP only	18	9	15	4	5	10.2	5
SCI papers – non-international collaboration	11	14	13	13	7	11.6	12
SCI papers – international collaboration	32	49	52	46	48	45.4	66
SCI papers – ICP only (%)	30.5	12.5	18.8	6.3	8.3	15.3	6.0
SCI papers – non-international collaboration (%)	18.6	19.4	16.3	20.6	11.7	17.4	14.5
SCI papers – international collaboration (%)	54.2	68.1	65.0	73.0	80.0	68.0	79.5





As measured by the two other metrics explained above (collaborations 1 and 2), which rely on the number of non-ICP affiliations of ICP coauthors in SCI papers, the figures for 2019 are much higher than the average five preceding years and, indeed, highest than ever before, being basically attributable to an increase in international collaborations that more than doubles the previously maximum recorded levels in 2015 and 2018.



SCI COLLABORATIONS (2014–2018 vs. 2019)							
COLLABORATIONS-1	2014	2015	2016	2017	2018	AVERAGE	2019
Total collaborations	120	227	206	179	202	186.8	417
UAB Departments	9	8	13	12	5	9.4	4
CERCA centers	3	9	6	5	7	6.0	8
Catalonia others	12	31	21	22	13	19.8	31
Spain others	22	34	49	34	23	32.4	43
International	74	145	117	106	154	119.2	331
UAB Departments (%)	7.5	3.5	6.3	6.7	2.5	5.0	1.0
CERCA centers (%)	2.5	4.0	2.9	2.8	3.5	3.2	1.9
Catalonia others (%)	10.0	13.7	10.2	12.3	6.4	10.6	7.4
Spain others (%)	18.3	15.0	23.8	19.0	11.4	17.3	10.3
International (%)	61.7	63.9	56.8	59.2	76.2	63.8	79.4

SCI COLLABORATIONS (2014–2018 vs. 2019)							
COLLABORATIONS-2	2014	2015	2016	2017	2018	AVERAGE	2019
Total collaborations	77	147	129	108	151	122.4	329
UAB Departments	4	4	2	4	2	3.2	2
CERCA centers	1	2	1	1	2	1.4	4
Catalonia others	7	15	9	8	8	9.4	16
Spain others	10	17	24	21	18	18.0	33
International	55	109	93	74	121	90.4	274
UAB Departments (%)	5.2	2.7	1.6	3.7	1.3	2.6	0.6
CERCA centers (%)	1.3	1.4	0.8	0.9	1.3	1.1	1.2
Catalonia others (%)	9.1	10.2	7.0	7.4	5.3	7.7	4.9
Spain others (%)	13.0	11.6	18.6	19.4	11.9	14.7	10.0
International (%)	71.4	74.1	72.1	68.5	80.1	73.9	83.3

PhD Dissertations

A single PhD dissertation was finished in 2019 at the ICP (this figure should not be mistaken with the number of completed theses supervised by ICP researchers, which further include three additional theses performed by PhD candidates from other institutions; see the relevant subsection on supervision later in this document); it is the following:

- **Guillem Orlandi-Oliveras:** Title: “Life history and ecology of late Miocene hipparrionins from the Circum-Mediterranean area” | Supervisor: M. Köhler (ICP).

Fieldwork

Paleontological fieldwork constitutes an essential component of the research performed by ICP researchers, given that fossils constitute the basic raw data for our research. Even if fieldwork results are not immediately reflected in ICP publications, this activity further results in the corresponding field reports and memoirs that are supplied to the Archeological and Paleontological Survey of the Culture Department of the Generalitat de Catalunya.

The following programmed paleontological interventions were performed in 2019 by the ICP, being partially funded by the new fieldwork grants from the Culture Department of the Generalitat de Catalunya for the quadrennium 2018–2021:

- **Els Casots – Terres de Cal Prubi:** Surveillance and excavation | Municipality: Subirats | Age: early Miocene | Directors: I. Casanovas-Vilar & David M. Alba.
- **Grotte de la Carrière:** Excavation | Municipality: Corneillà de Conflent (France) | Age: Pleistocene | Directors: J. Madurell-Malapeira.
- **Clariana:** Surveillance and sampling | Municipality: Castellet i la Gornal | Age: middle Miocene | Directors: S. Moyà-Solà.
- **Coll de Creus i la Trava:** Prospection and documentation | Municipality: la Vansa i Fórnols | Age: Middle-Late Permian | Directors: E. Mujal.
- **Tossal de Pollerini:** Prospection | Municipality: el Pont de Suert | Age: Triassic | Directors: E. Mujal.
- **Coll de Terrers:** Prospection, sampling, and documentation | Municipality: Ribera d'Urgell | Age: Middle-Late Permian | Directors: E. Mujal & J. Fortuny.
- **Castellar de n'Hug, Riera de Monell, Coll Roig i Pla de Conill:** Prospection, sampling, and documentation | Municipality: Castellar de n'Hug & Guardiola de Berguedà | Age: Early-Middle Permian | Directors: A. Bolet & J. Fortuny.
- **Creu de Conill:** Excavation, surveillance, prospection, and sampling | Municipality: Terrassa | Age: late Miocene | Directors: S. Almécija & M. Pina.
- **Montseny-Figaró:** Prospection, sampling, and documentation | Municipality: Tagamanent, Aiguafreda, Bigues, Ametlla del Vallès, Figaró-Montmany, and el Brull | Age: Middle Triassic | Directors: A. Bolet & J. Fortuny.
- **Cala Estellencs-Port de Valldemossa:** Prospection | Municipality: Estellencs, Banyalbufar, and Valldemossa (Mallorca) | Age: Permian & Triassic | Directors: R. Matamales-Andreu, À. Galobart, & J. Fortuny.
- **Complex d'Incarcal (Pedrera de Cal Taco):** Prospection, surveillance, excavation, and sampling | Municipality: Crespià | Age: Pleistocene | Directors: J. Madurell-Malapeira, B. Martínez-Navarro, & Isaac Rufí.
- **Espinau:** Excavation | Municipality: Les Avellanes i Santa Linya | Age: Late Cretaceous | Director: À. Galobart.
- **Móra d'Ebre, Rasquera, and Benifallet:** Prospection | Municipality: Móra d'Ebre, Rasquera, and Benifallet | Age: Middle Triassic | Directors: A. Bolet, J. Fortuny, and R. Matamales-Andreu.
- **Camposines-Sant Jeroni:** Excavation | Municipality: Móra d'Ebre | Age: Middle Triassic | Directors: A. Bolet, J. Fortuny, and J. Cartanyà.
- **Els Casots:** Excavation | Municipality: Subirats | Age: early Miocene | Directors: I. Casanovas-Vilar, J. Abella, & J. Madurell-Malapeira.
- **Les Gavarres:** Excavation | Municipality: Tremp | Age: Late Cretaceous | Directors: B. Vila.

- **Fumanya Sud i Mina Esquirol:** Documentation | Municipality: Fígols i Vallcebre | Age: Late Cretaceous | Directors: M. Badia.
- **Pedreres de Meià:** Excavation and sampling | Municipality: Vilanova de Meià | Age: Early Cretaceous | Directors: À. Galobart, A. Gil.
- **Talús H superior:** Prospection, excavation, and sampling | Municipality: els Hostalets de Pierola | Age: late Miocene | Directors: D.M. Alba & C. Rotgers.
- **Sant Jaume de Frontanyà - Mina:** Sampling | Municipality: Sant Jaume de Frontanyà | Age: middle Eocene | Directors: J. Marigó & R. Minwer-Barakat.
- **Orcau-2:** Consolidation/restoration | Municipality: Tremp | Age: Late Cretaceous | Directors: B. Vila & A.G. Sellés.

Additionally, the following paleontological interventions was also performed, in agreement with the Archeological and Paleontological Survey of the Generalitat de Catalunya, as a result of plundering activities that were notified to the ICP:

- **Can Llobateres:** Consolidation and excavation | Municipality: Sabadell | Age: Miocene | Director: Jordi Galindo.

FUNDRAISING

Inspiration and innovation when seeking financial support

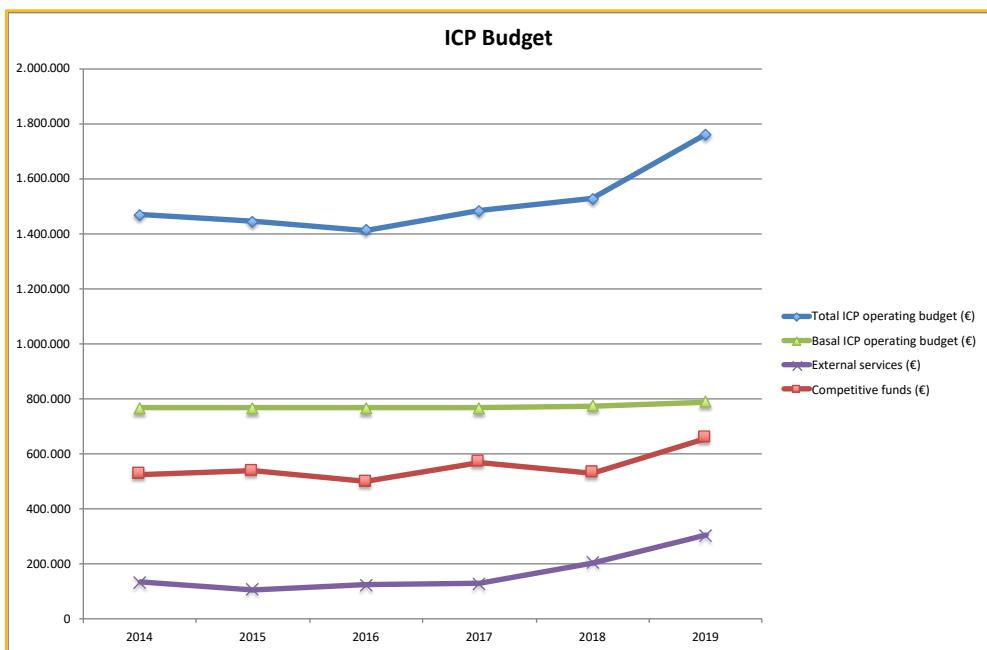
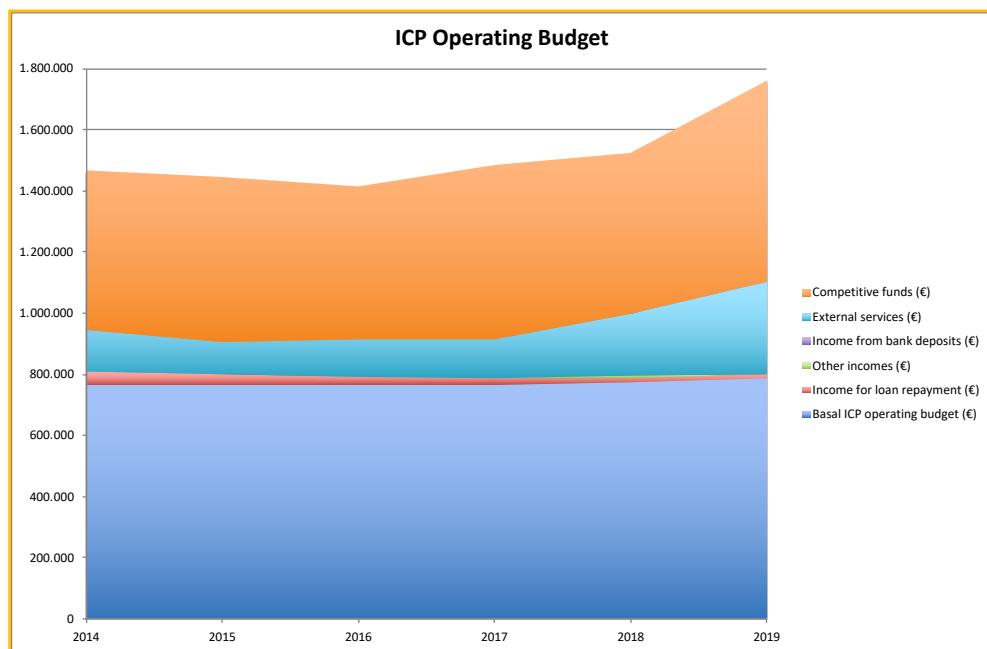
Competitive funds and provision of services

The ICP operating budget (i.e., excluding investments) includes the basal budget endowed by the Generalitat de Catalunya as well as the monetary income obtained by the ICP from other sources. The latter can be divided into several categories, such as competitive funds, revenues generated by the provision of external services, or income from bank deposits (although the latter is negligible). Furthermore, from 2007 to 2011, the ICP also received a significant income from the Diputació de Barcelona associated with the museum order management (i.e., to cover the expenses generated by the ICP Museum after its transferral to the Generalitat de Catalunya). However, this amount extinguished after 2011 and was not reflected in a concomitant increased in the basal budget provided by the Catalan government.

As in the latter years, the two main sources of income for the ICP (other than its basal budget) in 2019 consisted of competitive funds and the provision of external services. Competitive funds refer to projects and grant applications that are evaluated on a competitive basis by external funding agencies, either public or private. A vast majority of competitive funds are associated with research activity, although sometimes they are associated to other activities performed at the ICP, such as research support or scientific dissemination and outreach. Revenues provided by the provision of external services to third parties (either public or private) are not competitive in this sense, although they imply competition with other institutions as well as private companies in the framework of market rules. These activities are mostly related to knowledge transfer, and therefore will be discussed in further detail later in this document. Be that as it may, ultimately competitive funds and external services jointly reflect the fundraising capacity of the ICP, and are worth being reported here together before going into their particulars.

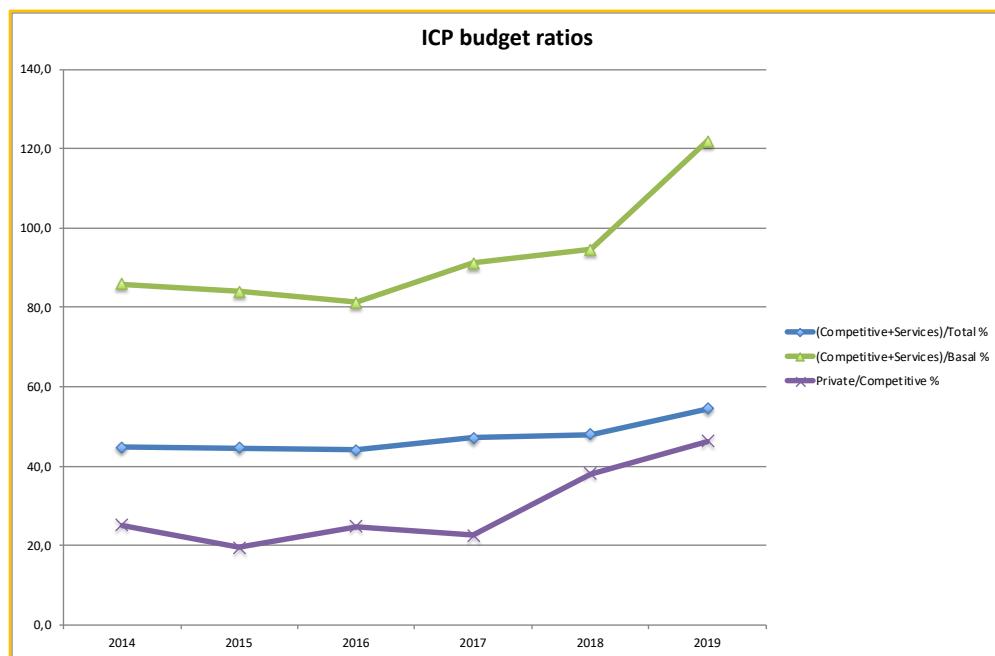
Total operating budget. Since the last significant decrease of the basal operating budget from 2012 to 2013, the total operating budget of the ICP had remained quite stationary until 2018, when it experienced a slight increase (ca. 3%) from the year before. In contrast, the figure from 2019 represents a very important increase of ca. 15% compared to 2018 and ca. 20% compared to the average of the preceding five years (2014-2018). Such an increase is mostly attributable to significant increments in both service provision (50% compared to 2018, and as much as 119% compared to the average of the five previous years) and competitive fundraising (24% compared to 2018 and 23% compared to the five previous years), and only to a much lesser extent to the slight increase in the basal operating budget (1.7% relative to 2018 and 2.6% compared to the 2014-2018 average) thanks to an additional financial envelope from the Generalitat de Catalunya to increase the wages of the structural personnel.

OPERATING BUDGET (2014–2018 vs. 2019)							
BUDGETARY INCOMES	2014	2015	2016	2017	2018	AVERAGE	2019
Total operating budget (€)	1,467,881	1,442,987	1,412,922	1,482,826	1,526,060	1,466,535	1,759,511
Basal operating budget (€)	765,437	765,500	765,500	765,500	774,070	767,201	787,470
Income for loan repayment (€)	43,786	34,896	25,221	19,467	15,091	27,692	12,576
Other incomes (€)	0	0	0	0	4,676	1,169	111
Income from bank deposits (€)	1,749	0	0	0	0	350	0
Provision of external services (€)	131,888	105,259	123,872	128,416	202,317	138,350	303,574
Competitive funds (€)	525,021	537,332	498,329	569,443	529,905	532,006	655,780



Budget ratios. Competitive funds and external services can be considered together relative to the total and basal budgets by means of percentual ratios. In 2019 the former represented for the first time more than 50% of the total budget (55%) and more than the amount of the basal budget (122%). These figures are well above those for 2018, and even more so as compared to the average for the five preceding years. It is also noteworthy that the proportion of private (service provision) relative to competitive funds shows a rapidly increasing trend since 2018, indicating that service provision represents a higher proportion of fundraising than in any previous year.

BUDGET RATIOS (2014–2018 vs. 2019)							
RATIOS	2014	2015	2016	2017	2018	AVERAGE	2019
(Competitive+External services)/Total %	44.8	44.5	44.0	47.1	48.0	45.7	54.5
(Competitive+External services)/Basal %	85.8	83.9	81.3	91.2	94.6	87.4	121.8
Private/Competitive %	25.1	19.6	24.9	22.6	38.2	26.1	46.3



Competitive funding sources

Spanish Government. Most of the competitive funds for research at the ICP come from the former's Spanish MINECO Agencia Estatal de Investigación (currently within the Ministerio de Ciencia, Innovación y Universidades), by means of multiannual R+D projects that are financed with funds from the European Regional Development Fund. They are the following.

- “Evolución del ciclo vital de los mamíferos en ecosistemas ibéricos continentales del Mioceno al Pleistoceno” (CGL2015-63777-P) | P.I.: M. Köhler, J. Quintana Cardona | Duration: 2016–2020.

- “Ecological web models for the last dinosaurs of Europe” (CGL2016-77230-P) | P.I.: À. Galobart | Duration: 2017–2019.
- “Dinámica de la paleobiodiversidad de las faunas de vertebrados fósiles del Vallès-Penedès y comparación con otras cuencas miocenas” (CGL2016-76431-P) | P.I.: D.M. Alba, D. DeMiguel | Duration: 2017–2020.
- “Los primates del Cenozoico de la Península Ibérica: evolución, aspectos paleoambientales y paleobiogeográficos” (CGL2017-82654-P) | P.I.: S. Moyà-Solà, R. Minwer-Barakat | Duration: 2018–2020.

Research at the ICP is also funded by former MINECO by means of cofunded contracts for postdoc ('Ramón y Cajal' and 'Juan de la Cierva') and predoc (FPI) researchers as well as technicians (PTA), coupled with predoc (FPU) contracts from the Spanish Ministerio de Educación y Formación Profesional. The following grants/contracts were active in 2019 (also listed is one granted in 2019, to start in 2020):

- Guillem Pons-Monjo (PTA2015-10789-I) | Modality: PTA technician | Duration: 2017–2020 (3 years).
- Marina Rull (PTA2015-10417-I) | Modality: PTA technician | Duration: 2017–2020 (3 years).
- Alessandro Urciuoli (BES-2015-071318) | Modality: FPI predoc | Duration: 2015–2019 (4 years).
- Teresa Calderón (BES-2016-078938) | Modality: FPI predoc | Duration: 2017–2021 (4 years).
- Rafel Matamales-Andreu (FPU17/01922) | Modality: FPU predoc | Duration: 2018–2022 (4 years).
- Florian Bouchet (PRE2018-083299) | Modality: FPI predoc | Duration: 2019–2023 (4 years).
- Isaac Casanovas-Vilar (RYC-2013-12470) | Modality: RyC researcher | Duration: 2014–2019 (5 years).
- Albert Prieto-Márquez (RYC-2015-17388) | Modality: RyC researcher | Duration: 2017–2022 (5 years).
- Arnaud Bolet Mercadal (IJC2018-037685-I) | Modality: JdC Incorporación researcher | Duration: 2020–2023 (3 years).

Generalitat de Catalunya. A large proportion of the competitive funding provided by the Generalitat de Catalunya in 2018 comes from various fieldwork grants from the Department of Culture, active from 2018 to 2021 (indeed, these funds were granted in December 2018, but with retroactive effects beginning in January). They are the following:

- “Evolució dels ecosistemes durant la transició Paleozoic-Mesozoic a Catalunya” (CLT009/18/00066) | P.I.: J. Fortuny | Duration: 2018–2021.
- “Xarxes paleoecològiques dels jaciments amb dinosaures del Cretaci català” (CLT009/18/00067) | P.I.: À. Galobart | Duration: 2018–2021.

- “El jaciment paleontològic dels Casots, un ecosistema de fa 16 milions d’any. Recerca, recuperació patrimonial i socialització” (CLT009/18/00068) | P.I.: I. Casanovas-Vilar | Duration: 2018–2021.
- “Els primats i altres vertebrats del Paleogen de Catalunya” (CLT009/18/00069) | P.I.: J. Marigó | Duration: 2018–2021.
- “La transició del Pleistocè inferior-mitjà a Catalunya” (CLT009/18/00070) | P.I.: J. Madurell-Malapeira | Duration: 2018–2021.
- “Els primats fòssils del Miocè de la conca del Vallès-Penedès” (CLT009/18/00071) | P.I.: S. Moyà-Solà | Duration: 2018–2021.

Also remarkable are various grants provided by the Catalan Government to the ICP, generally in relation to the management of the Conca Dellà Museum, and the ICP Museum and collections:

- “Gestió mancomunada de “Dinosauris dels Pirineus” - Museu de la Conca Dellà i Espai Dinosfera” (CLT923/19/00013) | OSIC, Departament de Cultura, Generalitat de Catalunya | Duration: 2019.
- “Programa d’activitats familiars 2019 de museu de l’ICP” (CLT007/19/00059) | OSIC, Departament de Cultura, Generalitat de Catalunya | Duration: 2019.
- “Proposta reformulada d’actuacions programades per a l’actualització del registre, inventari, documentació, catalogació i digitalització de la col·lecció de l’Institut Català de Paleontologia Miquel Crusafont, any 2019” (CLT052/19/00013) | OSIC, Departament de Cultura, Generalitat de Catalunya | Duration: 2019.

Research at the ICP is also funded by the Agència de Gestió d’Ajuts Universitaris i de Recerca (AGAUR) of the Department of Business and Knowledge (Generalitat de Catalunya) by means of a series of predoctoral and postdoctoral ('Beatriu de Pinós') grants (also listed is one granted in 2019, to start in 2020):

- Guillem Orlandi (2016 FI_B00202) | Modality: FI predoc | Duration: 2016–2019 (3 years).
- Sílvia Jovells-Vaqué (2017 FI_B 00054) | Modality: FI predoc | Duration: 2017–2020 (3 years).
- Leonardo Sorbelli (2019 FI_B 00579) | Modality: FI predoc | Duration: 2019–2022 (3 years).
- Judit Marigó (2017 BP 00003) | Modality: BP postdoc | Duration: 2019–2021 (2 years).
- Diego Castanera (2017 BP 00195) | Modality: BP postdoc | Duration: 2019–2020 (2 years).
- Juan Abella (2017 BP 00223) | Modality: BP postdoc | Duration: 2019–2021 (2 years).
- Júlia Arias-Martorell (2018 BP 00058) | Modality: BP postdoc | Duration: 2020–2023 (3 years).

It is noteworthy that three research groups of the ICP are currently recognized as Consolidated Research Group by AGAUR (although only one has associated funding):

- “Paleoprimatologia i paleontologia humana (PIPH)” (2017 SGR 00086 GRC) | P.I.: S. Moyà-Solà | Duration: 2017–2020. With funding.
- “Neogene and Quaternary Vertebrate Paleobiodiversity (NQVP)” (2017 SGR 00116 GRC) | P.I.: D.M. Alba | Duration: 2017–2020.
- “Paleoecology and Evolutionary Biology (PEB)” (2017 SGR 00960 GRC) | P.I.: M. Köhler | Duration: 2017–2020.

Other public funds. In 2019 the ICP also received a small grant from the city council of Subirats in relation to the management and excavation of the els Casots fossil site:

- “Excavacions Miquel Crusafont” (D220190007641) | P.I.: I. Casanovas-Vilar | Duration: 2019.

European funds. A research funded by the French Direction Régionale des Affaires Culturelles from Montpellier was active from previous years:

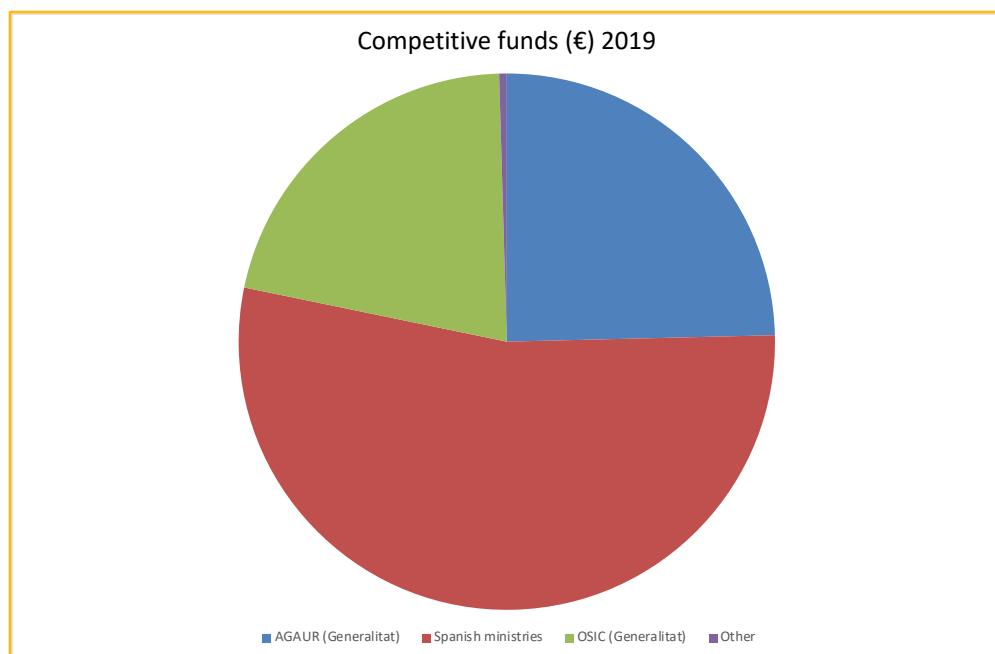
- “Projet de fouille programmée dans le Grotte de la Carrière (Gorges de Villefranche, Pyrénées-Orientales, Occitanie)” (660570016) | P.I.: J. Madurell-Malapeira | Duration: 2018-2020.

Furthermore, although in 2019 the ICP received no European/transnational funds, it is noteworthy that an Innovative Training Network in which the ICP participates as partner organization was awarded (to begin in 2020; see <https://cordis.europa.eu/project/id/861389>):

- “Palaeoproteomics to Unleash Studies on Human History (PUSHH)” (H2020-MSCA-ITN-2019; grant agreement ID: 861389) | P.I.: Enrico Cappellini (Københavns Universitet) | Duration: 2020–2024.

Comparisons. When all types of grants (research projects and contracts) are considered together, it can be seen that funding provided by the Spanish government in 2019 (352 k€, compared to 399 k€ in 2018) represented about 54% of the ICP competitive funds (as compared to 75% in 2018), whereas that provided by the Generalitat de Catalunya (161 k€ AGAUR and 140 k€ OSIC, as compared to 53 k€ and 71 k€, respectively, in 2018) represented about 46% (25% AGAUR and 21% OSIC, compared to 10% and 14%, respectively, in 2018).

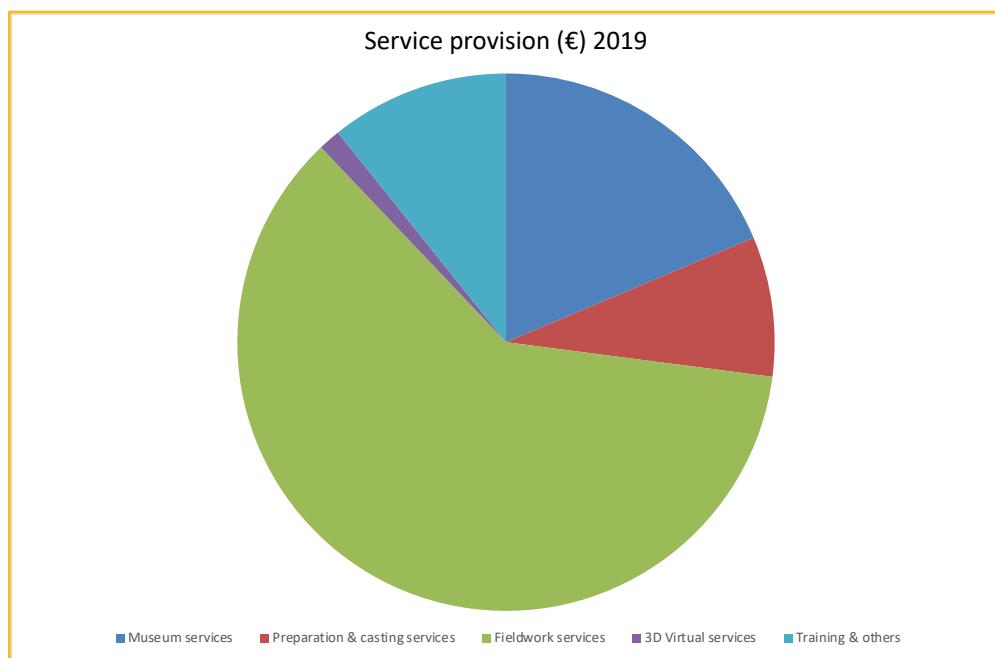
All the competitive income from AGAUR corresponded to research grants, while that from OSIC corresponded to research projects, but the competitive income from the Spanish government was devoted to both: 167 k€ for grants and 185 k€ for projects in 2019, as compared to 181 k€ and 218 k€, respectively, in 2018. Overall, in 2019 the competitive income corresponded to grants and projects at 50% each (328 k€), while in 2018 the proportion of competitive income corresponding to projects (295 k€, 56%) was relatively higher than that of grants (235 k€, 44%).



Provision of services

Approximately 19% of the income from the provision of services in 2019 is associated with museum and outreach activities, either those of the ICP Museum in Sabadell (13%, including tickets, museum shop, guided visits/workshops, and other outreach activities) or those related to the Conca Dellà Museum in Isona and Biosfera in Coll de Nargó (6%, including both management and personnel). Other significant services provided include preparation and casting services (8%), training, teaching and outreach activities other than those performed at the museum (6%), reports (5%), and 3D virtual services (1%). However, by far the most important services provided in 2019 correspond to fieldwork, which has increased from 30% in 2018 up to 61% in 2019 (thereby resulting in a concomitant relative decrease of other services, even if the total amounts have remained similar within the same order of magnitude as in previous years). Indeed, while service provision has increased 101 k€ from 2018-2019, fieldwork services have increased 125 k€, largely compensating the decrease in preparation/casting as well as in museum services.

PROVISION OF SERVICES (2017-2019)			
SERVICES	2017 (€)	2018 (€)	2019 (€)
Museum services	65,665	66,209	56,614
Preparation & casting services	30,067	47,794	25,529
Fieldwork services	16,586	59,808	184,726
3D virtual services	1,240	4,000	4,037
Training and others	14,858	24,506	32,669
TOTAL	128,416	202,317	303,574



Donors and sponsors

Patronage. The ICP benefits from the patronage provided by the trustees, either in monetary form (the funds for the basal operating budget provided by the Generalitat de Catalunya) or the form of in-kind incomes received by public institutions (including the two patrons, the Generalitat de Catalunya and Universitat Autònoma de Barcelona, as well as other institutions and individuals; see below).

However, the ICP currently benefits from no philanthropical or relevant sponsorship monetary donations to perform its mission. Given the limited success of patronage and sponsorship initiatives of the ICP in previous years, the Strategic Plan emphasized the need to boost service provision as the most promising way increase the total operating budget of the ICP. In 2019 this was not possible due to the lack of a project manager and the impossibility to join the Jurassic Project of The Children's Museum of Indianapolis due to the lack of sufficient resources. However, renewed efforts will be devoted to fundraising from donors and sponsors in 2020, following the recruitment of a new project manager.

In-kind income. The in-kind income received by the ICP during 2019 includes the following:

- Two ICREA research professors are seconded to the ICP: Prof. Salvador Moyà-Solà, Leader of the Paleoprimatology & Paleoanthropology Research Group; and Prof. Meike Köhler, Head of the Evolutionary Paleobiology Ara and Leader of the Life History Evolution Research Group.
- Several civil servants of the Generalitat de Catalunya are ascribed to the ICP: Dr. Àngel Galobart, Head of the Mesozoic Research Area and Leader of the Dinosaurs Ecosystems

Research Group; Teresa Esquirol, Head of the Museum Area; Teresa Requena, archivist and documentalist; and Manel Llenas, maintenance and field technician.

- The Universitat Autònoma de Barcelona grants to the ICP personnel access to the UAB network and, hence, to the vast collection of digital documents subscribed by the university, including not only subscription journals and books, but also bibliometric databases such as the Web of Science/Journal Citation Reports and Scopus. The ICP researchers also have access to the Scientificotechnical Services of the UAB at reduced fees.
- The Universitat Autònoma de Barcelona, by means of its Library Services, allows the ICP to use its digital repository ('Dipòsit Digital de Documents de la UAB', DDD) to host its open access research outputs in a distinctive collection (<https://ddd.uab.cat/collection/icp>) that highlights the singularity of the ICP.
- The Universitat Autònoma de Barcelona defrays part of the direct costs generated by the ICTA-ICP building (maintenance, cleaning, surveillance, concierge service, electricity, water, conditioning, etc.) that are attributable to the ICP (30.44%), by virtue of an agreement that regulates the use of premises and which was signed in December 2016 with retroactive effects back to June 2014. In particular, the ICP assumes up to 80,000 €/yr, and the UAB pays the rest, for a period of five years that can be extended by mutual agreement of the parties.
- The Generalitat de Catalunya lends to the ICP the use of the building in Sabadell where the ICP Museum and several premises for researchers and technicians are located, as well as of the Can Llobateres parcel (where the homonymous site and screen-washing facilities are located). This real estate was formerly owned by the Diputació de Barcelona and was transferred to the Generalitat de Catalunya in 2008, to be operated by the ICP indefinitely.
- The Ajuntament de Sabadell lends to the ICP the use of municipal premises to be used as a storehouse for unprepared fossil material.
- Multiple individual volunteers help the ICP personnel with several administrative, communication and technical tasks.

RESEARCH SUPPORT AND KNOWLEDGE TRANSFER

Multiple areas with vocation of service

Research support

The paleontological services provided by various areas of the Research Support & External Services Department are fundamental for accomplishment of the research aims of the research groups of the ICP. Furthermore, as evidenced in the previous section, the Preparation & Conservation Area and the Fieldwork & Collections Management Area are very important from the viewpoint of knowledge transfer as well, by means of the provision of external services. Knowledge transfer activities, however, are not restricted to external services that result in monetary revenues, since they further include a series of other activities that are mostly related to training as well as outreach activities performed at the ICP Museum and beyond. Below, the activities restricted to research support and reported first, and subsequently we focus on knowledge transfer activities divided into two main categories: training and paleontological services.

Preparation and conservation. During 2019, the preparator technicians of the Preparation & Conservation Area have prepared 1749 fossil remains—a very similar figure to that of 2018 (1727) in the framework of the support provided to ICP researchers and service provision to companies and other entities. The prepared fossils mostly (but not exclusively) come from the following sites:

- Creu de Conill.
- Clariana.
- B40 Olesa de Montserrat-Viladecavalls.
- Abocador de Can Mata.
- Els Casots.
- Talús H.
- La Carrière.

Other research support actions performed by our preparators include molding, casting, rigid packaging, special packaging for transport/shipping, preventive conservation of fossil remains, elaboration of conservation reports, and museological activities.

Collection management. During 2019, 6,880 new catalog numbers have been registered into the inventory of the ICP collections (as compared to 7,739 in 2017 and 3,240 in 2018), of which 4,429 have been included in the collection management software MuseumPlus (3,776 in 2017 and 3,181 in 2018); 496 catalog numbers have been modified during the same period (compared to 501 in 2018; no data available for 2017). A total of 74 petitions to study materials from the

ICP collections have been attended by the Fieldwork & Collections Management Area of the ICP (83 in 2017 and 64 in 2018), of which 15 internal and 31 external (51 and 22 in 2017, and 15 and 31 in 2018, respectively). Finally, 16 loans of original material and/or casts have been done for exhibits or activities organized by other institutions (compared to 21 in 2017 and 18 in 2018).

Fieldwork. The programmed paleontological excavations directed by ICP researchers in the framework of research projects have been already reported in a previous section and need not be repeated here. However, it is noteworthy that several of these interventions have been performed with the aid of the human resources of the Fieldwork and Collections Management Area, including its head, the fieldwork officer, and various field technicians.

Virtual paleontology. In 2019, ICP researchers from several research groups benefited from the assistance of a specialized technician from the 3D Virtual Lab of the Virtual Paleontology Area (currently Computational Paleobiology Research Group) concerning the processing of 3D virtual reconstructions based on CT and photogrammetry data. Most of the time devoted by the 3D Virtual Lab to research support was related to the segmentation of craniodental remains of both extant and fossil vertebrates (reptiles and mammals), although part of the time was also devoted to photogrammetry (e.g., for 3D modeling fossil-bearing sites—in some cases using drones—or fossils such as tetrapod ichnites), and also to performing CT scans, repositioning 3D models for reconstructing fossil specimens, and preparing material for publications (e.g., videos of 3D reconstructions). Several scans were performed at the µCT scanner from Burgos (Spain).

Paleontological services

The paleontological services provided by the ICP are based on the know-how of both its technicians and researchers (including their knowledge, expertise and skills), which are offered to external parties in exchange of monetary revenues that contribute to the total operating budget of the ICP. These ‘customers’ include individual persons or groups of people, public entities, and private companies alike. Even though these paleontological services appear quite varied, in general they resemble the internal research support services that are regularly provided to the ICP research groups by the various areas of the Research Support & External Services Department. In a broad sense, the museum exhibits and outreach activities organized by the ICP may also be considered paleontological services, as they also originate revenues for the institution.

Museum services. The ICP Museum in Sabadell is an indispensable requirement for the research performed at the ICP, which needs a museum officially recognized as such by the Generalitat de Catalunya to be the depositary of its fossil collections. Having a museum is also a very powerful tool from the viewpoint of scientific dissemination and outreach, to transmit paleontological knowledge to the general public. Although these activities are performed in compliance with one of the missions of the ICP (promoting the dissemination of the

paleontological heritage from Catalonia), it is also noteworthy that these activities (including guided visits, workshops, and products sold at the museum shop) generate some revenues, which at least in part serve to alleviate the costs of the required personnel to maintain the museum open to the public.

Similarly, the ICP further manages the Conca Dellà Museum in Isona and the associated museographic space Dinosfera from Coll de Nargó, in the framework of the ‘Dinosaurs from the Pyrenees’ project and thanks to the funds provided by the Culture Department of the Generalitat de Catalunya. The leading role is performed by the Head of the Mesozoic Area of the ICP (Dr. Àngel Galobart), who by virtue of an agreement with the Conca Dellà city council in 2015 became the Director of the Conca Dellà Museum. The income received in exchange of these services is beneficial for the research performed by the above-mentioned research group and further enables hiring the required personnel.

The various outreach activities performed by the ICP at the Museum in Sabadell, at Isona i Conca Dellà and Coll de Nargó, and in other places will be detailed later in this document.

Preparation and casting services. These services are provided by the Conservation & Preparation Area of the ICP, where a team of well-trained and experienced preparation technicians with the required academic background regularly also perform these tasks for ICP researchers. Casting services are generally provided per request, either for individual amateurs or researchers, or for museums and research institutions; several qualities (and corresponding different prices) are available depending on the aim. Preparation services, in turn, are provided to both research institutions, local administrations and private companies, most often relating to fossils recovered from emergency excavations. Both casting and preparation activities are performed at the well-equipped preparation labs of the Preparation & Conservation Area of the ICP at the ICTA-ICP building within the UAB campus and at the ICP Museum in Sabadell. These services are invoiced on the basis of closed quotes, and the revenues generated contribute to defray the personnel costs of the Conservation & Preparation Area of the ICP, which regularly assist ICP researchers in these tasks. Furthermore, the fossils prepared often remain at the ICP collections, thereby providing new research opportunities for the researchers of the center.

Of the 1749 fossils prepared by the Preparation & Conservation Area of the ICP in 2019, 160 fossils from B40 Olesa de Montserrat-Viladecavalls were prepared in the framework of the provision of services to private companies. Other noteworthy activities performed in 2019 by the Preparation & Conservation Area of the ICP within the framework of service provision include casting of various fossil specimens, as well as various activities (preparation, preventive conservation, and elaboration of a didactic suitcase with casts) related to the site of els Casots.

Paleontological fieldwork services. Fieldwork services provided by the ICP include all of the aspects related to the planning and execution of paleontological interventions, although most frequently they are restricted to rescue (emergency) paleontological interventions that must be defrayed by private companies or the local administration in the framework of construction

works in fossiliferous areas, in order to comply with the requirements of current laws about the protection of paleontological heritage. These services include different types of interventions, such as paleontological prospections, samplings, surveillance and excavations, and even conditioning, consolidation and restoration. Some of these services (direction of the intervention, work by technicians, elaboration of the fieldwork memoir, etc.) are invoiced on the basis of hourly rates, whereas other activities (such as screen-washing sediment samples for microvertebrate remains) have associated prices per unit.

The following rescue paleontological interventions were performed in 2019 under the direction of the ICP in the framework of the specialized remunerated services provided by the ICP to both private companies and administrations:

- **Abocador de Can Mata:** Prospection, surveillance, excavation, sampling, and documentation | Municipality: els Hostalets de Pierola | Age: middle to late Miocene | Directors: J.M. Robles, V. Vinuesa, I. Llopert, M. Guijarro | Company: Cespa Gestión de Residuos S.A.
- **Illeta 3 de Can Gambús, Fase 3:** Surveillance and excavation | Municipality: Sabadell | Age: Miocene | Directors: A. Gil | Company: Josel S.L.U. (hired by Àtics Gestió i Difusió del Patrimoni Arqueològic i Històric, S.L.).
- **Carretera BV-2249, Pk 8+500 al Pk 9+600:** Prospection, surveillance, excavation, sampling, and documentation | Municipality: Masquefa | Age: late Miocene | Directors: J. Galindo | Company: Diputació de Barcelona.
- **Els Casots:** Surveillance | Municipality: Subirats | Age: early Miocene | Directors: I. Casanovas-Vilar, J. Abella, & S. Jovells-Vaqué | Company: Ajuntament de Subirats.
- **Carrer Colom 28 (antiga Fàbrica Flotats):** Surveillance and excavation | Municipality: Terrassa | Age: Pleistocene | Directors: E. Meseguer | Company: Corp Edificacions, S.L. (hired by Àtics Gestió i Difusió del Patrimoni Arqueològic i Històric, S.L.).

Virtual paleontology services. Computed three-dimensional techniques have become a generalized tool for the study of fossil remains, being also used in the industry. The 3D Virtual Lab of the Virtual Paleontology Area (currently Computational Paleobiology Research Group) of the ICP has the required 3D digitalization tools and facilities to provide 3D imaging and other virtual services, including an industrial computed tomography (CT) scan specifically devised for paleontological research, several laser surface-scanners for obtaining surface 3D models of the fossil specimens, and photogrammetry equipment. Coupled with competent ICP staff in all the required techniques and software, the above-mentioned equipment is positive for the provision of external services to other research institutions as well as the industry (e.g., as related to mechanical pieces). The CT scan is particularly promising in the latter regard, because it is a singular infrastructure that is useful for academic research and industrial applications alike. Unfortunately, the CT scan of the ICP is currently damaged and requires a considerable amount to be fixed, which in 2019 and preceding years significantly hindered the great potential of this

area for the provision of external services. Nevertheless, some provision of digital services was performed, particularly regarding the landmarking of 3D virtual models of primate bones.

Paleontological and geological consultation services. The technicians from the Fieldwork Management Area of the ICP, in collaboration with ICP researchers, also offer services related to the knowledge on fossil sites and/or paleontological heritage, particularly from Catalonia, as well as to the geology of particular areas. These services generally imply writing some kind of report to convey the required information. Potential clients range from local administrations, to both public entities and private companies, being generally related to the elaboration of environmental impact assessments for the construction industry, the dating of sediments by means of fossils (biostratigraphy), or the elaboration of heritage management plans for city councils. Some of these studies require performing paleontological and/or geological fieldwork, whereas others are exclusively based on the review of the published literature and the archives of the ICP. The fees that apply are based on hourly rates (plus associated costs of maintenance and travel when necessary). In 2019, these services were provided to the private company Àtics Gestió i Difusió del Patrimoni Arqueològic i Històric, S.L., in relation to the elaboration of an evaluation report about the potential damage to paleontological heritage due to the building works of B40 highway between Terrassa and Granollers.

In compliance with one of the missions of the ICP, related to the conservation of the paleontological heritage of Catalonia, minor consultation services are also regularly provided for free by the staff of the Fieldwork & Collections Management Area as well as ICP researchers to the Archeological and Paleontological Survey of the Generalitat de Catalunya (in relation to fossil sites from Catalonia), and more sporadically also to the Catalan Police (Mossos d'Esquadra) as regards to cases of plundering.

Training

Knowledge transfer activities at the ICP are also related to academic teaching and supervision, to a large extent (but not exclusively) within the framework of the university.

Scientific courses. From the viewpoint of training, it is noteworthy the ongoing collaboration agreement of the ICP with the private company Transmitting Science (TS), by which scientific courses in the framework of life sciences (with a largely international attendance) are performed at the ICP Museum or in other venues with additional partners. The ICP generally contributes with its facilities, and gets an in-kind return in the form of free courses for ICP researchers and research associates. The current agreement further enables to co-organize other types of courses with a higher involvement of ICP researchers as instructors (e.g., paleontological fieldwork courses in the framework of ICP excavations), and which might generate pecuniary revenues for the center; we are currently studying the feasibility of this kind initiatives, to be performed in the following years. By means on the ongoing agreement, in 2018 the ICP participated as coorganizer in 7 courses instructed by TS, with a total attendance of 82 alumni.

Some of these courses were coorganized exclusively by TS and the ICP, being normally performed at the ICP Museum in Sabadell, whereas others were coorganized at other locations and with additional partners. Overall, these courses where taught by 13 different instructors, mostly foreign.

COURSES COORGANIZED WITH TRANSMITTING SCIENCE (2019)			
COURSE TITLE	VENUE	DATE	ORGANIZERS
Interactive Data Analysis and Visualization with R Shiny (2 nd ed.)	Sabadell	18-22 February	TS, ICP
Finite Element Analysis Applied to Life Sciences (6 th ed.)	Sabadell	12-18 May	TS, ICP
Geometric Morphometrics and Phylogeny (9th ed.)	Sabadell	9-13 September	TS, ICP
Anatomical Network Analysis (AnNA) (2nd ed.)	Sabadell	23-27 September	TS, ICP
Dealing with Uncertainty in Species Distributions (1 st ed.)	Sabadell	21-24 October	TS, ICP
Data Manipulation, Analysis, and Visualization in R using the Tidyverse (1 st ed.)	Sabadell	4-8 November	TS, ICP
Care and Management of Natural History Collections (3 rd ed.)	Sabadell	18-22 November	TS, ICP, MCNB

On a less regular basis, the ICP takes a leading role in the organization of other courses (sometimes with other partners), particularly in the field of conservation and preparation of fossils and other objects of both natural and cultural heritage. The following course was organized by the ICP in 2019:

- “Fonaments de Paleontologia de Vertebrats”, organized by the ICP with the collaboration of Transmitting Science for the Servei d’Arqueologia i Paleontologia of the Generalitat de Catalunya. ICTA-ICP building (UAB Campus) and Abocador de Can Mata (els Hostalets de Pierola), 14 and 21 March 2019.

University teaching. The ICP is a university research institute of the UAB by virtue of an agreement signed in 2013 and subsequently ratified by the Generalitat de Catalunya in 2014. This agreement was renewed in 2018 and will be valid until 2021. It contemplates the possibility that ICP researchers that are involved in master teaching automatically become teaching collaborators. Punctual agreements have been also established with regard to master teaching with the UB.

In 2019, ICP researchers and technicians participated in the following three different official master degrees:

- **Master in Paleobiology and Fossil Record (UAB/UB):** academic courses 2018–2019 and 2019–2020.
- **Master in Biological Anthropology (UB/UAB):** academic courses 2018–2019 and 2019–2020.

It is noteworthy that the Master in Paleobiology and Fossil Record (coorganized by the ICP, the UAB and UB) was resumed in academic year 2017–2018. This master is the successor of the former Master in Paleontology, in which the ICP participated since its start in 2007, until it was

temporarily suspended in 2015 to be remodeled. The ICP played a prominent role in the remodelation of the master, and its teaching contribution represents as much as 35% (21/60) of the total ECTS credits (equating 146 teaching hours, the supervision of master theses excluded), by virtue of an agreement signed with the UAB and the UB in 2016. More than twenty ICP researchers and research associates participate as instructors in the master, and the co-coordinator of the master (M. Furió) is a researcher of the ICP with dual affiliation as associate professor to the UAB. After a meager number of students in the first two academic courses (7 in 2017-2018 and 5 in 2018-2019), the number of students in 2019-2020 considerably increased up to 13.

It is also noteworthy that the ICP participates in the “Campus d’Arqueologia i Paleontologia de la UAB” by means of the paleontology campus locations at Coll de Nargó and Isona, thanks to the collaboration between the ICP, the Geology Department of the UAB, and the town councils of Isona i Conca Dellà and Coll de Nargó, respectively. Both locations, inaugurated in 2017, belong to the Geoparc Conca de Tremp-Monsec project and perform various research and teaching activities at the Dinosfera museographic space, the Conca Dellà Museum, and various fossil sites within the framework of the “Dinosaurs of the Pyrenees” project led by the ICP.

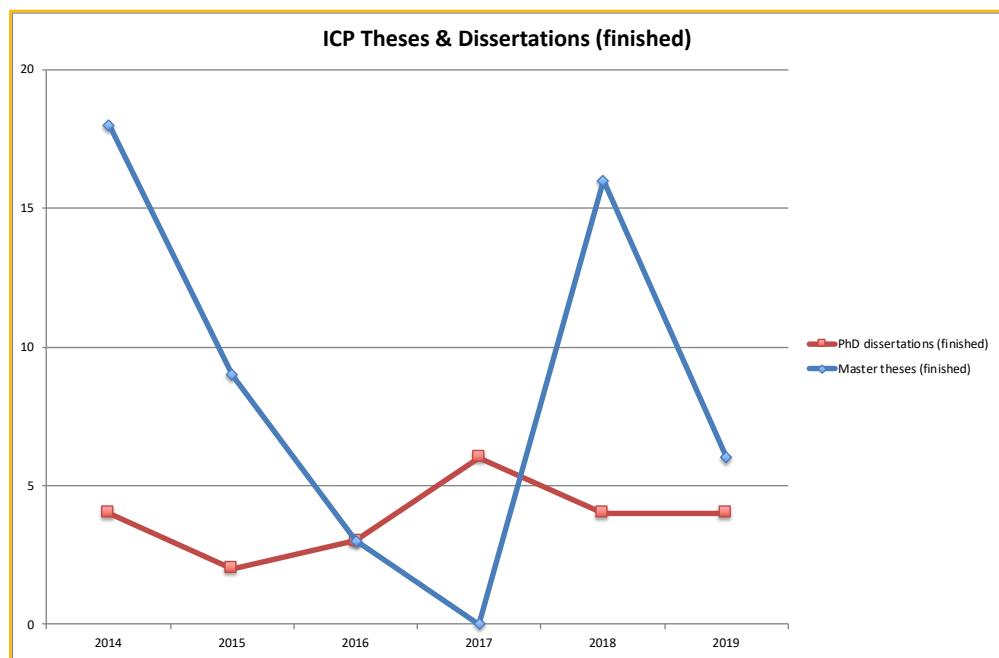
Supervision. As in previous years, in 2019 the experienced researchers from the ICP were regularly involved in the training of early career researchers and undergraduate students. In the case of young researchers, training takes the form of supervision of the research performed by either dependent postdoctoral students (e.g., ‘Juan de la Cierva’), PhD candidates, or master students. In turn, the training of undergraduate students is usually accomplished by means of practicums performed by the students at the ICP under the guidance of an ICP researcher/technicians or by through the supervision of bachelor theses. It is noteworthy that practicums are not restricted to research in a strict sense, but are also performed by research support technicians (especially preparators). The Volunteering Program of the ICP is also relevant with regard to training, in the sense that it allows not only university students, but also people outside academia to collaborate not only in research, but also research support and outreach activities performed at the ICP.

The supervisory efforts by ICP researchers and research associates can be measured on the basis of the number of finished master theses and PhD dissertations that have been (co)supervised by them. In 2016 and 2017, the number of finished master theses supervised was drastically reduced because the paleontology master in which ICP researchers teach the most had stopped in 2015 and was not resumed until September 2017. As a result, the number of supervised master theses increased again in 2018 and 2019 (albeit with considerable fluctuations). In turn, the number of finished supervised PhD dissertations in 2019 roughly coincided with the average for the previous five years.

In turn, during 2019, up to 25 ongoing PhD dissertations were (co)supervised by ICP experienced researchers (S. Moyà-Solà, M. Köhler, À. Galobart, D.M. Alba, I. Casanovas-Vilar, J. Fortuny, J. Madurell-Malapeira) and research associates (E. Delson, S. Almécija, M. Delfino, R.

Minwer-Barakat, À.H. Luján). Eight of these dissertations are being performed by current or former ICP predoc researchers (J. Femenias-Gual, T. Calderón, A. Urciuoli, S. Jovells-Vaqué, S. McKenzie, R. Matamales-Andreu, F. Bouchet, and L. Sorbelli).

CATEGORY	SUPERVISED MASTER THESES & PHD DISSERTATIONS (2014–2018 vs. 2019)						AVERAGE	2019
	2014	2015	2016	2017	2018			
PhD dissertations (finished)	4	2	3	6	4	3.8	4	
Master theses (finished)	18	9	3	0	16	9.2	6	



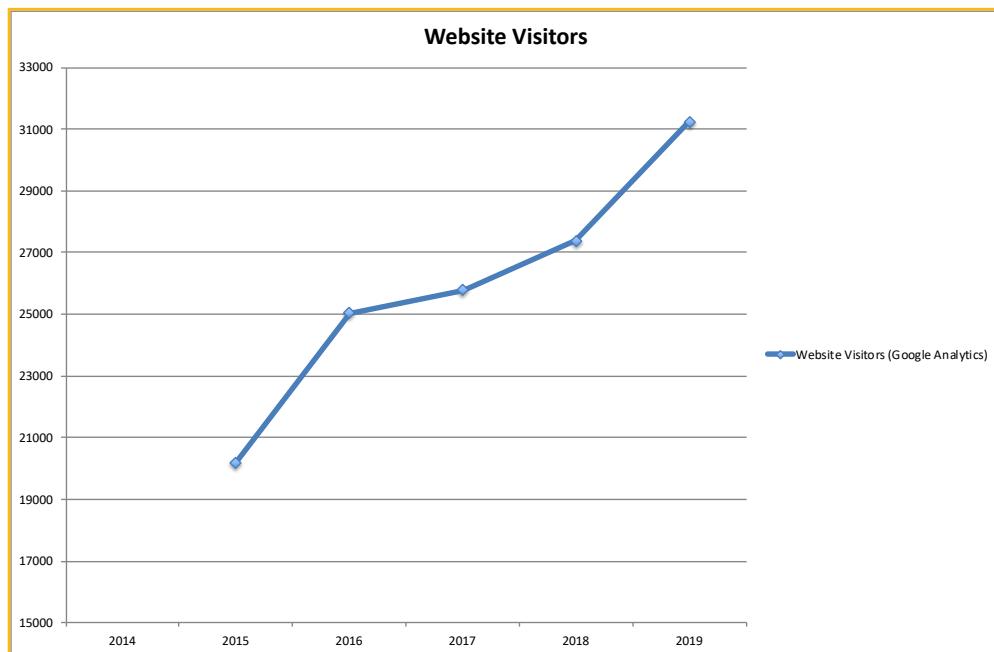
OUTREACH AND COMMUNICATION

Disseminating to the general public the knowledge hidden in fossils

Website

The ICP website (<http://www.icp.cat>) constitutes an essential tool to disseminate the work performed at the ICP to the general public, with particular emphasis on transmitting the knowledge that derives from the research performed by ICP researchers and research associates, but further including the most significant actions of knowledge transfer as well as scientific dissemination and outreach, among other relevant news.

Website visitors. The annual number of visitors of the ICP website must preferably be monitored based on the data recorded by Google Analytics (available since September 2015), given that the data from the web service provider (available since 2009) are not reliable (note that the Google Analytics figure for 2015 has been multiplied by three in the plot below to make it comparable to those for following years). These data indicate that the number of visitors to the ICP webpage in 2019 (>31,200) displayed an increase as compared with the average of the four previous years (2015–2018: ca. 24,600).



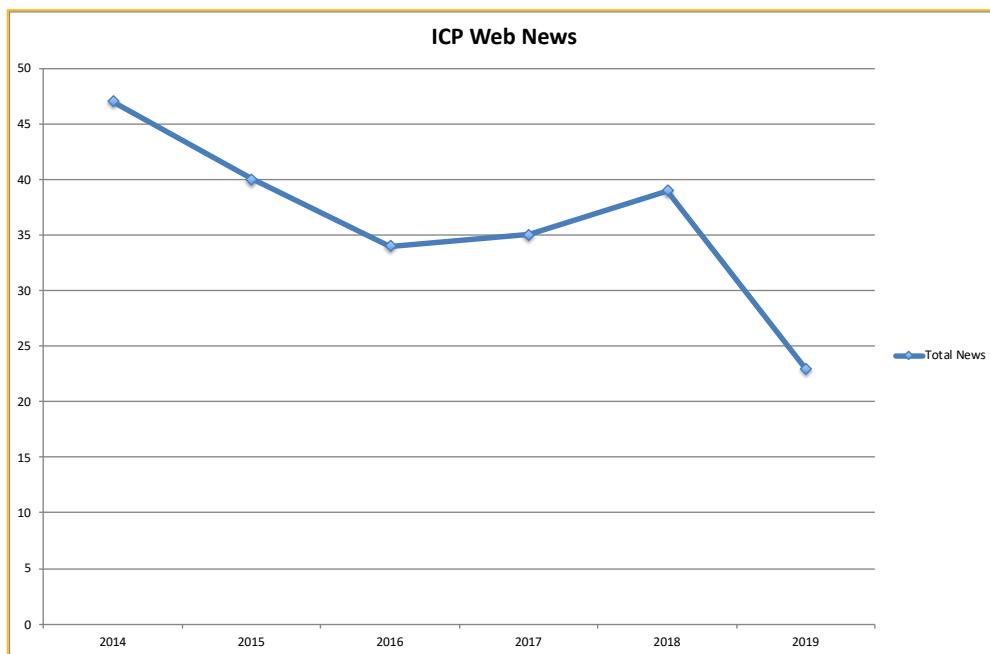
WEBSITE VISITORS (2014–2018 vs. 2019)							
DATA SOURCE	2014	2015	2016	2017	2018	AVERAGE	2019
Website Visitors (Google Analytics)	—	20,193	25,036	25,777	27,376	24,596	31,243

Web news. The ICP website has a section devoted to paleontological news, which are regularly posted and subsequently disseminated through the ICP social networks. The news posted by the ICP can be divided into four main categories depending on their content:

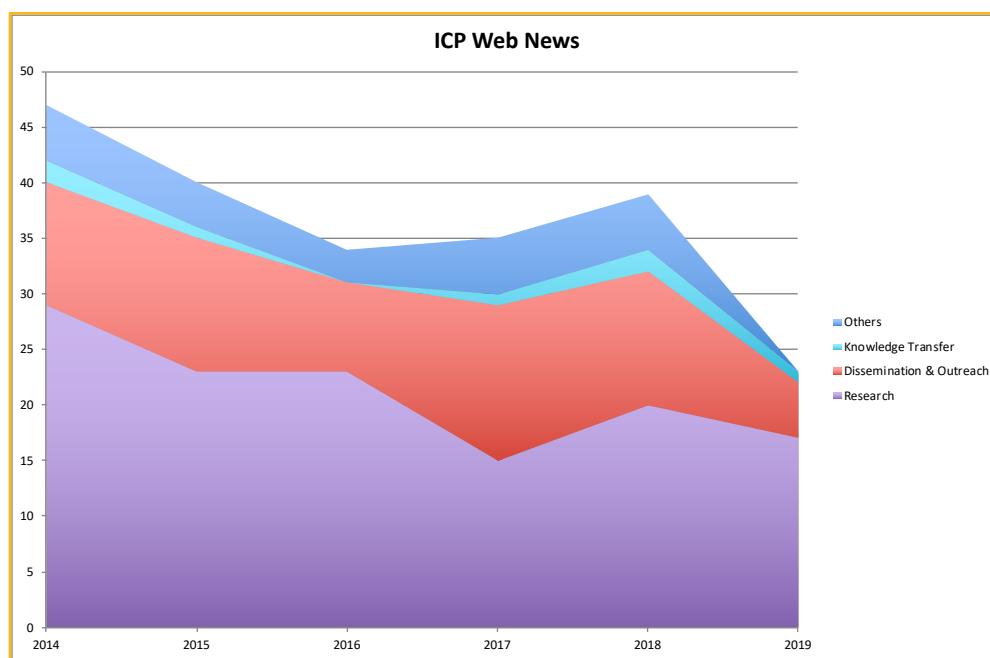
- **Research:** devoted to ICP publications, fieldwork, stays abroad and visiting researchers.
- **Dissemination and outreach:** related to scientific dissemination, outreach activities, museum exhibits, and other issues related to the ICP Museum.
- **Knowledge transfer:** mostly related to scientific courses and master teaching.
- **Others:** any other news related to the ICP (e.g., inauguration of the new building, appointment of the new director, etc.).

The total number of news posted in 2019 is much lower than in 2018 and well below the average for the five preceding years. This is largely attributable to the fact that the Head of the Communication Area had to undertake other responsibilities during the several months during which the General Manager was on medical leave, as well as to the involvement of the former in other tasks such as the publicizing of job announcement or the implementation of HRS4R. This decrease in the number of web news is not attributable to those related to research, but largely to other topics such as outreach and knowledge transfer.

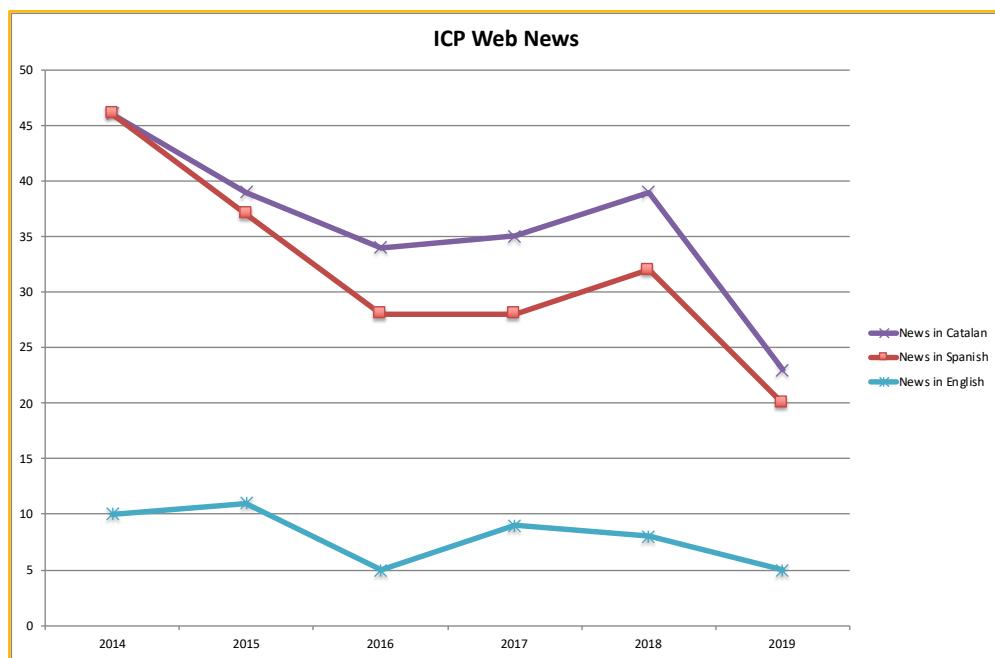
CATEGORY	WEB NEWS (2014–2018 vs. 2019)						
	2014	2015	2016	2017	2018	AVERAGE	2019
Research	29	23	23	15	20	22.0	17
Dissemination & Outreach	11	12	8	14	12	11.4	5
Knowledge Transfer	2	1	0	1	2	1.2	1
Others	5	4	3	5	5	4.4	0
Total News	47	40	34	35	39	39.0	23



ICP WEB NEWS (2019)			
DATE	TITLE (CATALAN VERSION)	LANGUAGE	CATEGORY
15/3/19	Tornen els Cafès Científics a Sabadell!	CAT	Diss. & Outreach
20/3/19	Iberodactylus, el pterosaure més gran descobert a la península Ibèrica	CAT ES EN	Research
11/4/19	Nou curs de tècniques de preparació paleontològica	CAT	Knowledge transfer
7/5/19	Una nova aproximació a l'evolució de la dentició i les crestes dels dinosaures de bec d'ànec	CAT ES	Research
9/5/19	Es presenta la nova edició del Dia Internacional i la Nit dels Museus	CAT	Diss. & Outreach
26/6/19	Primera evidència del cérvol mesquer Hispanomeryx al Vallès-Penedès	CAT ES	Research
16/6/19	Identificada una estranya nova espècie de dinosaure de bec d'ànec	CAT ES EN	Research
22/7/19	Publicada la biografia de Miquel Crusafont, pare de la paleontologia catalana	CAT ES	Diss. & Outreach
23/7/19	La Laia, en Pau i en Jordi tornen a CosmoCaixa	CAT EN	Diss. & Outreach
9/9/19	"L'esperit de la mort", una nova espècie de pterosaure del Brasil	CAT ES	Research
27/9/19	Cicle de conferències "Un viatge al passat: la fauna del Miocè" a CosmoCaixa	CAT ES	Diss. & Outreach
8/11/19	Un fèmur de fa 30 milions d'anys aporta claus sobre la separació dels linatges dels hominòïdeus i les mones del Vell Món	CAT ES	Research
12/11/19	Raigs-X per investigar l'evolució del llangardaix gegant de la Palma	CAT ES	Research
13/11/19	L'evolució de Gigantopithecus descoberta en el seu esmalt dental	CAT ES	Research
21/11/19	La 'life-history' dels èquids del Miocè és objecte d'una nova tesi doctoral a l'ICP	CAT ES EN	Research
26/11/19	El primer dinosaure lambeosaurí d'Europa va viure als actuals Pirineus	CAT ES	Research
28/11/19	Ossos i humans van competir pels recursos fa 2 milions d'anys a Dmanisi?	CAT ES	Research
29/11/19	Mimodactylus, un nou pterosaure de l'antic continent afroàrab	CAT ES EN	Research
2/12/19	L'últim os panda d'Europa va viure a la península ibèrica	CAT ES	Research
4/12/19	El nombre de dits no és qüestió de sexe en les tortugues mediterrànies	CAT ES	Research
5/12/19	El misteri dels cranis de cocodril perduts	CAT ES	Research
11/12/19	Tomàs Marquès-Bonet obté una 'Consolidator Grant' del Consell Europeu de Recerca	CAT ES EN	Research
23/12/19	La pelvis de l'enigmàtic Oreopithecus aporta nova llum sobre el seu bipedisme	CAT ES	Research



As for the language, as in preceding years Catalan has been the language most frequently used in news posted to the ICP webpage, followed by Spanish and, to a much lesser proportion, English.



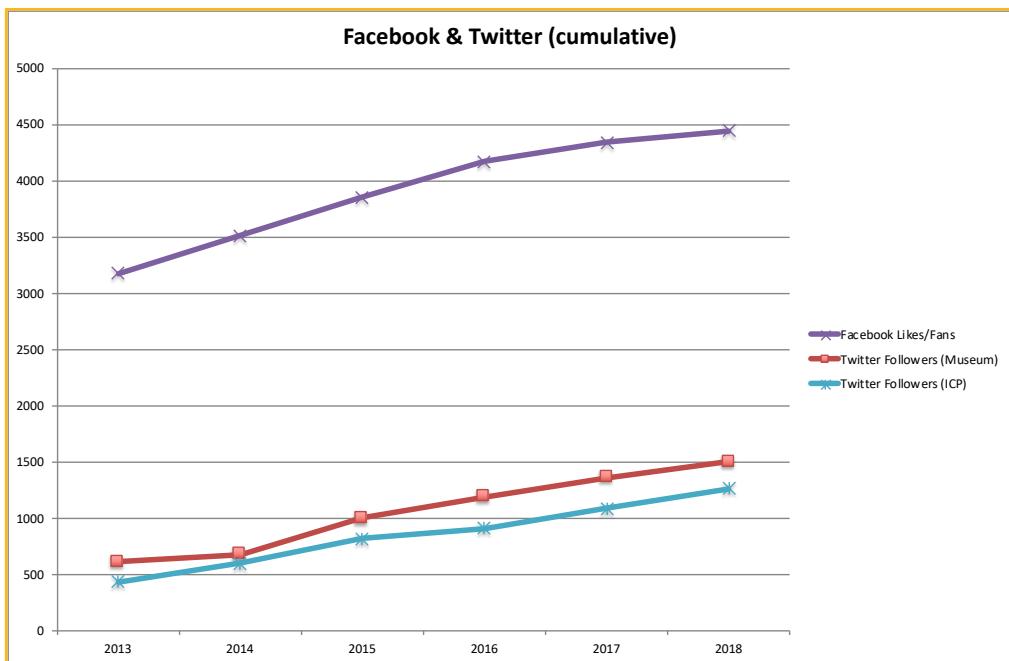
WEB NEWS (2014–2018 vs. 2019)							
CATEGORY	2013	2014	2015	2016	2018	AVERAGE	2019
News in Catalan (CAT)	46	39	34	35	39	38.6	23
News in Spanish (ES)	46	37	28	28	32	34.2	20
News in English (EN)	10	11	5	9	8	8.6	5
News in Catalan (CAT) %	97.9	97.5	100.0	100.0	100.0	99.0	100.0
News in Spanish (ES) %	97.9	92.5	82.4	80.0	13.5	74.6	87.0
News in English (EN) %	21.3	27.5	14.7	25.7	2.7	18.7	21.7

Social networks

The ICP has a Facebook fan page and two Twitter accounts (one for the ICP as a whole, and the other for the ICP Museum), which can be monitored on the basis of ‘fans’ (formerly ‘likes’) and followers, respectively. All these cumulative metrics had progressively increased since 2018, but in 2019 the number of Museum Twitter followers decreased, while the number of ICP Twitter new followers increase more than in any previous year. In turn, the number of new Facebook ‘fans’ in 2018 increased, but more slowly than in any of the preceding years.

It is also noteworthy that in late 2017 the Preparation & Conservation Area of the ICP started an Instagram channel to disseminate the work performed by this area, which in 2018 accumulated 248 followers and in 2019 reached up to 492.

SOCIAL NETWORKS (2014–2018 vs. 2019)							
LIKES OR FOLLOWERS	2014	2015	2016	2017	2018	AVERAGE	2019
Facebook Likes/Fans (new)	336	343	314	175	99	253.4	74
Twitter Followers – Museum (new)	62	323	189	170	144	177.6	-78
Twitter Followers – ICP (new)	166	215	92	179	175	165.4	306
Facebook Likes (cumulative)	3511	3854	4168	4343	4442	—	4516
Twitter Followers – Museum (cumulative)	678	1001	1190	1360	1504	—	1426
Twitter Followers – ICP (cumulative)	603	818	910	1089	1264	—	1570



Press releases

The Scientific Dissemination and Communication Area of the ICP regularly issues press releases to highlight the most important news related to the ICP, with emphasis on new research outputs, but further including dissemination activities and other noticeable events. A total of 18 press releases were issued by the ICP in 2019 (as compared to 11 in 2017 and 15 in 2018).

PRESS RELEASES (2018)	
TITLE	DATE
Tornen els Cafès Científics a Sabadell!	15/3/19
<i>Iberodactylus</i> , el pterosaure més gran descobert a la península Ibèrica	20/3/19
Una nova aproximació a l'evolució de la dentició i les crestes dels dinosaures de bec d'ànec	7/5/19
Es presenta la nova edició del Dia Internacional i la Nit dels Museus	9/5/19
Primera evidència del cérvol mesquer <i>Hispanomeryx</i> al Vallès-Penedès	26/6/19
Identificada una estranya nova espècie de dinosaure de bec d'ànec	16/7/19
Publicada la biografia de Miquel Crusafont, pare de la paleontologia catalana	22/7/19
La Laia, en Pau i en Jordi tornen a CosmoCaixa	23/7/19
“L’esperit de la mort”, una nova espècie de pterosaure del Brasil	9/9/19
Cicle de conferències “Un viatge al passat: la fauna del Miocè” a CosmoCaixa	27/9/19

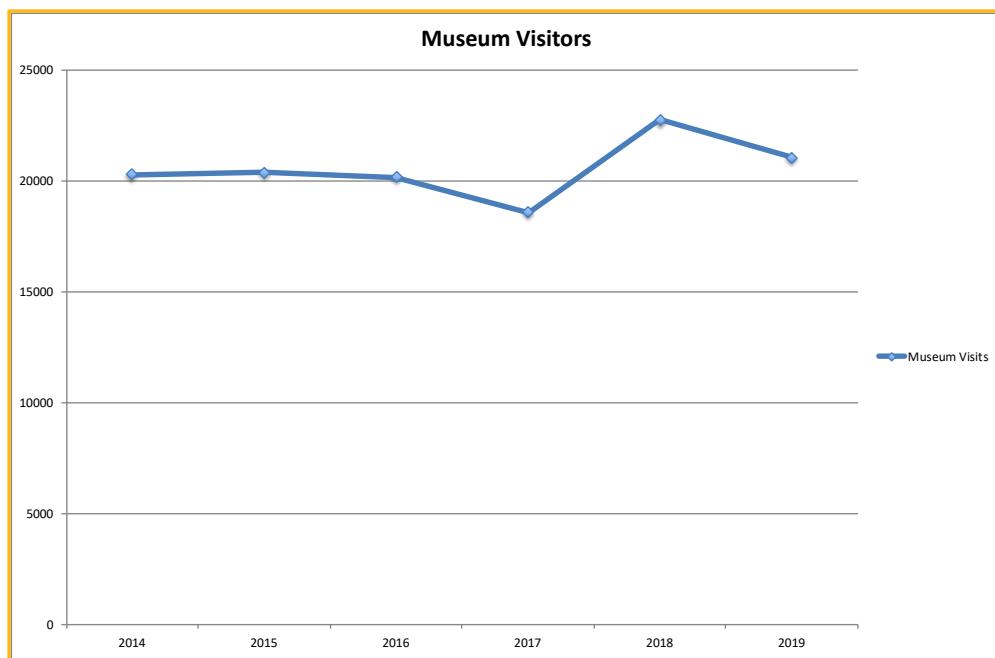
Un fèmur de fa 30 milions d'anys aporta claus sobre la separació dels llinatges dels hominoïdeus i les mones del Vell Món	8/11/19
Raigs-X per investigar l'evolució del llangardaix gegant de la Palma	12/11/19
L'evolució de <i>Gigantopithecus</i> descoberta en el seu esmalт dental	13/11/19
El primer dinosaure lambeosaurí d'Europa va viure als actuals Pirineus	26/11/19
Ossos i humans van competir pels recursos fa 2 milions d'anys a Dmanisi?	28/11/19
L'últim os panda d'Europa va viure a la península ibèrica	2/12/19
El nombre de dits no és qüestió de sexe en les tortugues mediterrànies	4/12/19
La pelvis de l'enigmàtic <i>Oreopithecus</i> aporta nova llum sobre el seu bipedisme	23/12/19

Museum visitors

The ICP Museum in Sabadell, besides being an indispensable requirement for the research performed at the ICP, is also a very powerful tool from the viewpoint of scientific dissemination and outreach when transmitting paleontological knowledge to a general public. The activity of the ICP Museum can be monitored by means of the number of annual visitors, which include individual visitors and, to a greater extent, organized groups (including schools and families) that attend guided visits and/or various workshops that are organized regularly throughout the year with the aid of external monitors. The museum also offers a wide range of workshops related to paleontology for schoolchildren.

The number of visitors in 2019 was slightly lower than in 2018, but still quite higher than the average of the five preceding years.

MUSEUM (2014–2018 vs. 2019)						
MUSEUM VISITORS	2014	2015	2016	2017	2018	AVERAGE
Visitors	20,278	20,376	20,160	18,560	22,739	18,422.6
						21,042



Museum activities

The most significant outreach activities of the ICP Museum during 2019 are summarized below.

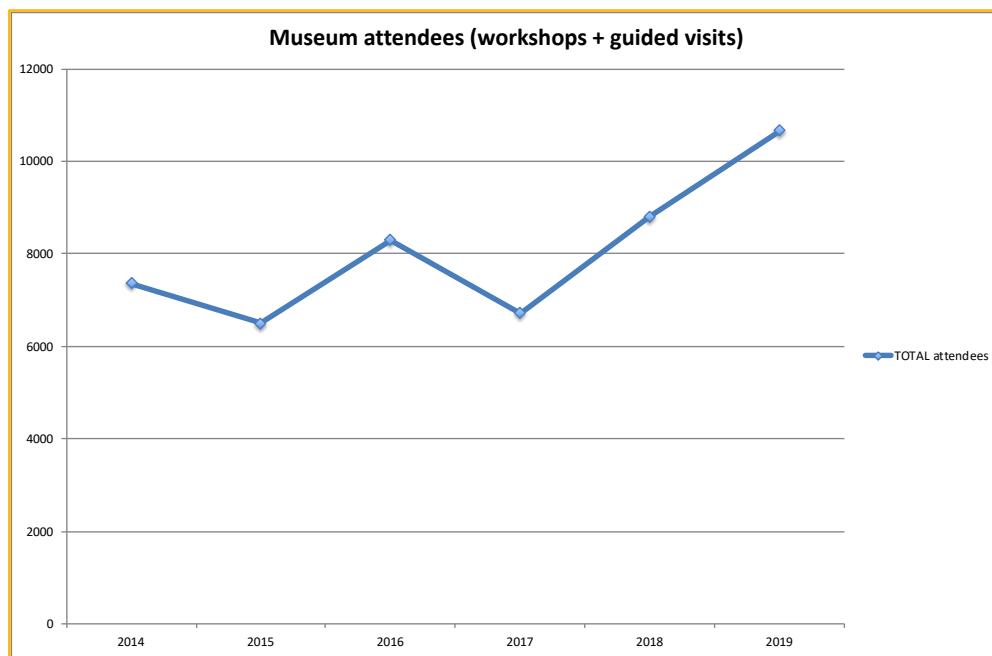
Museum bulletin. The ICP distributes (without a regular periodicity) an electronic bulletin with ICP Museum activities, which at the end of 2019 had 1,501 subscribers (as compared to 1,223 in 2018).

Permanent exhibit. The permanent exhibit, entitled 'Today you investigate', aims to explain to the general public how the various research groups of the ICP perform their research. The exhibit has not been remodeled since 2010, although during the last years it has been enriched with several additional elements and, periodically, also with temporary exhibits.

Temporary exhibits. Through 2019, the temporary exhibit "El Triceratops torna a Sabadell", inaugurated in 2015, has been maintained at the first floor of the exhibit at the ICP Museum. This exhibit pivots around the cast of a *Triceratops* skeleton that was exhibited at the former Institut de Paleontologia M. Crusafont since 1986 until 2009, when the permanent exhibit of the ICP was remodeled. The need to exhibit again this skeleton responded to the requests by many ICP visitors, for which the *Triceratops* had become an icon of paleontology in Sabadell.

Guided visits and workshops. A total of 11 different activities (workshops and guided visits) are offered to the school community. A total of 354 sessions of these activities, with 9,489 participant schoolchildren, were performed in 2019, which represents a significant increase as compared to previous years (326 sessions with 7,761 attendees in 2018). Furthermore, 46 family workshop sessions were performed, with a total of 909 participants, which also represents a further increase (37 workshops with 786 attendees in 2018). Finally, 13 guided visits for the general public were organized in 2019, with up to 264 attending people (as compared to 11 visits with 257 attendees in 2018). It is remarkable that the total number of sessions and attendees is higher in 2019 than in any of the preceding years, thereby confirming the increasing trend already manifested in 2018.

MUSEUM OUTREACH ACTIVITIES (2014–2018 vs. 2019)							
MUSEUM ACTIVITIES	2014	2015	2016	2017	2018	AVERAGE	2019
School sessions (workshops/guided visits)	246	243	324	245	326	276.8	354
Family workshops	30	29	12	25	37	26.6	46
Guided visits	20	13	12	11	11	13.4	13
TOTAL sessions	296	285	348	281	374	316.8	413
School attendees	6,553	5,869	7,689	5,863	7,761	6,747.0	9,489
Family attendees	597	452	355	633	786	564.6	909
Guided visit attendees	217	179	255	217	257	225.0	264
TOTAL attendees	7,367	6,500	8,299	6,713	8,804	7,536.6	10,662



Free outreach activities at the Museum. The following outreach activities were organized at the ICP Museum in 2019:

- 9th Meeting of GeoloSketchers: 3/2/19 | 50 attendees.
- Open days: Coinciding with Sant Jordi (23/4/19), La Salut (13/5/19), the annual festivity of Sabadell (10/9/19), and the Science Week | 3,668 attendees.
- 24th Science Week: From 12/11/19 to 17/11/19, coordinated by the Catalan Foundation for Research and Innovation | Awarding of prizes for the drawing contest, free family workshop, and visit to ICTA-ICP building | 48 attendees.
- Drawing contest: “Quan jo sigui paleontòleg / paleontòloga” | 6/10/19 | 312 attendees.

- Book launch: “La Catalunya prehistòrica en 25 jaciments paleontològics” | 8/11/19 | 55 attendees.
- Literary contest: “Històries fòssils”, 12/11/19 | Focused on the paleontologists Miquel Crusafont as the main character.
- Workshop of Christmas Paleocards: 15/12/19 | 74 attendees.

Outreach activities outside the Museum

Presence in the mass media. The presence of ICP researchers in the mass media during 2019 can be summarized as follows:

- Radio: RAC1, 5/10/19 | Interview of David M. Alba in the radio magazine “Via Lliure” of RAC1 at CosmoCaixa due to the inauguration of exhibit “Univers”, which includes the partial skeletons of *Pierolapithecus*, *Pliobates* and *Hispanopithecus*.
- Radio: Ràdio Sabadell, 22/10/19 | Interviews of David M. Alba, Salvador Moyà-Solà and Àngel Galobart in a special radio program devoted to the ICP due to the 50th anniversary of its official inauguration in 1969.
- TV: Radio Televisió Espanyola, 19/11/19 | Participation of Isaac Casanovas-Vilar in the TV show “¡Qué animal!”.
- TV: Documentary “El darrer gegant d’Europa”, produced by TV3 and the ICP thanks to a FECYT grant in 2018, is available only (“TV3 a la carta”) since November 2019.

Biography of Miquel Crusafont. Coinciding with the 50th anniversary of the official inauguration of the former Institut de Paleontologia de Sabadell in 1969, a biography of Miquel Crusafont-Pairó entitled “Miquel Crusafont i l’origen de l’home” and written by his son (Miquel Crusafont i Sabater) was published. The book, edited by editorial Comanegra, was sponsored by the ICP and other entities (Fundació Bosch i Cardellach, Catalan Foundation for Research and Innovation, and the City Council of els Hostalets de Pierola). The Director of the ICP (David M. Alba) wrote the prologue and participated in the two launches of the book—at Espai Cultura de la Fundació 1859 Caixa Sabadell (22/10/19) and at els Hostalets de Pierola (8/11/19).

International Day and Night of Museums. As in previous years, the ICP participated, together with the city council of Sabadell and other museums from the city, in the 9th edition of “International Day and Night of Museums in Sabadell” in 18-19 May. A total of 1,473 people visited the various museums and museographic spaces that coordinate this initiative, which includes activities for family audiences throughout the day as well as cultural proposals for adult audiences during the night.

Science Cafés. As in previous years, in 2019 the ICP coorganized with other entities from Sabadell the series of talks entitled “Cafès Científics”. These scientific dissemination talks are

intended to promote the contact between the scientific community and the general public, with the ultimate aim to boost the debate about scientific topics among the society. In 19 November, ICP researcher Rafel Matamala-Andreu gave a talk entitled “Quan els ammonits dominaven els oceans”, with an attendance of 40 people.

Other outreach activities. Other relevant outreach activities performed by the Communication & Outreach Department and/or by researchers/technicians of the ICP include the following:

- 17th edition of “Fira de Recerca en Directe”: 6/3/19 to 10/3/19, organized by Parc Científic de Barcelona in collaboration with Obra Social “la Caixa” | Workshop for high school alumni | 200 attendees.
- Guided visit to ICTA-ICP Building: 12/11/19, in the framework of Science Week | 12 attendees.
- Exhibit “Catalunya. La història de la vida sota els nostres peus”: from 4/12/19 to 6/3/19, at the Sciences Library of the Universitat Autònoma de Barcelona | Design and mounting.
- Didactic materials related to the site of els Casots: Design of interpretative panels “El Penedès fa 16 milions d'anys” for els Casots and elaboration of a didactic suitcase with casts of fossils and an associated guide.
- “El Miocè inferior de la conca del Vallès-Penedès: nous resultats i perspectives de futur”: Talk by Isaac Casanovas-Vilar, within the framework of conference cycle “Tribuna d’Arqueologia 2018-2020” | 25/1/19, Palau Marc.
- “The Vallès-Penedès Basin (Catalonia, Spain): An awesome window to the Miocene record in western Europe”: Talk by Àngel H. Luján | 3/4/19, Universitat Autònoma de Barcelona.
- “L’aplicació dels fòssils a la crisi ecològica actual: som a la sisena extinció masiva de la Terra?”: Talk by Marc Furió, with David M. Alba as moderator, within the framework of conference cycle “Tribuna d’Arqueologia 2019-2020” | 20/11/19, Palau Marc.

Outreach activities throughout Catalonia

Outreach activities of the ICP are considerably further extended in territorial scope by means of agreements with other museums and interpretation centers. The most significant ones during 2019 are summarized below.

Dinosaurs from the Pyrenees. Since 2015, there is a collaboration agreement between the ICP and the city councils of Isona i Conca Dellà and Coll de Nargó, by virtue of which the ICP assumed a leading role in the management of the Conca Dellà Museum and the associated exhibit Dinosfera in Coll de Nargó. This activity has been developed since then within the framework of ‘Dinosaurs of the Pyrenees’ project led by the ICP and thanks to the financial support of the Culture Department of the Catalan Government. This project focuses on the research, conservation, study and dissemination of dinosaur fossil remains from the Catalan Pre-Pyrenees (el Berguedà, l’Alt Urgell, el Pallars Jussà and la Noguera), and is directed by Dr. Àngel

Galobart, head of the Dinosaur Ecosystems Research Group of the ICP and also the Director of the Conca Dellà Museum. Other researchers of this research group are also involved in the project, and the head of the Outreach & Communication Department of ICP is the responsible to manage the communication of the ‘Dinosaurs of the Pyrenees’ project (including the website and social networks).

The results of the above-mentioned collaboration, in the framework of the ‘Dinosaurs of the Pyrenees’ project, are very satisfactory from the viewpoint of increasing the territorial scope of outreach activities performed by the ICP. Such activities are directed to a school and family public, and performed with the participation of local companies and monitors. The number of visitors the Conca Dellà Museum (7,871) and Dinosfera exhibit (7,974) in 2019 (including normal tickets, guided visits, and school visits) increased as compared to 2017 (5,937 and 7,194, respectively) and 2018 (6,724 and 7,846, respectively). The same applies to the number of participants in other activities organized by the Conca Dellà Museum (5,123) or Dinosfera (1,079) in 2019 as compared to 2017 (3,469 and 1,132, respectively) and 2018 (3,073 and 273, respectively).

The main paleontological outreach activities performed in 2019 in the framework of the aforementioned project are reported below:

- Popularizing talks.
- Guided visits to the Covet church and Castell de Lordà.
- Guided visits to the dinosaur neck from Orcau.
- Temporary exhibits.
- Dinner at the museum.
- Night at the museum.
- Dramatized visits to Sant Climent.

In 2019, the websites of the Conca Dellà Museum, Dinosfera and Dinosauria dels Pirineus had 10,847, 7,491, and 10,537 visitors, respectively. Their Facebook pages have 3,173 (Conca Dellà Museum), 2,094 (Dinosfera) and 993 (Dinosauria dels Pirineus) fans, whereas the two former entities had 666 and 336 Twitter followers, respectively.

CosmoCaixa (Barcelona). CosmoCaixa from Obra Social “la Caixa” in Barcelona has a number of visitors several orders of magnitude higher than the ICP Museum in Sabadell. Therefore, collaborative agreements with CosmoCaixa not only extend the territorial scope of the ICP, but further amplify to a great extent the outreach capacity that the ICP would have on its own. In 2019 the ICP collaborated with CosmoCaixa in the exhibit of three partial skeletons of apes (*Pierolapithecus*, *Pliobates*, and *Hispanopithecus*), a partial skeleton of a deinotherium, and two shells of giant tortoises, in the framework of the “Univers” exhibit. The ICP provided scientific counseling and validation of contents. These fossils will be on exhibit in 2020 as well.

Furthermore, the ICP organized a conference cycle for CosmoCaixa entitled “Un viatge al passat: La fauna del Miocè” during October and November 2019. The cycle consisted of the following talks, some of them given or moderated by ICP researchers:

- “Tafonomia: reconstruir el passat prehistòric”: Speaker: Enrique Baquedano; moderator: Judit Marigó (ICP) | 8/10/19 | 53 attendees.
- “Els narradors del temps: micromamífers fòssils”: Speaker: Ángeles Álvarez Sierra; moderator: Pablo Peláez-Campomanes | 22/10/19 | 35 attendees.
- “Fa deu milions d'anys... una crisi ambiental”: Speaker: Beatriz Azanza; moderator: Isaac Casanovas-Vilar (ICP) | 5/11/19 | 67 attendees.
- “El futur de l'estudi del passat. Reptes de la paleontologia”: Speaker: Josep Fortuny (ICP); moderator: Soledad De Esteban-Trivigno (ICP) | 19/11/19 | 45 attendees.
- “Grans mamífers del Miocè: tigres dents de sabre i mastodons”: Speaker: Jorge Morales; moderator: Juan Abella (ICP) | 26/11/19 | 44 attendees.

CRIP (els Hostalets de Pierola). In October 2018, the ICP signed a collaboration agreement with the Culture Department of the Generalitat de Catalunya and the Centre d’Interpretació i Restauración Paleontológica (CRIP) in els Hostalets de Pierola, which aims to promote the recuperation, research and dissemination of the paleontological heritage from this area. Although ICP fossils had already been loaned to the CRIP in previous years to be exhibited there, the signature of this agreement represents the consolidation of previous collaborations as well as the formalization of the will to collaborate further in the same direction. As explained above, in 2019 the ICP collaborated in the book launch of Miquel Crusafont’s biography organized by CRIP at els Hostalets de Pierola.

Internal communication

Paleovermuts. In 2019 the Communication & Outreach Department of the ICP organized 7 ‘paleovermut’ internal talks. Two were given by invited speakers external to the ICP (L. Flynn from Harvard University and B. Esteve-Altava from Institut de Biología Evolutiva), whereas the rest were given by ICP researchers (two predocs, two postdocs, and one by the ICP Director toward the end of the year). Further details of these talks are provided in the table below.

PALEOVERMUTS (2019)		
SPEAKER & TITLE	DATE	
Rafel Matamales-Andreu – The Permian and Triassic of Mallorca and Menorca	07/02/2019	
Diego Castanera –Dinosaur faunal changes across the Jurassic/Cretaceous boundary in Iberia	02/05/2019	
Juan Abella – The European giant pandas	31/05/2019	
Larry Flynn – Long continental records of Cenozoic vertebrates”	06/06/2019	
Borja Esteve-Altava –Comparing the incomparable: Using anatomical network analysis to study the evolution of disparate forms	29/10/2019	
Leonardo Sorbelli – Ungulates from late Early Pleistocene of Mediterranean Europe	27/11/2019	

Internal bulletin. As in 2018, the Communication & Outreach Department sent two internal bulletins to ICP personnel in 2019, one in July and the other in December.

Digital repositories and platforms for research outputs

The scientific production of the ICP is periodically updated at the ICP website. In particular, the references of SCI papers with the corresponding DOI (digital object identifier, which enables to access the paper on the journal's website) are listed here: <http://www.icp.cat/index.php/ca/publicacions1/publicacions-sci>. In turn, the whole scientific production for the ICP can be downloaded in PDF format from the following link: http://www.icp.cat/attachments/publicacions/ICP_Publications.pdf.

Accessing the full version of the papers depends on the subscription to the various journals from the network of origin, except for papers published in open access (OA). Publishing in OA is not a measure of research quality per se, but provides higher visibility to the research output and rapidly becoming a common requirement from funding agencies such as the ERC. The ratio of open access SCI papers relative to total SCI papers of the ICP during the last years fluctuates between one-quarter and one-third, thus being comparable to that of the Catalan Research System as a whole (according to the Portal de la Recerca de Catalunya). Needless to say, this represents an important budgetary effort (given the publication fees of many of these journals (particularly the most prestigious ones) and the even more expensive fees of 'gold open access' options of subscription journals. The Strategic Plan of the ICP aims to increase the proportion of papers published in OA, but this is hindered by the lack of sufficient research funds that can be devoted to defraying publication fees. An alternative for papers published in subscription journals is to take advantage of the 'green open access' options allowed by the copyright transfer agreements of most journals—by virtue of which postprints of the articles can be made freely accessible in open access repositories, frequently after an embargo period of several months.

With the aim to make use of green OA possibilities in mind, the Steering Committee of the ICP decided in early 2018 to use the digital repository of the Universitat Autònoma de Barcelona (the Dipòsit Digital de Documents de la UAB, DDD: <https://ddd.uab.cat>) to post the open-access production of the institution, either the original papers (in the case of gold open access) or preprints/postprints (in the case of green open access). In particular, the ICP has a section of its own within the DDD repository (<https://ddd.uab.cat/collection/icp>), and the Outreach & Communication Department of the ICP is in charge of implementing the upload of additional documents. This process has already begun by focusing on papers published in SCI open-access journals since 2006, and it will continue based on preprints and postprints of SCI papers published in subscription journals. Finally, it will proceed on the basis of the rest of the ICP production. Given the human resources currently available for this task, the full implementation of this measure is delayed.

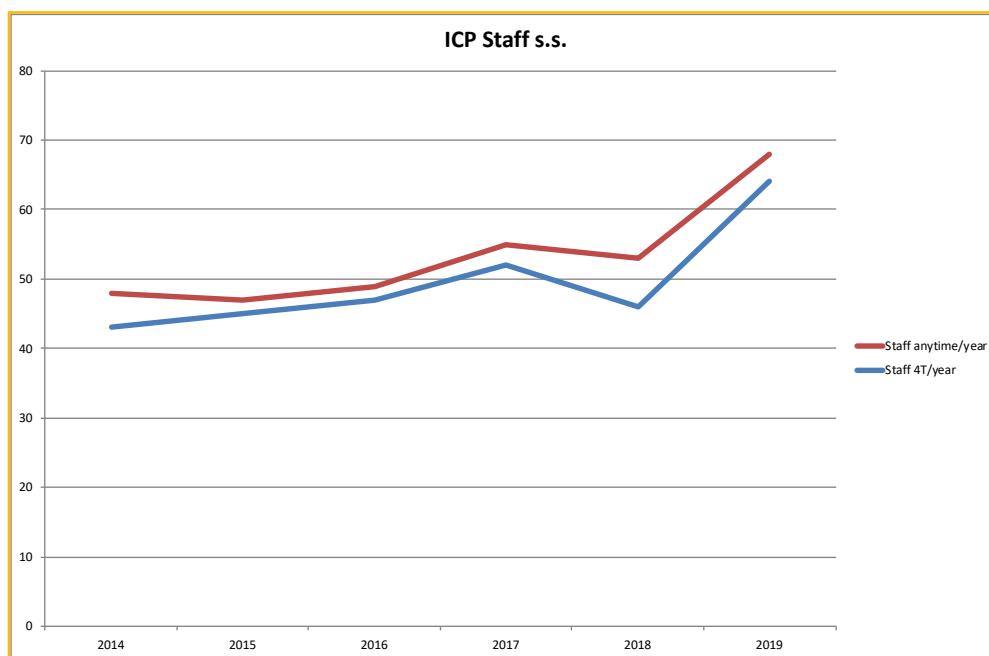
The ICP also signed in 2018 an agreement with the Consorci de Serveis Universitaris de Catalunya (CSUC), which shares academic, scientific, library, knowledge transfer and management services, and is integrated by the Generalitat de Catalunya and ten Catalan universities, including the UAB. Such an agreement regulates the participation of the ICP in the Portal de la Recerca de Catalunya (PRC, <https://portalrecerca.csuc.cat>), which currently hosts the data on the scientific production of Catalan universities, but only that from a few research centers. By virtue of this agreement, since September 2018 the ICP regularly provides the CSUC with data about its researchers, projects and scientific outputs. The CSUC is currently implementing a new system to take the data of CERCA centers' publications from Scopus and Web of Science, so in the future it will probably be unnecessary that the ICP uploads the data, being restricted to reviewing and amending (if required) the data posted directly on the PRC.

HUMAN RESOURCES

Aiming for excellence in the human resources policies for researchers

Staff personnel

Staff composition. The composition of the staff personnel of the ICP (i.e., people with a contractual relationship with or formally ascribed to the ICP, thereby excluding research associates, collaborators, and people hired occasionally as freelance) is variably through time. In order to compare the ICP staff composition in 2019 with that of previous years, it is possible to rely on total counts per year (irrespective of whether a given person worked the whole year or only a fraction of it) or on a particular year period (such as the four quarter, 4T), which arguably provides a more realistic snapshot of the staff composition at any time. The total count for 2019 is much higher than the average of the preceding five years, whereas the count for the fourth quarter of 2019 is much greater than ever, as a result of an increase in work and service personnel for the provision fieldwork services toward the end of the year.

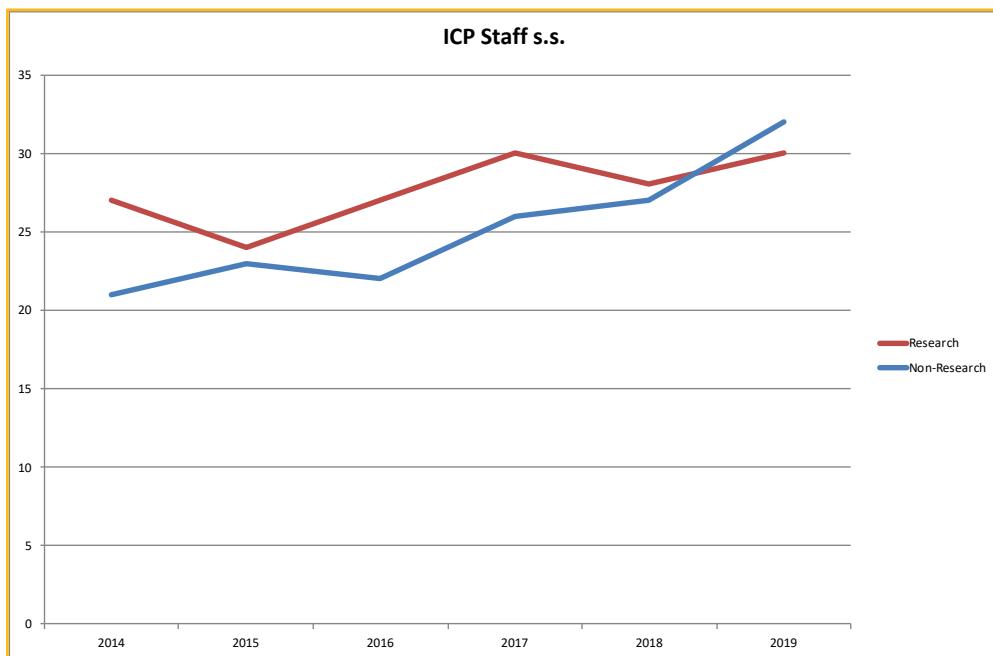


STAFF COMPOSITION	STAFF (2014–2018 vs. 2019)						
	2014	2015	2016	2017	2018	AVERAGE	2019
Total staff members (total year)	48	47	49	55	53	50.4	59
Total staff members (4T)	43	45	45	52	46	46.6	64

Research staff. Even more relevant than the total number of ICP staff personnel is the proportion between research and non-research staff. With some fluctuations, this proportion

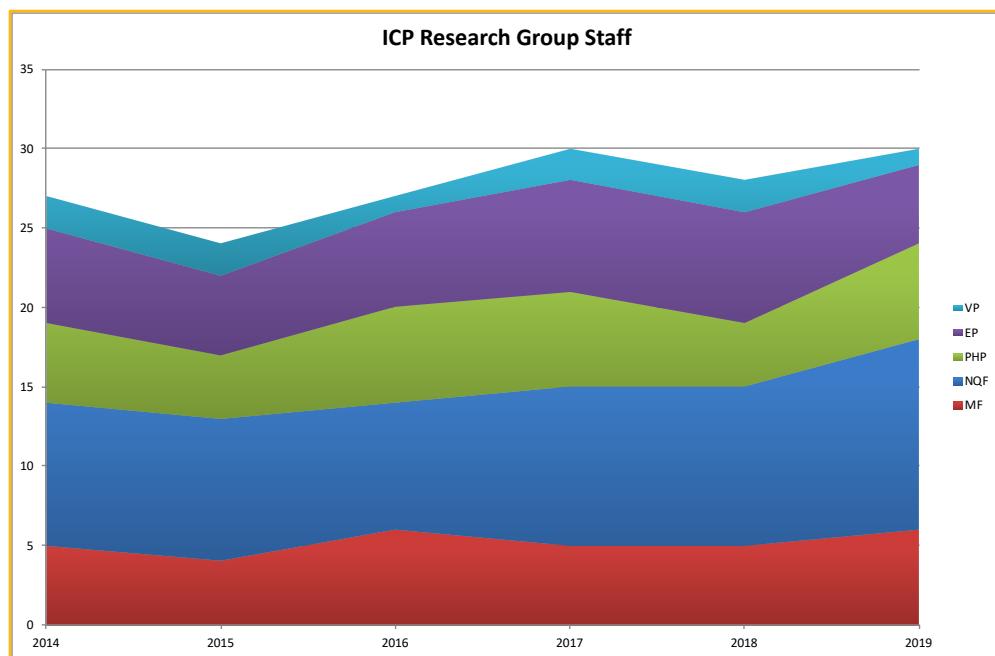
has been maintained above 50% during the last years, just to decrease below such a threshold in 2018 and most markedly in 2019. As explained, this is merely attributable to the higher number of work and service contracts associated to the provision of services. Indeed, the number of research staff in 2019 is above the figure in 2018 and the average for the preceding five years, whereas in contrast the number of non-academic personnel is highest than ever before.

STAFF COMPOSITION	RESEARCH STAFF (2014–2018 vs. 2019)						
	2014	2015	2016	2017	2018	AVERAGE	2019
Research staff members	27	24	27	30	28	27.2	30
Non-Research staff members	21	23	22	25	25	23.2	38
% Research/Total	56.3	51.1	55.1	54.5	52.8	54.0	44.1



Research groups. When the composition of research staff is broken down into research groups and the semitechnical area of Virtual Paleontology (associate researchers not included), it can be seen that the composition of the four main groups has remained more or less stable throughout the last years, with a tendency of the Neogene & Quaternary Faunas to expand (which justifies its scission into two distinct groups within the same area at the end of 2019). This count is based on the research groups as defined until late 2019, next year the data will be broken down using the new organization of research groups already outlined in this annual report.

STAFF COMPOSITION	RESEARCH GROUPS STAFF (2014–2018 vs. 2019)						
	2014	2015	2016	2017	2018	AVERAGE	2019
Mesozoic Faunas (MF)	5	4	6	5	5	5.0	6
Neogene & Quaternary Faunas (NQF)	9	9	8	10	10	9.2	12
Paleoprimatology & Human Paleontology (PHP)	5	4	6	6	4	5.0	6
Evolutionary Paleobiology (EP)	6	5	6	7	7	6.2	5
Virtual Paleontology (VP)	2	2	1	2	2	1.8	1



New Organization Chart. As explained earlier in this document, a new Organization Chart was introduced in late 2017, being immediately publicized to the ICP personnel by means of a specific document that further includes the ICP professional categories. An updated version of this document was publicized in December 2018, and another version that modified the organization of research groups was approved by the Steering Committee in November 2019 (http://www.icp.cat/attachments/transparencia/ICP_Organization_Chart.pdf).

The modifications introduced in 2019 consist in the organization of research into three Research Areas within a single Research Department ruled by the ICP Director. In turn, two additional research groups are recognized (one corresponding to the former semitechnical area of Virtual Paleontology, and the other to a scission of the former Neogene & Quaternary group), resulting in a total of six groups organized in three different areas. These changes are aimed to allow for a greater contingency and volatility of research groups (which are highly dependent on the specific aims set by the corresponding group leaders) within more stable areas (with long-term goals aligned with the strategic research objectives of the center). The two new research groups are ruled by junior research leaders—one of them corresponding to a former Ramón y Cajal researcher that was stabilized in 2019, and the other corresponding to the former head of the Virtual Paleontology Area, who will remain as interim Head of the Research Support and

External Services Department until the new Project Manager recruited in 2019 (to start in January 2020) is ready to assume such a role.

Continuous training

The ICP has an internal policy of continuous training for its personnel, including not only contracted staff but further including research associates and collaborators. Besides the scientific training provided to early stage researchers (R1 and R2) by their corresponding supervisors in the framework of the normal development of their research activities, the ICP provides all of its employees with the opportunity to perform free courses each year, in order to foster their continuous training and learning. Some of these courses are intended to all the ICP personnel, whereas other are specifically targeted to researchers (with emphasis on early stage researchers, but extensible to established and even more senior researchers as well).

As in previous years, two main opportunities of continuous training were offered for free to ICP personnel in 2019: courses for employees defrayed with funds available from the Spanish Social Security; and scientificotechnical courses for researchers and research associates, thanks to an agreement with the company Transmitting Science (TS).

Conflict resolution. Unlike in previous years, the funds from the Social Security were not devoted to courses on languages or computer programs, but consisted in a course of conflict resolution entitled “El conflicte a les organitzacions”, instructed by Pitagora Advanced, S.L.U. between 22/5/19 and 29/5/19. The course has held at the facilities of the ICP at the ICTA-ICP building within the UAB university campus, and was mostly attended by personnel with managerial responsibilities or members of commissions, but also by some other researchers and technicians. The number of attendees (13 in total) was restricted based on available funds. Given the interest of the course, it will probably be repeated in 2020 for the rest of the personnel.

Scientificotechnical courses. Regarding the courses instructed by TS, they consist of advanced courses in life sciences (including varied topics, such as statistics and geometric morphometrics, phylogenetic reconstruction, scientific drawing, etc.), being generally held at the ICP premises in Sabadell or else in other nearby locations within the province of Barcelona. Further details about the courses attended by ICP personnel are provided below. The researchers, research associates and technicians of the ICP have the opportunity to attend for free the scientific courses coorganized with TS. In 2019, a total of two ICP employees associates attended two different courses:

- “Speaking with confidence and impact”: 4/3/19 to 5/3/19, Capellades | 1 attendee.
- “Finite Element Analysis applied to life sciences”: 13/5/19 to 18/5/19, Sabadell | 1 attendee.

Other courses. In turn, technicians from the Preparation & Conservation Area attended the following training activities (partially defrayed by the ICP):

- 9th interdisciplinary course “Science and past: Studying and preserving organic and biomaterial heritage”: 13/3/19 to 15/3/19, organized by the Universidad de Zaragoza. Zaragoza | 2 attendees.

Also noteworthy at the various courses on occupational risk prevention in the framework of construction works, which were performed by technicians of the Fieldwork and Collections Management Area and defrayed entirely by the ICP (these courses are necessary due to the paleontological surveillance works performed by the ICP in the framework of excavations utilizing heavy machinery):

- “PRL para trabajos de responsables de obra y técnicos de ejecución en empresas de construcción”: 18/2/19 to 20/2/19, instructed by Fundación Laboral de la Construcción – Catalunya | 2 attendees.
- “Nivel básico de prevención de actividades del metal en la construcción”: 12/11/19 to 12/12/19 (60 h, of which 40 online), instructed by Quirón Prevención, S.L.U. in Granollers | 1 attendee.
- “Nivel básico de prevención en construcción”: 7/10/19 to 5/11/19 (60 h, of which 40 online), instructed by Quirón Prevención, S.L.U. in Barcelona | 1 attendee.
- “Normas básicas de prevención de riesgos laborales”: 13/12/19 to 28/12/2019 (2 h, online), instructed by Quirón Prevención, S.L.U. | 12 attendees.

Finally, the Head of the Communication & Outreach department of the ICP attended the following workshop sponsored by FECYT funds:

- ComCiRed, 2019 (10th edition of “Comunicar Ciencia en Red”): 25/4/19 to 26/4/19, organized by the Spanish Foundation for Science and Technology (FECYT) at the Universidad de Oviedo | 1 attendee.

Salary Scale

As a first step toward the implementation of transparent recruitment, a Salary Scale was developed by the Director and the General Manager of the ICP, being approved by the Steering Committee in May 2018 and subsequently by the Board of Trustees in June 2018. This salary scale is based on four professional categories for researchers (R1–R4, corresponding to the four researcher profiles recognized by the European Framework of Research Careers) and three different profiles (T1–T3) for technicians (*sensu lato*, i.e., further including personnel of administration and services). Each position corresponds to one of these professional categories, although certain position can be occupied by multiple categories depending on whether the position is occupied by a senior or a junior researcher/technician. In turn, each professional category entails a given range in the ICP salary scale, although certain positions of higher responsibility further imply a wage supplement (S1–S4). An update of the Salary Scale of the ICP

was approved in December 2019, including a 2.5% pay increase in compliance with the Decree-Law 3/2019 regarding the remuneration increase for public sector personnel of the Generalitat de Catalunya in 2019.

HRS4R

HR Excellence Award. With the aim to implement the Human Resources Strategy for Researchers (HRS4R) of the European Union, the ICP endorsed the ‘European Charter for Researchers’ and the ‘Code of Conduct for the Recruitment of Researchers’ on December 2016. Soon thereafter, in February 2017, the HRS4R Implementation Committee and Working Group was formally established. This committee was further recognized in the new Organization Chart of the ICP devised by the new Director and approved by the Steering Committee in late 2017 (subsequently ratified by the Board of Patrons in June 2018). This committee has the aim to implement the Human Resources Strategy for Researchers (HRS4R) of the EU at the ICP, and it is mainly composed of non-research staff, since the Researchers Commission further provides advice to the committee from the researchers’ viewpoint. Since 2017, the Organization Chart further formally recognizes a Management & Human Resources Department, led by the General Manager, with the aim to improve and give internal visibility to the ICP human resources policies within the context of the implementation of HRS4R.

Throughout 2017, the HRS4R Implementation Committee and Working Group, with the aid of the ICP Researchers Commission, performed an internal ‘Gap Analysis’ to evaluate the current degree of implementation of the forty principles included in the Charter and Code and, on this basis, elaborate an Action Plan to implement HRS4R at the ICP. These documents were submitted to the European Commission on November 2017, who formally granted the ‘HR Excellence in Research’ to the ICP on March 2018. In the meantime, the implementation of the Action Plan had already started, being supervised by the above-mentioned organs of the ICP. Throughout 2019, the implementation of the HRS4R Action Plan, and multiple documents were elaborated in the framework of HRS4R. We detail below the level of fulfillment of the HRS4R Action Plan at the end of 2019 and the actions that were implemented during that year, with particular emphasis on those that are considered most important.

HRS4R Action Plan. The Action Plan devised by the HRS4R Implementation Committee & Working Group (available online from the following URL: http://www.icp.cat/attachments/transparencia/HRS4R_ICP_Action_Plan.pdf) includes 25 specific actions intended to attain a complete implementation of the forty principles included in the Charter & Code. Although the implementation of the HRS4R Action Plan already began in late 2017 with the approval of the new Organization Chart, most of the Action Plan initiatives were planned for 2018–2019. The implementation process is overseen by the HRS4R Implementation Committee & Working Group, and further supervised by the Steering Committee, with the aid of other committees and commissions of the ICP (particularly, the Researchers Commission). The implementation of the

25 actions of the HRS4R Action Plan at the end of 2019 are summarized in the following table. Out of 23 actions planned for 2018 or 2019, 12 are fully implemented and 3 almost fully implemented, while 8 are delayed but already under implementation. The remaining 2 actions, planned for 2020, were already under implementation at the end of 2019.

HRS4R ACTION PLAN IMPLEMENTATION			
ACTION No.	DESCRIPTION	EXPECTE D	IMPLEMENTATION
Action 1	Upload UAB & CERCA documents to the ICP website	1Q 2018	Fully implemented 2019
Action 2	Update the Strategic Plan	4Q 2018	Fully implemented 2018
Action 3	Manual of Best Practices in Research, Intellectual Property and Scientific Authorship	4Q 2019	Almost fully implemented
Action 4	Protocol for Invasive and Destructive Analyses of Fossils	1Q 2019	Delayed, under implementation
Action 5	Welcome Handbook	2Q 2019	Delayed, under implementation
Action 6	Protocol for Funding Request	4Q 2018	Delayed, under implementation
Action 7	Transparency webpage and internal communication	1Q 2018	Almost fully implemented
Action 8	Protocol for Fund Expenditure Accountability	2Q 2018	Delayed, under implementation
Action 9	Safety & prevention training	4Q 2019	Delayed, under implementation
Action 10	Update the internal Information Systems Security Document	3Q 2019	Delayed, under implementation
Action 11	Improve and translate the Plan of Equal Opportunities and Diversity Management	2Q 2020	Under implementation
Action 12	Establish a Non-discrimination Committee	1Q 2018	Fully implemented 2018
Action 13	Improve and translate the Guide of Prevention and Action in Case of Gender Violence	4Q 2020	Under implementation
Action 14	Protocol for the Evaluation, Internal Promotion and Recruitment of Researchers and Technicians	2Q 2018	Fully implemented 2019
Action 15	Definition of professional categories	3Q 2018	Fully implemented 2018
Action 16	Strategy for the Professional Development of Researchers	4Q 2019	Almost fully implemented
Action 17	Publicize positions at an international level	4Q 2018	Fully implemented 2019
Action 18	Implementation of new organigram with Management & Human Resources Department	2Q 2018	Fully implemented 2018
Action 19	Basic instructions for traveling abroad	3Q 2018	Delayed, under implementation
Action 20	Complaints protocol	2Q 2018	Delayed, under implementation
Action 21	Steering Committee	2Q 2018	Fully implemented 2018
Action 22	Coordination Meetings	1Q 2018	Fully implemented 2018
Action 23	Researchers Commission	1Q 2018	Fully implemented 2018
Action 24	Organization of talks ('Paleovermut's initiative')	1Q 2018	Fully implemented 2018
Action 25	Free language courses and other types of training	1Q 2018	Fully implemented 2018

The HRS4R actions that became fully implemented in 2019 are explained in greater detail below:

- **Action 1: Upload UAB & CERCA documents to the ICP website.** Description: To make the Statutes of the UAB and the Code of Good Practices in Research of the UAB available to ICP researchers through the ICP website, and to further publicize the CERCA Conduct Code draft among ICP staff once its final version is approved. Indicator(s)/Target(s): Documents available from the ICP website and emailed to personnel. Implementation: Originally planned for the first quarter of 2018, the final version of the CERCA Conduct Code was not

approved until November 2018. The ICP Director and General Manager subsequently adhered, and such adhesion was ratified by the Board of Trustees in December 2018, with the document being finally email to ICP personnel in April 2019.

- **Action 14: Protocol for the Evaluation, Internal Promotion and Recruitment of Researchers and Technicians.** Description: To establish a transparent and publicly accessible “ICP Protocol for the Evaluation, Internal Promotion and Recruitment of Researchers and Technicians” that (a) specifies the periodicity and criteria of evaluation, the rules governing the configuration of Evaluation and Selection Committees (depending on professional category); (b) the selection criteria depending on type of positions as well as the rules governing the configuration of Selection Committees; (c) criteria to be considered in the evaluation of researchers and the selection of candidates during recruitment (including, besides bibliometric indices and quality of publications, supervision and teaching, fieldwork, international visibility and mobility, fundraising, outreach activities, knowledge transfer and experience in the business sector, and management); (d) the criteria to be considered in the evaluation of researchers and the selection of candidates during recruitment, as well as the rules according to which the different types of merits will be assessed; (e) the merits to be taken into account; (f) the consequences of a positive or negative evaluation (also in relation to internal promotion); that (g) clearly establishes the selection procedures for all ICP personnel (hired with either competitive or non-competitive funds) and which details the minimum requirements of academic degrees and the merits that should be considered for each type of job (in agreement with the Code in the case of researchers and technicians); which asserts that (h) variations in the chronological order of CVs will not be penalized; (i) mobility experience is a merit to be taken into account in the evaluation of ICP researchers and the selection of new researchers during recruitment processes; (j) seniority will be taken into account not only in recruitment selection processes, but also during the internal evaluation of ICP researchers; (k) the maximum duration of postdoctoral contracts at the ICP and formal guidelines for the recruitment of postdocs; (l) which takes into account gender parity with regard to both the selection process and the composition of the selection committees; (m) which is in accordance with the principles implemented in the “ICP Strategy for the Professional Development of Researchers”; and (n) which explicitly recognizes the values of teaching and supervision activities and of supervision, mentoring and leadership activities. Indicator(s)/Target(s): Document approved by the Steering Committee and Researchers Commission, available from the ICP website, and emailed to researchers. Implementation: Originally planned for the second quarter of 2018, the final version of the document, with amendments by the Researchers Commission, was approved by the Steering Committee in February 2019, being subsequently ratified with a few amendments by the Board of Trusteed in May 2019. The action is thus fully implemented, although this is not incompatible with further refinements. In particular, the Steering Committee approved a minor amendment in November 2019, will be submitted to the Board of Trustees for review and approval in 2020.

- **Action 17: Publicize positions at an international level.** Description: To improve coordination between the Head of Human Resources and the Head of Communication of the ICP with regard to recruitment, to ensure that open positions at the ICP are adequately publicized, by means of the ICP webpage as well as other available instruments (such as the pan-European Researcher's Mobility Portal), so as to ensure their maximum diffusion at an international level. Indicator(s)/Target(s): Job announcements approved by the Steering Committee and publicized through the ICP website, Euraxess and international mailing lists; minutes of the corresponding ad hoc Selection Committees established; progressive increase in the number of visits to the "Work with us" webpage of the ICP. Implementation: Originally planned for the fourth quarter of 2018, the recruitment protocol on which this action is based was not finally approved by the Steering Committee until February 2019 (see above). Afterward, three positions (permanent researcher, tenure-track researcher, and project manager) became open and were adequately publicized, being resolved in October/November 2019. The number of visits to the "Work with us" webpage has steadily increased during the last years: 81(2016), 616 (2017), 775 (2018), and 1430 (2019). Therefore, even though this action will require continuous implementation as new positions are open, it is already considered to be fully implemented.

Other HRS4R actions that were almost fully implemented in 2019 are the following:

- **Action 3: Manual of Best Practices in Research, Intellectual Property and Scientific Authorship.** Description: To write an "ICP Manual of Best Practices in Research, Intellectual Property and Scientific Authorship", specifying (a) the ethical principles and legal regulations specific to paleontology and the ICP protocols to comply with them; (b) the rights and obligations of the ICP and its personnel regarding intellectual property, industrial property and scientific authorship; (c) the obligation by researchers to ensure the safeguard of their data by means of standard protocols; including (d) a specific protocol that explains how and when should the ICP Communication Department be contacted by researchers to ensure that their research activities are adequately publicized to the society; (e) encouraging researchers to disseminate their research results as well as to explore its possible applications, by means of including a protocol on knowledge transfer; and in which (f) the principle of professional recognition is explicitly explained and promoted; (g) the rights and obligations of both researchers and the ICP in these matters are exposed, and explicit guidelines for researchers are provided; and (h) the rights and obligations of both researchers and the ICP with regard to scientific authorship are clearly stated. This manual should be compulsory for all ICP staff performing research. Indicator(s)/Target(s): Document available from the ICP website, emailed to researchers and technicians, and approved by the Board of Patrons; receipts of the manual signed by staff researchers and technicians. Implementation: Originally planned for the fourth quarter of 2019, the final version of this document was approved by the Steering Committee on December 2019 and publicized among ICP personnel. However, this action is not fully implemented yet, because it is

pending the approval of the Board of Trustees; once the definitive version is ratified with amendments (if any), the ICP staff will be requested to sign the receipt of the manual.

- **Action 7: Transparency webpage and internal communication.** Description: To officially designate the ICP employee in charge of regularly updating the documents available from the ICP Transparency webpage and automatically communicating such changes to all the personnel from the ICP. These documents should be made available also in the Spanish and English versions of the ICP website. Indicator(s)/Target(s): Relevant documents periodically updated on the webpage; quarterly electronic newsletter sent to personnel; email internal communiqués to personnel. Implementation: Originally planned for the first quarter of 2018, the fact is that this action requires continuous implementation. Throughout 2019, the relevant documents have been periodically uploaded to the transparency webpage and the ICP personnel has been notified about the most relevant ones. Nevertheless, the action is not fully implemented because both in 2018 and 2019 the internal electronic newsletter for the ICP personnel has been issued on a biannual instead of a quarterly basis.
- **Action 16: Strategy for the Professional Development of Researchers.** Description: To develop and write an “ICP Strategy for the Professional Development of Researchers”, to be distributed among the ICP researchers and technicians, as well as to candidates to be hired by the ICP, to further promote the continuous development of ICP researchers, and establishing inter alia (a) the conditions to be met for transitioning from dependent postdoc to independent researchers and (b) the several categories of researchers and technicians officially recognized at the ICP; (c) taking into account the value of mobility; (d) outlining the different professional paths available to ICP researchers and candidates for recruitment; (e) explicitly mentioning teaching and supervision activities; (f) in which the supervision roles expected for each professional category are specified; (g) which explicitly mentions supervision, mentoring and leadership activities; and (h) in which the supervision roles expected for each professional category are specified. Indicator(s)/Target(s): Document approved by the Steering Committee, available from the ICP website, emailed to researchers, and approved by the Board of Patrons. Implementation: Originally planned for the fourth quarter of 2019, the final version of this document, with amendments by the Researchers Commission, was approved by the Steering Committee on December 2019, being publicized among ICP personnel. However, this action is not fully implemented yet, because it is pending the approval of the Board of Trustees.

Internal evaluation of researchers

Evaluation metrics. The ICP “Protocol for the Evaluation, Internal Promotion and Recruitment of Researchers and Technicians” approved by the Steering Committee in February 2019 and approved by the Board of Trustees in May 2019 not only includes the rules for recruitment, but also the instructions for performing an internal evaluation of researchers. Three different ad hoc metrics are distinguished based on the SCI production of each ICP author (thereby including researchers, research associates, and some technicians that also coauthor papers):

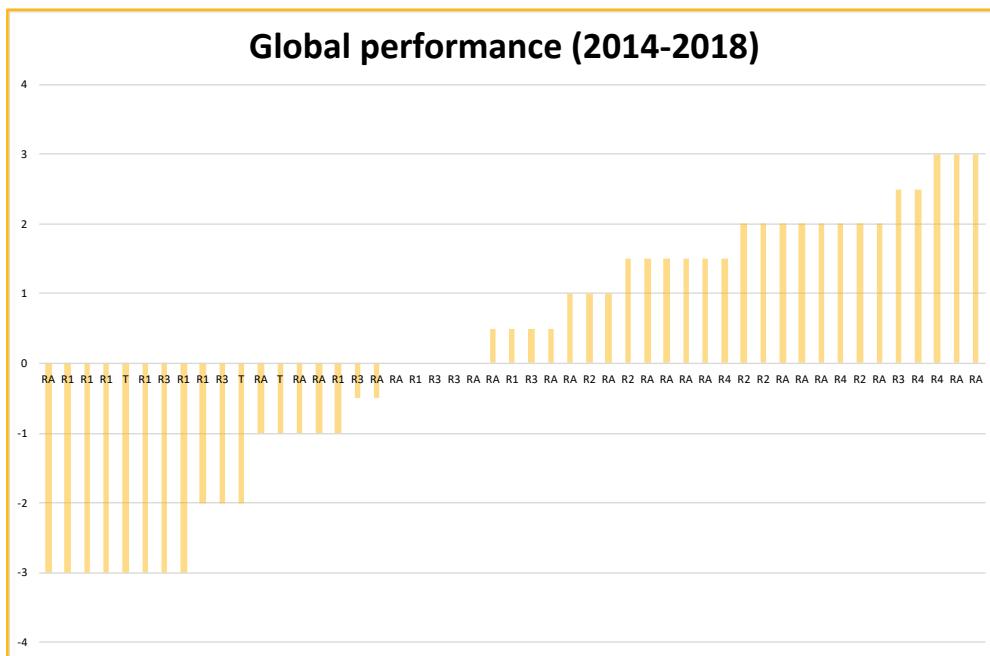
- Global impact: it is based on the SCI production of a given researcher, by simultaneously reflecting quality, impact, visibility and leadership; although it is mostly based on JIF, other variables (quartile, category, open access, and number, position and role of authors) are considered.
- Relative contribution: also based on SCI production, it measures the relative contribution of each researcher to the overall ICP production in terms of publications (particularly from the first quartile, in open-access and multidisciplinary journals, and led by ICP authors).
- Relative impact: measures the relative quality/impact of a researcher’s output as compared to that of the ICP irrespective of production volume.

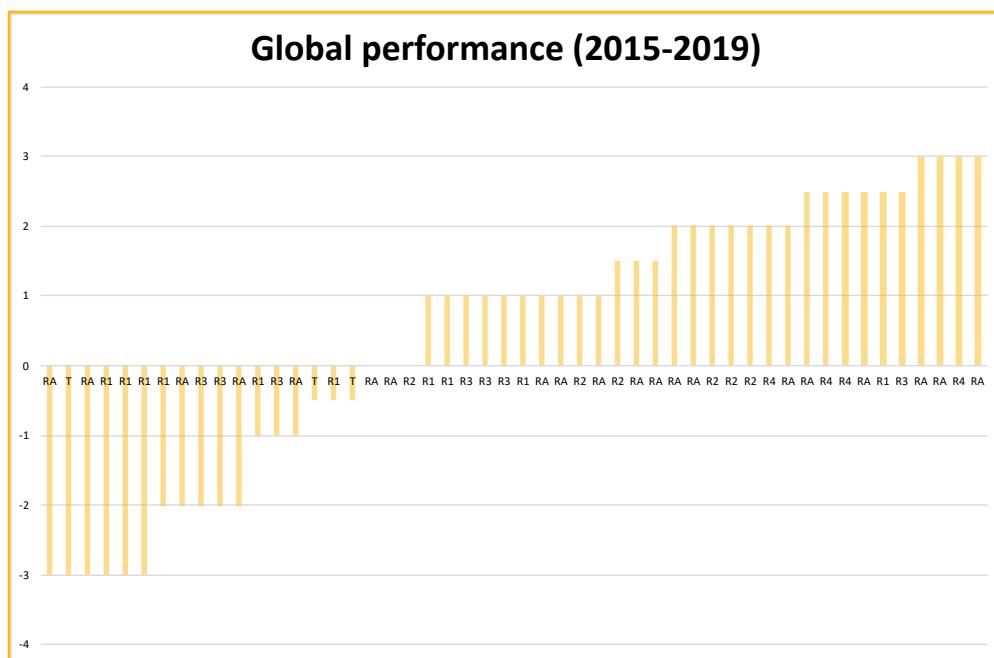
Computations are restricted to the last five years (that of the evaluation and the four previous ones), and the two first variables are standardized by career duration (which also takes into account career breaks) as specified in the recruitment protocol. For each variable, a rating is assigned to each researcher depending on the relative ranking as compared to ICP authors as a whole, based on the median and interquartile range (worse than average = -1; slightly below average = 0; slightly above average = +0.5; and better than average = +1). The overall performance metric of an individual researcher is computed as the sum of the three ratings (from -3 to +3) and determines result of the evaluation: negative (lower than -1.5), neutral (between -1.5 and 0), positive (between +0.5 and +1.5), very good (between +2 and +2.5), and excellent (+3.0).

Evaluation results. The definitive results for the 2014-2018 evaluation period and the preliminary ones for the 2015-2019 period (pending refinement which the JCR of 2019 is published) are summarized in the plot below. For 2014-2018, there are 11 negative (22.4%), 12 neutral (24.9%), 13 positive (26.5%), 10 very good (20.4%), and 3 excellent (6.1%), while for 2015-2019 there are 11 negative (22.0%), 9 neutral (18.0%), 13 positive (26.0%), 13 very good (26.0%), and 4 excellent (8.0%). The results are similar from one year to another for several reasons. First, they have four years in common; and second, the metrics compare the performance among researchers based on the median and interquartile range. In other words, the metrics are devised to compare ICP authors (including researchers, technicians, research associates and collaborators that have published with ICP affiliation during the selected period) among

themselves, so the number of negative, neutral, positive, and very good plus excellent evaluations is expected to be roughly one-quarter each (with only small deviations depending on the rating of particular researchers for each of the three metrics employed). So the values of the metrics are not important in themselves, but only useful to compare among various categories within a given evaluation period, or to monitor particular ICP authors through time.

For example, it is expected that, on the plots below, R3 and especially R4 researchers are located toward the right (more positive values), whereas R2 and R1 are located toward the left (more negative values), although it can be seen that there are many exceptions. For the 2014-2018 period, the three researchers with an excellent evaluation (global performance = +3) include two research associates and an R4 research group leader of the ICP, whereas for the 2015-2019 period, the four researchers with an excellent evaluation include the same two research associates, plus another R4 research group leader and an additional research associate. While the individual results are not publicized, they are most useful to monitor the performance of individual researchers and discuss with them possible routes for improvement.





STRATEGIC MANAGEMENT

Implementing the Strategic Plan for 2018–2021

Viability Plan

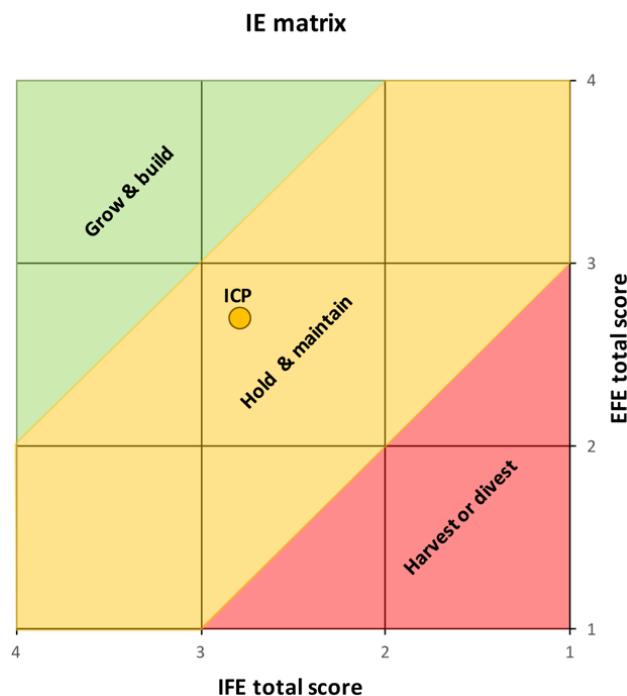
In 2017 the ICP had a deficit of 46 k€, which added to that accumulated from previous years yielded a total deficit of 91 k€. In May 2018, the Steering Committee approved a Viability Plan (subsequently ratified by the Board of Trustees) with several actions aimed to correct this situation of budgetary deficit as well as to guarantee the economical viability of the institution (by reducing the ICP structural expenses and also increasing the incomes). Given that the total payroll of the ICP is by far the most important portion of the budget, the Viability Plan focused on this aspect rather than maintenance expenses or those related to reject projects and service provision, which are most difficult to reduce. The measures included in the Viability Plan and implemented in 2018 included: (1) facilitating voluntary leaves; (2) linking voluntary leaves of researchers with research associate agreements; (3) dismissing workers that do not perform adequately; (4) postpone until 2019 salary increases linked to the new Salary Scale; (5) promote the application of competitive contracts by ICP researchers and technicians; and (6) restrict hiring to short work and service contracts and do not replace vacant positions until an OTM-R protocol were available. Other, midterm measures included in the Viability Plan focused on boosting marked-oriented policies to increase service provision, while recognizing that competitive funds should also be increased (especially by means of European projects).

The viability plan approved in 2018 predicted a reduction in the total payroll from 1019 k€ to 951 k€ and an increase in service provision from 111 k€ to 136 k€, implying a surplus of 47 k€ in 2018. The reduction of the total payroll and the increase in service provision in 2018 were greater than anticipated (945 k€ and 202 k€, respectively), but due to other expenses the resulting surplus was only of 22 k€, resulting in a reduction of the accumulated deficit from 91 k€ to 69 k€. In the update of the viability plan for 2019 (provided in the 2018 annual report), it was predicted that the total payroll would increase due to the incorporation of new researchers with competitive grants, but that the reduction of the accumulated deficit would be at least of a similar amount as in 2018. The results for 2019 indicate a surplus of 47 k€, resulting in a reduction of the accumulated deficit from 69 k€ to 22 k€. It is also noteworthy that this surplus was attained despite a significant increase (219 k€) in the total payroll of the ICP. Such an increase is mostly attributable to additional competitive funds to hire researchers (with few cofunding by the ICP) or to the recruitment of technicians with work and service contracts for service provision (mostly fieldwork). In 2017, only 25% of the total payroll (258 out of 1,025 k€) was covered by external funds; in 2018, this figure increased very slightly to 26% (248 out of 946 k€), but due to the reduction in the total payroll it was possible to have a surplus to reduce the accumulated deficit; in 2019, the proportion of the total payroll with external funding was 34%

(399 out of 1,165 k€), resulting in a structural payroll of 766 k€ (as compared to 698 k€ in 2018 and 767 k€ in 2017). In other words, the increase in competitive funds and service provision allowed in 2019 to recover the same level of structural payroll as in 2017, while at the same time increasing the number of personnel and having revenues that enabled the reduction of the accumulated deficit below the social capital of the foundation. If the same levels of funding and service provision are maintained in the following months, it would be expected that there will be no accumulated deficit at the end of 2020.

Strategic Plan

SWOT analysis. A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the ICP was performed by the Director in late 2017 in the framework of the elaboration of a new Strategic Plan (2018-2021), which was publicized in February 2018 and subsequently ratified by the Board of Trustees in June 2018. (http://www.icp.cat/attachments/transparencia/Strategic_plan_2018_2021.pdf). A summary of the SWOT analysis was already provided in the Annual Report 2017 and in the 2018 Annual Report, while the full version is included in the Strategic Plan. Essentially, the SWOT analysis enabled the identification of 70 factors (23 strengths, 12 weaknesses, 21 opportunities, and 14 threats), which were subjected to internal factor evaluation (IFE) and external factor evaluation (EFE) analyses, and combined in an internal-external (IE) matrix divided into three different regions with different strategical implications in terms of a research center's performance.



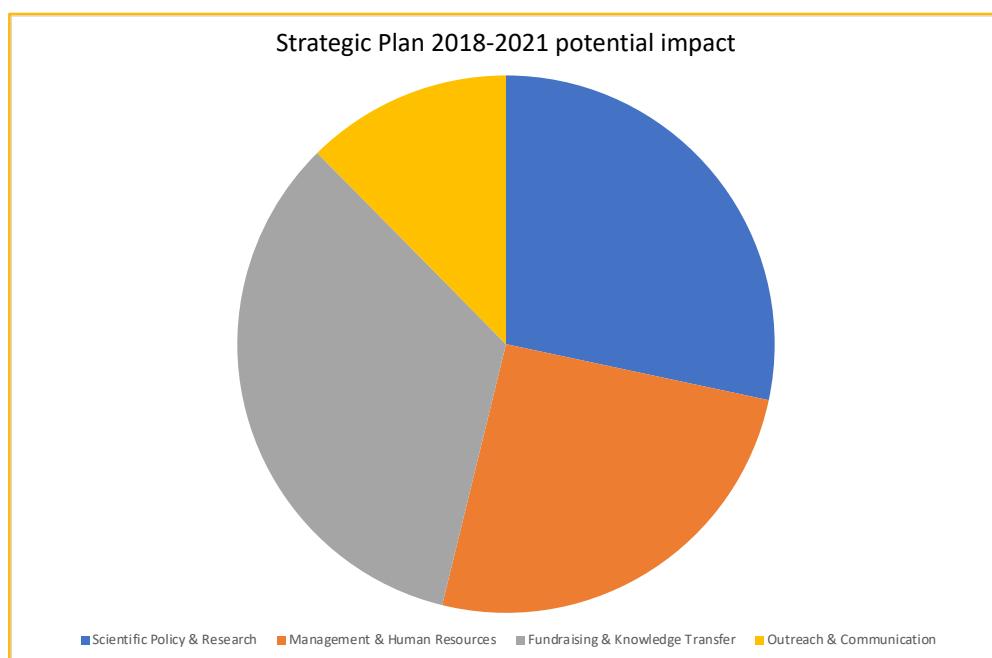
The IFE and EFE values calculated for the ICP (2.8 and 2.7, respectively) are higher than 2.5, indicating that the center is relatively strong relative to its competitors, as well as ready to take advantage of at least some opportunities and to defend against threats, respectively). These figures combined indicate that the suitable overall strategy is ‘hold and maintain’ (see figure below)—i.e., that the ICP is generally doing well and can take advantage of some current opportunities, although there is room for improvement and the institution is not powerful enough to plan growing further on the midterm (so that some opportunities must be left unexplored due to excessive risk or lack of resources).

Strategic goals, actions and indicators. The Strategic Plan for 2018–2021, elaborated on the basis of the SWOT analysis summarized above, was conceived as a management tool that sought to identify the current situation of the institution, including its risks and opportunities, as well as to define its main strategic aims, in order to guarantee the successful accomplishment of its mission on the midterm with regard to paleontological research, knowledge transfer, and conservation of the paleontological heritage of Catalonia. With these aims in mind, the Strategic Plan defined 19 strategic goals within four strategic areas: Scientific Policy & Research (7 goals), Management & Human Resources (5 goals), Fundraising & Knowledge Transfer (5 goals), and Outreach & Communication (2 goals). Each strategic goal was based on one of the following four strategies: Strength-Opportunity (SO, 10 goals), Weakness-Opportunity (WO, 3 goals), Strength-Threat (ST, 2 goals), and Weakness-Threat (WT, 4 goals). The 19 strategic goals defined by the Strategic Plan are the following:

- **Scientific Policy & Research (SPR):**
 - ✓ **SO1:** Consolidate the excellent scientific production and productivity of the ICP.
 - ✓ **SO2:** Consolidate the high quality and impact of the ICP scientific production.
 - ✓ **WO1:** Increase the excellent visibility of the scientific production of the ICP by promoting publication in open-access papers.
 - ✓ **WO2:** Improve research support provided to ICP researchers by the Virtual Paleontology Area.
 - ✓ **ST1:** Preserve the high competitiveness and foster the fidelity of ICP researchers by means of maintaining the excellent research support provided to them.
 - ✓ **ST2:** Provide to researchers specific guidelines of ethics in publishing, with emphasis on intellectual property rights and authorship issues.
 - ✓ **WT1:** Foster talent retention and attraction to secure the continuity of the successful ICP research lines.
- **Management & Human Resources (MHR):**
 - ✓ **SO3:** Increase the critical mass of ICP staff researchers by fostering talent attraction, with emphasis on the recruitment of foreign researchers.
 - ✓ **SO4:** Increase talent attraction at early career stages.
 - ✓ **SO5:** Improve the internal cohesion and coordination and promote staff involvement in decision-making at the ICP by implementing the new Organization Chart.

- ✓ **WT2:** Improve the salaries and general working conditions of ICP staff (including HRS4R implementation) in spite of financial risks and budgetary constraints.
- ✓ **WT3:** Improve the effectiveness and internationalization of researchers' recruitment by developing and implementing OTM-R policies.
- **Fundraising & Knowledge Transfer (FKT):**
 - ✓ **SO6:** Increase the ICP operating budget by means of the provision of external services.
 - ✓ **SO7:** Increase the ICP operating budget by means of competitive calls or research projects and grants, with emphasis on ERC grants and the application of modern techniques to paleontological research.
 - ✓ **SO8:** Foster knowledge transfer also in relation to training.
 - ✓ **WO3:** Increase the ICP operating budget by means of competitive calls for dissemination and outreach activities.
 - ✓ **WT4:** Avoid budgetary deficit at the ICP and increase the ratio of competitive + private income relative to the total budget.
- **Outreach & Communication (OC):**
 - ✓ **SO9:** Promote further the dissemination of the research performed by ICP researchers by means of digital media.
 - ✓ **SO10:** Promote further the outreach activities performed by the ICP.

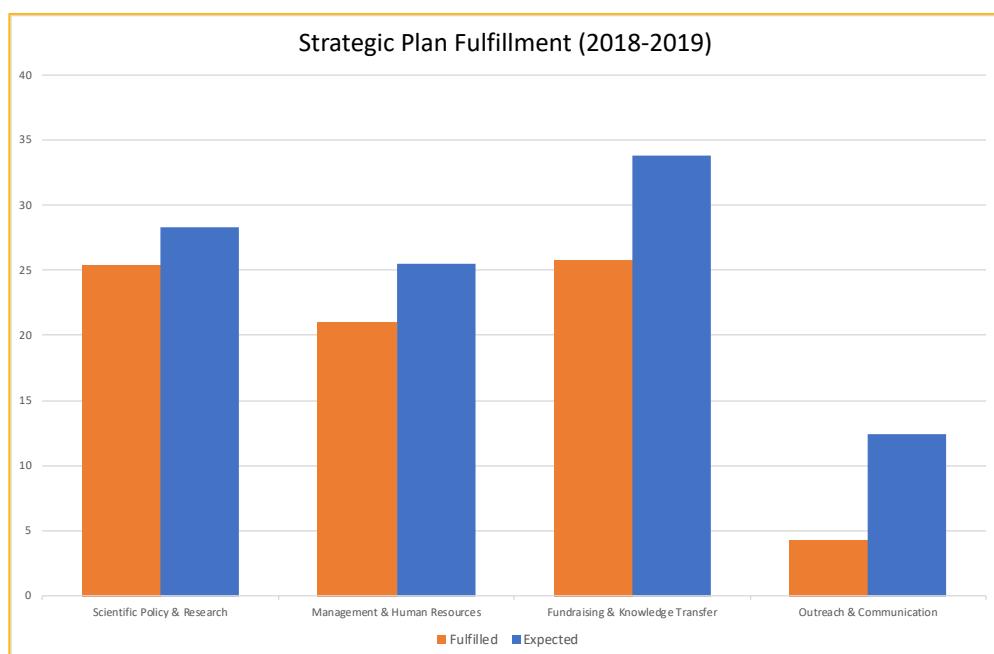
The relative potential impact of the four strategic areas is summarized in the plot below.



In the Strategic Plan, the aforementioned strategic goals are ranked based on the sum of the weighted scores of the internal and external factors included in each of them, and then these values are converted into percentages relative to the total summatory, to evaluate the potential

impact of each goal. In turn, for each goal, several actions are defined, resulting in a total of 38 strategic actions. The potential impact of each goal was distributed among the contained actions based on a total of 84 indicators, which were rated (1 to 4) according to their perceived importance regarding the corresponding action. The average rating for each action within a goal was converted into a percentage of perceived importance, which served to distribute the goal's potential impact among the included actions. A similar procedure was followed to compute the potential impact of the various indicators, which will be used to evaluate the degree of accomplishment of the present Strategic Plan for 2018–2021 in the future. All of the indicators are binary, in the sense that each one includes a criterion/condition that may be fulfilled (1) or not (0). The summatory of these values multiplied by their respective potential impact percentages will yield the degree of achievement of the strategic plan (from 0% to 100%).

Although the accomplishment of the Strategic Plan cannot be computed until 2022, an approximation based on the results for the first two years (2018-2019) is provided. The results indicate that the degree of fulfillment of the Strategic Plan was after the first two years of 76.5%: 25.4% out of 28.4% regarding Scientific Policy & Research (SPR); 21.1% out of 25.5% regarding Management & Human Resources (MHR); 25.8% out of 33.8% regarding Fundraising & Knowledge Transfer (FKT); and 4.3% out of 12.4% regarding Outreach & Communication (OC). As it can be seen, the area with greater degree of fulfillment of strategic actions is SPR (89.5%), followed by MHR (82.5%) and FKT (75.4%), and at much greater distance OC (34.8%). Although these results are provisional, they suggest a considerably high degree of fulfillment after only two years, clearly signaling that the performance of the ICP has considerably increase since the Strategic Plan was issued.



ICP STRATEGIC GOALS & ACTIONS (2018–2021)		POTENTIAL IMPACT %	FULFILLED? (YES/No)
SO1 [SPR] — Consolidate the excellent scientific production and productivity of the ICP:			
A1. Encourage ICP researchers to publish more papers in SCI journals		3.31	
I1. Production SCI: 2018-2021 average \geq 2013-2017 average (325/5=65 SCI papers/year)		1.65	Yes
I2. Productivity SCI: 2018-2021 average \geq 2013-2017 average (1.56 SCI papers/SCI author/year)		1.65	Yes
A2. Recruit new research associates, with emphasis on R3 and R4 categories		2.07	
I3. Research associates: 2021 figure $>$ February 2018 figure (18)		1.24	Yes
I4. R3-R4 research associates: 2021 figure $>$ February 2018 figure (10)		0.83	Yes
A3. Promote further international collaborations		1.32	
I5. SCI papers with international collaboration: 2018-2021 % $>$ 2013-2017 % (210/325=64.6% international SCI papers/total SCI papers)		0.33	Yes
I6. SCI international collaborations-1 (including repeated affiliations): 2018-2021 average $>$ 2013-2017 average (515/5 = 103.0 international collaborations-1/year)		0.33	Yes
I7. SCI international collaborations-2 (excluding repeated affiliations): 2018-2021 average $>$ 2013-2017 average (391/5 = 78.2 international collaborations-2/year)		0.33	Yes
I8. SCI international collaborations-1 % (including repeated affiliations): 2018-2021 % \geq 2013-2017 % (515/859 = 60.0% of international/total collaborations-1)		0.17	Yes
I9. SCI international collaborations-2 % (excluding repeated affiliations): 2018-2021 % \geq 2013-2017 % (391/552 = 70.8% international/total collaborations-2)		0.17	Yes
SO2 [SPR] — Consolidate the high quality and impact of the ICP scientific production:			
A4. Encourage ICP researchers to prioritize publication in SCI journals from the first quartile		2.41	
I10. Production Q1: 2018-2021 average $>$ 2013-2017 average (170/5=34 Q1 SCI papers/year)		0.88	Yes
I11. Productivity Q1: 2018-2021 average $>$ 2013-2017 average (0.82 SCI papers/SCI author)		0.88	Yes
I12. Q1 ratio %: 2018-2021 % \geq 2013-2017 % (170/325=52.3% Q1/total SCI papers)		0.66	Yes
A5. Encourage ICP researchers to target more often SCI journals from the multidisciplinary category		1.84	
I13. Production multidisciplinary: 2018-2021 average $>$ 2013-2017 average (51/5=10.2 multidisciplinary SCI papers/year)		0.53	Yes
I14. Multidisciplinary ratio %: 2018-2021 % \geq 2013-2017 % (51/325=15.7% multidisciplinary/total SCI papers)		0.39	Yes
I15. Minimum multidisciplinary ratio %: 2021 figure $>$ 20%		0.26	No
I16. h-index R3: 2021 average $>$ February 2018 average (12.3)		0.26	Yes
I17. h-index R4: 2021 average $>$ February 2018 average (22.4)		0.39	Yes
A6. Encourage ICP researchers to favor journals with high impact factors and/or impact factor percentiles		1.65	
I18. SCI IF GM: 2018-2021 average \geq 2013-2017 average (2.1 IF GM/year)		0.66	Yes
I19. SCI median JIF percentile: 2018-2021 average \geq 2013-2017 average (77.6 median JIF percentile/year)		0.99	Yes
WO1 [SPR] — Increase the excellent visibility of the scientific production of the ICP by promoting publication in open-access papers:			

A7. Encourage ICP researchers to publish in SCI open-access journals	1.89	
I20. OA SCI ratio %: 2018-2021 average > 2013-2017 average (85/325=26.2% OA/total SCI papers)	1.26	Yes
I21. OA SCI ratio % in 2021: 2018-2021 average >= 33%	0.63	No
WO2 [SPR] — Improve research support provided to ICP researchers by the Virtual Paleontology Area:		
A8. Elaboration of a viability plan for the CT and subsequent repair	1.82	
I22. CT viability plan: CT viability plan finished in 2018	1.04	No
I23. CT repair: CT repaired not later than 2021	0.78	No
ST1 [SPR] — Preserve the high competitiveness and foster the fidelity of ICP researchers by means of maintaining the excellent research support provided to them:		
A9. Maintain or increase the number of research support staff	6.54	
I24. Research support staff: 2021 non-research personnel >= February 2018 non-research personnel	6.54	Yes
ST2 [SPR] — Provide to researchers specific guidelines of ethics in publishing, with emphasis on intellectual property rights and authorship issues:		
A10. Elaborate a manual of best practices in research, in relation to intellectual property and authorship.	3.09	
I25. Manual of best practices: Manual available not later than 2020	0.66	Yes
I26. Lack of internal complaints: 0 external complaints about intellectual property during 2018-2021	0.44	Yes
I27. Lack of external complaints: 0 external complaints about intellectual property during 2018-2021	0.44	Yes
I28. Expressions of concerns: 0 expressions of concerns in 2018-2021	0.66	Yes
I29. Retractions: 0 retractions in 2018-2021	0.88	Yes
WT1 [SPR] — Foster talent retention and attraction to secure the continuity of the successful ICP research lines:		
A11. Encourage R3-R4 talented ICP researchers to stay at the ICP	1.60	
I30. R3-R4 researchers: 2021 R3+R4 researchers >= February 2018 R3+R4 researchers	1.60	Yes
A12. Correct the disequilibria between NQF and the remaining research groups.	0.80	
I31. NQF researchers %: 2021 NQF staff <= 33%	0.53	Yes
I32. SCI NQF production %: 2018-2021 % <= 2013-2017 % (164/325=50.5% SCI papers/year)	0.27	No
SO3 [MHR] — Increase the critical mass of ICP staff researchers by fostering talent attraction, with emphasis on the recruitment of foreign researchers:		
A13. Maintain or increase the critical mass of ICP researchers	3.97	
I33. Staff researchers: 2021 researchers >= February 2018 researchers (24)	3.97	Yes
A14. Increase the number of foreign ICP staff researchers, both in absolute and relative terms	2.48	
I34. Foreign researchers: 2021 foreign researchers > February 2018 foreign researchers (2)	1.49	Yes
I35. Foreign researchers ratio %: 2021 % > February 2018 % (2/24=8.3%)	0.99	Yes
A15. Encourage former R1 and R2 researchers to come back to the ICP after a postdoctoral phase abroad	1.99	
I36. R1-R2 returned %: 2021 former R1 or R2 researchers retuned > 20%	1.99	No
SO4 [MHR] — Increase talent attraction at early career stages:		
A16. Increase the number of R1 and R2 researchers at the ICP	2.44	

I37: R1-R2 researchers: 2021 R1+R2 researchers >= February 2018 R1+R2 researchers (13)	2.44	No
A17. Increase the number of master students supervised by ICP researchers	2.44	
I38: Master theses: 2018-2021 average > 2013-2017 average (35/5=7.0 master theses/year), i.e., at least 28 supervised master theses in 2017-2021	2.44	Yes
A18. Increase the number of PhD candidates supervised by ICP researchers	3.05	
I39: PhD dissertations: 2018-2021 average > 2013-2017 average (16/5=3.2 PhD dissertations/year), i.e., at least 13 supervised finished PhD in 2017-2021	1.83	Yes
I40. Ongoing PhD: 2021 ongoing PhD > 2016 ongoing PhD (19)	1.22	Yes
SO5 [MHR] — Improve the internal cohesion and coordination and promote staff involvement in decision-making at the ICP by implementing the new Organization Chart:		
A19. Organize a meeting of the Steering Committee almost every month	2.03	
I41. Steering Committee meetings: 2018-2021 average >= of 10 meetings/year	2.03	Yes
A20. Regularly organize meetings of the various ICP advisory organs	1.01	
I42. Researchers Commission meetings: 2018-2021 average >= of 2 meetings/year	1.01	Yes
A21. Organize coordination meetings of quarterly periodicity	1.01	
I43. Coordination meetings: 2018-2021 average >= of 4 meetings/year	1.01	Yes
WT2 [MHR] — Improve the salaries and general working conditions of ICP staff (including HRS4R implementation) in spite of financial risks and budgetary constraints:		
A22. Improve the ICP salaries of non-competitive staff to the level before the budget cuts during the crisis	1.00	
I44. ICP salaries: 2020 salaries > 2018 salaries	1.00	Yes
A23. Implementation of excellence in human resources for researchers according to the ICP HRS4R Action Plan	1.00	
I45. HRS4R award: HRS4R award before 2021	0.44	Yes
I46. HRS4R Implementation Commission meetings: 2018-2021 average >= of 4 meetings/year	0.33	Yes
I47. Non-Discrimination Committee meetings: 2018-2021 average >= of 3 meetings/year	0.22	Yes
A24. Elaborate a strategy for the professional development of researchers.	0.67	
I48. Career development: Manual written not later than 2020	0.67	Yes
WT3 [MHR] — Improve the effectiveness and internationalization of researchers' recruitment by developing and implementing OTM-R policies:		
A25. Elaborate a protocol for the evaluation, internal promotion and recruitment of researchers	2.39	
I49. Recruitment protocol: Protocol written not later than 2019	1.06	Yes
I50. International publicization: No new research positions without international publicization	0.53	Yes
I51. Selection: No new research positions without a selection committee	0.80	Yes
SO6 [FKT] — Increase the ICP operating budget by means of the provision of external services: 7.57		
A26. Promote the provision of external services by the Research Support & External Services Department	7.57	
I52. External services: 2018-2021 average > 2012-2017 average (535,000/5=ca. 107,000 €/year)	4.32	Yes
I53. External services 50% increase: 2021 figure >= 2017 figure x 1.3 (ca. 128,500 € x 1.3=ca. 167,000 €/year)	3.24	Yes
SO7 [FKT] — Increase the ICP operating budget by means of competitive calls or research projects and grants, with emphasis on ERC grants and the application of modern techniques to paleontological research:		

A27. Promote fundraising by means of competitive projects and grants achieved by the research groups	2.91	
I54. Competitive funding for projects: 2018-2021 average > 2013-2017 average (0.29 M€/year)	2.91	Yes
A28. Increase the competitive income from Catalan and Spanish research projects	2.54	
I55. Catalan competitive funding for projects: 2018-2021 average > 2013-2017 average (0.10 M€/year)	1.09	Yes
I56. Spanish competitive funding for projects: 2018-2021 average > 2013-2017 average (0.18 M€/year)	1.45	Yes
A29. Obtain significant European funding (e.g., ERC grant)	2.91	
I57. Significant international funding: >= 1 ERC grant (or equivalent) in 2018-2021	2.91	No
A30. Consolidate competitive funding for predoctoral grants as well as postdoctoral and tenure-track contracts	2.54	
I58. Tenure-track competitive contracts (RyC): At least 1 new RyC in 2018-2021	0.92	No
I59. Postdoctoral competitive contracts (JdC+BP): At least 3 new postdoctoral contracts in 2018-2021	0.69	Yes
I60. Predoctoral competitive grants (FI+FPI+FPU): At least 4 new predoctoral grants in 2018-2021	0.46	Yes
I61. Technician cofunding (PTA): At least 2 new PTA in 2018-2021	0.46	No
SO8 [FKT] — Foster knowledge transfer also in relation to training:		
A31. Maintain and further promote university training by means of teaching in university masters and courses	7.14	
I62. Master: Still ongoing in 2021	3.57	Yes
I63. Transmitting Science: Still ongoing in 2021	3.57	Yes
WO3 [FKT] — Increase the ICP operating budget by means of competitive calls for dissemination and outreach activities:		
A32. Promote the achievement of competitive funding for scientific dissemination and outreach	5.13	
I64. Competitive funding for communication %: 2018-2021 average > 10% total competitive funds	2.20	No
I65. Competitive funds for exhibit remodeling: 2018-2021 funds >= 50,000 €	1.47	No
I66. Conca Dellà Museum and Dinosfera funding: 2018-2021 funds >= 50,000 €	1.47	Yes
WT4 [FKT] — Avoid budgetary deficit at the ICP and increase the ratio of competitive + private income relative to the total budget:		
A33. Increase the ratio between competitive funds s.l. (competitive + external services) and total operating budget above 50%	3.05	
I67. Competitive s.l. vs. total budget ratio %: 2018-2021 average > 2013-2017 average (3.26 M€ / 7.28 M€ = 45%)	1.74	Yes
I68. Competitive s.l. vs. total budget ratio 50%: 2021 competitive + external / total > 50%	1.31	Yes
SO9 [OC] — Promote further the dissemination of the research performed by ICP researchers by means of digital media:		
A34. Promote the visibility of the ICP website	5.63	
I69. Website visitors: 2018-2021 average >= 2016-2017 average (Google Analytics: ca. 25,500 website visitors/year)	1.30	Yes
I70. Web news: 2018-2021 average >= 35 news/year	1.30	No
I71. Web news in Spanish: 2018-2021 web news in Spanish >= 80% web news in Catalan	0.87	Yes
I72. Web news hits: 2018-2021 average >= 2015-2017 average (ca. 60,000 web news hits/year)	0.87	No
I73. Web news hits/post: 2017-2021 average >= 2015-2016 average (1664 web news hits/post)	0.87	No
I74. English web news hits/post: 2018-2021 average > 2015-2017 average (656 web news hits/post)	0.43	No

A35. Promote the visibility of the ICP on social networks	3.47	
I75. Facebook 'likes': 2018-2021 average > 2013-2017 average (311 FB 'likes'/year)	1.73	No
I76. Twitter followers (Museum): 2018-2021 average >= 2013-2017 average (198 new followers/year)	0.87	No
I77. Twitter followers (ICP): 2018-2021 average >= 2013-2017 average (157 new followers/year)	0.86	Yes
SO10 [OC] — Promote further the outreach activities performed by the ICP:		
A36. Attract a higher number of visitors to the ICP Museum in Sabadell	1.23	
I78. Museum visitors: 2018-2021 average >= 2013-2017 average (18,715 museum visits/year)	0.61	Yes
I79. Museum temporary exhibits: >= 4 temporary exhibits 2018-2021	0.61	Yes
A37. Elaborate a remodelation plan for the permanent exhibit of the ICP Museum in Sabadell	0.82	
I80. Museum remodelation plan: Plan available not later than 2021	0.82	No
A38. Increase the territorial scope of the ICP outreach activities	1.23	
I81. CosmoCaixa exhibits: >=2 collaborations in 2018-2021	0.41	Yes
I82. Temporary exhibits organization: >= 1 organization in 2018-2021	0.31	No
I83. Conca Dellà Museum and Dinosfera: Relationship still ongoing in 2021	0.31	Yes
I84. Agreements with city councils: >= 2 collaborations active in 2021	0.20	Yes
TOTAL (Potential impact to the left as compared to accomplished impact to the left, in %; the impact of each indicator is summed when fulfilled)	100	76,6

Comparison with other paleontological institutions

In the framework of the CERCA evaluation of the ICP in 2018, the Director elaborated a report for the Evaluation Committee based on the “Evaluation Questionnaire” provided by CERCA. This report included the comparison with three top worldwide paleontological institutions in terms of scientific production and productivity. The three institutions selected by the ICP Steering Committee were the following:

- Palaeobiology Research Group (PRG), School of Earth Sciences, University of Bristol (UK).
- University of California – Museum of Paleontology (UCMP), Berkeley, USA.
- Centre de Recherche sur la Paléobiodiversité et les Paléoenvironments (CR2P), CNRS-MNHN-Sorbonne Université, France.

In the CERCA Evaluation Questionnaire elaborated in 2018, the comparison of the ICP with the above-mentioned institutions was circumscribed to the five preceding years (2013–2017), but in the 2018 Annual Report an updated version of these results based on the scientific production and productivity for years 2013–2018 was provided. Here we further update these comparisons based on the 2019 results for the period 2014–2018.

Methods. Most of the comparisons have been performed on the basis of production in SCI (Science Citation Index) journals (i.e., those indexed by the Journal Citation Reports), in part because they constitute the major bulk of peer-reviewed articles published by all these institutions (including the ICP), and also because bibliometric indicators of impact and quality are restricted to those journals indexed by the JCR.

To compare the ICP with the three institutions mentioned above, we relied on several metrics based on SCI publications compiled for the last five years with the aid of the respective websites, Scopus and WOS. They are summarized in the tables below:

The various metrics employed were intended to measure production, authors, productivity, quality and impact, open access, leadership, field of research, multidisciplinarity, and (international) collaborations. Some of these metrics are considered absolute indicators, in the sense that they are not scaled relative to the size of each institution; others, in contrast, are considered relative indicators (ratios, percentages, mean values, etc.), because they are independent from the size of each institution.

ABSOLUTE INDICATORS	DEFINITION
SCI papers	Number of papers in SCI journals (co)authored by authors from each institution in a given year
SCI authors	Number of authors from each institution that have coauthored at least a paper in a SCI journal in a given year
SCI Q1	Number of papers in SCI journals from the first quartile (co)authored by authors from each institution in a given year
SCI open access	Number of papers in SCI open-access journals (co)authored by authors from each institution in a given year
SCI leadership	Number of papers in SCI journals with a corresponding authors from each institution in a given year

SCI Q1 leadership	Number of papers in SCI journals from the first quartile with a corresponding authors from each institution in a given year
Paleontology	Number of papers in SCI journals from the JCR category 'Paleontology' (co)authored by authors from each institution in a given year
Multidisciplinary sciences	Number of papers in SCI journals from the JCR category 'Multidisciplinary sciences' (co)authored by authors from each institution in a given year
SCI own papers only	Number of papers in SCI journals (co)authored exclusively by authors from each institution in a given year
SCI papers int. coll.	Number of papers in SCI journals (co)authored by authors from each institution and authors from at least one institution from another country in a given year
Total collaborations	Number of affiliations included in papers from SCI journals (co)authored by authors from each institution in a given year (each affiliation counts once per paper)
International collaborations	Number of affiliations from other countries included in papers from SCI journals (co)authored by authors from each institution in a given year (each affiliation counts once per paper)

RELATIVE INDICATORS	DEFINITION
SCI productivity	SCI papers / SCI authors
SCI Q1 productivity	SCI Q1 / SCI authors
SCI Q1 ratio %	SCI Q1 / SCI papers x 100
SCI open ratio %	SCI open access / SCI papers x 100
SCI leadership ratio %	SCI leadership / SCI papers x 100
SCI Q1 leadership ratio %	SCI Q1 leadership / SCI papers x 100
SCI median JIF percentile	Median of journal impact factor percentile for all the SCI papers (co)authored by authors from each institution in a given year
SCI IF GM	Geometric mean of impact factor for all the SCI papers (co)authored by authors from each institution in a given year
%Paleontology	Paleontology / SCI papers x 100
%Multidisciplinary sciences	Multidisciplinary sciences / SCI papers x 100
SCI own papers only (%)	SCI own papers only / SCI papers x 100
SCI papers int. coll. (%)	SCI papers int. coll. / SCI papers x 100
International collaborations (%)	International collaborations / Total collaborations x 100

Comparative sample of paleontological research institutions. The three main research institutions selected for comparison with the ICP are briefly described below:

- **Palaeobiology Research Group (PRG), School of Earth Sciences, University of Bristol (UK):** As advertised in their own webpage (<http://palaeo.gly.bris.ac.uk/>), in 2017 it was considered the best paleontology research group in the world in the first discipline-specific annual review by the Center for World University Rankings. In this regard it must be stressed that this concept of 'research group' is different from that of the ICP, so that the eight different 'laboratories' of Bristol's PRG are comparable to the ICP 'research groups', being named after the group leader (the Benton laboratory, the Donoghue laboratory, etc.), although as a whole the PRG is clearly larger than the ICP. The members of the PRG are affiliated to the School of Earth Sciences of the University of Bristol, and therefore the scientific production of the group is difficult to retrieve on this basis, although it can be compiled based on the information provided on its website.
- **University of California – Museum of Paleontology (UCMP), Berkeley, USA:** This institution is more similar to the ICP in the sense that it consists of a museum with research staff (although the ICP is rather a research center with a museum). They are tightly ingrained within the university structure, with most experienced researchers being both university

professors and museum curators. The fact that its affiliation is not recognized as distinct from the University of California in Scopus (unlike in the case of the ICP) hinders retrieving their SCI productivity, although this can be done with the help of the publication list reported on its website (<http://www.ucmp.berkeley.edu/>).

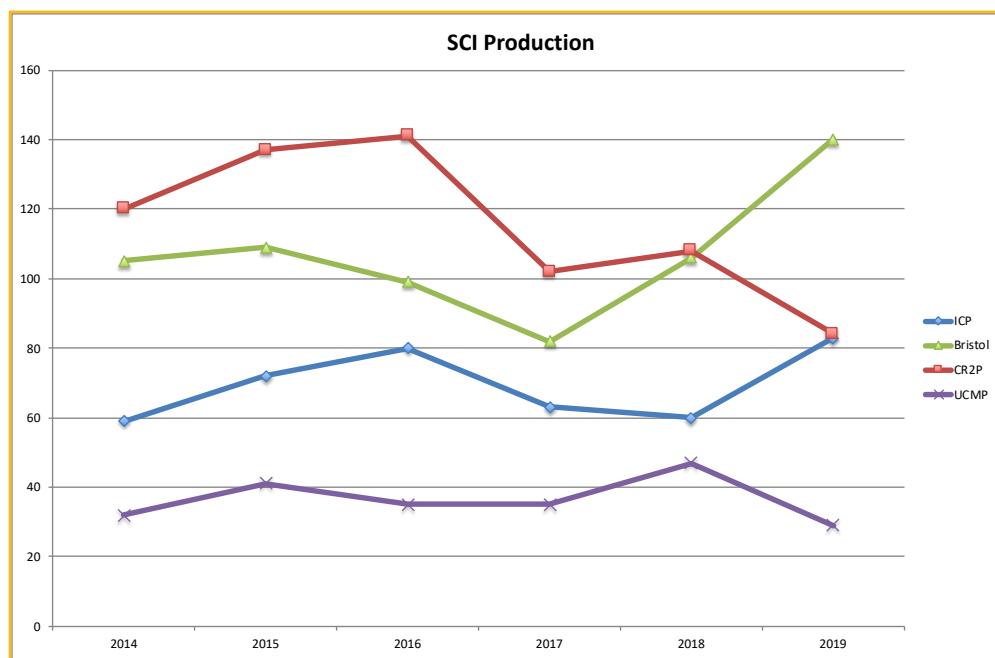
- **Centre de Recherche sur la Paléobiodiversité et les Paléoenvironments (CR2P), CNRS-MNHN-Sorbonne Université, France:** This research center, exclusively devoted to paleontology (in a broad sense), aims at elucidating the phylogenetic patterns and evolutionary history of living organisms through the fossil record and environments of the past. It is simultaneously supported by the Muséum National d'Histoire Naturelle (MNHN), Paris; the Centre National de la Recherche Scientifique (CNRS); and formerly the Université Pierre-et-Marie Curie (UPMC-Paris 6), which in January 2018 merged into the current Sorbonne Université. As indicated in its webpage (<http://paleo.mnhn.fr/en>), the CR2P equals to the Unité Mixte de Recherche (UMR) 7207. Both identifiers have been most useful to retrieve its scientific production from Scopus and similar databases. The CR2P resembles the ICP in involving the cooperation of a university, a museum, and a research national institution. It has three ‘research teams’, which are much larger than the ICP research groups: Team 1 (PALPAL: Palaeobiodiversities, palaeoenvironments); Team 2 (PDM: Metazoan phylogeny and diversification); and Team 3 (FOSFO: Forms, structures and functions).

Absolute and relative indicators. The annual values for the aforementioned indicators during 2019, the preceding five years (2014-2018) and the average for the latter are reported in the following table. Relative indicators are denoted in italics.

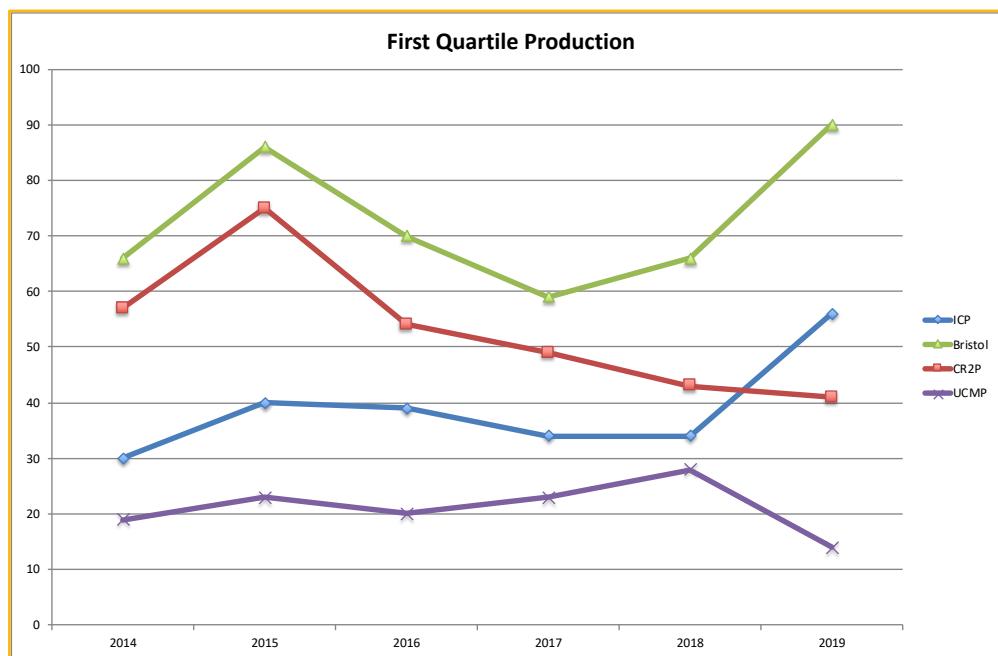
INSTITUTION	METRIC	2014	2015	2016	2017	2018	2014-2018	2019
ICP	SCI papers	59	72	80	63	60	66.8	83
PRG	SCI papers	105	109	99	82	106	100.2	140
CR2P	SCI papers	120	137	141	102	108	121.6	84
UCMP	SCI papers	32	41	35	35	47	38.0	29
ICP	SCI Q1	30	40	39	34	34	35.4	56
PRG	SCI Q1	66	86	70	59	66	69.4	90
CR2P	SCI Q1	57	75	54	49	43	55.6	41
UCMP	SCI Q1	19	23	20	23	28	22.6	14
ICP	SCI authors	39	49	44	38	41	42.2	41
PRG	SCI authors	66	82	72	68	89	75.4	107
CR2P	SCI authors	90	87	86	72	80	83.0	76
UCMP	SCI authors	20	24	22	22	26	22.6	20
ICP	SCI productivity	1.51	1.47	1.82	1.66	1.46	1.58	2.02
PRG	SCI productivity	1.59	1.33	1.38	1.21	1.19	1.34	1.31
CR2P	SCI productivity	1.33	1.57	1.64	1.42	1.35	1.46	1.11
UCMP	SCI productivity	1.60	1.71	1.67	1.59	1.81	1.67	1.45
ICP	SCI Q1 productivity	0.77	0.82	0.89	0.92	0.83	0.84	1.37
PRG	SCI Q1 productivity	1.00	1.05	0.97	0.87	0.74	0.93	0.84
CR2P	SCI Q1 productivity	0.63	0.86	0.63	0.68	0.54	0.67	0.54

<i>UCMP</i>	<i>SCI Q1 productivity</i>	0.95	0.96	0.95	1.05	1,08	1.00	0.70
<i>ICP</i>	<i>SCI Q1 ratio %</i>	50.8	55.6	48.8	54.0	56.7	53.2	67.5
<i>PRG</i>	<i>SCI Q1 ratio %</i>	62.9	78.9	70.7	72.0	62.3	69.3	64.3
<i>CR2P</i>	<i>SCI Q1 ratio %</i>	47.5	54.7	38.3	48.0	39.8	45.7	48.8
<i>UCMP</i>	<i>SCI Q1 ratio %</i>	59.4	56.1	57.1	65.7	59.6	59.6	48.3
<i>ICP</i>	<i>SCI open access</i>	19	13	16	20	16	16.8	23
<i>PRG</i>	<i>SCI open access</i>	20	23	17	15	15	18.0	29
<i>CR2P</i>	<i>SCI open access</i>	11	16	25	21	14	17.4	11
<i>UCMP</i>	<i>SCI open access</i>	4	7	6	4	9	6.0	7
<i>ICP</i>	<i>SCI open ratio %</i>	32.2	18.1	20.0	31.7	26.7	25.7	27.7
<i>PRG</i>	<i>SCI open ratio %</i>	19.0	21.1	17.2	18.3	14.2	18.0	20.7
<i>CR2P</i>	<i>SCI open ratio %</i>	9.2	11.7	17.7	20.6	13.0	14.4	13.1
<i>UCMP</i>	<i>SCI open ratio %</i>	12.5	17.1	17.1	11.4	19.1	15.5	24.1
<i>ICP</i>	<i>SCI leadership</i>	42	36	36	23	24	32.2	34
<i>PRG</i>	<i>SCI leadership</i>	71	71	56	50	58	61.2	75
<i>CR2P</i>	<i>SCI leadership</i>	64	58	57	38	36	50.6	48
<i>UCMP</i>	<i>SCI leadership</i>	15	15	18	25	29	20.4	16
<i>ICP</i>	<i>Q1 leadership</i>	21	24	20	14	13	18.4	24
<i>PRG</i>	<i>Q1 leadership</i>	46	53	40	35	34	41.6	51
<i>CR2P</i>	<i>Q1 leadership</i>	27	31	20	14	16	21.6	22
<i>UCMP</i>	<i>Q1 leadership</i>	6	9	9	18	17	11.8	8
<i>ICP</i>	<i>SCI leadership ratio %</i>	71.2	50.0	45.0	36.5	40.0	48.5	41.0
<i>PRG</i>	<i>SCI leadership ratio %</i>	67.6	65.1	56.6	61.0	54.7	61.0	53.6
<i>CR2P</i>	<i>SCI leadership ratio %</i>	53.3	42.3	40.4	37.3	33.3	41.3	57.1
<i>UCMP</i>	<i>SCI leadership ratio %</i>	46.9	36.6	51.4	71.4	61.7	53.6	55.2
<i>ICP</i>	<i>Q1 leadership ratio %</i>	70.0	60.0	51.3	41.2	38.2	52.1	42.9
<i>PRG</i>	<i>Q1 leadership ratio %</i>	69.7	61.6	57.1	59.3	51.5	59.9	56.7
<i>CR2P</i>	<i>Q1 leadership ratio %</i>	47.4	41.3	37.0	28.6	37.2	38.3	53.7
<i>UCMP</i>	<i>Q1 leadership ratio %</i>	31.6	39.1	45.0	78.3	60.7	50.9	57.1
<i>ICP</i>	<i>SCI median JIF %ile</i>	77.6	80.8	73.8	77.3	78.5	75.8	86.8
<i>PRG</i>	<i>SCI median JIF %ile</i>	85.0	90.0	87.6	89.4	92.6	89.7	85.1
<i>CR2P</i>	<i>SCI median JIF %ile</i>	71.4	80.7	67.6	78.2	71.1	72.3	76.0
<i>UCMP</i>	<i>SCI median JIF %ile</i>	78.9	78.6	80.6	84.5	86.5	81.0	72.1
<i>ICP</i>	<i>SCI IF GM</i>	1.91	2.11	1.99	2.17	2.58	2.13	3.00
<i>PRG</i>	<i>SCI IF GM</i>	3.18	3.43	3.61	3.56	5.01	3.63	3.09
<i>CR2P</i>	<i>SCI IF GM</i>	1.82	2.01	2.07	2.29	1.86	2.00	2.11
<i>UCMP</i>	<i>SCI IF GM</i>	2.11	2.93	3.26	3.45	3.18	2.97	2.68
<i>ICP</i>	<i>Paleontology</i>	24	29	40	26	20	28.2	30
<i>PRG</i>	<i>Paleontology</i>	34	29	21	26	11	24.2	36
<i>CR2P</i>	<i>Paleontology</i>	63	65	57	42	36	52.6	28
<i>UCMP</i>	<i>Paleontology</i>	8	12	8	11	3	8.4	4
<i>ICP</i>	<i>Multidisciplinary sciences</i>	8	12	7	14	13	10.8	11
<i>PRG</i>	<i>Multidisciplinary sciences</i>	23	19	18	15	18	18.6	19
<i>CR2P</i>	<i>Multidisciplinary sciences</i>	8	15	16	16	10	13.0	9
<i>UCMP</i>	<i>Multidisciplinary sciences</i>	5	8	10	8	7	7.6	6
<i>ICP</i>	<i>%Paleontology</i>	40.7	40.3	50.0	41.3	36.7	41.8	36.1
<i>PRG</i>	<i>%Paleontology</i>	32.4	26.6	21.2	31.7	10.4	24.5	25.7
<i>CR2P</i>	<i>%Paleontology</i>	52.5	47.4	40.4	41.2	33.3	43.0	33.3
<i>UCMP</i>	<i>%Paleontology</i>	25.0	29.3	22.9	31.4	6.4	23.0	13.8
<i>ICP</i>	<i>%Multidisciplinary sci.</i>	13.6	16.7	8.8	22.2	21.7	16.6	13.3

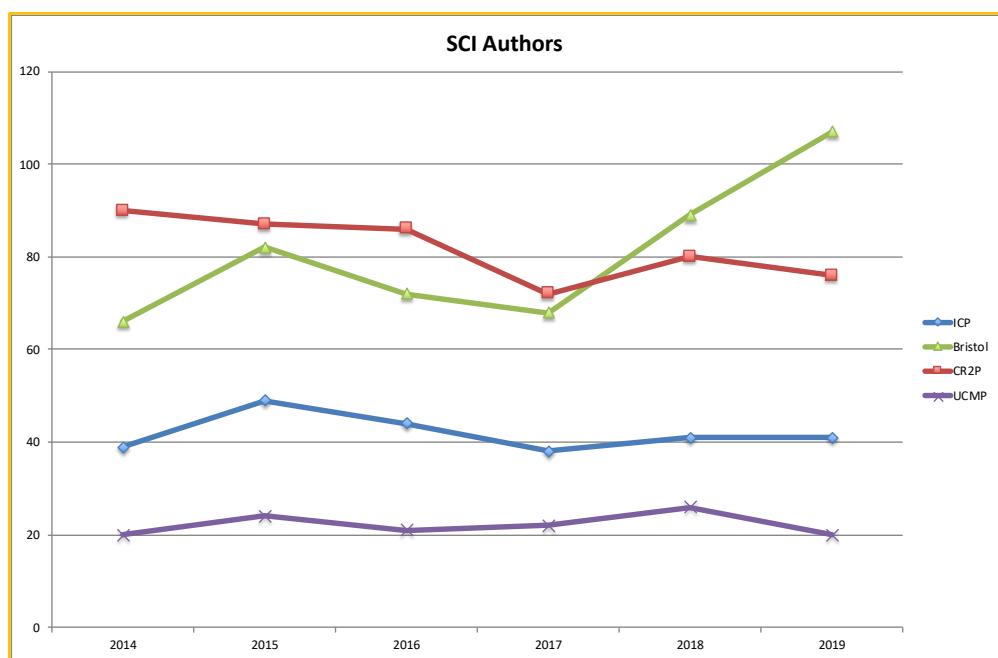
<i>PRG</i>	%Multidisciplinary sci.	21.9	17.4	18.2	18.3	17.0	18.6	13.6
<i>CR2P</i>	%Multidisciplinary sci.	6.7	10.9	11.3	15.7	9.3	10.8	10.7
<i>UCMP</i>	%Multidisciplinary sci.	15.6	19.5	28.6	22.9	14.9	20.3	20.7
<i>ICP</i>	SCI own papers only	18	9	15	4	5	10.2	5
<i>PRG</i>	SCI own papers only	21	22	16	13	14	17.2	17
<i>CR2P</i>	SCI own papers only	19	21	22	14	8	16.8	16
<i>UCMP</i>	SCI own papers only	3	4	4	10	16	7.4	18
<i>ICP</i>	SCI papers int. coll.	32	49	52	46	48	45.4	66
<i>PRG</i>	SCI papers int. coll.	62	65	67	50	75	63.8	108
<i>CR2P</i>	SCI papers int. coll.	79	99	100	72	74	84.8	55
<i>UCMP</i>	SCI papers int. coll.	14	27	23	17	18	19.8	6
<i>ICP</i>	SCI own papers only (%)	30.5	12.5	18.8	6.3	6.7	15.3	6.0
<i>PRG</i>	SCI own papers only (%)	20.0	20.2	16.2	15.9	13.2	17.1	12.1
<i>CR2P</i>	SCI own papers only (%)	15.8	15.3	15.6	13.7	7.4	13.6	19.0
<i>UCMP</i>	SCI own papers only (%)	9.4	9.8	11.4	28.6	34.0	18.6	62.1
<i>ICP</i>	SCI papers int. coll. (%)	54.2	68.1	65.0	73.0	80.0	68.1	79.5
<i>PRG</i>	SCI papers int. coll. (%)	59.0	59.6	67.7	61.0	70.8	63.6	77.1
<i>CR2P</i>	SCI papers int. coll. (%)	65.8	72.3	70.9	70.6	68.5	69.6	65.5
<i>UCMP</i>	SCI papers int. coll. (%)	43.8	65.9	65.7	48.6	38.3	52.4	20.7
<i>ICP</i>	Total collaborations	120	227	206	179	202	186.8	417
<i>PRG</i>	Total collaborations	244	305	298	266	319	286.4	472
<i>CR2P</i>	Total collaborations	318	427	702	265	382	418.8	270
<i>UCMP</i>	Total collaborations	89	206	162	111	92	132.0	126
<i>ICP</i>	International collaborations	74	145	117	104	150	119.2	331
<i>PRG</i>	International collaborations	165	231	217	190	232	207.0	355
<i>CR2P</i>	International collaborations	179	289	567	189	253	295.4	71
<i>UCMP</i>	International collaborations	22	130	78	59	34	64.6	60
<i>ICP</i>	International coll. (%)	61.7	63.9	56.8	59.2	76.2	63.6	79.4
<i>PRG</i>	International coll. (%)	67.6	75.7	72.8	71.4	72.7	72.1	75.2
<i>CR2P</i>	International coll. (%)	56.3	67.7	80.8	71.3	66.2	68.5	26.3
<i>UCMP</i>	International coll. (%)	24.7	63.1	48.1	53.2	37.0	45.2	47.6



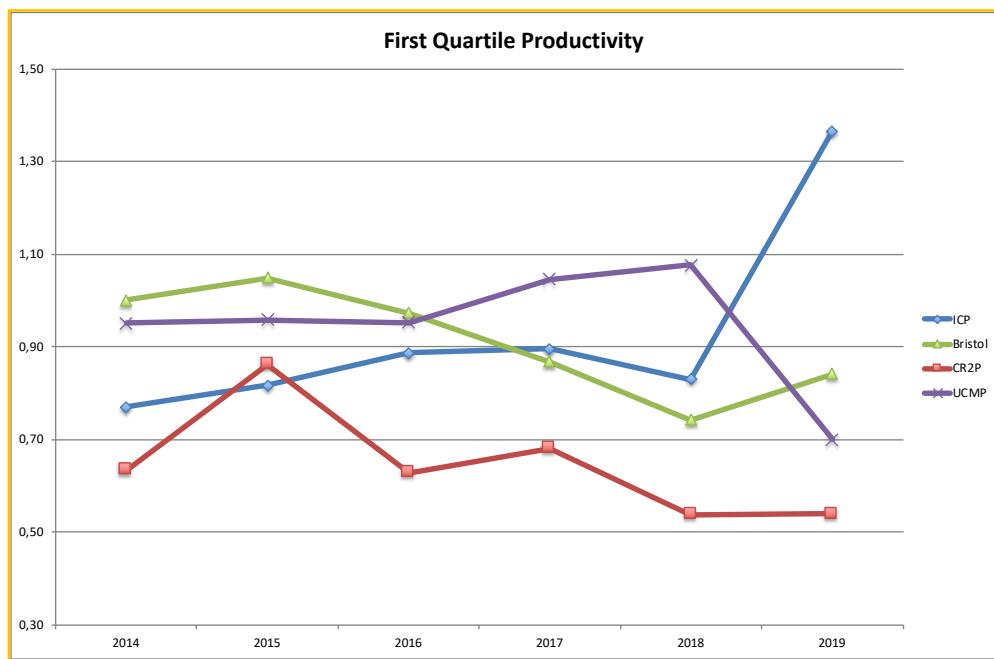
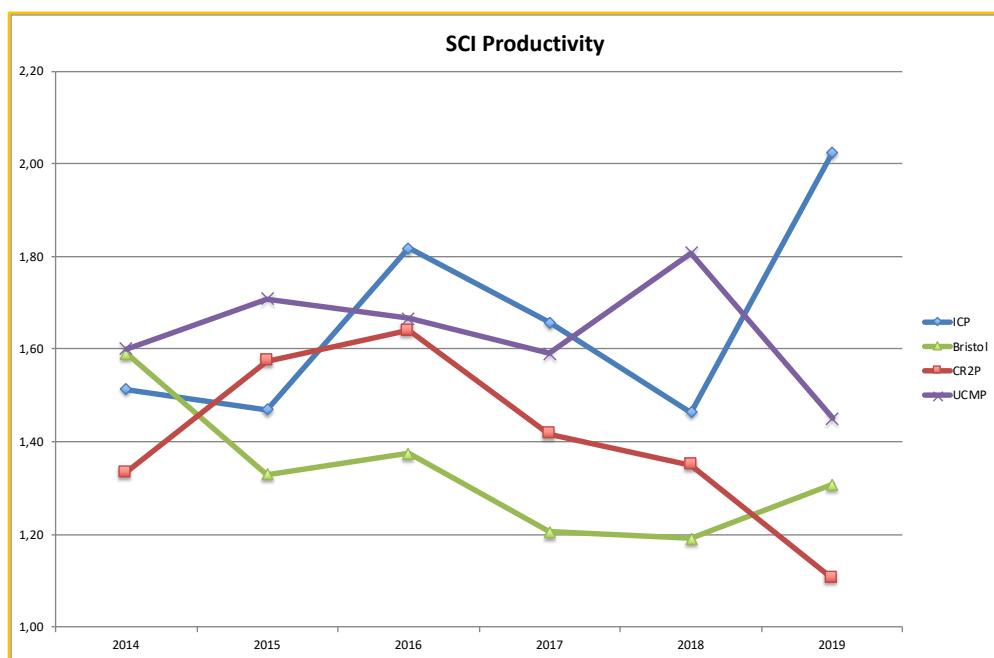
Production. In average SCI production and Q1 SCI production for the five previous years (2014-2018), the ICP is the third institution after Bristol and Paris, but in 2019 the ICP is the second institution in Q1 SCI production—only after Bristol and reaching almost the same amount of total SCI production than Paris.



Productivity. The above-mentioned differences in total SCI and Q1 production are to a large extent attributable to differences in the number of authors of each institution, but not exclusively, as shown by the fact that the ICP is the third institution in number of authors, both in 2019 and for the average of the five preceding years.

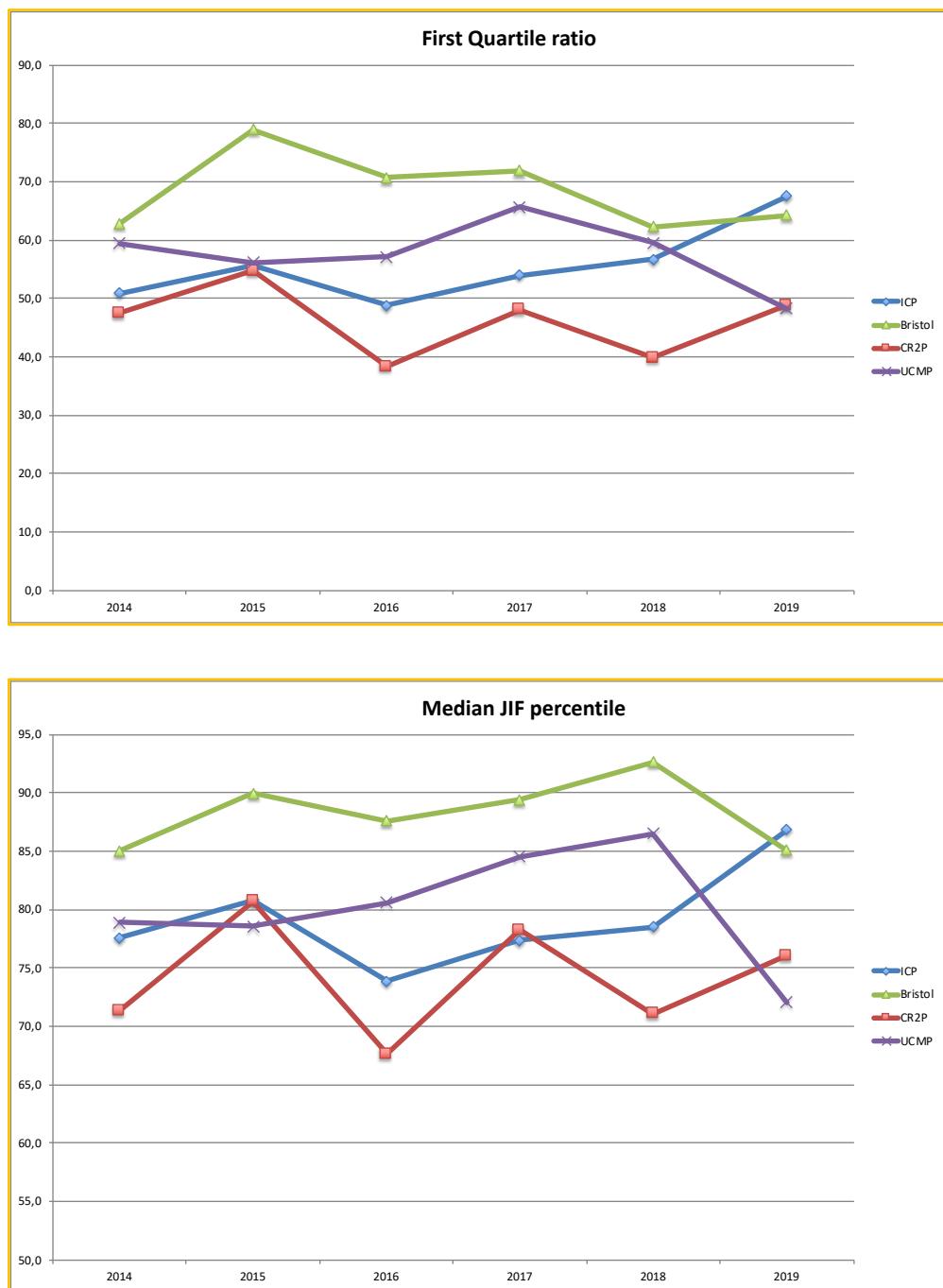


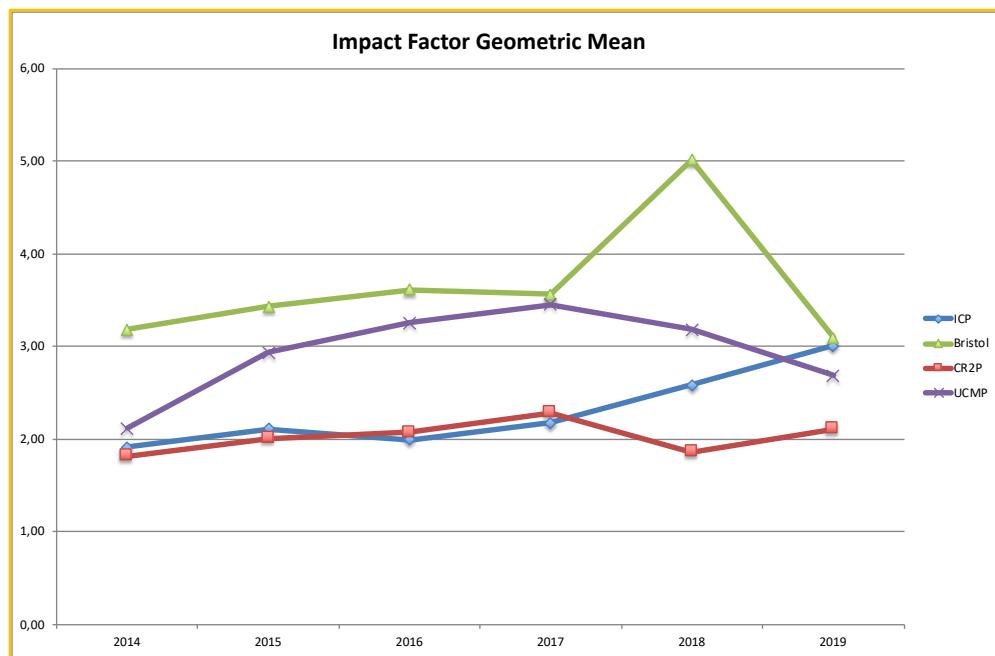
When productivity is computed by dividing production by authors, it emerges that the ICP is the first institution in total SCI productivity and Q1 productivity for 2019, while it only is the second and the third, respectively, for the five preceding years. In other words, the productivity of the ICP has significantly increased during the last year.



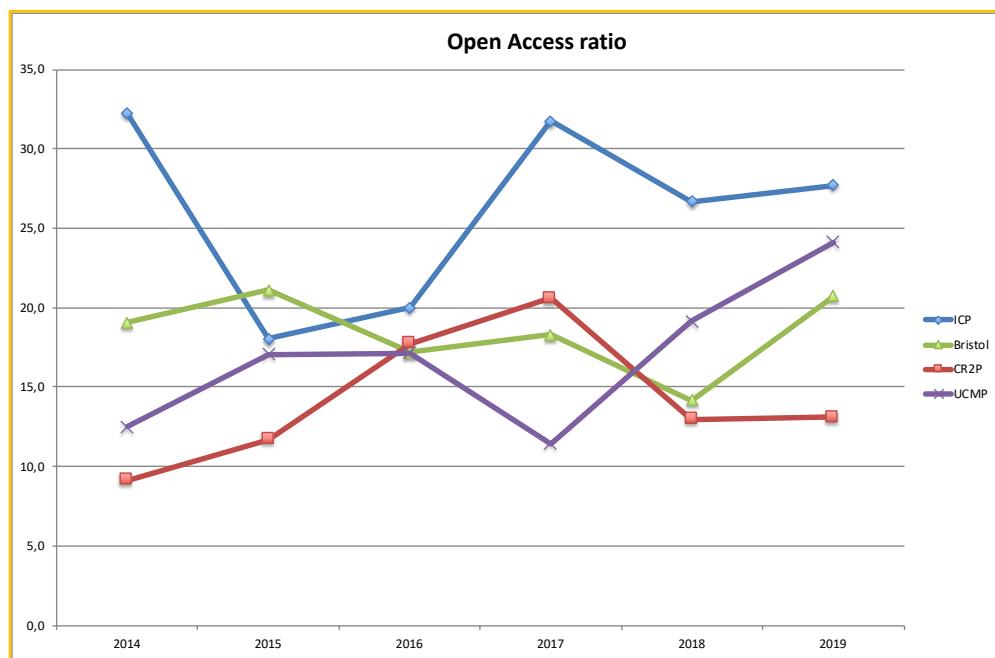
Quality and impact. With regard to the percentage of papers published in first quartile SCI journals, the ICP is the first institution in 2019, as compared to merely the third in terms of the average for the five preceding years. This is attributable both to an improvement in the ICP ratio and a decrease in the ratio of Bristol and Berkeley. The same situation is found for the median

JIF percentile and the geometric mean of the impact factor, except that the ICP is the second (instead of the third) for median JIF percentile in 2014-2018 and the second (instead of the first) for the IF geometric mean in 2019 (although very close to Bristol, unlike for the preceding years). Overall these data reflect that the increase of production and productivity of the ICP in 2019 has been accompanied by an improvement in quality and impact as well.

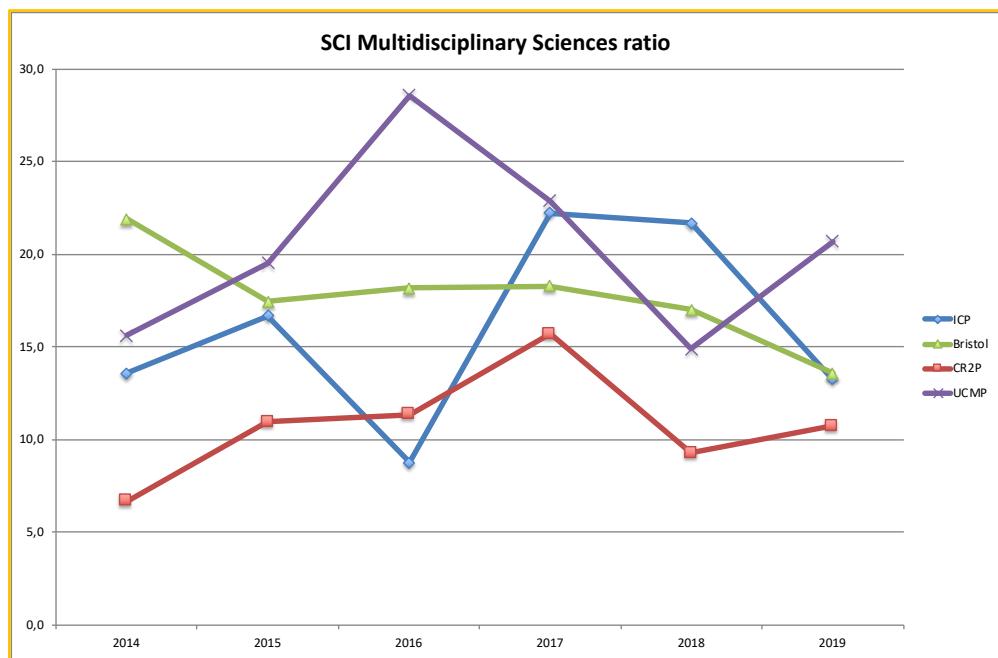
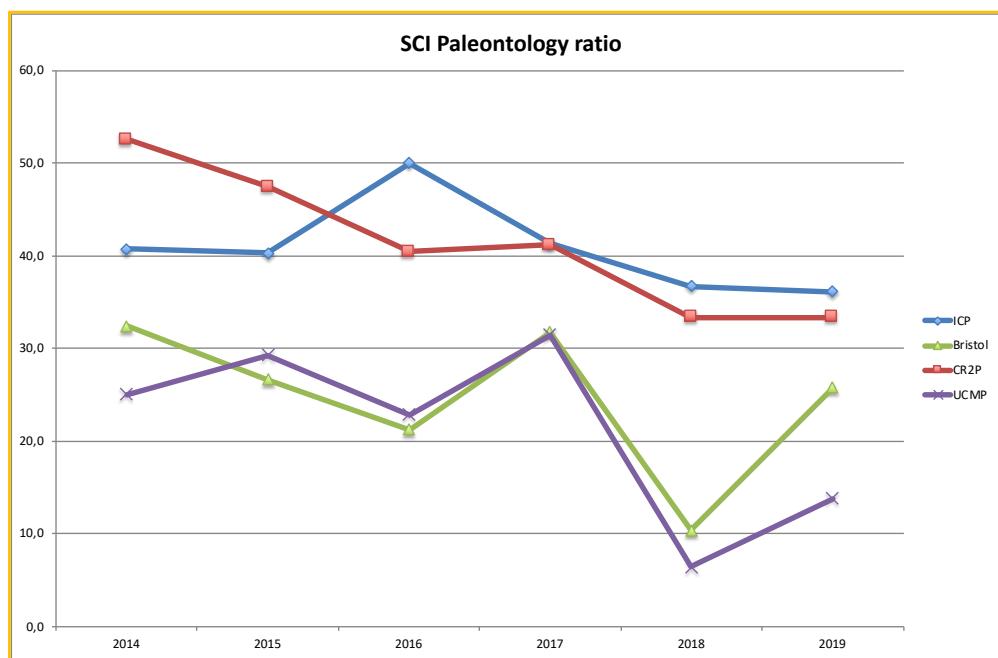




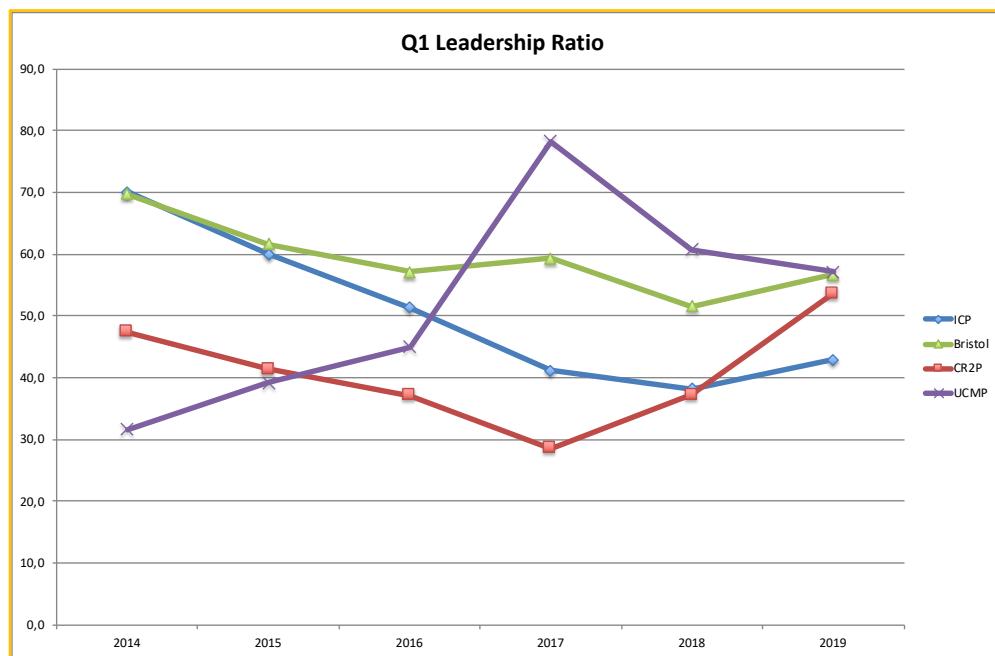
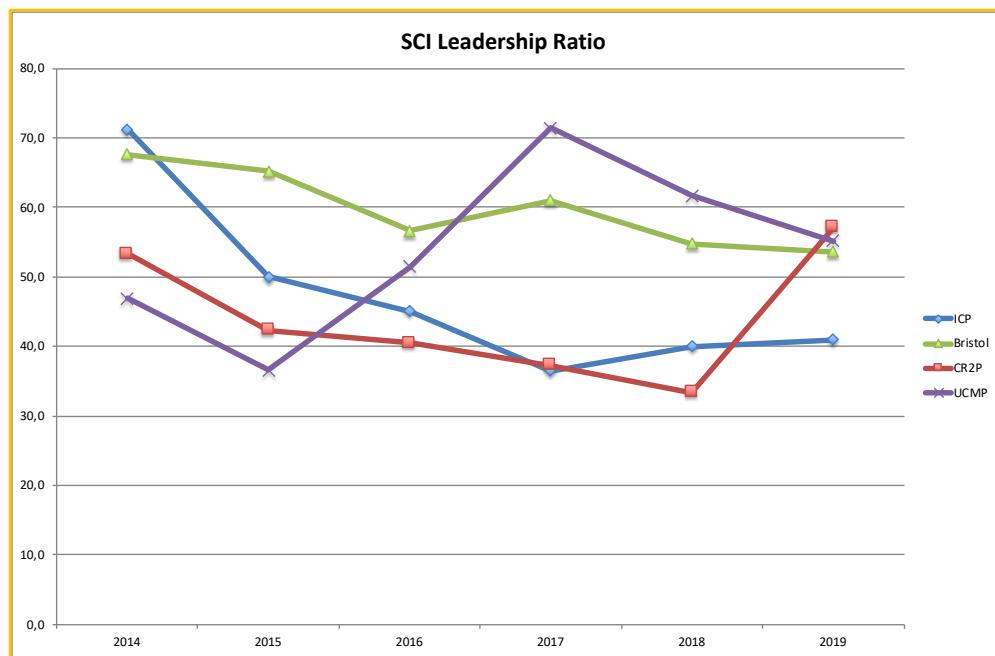
Open access. The ICP occupies the third position in percentage of SCI papers published in OA journals, both in 2019 and in the five previous years.



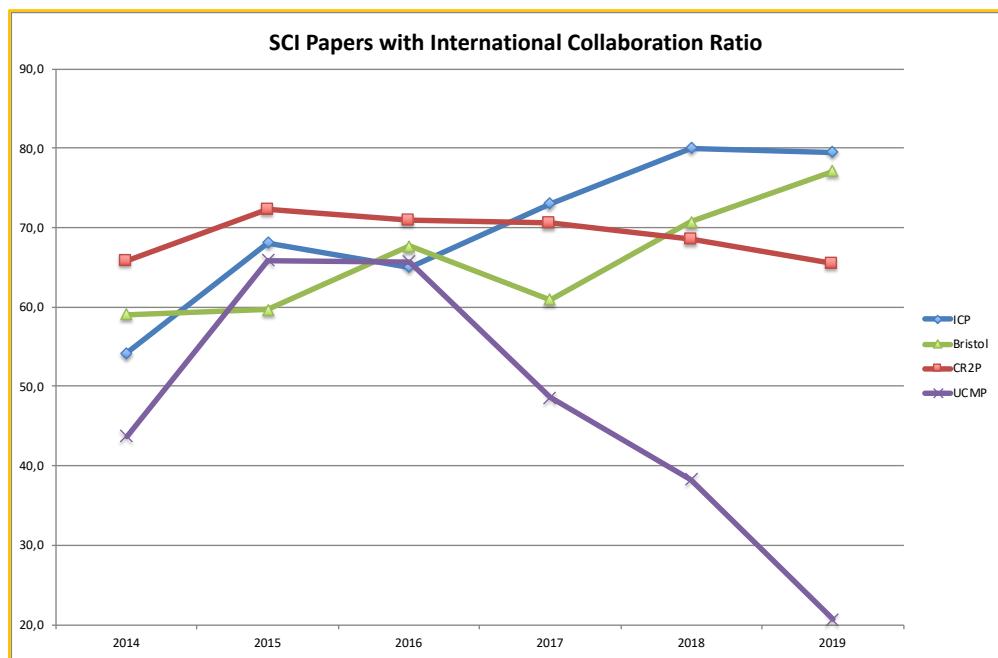
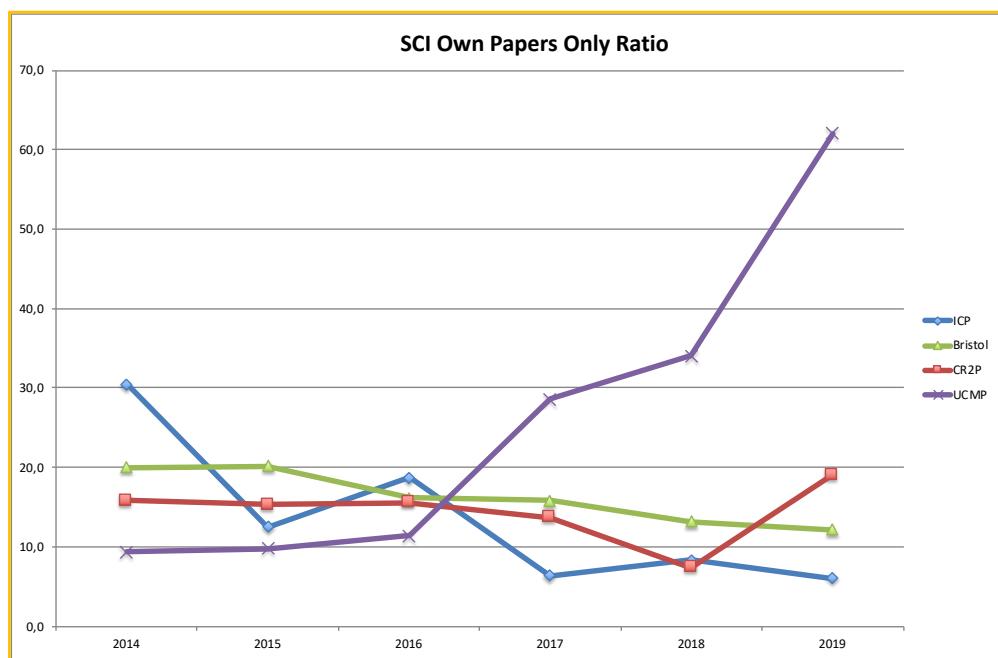
Discipline specificity and multidisciplinarity. Based on the proportion of papers published in SCI journals from the category ‘Paleontology’, the ICP occupies the first position for 2019 and the second one for the five preceding years. In contrast, in terms of papers published in the category ‘Multidisciplinary sciences’, the ICP occupies the third position for both 2019 and 2014-2018.



Leadership. The ICP ranks as the third institution in terms of SCI leadership (as measured by the corresponding author) for the previous five years, but as the fourth for 2019. When only Q1 leadership is considered, the ICP is also the fourth institution for 2019 but the second when the five preceding years are considered. Such a decrease in leadership for the ICP is only apparent, resulting from the better results obtained by Paris in 2019. Indeed, the ICP has slightly improved leadership as compared to 2018 and started to revert the decreasing trend from the preceding years.

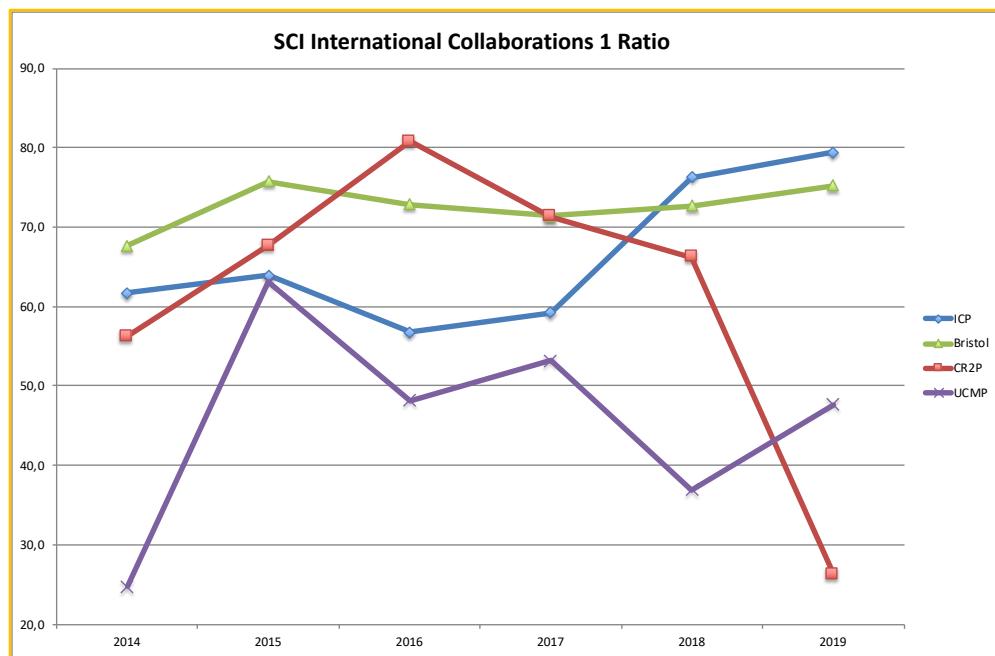


Self-sufficiency, collaborations and internationalization. For self-sufficiency in publication, as measured by the ratio of SCI papers exclusively (co)authored by researchers with ICP affiliation, the ICP appears the third for the five preceding years and the fourth for 2019. Opposite results are obtained for the ratio of papers with international collaboration(s), for which the ICP is recovered as the second institution for 2014-2018 and as the first one for 2019. When collaborations are measured on the basis of the other affiliations included in SCI papers from each institution, it emerges that the ICP is in percentage the first institution for 2019, although it occupies only the third position when the five preceding years are considered.



Summary results and rankings. The results for the 2014-2018 annual average values and the 2019 values can be compared by means of two synthetic metrics: the geometric mean (GM) of the indicators; and the GM of the indicators relative to that of the institution with the highest GM (in %). The results are reported for all indicators together, as well as for absolute and relative indicators separately, both in table and in histogram format below.

For the previous five years, the ICP is ranked third in absolute terms (after Paris and Bristol, with a performance of ca. 61% of the former), but second in relative terms (after Bristol, with a performance of ca. 95%), so that when both types of indicators are considered together the ICP is ranked third after Bristol and Paris, with a performance of ca. 79% the former.

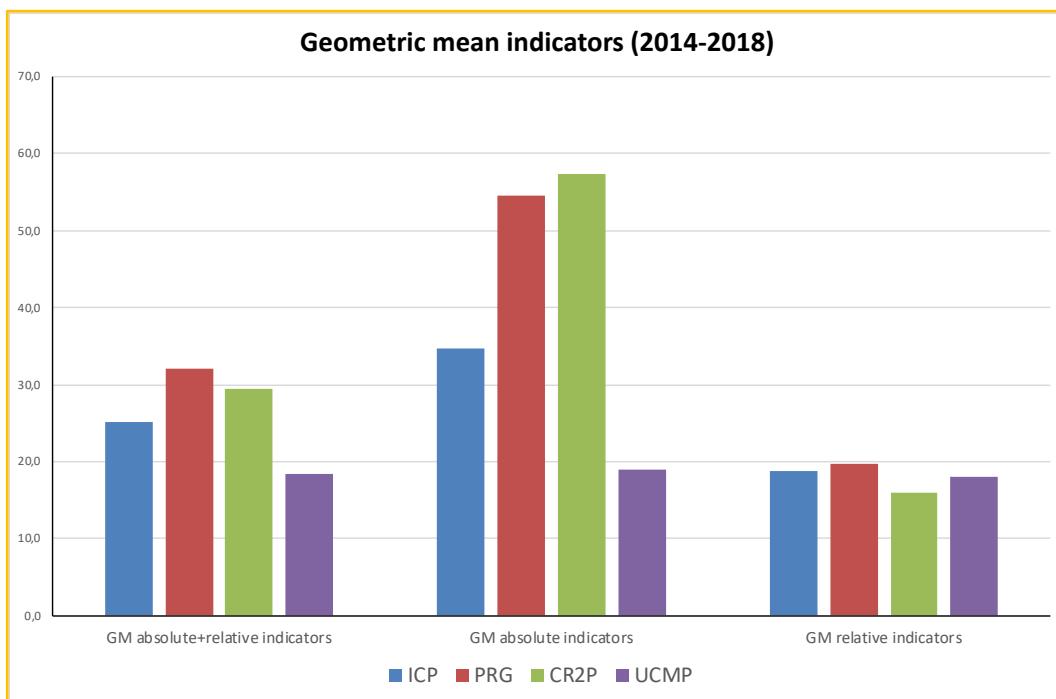


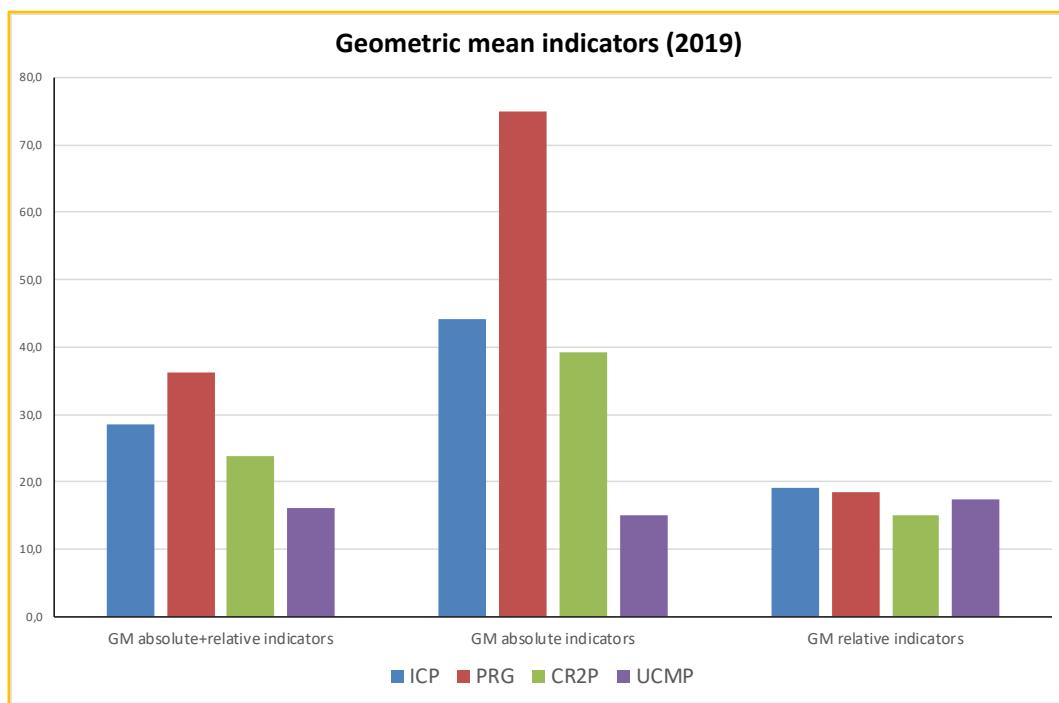
SUMMARY METRICS	2014-2018				2019			
	ICP	PRG	CR2P	UCM P	ICP	PRG	CR2 P	UCM P
GM absolute+relative indicators	25.2	32.1	29.5	18.5	28.5	36.2	23.9	16.2
GM absolute+relative indicators relative to PRG	78.5	100.0	92.0	57.6	78.8	100.0	66.0	44.9
GM absolute indicators	34.8	54.6	57.4	19.0	44.1	75.0	39.1	15.1
GM absolute indicators relative to CR2P/PRG	60.5	95.1	100.0	33.1	58.8	100.0	52.2	20.2
GM relative indicators	18.7	19.6	16.0	18.0	19.0	18.5	15.1	17.3
GM relative indicators relative to PRG/ICP	95.1	100.0	81.3	91.6	100.0	96.9	79.5	91.0

The numerical results for the ICP in 2019 in terms of geometric mean of both absolute and relative indicators, either separately or together, indicate a general improvement as compared to 2014-2018. Based on absolute indicators, the ICP is no longer ranked third, but second, only after Bristol, with a performance ca. 60% of that institution (in general all the institutions compared improve except Paris, which shows a decrease relative to previous years). Based on relative indicators, the ICP is no longer ranked as second, but as the first, followed by Bristol with a performance of ca. 97 (although it should be taken into account that the performance of each institution in 2019 is very similar to the average for the five previous years). Finally, when both absolute and relative indicators are considered simultaneously, the ICP is no longer ranked as third but as second, with a performance of ca. 79% that of Bristol (as for the five previous years).

Absolute indicators better depict the global impact of a given institution among the international scientific community, but relative indicators are size-corrected and therefore are more reliable to evaluate the performance of a given institution irrespective of its size. The

results for 2019 are very satisfactory, indicating that the ICP has improved its performance to some extent both in absolute and relative terms. Indeed, other institutions (particularly Bristol) have also improved in 2019, but it is remarkable that the ICP has improved more or less to the same extent, being fully comparable to this most prestigious paleontological center once size is taken into account. All in all, the analysis performed here confirms once again that the ICP is performing exceedingly well as far as research outputs are concerned, and suggests that the limitations in the global impact of the institution are almost entirely determined by its current size (i.e., by the number of payroll researchers as well as research associates).





CERCA recommendations

CERCA Evaluation. A formal evaluation of the ICP was performed by the CERCA institution on 29 October 2018, by means of an Evaluation Commission (EC) composed by members of the ICP Scientific Advisory Board as well as independent members from abroad. The evaluation of the ICP by the EC was based on the responses provided by the ICP Director to the Evaluation Questionnaire elaborated by CERCA (submitted in August 2018) as well as by a presentation performed on 29 October 2018 in front of the EC, based on the results for 2013-2017.

The conclusions of the EC were provided in a written report elaborated by the EC and sent to the ICP Director on 27 December 2018. The EC awarded the ICP with a ‘B’ qualification (very good, with excellent results at national level although some pending issues to be addressed at the international scenario), although according to the report some members of the EC considered that the ICP deserved the upmost qualification ‘A’ (outstanding performance, placing the centre among the top international performing institutions on its field). The EC took into account the significant progress of the institution during the 2013-2017 period, the high degree of fulfilment of the recommendations stated in the previous evaluation report (2013), the scientific production and productivity, the excellent management of the center, and the performance in the knowledge transfer activities and the outreach and dissemination activities.

Action Plan for CERCA Recommendations. An action plan summarizing the recommendations provided by the EC and their implementation during 2019-2022 was approved in February 2019 by the Steering Committee, and subsequently ratified by the Board of Trustees in May 2019. The 13 recommendations provided by CERCA are quoted below, each followed by the ICP implementation proposal as well as an update of its current situation.

- **Recommendation 1: ERC funding.** CERCA recommendation: The EC believes that this issue [lack of European funding] is one of the main challenges for the Institute for the next period. ICP should work hard to improve the current situation, leveraging its strengths. ICP has the potential to gain ERC funding, for instance, via the research collaboration agreement involving an ICREA Research Professor of the Universitat Pompeu Fabra (UPF) in the area of palaeogenetics and palaeoproteomics, which could lead to an interdisciplinary project. ICP should also apply to ERC Synergy Grants, in collaboration with other prestigious institutions in the European arena (for instance, in the field of climate change research). ICP proposal: The ICP Steering Committee fully agrees with this recommendation, which indeed started to be implemented before the CERCA evaluation. The research agreement with ICREA Research Professor and ICP research associate Tomàs Marquès-Bonet, signed in September 2018, includes among the researcher’s commitments “to explore the organization and leadership of a transnational project proposal (MSCA ITN, ERC Synergy Grant, or similar) about primate paleogenetics and/or paleoproteomics, with the participation of at least the Head of the Paleoprimatology & Human Paleontology Research Group, the Head of the Neogene & Quaternary Faunas Research Group, and the Head of the Virtual Paleontology

Area of the ICP, to be submitted not later than 2020". In January 2019, an MSCA ITN-ETN application on hominid paleoproteomics was submitted, in which the ICP participates as partner organization (with ICP Director as scientist in charge) and Prof. Marquès-Bonet participates as scientist-in-charge of the UPF as participating organization. Even though partner organizations receive no overheads, this is an important first step. We plan to be more directly involved in other European applications based on this topic, with the ultimate aim to participate in a Synergy Grant application to the ERC focused on this topic in the midterm. Other ICP research lines are relevant to climate change within the framework of conservation paleobiology (i.e., a deep time approach to species conservation), so we hope to be able to submit individual ERC applications during the next years as well.

Implementation: The MSCA ITN-ETN project was awarded in 2019, and will start in 2020. A new Project Manager was recruited in 2019 (starting in January 2020), which hopefully will contribute to increase the number of applications of ICP researchers to European funding opportunities in years to come.

- **Recommendation 2: SAB meetings.** CERCA recommendation: The EC recommends that the Institute schedules at least one meeting of the SAB every two years at ICP headquarters. An agenda of the meeting should be made and delivered to the members of the SAB before the meeting. This procedure will be useful to support the scientific decisions of importance to be taken in the Institute. ICP proposal: The ICP Steering Committee concurs that organizing periodical meetings of the Scientific Advisory Board (SAB) would be positive, and recognizes that this has not been done to a large extent due to budgetary constraints during the last years. We propose to start the process of replacing SAB members in 2019, and have the first meeting in 2020, once some of the members have already been substituted (see recommendation 3 below). The second meeting should take place ca. 2022, coinciding with the next CERCA evaluation of the ICP. Additional, more informal meetings with part of the SAB or the SAB President could be done in-between using telematic means. Implementation: Throughout 2019 the ICP Director has been in contact with the SAB President to discuss the renewal of the board (see next recommendation below) and to schedule the next SAB meeting for October or November of 2020.
- **Recommendation 3: SAB composition renewal.** CERCA recommendation: At the same time, the EC recommends to renew the composition of the SAB as well as to define duties and agenda in advance to optimise its contribution. Consider inviting some foreign ERC grantees to join the Board, by seeking new members that can help optimise ICP's approach for gaining ERC funding. ICP proposal: The ICP Steering Committee also concurs about the need to renew the composition of the SAB, as well as to define the duties of the SAB members more specifically. Choosing board members is not an easy task because several requirements must be considered: (1) to improve the gender ratio of the board (more women are required); (2) to seek academics that have an excellent publication record, are renowned in the field, have an impeccable ethical trajectory, and are not close to retirement; (3) that the research lines of each academic overlap with the aims and scope of at least one of the

research groups of the ICP; and (4) that these academics have experience and can also provide advice to aspects related to fundraising, with emphasis on ERC competitive funding or engaging donors and sponsors for big science projects. We propose to maintain the current number of seven SAB members. Three of the current members (M. Brunet, B.K. McNab, and E. Vrba) have been retired for several years now (even if they are emeritus), two additional ones have just retired (D. Pilbeam and J.L. Sanz), another one will retire in three years (J. Morales), and the remaining one is the only young enough to stay longer than ten years on the board. We propose a two-step renewal process to be performed during the next five years (2020-2023) and led by the current President of the SAB (J.L. Sanz). The first to be replaced would be the three SAB members already retired, which could take place in 2020 before the SAB meeting; the Steering Committee would propose and discuss candidates with the SAB President, and once agreed, would propose them for approval to the Board of Trustees. In 2022, the process would be repeated at least regarding the two members that just retired in 2018, including SAB President, and maybe also the board member that is expected to retire ca. 2021-2022. The new members and the proposal for new president should be submitted to the Board of Trustees for approval in 2023, resulting in a completely renewed SAB including only one of the current board members.

Implementation: Besides the SAB President, during 2019 the ICP director has also interview with some other SAB members (face to face and/or by telematic means, depending on the case) to ensure their continuity beyond 2020. At the same time, the Steering Committee approved in 2019 the three new SAB members that will be proposed to the Board of Trustees in 2020, and whom, if ratified, will attend the next SAB meeting. The researchers to be proposed to the Board of Trustees as new SAB members include two females (Anusuya Chinsamy and Beatriz Azanza) and a male (Clément Zanolli). They were already contacted by the ICP Director during 2019 and agreed to join the SAB, pending their approval by the Board of Trustees.

- **Recommendation 4: Retirement of two Senior Group Leaders.** CERCA recommendation: This issue [the likely retirement of two Senior Group Leaders] should be addressed during this next period, trying to define a strategy to replace the Group Leaders before that happens and taking into account that current ICP researchers are not eligible for permanent ICREA contracts. ICP proposal: The Steering Committee concurs that the retirement of the ICREA Research Professors S. Moyà-Solà and M. Köhler, respective leaders of the Paleoprimatology & Human Paleontology and the Evolutionary Paleobiology research groups of the ICP, is a serious challenge from a financial viewpoint. The most obvious way to ameliorate this problem would be to attract new ICREA Research Professors to our institution but, irrespective of this, it is clear that new group leaders will be required. This is not going to happen in the short term, because the two above-mentioned ICREA professors have been authorized by ICREA not to retire before they are 70, which means that M. Köhler will have to retire in 2023 and S. Moyà-Solà in 2025. The Steering Committee considers that the best prospects for substituting these research group leaders are on the current ICP staff

of researchers, but recognizes that the current organization of four fixed research groups is not flexible enough to prepare the ground for their eventual replacement. In particular, current ICP experienced researchers have no prospects to become junior research group heads, which would be a required step to become senior group leaders in the future. Furthermore, what is important is to preserve (and, if possible, increase) the number of research groups, whose scope and aims must not necessarily remain stationary. Therefore, the Steering Committee proposes to change the current Organization Chart to allow for a more flexible structure of research groups, whose number and aims might depend on the basis of the personnel available at a given time, while at the same time preserving more stable research areas (each with the respective research area head), each with one or more research groups, within a single Research Department led by the ICP Scientific Director. The particulars should be discussed throughout 2019, to be presented to the Board of Trustees for approval in 2020. Implementation: The new version of the Organization Chart approved by the ICP Steering Committee in late 2019 (and summarized earlier in this report), to be presented for approval to the Board of Trustees in 2020, elevates the number of research groups from four to six (thanks to the designation of two new junior group leaders) and further restructures them into three research areas within the Research Department.

- **Recommendation 4': CT scan.** CERCA recommendation: ICP needs to balance the beneficial impact of having again fully operational the scan and the cost of fixing this equipment. ICP proposal: The Steering Committee is well aware about the need to decide how to proceed with the currently broken CT scan of the ICP, which requires ca. 100 k€ to be fixed, by taking into account not only these costs but also the benefits that it would imply. Since 2018, the head of the Virtual Paleontology Area has been working on a viability plan for the CT, which should expose the pros and cons of repairing the machine, as well as the various alternatives to defray the associated costs. This plan should be ready before the end of 2019, to be presented to the Board of Trustees in 2020 and a decision be taken immediately thereafter (even if the selected solution cannot be immediately implemented). If it is finally decided that the CT needs to be repaired, it will be necessary to seek not only competitive funds for large infrastructures but possibly also donors, sponsors, or strategic partners, as the current financial capacity of the ICP does not allow the institution to go into additional debt. Implementation: The head of the Virtual Paleontology Area (currently leader of the Computational Paleobiology Research Group) has been working on the CT viability plan, but due to other commitments as head of the Research Support and External Services Department he has been unable to complete the document on time. The completion of the viability plan is expected for the first half 2020, to be presented for review and approval of the Board of Trustees later in 2020 or during the spring of 2021 to the latest.
- **Recommendation 5: Access to synchrotrons.** CERCA recommendation: At the same time, the EC believes that ICP could explore the access to other scientific facilities, such as synchrotrons (not only ALBA, but also the European Synchrotron Radiation Facility-ESRF in Grenoble), which may open the framework for new ambitious projects, collaborations and

funding. ICP proposal: The Steering Committee of the ICP fully agrees that irrespective of the final decision about the ICP CT scan, it is important to try to access other scientific facilities, such as synchrotrons. However, in this regard it must be stressed that in 2018 the ICP already presented two applications to the European Synchrotron Radiation Facility (ESRF) in Grenoble, which unfortunately were rejected (it should be taken into account that there is a lot of competition for synchrotron time and that paleontological research is not a priority as compared to other disciplines). Indeed, a previous application to Soleil synchrotron (Paris) was similarly rejected, so that thus far the ICP has only been able to scan some remains in a German synchrotron as a proof of concept without a formal petition (making use of hours assigned to another user). The ESRF will not be working for about a year, so it is not possible to apply again anytime soon. However, the head of the Virtual Paleontology Area is currently exploring other possibilities with a contact in London, and has a pending meeting with the relevant person at ALBA synchrotron to explore future collaborations there. On the other hand, it should be taken into account that the ICP has a longstanding research collaboration agreement with the Abdus Salam International Centre for Theoretical Physics in Trieste (Italy) to use their µCT facilities for free, and that the ICP also successfully applied to the Heinz Maier-Leibnitz Zentrum in Munich (Germany) to make use of their neutron-CT facilities for research. Subsequent applications in 2018 were rejected due to the high number of applicants, but the ICP will apply again in 2019.

Implementation: In 2019, the head of the Virtual Paleontology Area (currently the leader of the Computational Paleobiology group) had a meeting with the people in charge of the future beamline FAXTOR from ALBA Synchrotron to explore future collaborations. This beamline is expected to be fully operative in 2-3 years and Josep Fortuny will play a key role as coordinator of Spanish paleontologists interested in using this new beamline. Regarding neutron-CT facilities for research, an application from the ICP was submitted to the Heinz Maier-Leibnitz Zentrum Munich (Germany), being granted in late 2019 to be performed in early 2020. Finally, in late 2019 the ICP submitted an application to get computing time at the Barcelona Supercomputing Center – National Center of Supercomputing in relation to innovative computational approaches to landmark-free 3D geometric morphometric analysis of fossils.

- **Recommendation 6: Articulating the network of research associates.** CERCA recommendation: The EC recommends articulating the network [or research associates], in the sense of creating some simple rules or strategies to deal with the criteria for membership within the network as well as making explicit their contributions to ICP. Documentation, on a case by case basis, should be prepared for each associate member, recognising that the details of the contributions are highly variable (oversight of upcoming publications, share of ICP news in social media accounts, etc.). ICP proposal: The EC recommends articulating the network of ICP research associates, but it is not very clear what this would imply on practical grounds. It needs to be stressed is that since 2018 all research associates have written agreements that stipulate the conditions of the agreement. There

is a basic agreement where the framework of the collaboration between the researcher and the ICP is exposed (usually referring to one or more research group or more specific research lines), but the agreement can be personalized and elaborated further depending on the specificities of the collaboration. Signing research outputs with ICP affiliation is a sine qua non condition for all research associates, without prejudice of any other affiliations that they might have. ICP ethical guidelines, protocols and other regulations also apply to research associates. The ICP provides research associates with the same facilities than to ICP research employees, including an email address, priority access to the ICP fossil collections, a working space (upon request), and access to funding by means of competitive research projects led by the ICP. Particularly elaborated and strategic agreements may include a small research budget, under the condition that fund expenditure is controlled by the ICP (i.e., we may offer the possibility to spend funds in research, but do not transfer money to research associates). The status of 'research associate' must be approved by the Steering Committee upon proposal by the Director, and there are three different circumstances that might lead to such a proposal: (i) there is an ongoing collaboration that fulfills the aforementioned conditions but had not been formalized in written form (this no longer applies, as the few cases under this circumstance were regularized in 2017-2018); (ii) a current or former ICP employee is leaving for another institution (temporarily under a leave, or permanently) and wishes to continue working closely with ICP researchers, facilities and/or fossil materials (this applies especially to former PhD students or postdocs at the end of their contracts, but also to experienced researchers that wish to make a long stay in another institution or that have won a better position elsewhere); and (iii) a researcher from another institution reaches an agreement with the ICP Director to significantly contribute to a pre-existing or soon to be established research line at the ICP. Research associate agreements are valid for a specific number of years (stipulated on the agreement) and are automatically extended if none of the parties oppose, being terminated when one of the parties fails to fulfill the provisos of the agreement. Although research associates are explicitly included in the Organization Chart of the ICP (which is updated on a yearly basis), to implement the EC recommendation a list with additional details (e.g., primary institution) has been included in the 2018 annual report (to be updated each year). In this regard, it must also be stressed that the recruitment protocol stipulates the rules for the internal evaluation of both ICP researchers and research associates, which implies that beginning in 2018 they will regularly be monitored together with the rest of research staff. Implementation: During 2019, some new research associates have been recruited, whereas others have terminated their agreement with the ICP for various reasons (either they have been hired by an institution that does not allow double affiliation, or they have joined the ICP as researchers thanks to competitive contracts). The performance of research associates has been computed together with that of ICP researchers in the 2019 Annual Report. These data will be updated each year, and will be used on a case-by-case basis to evaluate whether the agreements with particular research associates must be extended or not beyond their current term.

- **Recommendation 7: ICP-UAB common strategy.** CERCA recommendation: The EC believes that both institutions [ICP and UAB] should have a common strategy in the palaeontology area. ICP should try to be more pro-active, trying to look for benefits in this collaboration with the University. ICP proposal: The benefits from the UAB-ICP collaboration have been explained elsewhere in detail (e.g., the CERCA evaluation questionnaire), including the in-kind income that the ICP received from the university. In this regard, it must be stressed that some of these benefits (for example, the annual discount of part of the maintenance costs of the ICTA-ICP building defrayed by the ICP) have been attained only after arduous negotiations by the former Director, and that the treatment received from the ICP in this regard is not comparable (in terms of facilities offered to the ICP) with those of research institutes that are exclusively from the UAB (e.g., ICTA) or even other CERCA centers that in spite of being a consortium of different entities have a much longer history linked to the UAB (e.g., CREAF, established in 1988). Given the progress made in the last years, it is to be expected that a higher integration will be attained in years to come, particularly if the ICP has the support of the Board of Trustees in this regard. With regard to the prospect of having a common strategy in the paleontology area, the Steering Committee concurs that this would be a win-win scenario for both the ICP and the UAB (and, indeed, for the Catalan Research System as a whole). However, such a common strategy has been hindered by two facts: (1) the different aims and scope of the ICP and the Paleontology Unit of the UAB Geology Department, with the former specializing on vertebrate paleobiology oriented toward the life sciences and the latter focused on a more geologically-oriented invertebrate paleontology; and (2) the strong opposition encountered by the ICP from multiple professors from the above-mentioned Paleontology Unit. Both factors have started to change during the last two years, to a large extent thanks to the retirement of various professors from the UAB Paleontology Unit and also due to the incorporation of two ICP researchers (Dr. M. Furió and B. Vila) and an ICP research associate (Dr. V. Fondevilla) as UAB associate professors. The current situation represents an unprecedented opportunity to deepen the current integration between the ICP and the UAB Paleontology Unit, particularly given common objectives such as preserving the master of Paleobiology and Fossil Record (currently coordinated by the aforementioned ICP researcher and UAB professor M. Furió). However, this will only be possible with the cooperation of the Geology Department as a whole and with the support of the UAB representatives within the ICP Board of Trustees, particularly with regard to the future ascription of UAB professors to the ICP (see below). Implementation: In 2019, the ICP Director had an interview with the head of the UAB Geology Department in order to discuss this issue as well as the ascription of members of that department to the ICP (regarding the latter, see next recommendation below). The response regarding collaboration in general terms was overall positive, particularly give the common interest in consolidating the Paleobiology and Fossil Record Master, which in 2019 increased the number of registered students significantly. However, the frontal opposition of the only permanent professor of the Paleontology Unit of the

department to collaborate with the ICP seriously hinder strengthening the bonds between the two entities.

- **Recommendation 8: Ascribe UAB professors to the ICP.** CERCA recommendation: ICP should try to affiliate professors from the University. A bottom-up approach of trying to convince individual researchers of the benefits being affiliated with ICP should be promoted. The Board of Trustees (BoT) of ICP should discuss this issue and, where possible, facilitate solutions. ICP proposal: The EC contends that recommendation 2 from the previous CERCA evaluation (2013), consisting in increasing the ICP-UAB collaboration, was not sufficiently implemented with regard to the affiliation of UAB professors to the ICP in order to reinforce the critical mass of the institute. On this basis, the 2018 EC recommends the ICP to affiliate professors from the university, by trying to convince individual researchers of the benefits being affiliated with the ICP. While we concur with the current recommendation, we would like to stress that the previous recommendation was much less explicit in this regard: "A very strategic point for the ICP is the collaboration with the Universitat Autònoma de Barcelona (UAB), in order to reach a real win-win scenario. A portion of the future increase of staff in ICP might come from following this strategic collaboration approach". So this recommendation did not make a distinction between research associates (which by definition must be affiliated to the ICP) and ascribed (seconded) personnel. Given the problems noted above with the Paleontology Unit of the UAB, neither of these two strategies was possible and the ICP focused on recruiting research associates from other universities from Spain and elsewhere in Europe. The former Director further tried to ascribe two UAB professors from other units (one from the Geology Department and the other from Animal Biology, Plant Biology and Ecology Department), but ultimately no agreement was reached because of the unsurmountable difficulties posed by the university (loss of all research space and facilities in the respective departments, associated costs for hiring substitute professors for teaching higher than the actual cost of directly hiring the professor to be ascribed, etc.). The current ICP Director renewed conversations with these two UAB professors in 2018 and reached a preliminary agreement with that from the Geology Department in the framework of an extended research associate and collaboration agreement with some associated costs. The agreement was not signed pending 2019 budgetary availability and conversations have not been resumed after receiving the CERCA EC report, given the need to reconsider the agreement in terms of seconded personnel and pending discussion with the Board of Trustees. The Steering Committee disagrees with the EC that a bottom-up approach would suffice, as shown by the failed efforts of the former ICP Director in this regard. Negotiations with the UAB, in the framework of one of the currently existing bilateral agreements or a new one would be required to stipulate the terms under which UAB professors could be ascribed to the ICP—on the understanding that such agreement should not be detrimental for the university (e.g., it should be conceived as a dual appointment with double affiliation), should be beneficial for the researcher (e.g., lesser teaching burden, more research funds, etc.), and that the costs for the ICP should not

be higher than those of directly hiring a researcher of equivalent rank. That negotiations must proceed at two different levels (researcher and university) is implicitly recognized by the EC, according to which the “Board of Trustees of ICP should discuss this issue and, where possible, facilitate solutions”. The question is that there is currently a UAB professor that would be willing to be associated or ascribed to the ICP, so that help from the UAB representatives on the ICP Board of Trustees is required at this point to see how this could be accomplished for the benefit of all the parties involved. This situation is likely to repeat in the near future, given that the current ICP researchers with affiliation to the UAB as associate professors have applied to a Serra-Hunter lecturer position, and would likely wish to maintain their affiliation and working space at the ICP while assuming their teaching duties at the university. All in all, the time has come to directly confront this situation but the ICP Director does not want to initiate conversations with the university before the Board of Trustees gives advice as to how to proceed. Implementation: As explained above, in 2019 the ICP Director had an interview with the head of the Geology Department to explore the possibility to ascribe some university professors to the ICP, even if at 50% dedication. The response in this regard was not particularly positive, given that the department has too few researchers, particularly in the case of the Paleontology Unit. On the other hand, it must be stressed that the Serra Hunter lecturer position for the Paleontology Unit is still pending resolution. When it is resolved—and depending on the research profile of the candidate (i.e., if it is a vertebrate paleontologist, and especially if it is a current ICP researcher)—it will be the time to discuss this issue again with the head of the department as well as with the UAB Vicerector of Research and Transfer. The low number of permanent professors in the Geology Department that perform research related to vertebrate paleontology, and the lack of enough resources available for the ICP to offer additional research funds to UAB professors potentially interested to be ascribed to the ICP, represent serious drawbacks to fulfill this recommendation.

- **Recommendation 9: Recruitment.** CERCA recommendation: With regard to the recruitment strategy of ICP, the EC believes that it should be continued in order to implement an open and transparent procedure. The EC recommends not automatically prioritising associate researchers of ICP in order to facilitate external applicants. However, the EC also recognises that sometimes the needs of the ICP might only be met by candidates deeply familiar with the collections and associated research of ICP, expertise that might only be available via internal applicants. But even in these cases, calls should be always open and international. ICP proposal: The ICP is fully committed to implement an open, transparent and merit-based recruitment (OTM-R) policy since it endorsed the principles of the EU Charter & Code for researchers, as subsequently recognized in 2018 by the HR Excellent Award received from the EU. The HRS4R Action Plan of the ICP considered (Action 14) the elaboration of a Protocol for the Evaluation, Internal Promotion and Recruitment of Researchers and Technicians, planned for the second trimester of 2018. Finally, it was not possible to have a final draft approved by the Steering Committee until the first quarter of 2019, which

nevertheless has enabled its submission for review and approval to the Board of Trustees. When preparing the initial draft of the protocol, presented to the EC, the ICP Director explained that the protocol not only included external recruitment, but further contemplated redeployment and internal promotion. The two latter must be distinguished: redeployment implies looking for internal candidates among ICP staff to occupy a vacant position before deciding to make an open call (i.e., internal vs. external recruitment), whereas internal promotion means offering the possibility to increase the professional category of an ICP employee within the same position (and therefore it does not qualify as recruitment). The current version of the recruitment protocol regulates internal promotion for both ICP researchers and technicians, but restricts redeployment options to the latter, so that all vacant researcher positions defrayed by ICP basal (non-competitive) funds must be filled by means of an open international call. As soon as the recruitment protocol is approved by the Board of Trustees, two open job announcements will be prepared following the provisos of the protocol in order to fill a tenure-track R3 position for the Mesozoic Faunas research group and a T2/T3 (junior/senior) project manager position beginning in 1 January 2020. These job announcements will be adequately publicized at the international level and Selection Committees will be established to conduct a fully OTM-R process in agreement with the ICP recruitment protocol. Implementation: The recruitment protocol mentioned above was approved with amendments by the Board of Trustees in 2019. On its basis, three open calls for researcher positions were publicized at an international level, including: the project manager position, vacant since early 2019; a tenure-track researcher position in dinosaur paleobiology; and a permanent R3 researcher position on rodent paleobiology, corresponding to the tenure-track position previously occupied by a former 'Ramón y Cajal' researcher. The three calls were resolved in 2019 following the provisos and procedures stipulated in the recruitment protocol based on OTM-R principles.

- **Recommendation 10: Gender balance.** CERCA recommendation: The EC believes ICP should always keep in mind this unbalanced current situation [with regard to gender issues] at the upper levels of management and consider solving it in all future positions. ICP proposal: The Steering Committee is fully aware of the current gender ratio of the institution, which is particularly unbalanced at executive and responsible positions. To correct this situation, the recruitment protocol elaborated by the Director in collaboration with the rest of the Steering Committee, the Researchers Commission and the Non-Discrimination Committee (pending approval by the Board of Trustees) enforces a series of proactive measures to guarantee equal opportunities when applying for a position at the ICP. Future recruitments will be further monitored by the Non-Discrimination Commission that was established in 2018 as one of the measures (Action 12) of the HRS4R Action Plan. Other measures planned for the near future in this regard include improving and translating into English the current ICP Plan of Equal Opportunities and Diversity Management (HRS4R Action 11, planned for 2020). Incidentally, when preparing the job announcement to replace the vacant position of project manager (see below), following the instructions of the recruitment protocol, it will

be emphasized that women are strongly encouraged to apply. Implementation: As explained above, the recruitment protocol (which includes measures to guarantee equal opportunities irrespective of gender) was approved with amendments by the Board of Trustees in 2019, and subsequently put into practice in three open calls for researcher positions at the ICP. The composition of the corresponding Selection Committees and shortlists of candidates elaborated by them fulfilled the provisos of the recruitment protocol in this regard, and were all reviewed and approved by the Non-Discrimination Committee. The latter, in turn, has very actively worked on an improved version of the ICP Plan of Equal Opportunities and Diversity Management, with the aim to complete the document in 2020 and submit it for review and approval to the Board of Trustees in 2021.

- **Recommendation 11: Engaging donors.** CERCA recommendation: With regards to fundraising, the EC recommends ICP begin organising events to engage donors and philanthropic Foundations, among other actions. ICP should provide them with information on some specific projects to be funded in ICP. Maybe the BoT could give support to facilitate donors' attendance at the event, for example by inviting people from their networks. Some topics like Catalan heritage of dinosaurs could encourage donors to get engaged to ICP. Cultivating major donors is a long-term commitment and can be very difficult, so it will be important to develop a long-term plan. ICP proposal: The current ICP Strategic Plan for 2018-2021 stresses service provision as the most promising way to increase the fundraising capacity of the institution and thus overcome its current budgetary difficulties thanks to the generated revenues. On the other hand, the Scientific Committee is aware that such a strategy is not mutually exclusive with other alternatives to attract more funds, especially applying to European research funds (see above) as well as engaging donors—even if both options require more planning are can only be effective on the mid-term. Now that several changes have been implemented to boost service provision (as show by the positive results for 2018 in this regard, with an increase of ca. 50% as compared to 2017), the Steering Committee considers that the time has come to implement additional policies to engage individual donors, philanthropical foundations and private sponsoring companies in fundraising for ICP research and other activities. As explained in the 2018 Annual Report, the ICP applied to participate as strategic partner in The Jurassic Project of The Children's Museum (TCM) of Indianapolis, a large scale and long-term research and outreach project focused on dinosaurs. In February 2019, TCM communicated the ICP that it has been excluded from the strategic partners of the project due to its current lack of funds to cover the ICP participation in the fieldwork related to the project during 2019. Nevertheless, TCM strongly encouraged the ICP to seek for funds to participate in the fieldwork during 2020 and reapply again later in 2019 once these funds are secured. Therefore, the possibility to be accepted in the project as a strategic partner in the future still constitutes an optimal opportunity for the ICP to seek for local and international sponsors. The fact that dinosaurs attract a lot of public attention from the general public and the invaluable assistance that TCM could provide in this regard enable to be optimistic. On the other hand, the ICP lacks

the required experience in attracting donors, and hence we concur with the EC that the Board of Trustees should provide support in this regard (particularly, in identifying the persons and institution that the ICP should target as potential donors or sponsors). Finally, irrespective of whether the ICP is accepted as partner of the Jurassic Project, the Steering Committee further agrees that a long-term plan should be developed in this regard. Given the inability of the Project Manager of the ICP to develop such plan (due to lack of background and training, coupled with the failed previous attempts of the ICP in this regard), the ICP Director and General Manager agreed to dismiss her in January 2019. An open call for a new project manager will be prepared once the recruitment protocol is approved by the Board of Trustees, with the aim to incorporate in January 2020a new project manager with the required background to lead the elaboration of a long-term plan to attract donors.

Implementation: As explained above, a new Project Manager was recruited in 2019, starting in January 2020, with the aim to further become the Head of the Research Support & External Services Department later that year. Given that service provision has spectacuarly increased in 2020, the new Project Manager will have to face two challanges: boost the acquisition of European funds; and engage sponsors and donors for both research and other activities performed at the ICP. So, although no progress was made during 2019 in the latter regard, the incorporation of a new Project Manager represents a very significant advance to improve the current situation in years to come.

- **Recommendation 12: Spin-offs.** CERCA recommendation: The EC strongly recommends ICP try to keep a certain level of equity in those companies born from the Institute. That would allow ICP to maintain a certain degree of control of the company and eventually, if required, preserving the reputation of the Institute, as well as strengthening the visibility and impact of ICP. ICP proposal: The Steering Committee fully agrees with the EC recommendation with regard to spin-offs. However, there is nothing we can do to implement such a recommendation unless a new company emerges from the ICP, which is very unlikely because we are talking about ‘soft’ intellectual property (no patents to transfer) and also due to the fact that current ICP policies (as determined in the Strategic Plan for 2018-2021) stress the significance of service provision. So if a new idea emerges to generate revenues, the first option would be to exploit it directly unless the required investment requires to seek additional partners (in which case the ICP would aim to keep >50% of the company’s equity). Implementation: Nothing has been done to implement this recommendation because, as already anticipated, no new opportunities in this regard have emerged. Nevertheless, along the lines outlined in the Strategic Plan, the ICP has worked very hard to increase the amount of services provided, resulting in an increase of revenues that have significantly helped to improve the financial situation of the institution.

Research impact assessment

In 2019, CERCA requested the ICP to provide a research impact assessment in the framework of the RIACat initiative (Research Impact Assessment Catalunya), promoted by the Health

Department, the Health Evaluation and Quality Agency of Catalonia (AQuAS), and the Business and Knowledge Department of the Generalitat de Catalunya, with the participation of the Universities and Research Secretariat, the Agency for Management of University and Research Grants (AGAUR), the Catalan University Quality Assurance Agency Agency for the Quality of the University System of Catalonia (AQU Catalunya), the CERCA institution, the Catalan Association of Public Universities (ACUP), and the Catalan Foundation for Research and Innovation (FCRI). The RIACat initiative stems from the need to identify a common strategy for assessing research impact in Catalonia, in order to highlight its social value as well as to facilitate decision making about public policies and funding. Research impact may be defined as any effect, change or benefit of research on economy, society, culture, public policies or services, health, environment or quality of life, beyond academic activities. The ICP research impact assessment, entitled "The impact of Can Mata paleontological research at the scientific, cultural, societal, and economic levels" and submitted to CERCA on 25 November 2019, is reproduced below.

Summary. Since 2002, ICP researchers have led the research on Miocene vertebrate faunas recovered from successive rescue paleontological interventions during the construction of the Can Mata landfill (45 papers published in indexed journals). The generated knowledge has had an impact at several levels: scientific (advancement of knowledge, training, and policy making); cultural (recovery of >60,000 fossils, protected as cultural heritage); societal (public understanding of science thanks to dissemination and outreach activities); and economic (service provision that boosted young technicians' employment, and paleontological tourism). Can Mata thus exemplifies the varied impact of successful paleontological research at the regional and international levels.

Underpinning research. Can Mata fossils come from accurately dated localities from 12.5-10.5 Ma. This constitutes an unprecedented opportunity to investigate middle Miocene terrestrial ecosystems in NE Iberia. Research has focused on primate remains and associated vertebrate faunas, with emphasis on taxonomy (including the description of new taxa), paleobiology (diet, locomotion), phylogeny, and dating. Besides the importance of this research for understanding the evolutionary history of particular groups (especially hominoid primates), Can Mata is also the main focus of a paleobiodiversity research project that aims to test the relationship between faunal turnovers and environmental change in deep time.

Can Mata research in paleoanthropology and vertebrate paleontology has resulted in multiple scientific outputs, with the recovered fossils featuring prominently in 45 papers published since 2004 in SCI-JCR journals plus several book chapters, 61 contributions to meetings (43 international), 6 PhD dissertations, 5 master theses, and 13 science popularizing articles. This research has been mostly performed by the ICP research groups of Paleoprimatology and Human Paleontology (led by S. Moyà-Solà and recognized as a Consolidated Research Group [CRG] of the Generalitat de Catalunya since 2009 [2009 SGR 754, 2014 SGR 416, 2017 SGR 86]) and Neogene and Quaternary Faunas (led by D.M. Alba since 2012,

recognized as a CRG since 2018 [2017 SGR 116]. The research has been possible thanks to multiple projects mostly led by ICP researchers and funded by the Spanish Ministry of Science, Innovation and Universities (or its predecessors: MINECO) and the Generalitat de Catalunya (Culture Department), but also by the US National Science Foundation (NSF). In the near future, the proteomic study of Can Mata fossils will also benefit from European funds through a recently granted Marie Skłodowska-Curie Innovative Training Network (ITN-ETN) starting in 2020 with the ICP as a partner organization. The most significant projects are reported below in reverse chronological order:

- “Palaeoproteomics to Unleash Studies on Human History (PUSHH)”. PI Cappellini. H2020-MSCA-ITN-2019 861389 (EC). 3,907,265.76€ (2020-2024).
- “The Cenozoic primates from the Iberian Peninsula: evolution, paleoenvironmental and paleobiogeographic aspects”. PI Moyà-Solà. AEI-MINECO-FEDER (CGL2017-82654-P). 278,300€ (2018-2020).
- “Els primats fòssils del Miocè de la conca del Vallès-Penedès”. PI Moyà-Solà. Departament Cultura (2014/100609). 44,022.80€ (2018-2021).
- “Paleobiodiversity dynamics of the fossil vertebrate faunas from the Vallès-Penedès and comparison with other Miocene basins”. PI Alba. AEI-MINECO/FEDER (CGL2016-76431-P). 121,000€ (2017-2020).
- “The primate fossil record from the Iberian Peninsula through the Cenozoic: paleobiology, biochronology and paleoenvironmental context”. PI Moyà-Solà. MINECO-FEDER (CGL2014-54373-P). 192,000€ (2015-2017).
- “Els primats fòssils del Miocè de la conca del Vallès-Penedès”. PI Alba. Departament de Cultura (2014/100609). 69,721.20€ (2014-2017).
- “Historia evolutiva de los primates del Paleógeno y Neógeno de la Península Ibérica”. PI Moyà-Solà. MINECO (CGL2011-27343). 205,700€ (2012-2014).
- “Evolución de los ecosistemas terrestres en la Europa occidental durante el Neógeno y Cuaternario en base al registro de vertebrados fósiles de la cuenca del Vallès-Penedès”. PI Alba. MINECO (CGL2011-28681). 108,900€ (2012-2014).
- “Great apes (Hominoidea) from the Miocene of the Mediterranean region: origin, evolution and paleobiology”. PI Moyà-Solà. MINECO (CGL2008-00325). 121,000€ (2009-2011).
- “Vallès-Penedès contextual project” within “Revealing Hominid Origins Initiative (RHOI)”. PI White. NSF (RHOI-Hominid-NSF-BCS-0321893). 60,000€ (2005-2009).

Research Publications. Up to 6 included:

- Casanovas-Vilar, I., Garcia-Porta, J., Fortuny, J., Sanisidro, Ó., Prieto, J., Querejeta, M., Llácer, S., Robles, J. M., Bernardini, F., & Alba, D. M. (2018). Oldest skeleton of a fossil flying squirrel casts new light on the phylogeny of the group. *eLife*, 7, e39270. <https://doi.org/10.7554/eLife.39270>

- Alba, D. M., Casanovas-Vilar, I., Garcés, M., & Robles, J. M. (2017). Ten years in the dump: An updated review of the Miocene primate-bearing localities from Abocador de Can Mata (NE Iberian Peninsula). *Journal of Human Evolution*, 102, 12-20. <https://doi.org/10.1016/j.jhevol.2016.09.012>
- Alba, D. M., Almécija, S., DeMiguel, D., Fortuny, J., Pérez de los Ríos, M., Pina, M., Robles, J. M., & Moyà-Solà, S. (2015). Miocene small-bodied ape from Eurasia sheds light on hominoid evolution. *Science*, 350, 528, aab2625. <https://doi.org/10.1126/science.aab2625>
- Moyà-Solà, S., Alba, D. M., Almécija, S., Casanovas-Vilar, I., Köhler, M., De Esteban-Trivigno, S., Robles, J. M., Galindo, J., & Fortuny, J. (2009). A unique Middle Miocene European hominoid and the origins of the great ape and human clade. *Proceedings of the National Academy of Sciences, U.S.A.*, 106, 9601-9606. <https://doi.org/10.1073/pnas.0811730106>
- Moyà-Solà, S., Köhler, M., Alba, D. M., Casanovas-Vilar, I., Galindo, J., Robles, J. M., Cabrera, L., Garcés, M., Almécija, S., & Beamud, E. (2009). First partial face and upper dentition of the Middle Miocene hominoid *Dryopithecus fontani* from Abocador de Can Mata (Vallès-Penedès Basin, Catalonia, NE Spain): taxonomic and phylogenetic implications. *American Journal of Physical Anthropology*, 139, 126-145. <https://doi.org/10.1002/ajpa.20891>
- Moyà-Solà, S., Köhler, M., Alba, D. M., Casanovas-Vilar, I., & Galindo, J. (2004). *Pierolapithecus catalaunicus*, a new Middle Miocene great ape from Spain. *Science*, 306, 1339-1344. <https://doi.org/10.1126/science.1103094>

Impact details. Four main types of impact are included:

- Scientific advancement of knowledge, training and policy making: Can Mata research has significantly contributed to current knowledge on the paleobiology and evolution of Miocene primates and continental ecosystems. Some of the research outputs have attained great repercussion, particularly the papers describing new hominoid genera: *Pierolapithecus* (Moyà-Solà et al. 2004, *Science*), *Anoiapithecus* (Moyà-Solà et al. 2009, *PNAS*), and *Pliobates* (Alba et al. 2015, *Science*). Their description represented a significant advancement of knowledge for our current understanding of hominoid origins and evolution, with a significant impact on the academic training of your researchers not only locally (teaching in the UAB/UB paleobiology master, and several master and PhD dissertations focused on Can Mata material), but also at the international level (as indicated by current paleoprimatology textbooks). Furthermore, they resulted in a greater visibility and recognition of the Catalan school of vertebrate paleontology, both in Catalonia (with two SCB prizes recently awarded to Alba and Moyà-Solà in 2016 and 2018, respectively) and abroad (as exemplified by the appointment of Alba as editor-in-chief of *Journal of Human Evolution*, the leading paleoanthropological journal, in 2017). Such visibility and recognition has undoubtedly contributed to raising research funds, including a recently granted European project on paleoproteomics. Furthermore, the great international repercussion of *Pierolapithecus* directly impacted on the Catalan scientific policy with regard to paleontology back in 2006, by impelling the transformation of the former Institut de Paleontologia de Sabadell

(Diputació de Barcelona) into the current ICP as a CERCA center (Generalitat de Catalunya), under the leadership of Moyà-Solà.

- Cultural impact on heritage protection: In Catalonia fossils are legally protected as cultural heritage, implying that corrective measures (paleontological surveillance, excavation, sampling) must be enforced when building works threaten their preservation. The successive paleontological interventions performed at Can Mata since 2002, under the scientific technical supervision of ICP researchers, have led to the recovery of >60,000 macrovertebrate and thousands of microvertebrate fossil remains that otherwise would have been destroyed. This represents the best possible example that cultural heritage preservation is compatible with construction works of fundamental infrastructures such as a landfill. However, the required investment would have never been possible to such an extent without the valorization of fossils provided by the research performed at the ICP and the great international visibility attained by the research outputs summarized above.
- Societal impact of dissemination and outreach activities on public understanding of science: Fossil primates attract great attention from the lay people. Hence, the most significant ape discoveries at Can Mata have prominently figured on the media, including dozens of newspaper articles, TV and radio interviews. Thanks to this, coupled with science popularizing talks and articles, as well as museum exhibits, the two most complete hominoid skeletons from Can Mata (*Pierolapithecus* and *Pliobates*, nicknamed Pau and Laia, respectively) enjoy of great popularity among Catalan citizens. The discovery of *Pierolapithecus* not only led to a new permanent (2010) and temporary (2012) exhibits at the ICP Museum (157116 visitors between November 2010-December 2018), but also to the establishment of a paleontological interpretation center (Centre d'Interpretació i Preparació Paleontològica, CRIP) at Hostalets de Pierola in 2012 (an agreement was signed in 2018 with the ICP and the Culture Department to formalize ongoing collaborations). *Pliobates* had a similar repercussion, being included among the top 10 species of 2016, being echoed in the international press (e.g., Washington Post), receiving the best scientific paper award of the SCB (2016), leading to a documentary broadcasted by TV3, and being subsequently exhibited (together with *Pierolapithecus*) in CosmoCaixa during May-September 2017 (>200000 estimated visitors) and in the new permanent exhibition “Univers” from July 2019 onward. All these dissemination outcomes have enhanced knowledge on evolution and raised awareness of fossils as cultural heritage among the general public.
- Economic impact of knowledge transfer: Can Mata fieldwork was initially performed by freelance paleontologists linked to the ICP, but during 2004-2014 it was done by two private companies, and since the works were resumed in 2017 fieldwork has been performed by the ICP, in the framework of various specialized services provided to both private companies and public entities. Therefore, over the years this economic activity has significantly boosted the employability of many young paleontologists in Catalonia, and—together with CRIP's outreach activities and scientific courses coorganized by the company Transmitting Science and the ICP—further promoted the development of the local economy by means of

paleontological tourism. Furthermore, the paleontological surveillance services provided by the ICP since 2017 have resulted in economic revenues that have been reinvested in hiring technicians and researchers.

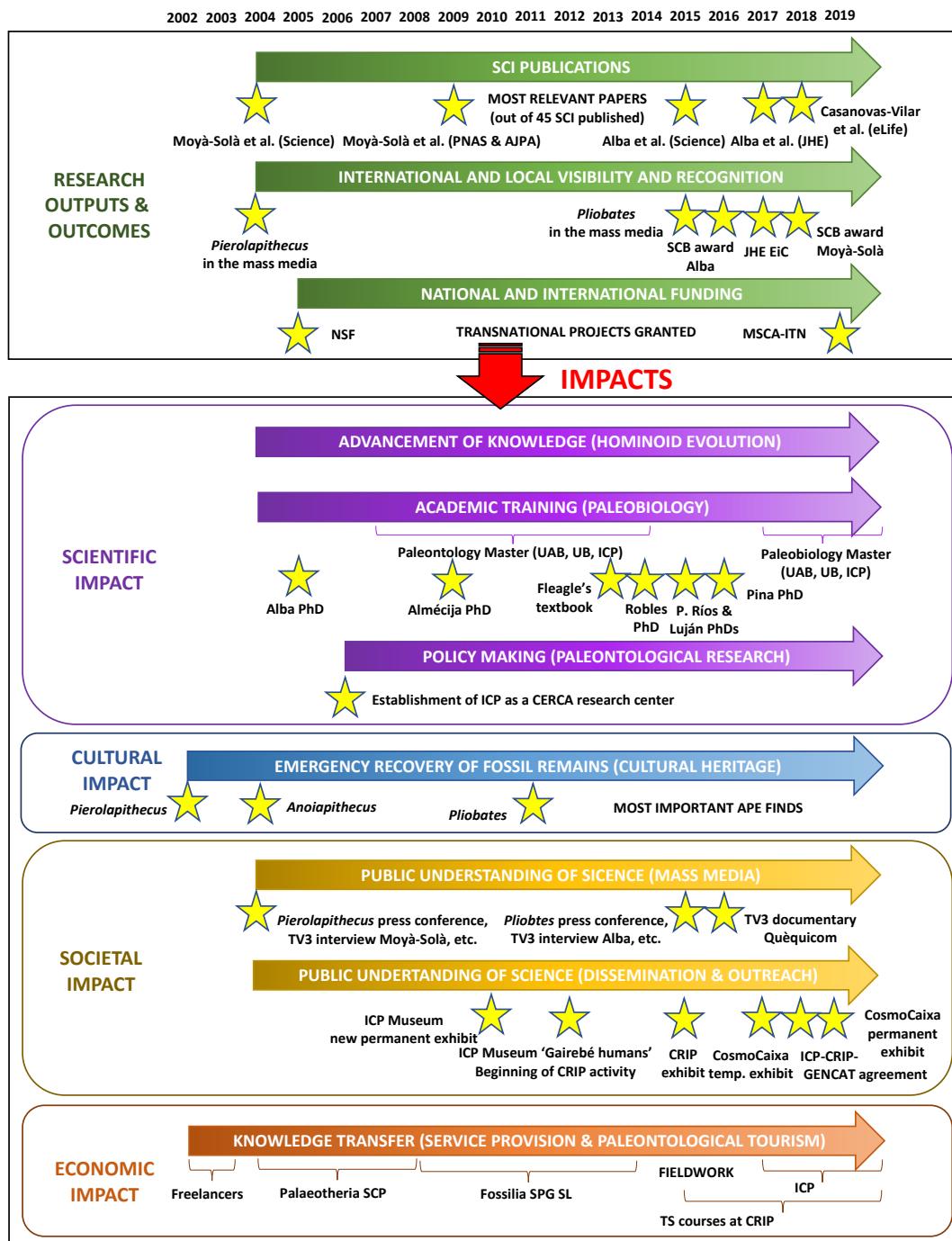
Sources to corroborate the impact. Up to 10 are included:

- News piece “Ancient ape gives clue to family origins” by Michael Hopkins, published in Nature on 18 November 2004 (doi:10.1038/news041115-12), illustrating the immediate scientific impact of the description of *Pierolapithecus*: <https://www.nature.com/news/2004/041115/full/041115-12.html>
- Newspaper article by Rachel Feltman “New fossil could reshape our understanding of ape evolution”, Washington Post, 29 October 2015, exemplifying the international repercussion of the description of *Pliobates*: <https://www.washingtonpost.com/news/speaking-of-science/wp/2015/10/29/new-fossil-could-reshape-our-understanding-of-ape-evolution/?noredirect=on>
- TV3 documentary “Laia, una branca de l’evolució humana”, program ‘Quèquicom’, November 2016, including the participation of ICP researchers Alba and Moyà-Solà: <https://www.ccma.cat/tv3/alacarta/quequicom/laia-una-branca-en-levolucio-humana/video/5631759/>
- Interview of D.M. Alba “Laia, una nova espècie d’homínid a Catalunya” in TV3 magazine ‘Divendres’, November 2015, broadcasted following the description of *Pliobates* in Science: <https://www.ccma.cat/tv3/alacarta/divendres/laia-una-nova-especie-dhomnid-a-catalunya/video/5562414/>
- Webpage of *Pliobates* on the SUNY College of Environmental Science and Forestry’s “Top 10 new species 2016” <https://www.esf.edu/top10/2016/08.htm>
- Website of Centre de Restauració i Interpretació Paleontològica (CRIP), els Hostalets de Pierola: <https://www.hostaletspaleontologia.cat/centre-restauracio-interpretacio-paleontologica/>
- Collaboration agreement among ICP, CRIP and the Culture Department of the Generalitat de Catalunya, October 2018 (attached). Corroboration can be provided by Elsa Ibar [eibar@gencat.cat], Director General of Cultural Heritage of the Generalitat de Catalunya.
- Webpages of the Societat Catalana de Biologia (SCB) awards. (a) ‘Best scientific paper award’ (1st ed., 2016) to Alba for the description of *Pliobates*: <https://scb.iec.cat/premis-scb/la-nit-de-la-biologia-2/premi-scb-a-un-article-cientific-2/>. (b) ‘Professional career’ award (3rd ed., 2018) to Moyà-Solà for his research, largely based on fossil apes from Catalonia: <https://scb.iec.cat/premi-scb-a-la-trajectoria-professional-2018/>
- Textbook “Primate Adaptation and Evolution. Third Edition”, by John G. Fleagle, Academic Press, San Diego (ISBN 9780123786326 [hardcover] / 9780123786333 [eBook]. This important textbook on fossil primates exemplifies the great international impact of Can Mata research (see pp. 326-330).

- News piece by Cristina Sáez “Laia, Pau y Jordi, nuestros parientes del Mioceno”, La Vanguardia, 2 June 2017, about the temporary exhibit of *Pierolapithecus* and *Pliobates* originals in CosmoCaixa: <https://www.lavanguardia.com/ciencia/ciencia-cultura/20170602/423140364356/laia-pau-y-jordi-nuestros-parientes-del-mioceno.html>. See also CosmoCaixa press release about the current permanent exhibit: https://premsa.lacaixa.es/obrasocial/show_annex.html?id=78375

Collaborations and proportional effort. The aforementioned research has been possible thanks to fieldwork activities at Can Mata, defrayed since 2002 by the private company CESPA GR (currently owned by Ferrovial). However, this company has not participated or funded the research, which has been performed by ICP researchers with funds from research projects financed by public agencies from the beginning. Also important has been the role displayed by Palaeotheria and Fossilia SPG, which performed the fieldwork at Can Mata until 2014. These companies were not conceived as ICP spin-offs because they were created before the ICP was formally established, but de facto they functioned as such regarding research and development. The double role (researcher/entrepreneur) played by Alba led to a fruitful collaboration for all the parts involved (until these companies ceased their activity due to the financial crisis). While the current Strategic Plan of the ICP promotes service provision through its Research Support and External Services Department, it currently benefits from the business experience of Fossilia's former administrator (J.M. Robles), who is the current fieldwork officer of the ICP and the main codirector of fieldwork at Can Mata. From the viewpoint of outreach and dissemination activities, the activities performed by CRIP and Transmitting Science (see above) have adequately complemented the leading role performed by the ICP, while the collaboration of the Servei d'Arqueologia i Paleontologia of the Generalitat de Catalunya has further been of great significance to ensure the continuity and success of the whole project on the long term.

Dates of the impact. The most significant milestones mentioned above regarding ICP impact in relation to Can Mata research outputs and outcomes are summarized in the chronogram below, being grouped into the four impact categories mentioned above.



FINAL NOTE

This Annual Report was written by the ICP Director in January-February 2020, with inputs from the other members of the Steering Committee. The final version is dated to 20 February 2020.

It will be presented by to the ICP Board of Trustees for their approval as soon as the next meeting takes place.

DAVID M. ALBA
Director

APPENDIX

ICP publications 2019

The following list includes the publications (co)authored by authors with ICP affiliation in 2019, distributed in the different categories recognized in this report. Only those papers published in final form are included; those published online in 2019 without volume and pagination, pending publication in 2019, or published toward the end of 2019 with date 2020, have been excluded (pending their inclusion in the 2020 Annual Report). An updated list of ICP publications since its refoundation in 2006 can be found at http://www.icp.cat/attachments/publicacions/ICP_Publications.pdf

SCI papers (indexed in JCR)

1. Abella, J., Hontecillas, D., Valenciano, A., Montoya, P., Morales, J., Pesquero, M. D., & Alcalá, L. (2019). The last record of an ailuropod bear from the Iberian Peninsula. *Geodiversitas*, 41, 797-809. <https://doi.org/10.5252/geodiversitas2019v41a23>
2. Alba, D. M., Daura, J., Sanz, M., Santos, E., Yagüe, A. S., Delson, E., & Zilhão, J. (2019). New macaque remains from the Middle Pleistocene of Gruta da Aroeira (Almonda karst system, Portugal). *Journal of Human Evolution*, 131, 40-47. <https://doi.org/10.1016/j.jhevol.2019.02.003>
3. Alba, D. M., Garcés, M., Casanovas-Vilar, I., Robles, J. M., Pina, M., Moyà-Solà, S., & Almécija, S. (2019). Bio- and magnetostratigraphic correlation of the Miocene primate-bearing site of Castell de Barberà to the earliest Vallesian. *Journal of Human Evolution*, 132, 32-46. <https://doi.org/10.1016/j.jhevol.2019.04.006>
4. Almécija, S., Tallman, L., Sallam, H. M., Fleagle, J. G., Hammond, A. S., & Seiffert, E. R. (2019). Early anthropoid femora reveal divergent adaptive trajectories in catarrhine hind-limb evolution. *Nature Communications*, 10, 4778. <https://doi.org/10.1038/s41467-019-12742-0>
5. Amalfitano, J., Giusberti, L., Fornaciari, E., Dalla Vecchia, F. M., Luciani, V., Kriwet, J., & Carnevale, G. (2019). Large deadfalls of the ‘ginsu’ shark *Cretoxyrhina mantelli* (Agassiz, 1835) (Neoselachii, Lamniformes) from the Upper Cretaceous of northeastern Italy. *Cretaceous Research*, 98, 250-275. <https://doi.org/10.1016/j.cretres.2019.02.003>
6. Angelone, C., Moncunill-Solé, B., & Kotsakis, T. (2019). Contribution of fossil Lagomorpha (Mammalia) to the refinement of the late Miocene–Quaternary palaeobiogeographical setting of Italy. *Comptes Rendus Palevol*, 18, 1025-1040. <https://doi.org/10.1016/j.crpv.2019.10.002>
7. Aurell, M., Badenas, B., Martín-Closas, C., Sequero, C., Castanera, D., Rosales, I., Val, J., Canudo, J. I., Gasca, J. M., Santas, L., Moliner, L., Moreno-Azanza, M., & García-Penas, Á. (2019). Kimmeridgian-Berriasian stratigraphy and sedimentary evolution of the central Iberian Rift System (NE Spain). *Cretaceous Research*, 103, 104153. <https://doi.org/10.1016/j.cretres.2019.05.011>
8. Belvedere, M., Castanera, D., Meyer, C. A., Marty, D., Mateus, O., Silva, B. C., Santos, V. F., & Cobos, A. (2019). Late Jurassic globetrotters compared: A closer look at large and giant theropod tracks of North Africa and Europe. *Journal of African Earth Sciences*, 158, 103547. <https://doi.org/10.1016/j.jafrearsci.2019.103547>

9. Besenbacher, S., Hvilsom, C., Marques-Bonet, T., Mailund, T., & Schierup, M. H. (2019). Direct estimation of mutations in great apes reconciles phylogenetic dating. *Nature Ecology & Evolution*, 3, 286-292. <https://doi.org/10.1038/s41559-018-0778-x>
10. Bianucci, G., Llacer, S., Quintana Cardona, J., Collareta, A., & Rodríguez Florit, A. (2019). A new beaked whale record from the upper Miocene of Menorca, Balearic Islands, based on CT-scan analysis of limestone slabs. *Acta Palaeontologica Polonica*, 64, 291-302. <https://doi.org/10.4202/app.00593.2019>
11. Blain, H.-A., Fagoaga, A., Ruiz-Sánchez, F. J., Bisbal-Chinesta, J. F., & Delfino, M. (2019). Latest Villafranchian climate and landscape reconstructions at Pirro Nord (southern Italy). *Geology*, 47, 829-832. <https://doi.org/10.1130/G46392.1>
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13. Blasco, R., Rosell, J., Sánchez-Marco, A., Gopher, A., & Barkai, R. (2019). Feathers and food: Human-bird interactions at Middle Pleistocene Qesem Cave, Israel. *Journal of Human Evolution*, 136, 102653. <https://doi.org/10.1016/j.jhevol.2019.102653>
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15. Calderón, T., DeMiguel, D., Arnold, W., Stalder, G., & Köhler, M. (2019). Calibration of life history traits with epiphyseal closure, dental eruption and bone histology in captive and wild red deer. *Journal of Anatomy*, 235, 205-216. <https://doi.org/10.1111/joa.13016>
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17. Cartanyà, J., Fortuny, J., Bolet, A., & Garcia-Artigas, R. (2019). *Moradebrichthys vilasecae* gen. et sp. nov., a new perleidid (Actinopterygii: Osteichthyes) from the Middle Triassic of Catalonia (NE Iberian Peninsula). *Neues Jahrbuch für Geologie und Paläontologie*, 292, 171-190. <https://doi.org/10.1127/njgpa/2019/0816>
18. Chroust, M., Mazuch, M., & Luján, À. H. (2019). New crocodilian material from the Eocene-Oligocene transition of the NW Bohemia (Czech Republic): an updated fossil record in Central Europe during the Grande Coupure. *Neues Jahrbuch für Geologie und Paläontologie - Abhandlungen*, 293, 73-82. <https://doi.org/10.1127/njgpa/2019/0832>
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2. BASES DE PRESENTACIÓ DE COMPTES ANUALS.

Imatge fidel

Els comptes anuals adjunts han estat preparats atenent al principi de la imatge fidel i aplicant les disposicions legals en matèria comptable amb l'objecte de presentar la imatge fidel del patrimoni, de la situació financera i dels resultats de l'empresa.

Amb data 31 de desembre de 2008 s'ha publicat el RD 259/2008, pel que s'aprova el nou Pla Comptabilitat de les fundacions i les associacions subjectes a la legislació de la Generalitat de Catalunya, que ha entrat en vigor el dia 1 de gener de 2009 i és d'obligatòria aplicació pels exercicis iniciats a partir d'aquesta data.

Principis comptables

Els principis i criteris comptables aplicats per a l'elaboració d'aquests comptes anuals són els que es resumeixen en la Nota 4 d'aquesta memòria. Tots els principis comptables obligatoris amb incidència en el patrimoni, la situació financera i els resultats s'han aplicat en l'elaboració d'aquests comptes anuals.

No s'han aplicat principis comptables no obligatoris.

Addicionalment, els Patrons han formulat aquests comptes anuals tenint en consideració la totalitat dels principis i normes comptables d'aplicació obligatòria que tenen un efecte significatiu en aquests comptes anuals.

No existeix cap principi comptable que sent obligatori, hagi deixat d'aplicar-se.

Principi d'entitat en funcionament

Entre els principis que aplica la Fundació es troba el de l'entitat en funcionament, que pressuposa una durada il·limitada de les seves activitats.

Tenint en consideració el resultat generat per la Fundació en l'exercici actual i precedents, unit al fet que els fons propis s'ha situat en valors negatius i al fet de que el fons de maniobra presenta una situació molt positiva, el Patronat estima plenament aplicable aquest principi, basat en els següents factors mitigants:

- En l'assumpció del suport financer de les administracions públiques que ho han vingut donant a l'Entitat amb regularitat fins al moment.
- En la existència de subvencions ja rebudes, i cobrades majoritàriament, que formant part del Patrimoni de la Fundació, es reconeixeran com ingressos econòmics en exercicis futurs fins l'any 2023.

Per tot l'anteriorment exposat, els presents comptes anuals s'han preparat d'acord amb el principi d'empresa en funcionament, que pressuposa la realització dels actius i la liquidació

dels passius sota la perspectiva d'una durada il·limitada de les activitats de la Fundació.

Aspectes crítics de la valoració i estimació de la incertesa

La Fundació ha preparat els seus comptes anuals sota el principi d'empresa en funcionament, al haver considerat que la situació actual derivada del COVID-19 i de l'Estat d'Alarma decret pel govern espanyol, no suposa un risc rellevant per la continuïtat de la seva activitat.

Per a la preparació de determinada informació inclosa en els presents Comptes Anuals abreujats s'han utilitzat estimacions basades en hipòtesis realitzades per la Direcció i Gerència, per quantificar alguns dels actius, passius, ingressos, despeses i compromisos que figuren en els mateixos. Les estimacions més significatives utilitzables en aquests Comptes Anuals es refereixen a :

- Pèrdues per deteriorament de determinats actius (Notes 4, 5 i 6)
- Vida útil dels actius intangibles, materials i inversions immobiliàries (Notes 4, 5 i 6)

Aquestes estimacions i hipòtesis estan basades en la millor informació disponible a la data de formulació dels Comptes Anuals, sobre l'estimació de la incertesa a la data de tancament de l'exercici i es revisen periòdicament. Tot i això, és possible que aquestes revisions periòdiques o bé esdeveniments futurs obliguin a modificar les estimacions en propers exercicis. En aquest cas, els efectes dels canvis de les estimacions es registrarien de forma prospectiva en el Compte de Pèrdues i Guanys d'aquest exercici i de períodes successius conforme al que s'estableix a la Norma de Registre i Valoració 22^a "Canvis en criteris comptables, errors i estimacions comptables".

Comparació de la informació

L'estructura del balanç, del compte de pèrdues i guanys i de l'estat de canvis en el patrimoni net de l'exercici al que es refereix la memòria, i de l'exercici precedent s'ha confeccionat d'acord amb el Pla General de Comptabilitat, permetent la seva comparança.

Agrupació de partides

No existeixen partides que hagin estat objecte d'agrupació al balanç, al compte de resultats o a l'estat de canvis en el patrimoni net.

Elements recollits en diverses partides

No hi ha elements de naturalesa similar inclosos en dues o més partides del balanç de situació.

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Canvis en criteris comptables

No s'han realitzat altres canvis en criteris comptables addicionals als derivats de l'adaptació de la comptabilitat al nou Pla General Comptable.

Correcció d'errors

No s'han realitzat ajustaments per correcció d'errors d'exercicis anteriors que obliguin a refer els comptes d'exercicis precedents, o a informar sobre aquests errors en la memòria.

3. EXCEDENT DE L'EXERCICI.

La proposta d'aplicació del resultat proposada pel Patronat és la següent:

Bases de repartiment	Exercici 2019	Exercici 2018
Excedent d l' exercici	0,00	0,00
Total base de repartiment = Total distribució	0,00	0,00

Distribució a	Exercici 2019	Exercici 2018
Fons dotacionals		
Fons especials		
Romanent	0,00	0,00
Excedents pendents d'aplicació en activitats fundacionals		
Total distribució = Total base de repartiment	0,00	0,00

4. NORMES DE REGISTRE I VALORACIÓ.

a) Immobilitzat intangible:

Els actius intangibles es registren pel seu cost d'adquisició i/o producció i, posteriorment, es valoren al seu cost menys, segons procedeixi, la seva corresponent amortització acumulada i/o pèrdues per deteriorament que hagin experimentat. Aquests actius s'amortitzen en funció de la seva vida útil.

S'inclouen com a preu d'adquisició els impostos indirectes que no es consideren recuperables directament de la hisenda pública.

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L'entitat reconeix qualsevol pèrdua que hagi pogut produir-se en el valor registrat d'aquests actius amb origen en el seu deteriorament, els criteris per al reconeixement de les pèrdues per deteriorament d'aquests actius i, si escau, de les recuperacions de les pèrdues per deteriorament registrades en exercicis anteriors són similars als aplicats per als actius materials.

Els costos de manteniment dels sistemes informàtics es registren a càrrec del compte de resultats de l'exercici en que s'incorren.

Els elements patrimonials que integren l'immobilitzat intangible s'amortitzen linealment i d'acord amb els coeficients següents:

	Exercici actual	Exercici precedent
Aplicacions informàtiques	33%	33%

Els Drets de bens cedits en ús recull el cost total a satisfet a la U.A.B., d'acord amb el conveni signat entre ambdues parts amb data 3 d'octubre de 2011 per a la construcció de la nova seu de l'Institut Català de Paleontologia dins del campus de la UAB. Aquest acord té una durada de 50 anys.

b) Bens integrats del patrimoni històric i cultural.

No n'hi ha comptabilitzades.

c) Immobilitzat material:

Els béns compresos en l'immobilitzat material es valoren a preu d'adquisició o al cost de producció, incloses totes les despeses addicionals directament relacionades amb la seva posada en funcionament, tals com despeses d'enderrocament, transport, drets arancelaris, assegurances, instal·lació, muntatge i altres similars. S'inclouen com a preu d'adquisició els impostos indirectes que no es consideren recuperables directament de la hisenda pública.

Els costos de renovació, ampliació o millora són incorporats a l'actiu com major valor del bé exclusivament quan suposen un augment de la seva capacitat, productivitat o prolongació de la seva vida útil.

Les despeses periòdiques de manteniment, conservació i reparació s'imputen a resultats com cost de l'exercici en què s'incorren.

Les pèrdues per deteriorament es posaran de manifest en el moment en el que el valor comptable del bé superi el seu import recuperable, entès aquest com l'import més alt entre el seu valor raonable menys els costos de venda i el seu valor en ús.

La Fundació té implantat un sistema de control dels seus immobilitzats que detalla de manera individualitzada els diversos elements que el componen i la seva corresponent

amortització acumulada.

L'amortització es calcula, aplicant el mètode lineal, sobre el cost d'adquisició dels actius; entenent-se que els terrenys tenen una vida útil indefinida i que, per tant, no són objecte d'amortització. El càlcul de la dotació a l'amortització de l'exercici ha estat aplicat de manera individual per cada element a partir de la data de la seva adquisició i considerant la seva vida útil estimada.

Els coeficients d'amortització dels elements inclosos en l'immobilitzat material són els següents:

Conceptes	Exercici actual	Exercici precedent
Edificis	2 %	2 %
Construccions livianes	16 %	16 %
Instal·lacions tècniques	20%	20%
Maquinària	15 %	15 %
Utilitatge	30 %	30 %
Mobiliari	10 %	10 %
Equip. Informàtics	25 %	25 %

d) Instruments financers

Actius financers

Inversions en empreses del grup i associades

No existeixen.

Préstecs i partides a cobrar

Els actius financers inclosos en aquesta categoria s'han de registrar inicialment pel seu valor raonable, que, llevat que hi hagi alguna evidència en contra, és el preu de la transacció, que ha d'equivaler al valor raonable de la contraprestació lliurada més els costos de transacció que els siguin directament atribuïbles.

No obstant el que assenyala el paràgraf anterior, els crèdits per operacions comercials amb venciment no superior a un any i que no tenen un tipus d'interès contractual, així com els avançaments i crèdits al personal, l'import dels quals s'espera rebre en el curt termini, es valoren pel seu valor nominal quan l'efecte de no actualitzar els fluxos d'efectiu no sigui significatiu.

Posteriorment s'han de valorar pel seu cost amortitzat. Els interessos meritats es comptabilitzen en el compte de pèrdues i guanys.

Al tancament de l'exercici s'efectuen les correccions valoratives necessàries sempre que hi hagi evidència objectiva que el valor s'ha deteriorat com a resultat d'un o mes

esdeveniments que s'hagin produït després del seu reconeixement inicial i que ocasionin una reducció o retard en els fluxos d'efectiu estimats futurs.

La pèrdua per deteriorament del valor d'aquests actius financers és la diferència entre el seu valor en llibres i el valor actual dels fluxos d'efectiu futurs que s'estima que han de generar, descomptats al tipus d'interès efectiu calculat en el moment del seu reconeixement inicial.

Les correccions valoratives per deteriorament, així com la seva reversió quan l'import de la pèrdua disminueixi per causes relacionades amb un esdeveniment posterior, s'han de reconèixer com una despesa o un ingrés, respectivament, en el compte de pèrdues i guanys.

La reversió del deteriorament té com a límit el valor en llibres del crèdit que estaria reconegut en la data de reversió si no s'hagués registrat el deteriorament del valor.

Actius financers disponibles per a la venda

Els actius financers disponibles per a la venda s'han de registrar inicialment pel seu valor raonable, que, llevat que hi hagi alguna evidència en contra, és el preu de la transacció, que ha d'equivaler al valor raonable de la contraprestació lliurada més els costos de transacció que els siguin directament atribuïbles.

Ha de formar part de la valoració inicial l'import dels drets preferents de subscripció i similars que, si s'escau, s'hagin adquirit.

Posteriorment aquests actius financers es valoren pel seu valor raonable, sense deduir els costos de transacció en els quals han d'incòrrer per a la seva alienació.

Els canvis que es produeixin en el valor raonable es registren directament en el patrimoni net, fins que l'actiu financer causi baixa del balanç o es deteriori, moment que aquest import s'imputa en el compte de pèrdues i guanys.

Les correccions valoratives per deteriorament del valor s'han de registrar en el compte de pèrdues i guanys. També s'ha de registrar en el compte de pèrdues i guanys l'import dels interessos.

Les inversions en instruments de patrimoni en què el valor raonable no es pugui determinar amb fiabilitat s'han de valorar pel seu cost, menys, si s'escau, l'import acumulat de les correccions valoratives per deteriorament del valor.

Actius financers mantinguts per a negociar

No existeixen.

Classificació d'actius financers

Els actius financers es classifiquen com actius corrents si el termini de realització és

inferior a 12 mesos a la data següent al tancament del Balanç adjunt.

Baixa d'actius financers

Els actius financers es donen de baixa, o una part, quan es transfereixen substancialment els riscos i les avantatges inherents a la propietat de l' actiu financer.

Passius financers

Dèbits i partides a pagar

Els passius financers inclosos en aquesta categoria s'han de registrar inicialment pel seu valor raonable, que, llevat que hi hagi alguna evidència en contra, és el preu de la transacció, que ha d'equivaler al valor raonable de la contraprestació rebuda més els costos de transacció que els siguin directament atribuïbles.

No obstant el que assenyala el paràgraf anterior, els dèbits per operacions comercials amb venciment no superior a un any i que no tenen un tipus d'interès contractual, l'import dels quals s'espera pagar en el curt termini, es valoren pel seu valor nominal quan l'efecte de no actualitzar els fluxos d'efectiu no sigui significatiu.

Posteriorment s'han de valorar pel seu cost amortitzat.

Els interessos meritats es comptabilitzen en el compte de pèrdues i guanys.

Classificació de passius financers

Els passius financers es classifiquen com passius corrents si el termini de cancel·lació és inferior a 12 mesos a la data següent al tancament del Balanç de Situació adjunt.

Baixa de passius financers

Els passius financers es donen de baixa quan s'extingeix l'obligació.

e) Crèdits no derivats de les activitats

En data 30 de desembre de 2.008, es va subscriure un préstec de 3.781.600,00 euros amb el BBVA, d'amortització anual a 15 anys, per tal de finançar les inversions en R+D en el marc de la convocatòria FEDER.

f) Classificació de saldo entre corrent i no corrent

En el balanç de situació adjunt, els saldos es classifiquen com no corrents i corrents.

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Els saldos corrents els comprenen aquells que la Fundació espera vendre, consumir, desemborsar o realitzar en el transcurs del cicle normal d'explotació, mentre que aquells altres que no corresponguin amb aquesta classificació es consideren no corrents.

g) Existències

El saldo de les existències respon a l'estoc de llibres “Dinosaurios del Levante Peninsular” i “Fa Olor de Dinosaurio”.

h) Provisions per a pensions i obligacions similars.

No n'hi ha comptabilitzades.

i) Altres provisions del grup 1.

No n'hi ha comptabilitzades.

j) Impost sobre beneficis

La nostra fundació, ha comunicat a l'Administració tributària l'opció per l'aplicació del règim fiscal especial, regulat en el títol II de la Llei 49/2002, de 23 de desembre, de règim fiscal de les entitats sense afany de lucre i d'incentius fiscals al mecenatge, i es troba exempta de l'impost.

k) Transaccions en moneda estrangera

En els registres comptables de la Fundació, no hi ha moneda estrangera. En quan al criteri de valoració dels tipus de canvi, sempre ha estat la tarifa oficial del dia en que s'ha fet la transacció.

l) Ingressos i despeses

Els ingressos procedents de la prestació de serveis es valoren pel valor raonable de la contrapartida, rebuda o per rebre, que en deriva, el qual, tret que hi hagi alguna incidència en contra, és el preu acordat per als serveis esmentats, un cop deduït: l'import de qualsevol descompte, rebaixa en el preu o altres similars que l'entitat pugui concedir, així com els interessos incorporats al nominal dels crèdits.

No obstant això, s'hi poden incloure els interessos incorporats als crèdits comercials amb venciment no superior a un any que no tinguin un tipus d'interès contractual, quan l'efecte de no actualitzar els fluxos d'efectiu no sigui significatiu.

Han estat efectuades periodificacions de les despeses i ingressos acreditades i no vençudes al tancament de l'exercici i que han estat comptabilitzades al compte de Pèrdues i Guanys

de l'exercici, amb independència del flux monetari de cobraments o pagaments.

m) Arrendaments operatius

S'entendrà que en les operacions d'arrendament operatiu, la propietat del bé arrendat i substancialment tots els riscos i avantatges que recauen sobre el bé, romanen en l'arrendador.

Quan la Fundació actua com arrendatari, les despeses de l'arrendament incloent les partides contingents, si escau, per l'arrendador, es carreguen linealment al compte de pèrdues i guanys, en funció de la vida del contracte.

n) Elements patrimonials de naturalesa mediambiental

L'entitat no té registrats al tancament de l'exercici ni actius ni passius que tinguin la consideració de naturalesa mediambiental.

o) Provisions

En el moment de formular els presents comptes anuals, la Gerència de la Fundació han diferenciat entre:

- Provisions; són aquells passius que cobreixen obligacions presents a la data del balanç de situació adjunt, sorgits com a conseqüència de successos passats i dels quals poden derivar-se perjudicis patrimonials de probable materialització per a la Fundació, l'import del qual i moment de cancel·lació són indeterminats.

Aquests saldos es registren pel valor actual de l'import més probable que s'estima que la Fundació haurà de desemborsar per a cancel·lar l'obligació.

- Passius contingents; són aquelles obligacions possibles sorgides com a conseqüència de successos passats, la materialització dels quals està condicionada que ocorri, o no, un o més esdeveniments futurs independents de la voluntat de la Fundació.

Els comptes anuals de la Fundació recullen totes les provisions significatives pel que fa a les quals s'estima que és probable que s'hagi d'atendre l'obligació.

Els passius contingents no es reconeixen en els comptes anuals, sinó que s'informa sobre els mateixos, conforme als requeriments de la normativa comptable.

Les provisions es quantifiquen tenint en consideració la millor informació disponible a cada moment sobre les conseqüències del succès o successos que les origina, i són revaluades en ocasió de cada tancament comptable, i s'utilitzen per a afrontar les obligacions específiques per a les quals van anar originalment reconegudes, procedint-se a la seva reversió, total o parcial, quan aquestes obligacions deixen d'existir o disminueixen.

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p) Registre i valoració de despeses de personal

Les despeses de personal són registrades en el moment de meritar-ne l'obligació, amb independència del moment en què es produueixi el corrent monetari financer que se'n deriva.

q) Subvencions donacions i llegats

Les subvencions, donacions i llegats no reintegrables es valoren pel valor raonable de l'import concedit.

Es comptabilitzen com ingressos directament imputats al patrimoni net i es reconeixen en el compte de pèrdues i guanys com ingressos sobre una base sistemàtica i racional de forma correlacionada amb les despeses derivades de la despesa o inversió objecte de la subvenció.

Per al cas dels actius de l'immobilitzat intangible, material i inversions immobiliàries s'han d'imputar com a ingressos de l'exercici en proporció a la dotació a l'amortització efectuada en aquest període per als elements esmentats o, si s'escau, quan se'n produueixi l'alienació, correcció valorativa per deteriorament o baixa en balanç.

r) Transaccions entre parts vinculades

No existeixen.

5. ACTIU IMMOBILITZAT, EXCLUSOS ELS BÉNS DEL PATRIMONI HISTòRIC ARTÍSTIC.

Immobilitzat intangible

Exercici actual

Aquesta partida reflexa l'adquisició d'un software de tractament d'imatges en 3D.

Les variacions experimentades per aquesta partida en el decurs de l'exercici, han estat les següents:

Cost d' adquisició	Saldos iniciais	Entrades	Trasp.	Saldos finals
Aplicacions informàtiques	40.400,72			40.400,72
Drets bens cedits en ús	0,00			0,00
TOTALS	40.400,72			40.400,72

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Amortitzacions	Saldos iniciais	Dotació amortització	Trasp.	Saldos finals
Aplicacions informàtiques	40.390,38			40.390,38
TOTALS	40.390,38			40.390,38

La partida dels “Drets de bens cedits en ús” recull el cost total a satisfet a la U.A.B., d’acord amb el conveni signat entre ambdues parts amb data 3 d’octubre de 2011 per a la construcció de la nova seu de l’Institut Català de Paleontologia dins del campus de la UAB. Aquest acord té una durada de 50 anys.

Durant l’any 2018, la Fundació va reclassificar aquesta partida com a més saldo de les immobilitzacions materials.

Exercici precedent

Les variacions experimentades per aquesta partida en el decurs de l’exercici, han estat les següents:

Cost d’ adquisició	Saldos iniciais	Entrades	Trasp.	Saldos finals
Aplicacions informàtiques	40.400,72			40.400,72
Drets bens cedits en ús	3.300.000,00		(3.300.000,00)	0,00
TOTALS	3.340.400,72		(3.300.000,00)	40.400,72

Amortitzacions	Saldos iniciais	Dotació amortització	Sortides	Saldos finals
Aplicacions informàtiques	40.390,38			40.390,38
TOTALS	40.390,38			40.390,38

Càrregues i gravàmens

Al tancament de l’exercici la Fundació no manté càrregues sobre aquestes inversions.

Compromisos de compra

La Fundació no ha assumit cap compromís ferm de compra d’immobilitzacions intangibles al tancament de l’exercici.

Elements totalment amortitzats

La Fundació té elements en ús totalment amortitzats en la data de tancament de l’exercici actual i precedent per valor de 40.390,38 i 40.390,38 euros, respectivament.

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Adquisicions d'immobilitzats intangibles a empreses del grup i associades

La Fundació no ha adquirit elements d'immobilitzat intangible a empreses del grup o associades.

Immobilitzat intangible no afecte a l'explotació

La Fundació no posseeix elements d'immobilitzat que no es trobin afectes a l'explotació que desenvolupa la mateixa.

Immobilitzat intangible situat fora del territori nacional

Al tancament de l'exercici, cap dels elements d'immobilitzat es troben situats fora del territori nacional.

Despeses financeres capitalitzades en l'exercici

La Fundació no ha capitalitzat despeses financeres en l'exercici abans de la posada en funcionament del bé, al no haver-se realitzat inversions que necessitin un període de temps superior a un any per a estar en condicions d'ús.

Finalment cal indicar que ni la Fundació ni els seus elements intangibles presenten indicis que comportin la necessitat de deteriorar cap dels seus elements de l'immobilitzat intangible.

Immobilitzat material

Exercici actual

Les variacions experimentades per aquesta partida en el decurs de l'exercici precedent, han estat les següents:

Costos d' adquisició	Saldos iniciais	Entrades	Sortides/ Trapassos	Saldos finals
Construccions	5.025.200,65			5.025.200,65
Instal·lacions tècniques	248.929,77			248.929,77
Maquinària	847.638,37			847.638,37
Utilitatge	370.812,41			370.812,41
Mobiliari	80.490,13			80.490,13
Equip. informàtics	178.608,21	8.965,35		187.573,56
Elements transport	10.363,61			10.363,61
TOTALS	6.762.043,15	8.965,35		6.771.008,5

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Amortitzacions	Saldos iniciais	Dotació amortització	Sortides	Saldos finals
Construccions	888.052,63	93.451,00		981.503,63
Instal·lacions tècniques	248.929,79			248.929,79
Maquinària	808.513,29	15.004,00		823.517,29
Utilitatge	376.849,35			376.849,35
Mobiliari	66.232,18	5.070,00		71.302,18
Equip. informàtics	171.293,64	3.261,35		174.554,99
Elements transport	2.214,61	2.073,00		4.287,61
TOTALS	2.562.085,49	118.859,35		2.680.944,84

Tots els elements de l' immobilitzat es troben subvencionats en la seva totalitat.

Exercici precedent

Les variacions experimentades per aquesta partida en el decurs de l'exercici actual, han estat les següents:

Costos d' adquisició	Saldos iniciais	Entrades	Sortides/ Trapassos	Saldos finals
Construccions	1.725.200,65		3.300.000,00	5.025.200,65
Instal·lacions tècniques	248.929,77			248.929,77
Maquinària	847.638,37			847.638,37
Utilitatge	370.812,41			370.812,41
Mobiliari	80.490,13			80.490,13
Equip. informàtics	170.852,11	7.756,10		178.608,21
Elements transport	10.363,61			10.363,61
TOTALS	3.454.287,05	7.756,10	3.300.000,00	6.762.043,15

Amortitzacions	Saldos iniciais	Dotació amortització	Sortides	Saldos finals
Construccions	563.601,63	324.451,00		888.052,63
Instal·lacions tècniques	248.929,79			248.929,79
Maquinària	777.145,29	31.368,00		808.513,29
Utilitatge	374.449,35	2.400,00		376.849,35
Mobiliari	58.896,18	7.336,00		66.232,18
Equip. informàtics	169.356,54	1.937,10		171.293,64
Elements transport	141,61	2.073,00		2.214,61
TOTALS	2.192.520,39	369.565,10		2.562.085,49

Tots els elements de l' immobilitzat es troben subvencionats en la seva totalitat.

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Béns subjectes a càrregues i gravàmens

Al tancament de l'exercici la Fundació no manté càrregues sobre aquestes inversions.

Compromisos de compra

La Fundació no ha assumit cap compromís ferm de compra d'immobilitzacions materials al tancament de l'exercici.

Elements totalment amortitzats

La Fundació té els següents elements en ús totalment amortitzats a la data de tancament de l'exercici actual.

Descripció	Exercici actual	Exercici precedent
Construccions	352.654,35	352.654,35
Instalaciones	248.929,77	248.929,77
Maquinària	716.558,63	716.558,63
Utilitatge	376.849,36	376.849,36
Mobiliari	30.189,91	29.050,82
Equips de procés d' informació	169.187,16	168.187,16
TOTALS	1.894.369,18	1.892.230,09

Adquisicions d'immobilitzats materials a empreses del grup i associades

La Fundació no ha realitzat adquisicions a empreses del grup, ni associades ni vinculades.

Immobilitzat material no afecte a l'explotació

La Fundació no posseeix elements d'immobilitzat que no es trobin afectes a l'explotació que desenvolupa la Fundació.

Immobilitzat material situat fora del territori nacional

Al tancament de l'exercici, cap dels elements d'immobilitzat es troba situat fora del territori espanyol.

Despeses financeres capitalitzades en l'exercici

La Fundació no ha capitalitzat despeses financeres en l'exercici abans de la posada en funcionament del bé, al no haver-se realitzat inversions que necessitin un període de temps

superior a un any per a estar en condicions d'ús.

Finalment, indicar que la Fundació no ha assumit costos de desmantellament, retir o rehabilitació, ni presenta indicis que comportin la necessitat de deteriorar cap dels seus elements de l'immobilitzat material.

6. BÉNS DEL PATRIMONI HISTÒRIC I CULTURAL.

Al tancament dels exercicis precedent i actual, l’Institut Català de Paleontologia, no era el titular de cap patrimoni al que es refereix el títol d'aquest apartat.

7.- INSTRUMENTS FINANCIERS. INVERSIONS FINANCERES.

Informació sobre la rellevància dels instruments financers en la situació finançera i els resultats de l'empresa.

Exercici actual

Actius financers a curt i llarg termini, llevat d'inversions en el patrimoni d'empreses del grup.

La composició del saldo dels Actius financers a curt i llarg termini, excepte inversions en el patrimoni d'empreses del grup, multigrup i associades, és la que es mostra a continuació:

Conceptes	Instruments financers a curt i llarg termini			
	Instruments de patrimoni	Valors de deute	Crèdits, Derivats Altres	Totals
Préstecs i partides a cobrar: fiances a curt i llarg termini			0,00	0,00

Els instruments financers descrits en aquest epígraf estan lliures de càrregues, ni existeixen actius cedits en garantia i no existeixen actius acceptats en garantia.

La Fundació no ha assumit cap compromís ferm de compra d'instruments financers.

No s'han produït durant l'exercici reclasificacions d'actius financers.

No s' han produït durant l'exercici transferències d'actius financers de tal forma que no es compleixin les condicions per a donar de baixa els mateixos.

No s'ha produït incidència alguna en el compliment de les obligacions amb tercers.

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La Fundació no té deutes amb característiques especials.

Exercici precedent

Actius financers a llarg termini, llevat d'inversions en el patrimoni d'empreses del grup.

La composició del saldo dels Actius financers a curt i llarg termini, excepte inversions en el patrimoni d'empreses del grup, multigrup i associades, és la que es mostra a continuació:

Conceptes	Instruments financers a curt i llarg termini			Totals
	Instruments de patrimoni	Valors de deute	Crèdits, Derivats Altres	
Préstecs i partides a cobrar: fiances a curt i llarg termini			0,00	0,00

8. FUNDADORS, USUARIS I ALTRES DEUTORS DE LES ACTIVITATS.

Exercici actual

La composició i evolució d' aquests comptes, expressada en euros, es la que es mostra a la següent taula, expressada en euros:

Conceptes	Saldos finals
Subvencions de la Generalitat de Catalunya	539.987,11
Contractes de serveis *	164.585,98
Subvencions competitives	381.116,00
TOTALS	1.085.689,09

* Import amb el I.V.A. inclòs

Exercici precedent

La composició i evolució d' aquests comptes, expressada en euros, es la que es mostra a la següent taula, expressada en euros:

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Conceptes	Saldos finals
Subvencions de la Generalitat de Catalunya	342.378,27
Contractes de serveis *	61.920,84
Subvencions competitives	749.573,60
TOTALS	1.153.872,71

* Import amb el I.V.A. inclòs

9. SUBVENCIONS, DONACIONS I LLEGATS (DEUTES A LLARG I CURT TERMINI TRANSFORMABLES EN SUBVENCIONS)

Exercici actual

Dins el concepte de subvencions, que ho són en concepte d'ajuts a la recerca i la seva difusió, el detall és el següent, expressat en euros:

Entitats Deutes a llarg termini	Exercici actual	Exercici precedent
Departament de Cultura de la Generalitat de Catalunya	0,00	0,00
AGAUR	116.568,74	152.776,52
Ministerio de Economía y Competitividad i OSIC	312.534,86	418.282,10
Altres	0,00	0,00
TOTALS	429.103,60	571.058,62

Entitats Deutes a curt termini	Exercici actual	Exercici precedent
Departament de Cultura de la Generalitat de Catalunya	0,00	0,00
AGAUR	231.234,23	149.435,64
Ministerio de Economía y Competitividad i OSIC	304.961,32	368.169,49
Altres	0,00	0,00
TOTALS	536.195,55	517.605,13

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Exercici precedent

Dins el concepte de subvencions, que ho són en concepte d'ajuts a la recerca i la seva difusió, el detall és el següent, expressat en euros:

Entitats	Exercici actual	Exercici precedent
Departament de Cultura de la Generalitat de Catalunya	0,00	0,00
AGAUR	70.693,15	152.776,52
Ministerio de Economía y Competitividad	648.279,78	418.282,10
Altres	0,00	0,00
TOTALS	718.972,93	571.058,62

Entitats Deutes a curt termini	Exercici precedent
Departament de Cultura de la Generalitat de Catalunya	0,00
AGAUR	149.435,64
Ministerio de Economía y Competitividad i OSIC	368.169,49
TOTALS	517.605,13

10. INSTRUMENTS FINANCIERS. PASSIUS FINANCERS.

Exercici actual

Passius financers a llarg termini

Els passius financers s'han classificat segons la seva naturalesa i segons la funció que compleixen en la Fundació.

Classes	Instruments financers a llarg termini			
	Deutes amb entitats de crèdit	Obligacions i altres valors negociables	Derivats	Altres
Categories	2019	2019	2019	Totals
Dèbits i partides a pagar: Deutes amb entitats crèdit Deutes transformables en subvencions Proveïdors d'immobilitzat	756.318,00			756.318,00 429.103,60 401.085,56
TOTALS	756.318,00		830.189,16	1.586.507,16

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Deutes amb entitats de crèdit

La Fundació té pendent d'amortització, un deute bancari amb el BBVA per import de 1.260.530,00 euros, instrumentat mitjançant un préstec a amortitzar en 15 anys, i del que resten 4 quotes anuals per valor de 252.106 euros cadascuna d'elles.

L'import inicial d' aquest préstec era de 3.781.600 euros, i merita un tipus d'interés del 1,05% anual.

Proveïdors d'immobilitzat

Per d'altra banda, cal indicar que el deute amb el Proveïdor d'immobilitzat recull l'import pendent de pagament a la UAB, d' acord amb el conveni signat entre ambdues parts amb data 3 d'octubre de 2011 per a la construcció de la nova seu de l'Institut Català de Paleontologia dins del campus de la UAB.

Aquest deute, amb el concepte Proveïdors d'immobilitzat, recull el deute pendent de pagament derivat de l'immooble que figura en el compte 208 sota el concepte Drets sobre actius cedits en ús.

D'acord amb el reconeixment de deute signat a juny de 2015 entre ambdues parts, aquest deute es pagarà mitjançant 8 pagaments anuals de 60 mil euros, amb la corresponent meritació d'interessos.

Passius financers a curt termini

Els passius financers s'han classificat segons la seva naturalesa i segons la funció que compleixen en la Fundació.

Categories	Classes			Instruments financers a curt termini
	Deutes amb entitats de crèdit	Obligacions i altres valors negociables	Derivats, Altres	
	2018	2018	2018	Totals
Dèbits i partides a pagar:				
Deutes amb entitats de crèdit	252.106,00			252.106
Deutes transformables en subvencions			536.195,55	536.195,55
Proveïdors			116.776,01	116.776,01
Personal			0,00	0,00
TOTALS	252.106,00		652.971,56	905.077,56

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Exercici precedent

Passius financers a llarg termini

Els passius financers s'han classificat segons la seva naturalesa i segons la funció que compleixen en la Fundació.

Categories	Classes	Instruments financers a llarg termini				
		Deutes amb entitats de crèdit	Obligacions i altres valors negociables	Derivats	Altres	
		2018	2018	2018	Totals	
Dèbits i partides a pagar:						
Deutes amb entitats de crèdit		1.008.424,00			1.008.424,00	
Deutes transformables en subvencions				571.058,62	571.058,62	
Proveïdors d'immobilitzat				420.000,00	420.000,00	
TOTALS		1.008.424,00		991.120	1.999.482,62	

Passius financers a curt termini

Els passius financers s'han classificat segons la seva naturalesa i segons la funció que compleixen en la Fundació.

Categories	Classes	Instruments financers a curt termini				
		Deutes amb entitats de crèdit	Obligacions i altres valors negociables	Derivats,	Altres	
		2018	2018	2018	Totals	
Dèbits i partides a pagar:						
Deutes amb entitats de crèdit		252.106,00			252.106,00	
Deutes transformables en subvencions				517.605,13	517.605,13	
Proveïdors				159.633,67	159.633,67	
Personal				64,53	64,53	
TOTALS		252.106,00		677.303,33	929.409,33	

Deutes amb entitats de crèdit

La Fundació tenia pendent d'amortització, un deute bancari amb el BBVA per import de 1.512.636,00 euros, instrumentat mitjançant un préstec a amortitzar en 15 anys, i del que restaven 5 quotes anuals per valor de 252.106 euros cadascuna d'elles.

L'import inicial d'aquest préstec era de 3.781.600 euros, i meritava un tipus d'interés del

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0,98% anual.

11. FONS PROPIS. FONS DOTACIONAL

Les entitats que van aportar el Fons dotacional inicial son les que es mostren a continuació, expressant les esmentades aportacions fundacionals en euros:

Entitats	Imports
Generalitat de catalunya	30.000,00
Universitat Autònoma de Barcelona	5.000,00
Total	35.000,00

Subvencions oficials de capital.

L’evolució d’aquest compte durant l’exercici 2019, expressar en euros, es detalla a continuació:

Subvencions	Saldo inicial	Altes	Traspass a resultats	Saldo final
Subvencions de capital	3.226.279,06	282.106,00	(118.859,35)	3.389.525,71
Subv. DECO 2018+19	21.823,22		47.157,29	68.980,51
TOTALS	3.248.102,28	282.160,00	(71.702,06)	3.458.506,22

L’evolució d’aquest compte durant l’exercici 2018, expressar en euros, es detalla a continuació:

Subvencions	Saldo inicial	Altes	Traspass a resultats	Saldo final
Subvencions de capital	3.343.738,16	252.106,00	(369.565,10)	3.226.279,06
Subv. DECO 2018	0,00		21.823,22	21.823,22
TOTALS	3.343.738,16	252.106	(347.741,88)	3.248.102,28

Càcul article 13.3 Llei de pressupostos 2017 (Llei 4/2017 de 28 de març)

Donat que el resultat previ de l’**exercici actual** va ser positiu, es va aplicar l’ajust de la imputació dels ingressos de les transferències corrents rebudes de la Generalitat de Catalunya, per l’esmentat import.

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Resultat previ de l'exercici precedent	47.157,29
+ Dotació amortitzacions	-369.565,10
- Subvencions oficials de capital transferides al resultat de l'exercici	369.565,10
- Donacions i llegats de capital	0,00
+/- Variació d'existències	0,00
- Subv. Corrent DECO 2019	-47.157,29
Resultat Comptable	0,00

Donat que el resultat previ de l'exercici precedent va ser positiu, es va aplicar l'ajust de la imputació dels ingressos de les transferències corrents rebudes de la Generalitat de Catalunya, per l'esmentat import.

Resultat previ de l'exercici precedent	21.823,22
+ Dotació amortitzacions	-118
- Subvencions oficials de capital transferides al resultat de l'exercici	-118.859,35
- Donacions i llegats de capital	118.859,35
+/- Variació d'existències	0,00
- Subv. Corrent DECO 2018	0,00
Resultat Comptable	-21.823,22

12. ENTITATS VINCULADES.

Per la mateixa naturalesa de la Institució, no existeixen entitats vinculades.

13. SITUACIÓ FISCAL.

Respecte de la situació fiscal de l'Institut Català de Paleontologia, ens remetem al que ja expliquem en el punt 4, apartat I).

És aquesta una Fundació sense ànim de lucre, així reconeguda per l'administració tributària i exempta de l'Impost sobre el Benefici.

Altres deutes amb Administracions públiques

La composició de saldo d' aquest rúbrica al tancament de l' exercici precedent i actual, expressada en euros, és la que es mostra a la següent taula:

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Conceptes	Exercici actual	Exercici precedent
Hisenda pública, creditora per Retencions	41.519,52	30.602,02
Organismes de la Seguretat Social creditors	33.212,25	17.877,39
Altres deutes amb Administracions públiques	74.731,77	48.479,41

Impost sobre el Valor Afegit.

Amb data 19 de novembre de 2012, la Fundació va signar Acta de Disconformitat en relació a la devolució d' IVA del exercici 2011, per valor de 144.989,72 euros. En l'esmentada Acta de Disconformitat, la Administració tributària reconeixia una devolució per quotes d' IVA per import de 3.405,95 euros, xifra que posteriorment es va elevar fins als 10.055,43 euros.

Amb data 8 de març de 2013, el Inspector Regional Adjunt va dictar Acord de Liquidació en la mateixa línia que l'últim import esmentat en el paràgraf anterior.

Finalment, amb data 8 de maig de 2013, la Fundació va presentar recurs de reposició contra l'esmentat Acord, el qual va ser desestimat per la Dependència Regional de Inspecció amb data 13 de novembre de 2015.

Addicionalment, al maig del 2014 va ser notificada la Fundació l'inici d'actuacions de comprovació i investigació en relació al concepte tributari IVA, dels períodes 2012 i 2013, i posteriorment la del 2014, mentre que pel 2015 només hi ha un requeriment..

Amb data 14 de desembre de 2015 es va interposar una reclamació econòmica administrativa davant del T.E.A.R.C. amb relació al acord de resolució del recurs de reposició de la Dependència Regional d'Inspecció de data 13 de novembre de 2015, referida a l' IVA de l' any 2011, i posteriorment s' han interposat altres reclamacions relatives a les inspeccions de IVA del 2012, 2013 i 2014.

Amb data 14 d'abril de 2019, aquesta Fundació signar amb disconformitat un acta de liquidació de l'IVA corresponent als exercicis 2015-16 per import -a ingressar- de 13.867,52 euros. Contra aquesta acta s'ha presentat, en data 2 de maig de 2019, un escrit d'al·legacions.

A la data de formulació dels presents comptes anuals, s'el T.E.AR.C. encara no ha fallat amb relació a la reclamació que se li ha presentat, es desconeix el desenllaç final d' aquesta sol·licitud de devolució d' IVA per valor de 145 mil euros de l' any 2011, ni de les liquidacions dels anys 2012, 2013 i 2014.

Malgrat l' anteriorment exposat, la Direcció de la Fundació és força optimista a la vista de la jurisprudència del Tribunal Suprem relacionada amb el dret de deducció de l' IVA i la recerca bàsica i aplicada de establerta en dos sentències de febrer de 2016.

14. INGRESSOS I DESPESES.

Despeses de personal.

El detall d'aquest epígraf al tancament de l'exercici, expressat en euros, és el que es mostra en la següent taula:

Conceptes	Exercici actual	Exercici precedent
Sous i salari i indemnitzacions	884.678,28	756.237,01
Indemnitzacions	64.440,08	0,00
Quotes de la Seguretat Social a càrec de l'empresa	211.034,82	188.903,97
Altres despeses socials	500,00	3.120,00
TOTALS	1.160.653,18	948.260,98

Dintre de les Altres despeses socials no s'inclou dotació alguna en concepte de dotacions i/o aportacions per a pensions.

A la data de tancament de l'exercici actual, la Fundació no ha assumit ni ha registrat cap compromís en matèria de pensions, premis de jubilació ni similars en relació als treballadors de la mateixa.

15. APLICACIONS D'ELEMENTS PATRIMONIALS A FINALITATS PRÒPIES.

Durant l'exercici precedent i actual no han aplicat elements d'aquests tipus.

16. ALTRA INFORMACIÓ.

- No s'han concedit acomptes al conjunt de membres de l'òrgan de govern, ni als de l'anomenada alta direcció.
- No han existit moviments especials de fons especials.
- La Fundació no participa en el capital de societats ni d'altres entitats jurídiques.
- L'import de les compensacions de despeses meritades pels membres dels òrgans de direcció, a l'exercici actual i precedent, han estat les següents, expressats en euros:

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Exercici actual	Salari brut de l'exercici actual
Membres de l' Alta direcció	
Director	55.731
Gerent	66.194

Exercici precedent	Salari brut de l'exercici precedent
Membres de l' Alta direcció	
Director	54.540
Gerent	65.366

**17. COMPLIMENT DEL QUE DISPOSA EL REIAL DECRET 1270/2003 PEL
 QUAL S'APROVA EL REGLAMENT PER A L'APLICACIÓ DEL RÈGIM
 FISCAL.**

a) Identificació de les rendes exemptes i no exemptes:

- Rendes exemptes; art.6. 1º a) Ley 49/2002
 Són les subvencions rebudes durant l'exercici que han estat imputades directament al compte dde pèrdues i gunays de l' exercici.

El detall de les Subvencions i donacions, d' explotació i de capital, imputades al compte de pèrdues i guanys de l' exercici, expressat en euros, es el que es mostra a la següent taula:

Conceptes	Exercici actual	Exercici precedent
Generalitat de Catalunya - DIUE	800.045,89	789.161,07
Generalitat de Catalunya – Dept. Cultura i Ram Pesca i M.N.	139.185,11	74.306,40
AGAUR	161.953,25	53.292,18
MICINN	351.641,96	399.306,84
Altres	25.871,25	29.264,59
TOTALS	1.478.697,46	1.345.331,08

Les subvencions dels Programes I3, Juan de la Cierva i Ramón y Cajal (MICINN), la de l'AGAUR i la del Ministerio de Economia s'han destinat exclusivament a les finalitats per

**INSTITUT CATALÀ DE PALEONTOLOGIA, FUNDACIÓ PRIVADA
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les quals es van concedir, per al finançament de contractes laborals per a la contractació d'investigadors doctors i predocs (AGAUR), tanmateix hi ha una quantitat en el cas de la Ramon y Cajal i AGAUR, destinada a despeses associades als investigadors incorporats.

La subvenció del Departament de Cultura s'ha destinat exclusivament a la finalitat per la qual va estar concedida, per al finançament de projectes d'intervencions paleontològiques i de millora de gestió de col·leccions.

- Ingressos financers exempts (interessos); art. 6.2º Ley 49/2002: 0,00 euros
- Altres Ingressos imputats a la fundació; art.6.5è Ley 49/2002 281.702,43 euros
- Durant l'exercici, i en compliment del que disposa l'objecte social de l'ICP, s'han realitzat els ajuts monetaris següents:
 - Ajuts monetaris per l'import total de 0 euros
- La despesa general puja la quantitat de 1.832.213 i 1.876.921 euros (sous i seguretat social, inclosos), durant l'exercici actual i precedent.
 - Descripció de la despesa segons el Compte de pèrdues i guanys, expressada en euros:

Conceptes	Exercici actual	Exercici precedent
Depesa de personal	1.160.653	948.261
Consums d' explotació	20.804	27.492
Despeses per serveis exteriors	513.066	508.573
Altres tributs	5.210	3.139
Amortització de l'immobilitzat	118.859	369.565
Despesa financerà	13.621	19.891
Despesa extraordinària	-	-
TOTALS	1.832.213	1.876.921

- Dintre de la rúbrica de Despeses per serveis exteriors no figura cap partida relativa a correccions valoratives per deteriorament de crèdits comercials ni fallits.

b) Ingressos i despeses i inversions corresponents a cada projecte o activitat realizada per l'ICP per al compliment dels seus fins fundacionals.

- Els únics ingressos i despeses realitzades per la Fundació són els que figuren detallats a l'apartat a) anterior. Tot es reinverteix als fins fundacionals.

c) La Fundació no ha obtingut rendes exemptes d'explotacions econòmiques ni derivades de la transmissió onerosa de bens immobles, ni per qualsevol altre motiu

que no sigui el detallat en el punt a) anterior.

- d) Els patrons no han estat retribuïts
- e) La Fundació no participa en societats mercantils
- f) No procedeix al no participar en societats mercantils.
- g) No existeixen convenis de col·laboració empresarial
- h) L' activitat no desenvolupa activitats prioritàries de mecenatge
- i) Els Estatuts de la Fundació estableixen que, en cas de dissolució, els seus bens passen al patrimoni de les entitats que estableix l'article 46 de la Llei 5/2001, de 2 de maig, de fundacions.
- j) Honoraris dels auditors.
 - En l'exercici 2019 y 2018 els honoraris relatius a serveis d'auditoria de comptes de la Fundació han estat de 5.600 euros.

18. PROTECCIÓ I MILLORA DEL MEDI AMBIENT

Donada l'activitat de la Fundació (veure nota 2 d'aquesta memòria), en els exercicis precedent i actual no s'han realitzat inversions en sistemes, equips ni instal·lacions per a la protecció i millora del medi ambient ni s'han produït despeses amb la finalitat de protecció i millora del medi ambient.

Durant l'exercici no s'han realitzat provisions per a riscos i despeses corresponents a actuacions mitjà ambientals ni s'han rebut subvencions de naturalesa ambiental.

Fins a la data de formulació d' aquests comptes anuals no es té coneixement de possibles contingències relacionades amb la protecció i millora del medi ambient ni de responsabilitats de naturalesa medi ambiental.

19. INFORMACIÓ SOBRE DRETS D'EMISIÓ DE GASOS D'EFFECTE HIVERNACLE

No s'ha produït cap moviment en la partida de drets d'emissió de gasos d'efecte hivernacle en els exercicis precedent i actual, ni s'han produït correccions de valor per deterioració en la partida de drets d'emissió de gasos d'efecte hivernacle.

Durant els exercicis precedent i actual, no s'han produït despeses derivades d'emissions de gasos d'efecte hivernacle, ni s'han rebut subvencions per drets d'emissió de gasos d'efecte hivernacle.

20. FETS POSTERIORS

COVID-19 s'ha convertit en una emergència de salut mundial que afecten els ciutadans, les empreses i l'economia en general, fins al punt que l'organització mundial de la salut (OMS) ho ha declarat una pandèmia tant per la seva ràpida expansió i els seus efectes. Després d'haver estat reconegut inicialment a la Xina al desembre de 2019, en la data de formulació d'aquests comptes anuals, segons fonts de la OMS, el COVID-19 s'expandeix per la majoria dels territoris del món, incloent Espanya.

Davant d'aquesta situació, seguint els precedents d'altres països europeus on hi ha hagut alts índexs d'afectació, Espanya ha dut a terme mesures dràstiques, amb la intenció de limitar la propagació del virus, així com d'altres mesures destinades a amortiment dels seus efectes econòmics.

Entre aquestes mesures destaquem l'entrada en vigor del Reial decret 463/2020, de 14 de març, pel qual es declara l'estat d'alarma, sent una eina a la disposició de l'executiu en els casos d'extrema necessitat, com ara el present, no gaudeix d'un precedent excessiu en la història de la nostra democràcia.

A més d'haver-se limitat a un dels drets fonamentals dels ciutadans, com el dret a la lliure circulació de persones a excepció de determinades situacions, ha portat als ciutadans espanyols a un confinament obligatori a les seves llars que comportarà un descens molt significatiu de les vendes i l'activitat de l'empresa i dels seus beneficis.

Una altra novetat presentada pel Reial decret esmentat és l'obligació que determinats locals i establiments comercials que presten atenció al públic, com ara bars, restaurants i comerç al detall, han de completar un cessament temporal de tota la seva activitat presencial, sens dubte causant grans pèrdues econòmiques. El passat 18 de març de 2020, el govern va publicar el Reial decret-llei 8/2020, sobre mesures urgents extraordinàries per abordar l'impacte econòmic i social del COVID-19, que incorpora algunes disposicions que afectaran l'activitat empresarial.

Si bé és difícil, en la data de formulació d'aquests comptes anuals, per fer prediccions sobre l'expansió d'aquesta pandèmia i els seus efectes sobre l'economia, entenem que l'empresa, tenint en compte la seva situació particular i les mesures que està duent a terme, reprendrà el seu negoci habitual tan aviat com finalitzi l'estat de l'alarma, de manera que la situació no tindrà un impacte significatiu en els seus 2019 comptes anuals 2020, però sí en les seves previsions per a l'exercici 2020, com succeirà amb la majoria de les empreses espanyoles.

L'administració de la societat, seguint les instruccions del govern i d'acord amb el seu pla de contingència de risc ha dut a terme les següents accions:

No s'ha realitzat cap tipus de regulació de treball on s'hagin vist afectat els treballadors, únicament s'ha dut a terme una reorganització de les feines a realitzar i de les persones que les realitzen.

Totes aquestes actuacions s'han fet respectant sempre les mesures de prevenció imposades pel Govern a través dels Reials Decrets, i a la vegada assessorats per les empreses de,

prevenció de riscos laborals i assessoria laboral.

Des del punt de vista de tresoreria, la Fundació compta amb una posició sòlida, que li permet afrontar de forma normal el pagament tant de proveïdors, com de les nòmines del propi personal i demés.

Des del punt de vista de les despeses, s'està maximitzant els recursos existents per tal de minimitzar els costos.

En quant a ingressos, aquests s'han vist parcialment afectats, donat que la activitat del museu de la Fundació es troba totalment tancada, mentre que la resta de les seves activitats no s'han vist gaire alterades.

Addicionalment no s'ha produït cap fet amb posterioritat al tancament que afecti els comptes anuals de l'exercici 2019 ni a l'aplicació del principi d'entitat en funcionament.

21. AVALS ATORGATS A TERCERS.

No existeix, amb data 31 de desembre de 2019 cap aval atorgat a tercers.

22. COMPONENTS DEL PATRONAT.

La composició del Patronat a data de 31 de desembre de 2019 és la següent:

PRESIDENTA:

M^a Àngels Chacón i Freixes

VICEPRESIDENTA:

Margarita Arboix Arzo

SECRETARI:

Joan Gómez Pallarès

VOCALS:

Francesc Xavier Grau Vidal
Armand Sánchez Bonastre

A Bellaterra (Barcelona), 21 de maig de 2020.

**INSTITUT CATALÀ DE PALEONTOLOGIA, FUNDACIÓ PRIVADA
MEMÒRIA ECONÒMICA 2019**

Formulació dels Comptes Anuals de l'INSTITUT CATALÀ DE PALEONTOLOGIA, FUNDACIÓ PRIVADA corresponents a l' exercici 2019.

Certificat de l'acord d'aprovació dels comptes de la Fundació

Dades relatives a la Fundació

Denominació

FUNDACIÓ INSTITUT CATALÀ DE PALEONTOLOGIA MIQUEL CRUSAFONT

Número d'inscripció en el Registre de Fundacions de la Generalitat de Catalunya
2396

Dades relatives a la sessió en què es va prendre l'acord

Data	Nombre d'assistents
21/05/2020	6

Relació dels assistents (nom i cognoms)

Membres del Patronat:

MARIA ANGELS CHACÓN FEIXAS (delega el vot en el Sr. Gómez Pallarès)
MARGARITA ARBOIX ARZO (delega el vot en el Sr. Sánchez Bonastre)
JOAN GÓMEZ PALLARÈS
ARMAND SÁNCHEZ BONASTRE
FRANCESC XAVIER GRAU (delega el vot en el Sr. Gómez Pallarès)

Convidats:

DAVID M. ALBA, director ICP Miquel Crusafont
ENRIC MENÉNDEZ, gerent ICP Miquel Crusafont
LLUIS ROVIRA I PATO, director I-CERCA
OLGA PORRATA BONNIN, I-CERCA

Exercici al qual corresponen els comptes anuals aprovats
2019

Forma d'aprovació de l'acord

per unanimitat dels presents

amb el vot favorable de _____ patrons del total d'assistents
Patrons que hi han votat en contra (nom i cognoms)

Dades del/de la secretariària de la Fundació, que estén el certificat

Nom i cognoms

JOAN GÓMEZ PALLARÈS

Data en què va ser nomenat/ada secretariària
16 OCTUBRE 2018

Certifico:

Que, en la sessió indicada, el Patronat de la Fundació va aprovar els comptes anuals de l'exercici especificat, amb els quòrums d'assistència i votació requerits als estatuts de l'entitat.

I, perquè així consti, signo aquest certificat.

El/la secretari/ària

Joan Gómez
Pallarès - DNI
36967734H (SIG)

Signat digitalment per
Joan Gómez Pallarès -
DNI 36967734H (SIG)
Data: 2020.05.27
12:49:52 +02'00'

Nom i cognoms

Joan Gómez Pallarès

Vist i plau**El/la president/a**

Maria Àngels
Chacón i Feixas +
DNI 46583720A
(SIG)

Nom i cognoms

Maria Àngels Chacón Feixas

Localitat i data BARCELONA, A 27/05/2020

En compliment de la Llei orgànica 15/1999, de 13 de desembre, de protecció de dades de caràcter personal, s'informa que les dades personals facilitades s'integraran en un fitxer del Departament de Justícia de la Generalitat de Catalunya anomenat Registre d'entitats, amb la finalitat d'exercir el registrament i control de les entitats jurídiques sobre les quals té competència la Generalitat.

Aquestes dades personals no se cediran fora dels casos previstos a la normativa. La presentació d'aquest document constitueix un consentiment per tractar les dades que conté.

L'òrgan administratiu responsable d'aquest fitxer és la Direcció General de Dret i d'Entitats Jurídiques. Es poden exercir els drets d'accés, rectificació, cancel·lació i oposició enviant una sol·licitud acompanyada amb una còpia d'un document identificatiu vàlid, per qualsevol mitjà que deixi constància del seu enviament i recepció, a la seu de l'òrgan esmentat: carrer de Pau Claris, 81 08010 Barcelona, o bé trametent una sol·licitud amb signatura electrònica certificada per una entitat reconeguda a l'adreça següent:
protecciodades.gtecnic.dj@gencat.cat

**INSTITUT CATALÀ DE PALEONTOLOGIA, FUNDACIÓ PRIVADA
LIQUIDACIÓ PRESSUPOST 2019**

INSTITUT CATALÀ DE PALEONTOLOGIA

LIQUIDACIÓ DEL PRESSUPOST 2019

APLICACIÓ PRESSUPOSTÀRIA	NOM DE L'APLICACIÓ	PRESSUPOST INICIAL	MODIFICACIONS	PRESSUPOST DEFINITIU	DRETS/OBLIGACIONS RECONEGUTS/DES	DESVIACIONS PRESUPOSTÀRIES
I/3190009	Prestacions d'altres serveis	75.000,00		75.000,00	281.202,43	-206.202,43
I/4400001	De consorci depenents del sector públic de la Generalitat					0,00
I/4020019	Altres transferències de l'Administració de l'Estat	44.383,25		44.383,25	15.837,05	28.546,20
I/4100001	Transferències corrents de la Generalitat de Catalunya					0,00
I/4100021	Del departament d'Empresa i Coneixement	896.329,00		896.329,00	800.045,89	96.283,11
I/4480001	AGAUR + OSIC			0,00	76.601,58	-76.601,58
I/4600009	Ajuntament de Subirats	0		0,00	3.000,00	-3.000,00
I/4810001	de fundacions de fora el sector públic	11.000,00		11.000,00	22.371,25	-11.371,25
I/4930009	Altres transferències corrents de la UE	1.000,00		1.000,00	0,00	1.000,00
I/4990009	Altres transferències corrents de l'exterior					0,00
I/5210001	altres ingressos de dipòsit			0,00	0,00	0,00
I/7100021	Del departament d'Empresa i Coneixement	252.106,00		252.106,00	282.106,00	-30.000,00
I/8700001	Romanents de tresoreria d'exercicis anteriors					0,00
I/8700001	Romanents de tresoreria d'exercicis anteriors	0,00		0,00		0,00
I/8700001	Romanents de tresoreria d'exercicis anteriors finalistes	0,00				0,00
Total Ingressos		1.279.818,25	0,00	1.279.818,25	1.481.164,20	-201.345,95
D/1300001	Personal laboral fixe	404.000,00		404.000,00	496.744,84	-92.744,84
D/1310001	Personal laboral temporal	180.022,41		180.022,41	452.373,52	-272.351,11
D/1600001	Seguretat Social	130.000,00		130.000,00	210.534,82	-80.534,82
D/2000002	Altres lloguers i cànons de terrenys, bens naturals, edificis..			0,00	2.560,00	-2.560,00
D/2130001	Consevació i reparacions	32.546,01		32.546,01	85.044,85	-52.498,84
D/2200001	Material ordinari no inventariable			0,00	267.414,62	-267.414,62
D/2210001	Aigua i energia	40.000,00		40.000,00	29.220,13	10.779,87
D/2210089	Altres suministraments	6.000,00		6.000,00	11.487,11	-5.487,11
D/2220001	correus, missatgeria	500		500,00	0,00	500,00
D/2220002	Solucions de connectivitat					0,00
D/2220003	Comunicació mitjançant serveis de veu			0,00		0,00
D/2240001	Despeses d'assegurances	7.000,00		7.000,00	12.407,47	-5.407,47
D/2250001	Tributs	4.000,00		4.000,00	5.209,99	-1.209,99
D/2260005	Org. Congressos	8.000,00		8.000,00		8.000,00
D/2260111	Formació del personal					0,00
D/2260089	Altres despeses diverses	35.000,00		35.000,00	31.646,85	3.353,15
D/2270001	Neteja	17.000,00		17.000,00	25.750,90	-8.750,90
D/2270005	Estudis i dictàmens					0,00
D/2270013	Treballs Tècnics	20.000,00		20.000,00	15.822,00	4.178,00
D/2270089	Altres treballs realitzats per altres empreses	10.000,00		10.000,00	49.600,54	-39.600,54
D/2280001	Solucions tecnològiques adquirides al CTTI	1.814,83		1.814,83	1.375,03	439,80
D/3100002	Interessos de prestecs a llarg termini	130.829,00		130.829,00	13.432,17	117.396,83
D/3100005	Interessos de deutes, altres parts implicades			0,00	189,14	-189,14
D/3420001	comissions bancàries	1.000,00		1.000,00	1.428,62	-428,62
D/6800001	Inversions en immobilitzat immaterial					0,00
D/6100001	Inversions en edificis i altres construccions per compte propi					0,00
D/6200001	Inversions en maquinària, instal·lacions i utilitatge					0,00
D/6300001	elements de transport					0,00
D/6400001	Inversions en mobiliari i estris					0,00
D/6500001	Inversions en equips de procés de dades			0,00	8.965,35	-8.965,35
D/9120001	Amortització de capital del préstec	252.106,00		252.106,00	252.106,00	0,00
Total Despeses		1.279.818,25	0,00	1.279.818,25	1.973.313,95	-693.495,70
Saldo pressupostari de l'exercici (Total drets reconeguts - Total obligacions reconegudes)			0,00	0,00	-492.149,75	

Signatura del responsable econòmic de l'entitat

Enric Menéndez Cabrera
 Gerent
 Institut Català de Paleontologia (8480)

Conciliació del resultat pressupostari amb el comptable exercici 2019_ ICP

Resultat pressupostari	-492.149,75
-Ingressos capítols 6 a 9	-282.106,00
+ Despeses capítols 6 a 9	261.071,35
-Excès de transferència corrent	-47.157,29
-Dotació amortització	118.859,35
-Dotació deterioraments	
-Dotació provisions	
+/- Variació d'existències	
+Subvencions transferides rtat exercici	-118.859,35
+Romanents finalistes transferits rtat. exercici	560.341,69
+Subvencions corrents liquidades en exercicis anteriors	
+/- Beneficis o pèrdues inmobilitzat	
+Aplicació de provisions	
Resultat comptable	0,00

Enric Menéndez Cabrera

Gerent de l'Institut Català de Paleontologia Miquel Crusafont

càlcul Romanent 2019

Concepte	Import	Subtotal	Total
Clients per vendes i prestació serveis	164.585,98		
Deutors per subvencions	921.103,11		
Hisenda pública creditora per IVA	390.294,51		
Total Deutors pends cobrament		1.475.983,60	
Proveidors i creditors	116.776,01		
Personal	0,00		
Altres deutes Administracions publiques	74.731,77		
Total Creditors pends pagament		191.507,78	
Inversions financeres a ll. termini			0,00
Efectiu i altres actius líquids de tresoreria			368.222,72
Romanent de tresoreria Previ			1.652.698,54

Concepte	Import
Inversions finançades pends de liquidar a la UAB	401.085,56
ingressos anticipats (projectes plurianuals)	965.299,15
Total Finançament afectat	1.366.384,71
ROMANENT	286.313,83

Romanent 2018	218.121,89
Diferència	68.191,94

Enric Menéndez Cabrera

gerent de l'Institut Català de Paleontologia