

INSTITUT DE CIÈNCIA I
TECNOLOGIA
AMBIENTALS
UAB



ICTA
Institut de Ciència
i Tecnologia Ambientals
ICTA-UAB



EXCELENCIA
MARÍA
DE MAEZTU

Annual Report

2020

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MISSION

The Institute of Environmental Science and Technology (ICTA-UAB) is a multidisciplinary centre that promotes academic research and postgraduate education in the environmental sciences. It aims to improve our understanding of global environmental change, and the origin and changing nature of environmental problems. In addition, it studies policies, strategies and technologies to foster a transition to a sustainable economy.

OUR OBJECTIVES

- Development of frontier research for a sustainable Earth
- Design and implementation of a Knowledge Exchange Initiative
- Training and Career Development Scheme
- Consolidation of a transparent, equitable and effective Governance System



“
We are a multidisciplinary institute that promotes academic research and postgraduate education in the environmental sciences.”

EXECUTIVE BOARD



Director ICTA-UAB
Xavier Gabarrell Durany



Scientific Secretary
Jordi Garcia Orellana



Deputy Director of Postgraduate Studies
Antoni Rosell Melé (PhD coordinator)



Scientific career
Giorgos Kallis

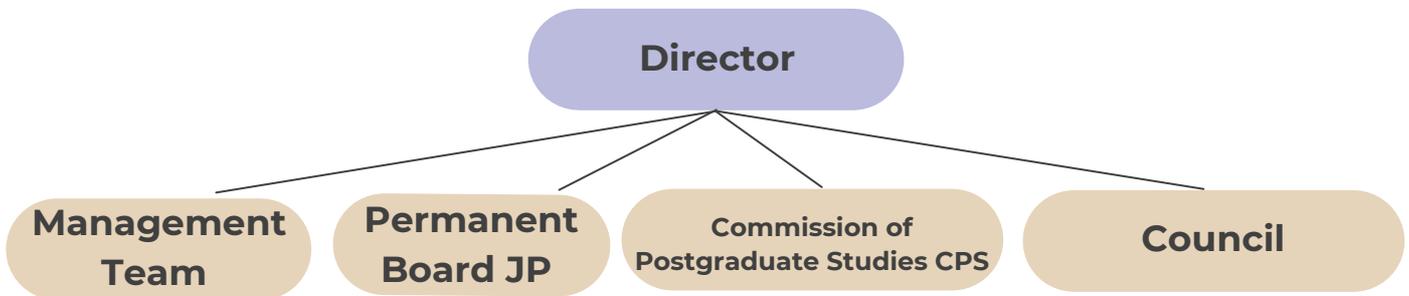


Director MdM
Esteve Corbera



Manager
Maica Nogales

ICTA-UAB GOVERNANCE



The JP involves the Principal Investigators of ICTAs research groups, representatives of the doctoral and postdoctoral communities, and the administration

The CPS has a director, 4 additional senior researchers, and an administrative manager. It reports to the Doctoral School

The council includes the Institutes PhD holders, and representatives of the doctoral students, and the administrative staff. The council can propose improvements to any aspect related to ICTAs scientific and teaching activities, and it can also approve or disprove strategic decisions adopted by the JP

ABOUT US

NEW STAFF

Inphinit Incoming La Caixa Foundation

Annie James
Eleonora Fanari
Till Jacob Heydenreich

Grants for contracts for doctoral training MICIU

Oriol Teruel Cabello
Francesco Facchini
Mouna Chambon

FI AGAUR

Marta Music
Austin Matheney

Beatriu de Pinós programme

Valentí Rodellas Vila

ICREA Sènior 2020

Esteve Corbera

Ramon y Cajal

Jordi Christopher Honey Roses

Juan de la Cierva

Panagiota Kotsila

Beatriz Galindo

Jason Edward Hickel

Marie Sklodowska-Curie Actions Individual Fellowships

GROUT project. Beneficiary Marta Conde. IP Kallis
GEOLAKE project. Beneficiary Giaime Matthieu. IP Toni Rosell
POSTGRO project. Beneficiary Edmund Harley

ICTA-UAB IN NUMBERS

74 RESEARCHERS

53% FEMALE RESEARCHERS

25 COUNTRIES

8 ERC GRANTS

208 PUBLICATIONS

12 DOCTORAL THESES

ABOUT US

WEBSITE

48K USERS

166k PAGE VIEWS

107 NEWS ITEMS ON WEBSITE

1,418 NEWSLETTER SUBSCRIPTIONS

PRESS

38 PRESS RELEASES

1,337 MEDIA MENTIONS

TWITTER

1,269 TWEETS

1,837,900 IMPACTS

26.247 PROFILE VISITS

RESEARCH GROUPS

ICTA-UABs research areas are developed through specific research groups (SGR). These groups share an interest in the study of the causes, mechanisms and impacts of global environmental change, including climate change, the latest interactions with human societies and wellbeing, and the policy and institutional responses necessary for a transition to a sustainable future.

AEROBIOTAS Aerobiology,
atmospheric transport and health
Responsible Jordina Belmonte



AEROBIOTAS aims to provide service to medical doctors (mainly aerologists) and allergy patients to be permanently informed on allergenic pollen and spore shows in the air during different seasons and environmental conditions. It is also an excellent tool that citizens can directly use when/if affected by pollen/spores allergy to be able to take necessary precautions when needed.

IASTE Integrated assessment: sociology, technology and the environment

Responsible Mario Giampietro



The overarching research objective of the group is to replace the technocratic approach of evidence-based policy with a more effective approach of co-production of knowledge claims to inform policy in the face of uncertainty.

MERS Marine and environmental biogeosciences

Responsible Patrizia Ziveri and Jordi
García-Orellana



MERS is addressing various environmental biological and geochemical processes regulating the marine and freshwater realms as well as interacting with climate change. Human-induced global and climate change affects society, natural resources and economy around the world and the awareness of their impact has increased considerably in the last decades.

ECONECOL Ecological economics Responsible Giorgos Kallis



Ecological economics is the interdisciplinary science of the study of sustainability. Their mission is to develop, apply and disseminate critical knowledge necessary for understanding causes and solutions to environmental problems linking them to economic systems and policies that create or address these problems.

IMPACTANT Dynamics of natural systems and the anthropic impacts Responsible Antoni Rosell



IMPACTANT aims to study of the anthropic impacts on the dynamics of the natural systems of the planet to design strategies of sustainable development.

LASEG Laboratory for the analysis of social-ecological systems in a globalised world

Responsible Victoria Reyes-García and Esteve Corbera



LASEG aims to better understand how local and indigenous knowledge can contribute to environmental sustainability, and how to better reconcile biodiversity conservation and the provision of ecosystem services with human wellbeing, in both rural and urban settings.

SOSTENIPRA Sustainability and environmental protection

Responsible Xavier Gabarrell



SOSTENIPRA aims to develop, adapt and apply tools to promote sustainability and environmental protection with a systemic, life cycle approach. The group research focuses on resource management for a circular economy, sustainable food systems, and integrated analysis of urban nature-based solutions.

RESEARCH

The research agenda aims to inform a number of environmental and societal challenges that need to be addressed in order to guarantee human progress in an ecologically sustainable Earth. We engage with a set of global, yet inter-related environmental challenges, including climate change, biodiversity loss, resource extraction, oceans' acidification and water pollution, and their social and economic ramifications. Each research foci aims to advance specific research questions and simultaneously engage with important policy and social goals and debates, including for example the United Nations' Sustainable Development Goals (SDGs), the mitigation goals of the Paris Accord on Climate Change, or the Aichi Targets. In doing so, we aim to provide evidence on the best strategies to make progress on these global and regional sustainability goals, as well as to shed light on possible trade-offs across apparently desirable policy objectives

5 Societal Challenges

ICTA-UAB's strategic research program, funded by the Maria de Maeztu Unit of Excellence, is structured around 5 interrelated Societal Challenges.

- OCEANS
- LAND
- CONSUMPTION
- CITIES
- POLICIES

OCEANS



We study the impacts of global change on oceanic and coastal systems to develop pathways towards sustainable and equitable interactions with marine environments and their resources.

Highlight publications

D'Amario B, Pérez C, Grelaud M, Pitta P, Krasakopoulou E & Ziveri P 2020, Coccolithophore community response to ocean acidification and warming in the Eastern Mediterranean Sea: results from a mesocosm experiment, *Scientific Reports* 10, 12637.

Bell S., Barriocanal C., Terrer C., Rosell-Melé A. 2020 Management opportunities for soil carbon sequestration following agricultural land abandonment *Environmental Science and Policy* 108

LAND



We analyze the combined effects of climate and other drivers of global environmental change on the sustainability of rural landscapes and livelihoods.

Highlight publications

Reyes-Garcia V, Diaz-Reviriego I, Duda R, Fernandez-Llamazares A & Gallois S 2020, 'Hunting Otherwise Women's Hunting in Two Contemporary Forager-Horticulturalist Societies', *Human Nature* 31(3):203-221.

Reyes-Garcia V, Fernandez-Llamazares A, Bauchet J & Godoy R 2020, 'Variety of indigenous peoples' opinions of large infrastructure projects: The TIPNIS road in the Bolivian Amazon', *World Development*, 127, 104751.

CONSUMPTION



We examine how processes of production and consumption of goods and services relate to global environmental impacts and affect human well-being and technological transitions.

Highlight publications

Cadillo-Benalcazar JJ, Renner A & Giampietro M 2020, 'A multiscale integrated analysis of the factors characterizing the sustainability of food systems in Europe', *Journal of Environmental Management*, 271, 110944.

Parra R, Bukkens SGF & Giampietro M 2020, 'Exploration of the environmental implications of ageing conventional oil reserves with relational analysis', *Science of the Total Environment*, 749, 142371

CITIES



We interrogate and advance actions and projects for climate-responsive, equitable and healthy cities and urban systems.

Highlight publications

Amorim Maia AT, Calcagni F, Connolly JJT, Anguelovski I & Langemeyer J 2020, 'Hidden drivers of social injustice: uncovering unequal cultural ecosystem services behind green gentrification', *Environmental Science & Policy*, 112, 254 - 263.

Corbera, E; Anguelovski, I; Honey-Roses, J; Ruiz-Mallen, I 2020, 'Academia in the Time of COVID-19: Towards an Ethics of Care', *Planning Theory & Practice* 21(2)

POLICIES



We analyze and advocate for effective and equitable cross-scale policies, institutions and social responses to address global environmental change.

Highlight publications

D'Alisa G & Kallis G 2020, 'Degrowth and the State', *Ecological Economics*, 169, p.106486.

Hartley T, van den Bergh J & Kallis G 2020. 'Policies for Equality Under Low or No Growth: A Model Inspired by Piketty'. *Review of Political Economy*, 32(2), pp.243-258.

SELECTED CONCLUDED PROJECTS

ISIPEDIA

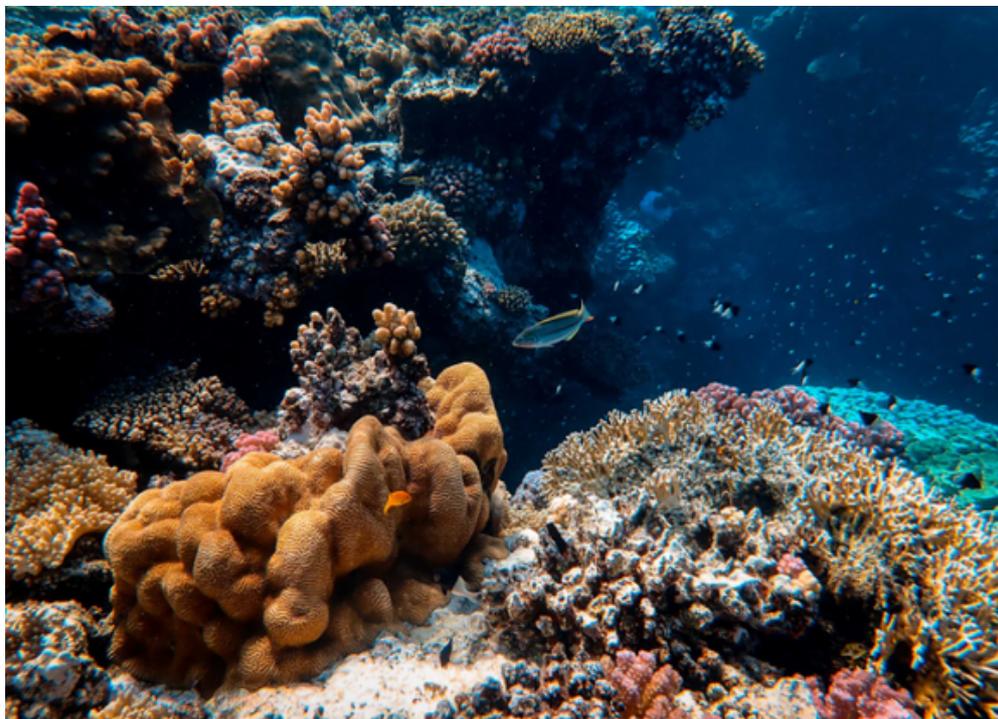
ISlpedia-marine ecosystems and fisheries

Principal investigator: Eric Galbraith

Budget: 99.200 €

Funding entity: Ministerio de Economía y Competitividad

Period: 2017-2020



ISlpedia is part of ERA4CS, an ERA-NET initiated by JPI Climate with co-funding by the European Union (Grant 690462) and the national funding agencies of Germany (DLR, 01LS1711A), Austria (BMBWF, 863603), France (ANR), The Netherlands (NWO), Spain (MINECO) and Sweden (FORMAS).

TRANSFAIR

Unfair transitions? A critical examination low-carbon energy pathways in the EU from a domestic energy vulnerability perspective

Principal investigator: Giorgos Kallis, Beneficiary Sergio Tirado

Budget: 158.121,59 €

Funding entity: MSCA-EU

Period: 2018-2020



TRANSFAIR combine the political ecology and environmental justice frameworks with transitions theory and multi-level governance perspective, conduct a critical, integrative review of scientific and policy literature and carry out an empirically-based examination of two complementary case studies: renewable electricity cooperatives in Spain and advanced thermal retrofits of multi-family buildings in Hungary.

NEW RESEARCH PROJECTS

WATER-MINING

Next generation water-smart management systems: large scale demonstrations for a circular economy and society

Principal investigator: Louis Lemkow

Budget: 16.876.960 € (342.722,5 € UAB)

Funding entity: EU

Period: 2020-2024



Water access and its related energy, environmental and economic costs are one of the greatest challenges for society today. According to the 2030 Water Resources Group of the World Bank global water demand by 2030 is expected to exceed sustainable water supply.

WATER-MINING project aims to face this challenge and help ensure access to clean water and sanitation by exploring alternative water sources and developing innovative solutions for sustainable water management, including tapping into urban and industrial wastewater and seawater desalination.

LICCION

Local Indicators of Climate Change Impacts
Observation Network

Principal investigator: Victoria Reyes-García

Budget: 150.000 €

Funding entity: EU

Period: 2020-2022



Victoria Reyes-García has received one of the 76 ERC Proof of Concept grants. This top-up funding will help create a Local Indicators of Climate Change Impacts Observation Network (LICCION), aimed at bringing indigenous knowledge and perspectives to climate change policy forums.

EPOC

Economic Policy in Complex Environments

Principal investigator: Jeroen van den Bergh

Budget: 3.982.061,5 € (501.809,75 UAB)

Funding entity: EU

Period: 2021-2025



Europe is dealing with a number of big issues that are complicated due to path dependency, irreversibility, systemic risk and (local) interaction of heterogeneous agents. Climate change and the design of Europe’s desired transition to a low-carbon economy are such issues. Policies to address these challenges should be based on empirical analyses and appropriate modelling methods. The EU-funded EPOC project is an innovative training network aiming to advance and apply pioneering computationally intensive methods for decision and policy analyses in the fields of climate change and innovation. Early-stage researchers will be trained in data science, network theory, agent-based simulation, and economic modelling. The academic training will include transferable skills training measures, intersectoral training measures and career development training.

SCIENTIFIC OUTPUT

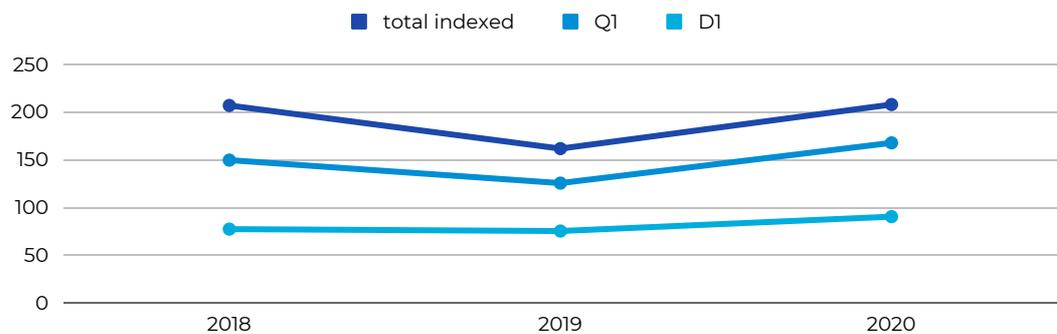
Our research continues to be published in leading, high-impact-factor journals. 12 articles were published in Nature and Science-related journals, as well as in Proceedings of the National Academy of Sciences, USA (PNAS). Overall, about 200 scientific articles were published in peer-reviewed journals in 2020, across more than 120 different scientific journals. Over 70% of the articles appeared in journals with an impact factor of four or higher.

208 INDEXED ARTICLES

168 ARTICLES PUBLISHED IN 1ST QUARTILE

91 IN 1ST DECILE

ANNUAL NUMBER OF PUBLICATIONS



SELECTED PUBLICATIONS (D1 journals)

Galbraith E.D., Van den Bergh, J.C.J.M.

Tax carbon to aid economic recovery

Nature 581, 262 (2020)

doi: 10.1038/d41586-020-01500-8

**Strassburg, B.B.N., Iribarrem, A., Beyer, H.L., Cordeiro, C.L.,
Crouzeilles, R., Jakovac, C.C., Braga Junqueira, A., Lacerda,
E., Latawiec, A.E., Balmford, A., Brooks, T.M., Butchart,
S.H.M., Chazdon, R.L. et al.**

Global priority areas for ecosystem restoration

Nature 586 (2020)

doi: 10.1038/s41586-020-2784-9

**Díaz, S., Zafra-Calvo, N., Purvis, A., Verburg, P.H., Obura, D.,
Leadley, P., Chaplin-Kramer, R., De Meester, L., Dulloo, E.,
Martín-López, B., Shaw, M.R., Visconti, P., Broadgate, W.,
Bruford, M.W., Burgess, N.D., Cavender- Bares, J.,
DeClerck, F. et al.**

Set ambitious goals for biodiversity and sustainability

Science 370 (2020)

doi: 10.1126/science.abe1530

**Soares, M.O., Teixeira, C.E.P., Bezerra, L.E.A., Rossi, S.,
Tavares, T., Cavalcante, R.M.**

Brazil oil spill response: Time for coordination

Science 367 (2020)

doi: 10.1126/science.aaz9993

Iglesias-Suarez F., Badia A., Fernandez R.P., Cuevas C.A., Kinnison D.E., Tilmes S., Lamarque J.-F., Long M.C., Hossaini R., Saiz-Lopez A.

Natural halogens buffer tropospheric ozone in a changing climate

Nature Climate Change 10 (2020)

doi: 10.1038/s41558-019-0675-6

Wells G., Ryan C., Fisher J., Corbera E.

In defence of simplified PES designs

Nature Sustainability 3 (2020)

doi: 10.1038/s41893-020-0544-3

Subtil Lacerda J., van den Bergh J.C.J.M.

Effectiveness of an ‘open innovation’ approach in renewable energy: Empirical evidence from a survey on solar and wind power

Renewable and Sustainable Energy Reviews 118 (2020)

doi: 10.1016/j.rser.2019.109505

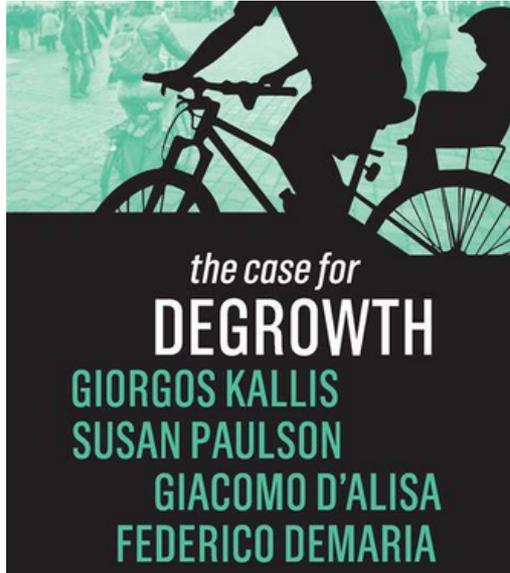
Cubas M., Lucquin A., Robson .K., Colonese A., Arias P., Aubry B., Billard C., Jan D., Diniz M., Fernandes R., Fábregas Valcarce R., Germain-Vallée C., Juhel L et al.

Latitudinal gradient in dairy production with the introduction of farming in Atlantic Europe

Nature Communications 11(2020)

doi: 10.1038/s41467-020-15907-4

BOOKS



The Case for Degrowth
 Wiley, November 2020

In this compelling book, leading experts Giorgos Kallis, Susan Paulson, Giacomo D'Alisa and Federico Demaria make the case for degrowth - living well with less, by living differently, prioritizing wellbeing, equity and sustainability.

“This is a major contribution to the current debate on growth and degrowth. The authors lay bare the innards of each and show us the importance of degrowth. Wellbeing, equity, and sustainability are key vectors organizing this text. These should be understood in the fullness of their capacities to move us out of our current modernity --a decaying order that is today still dominant. But history has shown us across the centuries that no system of power can last for ever, and nor will our current system. Indeed, it is busy destroying itself.”

Saskia Sassen, Columbia University and author of *Expulsions*

“Degrowth is one of the most important ideas of the 21st century. Here it is in compact form. Clear, timely, urgent. Don't miss this book.”

Jason Hickel, London School of Economics and author of *The Divide and Less is More*



Les solucions basades en la natura en l'àmbit municipal
Diputació de Barcelona

F. Sekulova, F. Baró, L. Campos Rodrigues, A. Llabrés Payeras

In this publication, the Management of Environmental Services presents the concept of nature-based solutions (SbN), an emerging management instrument that is consolidated in the current context of ecological crisis and climate emergency.

In this way, the aim is to intensify ecological processes in the city with interventions inspired by the imitation of natural ecological functions, with the aim of improving people's health, environmental functions and the biodiversity of the urban environment.

The book presents an important catalogue of nature-based solutions that includes twenty of the most successful applications of the concept in municipalities around the world and our environment. The proposals have been compiled by one of the best European research teams in the field.

AWARDS & RECOGNITIONS



ICTA-UAB awarded the "María de Maeztu" Unit of Excellence Award for the second consecutive time

The ICTA-UAB has been accredited a Maria de Maeztu Unit of Excellence Award for the second consecutive time. This programme by the MICINN recognizes excellence in scientific research and includes a grant of €2 million throughout a four-year period.



ICTA-UAB economist Joan Martínez Alier wins the Balzan Prize for Environmental Challenges

Economist Joan Martínez Alier from ICTA-UAB is one of the winners of the 2020 Balzan Prize in the category of "Environmental Challenges: Responses from the Social Sciences and Humanities".



Victoria Reyes-García, Narcís Monturiol Medal for scientific and technological merit

ICTA-UAB researcher Victoria Reyes-García was awarded by the Government of Catalonia with the Narcís Monturiol Medal for scientific and technological merit.



Two ICTA-UAB academics named among the most cited researchers worldwide

Esteve Corbera and Margarita Triguero Mas, researchers from the Institute of Environmental Science and Technology of the Universitat Autònoma de Barcelona, feature among researchers with the world's most highly cited papers according to Clarivate Analytics



**Esteve Corbera, new
ICREA Research
Professor at ICTA-UAB**

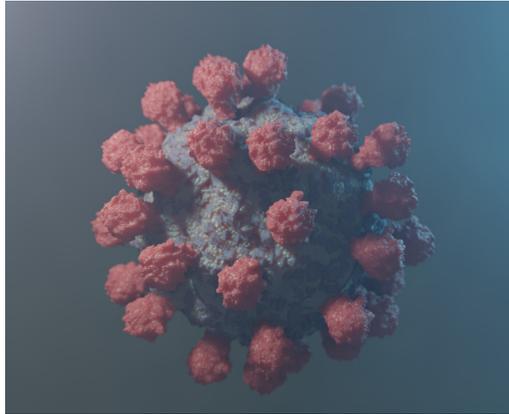
ICTA-UAB researcher Esteve Corbera was granted an ICREA Senior Research Professor position, awarded by the Catalan Institution for Research and Advanced Studies (ICREA).



**ICTA-UAB researcher
Aljosa Slamerzak
awarded by the
European Meteorological
Society**

The project RESCCCUES (REminding Slovenian authorities Climate Change Crisis requires Urgent Effort) was awarded the Outreach and Communication Award 2020 by the EMS.

SOCIETAL IMPACT



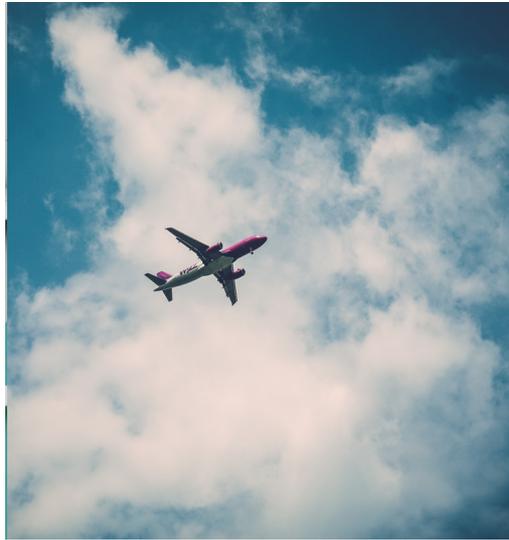
Catalonia's Scientific Contributions to Fighting Covid-19

Sixty ICREA researchers, including Isabelle Anguelovski of the ICTA-UAB, lead more than a hundred research activities on Covid-19.



International Conference on Low-Carbon Lifestyles. Technological changes and new low-carbon lifestyles, key to mitigating climate change impacts

In order to mitigate climate change impacts and achieve a more sustainable society, it is necessary to transform the current energy system based on fossil fuels into a model based on renewable energies, and to change society's lifestyles, accepting less mobility, low-carbon diets and smaller-sized dwellings.



Responsible travel at ICTA-UAB

The ICTA-UAB has established a new “Responsible travel” group in charge to elaborate a set of guidelines to help members of the ICTA-UAB community to reduce the contribution of their research-related travel to global greenhouse gas emissions.



Seminar Women and Science at ICTA-UAB

To celebrate International Day of Women and Girl in Science 2020, ICTA-UAB organized the seminar "Women and Science in the ICTA-UAB", in which scientists and research support technicians explained the work they carry out and expressed their opinion about what it is like to be a woman in Science.

TRAINING PROGRAMS

PHD IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY

Coordinator: Antoni Rosell Melé



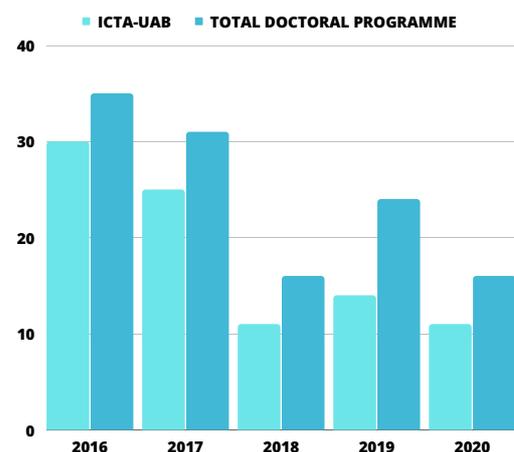
The PhD in Environmental Science and Technology is a UAB program adapted to the European Higher Education Area (EHEA) and is governed by Royal Decree 99/2011 of January 28, 2011 of the Government of Spain.

Doctoral Program accreditation to renew the Mention for Excellence obtained in 2014 and granted by the Ministry of Education (MEE2011-0443) was postponed due to the pandemic.

ICTA-UAB has an Academic Commission for the PhD degree and Academic Commission for the Master that plan formation and tutoring of students and assist them where needed.

11 DOCTORAL THESES

Number of doctoral theses defended from 2016 to 2020



TRAINING

MASTER'S DEGREE IN INTERDISCIPLINARY STUDIES IN ENVIRONMENTAL, ECONOMIC AND SOCIAL SUSTAINABILITY

Coordinator: Eduard Ariza Sole



TRAINING

Multi-disciplinary and inter-departmental Master degree in nature with international focus. Specialization tracks are:

- Ecological Economics
- Global Change
- Environmental Technology
- Urban and Industrial Ecology

The master's degree offers a mixed approach:

- It includes advanced course components for graduates of Environmental Sciences
- It meets the needs of other graduates interested in incorporating environmental knowledge and skills into their academic training, based on fields such as Ecological Economics and Environmental Management, Analysis of the Natural Environment, Environmental Technology, Industrial Ecology or Global Change, all of which are considered specialisations in this master's degree.

SELECTED MEDIAL ACTIVITIES

Webinar on how to prepare a ERc Proof of Concept grant application



The poster features a dark blue background with a red dotted pattern on the left. The ERC logo is prominent. The text is in white and yellow. At the bottom, there are logos for the Spanish Government, FECYT, and Oficina Europea.

erc European Research Council
PROOF OF CONCEPT 2020
> **Viernes 12 de Junio a las 10:00 AM (CEST)**

Webinar ERC-PoC : cómo preparar una propuesta Proof of Concept

Diseño de la idea de la propuesta. Eva García_RTDI

Casos de éxito
ERC-2019-PoC: **ICCION** - Indigenous Climate Change Impacts Observation Network. **Victoria Reyes-García. ICTA-UAB**
ERC-2020-PoC: **IT4-TALL** - Clinical translation of a novel CD1a-directed CAR for relapse/refractory cortical T-cell Acute Lymphoblastic . **Pablo Menéndez. fcarreras**

 GOBIERNO DE ESPAÑA MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES  **FECYT** FUNDACIÓN ESPAÑOLA PARA LA CIENCIA Y LA TECNOLOGÍA  **oficina europea**

OUTREACH

Seminar on ecological economics by Joan Martinez Alier, organised by the Club of Rome and Fundació Fòrum Ambiental



The poster is orange with white text. At the top left is the Club of Rome logo. The main title is 'SESIÓN 4: BUSCANDO RESPUESTAS EN EL (EMOCIONANTE) VIAJE HACIA LA SOSTENIBILIDAD'. Below it is the subtitle 'Economía ecológica y reforma del sistema económico'. A portrait of Joan Martínez Alier is shown with his name below it. To the right, the date and time are listed: 'Fecha: 17 de Noviembre de 2020' and 'Hora: de 12h a 13h30'. Below that, it says 'Sesión Online (gratuita previa inscripción)'. At the bottom right is the 'fundación forumbiental' logo.

Àula de Extensió Universitària talk for seniors in Ripollet (Barcelona)



Victoria Reyes-García presented the IPBES report in the Col·legi d'Economistes de Catalunya



Xavier Gabarrell took part in the Beteve television news programme



Miquel Mallo interviewed by TV3 on his research about red coral recovery



Amàlia Calderón-Argelich and Francesc Baró interviewed by TVE on the key role of trees in cities



Report in El Periódico (2 pages) on bikers in Barcelona

El Periódico de Catalunya (Ed. Català)
Cataluña

29/09/20

Pr: Diaria
Tirada: 24.340
Dif: 18.450

Codi: 0300113

Página: 36

Secc: LOCAL Valor: 32.479,83 € Àrea (cm2): 901,8 Ocupac: 89,2 % Doc: 1/2 Autor: MICHELE CATANZARO BARCELONA Num. Lec: 399000

La mobilitat urbana

L'ESTUDI

ES VA ANALITZAR EL COMPORTAMENT DELS CICLISTES EN 6 CRUÏLLES DE BORN

| | |
|---|---|
| <p>A, F Disseny: corba B Disseny: complex C, D, E Disseny: recte</p> | <p>Bidireccional + Bidireccional Bidireccional + Bidireccional Bidireccional + Unidireccional</p> |
|---|---|

TRAÇATS REALS A LES CRUÏLLES

PORCENTATGES D'USUARIS QUE HAN REALITZAT LES DIFERENTS TRAJECTÒRIES EN CADA TIPUS D'ENCREUAMENT

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 11,3% | 22,0% | 30,6% | 25,6% | 3,1% | 18,1% |
| 65,8% | 17,4% | 17,4% | | 78,8% | |

INFRACCIONS MÉS HABITUALS

PORCENTATGES DE CASOS

| Tipus d'infracció | Cruïlla 1 | Cruïlla 2 | Cruïlla 3 | Cruïlla 4 |
|----------------------------------|-----------|-----------|-----------|-----------|
| ✓ Complerta amb totes les regles | 82,5% | 65,3% | 51,6% | 33,5% |
| ✗ Cometa infracció | 17,5% | 34,7% | 48,4% | 76,5% |

El 20% dels ciclistes incompleixen les normes

Les dades es basen en l'estudi de sis cruïlles de l'Eixample

Els autors insten a dissenyar la ciutat amb la mirada posada en la bici

MICHELE CATANZARO
BARCELONA

La gran majoria dels ciclistes respecten les regles a Barcelona. L'incompliment, rotund, es redueix si els carrils bici es dissenyen pensant en els ciclistes, i no en els cotxes. Aquest és el quadre que transmet un estudi publicat aquest agost a la revista *Transportation Letters* per Esteve Corbera i Adam Lind, de l'Institut de Ciència i Tecnologia Ambientals (ICTA-UAB) i de la Universitat de British Columbia (Canadà). El treball es basa en l'observació de sis encreuaments de l'Eixample i Sant Martí durant dues

setmanes del maig del 2018, abans de la pandèmia i abans que bicicletes i patinets no deixessin d'augmentar pels carrers de Barcelona. Dels 3.000 passos observats, en el 80% d'aquests es van complir les normes; i en l'altre 20% se'n va infringir almenys una, que bàsicament es saltar-se el semàfor en vermell (11%).

«No és cert que els ciclistes se saltin sistemàticament les normes. Però està clar que ens haurem de moure amb nivells de compliment més elevats», afirma Corbera. «Els ciclistes se saltin els semàfors en vermell fins i tot a Amsterdam o Copenhaguen. No obstant, potser allà pas-

CRUÏLLA PERILLOSA Intersecció de carril bici a Cartagena amb Provença.

sa menys perquè els carrils i els semàfors estan dissenyats per als cotxes», afirma Mark Nieuwenhuijzen, investigador en planificació urbana de l'Institut de Salut Global de Barcelona (ISGlobal), no implicat en el treball.

L'estudi indica que una quarta part dels ciclistes que es van trobar amb un semàfor en ver-

mel van creuar sense esperar el verd. Però la cadència dels semàfors no és la mateixa a tota la ciutat; així, mentre que a l'encreuament d'Urgell amb Diputació el 80% dels ciclistes van parar amb el semàfor en vermell, a la intersecció de la primera via amb Consell de Cent només va passar el 20% de les vegades. «Els temps

dels semàfors varien molt entre els encreuaments. Optimitzar-los per a les bicis és la pedra angular», diu Lind.

Una altra de les observacions que ofereix el treball és que els ciclistes tendeixen a incomplir més les normes si fan un gir, sobretot si aquest implica travessar completament un encreuament

La Vanguardia explains our research on Nature Based Solutions with the opinions of Francesc Baró

191 milions de llocs de treball per a l'any 2030 podrien crear les oportunitats emergents en la natura

La natura com a base de la recuperació

En lloc de continuar creixent girant-li l'esquena, es proposa d'imitar-la en benefici del planeta i l'economia

Lorena Farràs Pérez
 Les teulades verdes, el compost, els passos de fauna, els mètodes de depuració naturals o les pràctiques de l'agricultura ecològica són alguns exemples del que es coneix com a solucions basades en la natura (SbN). És una cosa tan vella com el mateix món, ja que s'inspiren i es basen en el comportament del medi natural. Tot i això, l'economia mundial ha crescut moltes vegades d'esquena a aquesta realitat, malgrat que aquestes iniciatives no només són avantatjoses per al planeta, sinó també rendibles i resilient, segons els experts consultats.

Cada vegada són més les veus que s'alcen per aprofitar la recuperació econòmica per tornar a teixir aliances amb la natura. Especialment tenint en compte que estem immersos en una crisi (la de la pandèmia de la covid) que té com a origen la intrusió de l'ésser humà en el medi natural. Les Nacions Unides adverteixen, a més, de la importància d'aquestes solucions per fer front a la crisi climàtica i aturar la ràpida pèrdua de biodiversitat.

En la quarta edició de la cimera Un Planeta (One Planet Summit), el secretari general de les Nacions Unides, António Guterres, va indicar que les oportunitats comercials emergents en la natura podrien crear 191 milions de llocs de treball per a l'any 2030, segons el Fòrum Econòmic Mundial. A Màlaga n'estan tan convençuts que ha nascut un Clúster de Solucions basades en la Natura. És el primer a Espanya i està integrat per 36 entitats, segons el seu president, Enrique Salvo.

Actualment "aquesta mena de solucions les apliquen principalment administracions públiques", assenyala Francesc Baró, investigador postdoctoral de l'Institut de Ciència i Tecnologia Ambientals (ICTA-UAB). Alguns dels exemples catalans recollits a l'Observatori de les SbN -impulsat per la Fundació Conama i el Centre de Cooperació per a la Mediterrània de l'UICN- són el projecte Escocells Vius de Barcelona, la remodelació del passeig de Sant Joan barceloní i la recuperació de les dunes de les platges del Delta del Llobregat. Escocells Vius consisteix a sembrar específicament una barreja d'herbícies nadiues de flor que serveixin per atreure entomofauna específica per al control biològic de plagues de l'arbratge viari.

En la segona iniciativa, a més d'augmentar la presència de vegetació al cèntric carrer de la capital catalana i donar prioritat al vianant, s'ha dissenyat el terra de tal manera que ajudi a gestionar l'aigua per disminuir el risc d'inundacions. Finalment, quan es restaura i s'assegura l'estabilitat de les dunes i el de la biodiversitat de què depenen, s'augmenta la resiliència costanera contra temporals.

"Ciutats com Barcelona han fet una aposta important els últims anys, i cada vegada hi ha més projectes en municipis de totes les mides", afirma Victor Irigoyen, de la Fundació Conama. També les empreses privades comencen a aplicar solucions basades en la natura. Albert Sorolla, de l'empresa de projectes de bioenginyeria Naturala, explica que firmes com ara Torres han aplicat aquestes solucions en el seu dia a dia, i assegura que moltes vegades són "fins i tot més barates que les tradicionals" i que "requereixen menys manteniment", o bé aquest "és més econòmic", o bé aquest "és més econòmic" o suposa un consum de recursos més baix. Suez o Heineken són algunes de les multinacionals que ja les apliquen, segons Pau Ferrer, d'Ecoasca. ●

DADA

A Catalunya Segons un informe, de totes les espècies animals, estan en declivi un 25%

No només són avantatjoses per al medi ambient, sinó també rendibles i resilient

El passeig Sant Joan és un exemple d'aquesta mena de solucions



Sara Miñarro talks about fisheries at The Conversation

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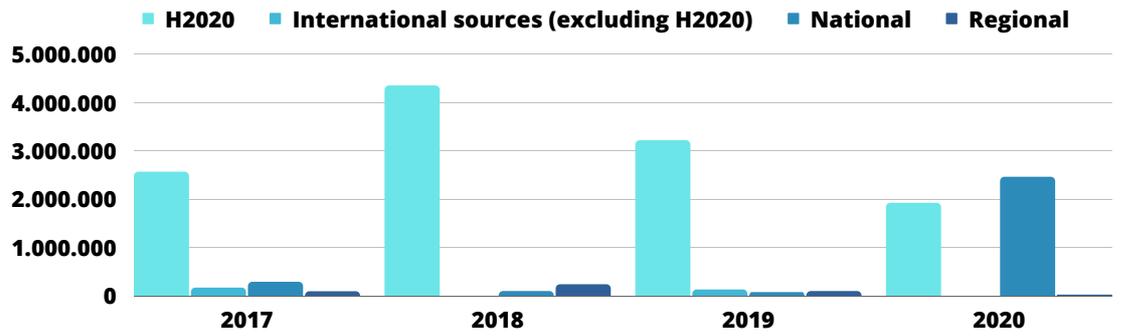
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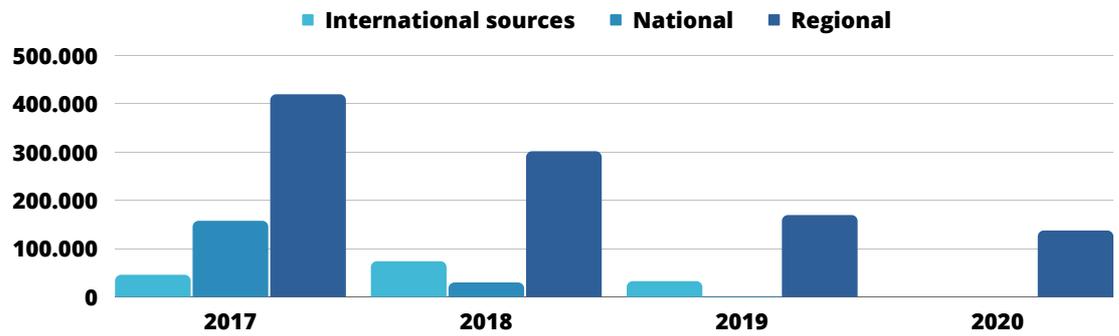
OUTREACH

FUNDING

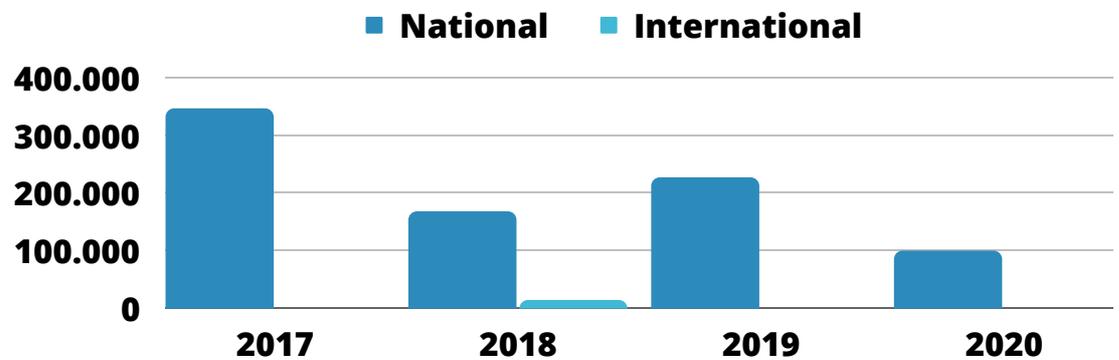
PUBLIC FUNDING (€) - COMPETITIVE SOURCES

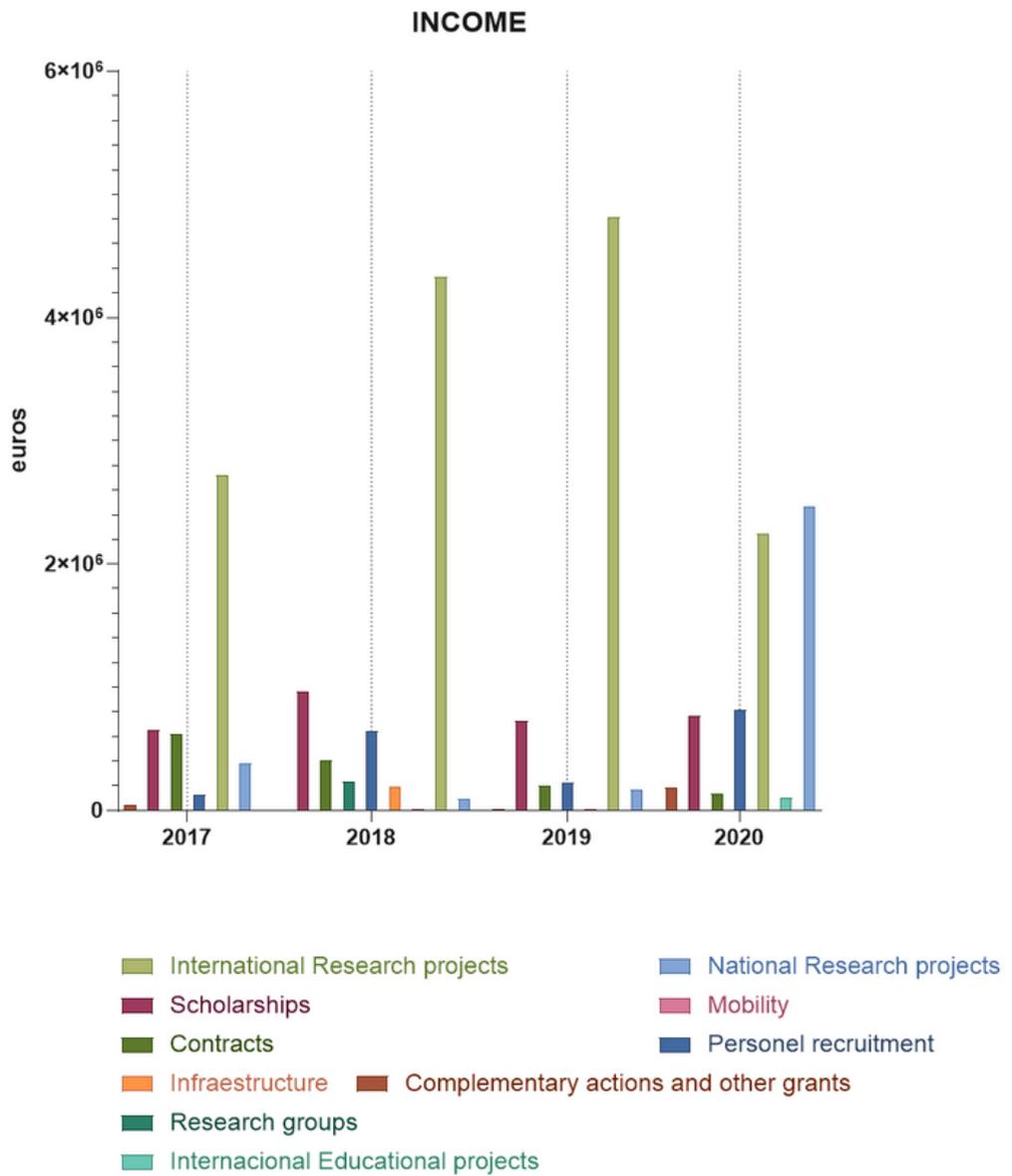


PUBLIC FUNDING (€) - NON COMPETITIVE SOURCES



PRIVATE FUNDING (€)





PUBLICATIONS
ACTIVE PROJECTS IN 2020
DOCTORAL THESES 2020

ANNEXES

ACKNOWLEDGEMENTS

ICTA-UAB acknowledges the contributions of the following people for providing data that make this Annual Report possible.

Management team for concept and coordination

Our group of researchers

Editor: Ana García Cañizares and Silvia Martínez

Photos and news: Isabel Lopera

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CONTACT

Edifici ICTA-ICP
Carrer de les Columnes s/n
Campus de la UAB
08193 Cerdanyola del Vallès
<https://www.uab.cat/icta>