# **European Research Council Convocatorias WP 2024**





Algunos consejos

21 de septiembre de 2023 Estefanía Muñoz NCP ERC FECYT





# Índice

#### Algunos consejos

- 1. Entender el proceso
- 2. Escribir la part B1 (CV + track record)
- **3.** Escribir la part B1a + part B2

### Algunos consejos

- 1. Entender el proceso
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- 3. Escribir la part B1a + part B2



### ERC 2024 - individual Schemes - Structure of the proposal

One deadline | 2 steps evaluation process

### The ERC full proposal = part B1 + part B2 + Part A\*

### Part B1 - pdf

Cover Page and summary (1p)
Extended Synopsis (5p)
Curriculum vitae +
Track-record (4p)

Part B2 - pdf

Section a: SoA &

objectives

Section b: Methodology

(14p)

Evaluated in Step 1

NOT evaluated in Step 1 (only in Step 2)

### Part A – online forms

**A1 General Information** 

**A2** Participants

A3 Budget\*

table + description (8000c)

A4 Ethics and security

**A5 Other questions** 

% Time commitment\*

Excluded Reviewers (up to 3)

#### **Annexes**

HI support letter
PhD certificate
Ethics and security issues
Eligibility window



### The ERC proposal

Intrigue (part B1)
Convince (part B2)
Inspire (Parts B1+B2+ interview)















- Important challenges
- Ambitious objectives beyond SoA (novel concept or approach)
- Feasibility of outlined scientific approach
- Appropriate research methodology and working arrangements
- Timescales and resources and PI commitment





### ERC 2023 - Evaluation panels

There are in total 28 panels, divided between three main domains:

- Physical Sciences and Engineering (PE) with 11 panels
- Life Sciences (LS) with 9 panels
- Social Sciences and Humanities (SH) with 8 panel

Each panel is composed by 12-18 panel members.

The panel chair is known during the evaluation however the composition is made public once the results are published.

A panel may not include an expert in your discipline , they are semigeneralists

The members of ERC panels alternate to allow panel members to apply to the ERC calls in alternate years.

Only the Panel chairs are public knowledge!

The full list of **panel members** and **remote referees** will be published later.



#### **ERC-2023-Advanced Grant.**

#### **Panel Chairs**

Physical sciences and engineering

PE1 Prof. Sara van de Geer

PE2 Prof. Maria Borge

PE3 Prof. Cait MacPhee

PF4 Prof. Malcolm Levitt

PE5 Prof. Bruno Chaudret

PE6 Prof. Peter Druschel

PE7 Prof. Peter Kennedy

PE8 Prof. Michael Graetzel

PE9 Prof. Carlos Frenk

PE10 Prof. Stefan Wiemer

PE11 Prof. Jean-Marie Tarascon



### **ERC Panel Structure 2024**

#### **Physical Sciences & Engineering**

- PE1 Mathematics
- PE2 Fundamental Constituents of Matter
- PE3 Condensed Matter Physics
- PE4 Physical & Analytical Chemical Sciences
- PE5 Synthetic Chemistry and Materials
- PE6 Computer Science & Informatics
- PE7 Systems & Communication Engineering
- PE8 Products & Process Engineering
- PE9 Universe Sciences
- PE10 Earth System Science
- PE11 Materials Engineering



#### **Life Sciences**

- LS1 Molecules of Life: Biological Mechanisms, Structures and Functions
- LS2 Integrative Biology: from Genes and Genomes to Systems
- LS3 Cell Biology, Development, Stem Cells and Regeneration
- LS4 Physiology in Health, Disease and Ageing
- LS5 Neuroscience and Disorders of the Nervous System
- LS6 Immunity, Infection and Immunotherapy
- LS7 Prevention, Diagnosis and Treatment of Human Diseases
- LS8 Environmental Biology, Ecology and Evolution
- LS9 Biotechnology and Biosystems Engineering

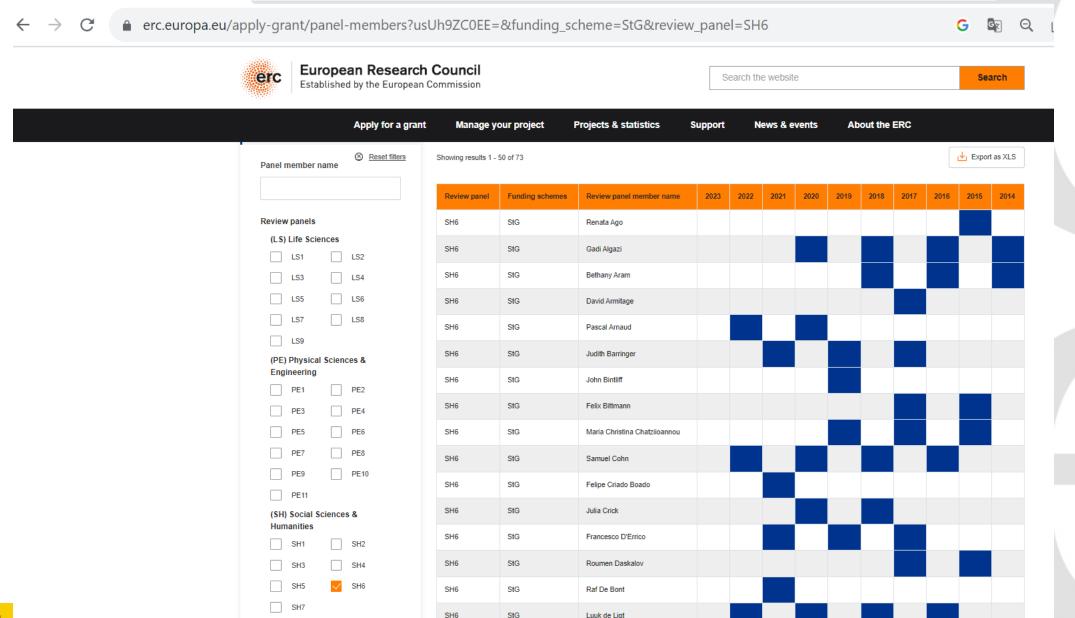
#### **Social Sciences and Humanities**

- SH1 Individuals, Markets and Organisations
- SH2 Institutions, Governance and Legal Systems
- SH3 The Social World and its Interactions
- SH4 The Human Mind and Its Complexity
- SH5 Text and Concepts
- SH6 The Study of the Human Past
- SH7 Human Mobility, Environment, and Space
- SH8 Studies of Cultures and Arts



# **ERC Evaluation panels + Panel Members**

(SyG) Synergy Grants



### **ERC Evaluation panels + Panel Members**

# SH7 Human Mobility, Environment, and Space keywords

- SH7\_1 Human, economic and social geography
- SH7\_2 Migration
- SH7\_3 Population dynamics: households, family and fertility
- SH7\_4 Social aspects of health, ageing and society
- SH7\_5 Sustainability sciences, environment and resources
- SH7\_6 Environmental and climate change, societal impact and policy
- SH7\_7 Cities; urban, regional and rural studies
- SH7\_8 Land use and planning
- SH7\_9 Energy, transportation and mobility
- SH7\_10 GIS, spatial analysis; big data in geographical studies

The full list of ERC peer reviewers (panel members and remote referees) is been published by the European Commission after the conclusion of the current peer review process.

#### SH7 Human Mobility, Environment, and Space

Panel members in the ERC Starting Grant 2022 peer review, appointed by the ERC Scientific Council.

- 1. Arnstein Aassve (Panel Chair)
- 2. Francois Bousquet
- 3. Albert Esteve
- Davide Geneletti
- Michael Frank Goodchild
- 6. Sigal Kaplan
- 7. Rob Kitchin
- 3. Allan Krasnik
- 9. Helga Leitner
- 10. Elena Nikitina
- 11. Lennart Olsson
- 12. Susan Parnell
- 13. George Petrakos
- 14. Jenny Phillimore
- 15. Christopher Raymond
- 16. Mark Rosenberg Hanne Svarstad
- 17. Elisabet Viladecans-Marsal



### ERC 2023 Evaluation panels + Panel Members

# SH7 Human Mobility, Environment, and Space keywords

- SH7\_1 Human, economic and social geography
- SH7\_2 Migration
- SH7\_3 Population dynamics: households, family and fertility
- SH7\_4 Social aspects of health, ageing and society
- SH7\_5 Sustainability sciences, environment and resources
- SH7\_6 Environmental and climate change, societal impact and policy
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- SH7\_10 GIS, spatial analysis; big data in geographical studies

(Principal Investigator)

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- Arnstein Aassve (Panel Chair)
- 2. Francois Bousquet
- Albert Esteve ← (Lead Reviewer)
- 4. Davide Geneletti
- 5. Michael Frank Goodchild
- 6. Sigal Kaplan
- 7. Rob Kitchin
- 8. Allan Krasnik
- 9. Helga Leitner
- 10. Elena Nikitina
- 11. Lennart Olsson
- 12. Susan Parnell
- 13. George Petrakos
- 14. Jenny Phillimore
- 15. Christopher Raymond
- 16. Mark Rosenberg Hanne Svarstad
- 17. Elisabet Viladecans-Marsal

By default, the proposal is allocated to the panel indicated at submission

- •Your choice is respected as much as possible but...
- •The panel chair can decide to **transfer** a proposal (with the agreement of the receiving panel chair)
- •Once transferred, it is treated the same as the other proposals in the (new) panel

### ERC 2023 Evaluation panels + Panel Members + External Referees

# SH7 Human Mobility, Environment, and Space keywords

- SH7\_1 Human, economic and social geography
- SH7\_2 Migration
- SH7\_3 Population dynamics: households, family and fertility
- SH7\_4 Social aspects of health, ageing and society
- SH7\_5 Sustainability sciences, environment and resources
- SH7\_6 Environmental and climate change, societal impact and policy
- SH7\_7 Cities; urban, regional and rural studies
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- SH7\_9 Energy, transportation and mobility
- SH7\_10 GIS, spatial analysis; big data in geographical studies

(Principal Investigator)

#### SH7 Human Mobility, Environment, and Space

Panel members in the ERC Starting Grant 2022 peer review, appointed by the ERC Scientific Council.

- 1. Arnstein Aassve (Panel Chair)
- 2. Francois Bousquet
- 3. <u>Albert Esteve</u> ← (Lead Reviewer) ←
- 4. Davide Geneletti
- 5. Michael Frank Goodchild
- 6. Sigal Kaplan
- 7. Rob Kitchin
- 8. Allan Krasnik
- 9. Helga Leitner
- 10. Elena Nikitina
- 11. Lennart Olsson
- 12. Susan Parnell
- 13. George Petrakos
- 14. Jenny Phillimore
- 15. Christopher Raymond
- 16. Mark Rosenberg Hanne Svarstad
- 17. Elisabet Viladecans-Marsal

**External referees** 

Proposes 10 external referees for the second step of the evaluation

+ 10



+ 10

+ 10

....



Experts identification tool: Prophy

**Experts identification tool: Prophy** The ERCEA informed the ScC members about Prophy, the support tool for the identification of potential panel members and remote referees for the evaluation of proposals https://www.prophy.science/referee-finder/





### The interview

Presentation (3-10 min.) + Question (15-25min) = Total 30min

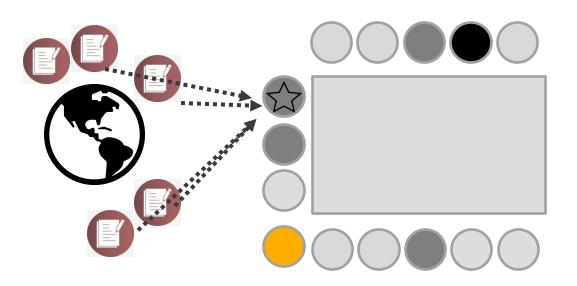
Panel members: Top Science Experts, but possibly no expert in your field

Reports from Top Science Experts in your field

Consensus must be reached

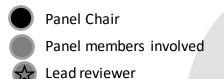
#### **Challenges:**

- Present your project to general audience
- Answer technical questions from experts
- Answer broad questions from non-experts
- English
- Panel members on site but PI remote









Other panel members

Raporter

**Evaluation Summary Reports from External experts** 

Principal Investigator



### Algunos consejos

- 1. Entender el proceso
- 2. Escribir la part B1 (CV + track record)
- 3. Escribir la part B1a + part B2



### ERC 2024 - CV & track record (4 pages)



New CV and Track Record template (4 pages)

**Personal details**: education, key qualifications, current position(s) and relevant previous positions.

**Research achievements (<=10)** a list of up to 10 research outputs:

- demonstrating advancement in the field
- emphasis on more recent achievements
- short narrative on significance of achievements

**Peer recognition:** a list of selected examples of significant prizes, fellowships, academy membership, etc.

#### Additional information:

- career breaks, diverse career paths, life events
- other contributions to research community

# The Declaration on Research Assessment (DORA)

- Journal Impact Factor NOT allowed
- Short narrative achievements

**COARA** The Agreement on Reforming Research Assessment

A short explanation of the significance of the selected outputs, the role of the applicant in producing each of them, and how they demonstrate the applicant's capacity to successfully carry out their proposed project may be included, as well as a short explanation of the importance of the listed examples of significant peer recognition.

The applicant may also include relevant information on, for example, career breaks, unusual career paths, as well as any particularly noteworthy contributions to the research community. These will not in themselves be evaluated but are important to provide context to the evaluation panels when assessing the principal investigator's research achievements and peer recognition in relation to their career stage.



### ERC 2024 - CV & track record (4 pages)

Applicant's last name

Part B1

ACRONYM

Section b: Curriculum vitae and Track Record (max. 4 pages)

[You may modify the below template if necessary.]

#### PERSONAL DETAILS

[Provide your personal details, your education and key qualifications, current position(s) and relevant previous positions you have held.]

Family name, First name:

Researcher unique identifier(s) (such as ORCID, Research ID, etc. ...):

URL for web site

· Education and key qualifications

DD/MM/YYYY PhD

Name of Faculty/ Department, Name of University/ Institution, Country

Name of PhD Supervisor

YYYY M:

Name of Faculty/ Department, Name of University/ Institution, Country

Current position(s)

YYYY - YYYY Current Position

Name of Faculty/ Department, Name of University/ Institution/ Country

YYYY - YYYY Current Position

Name of Faculty/ Department, Name of University/ Institution/ Country

Previous position(s)

YYYY - YYYY Position held

Name of Faculty/ Department, Name of University/ Institution/ Country

YYYY - YYYY Position held

Name of Faculty/ Department, Name of University/ Institution/ Country

#### RESEARCH ACHIEVEMENTS AND PEER RECOGNITION

#### Research achievements

[Provide a list of up to ten research outputs that demonstrate how you have advanced knowledge in your field with an emphasis on more recent achievements, such as publications, articles deposited in a publicly available preprint server, books, book chapters, conference proceedings, data sets, software, patents, licenses, standards, start-up businesses or any other research outputs you deem relevant in relation to your research field and your project.

You may include a short, factual explanation of the significance of the selected outputs, your role in producing each of them, and how they demonstrate your capacity to successfully carry out your proposed project.]

#### Peer recognition

[Provide a list of selected examples of significant recognition by your peers if applicable, such as prizes, awards, fellowships, elected academy memberships, invited presentations to major conferences or any other examples of significant recognition you deem relevant in relation to your research field and project.

You may include a short explanation of the significance of the listed examples.]

Applicant's last name

Part B

ACRONYM

#### ADDITIONAL INFORMATION

[You may provide relevant additional information on your research career to provide context to the evaluation panels when assessing your research achievements and peer recognition as described above.]

Career breaks, diverse career paths and major life events

[You may include a short factual explanation of career breaks or diverse career paths such as secondments, volunteering, part-time work, time spent in different sectors or the effects of major life events such as long term illness as well as the effects of pandemic restrictions on research productivity.]

Other contributions to the research community

[You may include a list of particularly noteworthy contributions to the research community you have made other than research achievements and peer recognition and a short explanation of these contributions. The purpose of this section is to allow the panels to take a more rounded view of your career and achievements and to ensure that any additional responsibilities, commitments and leadership roles that you have taken on beyond your individual research activities are recognized and taken into account.]

[(for more information see 'Information for Applicants to the Starting and Consolidator Grant 2024 Calls')]

Do NOT split the sections and/or references in Part B1 and do NOT upload them as separate documents. The peer reviews will only receive one single document for evaluation at Step 1. Hence, Part B1 should contain all elements as explained in this template. If some parts of Part B1 are uploaded in the submission system as separate attachments, the peer reviewers will not have access to them.



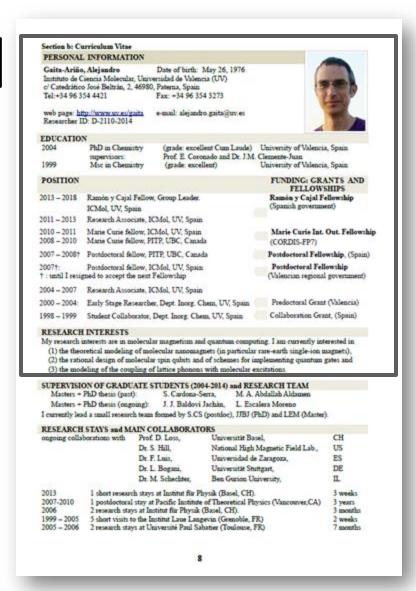
### **Personal details**

- Personal Information: declaración de hechos/ actualizar webs
- Education: PhD, Master, Licenciatura/ director(a) PhD/ distinciones
- Current Position(s): dobles afiliaciones/ posición adecuada para el proyecto
- Previous Position(s): si no hay movimientos, destacar los hechos por etapa

| POSITION                    |   | FUNDING: GRANTS AND<br>FELLOWSHIPS                         |
|-----------------------------|---|--|
| 2013 – 2018                 | Ramón y Cajal Fellow, Group Leader.<br>ICMol, UV, Spain                       | Ramón y Cajal Fellowship<br>(Spanish government)           |
| 2011 - 2013                 | Research Associate, ICMol, UV, Spain  |  |
| 2010 - 2011<br>2008 - 2010  | Marie Curie fellow, ICMol, UV, Spain<br>Marie Curie fellow, PITP, UBC, Canada | Marie Curie Int. Out. Fellowship<br>(CORDIS-FP7)           |
| 2007 - 2008†                | Postdoctoral fellow, PITP, UBC, Canada  | Postdoctoral Fellowship, (Spain)                           |
| 2007†:<br>† : until I resig | Postdoctoral fellow, ICMol, UV, Spain and to accept the next Fellowship       | Postdoctoral Fellowship<br>(Valencian regional government) |
| 2004 - 2007                 | Research Associate, ICMol, UV, Spain  |  |
| 2000 – 2004:                | Early Stage Researcher, Dept. Inorg. Chem, UV, Spain                          | Predoctoral Grant (Valencia)                               |
| 1998 - 1999                 | Student Collaborator, Dept. Inorg. Chem, UV, Spain                            | Collaboration Grant, (Spain)                               |



### **Personal details**



Part B1 ALiEN Baroni

#### Section b: Curriculum vitae

#### PERSONAL INFORMATION

Family name, First name: Baroni, Marco ORCID: 0000-0001-5066-3580 Date of birth: November 1st, 1970 Nationality: Italian

URL for web site: https://marcobaroni.org/

Google Scholar: https://scholar.google.com/citations?user=l-xu2w0AAAAJ&hl=en

GS indicators (retrieved July 24th 2020): h-index 51 (42 since 2015); tot. citations 14,288 (10,060 since 2015) Full curriculum: https://marcobaroni.org/baroni\_short\_cv.html

#### EDUCATION

PhD: Department of Linguistics, UCLA (California, USA) Master: Department of Linguistics, UCLA (California, USA)

#### CURRENT POSITIONS

ICREA research professor

Department of Translation and Language Sciences, Pompeu Fabra University (Spain)

Research scientist

Facebook AI Research (France)

#### PREVIOUS POSITIONS

2006 - 2018 Associate professor (tenured researcher until Feb 2013) Center for Mind/Brain Sciences, University of Trento (Italy)

2002 - 2006Tenured researcher

SITLEC Department, University of Bologna (Italy) 2001 - 2002

Researcher

Austrian Research Institute for Artificial Intelligence (Austria)

Computational linguist Conversay Conversational Computing (Washington, USA)

#### · FUNDED PROJECTS (as PI), FELLOWHIPS AND AWARDS

2015 - 2017 Marie Sklodowska-Curie project (supervisor) (EU)

2011 - 2016 ERC Starting Grant (EU)

2014 - 2018 ICT Cost Action (dissemination officer until 2015) (EU)

Google Research Award (USA) 2010 - 2012 National PRIN project (Italy)

2009 - 2011 National FIRB project (Italy)

2007 Invited Scholar Fellowship, National Institute for Japanese Language (Japan) Marco Polo Research Abroad Scholarship, University of Bologna (Italy)

1995 - 2000 Chancellor Fellowship, UCLA (USA)

1993 - 1994 EAP Fellowship, UCLA (USA)

Publication awards and nominations: ACL 10-year Test of Time award (2020), ACL 10-year Test of Time nomination (2020), IJCAI-JAIR 5-Year Best Paper award (2017), EMNLP Best Paper nomination (2013), WAC4 Workshop Best Paper award (2008)

### Research achievements (<=10)

**Research achievements (<=10)** a list of up to 10 research outputs:

- demonstrating advancement in the field
- emphasis on more recent achievements
- short narrative on significance of achievements

A short explanation of the significance of the selected outputs, the role of the applicant in producing each of them, and how they demonstrate the applicant's capacity to successfully carry out their proposed project may be included

# the importance of narrative!



### Research achievements (<=10)

- Publications (some Selected Publications)
- Research monographs / Books (w. translations)
- Funding: Projects: los pasados. Los actuales en sección Funding ID
- Outreach Press Media
- Patents
- Documentaries/audiovisual productions
- Archaeological campaigns
- Research Expeditions: no son field works/ larga duración/lideradas o participadas
- Industrial/Architectural Designs
- Innovation leadership: para aquellos campos que tenga una relación directa entre el estudio y la aplicabilidad en el mundo real
- Contributions to regulations/normatives



### Research achievements (<=10)

- Publications (some Selected Publications)
- Research
- Funding:
- Outreach
- Patents
- Documen
- Archaeole
- Research

#### "field-relevant bibliometric indicators may also be included".

- ✓ Sólo si agregan valor a su presentación como investigador/a.
   Sólo indicadores que sean relevantes para tu campo.
- ✓ Si el H-Index no es relevante para el campo, no lo uséis. Si hay una alternativa mejor, usad esa. Si no, no mencionar ningún indicador.

participadas

- Industrial/Architectural Designs
- Innovation leadership: para aquellos campos que tenga una relación directa entre el estudio y la aplicabilidad en el mundo real
- Contributions to regulations/normatives



### Research achievements (<=10)

#### iournals and selected book chapters

Journal Citation Reports if available; in all other cases, journal category from European Science Foundation ERIH Initial List: Linguistics (2007)

https://marcobaroni.org/alien/

M. Baroni and A. Lenci. To appear. Distributional Memory: A general framework for corpus-based semantics. Computational Linguistics. Journal ranked in Q1 of Linguistics and Computer Science, Interdisciplinary Applications. Citations: 1. Here and in the Cognitive Science paper below, I introduce a new corpus-based semantic model of word meaning that adapts flexibly to multiple semantic tasks and shares interesting properties with human semantic cognition. The model and its extensive evaluation work reported in these articles will constitute starting points for COMPOSES model and evaluation.

- G. Kremer and M. Baroni. To appear. A set of semantic norms for German and Italian. Behavior Research Methods. Journal ranked in Q1 of Psychology, experimental and Psychology, mathematical. Citations: 0.
- M. Baroni, B. Murphy, E. Barbu and M. Poesio. 2010. Strudel: A corpus-based semantic model based on properties and types. Cognitive Science 34 (2): 222-254. Journal ranked in Q1 of Psychology, experimental. Citations: 9.
- V. Pirrelli, E. Guevara and M. Baroni. 2010. Computational issues in compound parsing. In S. Scalise and I. Vogel (eds.), Cross-disciplinary issues in compounding, Amsterdam: Benjamins: 271-286. Citations: 0.
- M. Baroni, S. Bernardini, A. Ferraresi and E. Zanchetta. 2009. The WaCky Wide Web: A collection of very large linguistically processed Web-crawled corpora. Journal of Language Resources and Evaluation 43 (3): 209-226. ERIH B category (formerly Computers and the Humanities, ERIH A category). Citations: 28. The corpus construction and annotation work described here has recently been extended with a full dependency parse of the English corpus and of the English Wikipedia. The resulting enlarged corpus will constitute the main data source of COMPOSES.
- M. Baroni, E. Guevara and R. Zamparelli. 2009. The dual nature of deverbal nominal constructions: Evidence from acceptability ratings and corpus analysis. Corpus Linguistics and Linguistic Theory 5 (1): 27-60. ERIH C category. Citations: 1. We study a linguistic problem by combining corpus data, Web-collected graded linguistic judgments and advanced statistical analysis (mixed effect linear models). We will apply similar elicitation and analysis techniques in COMPOSES.

#### SELECTED ACHIEVEMENTS



Front-page feature on international migration in *The* New York Times based on my PhD research (2007) PREMIG

Possibilities and Realities of Return Migration

Award of largestever project grant in the welfare research area of the Research Council of Norway (2010)



Co-editing the 50th Anniversary Issue of the International Migration Review, the most prominent journal in my field (2014)



Discovery of 'scripts' as a conceptual tool for making sense of the social dynamics of remittances (2014)



Invitation to serve as expert panellist on migrant smuggling, United Nations, Vienna (2017)



### Research achievements (<=10)

#### short narrative on achievements

#### SELECTED ACHIEVEMENTS



Front-page feature on international migration in *The New York Times* based on my PhD research (2007)



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Co-editing the 50th Anniversary Issue of the International Migration Review, the most prominent journal in my field (2014)



Discovery of 'scripts' as a conceptual tool for making sense of the social dynamics of remittances (2014)



https://jorgencarling.files.wordpress.com/2019/10/carling-erc-cv-and-track-record.pdf

#### Selected publications in leading peer-reviewed journals and selected book chapters

Journal rank quartile from ISI Web-of-Science Journal Citation Reports if available; in all other cases, journal category from European Science Foundation ERIH Initial List: Linguistics (2007)

- M. **Baroni** and A. Lenci. To appear. Distributional Memory: A general framework for corpus-based semantics. *Computational Linguistics*. Journal ranked in Q1 of *Linguistics* and *Computer Science*, *Interdisciplinary Applications*. Citations: 1. Here and in the Cognitive Science paper below, I introduce a new corpus-based semantic model of word meaning that adapts flexibly to multiple semantic tasks and shares interesting properties with human semantic cognition. The model and its extensive evaluation work reported in these articles will constitute starting points for COMPOSES model and evaluation.
- G. Kremer and M. **Baroni**. To appear. A set of semantic norms for German and Italian. *Behavior Research Methods*. Journal ranked in Q1 of *Psychology, experimental* and *Psychology, mathematical*. Citations: 0.
- M. **Baroni**, B. Murphy, E. Barbu and M. Poesio. 2010. Strudel: A corpus-based semantic model based on properties and types. *Cognitive Science* 34 (2): 222-254. Journal ranked in Q1 of *Psychology*, *experimental*. Citations: 9.
  - Pirrelli, E. Guevara and M. **Baroni**. 2010. Computational issues in compound parsing. In S. Scalise and I. Vogel (eds.), *Cross-disciplinary issues in compounding*, Amsterdam: Benjamins: 271-286. Citations: 0.
  - **Baroni**, S. Bernardini, A. Ferraresi and E. Zanchetta. 2009. The WaCky Wide Web: A collection of very large linguistically processed Web-crawled corpora. Journal of Language Resources and Evaluation 43 (3): 209-226. ERIH B category (formerly Computers and the Humanities, ERIH A category). Citations: 28. The corpus construction and annotation work described here has recently been extended with a full dependency parse of the English corpus and of the English Wikipedia. The resulting enlarged corpus will constitute the main data source of COMPOSES.
  - **Baroni**, E. Guevara and R. Zamparelli. 2009. The dual nature of deverbal nominal constructions: Evidence from acceptability ratings and corpus analysis. *Corpus Linguistics and Linguistic Theory* 5 (1): 27-60. ERIH C category. Citations: 1. We study a linguistic problem by combining corpus data, Web-collected graded linguistic judgments and advanced statistical analysis (mixed effect linear models). We will apply similar elicitation and analysis techniques in COMPOSES.



### Research achievements (<=10)

#### COMPUTATIONAL LINGUISTICS RESOURCES

More information: http://gboleda.utcompling.com/resources.

Corpora Leader, Wikicorpus: Freely available Wikipedia-based trilingual corpus (Catalan, Spanish,

English), automatically annotated, over 750 million words.

Coordinator, CUCWEB: 166-million word Web corpus for Catalan, automatically annotated.

Tools Collaborating researcher, POS-Tagger for Old Spanish. Freely available as part of the open

source suite of language analyzers FreeLing.

Collaborating researcher, CatCG: Tagger and shallow parser for Catalan.

Datasets Leader, four freely available (CC BY-SA) semantic datasets on adjective semantics and regular

polysemy.

Collaborating researcher in a fifth dataset on the semantics of color terms.

https://gboleda.github.io/proposals/B1-AMORE-ERC\_StG\_2016-def.pdf

#### Selected publicly available tools and resources

- WaCky (with Silvia Bernardini and others): huge linguistically annotated corpora for multiple languages
- DM (with Alessandro Lenci): precompiled corpus-based semantic model and utilities
- Semantic norms for German and Italian (with Gerhard Kremer)
- zipfR (with Stefan Evert): a toolkit for lexical statistics in R
- BootCaT (with Silvia Bernardini): a toolkit for bootstrapping corpora and terms from the Web
- . Morph-it! (with Eros Zanchetta): a free Italian morphological lexicon
- . La Repubblica corpus (with Silvia Bernardini and others): a large corpus of Italian newspaper text

http://marcobaroni.org/composes/composes\_ERC\_2011\_StG\_PartB1.pdf

#### FUNDED PROJECTS (as PI), FELLOWHIPS AND AWARDS

2015 – 2017 Marie Sklodowska-Curie project (supervisor) (EU)

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2014 - 2018 ICT Cost Action (dissemination officer until 2015) (EU)

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### Research achievements (<=10)

short narrative on achievements academic publications):

Camprubí DEEPMED B1

### Section c. Early achievements track record PUBLICATIONS

According to Google Scholar, I have over 165 citations and an h-index of 6. Here is a selection of over 30 academic publications):

#### Books:

I have published 2 books and co-edited 2 volumes (the last one, currently under contract and under review, is to appear in 2020 with Springer's *Synthese Library* and brings together analytic philosophy with history of science, a highly risky, innovative, and fun endeavour). I have also co-edited 2 special issues. Here is a selection of the books:

1. Engineers and the Making of the Francoist Regime (Cambridge, Mass.: The MIT Press, 2014).

The MIT Press, is the leading history of technology publisher. The book has been cited over 65 times and received 10 academic reviews, becoming a landmark in the history of science and technology in Spain, as well as a reference for studies on technoscience and fascism, political economy, and state building. I wrote an extended version for a Spanish audience which, with two editions of more than a thousand copies each, it has reached an audience well beyond historians of science and technology, leading to several interviews and reviews major Spanish media. Academicall, it has triggered important academic debates within the field of Spanish history and was awarded the ICOHTEC's 2018 book prize.

- 2. co-edited with David Pretel, *Technology and Glonalisation: Networks of Experts in World History* (Palgrave MacMillan, Economic History Series, 2018). It brings together leading scholars from history of technology and history of political economy in an engaging conversation on world history, which we discuss in our historiographic introduction. Palgrave's Economic History Series is very prestigious in the field.
- 3. Lino Camprubí, Xavier Roqué, and Sáez de Adana, De la Guerra Fría al calentamiento global: Estados Unidos, España y el nuevo orden científico mundial (Madrid: La Catarata). This book, prepared in

https://www.academia.edu/49122878/B1\_ERC\_CoG\_DEEPMED\_Discovering\_the\_Deep\_Mediter ranean\_Environment\_A History of Science and Strategy 1860\_2020\_



### Research achievements (<=10)

# Personal Statement

**Personal statement:** I have an excellent publication record that stands out for its quality, coherence, and ambitious scope. I have a solid graduate training in philosophy of science (U Sevilla), STS (Cornell University) as well as in history and history of science and technology (UCLA). Moreover, I have worked at the Universidad Autónoma de Barcelona (as post-doctoral fellow for an ERC-StG project with 4 partner universities), the Max Planck Institute for the History of Science (three years as a Research Scholar in one of the leading history of science world hubs and one more year as a visitor to the research group Epistemes of Modern Acoustics), the University of Chicago (with a very prestigious program in History of Science), and Universidad de Sevilla. This has given me unique access to excellent international networks of scholars and collaborators as well as unique teamwork skills. My success in editing collective work speaks to this.

I have also strong experience in organizing and supervising research. At the MPIWG I hired a total of 4 research assistants to help me conduct research on Russian-written sources about Soviet involvement in the Mediterranean as well as with digital text mining and a historical GIS of the Western Sahara. I also organized two workshops with scholars from all over the world, leading to a special issue of a QI journal. As an MPIWG Research Scholar with administrative duties, I was in charge of organizing a bi-weekly colloquium for two consecutive years. Finally, teaching at the masters level in Barcelona and Sevilla, as well as my collaboration with the H2020 SALTGIANT, has prepared me to supervise PhD students at my transition from starting to consolidated researcher, which The ERC grant would be essential to complete.

Lastly, I have published over 15 extra-academic papers, worked for an exhibit, participated in three documentaries (one as producer), and in other public fora. This shows my interest and capacity for public outreach and my ability to engage with stakeholders and relevant audiences, which I intend to mobilize to enrich public perceptions of the Mediterranean space, as well as its challenges and opportunities.

https://www.academia.edu/49122878/B1\_ERC\_CoG\_DEEPMED\_Discovering\_the\_Deep\_Mediter\_ranean\_Environment\_A\_History\_of\_Science\_and\_Strategy\_1860\_2020\_



### Research achievements (<=10)

#### The particularities of your field research

#### Top ten publications in the last ten years

Note: In my field, the top conferences are ACM CHI and ACM UIST. Publication in these conferences is considered as prestigious as in the top journals in the field (ACM TOCHI, IJHCS). I work collaboratively with students and colleagues. As the most senior researcher, my name is usually last in the list of authors. However I only co-sign papers for which I have substantially contributed to both the work and the writing.

#### Improvement in 2016

#### My application in 2014

The followings are five selected papers. ...

In theoretical computer science, the most important venues of publications are conferences and not journals. STOC and FOCS are widely recognized as the most prestigious conferences in the field worldwide. I have published X papers in FOCS and STOC ...

The followings are five selected papers. ...



### **Peer recognition**

- Fellowships & Awards: también las rechazadas
- Supervision of Students: capacidad de gestionar un equipo y de crear escuela
- Teaching Activities (if Applic): relac. temática del proyecto/distinguir nivel
- Organis. Scientific Meetings: muestra liderazgo
- Institutional Responsibilities: muestra capacidad de gestión/administrativa
- Reviewing Activities: regular reviewer/editorial boards...
- Memberships Scientific Societies
- Major Collaborations: con nombres e institución/ consorcios, co-autores...
- Commissions of Trust: experto del Plan Nacional, de COST Actions...
- Invited presentations to internationally established conferences and/or international advanced schools: Key note speaker/participadas/conf. relevantes en tu campo
- Not exhaustive list



### **Peer recognition**

short explanation of the importance of the listed examples of significant peer recognition.

#### ORGANISATION OF SCIENTIFIC MEETINGS (selection)

| 2019 | Lorentz Center Workshop on Compositionality in Brains and Machines, co-organizer        |
|------|---|
|      | (Netherlands)   |
| 2019 | FAIR Understanding Machine and Human Intelligence Workshop, co-organizer (USA)          |
| 2016 | NIPS Machine Intelligence Workshop, co-organizer (Spain)                                |
| 2014 | SemEval Task 1, co-organizer (Evaluation of distributed compositional models) (Ireland) |

#### REVIEWING ACTIVITIES

| 2019        | Member of the ERC Consolidator Grant SH4 Panel (The Human Mind and Its Complexit      |
|-------------|---|
| 2017 - 2021 | Editorial Board, Transactions of the Association for Computational Linguistics (TACL) |
| 2014 - 2016 | Editorial Board, Computational Linguistics  |
| 2013        | Program Chair, *SEM 2013 (Second Joint Conference on Lexical and Computational        |
|             | Semantics)  |

- Area chair for: ICLR 2021, ACL 2020, EMNLP 2015, EACL 2014, CLIC.it 2014, \*SEM 2012
- Reviewer of more than 25 research projects, including assignments by the national science councils
  of Israel, the Netherlands, Italy, Canada, UK, Belgium, US and by the ERC (starting, consolidator
  and advanced grants)
- · In program committee of 45 conferences and more than 40 workshops
- Reviewer of more than 30 journal articles, 1 book and 3 articles in edited volumes
- External examiner of 18 PhD candidates in Europe, the UK and the USA

#### INSTITUTIONAL RESPONSIBILITIES (selection)

| 2013 - 2020 | Elected information officer of SIGSEM, the Special Interest Group on Semantics of the  |
|-------------|--|
|             | Association for Computational Linguistics  |
| 2011 - 2016 | Director of the CLIC laboratory at CIMeC, University of Trento (Italy)                 |
| 2012 - 2014 | Coordinator of the Language and Multimodal Interaction track of the Cognitive Science  |
|             | Master program at the University of Trento (Italy)                                     |
| 2009 - 2013 | Coordinator of the BA and MA majors in Philosophy and Informatics at the University of |
|             | Trento (Italy)   |
| 2007 - 2009 | Elected secretary of SIGWAC, Special Interest Group on the Web as Corpus of the        |
|             | Association for Computational Linguistics  |



### **Peer recognition**

short explanation of the importance of the listed examples of significant peer recognition.

#### Scientific community activity

- Referee for peer-reviewed journal: Physical Review Letters, Angewandte Chem., Advanced Materials, Advanced Functional Materials, Biomaterials, Journal of Materials Research, Materials Research Bulletin, Surface and Coatings Technology, Composites Part A, Crystal Growth and Design, Journal of the American Ceramic Society, Chemical Engineering Journal, International Journal of Applied Ceramic Technology, Biomedical Materials, International Journal of Materials Research, Polymer, Ceramics International, Biomacromolecules, Journal of the Royal Society Interface, Journal of Microscopy, Journal of Chemical Technology & Biotechnology, Acta Materiala, Journal of the European Ceramic Society
- Contributing editor for the Journal of the American Ceramic Society
- Referee for the French National Research Agency (ANR, 2008 and 2009), NSF career program (2010)
- Advisory board for ECERS 2009 and CIMTEC 2011
- Initiator and co-organizer of the 1<sup>st</sup> International and Multidisciplinary Workshop on the Solidification of Colloidal Suspensions (2010, Avignon, France). Co-organized by the CNRS, Saint-Gobain and the University of Oxford

https://figshare.com/articles/journal\_contribution/My\_successful\_ERC\_Starting\_Grant\_Proposal/7110767

#### Other activities

- Workshop (co-)organization: GEMS 2010 (submitted), ESSLI 2008 Distributional Lexical Semantics (Hamburg), Contextual Information in Semantic Space Models at Context 2007 (Roskilde), Web as Corpus 1 (2005, Forli), 2 (2005, Birmingham) and 3 (2006, Trento)
- The Italian part-of-speech tagger developed by my team was ranked second best in the EVALITA 2007 evaluation campaign
- Co-organized the first <u>CLEANEVAL shared task</u> for Web page cleaning (2007)
- Co-founder and secretary of the Special Interest Group of the Association for Computational Linguistics (ACL) on Web as Corpus
- ESSLLI 2006 course instructor (with Stefan Evert): Counting words: an introduction to lexical statistics (Malaga)
- I maintain, with Stefan Evert, SIGIL, an online introduction to statistics for linguists
- In program committee of more than 10 international conferences (including ACL, EACL, COLING, IWCS, EMNLP – best reviewer award at EMNLP 2010) and more than 15 international workshops
- Reviewer for more than 15 journals (including Natural Language Engineering, IEEE Intelligent Systems, Language Resources and Evaluation Journal, Cognitive Linguistics, Europhysics Letters, Artificial Intelligence Journal, Morphology and the Journal of the Acoustical Society of America) and 2 books
- Reviewer for several funding agencies, including the US National Science Foundation and the UK Economic and Social Research Council



### Peer recognition

short explanation of the importance of the listed examples of significant peer recognition. Publication awards and nominations: ACL 10-year Test of Time award (2020), ACL 10-year Test of Time nomination (2020), IJCAI-JAIR 5-Year Best Paper award (2017), EMNLP Best Paper nomination (2013), WAC4 Workshop Best Paper award (2008)

#### Other activities

- Workshop (co-)organization: GEMS 2010 (submitted), ESSLI 2008 Distributional Lexical Semantics (Hamburg), Contextual Information in Semantic Space Models at Context 2007 (Roskilde), Web as Corpus 1 (2005, Forli), 2 (2005, Birmingham) and 3 (2006, Trento)
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- Reviewer for several funding agencies, including the US National Science Foundation and the UK Economic and Social Research Council



### **Additional information**

#### Additional information:

- career breaks, diverse career paths, life events
- other contributions to research community

The applicant may also include relevant information on, for example, career breaks, unusual career paths, as well as any particularly noteworthy contributions to the research community.

These will not in themselves be evaluated but are important to provide context to the evaluation panels when assessing the principal investigator's research achievements and peer recognition in relation to their career stage.



# Who could be competitive in the ERC?

#### **Evaluators say:**

- Independence
- CLARITY: Vague information won't help you.
- QUALITY vs QUANTITY
- The track record must be in line with the proposed research
- Numbers are ok but explain your contribution
- EXPLAIN: The panel members may not know if your merits are relevant or not (prizes, grants, journals...)
- Post-doctoral stays: CLARITY
- Contribution at each career step: explain gaps

#### Most common errors:

- Lack of coherence between your track record and your proposal.
- Core competences missing (and you don't give any solution)
- Not structured/selected info

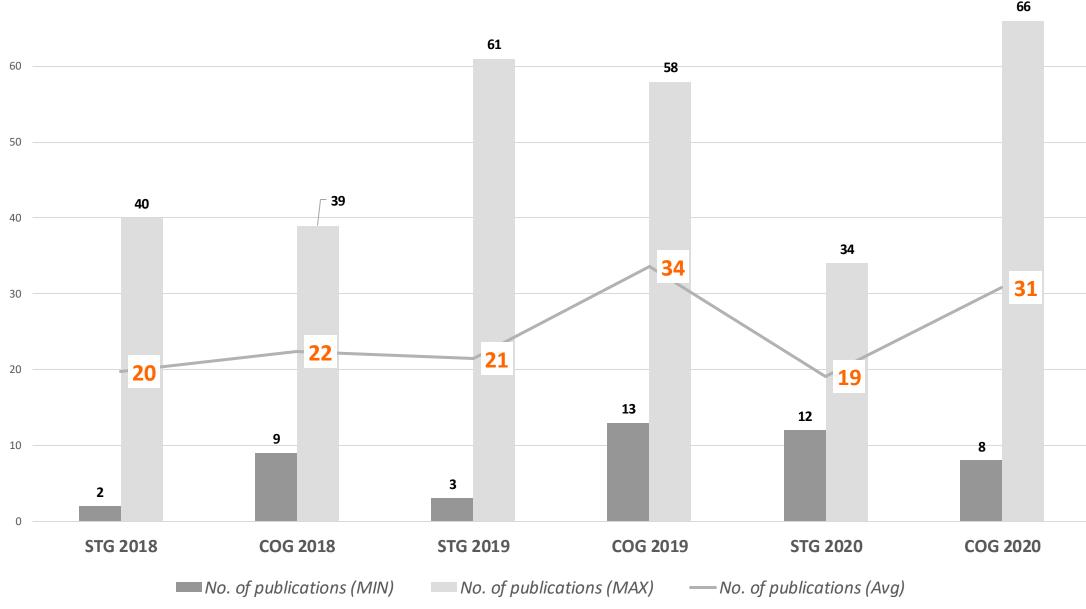
#### **Evaluation criteria ERC 2024**

#### **Principal Investigator**

- Intellectual capacity and creativity
- demonstrated the ability to conduct groundbreaking research?
- evidence of creative and original thinking?
- required scientific expertise and capacity to successfully execute the project?

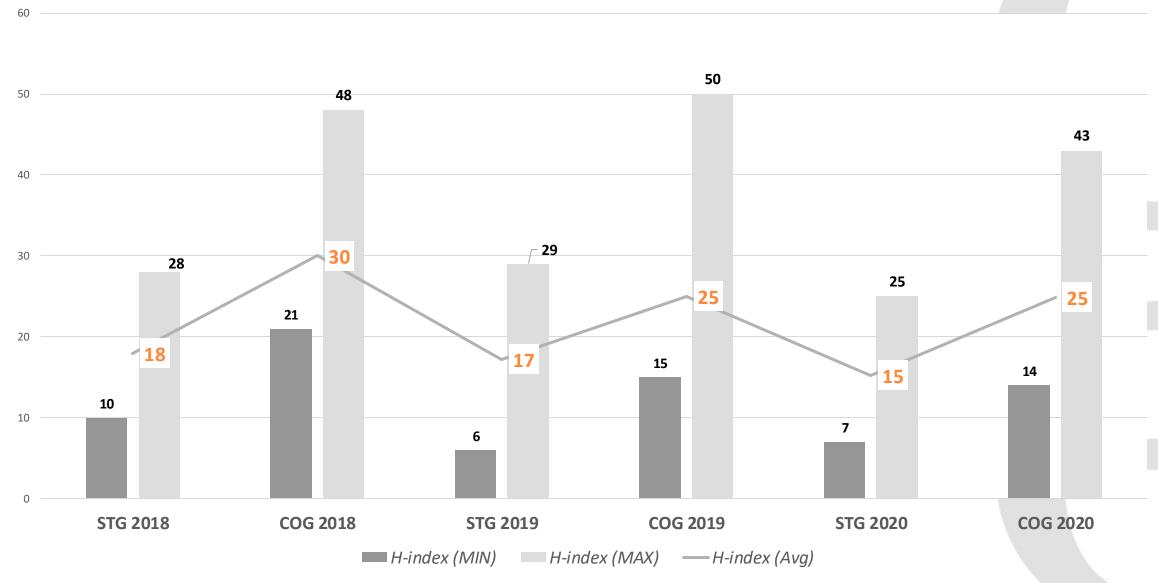


# LS8 Environmental Biology, Ecology and Evolution





### **PE10 Earth System Science**





### Algunos consejos

- 1. Entender el proceso
- 2. Escribir la part B1 (CV + track record)
- **3.** Escribir la part B1a + part B2





### Evaluation criteria ERC 2024 StG, CoG, AdG

# **Excellence** is the sole evaluation criteria

applied to the Research Project + Pls



#### **Research Project**

- Ground-breaking nature, ambition and feasibility

#### Ground-breaking nature and potential impact of the research project (B1+B2)

- does the proposed research address important challenges?
- are the objectives ambitious and beyond the state of the art? e.g. novel concepts and approaches or development between or across disciplines?

#### **Scientific Approach**

- is the outlined scientific approach feasible ... ground-breaking nature and ambition of the proposed research? (B1)
- are the proposed research methodology and working arrangements appropriate to achieve the goals of the project? (B2)
- are the proposed timescales, resources and PI commitment adequate and justified? (B2)

Ground-breaking nature and potential impact address important challenges

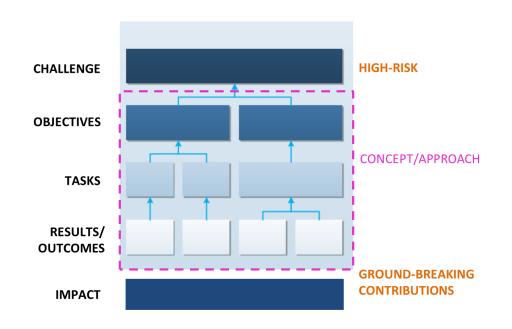
scientific approach feasible research methodology

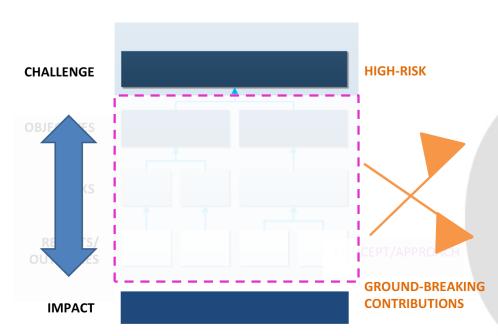


#### Estructura

Narración de la propuesta encuadrada en un marco lógico-conceptual que permita entender la ejecución del proyecto como consecuencia de un conjunto de acontecimientos relacionados y que tienen un orden conceptual.

Hilo argumental que conteste a los criterios de evaluación







# What are *important challenges?*

¿Cuál es la Gran Pregunta de Investigación?

¿Qué es lo que tenemos que entender?

¿Qué es lo que debemos saber sobre (X fenómeno) para poder empezar a hacer algo que impacte en Y (campo científico, industria, sociedad,...)?

¿Cómo es la naturaleza de este reto que quieres acometer? ¿Es un reto teórico, conceptual, aplicado?

¿Es un reto común en tu campo de investigación?

por ej. curar el cáncer...

En este caso el proyecto necesitará de una idea y concepto de proyecto radicalmente novedosa

¿Cuál es la Gran Pregunta de Investigación? **Gran Respuesta de Investigación** Breakthrough



# What are important challenges?









# What are *important challenges?*

#### ¿Cuál es la Gran Pregunta de Investigación?

Turbulence is a fundamental unsolved problem, at whose core are the multiscale processes that transfer, for example, energy across the inertial range of scales, or momentum across wall-bounded shear flows.

Turbulence is also key to applications, from industrial design and energy generation to climate dynamics, where the worst uncertainties are

energy generation to climate dynamics, where the worst uncertainties are often due to its modelling....

The premise of this proposal is that those new capabilities should allow us to elucidate, once and for all, the physics underlying the multiscale transfer processes in turbulence in the next five years, especially in shear flows near walls. That will allow the formulation of more realistic engineering models, but the immediate goal of the proposal is to answer the fundamental questions that have resisted two centuries of attack by physicists and engineers [...]

Neither large-scale computing nor data mining are trivial activities, but our group has specialised in both during the past 20 years, particularly for the study of turbulence.

Multiscale dynamics of turbulent flows MULTIFLOW ERC-2010-AdG PE8

challenge

Groundbreaking nature/
Groundbreaking contributions

feasibility



# What are...ambitious objectives beyond SoA?

**Operacionalizar la Gran Pregunta de Investigación** 

DEEPMED aims at unravelling the discovery of the deep Mediterranean environment. My groundbreaking hypothesis is that, from the late 19th century to the present, joint developments in science and strategy transformed perceptions of the Mediterranean retooling it into a deep three-dimensional manitime space that in turn shaped scientific and strategic approaches to the Sea. I identify three interrelated domains in which this process took shape: science and technology, strategy, and the environment. DEEPMED explores each of these through three specific objectives (SO), SOI (Topographies); Tracking the development of volumetric notions of the Mediterranean from the late 19th century to the present; SO2 (Temporalities): Understanding the interplay between human and natural temporalities in past and present three-dimensional conceptions of the Mediterranean; and SO3 (Globalities): Analysing historical ideas about the place of the 3D Mediterranean with regards to the world oceans, global climate, and world history. Our deep history demands a novel methodology that is decisively interdisciplinary (bringing together the history of science and technology with strategic studies, environmental history, and the natural sciences), transnational (building a team with broad geographic and linguistic expertise), and digital (developing Historical GIS to understand the transformation of this marine space in scientific and strategic terms). DEEPMED bridges a major division between the views of the Mediterranean held by the natural sciences and studies of the human past, where the environment is no longer Braudel's durable structure but a fragile regime dependent on political events and decisions. As such, the project will highly impact the fields of Mediterranean Studies, maritime history, and the history of oceanography, among others. It will also inform more integrated public views of this Sea. The future of the Mediterranean depends on managing its deep environment. Knowing how it came to be opens up new possibilities about ways to face that future.

| Borders of state of the art   | DEEPMED's novelties  | DEEPMED's impact   |
|---|--|--|
| Mediterranean Studies:  o Gap between human sciences and natural sciences  o Difficulty in locating Mediterranean's modern significance  Maritime History, oceanic history and history of oceanography:  o Not entire basin o Overlooks specificities | Aim: Historical discovery of the deep Med Specific objectives:  Topographies of deep Mediterranean  Natural and human volumetric temporalities  New globalities of the 3D Mediterranean Methodology:  Interdisciplinary: history science & tech, strategy, environmental hist, oceanography  Transnational: broad linguistic and geographical expertise; plural and non-linear  Digital: Historical GIS unveils spatial links Domains:  Science & Technology *Strategy *Environment Work Packages:  *Space*Territory*Change*Synthesis*Management | Disrupts Mediterranean studies through attention to depth     Contributes to oceanic history with study of entire basin     Integrates disciplinary approaches from the humanities and the sciences to understand change     Fosters active understandings of Mediterranean's volume by relevant audiences |



# What are...ambitious objectives beyond SoA?

#### Objetivos relacionados con el Estado del Arte

- ✓ No piden una revisión del SoA del campo
- No es un artículo científico
- ✓ Otorgan el dinero por los cambios (el efecto) que seáis capaz de producir en el campo científico, no por escribir un buen SoA.

#### **Preliminary evidences**



#### References

#### Aportaciones al SoA del IP





# What are... novel concepts and approaches or developments between or across disciplines

El concepto y enfoque sería la idea subyacente (considerada en su conjunto) de la propuesta

#### Una idea no convencional

- nuevos conceptos que no existían antes
- uso de conceptos existentes a un contexto o campo diferente
- nuevas combinaciones de principios científicos relacionados
- nuevas combinaciones de principios científicos no relacionados hasta ahora

Una nueva idea necesitará un nuevo enfoque novel theoretical framework (SH)

Air transport has by and large been studied as a transportation process, in which different elements, e.g. aircraft or passengers, move within the system. While intuitive, this approach entails several drawbacks [...]. The lack of a better approach is in part responsible for our inability to fully understand delay propagation, one of the most important phenomena in air transport. ARCTIC proposes an ambitious program to change the conceptual framework used to analyse air transport, inspired by the way the brain is studied in neuroscience. It is based on understanding air transport as an information processing system, in which the movement of aircraft is merely a vehicle for information transfer. [...] The approach also entails important challenges, [...] point towards a radically new way of thinking about the dynamics of air transport. [...]

**Air Transport as Information and Computation ARCTIC** ERC-2019-STG SH2



# Feasible scientific approach vs. methodology

#### B<sub>1</sub>a

- feasible outlined scientific approach bearing in mind the research ground breaking nature and ambition
- Concise and clear (5 pages)
- All the essential information
- General overview of the project
- Emphasis on ground-breaking nature
- **Feasibility** (≠ detailed methodology)
- Support feasibility with preliminary evidences
- Know your competitors and the state-of-art
- Why is your idea and scientific approach outstanding?
   Risk assessment
- Explain collaborations
- Research design

#### **B2**

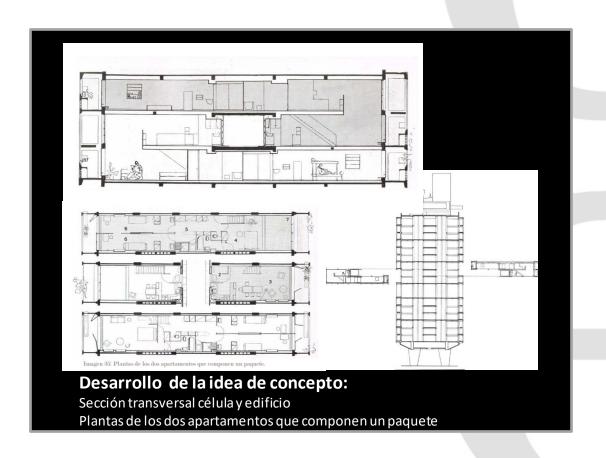
- research methodology and working arrangements
- timescales, resources and PI commitment
- Do not repeat extensively from part B1. Do not copypaste
- Provide detail —thoroughly- on methodology, work plan, selection of case studies,...
- Explain any risk mitigation strategy
- Explain your timeline, link them to the research objectives or tasks.
- Explain need of additional team members (if applicable)



# Feasible scientific approach vs. methodology

B1a





**B2** 



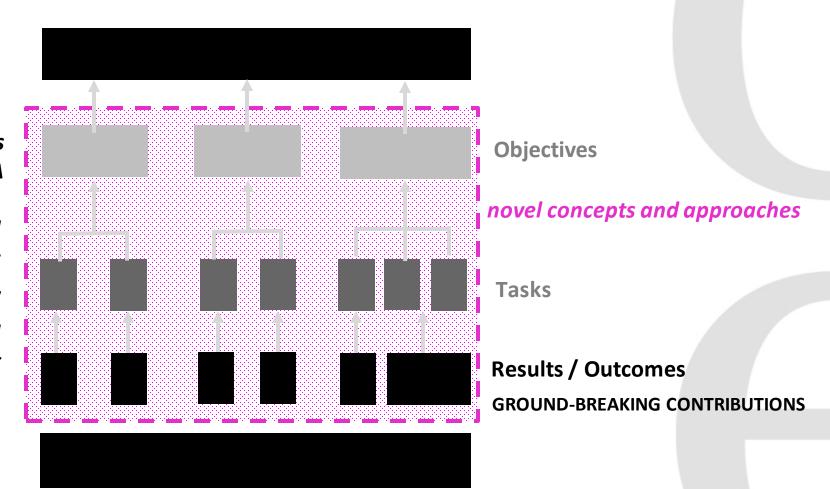
# Feasible scientific approach vs. methodology

important challenges

ambitious objectives beyond SoA

research methodology and working arrangements development of methodology timescales, resources and PI commitment

impact





## Impact & risk assessment

#### B<sub>1</sub>a

#### Impact

ALiEN will trigger a shift in the standard approach to complex **deep learning** architectures from ad-hoc interfaces towards flexible connectivity and, ultimately, autonomous agent interaction, a long-term aim of **Artificial Intelligence**. The emphasis on shared representations brings a new perspective to **representation learning** and **interpretability**. Furthermore, ALiEN provides **cognitive science** and **linguistics** with a new body of evidence on the limits of communication, and new tools to analyze it.

Coordination between DNN-controlled devices will become a major challenge for industrial deployment of AI in the coming years. Beyond multiagent information processing and home automation, as directly simulated in ALiEN, coordination is a pervasive issue. A communication-based approach has recently been proposed for self-driving cars (e.g., [60]) and robot arms ([61]). The same ideas can be applied to machine-learning components in fields such as communication networks and finance ([62, 63]). ALiEN puts Europe at the forefront of this important next frontier in AI. Fittingly, it does so by building on the long European tradition of language evolution studies.

Risk table (B2 presents a more detailed risk table)

| Nisk table (B2 presents a more detailed risk table)        |  |  |
|--|--|--|
| Risk   | Mitigation actions   |  |
| Problems generalizing to new referents                     | Work with (still useful) protocols limited to fixed but large class set. Explore special training techniques to encourage 0-shot generalization.   |  |
| Problems generalizing to new agents                        | Explore simplified setups, e.g., limit architecture variety. Focus on emerged-language supervision.  |  |
| Language-layer tuning of pre-trained DNNs does not suffice | Explore full-architecture re-training (emergent language should<br>still have beneficial properties) and simplify. For example,<br>limit to specific architectures or to visual models only. |  |
| DNNs do not learn to play full Grocery<br>Challenge        | Identify problematic aspects and simplify (e.g., simplify value and price structure).  |  |

#### **B2**

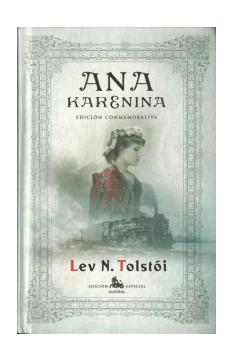
#### b.3 Risk table

| Risk   | Mitigation actions   |
|--|--|
| WP1, WP2, WP3: Dependencies?   | Although the experiments in the three simulation WPs are related and some techniques should ideally be prototyped in WP1 and then applied to WP2 and WP3, there is no crucial dependency such that delays in a WP would prevent concurrent progress in the other WPs.  |
| WP1: Problems generalizing to new referents                              | i) Work with (still useful) protocols limited to a large but fixed number of object classes. ii) Special training methods to encourage 0-shot generalization: in particular, add many training examples where target and distractors are same-class or extremely similar, to spur emergence of a granular attribute-level language. iii) Study problem at the class level: are there specific classes where fast generalization works better? Does this depend on similarity to training classes? Can we capitalize on this observation, if confirmed? |
| WP1, WP2, WP3: Problems<br>generalizing to new agents                    | i) Explore simplified setups, e.g., limit DNN architecture variety. ii) Focus on supervised imitation learning. iii) Study if community-evolved languages have other advantages, even if they are not as fast to transmit as hypothesized.   |
| WP1, WP2: Supervision is not beneficial.                                 | For the time being, we won't get a single "universal" language, but methods to evolve useful languages will still be delivered. Extensive study of <i>why</i> supervision does not help: Is it because language drift undoes its benefits? Does supervision hamper generalization?   |
| WP2: Language layer tuning does not suffice to let communication emerge. | Consider both the full-architecture re-training approach (emergent language should still have beneficial properties) and problem simplification (e.g., limit to visual models only, etc.).   |
| WP3: Cannot scale to full Grocery<br>Challenge setup.                    | Identify problematic aspects and simplify (e.g., simplify reward function).  |

# **Cuestiones prácticas**

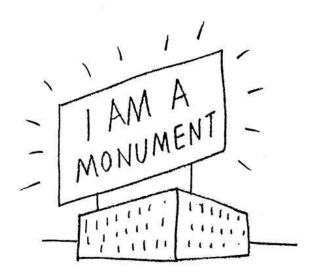


#### 1. Piensa cómo empezar la B1a – seduce al lector



"Todas las familias felices se parecen unas a otras; pero cada familia infeliz tiene un motivo especial para sentirse desgraciada."

- 1. Piensa cómo empezar la B1a
- 2. Recuerda que no existe posibilidad de corregir errores entre la fase 1 y la fase 2.
- 3. No digas simplemente que tu propuesta es excelente, ¡Demuéstralo! En la B2 tienes que convencerles



I Am a Monument: On Learning from Las Vegas. MIT Press, 1972

- 1. Piensa cómo empezar la B1a seduce al lector
- No existe posibilidad de corregir errores entre la fase
   1 y la fase 2.
- 3. No digas simplemente que tu propuesta es excelente, ¡Demuéstralo! En la B2 tienes que convencerles
- 4. Usa cualquier recurso gráfico que facilite la comprensión

negrita, headings, figuras, esquemas. cuidado con los hipervínculos y los colores Cuidado con abreviaciones y jerga muy científica

- **5. Sé muy específico** (evita ambigüedades many, some, would,...)
- 6. ¿En qué persona narro mi historia? I/The PI/We Toma responsabilidad personal por la ideación de la propuesta de investigación













7. Dale un toque personal





8. Ilusiónate y transmite tu pasión por la disciplina



# Final message

# DO NOT EXCLUDE

# Yourself from participating in ERC calls

- Take risks, explain your project's high scientific impact if you reach your aims, and provide evidence that you can do it.
- If you fail, try again! Gain experience from evaluation. Panel feedback is useful
  and resubmissions have higher success rate.



# **IMUCHAS GRACIAS!**

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@StefiMNZ

