The European Research Council (ERC) and its Impact

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The ERC objectives

- ERC brings together a critical mass of public and private resources to make **European research and industry more competitive**
- In order to achieve what no national could achieve alone
- Focusing on basic research at the frontiers of knowledge
- Pursuing exploratory, ground-breaking, high-risk/high-gain research
- In order to provide Europe's best researchers with the resources they need to allow them to **compete** more and better at global level





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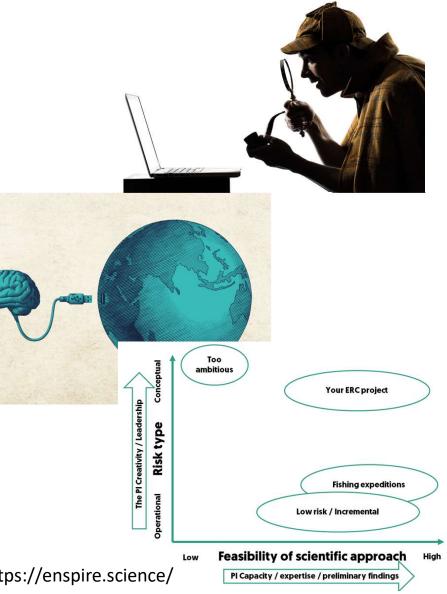


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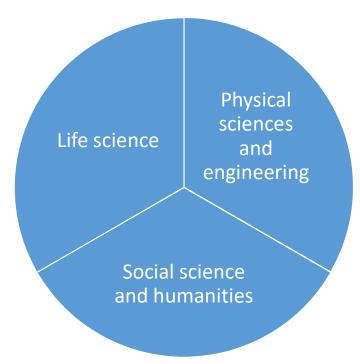
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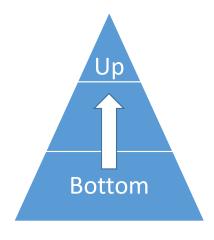
- Researchers at a comparable career stage compete for Starting, Consolidator, Advanced Grants, Proof of Concept or Synergy Grants
- All research fields (Life Sciences, Physical and Engineering, Social Sciences and Hum
- No theme is privileged
- Bottom-up research-driven and developm nature
- Only criteria are scientific quality, innovation excellence
- Projects aiming at scientific breakthrough advances
- "best brains" in Europe
- Peer-reviewed high-level international p panels

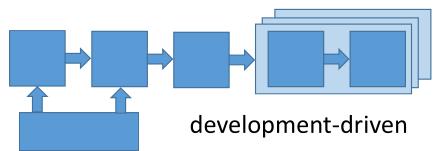


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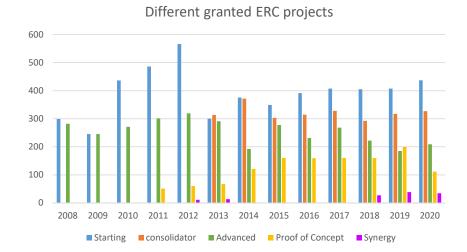
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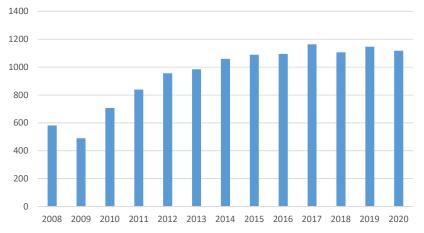
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ERC in figures

- Overall ERC budget from 2021 to 2027 is 16 billion €
- Before 2021: 20.5 billion €
- Just over 10,000 Pl researchers





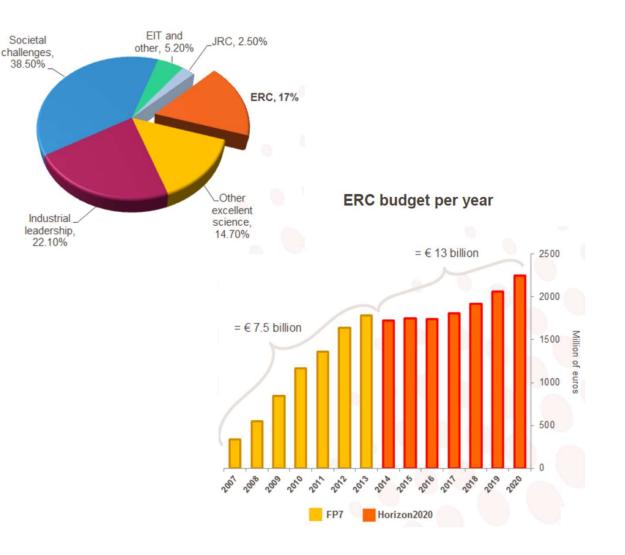


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Horizon2020 budget distribution

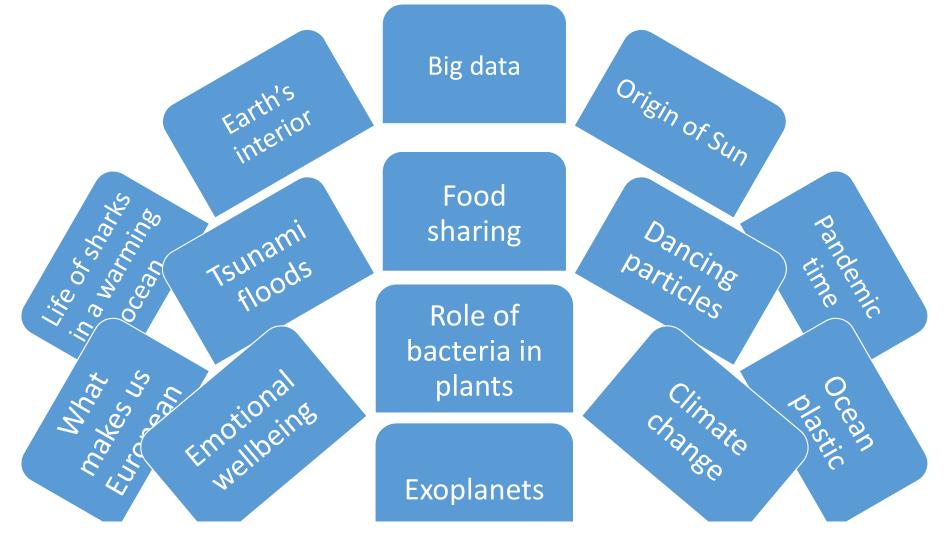
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Examples of ERCs



- Significant direct impact in the form of advances at the frontiers of knowledge
- Ultimately generating radically new ideas that stimulate innovation and address societal challenges
- Half of the projects have already had an impact on the economy, society, science and policymaking
- What matters? Quality and scientific impact. No need to justify in terms of matrix such as h-index
- highly interdisciplinary nature of ERC projects
- training a new generation of excellent researchers:
 - on average 7 team members per project
 - over 75,000 postdocs, PhD students and other staff
- Prestige of hosting ERC grant-holders and the accompanying "label of excellence" intensifies the competition between European universities

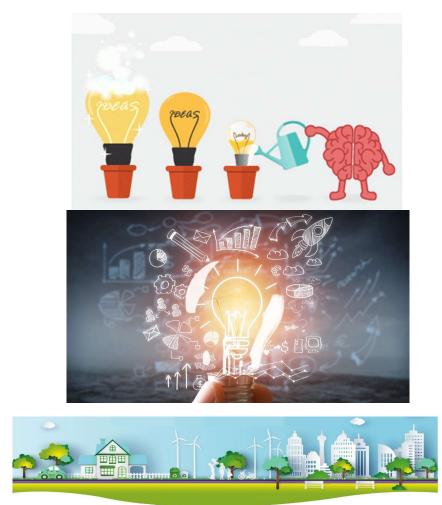
This impact is measured in terms of

Publications

- in open access as peer-reviewed
- popularized publication
- Scientific outreach
 - presentation at congresses, invited talks
 - public conferences, exhibitions
- Organization of conferences, workshops...
- Press release
- Prizes, awards
- Communications with other stakeholders
- Training and employment of the young researchers

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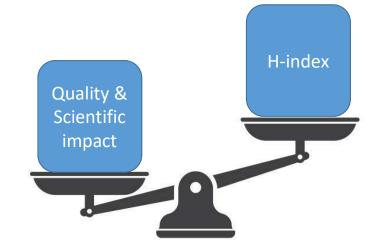
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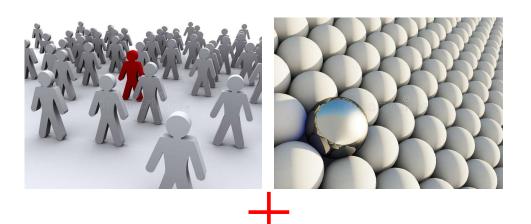




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Conclusion

- The ERC funds the best combination of outstanding individual scientists and innovative ideas.
- The ERC grants definitely deserve to be even better funded in the future.
- The only drawback is the sudden decrease in funding that researchers face at the end of their ERC grant, which is usually not matched by national funding.







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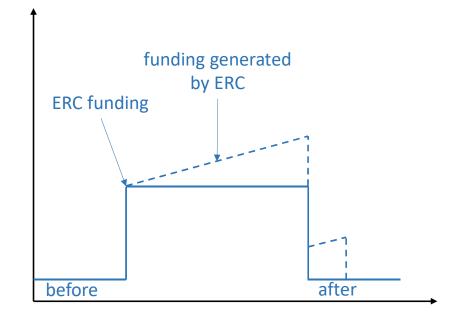




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Thank you for your attention!

References

- https://erc.europa.eu/about-erc/mission
- Facts and figures | ERC: European Research Council (europa.eu)
- https://erc.europa.eu/news/impact-erc-research-confirmed2020
- Figures have been found on the web and referred on each slide