How to get an ERC grant?

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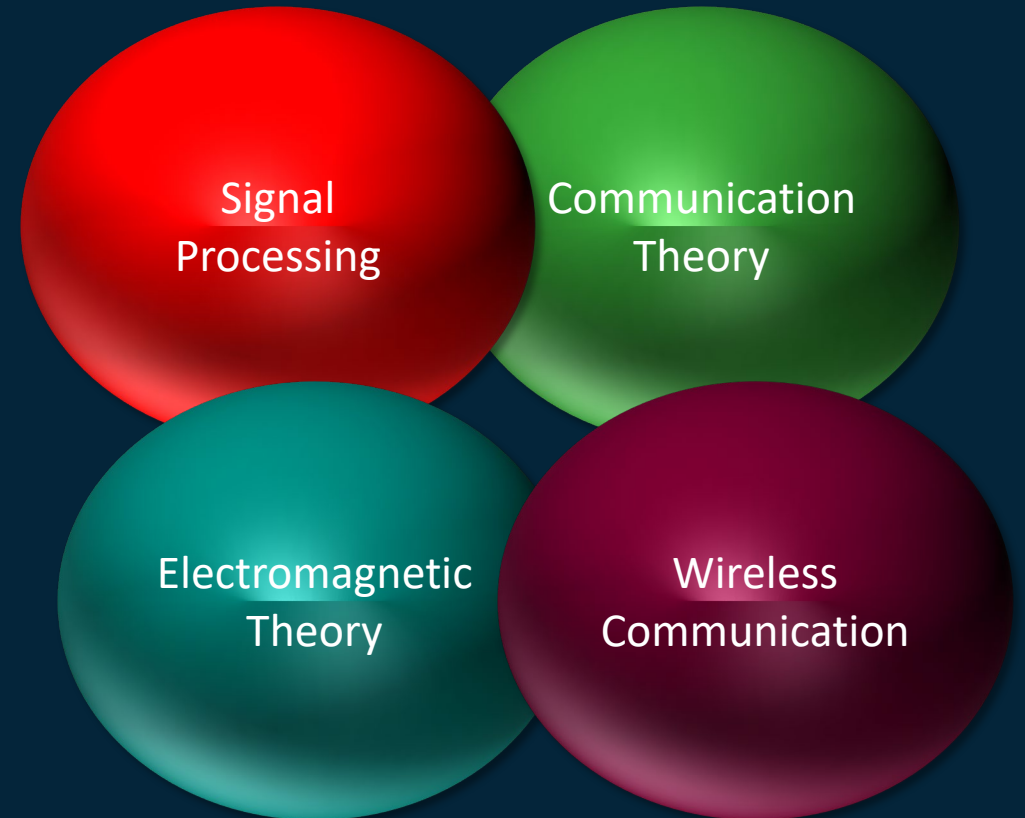ECIT Institute, Queen's University Belfast, United Kingdom

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ERC CoG 2023 NCP webinar
5th October 2022

Research Interests

My expertise lies in the intersection of communication theory, electromagnetic theory, signal processing and wireless communication for building the new generation of telecommunication systems (230 papers, 110 IEEE journals, 3 best paper awards, 10,000 citations, h-index=47, £5m as principal investigator).

- Beyond 5G/6G-enabling technologies
- Massive MIMO systems
- Machine learning for communications
- Cell-free massive MIMO
- Mm-wave/THz communications
- Intelligent metasurfaces
- Low-latency communications

Signal Processing

Communication Theory

Electromagnetic Theory

Wireless Communication

Project details

- **Call:** ERC-2020-COG (Consolidator Grant)

- **Title:** Beyond Massive MIMO: Living at the Interface of Electromagnetics and Information Theory

- **Acronym:** BEATRICE

- **ERC Review Panel:** PE7- Systems and Communication Engineering

- **Duration:** 60 months

- **Project Budget:** €1,997,797

Before editing

- ERC = Academic Excellence

- Outstanding proposals with outstanding principal investigators

- Find an appropriate topic

- Identify the strong aspects of your CV

CENTRE FOR WIRELESS INNOVATION

Before editing

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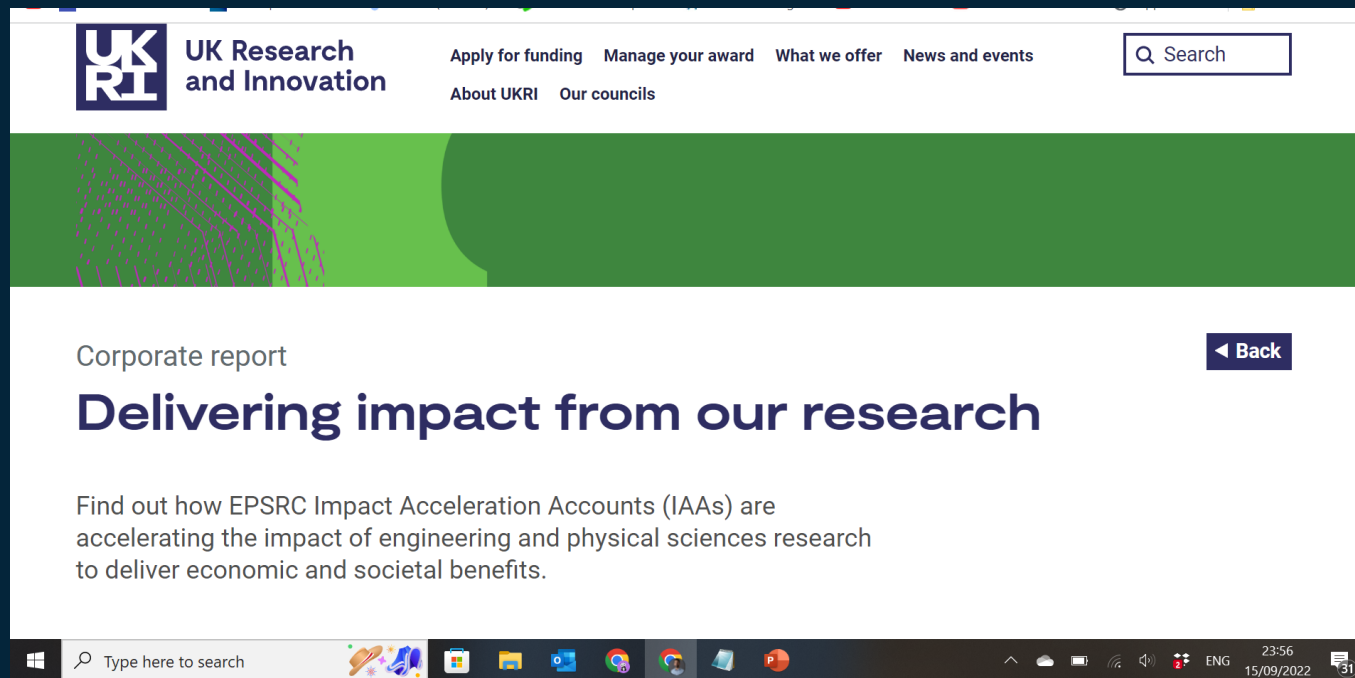- Identify the strong aspects of your CV

Equation of success

Novel concept + Novel approach + Strong CV = 2 million Euros

Before editing

- **What is an appropriate topic?**

- Not an incremental topic!

- Novel/beyond the state-of-the-art

- High risk, high-gain research

- Connected to your previous work/preliminary results

Before editing – RCUK vs ERC

RCUK funding is focused on impact

ERC funding is focused on fundamental research
(more like NSF)

Before editing

- **Strong aspects of your CV- KPIs that prove your academic excellence**

- Number of high quality papers

- Number of highly cited papers (Web of Science)

- Number of citations

- Invited papers

- Awards/distinctions (e.g., Best papers, career awards, etc)

- Professional Service (e.g., Associate Editor, Chair of

- international Conferences/Workshops)

- Research funding/ International collaborations

- Student supervision

CWI is a Research Centre of the ECIT Institute

During editing

Part B1

- Part B1 is very important/ ticket for the second phase!

- Ensure that Part B1 of your proposal is approachable and convincing to specialists and non-specialists.

- Write Part B1 independently from Part B2.

- Not a simple copy-paste from Part B2.
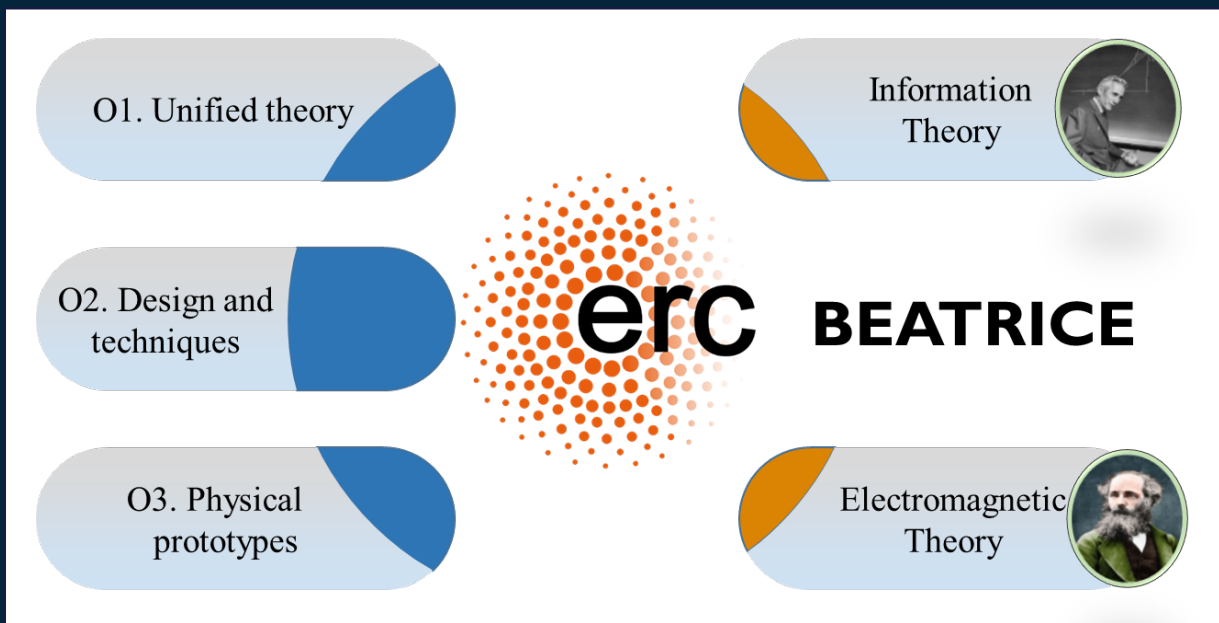
- 60% CV and 40% project.
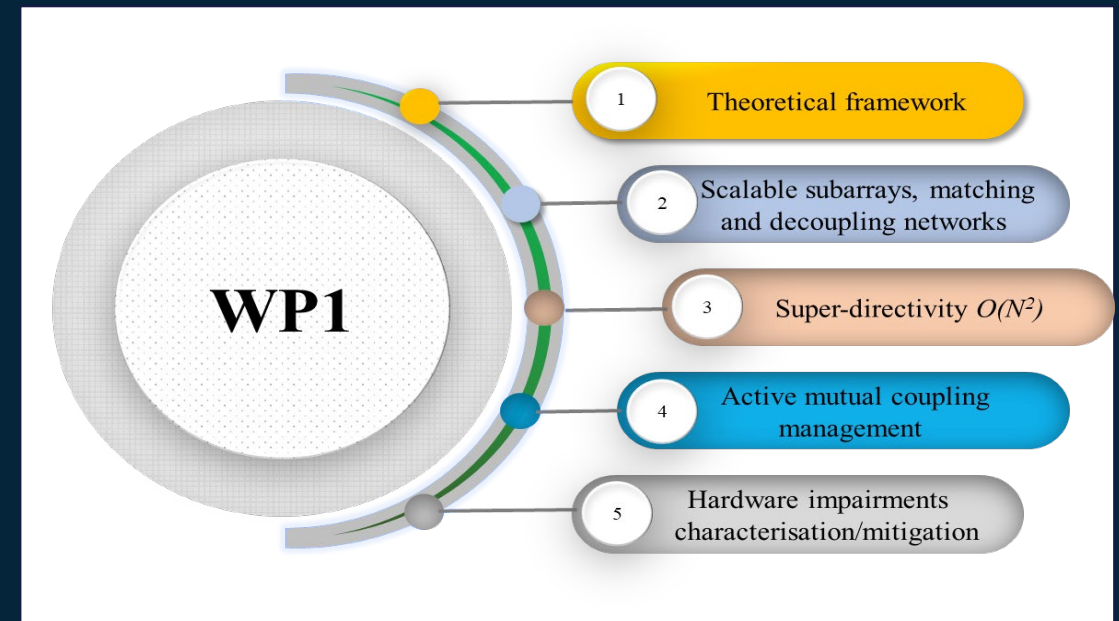
During editing

Part B2

- Excellent knowledge of the state-of-the-art.

- Present in a clear and rigorous way the scientific approach.

- Use all the available pages (References are not counted in the limit of 14 pages).

- Present your previous related work and/or preliminary results.

- Use figures and diagrams.

- 40% CV and 60% project.

Exemplar of figures and diagrams

Project vision

WP description

Preparation for the ERC interview

Date:	The video-conference interviews for your panel will take place from 05/10/2020 to 09/10/2020. Please make sure to keep these days free.
Interview content:	Interviews will last between 15 and 30 minutes.They will provide an opportunity for the evaluation panel members to ask further questions about the proposed research and for you to answer them. The panel meeting will be organised fully remotely. Please note that no slide presentations will be allowed.

- <u>Read the instructions very carefully. They do change from year to year and from panel to panel!</u>

- Read carefully the written proposal (B1, B2).

- Identify the weaknesses/ think potential questions!

- Read the latest advancements/ good knowledge of the state-of-the-art.

- Prepare an excellent slide with an emphasis on your project. Use green and blue colors. Red is aggressive!

- Mock Interviews – painful but very useful!

ERC interview

- Manage and reduce your stress!

- Respect the time constraints (5 mins for the presentation).

- Self-confidence/ presentation skills.

- Clear and accurate responses (avoid long responses).

- Give more time for questions.

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SMILE!