



University
of Glasgow

IAA in Financial Informatics – A PDRA Perspective

Javier Sanz-Cruzado



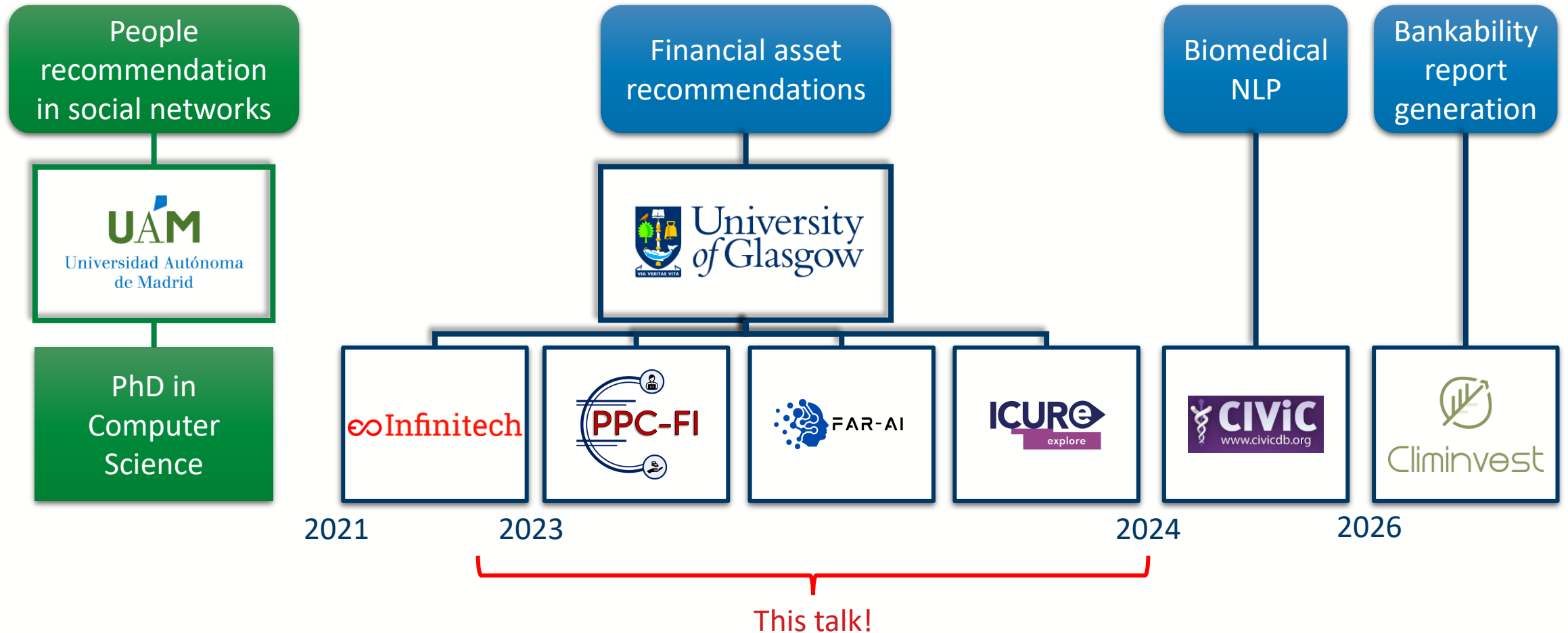
**WORLD
CHANGING
GLASGOW**

Upwards Seminars
28th January 2026

**A WORLD
TOP 100
UNIVERSITY**

A bit of context about myself

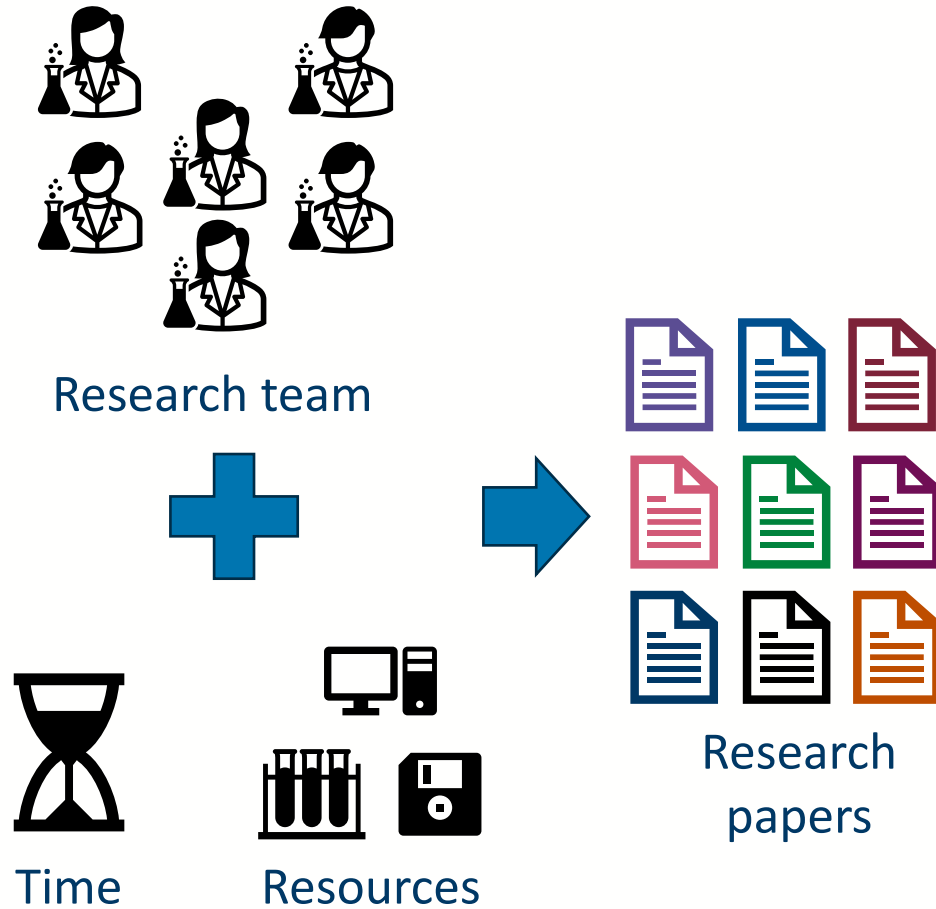
- Postdoctoral researcher (PDRA) at the **Information Retrieval Group**
- Joined the School in November 2021





A timeline towards impact

The foundation



Before working towards impact,
you need to start from the **core research**

In our case, **recommender systems**

On Transaction-Based Metrics as a Proxy for Profitability of Financial Asset Recommendations

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ABSTRACT

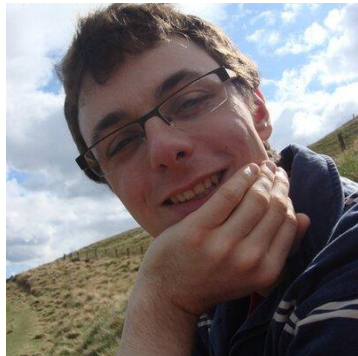
The use of recommender systems to assist in the provision of financial asset and portfolio recommendations to investors is increasing, spanning a wide range of algorithms and techniques. Several strategies have been devised for the evaluation of financial asset recommendations, with the two most prominent strategies measuring (a) the money customers could obtain if they followed the recommendations (profitability-based evaluation) and (b) the ability of

used in the trading process, and the impact of governmental regulations or global events [40]. In addition to these external factors, FAR systems need to consider factors related to the customers, like the alignment of the recommendations with their financial risk tolerance. These complexities show that the financial domain is markedly different to traditional recommendation domains, and as such we cannot assume that observations from those domains will generalize to the finance space.

- Funded by the EU Horizon 2020
 - Research and innovation project
 - Focused on taking expertise and applying it for target use-cases, but are **pre-commercialization**
- **Dates:** October 2019 – March 2023
- **PI (Glasgow):**



Iadh Ounis



Craig Macdonald



Richard McCreadie

Goal: We were tasked to build a **financial recommender system** for banking customers (recommend investments)

I joined in November 2021!
My first project as a postdoc!

∞Infinitech Project

- As part of the Infinitech project, we worked on a **prototype** for testing with a **Pilot**.
 - In our case, the **National Bank of Greece**.
 - Here, you start thinking on how to convert your innovation into a product.
 - And you usually think about a small part of the larger ecosystem...
 - ... as you work with multiple partners.

Customer ID 0004718496C71D464F57	Name Claud Thomas	DoB Wed Feb 09 1949	Customer Type Mass	Investment Capacity €80k - €300k	Customer Tags None
Risk Level Conservative (*)	Investment Horizon 12 months	Investment Target 20000	Portfolio Value €9347.54	Date Last Questionnaire Sat Jan 01 2000	FINISH





NATIONAL BANK
OF GREECE

Recommendations

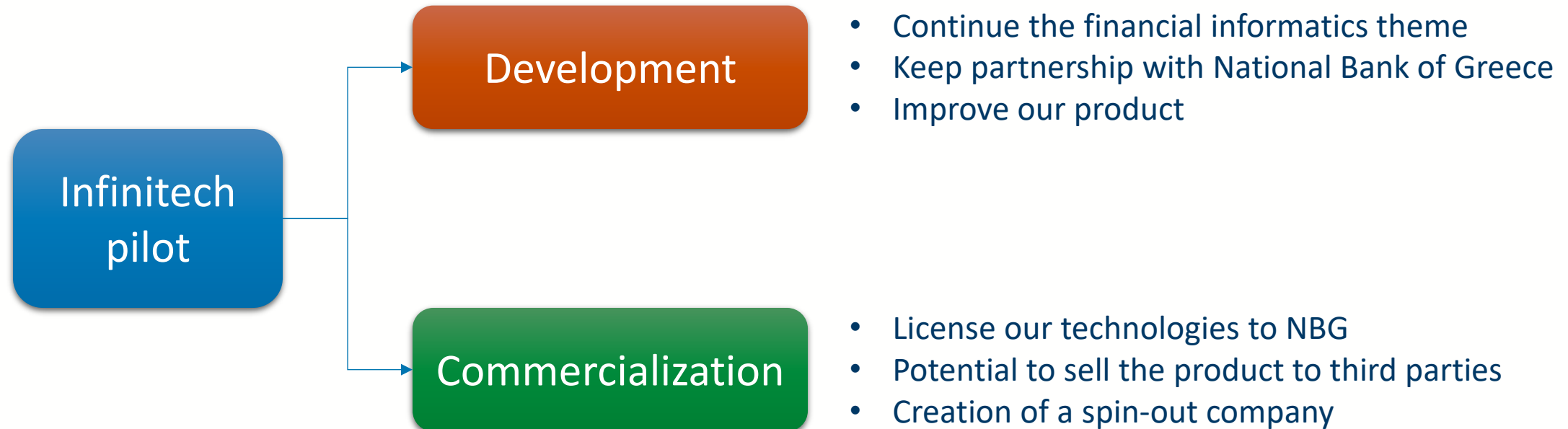
STOCK MTF BOND

SUB-CLASS	COUNT
Other	15
Bond	2

ASSET ID	CLASS	SUB-CLASS	PROFITABILITY	LIKE	DISLIKE
GEQ4286 LX (LU0823421689)	MTF	Bond	17.85%		

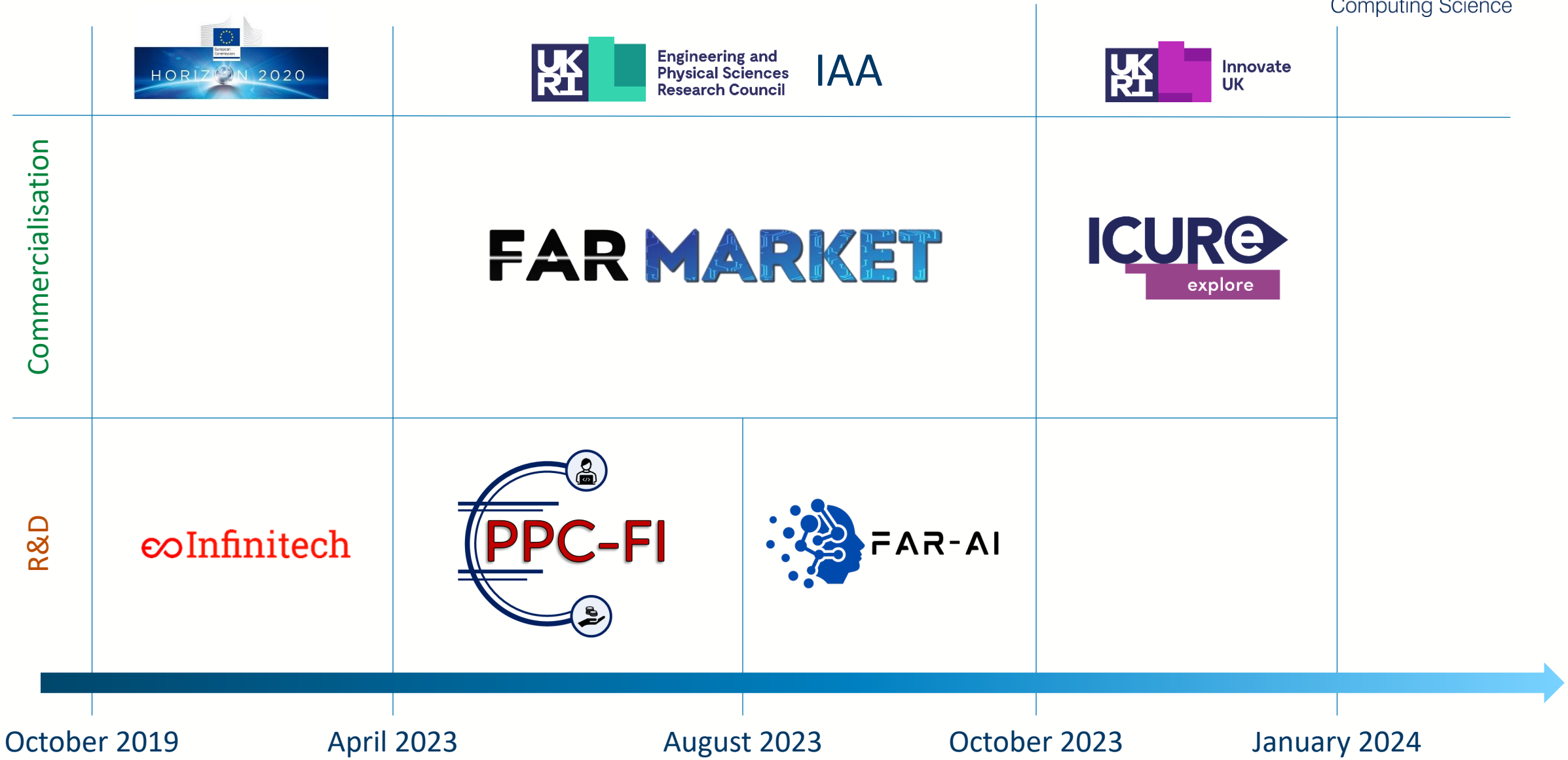
But projects eventually end...

And there are still ways towards impact



And this is the point where IAA appeared!

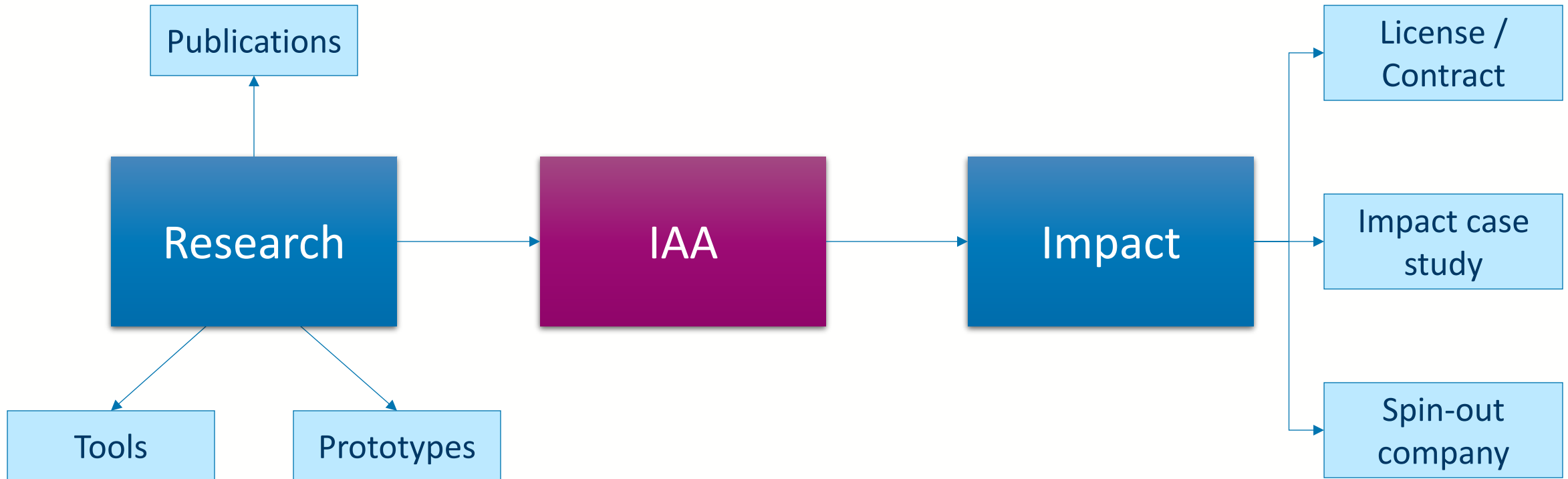
The complete timeline





EPSRC Impact Accelerator Account (IAA)

EPSRC Impact Acceleration Account



EPSRC IAA funds **innovation** projects aimed towards the creation of **impact** based on **existing research**

EPSRC Impact Acceleration Account

- EPSRC IAA are **not** research projects!
- These projects do not fund new research!
- Or travelling to academic conferences!
- They are an **intermediate step** towards impact

	Standard Call	RA-led call
Primary investigator (PI)	Research & Teaching staff	Research Associates (PDRAs)
Funding	Up to £50,000	Up to £20,000
PDRA time (estimated)	Up to 10 months	Up to 4 months
PI salary allowed	No	Yes

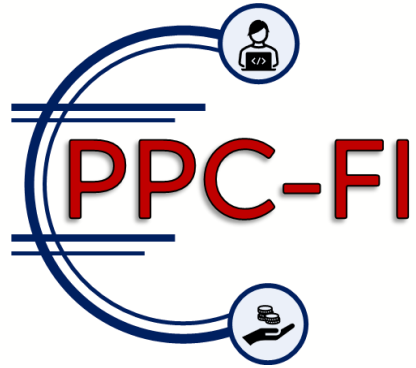
The EPSRC IAA process





Our PDRA-led IAA projects

PPC-FI project



PPC-FI: Personalized Portfolio Construction for Financial Investments

- RA-led EPSRC IAA project
 - **Funding:** £17,586
 - **PI:** Dr. Javier Sanz-Cruzado
 - April 2023 – July 2023
- Partners:



NATIONAL BANK
OF GREECE

Development of personalized portfolio recommendation and optimization algorithms for retail customers

Towards licensing / impact case study

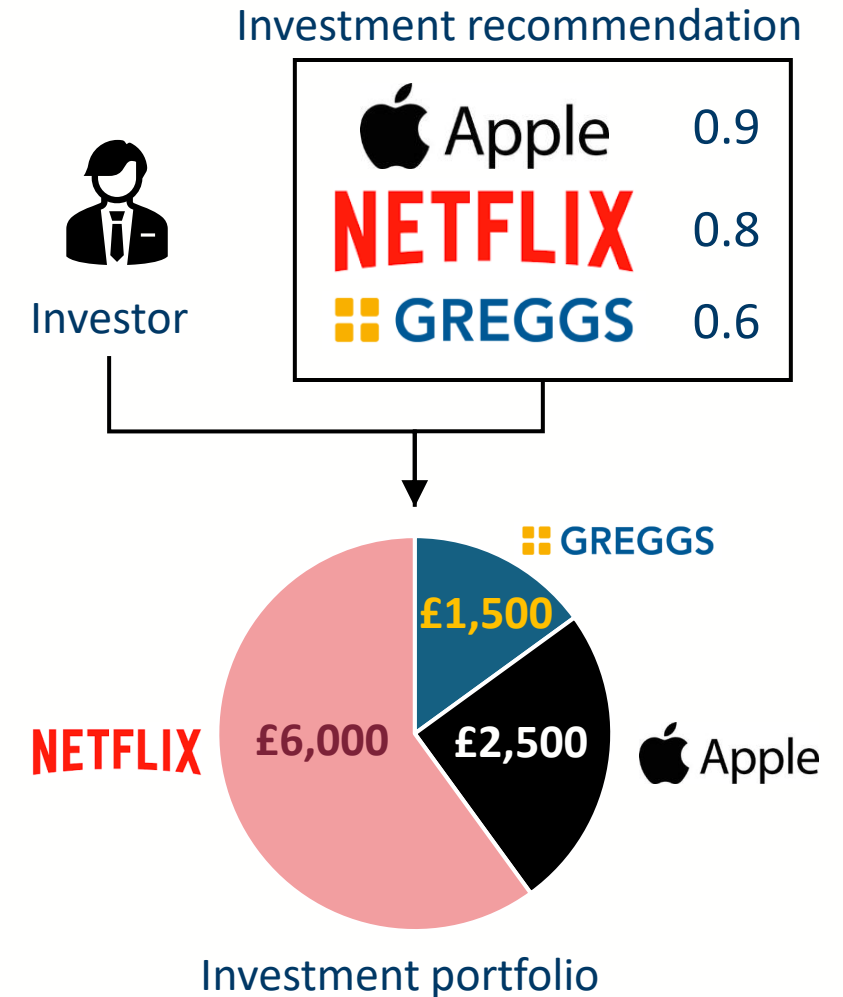
The PPC-FI project concept

Improve and refine existing prototype to **license** it to external partners

- No major research required
- Allowed continuous collaboration with NBG
- Potential application of research within NBG's daily operation

Project description

- Development of personalized portfolio construction algorithms
 - Identify financial asset for investors (**our recommenders!**)
 - And the amount they should invest on each (**new feature!**)
 - Adapt the amount to the needs of the investor (risk, horizon, capacity).
- Integration on the Infinitech prototype.



Lessons learned...

- Focus on **impact**, not on research
- This is a **collaboration** with a partner, not an R&D contract
 - Get a strong support letter (including actual or in-kind costs from your collaborators)
 - What are the benefits for the university?
 - What are your partners contributing?
- Identify the **benefits for the PDRA**
 - IAA does not just fund contract extensions
 - Clearly estate what advantages leading this project has for you
- Ask for support from the IAA team
 - Pre-submission (they will give you some initial feedback)
 - Post-submission (improvement points and panel feedback)

The FAR-AI project



FAR-AI: Personalized Portfolio Construction for Financial Investments

- RA-led EPSRC IAA project
- **Funding:** £10,658
- **PI:** Dr. Javier Sanz-Cruzado
- August 2023 – October 2023

Development of a financial asset recommendation platform for the UK market

Towards commercialization / spin-out company

The FAR-AI project concept

Prepare an existing prototype for **demonstration** and **commercialization**

- No research
- Make easier to reach interested third parties
- Potential for spin-out creation

Project description

- Collection of UK financial set
 - Remove constraints from the NBS data
 - Adapt to target market
- Refinement of the prototype
- Celebration of a workshop on Scotland Fintech Festival
 - Title: “What’s my investment? Automated recommendations for investors”
 - Date: October 5th 2023



Prototype demonstration



Workshop website

Lessons learned...

- Most lessons from PPC-FI apply here
- You don't need an external partner for IAA
- In that case, find support from IP & Commercialization team (Darian Brookes)
- IAA can support organization of outreach events

A black and white photograph of an hourglass, showing sand flowing from the top bulb to the bottom bulb. The hourglass is positioned on the right side of the frame, with its narrow neck in the center. The background is solid black.

Post IAA



- Funded by Innovate UK
- **Funding:** £35,000 (£15,000 for salary, £20,000 for market discovery)
- **PI:** Dr. Richard McCreadie
- October 2023 – January 2024
- Partners:

RA-led exploration of the potential commercialization of research technologies

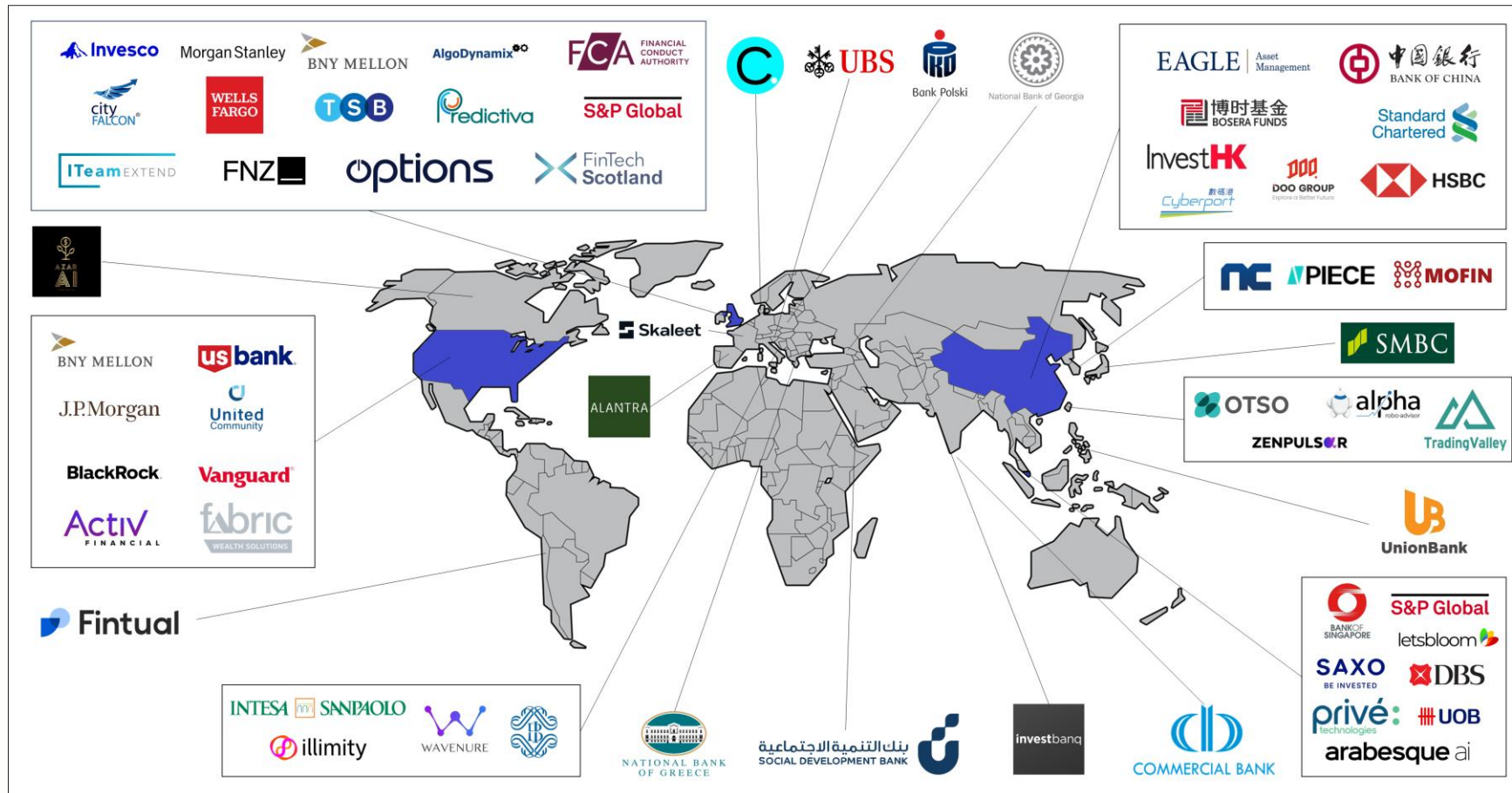
The team:

- **Entrepreneurial lead:** PDRA (Dr. Javier Sanz-Cruzado)
- **Principal scientific advisor:** Academic (Dr. Richard McCreadie)
- **Technology Transfer Officer:** Commercialization (Darian Brookes)
- **Business Advisor:** External expert (Richard Braidwood)

Can we create a
spin-out company
from our research?

Our ICURe Explore journey

We explored the market by attending trade shows and conferences all over the world



7 EVENTS

>70
CONVERSATIONS

>50
COMPANIES

>20
COUNTRIES

The background of the slide features a series of concentric circles in various shades of red and dark red, creating a tunnel-like or target-like effect. The circles are centered and expand outwards from the middle of the frame.

Lessons learned and advice

On RA-led IAA projects...

Pros

- Growth opportunities
 - Funding application training
 - Leadership and management skills
- Positioning yourself outside the university
- Further collaborations with external partners

Cons

- Intermediate steps towards impact – need to secure funding before end of project
- Very short projects (up to 4 months without external funding)
- No time for generating research outputs (not what IAA is about)



Slides

Questions?



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 <http://javersanzcruza.github.io>

