

# MSCA Doctoral Networks what are they, and how could they help DIGICORE?

Mariana Guergova-Kuras, PhD  
*Network Research Lead, OEN*

Connect to WIN  
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- + What are the main milestones in preparing a bid to MSCA DN?

# What is a Marie Curie doctoral network?

## MSCA Doctoral Networks

Aim to train **entrepreneurial, innovative and resilient** doctoral candidates, able to face current and future challenges and to convert knowledge and ideas into products and services for economic and social benefit.



### One single action

Implement doctoral programs, including joint degrees



### Non-targeted calls

Bottom-up approach on scientific subjects (math, physics, engineering, life-sciences...)

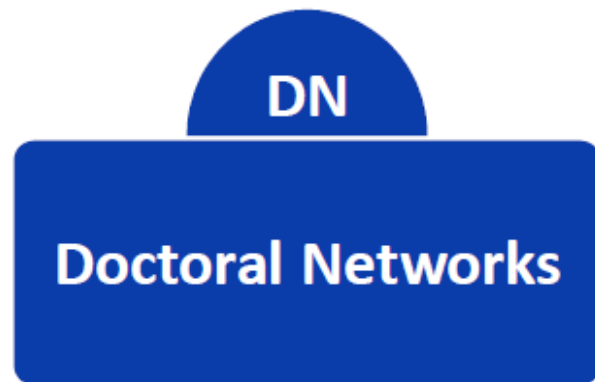


### Training through Research

Strong focus on Career Development Plans, supervision, interdisciplinary research, training in transferrable skills

# 3 Implementation modes – DN or DN-ID are DIGICORE friendly

## 3 modes



*Participants implement a joint research programme*

Max 360 PM



*Doctoral training with the non-academic sector*

Max 540 PM



*Doctoral programme to deliver joint degrees*

Max 540 PM

# MSCA DN is a very competitive call with a success rate ~10%

## Who applies?



- ❖ **Consortia** of universities, research institutions and research infrastructures, businesses (SMEs, pharma, medtech), other socio-economic actors
- ❖ At least **three partners** established in a different member or associated state

## What budget?



- ❖ 400 to 430 M€ total with ~1/5 for LIF projects
- ❖ 3M to 5M per project/consortium

## Project size



- ❖ up to 360 PM (standard) + 180 additional PM for joint or industrial doctorates (incentive) = **10 to 15 PhDs**
- ❖ Program duration is max. 48 months with fellowships between 3 and 36 months (< 4 yr)

## Main elements



- ❖ All beneficiaries must recruit at least one doctoral candidate.
- ❖ Secondments are mandatory (up to 1/3 of the fellowship duration)
- ❖ Network training is an essential element
- ❖ Industrial doctorates: 50% in the non-academic sector

# What does a proposal have to do to win funding?

Find a coherent, exciting research theme that needs a network

- Find an **emerging area of science** that needs to build an **international research community** and where **Europe has some edge** or world class supervisors / teams
- Source right KOL's – with right university affiliations for degree award – to the programme

“Pass“ on common DCN “deal breakers” (mandatory rules)

- **Compliance with mobility rule:** recruited researchers **must not** be local residents
- **Absolute clarity on individual + institutional supervision** and degree award process
- **Solve funding gap from local funding** vs 4 year PhDs (MSCA DN grants are only 3 year)

Build a doctoral programme “where whole greater than parts”

- Create an **integrated training programme around that theme**, with each PhD thesis topic being individually coherent and mutually reinforcing of other PhDs
- Generally needs a **mix of different disciplines** and probably mix of basic and applied

Excel on joint training programme design and career development

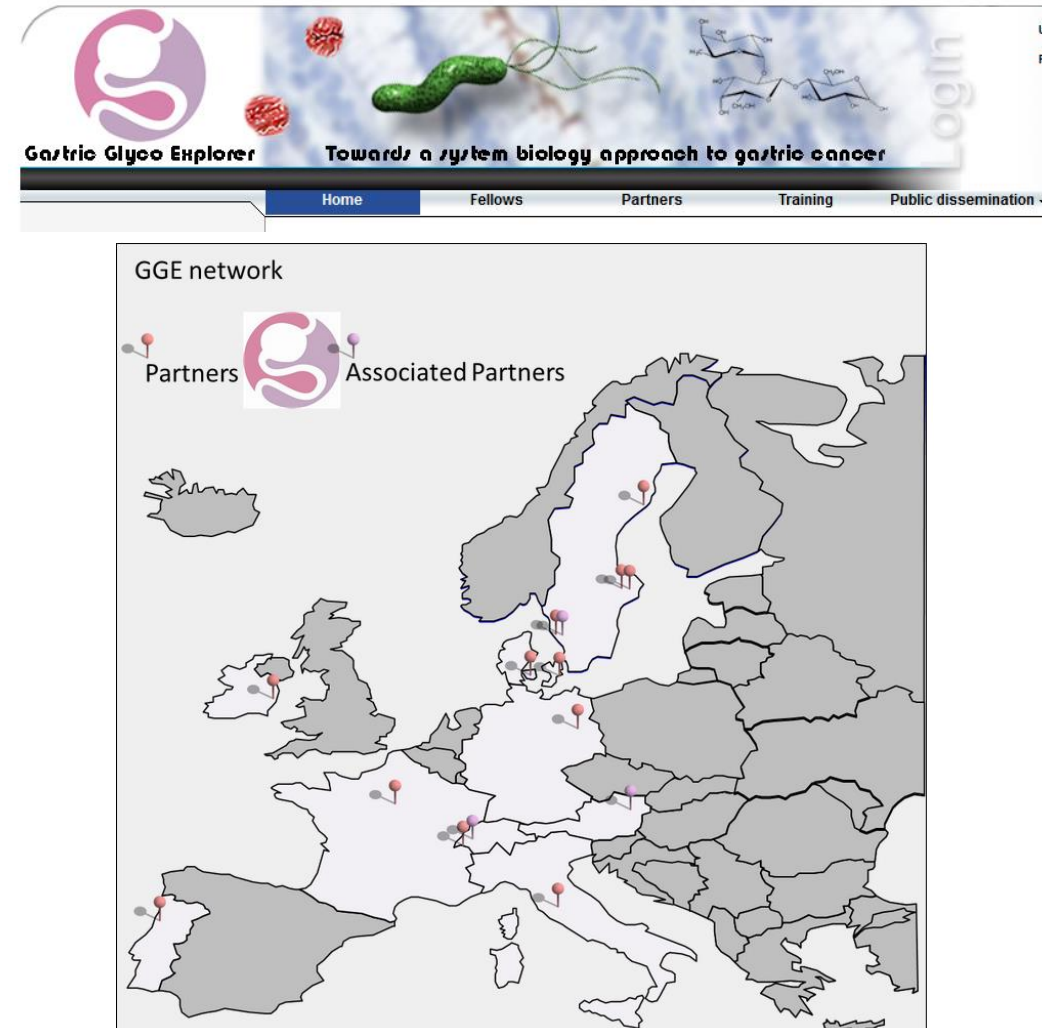
- **Layered training / workshop scheme** covering all relevant expertise to the theme (reviewer want to see the detail on taught elements: who where what)
- Best practice has a mix of leadership / career planning, basic science, methods innovation
- Must be relevant to all PhD's, not just a subset. Typically has domain specific knowledge

# Example 1: Glyco Gastric Explorer

*Typical doctoral network funded by Horizon 2020*

- **The goal of the network** is to establish a **platform** of glycobiology research in order to use combined efforts to analyze gastric cancer from a glycobiological point of view.
  - 1) **Treatment of Gastric Cancer:** Glycoproteins as potential drug targets, development of glycoprototypes
  - 2) **Detection and Diagnostics of Gastric Cancer:** Glycoproteins as biomarkers, development of novel analytical techniques
  - 3) **Data simulations, proof of concept of molecular events in Gastric Cancer:** Glycobioinformatics as source, development of databases for proof of concept
- **13 ambitious persons (PhD candidates)** are positioned at key research sites within glycobiology throughout Europe **to create capacity**
  - » **12 partners**, ( 6 universities, 4 research institutes, 2 SMEs) and 3 associated partners (SMEs: training online, communication etc)
  - » **University of Gothenburg (SE)** coordinator with 2 PhD, **9 EU countries**
- **NETOWRK training in:** glycobiology and associated methods

Basic glyco structures, associated data and ontologies/nomenclature. Biology of glycoproteins, methods



# Example 2: Towards a novel paradigm for cardiac function assessment from imaging

*Typical EU industrial doctorate network funded by Horizon 2020*



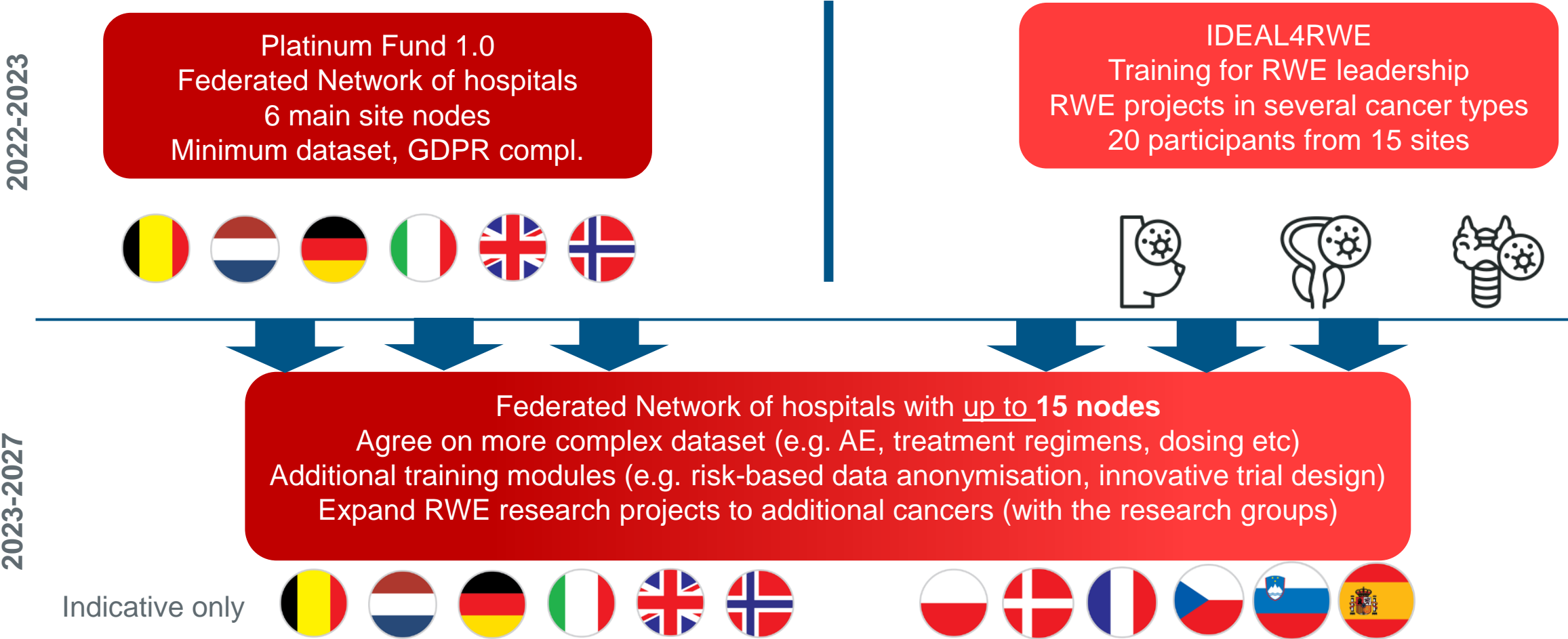
## Four PhDs

- **Individual research projects**
  - ✓ Longitudinal assessment of function
  - ✓ Fusion of heterogeneous measurements into physiological plausible representations;
  - ✓ Open reference databases/tools for multimodal validation of strain;
  - ✓ Novel approach for evidence based classification of heart failure etiologies.
- **Dedicated training initiatives** to develop an inter-sectorial and interdisciplinary culture
- **1 M€**
- **5 Workshops in scientific and technology topics**

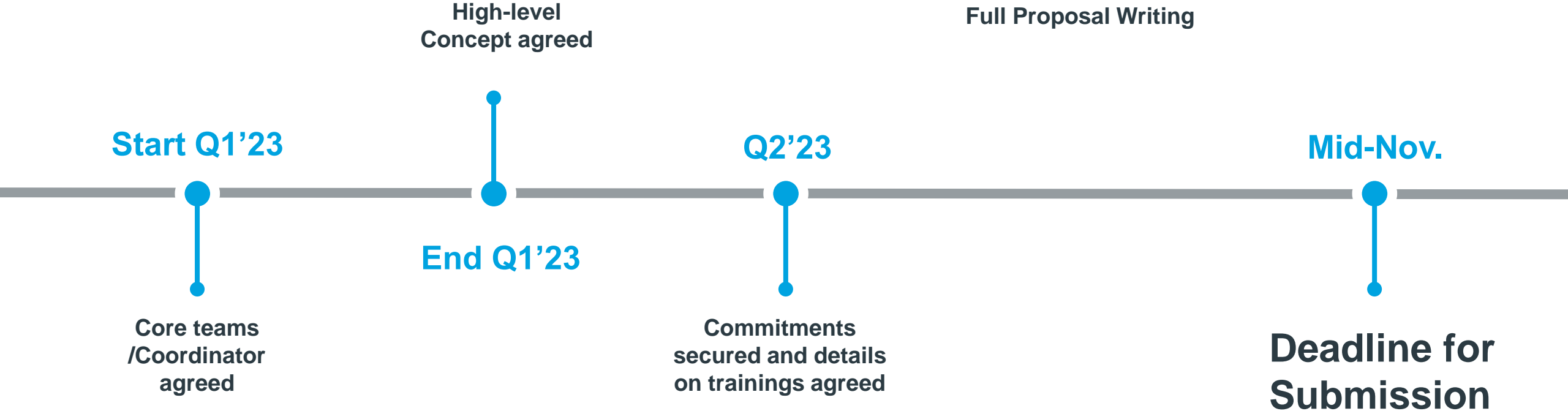


# How can we leverage DIGICORE programs to create a MSCA DN?

*Bring together technology and RWE research*



# What are the main milestones to prepare a MSCA DN bid?



# MSCA DN is an option to bring capacity and sustainability to both DIGICORE programs

*Some highlights as conclusion*

## Open topics



No predefined topics, allowing existing networks and already ongoing collaborations to easily apply within their main research priorities

## Competitive



Success rate is on the lower range of the EU calls, however strong projects combining innovation, interdisciplinarity and excellent training have good chances of being selected

## Feasible



The timelines for the 2023 call allow the ongoing DIGICORE pilots to provide evidence and carefully craft the proposal to respond to all requirements



**Thank you**

*Mariana.kuras@iqvia.com*