

SYS-LIFE

SYS-LIFE COFUND Online Launch Event

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UNIVERSITY
OF TURKU



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Summary

Introduction

The need for SYS-LIFE

University of Turku - Excellence in Research

- Excellent Infrastructure

- Platform for SYS-LIFE

What is MSCA COFUND?

UTU and COFUND – a Success Story

What does SYS-LIFE offer?

Programme requirements

Who can apply to SYS-LIFE?

Application requirements

The Need for SYS-LIFE

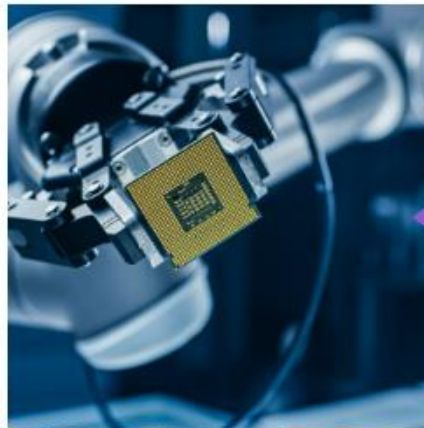
- **Cardiometabolic diseases and brain disorders account for over 48 % of mortality in the EU, costing millions of lost working years and more than €1.6 trillion in expenses every year.**
- **UTU has world class resources for research in these fields, inc. unique data sets and broad infrastructure**
- **Typically, postdocs in the EU do not have a steady job, research autonomy or career development support. Crossing boundaries to achieve breakthroughs can thus be risky.**

University of Turku (UTU) – Excellence in Research

- **UTU is a multidisciplinary, international, research-intensive, entrepreneurial university. It is solely responsible for the implementation of SYS-LIFE.**
- **8 research faculties: Science, Technology, Medicine, Social Sciences, Law, Education, Humanities and Turku School of Economics**
- **2 independent units: Turku PET Centre and Turku Bioscience.**
- **At national level, it is characterized by 6 strategic profiles for thematic collaboration. These advance multidisciplinary collaboration in research and education.**



Biodiversity and sustainability



Future technologies and digital society



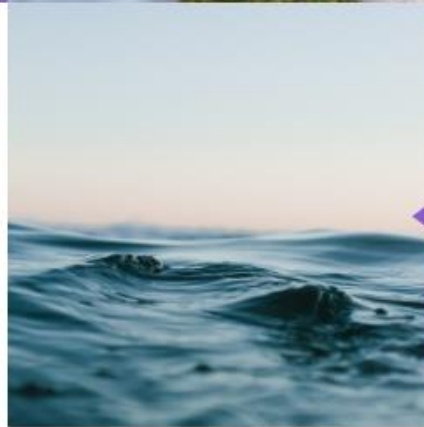
Cultural memory and social change



Children, young people and learning



Health, diagnostics and drug development



Sea and maritime studies

- UTU maintains comprehensive Open Science, equality, ethics and intellectual property rights (IPR) policies
- Numerous partners in different sectors
- HR Excellence in Research award
- High-quality research infrastructure, equipment and services, including a EURAXESS Service Centre
- Main campus area facilities are located in central Turku, Finland



UTU Collegia – Excellence in Research

- UTU's 2 Collegia are based on a model established in Princeton in 1930, Institutes for Advanced Study represent the prime model of excellence for 'bottom-up' interdisciplinary research.
- Turku Collegium of Science, Medicine and Technology (3 UTU faculties).
- Turku Institute for Advanced Studies (serving UTU's 5 remaining faculties).
- Collegia serve as UTU's locus for excellent and interdisciplinary research
- They recruit excellent early and mid-career ERs by open competition, based on international peer-review.
- Researchers are located within UTU's departments, serving to maintain their connection with disciplinary colleagues.

This model forms the basis for SYS-LIFE

UTU – Excellent Infrastructure

- World-renowned social, psychological and medical databases, including the 7 unique, decades-long multigenerational population cohort studies, curated by new **Centre for Population Health Research (POPC)**
- UTU's new Faculty of Technology (2021), with its **Digital Health Lab**, provides further expertise in e.g. data analytics, artificial intelligence and machine learning
- **Turku PET Centre** is an international leader in the field of medical imaging. Its technical assets include:
 - Large array of imaging tracers, including 19 hot cells for GMP and non-GMP tracer production
 - Large array of scanners, inc. new Next generation simultaneous total-body PET scanner
 - Extensive image database

UTU – Excellent Infrastructure

- **Turku Bioscience:** services, core facilities and research expertise in genomics, single-cell omics, metabolomics, biological imaging (with specialist support for High Throughput (HT) microscopy, proteomics, chemical screening, genome editing, disease modelling and bioinformatics).
- UTU also hosts the **Euro-Bioimaging** headquarters (European Research Infrastructure).
- UTU also coordinates two Academy of Finland research flagships:
 - (i) *Innovation Ecosystem Based on the Immune System (InFLAMES, €10M)*
 - (ii) *Inequalities, Interventions, and New Welfare State (INVEST, €8.25M)*

SYS-LIFE offers researchers the chance to exploit these cutting-edge facilities

Core Expertise & Facilities

- Population Cohorts
- Bioimaging and PET
- Digital Health Lab
- Bioinformatics
- Biobanks
- Behavioural Studies
- Artificial Intelligence
- Omics
- Disease Modelling
- Drug Development
- EU Infrastructures

University of Turku and Partners
Medicine, Science, Technology

Interdisciplinary Collegium - Platform for Research and Training Excellence

**Scientific Discoveries
inc. Interventions,
Diagnostics & Treatments**

**Career
Development**

**Commercial
Innovations**

**Knowledge
Exchange**

Renewal of Research

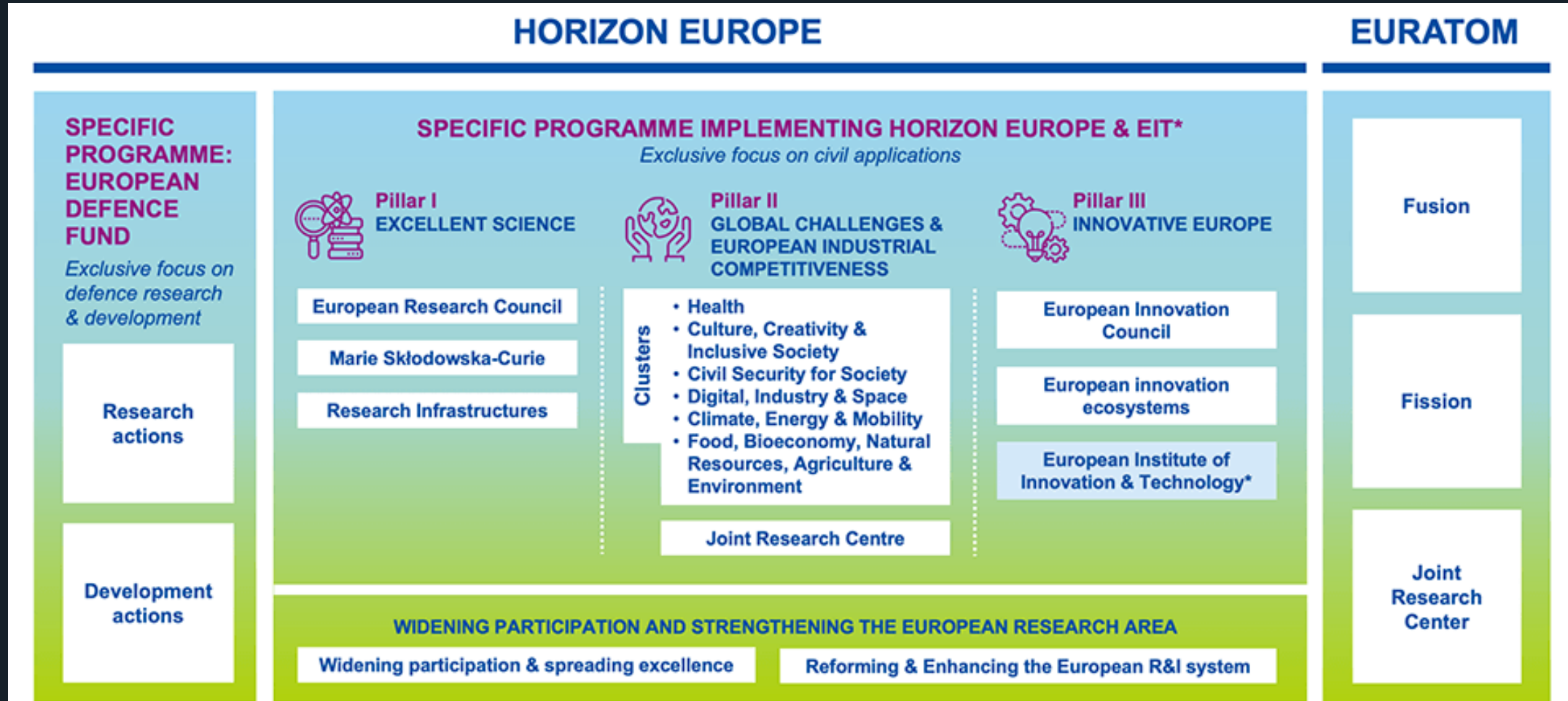
**Leaders of
Tomorrow**

Economic Growth

Added-Value

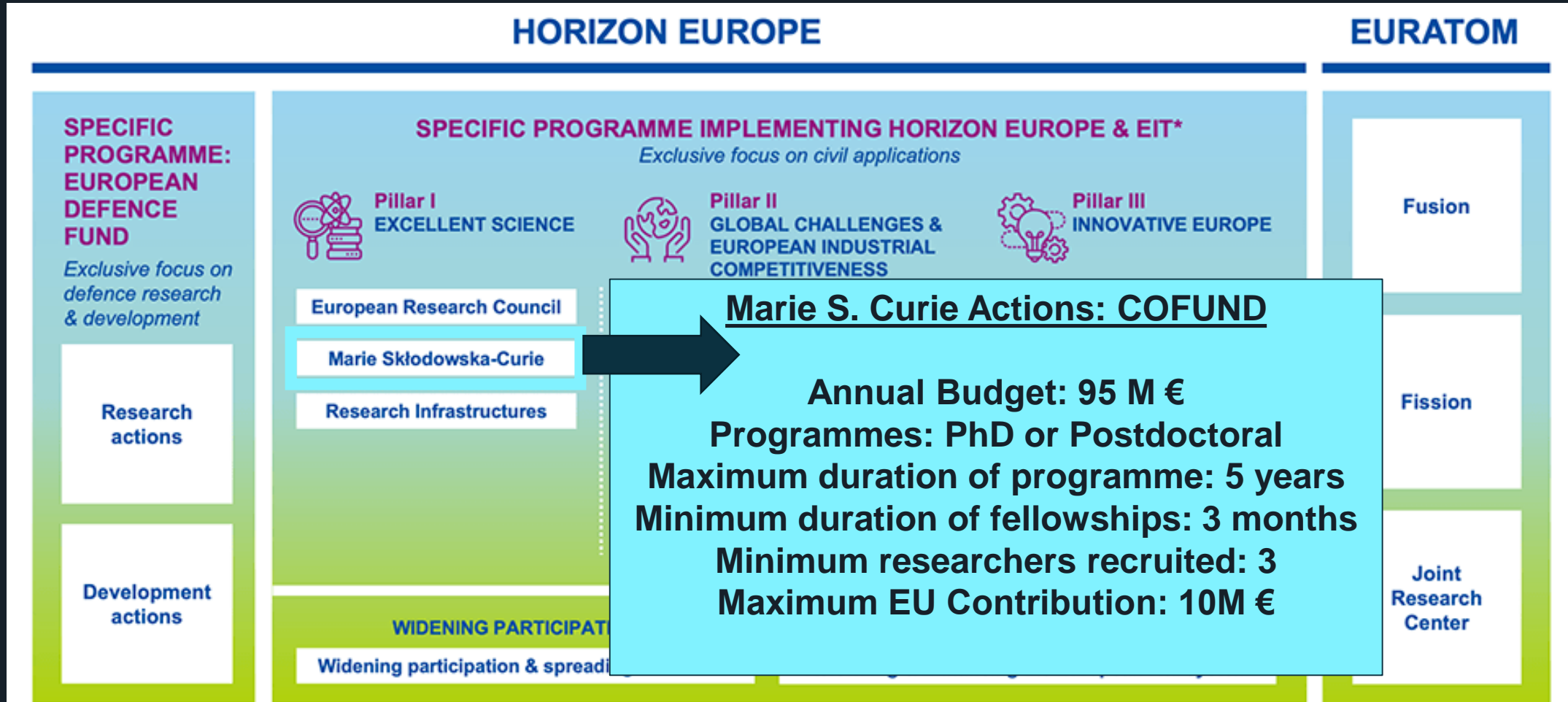
Improved CARDIOMETABOLIC and BRAIN HEALTH

What is MSCA COFUND?



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UTU and COFUND – a success story

Since 2022, UTU has launched with 3 successful COFUND projects

1. Turku Intersectoral Excellence Scheme (TIES: Postdoc 2022):

- Based at TIAS Collegium
- 8 Postdoc positions
- Research must address problems affecting society outside academia (private, public and not-for profit)

2. Solutions for Green and Digital Transition (GreDiT: PhD 2023)

- Based in UTUGS (faculties of Technology, Natural Science & Turku School of Economics)
- 25 PhD positions
- Training ecosystem to develop as experts able to bring about transformative change

3. Systemic approaches to improve cardiometabolic and brain health during lifespan (SYS-LIFE: Postdoc 2023)

- Based in UTU Collegia (faculties of Medicine (inc. behavioural sciences), Technology, Natural Science)
- 22 Postdoc positions
- Research must aim to improve cardiometabolic and/or brain health
- Research must engage with the core research expertise of the University of Turku

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What does SYS-LIFE offer?

- **22 full-time research positions, recruited over 2 annual calls (2023-4 & 2024-5)**
- **36 month role, inc. secondment option – max. 12 months outside UTU**
- **Applies Bottom-Up Excellence Model of UTU Collegia. SYS-LIFE researchers:**
 - *Design and lead innovative projects to improve cardiometabolic and brain health*
 - *Meet regularly as a group to share learning and perspectives*
- **Career Planning: Skills gaps identified and addressed by group or individual training**
- **Secondments and other support available by mutual agreement from partners:**



requirement =)



- ✓ Full-time dedication (1,612 hours per year)
- ✓ Create and maintain a Personal Career Development Plan with Mentor
- ✓ Create and maintain a Data Management Plan
- ✓ Open Science publication requirement (whenever possible)
- ✓ All research data managed using FAIR principles (Findable, Accessible, Interoperable, Reusable)
- ✓ Compliance with UTU policies and with local law
- ✓ Participation at SYS-LIFE events


During the Programme

- ✓ Each researcher will be assigned a department supervisor, a mentor, and if necessary a secondment supervisor
- ✓ Development Plans prepared with mentors and formalised with supervisors
- ✓ Skills gaps identified in Plan addressed through group or individual training

- ✓ 12 SYS-LIFE meetings will be convened per year, on-site or off-site
- ✓ These can include group training and presentations by researchers or partners
- ✓ SYS-LIFE Induction Week will offer an overview and basic skills training
- ✓ Annual international Summer School for training & networking

- ✓ Of their annual work load of 1,612 hours, researchers may choose to undertake:
 - Teaching activities (inc. thesis supervision) up to a maximum of 5%
 - Other academic and administrative duties up to a maximum of 5%

Who can apply to 'SYS-LIFE'

- ✓ **Must possess a doctoral degree, awarded no longer than 8 years prior to the call deadline**
- ✓ **Can be of any nationality**
- ✓ **Must NOT have resided or performed main activity (e.g. work, studies) in Finland for more than 12 of the 36 months before Call deadline (MSCA Mobility Rule)** 
- ✓ **Returning residents of Finland are eligible**
- ✓ **Must possess at least one Letter of Support from a host unit at UTU**

Application Requirements

- ✓ **Completed application package submitted, in English, by the call deadline**
- ✓ **Research must aim to improve cardiometabolic and/or brain health**
- ✓ **Research must engage with the University's core research expertise.**
- ✓ **Must comply with UTU policies (including those on research ethics) and with local law**

SYS-LIFE

SYS-LIFE encourages approaches that are:

- ✓ **Interdisciplinary (draw from methods across STEM and beyond)**
- ✓ **Intersectoral (engage knowledge and resources outside academia)**
- ✓ **Systemic (whole-body vision, connecting organs, diseases or systems)**
- ✓ **Longitudinal (relate to multiple points in the human life-cycle)**

SYS-LIFE also encourages applications that:

- ✓ **Demonstrate a clear strategic fit within UTU and SYS-LIFE**
- ✓ **Exercise further mobility across international borders**
- ✓ **Exploit and connect European and national research infrastructures**
- ✓ **Take advantage of the extensive social, psychological and medical databases of UTU and its partners**
- ✓ **Make use of UTU's cutting-edge facilities for acquisition and analysis of new data**
- ✓ **Plan for innovation and translational medicine, taking a 'bench to bedside' approach**

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