

Developing a multi-omic toolbox for personalised medicine



Participants

EATRIS-ERIC	NL
Palacký University Olomouc	CZ
Madrid Health Service	ES
University of Helsinki	FI
Integrated Biobank Of Luxembourg	LU
Radboud University Medical Center	NL
University of Ljubljana	SI
Trinity College Dublin	IE
Riga Stradins University	LV
Uppsala University	SE
Technical University of Munich	DE
European Patients Forum	LU
Vall D'Hebron Research Institute	ES
CEA-NeurATRIS	FR
Italian National Institute of Health	IT
University Of Oslo	NO
BIOCAT	ES
INFARMED	PT
Sofia University	BG
University of Zagreb School of Medicine	HR



Coordinator: EATRIS-ERIC: European Infrastructure for Translational Medicine



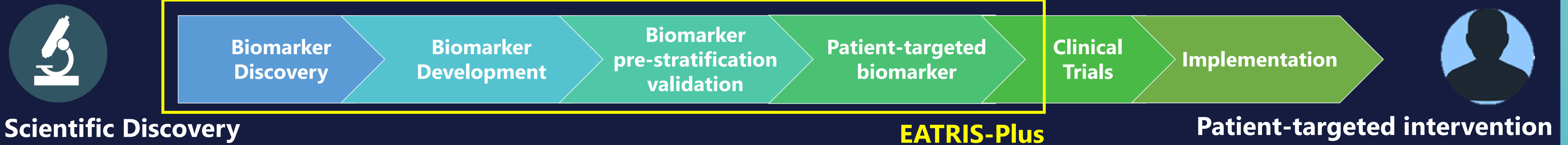
Objectives

To enhance EATRIS' long-term sustainability by maturing key capacities of the infrastructure and offering access to scientific tools and services to support personalised medicine.

1. To provide access to infrastructure tools and resources, including novel academia-industry collaboration models
2. To further strengthen EATRIS' operational practices and financial performance
3. To drive patient empowerment through active involvement in the research process
4. To build lasting partnerships with key stakeholders in the translational medicine field to facilitate the progress of personalised medicine



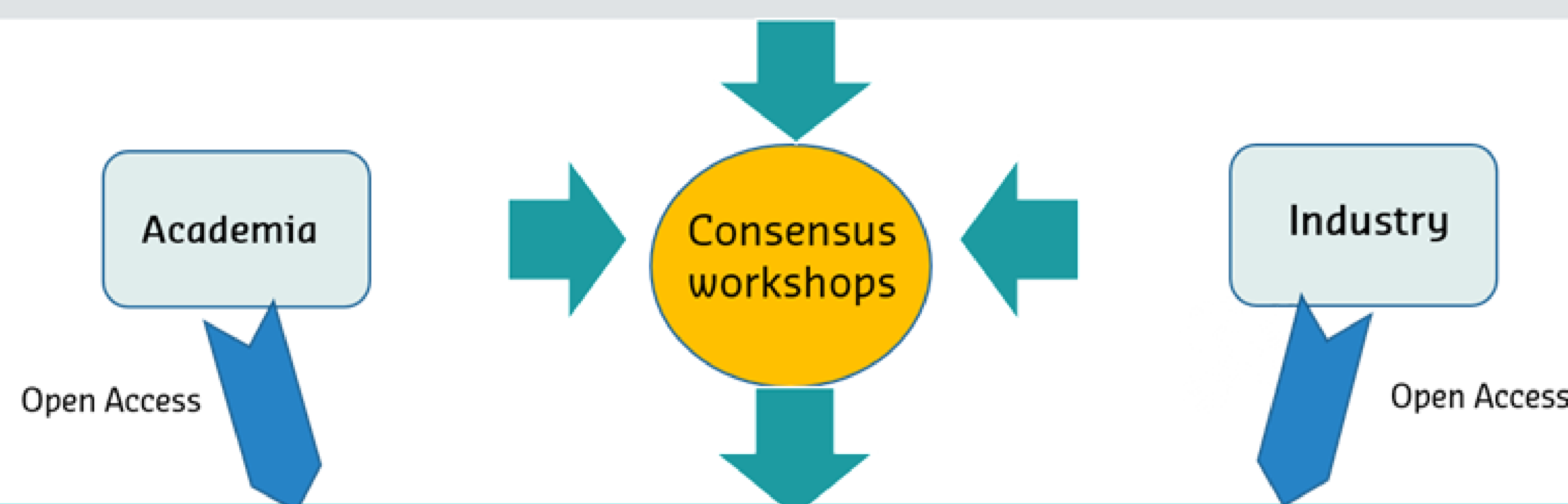
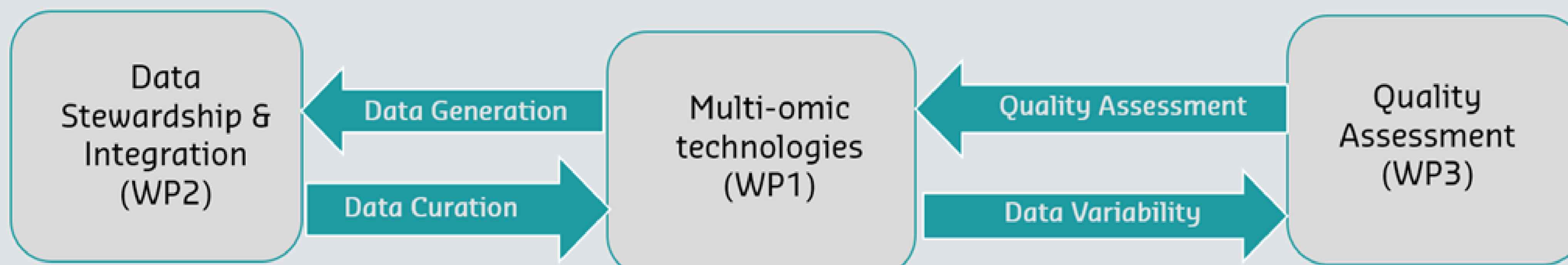
Scientific Scope



Activities Overview



Scientific tools



Multi-Omic Toolbox

- SOPs
- Guidelines for best practices
- Reference materials
- Quality parameters
- Analytical tools
- Criteria for reference values
- Troubleshooting guidelines
- Repository of multi-omic data

Cohort



- Established cohort of **1,109 healthy individuals** in Czechia upon whom **genomic sequencing** has been already performed.
- **Biological material and specific consent are already available** to the EATRIS-Plus consortium for performing omic studies.
- Creation an **open repository** of reference values (age and gender stratified), **accessible to the research community as part of the multi-omic toolbox** and meant to grow with additional multi-omic data.

Methods



- Genome Sequencing
- Epigenomic DNA methylation by Whole Genome Bisulfite Sequencing (WGBS) and/or DNA methylation array
- Transcriptomic RNA Sequencing
- MicroRNA sequencing
- Proteomic analysis
- Metabolomic analysis
- Data preprocessing analysis

Workshops and training



Online training (e-courses, webinars)

- Addressing current challenges in translational medicine and personalised healthcare
- Targeted to junior and senior researchers and SMEs as well as patient experts
- Free of charge

Yearly EATRIS Summer School (5-days)

- First edition: June 14-18th 2021, virtual
- Aimed at academics, health care professionals and industry participants

Workshops Best Practices in Public-Private Collaboration

- Two-day workshop delivered in September 2021 and 2022
- Plenary lectures
- Team exercises on real-life cases