

# Vanguard Initiative and the smart health pilot

Research & Innovation Transforming European Healthcare – 16 November 2023  
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**VANGUARD INITIATIVE**

# Vanguard Initiative

39 of the most advanced industrial regions in Europe leading by example in delivering growth and jobs through industry-led interregional cooperation, co-creation, and co-investment



# Vanguard Initiative methodology

## Learn

- Develop scoping note
- Mapping questionnaire
- Identify lead regions and actions

## Connect

- Matching events for complementary partners
- Developing demonstration cases

## Demonstrate

- Networked demonstration
- Pilot lines and first of a kind factories
- TRL 6-8

## Commercialise

- Launch of new ventures and start-ups
- New value chains
- TRL 9

Business & Investment Plans



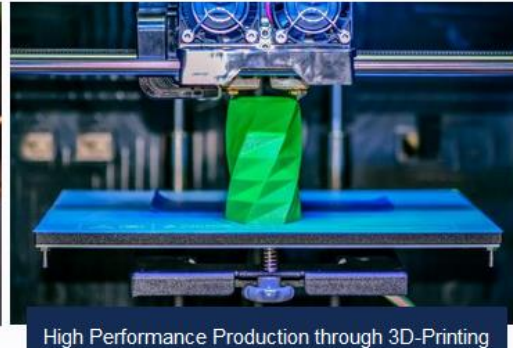
# Vanguard Initiative pilots



Bio-Economy



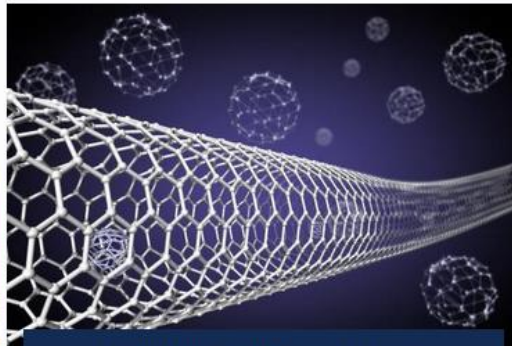
Efficient and Sustainable Manufacturing (ESM)



High Performance Production through 3D-Printing



Advanced Manufacturing for Energy Related Applications in Harsh Environments



New Nano-Enabled Products Pilot



Artificial Intelligence



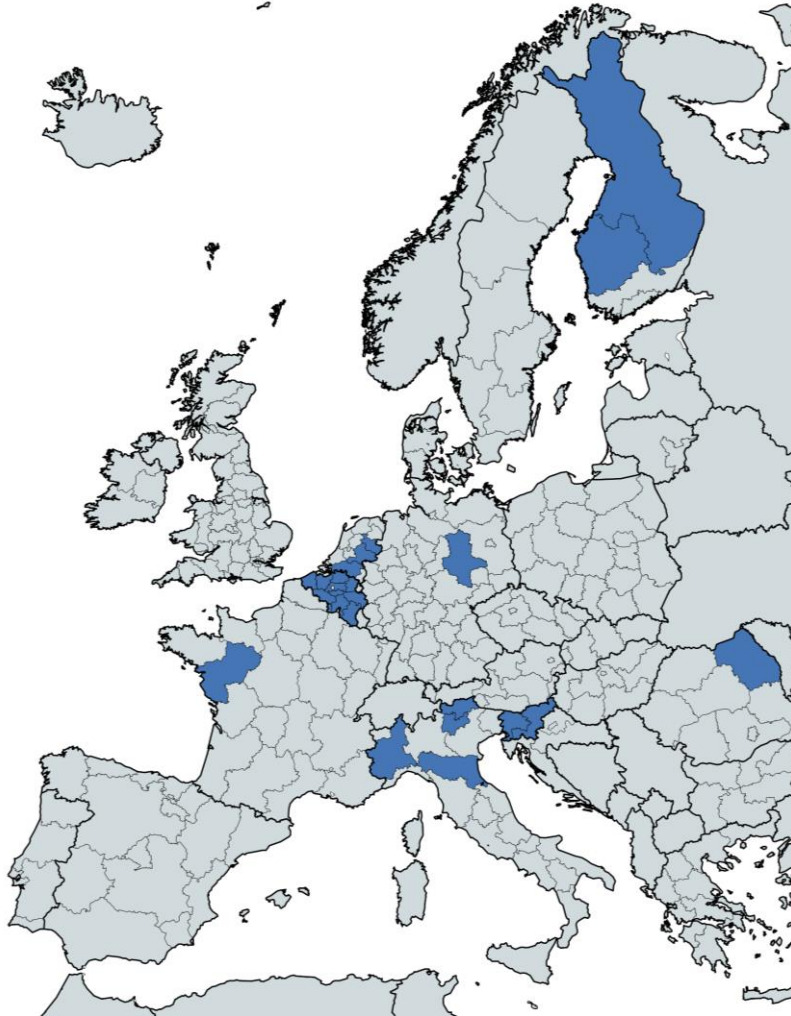
Smart Health/ Personalised Medicine

<https://www.s3vanguardinitiative.eu/pilots/our-pilots>



Hydrogen (H2)

# Vanguard Initiative Smart Health



- Flanders, South NL, East NL
- Emilia-Romagna, North-Est Romania, East & North Finland, Piedmont, Slovenia, Trento, Tampere, Wallonia, Autonomous Province of Bolzano/Bozen – South Tyrol, Pays de la Loire, Saxony-Anhalt, Catalonia
- EIT Health
- **Open for new regions**

Bring regional ecosystems together

Boost implementation of personalised medicine and smart health across Europe

Investable interregional co-creation projects

More info on:

<https://www.s3vanguardinitiative.eu/pilots/smart-health>

# Objectives

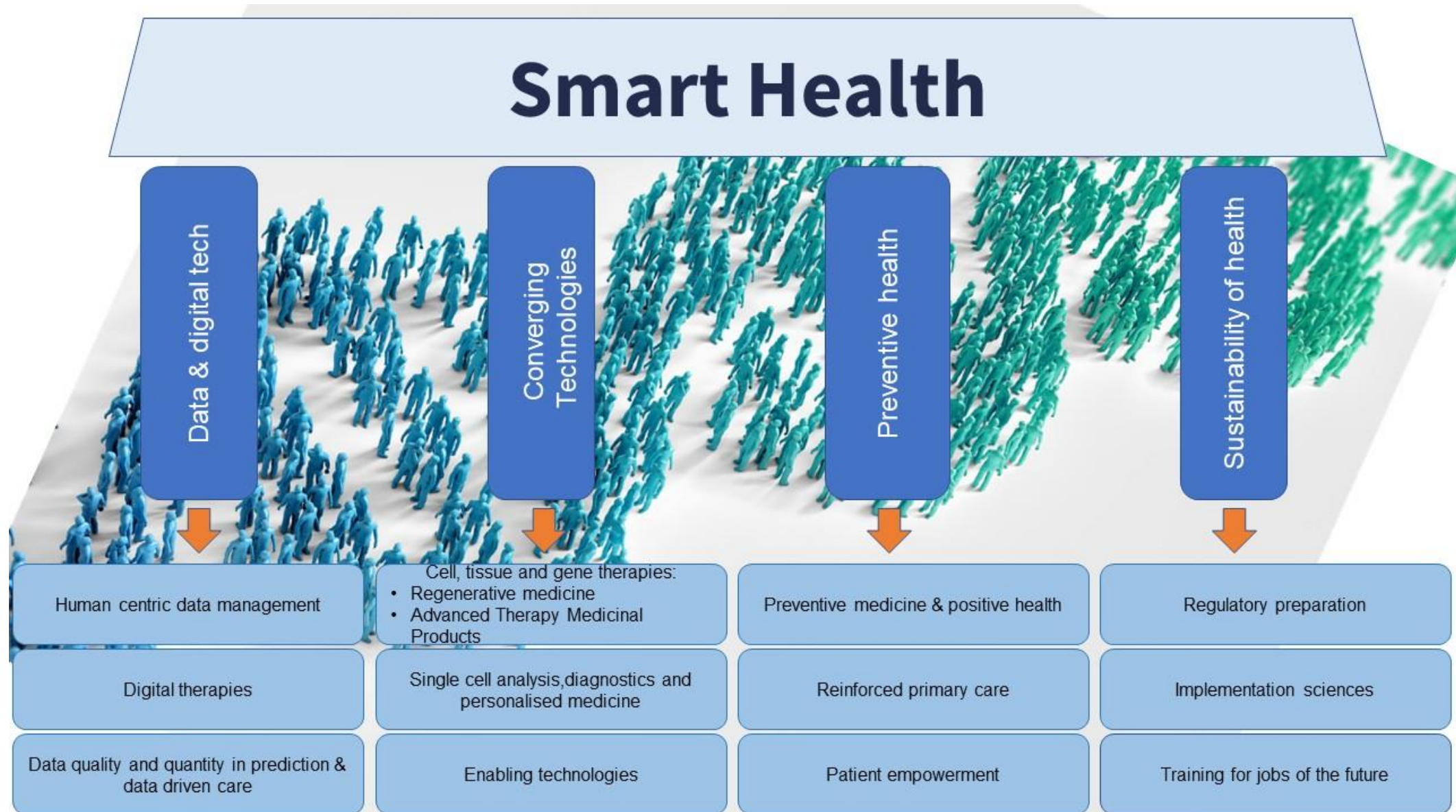
Transform the connected European value chains on ***Personalised Medicine (PM)*** and smart health, by combining biomedical, technological and data-driven expertise.

Figure 2: Vanguard Initiative methodology



Source: Vanguard website

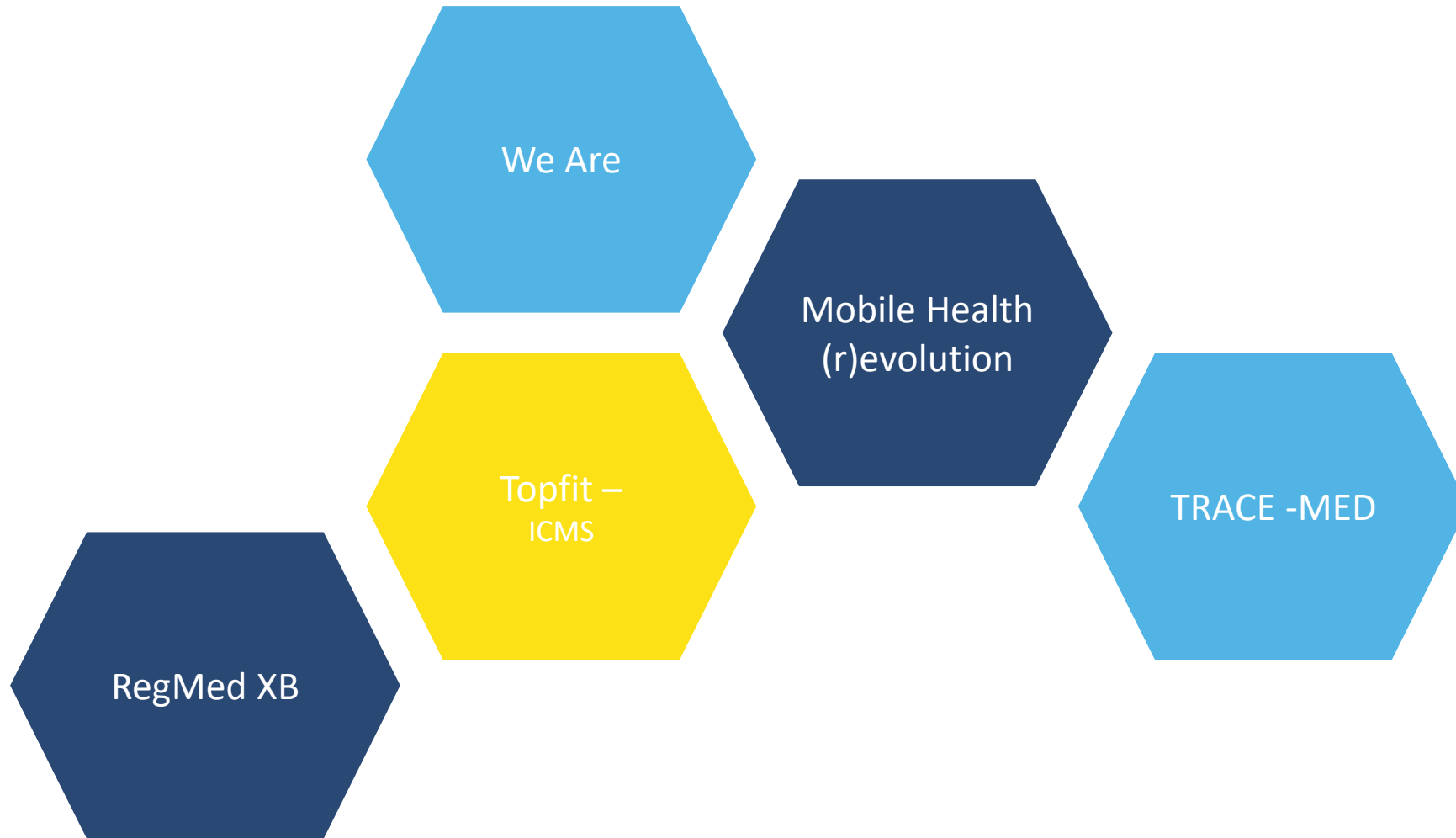
# VI Smart Health Scope



# Zoom on the Smart Health Pilot's demo cases



# Demo cases



# 'We Are – Personal Data Management Platform'

## Demo Case



- **Partners:** Flanders (BE), East Netherlands (NL), Oulu (SE)
- **Objective:** Empower citizens by creating personal data safes for health data using the inter-regional common platform 'SOLID'. Citizens can decide what can happen with their own data (personalised products, R&D innovation, etc.)

# 'TRACE-MED' Demo Case

## Inter-regional platform for new radiotracers development in personalized medicine

**Partners:** North East Romania Region, Emilia Romagna Region, Slovenia, POLATOM - National Centre for Nuclear Research – Poland

### OBJECTIVES:

- ✿ Create an eco-system covering **the entire value chain of the RP industry-from research & development to production** by breaking down existing silo's and fostering coordination.
- ✿ Coordinate the research activities across partnering facilities, thereby **reducing lead time and improving efficiencies.**
- ✿ Produce the **linker/carrier nanoparticle (np)** will help the platform to quickly bring onto the market new molecules (generates revenues) as it gains experience.
- ✿ **Patenting solution for the molecule+linker/carrier** allowing increasing revenues from license contracts (royalties).



**BUSINESS PLAN DEVELOPMENT**  
CONSORTIUM MEETINGS  
REVISIONS OF THE BP  
TAF EXPERT MEETINGS



HORIZON EURATOM CALL –  
PROJECT SELECTED FOR FUNDING  
+ GA SIGNED  
**SECURE - Strengthening the  
European Chain of sUPply for  
next generation medical  
RadionuclidEs**  
(Oct 2022 – Sep 2025)



COMPETITIVENESS OPERATIONAL  
PROGRAM – STRUCTURAL FUNDS  
**Regional Excellency  
Center for Personalized  
Diagnostic and Artificial  
Intelligence in Healthcare  
and Medical Imaging**  
proposal evaluated and accepted

# 'Mobile health (r)evolution Demo Case

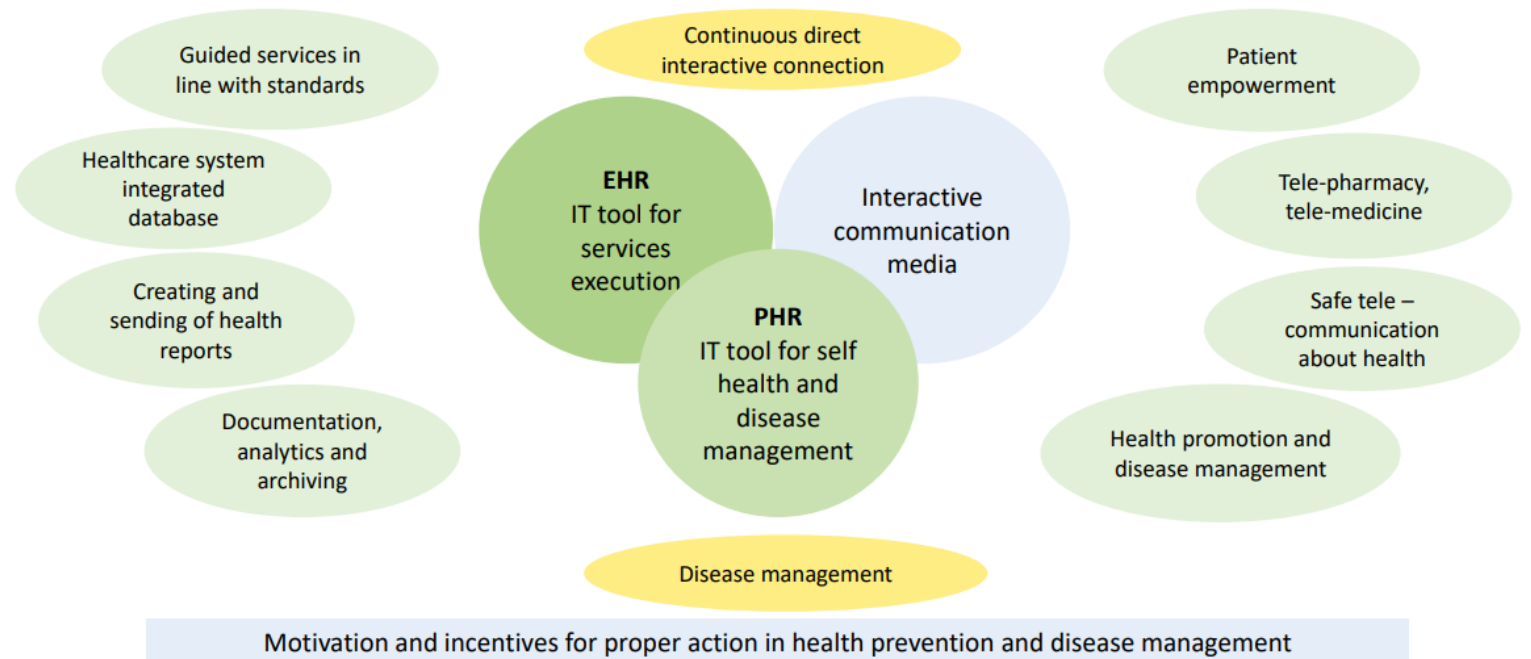
Advanced tools & advanced healthcare services for empowered and responsible patients

- **Involved partners:** Slovenian Innovation Hub, European Economic Interest Grouping, SRIP Health Medicine, RS Slovenia EIP on AHA lead by SME Health Lord

- **Objectives:**

- Improvement of healthcare by social innovation & ICT & communication innovation
- Mobile health management by an empowered citizen or his/her nurse/relative to ensure adherence to prescription, control of chronic diseases, safety and therefore more healthy years to live

Innovative combination – IT tool for healthcare services + interactive communication media



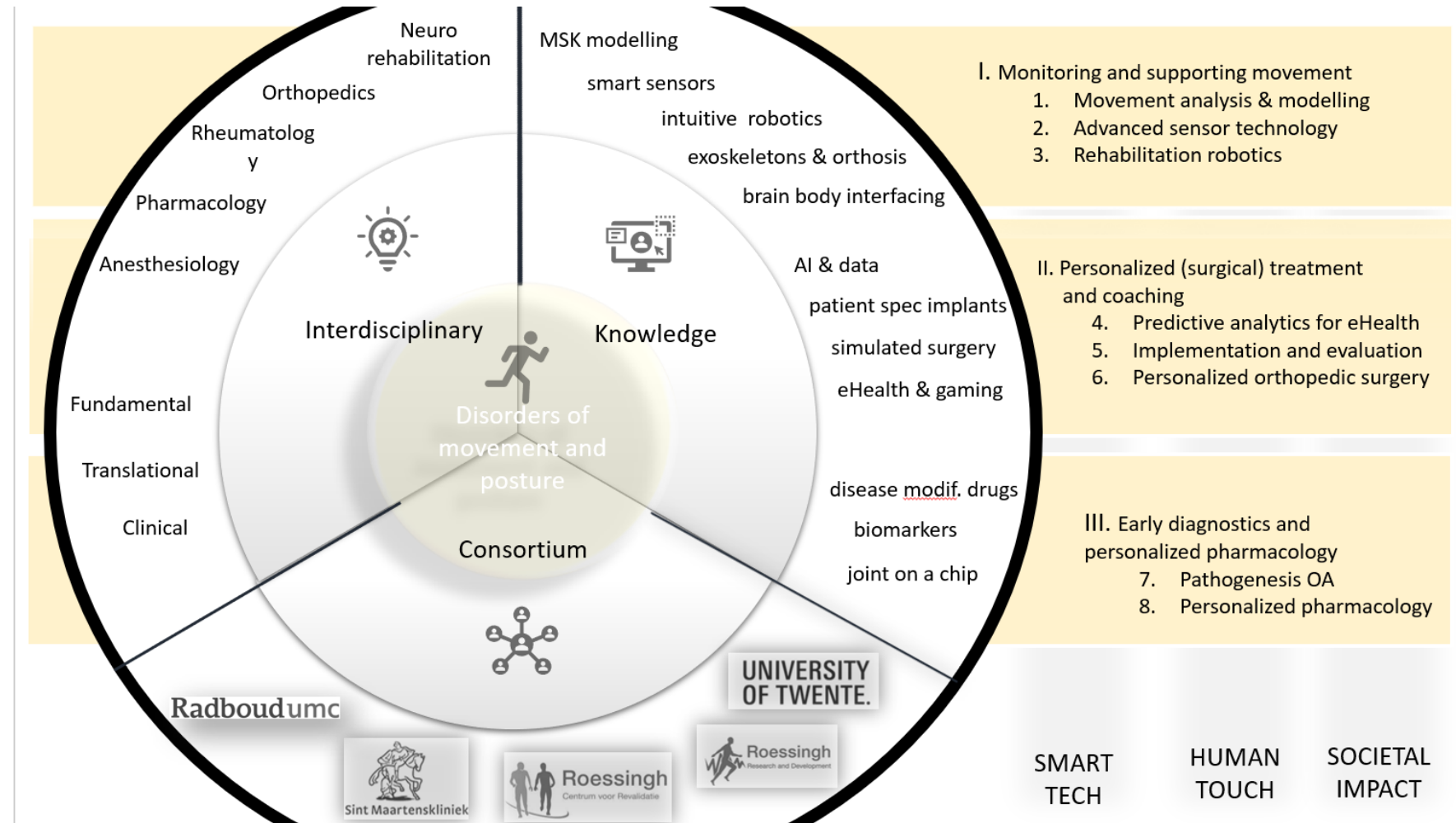
# TopFit - Interdisciplinary Consortium for clinical Movement Sciences & technology (ICMS)

## Mission:

ICMS is aimed at improving the quality of life and optimizing the independence and social participation of people suffering from postural and movement disorders through knowledge sharing and interdisciplinarity and making care future-proof, with specific attention to health care costs.

## Vision:

ICMS will be the European top center for scientific research, valorization activity and care innovation for patients with movement and posture disorders.



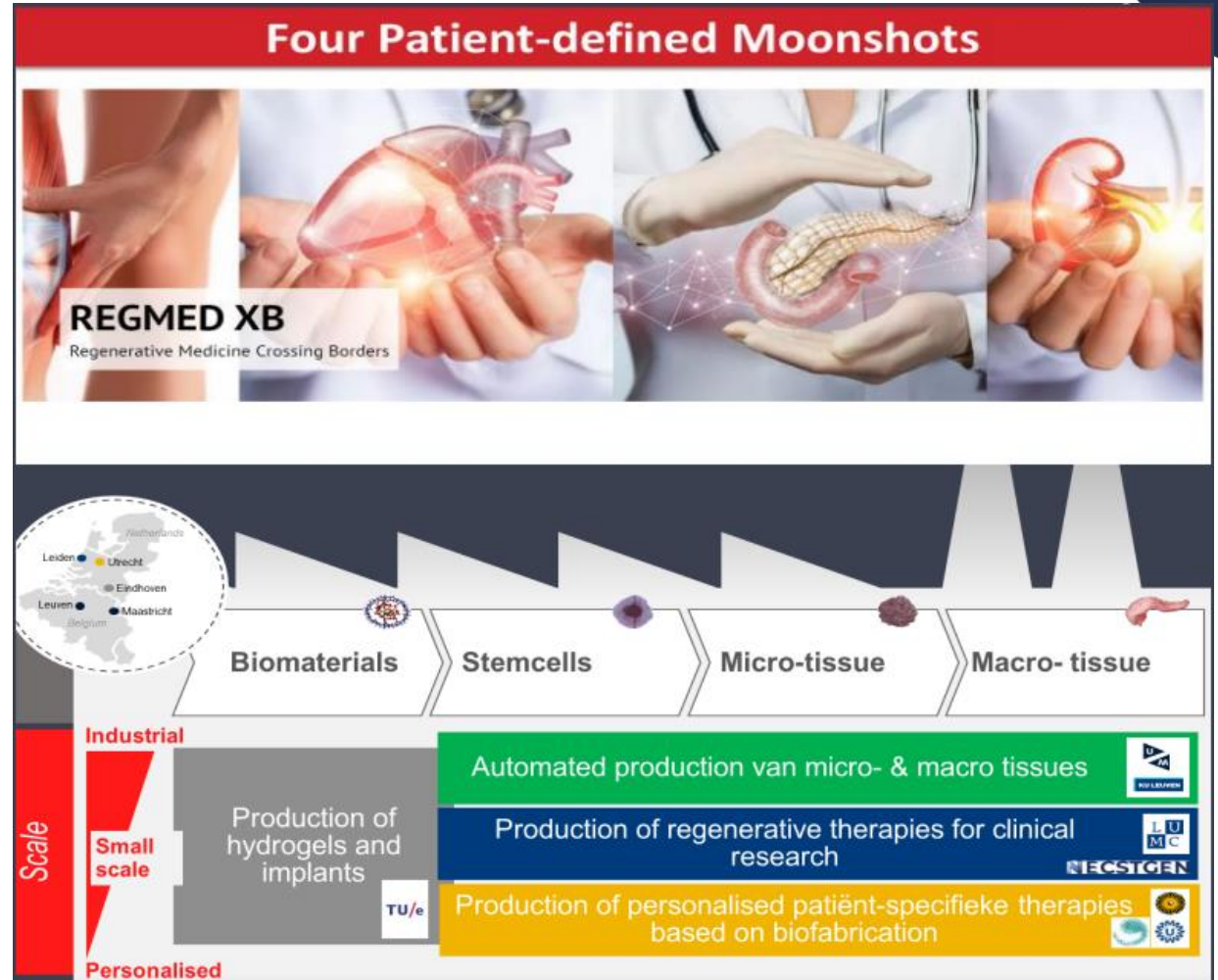
# RegMed XB

**Partners:** Public-private partnership in the Netherlands and Belgium (Flanders) dedicated to bringing **regenerative medicine solutions** to patients and creating a new industrial sector in the participating regions.

**Concept:** The development of industrial scale manufacturing platforms for the cost-effective production of organoid based tissue-engineered implants and organs which is a requirement to maximize patient access, while providing commercially viable products.

**Value proposition:** Development and production infrastructures through a **pilot factory** consisting of an ecosystem of pilot lines that support companies and research institutions in the development and valorisation of new therapies, production technology and production services

**Next steps:** Seeking specific partnerships: Technologies related to human size tissue assembly (3D Bio printing)



# Thank you!

