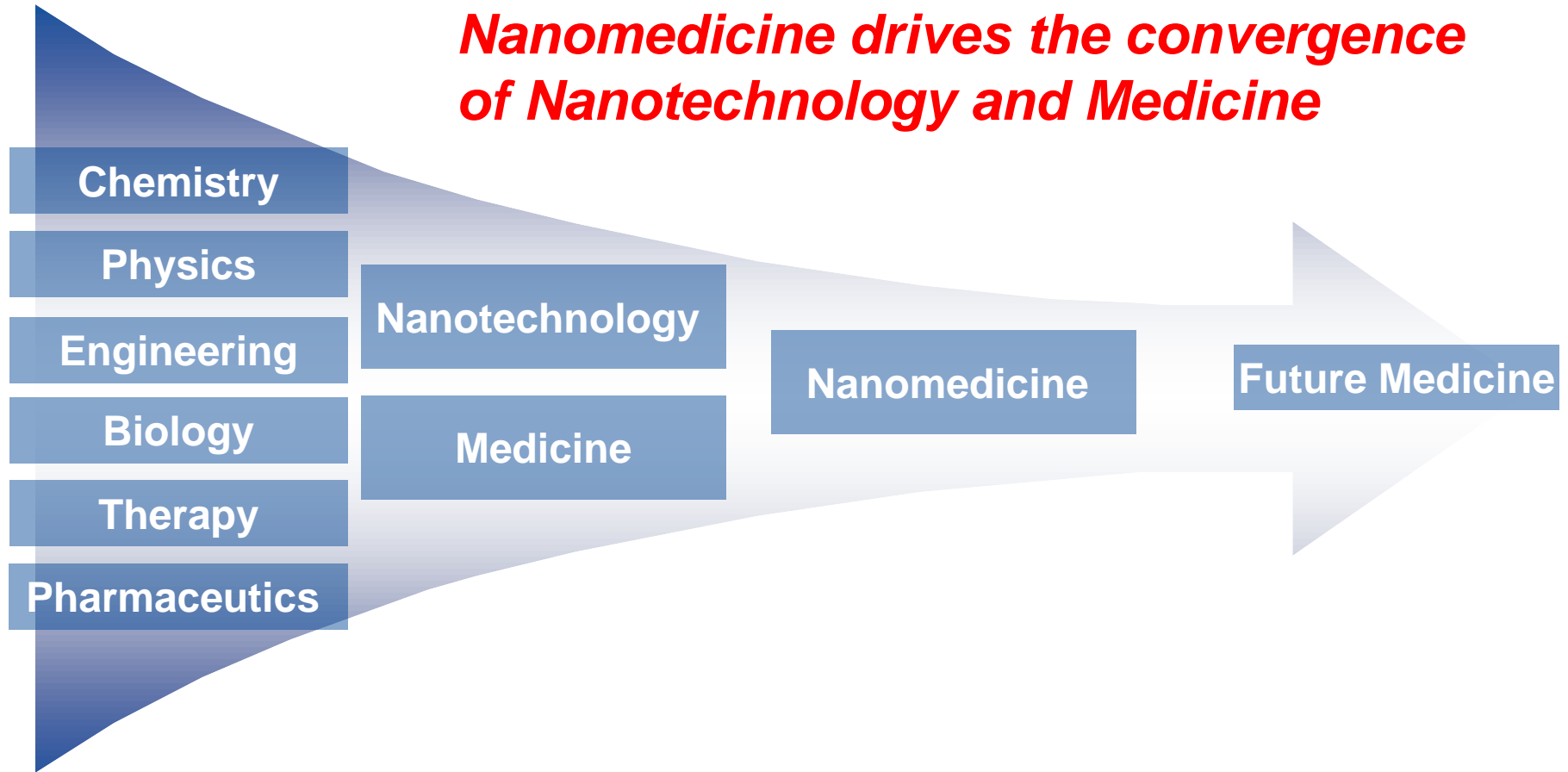


# The European Technology Platform Nanomedicine

*Defining future activities of Nanomedicine in Europe*

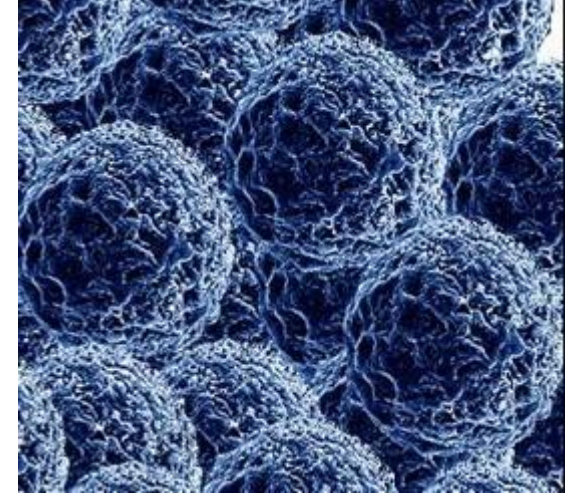
**Patrick BOISSEAU**  
**Programme Manager Nanomedicine, CEA-Leti, Grenoble (FR)**  
**Chair of Working Group Nanodiagnostics, ETPN**

# Nanomedicine a cooperative & converging approach



# Where is Nano **in** medicine

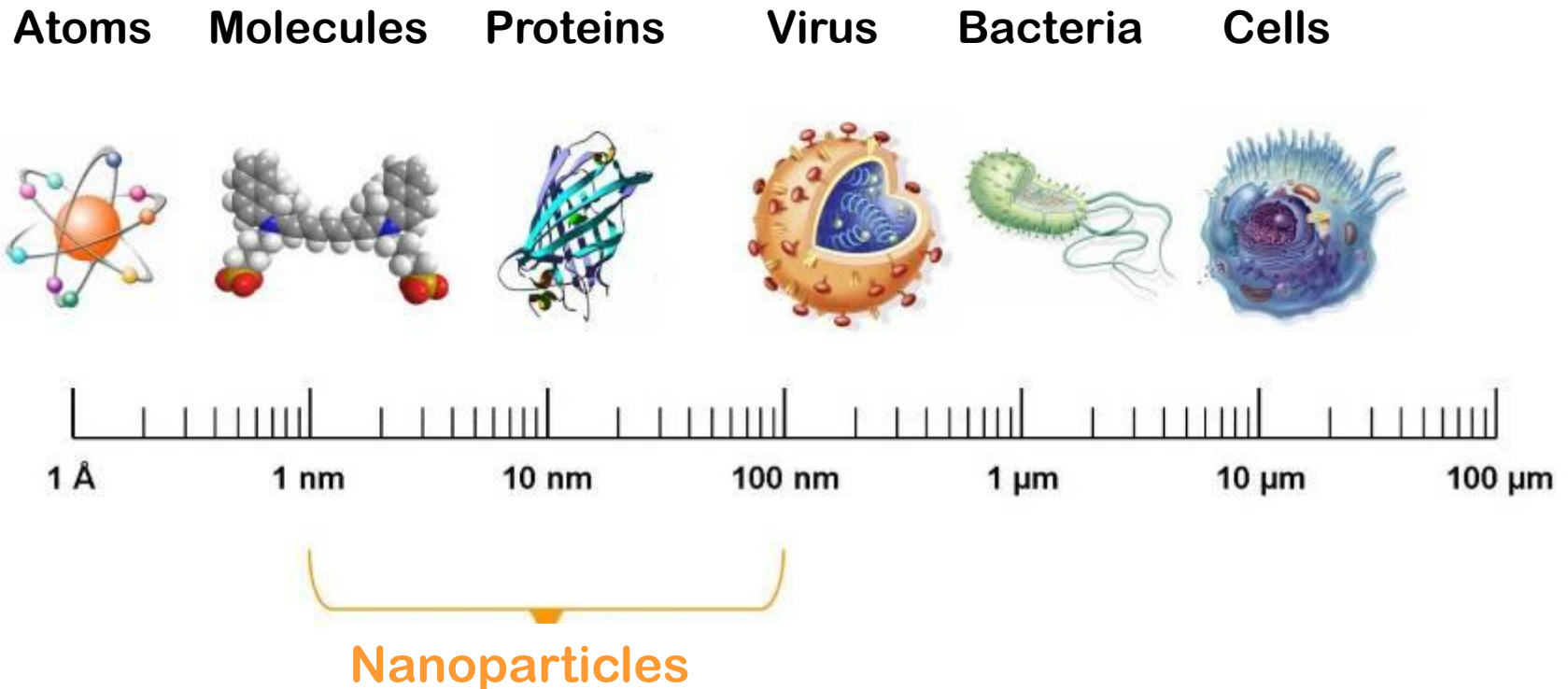
- **Nanoparticles in diagnostics and therapy**
- Nanoparticles for the delivery of drugs
- **Surfaces on implants**
- Materials in smart devices
- Scaffolds for cell and tissue engineering
- **Sensing platform**
- **POC devices**
- Medical Devices



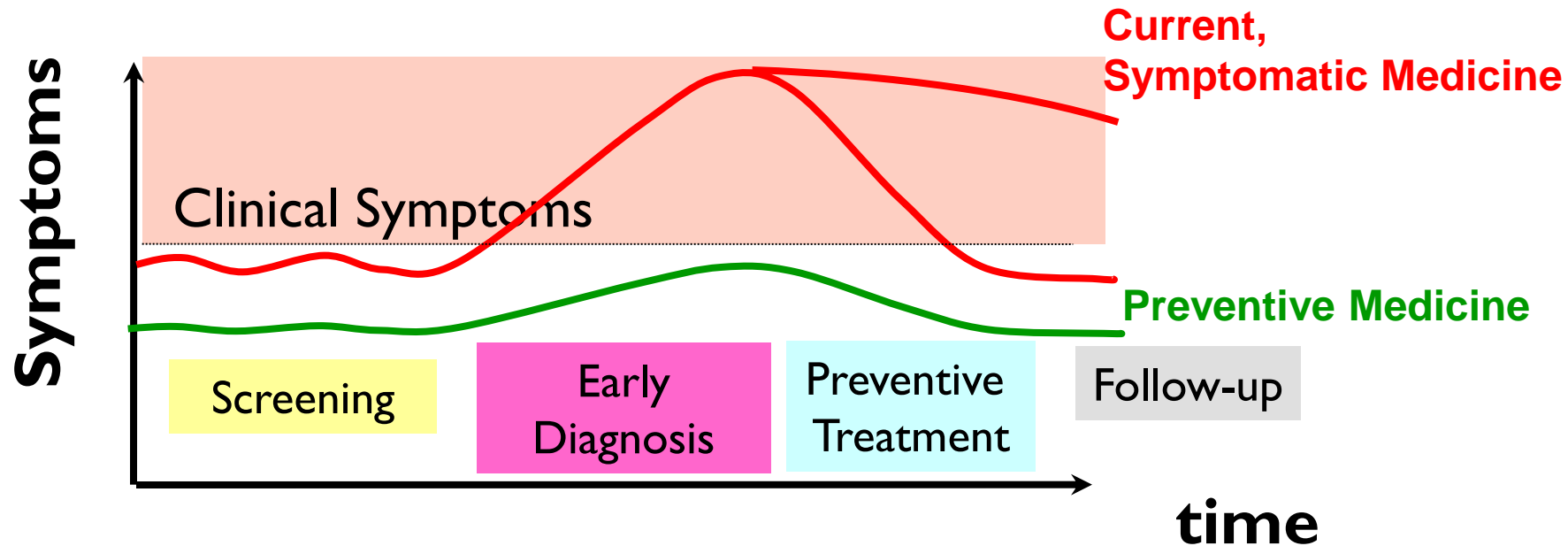
**➔ Nano is only part of the story, but ...**

# Nano - in the molecular range

**... it makes the story work!**



# Nanomedicine – key to diagnostic and preventive treatment



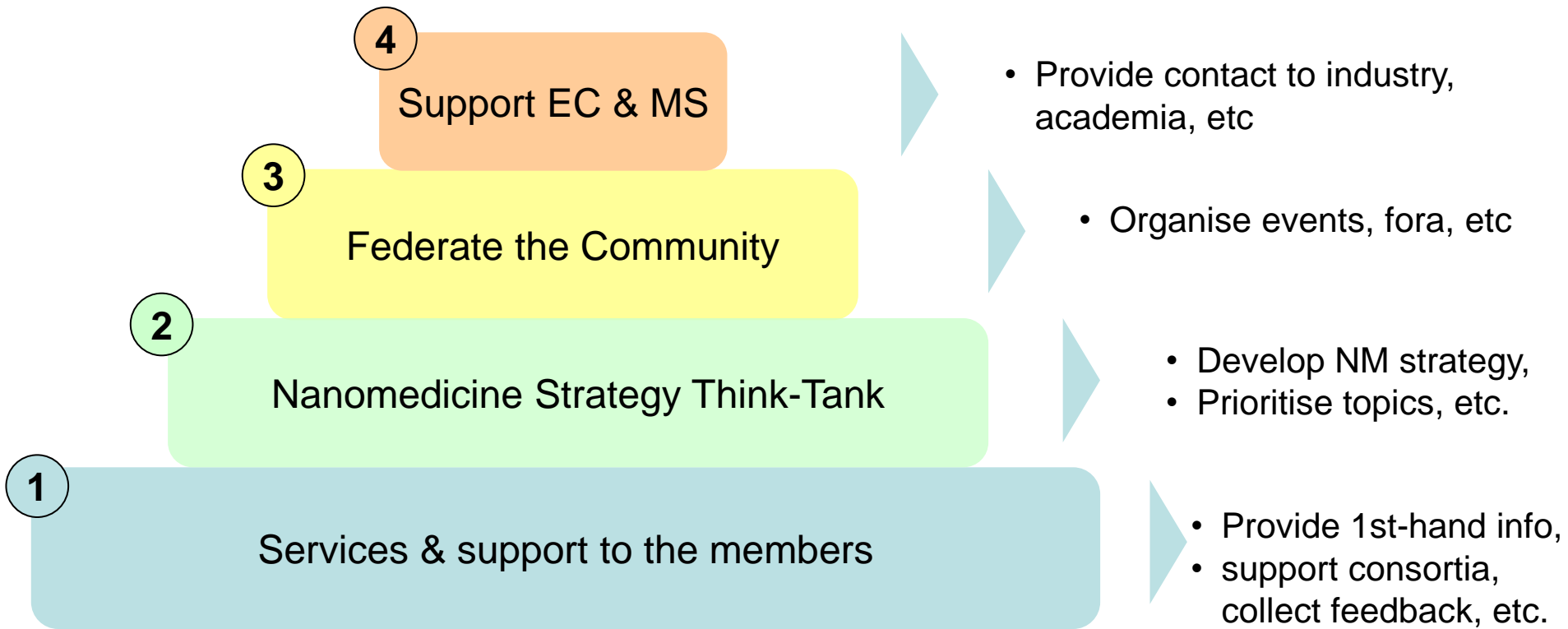
Through screening and diagnosis

- identify disease early
- earlier intervention

# ETPN Analysis of status quo: Many challenges!

- History of **lack of communication between Pharma & Academia**
- **Translational** capacity often **poor** (*Bench to Bed*)
- **Limited** number of **accessible safety labs**
- Poor respect of **GxPs**
- Poor translation from Academia to Industry if not relevant to market.
- **Paperwork & administration for FPx participation is tremendous**
- **Larger company** guidance is **essential for EC**
- Need to engage with best academics, this is also an industrial priority
- ...

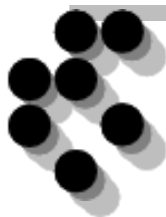
# Tasks of the ETPN



# The Basis of all: the ETPN member institutions



ISTITUTO ITALIANO  
DI TECNOLOGIA



reGenerate



Karlsruhe Institute of Technology

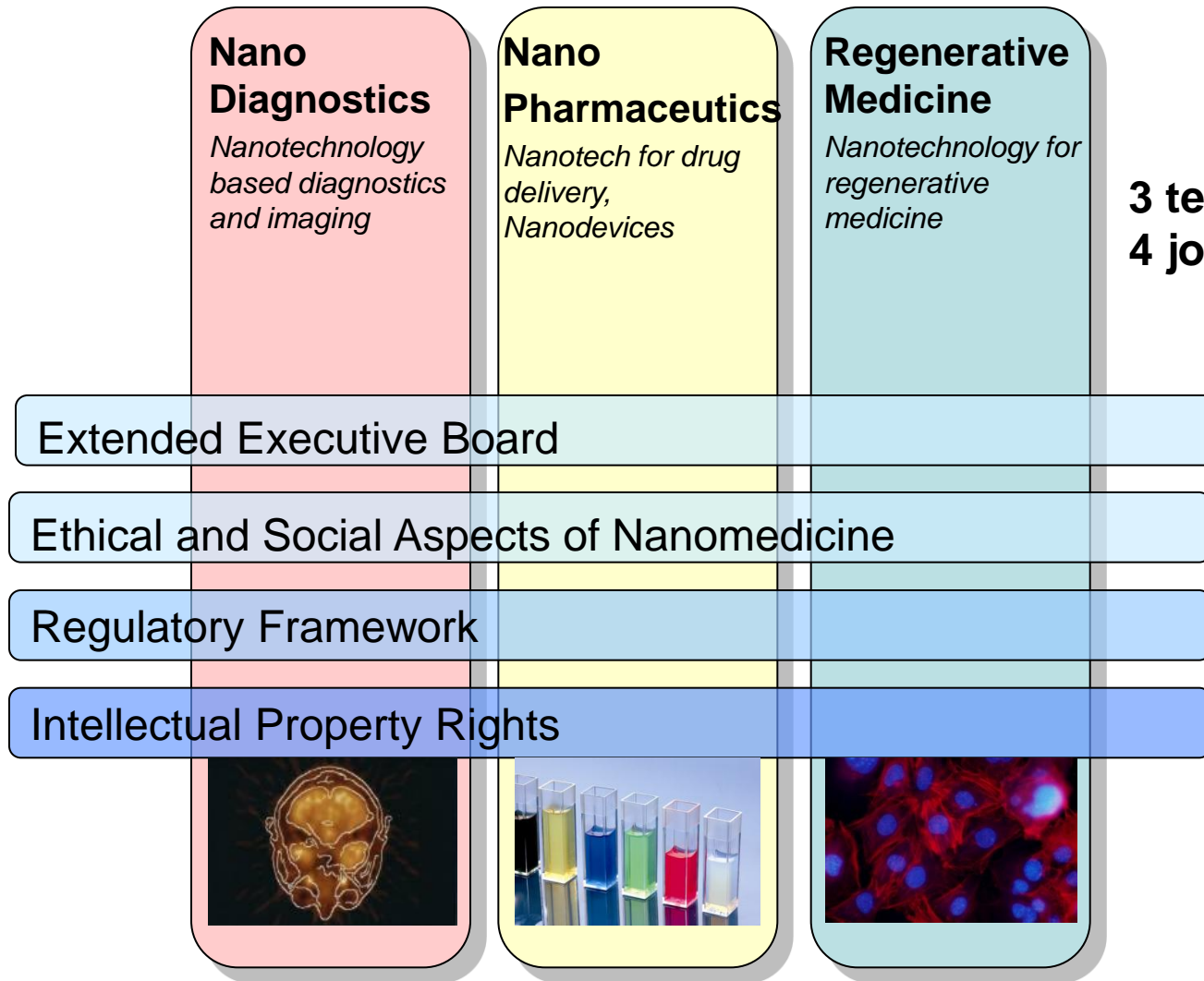


Centre d'Investigacions en  
Bioquímica i Biologia Molecular  
Nanomedicina





# The ETPN's structure



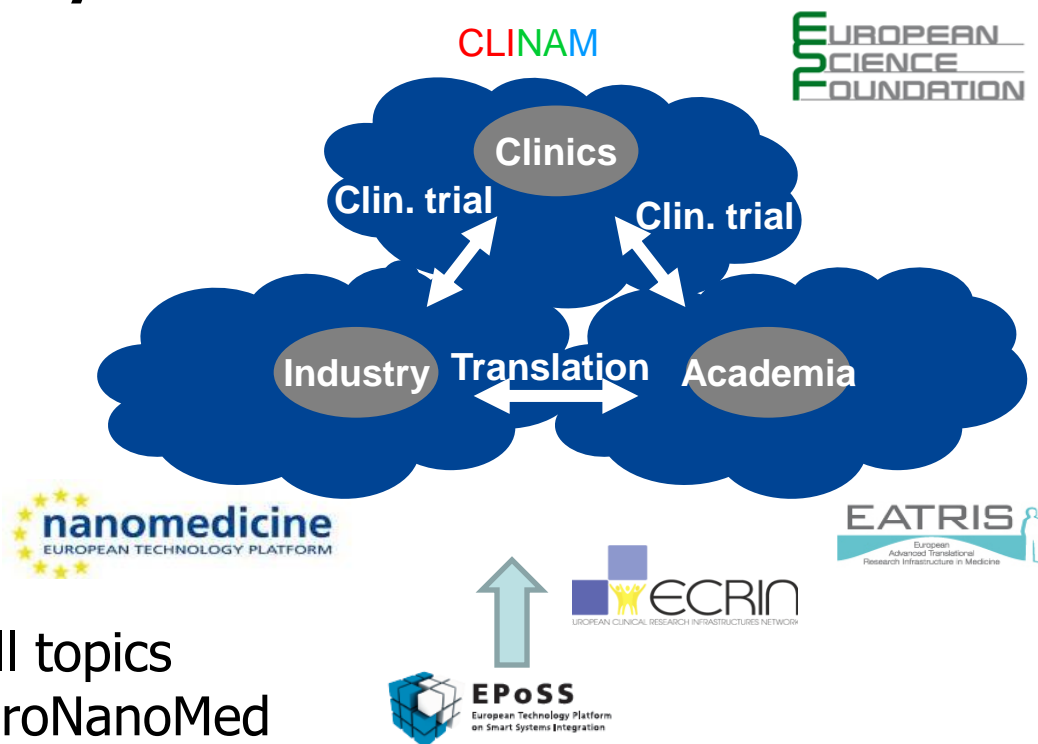
**3 technical Working Groups**  
**4 joint advisory groups**

# ETPN as mediator – the translation triangle

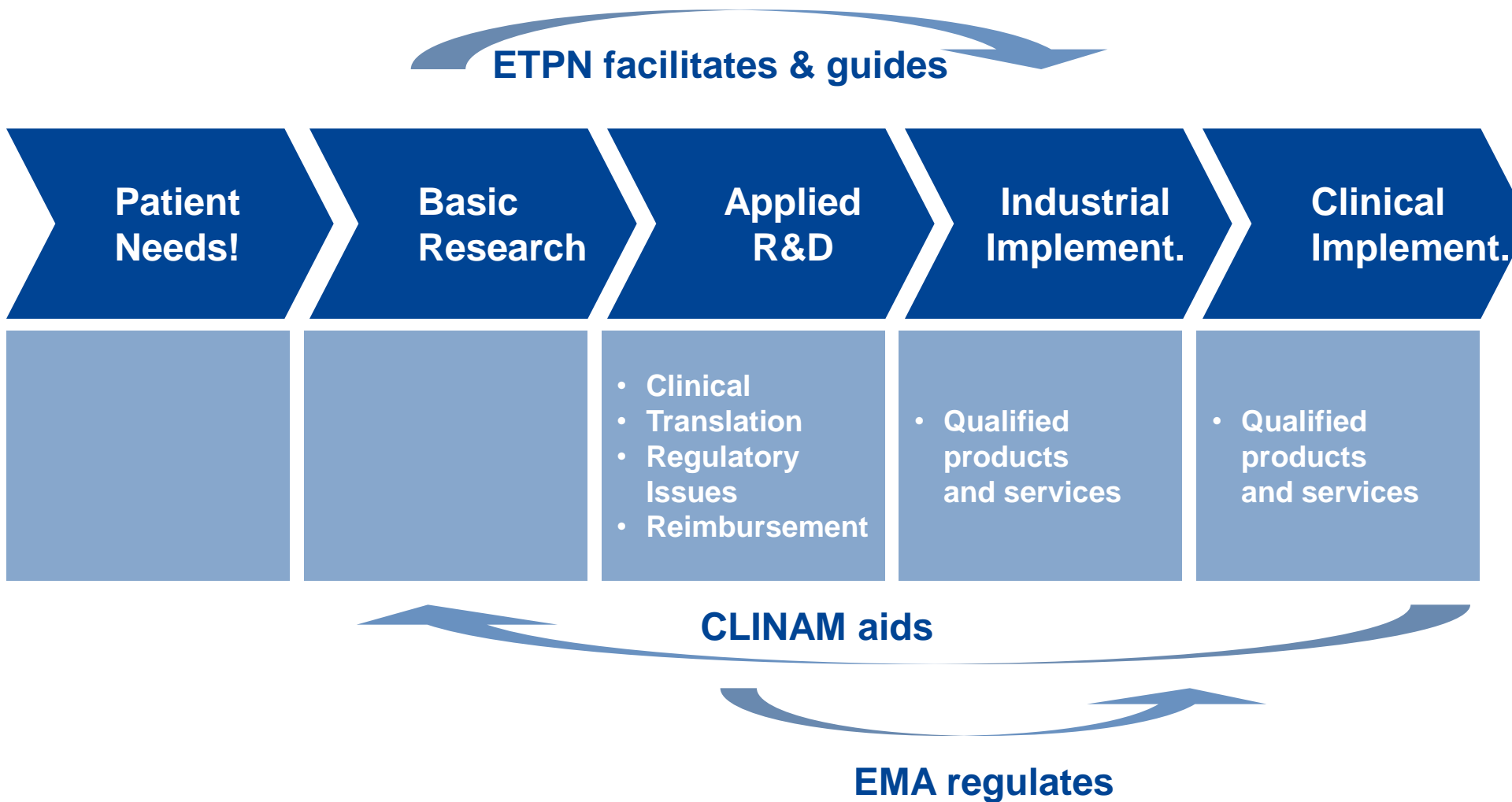
1. Nanomedicine **into clinical practice via industry**
2. **Align up-stream R&D** with industrial needs
3. **Bridge academia and industry and clinicians** on

- ✓ Market needs
- ✓ S&T bottlenecks
- ✓ Approval process
- ✓ Technology roadmaps

4. Suggest industry inspired call topics to the EC and to ERANET EuroNanoMed

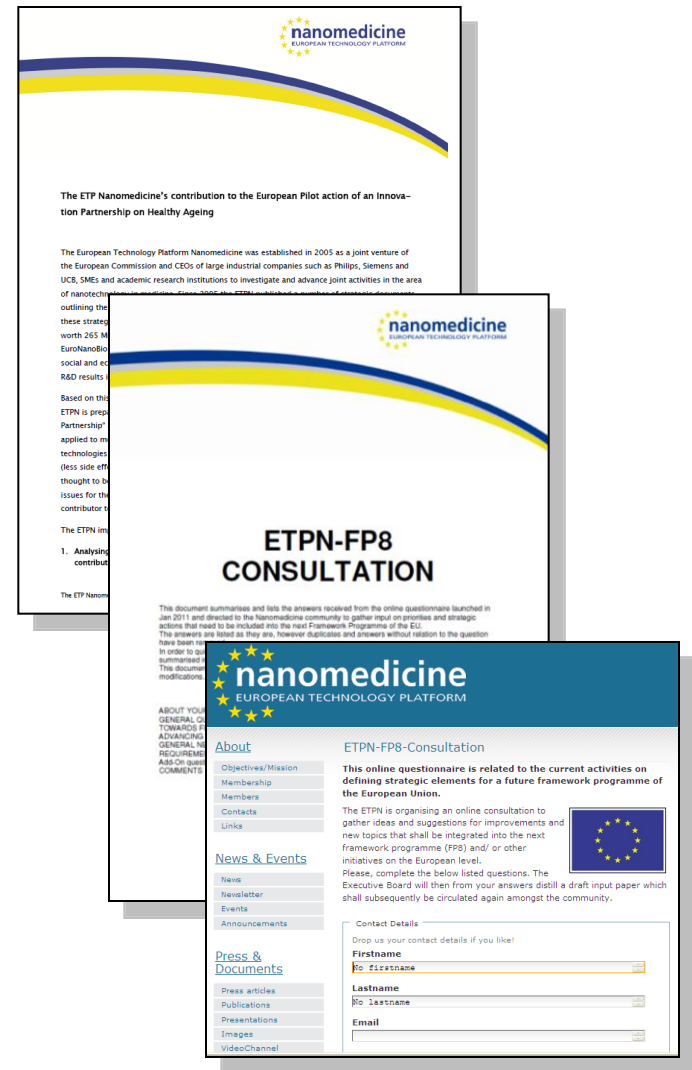


# The (Nano)medicine **value chain**



# ETPN Think Tank towards FP8/ CSFRI

- ETPN contribution to the “Innovation Union” / “European Innovation Partnership on Active and Healthy Ageing” concept
- Analysis of future needs and Nanomedicine contribution
- ETPN Consultation document in preparation
- Online consultation on needs for the Common Strategic Framework for future EU Research and Innovation CSFRI Funding (FP8)



# ETP Nanomedicine **White Paper** 2011

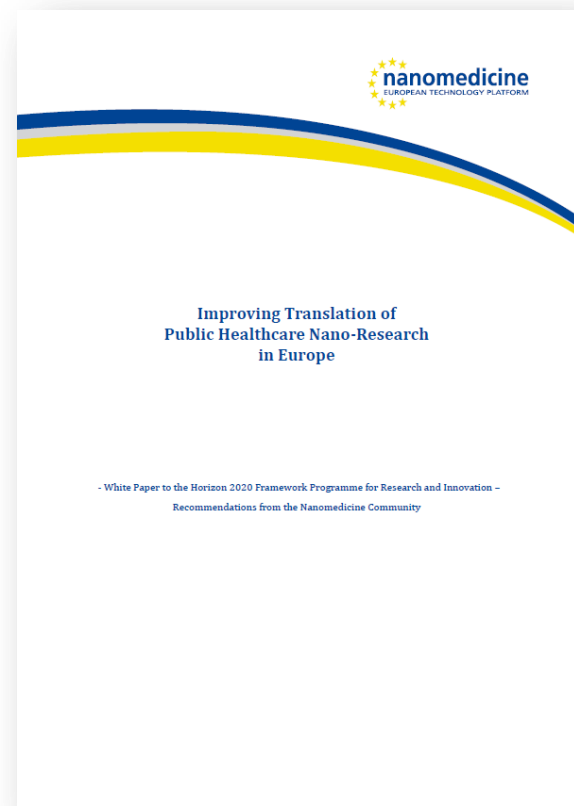
## Improving Translation of Public Healthcare Nano-Research in Europe

### Assessment

- Need to UNDERSTAND development processes,
- Need to DE-RISK innovation,
- Need to LEVERAGE capabilities,
- Need to REFOCUS projects
- Need to ADJUST funding allocation criteria and programmes.

### Recommendations

1. Implementing a dedicated translation oriented Nanomedicine funding programme
2. Establishing a novel translational Nanomedicine infrastructure
3. Selection of translatable research areas and definition of clear translatable research calls for Nanomedicine programme
4. Uptake of the translation principles into the review system for the Nanomedicine programme



# The ETP Nanomedicine Action Plan

Goal → address today's needs for translation to make Europe competitive tomorrow

## Part A: Initiative

- Defining Nanomedicine Programme
- Allocation sufficient funding
- Definition of comprehensive roadmaps

## Part B: Community

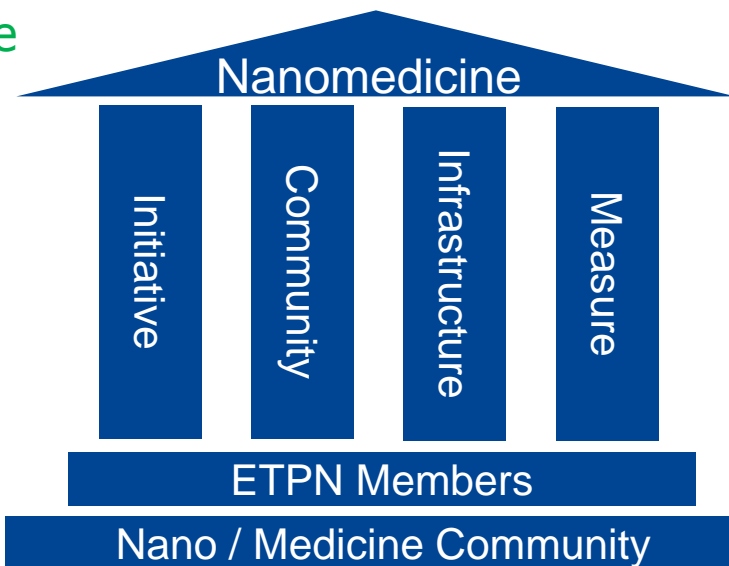
- Uniting the Nanomedicine Community
- Interact with Regulatory Bodies (EMA & National)
- Involve Patient Groups

## Part C: Infrastructure

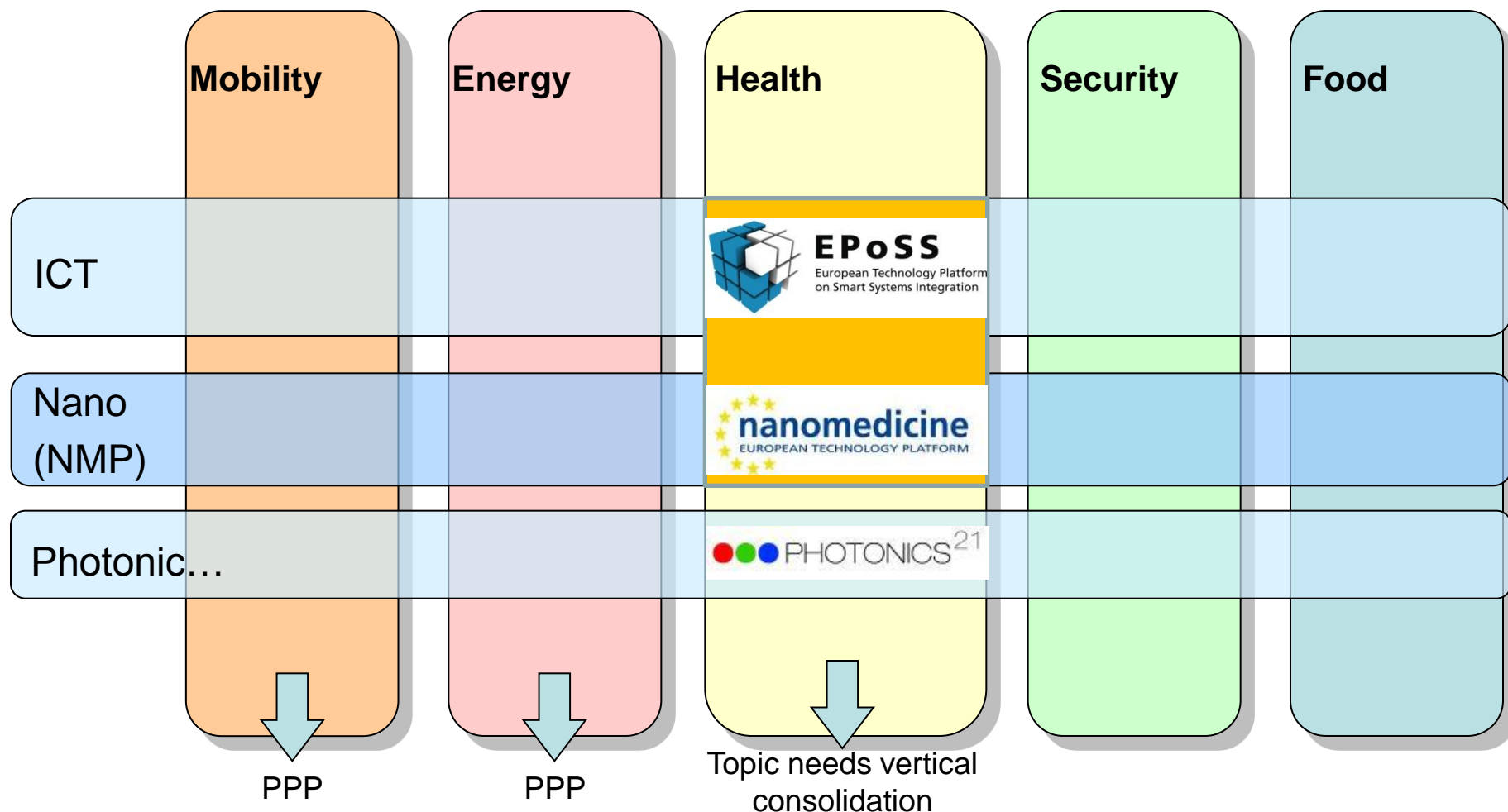
- Build Nanomedicine translation R&D Infrastructures

## Part D: Measures

- Regulation
- Open Innovation approaches
- New approaches



# European Research Area - Positioning



ETPN, EPOSS and Photonics 21 can implement a cross-Initiative action in Health

# More Info and Docs at:

... visit **www.etp-nanomedicine.eu** to

- Download publications
- Find further information
- Become a member
- ...





# Thank you very much!

For more information visit:  
*[www.etp-nanomedicine.eu](http://www.etp-nanomedicine.eu)*  
or contact  
*[secretariat@etp-nanomedicine.eu](mailto:secretariat@etp-nanomedicine.eu)*