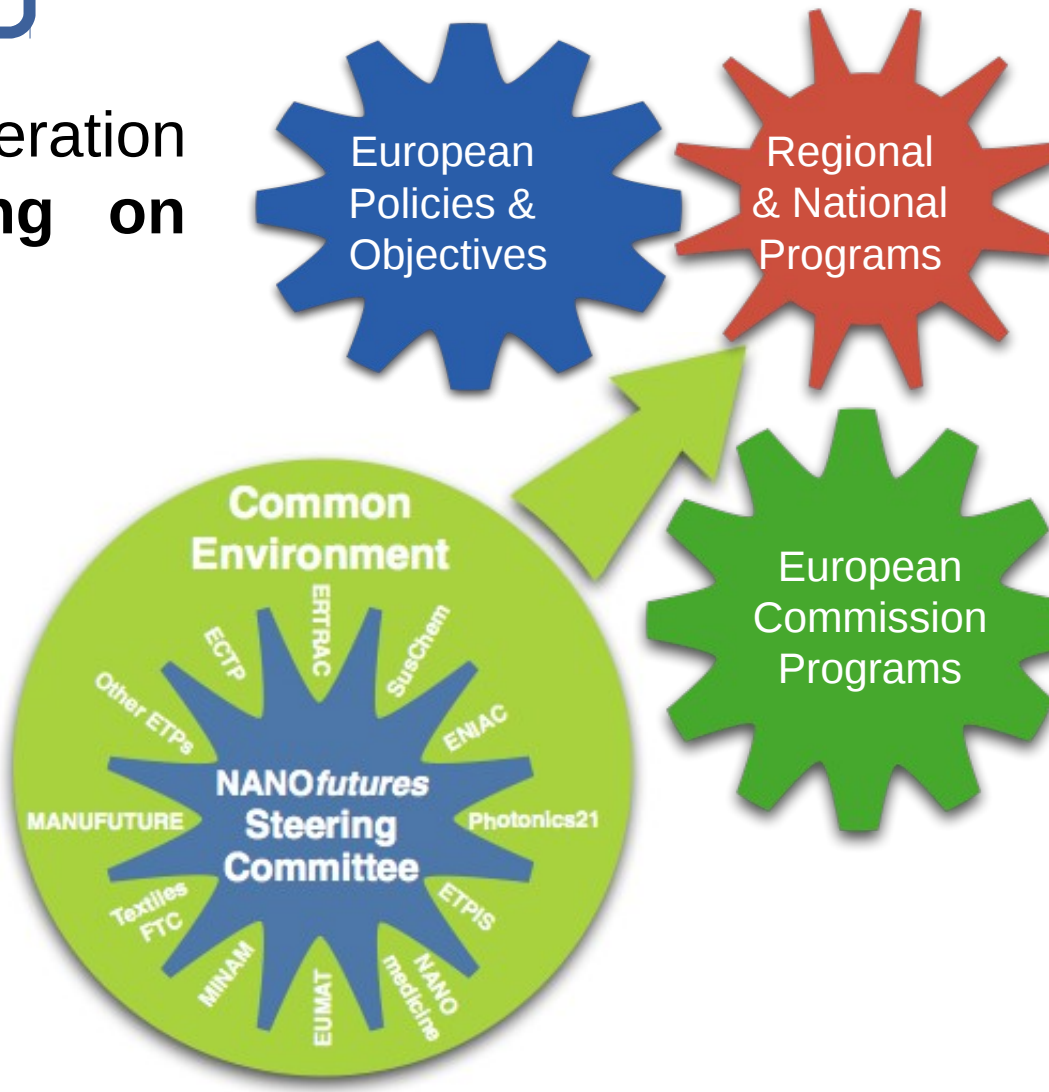
La nanotecnología: Eje importante para el futuro de la cooperación CELAC-UE

NANOfutures: Cadenas de Valor y Hojas de ruta en nanotecnología

Thomas Zadrozny
Executive Director

NANO*futures* at a glance

NANO*futures* is a new generation **cluster of ETPs operating on NANOTECHNOLOGY.**



- It addresses **cross-sectorial needs**, joining the efforts of all the stakeholders;
- It aims at **reducing fragmentation, aligning research and innovation efforts for the competitiveness of European nanotechnology**
- it aims at **meeting grand societal and economical challenges** through fostering the development of sustainable nano-enabled products

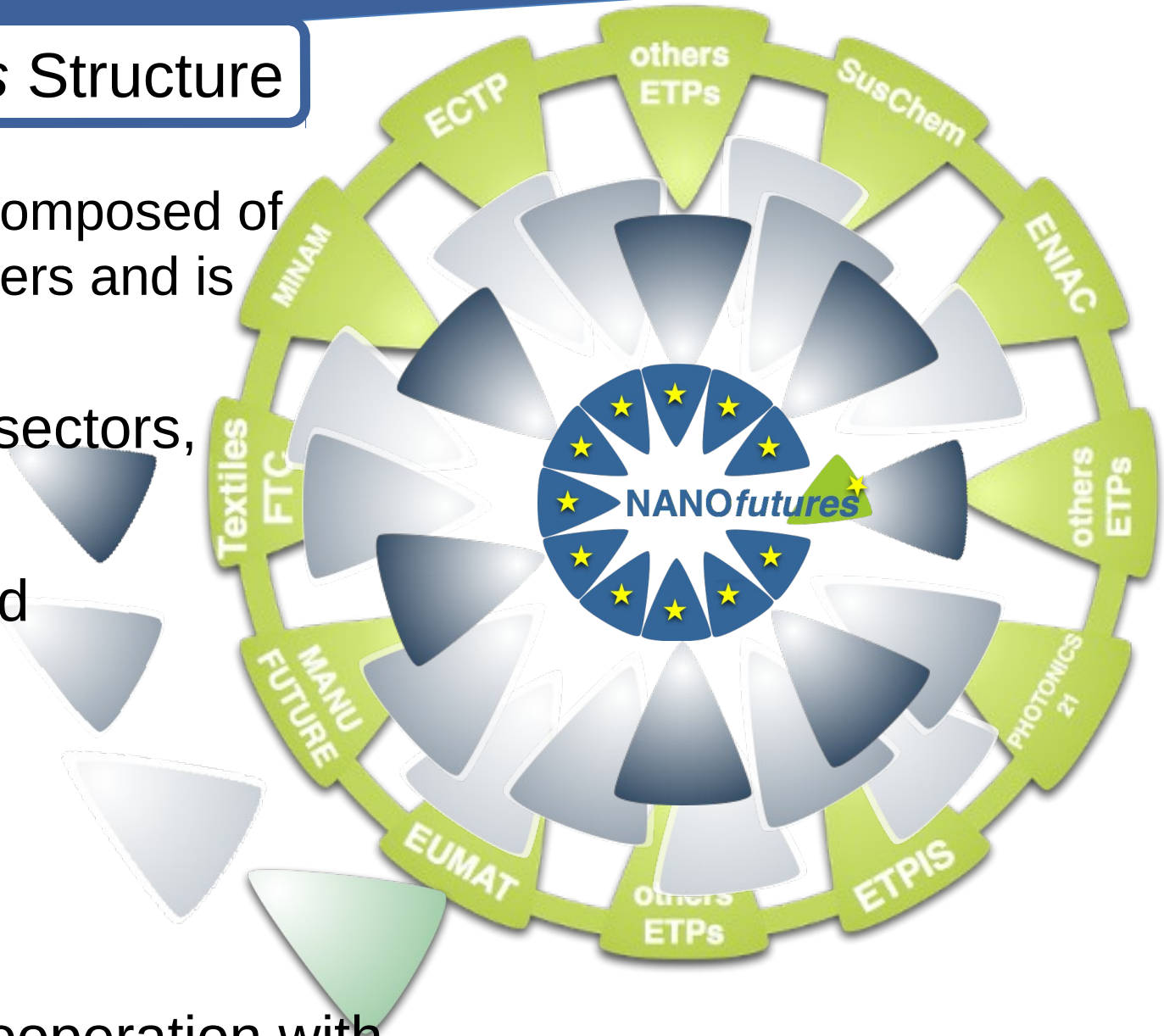
NANO*futures* Structure

NANO*futures* is composed of around 700 members and is fast growing

From **industrial** sectors,

From industrial associations and **networks**

From **research** institutes and **universities**



And close cooperation with

11 European Technology Platforms

NANO*futures* Structure

NANO*futures* Steering Committee

- **Chair**: Paolo Matteazzi (MBN Nanomaterialia SpA, IT)
- **Co-chairs:** Prof. Kiparissides (CERTH, GR) and Peter Krüger (Bayer Material Science, DE)
- **10 Horizontal working groups chairs**
- **11 ETP representatives**, appointed by the ETPs

niac

MANUFUTURE-EU

ERTRAC

European Technology Platform for the future of textiles and clothing

ECTP

SusChem
European Technology Platform For SUSTAINABLE CHEMISTRY

European Technology Platform on Industrial Safety
Safety for Sustainable European Industry Growth

MINAM
Micro- and NanoManufacturing

nanomedicine
EUROPEAN TECHNOLOGY PLATFORM

EUMAT

PHOTONICS 21

RESEARCH and TECHNOLOGY

INDUSTRIALIZATION

COMMUNICATION

SAFETY RESEARCH

INDUSTRIAL SAFETY

STANDARDIZATION

REGULATION

Tech.Transfer and Innovation Financing

NETWORKING

SKILLS AND EDUCATION

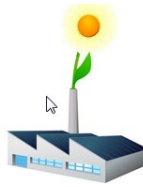
NANO*futures* Vision

If effective alignment of private and public efforts over promising areas is guaranteed from short to long term, European Nanotechnology is expected to give an outstanding contribution to major ***Societal challenges*** of our time:

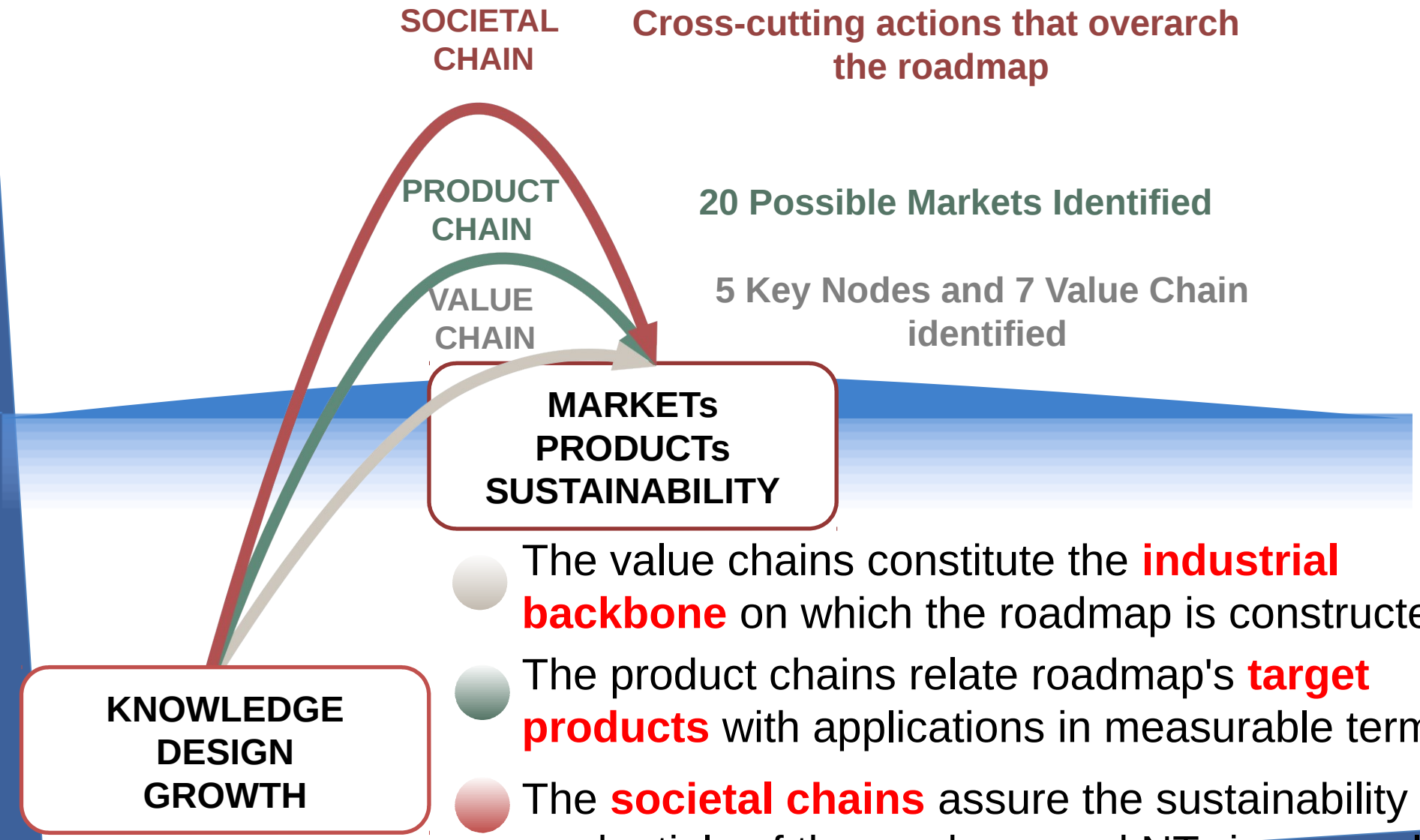

- ✓ *Health, demographic change and wellbeing;*
- ✓ *Food security, sustainable agriculture, marine and maritime research and the bio-economy;*


- ✓ *Secure, clean and efficient energy;*
- ✓ *Smart, green and integrated transport;*

- ✓ *Climate action, resource efficiency and raw materials;*
- ✓ *Inclusive, innovative and secure societies*.


NANO*futures* Chains & Roadmap



Cross-cutting actions that overarch the roadmap

20 Possible Markets Identified

5 Key Nodes and 7 Value Chain identified

- The value chains constitute the **industrial backbone** on which the roadmap is constructed
- The product chains relate roadmap's **target products** with applications in measurable terms
- The **societal chains** assure the sustainability credentials of the roadmap and NTs in general

NANO*futures* focus on Value Chains

Markets

Value Chains

Market 1

Market 2

Market 3

Market 4

Market 5

Each Market meets with many ETP

ETPs

Each Market Addresses many Societal Challenges

Each ETP addresses many Societal Challenges

EU societal challenges

NANO*futures* Roadmapping

The loop is now completed and will be the basis for future activities of NANO*futures* ETIP

Working Groups

10 Horizontal Working Groups identified 5 KeyNodes based on ETP's needs

KeyNodes Leaders group

7 value chains and several markets, that may use nanotech to successfully address the economy and society challenges

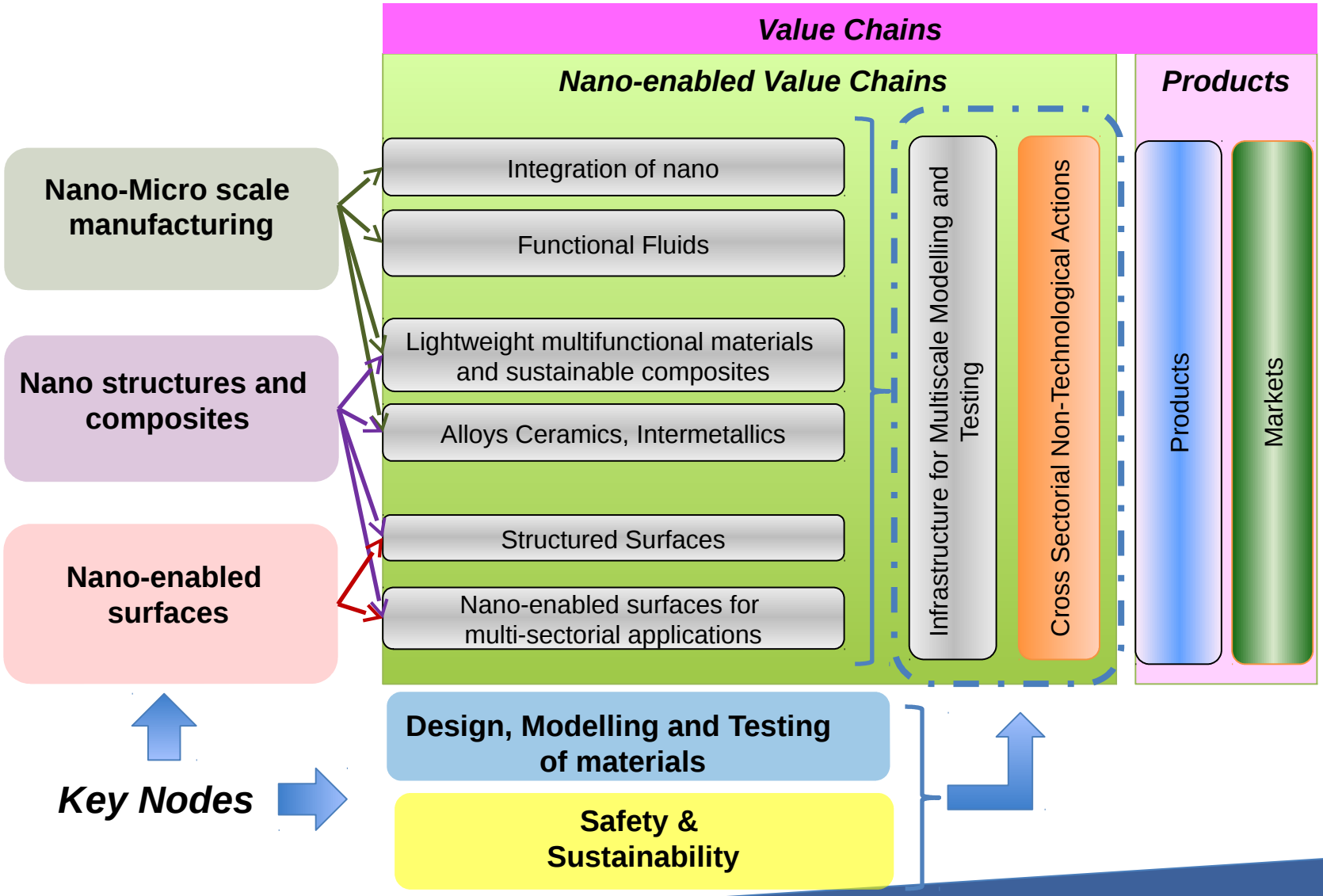
Working Groups

Each market was analyzed, bottlenecks and missing steps have been outlined, tracing the roadmap to Horizon 2020

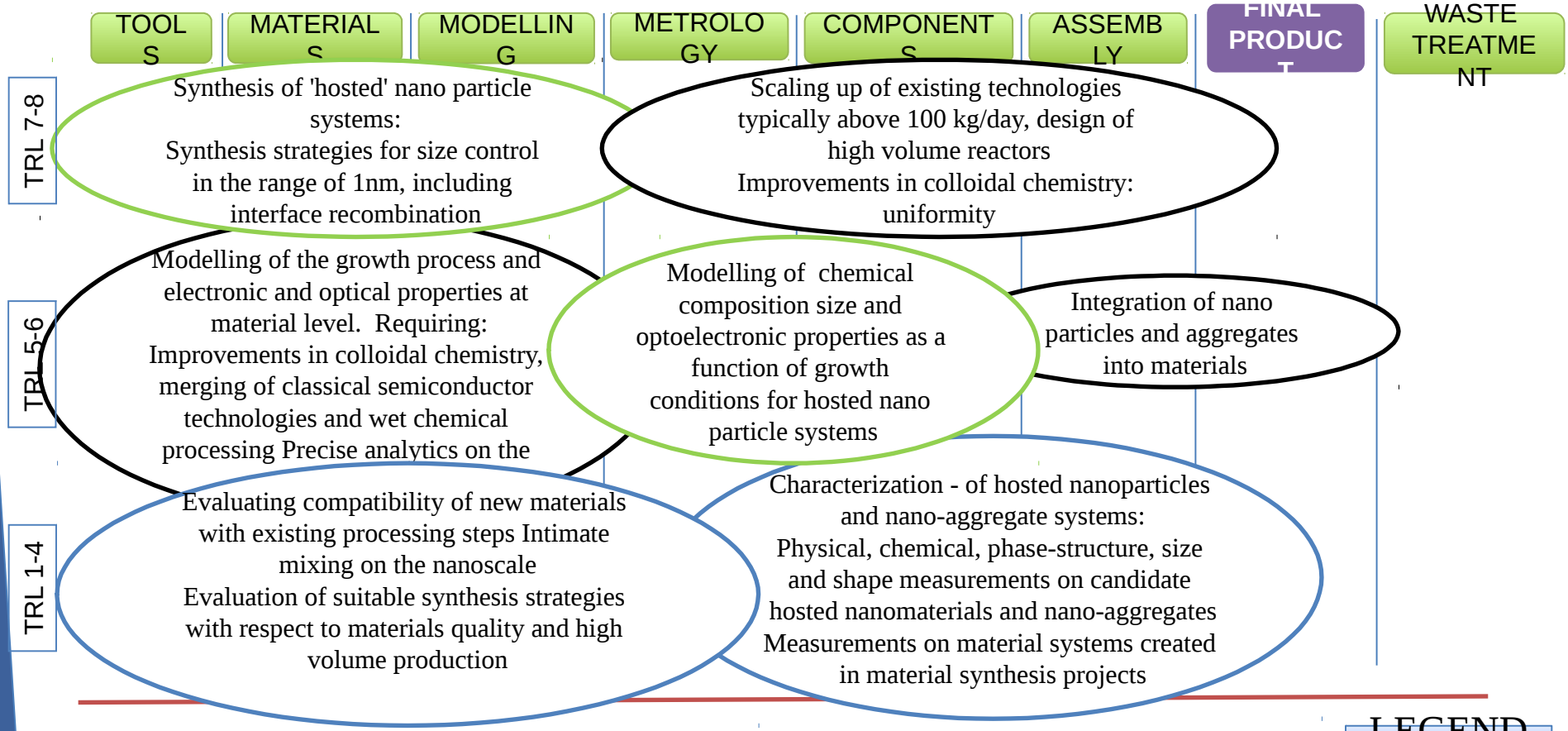
ETPs

11 European Technology Platforms described their needs

Roadmap Overview



FUNCTIONAL ALLOYS, CERAMICS and INTERMETALLICS for Energy Harvesting and Energy Conversion



NON-TECH ACTIONS specific to the value chain

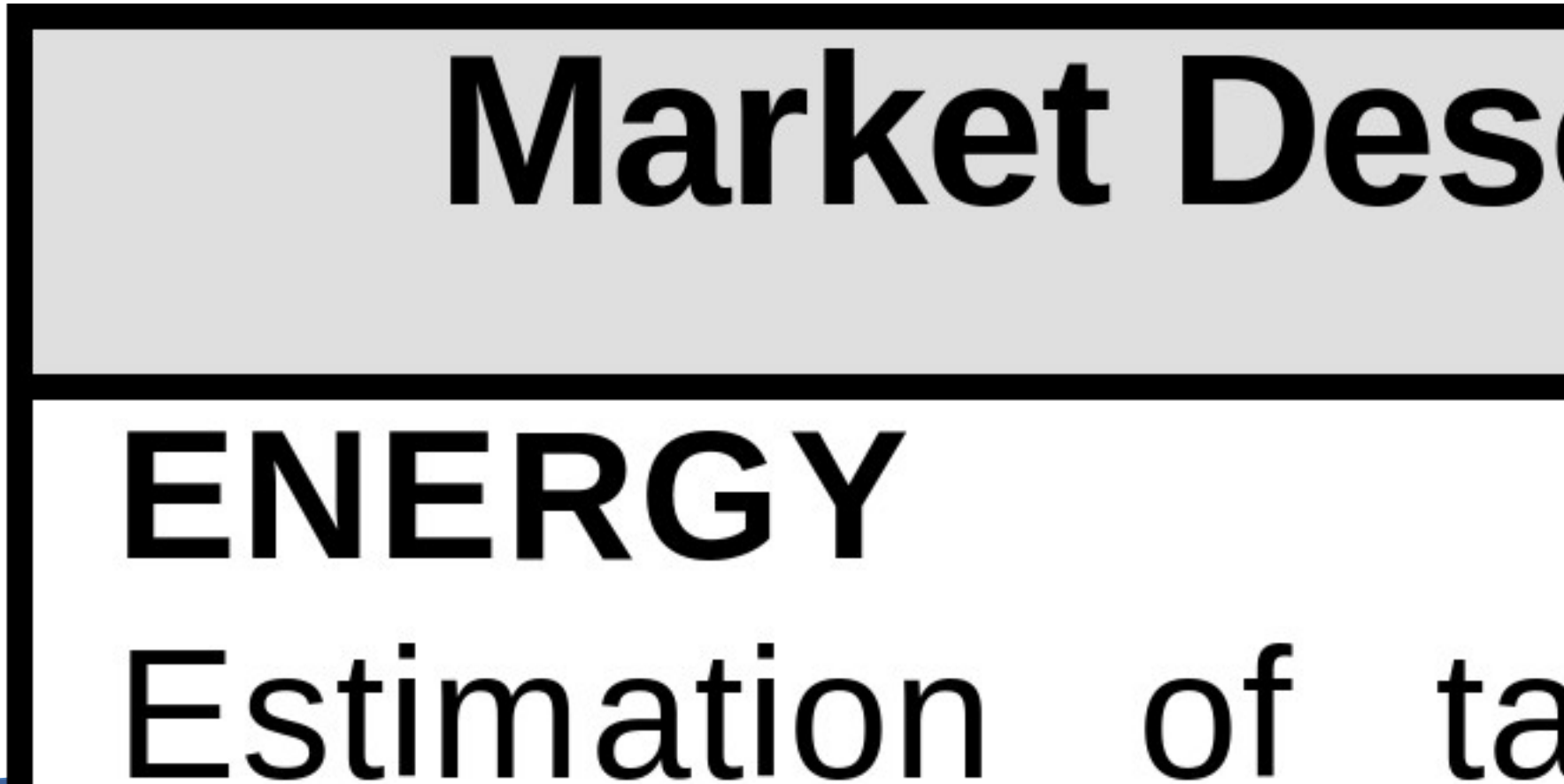
LEGEND A:

- SHORT TERM
- MEDIUM TERM
- LONG TERM

Products and Markets - Examples

Markets

Products



Technology Readiness Level (TRL)

=

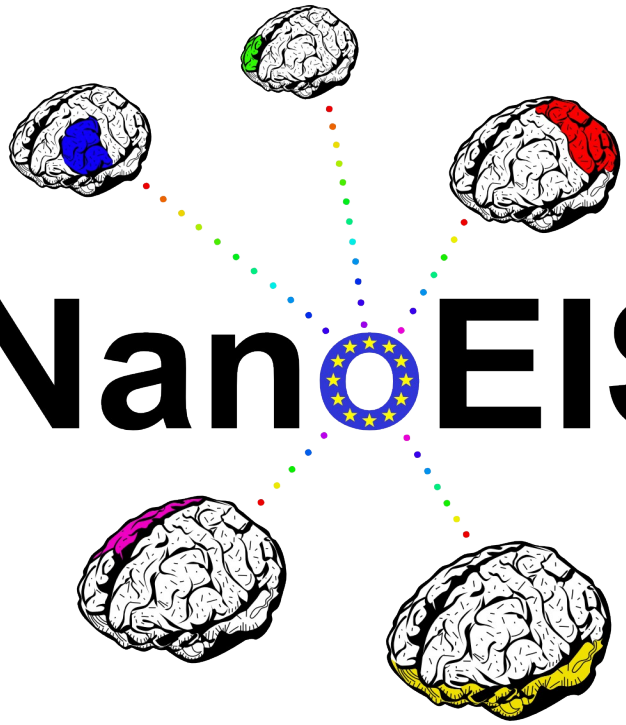
Nivel de Madurez Technológico

Sincronizar los niveles de madurez

=

…..tecnológico…..productivo….
.recursos…..mercado

Educación



NanoEIS

Nanotechnology Education for Industry and Society

European labour market for personnel trained in nanotechnology

- How has nanotechnology education been integrated into secondary schools and universities?
- How was cooperation between different partner institutions implemented?
- In which ways have industrial and non-industrial (social) employers been involved?

Roadmap Overview

The identified actions address two main outcomes in the roadmap:

The identification of **common actions** (technological or not) from different markets and value chains.

The identification of markets and value chains that require only **few actions to be completed**.

Three conference plenaries will invite high profile international speakers from industry, government and research to discuss nanotechnology governance and policies, industrial production and commercialization of nanoproducts and nanotechnology in everyday life.

JOIN NANOfutures !

If you wish to be part of this interactive community, have a say in

Nanotech and the

other KETs

join us at

www.nanofutures.eu

Thank you