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MANUFUTURE TP

Cooperation for Sustainable Production
Technologies

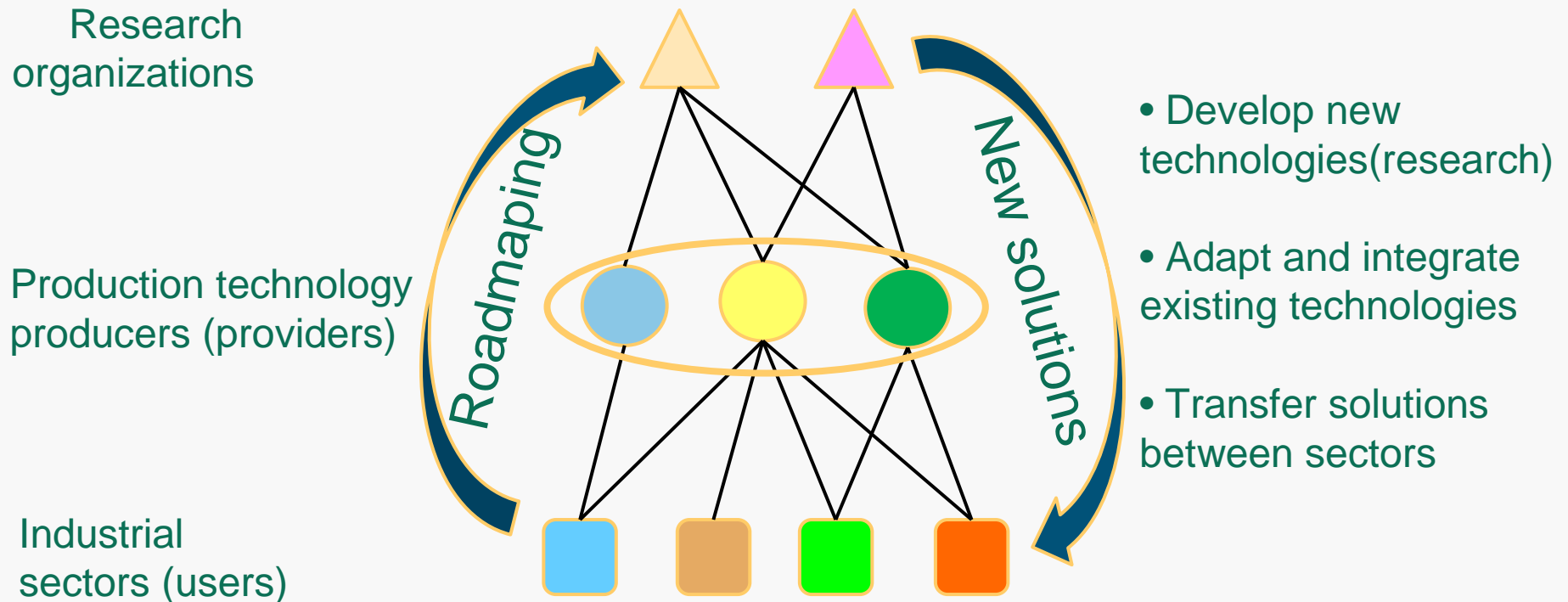
JOSÉ CARLOS CALDEIRA

Chairman MANUFUTURE NRTP Group

Director INESC Porto

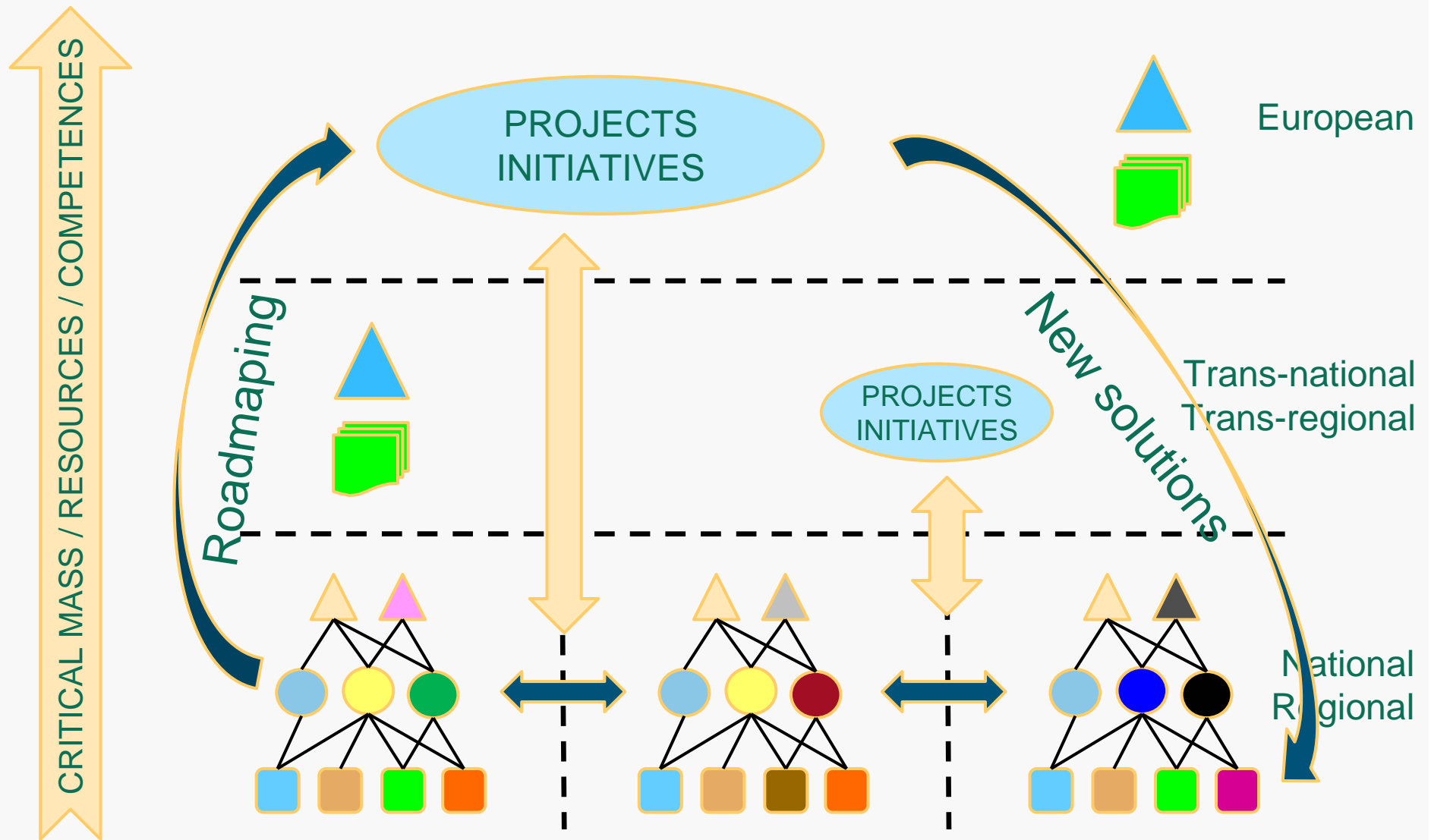
(jcc@inescporto.pt)

The framework for the sustainable development of PT



***FACTORY AS A PRODUCT + TECHNOLOGY CONVERGENCE
(machine tools, system integrators, software, engineering services, etc.)***

The framework for the sustainable development of PT



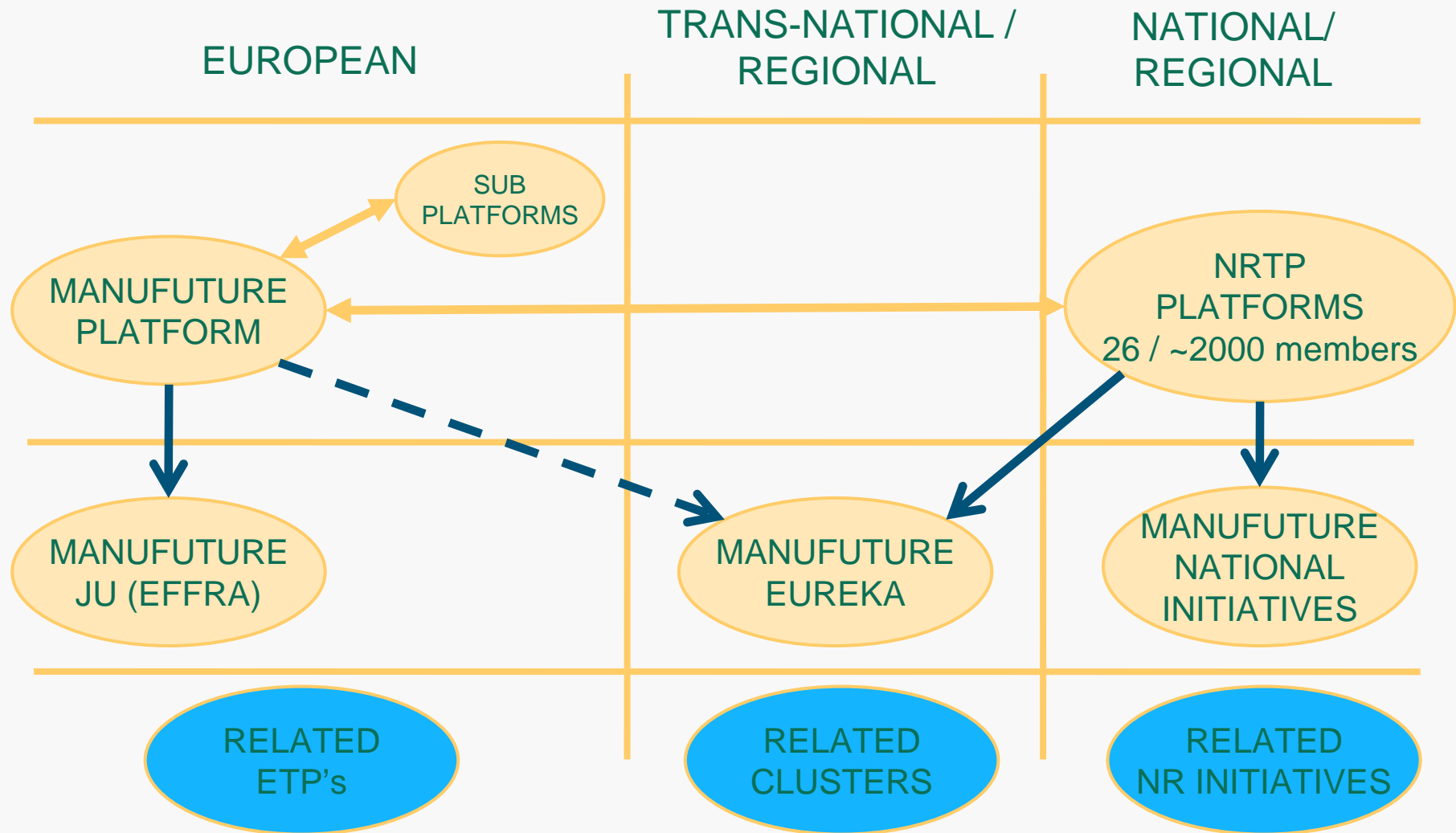
Clustering and Inter-clustering



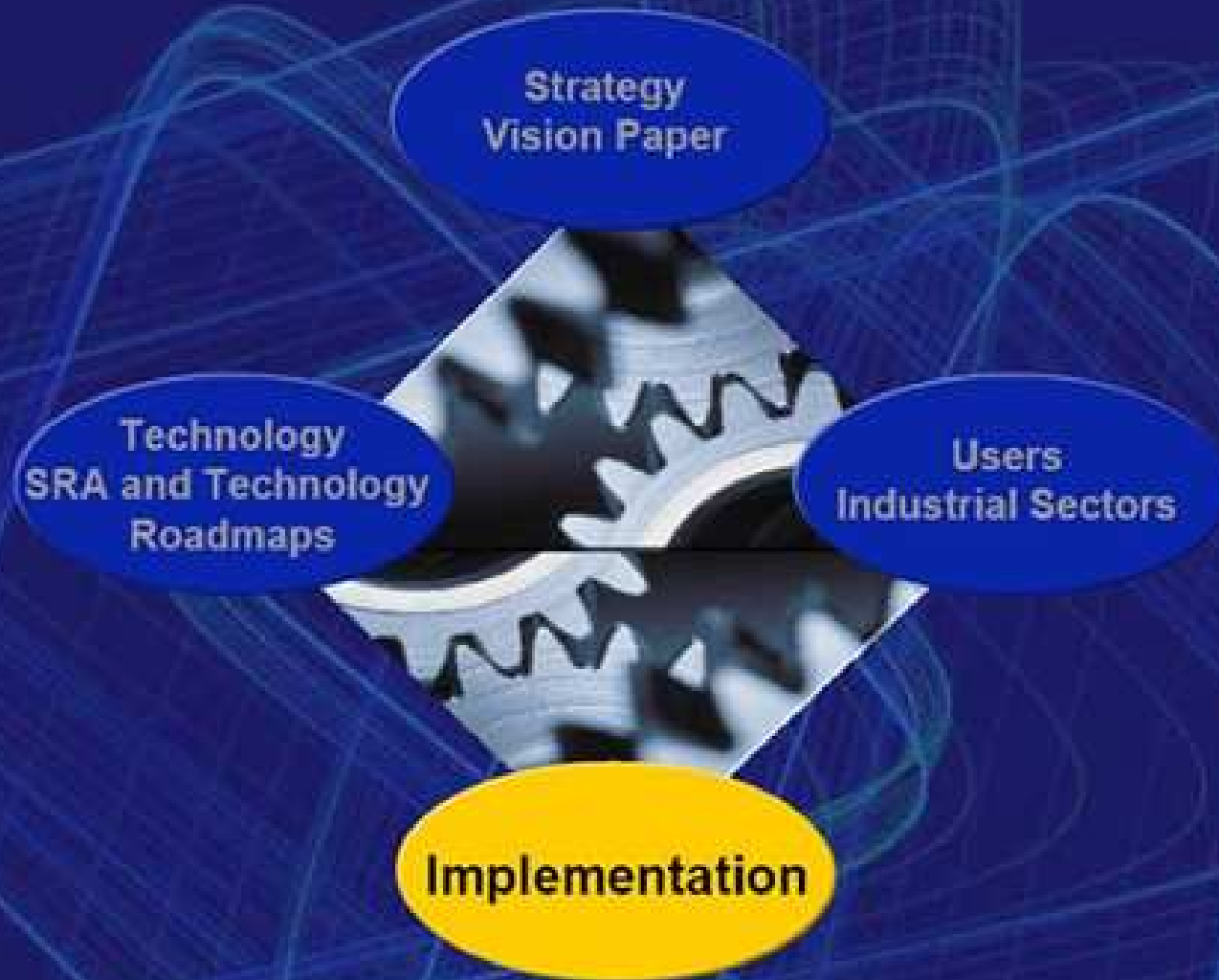
Relevant drivers and success factors

- **Strategy and Roadmapping:**
 - From a business vision to a relevant R&D agenda
- **Innovation cycle coverage**
 - From basic research to exploitation
- **Funding model(s)**
 - Combine and align resources + extract more value from investments
- **Knowledge access and dissemination**
 - Spreading and re-utilization
- IPR protection and management
 - Paving the way for effective cooperation
- Standards
 - Integrating the components

The framework for the sustainable development of PT: The MANUFUTURE Platform: Multi-level structure



Relevant drivers and success factors: Strategic Intelligence



MANUFUTURE Action Plan – Strategic Intelligence

- 2003 - Initial Ad-hoc group (30 people)
- 2003-12: First Conference (Milan-IT)
- 2004-12: Release of “A VISION FOR 2020” + Launch of the MANUFUTURE Platform (Enschede-NL)
- 2005-12: Release of “MANUFUTURE SRA” (Derby-UK)
- 2006-12: Presentation of the MANUFUTURE ROADMAPS (Tampere-FI)

First MANUFUTURE IAG Meeting



Debating the SRA:

- 61 participants
- 40 from industry
- 15 countries

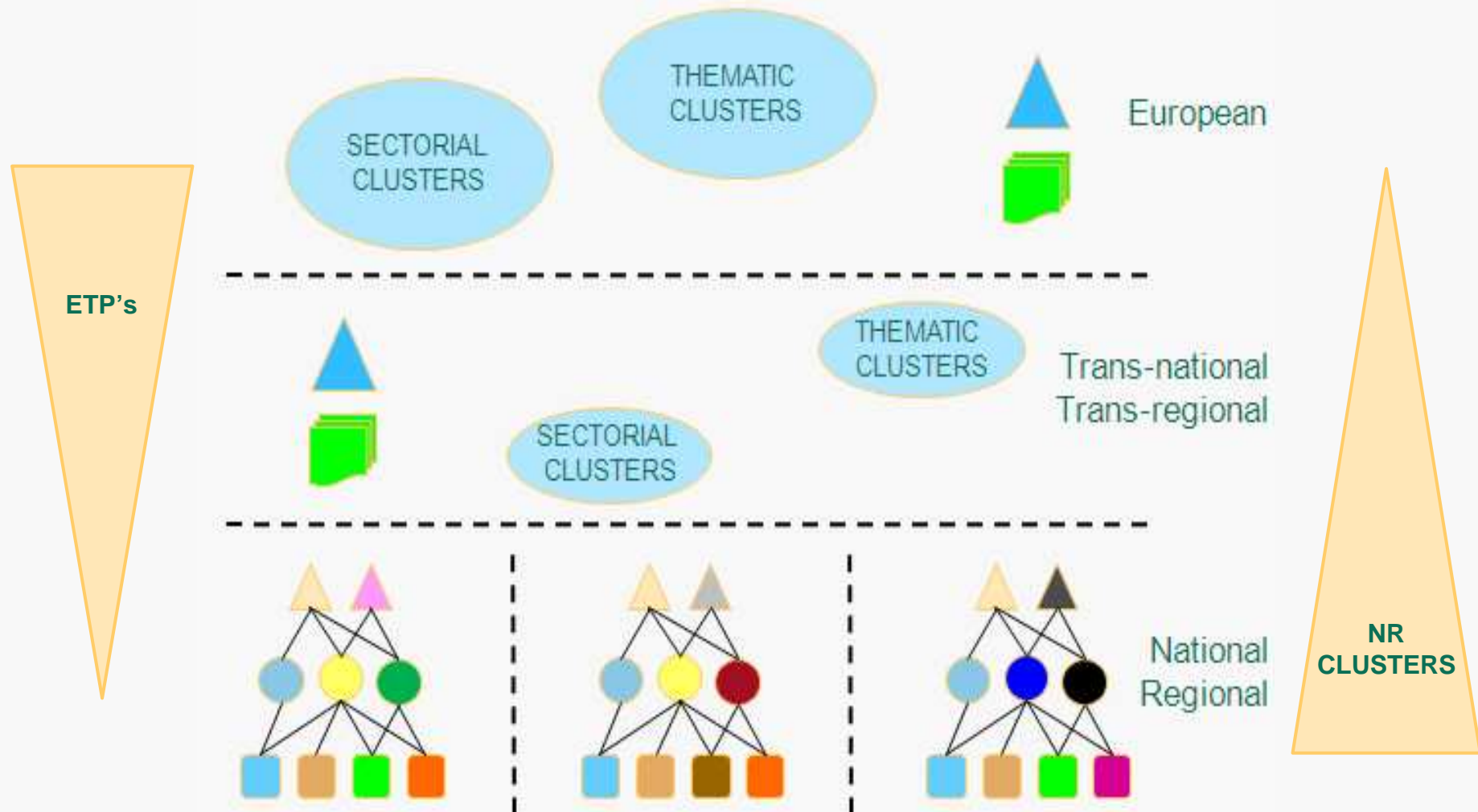
Coverage from all television networks and main newspapers



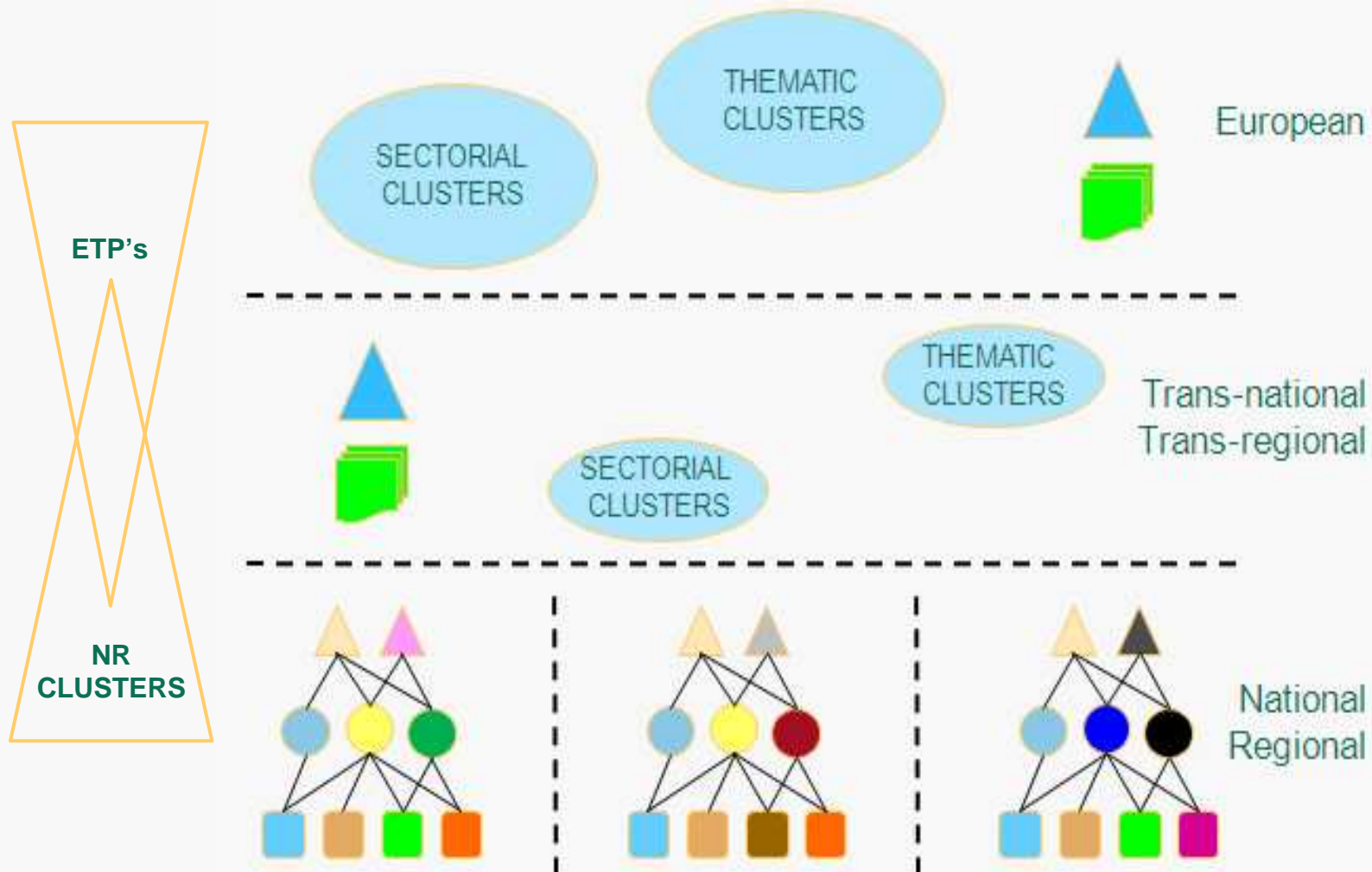
MANUFUTURE Action Plan – Implementation Phase

- 2007-12: MANUFUTURE Conference in Porto
 - Production of the MANUFUTURE Porto MANIFESTO (2008-03)
 - Meeting with the President of the EC (2008-07)
- 2008-03: Launch of the MANUFUTURE JTI Task force
- 2008-11: Release of the European Economic Recovery Plan
 - PPP Factories of the Future (1.200 M€)
 - Creation of the AIAG (Ad-Hoc Industrial Advisory Group)
 - Production of the Multi-annual Strategic Roadmap + First calls
- 2009-04: MANUFUTURE launches the European Factories

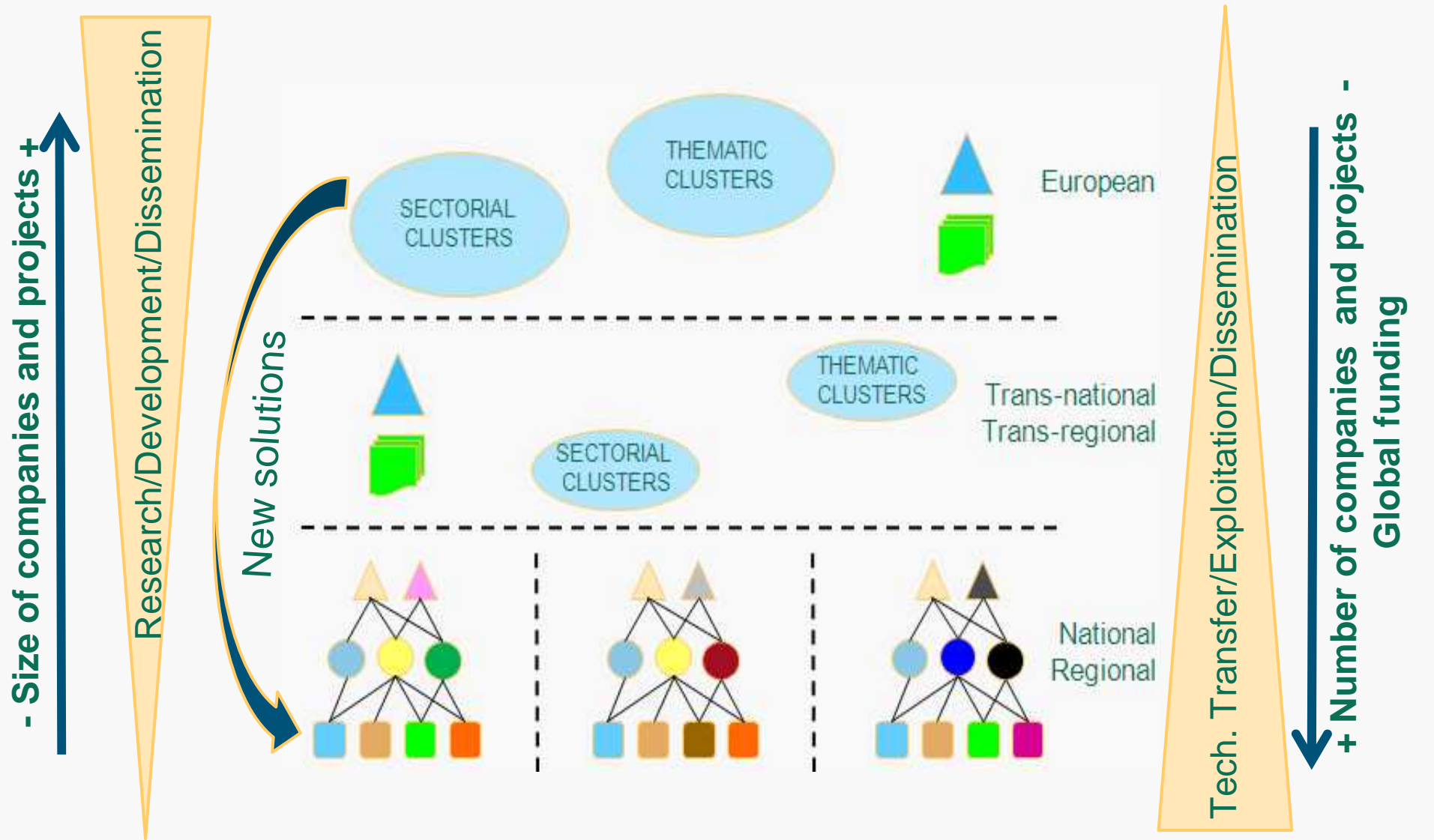
Clusters and inter-clustering



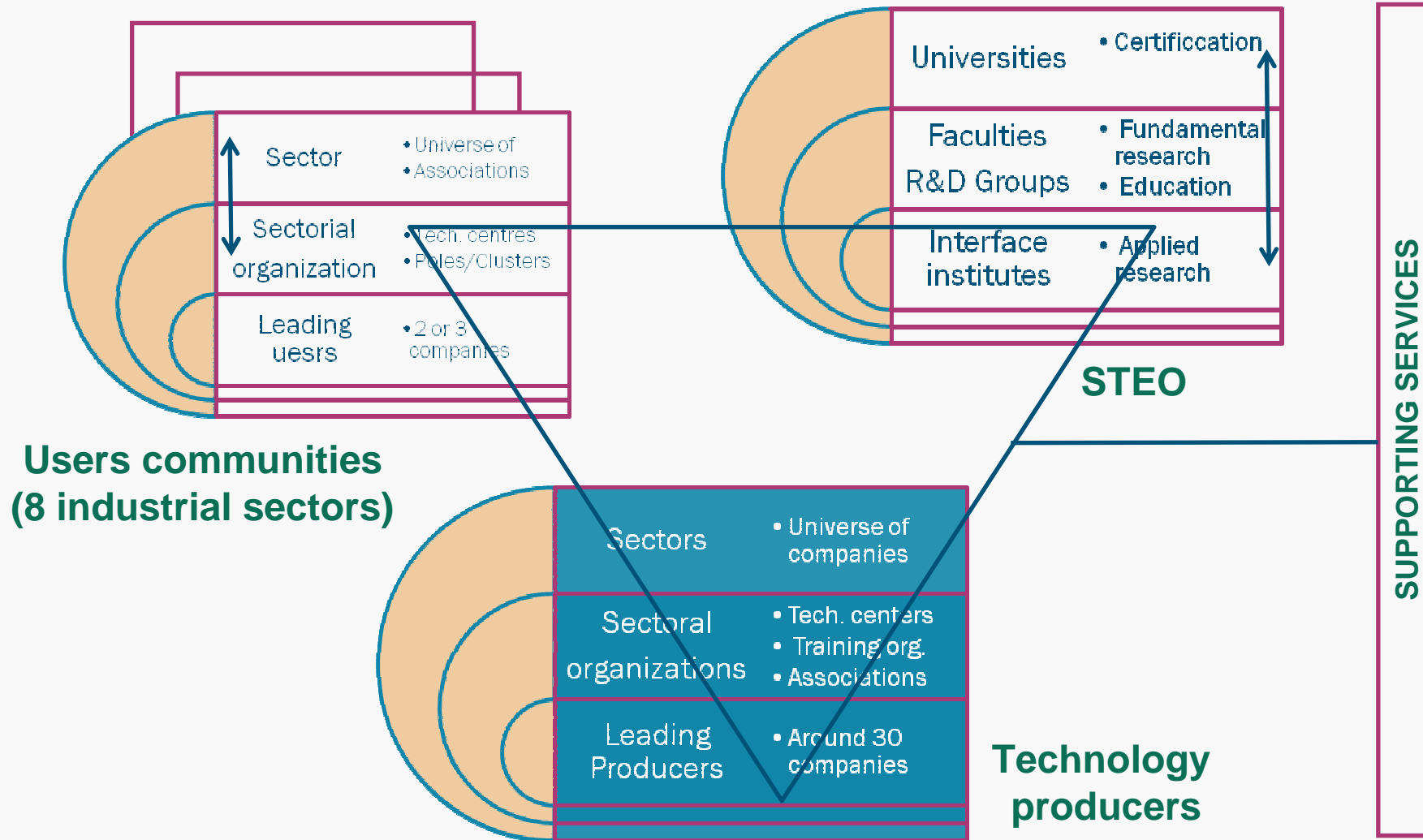
Clusters and inter-clustering



Innovation cycle coverage



Examples: PRODUTECH - Portuguese PT Cluster Architecture



Examples: PRODUTECH - Portuguese PT Cluster

Integrated Action Plan

HORIZONTALS	THEMATIC
<u>H1 – PROSPECTIVE, STRATEGY, ROADMAPING AND VIGILANCE</u>	<u>T1 – NEW BUSINESS MODELS</u>
<u>H2 - MARKETING AND INTERNATIONAL PROMOTION</u>	T2 – INTELLIGENT PRODUCTION SYSTEMS
H3 – INFORMATION, DISSEMINATION AND DEMONSTRATION	T3 – PERFORMANCE, FLEXIBILITY AND EFFICIENCY
H4 – INTERNATIONAL NETWORKS AND BODIES	T4 – MODELLING AND SIMULATION
H5 – R&D MANAGEMENT CAPABILITIES	T5 – OPERATIONS MANAGEMENT AND LOGISTICS
H6 – ENTREPRENEURSHIP	<u>T6 – NETWORKED PRODUCTION SYSTEMS</u>
<u>H7 – ADAPTATION OF EDUCATION AND TRAINING PROGRAMS</u>	T7 – ADVANCED TECHNOLOGIES AND NEW PRODUCTION SYSTEMS
H8 – CLUSTER MANAGEMENT AND COORDINATION	T8 – ENERGY AND ENVIRONMENTAL EFFICIENCY
	T9 – ADVANCED TOOLS FOR NEW PRODUTCS AND SYSTEMS DEVELOPMENT
	T10 – ACTIVE AND PASSIVE SAFETY IN PRODUCTION SYSTEMS

Final remarks

- An effective and efficient European framework for the development of sustainable production technologies calls for an **integrated multi-sector, multi-level structure approach.**
- **Clustering and inter-clustering are crucial**, probably more than in any other area.
- Some themes are critical for the success of such a system:
 - Roadmapping: **what to do** (industrial relevance and impact, for short, medium and long term) **and where** (at which level)
 - From research to the market: need to ensure that **all phases of the innovation cycle are covered**
 - “All the money is not enough”: **combine and align public funding, at all levels, boosting private funding**

***“Many times, what seems impossible
It’s only difficult”***

THANK YOU FOR YOUR ATTENTION