Regione Toscana

POR CReO 2007-13
PROGRAMMA OPERATIVO REGIONALE
OBIETTIVO COMPETITIVITÀ REGIONALE e OCCUPAZIONE
Fondo Europeo di Sviluppo Regionale

REPUBBLICA ITALIANA

Unione Europea

S3 SMART SPECIALISATION PLATFORM

Tuscany: Towards a RIS3 strategy

Pisa, 28 September 2012

Emanuele Fabbri

Peer review expectations

Issues we would like to discuss

- The **inclusive process** for RIS3 design;
- The **strategic approach**, differentiated policies **supporting excellences** and **avoiding imbalances**;
- New Technological Transfer dynamics made of **cooperation among stakeholders**.

Main challenges to face

- **Not just new roadmaps** toward **economic growth**, but a **new Social Cohesion Model**, trying to combine **"Intelligence"** with **"Capacities"**.

Italy Social and Economic background

The 2009 world economic crisis is likely to strongly affect social and economic structures

- Negative GDP growth: **- 2,5%** (2011 2q / 2012 2q);
- High debt ratio: **120% of GDP;**
- Public expenditure blocked by **European Fiscal Compact** policies;
- Low **investement ratio** in R&D: **1,26%** of GDP;
- **Welfare state** crisis;
- **Loss of competitiveness** of national entrepreneurial system;
- Lack of tax revenue implying a **downgrading of previous welfare standards.**

Tuscany in brief

Population: **3,75 M;**

Area**:** **23.000 km²;**
GDP per capita: **€ 28.700** (EU27 ave. € 25.000-EU15 ave. € 29.000);

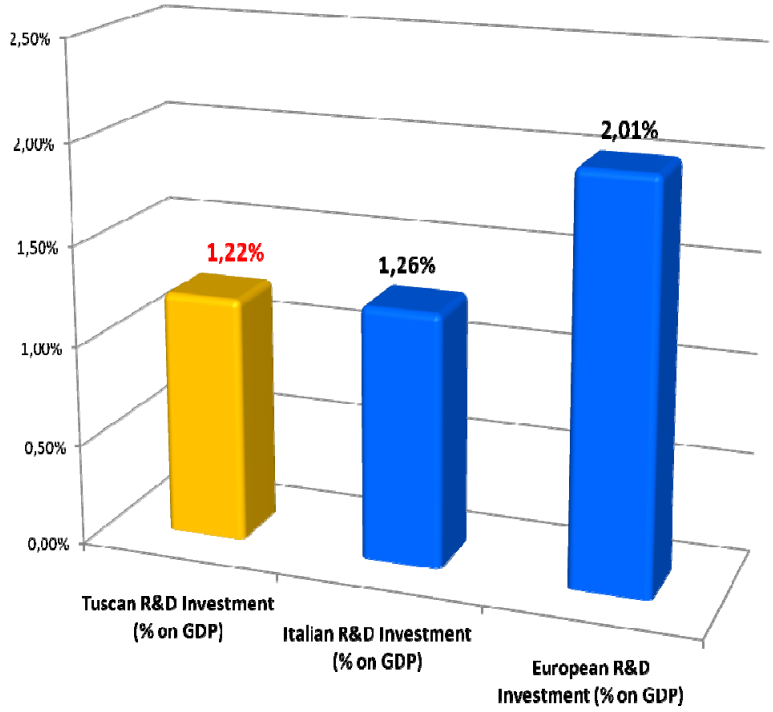
Registered companies: approximately **420.000** (2012);

Around **85%** of companies have less than 10 employees;
Around **9%** of companies have less than 20 employees;
Manufacturing: over the **27%** of regional workforce;
Employment rate **62.5%** (EU27 ave. 64.1% - EU15 ave. 65,13%);

Population with higher education: **10%** (2011);
R&D expenditure as a % of GDP: **1,22%** (40% from private sector);
University size: **130.000** students (2011).

Tuscany R&D framework

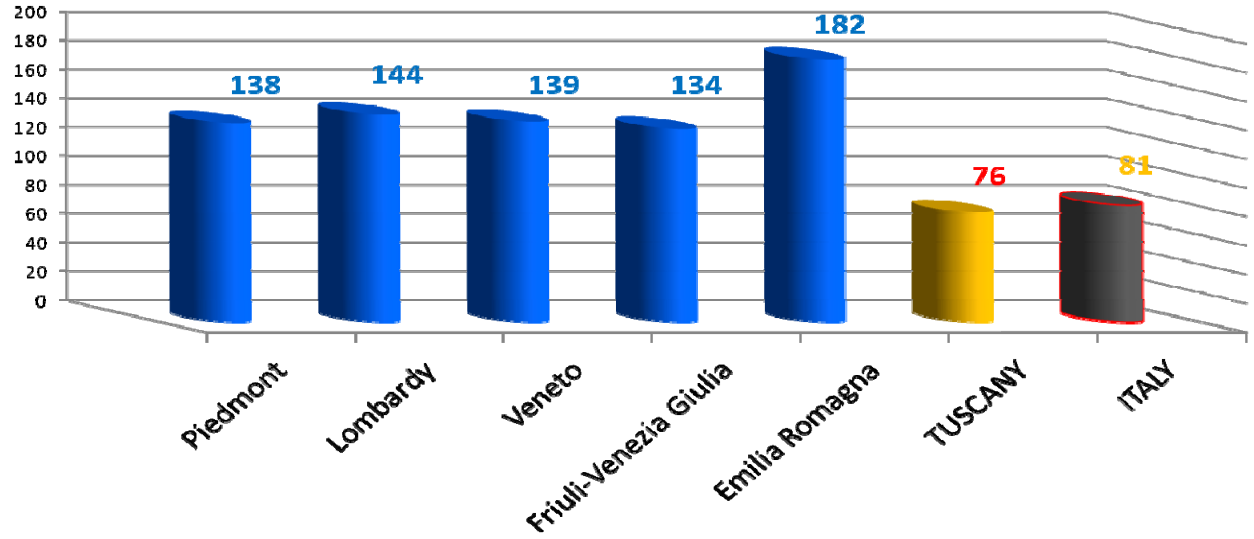
- **Low investment** ratio in **R&D activities;**



- **Public regional** expenditure **0.59%,** in line with EU27 0,66% and EU 15 0,67%;
- **Private expenditure 0,42%,** against EU27 1,2% and EU15 1,26%.

Tuscany R&D framework

- **Medium-low ratio** of registered **patents;**



Number of patents per million inhabitants

- **High level of scientific publications:**

16th place in EU27 for scientific density (163 per capita);

- **High number of research personnel** and **researchers:**

R&D personnel: 0,57 % of active population (EU27 0,49% - EU15 0,53%)
Researchers: 0,34% (EU 27 0,35% - EU15 37%).

Tuscany
Innovation System

Tuscany Innovation System

SMART SPECIALISATION PLATFORM

Tuscan productive system is based on manufacturing:

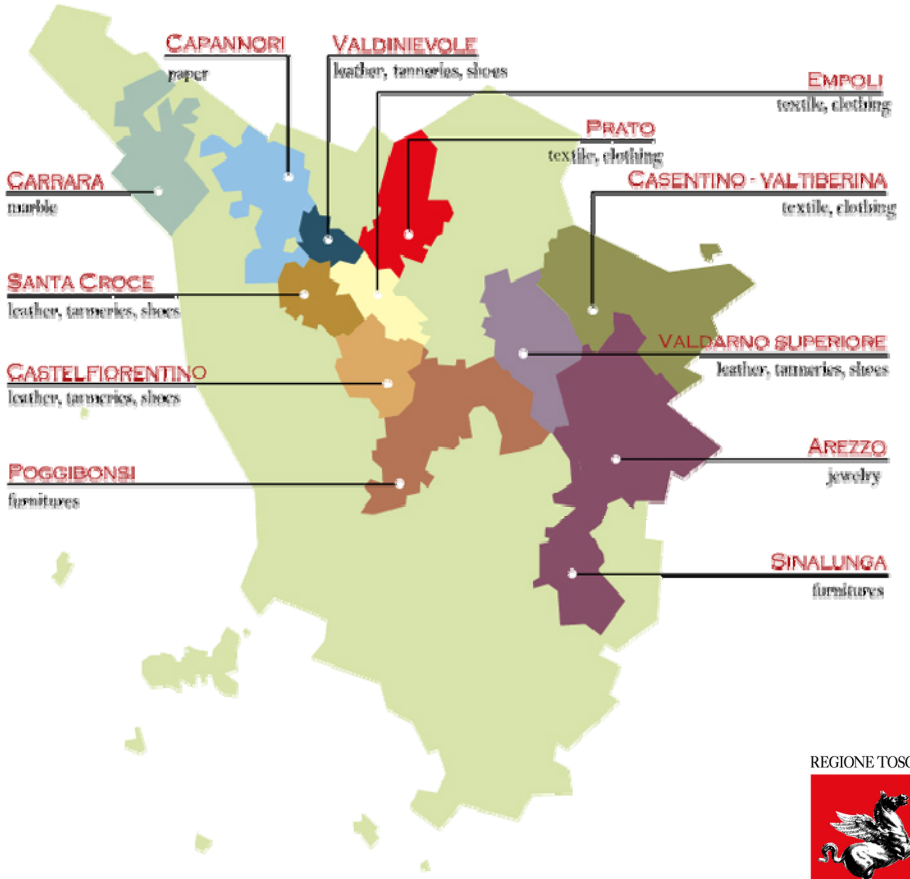
Fashion:
Textile, Clothing, Shoes, Leather, Tanneries, Jewellery

Paper;

Interiors:
Marble, Furniture Furnishing

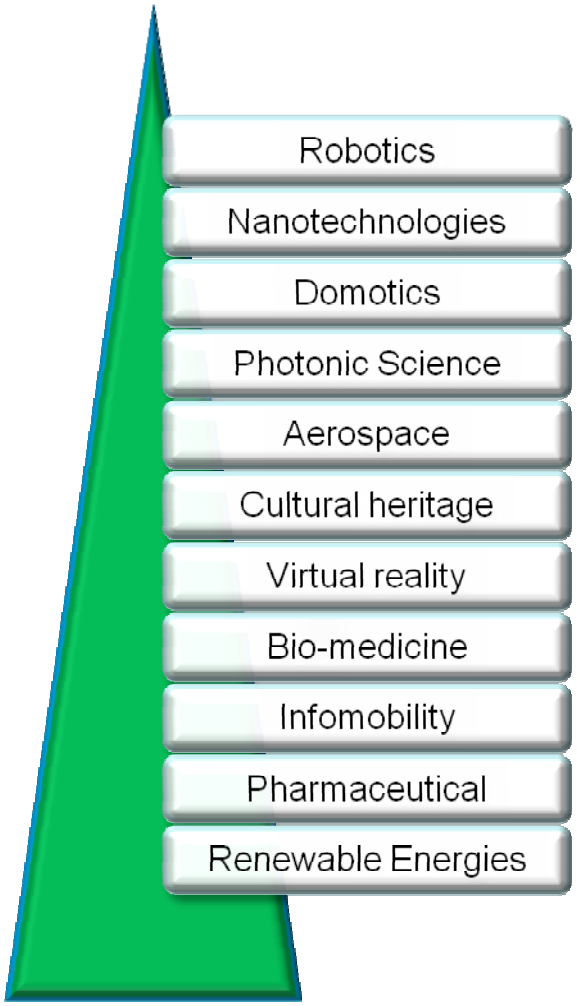
Shipbuilding;

Mechanics.



REGIONE TOSCANA

Tuscany Innovation System



Emerging Clusters operating in **fast growing sectors** and able to compete in international markets

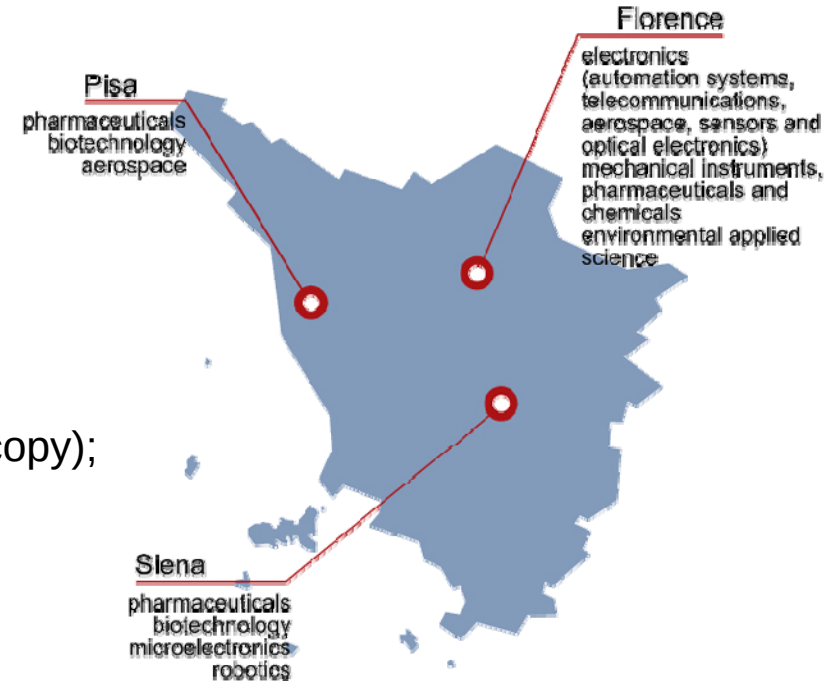
Tuscany Innovation System

Good quality of R&D in the Public Sector

University System (UNIFI,UNISI, UNIPI, S.S. Normale, SSSA, IUE, IMT).

Most relevant **research centers**:
CNR (National Research Council);
INFN (Nuclear Physic National Institute);
CERM (Magnetic Resonance Research Centre);
LENS (European Laboratory for Non-Linea Spectroscopy);
EGO (European Gravitational Observatory).

ERIC:
NEST (National Enterprise for nanoscience and nanotechnology);
LABEC (Nuclear Techniques for Cultural heritage Lab).



REGIONE TOSCANA

Tuscany Innovation System

Infrastructure providing Technological Transfer

Centers for Technological Transfer and Scientific-Technological Centers are in an on-going process of rationalization, consisting in **12 Innovation Poles** for **KIBS to companies**:

- Fashion (Textile, Apparel, leather, tanning, footwear);
- Paper;
- Marble;
- Shipbuilding and sea technologies;
- Furnishing/furniture;
- Energy Saving and RES technologies;
- Life Science;
- ICT and Robotics;
- Nanotechnologies;
- Technologies for Sustainable Cities;
- Optoelectronics and Aerospace;
- Mechanics for Transportation and automotive.

Tuscany Innovation System

SMART SPECIALISATION PLATFORM

Clustering hi-tech industries R&D

ICT District and Telecommunications

Life Science District

Cultural Heritage District

Technological district for energy efficiency, renewable energies and green economy

Technological Railway District, high-speed and rail network security

REGIONE TOSCANA

The path for a RIS3 in Tuscany

The path for a RIS3 in Tuscany

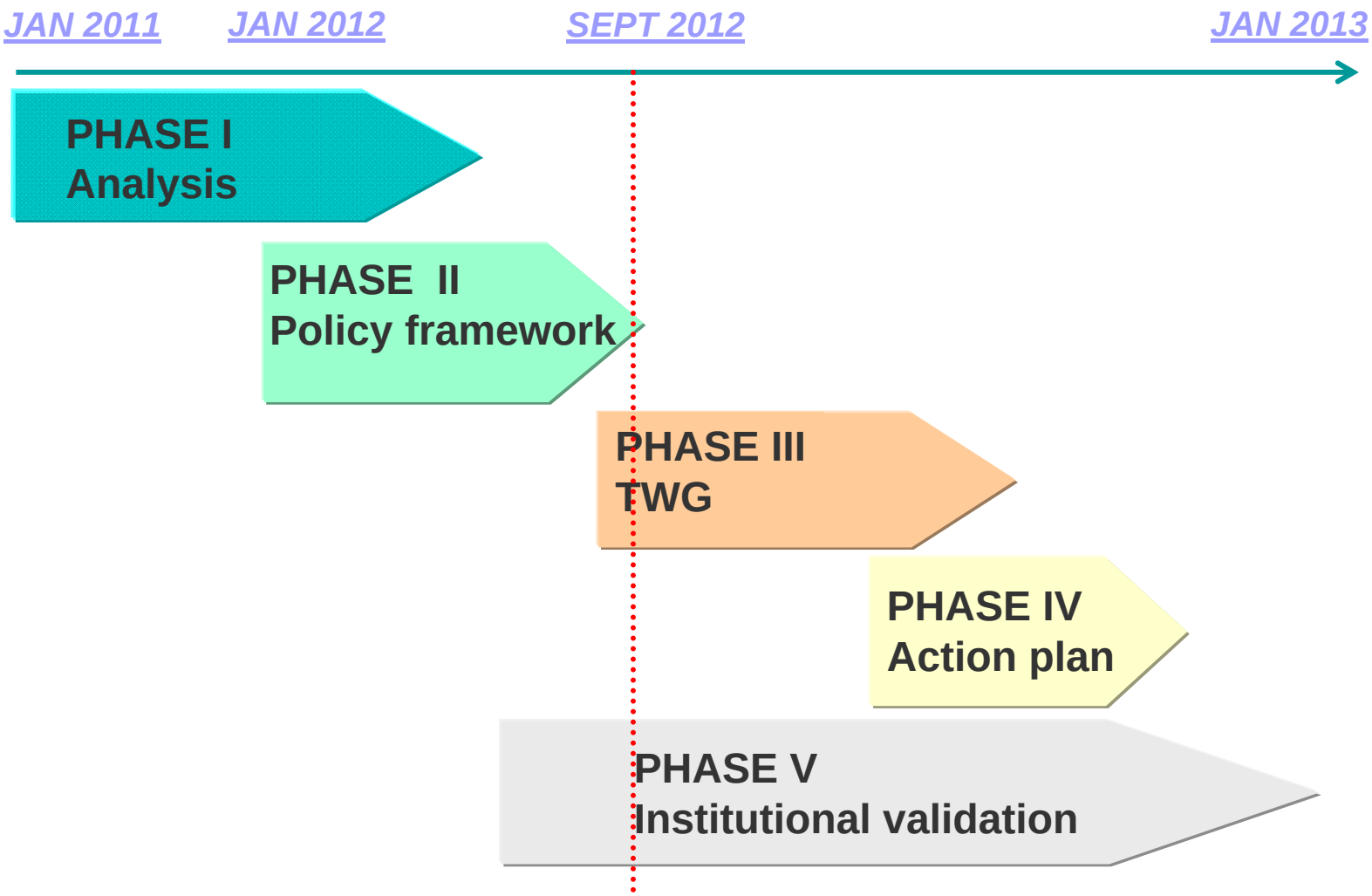
PHASE I Analysis	PHASE II Policy Framework	PHASE III TWG	PHASE IV Action Plan	PHASE V Institutional Validation
- Territorial Analysis; - Policies evaluation; - Foresight exercises.	- Priorities setting; - Current policy framework.	- Roadmap; - Policy tools; - Extra regional opportunities (CP, Horizon 2020, FDI, etc…).	- Roadmap integration; - Governanc; - Monitoring and evaluation model.	- RIS3 Institutional Validation.
Step 1 RIS3 Guide.	Step 3 RIS3 Guide.	Step 2 RIS3 Guide; Step 3 RIS3 Guide; Step 4 RIS3 Guide; Step 5 RIS3 Guide.	Step 5 RIS3 Guide; Step 6 RIS3 Guide.	Step 2 RIS3 Guide.

RIS3 Guide Steps

Step 1 - Analysis of the regional context and potential for innovation;
Step 2 - Governance: ensuring participation and ownership;
Step 3 - Elaboration of an overall vision for the future of the region;
Step 4 - Identification of priorities;
Step 5 – Definition of coherent policy mix, roadmaps and action plan;
Step 6– Integration of monitoring and evaluation mechanisms.

REGIONE TOSCANA

The path for a RIS3 in Tuscany



Phase 1 – Analysis

PHASE I Analysis	PHASE II Policy Framework	PHASE III TWG	PHASE IV Action Plan	PHASE V Institutional Validation
- Territorial Analysis; - Policies evaluation; - Foresight exercises.	- Priorities setting; - Current policy framework.	- Roadmap; - Policym tools; - Extra regional opportunitites (CP, Horizon 2020, FDI, etc…).	- Roadmap integration; - Governance; - Monitoring and evaluation model.	- RIS3 Institutional Validation.

Phase 1 – Analysis

Territorial Analysis:

EUROSTAT; ECB; OECD; Banca Italia; ISTAT; IRPET.

Policy evaluation:

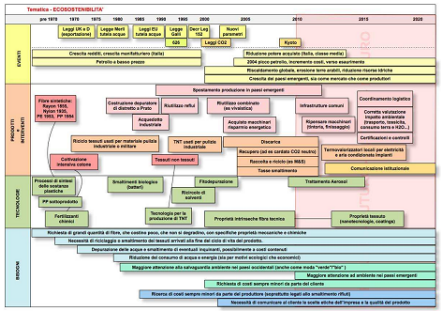
Mainly industrial research, financial engineering, technological transfer 2000-2010.

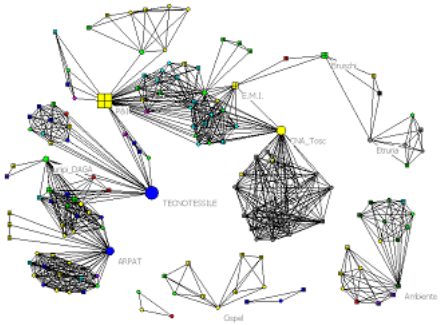
Foresight excercises;

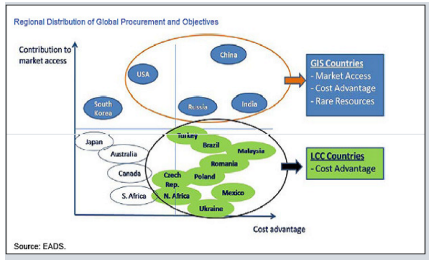
Fashion and Textile; Biotech and medical devices; Shipbuilding.

Analisys of international positioning of emerging clusters

Fotonics; Renewable energies; Robotics; Virtual reality technologies; Nanotech; Infomobility; Pharma; Domotics; Medical devices; Aerospaces technologies; Cultural Heritage technologies.







Phase 1 – Main conclusions

1) ***Investing on excellences;***

2) ***Mitigating inbalances.***

Green growth

Inclusive growth

Engaging growth

Economic growth

Human capital growth

Introduction of a "**discontinuity element**" to build a new model of social development (integration of policies, cooperation between different levels of government);

Not just new roadmaps toward economic growth, but a new **Social Cohesion Model**, trying to combine "**Intelligence**" with "**Capacities**" .

Phase 2 – Policy framework

PHASE I Analysis	PHASE II Policy Framework	PHASE III TWG	PHASE IV Action Plan	PHASE V Institutional Validation
- Territorial Analysis; - Policies evaluation; - Foresight exercises.	- Priorities setting; - Current policy framework.	- Roadmap; - Policym tools; - Extra regional opportunitites (CP, Horizon 2020, FDI, etc…).	- Roadmap integration; - Governance; - Monitoring and evaluation model.	- RIS3 Istitutional Validation.

Phase 2 – Policy framework

Main regional tools

a. R&S initiatives for SMEs and Big enterprises;
b. KIBS for SMEs;
c. Innovative enterprise spin-off and start-ups;
d. Technological transfer networks;
e. Infrastructures for technological transfer;
f. Human capital qualification.

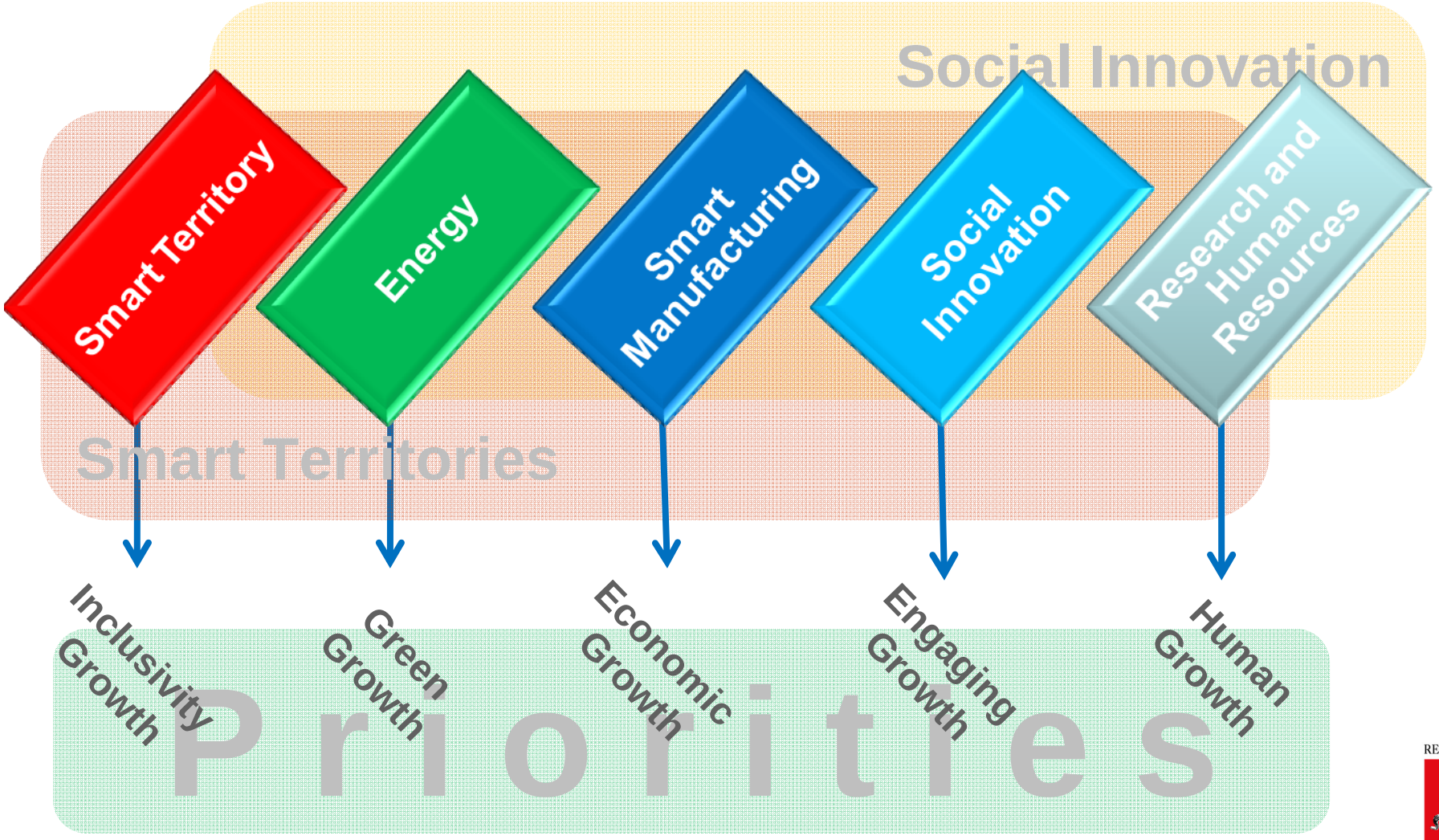
From technolgical transfer to cooperation among stakeholders!

Current Policy mix

- Regional Development Plan 2011-2015;
- Act for Research;
- ROP 2007-2013;
- FAS (National Funds) 2007-2013;
- Regional Economic Development Plan 2012-2015
- Regional Health Plan;
- Environmental and Energy Plan;
- Regional Plan for Electronic Administration;
- Infomobility Regional Plan;
- Regional Plan for education, training and employment;
- Rural development Plan.

Phase 2 – Policy framework

How to design this vision



Phase 2 – Policy framework

Energy and environment

Energy:

- Energy supply solutions (gas, geothermal);
- RES technologies;
- Energy saving solution.

Rural development:

- Protection of the environment (seismic, forest fire, hydro-geological risk mapping);
- Environment reclamation;
- Preserving and developing a social and economic environment to sustain peripheral territories.

Agri-food:

- Sustainability and quality of food;
- Agrarian biotechnologies;
- Agroforestry to control climate change, energy production, environment protection.

REGIONE TOSCANA

Phase 2 – Policy framework

Smart territories

Accessibility (people and goods):

- Infrastructural assets (material and ICT);
- Logististic upgrading, infomobility;
- Social Accessibility (digital citizenship, e-government).

Urban development:

- Requalification of urban spaces;
- Relationship between urban and rural areas.

Public transportation and info-mobility:

- ICT for a public transportation;
- Upgrade of railway system for broader spillover effects.

Cultural and environmental heritage:

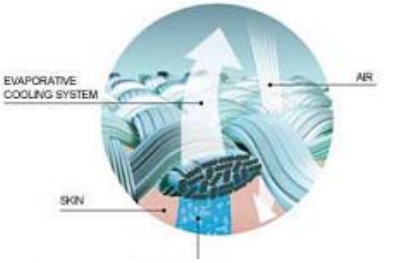
- Strengthen touristic supply, in order to better link urban and rural areas;
- Valorization of the international position of Tuscany.

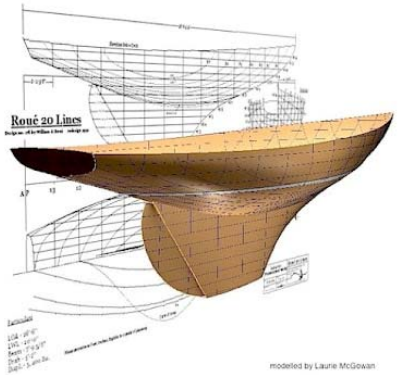
Phase 2 – Policy framework

Smart manufacturing

Excellence, networks, capacities

- Research-Industry relations especially in traditional sectors;
- Business intelligence and KIBS: Innovation Poles;
- Financial tools for emerging clusters;
- R&D aid for excellence;
- Innovation infrastructures.





Distinction between:

- Calls for “new processes” vs. calls for “new products”;
- Calls for “exploration activities” vs. “exploitation activities”.

Introduction of:

- Regolatory policies;
- PC – procurement.

Phase 2 – Policy framework

Research and human capital

Scientific competences and knowledge spill-over:

- Life Sciences and Neurosciences;
- Robotics and Biorobotics;
- Knowledge acceleration;
- Photonics;
- New Materials and Nanomaterials;
- Cultural Heritage;
- Social Innovation;
- Energy
- Environment, climate, agriculture and forests;
- Space.

Education and self-entrepreneurship:
(Mobility, infrastructures, e-learning).

Manufactural and artisan skills (life-long learning, labour demand, resources/curricula for companies).

Phase 2 – Policy framework

Social Innovation

Individuals, enterprises, territories;

Not just initiatives fulfilling social needs, but the capability to build context capacities;

An interdisciplinary process leading to new pubblic/common goods&services;

Transformation of institutional mechanisms of production and distribution of incomes and services.

An attempt to combine Intelligence and Capacities!!!

Phase 3 – Thematic WG

PHASE I Analysis	PHASE II Policy Framework	**PHASE III TWG**	PHASE IV Action Plan	PHASE V Institutional Validation
- Territorial Analysis; - Policies evaluation; - Foresight exercises.	Priorities setting; Current policy framework.	- Roadmap; - Policym tools; - Extra regional opportunitites (CP, Horizon 2020, FDI, etc…).	- Roadmap integration; - Governance - Monitoring a;nd evaluation model.	- RIS3 Istitutional Validation.

Phase 3 – Thematic working groups

5 Thematic working groups

Stakeholders:

-Universities;
-Research centers;
-Business associations;
-Handicraft;
-Innovation Poles;
-Technological Districts;
-Local government representatives;
-Regional governments representatives (coordination).

Expected results:

- Roadmap;
- Policy tools;
- Extra-regional opportunities (CP, Horizon 2020, FDI, etc…);
- Targets, outputs, outcomes, context.

Phase 4 – Action Plan

PHASE I Analysis	PHASE II Policy Framework	PHASE III TWG	**PHASE IV Action Plan**	PHASE V Institutional Validation
- Territorial Analysis; - Policies evaluation; - Foresight exercises.	- Priorities setting; - Current policy framework.	- Roadmap; - Policym tools; - Extra regional opportunitites (CP, Horizon 2020, FDI, etc…).	- Roadmap integration; - Governance; - Monitoring and evaluation model.	- RIS3 Istitutional Validation.

Phase 4 – Action Plan

Driving integrated prioritites into an integrated action plan

Policy mix:

-Context intiatives;
-Exploration initiatives;
-Selection initiatives.

…..integrated governance model

-Management team;
-Steeering group;
-Mirror group.

…integrated monitoring and evaluation model:

- A matrix approach between policies, priorities and dimensions of innovation.

Phase 4 – Action Plan

Monitoring activity

The first step in defining RIS3 strategy will be establishing the ***Key integrated Indicators*** of monitoring process:

- **Output indicators**
- **Outcome indicators**
- **Context indicators**

In order to maximize integration, indicators will be "homogeneous, unitary and detectable" on the base of the new SF framework and the structure of OP.

Those indicators will be based on specific ***EU requirements*** and implemented also to foster **benchmarking analysis** at European and OECD level.

Phase 5 – Institutional validation

Institutional validation

Approval by the Regional Government

- Around Dec 2012.

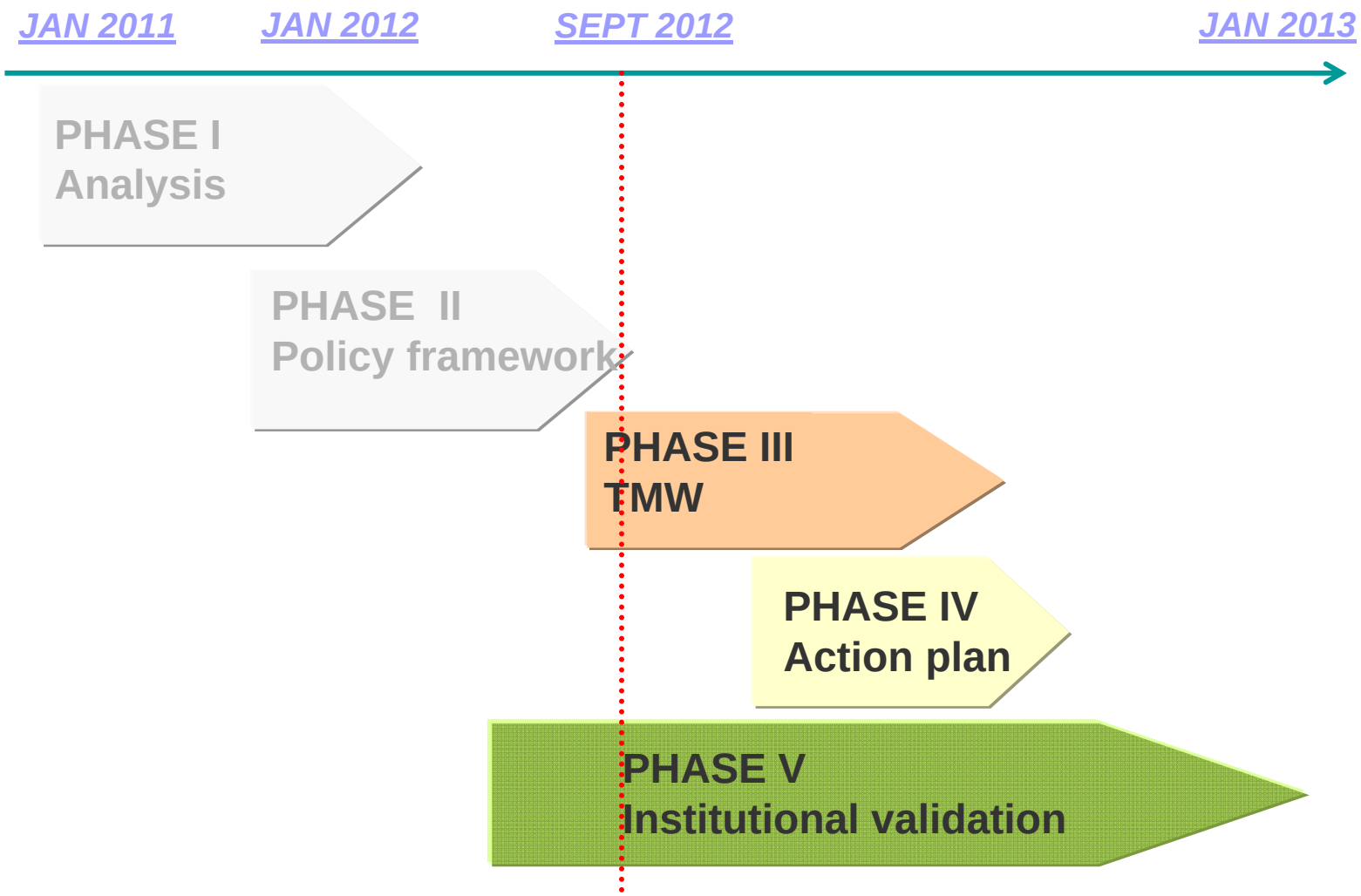
The engaging process:

- The current policy framework;
- The TWGs;
- The Governance model.

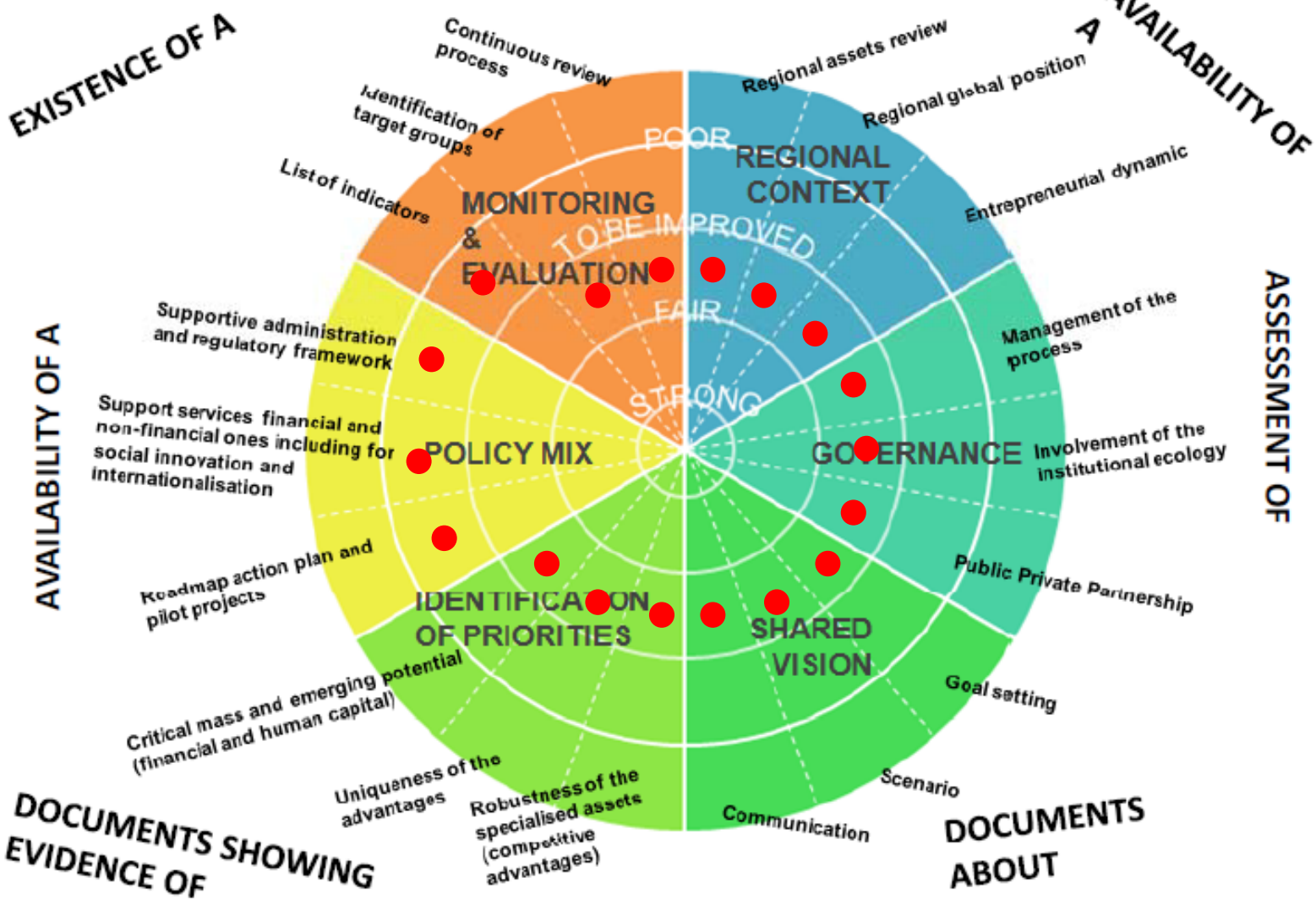
PHASE I Analysis	PHASE II Policy Framework	PHASE III TWG	PHASE IV Action Plan	**PHASE V Institutional Validation**
- Territorial Analysis; - Policies evaluation; - Foresight exercises.	- Priorities setting; - Current policy framework.	- Roadmap; - Policym tools; - Extra regional opportunitites (CP, Horizon 2020, FDI, etc…).	- Roadmap integration; - Governanc; - Monitoring and evaluation model.	- RIS3 Institutional Validation.

REGIONE TOSCANA

The path of a RIS3 in Tuscany



Self-assessment



Regione Toscana

POR CReO 2007-13
PROGRAMMA OPERATIVO REGIONALE OBIETTIVO COMPETITIVITÀ REGIONALE e OCCUPAZIONE Fondo Europeo di Sviluppo Regionale

REPUBBLICA ITALIANA

Unione Europea

S3 SMART SPECIALISATION PLATFORM

Thank you for listening!

emanuele.fabbri@regione.toscana.it
www.regione.toscana.it