New Cluster Policies and Tools to Support Emerging Industries and System Innovation

Poly4EmI – Bio Polymers for Emerging Industries
Policy in Support Emerging Industries

CIP Clusters and entrepreneurship in support of emerging industries
64/G/ENT/CIP/13/C/N04C02

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Testing a systemic policy model to stimulating the transformation of the industrial structure through Clusters

- Emerging Industries
- New BioBased Value Chains

CIP Clusters and entrepreneurship in support of emerging industries
64/G/ENT/CIP/13/C/N04C02, Lead Partner Ministry of Science, Education and sport, Slovenia
Systemic Policy Model

- Policy tools to support entrepreneurship in the emerging industry through clusters;

- Cross Cluster Collaboration to identify new value chains and bio based value chain network and related actors

- Business services to exploit business opportunities and start ups in biopolymer emerging industries
“Plastic” Agriculture, Health, Safety, Mobility, Food...

......Melting Arctic Tons of plastic, biomass waste in landfills, oceans
BioBased Industry Market
200 Mrd EUR by 2020
Slovenian Emerging Industries Hubs

- Advanced Packaging
- Medical Devices
- Bio Pharmaceutical

Source: Cluster Observatory
Changing the way how to produce and use polymers
Investments in research did not turn into innovation / new firms / new products

Source: Poly4emi
Value Chains Are Disconnected

Source: BBI
Poly4EmI: towards a biopolymer based industry

Public authorities + clusters and SME intermediaries

Open collaboration space

SMEs cross-sectoral projects

International Policy Learning at policy and cluster levels

Focused workshops, matchmakings, calls for proposals

Innovation and entrepreneurial support

Impact on the use of resources, incl. a reallocation of existing or mobilisation of new funds
• Peer Review and Stress Testing of policies
• Cluster Benchmarking
• Value Chain Mapping and Analysis
• RoadMapping and Foresight

• Cluster Platform
• Open Space Tools

• COINVEST – investment scheem
• Vouchers
• Innovation Challenge
Peer review and Stress test
Understanding of different policy models and differences

Bio Based profile
- Bavaria, Saxony, Lower, Upper Austria, Flanders, Slovenia

Emerging industries focus
- Saxony, Madrid, Rhone Alp, Solent, Flanders

World Class Clusters, May 2015
- Mass Life Science
Key dimensions of policy conducive to bio based industry

Systemic perspective on the development of a bioeconomy: different elements and good practice

**Policies and programmes**
- Bioeconomy as a strategic policy objective
  - Bavaria
  - Saxony-Anhalt
  - Flanders
- Involvement of relevant actors in the policy development process
  - Saxony-Anhalt
  - Flanders
- Financial support through thematic and generic programmes
  - Bavaria
  - Saxony-Anhalt
  - Mass: MLS center

**Vehicles for implementation**
- Innovation Hubs for the development of a bioeconomy
  - Flanders: FISCH
  - Lower Austria: Technopole
  - Mass: MLS center
- Clusters as catalysts for the development of a bioeconomy
  - Bavaria: Chemical Cluster
  - Saxony-Anhalt: BioEconomy Cluster
  - MassMedic, MasBio...
- Cross-border collaboration
  - Flanders: cross-regional collaboration through Interreg projects and clusters
  - Mass: Catalonia, Denmark, Madrid...

Source: Poly4emi
Life science Mass

Comprehensive support: Workforce, Infrastructure, Technology, Start ups….

Life Science Center (100 mio USD 7 years)

PLUS

1,2 bn USD from NHS every year (universities, hospitals)
Weak Regional ecosystem - Slovenia

Local initiatives
CE Polimat, Other CE, CC, TechCenters

National cooperation
ACS

International cooperation
PCCL

Catalyst
Poly4EmI

EU policy and programme framework
- Horizon 2020

National policy and programme framework
- CoE Initiative (2009 – 2013)
- CC Initiative

Regional policy and programme framework
• Clusters are disconnected from EU R&D cooperation

• Slovenian Clusters are not members of BioBased Industrial Consortium

• Cluster Cooperation at regional level is weak

Cluster Observatory 2015
Issue 4: Cluster organizations
Capacity is weak

Clusters in Poly4EmI: Clusters, CE, CC, Tech Centers
Tools

- Peer Review and Stress Testing of policies
- Cluster Benchmarking
- Value Chain Mapping and Analysis
- RoadMapping and Foresight

- **Cluster Platform**
- **Open Space Tools**

- COINVEST – investment scheme
- Vouchers
- Innovation Challenge
Advanced Packaging For Food, Pharmacy, Cosmetics Value Chains

Potential contributors – much more the pulp and paper!

- Agricultural,
- Forestry sector
- Pulp and Paper industry
- Fine chemical industry
- Nutrition industry
- (Bio-)chemical industry
- Polymer (processing) industry
- Technical packaging industry
- Food sector
- Pharmaceutical industry
- Cosmetics industry

Source: Value Chain mapping, Poly4emi
Poly4EmI Open Space
Facilitation of Cross-sectorial collaboration along value chains

Open Space
- Clusters, Centre of Excellence, Competence and Technology Centres active in:
  - pulp and paper, wood,
  - automotive,
  - ICT,
  - Medical devices
  - Polymers

All of them acting before disconnected.

Open Space tools
- Creative Workshops
- Innovation Challenge
- COINVEST – start-ups

More than 20 projects along value chains initiated by actors that never collaborate before.
Cluster Organizations participated in the capacity building process

• Benchmarking with International peers
  – To identify main gaps
  – Prepare an improving action plans and actions

• Coaching and mentoring
  – Technical assistance
  – Strengthening International connections
Voucher to support value chains

Needs along the value chains:

• State-of the art (prior art) analyses
• Market needs assessment
• Proof of concept including prototyping and scale-up testing
• Internationalization – building linkages with innovation hot spots and markets
• Consultancy (IPR, legal)
• Value chain/cluster development
• **COINVEST** – investment platform for start ups
Value Chains ➔ Value added Network
Poly4emi Platform and Value chains projects engaged about 300 firms from various clusters and sectors

To be further developed as part of

- Smart Specializations Slovenia (Local)
- H2020: InnoSup (EU Level)
- Danube Strategy (Macroeconomic level)
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