

**Joint Workshop of OECD and European Cluster Observatory
Berlin, 7.4.2016**

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

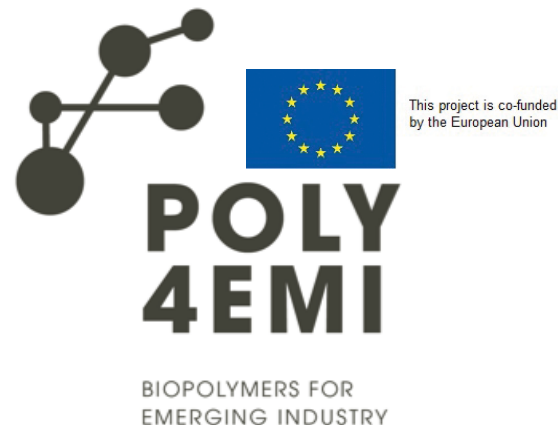
Poly4Eml – Bio Polymers for Emerging Industries Policy in Support Emerging Industries

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

Mateja Dermastia
CEO Anteja ECG



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



- **Emerging Industries**
- **New BioBased Value Chains**

Systemic Policy Model

Mutual
transnational
policy learning

Cross Sectoral and
transnational
cooperation

Business services

- 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”



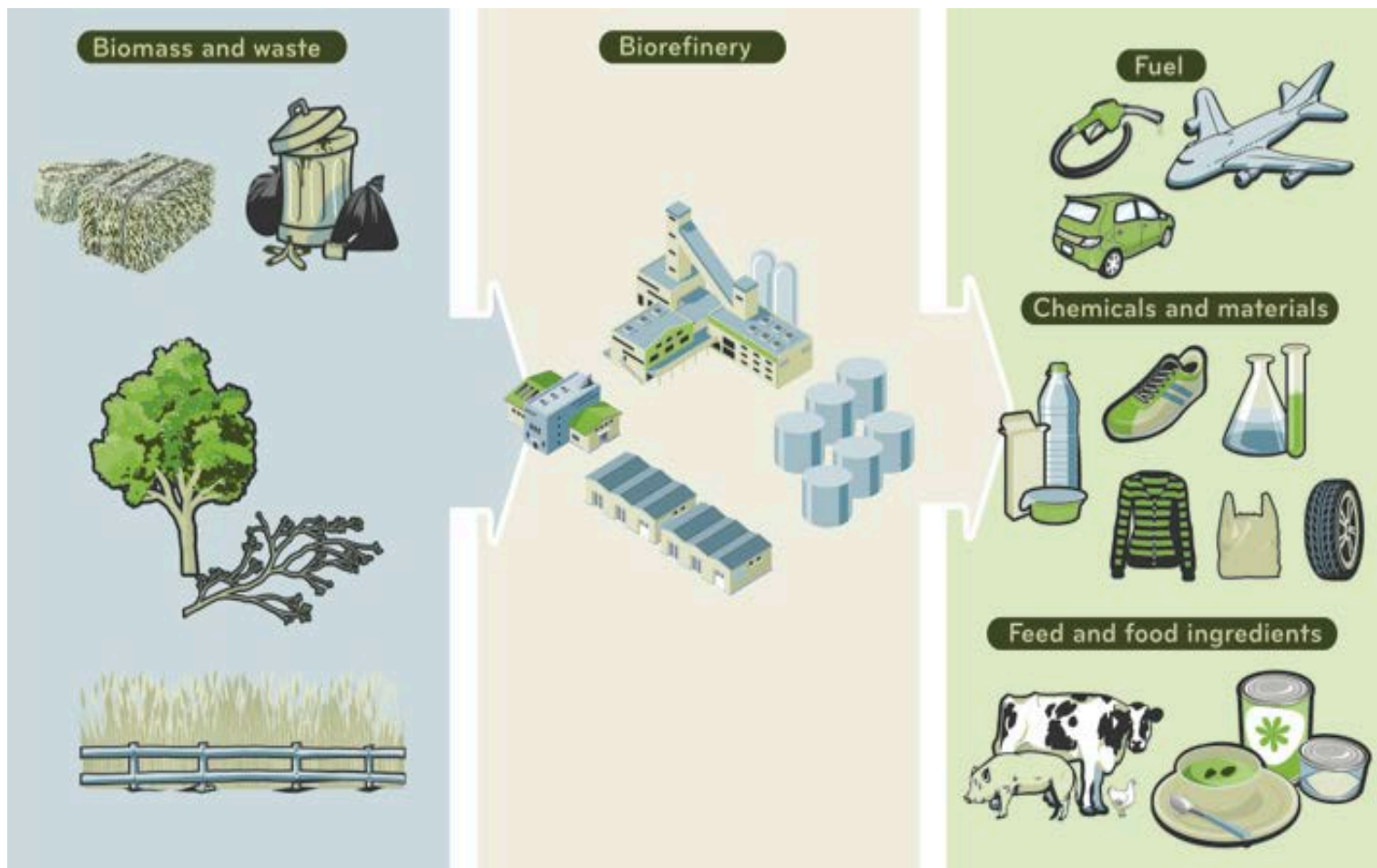
**Agriculture, Health,
Safety, Mobility,
Food...**



**.....Melting Arctic
Tons of plastic, bio
mass waste in
landfills, oceans**



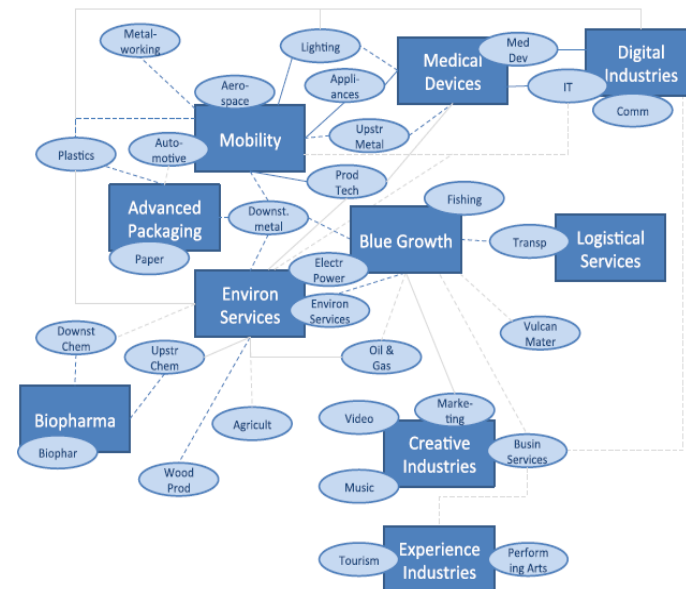
BioBased Industry Market 200 Mrd EUR by 2020





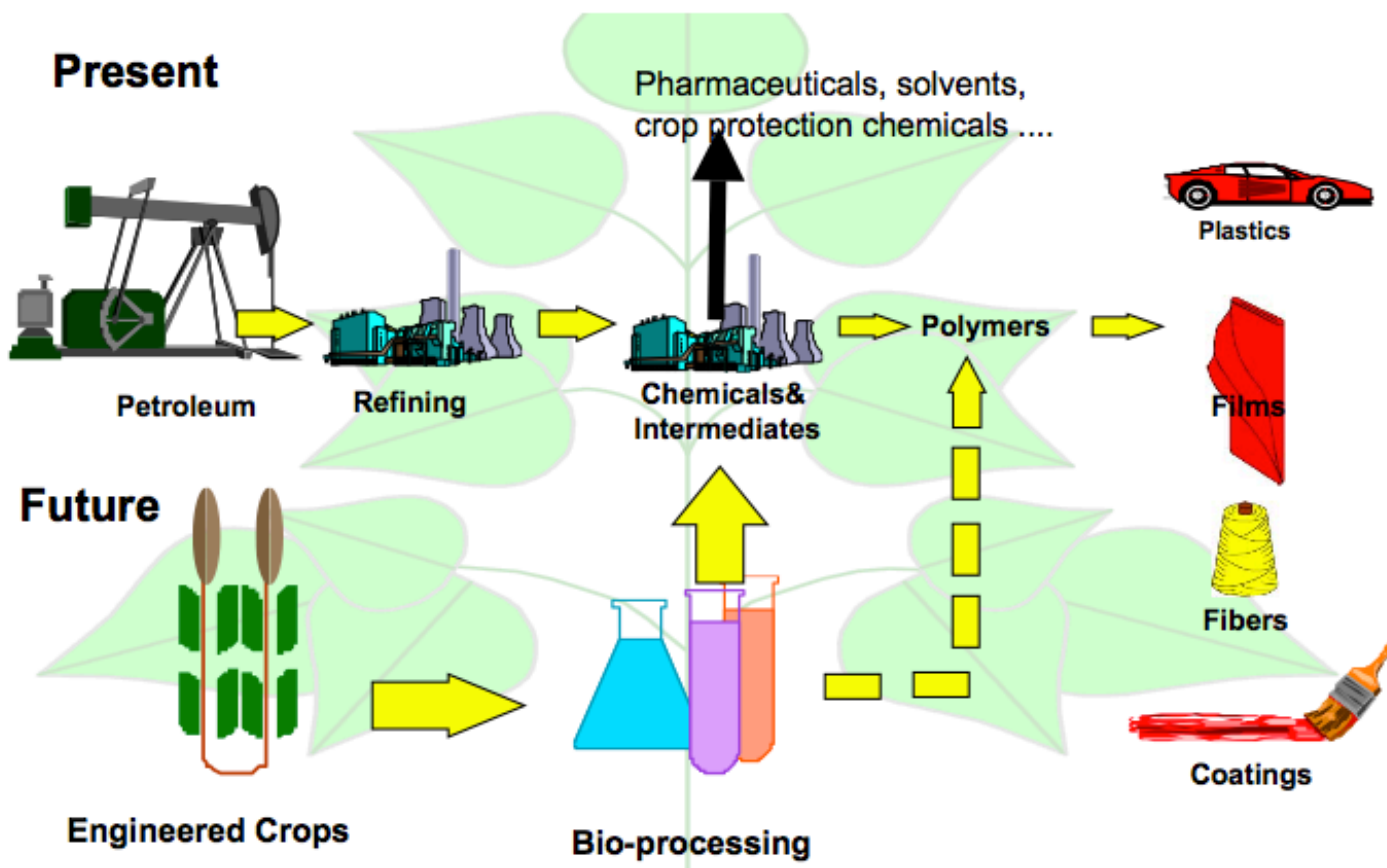
Slovenian Emerging Industries Hubs

- **Advanced Packaging**
- **Medical Devices**
- **Bio Pharmaceutical**

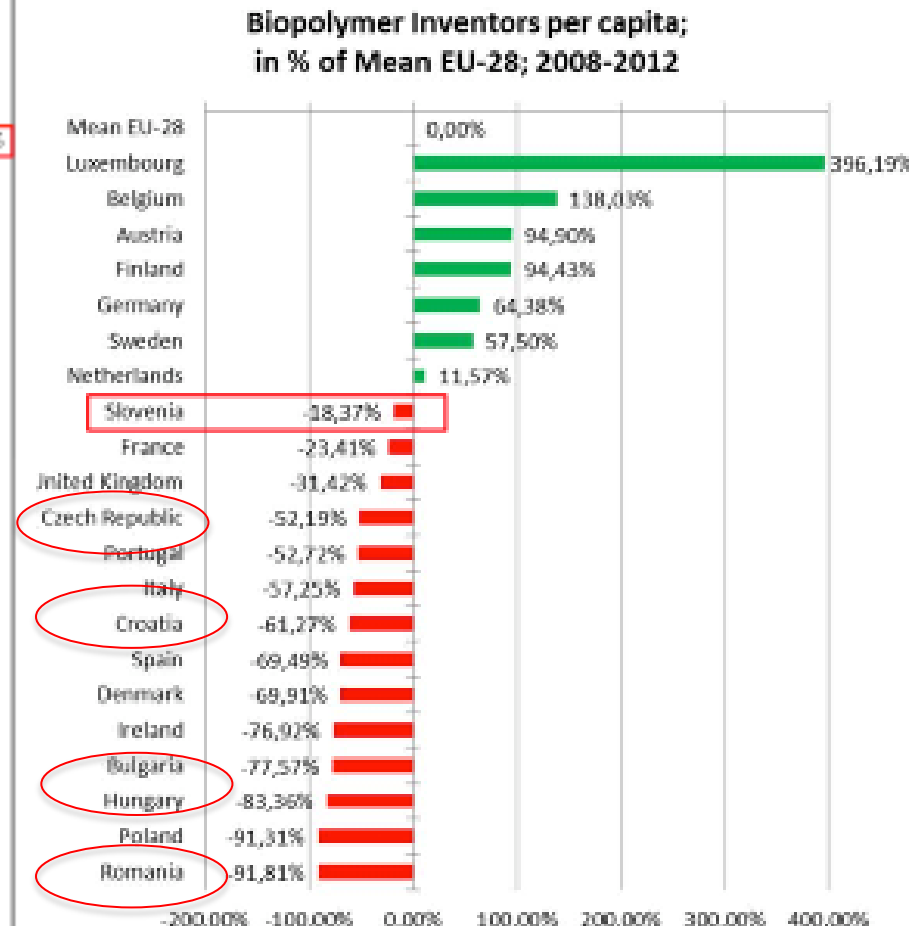
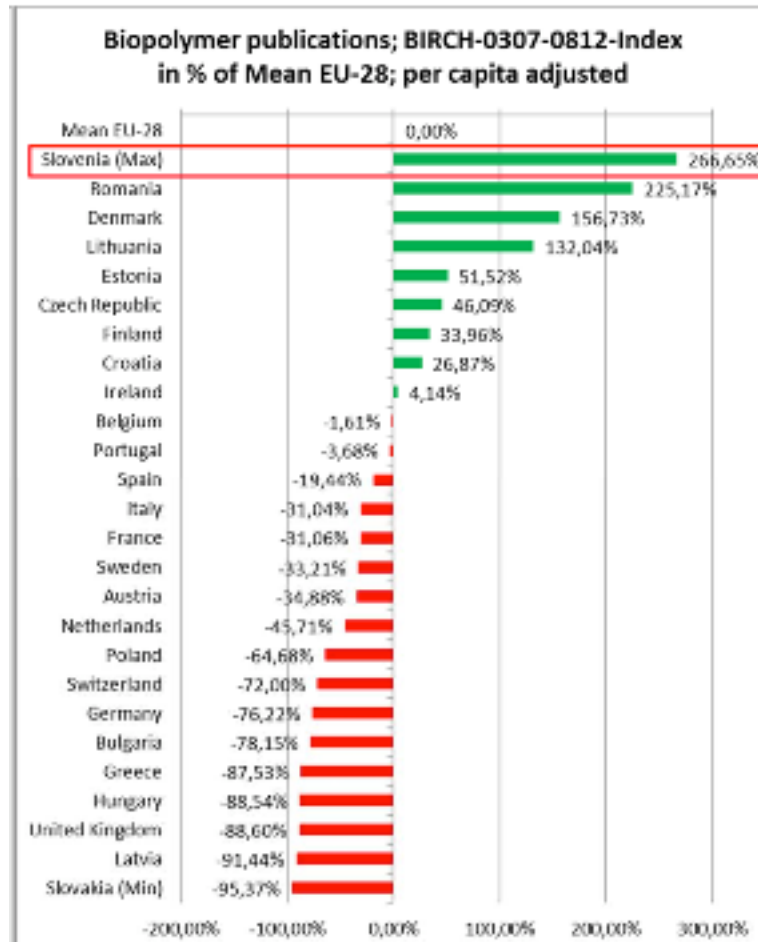


Source: Cluster Observatory

Changing the way how to produce and use polymers



Investments in research did not turn into innovation / new firms / new products



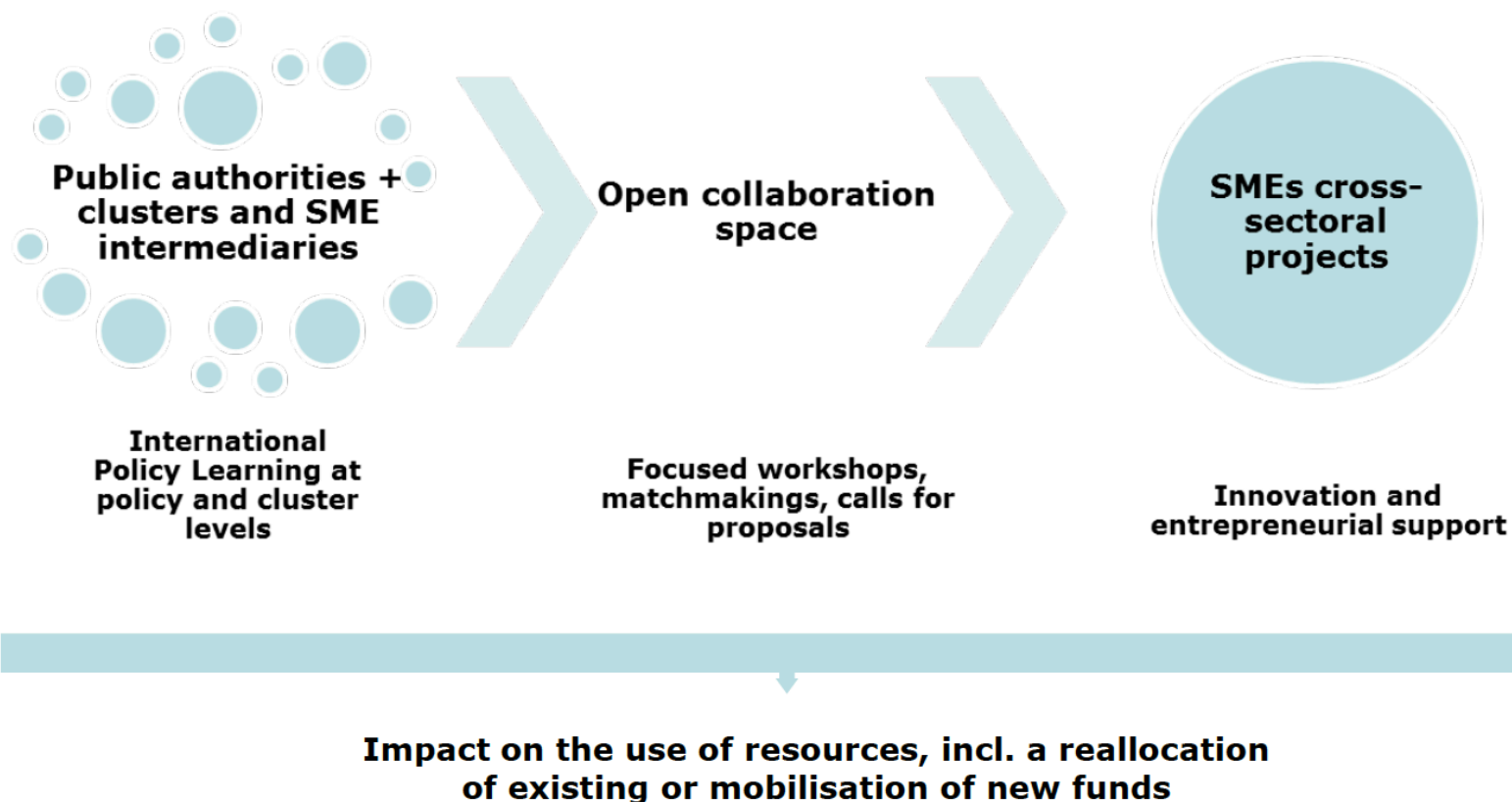
Value Chains Are Disconnected



Source: BBI

Commission

Poly4EmI: towards a biopolymer based industry



Mutual
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Cross Sectoral and
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Business services

- **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

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...*

Massachusetts is the home of a life sciences cluster that is second to none. Complementing its outstanding biopharmaceutical and medical science companies, are more than 60 academic institutions that offer advanced degrees in life sciences, five of the top eight NIH-funded hospitals in the nation, and a workforce that offers unparalleled skills and productivity to employers. Massachusetts supports its innovative economy through an array of job creation incentive programs – including the landmark, \$1 billion Massachusetts Life Sciences Initiative.

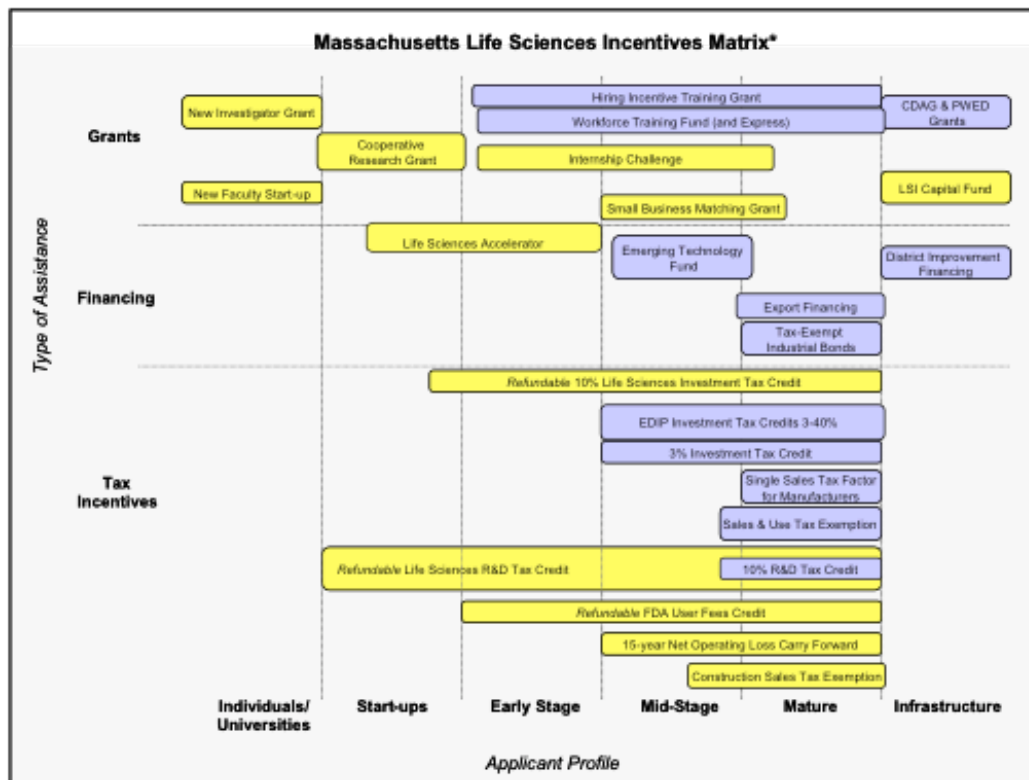
Life science Mass

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

Life Science Center
(100 mio USD 7 years)

PLUS

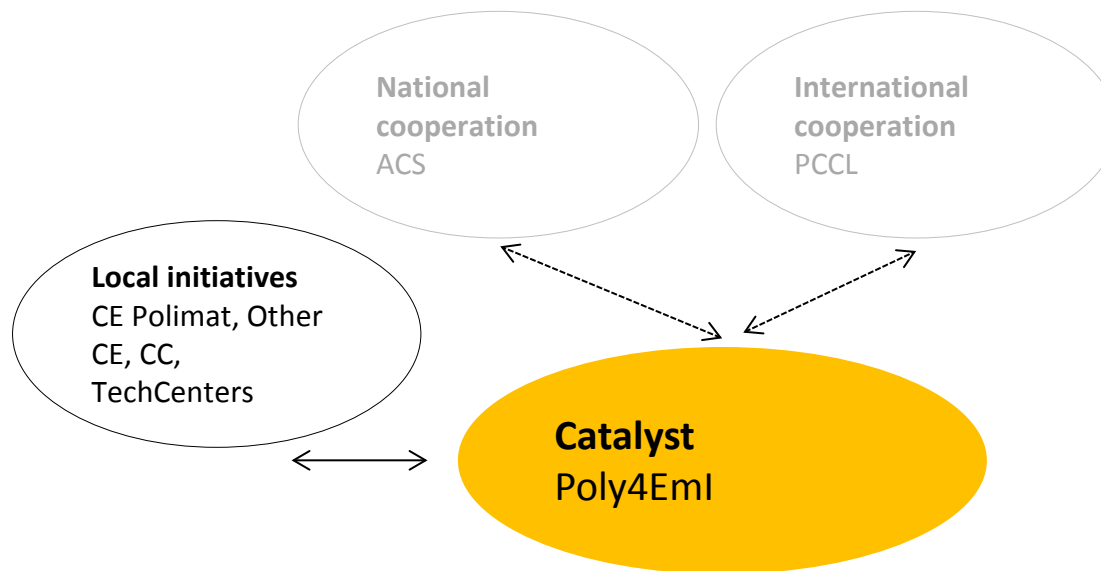
1,2 bn USD from NHS
every year
(universities, hospitals)



* The matrix includes a broad sampling of state business assistance programs, but it is not a comprehensive listing.

- Indicates programs that are available through the \$1 billion Massachusetts Life Sciences Initiative. The programs are administered by a quasi-public agency, the Massachusetts Life Sciences Center.
- Indicates programs that are administered by a variety of state and quasi-public agencies such as MassDevelopment, Massachusetts Office of Business Development, and Division of Career Services. Some tax treatments noted are available "by right" and require no application.

What now? Access our in-house economic development professionals, who can assist you navigate the many state agencies and programs available. MassBio membership allows you the opportunity to have a trusted industry advocate, with comprehensive knowledge of the Massachusetts economic development landscape, assist you as you begin to take advantage of the many development resources potentially available to you.



EU policy and programme framework

- Innovating for Sustainable Growth: A Bioeconomy for Europe (2012)
- Horizon 2020

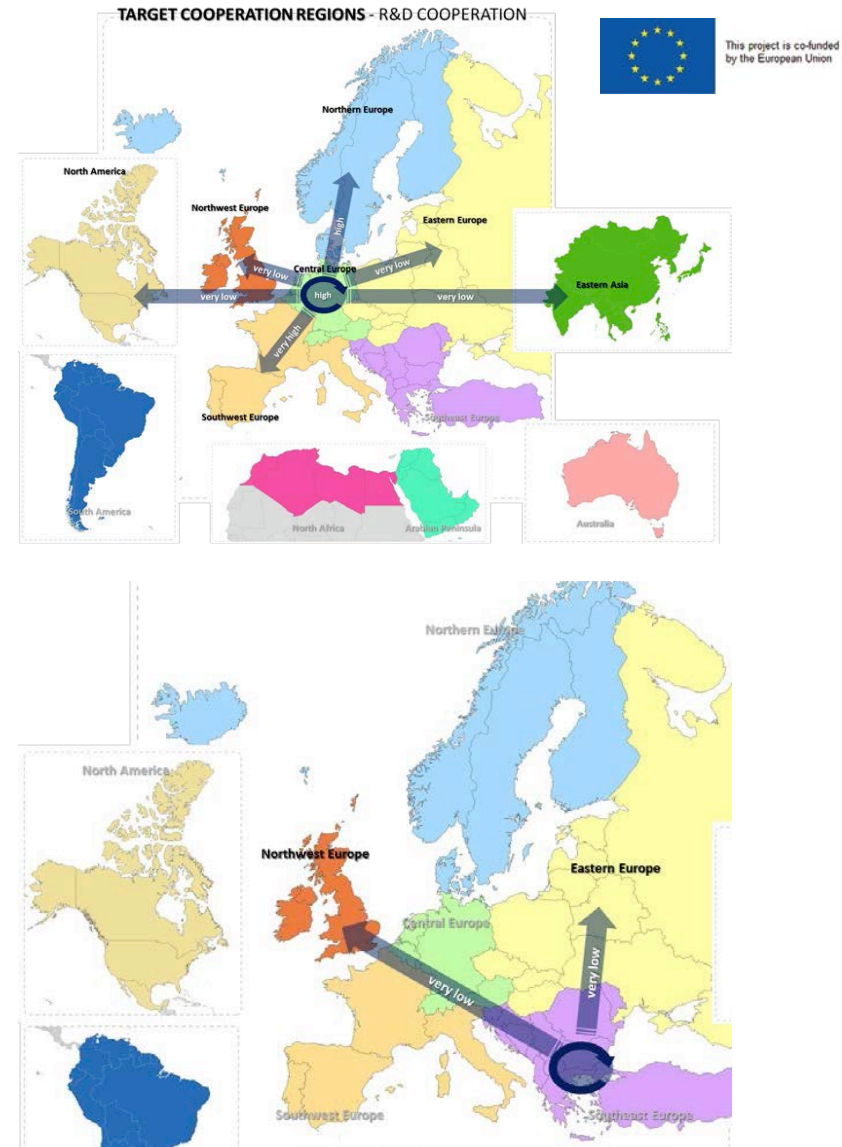
National policy and programme framework

- CoE Initiative (2009 – 2013)
- CC Initiative

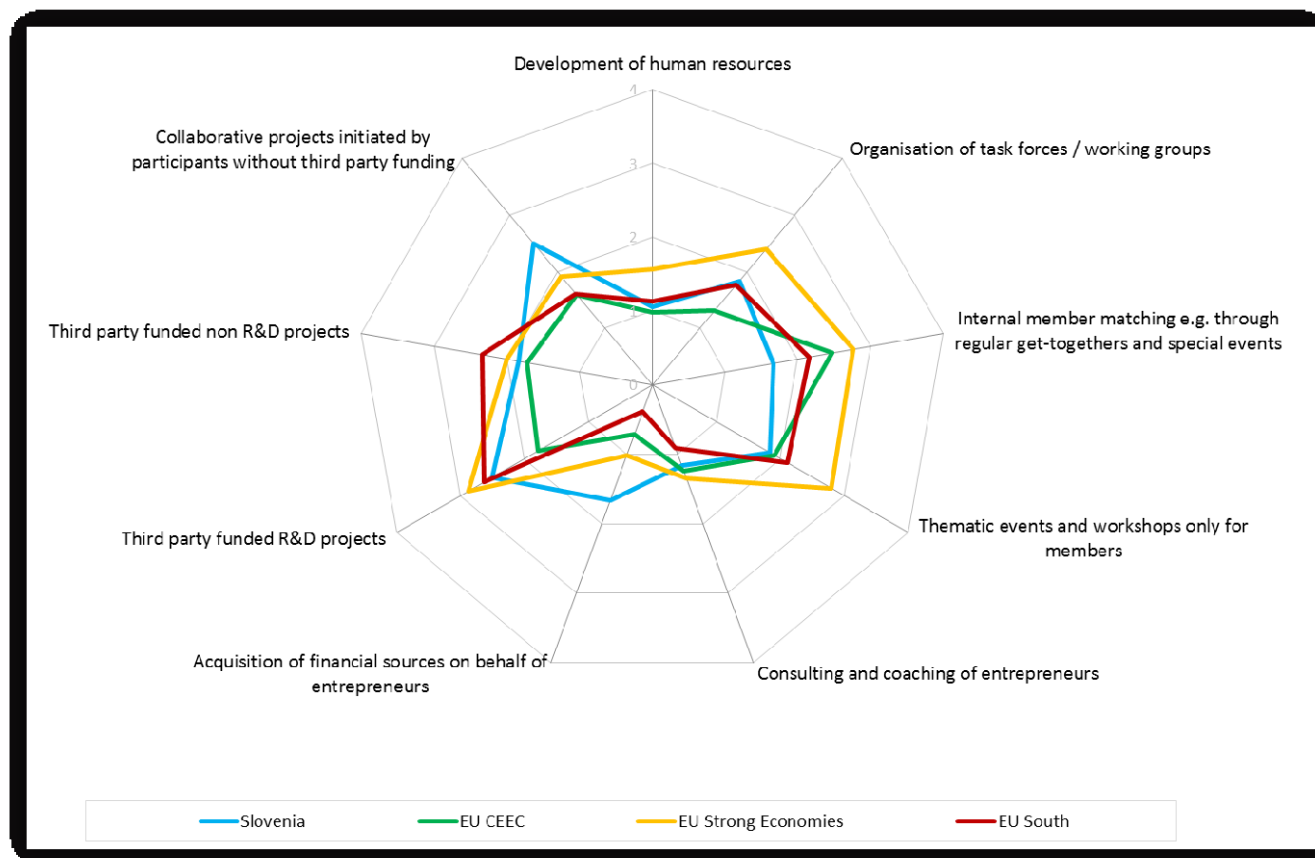
Regional policy and programme framework

Weak Regional ecosystem - Slovenia

- Clusters are disconnected from EU R&D cooperation
- Slovenian Clusters are not members of BioBased Industrial Consortium
- Cluster Cooperation at regional level is weak



Issue 4: Cluster organizations Capacity is weak



Clusters in Poly4Eml: Clusters, CE, CC, Tech Centers

Tools

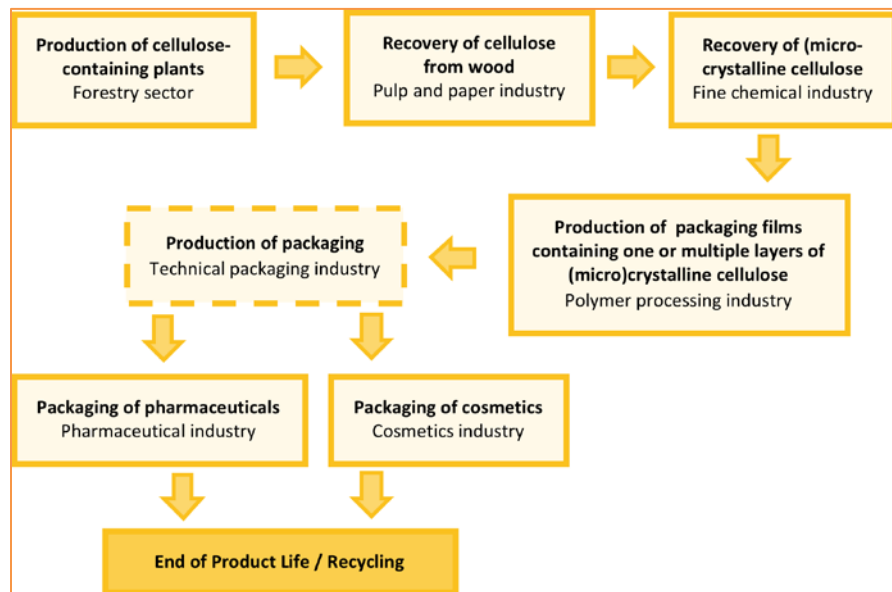
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- **Open Space Tools**
- COINVEST – investment scheme
- Vouchers
- Innovation Challenge

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

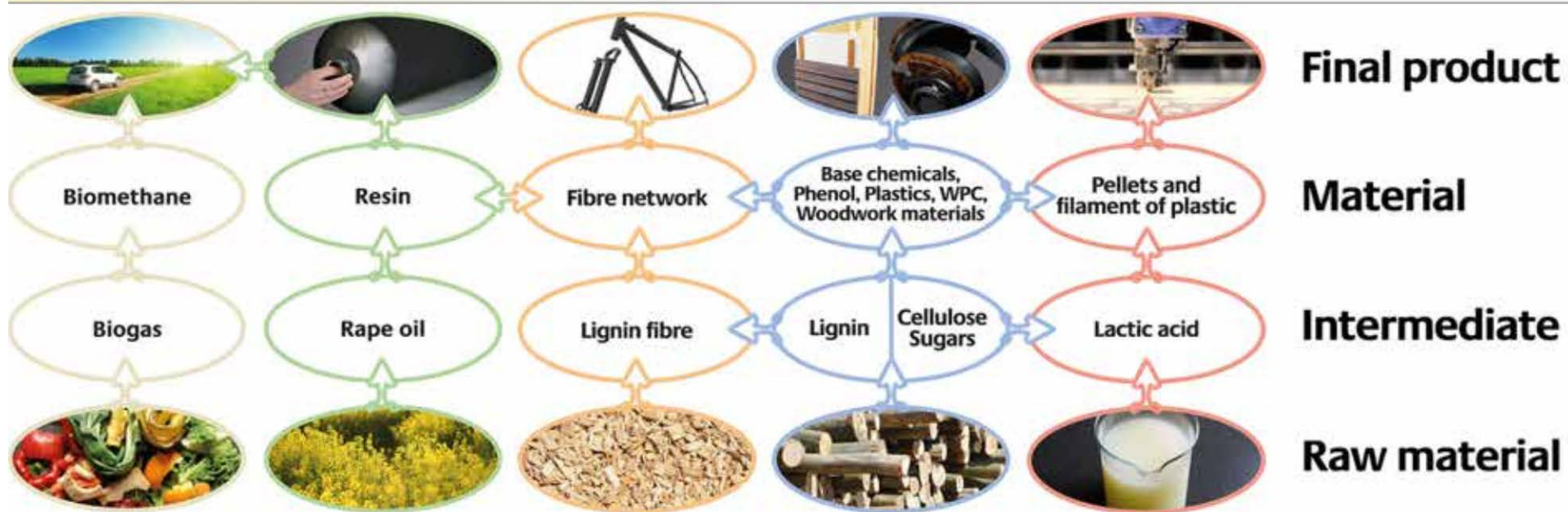
- Benchmarking with International peers
 - To identify main gaps
 - Prepare an improving action plans and actions
- Coaching and mentoring
 - Technical assistance
 - Strengthening International connections

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

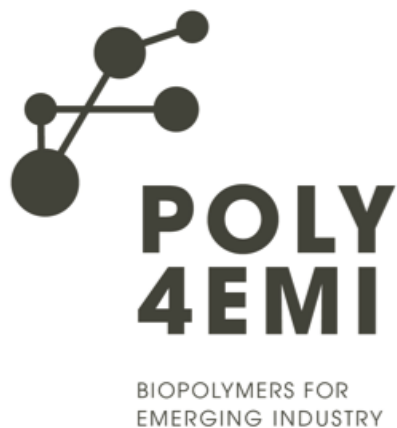
Value Chains → Value added Network



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 (Macroregional level)



mateja.dermastia@anteja-eg.com
www.poly4emi.eu