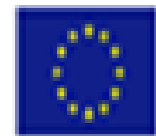


BioEconomy Regional Strategy Toolkit – CoP 1

March 25-26, 2014

Straubing



Community of Practice (CoP): What is it?

A **group of people** (scientists, practitioners, private businesses, policy makers) ...

... encouraged by **joint activities...**

...willing **to share ideas, experiences and strategies** on developing regional bioeconomy ...

...in order **to develop** a BioEconomy Regional **Toolkit**

Day 1: 25 march 2014

Opening

by Andreas Löffert, CEO BioCampus Straubing GmbH

Welcome in Straubing

by Markus Pannermayr, Mayor of the City of Straubing

The European perspective

by Manfred Weber, Member of the European Parliament

The BERST-project

by Myrna van Leeuwen, project coordinator LEI part of Wageningen UR

Keynote: new regional strategies of chemical and related industries

by Dr. Hans Jürgen Wernicke, member of the board DECHEMA e.V.

The European Bioeconomy – chances for Straubing

by Dr. Thomas Schleker, Cluster Manager BioCampus Straubing GmbH

Podium discussion: perspectives of the bioeconomy for science, industry and regional strategies

Moderated by Senta Schmatzberger

Prof. Dr. Volker Sieber

Dr. Gloria Gaupmann

Dr. Sigrid Winkler

Dr. Hannu Koponen

Day 2: 26 march 2014

Experiencing bioeconomy in Straubing – bus trip

by Andreas Löffert, CEO BioCampus Straubing GmbH

Welcome and gathering messages to take home

by Ingrid Coninx, Alterra part of Wageningen UR

Berst News

by Myrna van Leeuwen, project coordinator Lei part of Wageningen UR

Introducing Modus Operandi of Community of Practice

by Remco Kranendonk, WP5 leader Alterra part of Wageningen UR

Exploring driving forces of a bioeconomy (WP1)

by Ben Gardiner and Jon Stenning, WP1 leaders Cambridge Econometrics

Identifying and categorizing instruments and measures to deploy bioeconomy potential (WP2)

by Ruben Guisson, WP2 leader VITO

Field Visit Clariant

Wrap-up

by Ingrid Coninx

Closing of CoP1

by Myrna van Leeuwen

Diverse group of participants from 6 European bioregions

scientists, policymakers, cluster managers, entrepreneurs



Exploring bioeconomy development

- ✓ The Bio-Campus combines port area, biochemical industry, logistics and other industrial activities
- ✓ The **drivers of the bio economy development** are the geographical location, the logistic opportunities (and connection along Donau river) and the availability of biomass in the surrounding area .
- ✓ The Bio-Cubator is one of **the instruments to deploy** the bio economy potential. It is an organisation and a building, encouraging entrepreneurship, having settled more than 30 start-ups , who might be able to grow into larger businesses. In this building various shared facilities (e.g. Laboratory and office space) are being provided.
- ✓ Two bio economy **good practices**:
 - ✓ Bio refinery of rapeseeds of ADM Spyck GmbH
 - ✓ Bioethanol demonstration plant of Clariant
- ✓ The Bio-Campus organisation is owner of the land on the industrial site, and is looking for investing companies, selling plots in order to create new value to the area
- ✓ **Other instruments** to deploy the potential are Straubing Science Centre on renewable raw materials and energy, a long term vision about bio economy development, setting up collaboration with cluster partners and adjusted legislation to encourage new entrepreneurs and
- ✓ **Ambitions:**
 - ✓ Developing the Green Chemistry Belt: Straubing as a hotspot to link Green Chemistry Belt and chemical industry in the Rhine area. Provision of platform chemicals
 - ✓ Developing a Green Chemistry port: aiming to develop multimodal logistical network: harbour as a multimodal hub between river, road, railway, combined with bio based material conversion facilities
 - ✓ Attracting innovative business on site

GREEN CHEMISTRY PORT

STRAUBING - REGION DER NACHWACHSENDEN ROHSTOFFE

Our Vision for Straubing

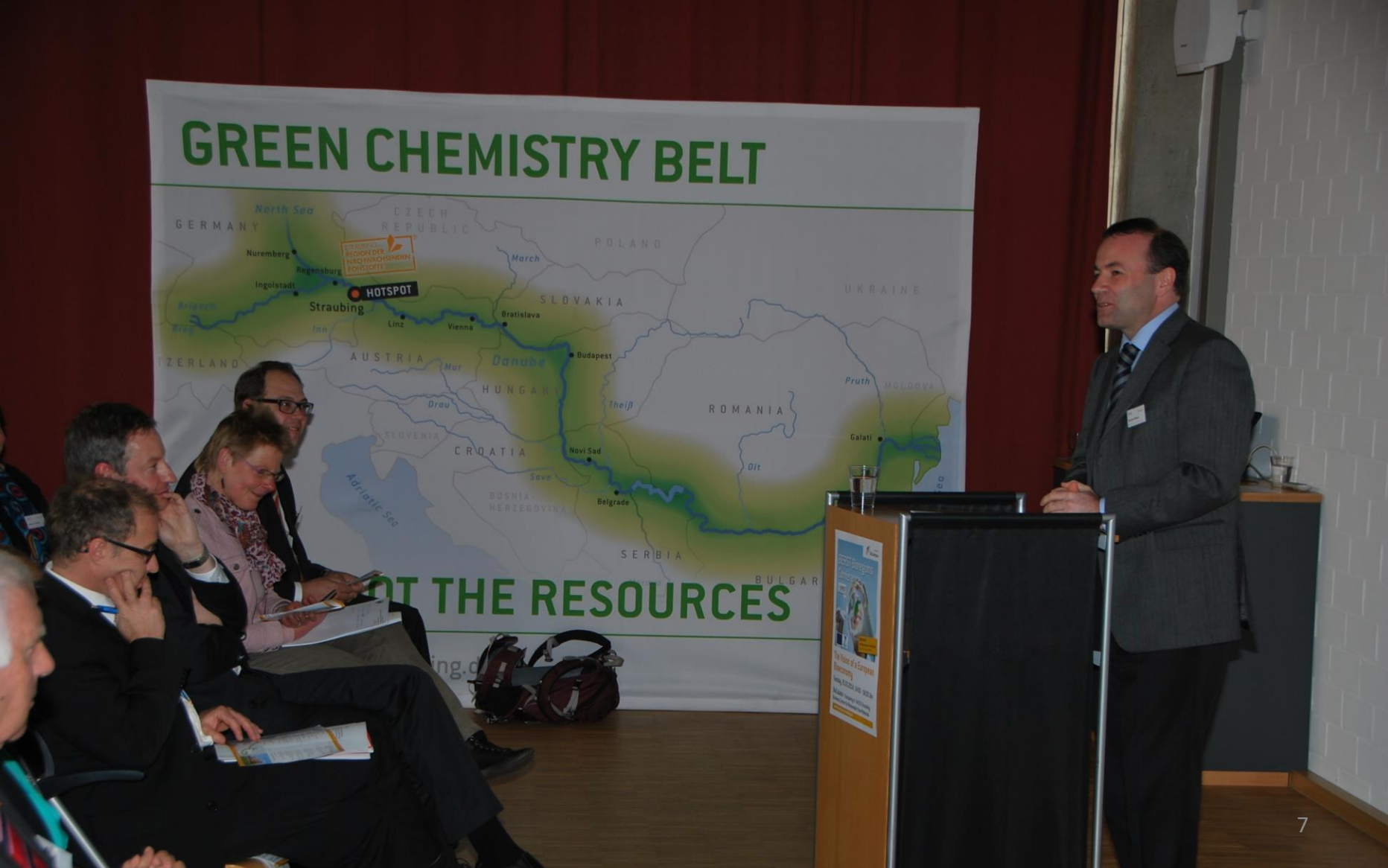
Labels in image: A, B, a, b, c, CLARIANT 2. Generation Biokraftstoff, BioCampus, BioCubator, GründerZentrum, ADM 1. Generation Biokraftstoff, Donau Futte GmbH, BiomasseLogistik, Raffineriebank Straubing eG, Agrarhandel, HAFENSTRASSE 10, BiomasseLogistik, Geplantes EV-Terminal.

www.hafen-straubing.de

Die Adresse in Bayern Straubing-Sand

DonauHafen

European perspective on bioeconomy



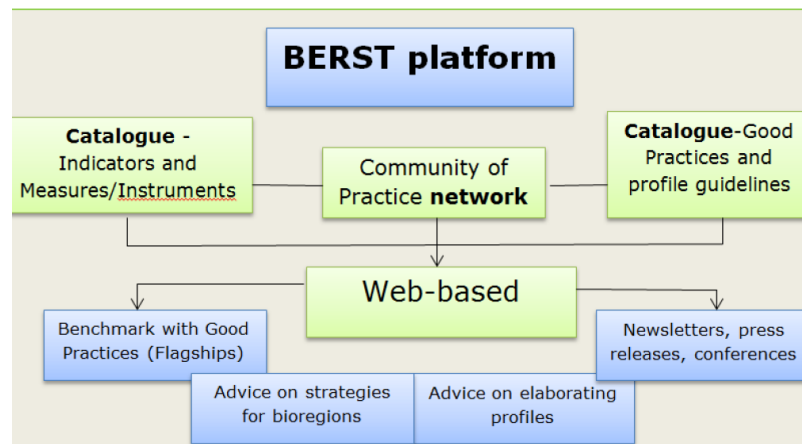
The BioEconomy Strategy Toolkit



General objectives of Toolkit

- ✓ Understanding: explore the Bioeconomy potential of EU regions
- ✓ Boosting: assist investors, entrepreneurs and policy makers in making strategic choices

Expected outcome of BERST



New regional strategies

“No feedstock, no bioeconomy/toolkit tailoring to case/oilbased economy and bioeconomy will co-exist/small companies need support/political will and support is prerequisite for success/little public money is necessary in the beginning ”

General Prerequisites

- Logistic Feasibility** → Cost, transport, storage and reliability of biomass supply critical for operational economics
- Industry Focus Industry Friendliness** → ... to attract entrepreneurs and to facilitate investments including surrounding industry
- World Class Facilities & Infrastructure** → Highest standards to secure market position, growth and general acceptance/reputation
- Financing, Incentives** → Offering financing services, assisting with subsidies and organize venture capital to trigger investment decisions
- Supportive Authorities Legal and Planning Certainty** → Self explaining
- Interaction with Academia Piloting** → Important for site development, scale-up of new technology, back-up for improvements, as source of qualified staff
- Skilled Workforce** → Critical to operate advanced technology and for securing know how

Summary

Drivers of Bioeconomy:

- Prices/Limited Availability of Fossil Feedstocks
- Geopolitical: Self-Sufficiency
- Environmental: Sustainability
- Renewable: CO2-Recycling, Non-Fossil Power

Constraints:

- Competitiveness: Open Markets, International Trade
- Business Risks: New Investments in New Technology
- Acceptance/Conflict: Competing Farmland Use

Chances, Opportunities:

- Synergies: Combination of Know-How Islands
- Bioeconomy adds to Conventional Economies/Markets
- Technology Advance by Forerunner Role
- Technology Export/Licensing Income

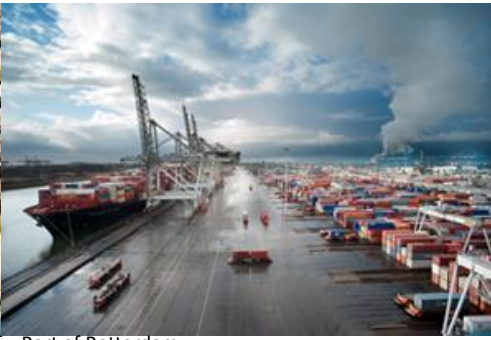
Regional Approaches:

- Case by Case Concepts for Optimum Feasibility
- Renewable Usage Combines with Decentralized Energy
- Materials and Waste Recycling
- Tailoring to Local Baseline and Needs

Other bioeconomy practices (different models)



LEUNA Site - http://www.basf-leuna.de/en/ch_stand.htm



Port of Rotterdam - <http://www.portofrotterdam.com/en/Port/port-in-general/Pages/default.aspx>



ETE Iceland - <http://www.ipd.is/?lang=en>



CRESCENTINO – Italy - <http://www.betarenovables.com/crescentino/gr-eeen-revolution>

Green Belt Donau development



Clear vision and ambition at regional level

Cross border value chain collaboration to develop bioeconomy

European bioeconomy chances with regard to BERST:

1. Further development of the regional strategy
2. Community of Practice network in order to build up strategic partnerships with other bioregions

Panel discussion

“There are too many potential development strategies and possible value chains. Making choices is important. Companies are ready to invest, but there should be direct support, f.e. making the region interesting for investments by clear political choices.”

What are the drivers for the bioeconomy development?

What are incentives of region to develop bioeconomy?

How do clusters emerge?

Central Finland:

1. keeping the money IN the region
2. Becoming independent: a small region like us is dependent on transport. The challenge is to become independent based on biomass value creation, for example to develop their own energy system. Driver is being close to each other: politicians, science and entrepreneurs.

Danube Region: Clusters are the drivers behind bioeconomy development. The challenge is to create synergies between different industries along the river. The driving force is a the interaction between bottom-up initiatives from companies and institutes and top-down cluster development by governmental decisions: economic drivers, clear common vision with 5-10 year plan, political support to implement innovations, adjusted policies, cluster labelling

Straubing: close collaboration among various disciplines is important – place to meet each other physically is a driving force - politicians have to allow and adopt new technologies – drivers: Straubing site, good logistics, different sectors present

Clariant: Politicians and policymakers play an important role in setting conditions for transition and enhancement for bio based strategies. Make use of policy tools, make strategically choices based on expert knowledge and come up with funding and support of initiatives. Create stability.

Bus Tour and visit pilot plan Clariant



*Andreas Löffert, CEO
BioCampus, shows the
Straubing BioCampus
(story on slide 6 of this ppt)*

Germany's largest cellulose ethanol pilot plant

The futuristic project will produce up to 1,000 tonnes of cellulose ethanol from around 4,500 tonnes of wheat straw based on the sunliquid® technology developed by Clariant. It represents an investment of around 28 million euros. Studies show that Germany potentially has around 22 million tonnes of straw that could be used for energy production without compromising essential soil regeneration. This would be sufficient to cover around 25% of Germany's current gasoline requirements. "The results we obtain in Straubing will enable us to plan industrial production plants efficiently and economically, and ultimately to realize such plants in cooperation with partners" (source:

<http://www.clariant.com/C12579EC0046869F/vwWebPagesByID/7735B0CFEF8CB077C1257A470028C3B2>)

BERST (in the) News

Exposure of BERST on regional TV, online and paper press, flyer, website, LinkedIn

Straubinger-Tagblatt, 26.03.2014 (Main regional Newspaper also online at www.idowa.de)



Die Biocampus GmbH im Industriegebiet ist Gastgeber eines Internationalen Workshops zum Thema Bioökonomie in den europäischen Regionen. Die Gäste begrüßten neben MdEP Manfred Weber (am Rednerpult) auch Biocampus-Geschäftsführer Andreas Löffert und OB Markus Pannermayr. Die ZVI-Spitze vertrat ferner Altherhofens Bürgermeister Manfred Krä.

Vision europäischer Bioökonomie

Workshop mit 60 Teilnehmern aus neun Ländern in Straubing-Sand

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Erfolgreicher Start der Arbeitsphase im BERST Netzwerk

26.03.2014

Mit der Clusterveranstaltung "Vision einer Bioökonomie Europas. Bioregionen zu Gast in Straubing" startete das Europäische BERST Netzwerk erfolgreich in seine Arbeitsphase.

60 Gäste aus neun Europäischen Ländern wie Belgien, Slowenien, Großbritannien, Spanien, Griechenland, Niederlande, Österreich, Finnland und Deutschland fanden den Weg nach Straubing, in die Region der Nachwachsenden Rohstoffe.

Veranstaltet von der Biocampus Straubing GmbH und den BERST Organisatoren Myrna van Leeuwen und Ramco Kraepfendk wurden

FLUX



Your network's talking about:

BERST Bioregions Conference (2)

Document • BERST: BioEconomy Regional Strategy Toolkit
The implementation of the European bioeconomy under the impulsion of entrepreneurs, ranging from small based companies to farmers and foresters, and

Share

Topics for sharing ideas/experiences

BERST consortium was asked about what topics they would like to share ideas with other partners and EU bioregions

Topics related to WP1: Potential of biobased economies (descriptors):

- what are the drivers of bioeconomy development?
- what are the push and pull factors affecting bioeconomy development?
- how to measure or monitor bioeconomy potential?
- what are the incentives of a region to develop a bioeconomy?
- how do clusters emerge?
- what are potential cross-overs between bioeconomy and existing industries?

Topics related to WP2: Instruments and measures to deploy potential

- what measures and instruments are used by regions?
- what is the effect of these measures/instruments?
- how did the regions reach the stage of development?
- how to get things in action?
- how to involve private sector?
- how to trigger market development?
- how to develop logistical network?
- how to add supporting facilities and services to the region?
- how to measure/benchmark bioeconomy?

Topics related to WP3: good practices

- inventory and selection of good practices
- learning about specific aspects:
 - business models and financing schemes
 - cooperation within biomass value chain
 - creating and improving (public – private) partnerships
 - the role of policy
 - cluster management
 - area/site development
 - how to scale up initiatives?

Topics related to WP4: development of regional profiles

- common framework/views on biobased economy
- what are the components of a regional profile?
- how to realize other regional potentials by biobased strategy and instruments and measures?
- practise the BERST tools – establish thinking, concepts, orientation
- what partnerships can be developed among regions ?– looking for synergies
- how do the regional partners like to receive and use the BERST data/tools?
- how to link/match the BERST database with other existing databases?

Wish list of CoP activities (to be organised)

BERST consortium was asked about what kind of CoP activities they would like us to have organised

Face to face activities	Virtual activities
1. Group reflection and brainstorm on cases	1. Surveys/questionnaires
2. Training, role playing	2. Training
3. Presenting at other conferences/symposia/events	3. Webinars
4. Benchmarking visits	4. Use of social media
5. Site visits - excursion	5. Digital platform – to download conference results etc...
6. Poster sessions	6. Interactive platforms
7. Workshops	7. Telephone conference/skype meetings
8. Attending conferences	8. Discussion groups
9. Discussion groups	9. Press release/advertisement on a regional basis
10. Presentation of companies	10. Presentation of companies
	11. Presentation of regions
	12. Logo, poster, flyer
	13. Webpage

Exploring the drivers of bioeconomy

Group discussion on drivers of bioeconomy development

Aim is to understand the characteristics of bioeconomy development. Literature review is carried out. **A survey** is used to validate theoretical findings with practice in the BERST regions.

Conclusion discussion about drivers:

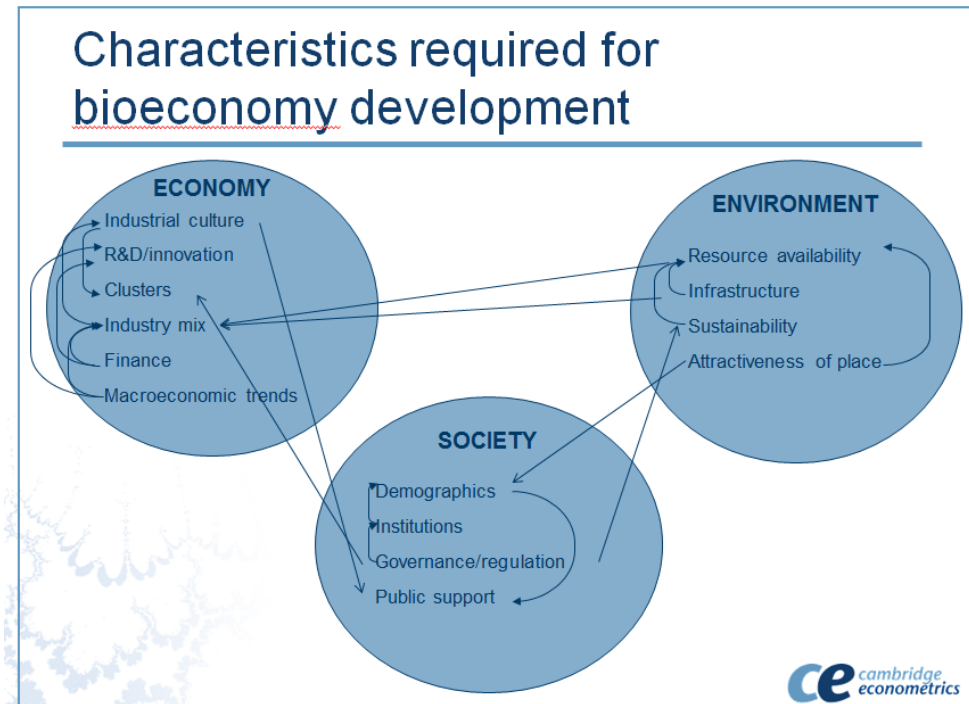
2 ways of developing a bio-economy:

- Market need is available and the challenge is to organise and develop production
- Biobased product can be developed and the challenge is to develop the market (need)

This results in 2 different business models en 2 different set of drivers

Conclusion discussion about the survey format:

- Survey has too much open and broad questions – not clear what information is requested.
- Will the results be comparable?
- Some questions difficult to answer, as f.e.
How large is your Biobased Economy?
But what is a region, what are the boundaries? How to deal with relations outside the region – regions are not isolated
- Apply the SWOT technique.
- Suggestion to use the perspective of the supply chain



Examples of drivers (based on discussion between 4

bioregions: Westland, Madrid, Macedonia and Straubing)



Westland: greenhouse availability, need to look for new opportunities, governmental funding, matchmaking activities, mix of small and big companies

medicine

Green chemistry

Straubing: drivers are existing clusters, barrier is uncertainty

Macedonia: policy target, resource availability (agriculture/forestry), climate conditions (solar energy is not optimal), market need (high heating need), taxation of fossil fuels, presence of energy sector, regional strategy, regulation with regard to minimum level of innovation, availability of different types of businesses

Forestry biomass for renewable energy

Biopharma/ life sciences

Spain: market need, skilled workers, national policy, resource availability (universities, ...), alignment between regional and national government, goal setting and plan.

Instruments and Measures for potential deployment

Individual partner input – session



Aim is to develop a **database with instruments and measures** used by a wide variety of bioregions – therefore input session to explore what the regional BERST partners want to know about instruments and measures – their input will be processed into a **new format of database**



ACTION

- What do you want to know from your (other) region(s)?
- What is the availability of the data? (not an exclusion factor)

Wrap up - Preliminary identification of good practices

- Paper industry in Finland
- Bio Energy regions in Germany
- Mid Finland
- Be -Basic in Brazil
- Green Village Greece
- Examples from PWC study
- Biocluster Gent, Biobased Europa, Bioparc Terneuzen
- Pole d'Économy examples in France
- Denmark Bio Energy
- Food Cluster development in Mexico, China

Top 5 messages taken home

Success of bioeconomy development is determined by:

#1 multi level/multi stakeholder collaboration and support

- stakeholders should support cause: being dedicated and committed
- support from local, regional, national and EU level
- collaboration/connection between regions
- collaboration between science (close by and multidisciplinary), policy, entrepreneurs and education
- cooperation between SME's and big business
- clustering
- meeting place important to enable collaboration

#2 funding

- money is enabling factor – money driven
- bioeconomy requires funding to buy grounds, to develop technologies
- the availability of the subsidies and other forms of financial support have a crucial role when company is choosing the location for the new activities
- but! investments must make sense

#3 reliable and stable policy/political support

- the key factor to successful bioeconomy is stable and wise political decisions
- importance of policy/politics in shaping conditions/making choices/ guaranteeing stability
- public support is critical for a transition to a bioeconomy
- we need a reliable policy towards bioeconomy to encourage investments
- bioeconomy is a mid long term objective, goals should be kept and plans should keep focus but flexible in order to gain political confidence and support (EU level)

#4 guaranteed biomass availability/reliability

- access to feedstock must be guaranteed, ample biomass
- the reliability/availability of the raw material is essential element of success
- without biomass, there is no sense in building a bioeconomy region
- starting a biobased businesscase from zero is not an option - you need something to link with

#5 logistical characteristics/infrastructure

- good logistical network to access biomass, to connect spots
- presence of port or other logistics (river)
- good infrastructure
- Cost-efficient import of biomass and cost-efficient export of final products

Making connection

Ambition is to connect the BERST CoP with existing platforms like:

BioEconomy Observatory

collection and dissemination of data and information

European Bioeconomy Panel

highest policy level group of 30 members aims to support and prioritise the bioeconomy agenda as a whole

PPP (Public-Private Partnership) program in Horizon2020:

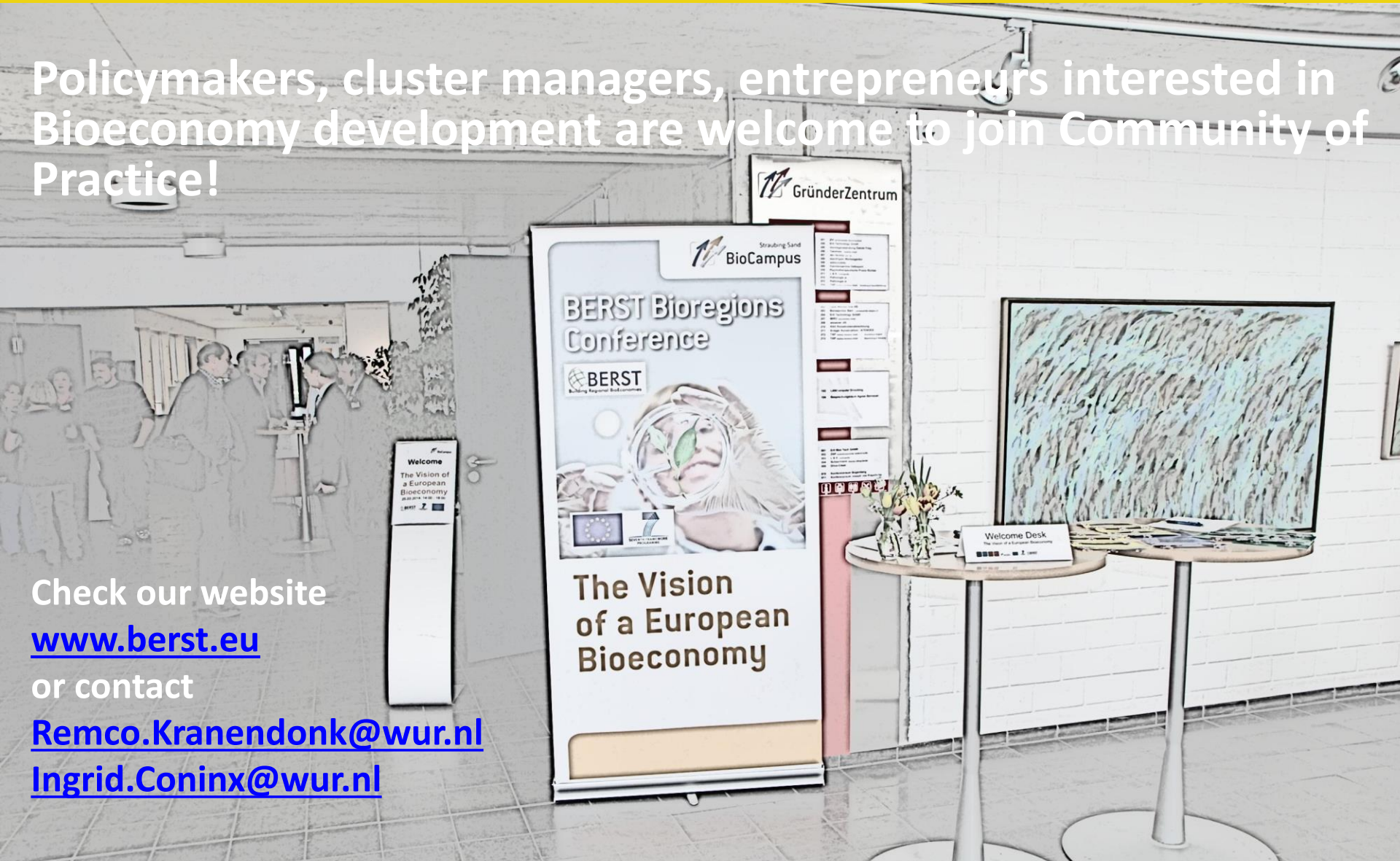
industry, academia and users engage in alliances around roadmaps to reinforcing Europe's competitiveness and excellence



Interested in the toolkit?

Join the Community of Practice!

Policymakers, cluster managers, entrepreneurs interested in Bioeconomy development are welcome to join Community of Practice!



Check our website

www.berst.eu

or contact

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