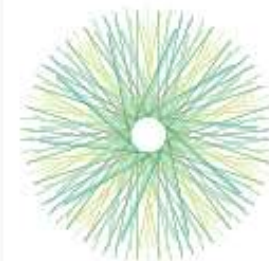


EIP-AGRI Workshop 'Building new biomass supply chains for the bio-based economy'

May 27 – 28, 2015 – Alghero, Italy



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AGRICULTURE & INNOVATION



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EIP-AGRI Workshop 'Building new biomass supply chains for the bio-based economy' Thursday 28 May 2015, Alghero - Italy

09:00 – 09:10 Opening and introducing Day 2

09:10 – 09:40 Working further on outcomes of interactive session 1

09:40 – 10:40 Presenting support tools

- EIP-AGRI (Rural development and H2020) Ms Virginie Rimbert
- **National Policy Strategy on bioeconomy in Germany and its implementation Mr Hans-Jürgen Froese**
- RMT Biomasse et Territoires: French national network for technical support for building biomass supply chains Ms Laurie Ducatillon

10:40 – 10:45 Introducing interactive session 2

10:45 – 11:00 Coffee Break

11:00 – 12:10 Interactive session 2:
Addressing solutions and tools

12:10 – 12:45 Reporting back to the plenary and discussions

12:45 – 13:00 Wrapping up and closing
Mr Rob Peters – Directorate-General Agriculture and Rural Development

13:00 Lunch



National Policy Strategy on Bioeconomy and its implementation



Dr. Hans-Jürgen Froese

Head of division
Bioeconomy and industrial use of biomass

Major points of presentation

- I. National Policy Strategy on Bioeconomy**
- II. Funding programme on renewable raw materials**
- III. Implementation of EIP-Agri in Germany**
- IV. Information and cooperation in the EU**

I. National Policy Strategy on Bioeconomy



EU-Strategy (2012)

**Innovating for sustainable growth:
„A Bioeconomy for Europe“**



German Strategy (2013)

**Renewable resources and biotechnological
processes as a basis for food, industry and
energy**

I. National Policy Strategy on Bioeconomy

Guiding Principles

Priority of food security over production of raw materials for industry and energy

Preference for paths of use with higher value creation

Strengthening of cascading and coupled use

Support for key technologies

Compliance with social, environmental, nature and animal protection standards

A competitive bioeconomy requires well-trained and well-informed specialists

12 POLITIKSTRATEGIE BIOÖKONOMIE

Leitgedanken für eine nachhaltige Bioökonomie

- Die Ernährungssicherung hat auch im globalen Kontext Vorrang vor anderen Rohstoff- und Energieerzeugnissen. Die Synergieeffekte zwischen der Erzeugung von Nahrungsmitteln und der Bereitstellung von Rohstoffen für Energie und Industrie ist zu unterstützen.
- Die Nutzungswegwe von Biomasse sind in der Verwertungskette zu berücksichtigen, um Potenziale und Konkurrenz zu erkennen sowie Prioritäten für politische Handeln auf globaler, europäischer, nationaler und regionaler Ebene zu setzen.
- Bei der Bewertung von Nutzungswegen der Bioökonomie sind Synergieeffekte mit einem höheren Wertschöpfungspotenzial bei vergleichbaren Leistungen im Hinblick auf andere Ziele zu bevorzugen. Dies gilt insbesondere für eine möglichst hochwertige Nutzung von Rest- und Abfallstoffen.
- Wo dies sinnvoll ist, sind die Synergieeffekte und Koppelwirkungen zu berücksichtigen. Neben Synergieeffekten und intelligenter Verknüpfung von Wertschöpfungs- bzw. Prozessketten können die Ressourceneffizienz verbessern, mögliche Konkurrenz der Nutzungswegwe entschärfen und Innovationspotenziale erschließen. Auch in der Bioökonomie sollte eine weitere Entkopplung von Wachstum und Ressourcenverbrauch angestrebt werden.
- Die Sicherung und Stärkung der Wettbewerbsfähigkeit der Bioökonomie in Deutschland und die Wachstumspotenziale auf den internationalen Märkten sind stets mit in den Blick zu nehmen.
- Für die Wettbewerbsfähigkeit der Bioökonomie sind gut ausgebildete und informierte Fachkräfte unerlässlich.
- Die Rahmenbedingungen für die Entwicklung von Entwicklungs innovativer Produkte, insbesondere in klein- und mittelständischen Unternehmen, sollten verbessert werden.
- Wo möglich sind Impulse und Anreize für Kreativität und Innovation zu schaffen und Rahmenbedingungen für die Nutzung von Schlüsseltechnologien und ihr Transfer in die betriebliche Nutzung sind zu verbessern.
- Die Konsumenten können die Entwicklung der Bioökonomie in entscheidendem Maße mit ihren Kaufentscheidungen und Verbraucherverhalten beeinflussen. Informationen und Beratung sollen die Verbrauchertunten und Verbraucher in die Lage versetzt werden, ihre Kaufentscheidungen auf der Basis hinreichender Informationen auch an Nachhaltigkeitsaspekten zu orientieren.
- Die Bioökonomie muss wachsenden gesellschaftlichen Anforderungen an die Art, Weise, den Umwelt-, Natur- und Tierschutz sowie an die Einhaltung sozialer Standards. Die Weiterentwicklung von Produktionsstandards sichert diese Schutzgüter und die Akzeptanz der Verbraucherinnen und Verbraucher und beeinflusst damit auch die internationale Wettbewerbsfähigkeit der Bioökonomie.
- Die Abwesenheit von Standards in den Produzentenländern, insbesondere solchen mit schwacher Regierungsführung und schwachen Institutionen, ist auszuweiten und auf die Überprüfung ihrer Einhaltung hinzuwirken.
- Die Synergieeffekte zwischen der Erhaltung der Biodiversität und der Bereitstellung von Rohstoffen für Energie und Industrie sind zu nutzen.
- Ein enger Zusammenwirken politischer, wirtschaftlicher, wissenschaftlicher, ökologischer und sozialer Akteure bei der Entwicklung einer Bioökonomie ist notwendig. Es bedarf der Einbettung und Kooperation von Stakeholdern der relevanten Gruppen. Regionale und dezentrale Initiativen bieten die Chance, vor Ort regionale Stoff- und Energiekreisläufe nachhaltiger Produkte zu organisieren.

I. National Policy Strategy on Bioeconomy

Fields of Action

Coherent policy framework
Information and dialogue with society
Education and training

Sustainable
production and allocation
of renewable resources

Growth markets, innovative
technologies and products

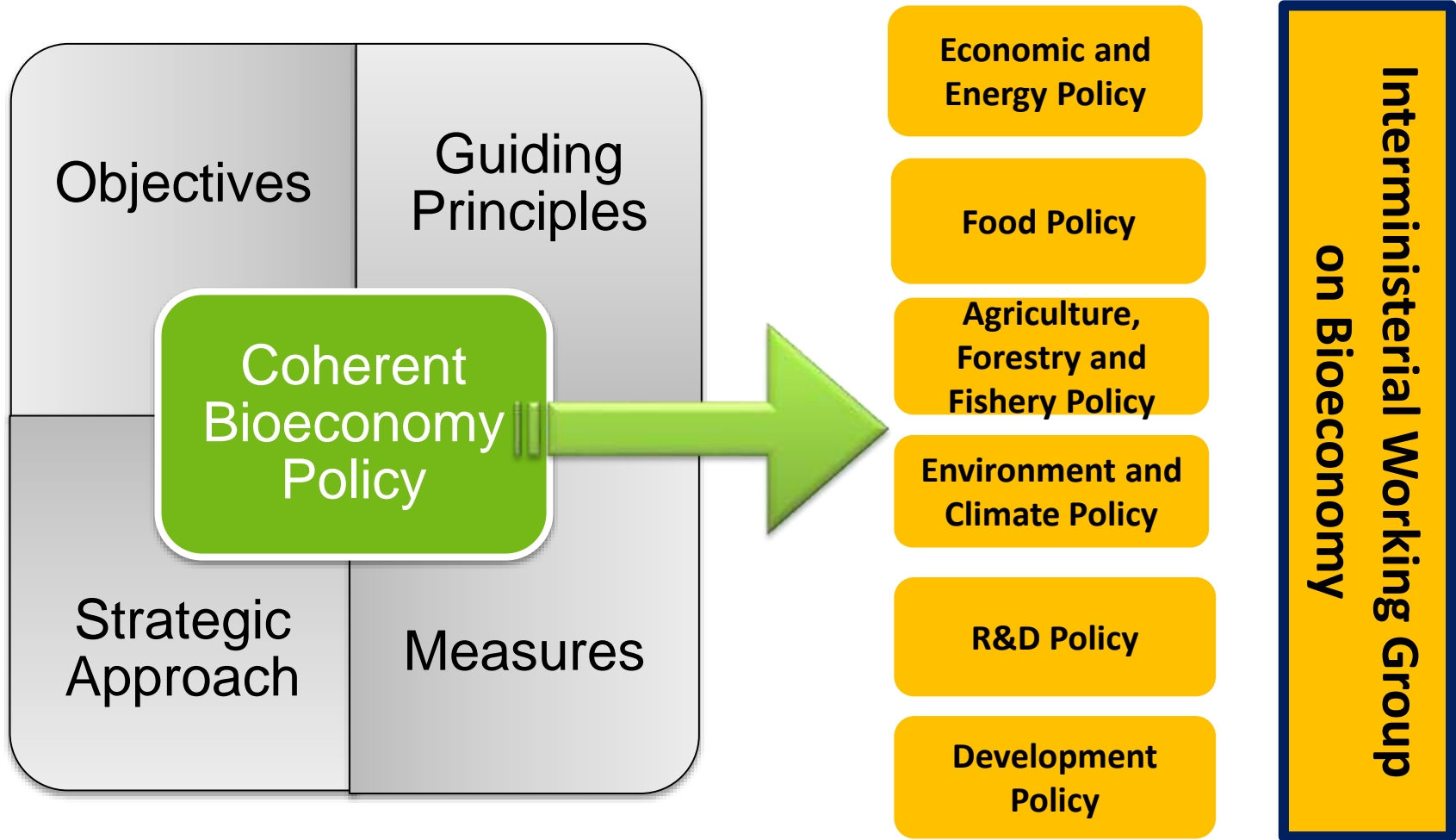
International context

Value chains
and networks

Competition of land use

I. National Policy Strategy on Bioeconomy

Focus and Output of the Strategy



II. Funding Programme on Renewable Raw Materials

Objectives

Key Funding Areas

Impact for rural development

Supporting new biobased value chains

II. Funding Programme on Renewable Raw Materials

Objectives

- Sustainable production and use of renewable resources
- Development of new and improved conversion technologies along the complete biobased value chain
- Sustainable production of biobased producer and consumer goods as well as bioenergy carriers
- Development of integrated concepts (e.g. recycling, cascade use, biorefineries)
- Development of international, practicable, and cross-sectoral sustainability schemes and standards

II. Funding Programme on Renewable Raw Materials

Current key funding areas (in force since 8th of May 2015)

1. **Breeding** to improve yield and quality of **agricultural plants**
2. Sustainable **materials flow management** for an optimal **supply** with biogenic resources
3. Concepts for sustainable production and use of biomass considering the **resource water**
4. Enhancement of **Sustainable forestry** to maintain the forest functions
5. Development of sustainable and innovative biobased **conversion technologies**
6. Decentralised production of high value products from **aquatic systems**
7. Optimisation of the use of biogenic **residues** and opening up of **recycling** options
8. Development of sustainable and efficient biobased **heat** provision concepts as well as biobased construction and insulating **materials for buildings**
9. Conversion of biogenic raw materials to **semi-finished goods and end-products**
10. Information and **social dialogue** concerning **bioeconomy and sustainability**

II. Funding Programme on Renewable Raw Materials

Rural development

- Bioenergy as a pillar of rural bioeconomy
- Increase of biobased energy supply by mobilisation of unused biomass
- Sustainable and efficient bioenergy production and utilization of existing local resources
- Development of rural-based concepts along the complete value chain
- Stakeholder information and social dialogue
- Local value creation by rural bioeconomy
- Funding of the initiative “Bioenergy regions” for the development of rural bioenergy concepts

Action plan
„Energy for tomorrow –
Opportunities for rural
areas“



Aktionsprogramm
„Energie für morgen – Chancen
für ländliche Räume“



II. Funding Programme on Renewable Raw Materials

Rural development

- 1st funding phase (2009 – 2012):
 - Networking activities, public dialogue
 - Rural bioenergy concepts, technical feasibility studies
 - Funding: 400.000,00 € per region
 - 25 regions
- 2nd funding phase (2012 – 2015):
 - Creation of added value in the rural area
 - Improvement of efficiency (e.g. biomass flow, bioenergy production/use)
 - Knowledge transfer to other regions (called twin regions)
 - Funding: 330.000,00 € per region
 - 21 regions and 21 twins



Quelle: <http://www.bioenergie-regionen.de/bioenergie-regionen-2012-2015/>

II. Funding Programme on Renewable Raw Materials

Rural development – added value

Realised added value in the 1st funding phase (2011) within the 25 “Bioenergy Regions”

(renewable energy in total):

- About 3 Mio. € funding for all 25 “Bioenergy Regions”
- About 297 Mio. € added-value:
 - Electricity (all RE): ~ 191 Mio. €
 - Heat (all RE): ~ 15 Mio. €
 - Fuels: ~ 91 Mio. €
(including transportation fuels)
- Factor 10: An average of about 120.000 € per “Bioenergy region” generates an average of about 12 Mio. € added value

43 Energy-Scouts für unsere Region

BIOENERGIE REGION Straubing-Bogen

Strom Wärme Kraftstoff

Landesagentur Bioenergie Bayern

II. Funding Programme on Renewable Raw Materials

Rural development – Examples

- Centralised biomass depots in the Höxter region
 - Development of a bio-waste concept as part of a rural bioeconomy concept
 - Creation of a centralised biomass depot
 - Mobilisation of additional biomass waste and residues (e.g. green municipal yard and garden waste)

- Bioenergy villages in the Lake Constance region
 - Financial support of rural local heating concepts
 - Knowledge transfer to stakeholders from other regions as well as to local politicians and mayors

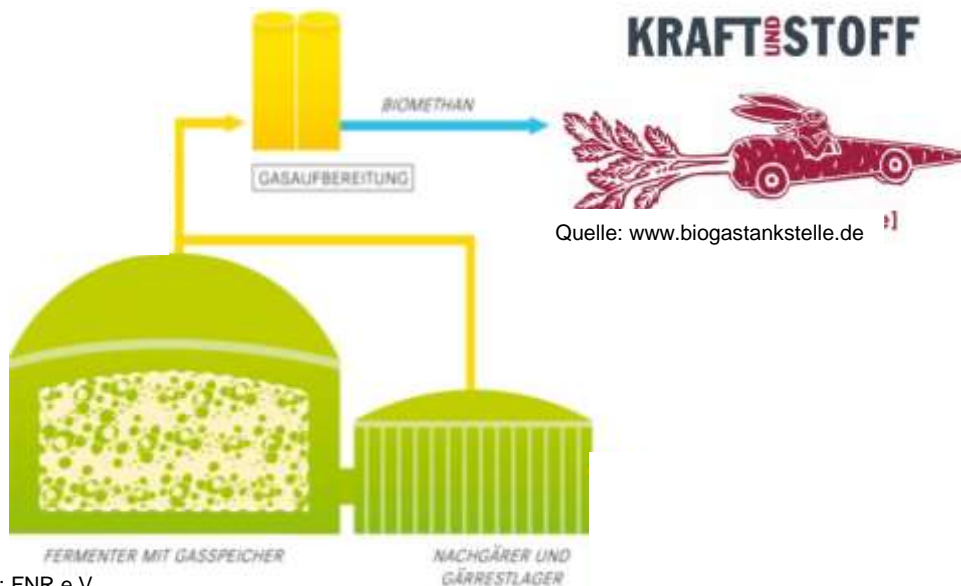


Quelle: Bioenergie-Region Höxter

II. Funding Programme on Renewable Raw Materials

Rural development – Examples

„Driving with bio-methane”



Quelle: FNR e.V.



Quelle: FNR e.V.

- Rural biogas fuelling station in Jameln/Wendland (since 2006)
- Operator: rural co-operative Raiffeisen-Waren-Genossenschaft (RWG)
- SunGas®: biogas methane content (after upgrading): 95 %
- Underground gas pipeline connecting the biogas plant and the public fuelling station

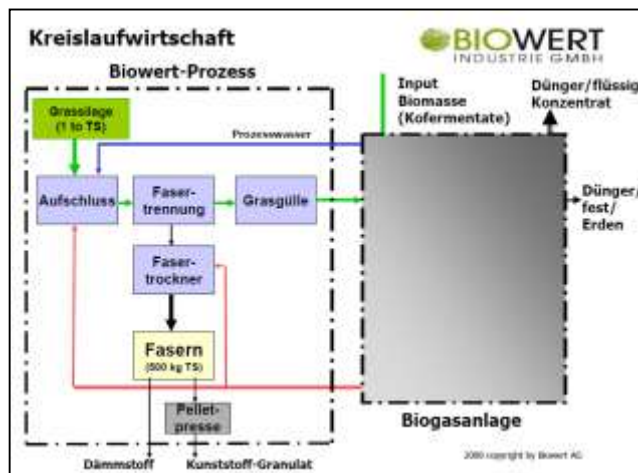
II. Funding Programme on Renewable Raw Materials

Rural development – Examples

- Rural green biorefinery based on grass (juice/fiber)
- Mechanical separation into grass juice and grass fiber
- Grass fibers are processed to get insulation material or re-inforced composites
- Depleted grass juice is used for biogas generation
- Commercial production and demonstration plant in Brensbach (Hesse)



<http://www.biowert.de>



II. Funding Programme on Renewable Raw Materials

New Research Project (in preparation):

Development of special biodegradable foils for agriculture with new properties such as temporally biodegradation and additive fertilizer effect

- Compounding of biodegradable polymers (for example PLA, Polycaprolacton, Polyhydroxyalkanoates, Polybutylensuccinat) and special additives
- Investigation of the properties of these new materials
- Development of foils for gardening and agriculture
- Demonstration of the temporally biodegradation and the additive fertilizer effects



II. Funding Programme on Renewable Raw Materials

New Research Project (in preparation): Development of wooden prepregs that contain biobased binder

- Development prepreg binder (resin) formulations from renewable resources
- Development of continuously impregnated prepregs based on wood veneers
- Demonstration of using semi-finished products for freely deformed applications
- Design demonstrators according the requirements of associated industrial partners



II. Funding Programme on Renewable Raw Materials

Supporting new biobased value chains

means:

- to **include** the development of resource efficient, environmentally friendly, high value creating and competitive technologies and biobased products beyond the state of the art,
- to **rely on** concepts for integrated and sustainable supply and use of renewable resources and biobased products, which are developed and implemented in social discourse,
- to **take into consideration** the political, economic, social and legal framework for a sustainable bioeconomy.

III. Implementation of EIP-Agri in Germany



EIP AGRI – Programming in Germany



III. Implementation of EIP-Agri in Germany

- **Starting point:** 13 regional programmes for rural development plus 1 national programme for national network- and 1 programme for framework-setting
- **Programme content:** Almost all Federal States (except Saarland) will implement EIP AGRI (e.g. implementation of 80 % bzw. 92 %)
-> EU Comparison: 89 of 118 programmes (75%)
- **Status of programme-authorization** by COM (11.5.2015): Approval of 8 programmes (SN, ST, HE, MV, NW, BY, Federal programme for networking, Federal programme for framework-setting)
- **Expected approval of all german programmes** by end of may 2015

III. Implementation of EIP-Agri in Germany

➤ **Financial Support of EIP Agri-Programmes in Germany (Estimations for the period 2014 – 2020)**

•	Total EIP in Germany	=	121 Mio. €
	of which		
❖	Brandenburg	=	25 Mio. €
❖	Lower Saxony	=	17,5 Mio. €
❖	Baden-Wuerttemberg	=	15,8 Mio. €
❖	North Rhine-Westphalia	=	10 Mio. €
❖	Schleswig-Holstein	=	10 Mio. €
❖	Thuringia	=	9,1 Mio. €

IV. Information and cooperation in the EU

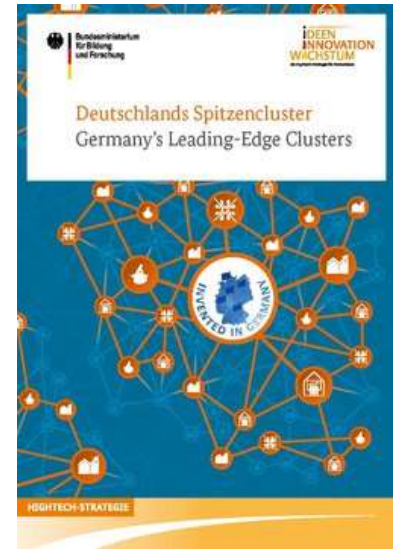
Bioeconomy / EU-Commission

- COM is working on the implementation of the EU Bioeconomy Strategy and established a bioeconomy observatory in 2013.
- Com launched “BBI” (Bio-based industries), a Public-Private–Partnership between the EU and the Bio-based Industries Consortium, operating under Horizon 2020. The first call has already been published.
- The European Bioeconomy Panel was established in 2013 to support interactions between the different policy areas, sectors and stakeholders in the bioeconomy.
- An interservice consultation group is working to share information on ongoing bioeconomy activities between the relevant DGs.

IV. Information and cooperation in the EU

BioEconomy Cluster

- Founded in 2012 with 15 partners, 2014: 97 partners
- The only German Leading Edge Cluster for Bioeconomy
- Organised as a regional network (BioEconomy e.V.)
Core region: Saxony-Anhalt and Saxony
- Supported by the German Federal Ministry of Research and Education and the Ministry of Sciences and Economic Affairs of the Federal State Saxony-Anhalt
- Full membership in the Biobased Industries Consortium (BIC)
- Bringing together Science – Industry – Policy
- National and International partnerships in China, France, Austria, Switzerland, Italy, Canada, UK, Netherlands
- Currently funded joint R&D-projects: > 45



IV. Information and cooperation in the EU



BioEconomy Cluster

A **cross-industry value-adding** cluster
with **availability of raw materials** and **integrated chemical sites**

Goals

- **Sustainable use** of non-food biomass (beech wood)
- **Long-term alternatives** to fossil raw materials

Actions

- Providing **cost-efficient environment** for R&D investments
- Development of **innovative products**
- Building of **new markets**
- **Extension** of existing value chains
- Cascading utilisation & coupled production

IV. Information and cooperation in the EU

Biobased value-chains are, throughout the world, linked with a lot of players working in different areas with different solutions. This relates to EU level as well as international level.

Bioeconomy / Member states

- Some MS have developed strategies on bioeconomy or at least working on such concepts
- All the national concepts and strategies – based on the specific national circumstances - have in common a holistic cross-sector approach to developing a competitive operating environment for the bioeconomy.
- More consistency of support programmes and more information exchange between MS and between MS and COM is needed to better use synergies and to avoid double funding