



Bringing added value to agriculture and forest sectors by closing the research and innovation divide

What is a Bioeconomy?

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 696394

Rational



- **What is Bioeconomy?**

The bioeconomy concept represents „**a vision for the future society**” to become **less dependent on fossil resources** and to **provide energy and added-value products** (food-feed-fibers, industrial and health products) by a **sustainable use of bioresources**.

- **EU definition:** “Production of renewable biological resources (biomass) and their conversion to food, feed, bio-based products and bioenergy.”
- The large technological areas included in the bioeconomy concept are: **agriculture, forestry, fisheries, food and pulp/paper production, as well biotechnology, chemical and energy industries**
- **Bioeconomy strategy** defined by the EU (2012)

(Source: EU Commission, 2012)

Rational



- **Why a Bioeconomy?**

- Increase of world population to >10 bn people in 2050 and increased food demand by 70%!

(Source: EU Commission, 2012, A bioeconomy for Europe)



Source: www.hanisauland.de

Rational



- **Why a Bioeconomy?**

- Reducing green house gas emissions -> moving to a low carbon economy and resource efficient Europe by 2050!

(Source: EU Commission, 2012, A bioeconomy for Europe)



Source: <http://www.mm-karton.com>

Rational

- **Why a Bioeconomy?**

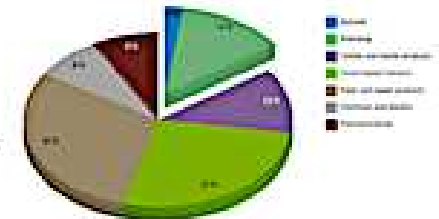
- Creating new jobs and skills becoming the leading Bioeconomy region in the world!

(Source: EU Commission, 2012, A bioeconomy for Europe)



The European
Bioeconomy
€2trillion
and growing fast

Here comes the hard data. Food and beverages. Agriculture. Forestry. Chemicals and plastics. Pharmaceuticals. Paper and paper products. Biofuels and bioenergy.



Source: <http://www.biofuelsdigest.com/>

Rational

- **Closing value chains towards a Bioeconomy**
 - Sustainable bridges between different sectors have to be built-up!

(Source: PPP Biobased industries)



Rational



U-tube explaining the Bioeconomy:

<https://www.youtube.com/watch?v=2xvXkOMRTs4&feature=youtu.be>



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Get to know AGRIFORVALOR

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Objectives



AGRIFORVALOR will close the research and innovation divide by connecting multi-actors in innovation partnership networks in order to valorise and exploit sidestream biomass resources from agriculture and forestry

=> Turning waste, by-products and residues from agriculture and forestry into a valorised sidestream.

Project LifeCycle: 01.03.2016 - 31.08.2018

Vision



Connecting a range of stakeholders in order to:

- Achieve new value chains and
- Stimulate biomass sidestream market uptakes into value-added products.

Main Target Groups



Helping Multi-actors in the Biomass Value Chain to Profit from Innovation Partnership Networks

- **Farmers/Foresters:**
 - Becoming active partner in the biomass sidestream value chain.
 - Gaining knowledge and receiving support in exploiting R&D&I results and exploring business development.
- **(Bio)Industry:**
 - Raising awareness of the potential and opportunities of sidestream biomass applications along the chain of 5 Fs: (food, feed, fuel, functional material/fine-chemicals, fertilizer).
 - Profiting from new business models based on forestry and agriculture biomass sidestreams.
- **Research and Academia:**
 - Closing the research and innovation divide through better-directed research and development based on demands identified by practitioners.


Methodology

- Setting-up **innovation partnership networks** managed by
 - 3 Biomass **Innovation Design Hubs**:
 - Spain (Andalucia)
 - Hungary
 - Ireland
 - Hub managers coordinate inter- and intra- hub activities
 - Hub steering committees offer tailored innovation support



Sidestream Value Tool





Sidestreams

Filter

Country:









Input / Feedback:

Subsector:

Process:

Outputs:

TRL: ★★★★★★★★★★

<p>test edit</p>  <p>TRL: ★★★★★ (TRL 4) Subsector : Agriculture Input/Feedback :</p> <p style="text-align: center; color: green;">Belgium</p>	<p>Móstoles Distr...</p>  <p>TRL : ★★★★★★★★ (TRL 9) Subsector : Forestry and Biomass Energy Input/Feedback :</p> <p style="text-align: center; color: green;">Spain</p>	<p>Móstoles Distr...</p>  <p>TRL : ★★★★★★★★ (TRL 9) Subsector : Forestry and Biomass Energy Input/Feedback :</p> <p style="text-align: center; color: green;">Spain</p>	<p>RAFFIBLE</p>  <p>TRL : ★★★★★ (TRL 4) Subsector : Forestry Input/Feedback :</p> <p style="text-align: center; color: green;">France</p>
<p>Ethanol product...</p> 	<p>Preparation of ...</p> 	<p>Környezettudat...</p> 	<p>Food from birch...</p> 

LOGIN

Email:

Password:

[Forgot Password](#)

LATEST TWEET

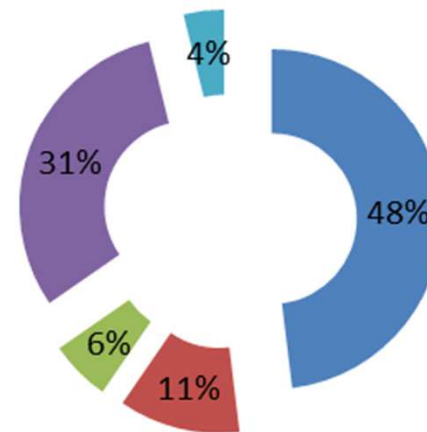
RTD results



- Appr. 50 identified

Sidestream RTD examples per origin

■ other EU ■ HU ■ IE ■ ES ■ Outside EU



RTD Example (1)

UNIVERSITÄT HOHENHEIM



- Hydroxymethylfurfural (HMF), biogen bulk chemical from chicoree roots, University of Hohenheim (DE) and AVA Biochem (CH)



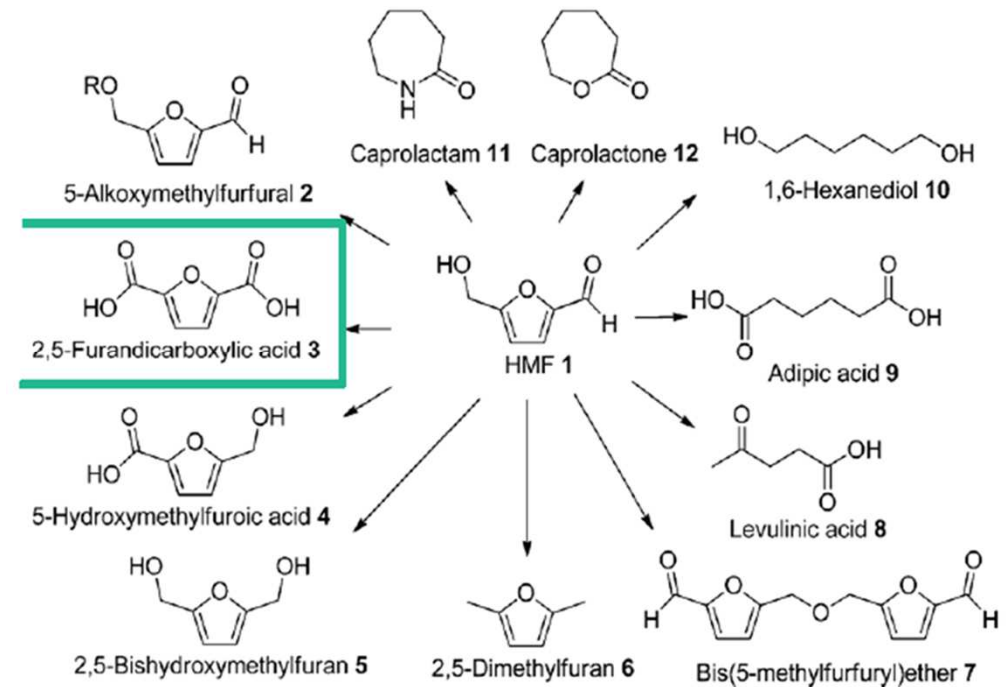
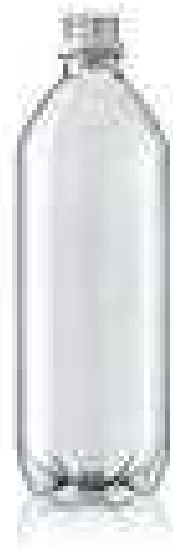
- Pilot plant established at AVA Biochem
- TRL 5



RTD Example (1)



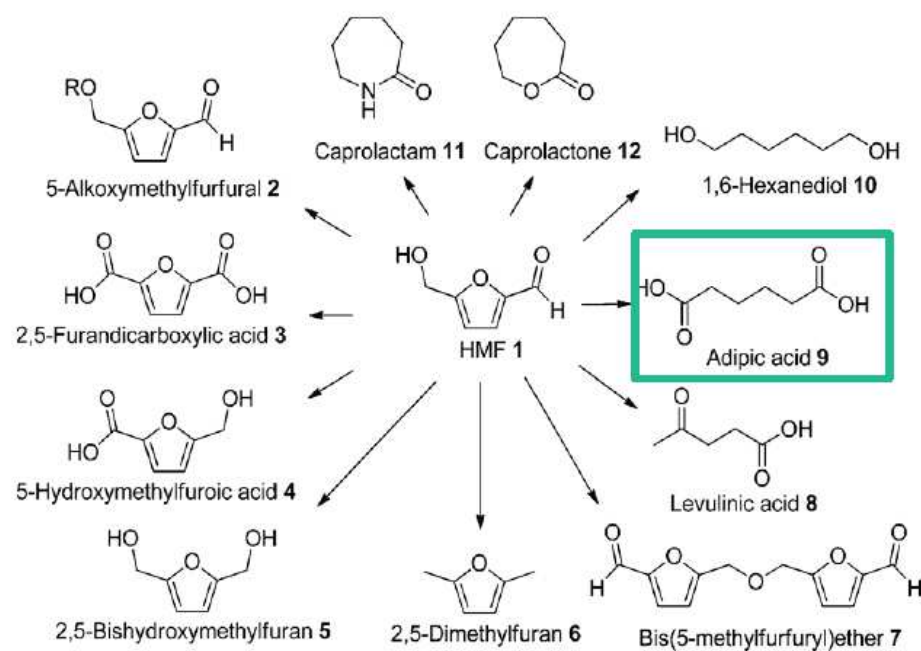
PEF bottles (Polyethylenfuranat)



RTD Example (1)



Stockings



Best Practice Example (1)



- Biopolymer out of lignin, TECNARO company

Characteristics of Arboform:

- + processable like plastic
- + offers every shape
- + can be colored white, heated
- + less work for the industry
- + smells like wood
- + is free of oil
- + uses the renewable source lignin (byproduct of the pulp industry)



PARADOR
EcoBalance

Best practice Example (2)



BIO WERT
bio based industry



- Biorefinery - meadow grass into green electricity and innovative materials



Best Practice Example (3)

2 Mio. Tons milk waste per year only in Germany !



- QMILK[®] Collect
- QMILK[®] Faser
- QMILK[®] Cosmetics
- QMILK[®] Biopolymer



Services - 1



- ✓ **Identification and matching** existing **research results** and **good practices** on valorization of biomass sidestreams from agriculture and forest with the specific **needs of practitioners** and with **hub potentials**



Services - 2



- ✓ **Setting up innovation partnership groups along new value chains**



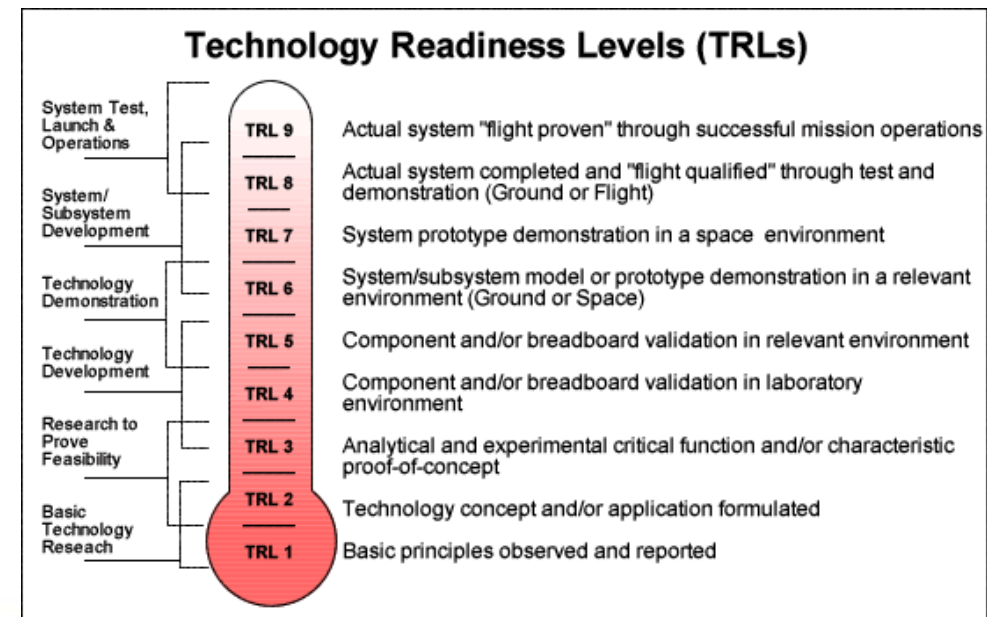
Stage 2 - Build and strengthen value chains across industry sectors

Services - 3



✓ (Further) **exploitation** of promising research results and Good practices according to the **needs** and **regional potential** and **opportunities**

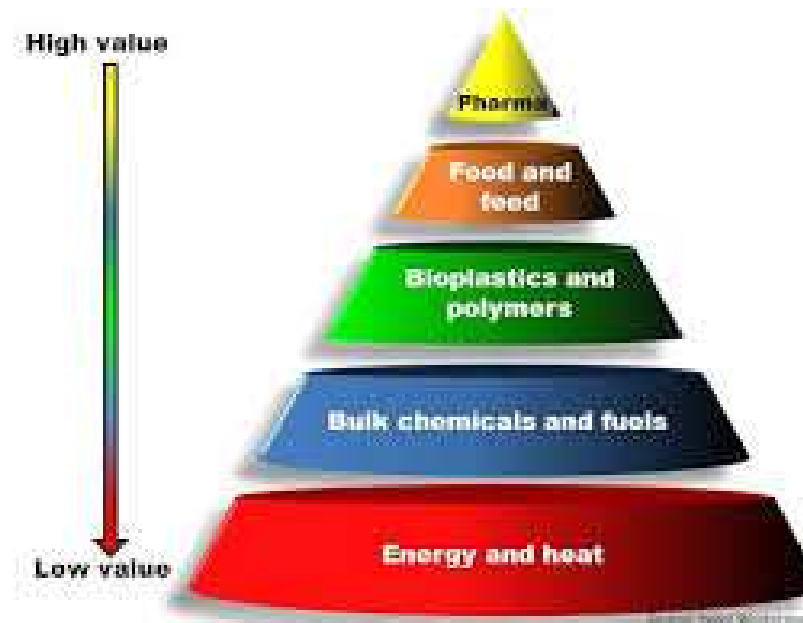
- **Reaching higher TRL**
overcoming the valley of death
- **Learning from good practice cases**



Services - 4



- ✓ Identifying **new grass-roots ideas** and developing **business models** looking for **new business opportunities**



Services - 5



- ✓ Offering a tailored mix of **innovation support measures** mainly on **hub level** but as well on **inter-hub levels**:
 - ⇒ **Workshops & Trainings & Missions**
 - ⇒ **Mentorings & Coachings**
 - ⇒ **Online tools (webinars, sidestream value tool)**

Services - 6



- ✓ Input for defining regional /national and EU level **innovation & research agenda**
 - Streamlining research and innovation actions tailored to practitioners' needs
 - Defining regional/national Bioeconomy strategies

Services - 7



✓ **AGRIFORVALOR** acts as:

- **mediator** and **facilitator** for new (commercial and technological) opportunities for the agriculture and forest sectors in Europe

supporting patience
professionalism
approachable
encouraging understanding
knowledgeable
motivating focussed on topic
expertise learner
sharing teach

Get engaged



- ✓ Learn from good practices and research results
- ✓ Profit from innovation partnerships across new value chains
- ✓ Profit from tailored support for exploiting of and idea development for sidestream biomass
- ✓ Become active partner in the biomass sidestream value chain
- ✓ Become active partner in building a Bioeconomy as part of a Circular Economy

=> **Safe and/or make money with biomass sidestreams !**

Next actions



- Regional Kick-off events in october/november 2016
- Register on www.agriforvalor.eu

A screenshot of the AGRI FOR VALOR website's registration page. The page features the AGRI FOR VALOR logo at the top left. Below the logo is a navigation menu with icons and text for 'About', 'Partners', 'Contact', and 'Register'. The 'Register' option is highlighted. Below the navigation menu is a 'LOGIN' section with input fields for 'Email' and 'Password', and a 'Login' button. To the right of the login section is a 'Register' section with a blue 'Register' button. The registration form includes input fields for 'First Name', 'Email', 'Password', and 'Company'.

Register

First Name

Email

Password

Company

LOGIN

Email

Password

[Forgot Password](#)

Project Partners



The AGRIFORVALOR project consortium is comprised of 16 partners from 6 countries:

Project Coordinator:



Hub Hungary:



Hub Ireland:



Hub Spain:



Research:



Website/Marketing:



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Facebook: <https://www.facebook.com/agriforvalor>

Twitter: <https://twitter.com/AgriForValor>

Thank you for your attention!

Company Name | *Name of the Presenter* | *email@presenter.de*



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