



Final Conference

Sustainable Biomass Production from
Marginal Lands: Potentialities and
Challenges in the European Context
20 November 2018 | Brussels



Sustainable exploitation of biomass for bioenergy from marginal lands in Europe

Policy recommendations for biomass production on Marginal Lands (MagL) The SEEMLA approach

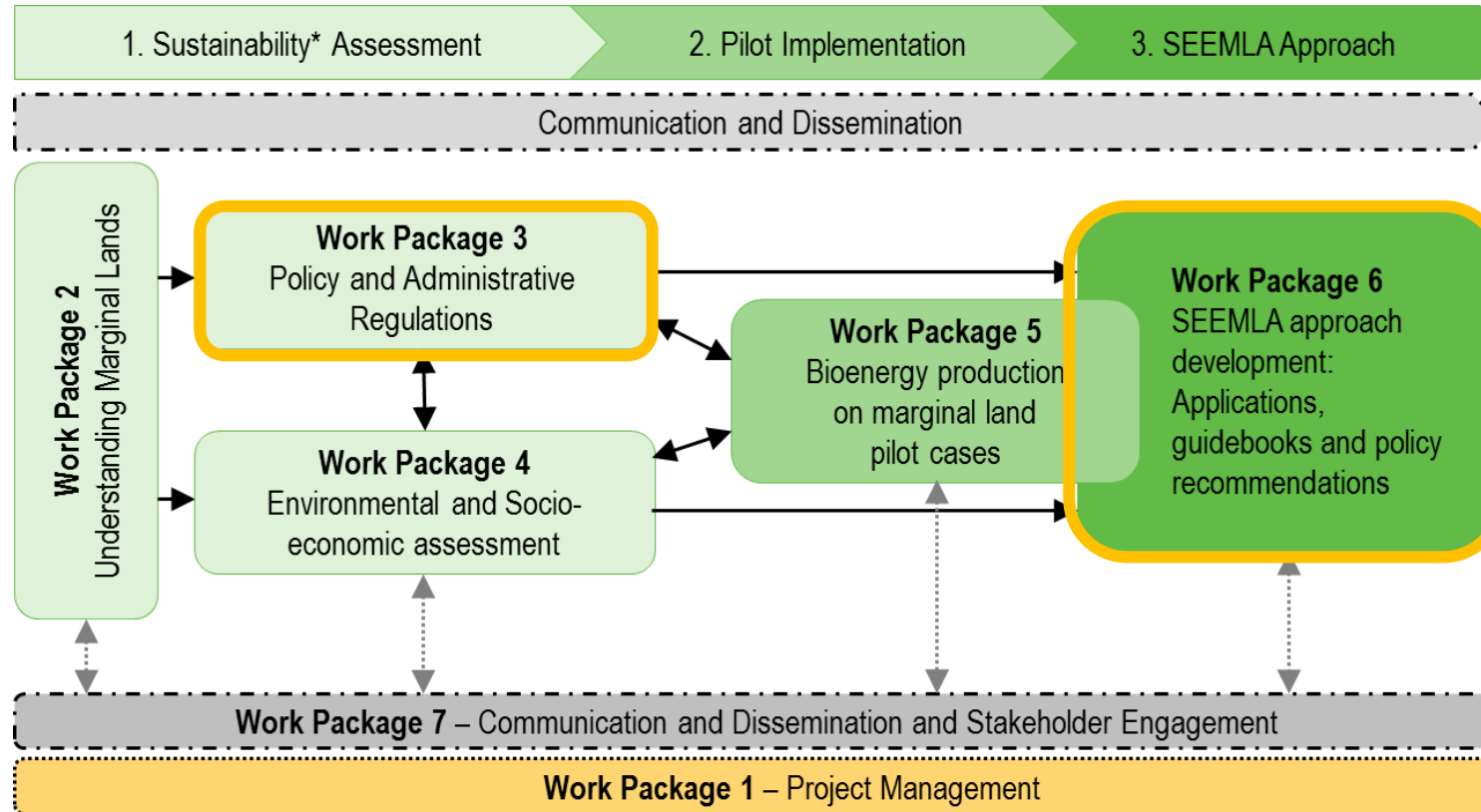
Diego Piedra-Garcia
Agency for Renewable Resources, FNR e.V.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691874



Work Plan in SEEMLA



*Environmental, economical, social, political, technical

Project coordinator

Partners



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691874



Example: Electricity from renewable energy supported by different means in the EU Member States

Diversity of RES-E support schemes in the EU-28

Finding the most suitable policy "tools" for SeeMLa → RES-H

- Feed-in tariff (FIT)
- Feed-in premium (FIP)
- Quota
- Tenders



Note: This map does not include secondary support instruments like tax incentives, investment grants, etc.

Source: Ecofys

Klessmann C. 2014: Experience with renewable electricity (RES-E) support schemes in Europe. Current status and recent trends

Project coordinator

Partners

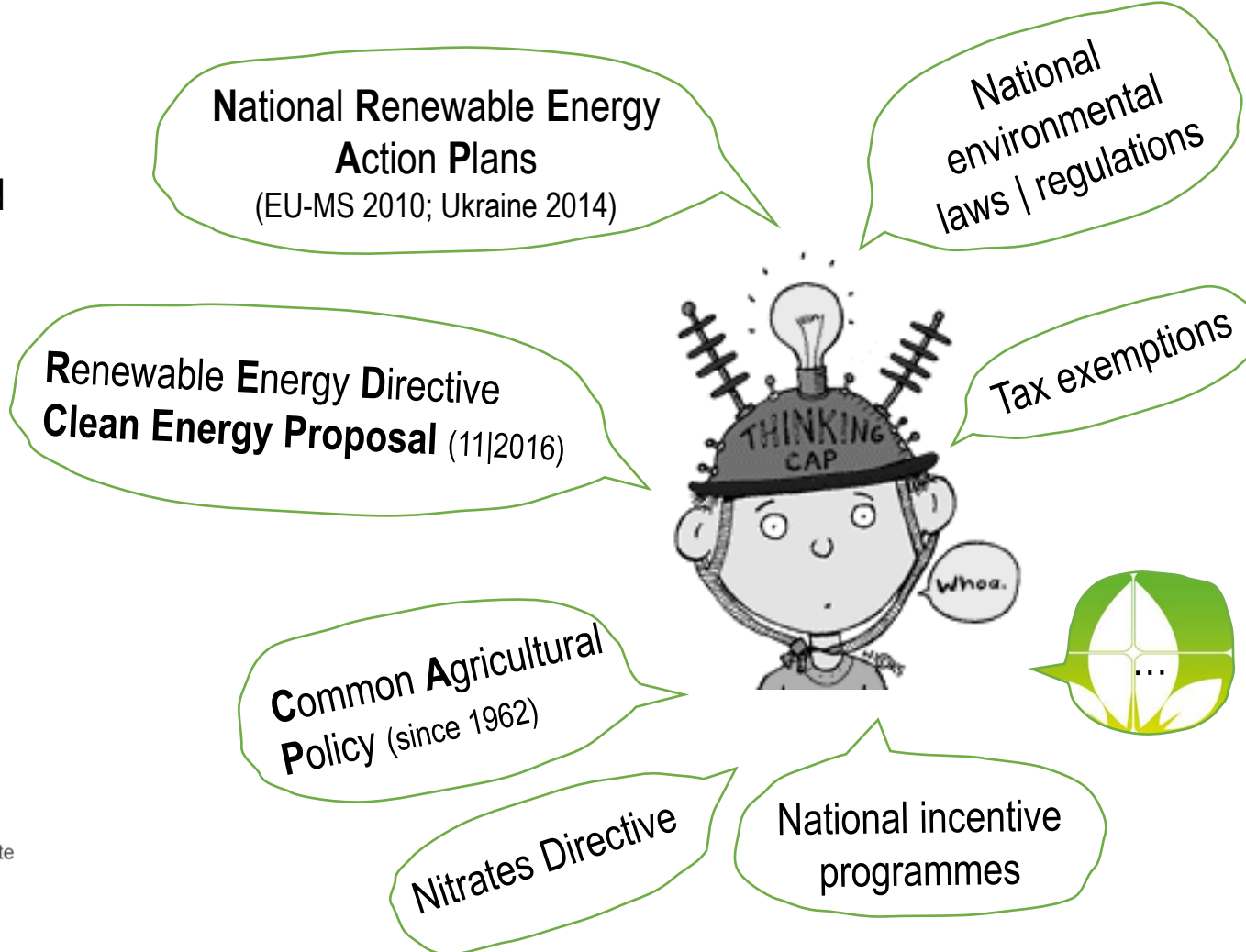
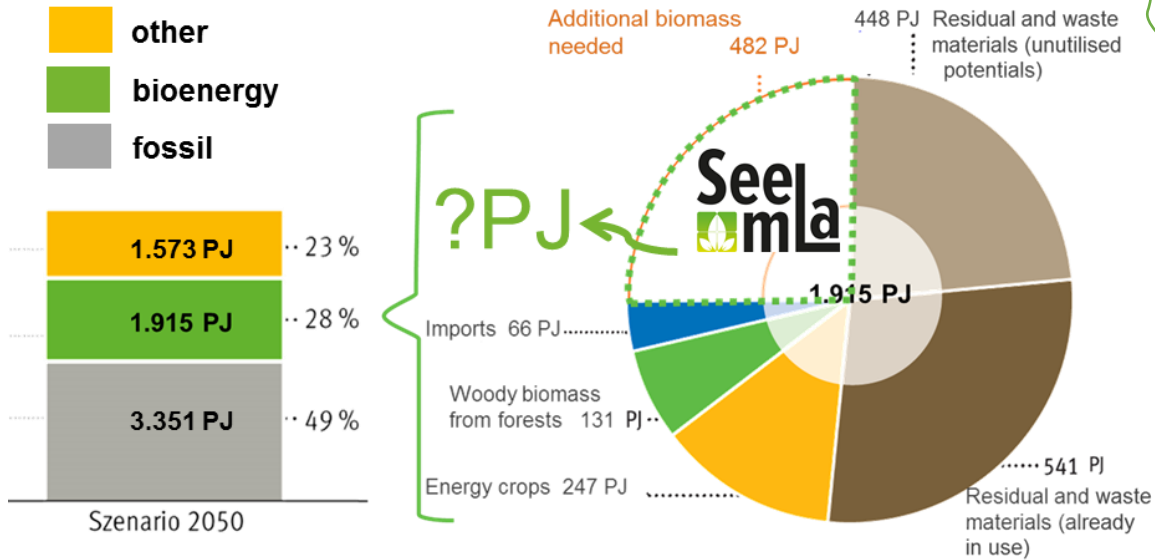


This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691874



“Filling the Gap” of future domestic biomass demand

Energy scenario for Germany 2050 not feasible only with biobased residual and waste materials



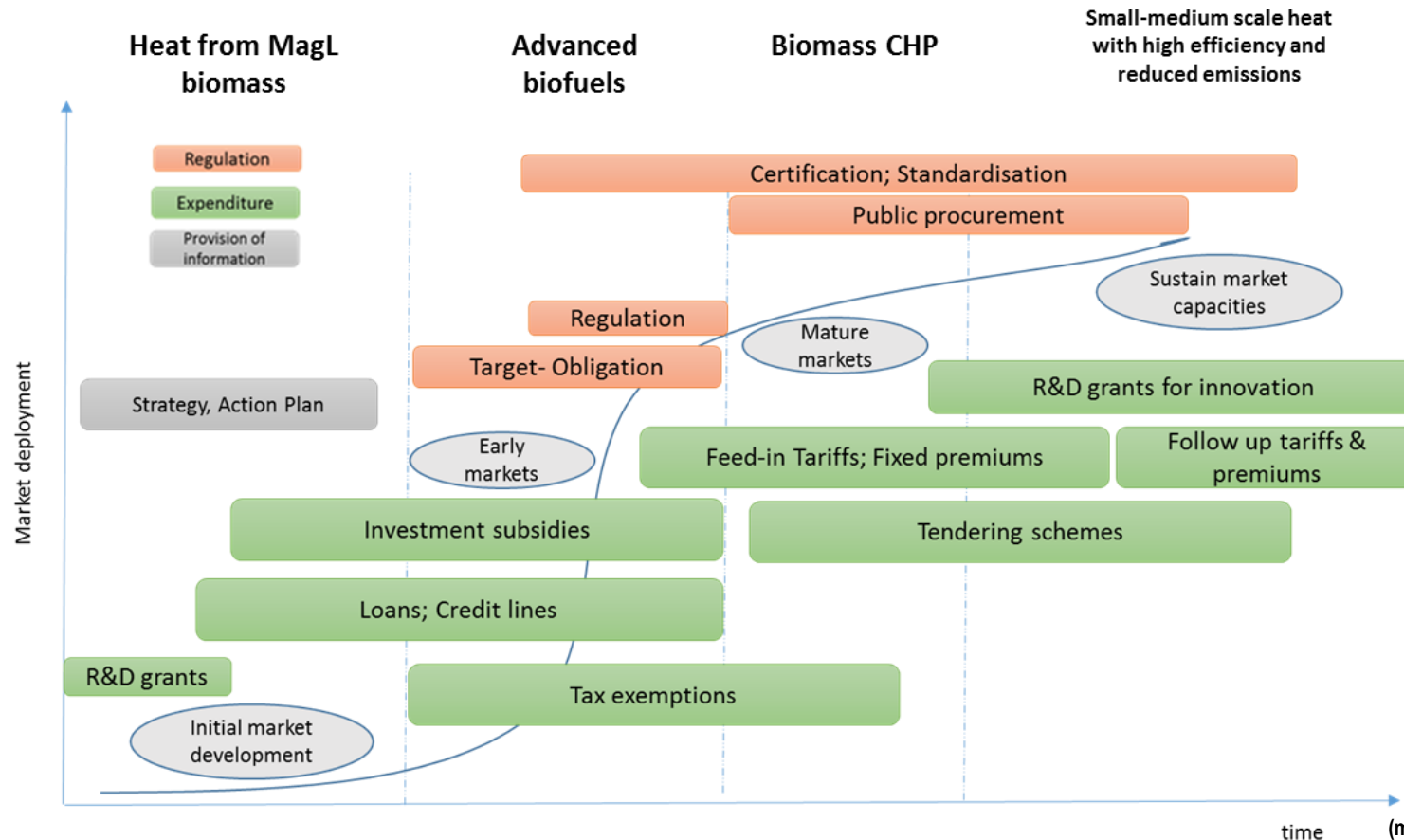
Project coordinator

Partners

Source: FNR, 2016 based on and modified after AGEB 2015, BMWi (forecast) 2014



Policy and administrative regulations for biomass production on MagL for bioenergy - selected value chains



(modified and adapted from BiomassPolicies.eu, C. Panoutsou, 2016)

Project coordinator

Partners



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691874



Major aims in SEEMLA are

- (i) to **create an attractive incentive programme** for stakeholders, i.e. farmers, forester, to use MagLs for sustainable biomass production for bioenergy;
- (ii) to **share experiences** in each partner country internally and transnationally between SEEMLA partner countries and other EU MS, and to
- (iii) **apply the EU Common Agricultural Policy (CAP) to the SEEMLA approach** and possibly find a way to adapt it to and to modify the CAP, e.g. ‘greening’, and other relevant legislation, e.g. European water protection, nature conservation, soil protection, nitrates directive and related regulations, frameworks, and financial supporting programmes.
- (iv) ...and vice versa: **Propose new aspects from the SEEMLA approach to the CAP** by e.g. supporting agroforestry especially in the vicinity of sensitive areas (→ buffer zone)

Project coordinator

Partners



Policy mechanisms relevant to biomass from marginal land per value chain step, type of policy and market stage development

	Mechanism	Marginal lands	Harvesting/ Collection	Logistics	Trade
Regulatory	Common Agricultural Policy Act on ecological products and farming practices Nitrates Directive (91/676/EEC)	Early markets	Mature markets Sustain markets		Mature markets Sustain markets
	Certification/ Standardisation		Mature markets		Mature markets Sustain markets
Financial support	Investment subsidies, direct payments	Early		Early markets	
	R&D Grants		Early markets		
	Tax exemptions			Mature markets Sustain markets	Mature markets Sustain markets
Information provision	Strategies/ Action plans	Early markets	Early markets	Early markets	Early markets
	Capacity building	Early markets Mature markets	Early markets Mature markets	Early markets Mature markets	

to be confirmed...

(adapted from BiomassPolicies.eu, C. Panoutsou, 2016)

Project coordinator

Partners








This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691874



Perspectives of the use of MagL in th EU

Key opportunities of using MagL (1)

-  **Use of MagL of increasing significance:** large areas affected already worldwide, land degradation and ‘land grabbing’ as global issue.
-  Avoidance/minimization of conflicts in the ‘food vs. fuel’ debate: growing energy crops in MagL is avoiding a competition with regard to agricultural land use for food production purposes. (ad hoc with long-term effect)
-  **Increase of biodiversity:** creation of a diverse landscape structure elements (‘niche function’ | habitat function). (mid-term and long-term)
-  **Creation of new jobs in rural areas** for, e.g. farmers, foresters, engineers and scientists specialized in the use of MagL for bioenergy purposes. (short and mid-term)
-  **GHG mitigation and carbon sequestration** by growing perennial plants on degraded land → enrichment of soil organic carbon in the top- and subsoil. (long-term)

Project coordinator

Partners








Perspectives of the use of MagL in th EU

Key opportunities of using MagL (2)

Land use: demand for...

...unified methods for

-  the identification of MagLs (in field, in the laboratory, GIS-tool) and their yield potential (bioenergy plants); → cf. [pre-]calculation of yields (short and mid-term)
-  the land management and use of MagL under given climatic conditions; (mid-term)
-  recommendations for farmers and foresters, as well as to decision makers/policy makers (short to mid-term)

Harmonizing policies:

Creating a unified policy framework, and attractive supporting systems for farmers and foresters using MagL [for bioenergy purposes] (mid-term) – “Learning from good practices”

Sustainability Certification Schemes

...as well as **societal** and **economic** aspects and recommendations...

Project coordinator

Partners





Thank you for your attention!

Project coordinator



Partners

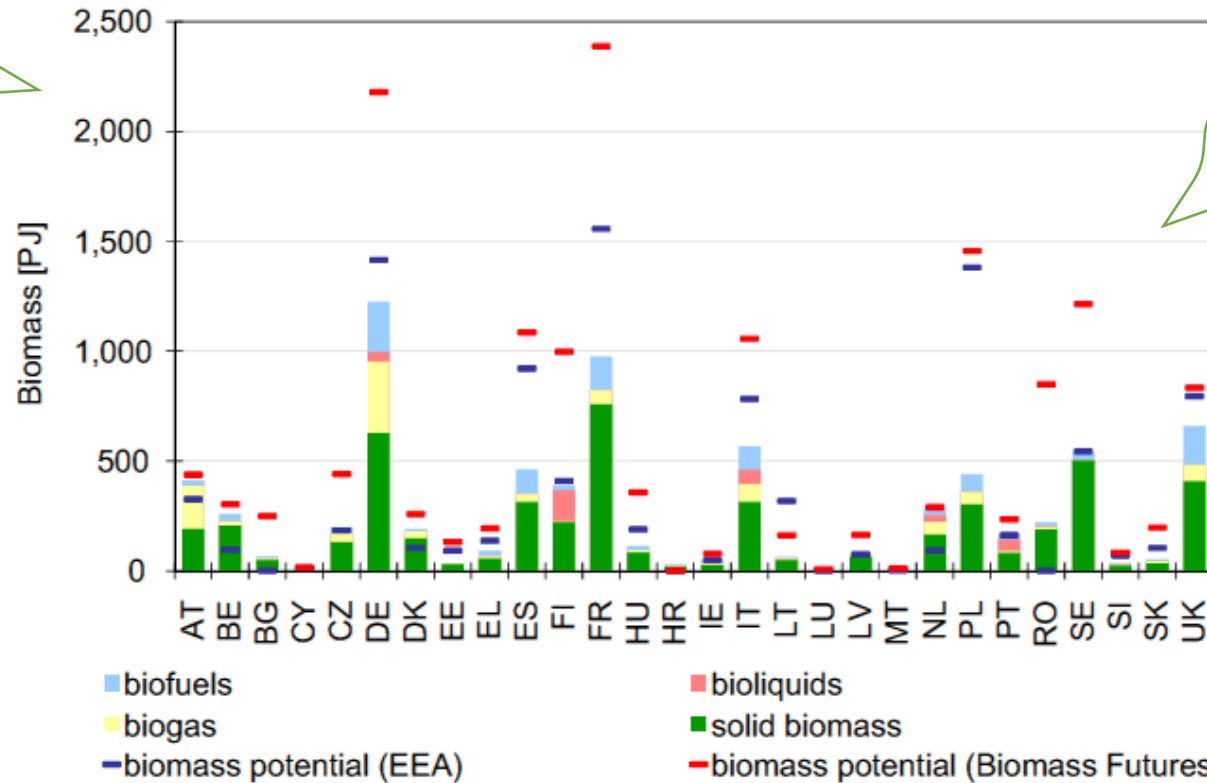


This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691874



Primary biomass demand in 2020 and biomass potential in EU Member States (MS)

How to mobilize additional biomass?



How to minimize/avoid "food vs. fuel" conflict?

Project coordinator

Partners

Source: Scarlet, N., Dallemand, J.-F., Monforti-Ferrario, F., Banja, M., Motola, V., 2015. Renew. Sustain. Energy Rev., 51:969-985