



S2Biom

Biomass supply in the Danube region: Opportunities & challenges for policy and industry

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Biomass supply in the Danube region

Opportunities: create value for regions and local communities

- ▶ Indigenous biomass supply
- ▶ Cost reduction potentials
- ▶ Policy interventions towards bioeconomy based on market development

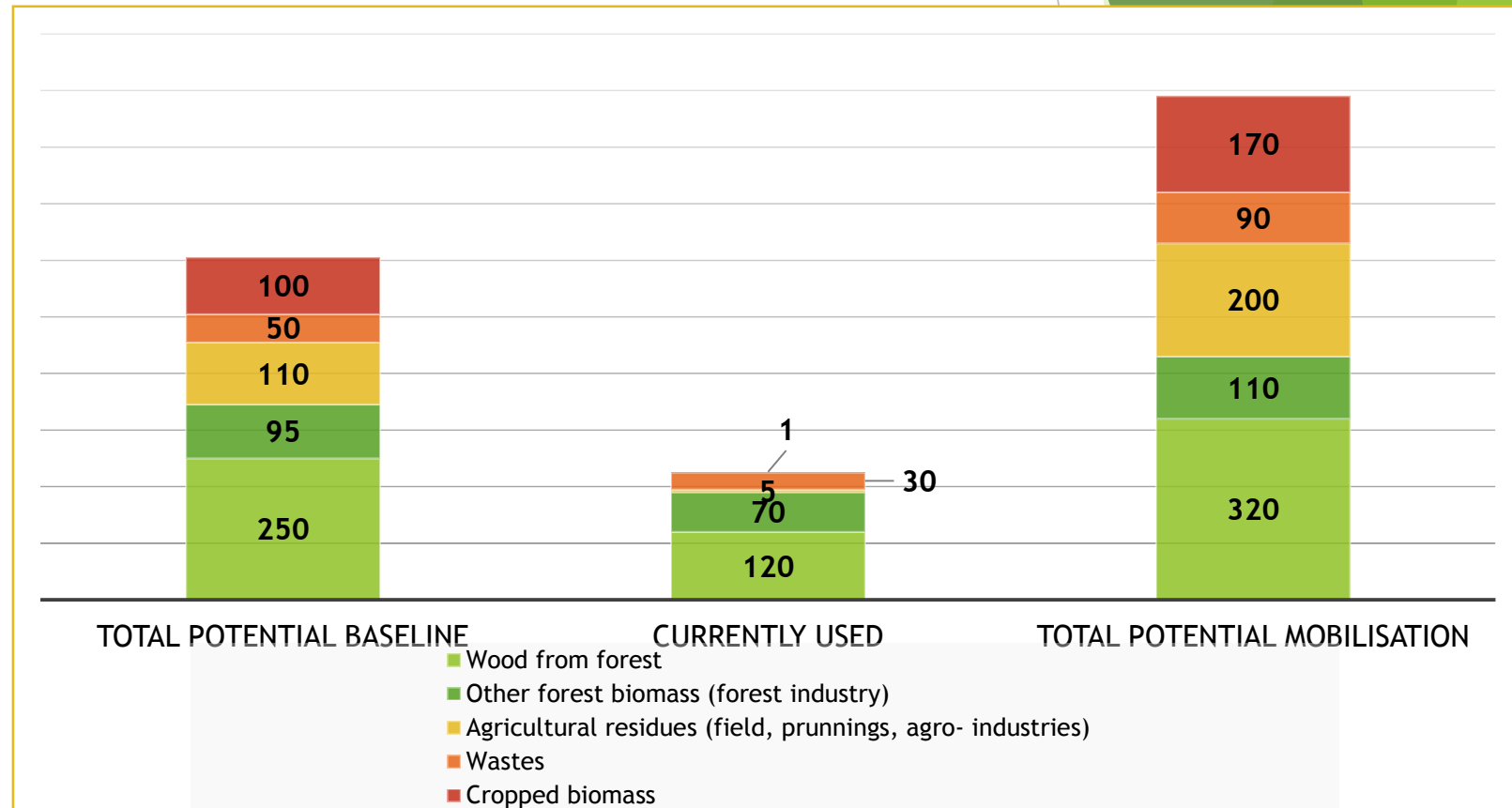
Challenges: complex system

- ▶ Biomass mobilisation
- ▶ Policy: Supply requires cross sectoral coherence
- ▶ Create strong partnerships: triple helix (to be discussed today)

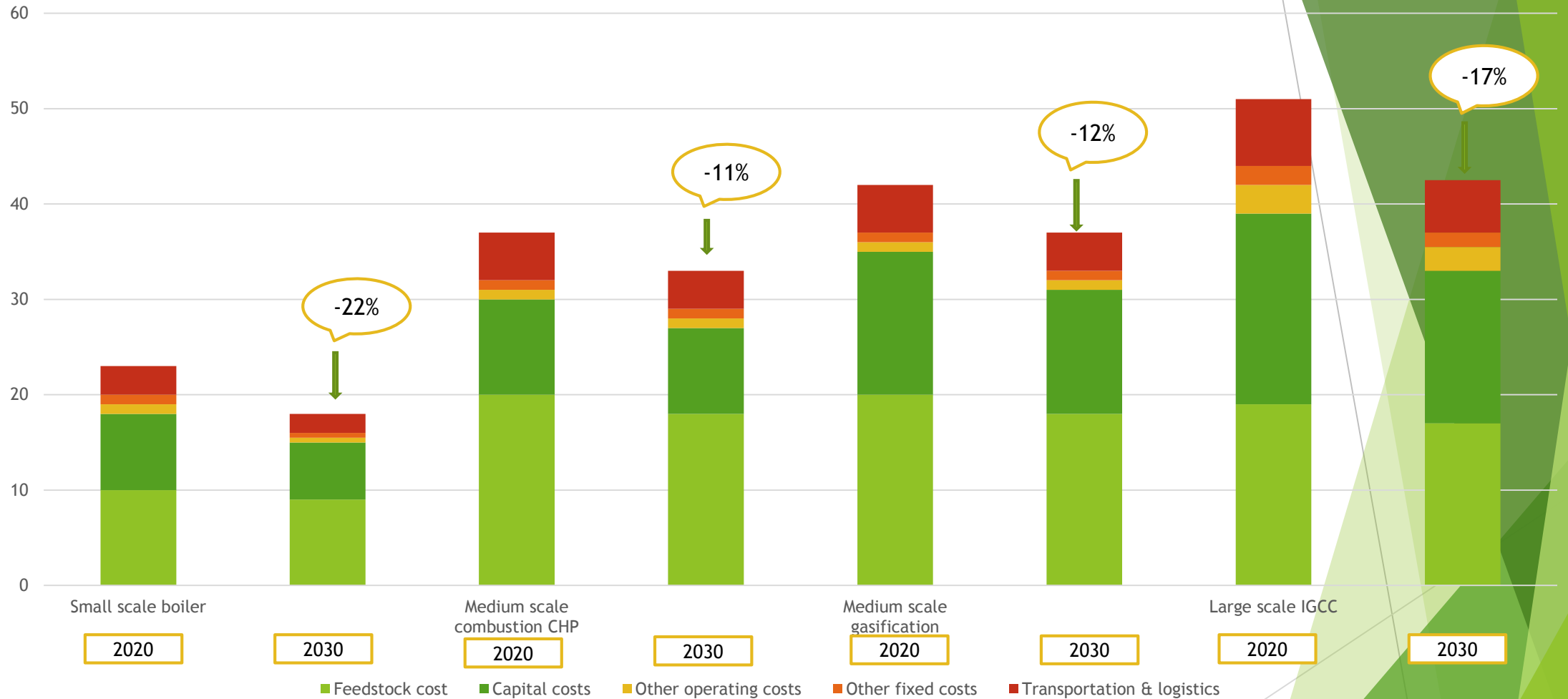


Opportunities: Indigenous lignocellulosic biomass supply

- ▶ Large resource base
- ▶ 600- 900 million dry tonnes are projected ranges from recent studies for the region. Figures are confirmed in recent findings from S2Biom project.



Opportunities: cost reduction potential (€/ MWh)



Policy interventions for feedstock:

Feedstock premium; harvesting premium for specific feedstock types; for forestry tailor them to specific forest ecosystems so that the likely impacts from such support trigger development with balanced effects for bioenergy-biodiversity, etc....

Policy interventions for capital costs:

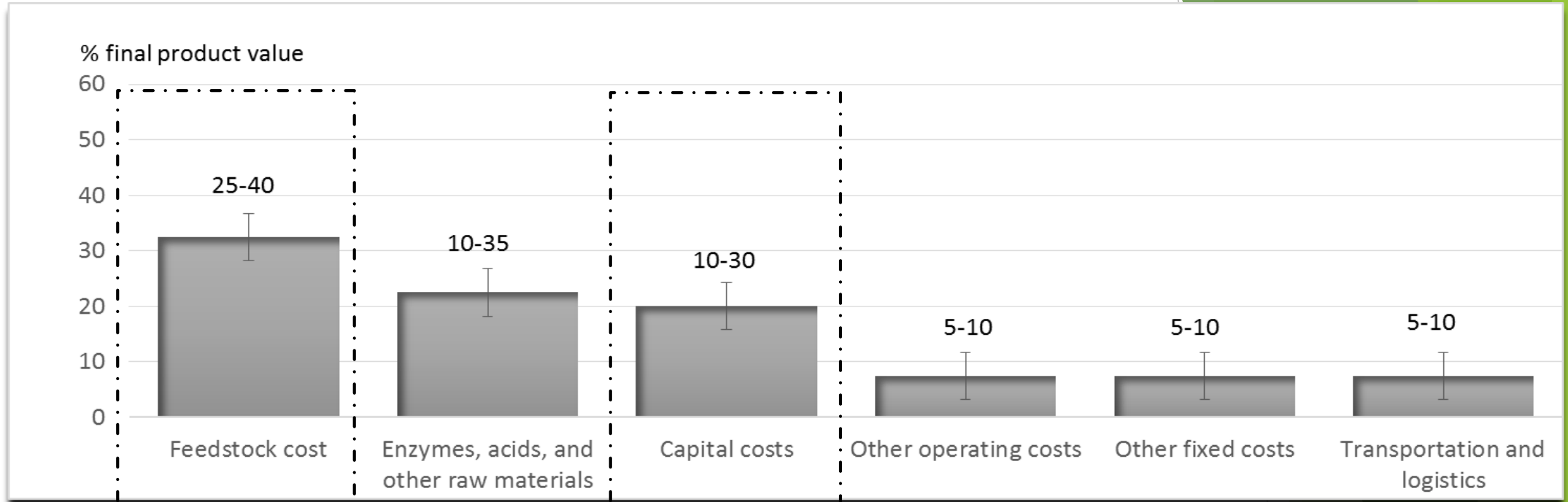
Early markets: investment subsidies, loans & loan guarantees
Mature markets: FiTs, FiPs, Tendering

Learning from: Austria, Finland, Germany, etc.

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Opportunities: Biorefineries

Key variables for policy & support



Main factors for support frameworks

Feedstock cost supply and availability in the biorefinery surroundings

Cost of enzymes and acids

Total Capex:
 • Plant capacity/technology
 • Cost of labour/construction materials

Cost of energy/utilities/water and other operating costs

• Plant capacity/technological scope
 • Real estate leases, maintenance, etc.

• Proximity to end users
 • Accessibility to transport infrastructure

Current framework

H2020, BBI

EIBI

NER 300

FP7; H2020, BBI

PPP, JU

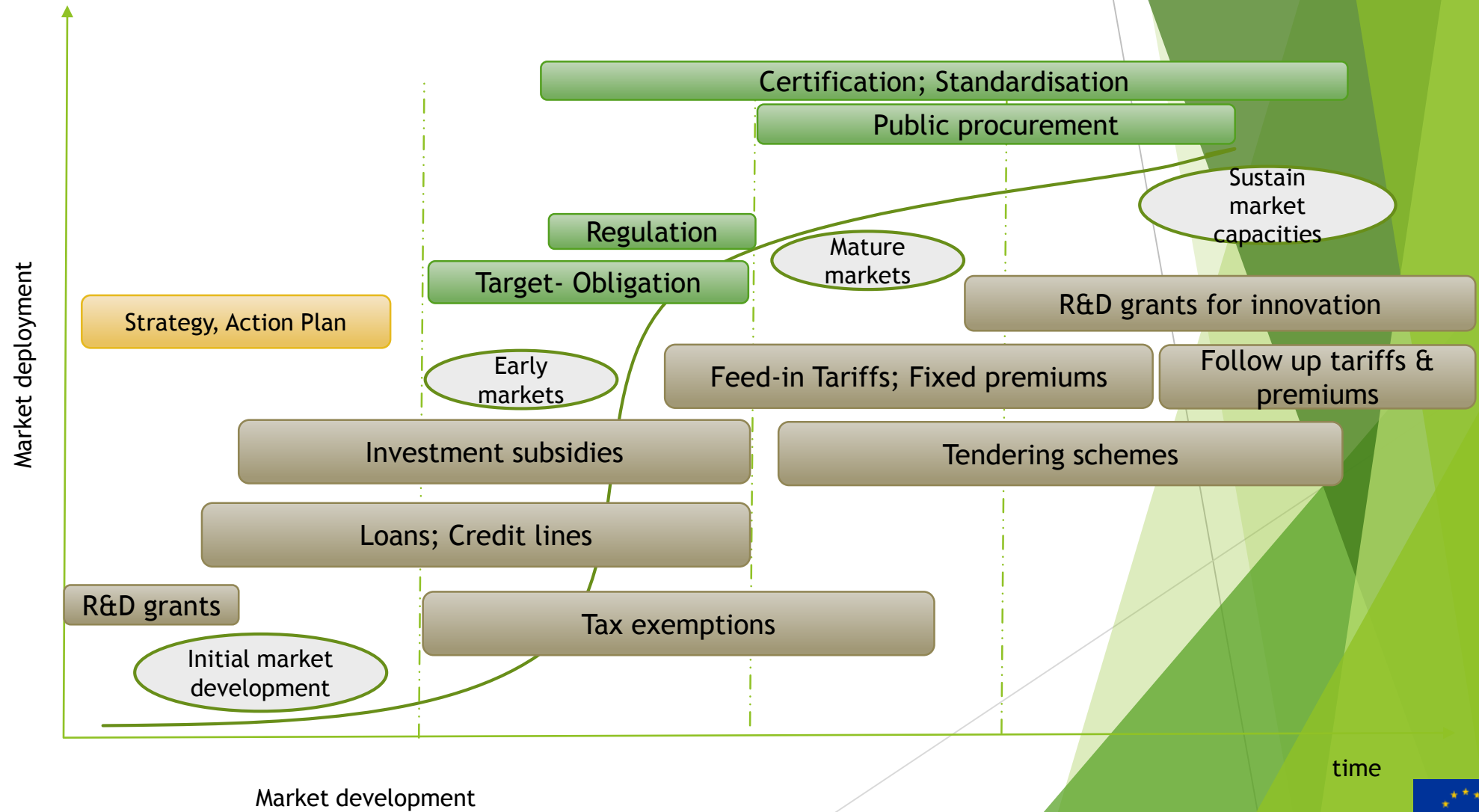
Loans, green bonds

Public, EU
 Private/ Public
 National, local



Biomass - policy interventions & market development

- Regulation
- Expenditure
- Provision of information



time



Challenges: biomass mobilisation

- ▶ Understand biomass supply options
- ▶ Map the key actors of the value chain at local/ implementation level
- ▶ Learn from Best Practices with similar typology in terms of feedstock, land ownership, end users, climate and ecology



Challenges: cross sectoral coherence in policy

Agriculture

Agricultural biomass has high shares in the overall potentials. However, due to the diversity of agro-food chains among regions and farming systems policy coherence is critical to mobilise agricultural residue streams.

Sectorial policies between agriculture, forestry, wastes and environment and regional development must also be aligned in the formation of future policy at national, regional and local level.

Forestry

Not all forest ecosystems are the same. Future policy for forest biomass should:

- build on local circumstances & learn from Best Practices;
- form suitable incentives per cluster of countries that face similar issues (e.g. storm prone areas: bring down stock; drained peat areas: reduce drainage; high stocked area: bring down stock and combine with innovation in products; outgrown coppice: regenerate, stimulate local biomass innovation and plant adapted species, etc.; source: European Forest Institute)

Wastes

Wastes should not be 'wasted'

- Refine terms and conditions in the Waste Directive and account for all potential uses and waste transportation issues.
- Feedstock bonus to mobilise unutilised potentials: It is essential to introduce feedstock bonus schemes for the most important biomass feedstocks which remain un-mobilised. The scheme could be in the form of premium with favourable pricing.

Environment

Regional Development

How to translate knowledge and science based evidence to real actions?

Strong partnerships required- Triple helix

- ▶ At the early stages of development universities are the knowledge providers and provide evidence that will inform business and government.
- ▶ Strong entrepreneurial culture is a critical factor to successful biomass partnerships.
- ▶ Forward thinking governments with strong (and consistent!!!) vision for the future are a strong asset for biomass market development.
- ▶ ...
- ▶ ...





S2Biom

www.s2biom.eu

Thank you

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biomasspolicies

www.biomasspolicies.eu



Biomass Policies & S2Biom:

Data and methodological approaches

Biomass Policies

(www.biomasspolicies.eu)

All biomass feedstocks- oil, starch, sugar, lignocellulosic

EU28- detailed analysis in AT, BE, DE, ES, FIN, GR, HR, NL, PL, SK, UK

Common metrics for resource efficiency across biomass value chains (qualitative and quantitative)

Policy landscapes- beyond energy & fuels

Integrated policies for the mobilisation of “resource efficient” indigenous biomass ‘value chains’

RESolve modelling with focus on energy, fuels and biorefineries

S2Biom (www.s2biom.eu)

Only lignocellulosic biomass feedstocks

EU28, Energy Community (W. Balkans, Moldova, Ukraine, Turkey)

Integrates indicators for resource efficiency

Same method for policy landscapes; expanding geography

Adopts principles for biomass integrated policies and places further focus on regions within the Biomass Policies countries

RESolve focus on PMCs

