Policy mixes for resource efficiency beyond a circular economy – background and scope of projects

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BII = Biodiversity Intactness Index
E/MSY = extinctions per million species-years
P = Phosphorus
N = Nitrogen
Input and output
All resource types
Entire value chain
Enhancing circularity, closing loops
Environmental, social, economic impacts
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DYNAMIX is building on the EU Roadmap to a Resource Efficient Europe and on the idea of a “safe operating space for humanity” introduced by Rockström and colleagues in 2009. Visualisation is adapted from Leppänen et al. 2012 (SPREAD project).
**PROJECT RECOMMENDATIONS CEP**

DYNAMIX-POLFREE Policy Platform (PP4) recommendations and potential links to new CEP (ref. EU action plan for the Circular Economy, COM(2015) 614 final)

<table>
<thead>
<tr>
<th>Selected PP4 recommendations</th>
<th>CEP</th>
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<tbody>
<tr>
<td>Identify targets and indicators for RE</td>
<td>☹ no RE target</td>
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<tr>
<td>Promote waste prevention</td>
<td>☺ Product design, food waste (no target)</td>
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<tr>
<td>Support shift from “waste” to “resource”</td>
<td>☻ Boosting secondary raw materials market</td>
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<td>Enhance responsible consumption through transparent labeling, product information</td>
<td>☻ New energy labelling for household appliances</td>
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<td>Ensure consistency between funding and environmental policy priorities</td>
<td>☻ Horizon 2020, Cohesion Policy funds (BREFs, recycling facilities)</td>
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<td>Shift taxes from labour to material use and phase out EHS</td>
<td>☻ MS encouraged to use economic instruments (e.g. taxation)</td>
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<tr>
<td>Support business resource efficiency through exchange of know-how and best practices</td>
<td>☻ best available technique reference documents' (BREFs)</td>
</tr>
</tbody>
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POLFREE: An Introduction

- European Union Collaborative FP7 Project
- October 2012 until end of March 2016
- 5 work packages:
  - WP1: why have resources been used inefficiently?
  - WP2: new concepts and paradigms for resource efficiency
  - WP3: scenarios and modeling of policy implementation
  - WP4: synthesis, conclusions and engagement
  - WP5: project management
POLFREE: Institutions

- UCL ISR (UK)
- Wuppertal Institute (Germany)
- TNO (Netherlands)
- ICIS, Maastricht University (Netherlands)
- GWS (Germany)
- SERI (Austria)
- PIK (Germany)
- International Synergies (UK)
POLFREE: The need for policy

- Societal goals for a RE economy
  - World vision and values influencing policy goals
  - Aligning policy goals of competitiveness, resource security and environmental quality
  - Environmental and resource boundaries and constraints
- These goals cannot be adequately pursued only through markets
- Policy needs to guide markets towards a more resource-efficient economy
POLFREE: Aims

- Understand the web of constraints and barriers to resource efficiency
- Identify the concepts, policies and business models that could overcome the barriers, untangle the web of constraints
- Create a vision for and pathways to a resource-efficient Europe
- Identify policy mixes that can promote a resource-efficient economy
- Model scenarios simulating the proposed pathways and policy mixes
- Synthesise and draw policy conclusions from the results
WP1: Why resources have been used inefficiently

- Analytical framework
- Lessons from EU policy experiences
- Comparing trends and policies of key countries
- Resource-efficient cost curves for material consumption
- Business barriers to resource efficiency
- Behavioural barriers to resource efficiency
WP2: New concepts and paradigms for RE policies

- Synthesis of new concepts
- A vision for a resource-efficient Europe
- A new policy mix for resource-efficient economy in Europe
- New business models
- Global governance for resource-efficient economies

The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under grant agreement no 308371.
A plethora of new concepts

- Industrial ecology, industrial symbiosis
- Waste prevention, priority waste streams, extended producer responsibility
- Eco-innovation
- Transition management, transition towns
- Green growth, green economy, inclusive sustainable growth, Beyond GDP’, degrowth
- Ecosystem goods and services, natural capital approach, resilience & safe operating space, ecological economics, weak, strong and sensible sustainability
- Multi-level (micro/meso/macro) governance
- Cleaner production, eco-efficiency, resource-efficiency, ‘pollution prevention pays’
- Sustainable Consumption and Production, leapfrogging, slow food,
- Product-service systems, supply chain management, lease society, Natural Step,
- Circular economy, 3R (repair, re-use, recycle), cradle-to-cradle
- Hannover Principles (sustainable design), appropriate technology

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WP3: Scenarios and modelling of policy implementation

• Linking economic (EXIOMOD, CGE model; GINFORS, macro-econometric E3 model) and ecological (PIK land use) models
• Scenario formulation
• Running scenarios and generating results
• LCA of selected products and sectors
• Integrated scenario interpretation
OBJECTIVES/INTENDED OUTCOME OF FINAL CONFERENCE

• Share insights from two major research projects and their findings on scenarios and policy mixes for a resource-efficient European Union
• Take part in a high-level debate to link science-based evidence to the Circular Economy Package.
• Discuss how policy mixes for radical increases in resource efficiency may become or be made politically feasible.
• Network with a large pool of experts and practitioners from all over Europe
THANK YOU VERY MUCH!

Please make use of the conference twitter hashtag

#REBXL

For more info...

- Visit: http://www.polfree.eu or www.dynamix-project.eu
- Sign up to our newsletter
- Twitter: POLFREEEC or @EUResources

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