

# Developing integrated biomass strategies – Links between regional and national biomass action plans

Niina Kautto\*  
European Commission, Joint Research Centre  
Institute for Energy, Renewable Energy Unit  
Ispra, Italy

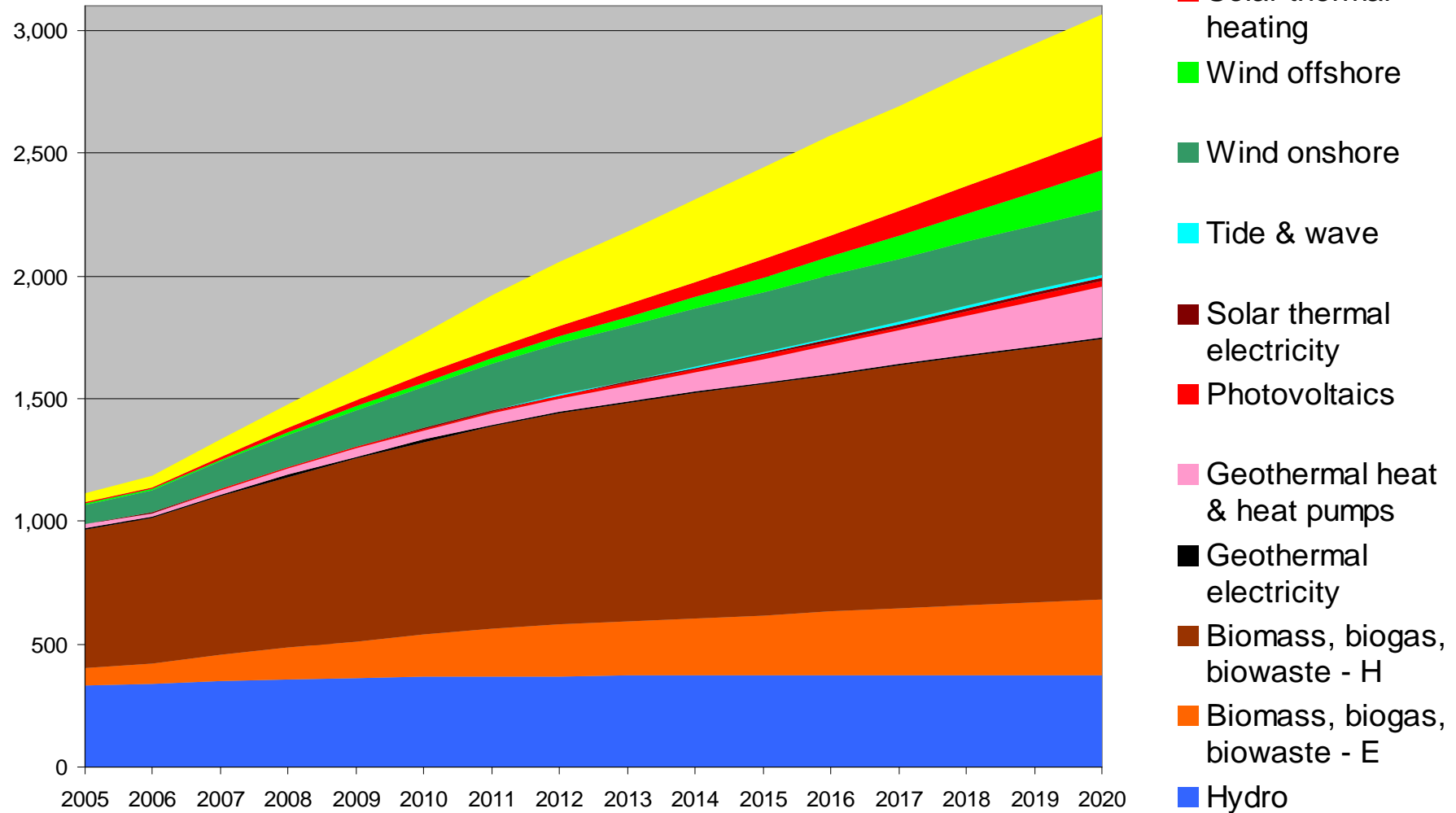


\*) PhD Candidate at the International Institute for Industrial Environmental Economics (IIIEE) at Lund University, Sweden

## Outline

- Introduction
  - Drivers for biomass action plans (BAPs)
  - Status of biomass action planning in the EU (national/ regional)
  - Definition of a national BAP (nBAP)
- Comparison of four regional BAPs (rBAPs)
  - Central Finland, North Karelia, Scotland and South-East Ireland
- Links between national and regional level BAPs
- Conclusions

## Green X balanced scenario projection of renewable energy growth (GWh, EU25)



Source: Green-X

## Drivers for BAPs - EU policies related to biomass

- EU Biomass Action Plan (2005)
  - Doubling the biomass use by 2010
  
- Climate action and renewable energy package (Jan 2008)
  - '20-20-20-10' by 2020
  
- A proposal for a Directive on the promotion of the use of energy from renewable energy sources (Jan 2008)
  - National targets and renewable energy action plans (REAPs)

## Drivers for biomass action plans

- Boosting the bioenergy market
- Removing bottlenecks for the increased use of biomass
- Providing policy stability for investment
- nBAPs integral part of REAPs
- Extra measures needed on all levels → rBAPs



## Status of BAPs – national level

- Five Member States have submitted their plan to the EC
- 56% of the EU countries have a biomass plan/ nBAP under preparation
- 44% do not yet have a biomass plan

<b>Status of the nBAP</b>	<b>Member States</b>
Officially submitted to the EC	EE, IE, NL, ES, UK
Existing nBAP but not submitted to the EC	SI
In preparation	AT, BG, CY, CZ, FR, DE, LV, RO, SK
No nBAP	BE, DK, FI, EL, HU, IT, LT, LU, MT, PL, PT, SE

## Status of BAPs – regional level

- Four regions have submitted their plan to the EC
  - Central Finland, Scotland, South-East Region of Ireland and Northern Ireland (REAP)
- Specific regional biomass strategies/programmes (examples)
  - Spain: Castilla y León, Asturias (in preparation)
  - Finland: Central Finland, Eastern Finland, Lapland, North Karelia
- Biomass plans part of regional energy & climate strategies
  - Germany: Bavaria, Hannover (in preparation)
  - Austria: Upper Austria
  - Sweden: South-East region (Blekinge, Kalmar, Kronoberg)

## Definition of a national BAP

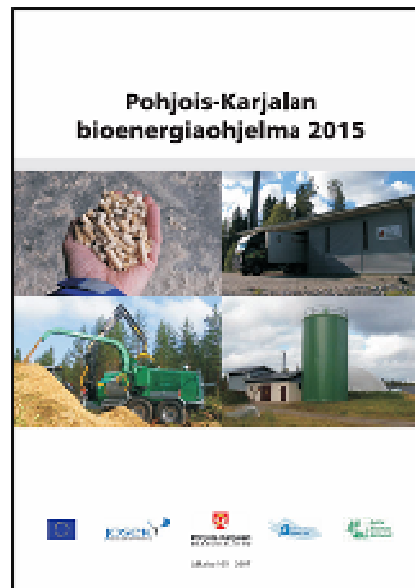
- There is not yet a clear definition or common agreement upon the content and need of national BAPs
- Discussion on the contents and purposes of national BAPs
  - Expert meetings on nBAPs: proposal for a coordinated approach with four themes
  - BAP Driver project: assessment of 12 national bioenergy strategies and BAPs



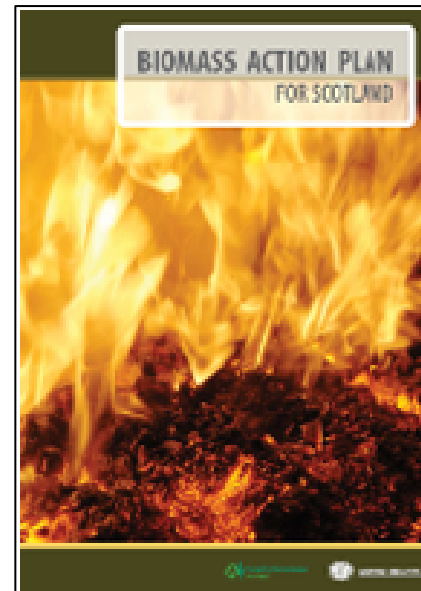
# Comparison of selected regional BAPs



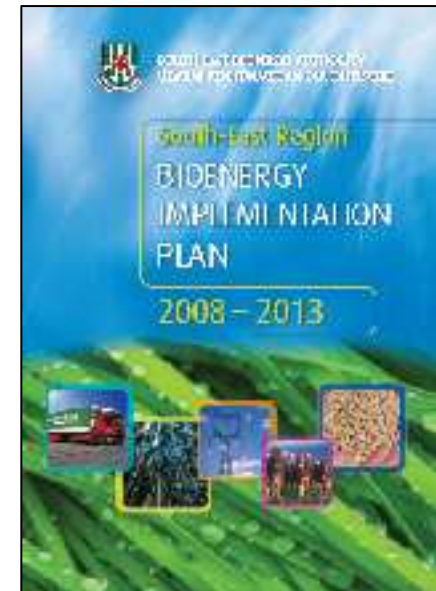
**Bioenergy Strategy  
of Central Finland  
2010 and 2025  
(Sept 2005)**



**North Karelia  
Bioenergy  
Programme 2015  
(2007)**



**Bioenergy Action  
Plan for Scotland  
(March 2007)**



**South-East Region  
Bioenergy  
Implementation Plan  
2008-2013  
(Oct 2007)**

	Central Finland	North Karelia	Scotland	South-East Ireland
<b>Assessment of biomass resources</b>				
Availability/potentials now/in the future for all biomass types		(X)		X
By-products	X	X	X	X
Biomass definition	X	X	X	X
Other uses of biomass	(X)			(X)
Sustainability issues			(X)	(X)
<b>Biomass use and targets for electricity, heat and transport</b>				
Use in all sectors	(X)	X		X
Targets in all sectors	(X)	X		X
Connection to national targets		X	(X)	X
Efficient use of biomass	X	X	(X)	
<b>Measures to reach targets</b>				
Measures listed	X	X	X	X
Mobilisation of new resources	X	X		
Imports		X	X	X
<b>Implications of the measures</b>				
Economic impacts	X	X		
Environmental impacts			X	X
Social & cultural impacts		X		
<b>Purpose &amp; motivation</b>				
Drivers for the plan	X	X	X	X
Specific bioenergy vision	X	X		X
<b>Development process</b>				
"Strategy team"	X	X	X	X
Stages described				X
<b>Other emerging elements</b>				
Critical issues	X	X	X	X
Linkages & integration with other policies	X	X	X	X
Implementation & monitoring (responsibles and/or timetables)			X	X
Involvement of stakeholders	X	X	X	X

## Criteria 1) Assessment of biomass resources

- Available resources currently & in the future: in varying degrees, type of potential not clearly stated
- By-products: considered by all rBAPs
- Definition for biomass: given by all four plans
- Other uses of biomass & sustainability issues: not well considered
- Viability of bioenergy technologies:  
South-East Ireland



## Criteria 2) Biomass use and targets

- Biomass use in electricity, heat and transport sectors
  - In three sectors: North Karelia and South-East Ireland
  - Shares of biomass use:
    - 27% in Central Finland
    - 55% in North Karelia
    - 1.5% in South-East Ireland
    - No data available for Scotland
  
- Targets
  - Specific biomass targets given by Finnish regions and S-E Ireland
  - Connection between national and regional targets often not clear
  
- Efficient use of biomass: not much addressed

## Criteria 3) Measures to achieve the targets

- Several measures and actions in each region shows the strong motivation
- Mobilisation of new biomass resources addressed by the Finnish regions
- Domestic vs. imported resources acknowledged by most of the regional BAPs



## Criteria 4) Implications of the measures

- RES Directive (Art.19) requires reporting e.g. on
  - commodity price and land use changes
  - estimated impact of biofuel production on biodiversity, water resources, water quality and soil quality
  
- North Karelia: Social, ecological, cultural and economic impacts
  
- Scotland & South-East Ireland: environmental impacts
  
- Central Finland: economic impacts



## Criteria 5) Purpose and motivation for the BAP

- Drivers for making the plan stated clearly by all four regions
- Wider aims and visions:
  - Central Finland: *“to be leading bioenergy know-how centre and efficient utiliser of bioenergy”*
  - South-East Ireland: *“to promote the sustainable deployment of bioenergy and to increase the production and consumption of bioenergy within the region”*
  - North Karelia: *“sustainable energy production, enhancing in-region expertise and export of technology and expertise creating a vision of a region basing its future on renewable energy and sustainability”*
  - Scotland: *“contribution to a cleaner and greener region with a greater deployment of renewable energy”*

## Criteria 6) Development process

- ‘Strategy teams’ consisting of biomass field experts
  - Finnish regions: large group of experts
  - Scotland: Biomass Energy Group and Interdepartmental Bioenergy Group
  - South-East Ireland: Project Steering Committee
  
- Development stages described by South-East Ireland





## Criteria 7) Other emerging elements

- Critical issues: e.g. workforce adequacy in the bioenergy sector
- Linkages and integration with other policies: energy, climate, forestry and development strategies/programmes
- Implementation and monitoring: responsables and timetables
- Involvement of stakeholders: strengthening cooperation regarded as important



## Links between regional and national level (1)

- Structure and approach
  - Many common elements at both levels
  - Data on biomass resources not easily comparable at either level
  - Linkage between national and regional targets often unclear
  - Measures usually more concrete regionally
  - Impact assessment rather limited at both levels



## Links between regional and national level (2)

- Involvement and integration of stakeholders: considered essential, improves communication
- Motivation and purpose: can differ greatly between the two levels
- Development process: little exchange of information at both levels, process better explained at regional level
- Monitoring of the implementation: generally inadequate at both levels, but intention seen at regional level

## Conclusions

- Strong call for **integrated, coherent** biomass strategies with a **long-term view**
- **Clearer definition for the form and function** of BAPs supports the development of such plans
- **Stakeholder involvement** essential for a successful implementation
- **Regionalisation of biomass policies** improving the communication
- Regional BAPs can have an important role in **facilitating biomass policy coordination** at national level

# Thank you for your attention!

Niina Kautto  
[niina.kautto@ec.europa.eu](mailto:niina.kautto@ec.europa.eu)

For more information on national BAPs:  
[http://ec.europa.eu/energy/renewables/  
bioenergy/national\\_biomass\\_action\\_plans\\_en.htm](http://ec.europa.eu/energy/renewables/bioenergy/national_biomass_action_plans_en.htm)

BAP Driver project: <http://www.bapdriver.org>

