

Agenda



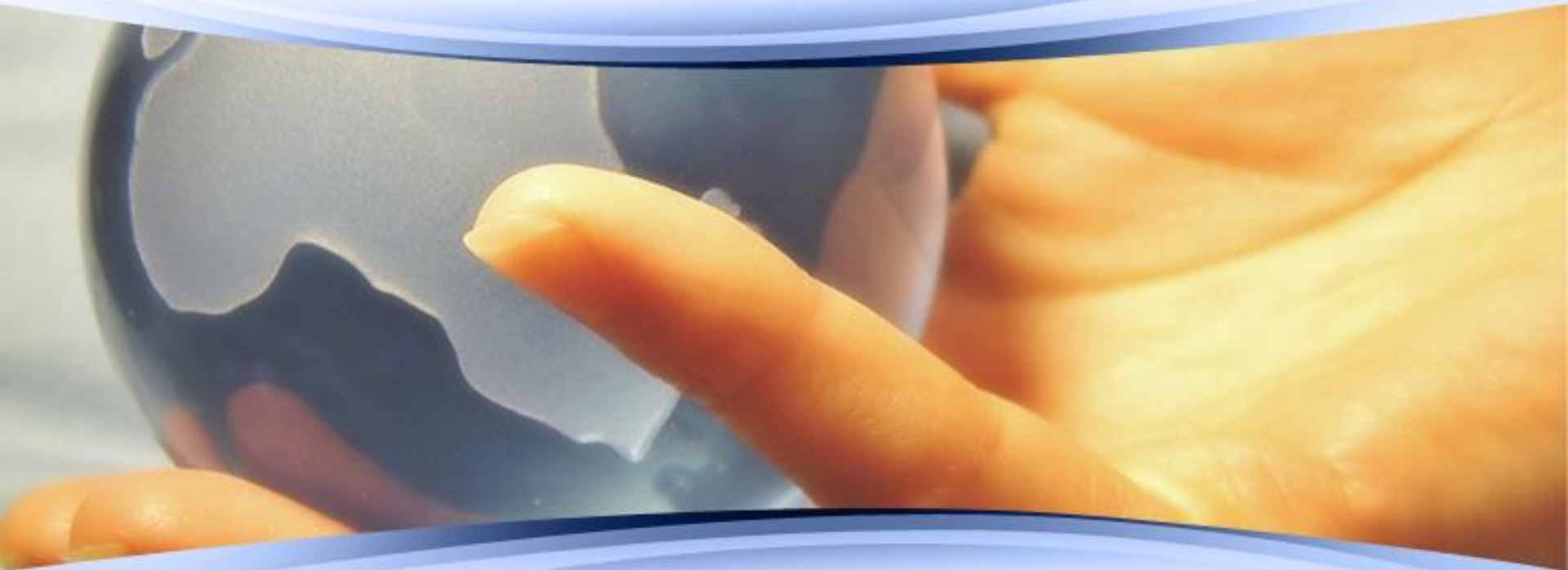
2:30	Introduction and scope of the Action Plan, Elaine Groom
2:45	Mark Kelly (Feedstocks) Beatrice Smyth (Alternative Uses) George Corr (Finance)
3:30	Trevor Kerr Invest, NI
3:45	Coffee Break
4:00	Presentation of the Research Action Plan, Elaine Groom Four Areas: <ol style="list-style-type: none">1. Development of small scale solutions for biogas production and use2. Solutions for improved nutrient management3. Embedding biogas use in the rural economy4. Future crops and bio-based products
5:00	Future – Next Steps. Elaine Groom
5:30	End



Developing Opportunities in Bio-Energy



Biogas Action Plan for Northern Ireland



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Outline of presentation



- Why a Biogas Research Action Plan?
 - Some facts and figures
- Objectives
- Methodology
- Presentations from 3 working groups

NI – Some facts and figures



- 80% of the land area and 35% of the population are defined as being rural
 - 8% of the land area is under forest
- 75% of the land is agricultural production
 - Of which 90% is permanent pasture for grazing and silage.
- 47,000 people directly involved in agriculture
- Agri-Food Sector
 - Worth £2.6 billion to the Northern Ireland economy in 2010
 - 25% of manufactured goods food and drink processing
 - >60% of food produced is exported

Renewable Energy in NI



- Targets
 - 40% of electricity consumption from renewables by 2020
 - 10% contribution to renewable heat by 2020
 - 35% reduction in greenhouse gas source emissions by 2025
- Desire for energy security
- Cost of fuel imports
- Current renewables (*capacity*):
 - 489 MW of wind generation and 22 MW other sources
- 2020 - 1917MW forecast peak energy demand in NI.

Renewable Transport



- UK RTFO 5% of transport fuels by 2010
- Electric Vehicle charging points
- Is CNG or LNG feasible (with % of Biomethane)?

Data from 2011	Freight			Personal				
Transport Type:	Diesel HGV	Diesel LGV	Petrol LGV	Buses (Diesel)	Diesel Cars	Petrol Cars	Motor cycles	Total
Fuel Use (1000s of tonnes)	278.3	73.3	1.6	9.9	388.4	426.1	4.5	1,182.0
Percentages	23.5%	6.2%	0.1%	0.8%	32.9%	36.0%	0.4%	

- Agriculture – 90% of emissions come from vehicle fuel

Objectives



- Develop Stakeholder/Actor group; develop a website
- Create a database of local actors: facilities, experience, capability
- **Scope opportunities** for development and/or demonstration;
- Understand the funding opportunities and mechanisms for draw down of EU structural funds and research funding.
- **Build links with targeted partner regions**
- Identify regional strategic priorities related to biogas research and innovation development
- Develop an Action Plan for Northern Ireland which targets **capacity building for innovation** through cooperation with partner regions.

Development and Scope



- What is needed to aid development of the biogas sector in NI?
 - What are the barriers? What is holding us up?
- What are our research and innovation needs?
- Where do our strengths and capabilities lie?
- Where are the gaps (where we need partners)?
- What are the needs and opportunities to fund:
collaborations, demonstrations, innovation and commercialisation?



Action Plan – Development Methodology



- Stakeholder consultations and meetings
 - QUESTOR / CASE Energy from Biomass cluster members, Other companies BCC, Gov. Departments
- Workshops (Jun/Oct)
 - “What is the potential contribution of biogas to the local economy in 2020?”
- Barriers to achieving such potential
 - included non-technical barriers - lack of knowledge and understanding of biogas

Strategic Research Areas:



- *Development of new cost-effective, energy-efficient and sustainable technologies for biogas production and use within energy supply chains*
- *Development of technologies and services optimising the benefits of biogas for Northern Ireland agriculture, infrastructure and communities*
- *Provision of research expertise and facilities for manufacturers to commercialise ideas from R&D activities*

Methodology - Addressing Uncertainties



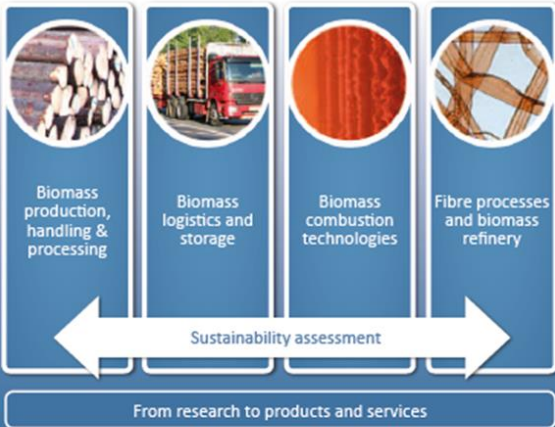
- **Quantification of feedstocks**
 - Waste, manure, grass/energy crops quantities from various sources – converted to energy (practical potential)
- **Facts and Figures for alternative uses of Biogas**
 - How and where can biogas be used (other than CHP / producing electricity)?
 - Overcoming Barriers - Examples of practical alternatives to production and export of electricity from biogas
- **Understanding financial issues**
 - how partnerships and plants can be funded – written in farmer-accessible language

Structure of Action Plan



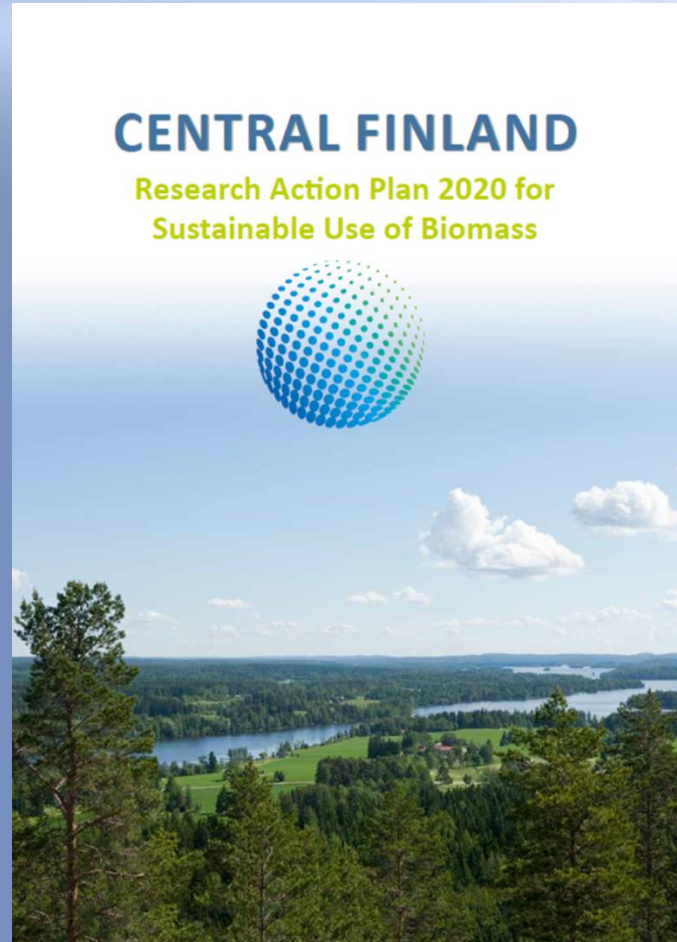
CENTRAL FINLAND

Research Agenda 2020
for sustainable use of biomass



CENTRAL FINLAND

Research Action Plan 2020 for
Sustainable Use of Biomass



Results



- Four working groups (mostly SMEs/researchers)
 - Feedstocks WG
 - Alternative Uses WG
 - Financial Support WG
 - Research Agenda WG
- Outputs – quantified, facts, figures and information
- Inform final output & provide technical appendices
- Present Draft Action Plan Report to stakeholders for **FEEDBACK**