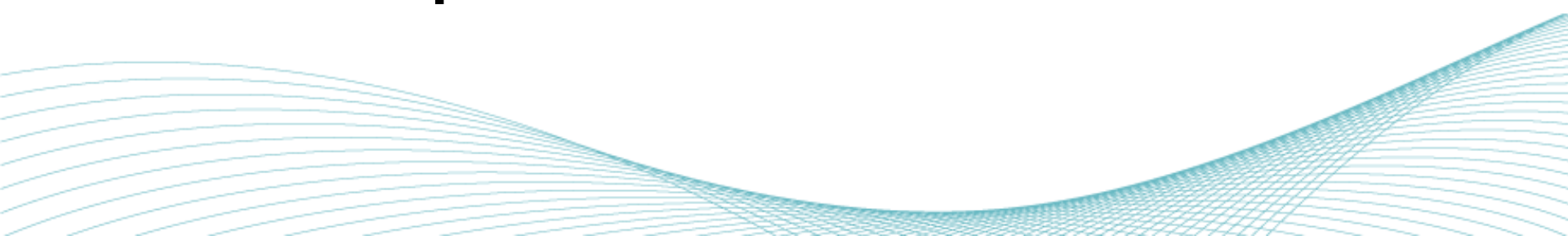


BIOENERGY WORKING GROUP

Pearse Buckley
Programme Manager – Bioenergy & CHP

THE NATIONAL BIOENERGY CONFERENCE 2010
Tipperary Institute, Thurles
18TH February 2010

- **Background**
 - **Bioenergy Working Group (BWG)**
 - **BWG Methodology**
 - **BWG Data**
 - **BWG Geographic Information System (GIS)**
 - **BWG Outputs**
- 
- Decorative wavy lines in a light blue color, composed of many thin, overlapping lines, creating a sense of movement and depth at the bottom of the slide.

Renewable Energy Directive (RED) 2009/28/EC: by 2020 Ireland to achieve

- **16% share of gross final energy consumption from renewable sources**
- **10% share of energy in transport from renewable sources***

***denominator petrol, diesel and biofuels consumed in road and rail transport, and electricity in transport.**

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Established by DCENR in April 2008

Sub-group of Renewable Energy Development Group (REDG)

Involves key Government Depts. and industry stakeholders

Goal – a SUSTAINABLE BIOENERGY SUPPLY ROADMAP to 2020 targets

Input to National Renewable Energy Action Plan (NREAP)

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- **BWG Stakeholder meetings**
- **Sub-groups to look at specific areas**
 - **Resource**
 - **Supply chain**
 - **Fuel quality**
 - **Markets**

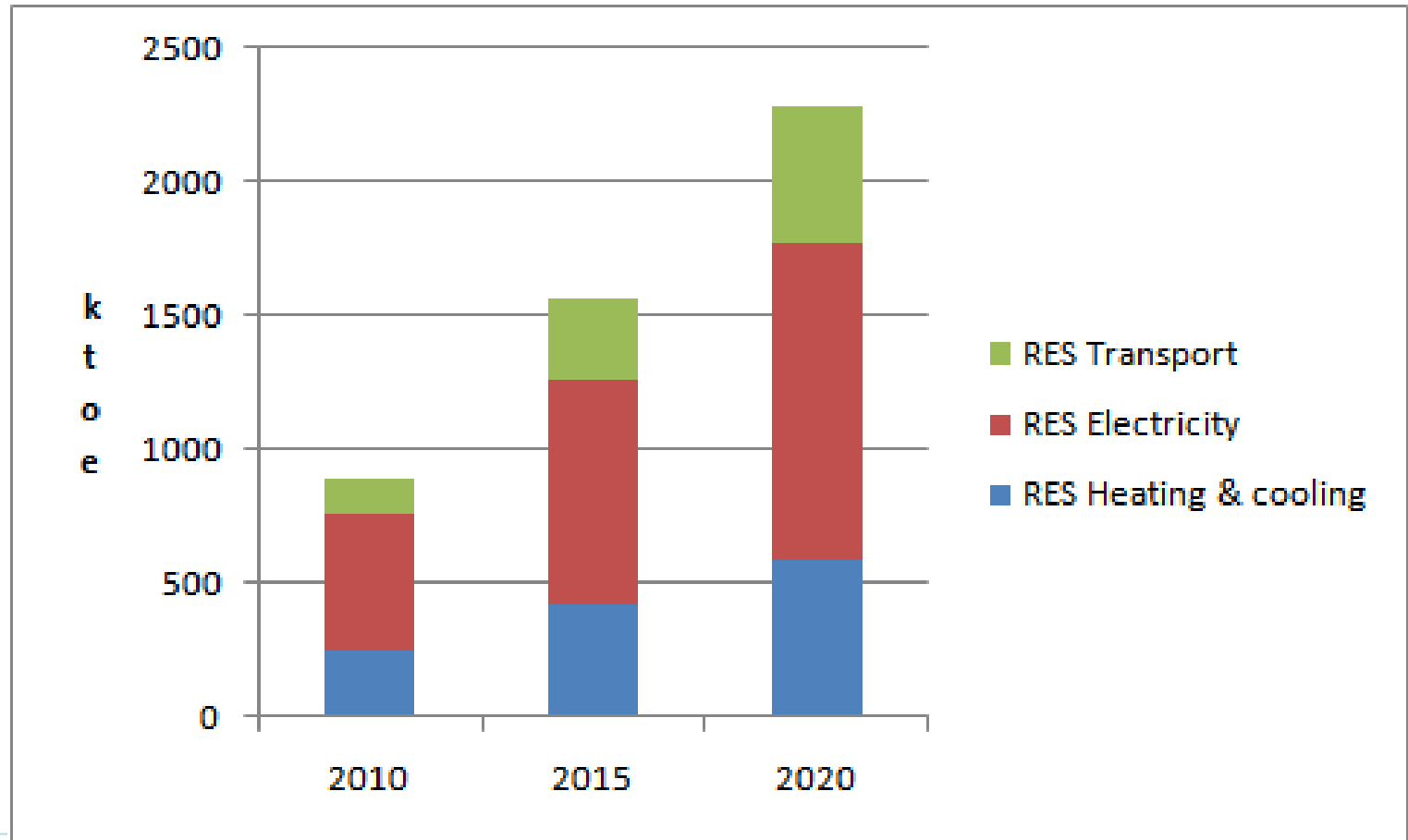
- **Commissioned Study**
 - **International Biomass Trade**
- **Frameworks**
 - **GIS**
 - **Economic Model**

Renewable energy projections to 2020

Data in ktoe			
	2010	2015	2020
RES Heating & cooling	252	421	591
RES Electricity	504	844	1183
RES Transport	136	301	506

Data from National Forecast Document December 2009


BWG Data



Renewable Heating & Cooling factors

- **Solar thermal and geothermal contributed ~10% to RES H in 2008**

Renewable Transport factors

- **Contribution from electric vehicles in 2020?**
 - **Trend towards diesel**
 - **Biogas?**
- 
- A decorative graphic at the bottom of the slide consisting of several overlapping, wavy lines in shades of light blue and teal, creating a sense of movement and depth.

Renewable Electricity factors

- **Co-firing at Peat plants**
 - **Co-firing at Moneypoint**
 - **Contribution from Waste-to-Energy**
- 
- Decorative wavy lines in a light blue color, composed of many thin, overlapping lines, creating a sense of movement and depth at the bottom of the slide.

Estimation of Biomass contributions

	2010	2015	2020
Renewable Heating & cooling (RES H&C)			
Contribution from Biomass	90%	87%	85%
RES H & C - Biomass (ktoe)	227	366	502
Renewable Electricity (RES E)			
Contribution from Biomass	7%	17%	17%
RES E - Biomass (ktoe)	35	143	201
Renewable Transport - biofuels (RES T)			
Contribution from Biomass	99%	99%	92%
RES E - Biomass (ktoe)	135	298	466

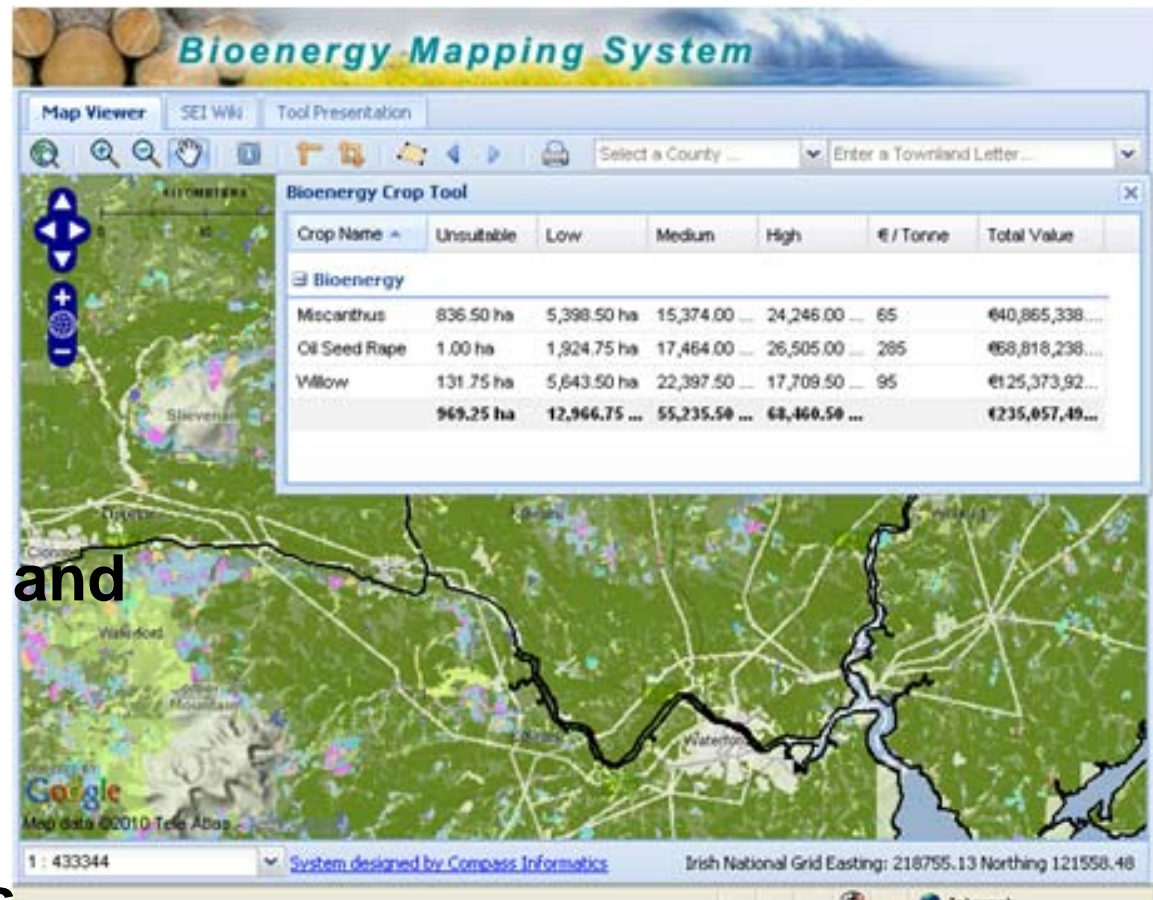
Provisional estimates used in Bioenergy Working Group model

Comparison with Biomass contribution in 2008

Data in ktoe	2008	2020
RES Heating & cooling	175	502
RES Electricity	14	201
RES Transport	56	466
Total	245	1,169

BIOENERGY GIS

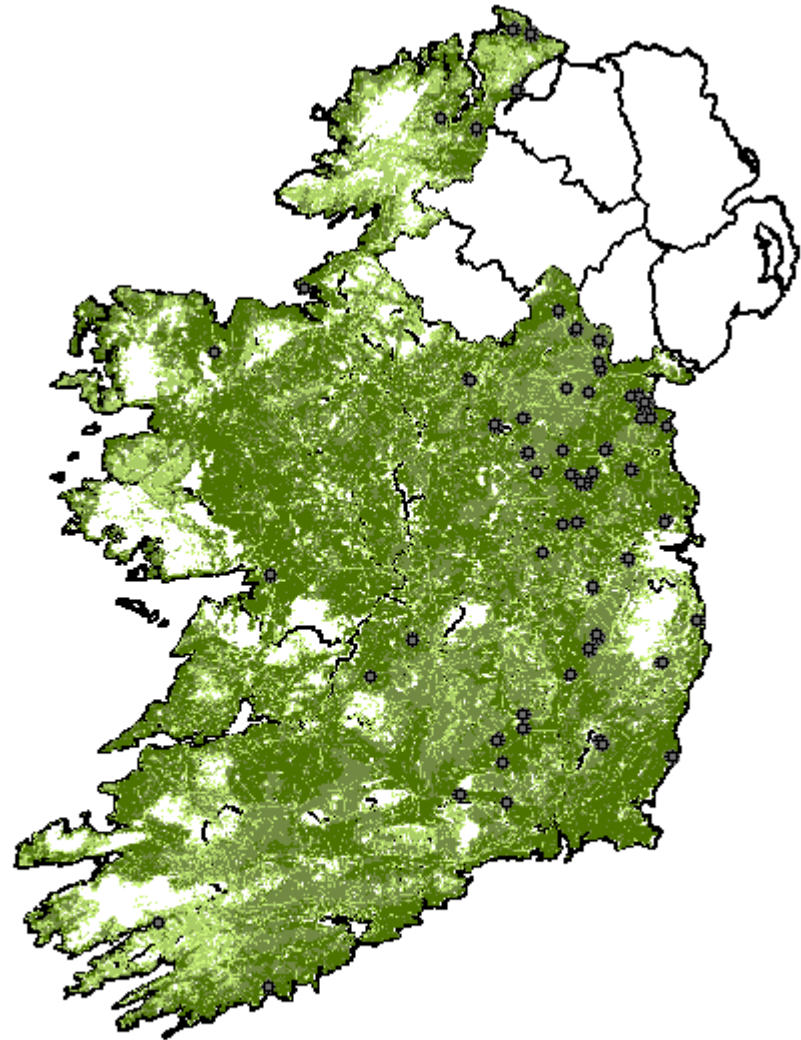
- Add value to data through geographic based analysis
- Where are the best areas for planting energy crops?
- Where is there a mismatch in supply and demand?
- Build in economic features – e.g. transportation costs.



BIOENERGY GIS

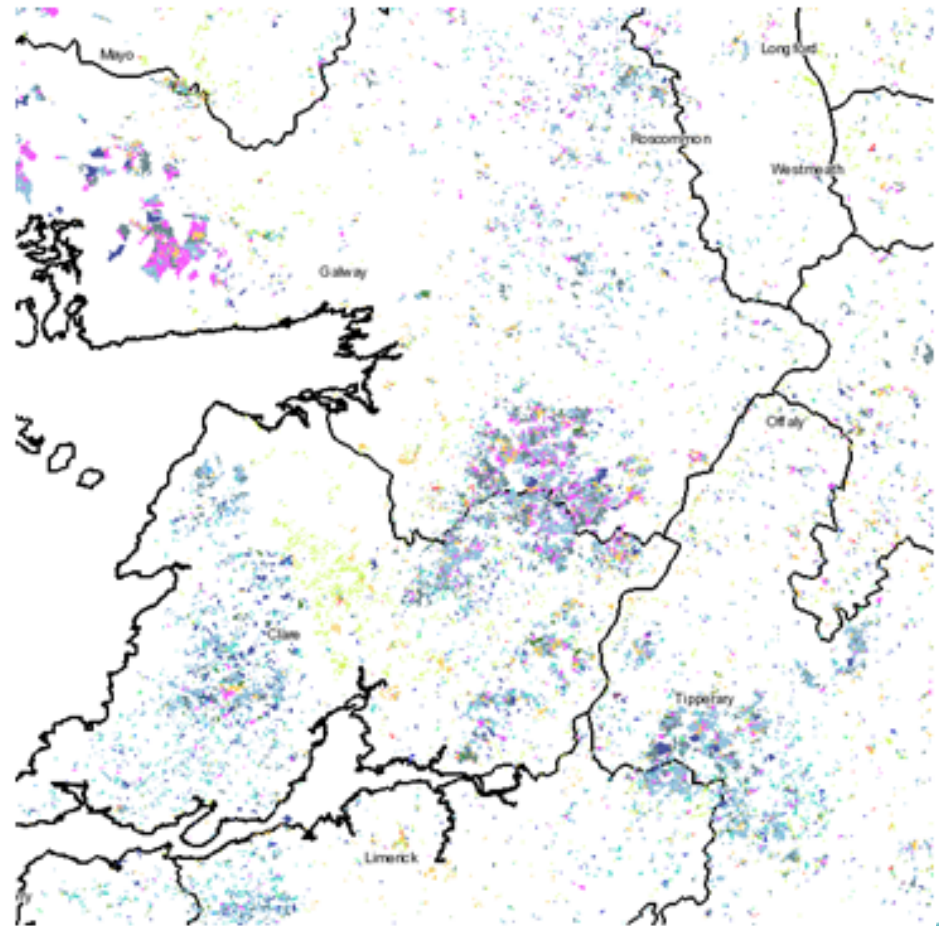
SRC Willow

- Land suitability and area planted



BIOENERGY GIS

- **Map current bioenergy resources**
 - Crops
 - Forestry
 - Waste
- **Map known bioenergy demand**
 - From Greener Homes
 - From REHEAT



Forestry near Galway

Report with recommendations

- **Demand Side Measures**
- **Supply Side Measures**
- **Address impacting factors, e.g.**
 - **Fuel quality**
 - **Supply chains**
 - **Regulatory environment**
 - **Confidence in sector**

Demand Side Measures

SECTOR	MECHANISM	STATUS
RES E	REFIT	IN REVIEW
RES H&C	TO BE DEFINED	TO BE DEFINED
RES T	OBLIGATION	IN PLACE 2010

Supply Side Measures

SECTOR	ISSUE	ACTION
RESIDUES	SIGNIFICANT RESOURCE	ENABLE ACCESS
ENERGY CROPS	NEED VIABLE MARKET	DEVELOP MARKET BASED ON RESIDUES
IMPORTS/EXPORTS	COULD CREATE MARKET SCALE / COULD LOSE RESOURCE TO EXPORT	BALANCED IMPORT DEVELOPMENT / COMPETE WITH NEIGHBOURING MECHANISMS

Thank You.

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01 808 2012

