



Renewables in the Irish Market: Policy Context

Jim Gannon, CEO, SEAI

Renewable Energy in Ireland (2018)

Electricity 21%

Demand +1.6%

CO₂ Emissions -7.3%

Share of Renewables 30.1%

Heat 37%

Demand +2.9%

CO₂ Emissions -0.3%

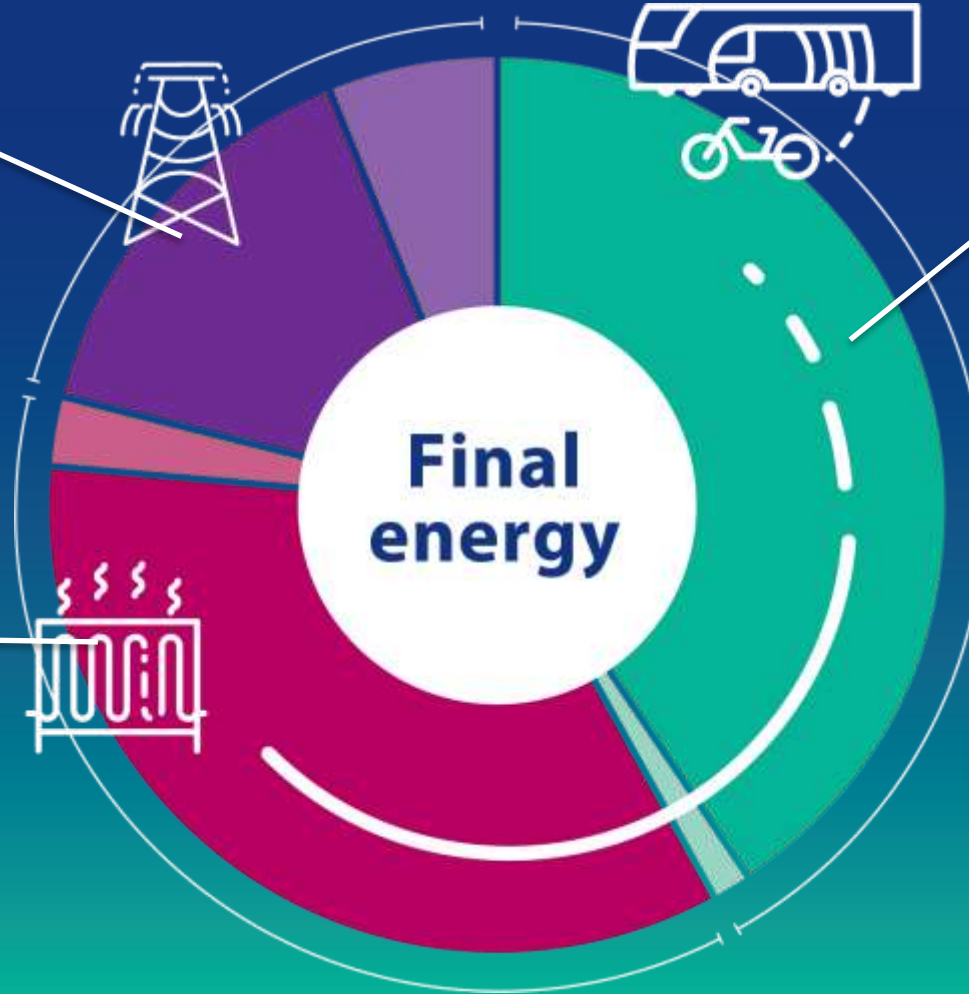
Share of Renewables 6.9%

Transport 42%

Demand +2%

CO₂ Emissions +1.2%

Share of Renewables 7.4%



90%
energy from
fossil fuels



Progress towards targets

2020 TARGETS

Overall Renewable Energy

10.6%

16.0%

Renewable Transport

7.4%

10.0%

Renewable Heat

6.9%

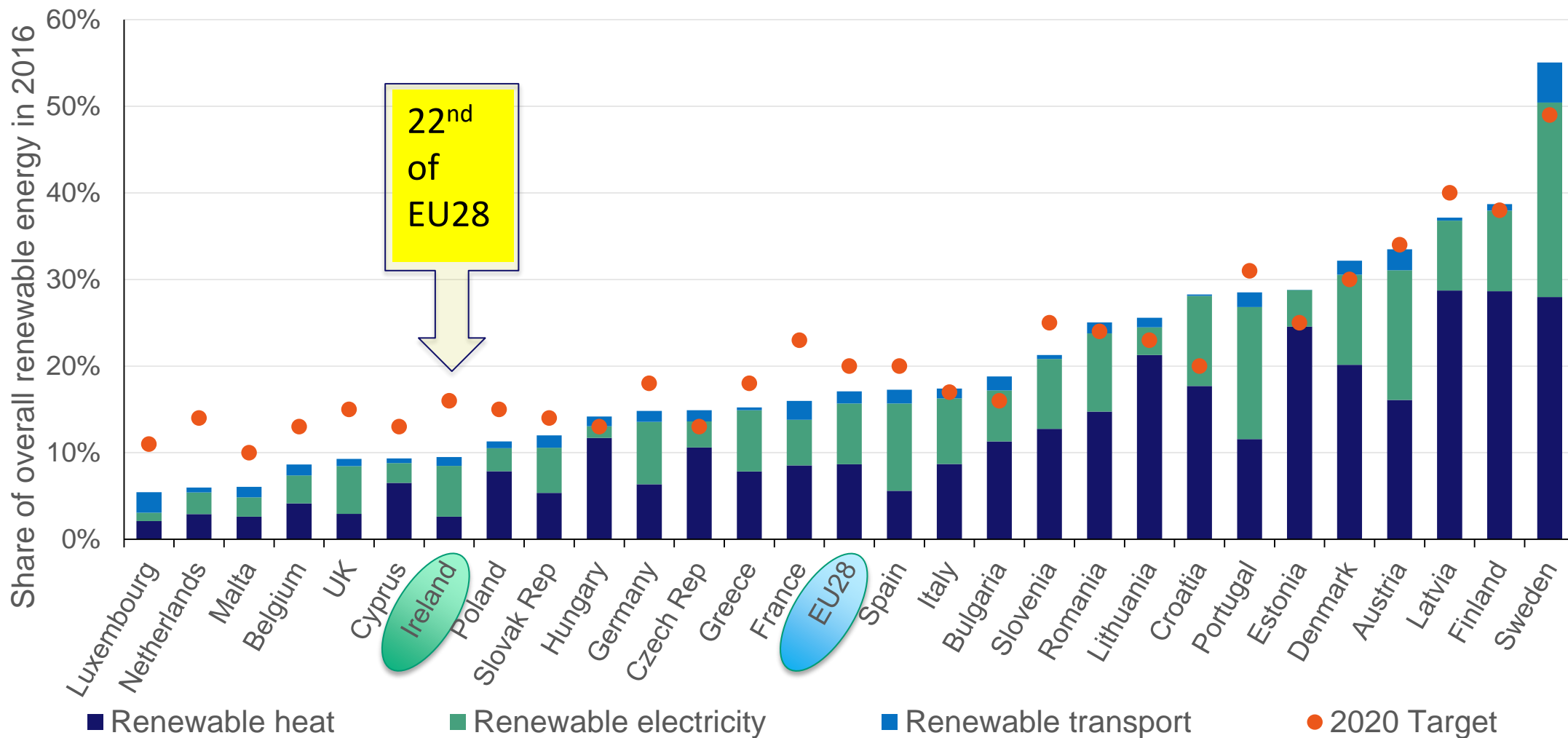
12.0%

Renewable Electricity

30.1%

40.0%

Overall renewable energy in EU (2016)



Almost
90%

of our renewable
energy comes from:

WIND



SOLID BIOMASS



LIQUID BIOFUELS



4.2 MtCO₂

in avoided CO₂ emissions
from renewable energy which
is equivalent to removing

70% of private cars
off the road



Renewable Electricity

Renewable
electricity displaced
€278m
of fossil fuel imports



Renewable Heat

Ireland was
27th
out of the 28
EU countries for
renewable heat
in 2016*



Renewable Transport

Transport has the
biggest

share of energy use
but **smallest** share
of renewables



Selected National Development Plan (NDP) Investment measures

Contribution to 2021-2030 Non-ETS targets	Contribution to long-term decarbonisation
Investment in energy efficiency, with upgrades to homes increasing from 30,000 to 45,000 per annum from 2021 to achieve a minimum BER Rating 'B'	New Renewable Electricity Support Scheme to support up to 4,500 megawatts of additional renewable electricity by 2030
Investments in energy efficiency of existing commercial and public building stock with a target of all public buildings and at least one-third of total commercial premises upgraded to BER Rating 'B'	Energy research funding to accelerate diversification away from fossil fuels to green energy, including wind, wave, solar, biomass, biofuels, biogas and hydrogen
Supports for changing out oil-fired boilers to heat pumps , along with the provision of roof solar, in at least 170,000 homes	Ongoing reinforcement of existing power grid and enhanced electricity interconnection, including the Celtic Interconnector to France and further interconnection to the UK
Full roll-out of the new Support Scheme for Renewable Heat	Conversion of coal burning Moneypoint Power Plant to end the burning of coal by 2025 and conversion of peat power plants to more sustainable low-carbon technologies by 2030
At least 500,000 electric vehicles on the road by 2030 with additional charging infrastructure to cater for planned growth	Roll-out of the National Smart Energy Metering programme to commence in 2019
Expand the refuelling network for alternately fuelled vehicles to address freight emissions	Development of gas infrastructure projects to support regional and rural development and the low-carbon transition
Major investments in public transport , including replacement of public transport bus fleet, Cycling and Walking Network	Piloting of ' climate-smart countryside ' projects to establish the feasibility of the home and farm becoming net exporters of electricity
Town-scale pilots of food and agricultural waste to gas in agricultural catchments for local gas networks supply and biogas production	

Challenges and opportunities

Electricity



Social acceptance and planning

- Local Area Renewable Energy Strategies
- Mandatory community opportunities (RESS)
- Market price for small-scale and microgeneration (by Directive)
- Maintaining the existing stock of turbines? *Caution*

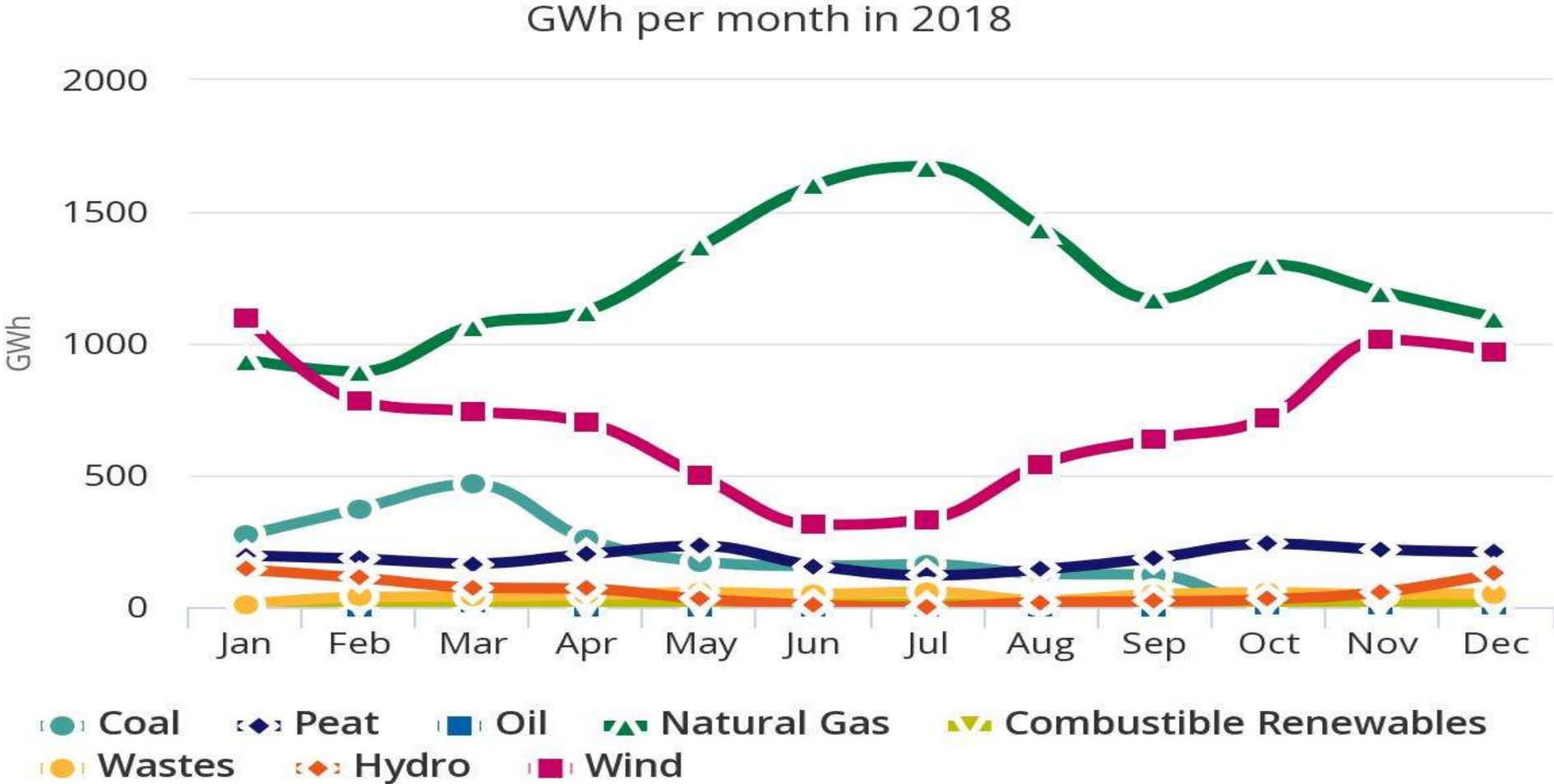
Scaling up offshore

- Huge potential
- Renewable Energy Support Scheme (RESS)
- No planning and regulation regime - inshore, plus offshore needed ASAP (Taskforce?)

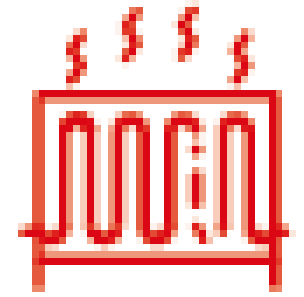
Technical grid challenges

- Accommodating a high level of renewables
- Ireland leading the world - DS3 – enterprise opportunities
- Creating markets for grid services

Renewable Electricity - 2018



Heat



Reducing demand

- Cheapest, no regrets option
- >1 million homes and buildings need upgrade. Social housing
- Challenge – expensive (finance), motivation (tricky) vs compelling (regulation)

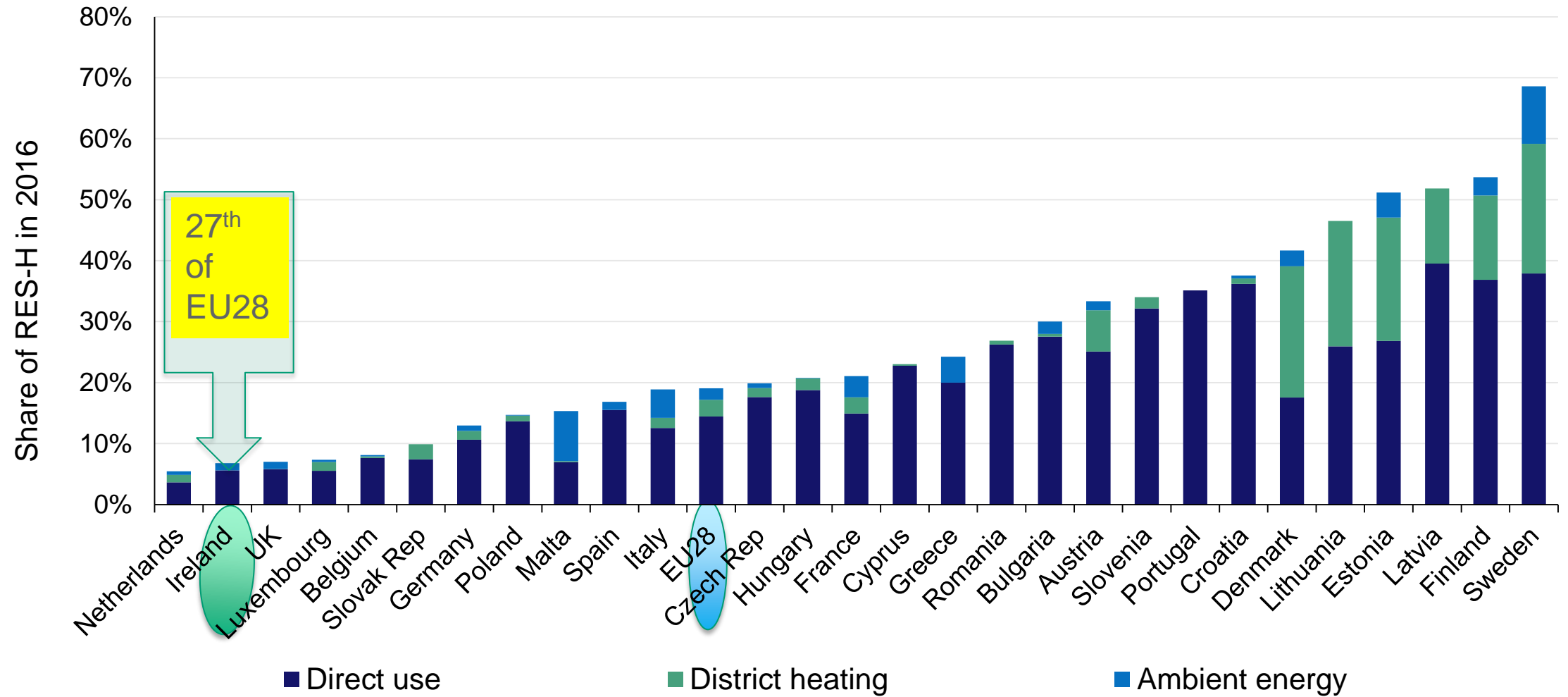
Heat networks / district heating

- Using waste and environmental heat
- Huge opportunity – low base
- Reducing risk (financial), administration, regulation
- Empowering local authorities - taskforce? People!

Decarbonisation

- Electrification – e.g. HP replacing oil boilers
- SSRH – supporting measures on supply and demand side required
- Using waste products to produce biomethane. Care needed!
- Sustainability criteria key

Renewable heat in EU (2016)



Transport

Biofuel blends / biogas

- Invisible..
- Sourcing biofuels / sustainability criteria
- Currently heading for 10% of road fuel from RES (by energy)
- HVO for deeper biodiesel - CBA – Whitegate?



Electric vehicles

- Target 500,000 by 2030 - Strong government commitment evident
- Charging infrastructure (shorter term)
- Regulation banning ICE in NDP – market aware and engaged?

Modal shift

- Significant public transport sector investment
- Behaviour programmes could support - ride sharing, innovation?
- Active travel, cycling.. infrastructure

Key messages

- Policy help shape an investment environment, but business leadership will be central to the next phase of our decarbonisation
- Investment in technological innovation is essential given the scale and location of the Irish market
- Public sentiment and consumer preference will dictate the adoption of many of the low carbon technologies of the future



Thank You

