

A close-up photograph of a sunflower head, showing the intricate pattern of the seeds in the center, set against a bright yellow background.

Sveriges **E**nergiföreningars **R**iks**O**rganisation

”VÄGEN MOT 2020”

Energiseminarium Glava
den 12 september 2011
Peter Danielsson, SERO

The path towards 2020

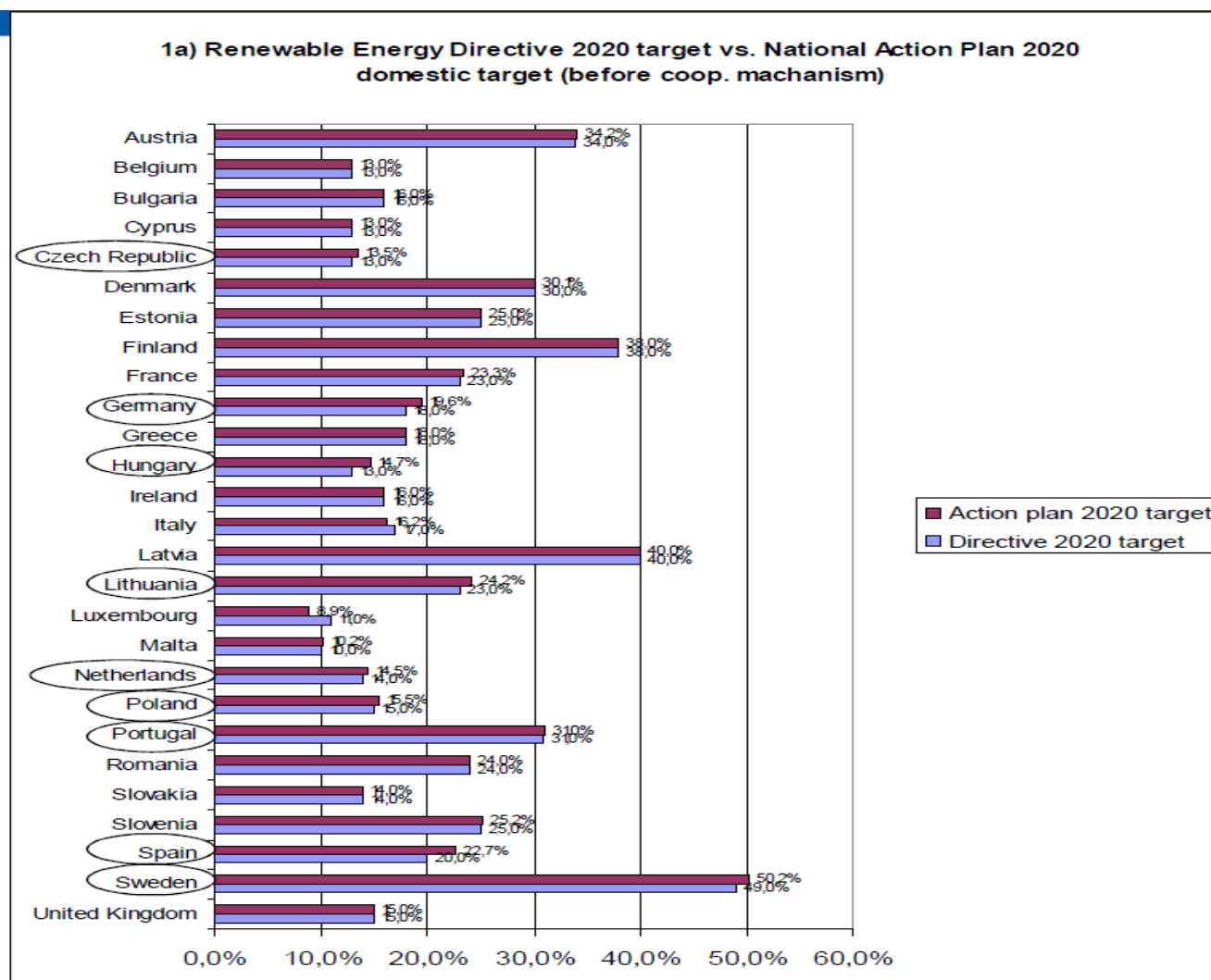
Table 15: *Renewable energy shares from Annex I of the Directive [%]*

	Reference	Indicative trajectory				Target
	2005 [%]	2011-2012 [%]	2013-2014 [%]	2015-2016 [%]	2017-2018 [%]	2020 [%]
Belgium	2.2	4.4	5.4	7.1	9.2	13
Bulgaria	9.4	10.7	11.4	12.4	13.7	16
Czech Republic	6.1	7.5	8.2	9.2	10.6	13
Denmark	17.0	19.6	20.9	22.9	25.5	30
Germany	5.8	8.2	9.5	11.3	13.7	18
Estonia	18.0	19.4	20.1	21.2	22.6	25
Ireland	3.1	5.7	7.0	8.9	11.5	16
Greece	6.9	9.1	10.2	11.9	14.1	18
Spain	8.7	11.0	12.1	13.8	16.0	20
France	10.3	12.8	14.1	16.0	18.6	23
Italy	5.2	7.6	8.7	10.5	12.9	17
Cyprus	2.9	4.9	5.9	7.4	9.5	13
Latvia	32.6	34.1	34.8	35.9	37.4	40
Lithuania	15.0	16.6	17.4	18.6	20.2	23
Luxembourg	0.9	2.9	3.9	5.4	7.5	11
Hungary	4.3	6.0	6.9	8.2	10.0	13
Malta	0.0	2.0	3.0	4.5	6.5	10
Netherlands	2.4	4.7	5.9	7.6	9.9	14
Austria	23.3	25.4	26.5	28.1	30.3	34
Poland	7.2	8.8	9.5	10.7	12.3	15
Portugal	20.5	22.6	23.7	25.2	27.3	31
Romania	17.8	19.0	19.7	20.6	21.8	24
Slovenia	16.0	17.8	18.7	20.1	21.9	25
Slovakia	6.7	8.2	8.9	10.0	11.4	14
Finland	28.5	30.4	31.4	32.8	34.7	38
Sweden	39.8	41.6	42.6	43.9	45.8	49
United Kingdom	1.3	4.0	5.4	7.5	10.2	15

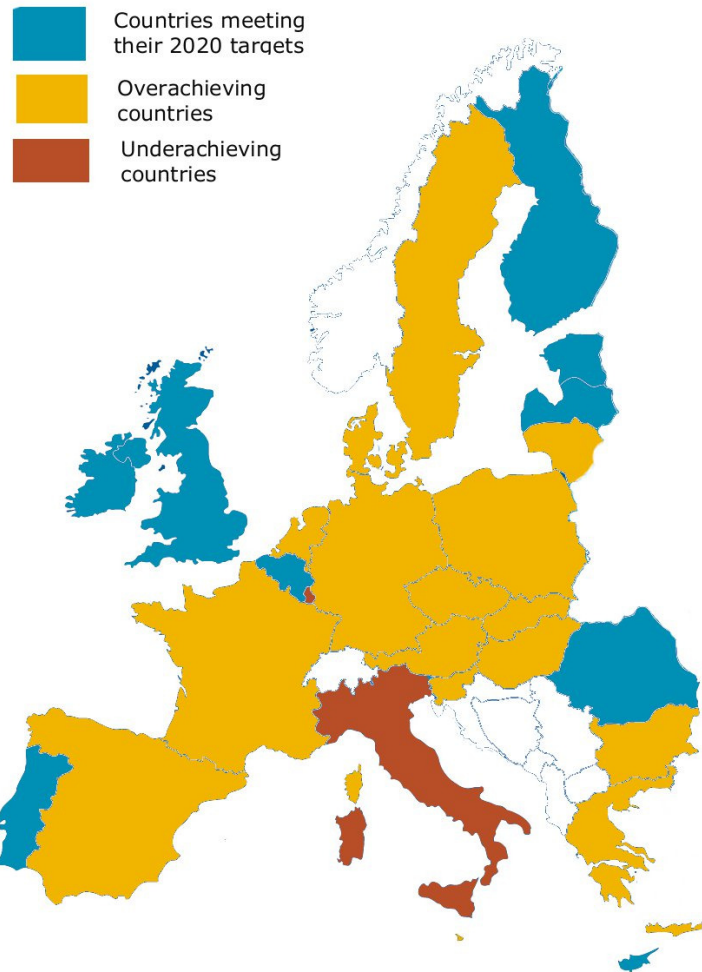
All percentages originate from Annex I of Directive 2009/28/EC. The indicative trajectory has been calculated from Part B of the Annex

Source ECN

Commission's first evaluation:



20% by 2020 – Europe can do more!



Source: EREC_EU Roadmap

- EU-27: Surplus of about 1% above the 2020 target
- 25 MS forecast to achieve or exceed their binding 2020 targets within national borders
- Only Italy and Luxembourg plan to use CoopMex to meet binding 2020 targets
- According to the RES industry projections, the EU-27 could reach 24.4%

Technology Vigilance – Transport fuels(II)

- Weak support for biogas and too few biogas stations planned (e.g. Sweden)
- Lack of clear rules and incentives (e.g. Italy has only some limited tax reduction for some amount of biodiesel, with high bureaucracy costs and effort attached to scheme)
- Lack of rules to apply Directive's sustainability criteria (e.g Italy)

Be Technology neglecting vigilant

- Some countries almost draw a blank in some technologies
- Examples from Solar thermal Energy projections (ktoe):
 - Finland chooses Zero ktoe Growth
 - Sweden voted for no growth beyond installed 6 ktoe
 - United Kingdom stops at installed 34 ktoe (In comparison: Germany aims for 1245 ktoe by 2020, Poland 506 ktoe)
 - Portugal aims for un-ambitious 160 ktoe in 2020
 - 15 MS will have 0 % penetration of solar thermal energy in 2020 (two of them- Romania and Estonia did not mention even a single word on it);
 - Malta and UK will have 1 % ; Belgium and Portugal 3 %)

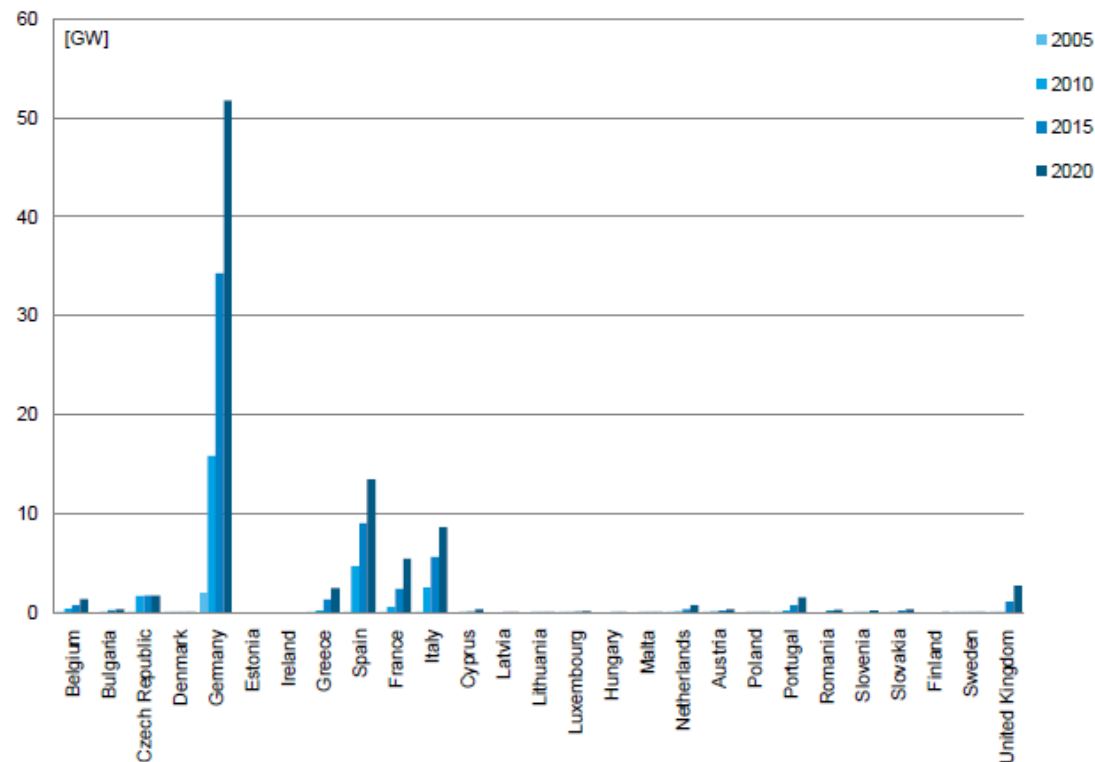
First recommendation overview from NREAP and comments from industry

- *Despite some strong signals and policies in some MSs - There are still the old bottlenecks:*
- Lack of Ambition
- Lack of administrative knowledge and trust in RES
- Administrative barriers
- Tax regime discrimination
- Grid constraints
- Low support in some MSs
- Technology basket restricted
- Lack of information and knowledge
- Access to data weak and unreliable
- Stop and Go policies

EU 27 - not overwhelmingly PV oriented for 2020

Solar electric capacity (cumulative) [MW]

1 FEB 2011



Source: ECN

Figure 17: Projected total solar electric capacity [GW] for the period 2005 - 2020, including photovoltaic (PV) and concentrated solar power (CSP)