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The European Green Deal and the National Energy and Climate Plan in Cyprus

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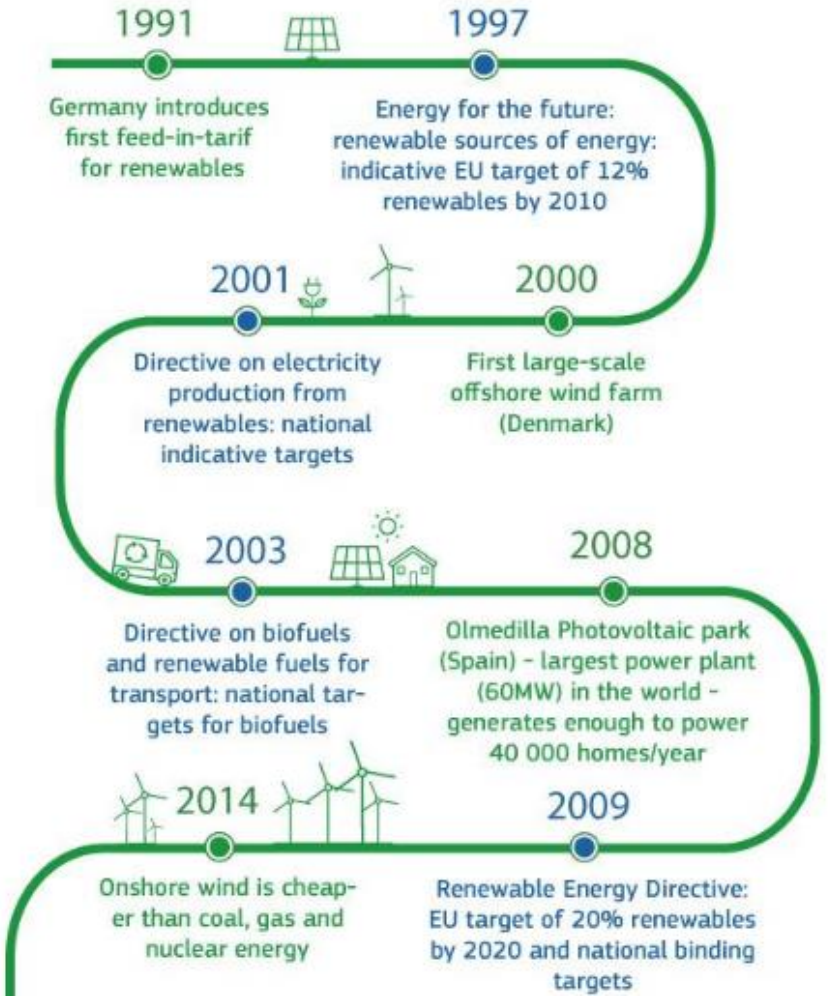
Timeline for renewable energy in the EU

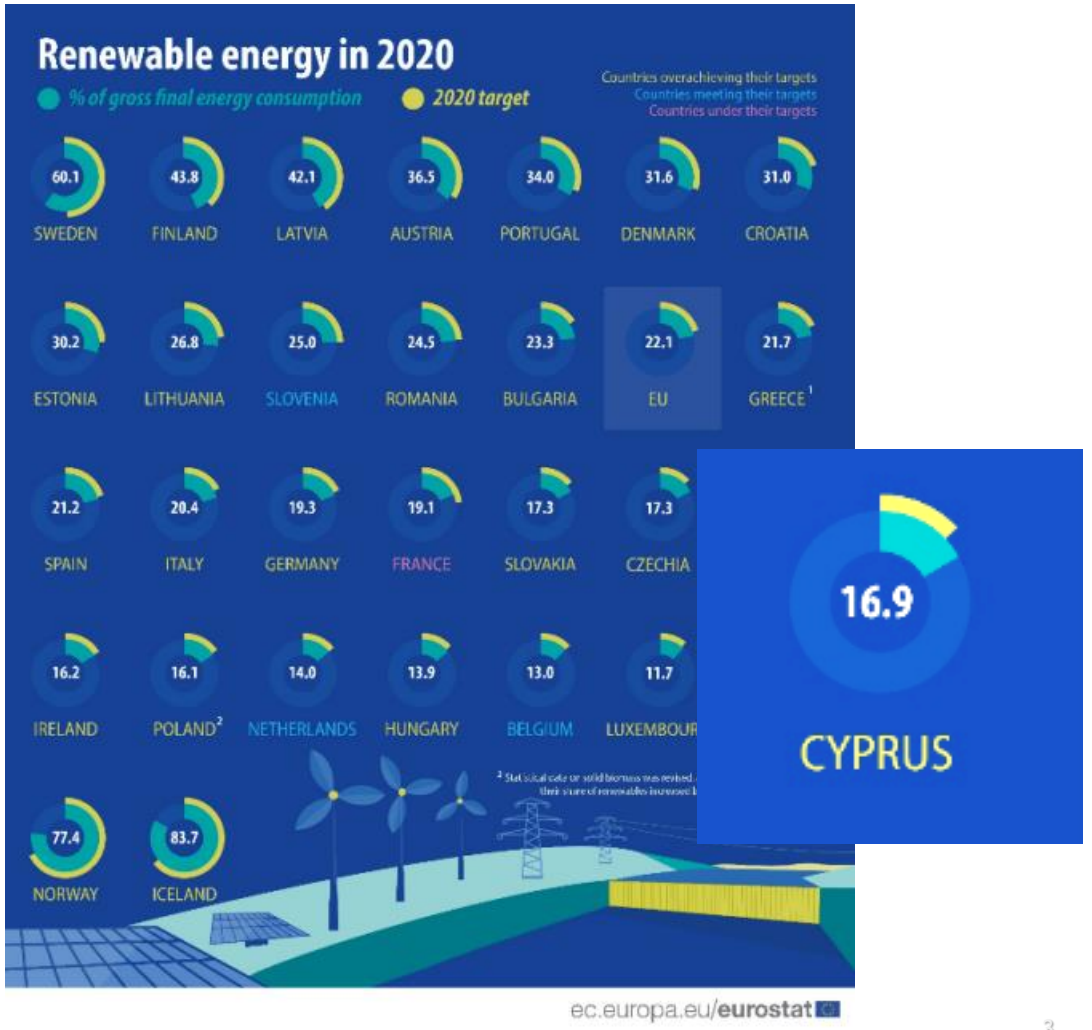
Directive 2009/28/EC on the promotion of the use of energy from renewable sources – **20% by 2020**



RES in 2020

Share of gross final energy consumption from renewable sources (%)

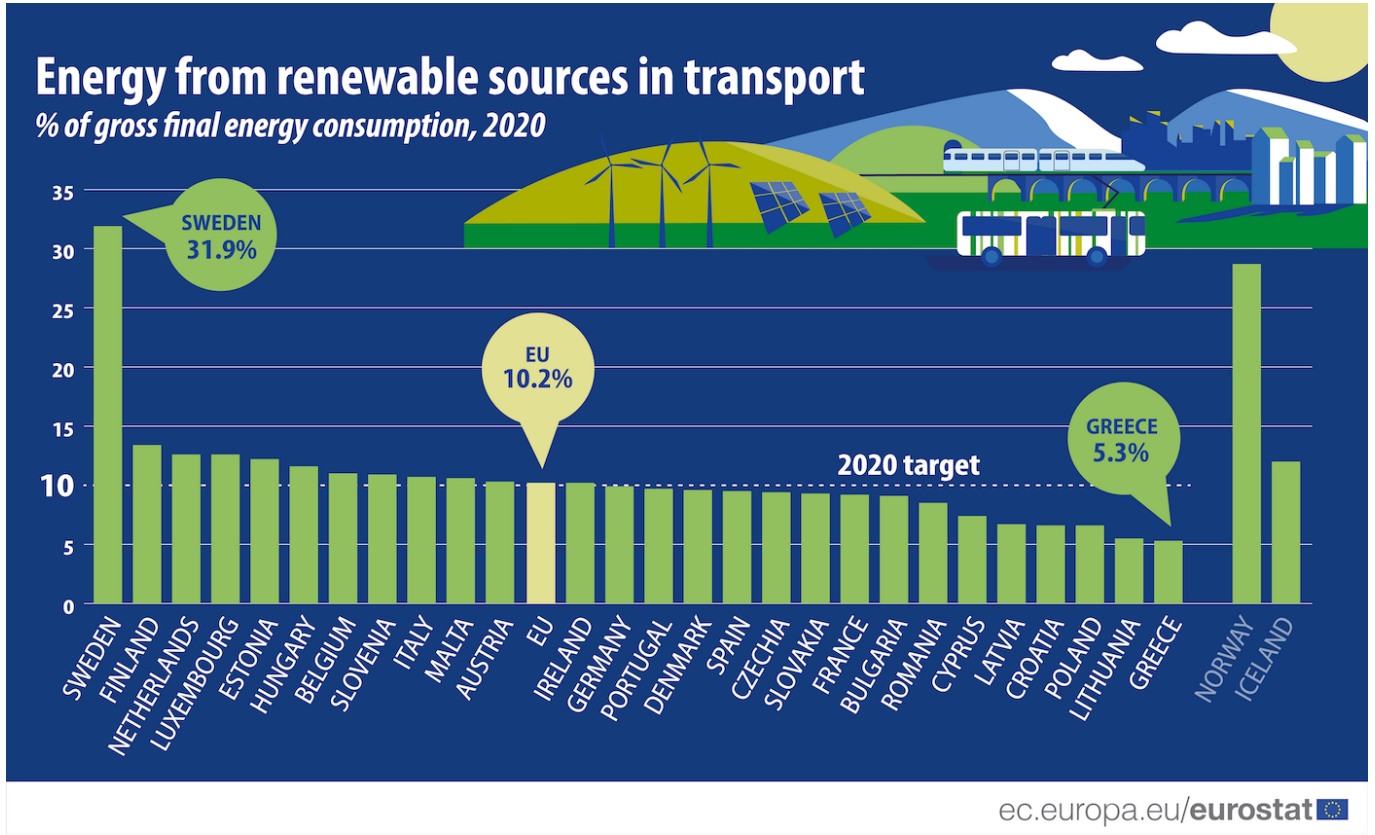
EU overachieves 2020 renewable energy target - This is 2 percentage points (pp) above the target level for 2020, as included in Directive 2009/28/EC on the promotion of the use of energy from renewable sources.



RES in 2020

Share of gross final energy consumption from renewable sources for transport (%)

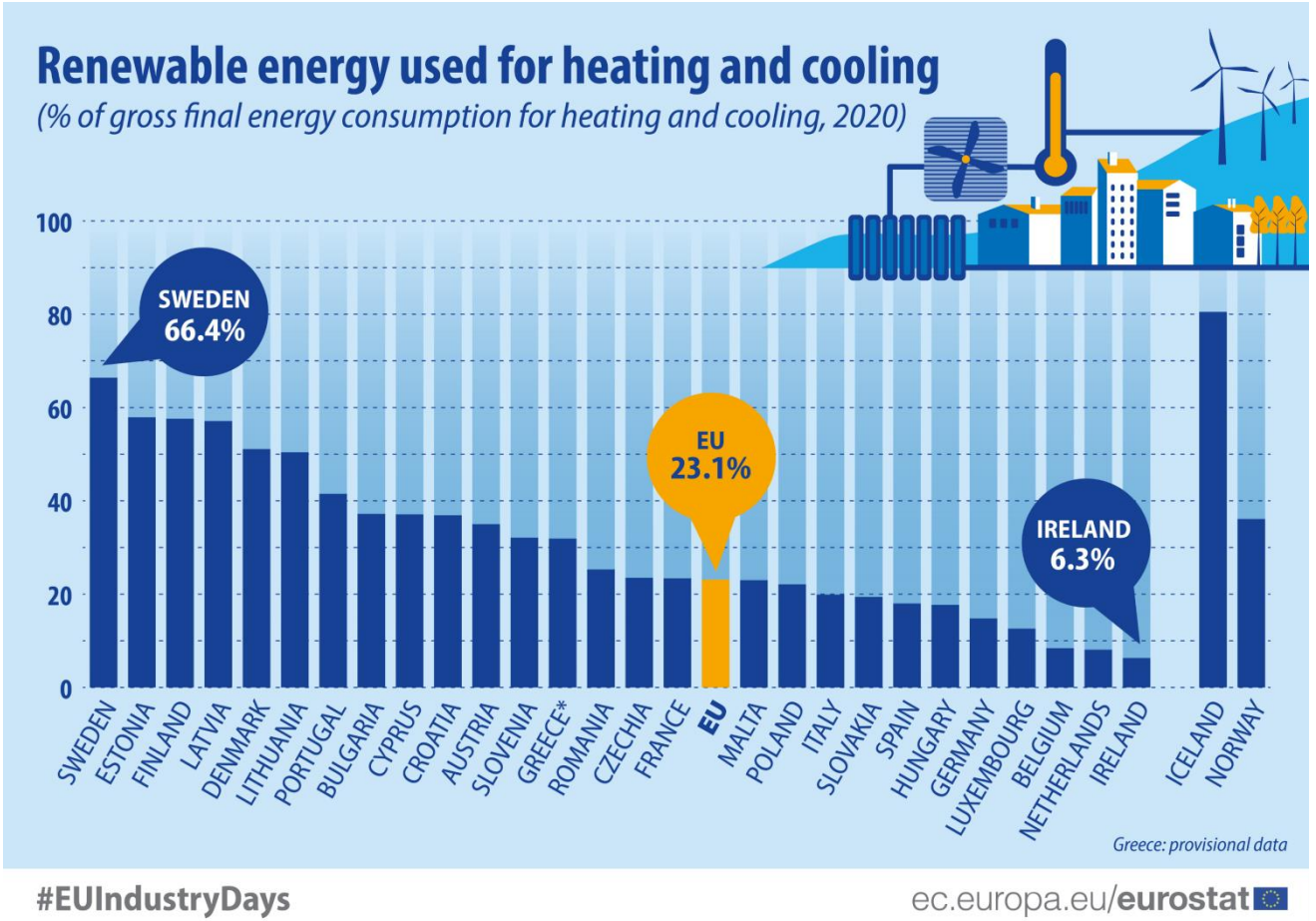
The EU has met the 10% target level for 2020 for the share of renewable energy (including liquid biofuels, biomethane and 'green' electricity) used in transport. This target was included in Directive 2009/28/EC on the promotion of the use of energy from renewable sources.



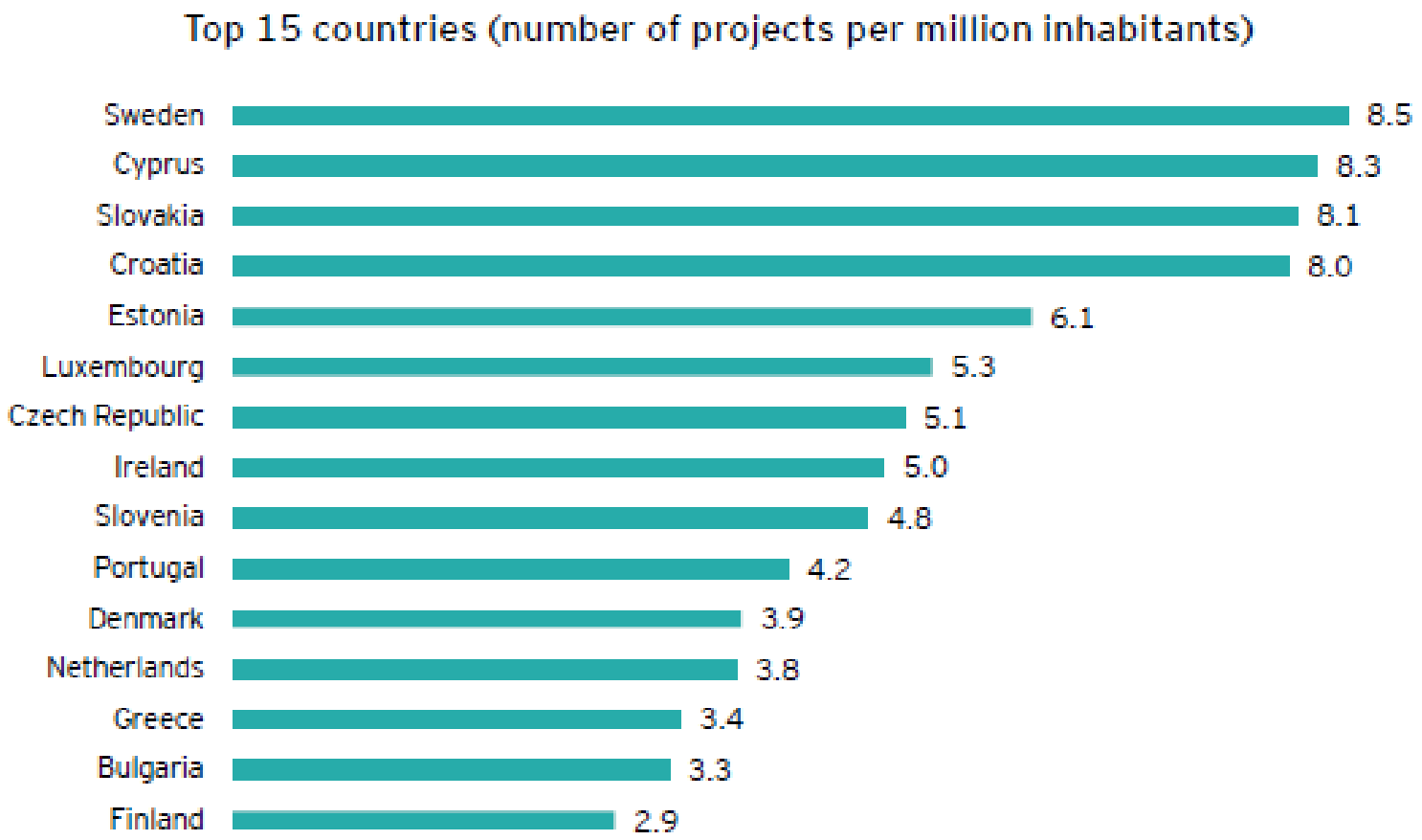
RES in 2020

Share of gross final energy consumption from renewable sources for heating and cooling (%)

In 2020, renewable energy accounted for 23% of the total energy used for heating and cooling in the EU, steadily increasing from 12% in 2004 and 22% in 2019.



Cyprus and RES projects



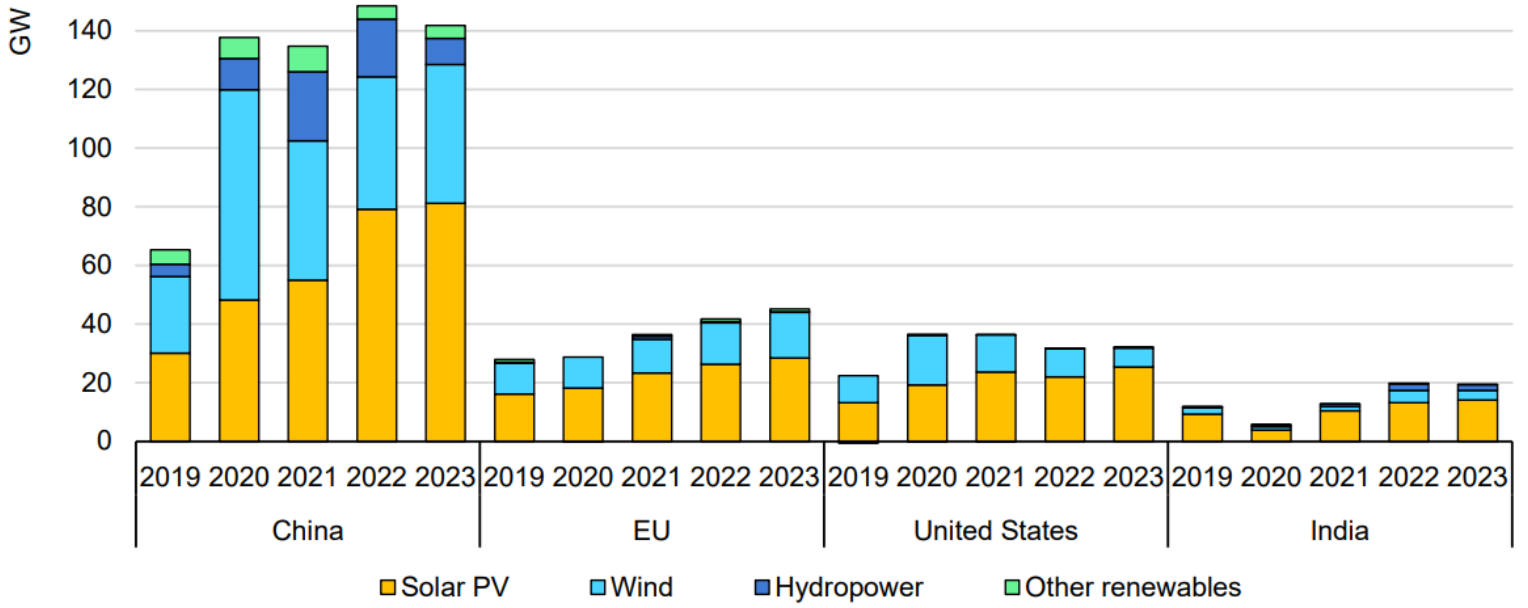
Sources - EY & Associés

Renewable capacity additions [GW]

Renewable Energy Market Update 2022
Outlook for 2022 and 2023

Renewable electricity

Renewable capacity additions in China, European Union, the US and India, 2019-2023



Timeline for renewable energy in the EU

Directive 2018/2001/EU on the promotion of the use of energy from renewable sources – **32% by 2030**

EU Green Deal – "Fit for 55" package
EC proposal to raise target for 2030 to 40%

REPowerEU
EC proposes to increase the headline 2030 target for renewables from 40% to 45% under the "Fit for 55" package.

Progress on SDG 7 – Affordable and clean energy

SDG Indicators	2020	EU27	EU Rank
Primary energy consumption *(index 2005 = 100)*	88.8	82.6	19
Final energy consumption *(index 2005 = 100)*	103.0	87.1	18
Final energy consumption in households per capita *(kg of oil equivalent)*	409	555	6
Energy productivity *(Chain linked volumes (2010) in EUR and PPS per kg of oil equivalent)*	8.30	8.57	11
Share of renewable energy in gross final energy consumption *(%)*	**16.879**	**22.090**	**20**
Energy import dependency *(% of imports in total gross available energy)*	**93.077**	**57.497**	**26**
Population unable to keep home adequately warm *(% of population)*	**20.9**	**7.4**	**25**

Progress on SDG 11 – Sustainable cities and communities

SDG Indicators	2020	EU27	EU Rank
Population living in households suffering from noise (%of population)	14	17.6	9
Road Traffic deaths (number of people killed per 100 000)	5.4	4.2	20
Years of life lost due to PM2.5 exposure	7213	3 370051	4
Recycling rate of municipal waste (%of municipal waste generated)	16.4	47.8	21
Population connected to at least secondary waste water treatment (%of population)	n/a	80.9	n/a
Population living in a dwelling with a leaking roof, damp walls, floors or foundation or rot in window frames of floor by poverty status (% of population)	**39.1**	**14.8**	**27**
Share of buses and trains in inland passenger transport (% of passanger-km)	18.5	17.2	9

Energy efficiency in the EU

2018

In 2018, as part of the 'Clean energy for all Europeans package', the amending Directive on Energy Efficiency (2018/2002) was agreed to update the policy framework to 2030 and beyond.

Its key element is a headline energy efficiency target for 2030 of at least 32.5%.

2021

Energy efficiency for climate

To meet the new EU 2030 climate target energy efficiency needs to be prioritised. To step up its efforts, the European Commission put forward, in July 2021, a proposal for a new directive on energy efficiency as part of the package "Delivering on the European Green Deal".

The revised directive requires EU countries to collectively ensure an additional reduction of energy consumption of 9% by 2030 compared to the 2020 reference scenario projections.

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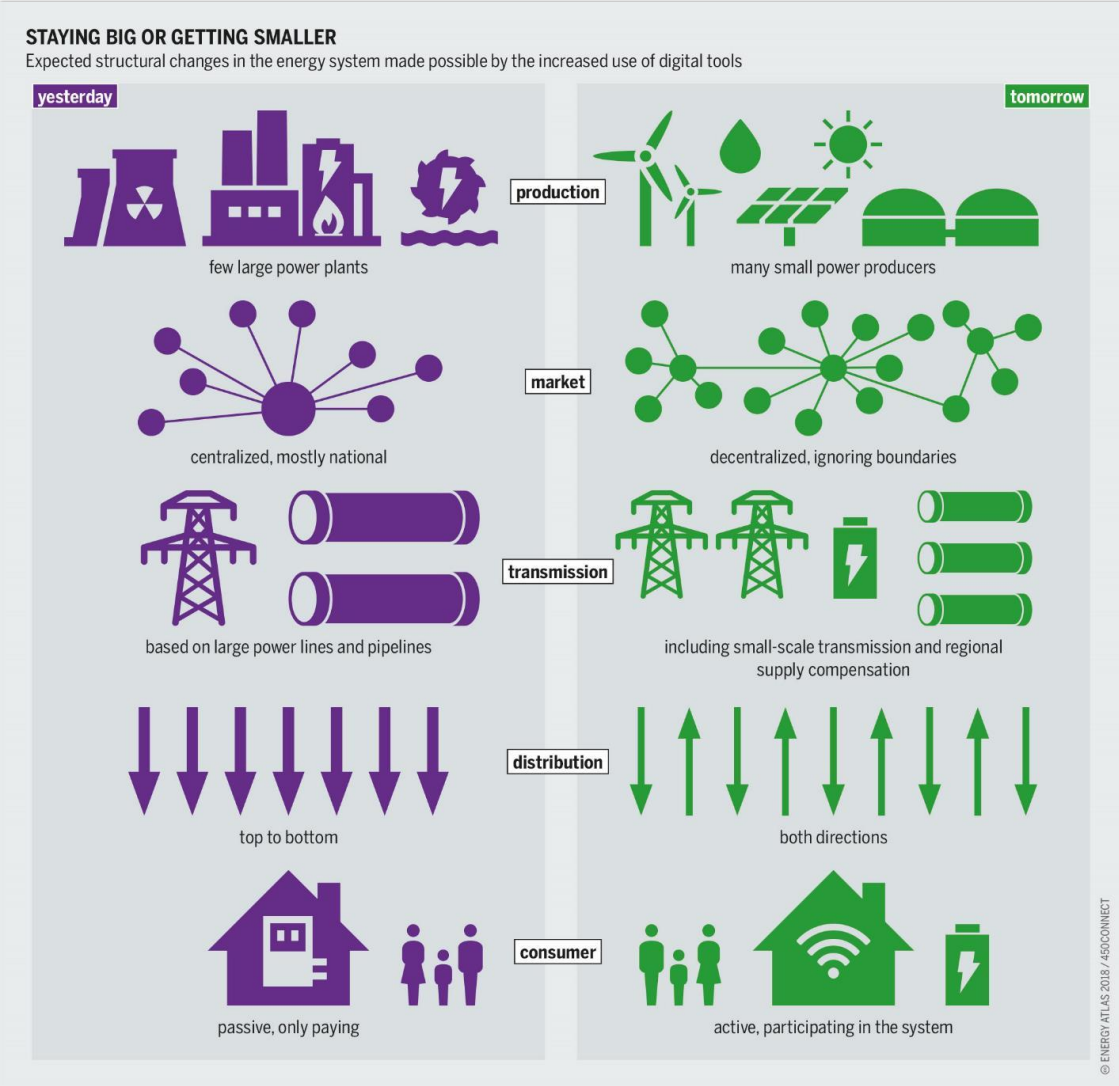
Smart Grids



Way ahead
Power to pronsumers

Smart Buildings

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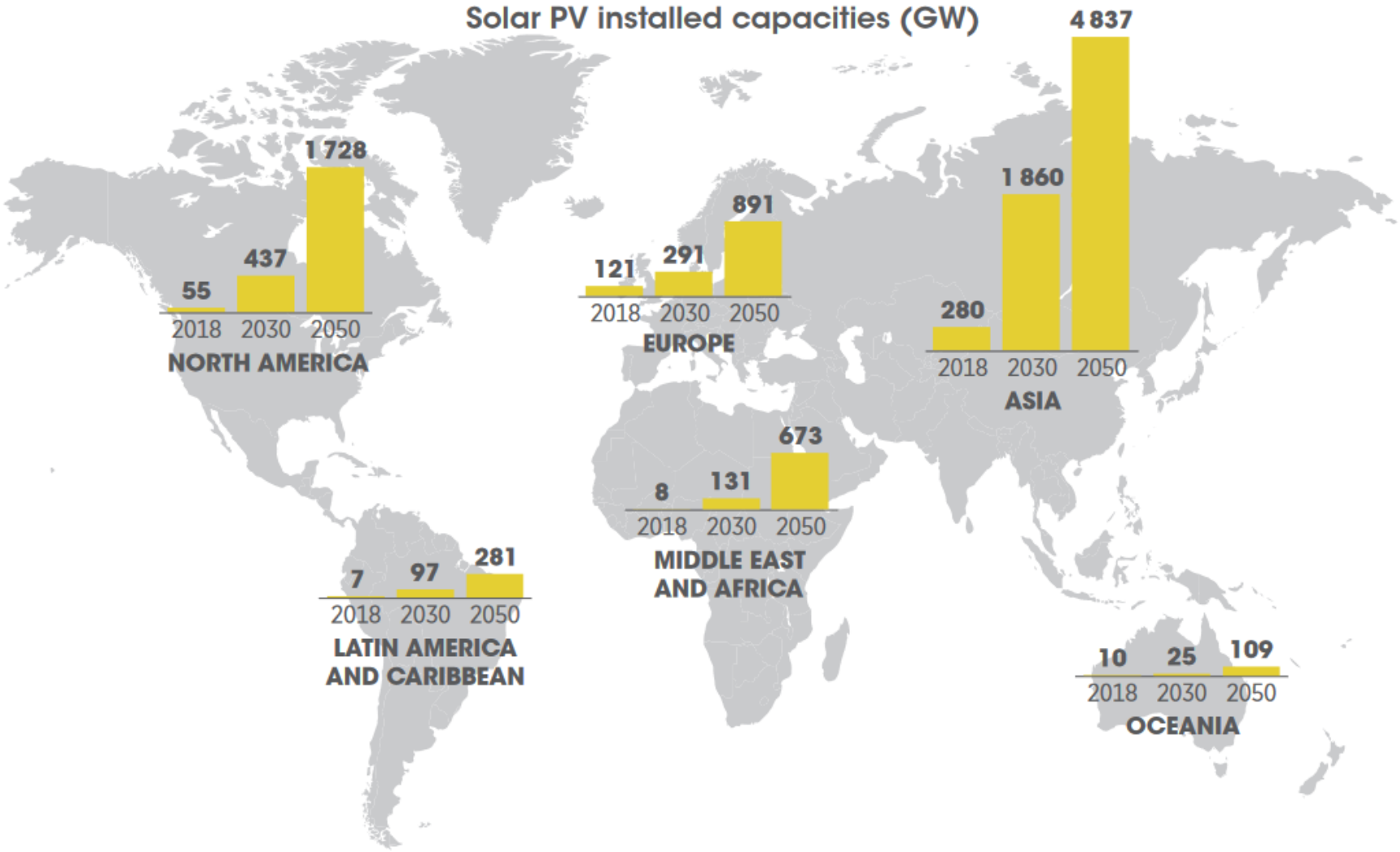
Smart Cities

Μεταξύ των περιοχών του κόσμου, η Ασία είναι έτοιμη να κυριαρχήσει στις παγκόσμιες εγκαταστάσεις ηλιακών φωτοβολταϊκών, ακολουθούμενη από τη Βόρεια Αμερική και την Ευρώπη.



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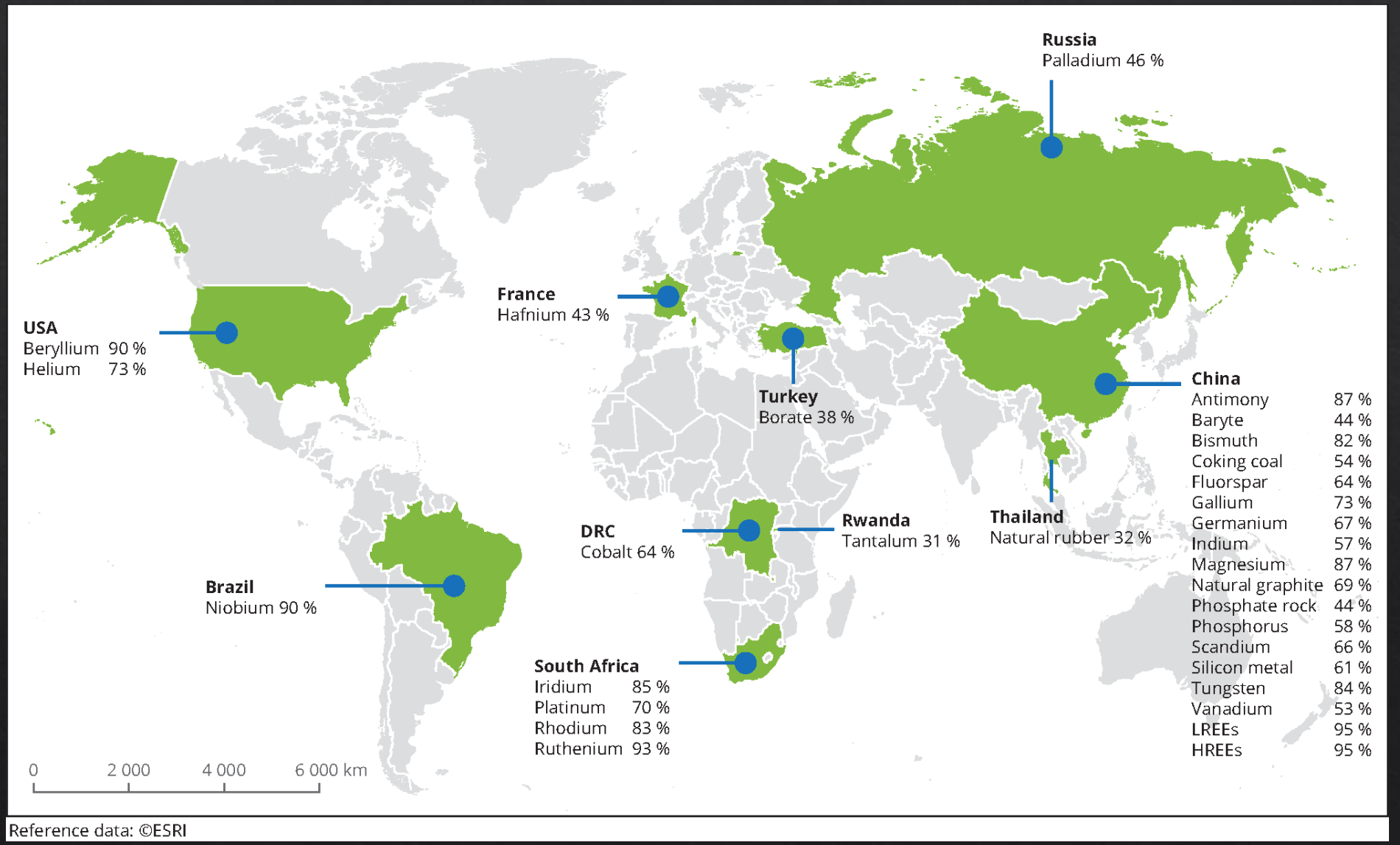
Sources: Historical values based on IRENA's renewable energy statistics (IRENA,2019c) and future projections based on IRENA's analysis (2019a).

https://irena.org/-/media/Files/IRENA/Agency/Publication/2019/Nov/IRENA_Future_of_Solar_PV_2019.pdf



European Environment Agency (2020): INFOGRAPHIC Contribution of primary global suppliers of critical raw materials, average from 2010-2014.

A Solar Panel's Life after Death

4 million
tons of PV installed
in Europe

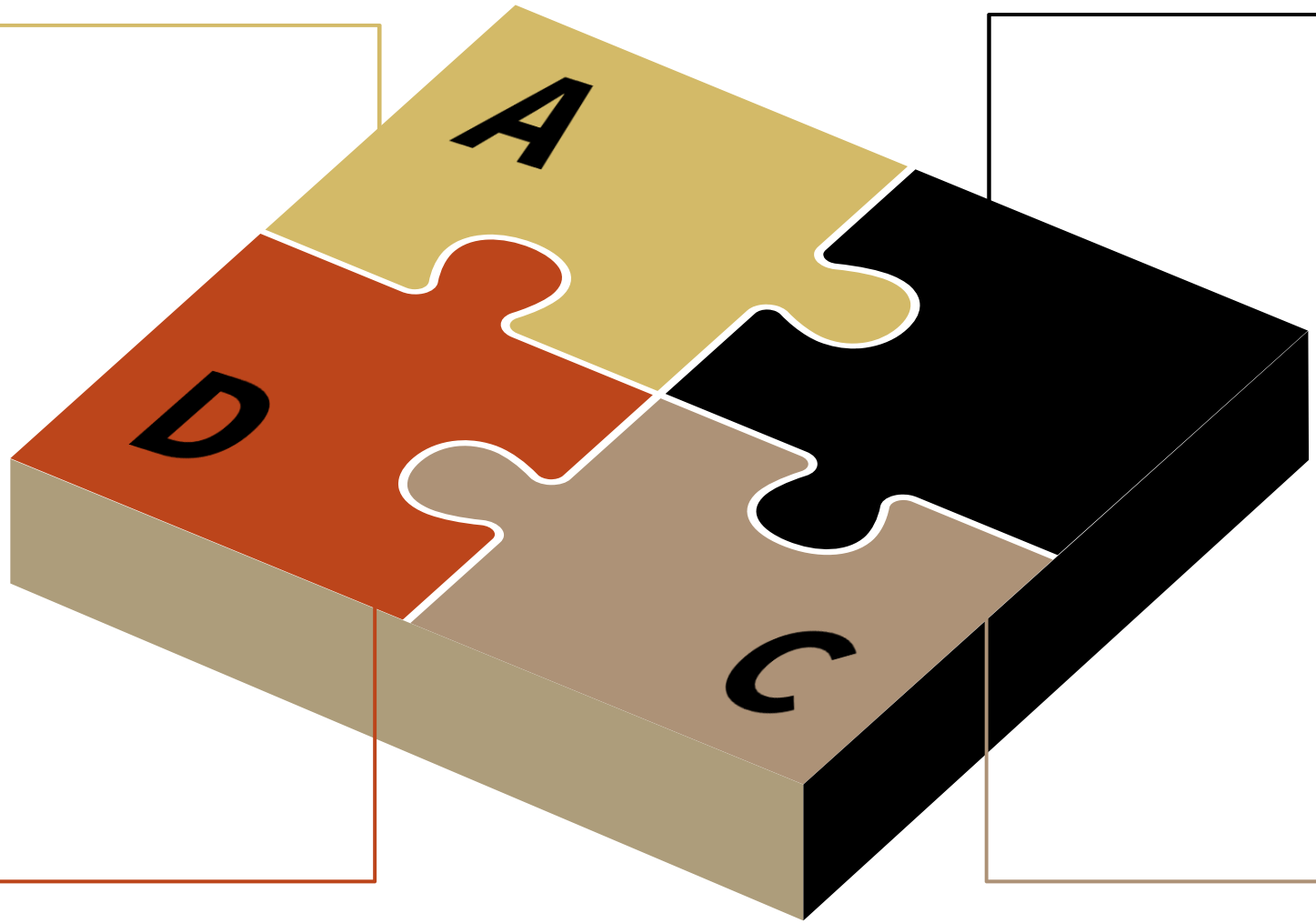
43,500
tons of PV waste
by 2017

60 million
tons of PV waste
by 2050

https://www.greenmatch.co.uk/blog/2017/10/the-opportunities-of-solar-panel-recycling

Barriers to RES – Way forward

Absence of storage, transitional electricity market



In order to accelerate the development of RES projects, obstacles related to connection to the grid must be overcome.

Reshaping the skills of business executives with an emphasis on green skills and digital skills

The licensing process is complicated, access to finance

Main Points

- Energy savings, improving energy efficiency and RES investments should be the cornerstones of Cyprus's energy policy.
- Although investments in energy saving measures have a short payback period, public support is required in cases of economic recession, but also in energy-intensive sectors of the economy.
- The savings are directly related to the reduction of greenhouse gas emissions.
- Strong energy saving measures are also needed in the transport sector.
- Energy savings after the COVID pandemic can play an essential role in the green recovery of businesses.

Thank you!

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President of ISES-CY

https://www.ises-cy.org/