

EUFORES National Parliamentary Workshop
in the Saeima of the Republic of Latvia *«The Clean Energy Package and
the national energy and climate plans - Outlook for Renewable Energies in
Latvia»*

Wind energy development in next decade

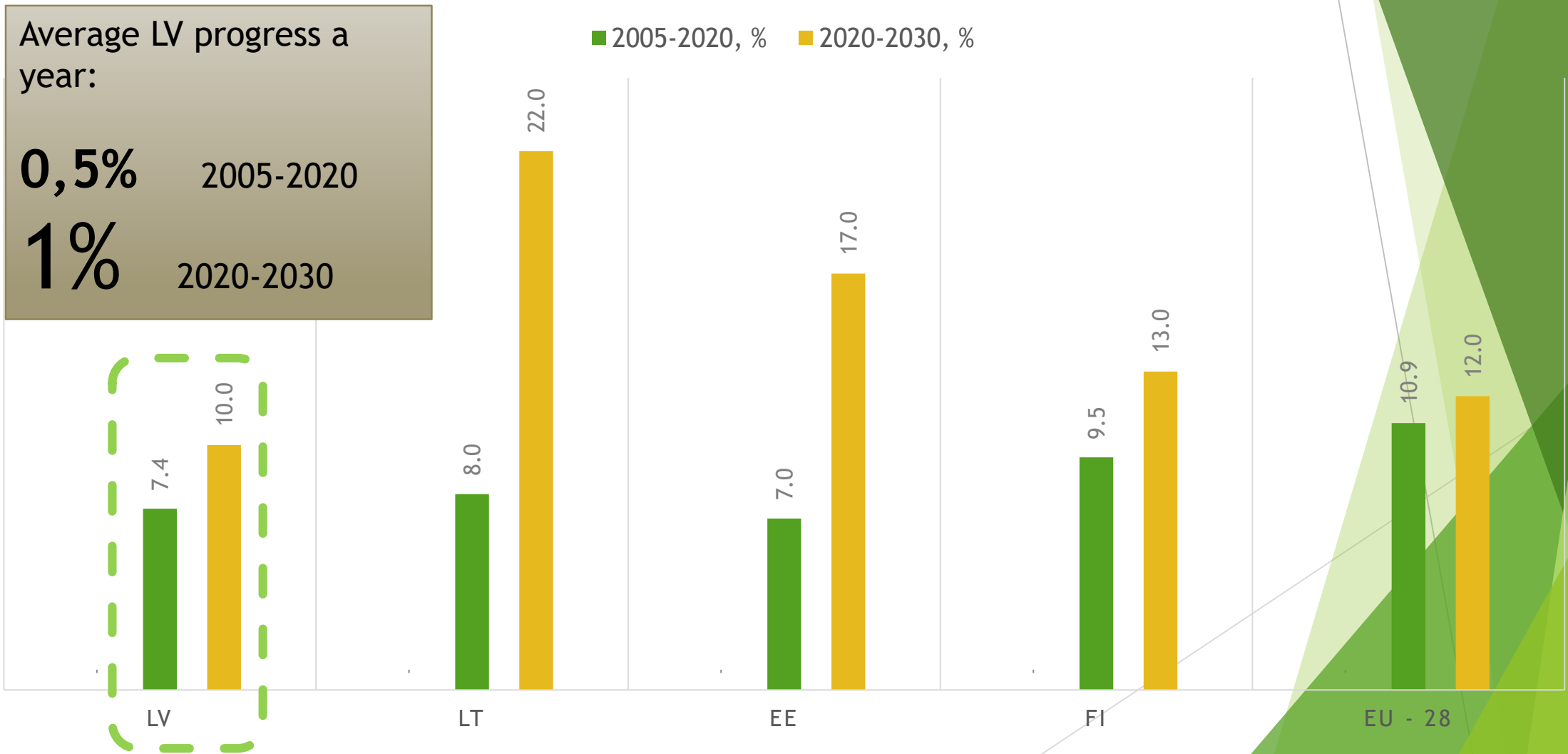
3rd of December 2019

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Fortum Latvia CEO/member of Wind energy association

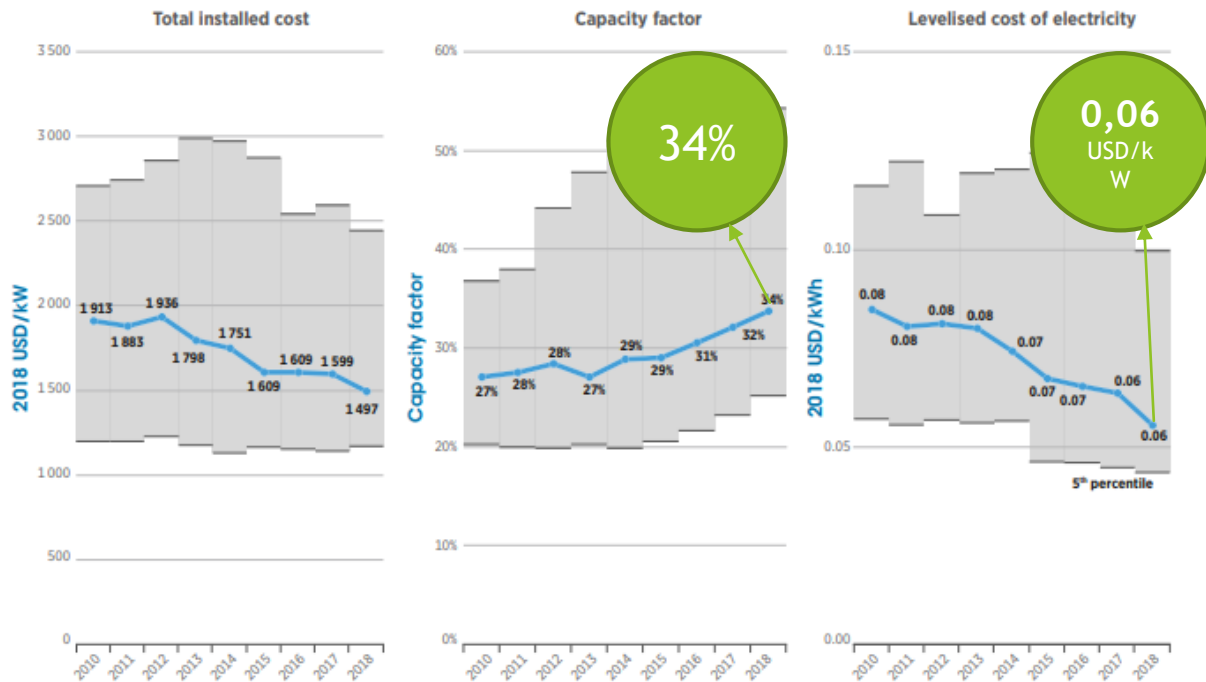


Renewable energy growth 2005-2020-2030



Wind technology price development

Onshore



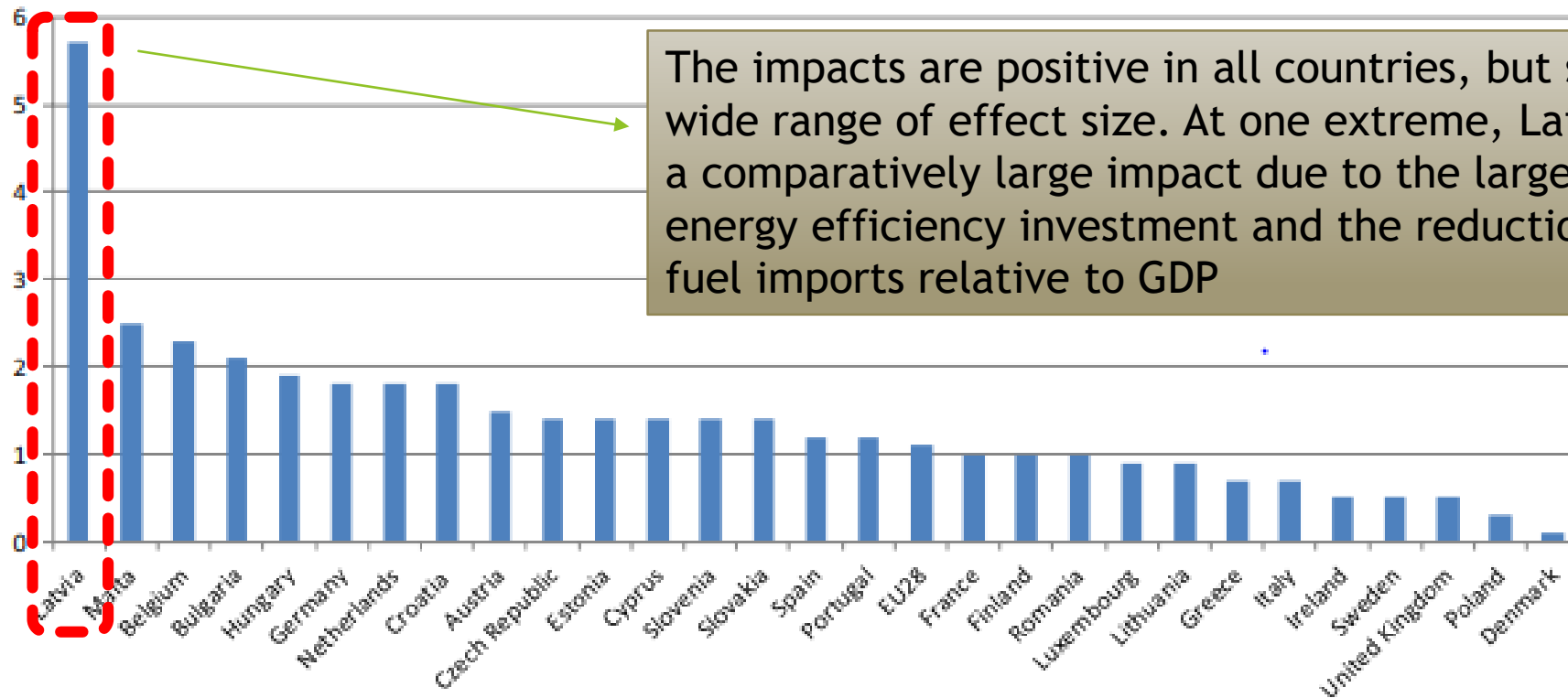
Offshore



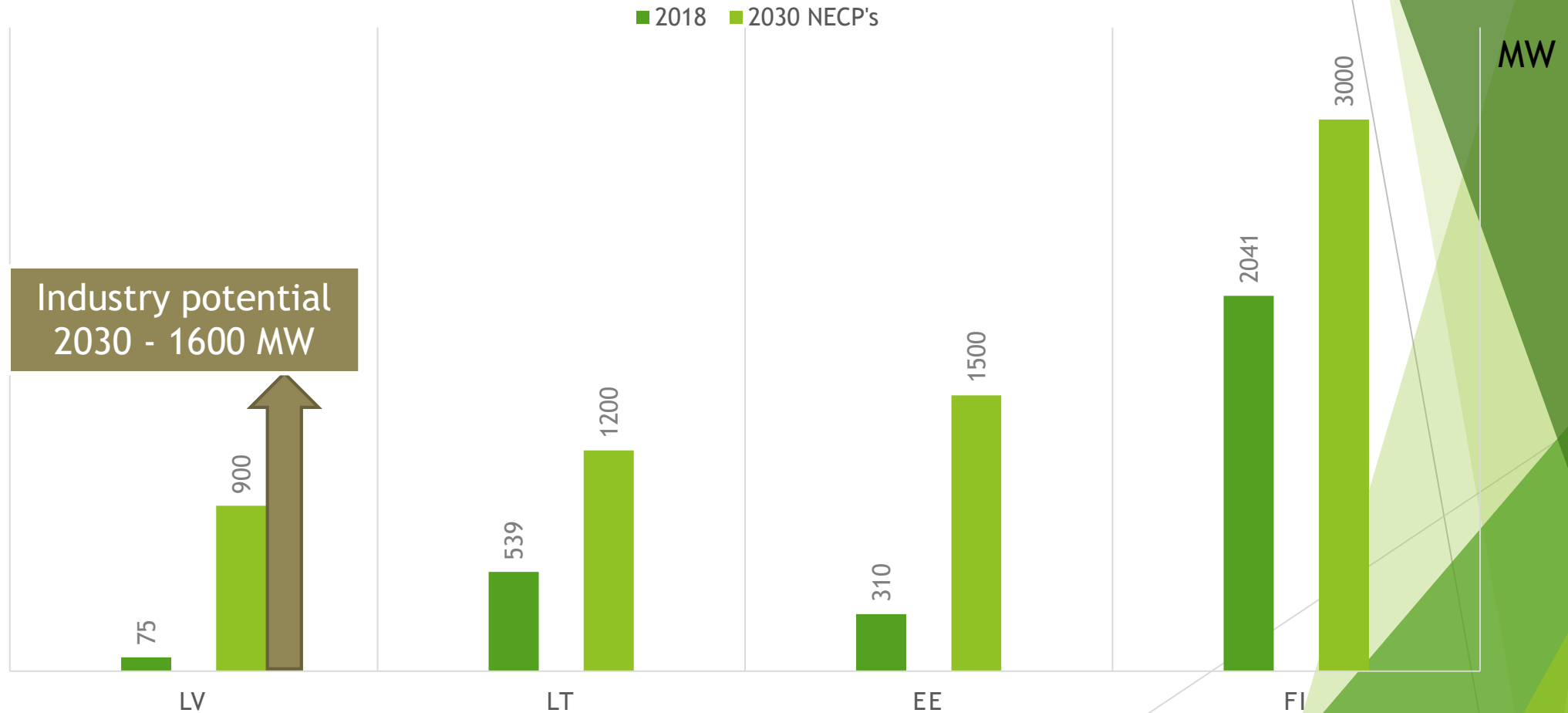
Source: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/May/IRENA_Renewable-Power-Generations-Costs-in-2018.pdf

Implementation of Paris Climate Agreement could boost EU GDP by 1.1%

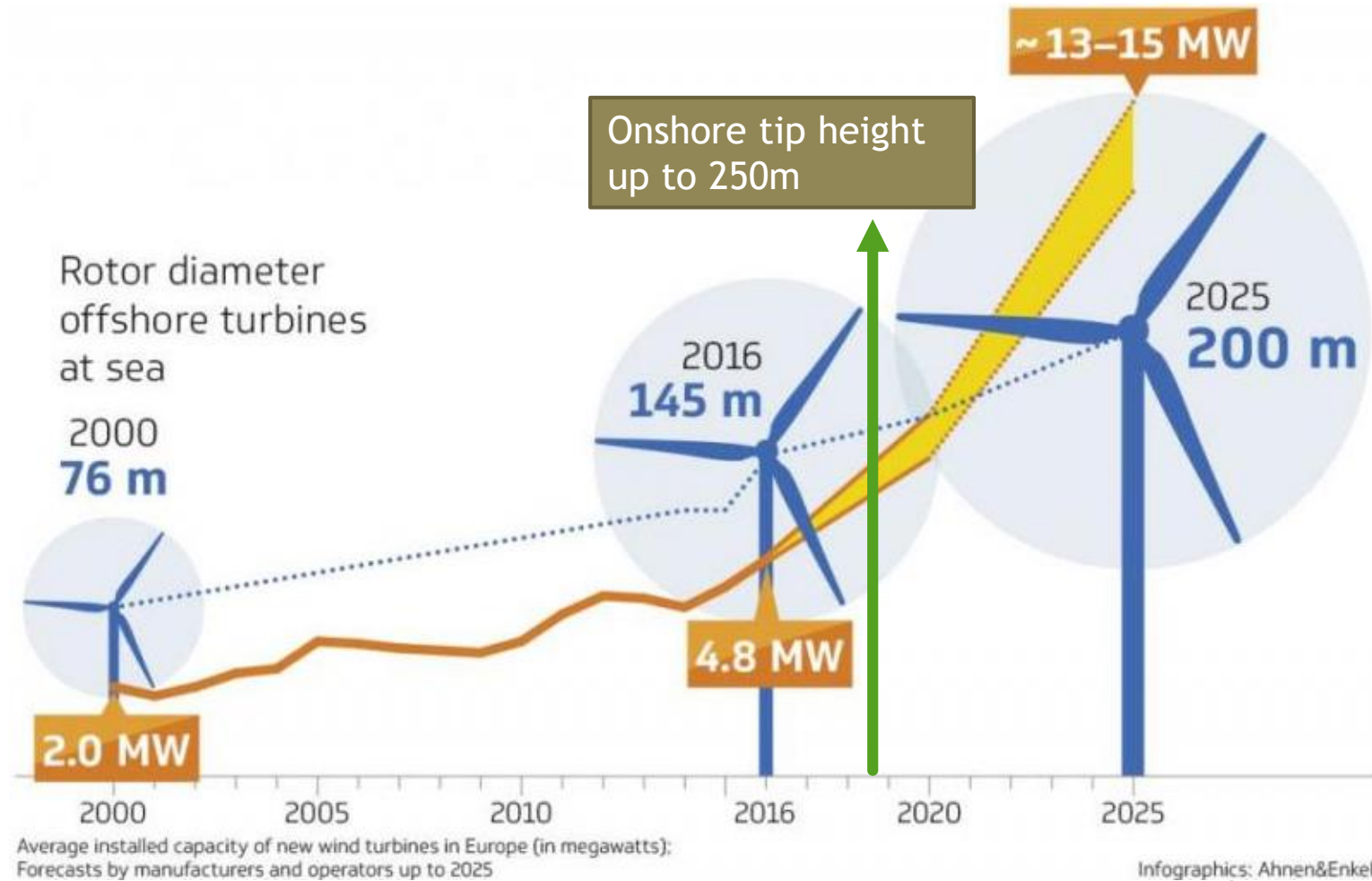
Figure 3: Impact on GDP by country, 2030, percentage difference from baseline



Wind energy progress until 2030



Wind turbine height and capacity



Potential in Latvia - priority for onshore wind

1. Total land with spatial limitations available for large scale wind parks - 2000 km²

- ▶ 66% of area with reasonable connection to transmission electricity system

2. Total land available for individual turbines - 13 000 km²

- ▶ 80% of area with reasonable connection to transmission or distribution electricity system

Notes:

- ▶ Existing electricity transmission system can integrate at least 1000MW of Wind power
- ▶ National forest land accounts for ~ 40% from above mentioned

1. There are 1200 km² of sea area under more detailed assessment available for offshore wind parks

Onshore Wind park of 100MW needs 6-8 km² of land

Offshore Wind park of 100MW needs 5-6 km² of sea area

Twice expensive vs onshore

+ new el. grid investments needed

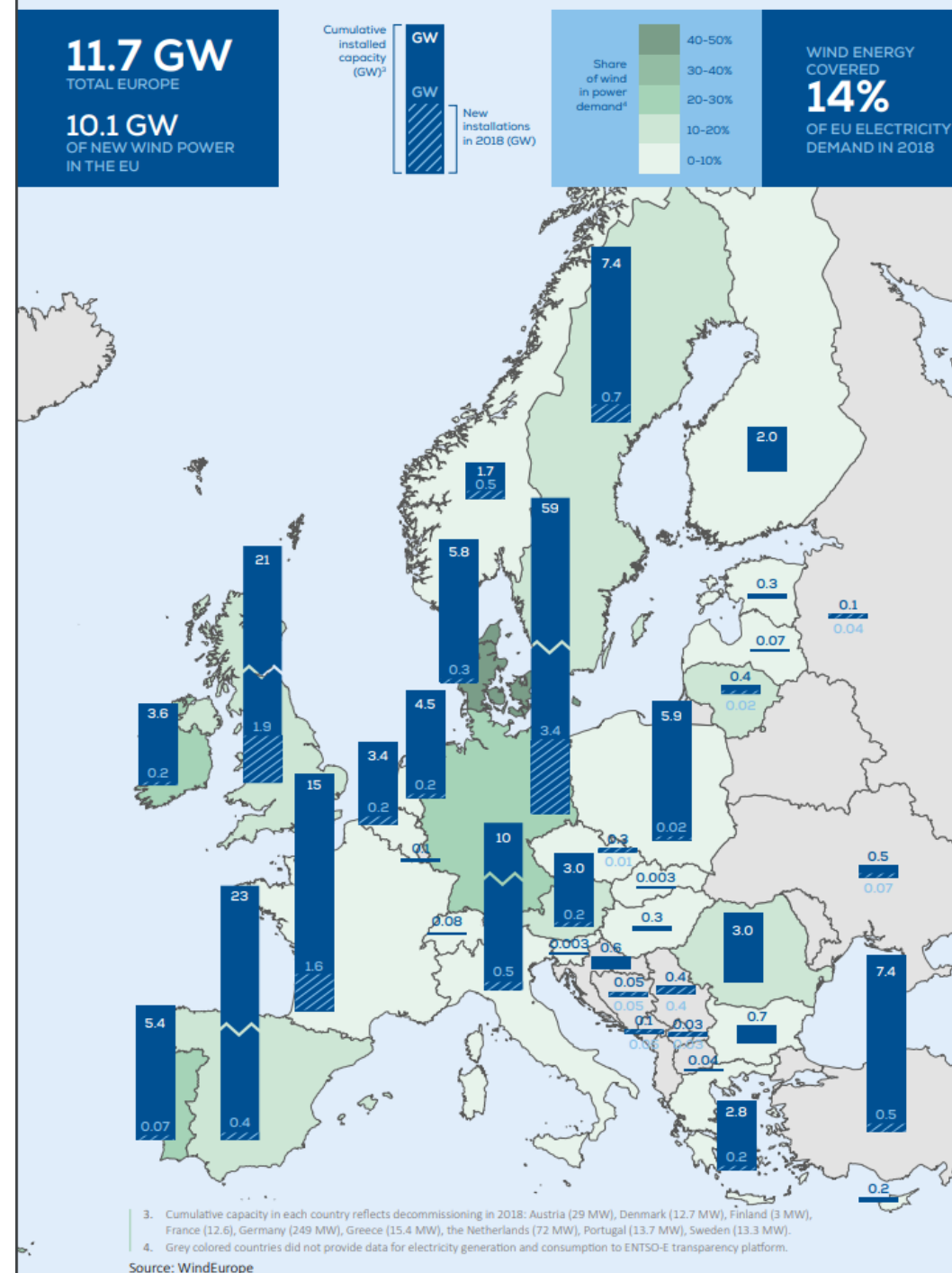
Bottlenecks

- ▶ Permitting process
- ▶ Social acceptance
- ▶ Motivation of local municipalities
- ▶ Changes in regulation regarding density of wind parks
- ▶ Lack of political support to boost development of wind energy
- ▶ Long term planning stability for energy sector
- ▶ Regulation and tax stability for investors

Wind Europe 2018

- ▶ Wind Investments were up on 2017 by 20% to €26.7bn:
 - ▶ Onshore investments hit a record level of €16.4bn.
 - ▶ Offshore investments were €10.3bn.
- ▶ 2018 was a record year for new Final Investment Decision (FID) in future capacity. In total, 16.7 GW worth of projects reached FID:
 - ▶ 12.5 GW in onshore
 - ▶ 4.2 GW in offshore
- ▶ Wind energy accounted for 63% of the investments in renewable energy in 2018, up from 52% in 2017

<https://windeurope.org/wp-content/uploads/files/about-wind/statistics/WindEurope-Annual-Statistics-2018.pdf>





Paldies

Thank you