



Using carbon prices to steer low-carbon investment

Rintaro Tamaki, Deputy Secretary-General of the OECD
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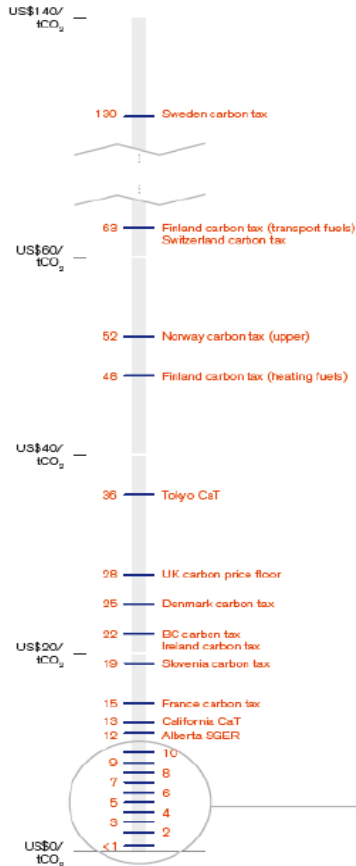


Carbon pricing can help unlock the investment needed to support long-term decarbonisation

- » Carbon pricing can trigger behavioural change in firms and steer investment towards low-carbon carbon technologies
- » OECD work provides a comprehensive view of current state of carbon pricing on energy
 - Considers specific taxes on energy use (including carbon taxes) and emission trading systems: effective carbon rates
 - Allows assessing carbon pricing policies in individual countries
 - Provides a platform for cross-country comparison of carbon prices
- » OECD work has shown that carbon prices lead to reduced emissions, without decreasing the competitiveness of domestic industry

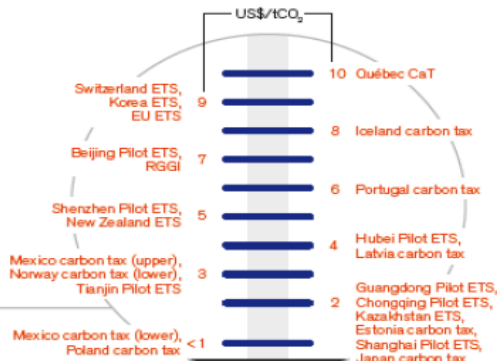


The number of carbon taxes and ETS around the world is growing...

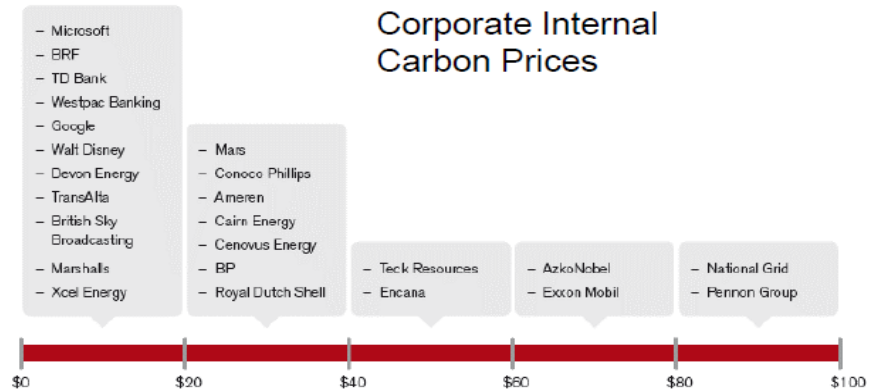


- Prices range from <US\$1 / tCO₂e to US\$130 / tCO₂e
- 85% of emissions priced at <US\$10 / tCO₂e

National and Sub-National Carbon Prices



Corporate Internal Carbon Prices

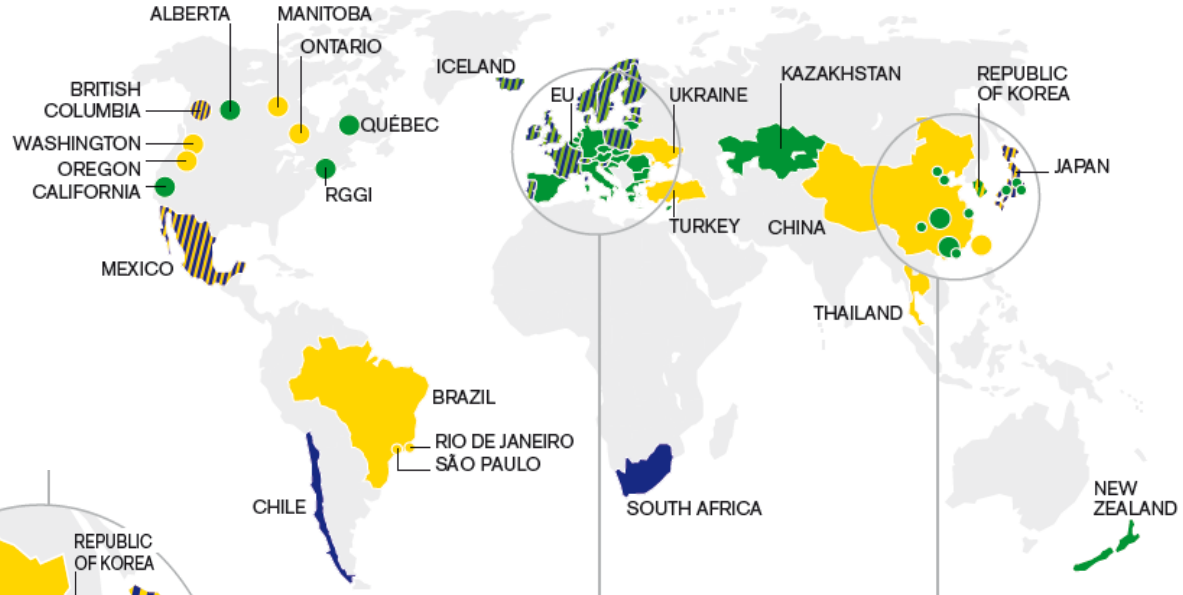
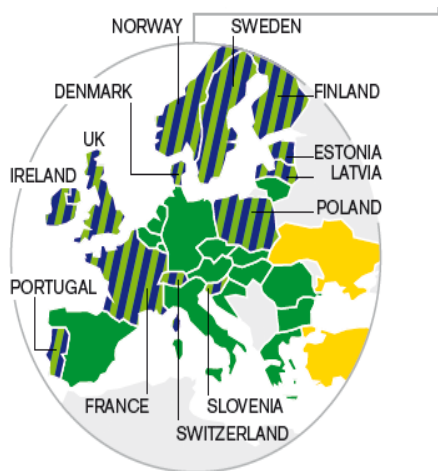
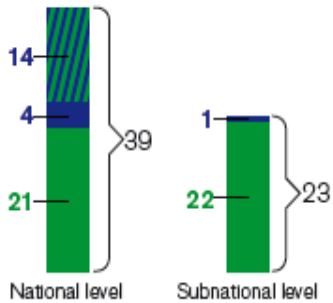


Source: State and Trends of Carbon Pricing 2015, World Bank Group and Ecofys (Sep 2015)



Carbon Pricing: Existing, emerging and potential ETS's

Tally of carbon pricing instruments



The circles represent subnational jurisdictions. The circles are not representative of the size of the carbon pricing instrument, but show the subnational regions (large circles) and cities (small circles).

Note: Carbon pricing instruments are considered 'scheduled for implementation' once they have been formally adopted through legislation and have an official, planned start date.

- ETS implemented or scheduled for implementation
- Carbon tax implemented or scheduled for implementation
- ETS or carbon tax under consideration
- ETS and carbon tax implemented or scheduled
- ETS implemented or scheduled, tax under consideration
- Carbon tax implemented or scheduled, ETS under consideration

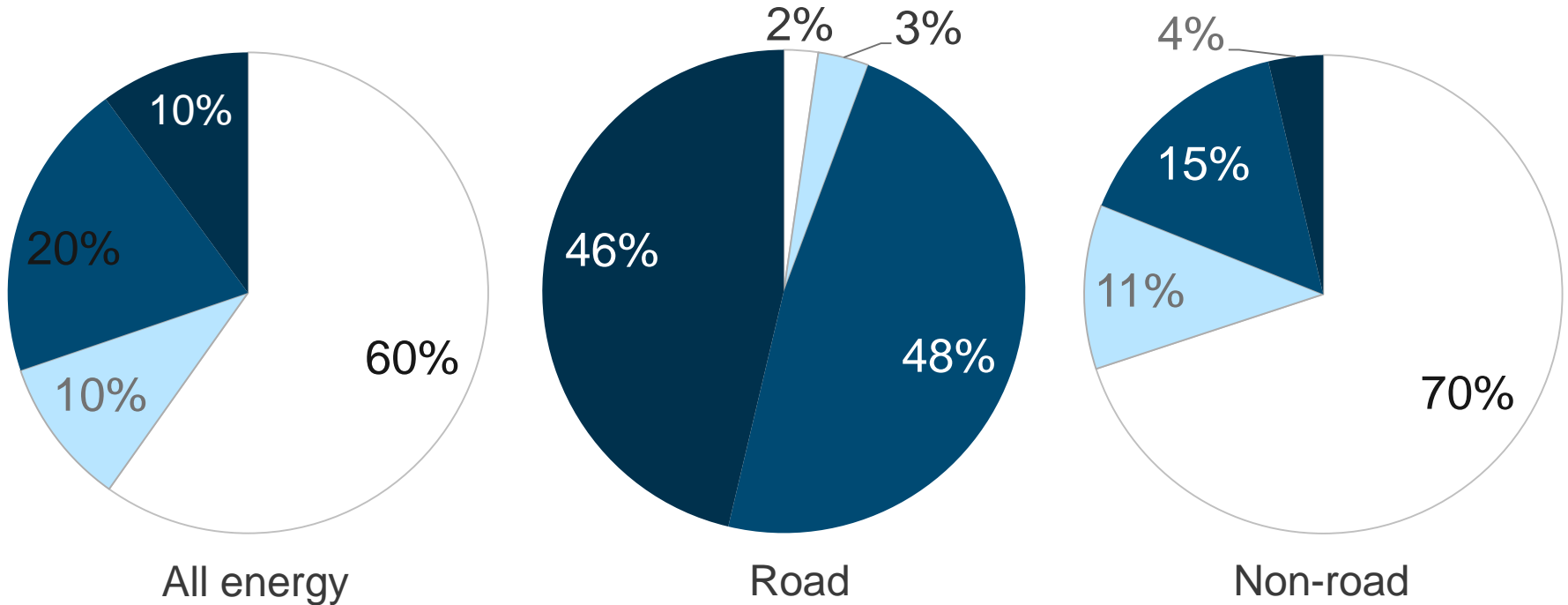
Source: World Bank (2015), *State & Trends of Carbon Pricing*, Washington DC



...but even when accounting for other taxes on energy use, most CO₂ emissions are unpriced!

Proportion of CO₂ emissions priced at different levels

□ EUR 0 □ EUR 0-5
■ EUR 5-30 ■ EUR >30



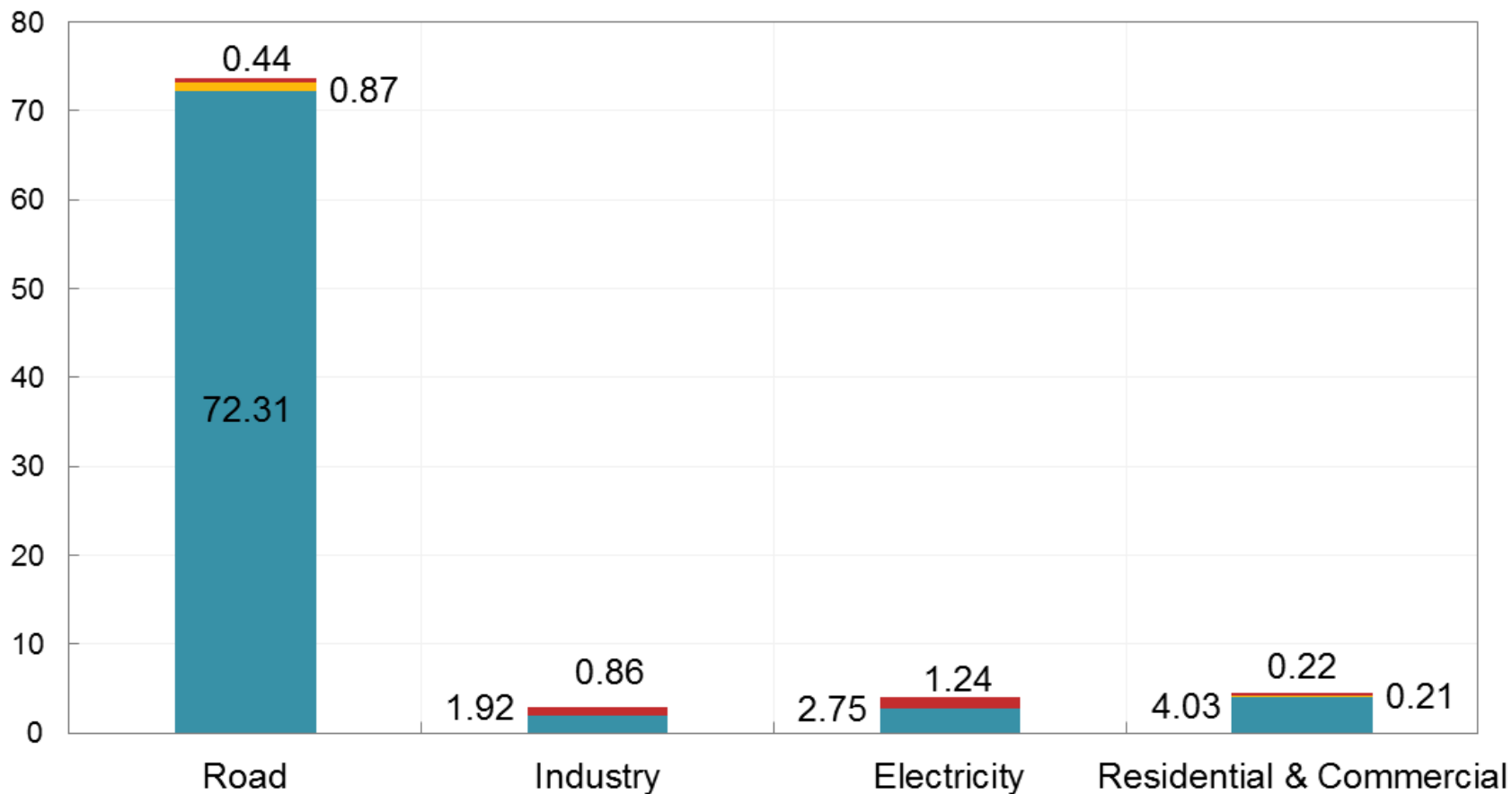
Source: OECD (2015 forthcoming), Effective Carbon Rates: Pricing CO₂ through taxes and emissions trading systems



Carbon prices are especially low in the industry and electricity sectors

Average ECR
(in EUR/ t CO₂)

■ Specific taxes ■ Carbon taxes ■ ETS



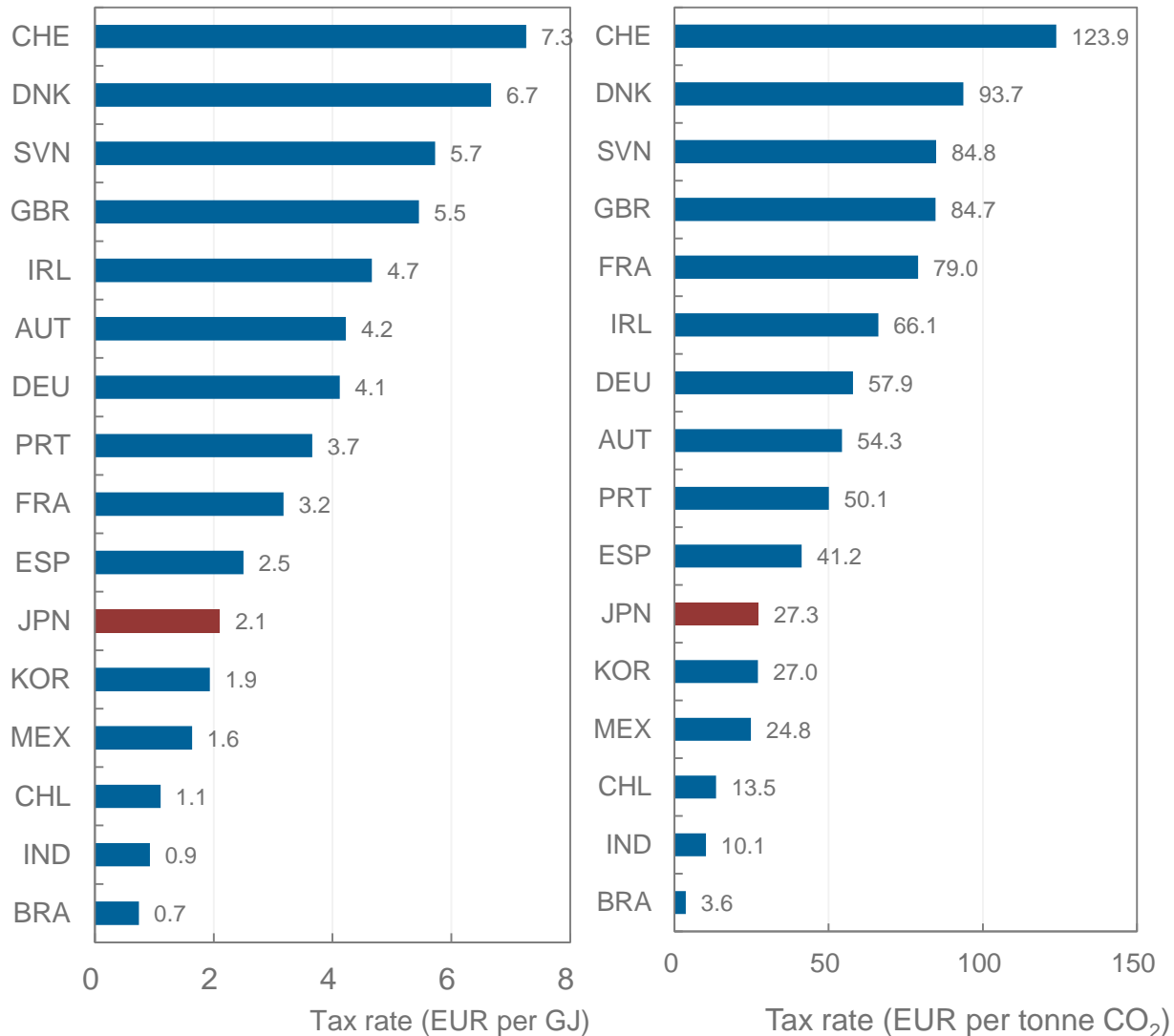


The FASTER Principles for Successful Carbon Pricing

- » Fairness
- » Alignment of Policies and Objectives
- » Stability and Predictability
- » Transparency
- » Efficiency and Cost-Effectiveness
- » Reliability and Environmental Integrity



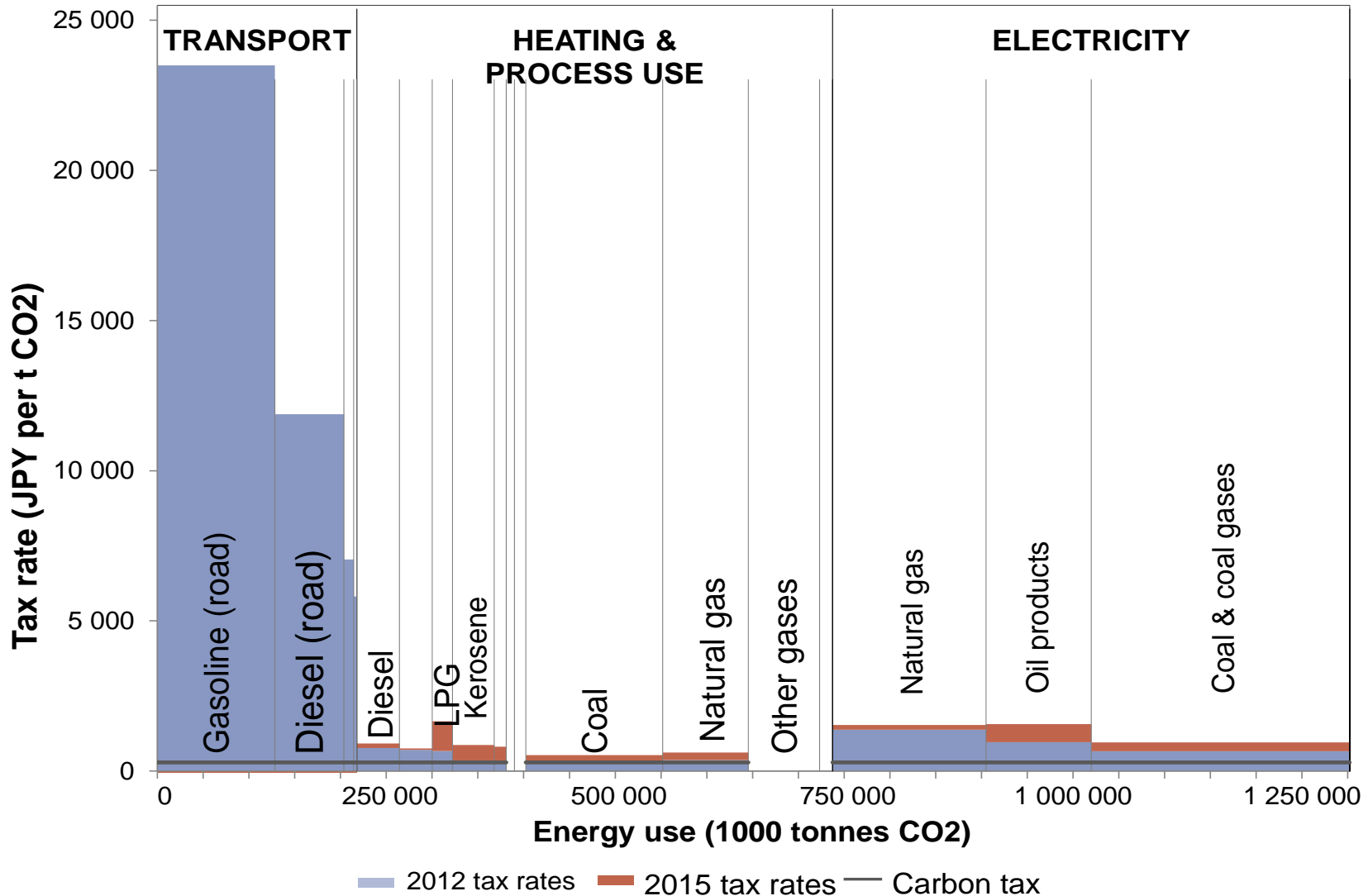
Effective tax rates on energy use in selected OECD and G20 countries*



*Preliminary data for 2015



In Japan, carbon prices do not send a consistent price signal for investment across sectors



*Taxation of energy use in Japan (carbon content basis), 2012 prices, 2015 data is preliminary



Conclusion

- » Carbon prices can steer innovation and investment towards lower-carbon technologies, but its potential remains unexploited
- » OECD analysis shows that across the 41 countries:
 - Effective Carbon Rates show that **60%** of all CO₂ emissions from energy use are **not priced**;
 - **Only 10%** of all CO₂ emissions are priced **above EUR 30 per tonne**;
 - Prices are particularly low in sectors outside road transport.
- » In Japan, the investment signal sent by **carbon prices is uneven across sectors**
- » **Meaningful progress** can be made by
 - Increasing price levels where they are currently low;
 - Introducing pricing instruments where prices are currently zero.



New OECD report on carbon pricing to be launched in September

- » “Effective Carbon Rates: Pricing CO₂ through taxes and emissions trading systems”
- » Comprehensive analysis on Effective Carbon Rates will be published in **September 2016** in form of an OECD report, including
 - Distribution of Effective Carbon Rates by country;
 - Composition of Effective Carbon Rates by six economic sectors;
 - Country detail for 41 OECD and G20 countries.
- » A glance at high-level results: <http://www.oecd.org/tax/tax-policy/effective-carbon-rates-on-energy.htm>