The future of Latvia in the new climate reality

LOW CARBON DEVELOPMENT – GLOBAL TENDENCIES

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OCDE
DES POLITIQUES MEILLEURES POUR UNE VIE MEILLEURE

Source: Australian Bureau of Meteorology

The Earth and its atmosphere from space

The Earth's radius is > 6300 Km but the atmosphere is an incredibly thin skin. We live in just the lowest 10-15 Km (the troposphere).

The atmospheric greenhouse effect makes the Earth's surface 33 degrees warmer than if there were no atmosphere.

Some key messages from IPCC AR5

Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.

Increased magnitudes of warming increase the likelihood of severe, pervasive and irreversible impacts

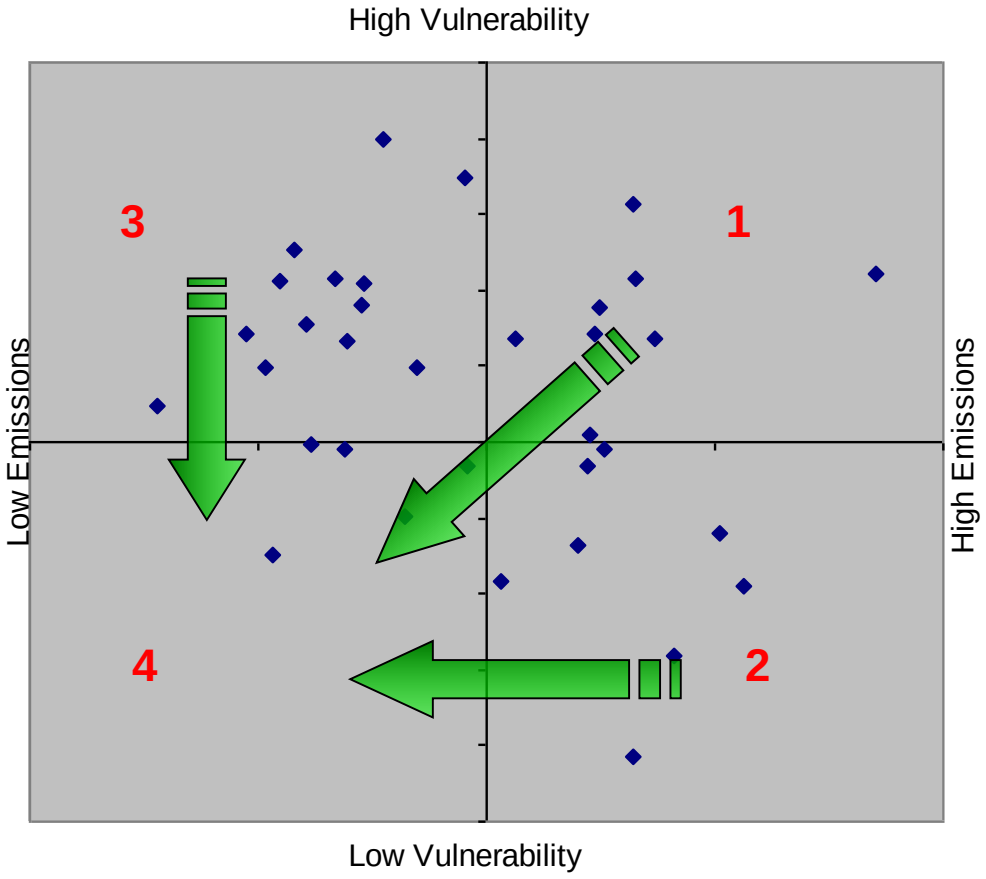
GHG emissions are 40-70% lower in 2050 relative to 2010 and near zero or below in 2100 for pathways likely to keep warming below $2^{o}C$

Climate policy challenges

1. Transition to a near zero net GHG emissions economy by the end of the century *(NB not just energy emissions – land-use, land-use change and forestry)*
2. Resilience of economic, social and natural systems to climatic variability and change
3. Finance and investment, technology, innovation and capacity building to support these aims

Strategy of UN negotiations

UNFCCC Parties differ on many dimensions critical to the success of the international negotiations and are not internally homogenous.



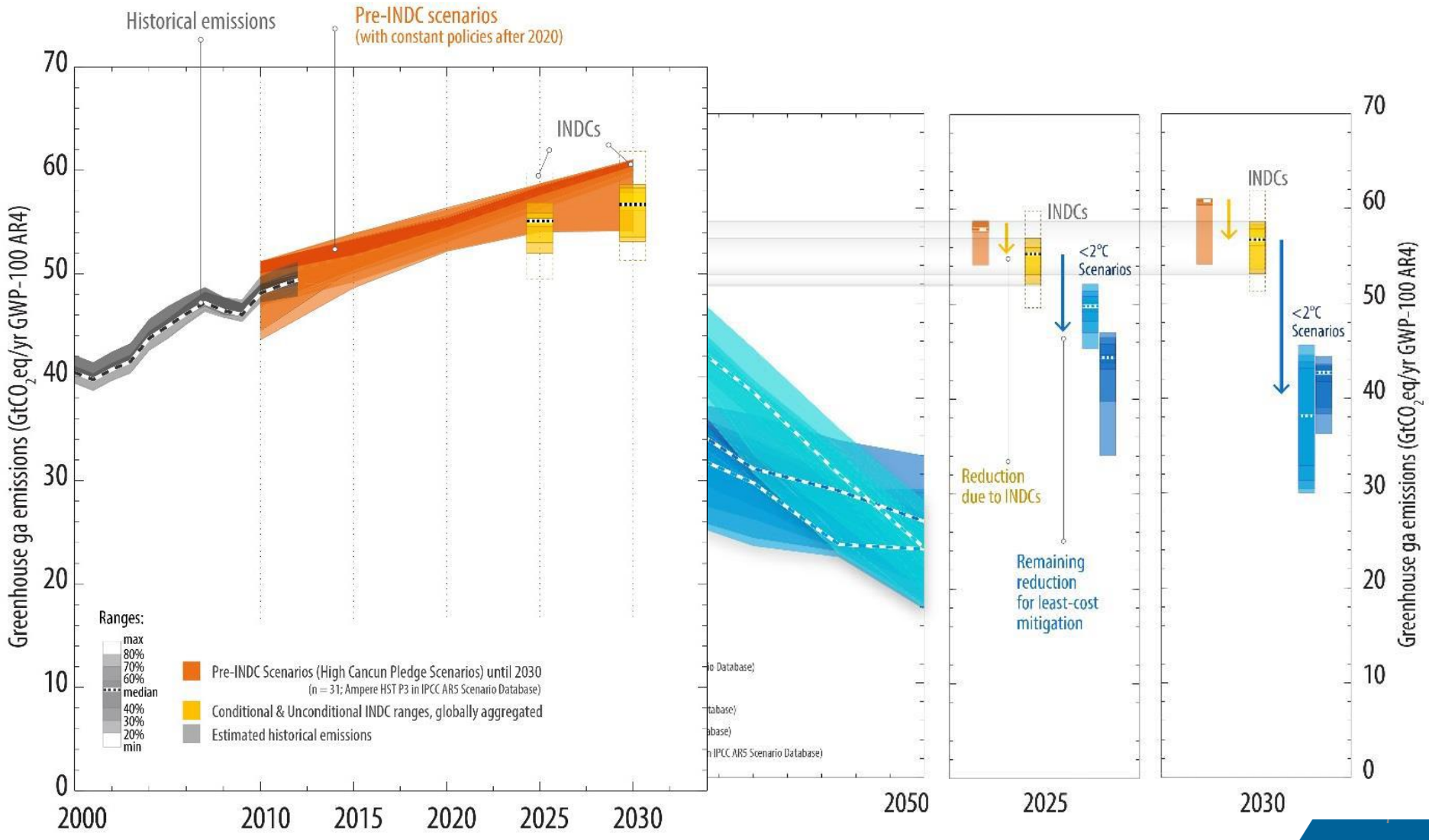
1. **High emissions, high vulnerability**
   Mitigation and adaptation both likely to be priorities.
2. **High emissions, low vulnerability**
   Mitigation action likely to be a low priority.
3. **Low emissions, high vulnerability**
   Growth and resilience the main priorities, need for support (finance, capacity building, technology)
4. **Low emissions, low vulnerability**
   Resilient low-emissions economy – the goal

(Illustrative and simplified)

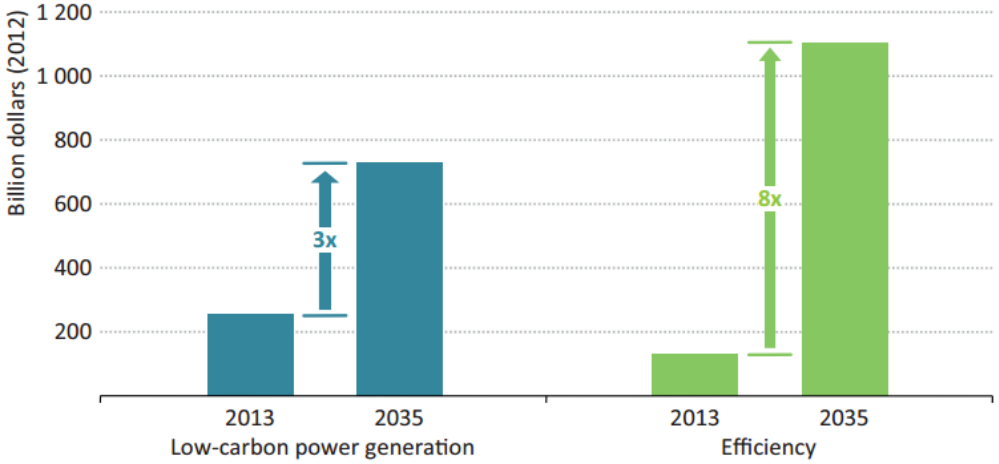
Paris Outcomes - overview

- **Agreement covering 195 countries**
  - Strong political signal of direction of travel
  - Evolution in global climate governance
  - Extremely well-run process and COP meeting
- **“Hybrid” – both top down and bottom up**
  - Global goals: transparency and global stock take
  - Bottom-up “contributions”
- **Now need to accelerate implementation**
  - Current INDCs not commensurate with challenge, but 5-yearly updates
  - Agreement creates mechanisms to ramp-up action over time
  - Momentum from non-state actors: Lima-Paris Action Plan

Global emission levels from INDCs in 2025 and 2030 (UNFCCC 20/10/15)



What is the scale of investment needs in clean energy to address climate change?

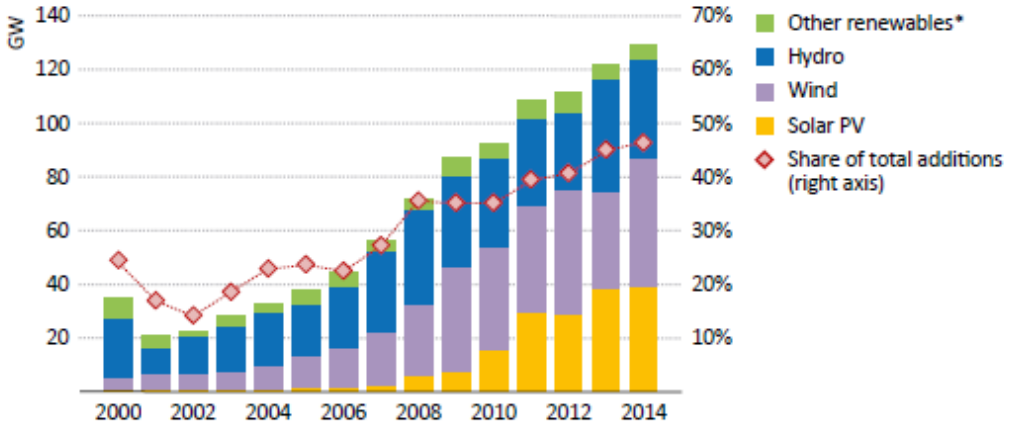


Source: IEA (2014), World Energy Investment Outlook

Increase in investment needed for the IEA's 450 scenario

Source: IEA WEO 2015

Figure 1.1 ▷ **Global renewables-based power capacity additions by type and share of total capacity additions**

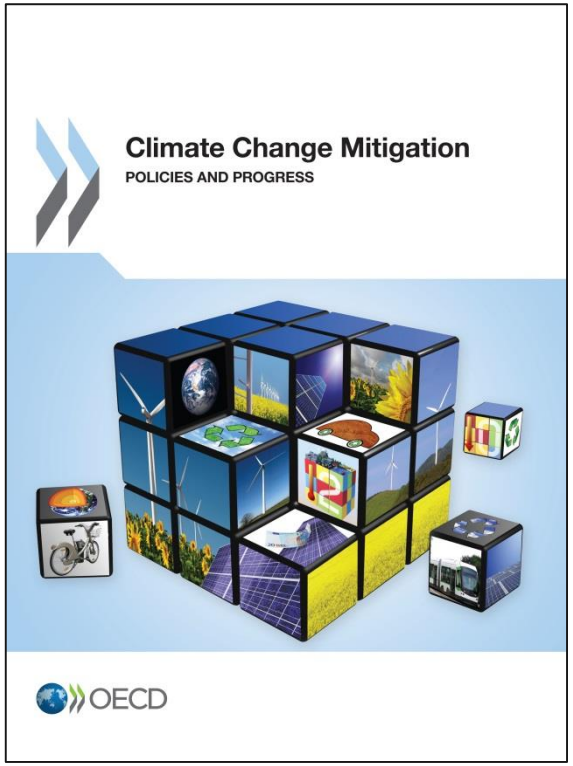


* Includes geothermal, marine, bioenergy and concentrating solar power.

Climate Change Mitigation: Policies and Progress

Aim

To increase transparency by presenting trends and progress on climate change mitigation policies

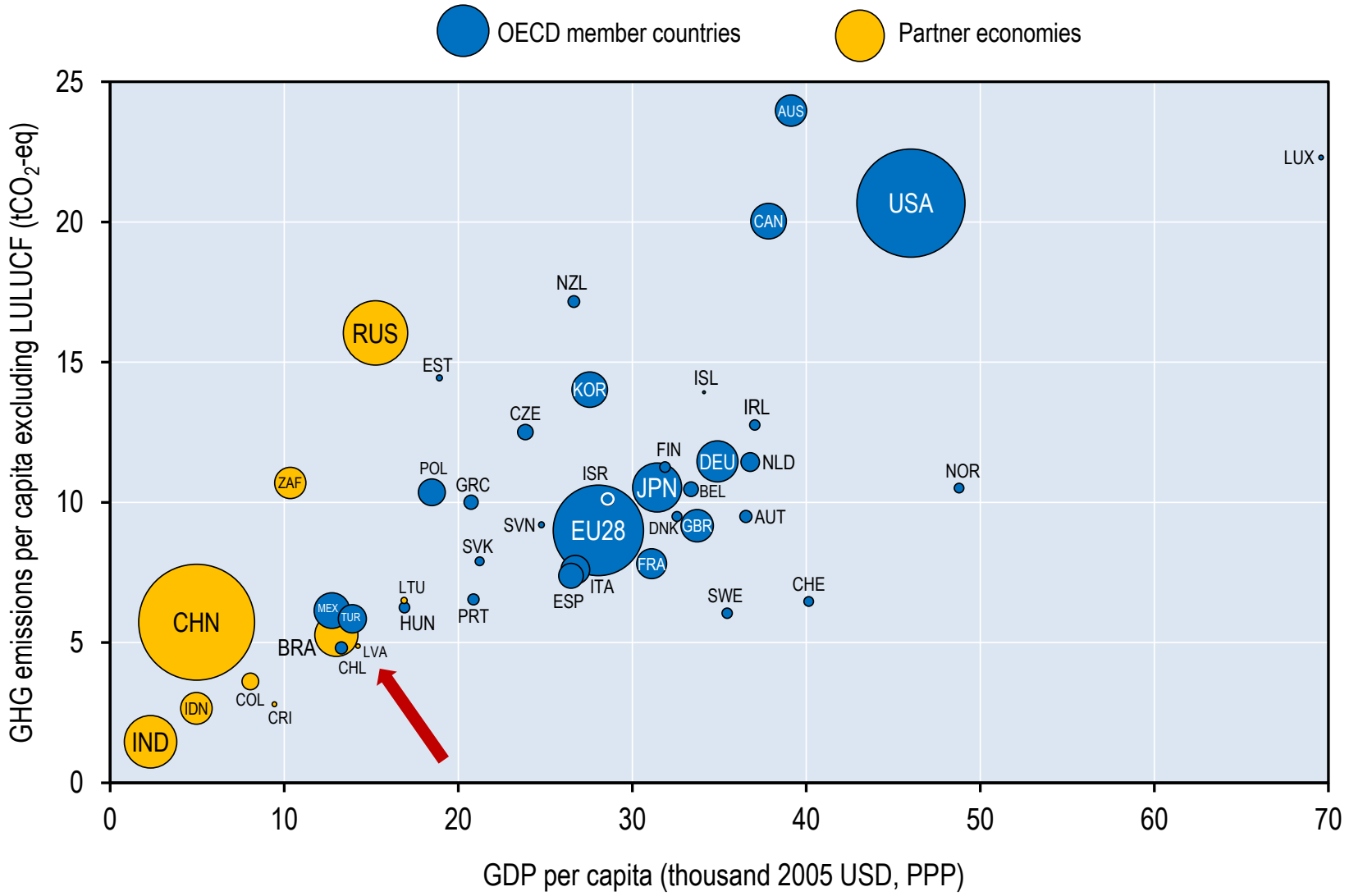


Outputs

1. Synthesis report on *Climate Change Mitigation: Policies and Progress* (October 2015)

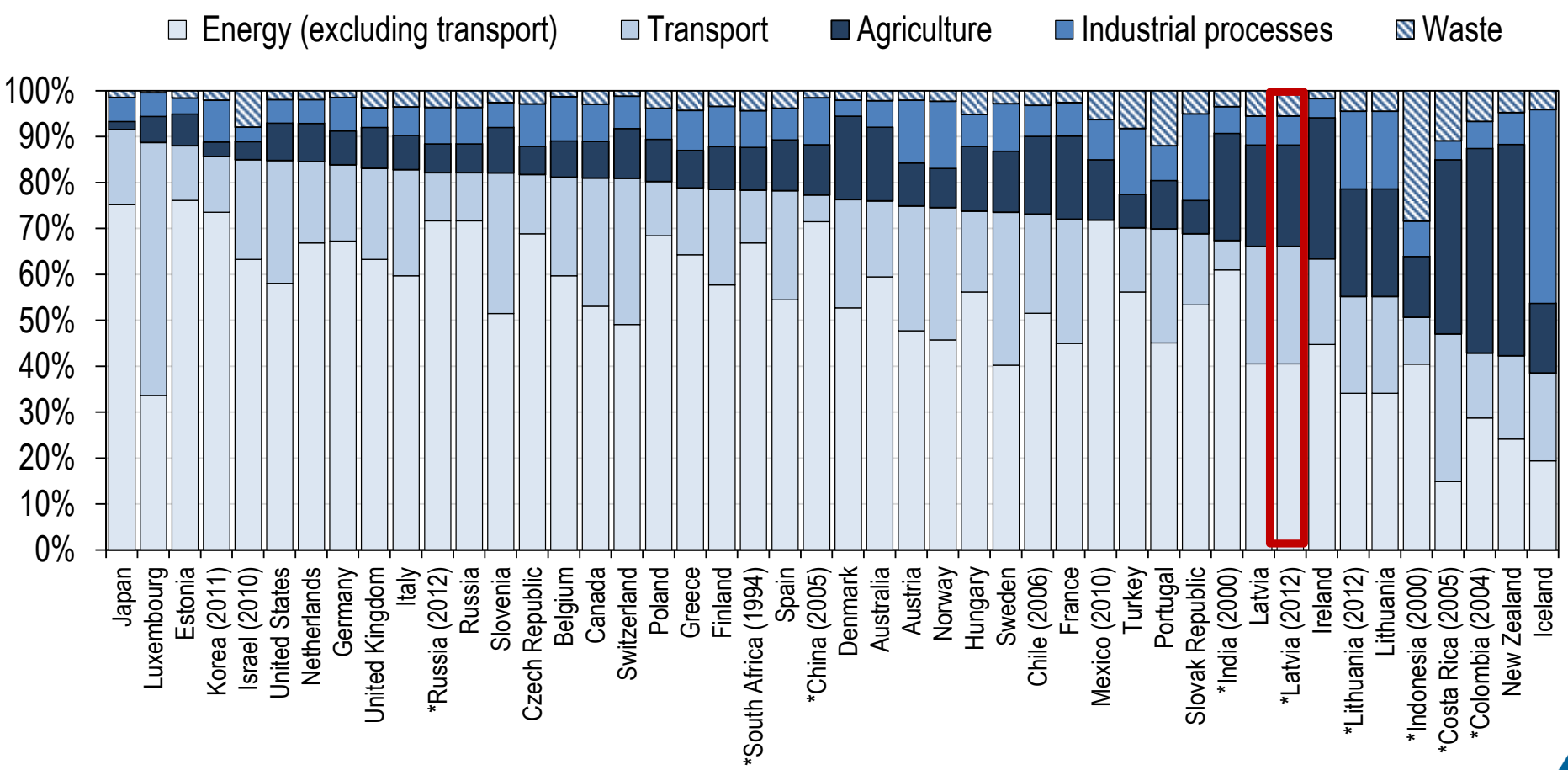
2. Online tool featuring 45 country profiles, available at: http://www.compareyourcountry.org/cop21

All countries have unique national circumstances and starting points



Source: OECD (2014), *OECD Environment Statistics* (database); UNFCCC GHG inventory data; *National Accounts of OECD Countries*; World Bank *World Development Indicators*

Different countries have different policy priorities in terms of sectors and gases



Source: Data by sector from OECD (2014) OECD Environment Statistics (database) based on National Inventory Submissions 2014 to the United Nations Framework Convention on Climate Change (**UNFCCC**, CRF tables), and replies to the OECD State of the Environment Questionnaire (accessed 7 July 2015).

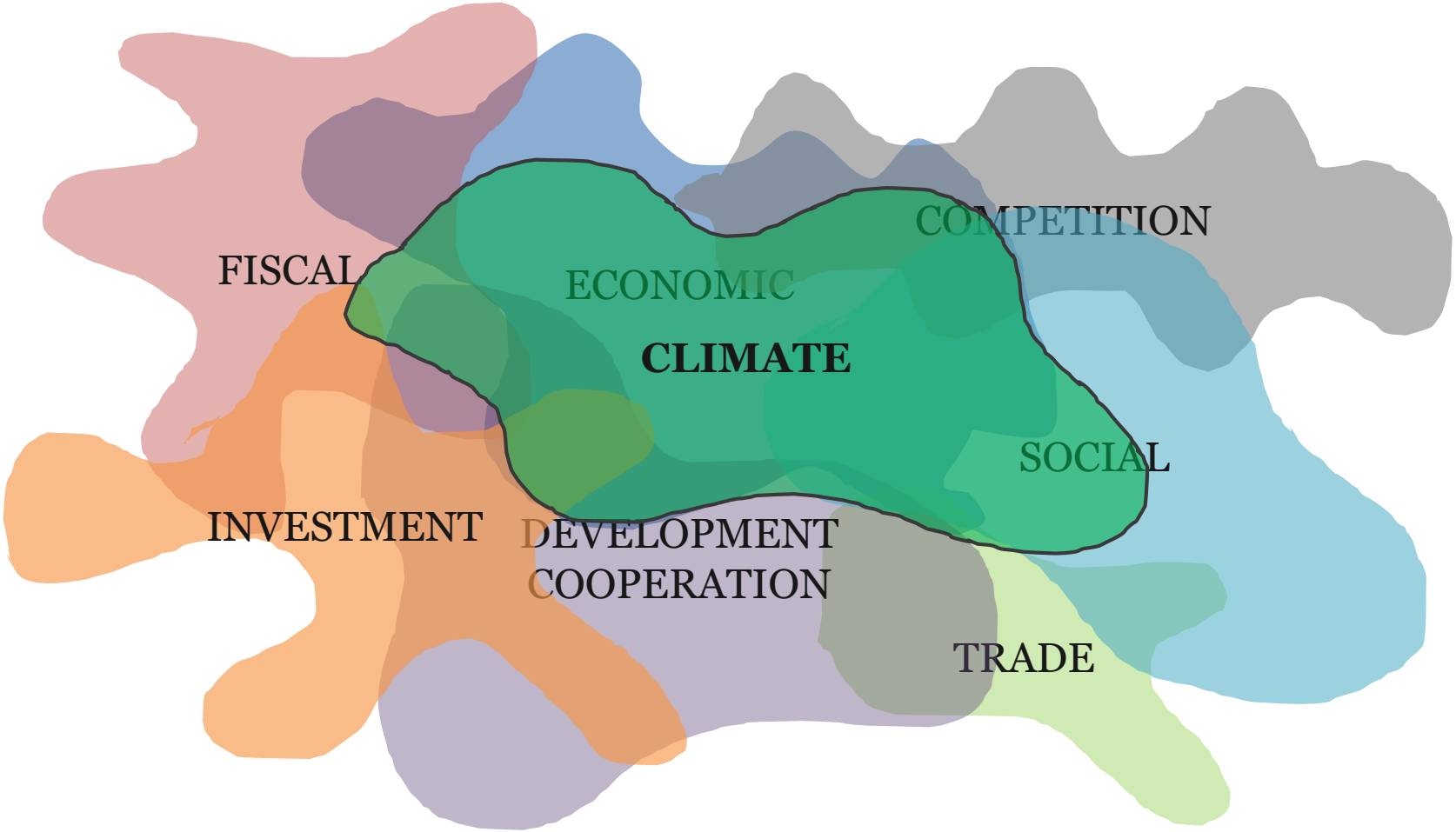
Policies for a low-carbon transition

- **Stable and predictable** climate policies, phase out fossil fuel subsidies.
- A **strong price on carbon**, so that low carbon investments are competitive with carbon intensive technologies.
- Strong **regulatory support** in areas where price signals are not efficient, such as in energy efficiency measures.
- **Targeted support for the uptake of low-carbon technologies**

Necessary but not sufficient

Climate change mitigation is an economic reform challenge.

Our economies are hard-wired to fossil fuels



An example: strengthening incentives for sustainable land use

AFOLU: 25% of GHG emissions
Food demand by 2050: +60%
Net carbon sink

- Do **agricultural support policies** encourage low carbon practices?
- Is the **trade regime** for agricultural products supportive of climate goals?
- Do policies support **agriculture's resilience** to climate change?
- Are **services provided by forests and ecosystems** properly valued in economic decisions?
- Are policies sufficiently joined-up **to address the roots of food waste?**