EXPLORING THE CLIMATE, CIRCULAR ECONOMY AND TRADE NEXUS

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WTO Trade and Environment Week
US Event - Trade Policy in Support of a More Circular Economy for Climate-Aligned Goods/Technologies
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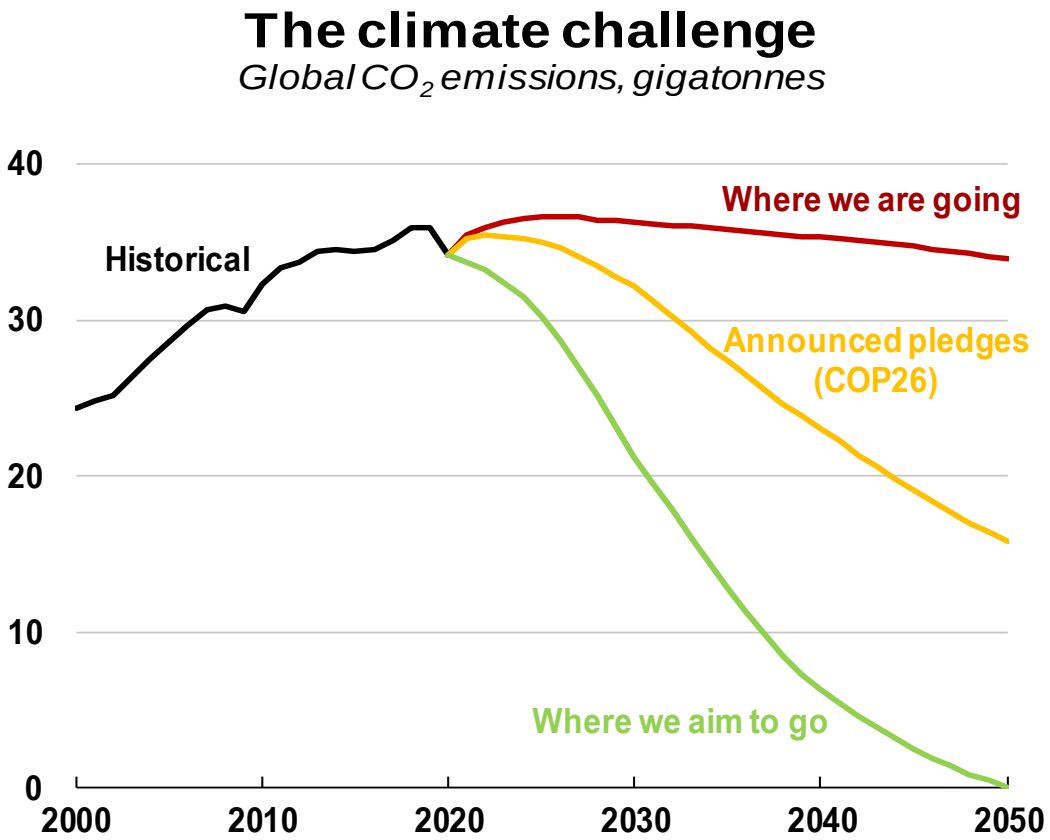
BETTER POLICIES FOR BETTER LIVES

Outline

- Nexus of low carbon and circular economy transition
- Nexus between trade and circular economy for climate objectives

Nexus of low carbon and circular economy transition

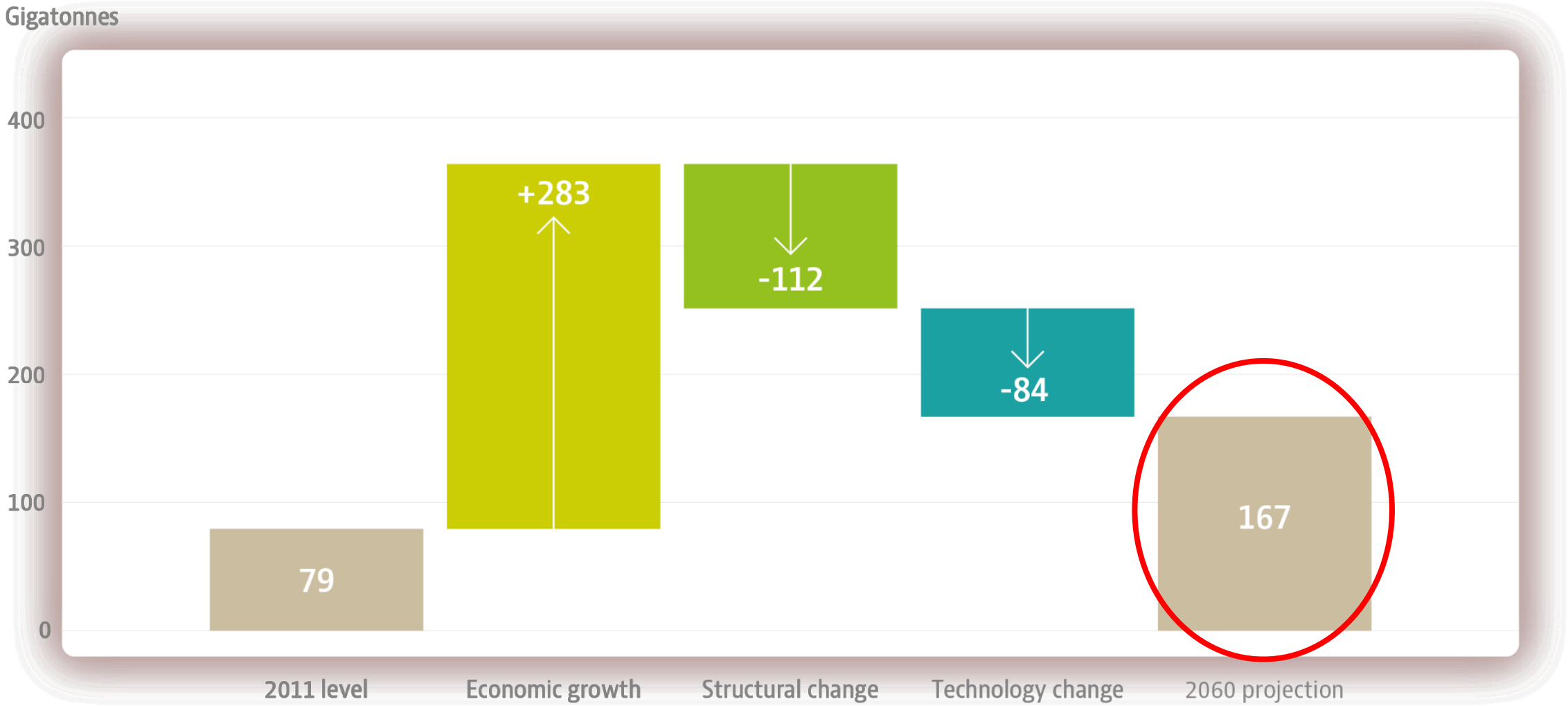
More ambitious actions needed to be on track to net-zero



Source: IEA, 2021
Note: Limiting warming to 1.5ºC requires -45% GHG emissions by **2030** compared to 2010.

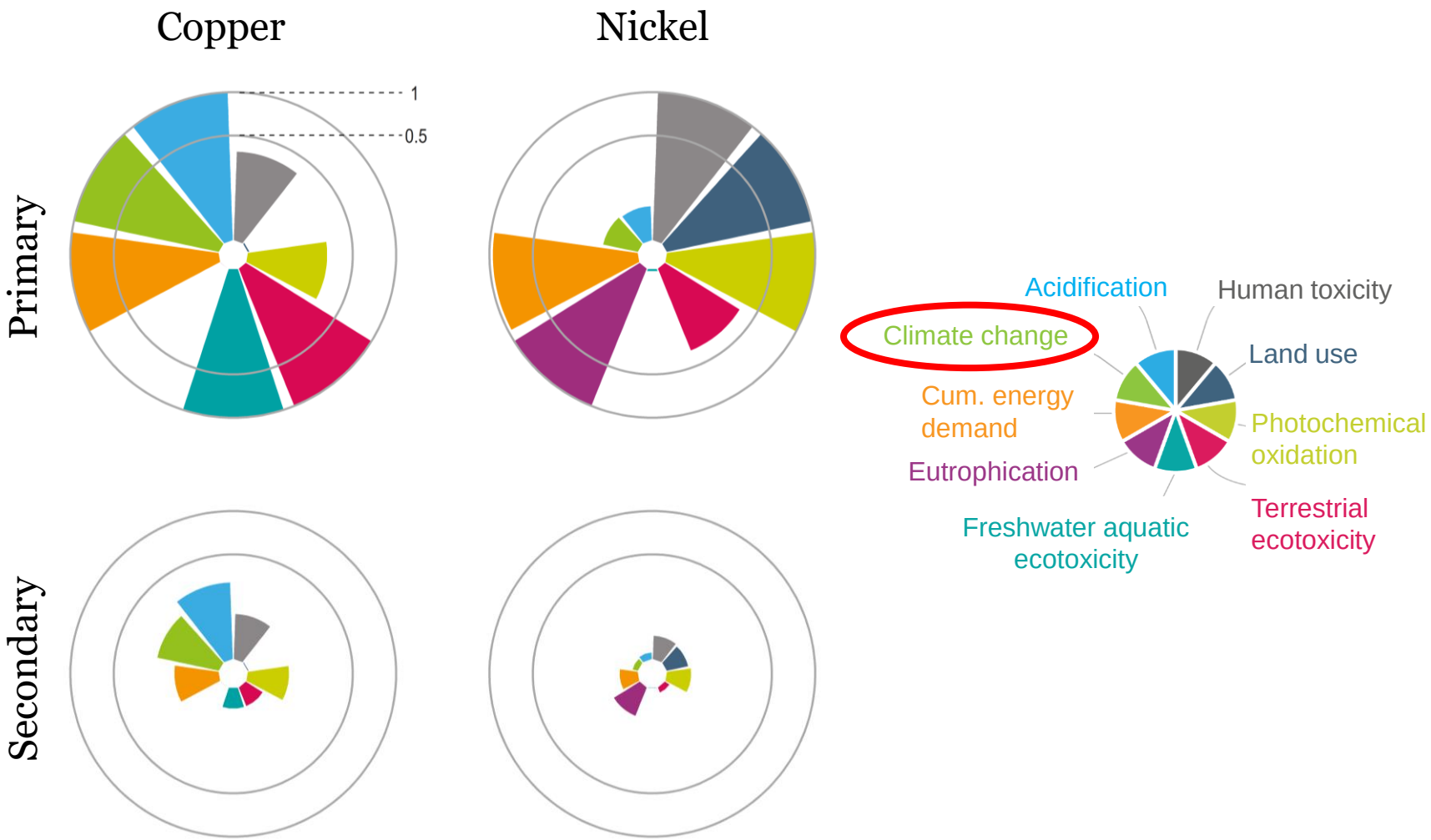
- A price floor of 60 EUR would clearly help but would still leave considerable distance to target
- In the transition to net zero countries will proceed at different speed and using different policies
- The diversity of mitigation policy approaches makes it difficult to compare their effectiveness and incidence
- Concerns over competitiveness and carbon leakage remain
- How to ensure that the level of ambitions in individual jurisdictions can be lifted

Global materials use will more than double by 2060



Source: OECD (2019), Global Material Resources Outlook to 2060

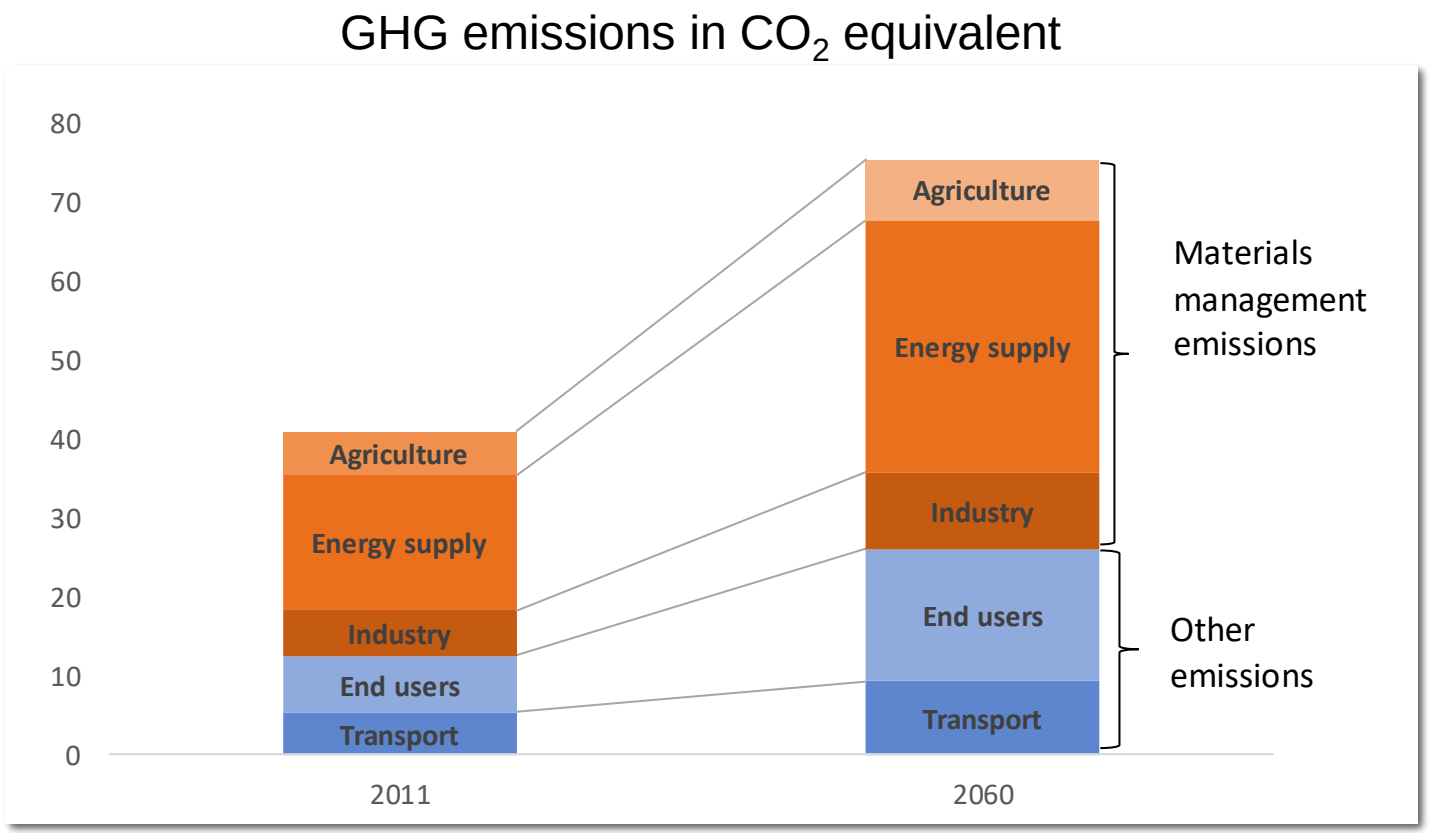
Environmental impacts will more than double
primary much more polluting than secondary



Per kg environmental impacts (highest impact normalised to 1) for 2015

Source: OECD (2019), Global Material Resources Outlook to 2060

Greenhouse gas emissions related to materials management will more than double



12% of total GHG emissions associated with 7 key metals

12% of total GHG emissions associated with concrete

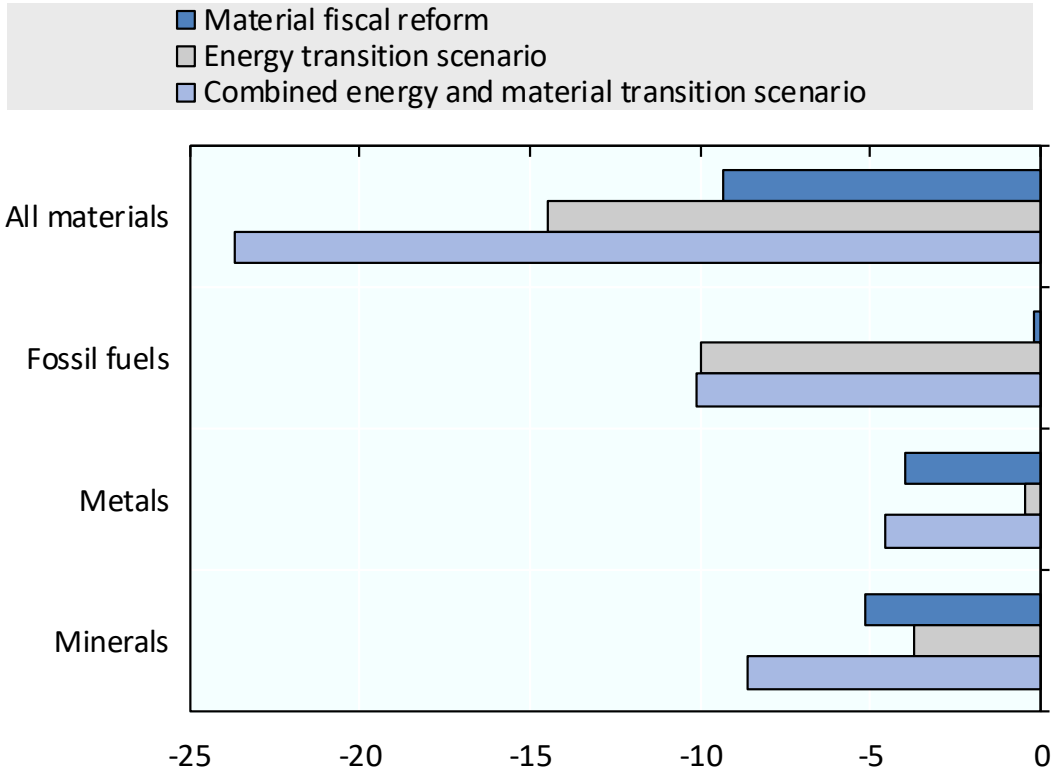
50Gt CO_2 eq emissions associated with materials cycle

Source: OECD (2019), Global Material Resources Outlook to 2060

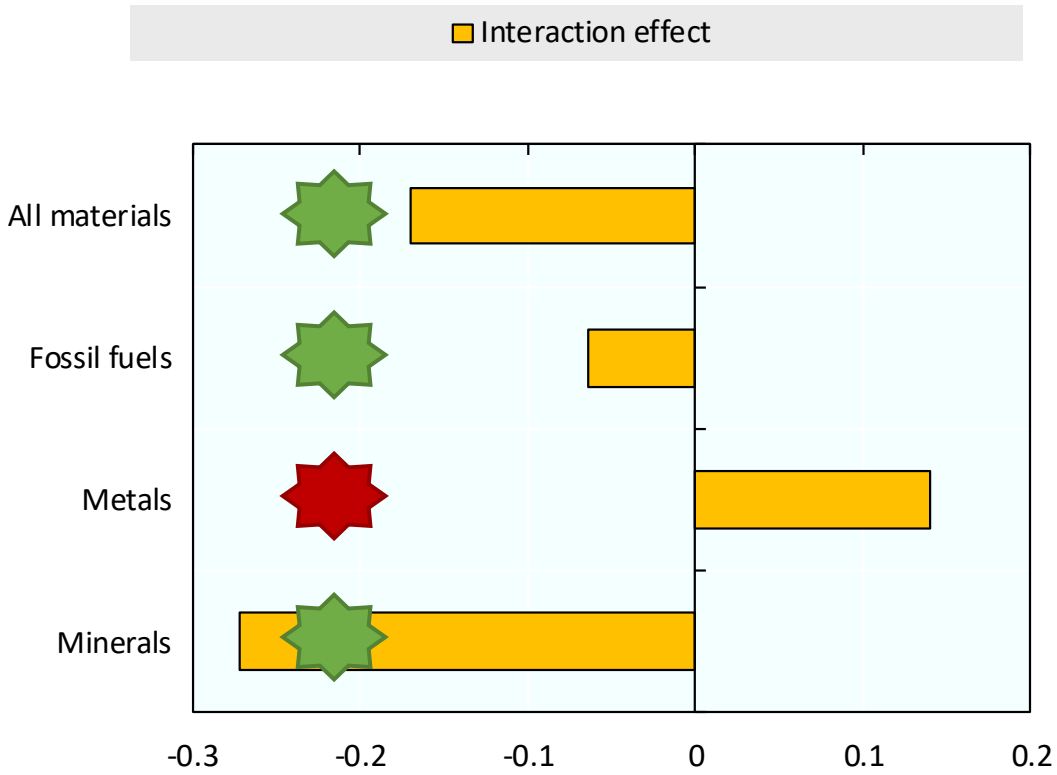
Combining low-carbon and circular economy transitions bring synergies with some trade-offs

Materials use reduction in Gt in 2040

compared to baseline



Combined scenario – material fiscal reform – energy transition



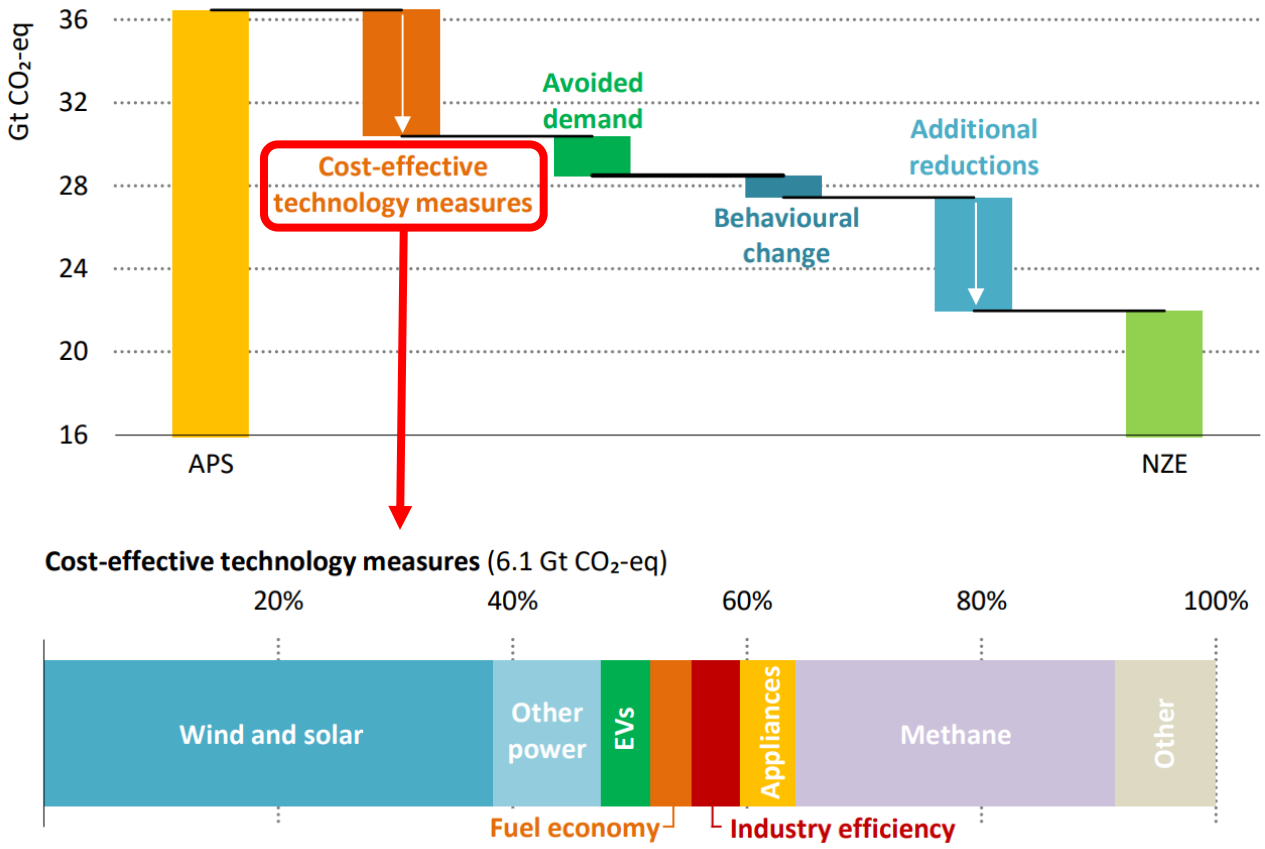
Combined energy and material transition

Source: OECD (2019), Global Material Resources Outlook to 2060

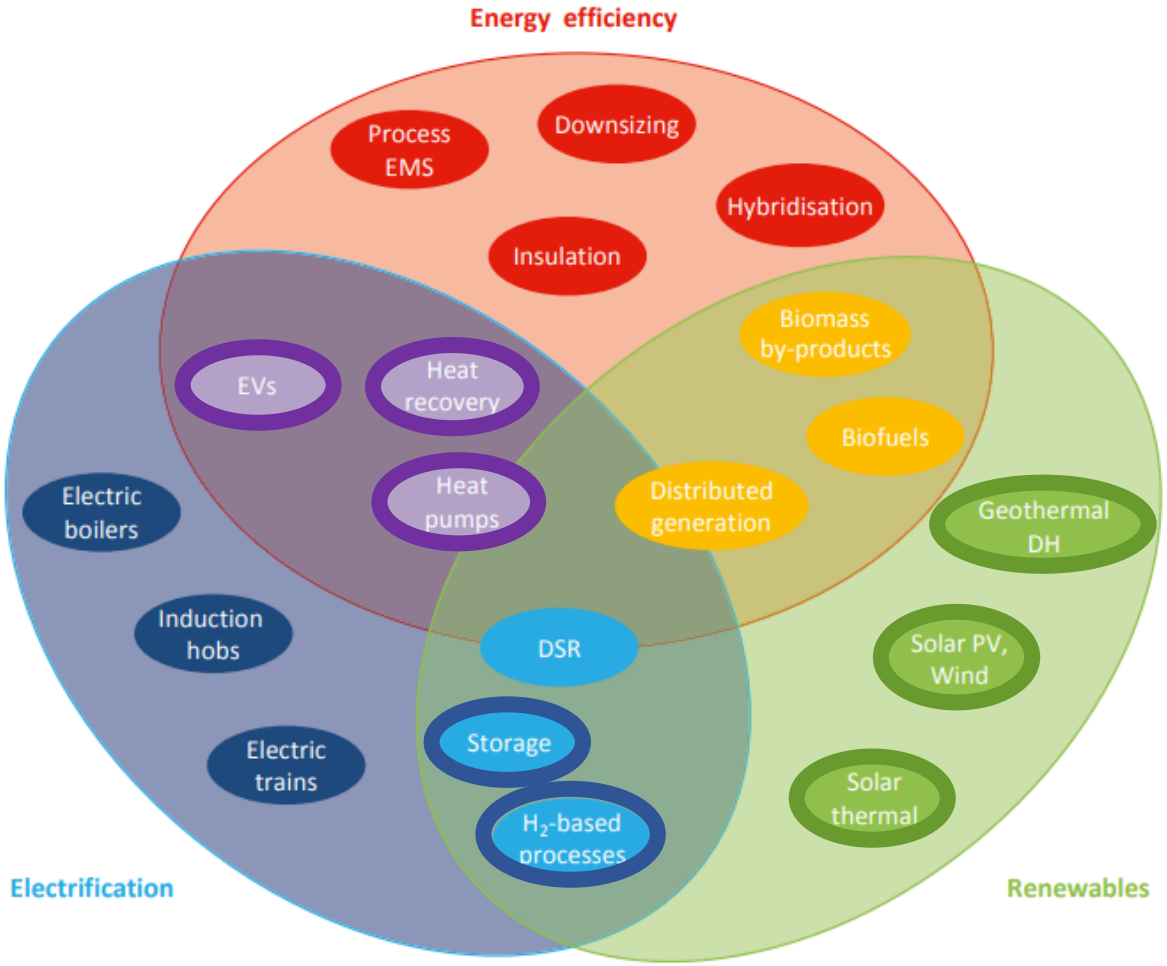
Trade and circular economy for climate objectives

Technologies towards decarbonisation and net-zero

Additional measures to close ambition gaps towards net-zero by 2050

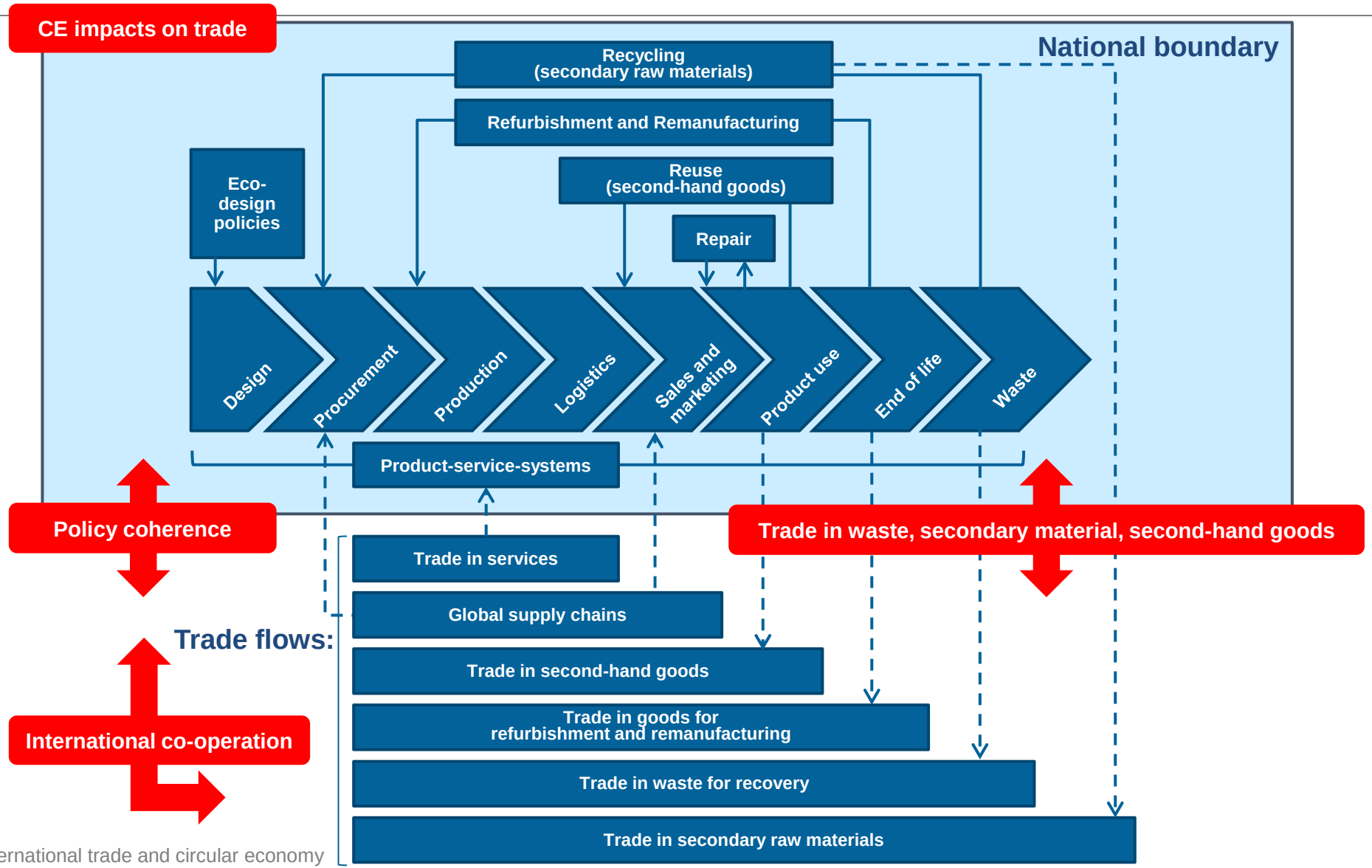


Examples of technologies for energy efficiency, renewables and electrification



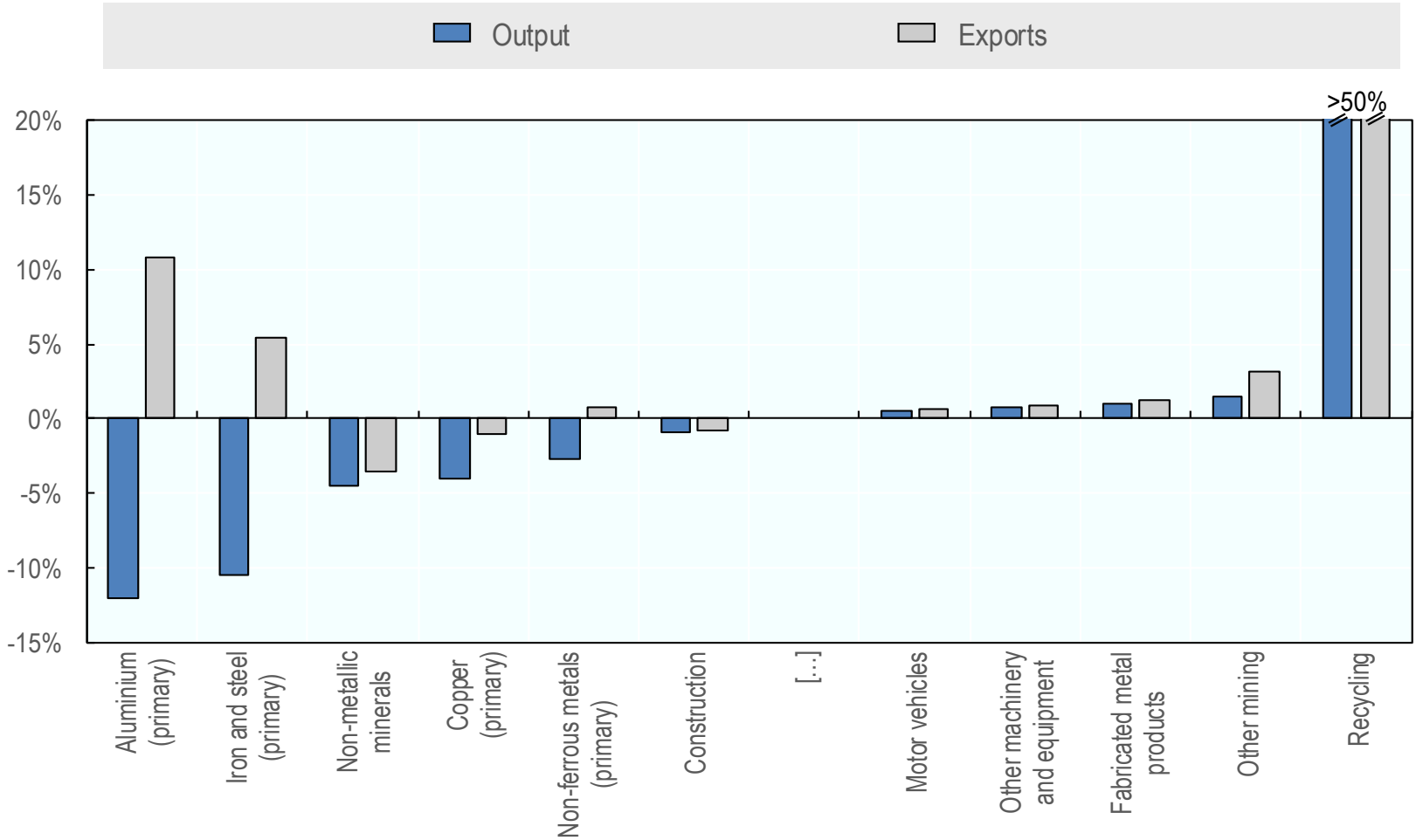
Notes: APS = Announced Pledges Scenario, NZE = Net Zero Emissions Scenario, EMS = Energy Management Systems, EVs = Electric Vehicles, DH = District Heating, DSR = Demand Side Response, H2 = Hydrogen, PV = Photovoltaics
Source: IEA World Energy Outlook (2021, 2017)

Broad interlinkages between trade and circular economy



Source: Yamaguchi (2018) International trade and circular economy

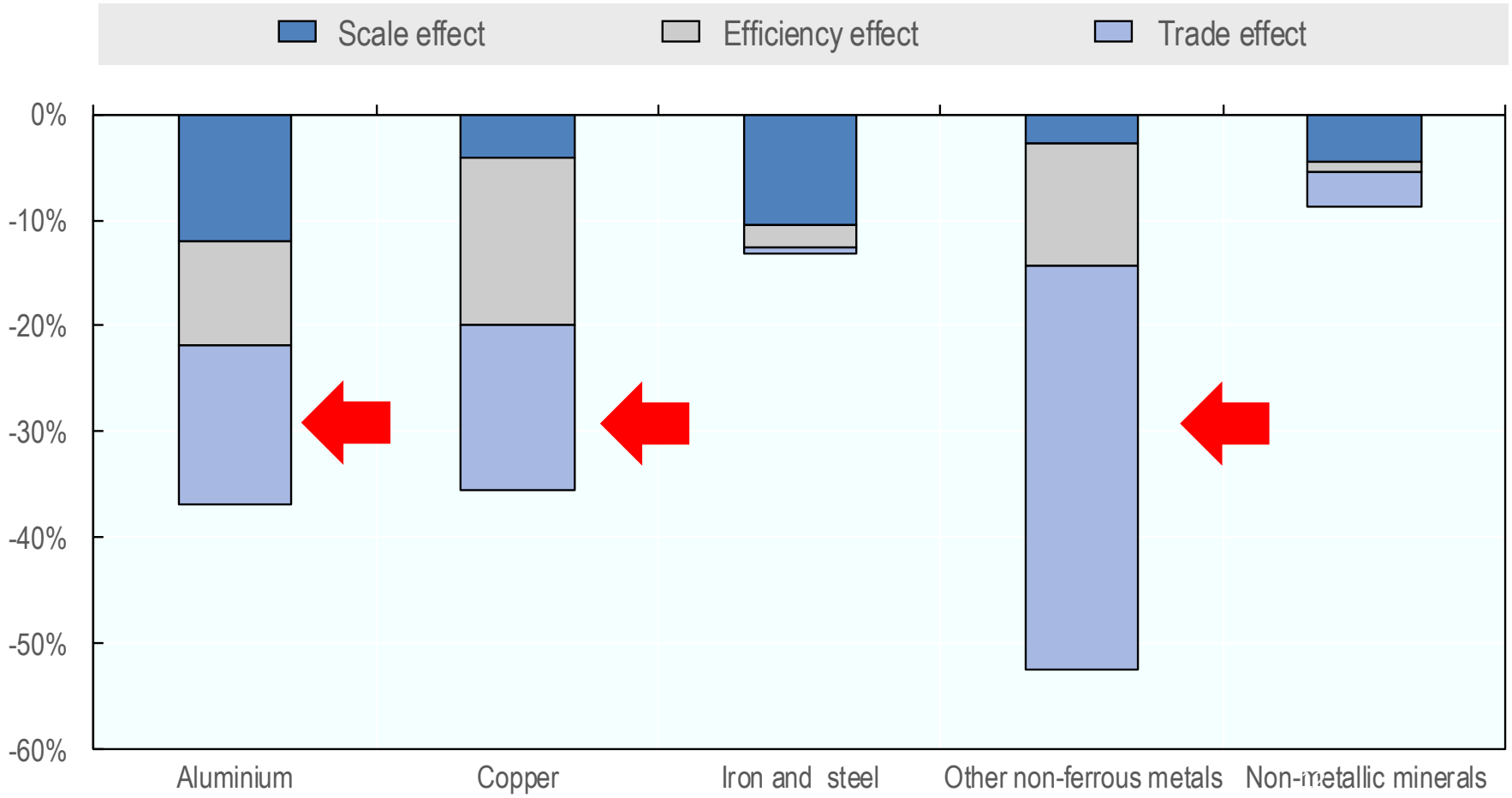
Circular economy transition shifts global output and exports



Results in deviation from baseline projection in 2040
Policy package: tax on raw materials, subsidy to recycled materials, labour tax reduction

Source: Dellink (2020), The consequences of a more resource efficient and circular economy for international trade patterns - a modelling assessment

International trade can help reduce material use



Results in deviation from baseline projection in 2040
Policy package: tax on raw materials, subsidy to recycled materials, labour tax reduction

Source: Dellink (2020), The consequences of a more resource efficient and circular economy for international trade patterns - a modelling assessment

Issues for consideration

Trade can contribute to a circular economy via economies of scale

- Trade impediments for circular business models need to be addressed
- Trade leading to negative environmental consequences needs to be avoided

Circular economy concept should extend to supply chains

- Environmentally sustainable just transition for the extractive sector is vital

Circular economy opportunities for end-of-life value chains are mixed

- Promising areas (e.g. secondary raw materials, refurbishing & remanufacturing)
- Challenging areas with potential trade-offs between environmental protection and economic efficiency (e.g. trade in waste and scrap, second-hand-goods)

Trade in services appear critical for circular business models

- Typically require the movement of people, information and data

Better transparency & traceability of value chains needed

- Definitions & classifications, standards, regulations, trade facilitation, innovation

Source: Yamaguchi (2021) International trade and circular economy – policy alignment, https://doi.org/10.1787/ae4a2176-en.
OECD (2020) Workshop on international trade and circular economy – summary report, https://www.oecd.org/env/workshop-trade-circular-economy-summary-report.pdf

Towards a mutually supportive agenda

Promoting trade in environmental goods and services
- Goods for recycling and waste management
- Secondary-raw materials, goods for refurbishment and remanufacturing

Definitions & classifications
- Clarify different definitions and classifications of waste, secondary materials, second-hand goods, goods for refurbishment and remanufacturing
- Co-operation towards establishing HS codes and alignment of industry codes

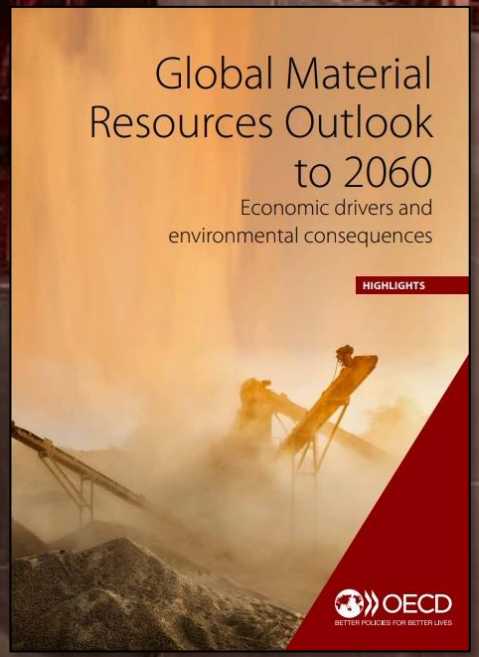
Standards
- Harmonisation and mutual acceptance of circular economy related standards & conformity assessment
- Co-operation towards common standards (e.g. quality of secondary raw materials, recovery facilities)

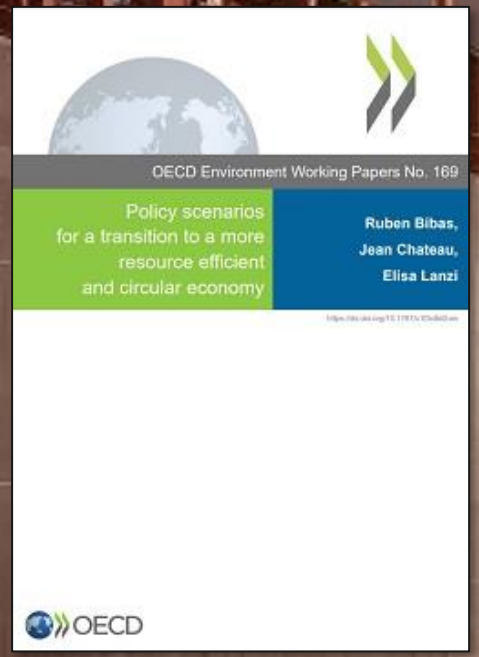
Regulations
- Account for end-of-life value chains and tackle free-riding from online sales (EPR)
- Support cross-border reverse supply chains - secure prior informed consent procedures, clarify status
- Tackle illegal waste trade, remove trade restrictions where possible

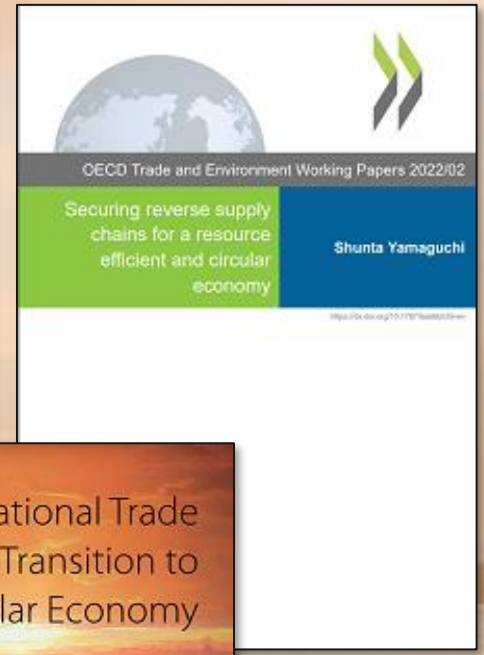
Further areas for co-operation
- Aid for Trade, trade facilitation, digital technology, innovation, upstream (eco-design & product passports)

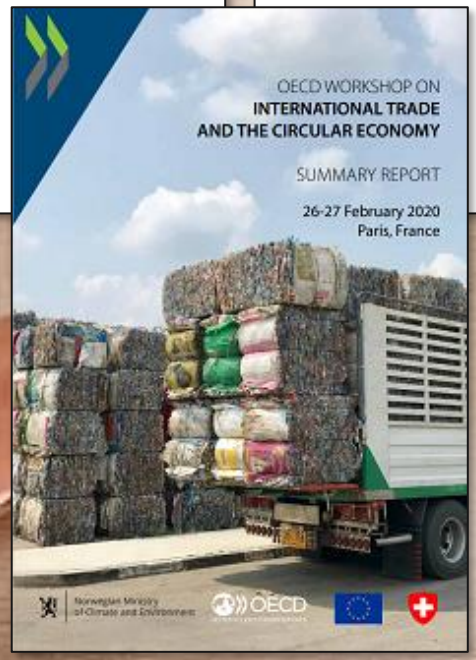
Source: Yamaguchi (2021) International trade and circular economy – policy alignment, https://doi.org/10.1787/ae4a2176-en.
Yamaguchi (2022) Securing reverse supply chains for a resource efficient and circular economy, https://doi.org/10.1787/6ab6bb39-en.

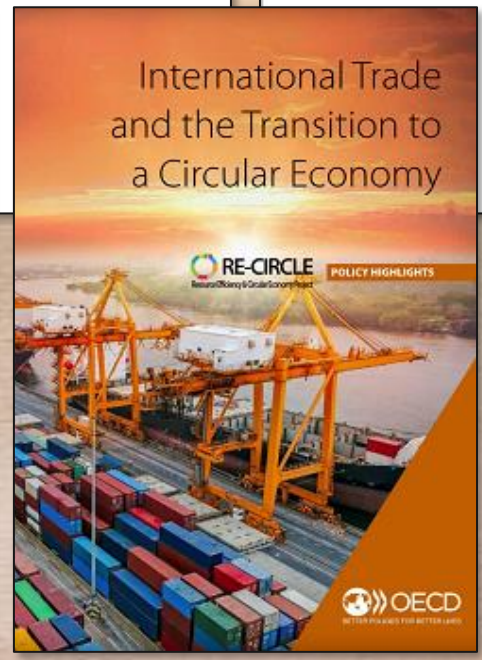
Thank you for joining the discussion!











Access reports:

- **http://oe.cd/recircle**
- **http://oe.cd/trade-ce**

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