



# LABOUR MARKET CONSEQUENCES OF A TRANSITION TO A CIRCULAR ECONOMY

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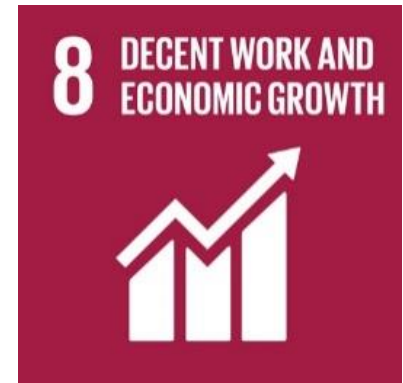
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Session II, second day  
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## Circular economy transition & jobs

- Many circular economy roadmaps emphasize job potential:
  - EU CE Package: 170,000 direct jobs by 2035
  - French ‘50 Measures for the CE’: 300,000 jobs
  - Finland Roadmap to CE: 75,000 jobs



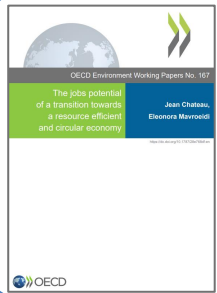




# Outline



What does the literature tell us about labour implications of the CE transition?



OECD projections of job implications of a transition to a circular economy



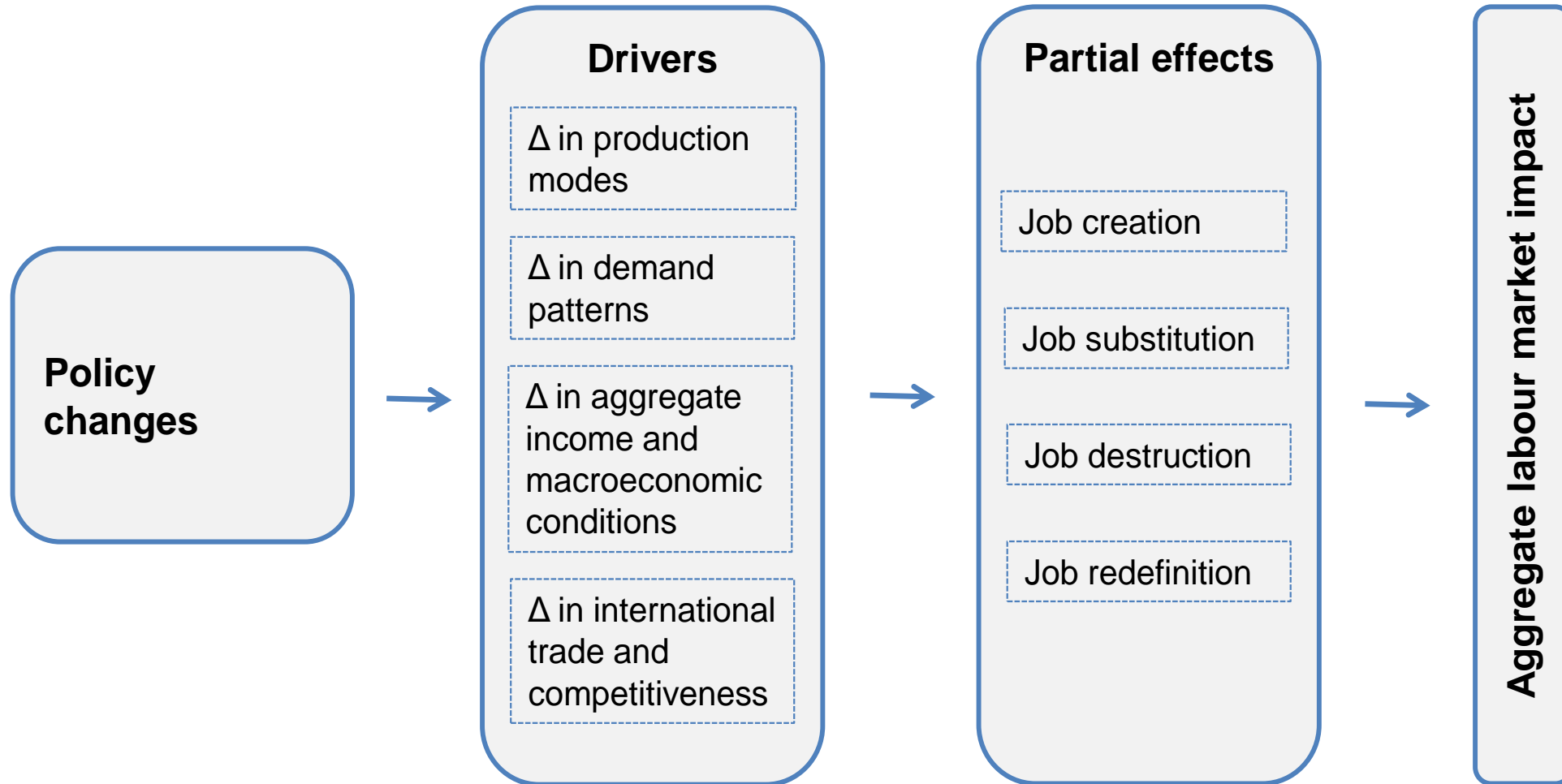
# Part I

## What does the literature tell us about labour implications of the CE transition?





# How do policies induce changes on labour markets?

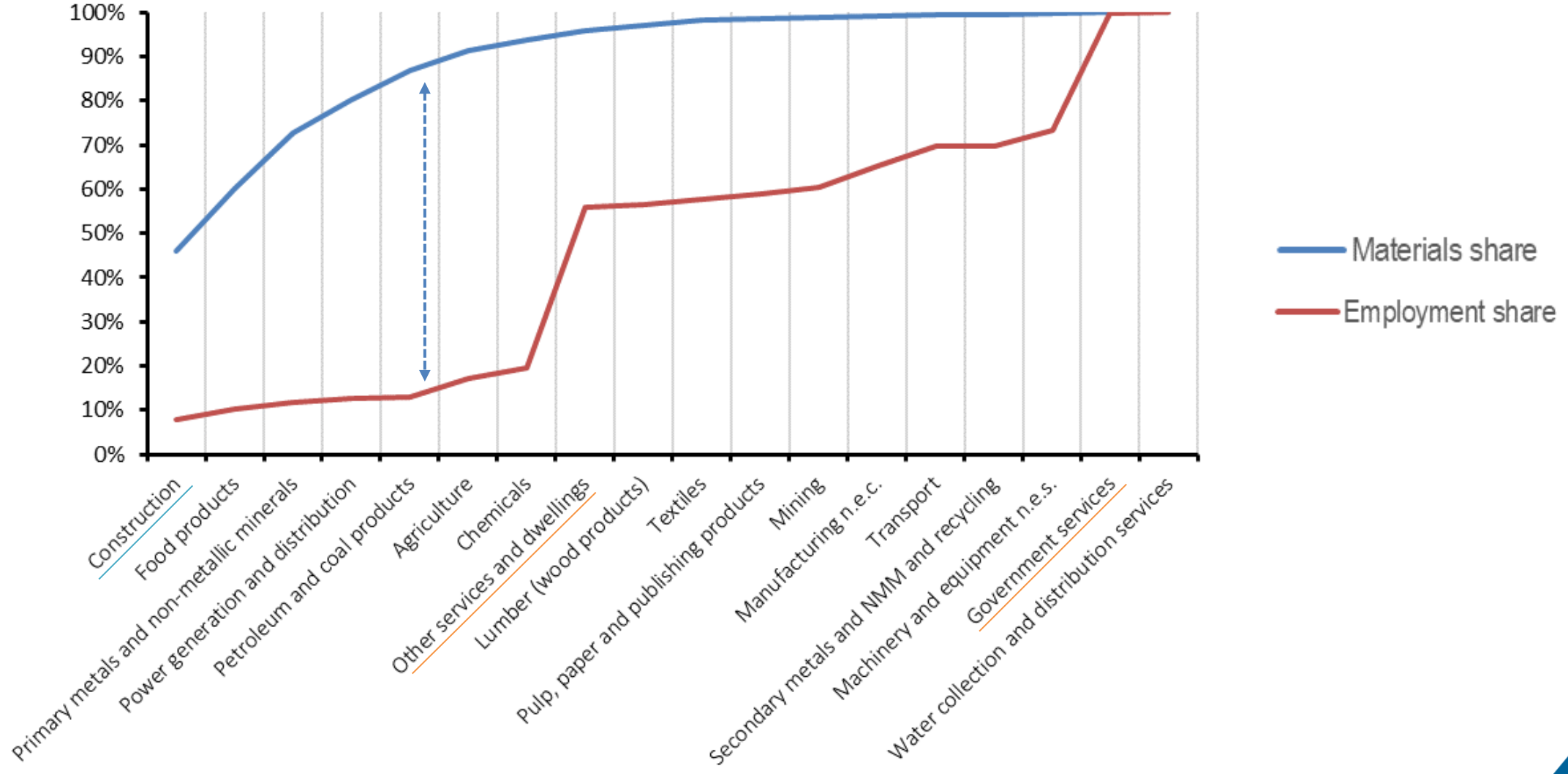




# Structural composition and labour implications of expected sectoral shifts

## Cumulative shares of materials use and employment per sector in 2011

Sectors sorted by total materials use in 2011





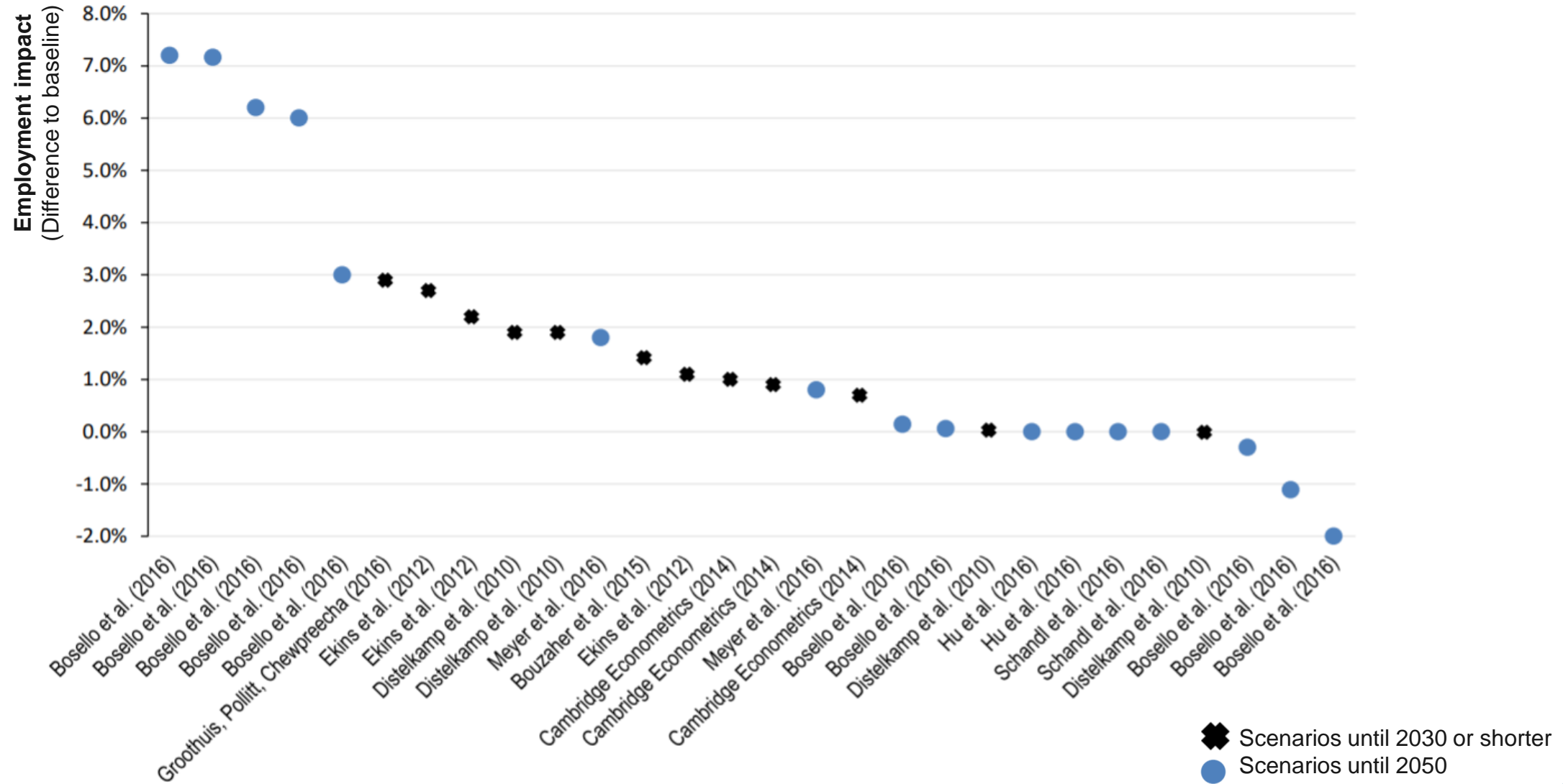
## Review of macroeconomic modelling literature

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- 47 scenarios from 15 modelling studies reviewed
- A standardized comparison is challenging because models differ:
  - **Type of model** (macro-econometrics, CGE, Input-Output,...)
  - **Scope** (global, regional, national)
  - **Time period**
  - **Assumptions** (e.g. on labour markets)
  - **Indicators reported** (DMC, RMC, Resource productivity)
    - *All were converted to Material Intensity*



# Employment effects of reviewed modelling studies

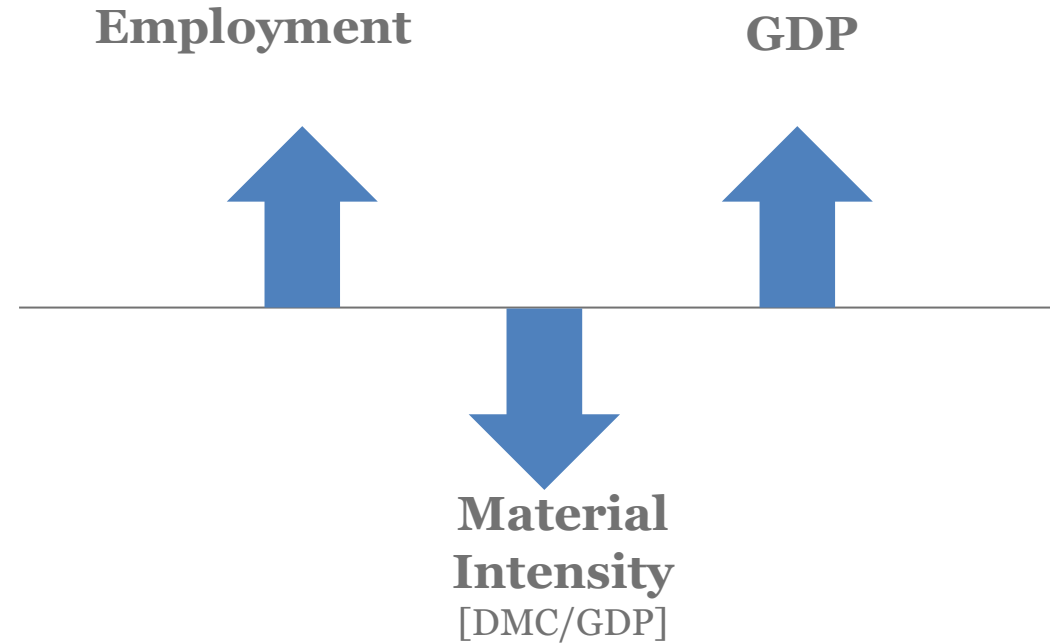






## Increasing resource efficiency and a positive employment effect seems possible

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- Revenue recycling substantially drives employment result (Environmental Tax Reform)
- Job losses (and gains) can be more significant in certain sectors
- Uncertainty about the future skill composition of the CE and labour mobility



## Main messages

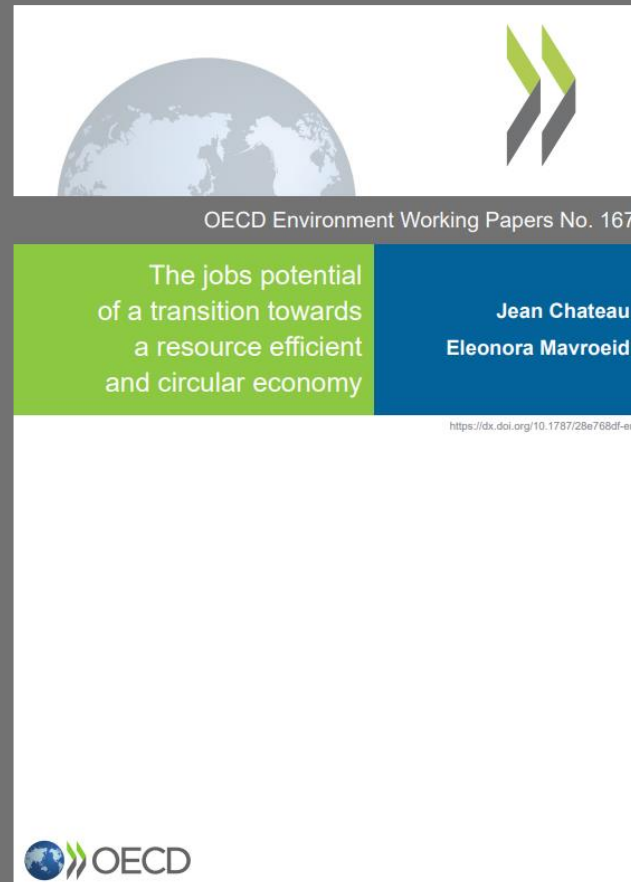
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- Reviewed modelling studies suggest CE transition can lead to a net positive effect on employment (0-3%)
- Allocation of revenues from material taxes matters: reducing labour taxes can help improve employment outcome
- Labour impacts are likely to be asymmetric within and across countries, the specialisation and composition of local economies plays an important role in how the transition will play out
  - Aspects of job quality, job duration and gender also important to consider



# Part II

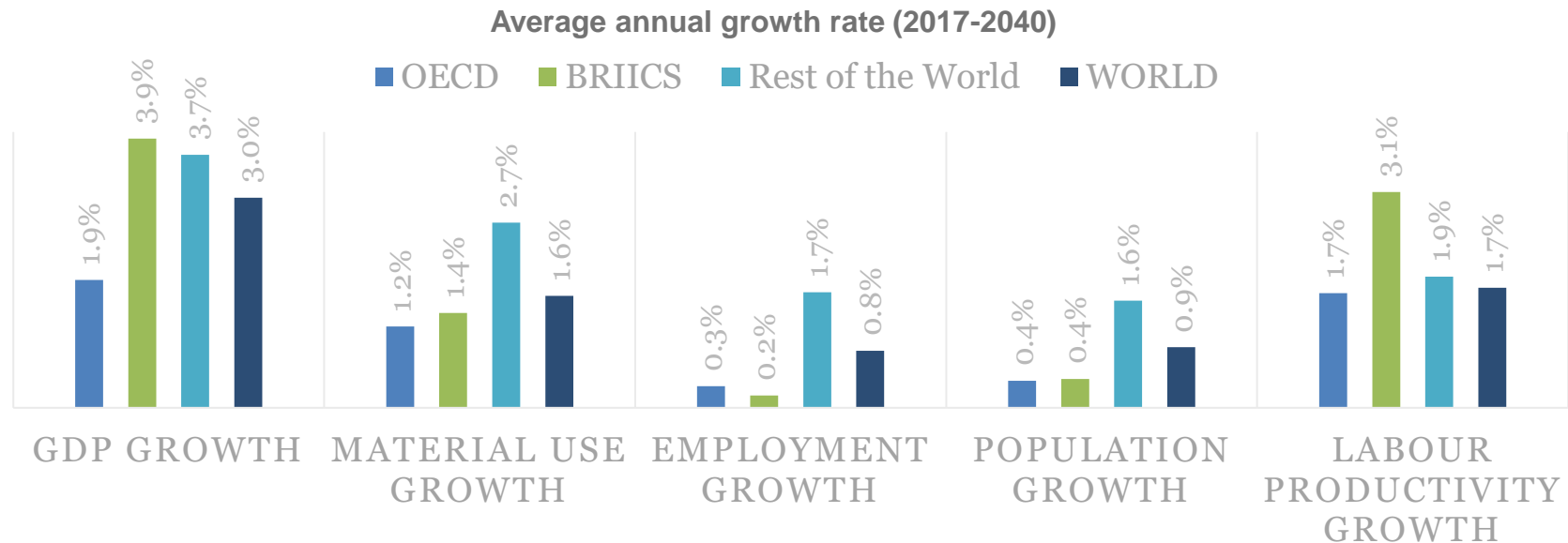
## OECD projections of job implications of a transition to a circular economy





# Business as usual projections

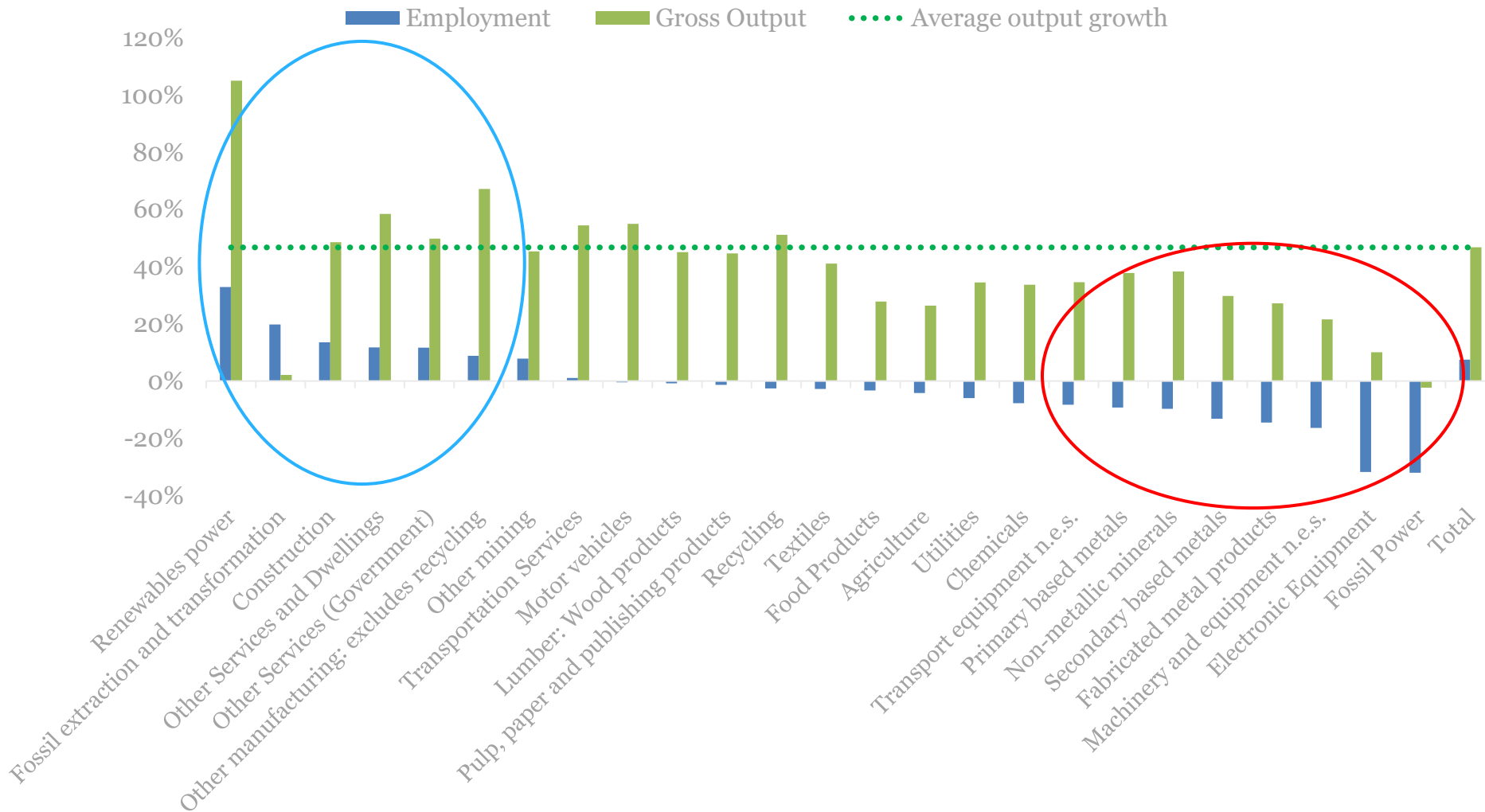
- The global economy will triple by 2060 but **global growth slows down**
- Material use is going to double, despite **relative decoupling** between growth and material use
- Economic growth will be accompanied with mild **employment growth**, increases in **labour productivity**, and **expansion of service sectors**





# Structural change shifts activity away from material intensive sectors

Percentage changes in 2040 baseline projection relative to 2017 values, OECD

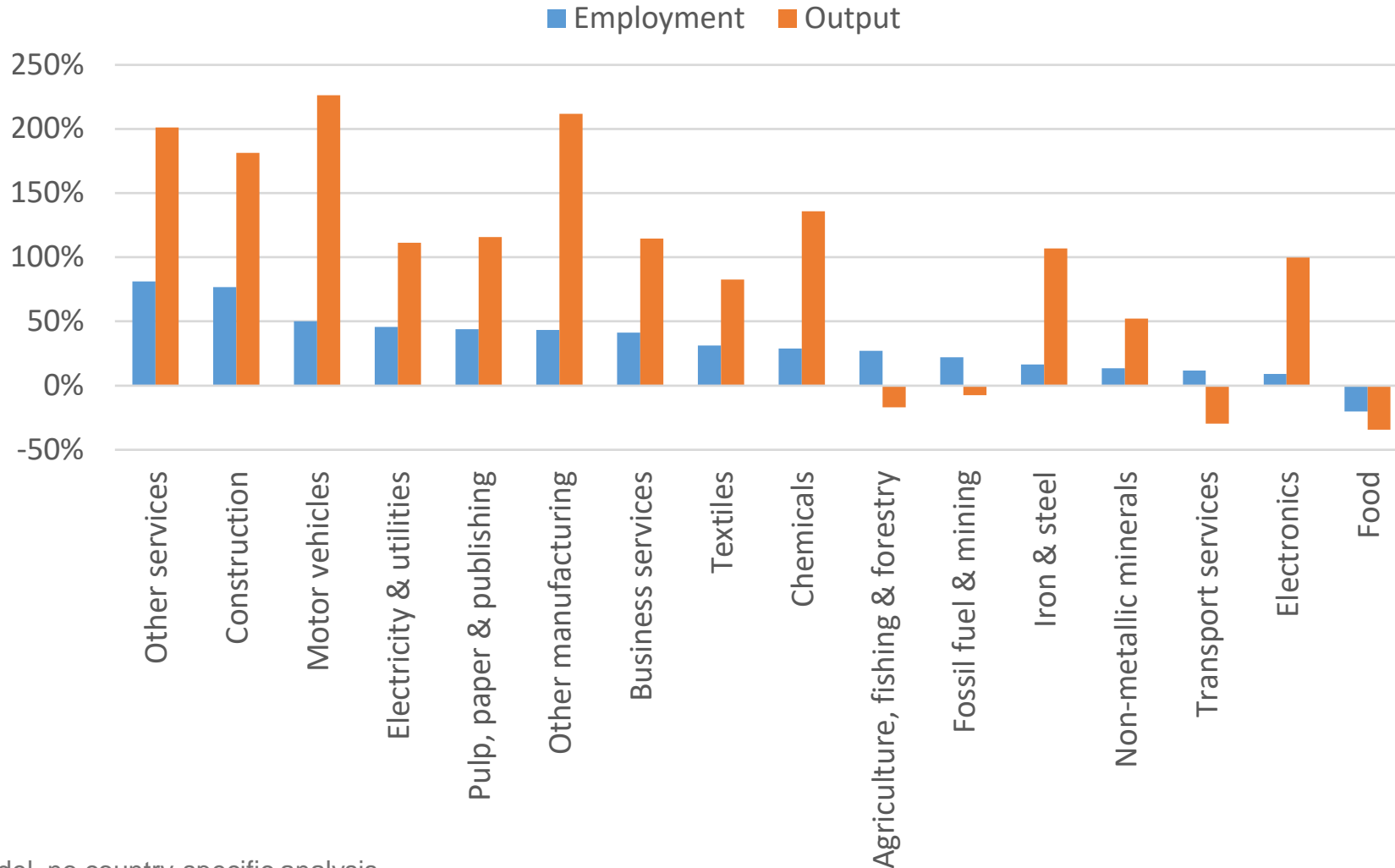






# Results South Africa

Percentage changes in 2040 baseline projection relative to 2017 values, **South Africa\***



\*Extraction of global model, no country-specific analysis



# Material Fiscal Reform (MFR) scenario

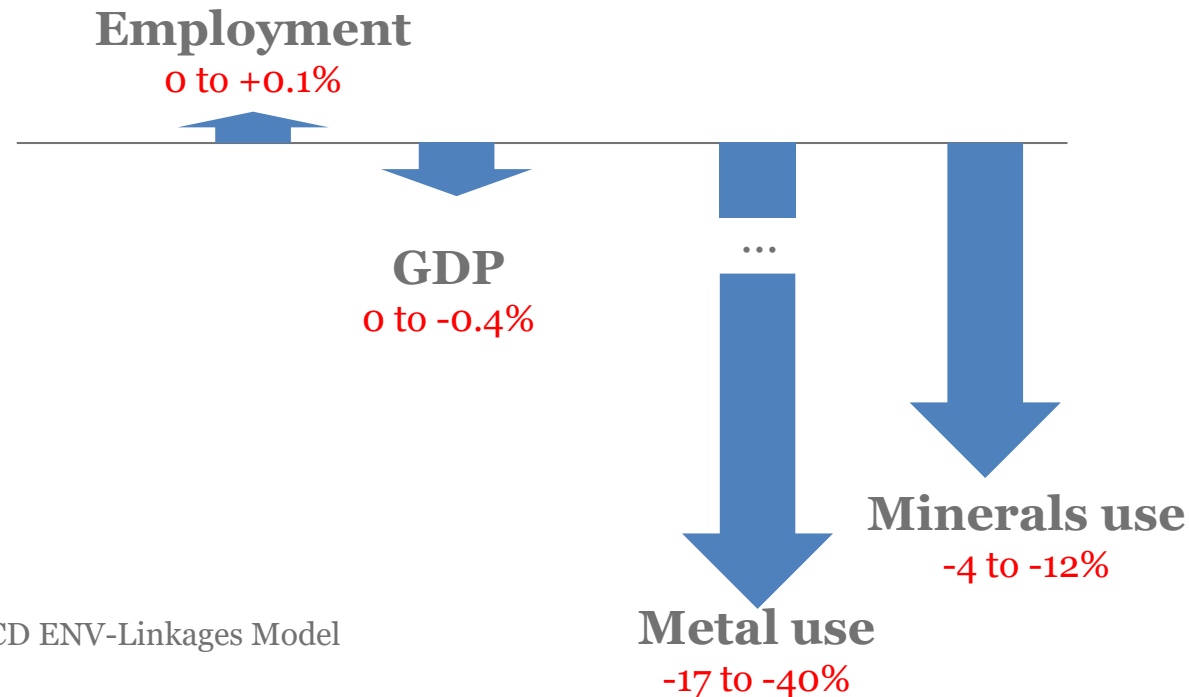
Instrument	Description	Global Targets (2040)
Material tax	Tax on primary metals and non-metallic minerals	<ul style="list-style-type: none"><li>• 10 \$/t of iron ores</li><li>• 50 \$/t of aluminium ores</li><li>• 20 \$/t of copper ores</li><li>• 15 \$/t of other metals ores</li><li>• 5 \$/t of non-metallic minerals</li></ul>
Subsidy to recycling good	Subsidy for recycling input uses	75% subsidy rate on the purchasing price of the recycling commodity
Subsidy to secondary metal production	Production subsidy to secondary metal production	Subsidy on the producer (selling) price of secondary metal - at level that ensures the full package is revenue-neutral (budget balance).

- All these fiscal instruments are implemented from 2018 to gradually reach their target in 2040.
- Government revenues from the material taxes are used to finance subsidies.
- Material taxes are differentiated across countries to take into account existing royalties and taxes on mining sectors.



# MFR is boosting resource efficiency and employment gains seem possible

Percentage changes in 2040 compared to baseline  
range across aggregate country groups



Source: OECD ENV-Linkages Model

The policy package is efficient relative to its ultimate goal (reducing environmental damages associated to mineral production and use) with very low economic cost and some, but limited employment gains.



## Whilst net employment changes are rather limited, job reallocations can be greater

Changes w.r.t baseline in 2040 as % of total employment.

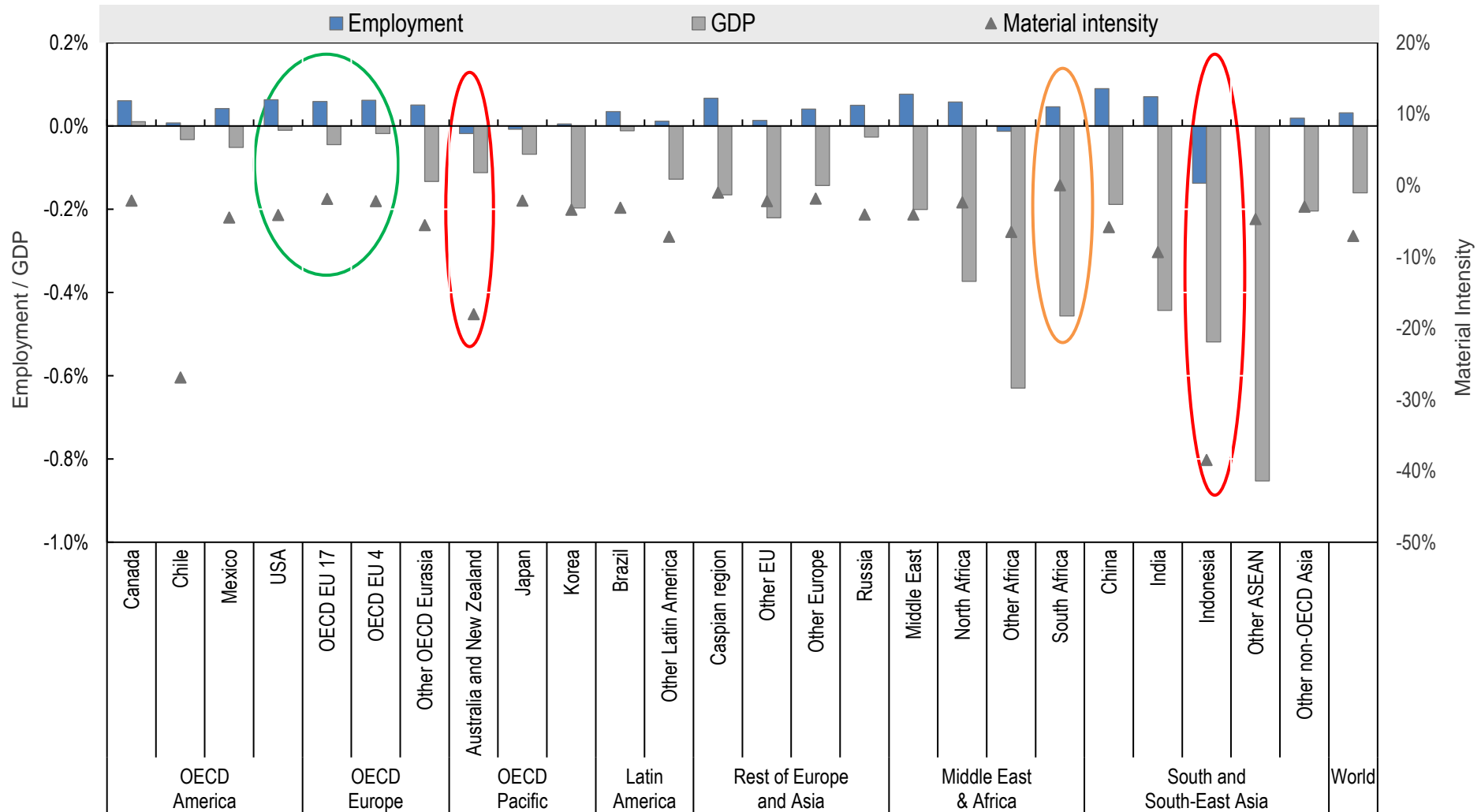
	Net employment growth	Job creations	Job destructions	Total job reallocation
OECD	0.05%	0.1%	0.1%	0.2%
BRIICS	0.05%	0.3%	0.3%	0.6%
Rest of the world	0.01%	0.2%	0.2%	0.4%

- The impact of material tax policies on total employment is limited
- Labour markets dynamic is characterised by shifts of employment across sectors
- MFR implies some labour shifts across sectors for limited impacts on GDP
- The policy will result in: **10 million jobs creations**, and **8 million jobs destructions** globally by 2040



# Differences across countries depending on their economic structure

MFR scenario (percentage changes w.r.t baseline in 2040)

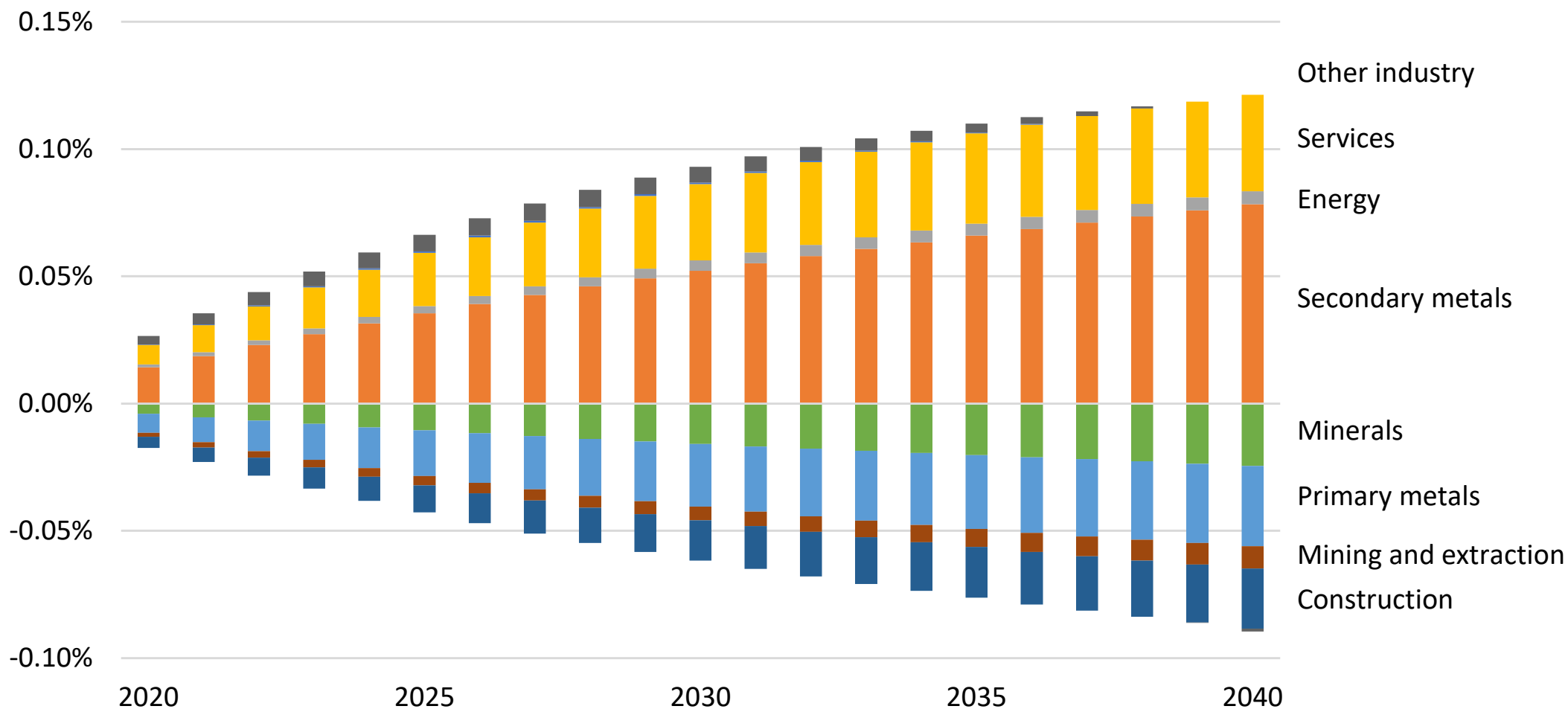






# Jobs shift towards less material intensive sectors gradually

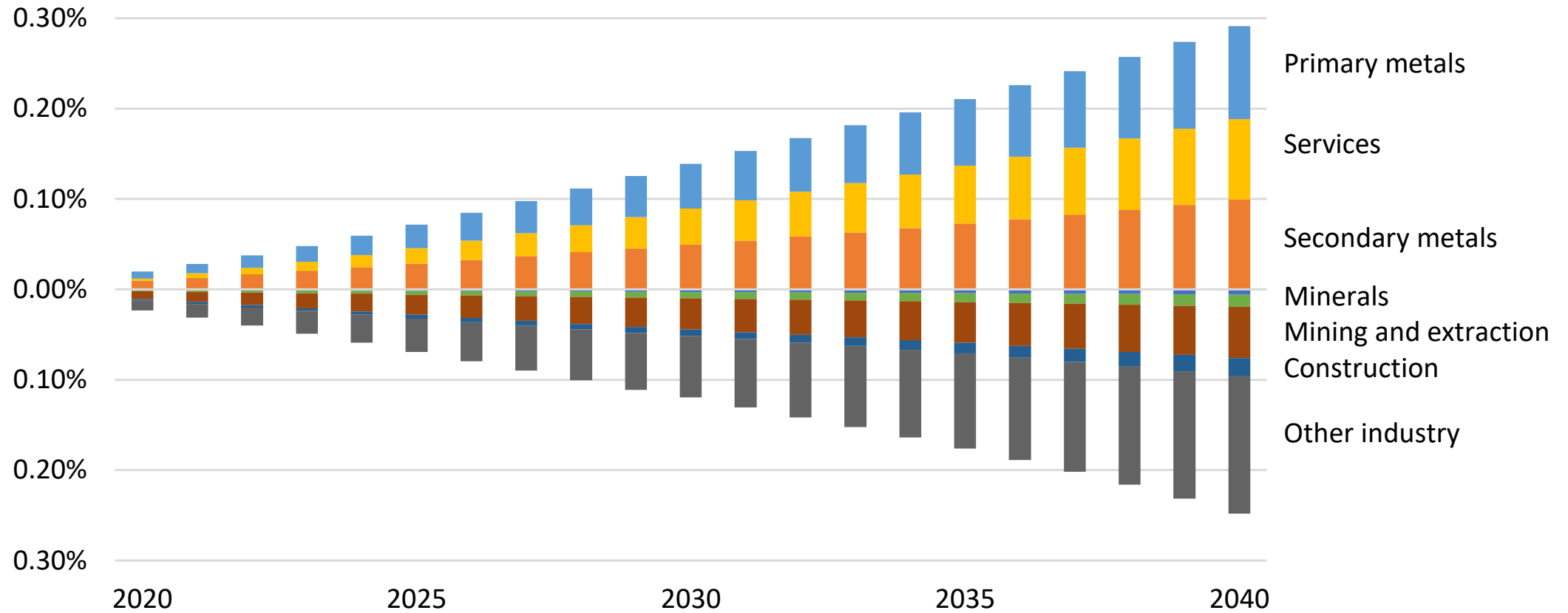
Changes w.r.t baseline as % of total baseline employment, 2018-2040 – **Global results**





# Results South Africa

Changes w.r.t baseline as % of total baseline employment, 2018-2040 – **South Africa\***



\*Extraction of global model, no country-specific analysis



## Summary of findings

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- The projected employment effect of the policy action (MFR) is well within the range suggested by the literature.
- MFR implies **10 millions of job creations** but also **8 millions of job destructions** globally in 2040.
- Although **the net impact on employment is small, some sectors are heavily affected** – both in terms of job creations (e.g. secondary materials, recycling, services, utilities) and job destructions (e.g. primary materials, non-metallic materials, construction)



## Policy messages

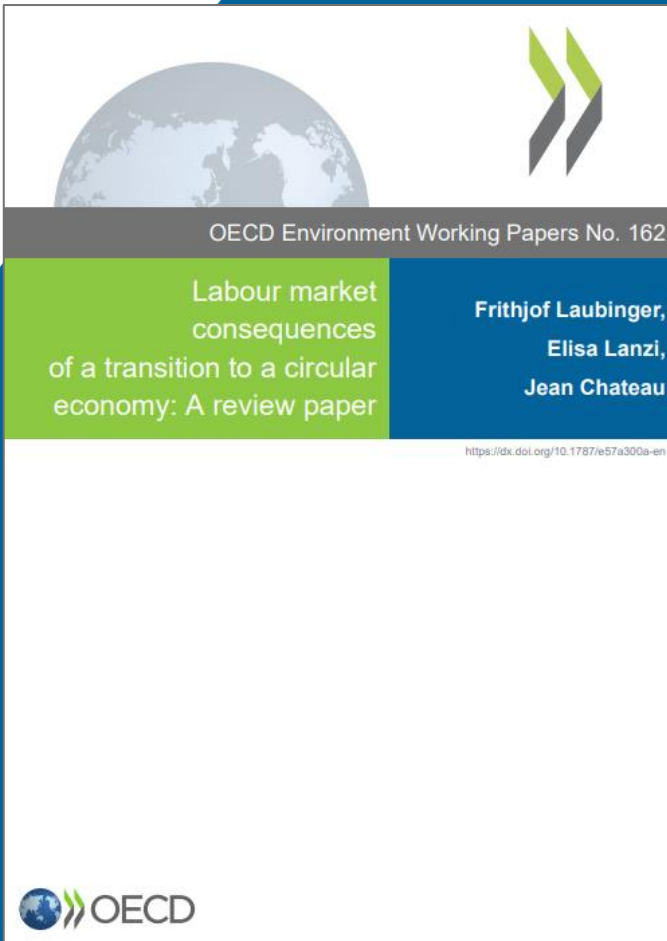
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To maintain public support throughout the transition process towards a circular economy, it is important:

- To carefully study the sectoral shifts in the labour market
- To acknowledge the positive and negative implications that may arise

Policy actions that could help to mitigate some of these side effects:

- Implement training policies to help workers reskill or upskill to compete successfully for new jobs (e.g. jobs shift from material intensive sectors to services).



# THANK YOU!

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