

EU Circular Economy Stakeholder Forum

# Impacts of circular economy activities on the labour market

A research study for the European Commission  
(DG Environment)

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# Overview of the study

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**How does a transition to a more circular economy affect jobs and skills demand in Europe?**



# A definition for the circular economy

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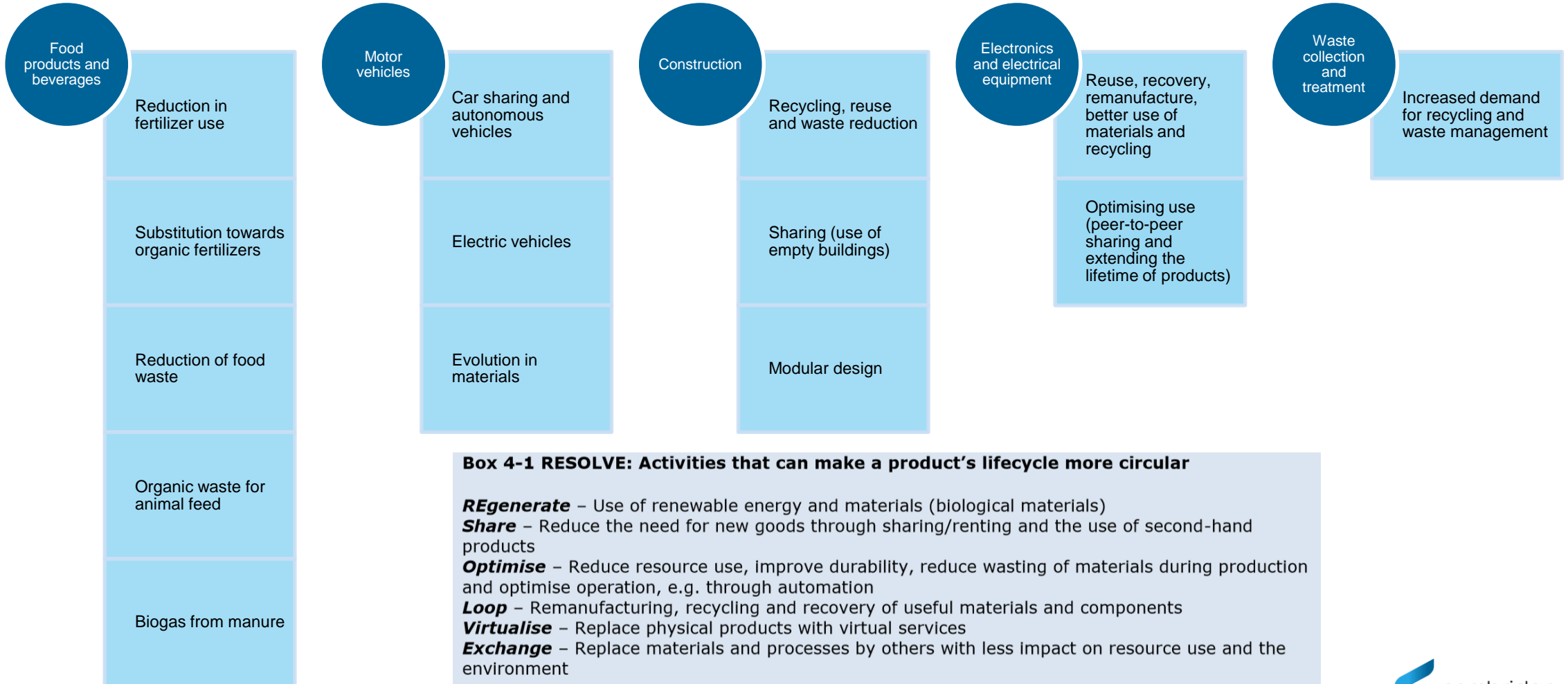
Ellen MacArthur Foundation (2014) is the most commonly cited as the circular economy definition...

*The circular economy aims to keep products, components and materials in the economy for as long as possible and thus tries to reduce or eliminate waste.*

*The two main strategies to increase the circularity of the economy are:*

- (1) Regeneration of biotic materials*
- (2) maintaining the value of abiotic materials for as long as possible through various feedback loops and recovery schemes*

# Circular economy 'activities' included in the study



## Box 4-1 RESOLVE: Activities that can make a product's lifecycle more circular

**REgenerate** – Use of renewable energy and materials (biological materials)

**Share** – Reduce the need for new goods through sharing/renting and the use of second-hand products

**Optimise** – Reduce resource use, improve durability, reduce wasting of materials during production and optimise operation, e.g. through automation

**Loop** – Remanufacturing, recycling and recovery of useful materials and components

**Virtualise** – Replace physical products with virtual services

**Exchange** – Replace materials and processes by others with less impact on resource use and the environment

Source: Ellen MacArthur Foundation (2015) Growth within: a circular economy vision for a competitive Europe

# Scenario analysis

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- “What if” circular economy models identified are achieved at scale?
  - identify impact of circular economy on EU labour market
  - concept of **additionality** – need to separate out the effects of circular economy from ‘other trends’
- Three forward looking scenarios
  - Business as usual: continuation of historical trends
  - Moderate (measures in Circular Economy package + **moderate** additional sector transformations)
  - Ambitious (measures in Circular Economy package + **ambitious** additional sector transformations)

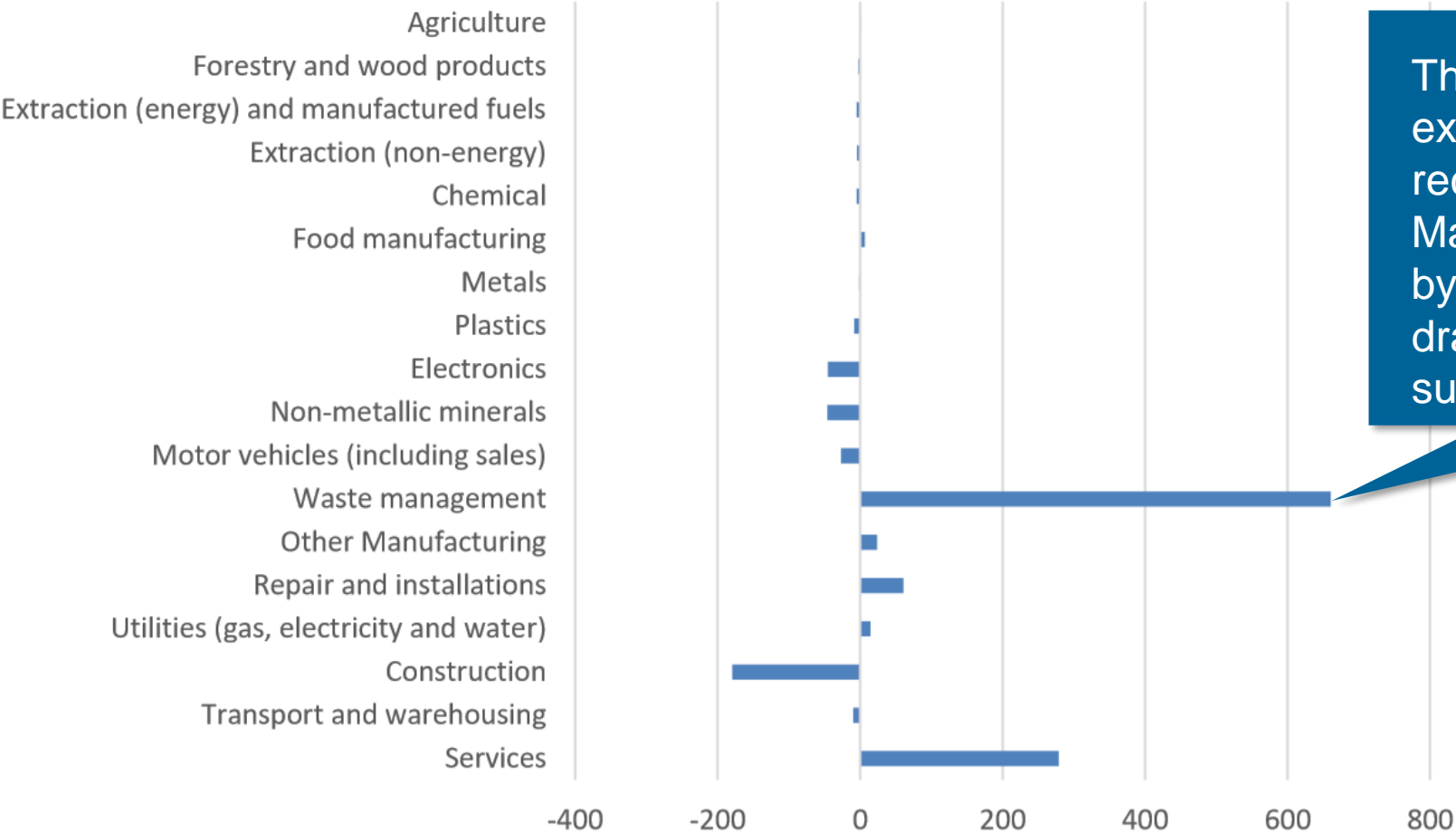
# Key findings

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- A more circular economy will contribute to resource efficiency, reduce negative environmental impacts and increase employment
- The increase in net employment (of around 700,000 jobs by 2030) comes about because
  - of a large structural change in the Waste Management and Recycling sector as a result of a large increase in demand for labour intensive recycling
  - a reduction in demand for ‘primary’ sectors, but these are typically imported and/or have fewer jobs associated with each unit of output
  - the increase in economic efficiency overall, leads to a small increase in jobs across most sectors (the rebound effect)

# Net employment outcomes

Circular economy job impacts across the EU28 sectors in 2030 (thousands)



The dominant effect is the expected growth in jobs in recycling. The Waste Management sector would grow by around 50% as a result of dramatic growth in the recycling subsector

# Key findings

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- A more circular economy will contribute to resource efficiency, reduce negative environmental impacts and increase employment
- The change in skills demand will be **evolutionary**, rather than **revolutionary**
  - small-scale compared to other trends expected over the same period
  - inter-connected with these other trends
  - continued increase in demand for ‘cross-cutting’ competences and transversal skills
  - not a barrier to any transition
- There are large uncertainties
  - particularly the degree to which the recycling sector might become automated
- Rebound effects matter



# Thanks for listening!

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For the detailed study see:



<https://circulareconomy.europa.eu/platform/sites/default/files/>

For more details about Cambridge Econometrics:



[www.camecon.com](http://www.camecon.com)



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