

# ACE155

## Multi-Regional Input-Output tool

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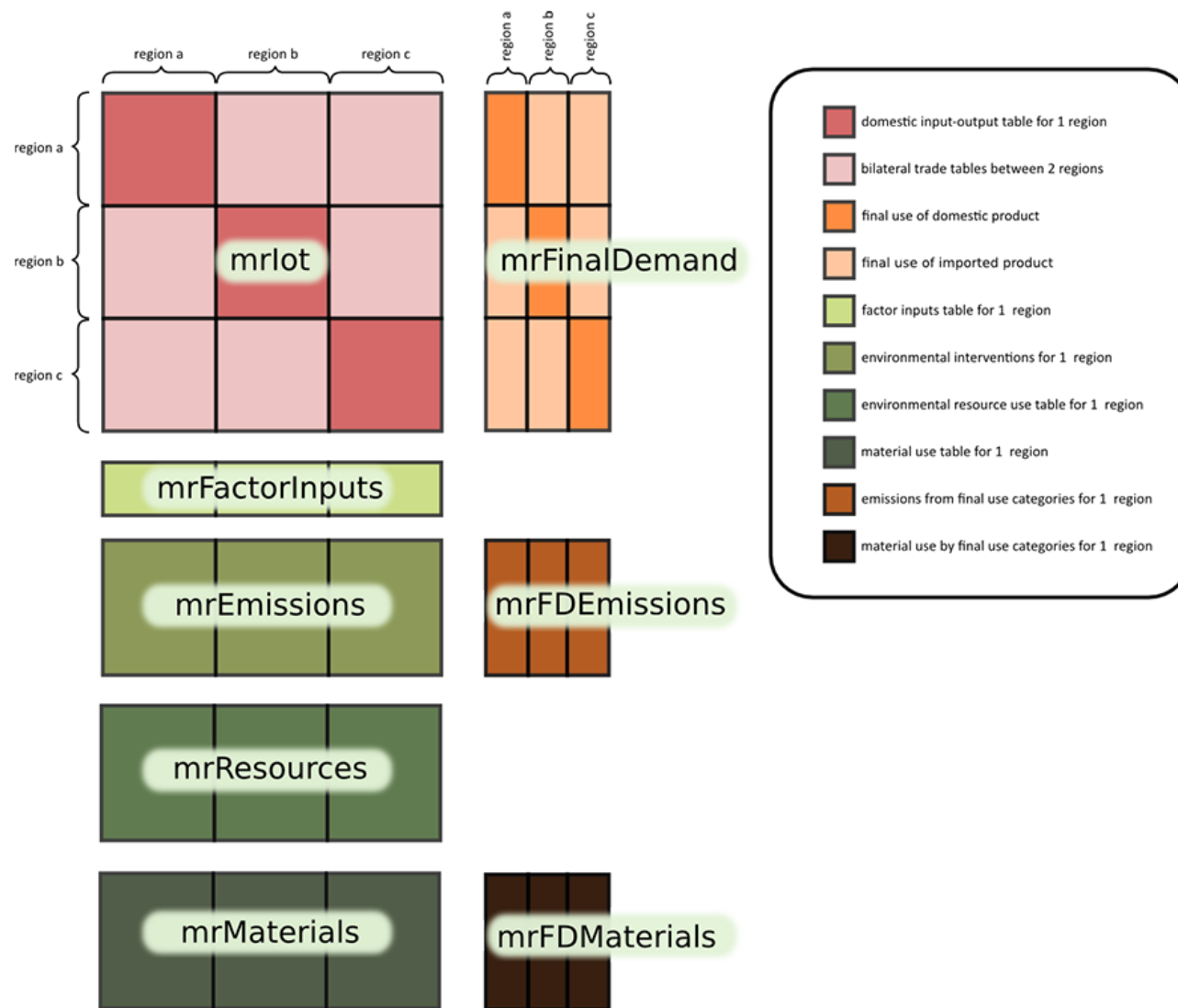
RawMaterials

Supported by Circu-Mat project from European Institute of Innovation & Technology - Raw Materials KIC

## **MRIO definition**

A multiregional input-output table describes the economic system not only in terms of interdependent industries, but also in terms of several interrelated regions.

# MRIO conceptual model



# Existing MRIO models



<http://www.wiod.org>

43 countries, and a model for the rest of the world  
Period 2000-2014  
Data for 56 sectors



<https://www.exiobase.eu>

43 countries, 5 Rest of World regions  
200 products, 164 industries  
39 resources, 5 land categories, 66 emissions  
supply and use of waste flows, supply and use of packaging, new  
accumulation of materials, crop residues/grass accounts, avoided  
emissions

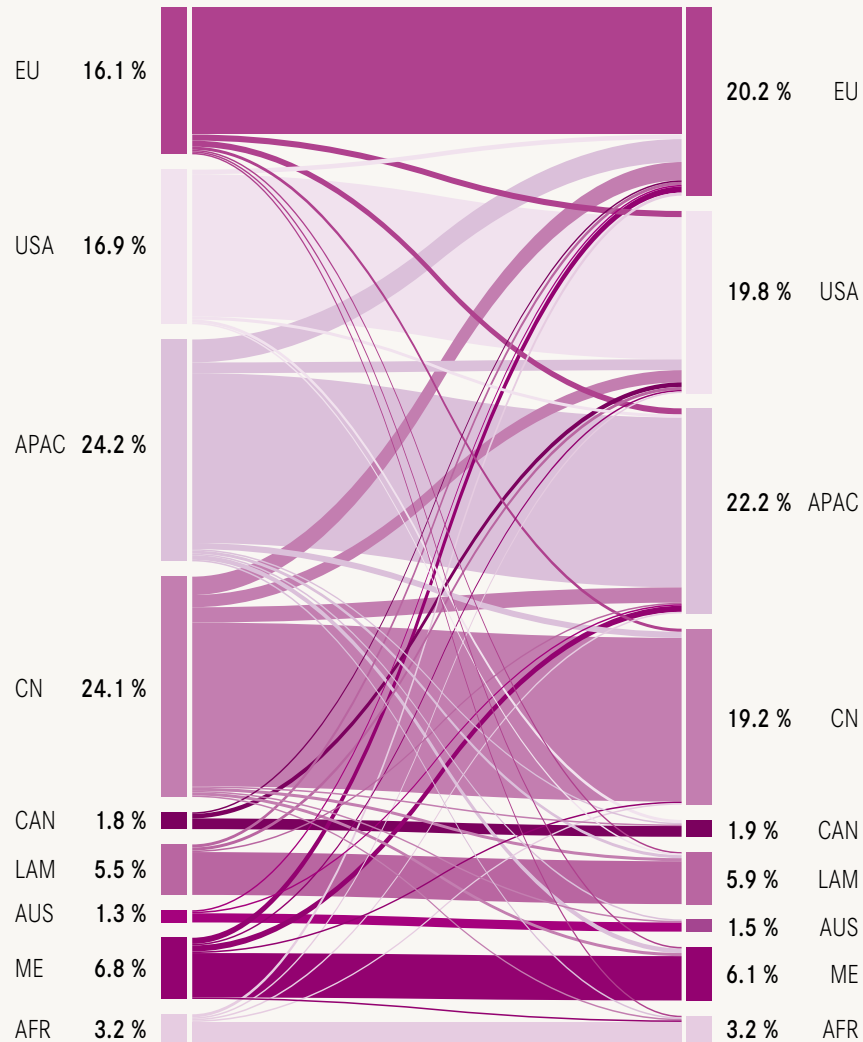


<https://worldmrio.com>

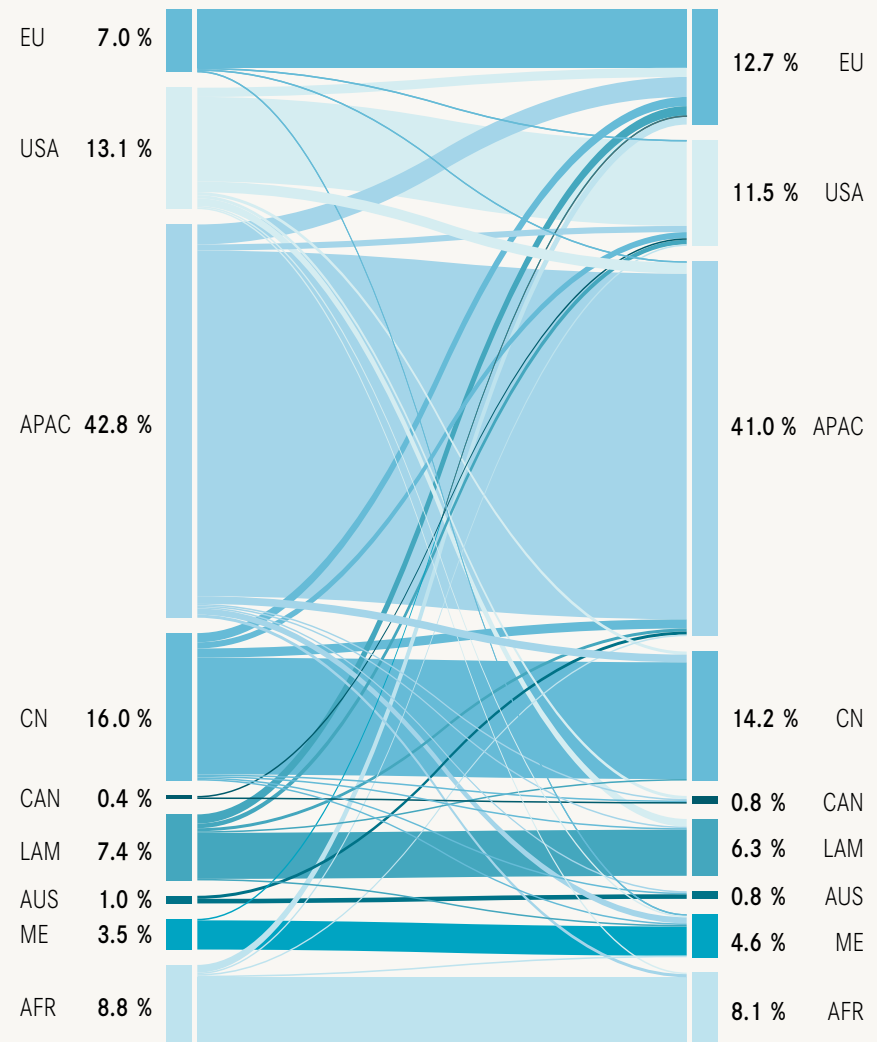
inter-sectoral transfers amongst 15,909 sectors  
190 countries  
timeseries for 1990-2015  
2720 line item environmental indicators covering GHG emissions,  
labour inputs, air pollution, energy use, water requirements, land  
occupation, N and P emissions, primary inputs to agriculture  
(including 172 crops) from FAOSTAT, and Human Appropriation of  
Net Primary Productivity

## **Applications of MRIO models**

Emissions of greenhouse gases      Consumption of goods and services

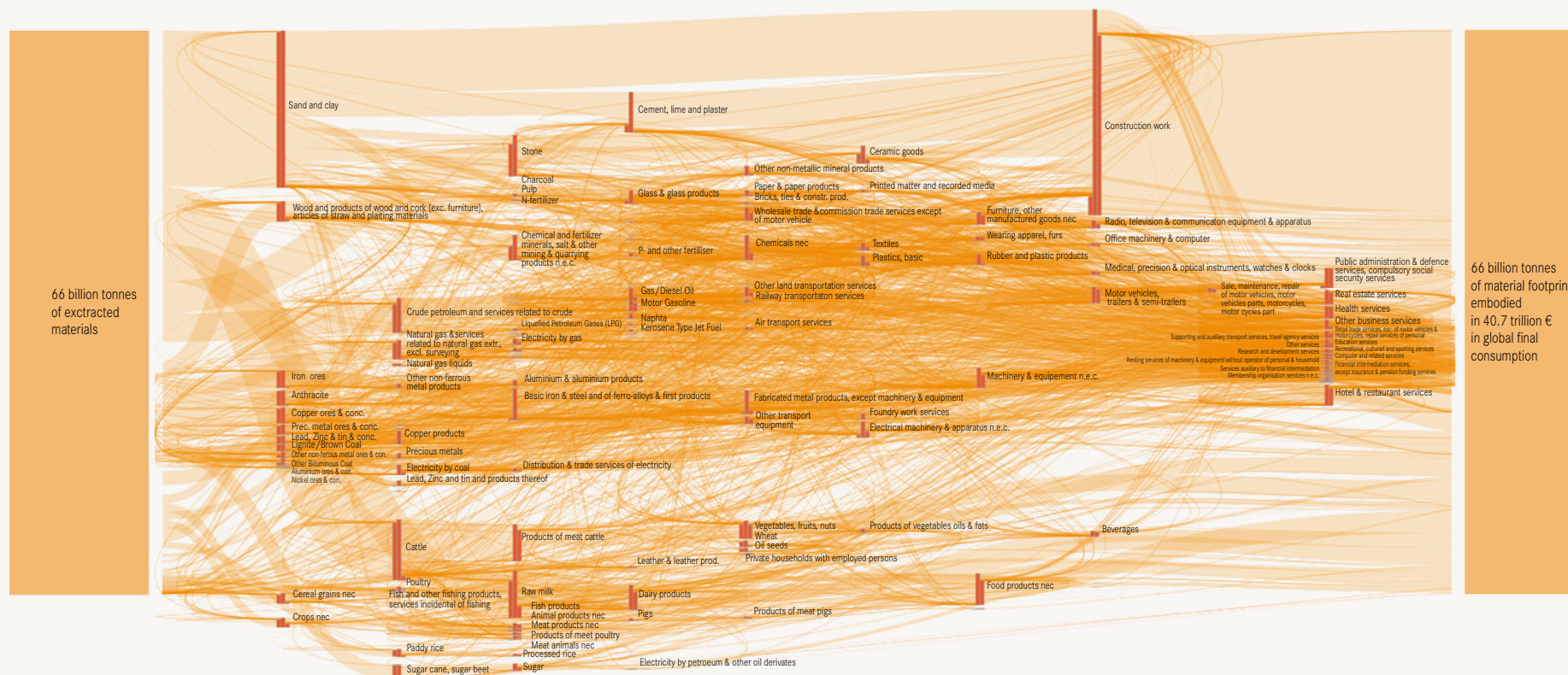


Water extraction      Consumption of goods and services



## Quantification of footprints





# Supply-chain analysis



# **Multi-Regional Input-Output Analysis tutorial**