Creating EXIOBASE in the Global MRIO Lab.

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The development of global MRIO databases such as EXIOBASE is time consuming and cost intense. The procedures used in EXIOBASE involve a high degree of interrogation and adjustment throughout the construction of the data set. This is part of the reason while data sets are only available for the year 2000 and 2007. Savings in terms of human and financial resources, timely deployment thanks to the automation procedure and flexibility in future choices about sectoral and spatial representation are major advances in creating EXIOBASE in the Global MRIO Lab. Single-step mathematical programming techniques and high-performance computing greatly simplify an update and the supplement of the EXIOBASE database. However, this database provides an unprecedented level of consistent detail in terms of sectors, products, emissions and resources for all the countries covered. For the first time, the global environmental footprint encompassing the carbon, water, land and material consumption footprint has been compiled. This database can be used now within other global MRIO model owed to the high degree of automation within the virtual laboratory.