MEASURING AND MONITORING **RESOURCE EFFICIENCY**

The planet's natural resources are in everything we consume, from our phones and furniture to our food. However, Europe's model of consumption has become unsustainable. On average Europeans are eating up resources at twice the speed the planet can renew them. This is true for mineral resources (such as metals) as well as living goods (such as ecosystems).

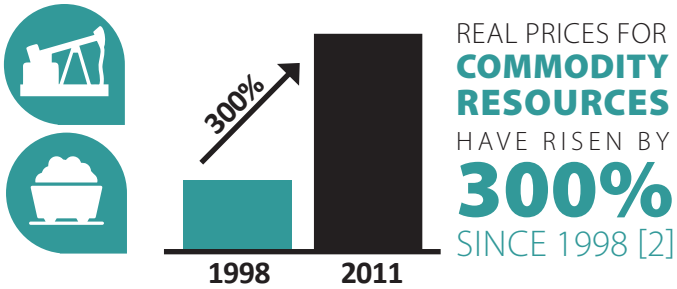
What's more, Europe consumes an unequal share of the world's resources. European countries are disproportionately represented among the 20 highest consuming countries in the world which consume 75% of the materials consumed globally [1].

As the rest of the world, with an ever growing share of the planet's population, tries to catch up with European living standards, demand for a shrinking supply of resources will increase. Europe must reduce its absolute natural resource consumption to reduce import dependence and ensure it stays within the limits of what the planet can provide.

WHAT IS THE SITUATION?

The EU is heavily dependent on importing natural resources, many of which are critical materials for the proper functioning of the economy. Despite the publishing of numerous strategy documents, including a European Commission roadmap [3], the EU has not put forward concrete actions to deal with resource efficiency yet.

Decoupling resource consumption from GDP is taking place in Europe, allegedly [5]. However, this 'resource productivity' indicator is based on Domestic Material Consumption (DMC) which does not take into account the impact of mining raw materials in countries outside the EU before they are imported into Europe. If the same calculations were made using Raw Material Consumption (RMC), or even better, Total Material Consumption (TMC), the picture would look different [6]. For example, using the TMC indicator, Europe consumes more than double what the DMC indicator suggests [7].



REAL PRICES FOR **COMMODITY RESOURCES** HAVE RISEN BY **300%** SINCE 1998 [2]

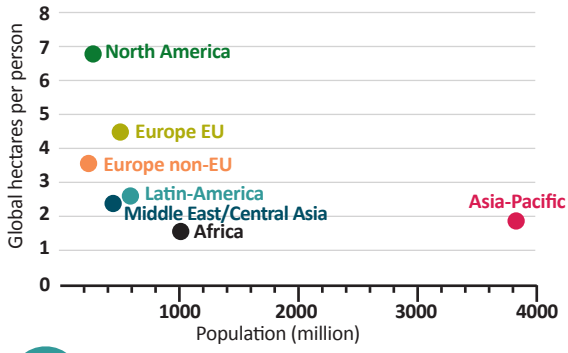
4 INDICATORS NEEDED **ON TOP OF TMC** TO MEASURE RESOURCE CONSERVATION

ONLY 40% OF MATERIALS ARE **RE-USED OR RECYLED** IN EUROPE [4]

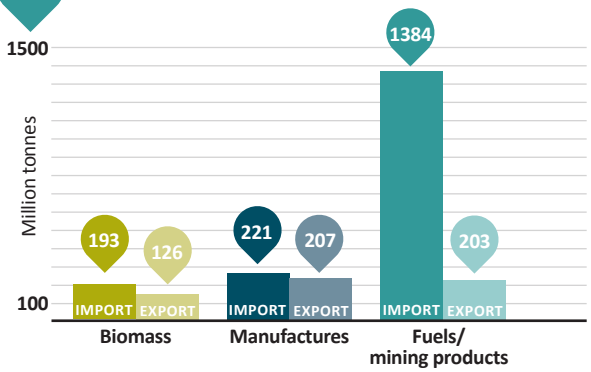
However, increasing resource efficiency does not equate to reducing our overconsumption of natural resources in absolute terms, nor does it address the impact of resource extraction on the environment. For a comprehensive picture to develop about our consumption of resources, we should set absolute reduction targets and make use of three consumption-based indicators (carbon, water and land impact) and a fourth, a biodiversity preservation indicator, on top of TMC to properly measure the impact of resource extraction.

FACTS AND FIGURES

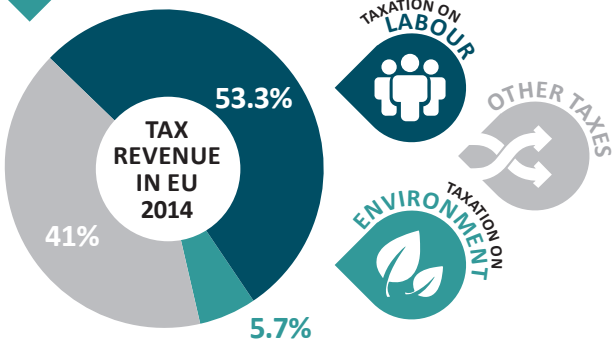
A **Unequal consumption of regions in world [8]**



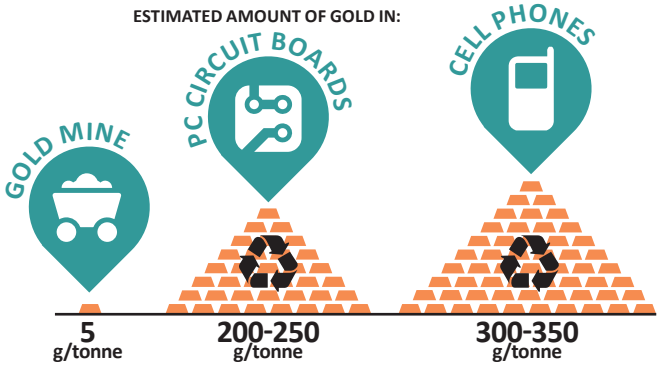
B **EU dependence on imports (2008) [9]**



C **False incentives through taxation [10]**



D **Urban mining potential: what we can recycle from e-waste [11]**



CASE STUDIES

Since 2003, **JAPAN** uses two key indicators to measure resource use.

The first one is 'resource productivity' calculated as GDP divided by Direct Material Input. Japan has set itself a 40% improvement target for 2010 with the year 2000 as a baseline.

A second indicator is the cyclical use of resources, calculated as the amount of reused material over the total material use (that is direct material input + reused material). Japan had set a 40% improvement for 2010 on the base of 2000 achievements.

Since 2010, Japan has decided to investigate whether to start using of Total Material Consumption (TMC) as an indicator to take into account hidden flows [12].

For its 12th five year plan (2011-2015), **CHINA** set itself an objective of a 15% improvement in resource productivity. This is the headline indicator China is using to measure progress towards a circular economy [13].

POLICY RECOMMENDATIONS

- Set a minimum 30% binding EU resource productivity improvement target by 2030 compared to 2010 levels, based on GDP and Raw Material Consumption (RMC), which serves as a headline indicator on progress in resource efficiency
- Develop a harmonised methodology to document Total Material Consumption (TMC) at EU and national level
- Set a longer term (2050) indicative goal of 50% resource productivity improvement, based on Total Material Consumption
- Develop a dashboard of key indicators with harmonised calculation methodologies for land, water and carbon footprints, and a biodiversity preservation indicator, with targets on absolute reduction of related impacts for 2030 and 2050
- Require all above indicators to be measured in EU policy impact assessments and incorporate them as part of the European Semester
- Re-balance taxation on resource use relative to labour to incentivise resource-efficient business models

FOR MORE INFORMATION

European Commission – http://ec.europa.eu/environment/resource_efficiency/index_en.htm
Friends of the Earth Europe – www.foeeurope.org/resource-use
Seri – http://seri.at/en/resource-use

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