



European Research Council  
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# fineprint

Creating knowledge to reduce the global impacts of our raw material use

ERC Consolidator Grant (July 2017-June 2022)

## Challenge and objective

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- Our consumption of products and services causes environmental and social impacts all over the world
- Environmental and social conditions within raw material extraction countries vary significantly, but footprint models fail to take these differences into account
- **FINEPRINT will develop a new method for assessing global material flows and related impacts using high geographical resolution**

# Implementation (1)

## WORK STREAM 1



### Extraction

We investigate the spatial distribution of global raw material extraction on a high level of geographical detail and analyse its relations with environmental and social impacts, covering issues such as water scarcity, deforestation and mining conflicts.

## WORK STREAM 2



### Trade

We create a spatially explicit material flow model by tracking raw materials from the location of extraction via major transportation facilities such as ports to processing industries in importing countries, and further on to final demand in consuming countries.

## WORK STREAM 3

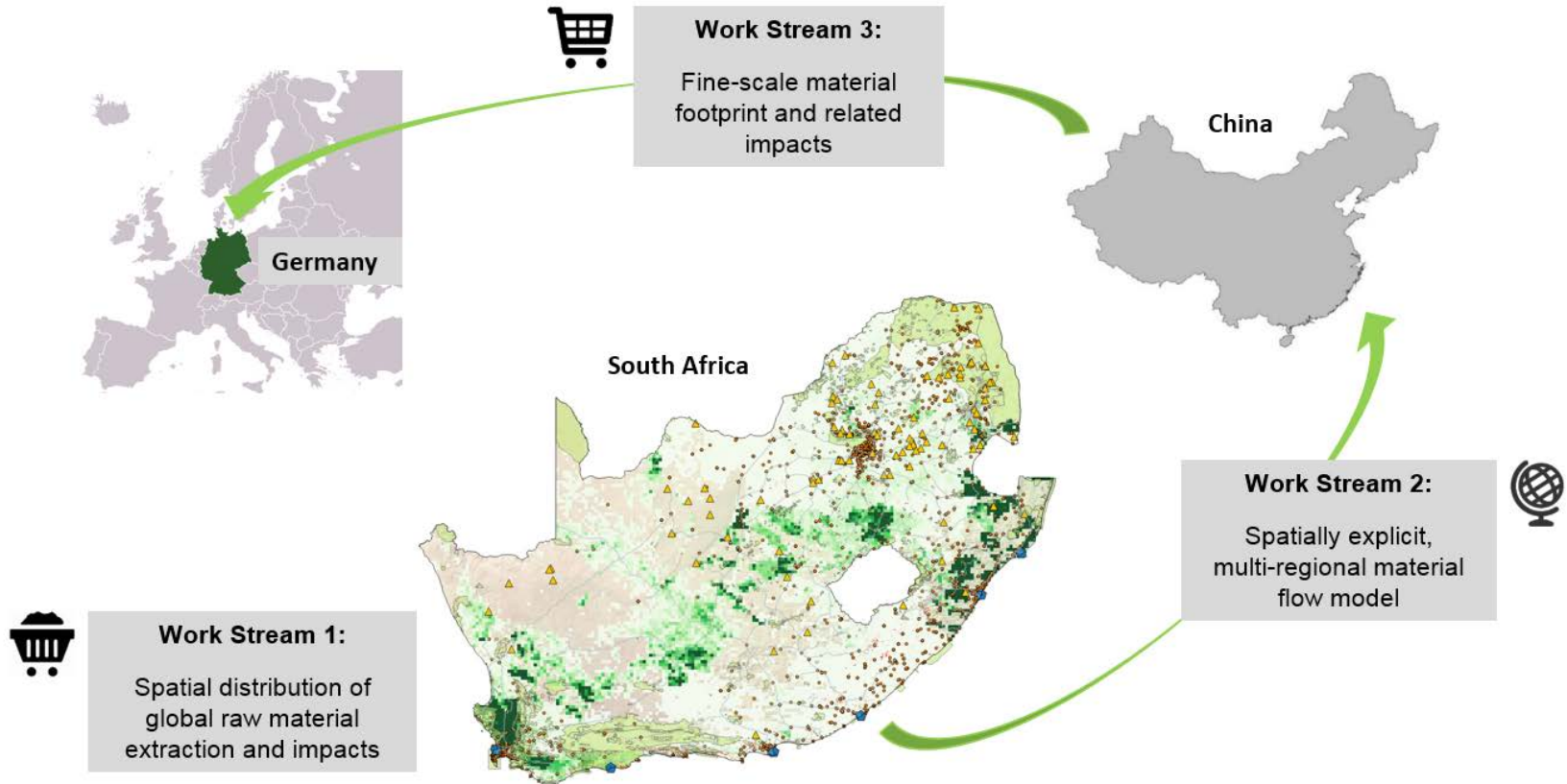


### Consumption

We perform highly detailed assessments of global material flows and footprints and their environmental and social impacts, tracing raw materials required for all products and services to their local origin worldwide.

# Implementation (2)

Work flow (three example countries)



# Fine-scale footprints and related impacts



An aerial photograph of a large-scale open-pit mine. The mine is characterized by numerous terraced levels of earth and rock, creating a complex, stepped landscape. A large, bright blue reservoir is visible in the upper left, while a smaller, dark blue reservoir is in the lower right. The surrounding terrain is arid and hilly, with distant mountains under a clear sky.

[www.fineprint.global](http://www.fineprint.global)

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