

# **A HUMAN-GUIDED MACHINE FOR SOCIO-ECONOMIC ANALYTICS**

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# Methodology

Our innovative approach to socio-economic analysis makes use of the latests advances in economics, open data, data science, artificial intelligence, and the track proven in-house expertise of our team to provide unique insights at global, macro and country-size scales.

The methodology is heavily data-driven and produces highly accurate insights into a commodity's life cycle through its intricate and nested network of demand and offer.

## Data sources

The process begins by collating multiple sources (some of public access and some private) which include worldwide economic, social and political information about industries, their development and their performance.

Some of the public data sources employed are distributed by the **United Nations Industrial Development Organisation** (UNIDO) as well as the **Organisation for Economic Co-Operation and Development** (OECD).

These different sources will use different industry classification standards like: NACE, ISIC, NASIC, and other regional standards; and in order to facilitate the study of this information a manual match between industry codes is made by our in-house team.

OECD data exposing economic exchanges between industries is processed to perform a consistency analysis.

# Consistency analysis

A **Leontief input-output model** depicts and analyzes the dependencies between an industry or sector and another through the input-output matrices and tables. But to grasp the full spectrum of dependencies in a market-driven economy, our consistency analysis explores these dependency relations in the terms of payments and intermediation relations where the flow of funds represent the movement of goods.

Though most of this process is automated and data-driven, the calculation of the **location quotients** follows a hybrid approach, where different data sources for employment information are curated and combined by our in-house team before feeding it to the model. These location quotients are used to identify and classify the most relevant industries within an economic area.

## Work in progress

UNIDO's Employment and Production analysis? What's the technical approach?

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MSR Production analysis? What's the technical approach?

## Work in progress

Footprint? What's the technical approach?