

SUPRIM

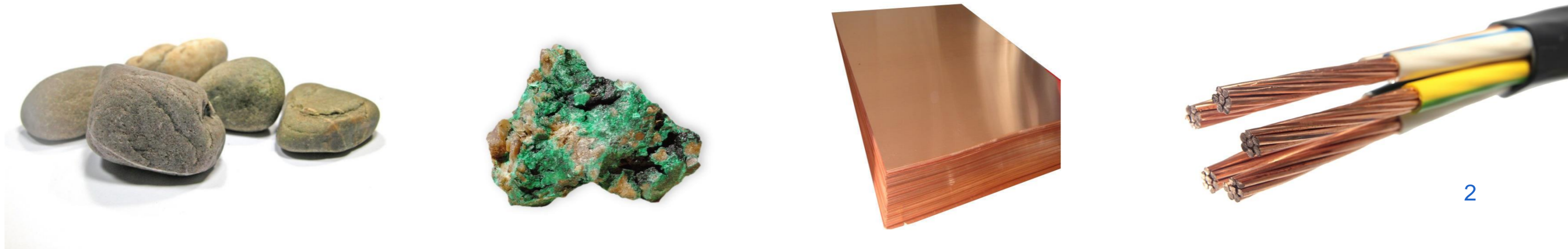
STATE OF THE ART AND BUSINESS CASE

Rodrigo A. F. Alvarenga

RESOURCE USE IN LCA

How to properly consider the environmental impacts of **(mineral) resources** in LCA, regarding:

- its **use** (throughout product's life cycle)?
- its production & supply chain **footprint**?



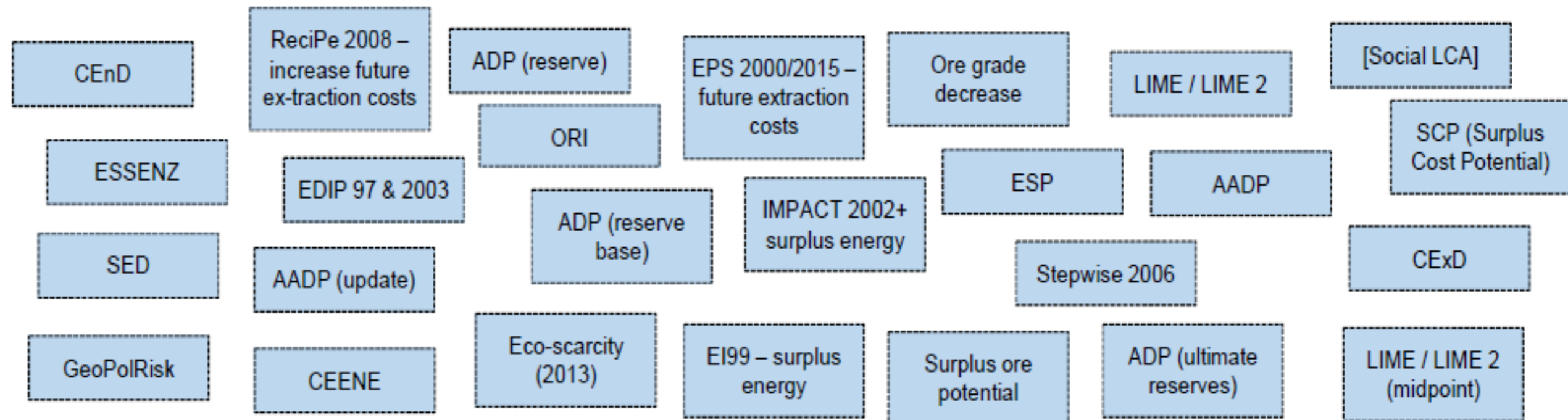
RESOURCE USE IN LCA

How to properly consider the environmental impacts of (mineral) resources in LCA, regarding:

– **its use** (throughout product's life cycle)?

Impact category: Resource Depletion; Resource Scarcity; etc...

LCIA



RESOURCE USE IN LCA

How to properly consider the environmental impacts of (mineral) resources in LCA, regarding:

- its use (throughout product's life cycle)?
- **its production & supply chain footprint?**
 - *Foreground data (Direct: your own data; contact with suppliers)*
 - *Background data (Indirect: LCA databases; generic data)*



SOME FEEDBACK FROM THE OUTSIDE WORLD

Stakeholder	In 2017	#
LCA Community		4
Mining Industry		5
Raw Materials and Mining Associations		3
Downstream Industry		3

“Don't provide data if you do not know how it is going to be used!”

Sector reluctant to implement LCA directly, **unless requested** by downstream customers and or upstream regulator

*“LCA doesn't assess the **'use value'** of materials produced”*

*“The environmental impact from mineral extraction is **overestimated**”*



*“LCA in the primary material production sector often uses **outdated, idealistic and generic data and model**. Thus, the accuracy and values of these studies are to be questioned”*

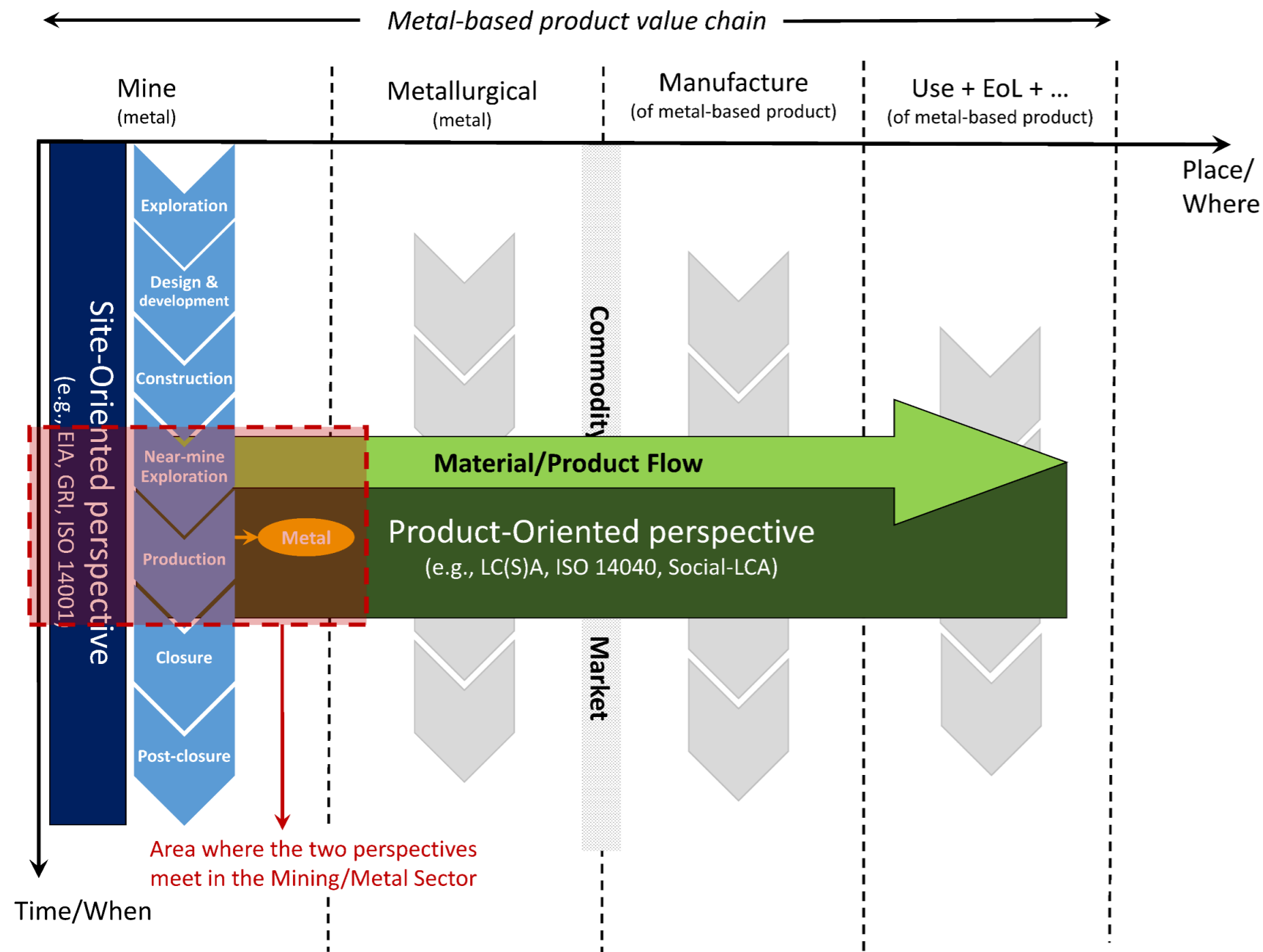
*“**'Resource depletion'** is still debatable, misunderstood, incorrectly used and criticized”*

*“The **societal demands** for environmental impact data from citizens and downstream companies are clear”*

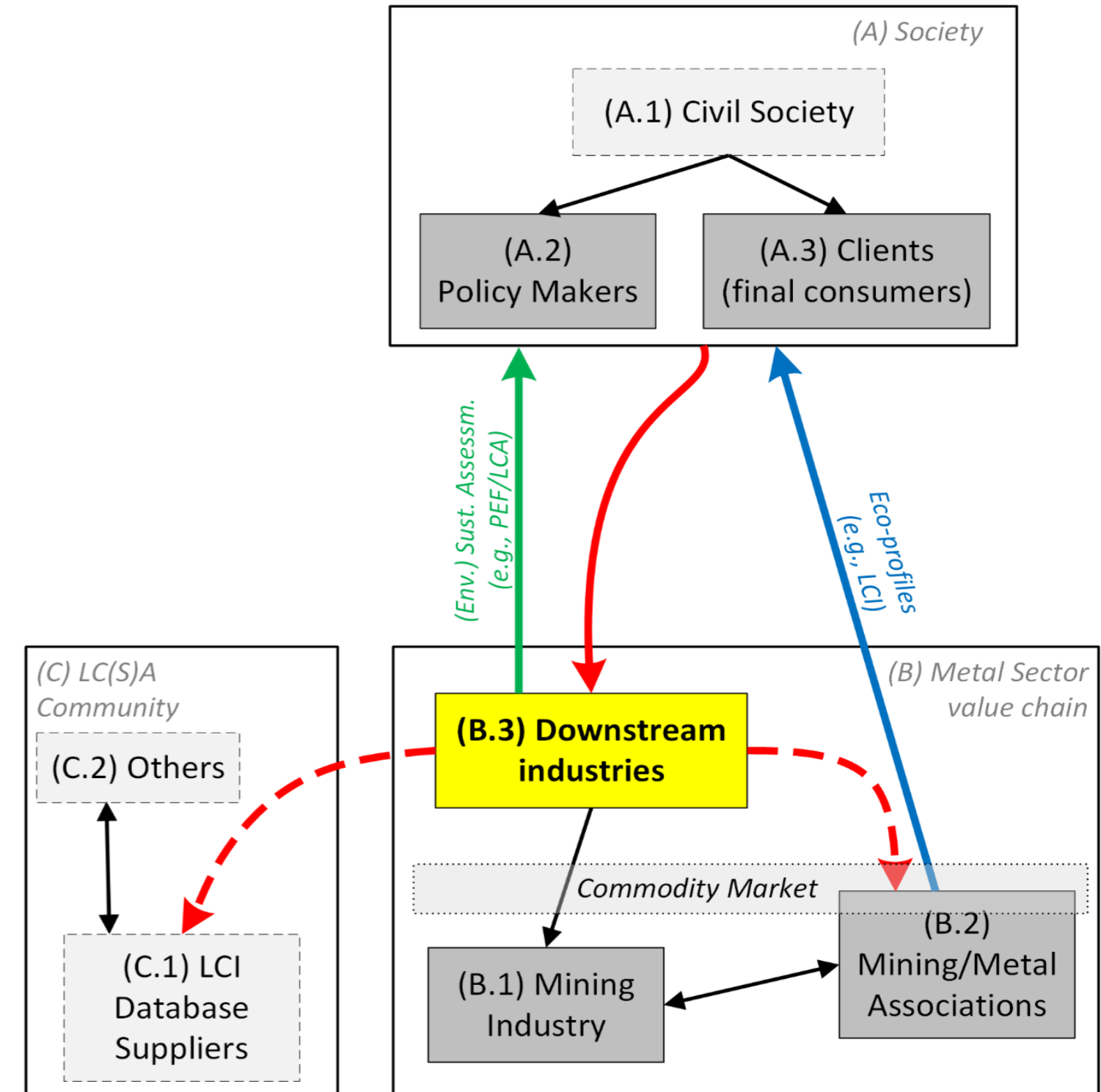
*“There is a clear **driver for downstream industries** to deliver more sustainable products”*

SUSTAINABILITY, LCA & THE SECTOR

Why such disconnection between the sector and LCA?



Pressure-response among stakeholders and the metal sector



LCA & THE SECTOR

Key concerns

Use of unrepresentative LCI Datasets for metal-based products

Misuse of data in LCA studies and lack of communication

Benefits of materials are not quantified in LC(S)A

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