



## **Circular Economy. Safeguarding metal resources sustainably**

Workshop with factory tour | Tuesday 30 August 2022 | Aurubis AG, D-Lünen

Organisers: Aurubis AG Lünen & Protestant Academy Tutzing (Germany)

### **12 Theses**

It is an essential task of the sustainability transformation to foster the security of supply of metals with the development of a comprehensive circular economy and to sustainably safeguard metal resources.

The 12 theses emphasise this task. Ideas and suggestions of the participants were integrated into the final version of the propositions. 24 participants of the event represented a broad spectrum of actors from industry, ministries, politics, civil society, science and trade unions.

*Thesis 1:* Metals are an indispensable prerequisite for the great transformation of the 21st century: the energy transition, the mobility transformation as well as the digital transformation.

*Thesis 2:* The demand for industrial and technology metals will increase accordingly. For copper, for example, an increase in demand from 24 million tonnes per year globally today to about 33 million tonnes in 2040 is currently being forecasted. For lithium, a six-fold increase to about 550,000 tonnes is assumed.

*Thesis 3:* In contrast, it is claimed that these demand forecasts should not simply be assumed as given. Rather, the demand for base metals and technology metals – for example, in relation to the mobility transformation beyond the powertrain transition – should be critically scrutinised and a consumption transition should become part of the sustainability transformation for metals.

*Thesis 4:* An important part of the raw materials transformation focused on metals is a social debate, including an analysis of the current situation and a discussion of the interests of the various actors. Conflicts of goals and interests, for example on the issue of the level of metal use, must be resolved.

*Thesis 5:* Europe and Germany are massively dependent on imports for the primary supply of metals. It is a fundamental task to be tackled quickly to strengthen the security of supply of metallic raw materials for production and processing in Germany and Europe as to realise the hope of the “dream of freedom energies”. In addition to domestic production and the import and substitution of raw materials, the recycling of metals is an essential building block for this. In contrast to base metals, recycling of rare earth metals is currently almost zero.

*Thesis 6:* Fair, international competitive conditions for primary and recycled raw materials are indispensable for a sustainable supply of raw materials in Europe. Competitive energy and production costs are one of the prerequisites.

*Thesis 7:* Today’s circular economy has achieved a great deal. However, it has so far been dominated by waste management. This type of circular economy must be further developed into a comprehensive, genuine circular economy. In this context, the systemic character of collection

systems to the integrated production of recycling metals, product design as well as raw material monitoring must be considered.

*Thesis 8:* In addition to an ambitious further development of the German national circular economy strategy, a comprehensive EU raw materials strategy is needed, which sets cornerstones for a corresponding circular economy building on initial approaches such as the Design Directive and the Battery Directive. Its implementation must be given high priority by the EU Commission.

*Thesis 9:* The expansion of metal recycling capacities into industrial clusters is a core task for the sustainable safeguarding of metallic raw materials and thus for strengthening the security of supply.

*Thesis 10:* The task of sustainably securing metallic raw materials includes making this socially just and ecologically compatible – in Germany, Europe and globally. The implementation of environmental, labour, and human rights standards is just as much a matter of debate as the appropriate inclusion of the interests of the countries of the South.

*Thesis 11:* Just like the idea that “electricity comes out of the socket”, for a long time the motto for metal raw materials was "let's buy internationally on the markets and then it's fine". But in fact, metal awareness and the understanding of cycles in the use of metals must be promoted.

*Thesis 12:* Metal recycling is a key industry in the upcoming sustainability transformation. The cost of extracting primary ores is increasing. It is therefore even more important that the metallurgical infrastructure for metal recycling is designed accordingly. It is a matter of social appreciation and acceptance for industrial value creation in Europe and good, highly regarded jobs.

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<https://www.leuphana.de/institute/insc/personen/klaus-kuemmerer.html>

Theses may be used citing source.

### Conference prior notice

**Raw Materials Transformation Focused on Metals.** Strategic goals conservation of resources and circular economy [German spoken]

Protestant Academy Tutzing, 24 to 26 February 2023 | In cooperation with *Prof. Dr. Martin Faulstich*, Düsseldorf/Dortmund & *Prof. Dr. Klaus Kümmerner*, Lüneburg

<https://www.ev-akademie-tutzing.de/veranstaltung/rohstoffwende-metalle/>