European Commission

Strategic Projects under the Critical Raw Materials Act

STRATEGIC RAW MATERIALS
Gallium

Gallium's (Ga) unique semiconducting properties enable highly efficient power management chips. Gallium arsenide is used for power amplifiers in devices, in telecommunications such as 5G, satellite communication and radar systems. Gallium is also used in thin-film solar panels and LEDs. Gallium nitride is crucial for fast charging infrastructure, in which it prevents significant power losses. Gallium is a by-product of base metal refining, typically aluminium.

RENEWABLES **E-MOBILITY** **AEROSPACE AND DEFENCE** **ICT**

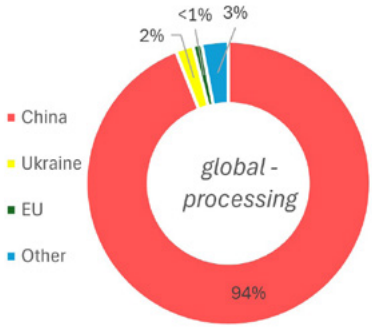
Supply and Demand

The EU imports currently almost all of its demand for gallium, and supply is highly concentrated in China. With increasing demand from charging infrastructure, 5G technologies, and renewable energy applications, EU gallium demand is expected to surpass 100% of today's global supply by 2050[1].

EU Dependency[2]

Processing stage: 98%

Global sourcing[2]



Expected contribution of strategic projects to 2030 Benchmarks

Selected strategic projects at the processing stage for gallium will have a key contribution towards meeting the benchmarks outlined in the Critical Raw Materials Act by enhancing EU's production capacities.

[1] Supply chain analysis and material demand forecast in strategic technologies and sectors in the EU – A foresight study
[2] Study on the Critical Raw Materials for the EU 2023

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