Jakob Keiding (Geological Survey of Denmark and Greenland), 10 January 2023

Commodity	**Tantalum (Ta)**	**Data source**
Significance for the EU (2023)	*Critical, not strategic*	
Uses of the commodity	Main uses: *Capacitors 33 %, superalloys 22 %, sputtering targets 17 %* Minor uses: *Carbides, medical products, chemicals.* Future uses: *Computer equipment and other uses in electronics, aerospace, sources of gamma radiation*	Rare metals in the world market (2008), BRGM et al. (2017), USGS (2019)
Resources and potential in Nordic countries	*Resources:* *Finland: 13,000 t Ta (Rosendal: 1.3 Mt @ 0.021 % Ta); major potential in the Sokli carbonatite* *Greenland: 916,000 t Ta; additional large potential in several alkaline intrusions* *Sweden: 24 t Ta* *Resources in pegmatites in Finland and Sweden are open at depth, as the drilling typically only extends to 50–100 m below surface.*	Lauri et al. (2018), Eilu et al. (2022), Rosa et al. (2023)
Anthropogenic resources and potential in Nordic countries	*Ta-bearing tin slags, pegmatite mine tailings*	
Main deposit types in Nordic countries	*Carbonatites and alkaline-peralkaline intrusions, LCT pegmatites*	Eilu et al. (2022)
Global production (2022)	*10,000 kg Ta (refinery production)*	USGS (2023)
Nordic production	*None*	
Main producing countries (2022)	*DRC 43 %, Brazil 18.5 %, Rwanda 17.5 %, Nigeria 5.5 %, and China 3.9 % (note that artisanal mining dominates and related smuggling across borders is commonplace in Africa, so country statistics are probably not correct).*	USGS (2023)
Main global deposit types	*LCT pegmatites (dominant), rare-metal and tin granites, loparitic urtites, placers; weathering crusts of carbonatites, rare-metal granites, and LCT pegmatites*	USGS (2019)
Technological challenges in production	*None reported*	
Recycling	Present: *Tin slags. Semi-finished and new scrap recycled at about 30 % degree, especially the alloys to produce new alloys. End-of-life product recycling <1 %.* Future: *Ta-bearing alloys, EoL products*	BRGM et al. (2017), USGS (2019)

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