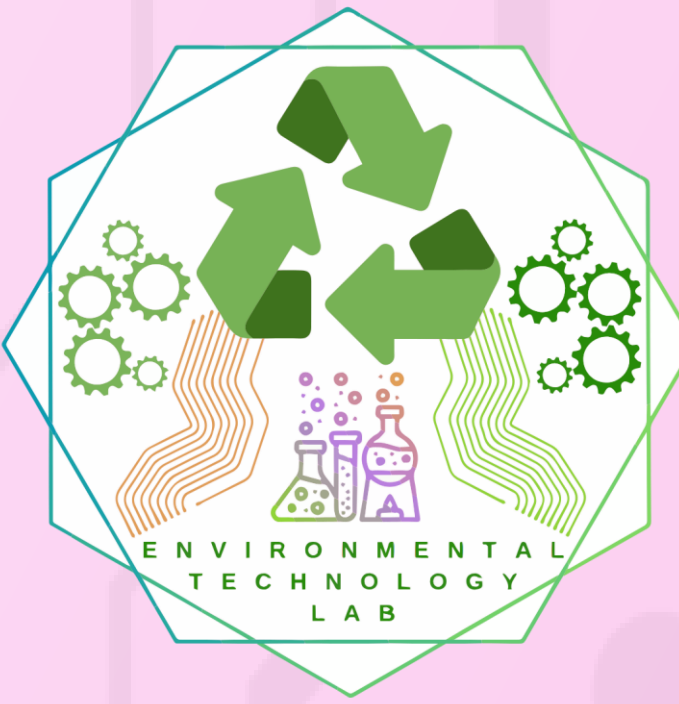




E-waste and sustainable development: innovative strategies for the recovery of secondary raw materials



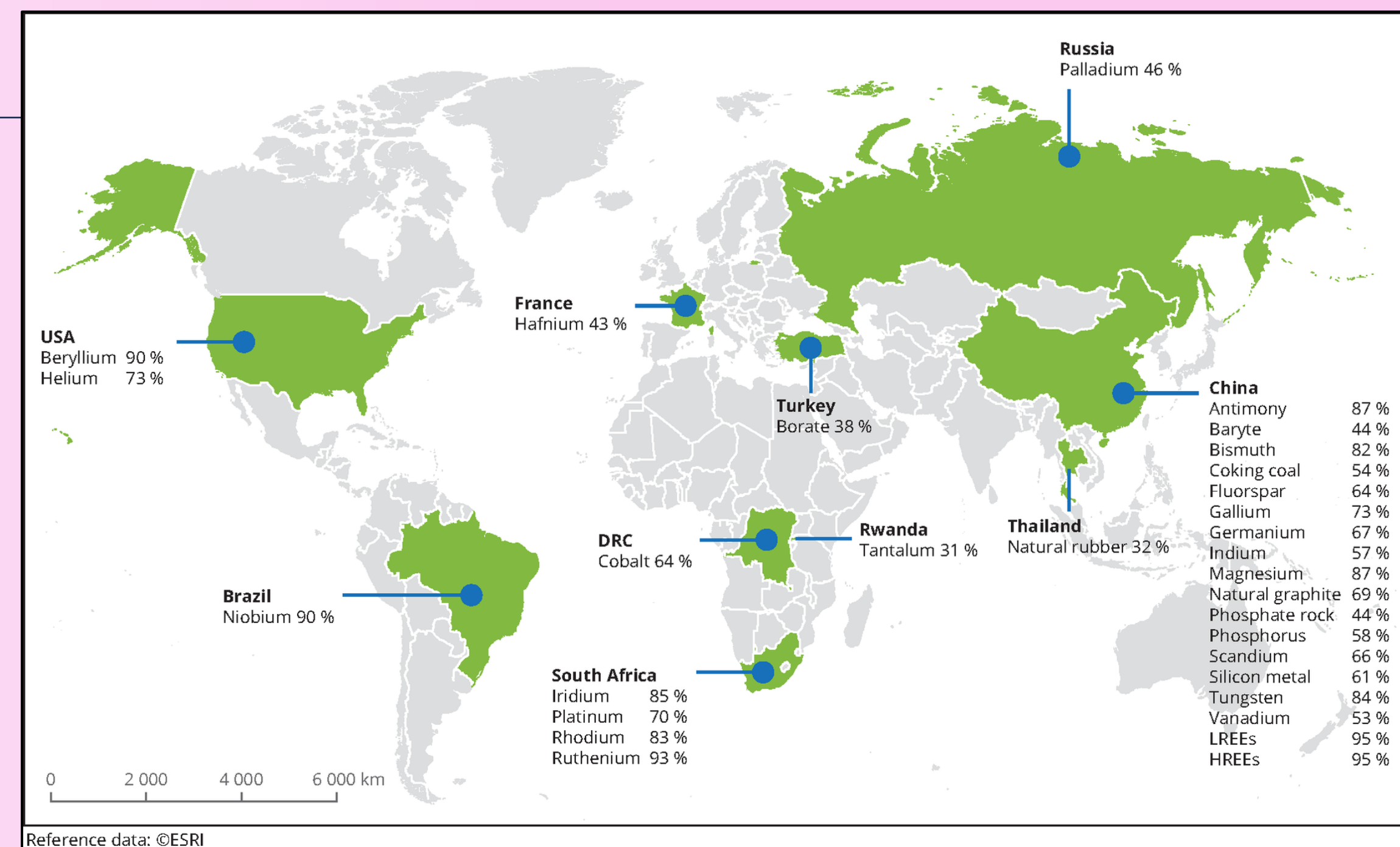
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Critical RAW materials issue for EU

- Essential for the ecological transition.
- Depend on external country markets for the supply chain.
- Most of these countries have not solid environmental and human policy[1].
- Every year a lot of components rich in strategic metals are lost in landfilling sites or sent to other countries for the treatment[2].



A solution – Second life of E-Waste

- Metal recovery from e-waste is becoming more convenient than mining[3].
 - Recovering these materials will avoid exploiting mineral resources, reducing the environmental and social impacts.
- BUT**
- Recycling performance is currently insufficient due to Policy issues which do not promote the e-waste interception[4].
 - Modern recycling systems are often unsustainable.

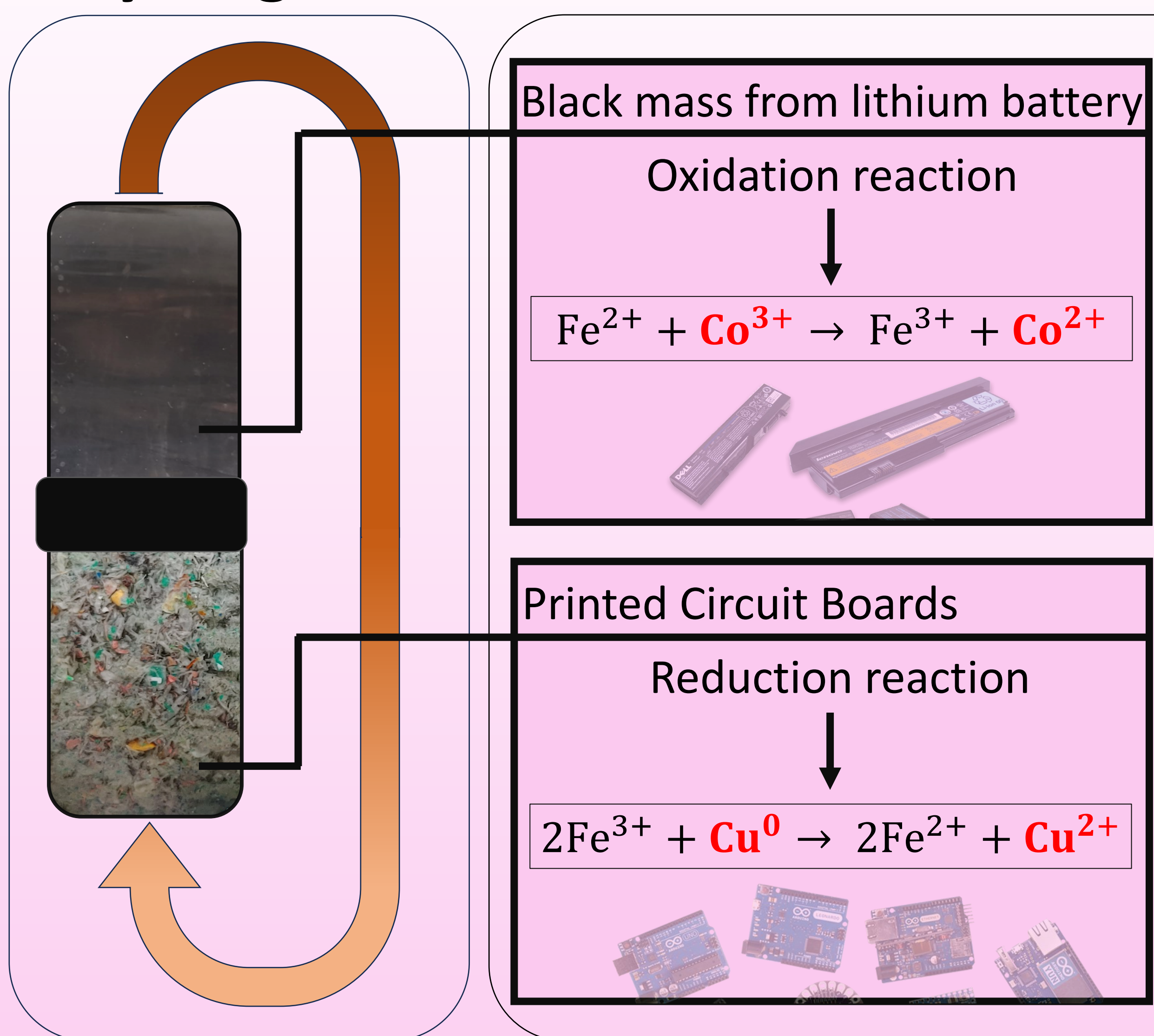


Future Activities

Implementation with biotechnology to support the development of innovative processes as a booster towards sustainability.

The results obtained from this study will support policies to boost sustainable development through virtuous management of E-waste.

Scope – Development of sustainable recycling



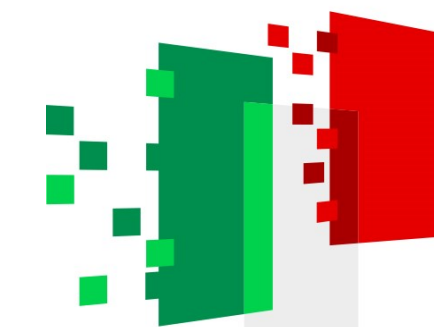
Experimental Plan

Factors	Level		
	-	0	+
[Fe III] g/L	1	-	5
Layers (n)	2	4	8
Flow (mL/min)	24	-	48

1. Saleem H. Ali, 2014, 3, 123-134;
2. Centro di coordinamento RAEE
3. Xianlai Zeng, John A. Mathews and Jinhui Li, 2018.
4. LaboratorioRef, [https://laboratorioref.it/la-gestione-dei-raee-in-italia-e-necessaria-una-svolta/#:~:text=La%20raccolta%20dei%20RAEE%20di,%3A%20%2D6%2C%25. 23/05/2024](https://laboratorioref.it/la-gestione-dei-raee-in-italia-e-necessaria-una-svolta/#:~:text=La%20raccolta%20dei%20RAEE%20di,%3A%20%2D6%2C%25.)



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