

OFREMI : French Mineral Intelligence Center

Stress test and public-private collaborations with French companies

Political framework



Operational framework

Interministerial delegation for minerals and metals supply (DIAMMS)



Investment fund

APPEL À PROJETS
MÉTAUX CRITIQUES

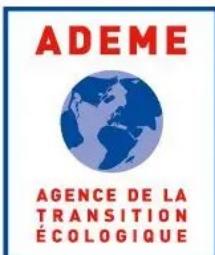
FRANCE 2030
GOUVERNEMENT
État Égalité
France
bpifrance

French mineral intelligence centre



Public investment on strategic projects

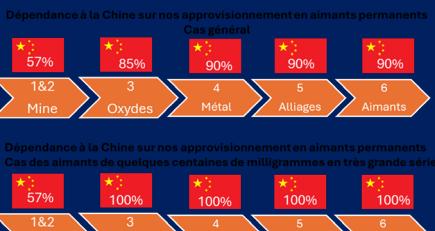
Operated by



Knowing the risks



Knowing one's vulnerabilities



Being alerted



French criticality Criticality analyses factsheets for enterprises



Stress-tests

1. Mapping

3. Impacts

2. Vulnerabilities

4. Mitigation/ remediation

Information System

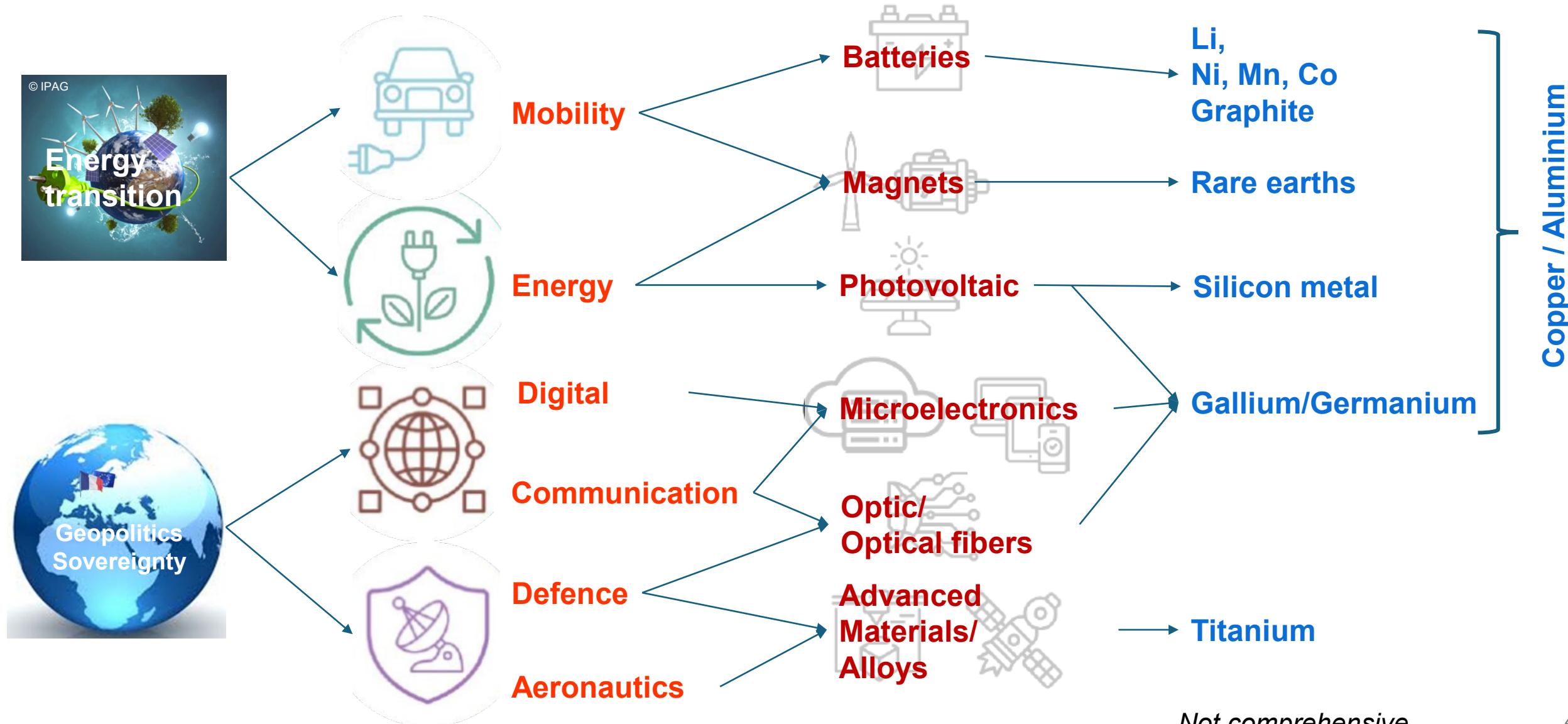


A continuous monitoring of markets and strategic sectors to anticipate developments



Dedicated tools and an international alert network for maximum responsiveness

A strategic value chain approach



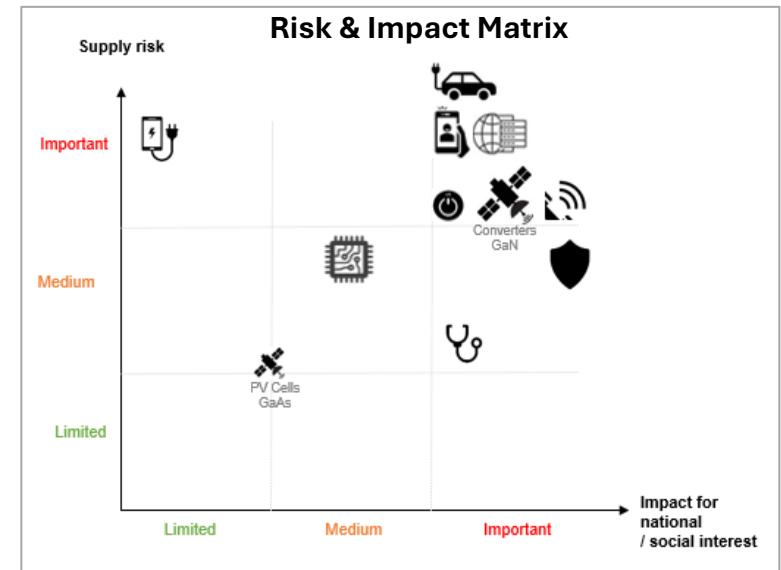
How to analyse the resilience of our supply chains?

Destabilization scenarios



→ **Working groups with industry**

Identifies flows, weaknesses and bottlenecks
 Structure an anticipatory approach



→ **Serious Games**

Collaborative work with stakeholders all along the value chains (both public and private)



→ **Evaluation of the cost of inaction**

Interviews with industry representatives

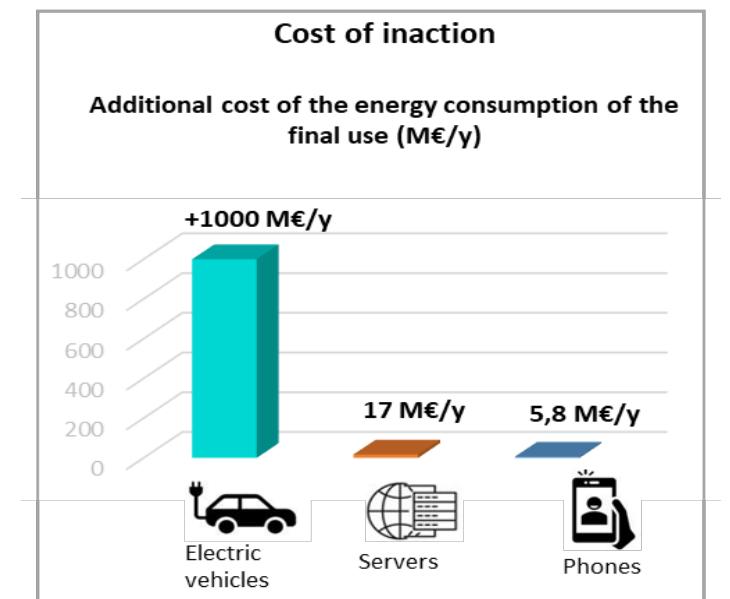
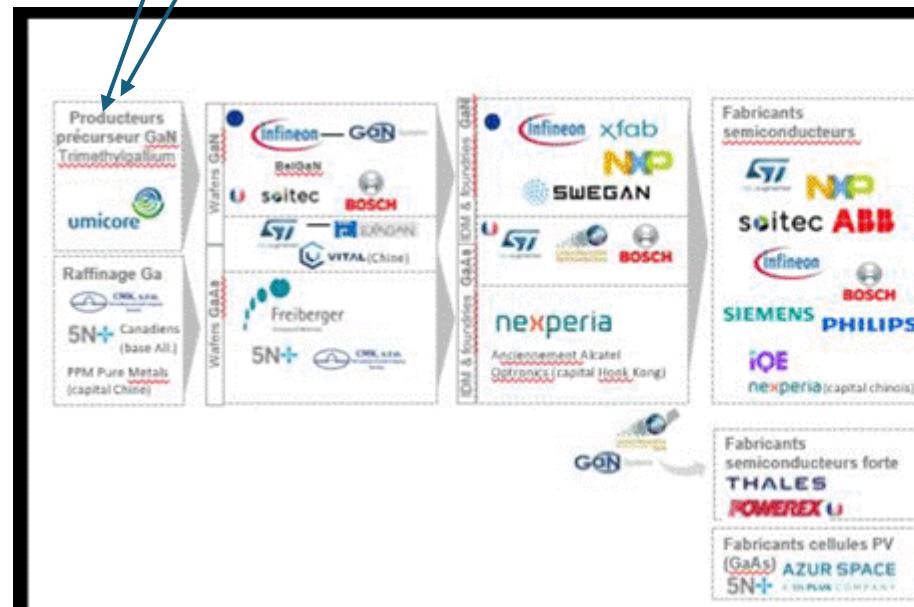
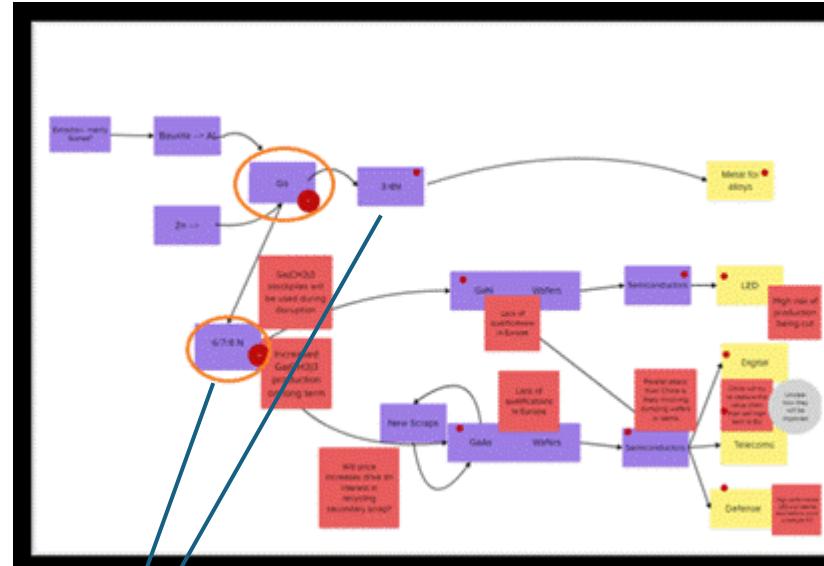


Illustration: gallium value chain and EU positionning



Joint exercice between DERA and OFREMI



To invest now to secure the value chain may cost millions,

***The direct and indirect impacts of a supply disruption, if no anticipation,
may cost billions***

Support the French government in anticipating the financial and societal impacts of a supply disruption

- **Implementing short, medium and long term strategies**
- **Coordinating the actions**
- **Defining arbitration measures**

Support and incentivize the industrial sectors in anticipating the risks

- **Setting up a mitigation and an adaptation plan (circular economy, efficiency of use...)**
- **Committing in cooperation actions**

Illustration: permanent magnets in cars and cost of inaction

Estimations of mass an cost/kg to be evaluated with industry actors

		Mass (kg)	Cost/kg (€/kg)	Cost (€/car)	Share for a 35k€ car	If magnets 50% more expensive	delta
NdFeB	EV motor	1,5	100	150 €	0,4 %	225	75
	Auxiliairies	0,25	100	25 €	0,07 %	37,5	12,5
SmCo	HT components	0,1	150	15 €	0,04 %	22,5	7,5

Total

≈ 190 €

Total

≈ 285 €

≈ 95 €

Extra cost of EU non EV magnets for 1 million cars : 20 million euros

Potential loss of the car industry if 1 million cars not sold : 10 billion euros

Warning : the figures presented here are purely illustrative and do not reflect the actual market values, however order of magnitude are respected

*Raise the industry's
awareness*

*Deepen the analysis of
geopolitical dynamics and
market strategy*

What we intend to better understand:

- Cooperation at the national / European level vs cross-sectors competition
- Coordination with the national and the European instances
- Investment capacity into downstream / midstream / upstream value chain

First full scale exercice on June 11th 2024

- ➔ More than 15 industrial representatives from the battery value chain (graphite)
- ➔ Build trust and provide the industry with collective knowledge
- ➔ Data collection is not the key, expressing vulnerabilities and opportunities is

- **Involve the industry, enhance collaboration between private and public sectors** – building trust
- Raise awareness among the French ecosystem about the « domino effect » of a supply disruption
- Raise awareness about economical coercion strategies and support the industry in their derisking strategy (foreign interference...)
- More accurate knowledge of the vulnerabilities of the industry
- Supporting the industry to implement risk mitigation solutions (stockpiling, recycling, substitution...)
- Support industrial partnerships across countries (e.g. France-Germany, CRM Act)

Strategic outcomes for the French private & public sectors and for cross-national partnerships



OFREMI: A public/private partnership with strong engagement of the industry

Permanent monitoring with criticality assessment

Value chain analyses with stress-tests

- Value chain mapping
- Risk analyses
- Cost of inaction
- Serious games



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FRANÇAISE

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AgM

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