Water Constraints in Critical Minerals Policy: A Comparative Analysis of State Strategies

Emilie Normand[ab], Emmanuel Hache[ab], Patricia Renou-Maissant[b]

[a] *IFP Energies Nouvelles, 1-4 avenue de Bois Préau, 92852 Rueil-Malmaison, France* , [b] *EconomiX-CNRS, University of Paris Nanterre*

1. BACKGROUND

There is a growing interest in **critical raw materials (CRM)**, hence a proliferation of related national strategies and increasing pressures to **fast-track** permitting process of CRM projects [1].

In the past, fast-tracking has often resulted in a weakening of environmental standards [2] which can lead to **important mining impacts**, especially on water.

This is why most Western governments have committed to accelerate their permitting process while maintaining strong environmental standards [3].

How is this balance truly handled and what are the possible trade-offs?

2. ZOOM ON THE EU CASE

OCT. 2000
WATER FRAMEWORK DIRECTIVE (WFD)
Cornerstone EU water law. Requires all surface water and groundwater to reach good status. Establishes the non-deterioration principle.

MAY 2024
CRITICAL RAW MATERIALS ACT
Sets targets for 2030: 10% extraction, 40% processing, 25% of recycling of CRM on European soil. Identifies 34 CRM. Fast-tracks permitting for Strategic projects.

JAN. 2025
COMPETITIVENESS COMPASS COMMUNICATION
Sets a 25% reduction of reporting burden for all companies (including costs of all administrative burdens). Frames simplification as a competitiveness priority.

DEC. 2025
RESOURCEEU ACTION PLAN
Accelerates the implementation of the critical raw materials strategy through six pillars. Announces a revision of the Water Framework Directive.

MAR.-APR. 2026
CONSULTATION ON A WFD REFORM
Launch of a call for evidence aiming to identify regulatory bottlenecks for CRM projects in order to reform the WFD while maintaining environmental protection.

To what extent do the consultation respondents substantiate the European Commission's request for evidence that the Water Framework Directive creates bottlenecks for CRM projects?

3. METHODOLOGY

Focus on the stakeholders' contributions to the European Commission **Call for evidence** launched from 17th March to 14th April 2026.

Web scrapping of the 2 560 feedbacks.

Selection of the **410 unique feedbacks** submitted by non-citizens organisations.

Identification of the main **expertise field** of responding organisations.

Thematic coding of response texts and position papers through 86 categories.

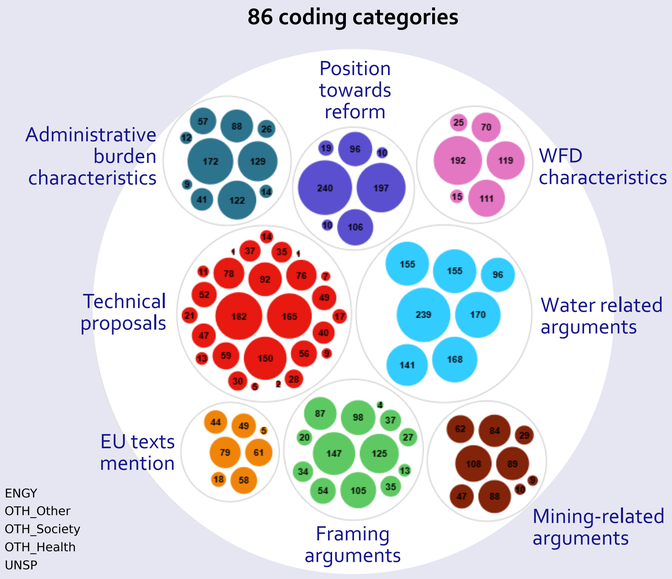
Responding organisations by expertise fields

Organisations' expertise fields

Legend of expertise fields categories

ENVI_Other
ENVI_Biodiversity protection
ENVI_Water protection
WAT_R&D
WAT_Utility
WAT_Management
WAT_Other
WAT_Recreational
AGRI_Agriculture
AGRI_Food & Drink
AGRI_Fishing & Aquaculture
AGRI_Forestry
MIN_Mining & Quarrying
MIN_Chemical industry
MIN_R&D
MIN_Minerals processing
MIN_Electrical equipments
ADMIN_Other
ADMIN_Environment
OACT_General businesses
OACT_Construction & Infrastructure
OACT_Other
ENGY
OTH_Other
OTH_Society
OTH_Health
UNSP

86 coding categories



4. RESULTS

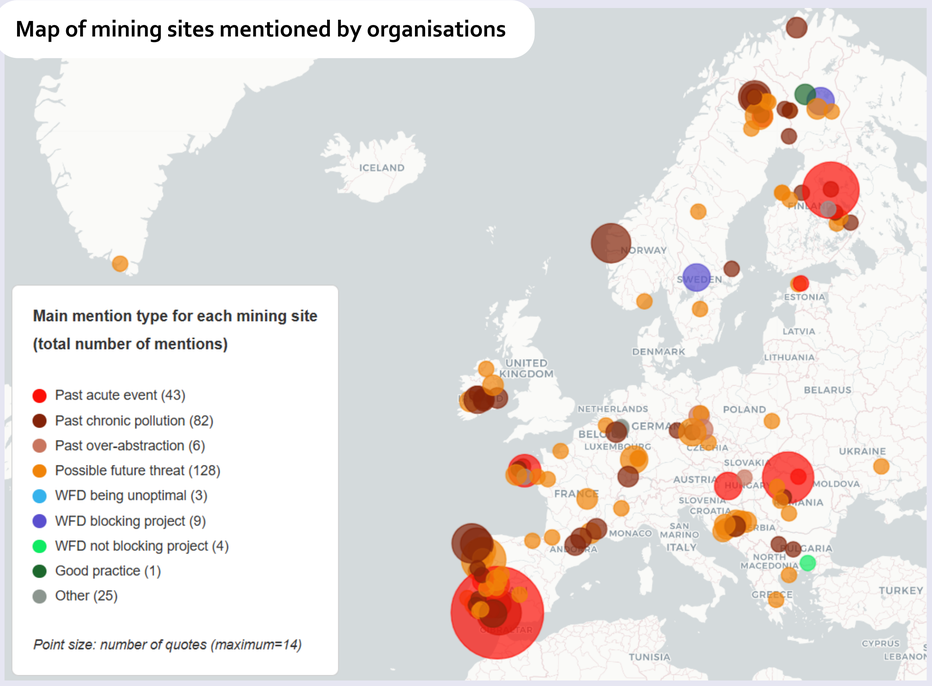
Half of the respondents support a potential WFD reform but the level of support varies depending on their expertise field.

Administrative burden is widely mentioned (58.5%), especially by private sector organisations (75.3%).

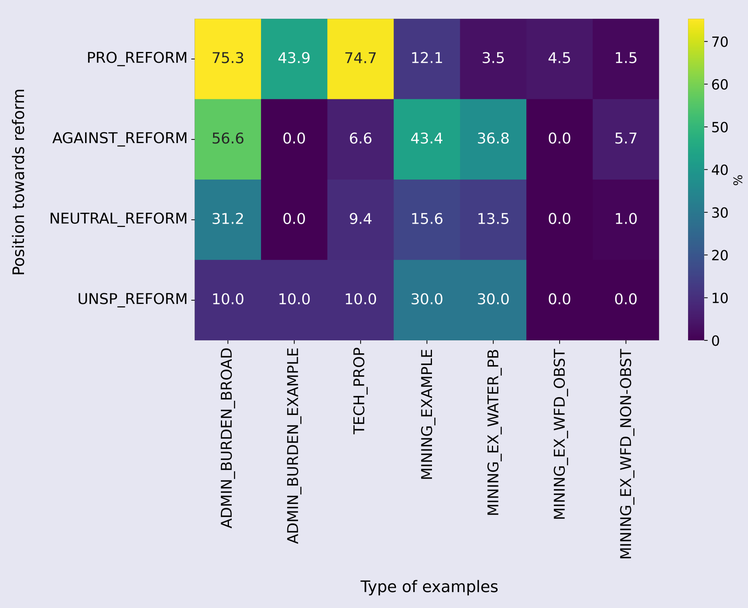
83 organisations refer to **342 mining examples** (196 distinct). Among them, only **11** detail how the WFD is blocking a project and **9** present suboptimal situations entailed by the WFD. A vast majority insists on mining risks for water.

CRM-related technical proposals largely focus on **exemptions** and the **non-deterioration principle**.

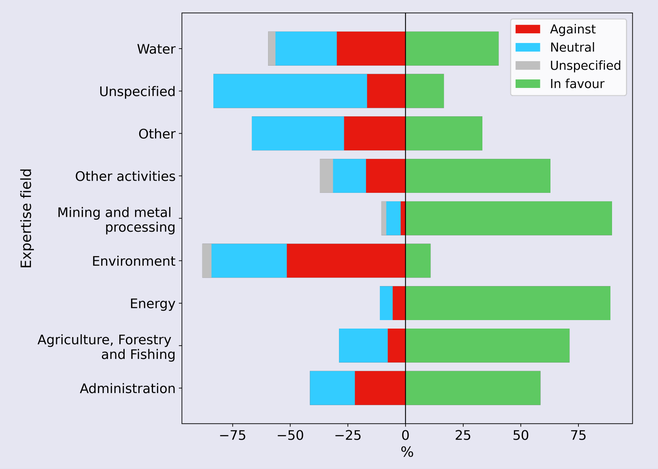
Map of mining sites mentioned by organisations



Type of examples depending on position towards reform (%)



Position towards reform depending on expertise field



5. CONCLUSION

Reforming the Water Framework Directive is **far from consensual**.

There are few organisations mentioning tangible examples of bottlenecks compared to **examples mentioning water-related mining impacts**.

A large share of proposals **don't target critical minerals topics**.

Key references

[1] Owen J.R., Kemp D., Harris J., Lechner A.M., and Lèbre E. (2022), "Fast track to failure? Energy transition minerals and the future of consultation and consent", *Energy Research & Social Science*, 89.

[2] Bond A., Pope J., Morrison-Saunders A., Retief F., and Gunn J.A.E. (2014). "Impact Assessment: Eroding Benefits through Streamlining?", *Environmental Impact Assessment Review*, 45.

[3] Anderson K.L., Halinski S., Hua K., Rupp J.A., and Graham J.D. (2025) "Hoping to mine: The nascent critical materials industry in the United States", *Resources Policy*, 103.

More info here

Emilie Normand

emilie.normand@ifpen.fr

PhD student in resource economics