

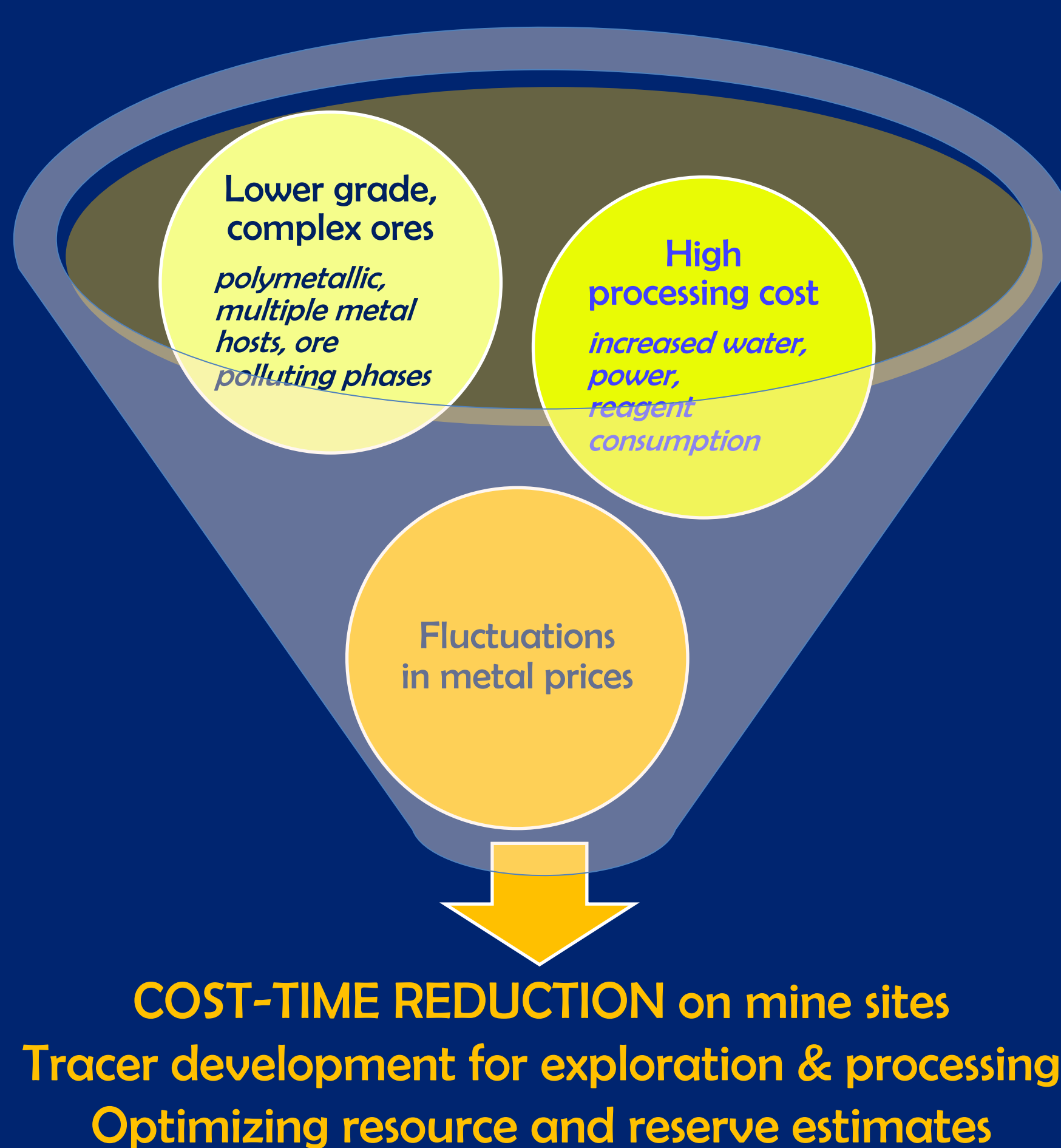
An innovative Expert System for Sustainable Exploration Technology & Geomodels

2016 - 2020

SONIC DRILLING COUPLED WITH AUTOMATED MINERALOGY & CHEMISTRY ON MINE - ON LINE - REAL TIME

European Mining and Metallurgical Industries need to secure the Metal Supply for our markets while minimizing environmental impact. SOLSA provides a breakthrough in combining drilling and analytical technologies. It will optimize exploration, resource and reserve estimates, mining and anticipate process dysfunction.

CHALLENGES



EXPERT SYSTEM

Innovations in Sonic Drill

- ☐ Geographic Coordinates
- ☐ Coherent complete drill core
- ☐ Innovative drill core box
- ☐ Fast drilling
- ☐ Monitoring While Drilling



Robotized-automated semiquantitative drill core logging

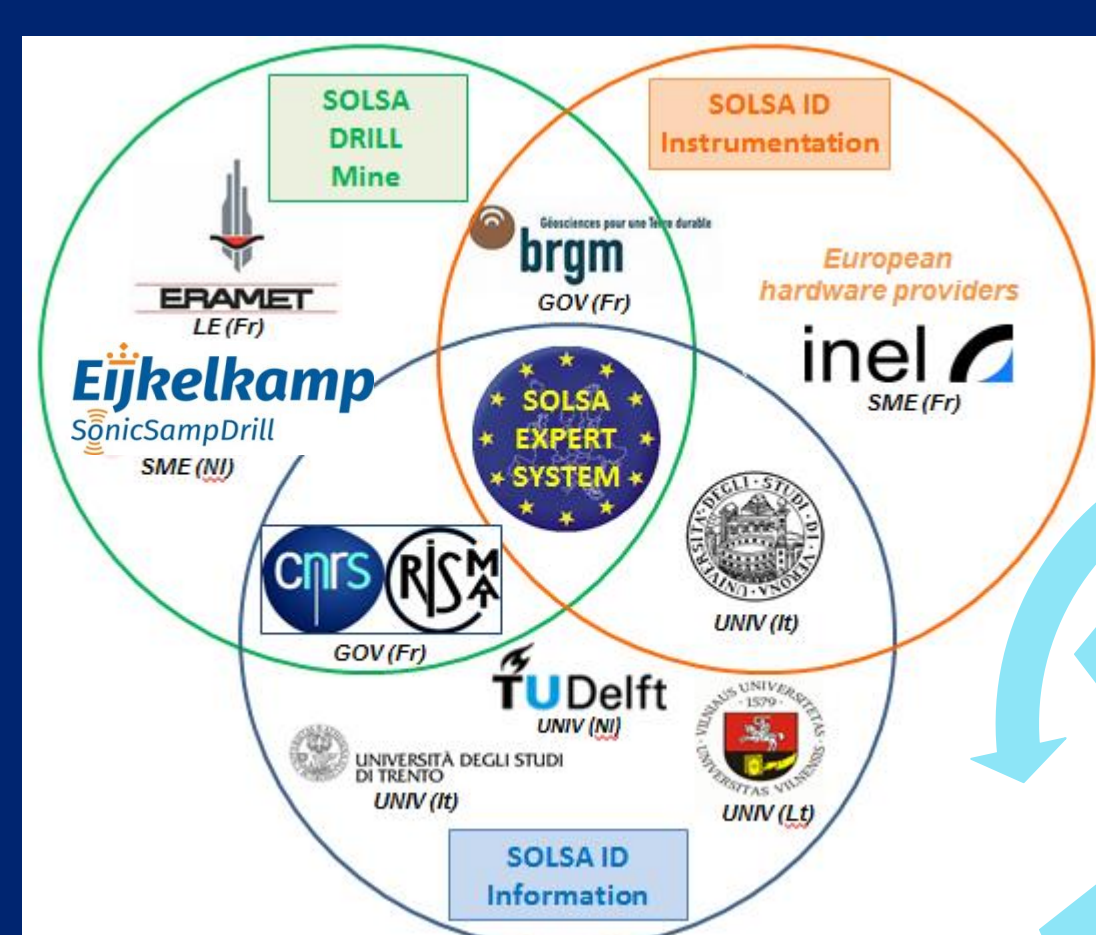
- ☐ Reliable, validated mineralogical, textural & chemical data (XRF+XRD+FTIR+RAMAN+IMAGING)
- ☐ Based on intelligent Big Analogue Data mining & easy-to-use software
- ☐ Connect Drill core parameters to logged data => Up-grading the scientific open database (COD) for industrial purpose

2 Prototypes will be validated !

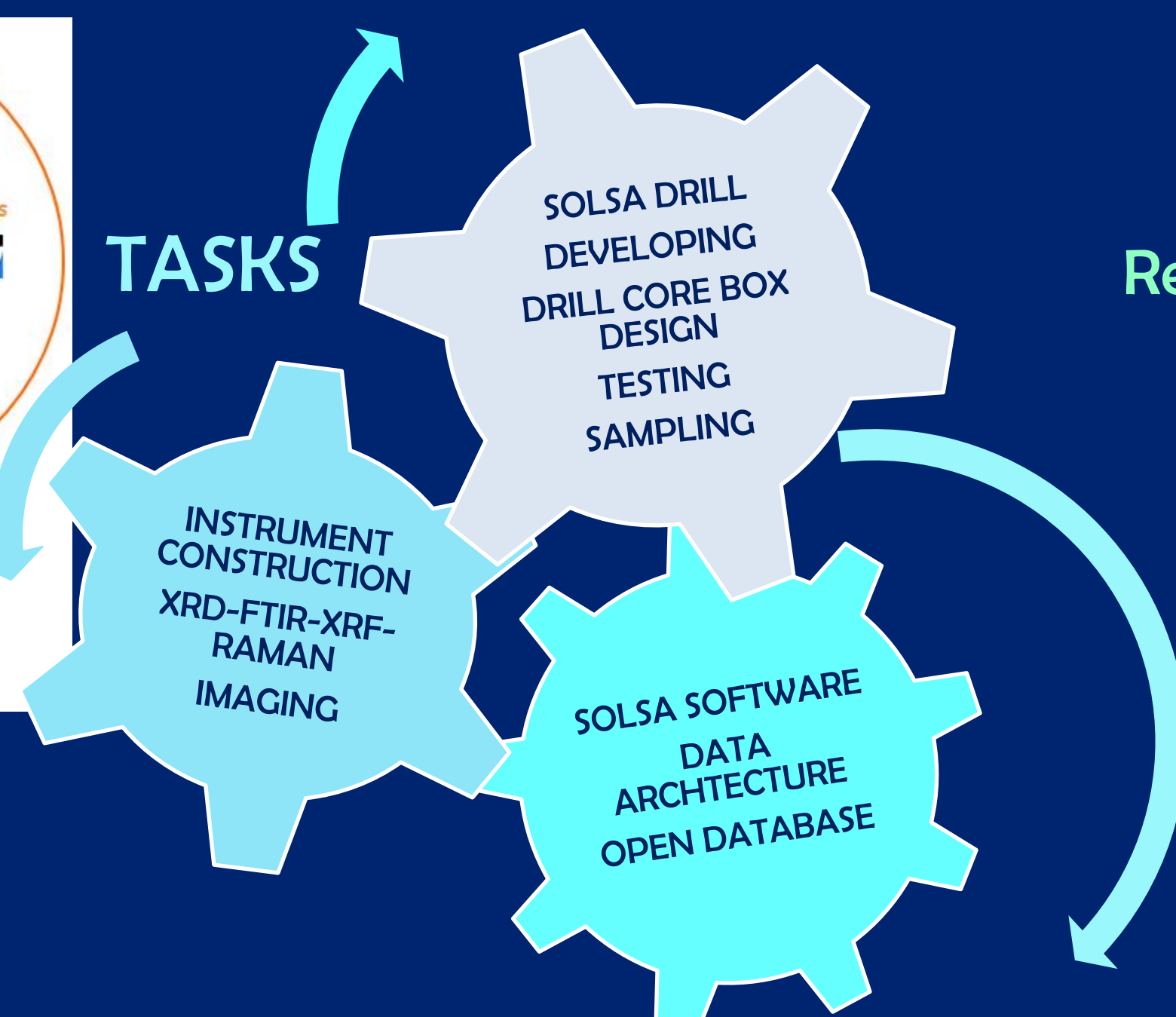
CONSORTIUM



Nine transdisciplinary partners from 4 countries design and construct the expert system: 1 large and 2 small companies, 1 government organisation, 5 universities and 1 research institute.



TASKS



GLOBAL BENEFITS

SOLSA pushes Europe in front

Early Rehabilitation

Optimal Mining

Adaptable to other sectors:
Marin
Recycling
Nuclear

Knowledge transfer
Education
Job creation

Total budget : 9.8 M€