## Metnet

European Pilot Plant Network for Extractive Metallurgy and Mineral Processing

Prometia, Barcelona, 28-29 November



#### Metnet

European Pilot Plant Network for Extractive Metallurgy and Mineral Processing

EIP Raw Material commitment NoI - EIT Raw Materials

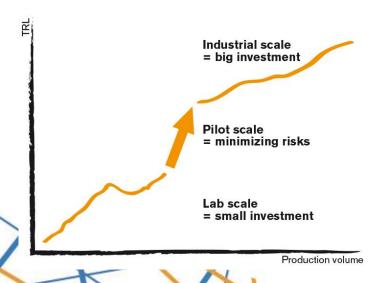
www.metnet.eu





#### Metnet - the bridge between lab and industrial scale

- Overall solution for development, validation and upscaling of new processes and technologies under industrial conditions
- Mineral and metallurgical upscaling infrastructure capability from raw materials to metals
- Processing chain integration by combining expert qualification and pilot plant equipment from different sites offering a unique testing environment



#### **BENEFITS**

- Easy access by single point contact
- Cluster of expertise
- Cross-sectorial competence and equipment
- · Wide scope and flexibility
- · Technical guidance
- High confidentiality
- Financial guidance for funding opportunities
- Good track record up to highest TRL (across the valley of death)
- Minimize technical and financial risk
- Accelerate development into industrial use



# The strength lies in cooperation

1. BRGM

Processing of minerals and secondary materials

2. CEA

Hydrometallurgy for non-ferrous industry

3. CRM

Pyrometallurgy for ferrous and non-ferrous industry

4. Elkem Technology R&D Technical Center

Mineral processing and pyrometallurgy for ferrous and non-ferrous industry

5. Eramet Research

Mineral processing, hydro- and pyrometallurgy for ferrous and non-ferrous industry

6. Extracthive

Mineral processing and hydrometallurgy for non-ferrous industry

**7. GTK** 

Processing of minerals and secondary materials

8. IMN

Mineral processing, hydro- and pyrometallurgy for non-ferrous industry

9. Materials Processing Institute

Pyrometallurgy for ferrous industry

10. Swerea MEFOS

Pyrometallurgy for ferrous and non-ferrous industry



## **Networking activities**

Develop offer and communicate to potential customers

- Map competences and equipment of the network
  - Missing competence and equipment identified
  - Support from a group of industrial end users



### **Activities**

#### Develop offer and communicate to potential customers

Update competence and equipment within the network and fill the gaps

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### Infrastructure on the web site

#### METNET

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#### Mineral Processing



Metnet Mineral processing platform cover all unit operations for matter comminution and beneficiation, from bench to pilot scale.

Equipment can be operated in batch or continuous mode to treat all types of metallic ores, industrial minerals, metallurgical residues (slags, sludges and ashes), tailings, urban waste (waste from electric and electronic equipment, end of life vehicles etc.).

Metnet pilot facilities have a variety of standard characterization techniques to test conditions and properties of specific material of interest (minerals, metals, alloys, slags etc.).























#### Comminution

Name of equipment	Company	Dimensions and max capacity	Details	Contact
Agitated mill	GTK Mintec	0.5 t/h	PDF	contact
Autogeneous mill	BRGM	550 L	PDF	contact
Ball mill	BRGM	0.1 t/h	PDF	contact
Ball mill	GTK Mintec	6 t/h	PDF	contact
Ball mill with ceramic coating	BRGM	200 L	PDF	contact
Ball, rod mill	IMN	15 t/h		contact
Cone crusher	GTK Mintec	10 t/h	PDF	contact
Gyratory crusher, Babitless	BRGM	5 t/h	PDF	contact
Gyratory crushers	GTK Mintec	40 t/h	PDF	contact
Gyratory mill	BRGM	0.1 t/h	PDF	contact
Gyratory mills	Extracthive	10 t/h	PDF	contact
Hammer mill	BRGM	0.5 t/h	PDF	contact
High pressure roller mill	GTK Mintec	3 t/h	PDF	contact
Horizontal mill	GTK Mintec	0.5 t/h	PDF	contact
Horizontal Shaft Impactor	GTK Mintec	5 t/h	PDF	contact
Impact crusher, Dragon	BRGM	2 t/h	PDF	contact
Jaw crusher	BRGM	0.05 t/h	PDF	contact
Jaw crusher	BRGM	0.1 t/h	PDF	contact

# Industrial support organisation

Helps us develop the offer and improve service to customer by identifying needs and trends of industry.

- Arcelor Mittal
- A.V Dawson
- Boliden (pyro)
- British Steel
- CASPEO
- Eurotab
- EYDE cluster
- Harsco
- Innovator
- Keliber
- LKAB
- Mustavaaran Kaivos Oy
- Reactive Metal Particles

- SSAB Europe
- SUEZ Belgium
- Tata Steel, Europe
- TEGma
- ZGH Boleslaw
- ZM Silesia SA





## **Networking activities**

Develop offer and communicate to potential customers

- Map competences and equipment of the network
  - Missing competence and equipment identified
  - Support from a group of industrial end users
- Cooperation with other networks
- Develop a joint offer for the European industry



#### **Activities**

#### Develop offer and communicate to potential customers

Map competences and equipment of the network

- Cooperation with other networks
- Develop joint offer

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