RÉPUBLIQUE FRANÇAISE
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Club Saumures

Workshop PIXIL – January the 21st 2022

Romain MILLOT et al.
BRGM – French Geological Survey

Géosciences pour une Terre durable
brgm

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Objectives/outcomes – Club Saumures

- gather industrial partners evolving in various sectors (water treatment, geothermal energy, oil/gas, chemistry...) and all interested in brine valorization
- start with a restricted panel of members to guarantee an efficiency of functioning, and operating on all the value chain of this economic sector.
- This network of exchanges is aiming to generate new collaborations, to collectively finance innovative actions that open up new business opportunities.
- A place to keep up with the latest scientific/technological innovations

inovyn An INEOS company · iumtek real-time analytics · Lithium de France GEOTHERMAL · TotalEnergies · Adionics Advanced ionic solutions · brgm Géosciences pour une Terre durable · GEOLITH Sustainable Lithium Solutions

nectar Project

Creation of a web services interface to simplify access to data on brines for their valorisation

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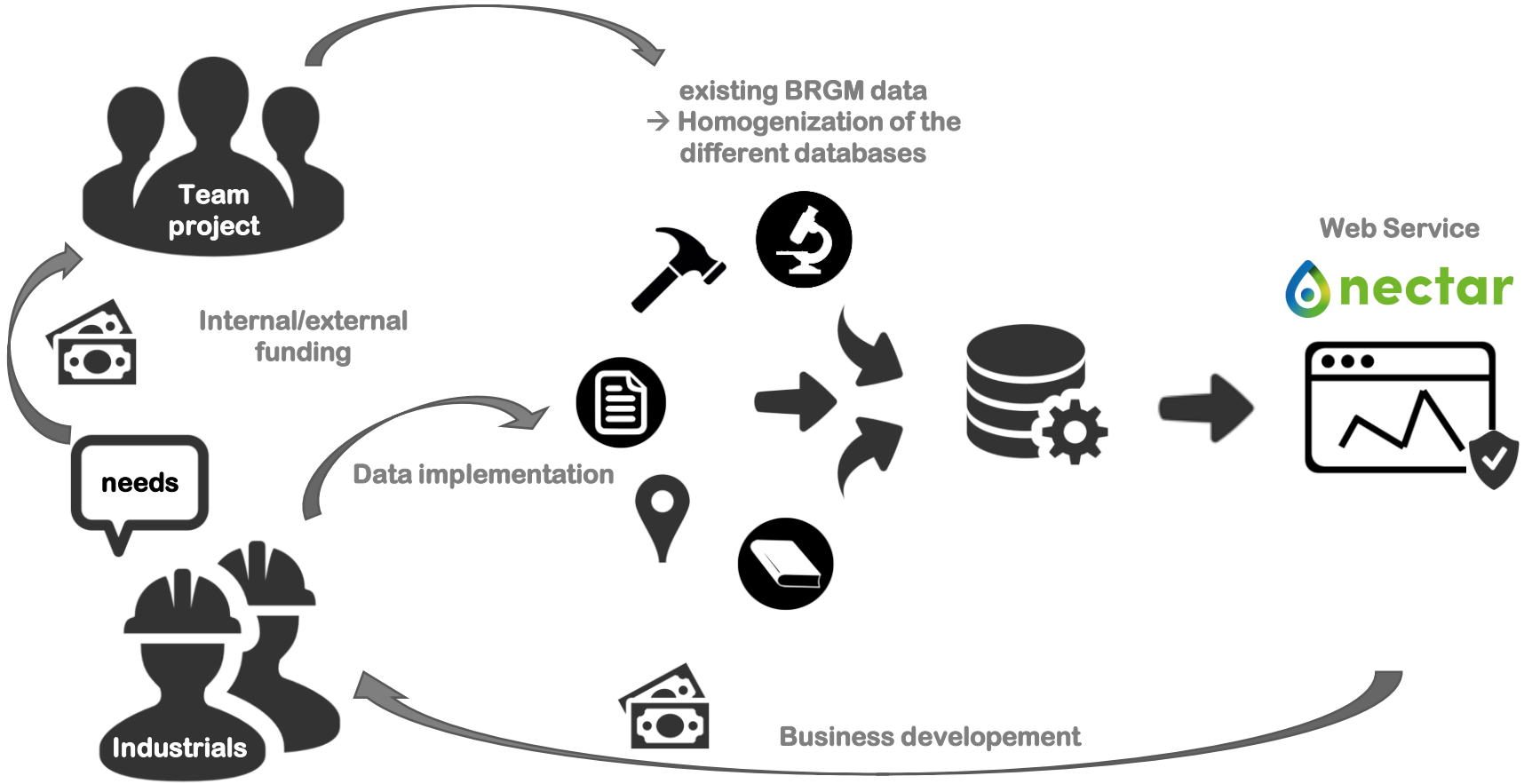


nectar project

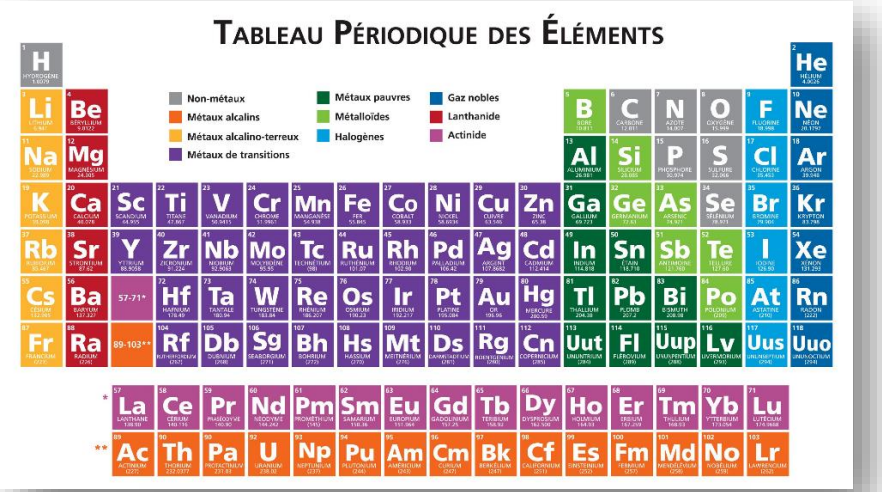
Benefits:

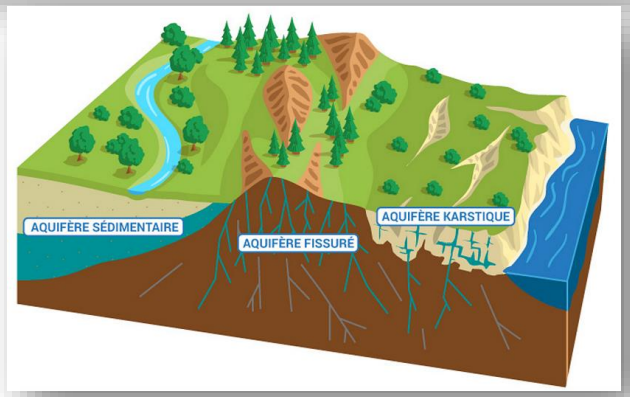
- **Facilitated access to brine data on a national scope initially, then international**
- **Customized and scalable interface that allows you to deliver data with added value**
- **Source of prospective information on substances that may become of interest in the future**
- **An interface with a private access allowing to add your data in a secure way**

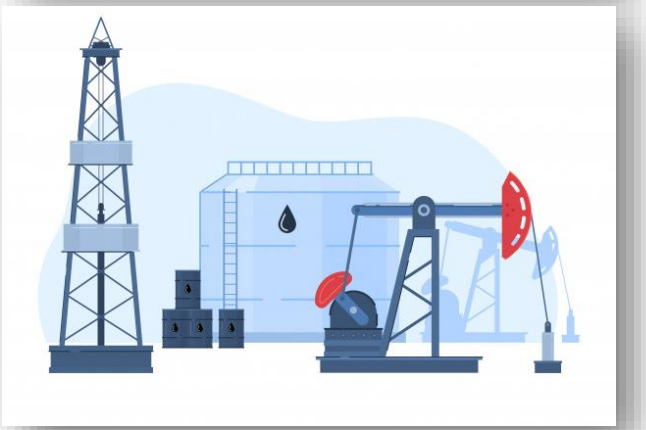
→ **Business development: new activities or activities related to the main activity of your company**

database

- **Major elements** and **physico-chemical parameters** :
  - Na, K, Mg, Ca, Cl, HCO_3, CO_3, SO_4, NO_3 + Eh, pE, O_2, pH
- **Traces Element**:
  - *priority 1* : Li, I, Br, Zn, Rb, Mg
  - *priority 2* : Be, B, Al, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Ga, Sr, Y, Cd, In, Sn, Sb, Cs, Ba, Ra, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, U
- **Information about the aquifer** and surrounding aquifer entities:
  - Permeability, porosity, geology, water flow velocity
- **Drilling information** :
  - depth, diameter, well screen (height, depth), pumping test parameters (volume, transmissivity...), well condition, owner,
- **Radar/remote sensing/geophysical data**







To provide up-to-date scientific knowledge

- Expertise / Data quality: "***adding value to data***"

- **Typology of brines**
  - → hydrogeological contexts, processes & formation mechanisms

- Better knowledge of the resource
  - **WATER & DISSOLVED MINERALS**

- **Optimizing sustainable management**
  - Extraction processes
  - Extraction wells
  - Energy valorization
  - H_2O: reinjection, dilution, aquifer recharge

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Actions and opportunities

funding opportunities

networking opportunities

A favourable context

- Industrial production objectives: **local, sustainable, responsible and with low CO_2 footprint**

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Thank you

for you attention

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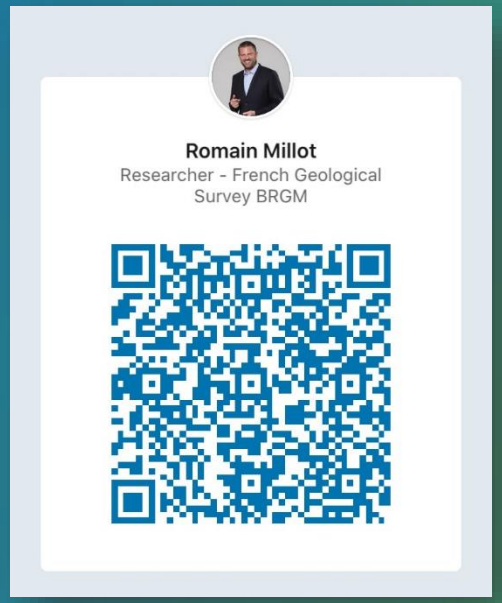

Geoscience for a sustainable Earth

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