

# Imerys and British Lithium Joint Venture

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Developing UK's largest lithium project to supply  
the growing electric vehicles market

June 29, 2023

Alessandro Dazza - Chief Executive Officer

# Disclaimer

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More comprehensive information about Imerys may be obtained on its website ([www.imerys.com](http://www.imerys.com)), under Regulated Information, including its Universal Registration Document filed under No. D.23-0127 on March 22, 2023 with Autorité des Marchés Financiers. Imerys draws the attention of investors to the “Risk factors and Internal control” set forth in the Universal Registration Document.

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# Lithium: a key resource for the energy transition

- The **UK's Net Zero Strategy** and the **Europe's Green Deal** are aligned with pathway to net zero greenhouse gas emissions by 2050
- Fuel combustion across the road transport sector represents **20-28%** of total greenhouse gas emissions in the UK and Europe <sup>1</sup>
- Battery manufacturers rely on **Li-ion technology** for the future of Electric Vehicles
- Lithium is a **critical material** because of its high power density

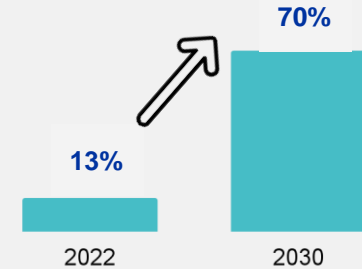
▶ **Lithium is an essential component in the energy transition**  
**European demand is set to increase seven fold until 2030**

<sup>1</sup> UK Office for National Statistics (February 10, 2023), includes battery-powered electric vehicles and rechargeable hybrid electric vehicles. Sources :Benchmark Mineral Intelligence Q1 2023

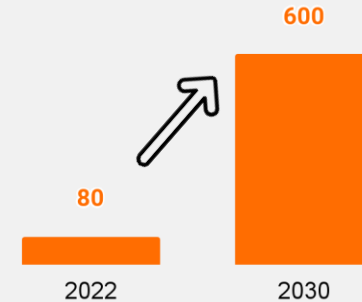
<sup>2</sup> Includes battery-powered electric vehicles and rechargeable hybrid electric vehicles. Sources : Imerys estimate based on market intelligence, EU Commission

<sup>3</sup> Source: Advanced Propulsion Centre Automotive Industry Demand Forecast March 2023

## Forecasted share of sales of electric vehicles in Europe <sup>2</sup>



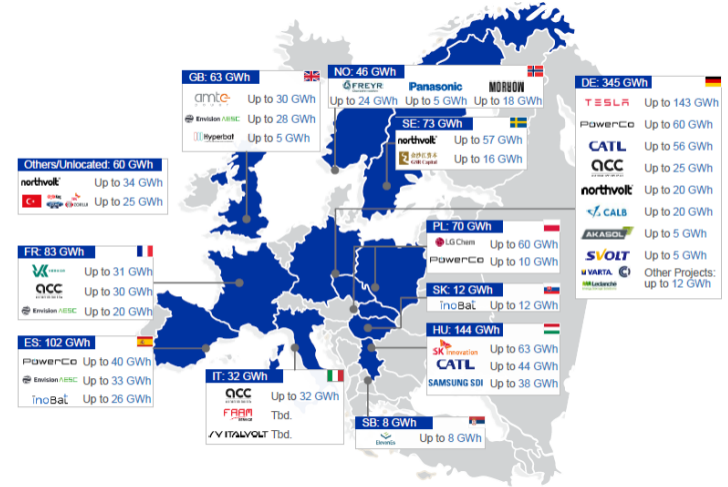
## Forecasted European lithium demand (kt LCE) <sup>3</sup>



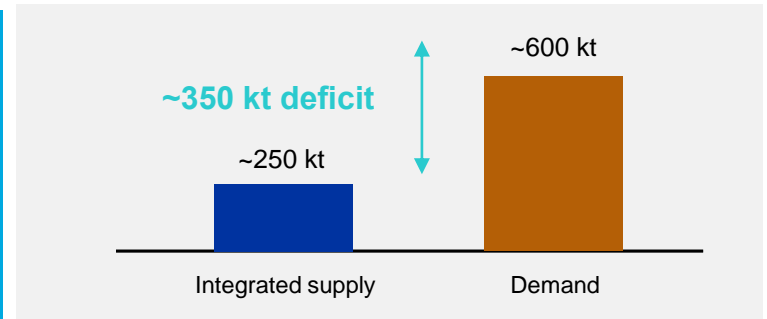
# Lithium: a critical component for European independence

- Over **£100 billion investments planned** to develop the European production of batteries for EVs and to become independent from imports
- However, Europe is expected to remain dependent on imported lithium
  - Announced European lithium projects would provide **less than half of the expected 2030 demand** in Europe
  - Lithium added to the EU and UK “**critical raw materials**” lists in 2020 and 2021 respectively
  - Europe will compete with China and the USA for lithium supply
  - Recent crises (Covid and Ukrainian conflict) have highlighted the **fragility of complex and long supply chains**
- Securing lithium production and supply is a matter of UK and European sovereignty

## European battery gigafactories (announced projects)



## Forecasted European lithium supply-demand balance in 2030 (kt LCE)



Announced projects (No existing operation)

# UK Government support for electrification and battery supply chain

- **Resilience for the Future: United Kingdom's Critical Minerals Strategy**
  - Encouraging investment throughout the supply chain from exploration and mining to refining and midstream processing; faster and more efficient planning/permitting; R&D funding
  - Critical Minerals Intelligence Centre to provide access to geological data
- **Net Zero – Building Back Greener**
  - Sale of new internal combustion vehicles banned from 2030
  - Plan to fully decarbonise power generation by 2035
  - Decarbonised country by 2050
- **Financial support to the battery supply chain**
  - Faraday Battery Challenge: £541m investment in research, innovation and facilities to drive the development of a battery business in the UK
  - Automotive Transformation Fund: £1bn fund to support electrification and related supply chain
- **Atlantic Declaration, June 8, 2023** – USA plans to designate the UK as a 'domestic source' meaning British companies could benefit from US Government investment in electrification under the Inflation Reduction Act, on the same basis as American producers
- **EU/UK Trade and Cooperation Agreement** – Rules of origin: tariff-free sale of vehicles to the EU requiring 55% local content and 65% local battery-cell content from 2027

# Imerys and British Lithium Joint Venture: combining resources and technology to develop the UK's first lithium project to supply the electric vehicles industry



- Existing mining activity in Cornwall; confirmed inferred resources of 161 MT at 0.54% lithium oxide, giving confidence for a life of mine exceeding 30 years <sup>1</sup>
- Experienced teams and solid infrastructure
- Lithium expertise developed through its EMILI project in France



80%



- Bespoke lithium processing technology to produce battery-grade lithium from Cornish granite
- Experienced technical team
- State-of-the-art pilot plant



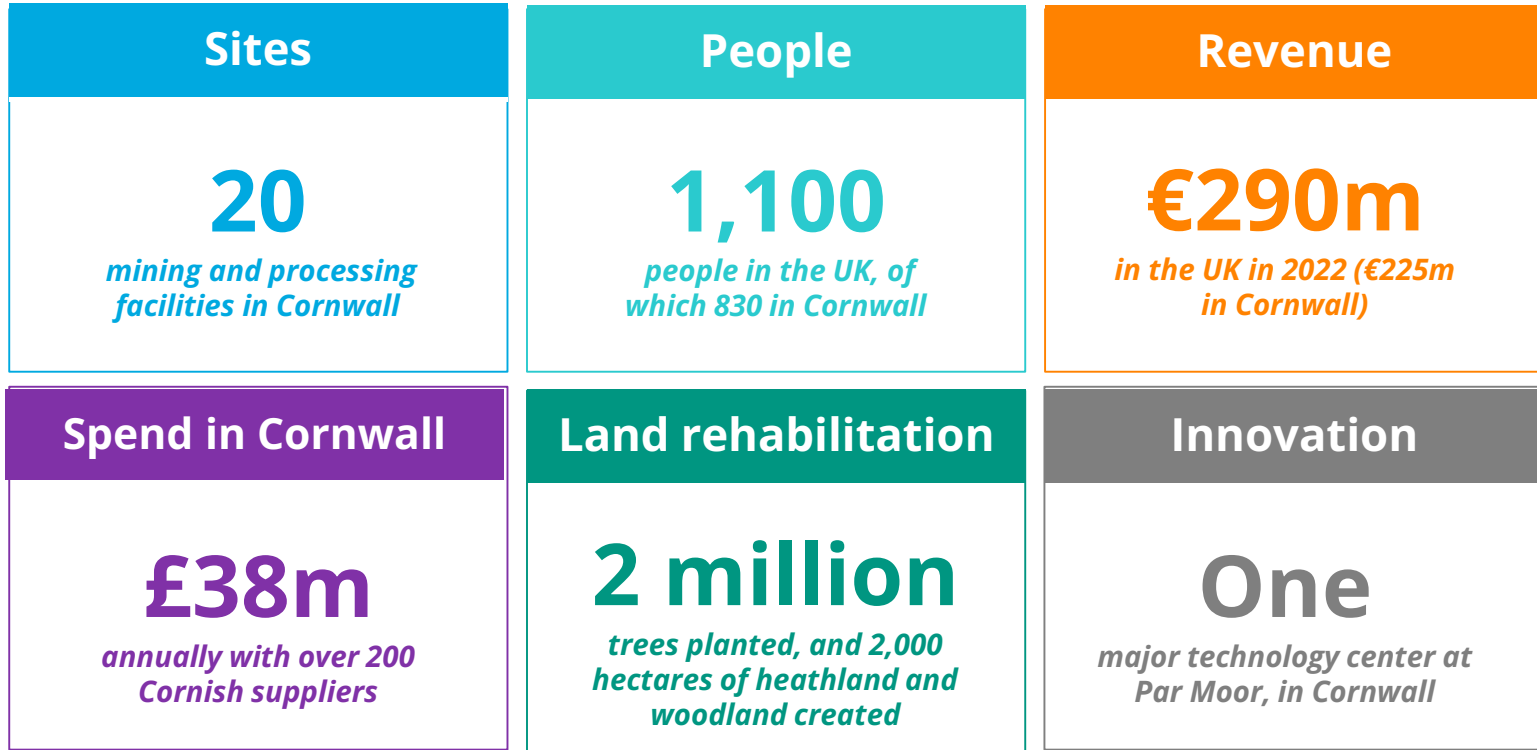
20%

## Imerys British Lithium Joint Venture

<sup>1</sup> The Mineral Resource Estimate was prepared by Mr Mathew Watson, Head of Geology of Research by British Lithium Limited and the Inferred Resources classified in accordance with the JORC Code 2012. Full details are available on British Lithium's website.



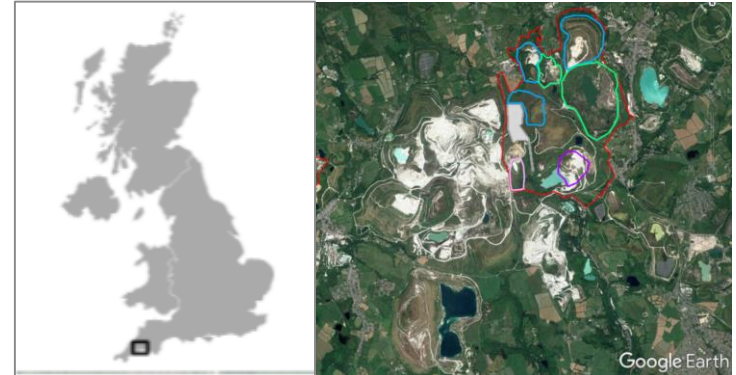
# Imerys has been mining and processing in Cornwall since 1999





# Cornwall has a long history of mining

- **Long history of mining** going back to tin and copper mining in the 19th century, and today **one of the world's largest kaolin producers in the world**
- Excellent **infrastructure**: highways, powerlines, gas pipelines, rail and port access
  - Power: **40% from renewables sources**, contributing to the sustainability of the project
  - Host to the **Camborne School of Mines**, one of the most prestigious in the world
  - **Thriving mining services and supply chain**, with over 100 professional geological, mining and engineering firms
- Local Cornwall Council in charge of planning and approvals with sound knowledge and experience in mining practices
- **Supportive local community**
- Strong **local interest in high-quality, non-seasonal jobs**



# British Lithium key milestones

- Discovery of Britain's first lithium presence in Cornwall in 2017
- **5 years of development to define a novel technology** to extract and produce battery-grade lithium from unconventional lithium-rich mica-granite
- Filing of seven UK and three international patents (pending)
- Construction of **a pilot plant in Cornwall** to validate and further develop the technology
- Strong **support from the Cornwall and UK Government**



# Combination of British Lithium and Emili projects to make Imerys the leading integrated lithium producer in Europe

- Imerys set to become the **leading European supplier of lithium for batteries within 5 years**, and a key player in the energy transition in the UK and Europe

**34,000 tonnes/yr** of lithium hydroxide in France (expected production in 2028)



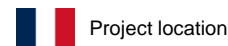
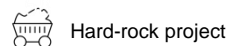
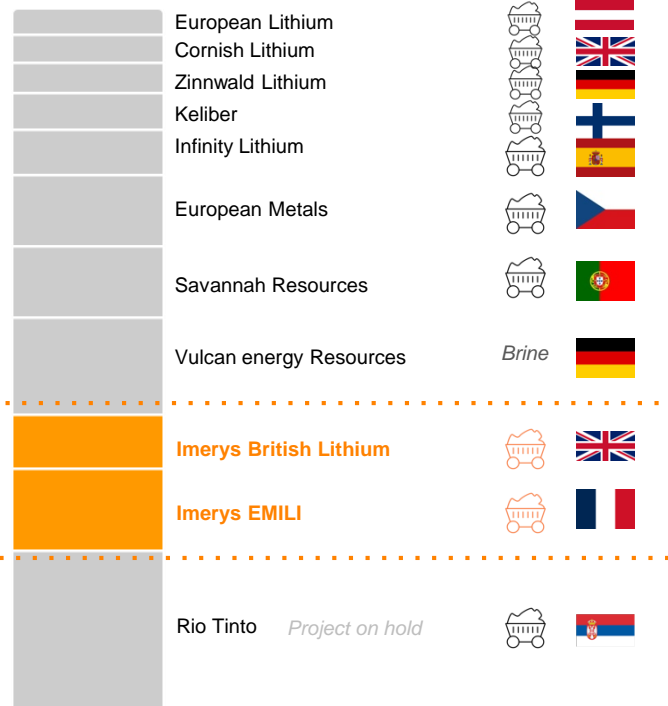
**20,000 tonnes/yr** of lithium carbonate<sup>1</sup>, at Imerys British Lithium joint venture in the UK 75%

- Significant synergies expected** by the combination of the 2 projects
- Both projects to adopt the IRMA Standard<sup>2</sup>**, the highest standard in terms of responsible mining, minimising environmental impact and maximising community engagement
- Imerys British Lithium to foster economic growth in Cornwall with significant job creation

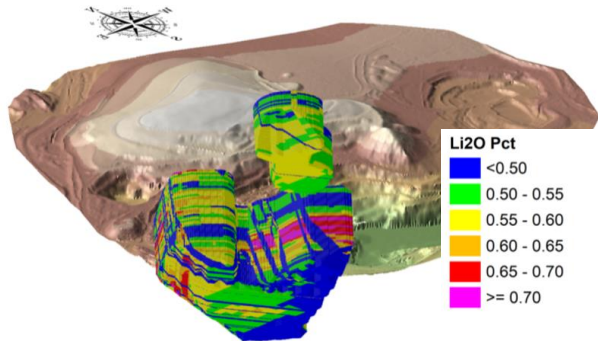
<sup>1</sup> with option for hydroxide

<sup>2</sup> Initiative for Responsible Mining Assurance

## Announced European lithium projects (kt LCE)

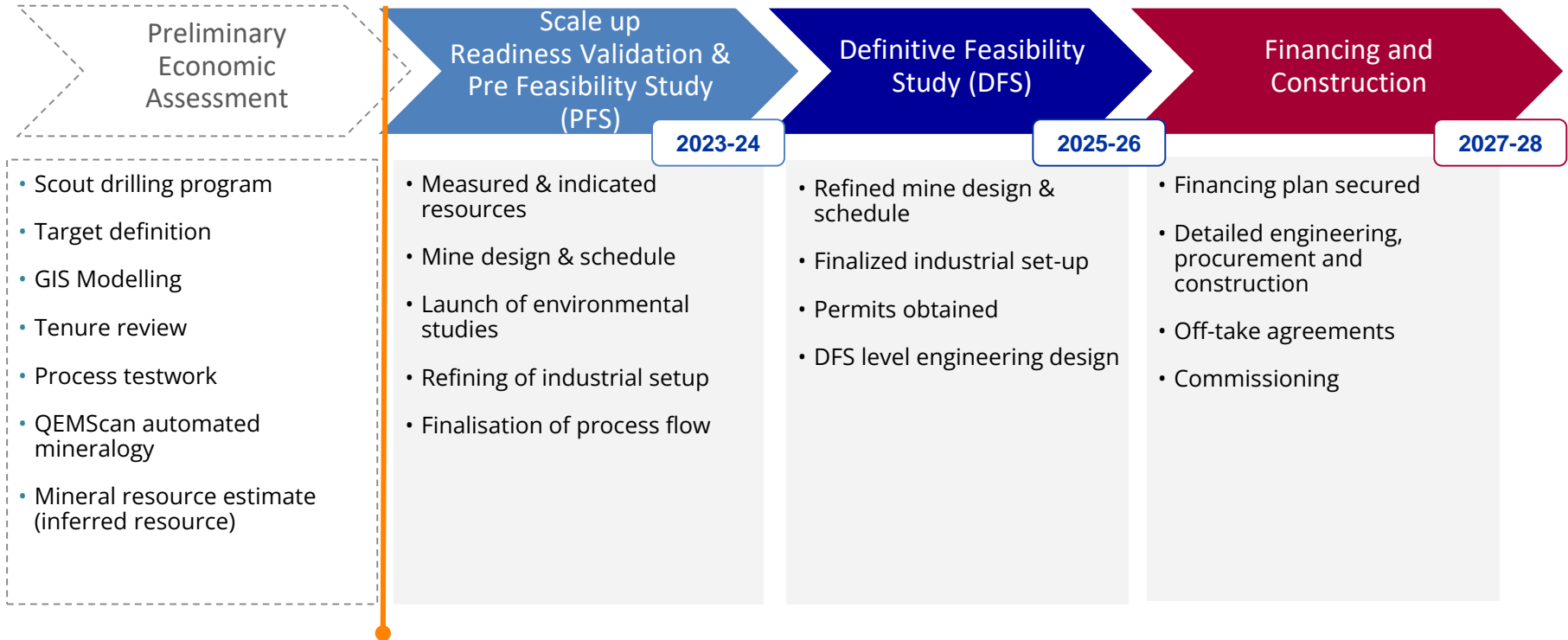


# Designing a responsible and sustainable project from the start



- **Brownfield site:** mining an existing kaolin pit, low visibility from the road
- **Electric mining fleet** (haul trucks and excavators) for an emission-free mining activity
- **Mine-to-conversion:** concentration and conversion unit directly on site, avoiding transportation and related emissions
- **Low strip ratio:** thick ore body exposed at surface, allowing a much lower strip ratio than most other known hard-rock deposit
- **High beneficiation recovery:** thanks to innovative, patented process
- **Sustainable Power:** Cornish grid electricity largely generated from wind and solar power
- **UK production:** feeding local EV industry, avoiding imports from China, Australia or South America

# Imerys British Lithium: Indicative timeline



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# APPENDIX

# British Lithium key milestones

## 2017

Imerys entered into exclusivity agreement with British Lithium to explore for lithium over IML's extensive land in Cornwall

British Lithium began field exploration, mapping and surveys

Began **R&D to determine process for extraction of lithium from granite** – never done before commercially

## 2018

Mutually determined **priority areas** with highest potential and lowest social & environ impact.

British Lithium was the **first company to ever drill for lithium in UK**

Confirmed a **significant lithium Resource in micaceous granite** beneath Imerys former Gunheath / Goonbarrow kaolin quarry, near St Austell, Cornwall

## 2019-20

£1.5m in research and development grants from Innovate UK

**Extensive R&D** leads to **Patent applications** for Li-Sep™ and LiMica-Sep™ technologies

**Preliminary Economic Evaluation**

## 2021

End-to-end **lithium pilot plant built in Cornwall** to trial and further develop British Lithium's advanced technology. Part funded by £2m SBRI grant from Innovate UK

Produced 99.8% pure lithium carbonate from Cornish granite

## 2022-23

Ongoing piloting essential to fully develop technology and prove scalability

£2 million Scale up Readiness Validation grant awarded by UK Automotive Transformation Fund

**Imerys / British Lithium JV** agreed, allowing full engagement of both parties and alignment of interests

**Inferred Resource of 160.8 Mt at 0.53% lithium carbonate declared May 2023.<sup>2</sup>**



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# Thank you for your attention

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