

DIGIECOQUARRY, THE FUTURE OF QUARRIES IS ALREADY THE PRESENT



**VI CONGRESO NACIONAL
ÁRIDOS**

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101003750

WHAT IS DEQ?

DIGIECOQUARRY aims to design, develop and validate in **5 pilot environments an Innovative Quarrying System** (IQS) comprising sensors, processes, tools and methods for data capture, processing and sharing to provide **integrated digitalised, automatic and real-time process** control for **aggregates quarries**.



Health & Safety and Security

Upgraded H&S and Security conditions for workers, avoiding their exposure to dangerous operations through automated and controlled processes.



Efficiency, Selectivity and Profitability

Enhanced Selectivity and Efficiency of the aggregates sites, thus increasing the profitability of the processes, ensuring long-term operational sustainability and viability.



Environmental Impact

Maximised Sustainability and Resource Efficiency by reducing emissions, improving the management of water and fostering a sustainable supply of Raw Materials.



Social Acceptance

Improved social acceptance through the communication with policy makers, citizens and relevant actors to get them involved in the value chain

OUR CONSORTIUM

25 organisations. 23 from 8 different EU countries + 2 international partners

DIGIECOQUARRY's consortium has been designed covering:

QUARRYING INDUSTRY

Value chain

TECHNOLOGY EXPERTS

To add great value to the quarrying sector

RELEVANT STAKEHOLDERS

To maximise the project's impact and ensure its acceptance



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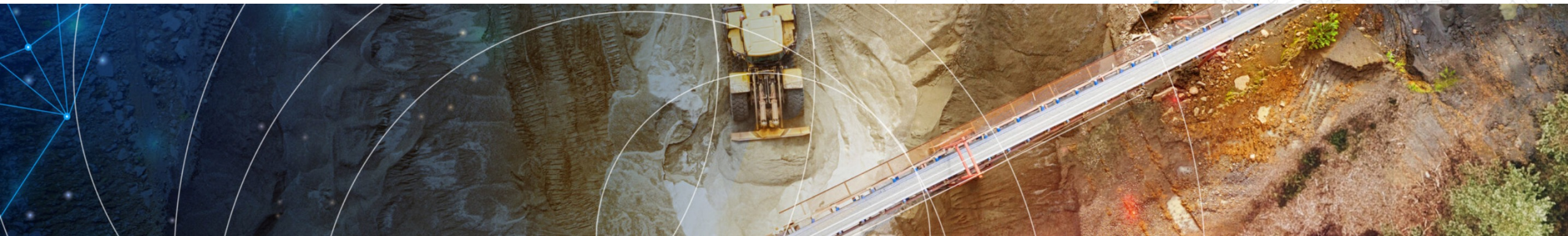
OUR IAB

DIGIECOQUARRY can rely on an International **Advisory Board (IAB)** composed by **relevant stakeholders** of the aggregates value chain. It will **provide external input, advice** and **feedback** when the project is experiencing difficulties during its execution.





OUR PILOTS



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DEQ GRANULATS VICAT - Fenouillet



Reference pilot for
PUBLIC ACCEPTANCE



SOLUTIONS TO BE TESTED

- Innovative mobile crusher.
- Devices for automation of the treatment plant.
 - Monitoring sensors and analysis tools for mobile machinery.
 - BIM.
 - Artificial Intelligence algorithms
 - H&S technologies.
- Environmental simulation platform.
 - SLO



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SOLUTIONS TO BE TESTED

- Advanced rock mass characterisation.
- New drilling technology.
 - New explosives.
 - Drill to mill.
- Monitoring sensors & analysis tools for mobile machinery.
 - BIM.
- Artificial Intelligence algorithms.
 - H&S technologies.
- Environmental simulation platform.
 - SLO.



DEQ LAFARGE HOLCIM - Piolto

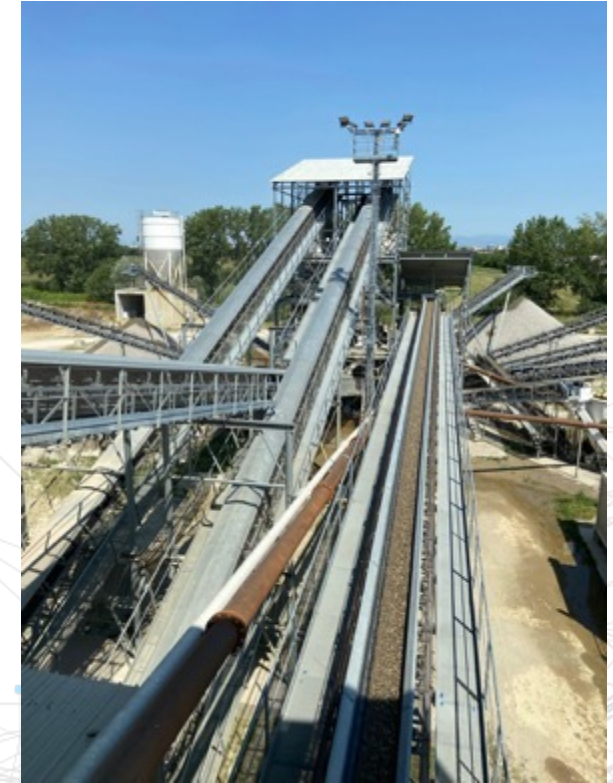
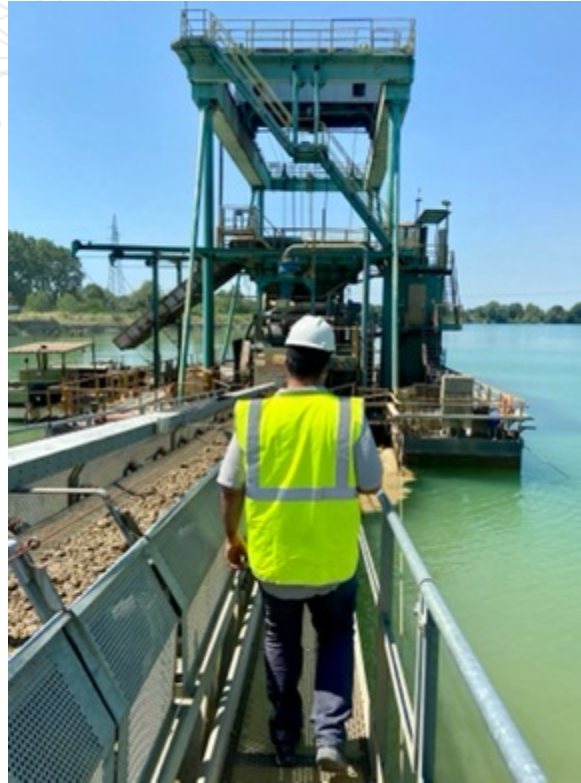


Reference pilot for
CRUSHING OPTIMISATION



SOLUTIONS TO BE TESTED

- High resolution models for crushing and screening optimisation.
- Devices for automation of the treatment plant.
- Monitoring sensors and analysis tools for mobile machinery.
 - BIM.
 - Artificial Intelligence algorithms.
 - H&S technologies.
- Environmental simulation platform.
 - SLO.

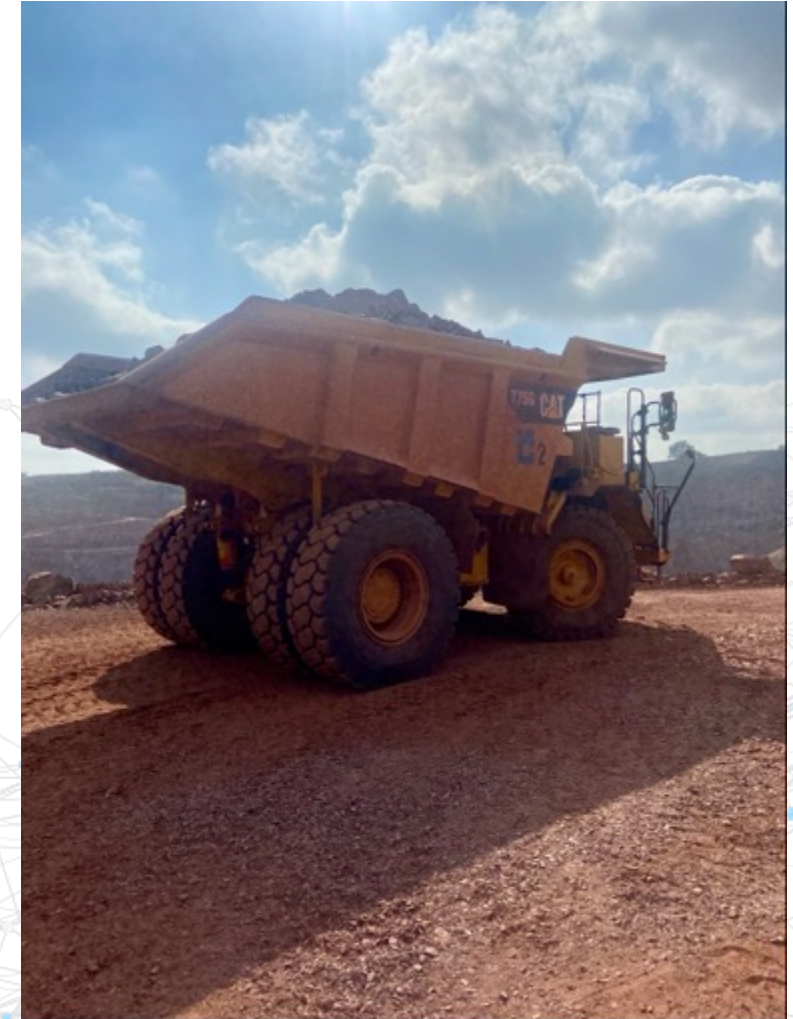


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SOLUTIONS TO BE TESTED

- Mobile equipment & geological deposit digitalisation & real time modelling.
- Geofence system
 - BIM.
- Artificial Intelligence algorithms
 - H&S technologies
- Environmental simulation platform.
 - SLO.



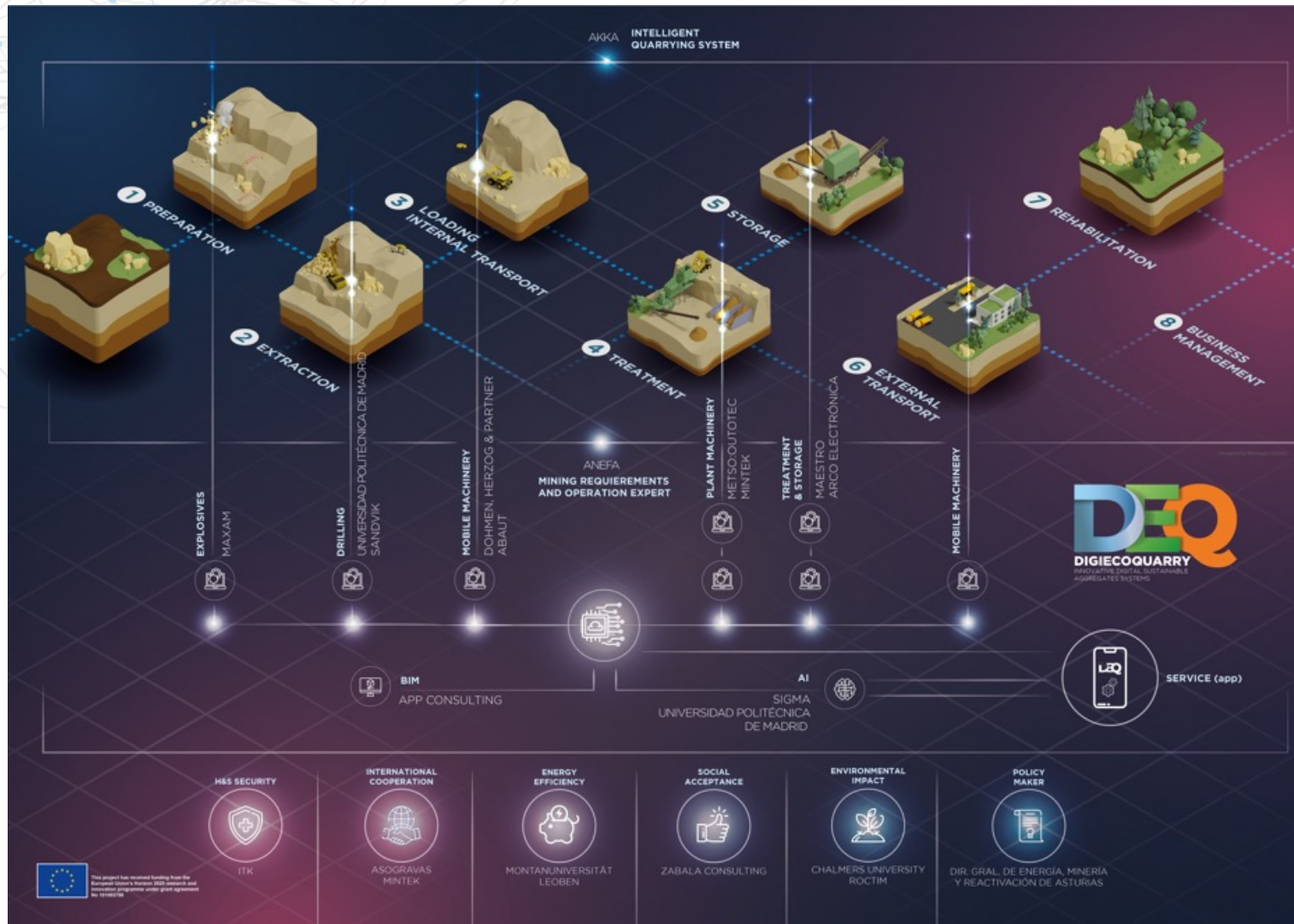


SOLUTIONS TO BE TESTED

- Devices for automation of the treatment plant and storage facilities.
- Monitoring sensors and analysis tools for mobile machinery.
 - BIM.
 - Artificial Intelligence algorithms.
 - H&S technologies.
- Environmental simulation platform
 - SLO.



INTEGRATION WITHIN THE IQS



<https://digiecoquarry.eu/>



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THANK YOU!



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