Community of Practice

Help us gather user feedback on our R&D directions

www.iamp-hydro.eu

Please join by scanning the QR code

iAMP-Hydro

Weighing our options

What relevance does improved flow forecasting using AI have to your operations or research ?

None

Important

Highly relevant for planning maintenance stops

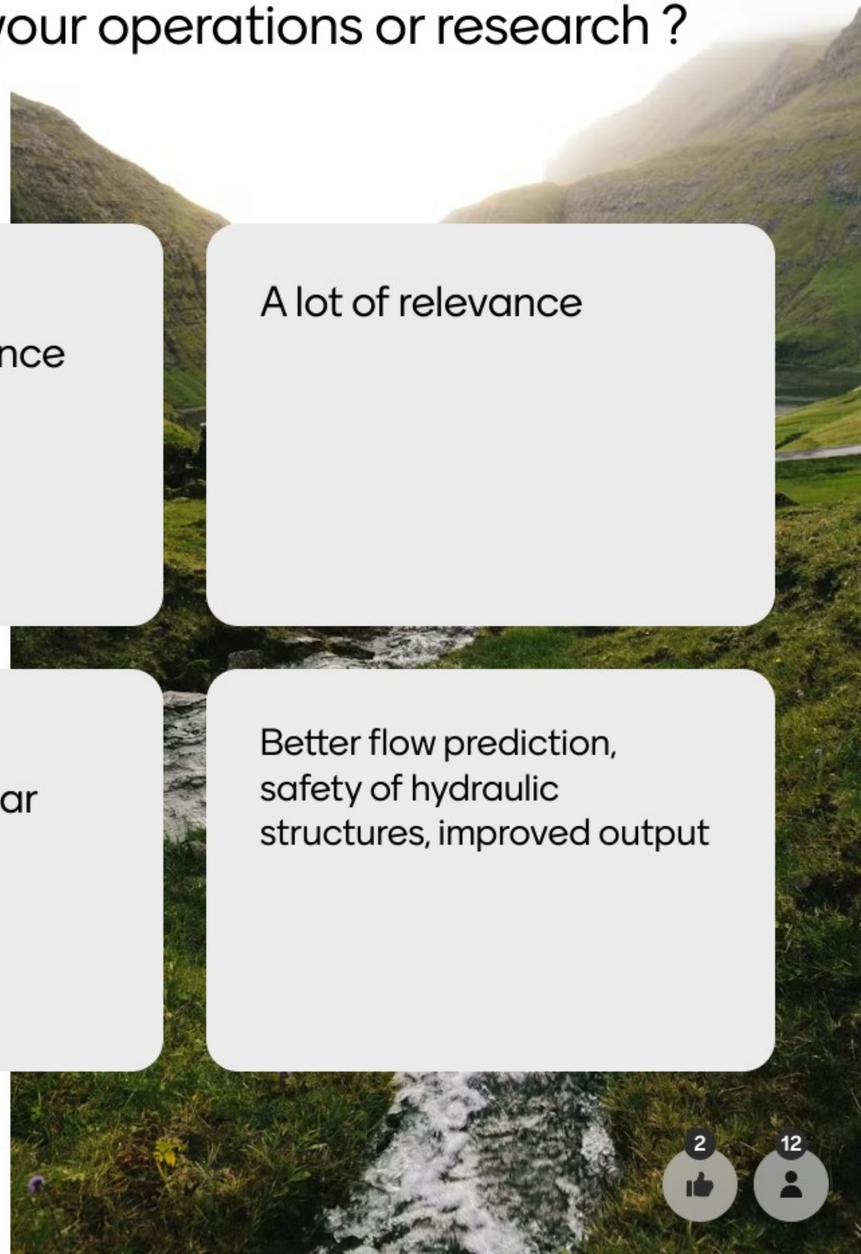
A lot of relevance

High relevant

Improving energy generation by better reservoir operation

will be a lot more important in the near future

Better flow prediction, safety of hydraulic structures, improved output



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Weighing our options

What relevance does improved flow forecasting using AI have to your operations or research ?

Very important

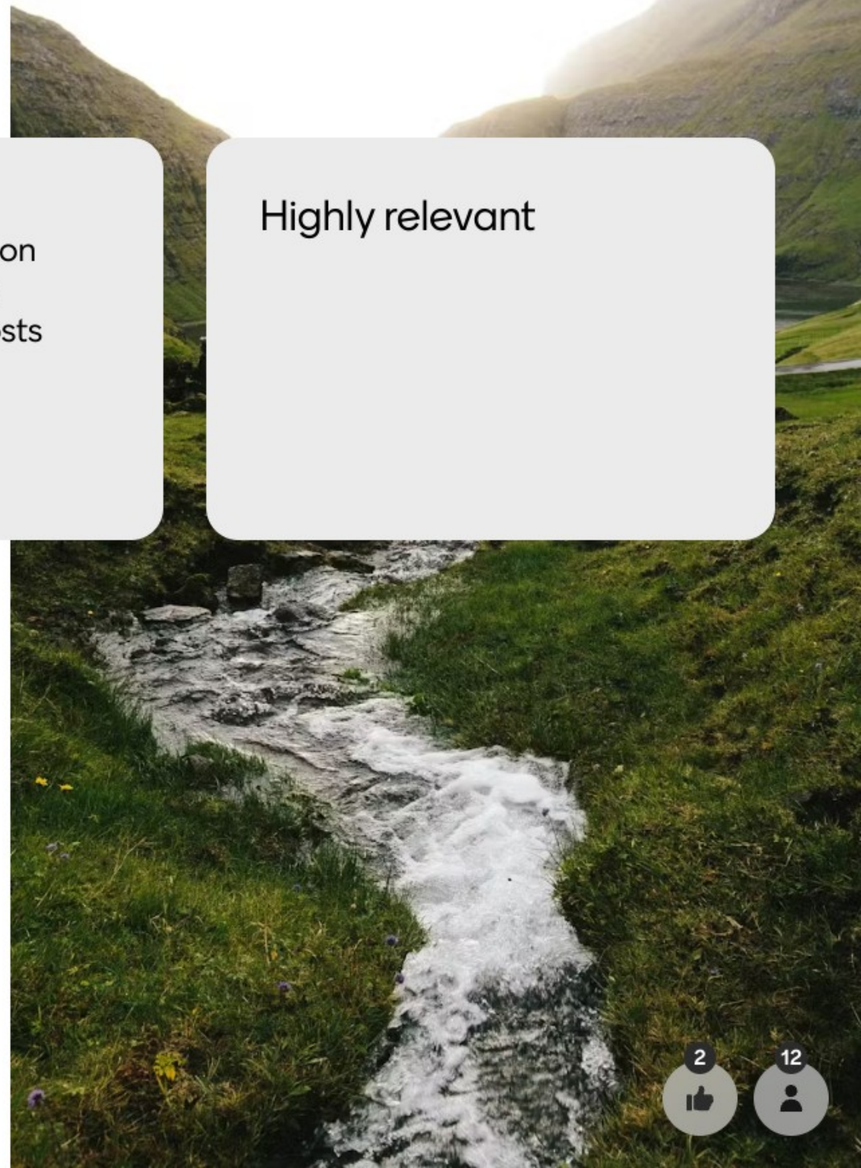
Timely and relevant

We are looking into the potential of micro hydro on rivers and its valuable to predict production vs costs both financial and environmental

Highly relevant

it provides a vision of the data and how it will influence the process in the future

Floods forecast



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Let's decide

What key metrics could be impacted favourably by these new approaches (revenue generation, efficiency, reliability, environmental..)?

All of them

reliability

Revenue generation

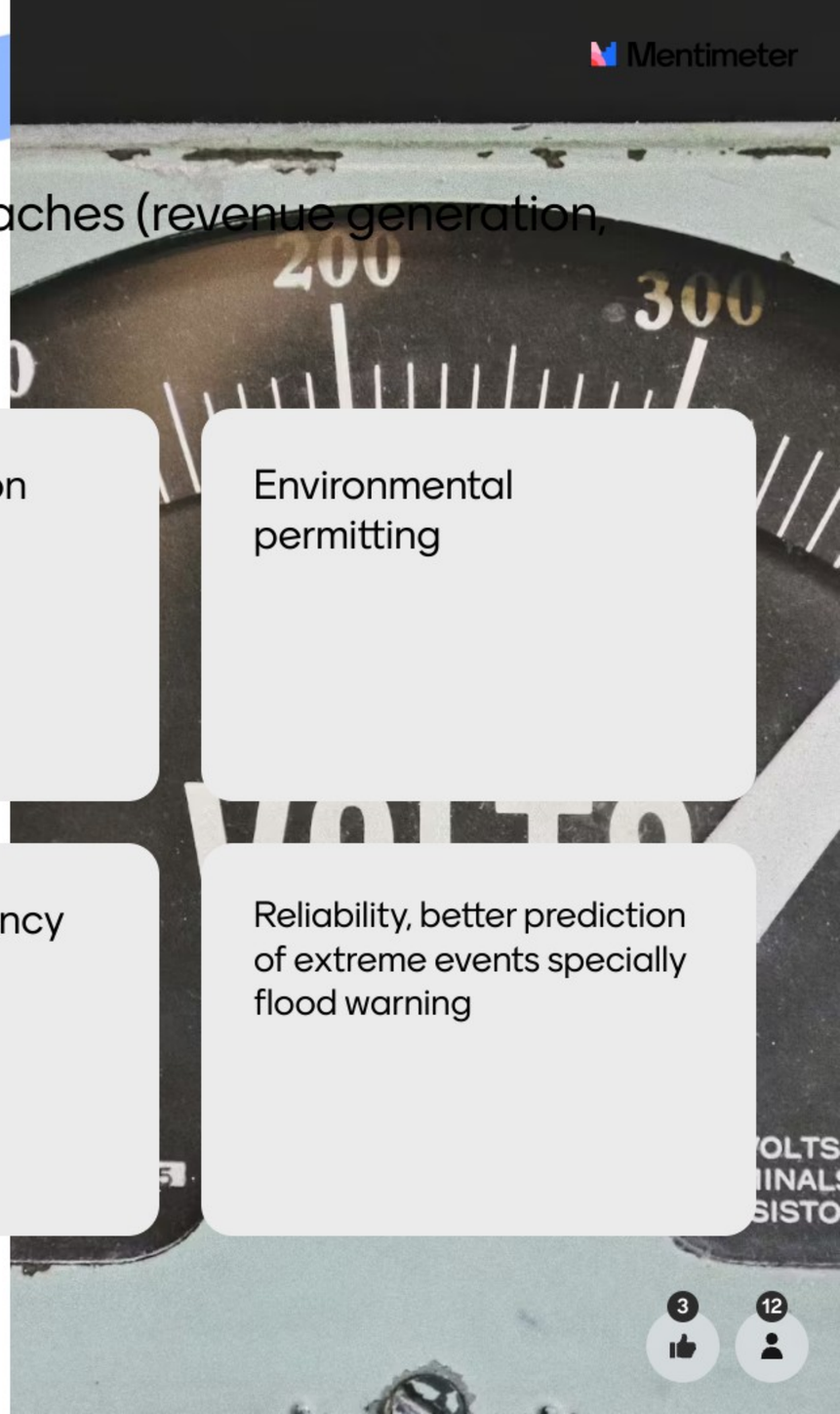
Environmental permitting

Revenue generation

Cost efficiency of capital expenditure

Operational efficiency

Reliability, better prediction of extreme events specially flood warning



Let's decide

What key metrics could be impacted favourably by these new approaches (revenue generation, efficiency, reliability, environmental..)?

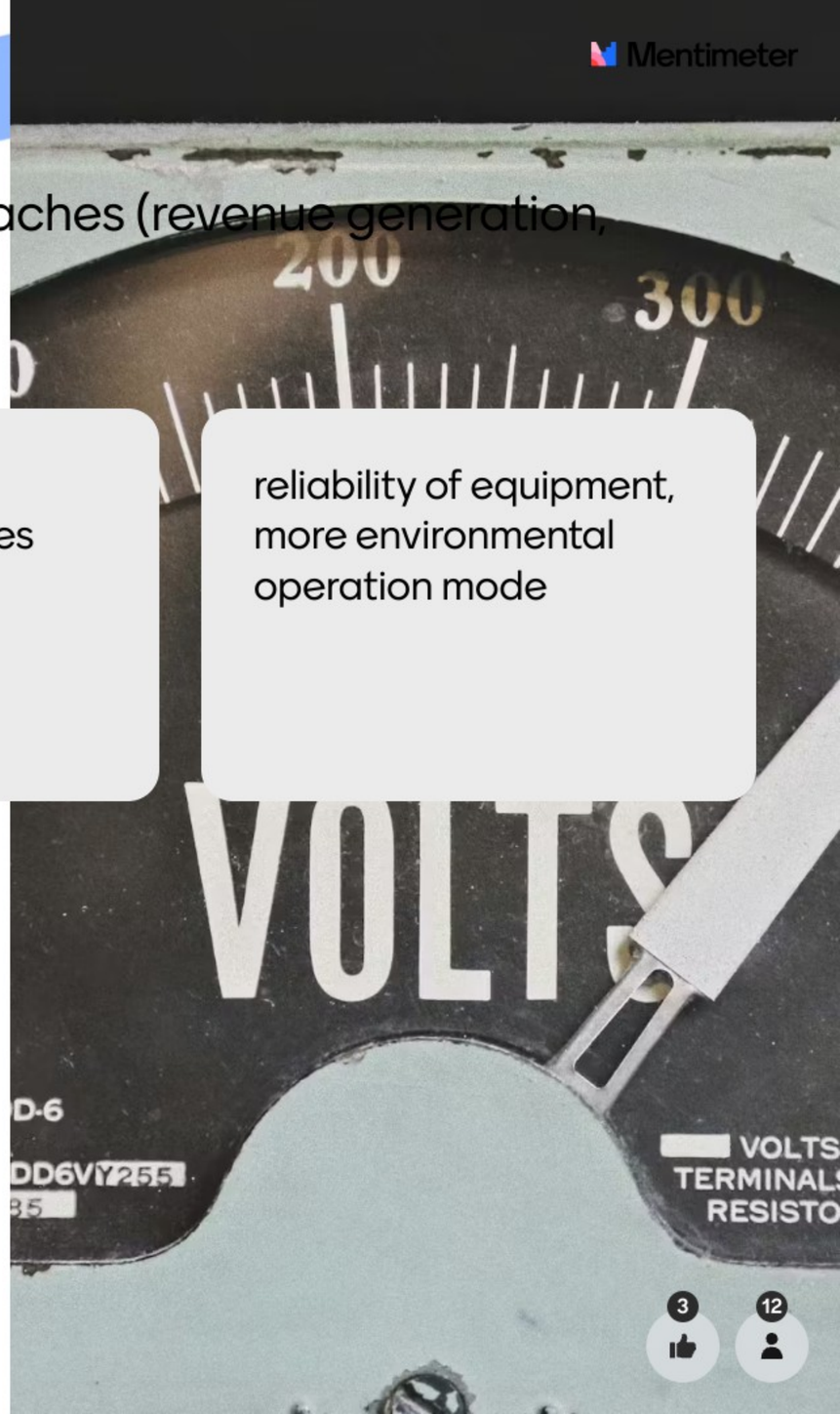
Revenue, efficiency and energy generation, damage reduction, quality of water downstream

Flood forecasting

Efficiency, environmental issues

reliability of equipment, more environmental operation mode

Public awareness of the role of hydro



Let's decide

What challenges do you foresee in implementing this approach in your context (e.g. technical, data, skills, integration..)?

Volume of data necessary

Data completeness and quality

Technical skills

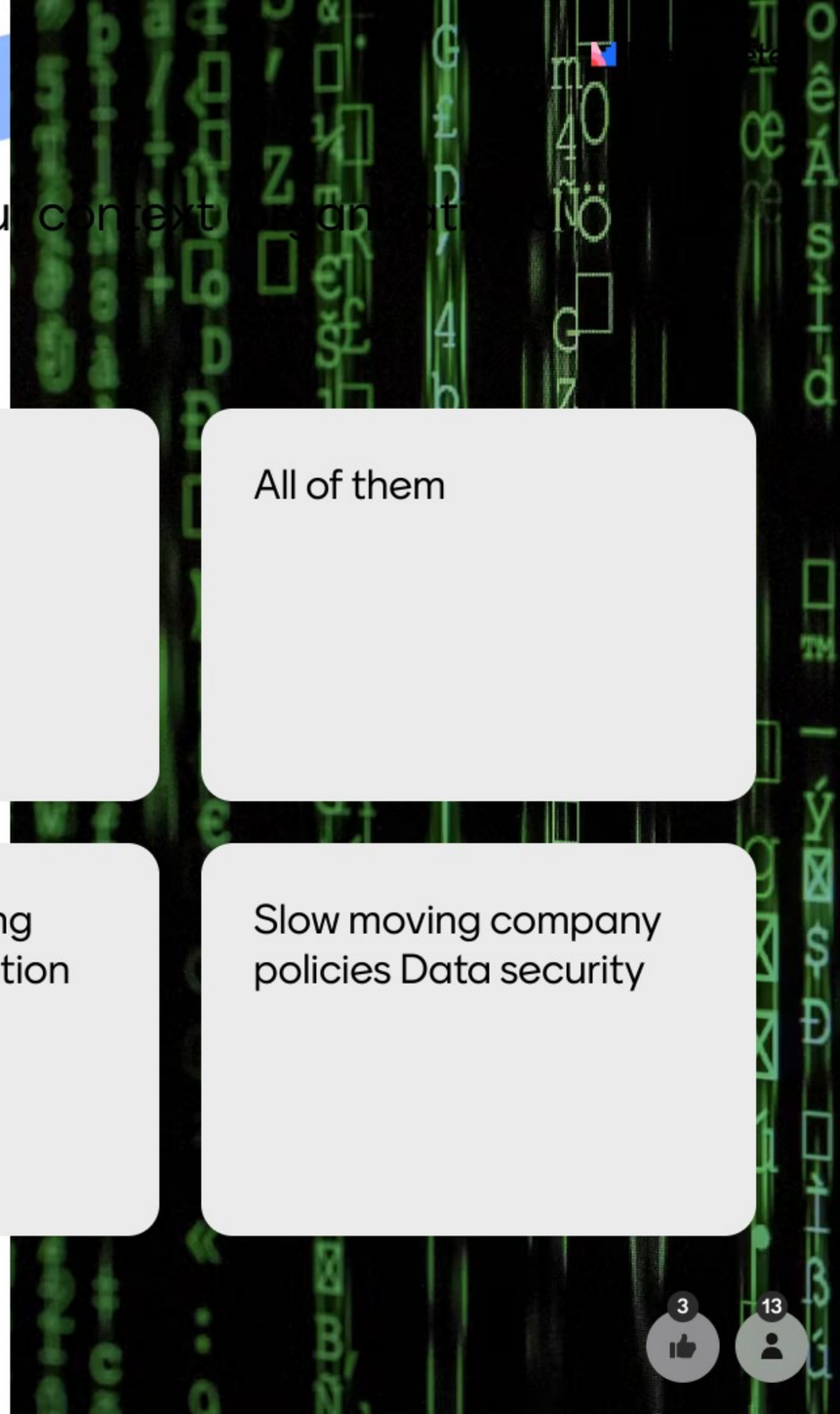
All of them

Signal connectivity in isolated plants

Lack of technical and skills, perhaps

Data and monitoring due to remote location of hpp

Slow moving company policies Data security



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Let's decide

What challenges do you foresee in implementing this approach in your context (e.g., technical, data, skills, integration..)?

Raw electric materials and micro chips mainly developed outside of the EU

Cost estimate

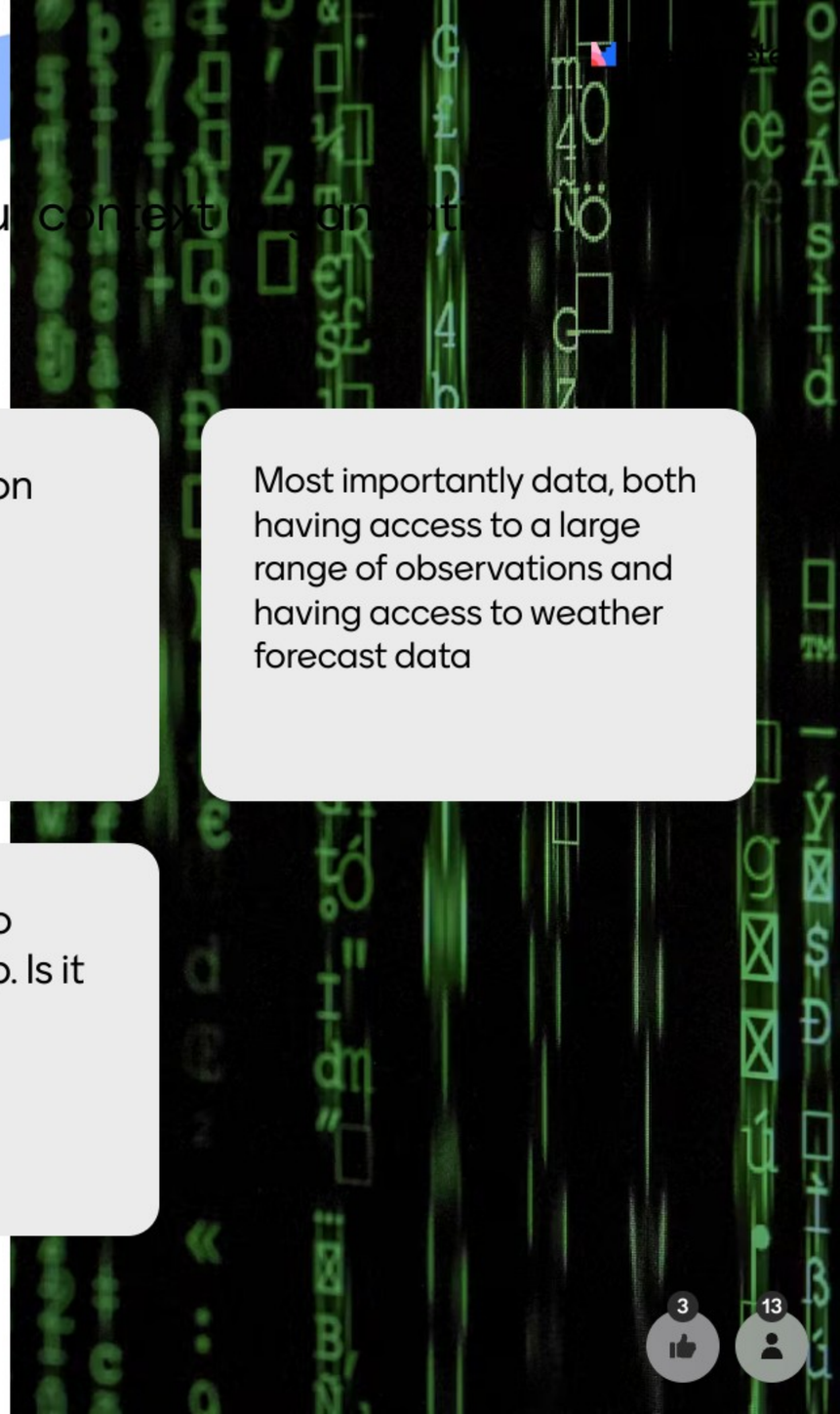
Training & education

Most importantly data, both having access to a large range of observations and having access to weather forecast data

skills and integration

integration methods

Linking flow data to impacts on fish pop. Is it bring done?



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Let's decide

Have you implemented any related digitalisation initiatives in your plants or research?

No

Not yet. But I like the idea!!

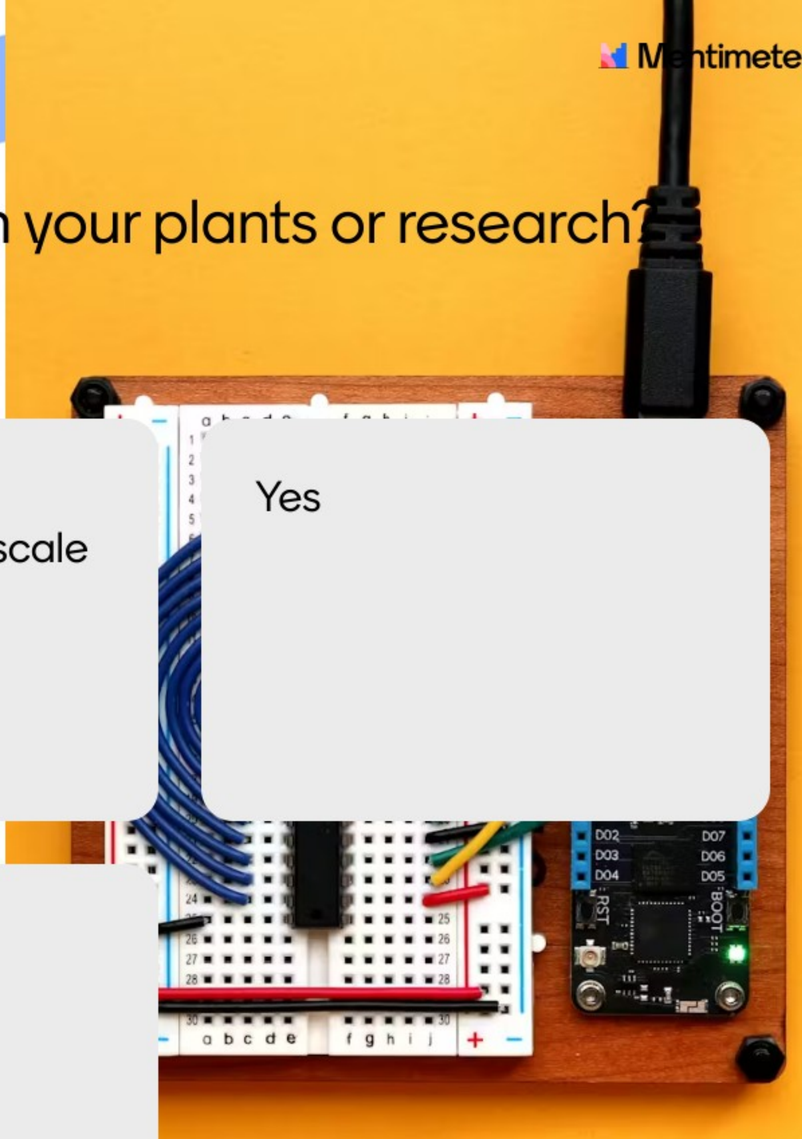
Estimate of some benefits at the EU scale

Yes

Artificial intelligence

Data interoperability

No



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Let's decide

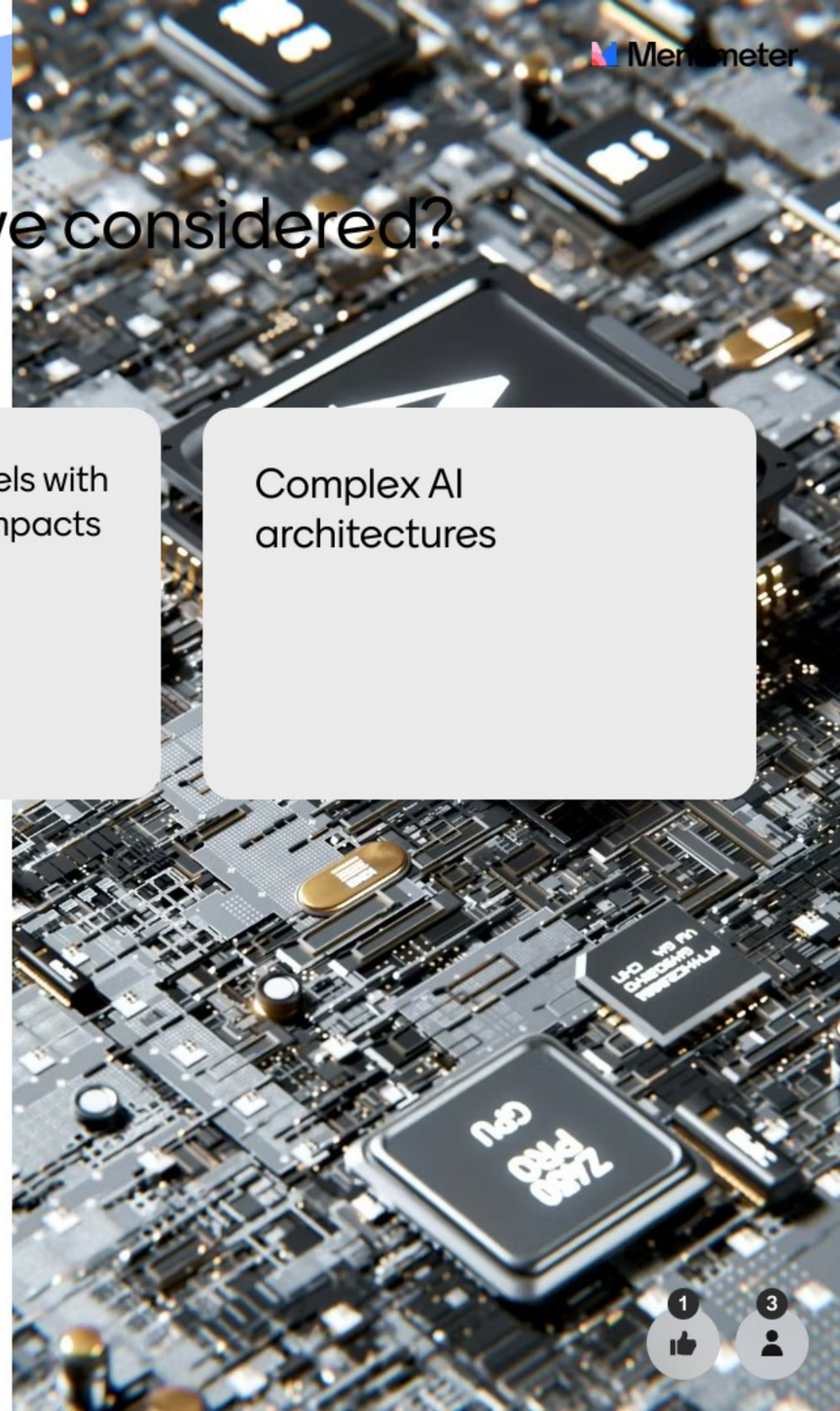
Are there other techniques or data we should have considered?

Integration of accurate meteo/ satellite data

Using weather prediction data for short term forecast seem necessary

Can you link the models with fish population and impacts of small dams?

Complex AI architectures



Let's decide

What else do you want to know about hydropower digitalisation, and are you interested in keeping in touch with our community of practice?

Costs and maintenance needs of digital devices

Validation of models for future years

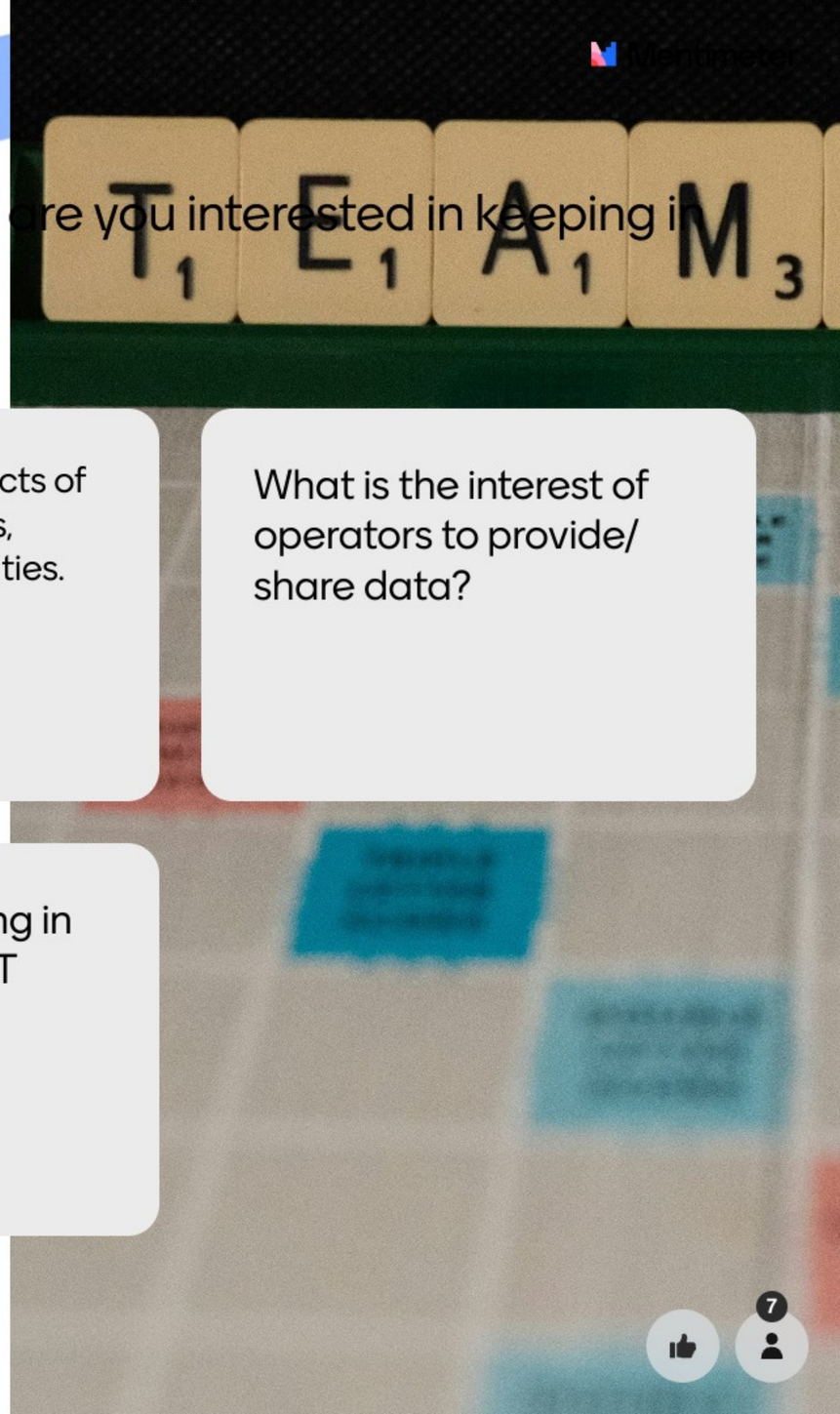
country specific impacts of digitalisation, benefits, challenges, opportunities.

What is the interest of operators to provide/ share data?

What are long term perspectives

What are the benefits of this digitization?

Interested in keeping in touch for RENEWAT INTERREG project



Mentimeter

Any questions?

3 questions
5 upvotes

Great work! 🙌

Thank you for participating and deciding together