Final Event in Bilbao, Spain, April 9-10
Finalists receive exclusive access to the Energy Tech Summit, Europe's largest Startup climate tech conference

I'm a startup, why should I join?

- **Paid MVP project.** The five winning startups (one per track) receive $30,000 each for collaboration with ABB to address the challenge.
- **SynerLeap Special Membership.** Winners enjoy a 6-month membership at ABB's startup accelerator, SynerLeap. This offers enhanced growth and visibility opportunities with ABB, industrial partners, and customers. Valued at $10,000.
- **Networking.** Unique opportunities to connect and maintain contact with key figures within ABB.
- **Customers.** Potential to offer solutions to ABB's global customer base.
- **Winners receive exclusive mentoring sessions from Microsoft startup advisors.**
- **ABB insight.** Interaction with ABB and SynerLeap coaches for in-depth understanding of products, customers, and industrial domains, along with business development support.
- **Social Media Promotion:** Benefit from promotional campaigns on ABB's social media platforms, increasing their visibility and market presence.
- **Access to state-of-the-art technology.** Gain access to ABB's cutting-edge tools, infrastructure, and industrial data.
- **Long-term Partnership Potential** Possibility of a long-term partnership or collaboration with ABB beyond the initial project scope, for sustained support and growth.

Apply by February 4th
We review applications continuously during the application period.

Apply here

ABB Electrification Smart Buildings
Smart Buildings Performance Metrics

Read more

Data-driven Key Performance Indicators (KPIs) framework for energy efficiency and sustainability in buildings.

Convenient integration and analysis of energy efficiency and sustainability KPIs: a solution for regulatory compliance and clear stakeholder communications.

Analyzing energy efficiency and sustainability involves considering thousands of KPIs. The main challenges are:

1. Data can be collected manually or from various internal and external sources for a comprehensive overview.
2. KPIs and frameworks should be scalable and adaptable for various applications.

For a comprehensive energy efficiency and sustainability performance analysis, it is essential to aggregate and adjust all relevant data according to purpose-specific frameworks using a harmonized approach with well-defined metrics. This method should be easy to establish, utilize, and adapt to comply with various countries' regulations.

What is the impact of the solution we are looking for?

We want to provide a seamless and convenient method for integrating and analyzing data from various sources, allowing for a comprehensive understanding of KPIs related to energy efficiency and sustainability. This adaptable and scalable solution is compliant with international protocols for energy management and environmental performance, such as ISO 50001, and can provide a clear and standardized framework for conveying analysis results to different stakeholders.
By establishing a comprehensive link between energy and non-energy data, the solution offers a complete picture of different applications' performance in terms of energy efficiency and sustainability.

Focus segments

- Core focus in commercial applications and extendable to other type of applications / segments in the EU market
- Fulfilling key regulations in EU and relevant international protocols (e.g. ISO50001)

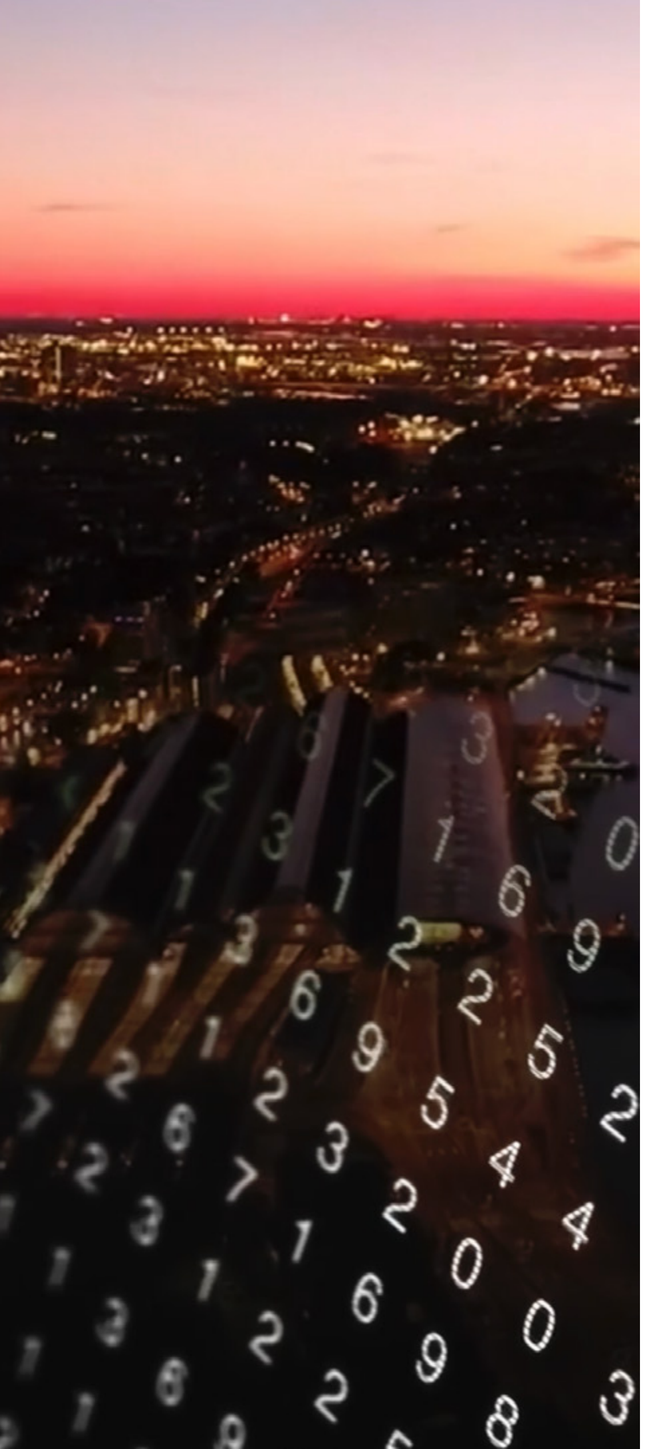

ABB Electrification Smart Power

Unlock the Future of Energy Distribution

Data-Driven Insights for DSOs

Read more

The Challenge

We are looking for a digital solution to help us identify areas for reinforcement and expansion of our infrastructure. It should enable us to address both operational (OPEX) and capital expenditures (CAPEX) cost-effectively, while building a more sustainable low voltage grid that supports the energy transition.

Expected minimum outcome

- Conceptualization & technical assessment of the solution , IoT architecture and data model
- PoC/demo to demonstrate the potential of the technology (no need to use the specific challenge case/data)
- Integration strategy towards ELSP Product Portfolio with focus on CDCs (cable distribution cabinets)
- Clear value generation explanation and proposition of go to market and business model
- IEC market application
- External data collection and integration, if needed (e.g., weather data, traffic info, grid emissions, electricity market, installation year, product, set-up, …)

Long-term value

- Co-developed MVP for pilot projects testing
- Possibility of upgrading installed based and expand by bundling the new solution with the ELSP Product Portfolio

Focus areas

- Utilities
- Renewables

ABB Electrification Distribution Solutions

Pioneer advanced GenAI development for power system automation

Read more

Generative AI for advanced engineering and automation

Together, we will harness the power of Artificial Intelligence (AI) to increase speed and flexibility of our Engineered-to-Order process.

What is the solution we are seeking from startups?

The ABB relay and protection product portfolio requires engineering knowledge to select the right configuration for our customers based on the specifications they provide to us. Currently, customers provide inputs via diagrams and schematics, which an engineer translates and interprets to manually configure the product.

This challenge is to develop a solution to automate the product configuration by incorporating AI into the RFQ process. The tool would enable AI to complete the selection and configuration and would include a testing tool to automatically verify the accuracy of the proposed configurations.

What is the impact of the solution for the market/customers?

- Improve our internal process to offer more efficient, standard configurations to our customers, with increased speed and flexibility, that are less prone to mistakes.
- Limit the requirement to continually keep pace with upskilling engineers. This is becoming increasingly challenging due to the dynamic nature of the grid that is causing continual changes in how the network is operated, which impacts how we engineer and use automation systems.

Focus areas

- Utilities
- Renewables
- Industry
- Data Centers

ABB Electrification Service
Harnessing the power of BESS

Read more

Advanced analytics and predictive maintenance software solutions for Battery Energy Storage Systems

What is the solution we are seeking from startups?

We are seeking a strategic partner who can help us to transform monitoring data from BESS into actionable insights and predicting failures.

Our ideal partner has expertise in data processing, machine learning or AI – especially within the energy sector – and a proven track record of implementing predictive analytics in complex industrial, renewable, microgrid, or BESS applications.

Key objectives include: leveraging data analytics to predict and prevent potential system failures, supporting proactive maintenance, and enhancing overall system efficiency.

What is the impact of the solution for the market/customers?

Together, we will provide the monitoring and diagnostic solution that is needed to anticipate and prevent down-times of BESS to maximize operational performance.

The ideal solution will integrate with the existing ABB SaaS solution for BESS monitoring via cloud-to-cloud integration. Leveraging machine learning and real-time analytics, a well-designed solution would analyze live data feeds and historical data to forecast potential issues, allowing for predictive maintenance interventions and minimizing unexpected downtimes of BESS.

The generated insights will feed ABB dashboards that display key performance indicators, and alarms to support rapid service and maintenance interventions. Given the diversity of BESS installations, the ideal solution would also be modular and adaptable across different system sizes and configurations.

The solution shall at least cover the following components inside a BESS

- Batteries
- Inverter
- Transformer
- Switchgear

Focus segments

- Commercial & Industrial
- Oil & Gas
- Buildings

ABB Motion System Drives

Optimizing performance of electrical powertrains with ABB Crealizer™

Read more

What is the solution we are seeking from startups?

We are looking for innovative creators, that use their knowhow to create advanced applications to extend the capabilities of our ABB industrial drives. Some examples for inspiration:

- Autotuning solutions to improve controller behavior and hence increase process quality and stability.
- Automatic detection of no-load situations could trigger automatically an “eco-mode” and help saving energy.
- If you are experienced with self-enforced learning, you might find innovative ways to identify anomalies and define counteractions to reduce torsional vibrations or increase the throughput of the customer process.

So if you already have solutions or ideas to make industrial processes more efficient, help saving energy or increase the availability with analytics then try developing it with ABB Crealizer™ and integrated in the ABB Drives ecosystem.

What is the impact of the solution for the market/customers?

- ABB Crealizer™ is a new open software platform integrated into ABB drives operating system to empower you to create, validate and realize customized solutions specific to the needs of your business.
- Crealizer™ performs and measures in real time, so you have instant access to faster data collection, higher accuracy, rapid prototyping and validation.

Focus segments

- Same solution can be used in various industry segments when building machines. These industries with related applications include e.g., Oil & Gas, Marine, Metals, Wind, Mining & Cement, Pulp & Paper, Water & Wastewater
- Pumps, Fans, are good applications to start with, while Compressors, Conveyors, hoists, mills are more advanced and interesting applications.