

*Press release*

## **Embargo until 6pm Swiss time on Monday, 1 November 2021**

**Two CHF 100,000 prizes for three companies: Digitel, Swiss Sugar and Swiss Saltworks win the 2021 CSEM Digital Journey contest**

### **Anticipating pump failures and improving the energy efficiency of refrigeration systems**

Neuchâtel, 1 November 2021 – CSEM has selected two digital transformation projects to receive the 2021 CSEM Digital Journey award. Each project will receive CHF 100,000 in technological support from CSEM's digital experts. This year, there are three winning companies: Digitel, which is working on an innovative system to optimize the energy efficiency of refrigeration systems, and joint applicants Swiss Sugar and Swiss Saltworks, which aim to develop digital solutions that will help detect faults in industrial pumps. The awards were presented at an [online launch event](#) for FORWARD, the SME forum organized by EPFL, Le Temps and PME magazine.

The [CSEM Digital Journey](#) contest was introduced in 2018 to encourage Swiss SMEs to launch digital transformation projects in order to give them a competitive edge on the international market. This year, CSEM gave the award to [Digitel](#), a refrigeration installation company based in Cugy, and national sugar and salt producers [Swiss Sugar](#) and [Swiss Saltworks](#), which submitted a joint application. The two winners will benefit from CSEM's expertise and digital tools, and they will receive CHF 100,000 in personalized technological support.

#### **Using artificial intelligence to identify faults in industrial pumps**

Swiss Sugar is Switzerland's largest sugar supplier and employs around 250 people at its sugar refineries in Frauenfeld and Aarberg; during harvest season, each refinery processes around 10,000 tons of sugar beet per day. Swiss Saltworks extracts, stores and distributes up to 600,000 tons of salt per year; it supplies the entire country from its sites in Schweizerhalle, Riburg and Bex.

With CSEM's support, these two SMEs will work together to investigate how artificial intelligence can be used to anticipate failures in their industrial pumps, which carry various liquids. Swiss Sugar, for example, has over 150 pumps across 50km of pipeline. At the moment, the companies do not actively monitor their pumps. This means that any faults are not detected until problems arise, which can result in expensive delays. If the companies carried out predictive analyses, they could identify faults in advance, optimize their processes and save energy.

#### **Reducing the energy consumption of refrigeration systems by 5–10%**

Founded in 1989, Digitel specializes in solutions to control and remotely manage commercial refrigeration systems in the food retail, hotel and manufacturing sectors. However, these systems consume significant amounts of energy: the Swiss manufacturing, supermarket and service industries alone use 11,000 GWh of electricity, making up a seventh of the country's total energy consumption.

Digitel has already developed an initial solution to address the problem of excess energy consumption. The company would now like to team up with CSEM to market a turnkey energy-efficient solution that uses artificial intelligence. It hopes to provide end users with the tools they need to run frequent diagnostic tests on their refrigeration systems, measure their energy consumption, identify irregularities and their causes, and optimize their energy use. This solution could soon be applied to Digitel's existing systems, reducing their overall energy consumption by 5–10%.

“Digitalization sets many Swiss SMEs apart from the competition. As our winners have shown, the digital transformation also reduces company costs by minimizing technical failures and using energy more efficiently”, says Alexandre Pauchard, CEO of CSEM.

The CSEM Digital Journey contest is open to companies with fewer than 250 employees and which may not have the human and financial resources to meet the challenges of digitalization.

### Selection panel

- Chairman: Bahaa Roustom, Head of Corporate Business Development, CSEM
- Silvio Bonaccio, Head of Technology Transfer, ETH Zurich
- Nicolas Bürer, Managing Director, digitalswitzerland
- Ursula Oesterle, Vice President for Innovation, EPFL
- Raphaël Rollier, Head of Innovation and Product Management, Swiss Federal Office of Topography (Swisstopo)
- Robert Rudolph, Member of the Swissmem Executive Board, in charge of digitalization and innovation
- Christian Wasserfallen, National Councilor

### About CSEM

**CSEM—technologies that make the difference.**

CSEM is a Swiss research and development center active in the fields of precision microfabrication, digitalization, and renewable energy. CSEM builds up the ties between industry and academia. It supports companies as a hub of ingenuity, a center of technological excellence and innovation, and accelerator of the digital transformation.

Further information is available at [www.csem.ch](http://www.csem.ch)



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