



MEDIA RELEASE

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GA DRILLING, FINEST BAY AREA DEVELOPMENT AND CALLIO PYHÄJÄRVI (PYHÄSALMEN KVANTTIKIINTEISTÖT) TO START TESTING, DEVELOPING AND OPERATING A GEOTHERMAL ENERGY SOLUTION

Intention is to drill the deepest bore hole in Europe, generate green electricity and test new use cases for the technology.

Slovakian company GA Drilling ([Clean and baseload geothermal energy anywhere | GA Drilling](#)), Finnish company Finest Bay Area Development Oy (www.finestbayarea.online) and the Finnish Pyhäjärvi city owned development company Callio (www.callio.info) have agreed to start preparing for testing, developing and further on operating the GA Drilling PLASMABIT® based technology geothermal solution at the Pyhäsalmi mine. Intention is to drill the deepest geothermal bore hole in Europe and generate green electricity and test new use cases for the technology.

Today drilling cost is the limiting factor for ultra-deep geothermal exploitation. GA Drilling have developed a technology that can make geothermal energy a ubiquitous and affordable primary energy source, offering a real green alternative to fossil fuel. With PLASMABIT® technology it is possible to drill geothermal wells as deep as 10km fast and cost efficiently. This kind of depths allow for the possibility of not just heat but creating electricity. “We are excited about the collaboration with Finest Bay Area Development at Callio and see great potential in working together to bring carbon free future for all. Geothermal anywhere is the solution for a local, independent source of electricity, heating, clean water and food production in the world”, says Igor Kocis the CEO and Founder of the GA Drilling.

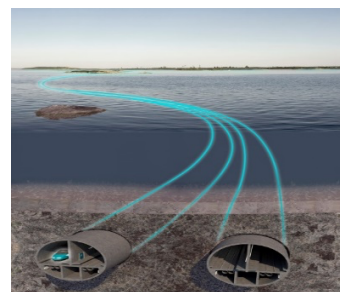
PLASMABIT® technology can be used both vertically and horizontally, therefore it is interesting to Finest Bay Area Development (FEBAY) as it is preparing for the construction of the world’s longest undersea railway tunnel boring. It is planned to test a solution for tunnel boring machines (TBM) in the hard Finnish bedrock at Pyhäsalmi mine. The companies estimate the plasma drilling solution is for hard rocks as much as ten times faster and will make TBMs’ boring speeds far more efficient. This will make the boring of the tunnel connecting Finland and Estonia be quicker and more cost efficient. “This is the kind of innovation that we have been talking about in connection with the tunnel project. Fantastic European tech and business coming together to change the world for better on an innovation platform”, expresses Peter Vesterbacka the co-founder of FEBAY.

Pyhäsalmi mine at Pyhäjärvi ([Pyhäjärven kaupunki | pyhajarvi.fi](#)) in the northern part of Finland is an ideal test bed for underground construction and mining. Pyhäsalmi is a 60-year-old base metal mine that is closing its mining operations at the end of this year. The mine is the deepest base metal mine in Europe (+1400m) and includes more than a 100km of tunnels. The city and the post-mining

development company Callio have been looking for new use cases for the mine infrastructure and its surroundings and they announced with Finest Bay Area Development earlier this year that FEBAY will set up an RnD and test center there and also start collaboration on underground and mining education and training. “This form of cooperation with GA Drilling is very well suited to the Callio’s test bed service concept. In addition, Callio in Pyhäsalmi mine is already an established geothermal energy development site”, underlines Henrik Kiviniemi, Managing Director of Callio Pyhäjärvi.

Set to meet the UN SDGs:

FEBAY aims to meet in all of its operations the United Nations’ sustainable development goals (SDGs). This announced collaboration as all others will be measured and reported real-time against the UN SDGs ([Home | Sustainable Development \(un.org\)](#)). FEBAY is the first organization in the world to do so, using the HeadAI (www.headai.com) artificial intelligence in the measuring and reporting.



GA Drilling:

GA Drilling with its patented PLASMABIT® technology is the solution for a local and independent source of electricity, heating, clean water, and food production in the unstable world. The company will provide scalable, modular, solutions to zero-carbon emissions energy production. Geothermal energy is the only renewable source of clean and baseload energy, available 24/7/365. It works regardless of weather conditions or the day-night cycle. PLASMABIT® brings a significant reduction in operational time and costs savings, drilling faster, deeper, and cheaper through any material, including hard rock and steel. The technology is the result of years of R&D, with registered 23+ patents, supported by a full-time team of 70+ engineers and researchers, industrial funding, investors, 20+ EU research grants and strategic technical development partnerships with drilling industry leaders.

Finest Bay Area Development:

Company is designing and preparing or the construction of the world’s longest undersea railway tunnel (103km) to connect Finland and Estonia. Company works on regional and ecosystem development to create growth for the FinEst Bay Area region. FEBAY is conducting environmental impact assessment currently in Finland and soon in Estonia ([Finest Bay Area Development Oy, Environmental impact assessment programme \(ymparisto.fi\)](#)). Tunnel project budget is 15B€ and it is estimated to complete at the end of 2024. Along the tunnel alignment there will be four stations and stations areas and several artificial islands. Project is privately funded.

Pyhäjärven Callio:

Callio (www.callio.info) is a development company fully owned by the city of Pyhäjärvi. Callio is developing the Pyhäsalmi mine and post-mining reuse of its underground infrastructure and surroundings in a contractual relationship in collaboration with Pyhäsalmi Mine Oy including e.g., infrastructure & property management, new business development and sub-leasing rights.

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