





PRESS RELEASE

UN Global Sustainable Development Goals

BRAIN BioXtractor short-listed twice for the 2018 Global Game Changers Awards

- Sustainable technology for Green & Urban Mining and next generation metal extraction
- Honoured as a finalist in the "Corporates for Good" and "Circular Breakthrough" categories

BRAIN's BioXtractor, a mobile tech-scale operation unit for the safe biological extraction of precious metals from various waste and side streams, was completed in the summer of 2017. At the 2018 Global Game Changers Awards, a cross-sectoral award platform advancing the UN's global goals for sustainable development, the technology was honoured as a finalist in not just one, but two categories. In the "Circular Breakthrough" category, BRAIN submitted an entry for the competition on its own accord. The jury short-listed BRAIN in this category together with another four contestants. In addition to the company's own submission, the jury members also decided to grant BRAIN, just as it did two other companies, a place in the "Corporates for Good" category final round for that seminal research breakthrough.

The Global Game Changers Awards are set against the backdrop of the 17 goals for sustainable development adopted by the UN in 2015 to overcome challenges such as poverty and inequality by 2030. The Global Game Changers Awards, jointly launched in 2017 by *Innovators Magazine* and *Newsquest Media*, is presented to pioneers from all over the world who are making important contributions to

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achieving what Ban Ki-moon, the former Secretary-General of the United Nations, called a "blueprint for a better future".

The protagonists of the biological process solution in BRAIN's BioXtractor are microorganisms which were identified from the company's own BioArchive and further developed in the laboratory. These bacteria process secondary raw materials such as waste incineration ashes or electronic scrap and extract precious metals with high yields, depending on the source material and target metal. The biological process solution can also be used in traditional mining operations.

Rachel McTavish, a TV journalist and host of the awards ceremony held in Glasgow, Scotland, UK, on 12 September said: "BRAIN is one of Europe's leading technology companies in the field of industrial biotechnology. It takes a cross-disciplinary approach, to build a bridge between different technical fields and provide valuable products for the bio-based industry and consumer market."

Dr Esther Gabor, Green & Urban Mining Programme Manager at BRAIN, said: "Even though we did not fetch a 'gold medal' at the end of the day, we are very proud to be honoured twice as a finalist at the Global Game Changers Awards. In an interdisciplinary team made up of biologists, engineers, process technicians and laboratory assistants, we are looking into biological processes that may help keep valuable metals in the value chain in the long term. Such a circular economy fully addresses the targets of a sustainable bioeconomy."

Further information:

Innovators Magazine: https://www.innovatorsmag.com/

BRAIN BioXtractor: https://www.brain-biotech.de/en/bioxtractor

Biobased Metal Extraction for the Circular Economy:

https://www.liebertpub.com/doi/abs/10.1089/ind.2018.29122.emg?journalCode=ind BRAIN AG and CyPlus GmbH develop disruptive technologies for biological processing of precious metal ores: https://www.brain-biotech.de/en/press/2018-06-

20 brain ag and cyplus develop disruptive technologies bio-

processing of precious metal ores







Research project involving BRAIN paves the way for low-impact copper production through bio-leaching: https://www.brain-biotech.de/en/press/20171026-low-impact-copper-production



The first mobile BRAIN BioXtractor tech-scale operation unit is based at BRAIN's headquarters in Zwingenberg, Germany.

Picture: BRAIN AG, Zwingenberg Picture available for download from https://www.brain-biotech.de/en/press

About BRAIN

B.R.A.I.N. Biotechnology Research and Information Network AG (BRAIN AG; ISIN DE0005203947 / WKN 520394) is one of Europe's leading technology companies in the field of industrial biotechnology, the core discipline of Bioeconomy. As such, BRAIN identifies previously untapped, efficient enzymes, microbial producer organisms or natural substances from complex biological systems that can be put to industrial use. The innovative solutions and products developed by help of this "Toolbox of Nature" are successfully applied in the chemistry, the cosmetics and the food industries. BRAIN's business model is based on two pillars - BioScience and BioIndustrial. The BioScience segment comprises its frequently exclusive collaboration business with industrial partners. BioIndustrial comprises the development and commercialization of BRAIN's own products and active product components. Further information is available at www.brain-biotech.de/en.