

## Press release

# A GREEN FUTURE DRAWN BY GREENIRON & SECO/WARWICK

September 20, 2022

**GreenIron H2 AB has signed an agreement with the SEC/WARWICK Group, a global manufacturer of metal treatment equipment, for the delivery of a series of furnaces for fossil-free metal production from ore, residuals and waste recycling.**

This completely new line of reduction furnaces, based on the technology provided by GreenIron, is a response to climate change and the urgent need to reduce CO<sub>2</sub> emissions and create energy- and resource-efficient business models.

The cooperation agreement and the order for the delivery of the first furnace signed in August are the results of nearly two years of cooperation between SECO/WARWICK and GreenIron.

*In November 2020, we started close cooperation on this green project. The contract provides for the delivery of a series of equipment over several years. Cooperation in this technology area will provide us with development and cooperation in the area of pro-ecological solutions, which is in line with the company's mission. With the new technology, together with GreenIron, we contribute to the global ecosystem protection, says Sławomir Woźniak, CEO of SECO/WARWICK Group.*

## **A new technology that will revolutionize the economy with post-production metals**

The furnaces ordered by GreenIron will be used to recycle oxidized metals without emissions. They will therefore directly contribute to CO<sub>2</sub> emission reduction on an unprecedented scale, each furnace has the capacity to reduce emissions by 56,000 tonnes/yr. The technology, which originator and patent rights owner is GreenIron, is a unique solution that will help many enterprises implement "green" solutions and function in harmony with the natural environment.

*We are happy to work with SECO/WARWICK on this exciting journey toward a more energy- and resource-efficient industry with zero emissions. We feel that our*

*partnership is a great foundation for rapid growth and a positive impact on emissions and climate change. GreenIron has high ambitions in regard to CO<sub>2</sub> reductions, starting with the first furnace, delivered from SECO/WARWICK and the subsequent first shipping of commercial fossil-free iron in 2023, commented Edward Murray, CEO of GreenIron.*

*It is also an opportunity for SECO/WARWICK, because together with GreenIron we are creating a production line of the completely new furnace. For the first time, we are working closely with an external partner with technology that comes from the outside. Our task in the project is to build effective solutions and deliver them on time, adds President Woźniak.*

### **A new line of reduction furnaces**

SECO/WARWICK supports ecological solutions making the heavy industry environmentally friendly. The new furnace's line, which will be manufactured in cooperation with GreenIron, are units that have not been available on the market so far. Their great value is the fact that they contribute to carbon dioxide reduction, as well as significantly reduce the costs of recycling post-production residuals and waste.

### **The line of reduction furnaces is a unique product on a global scale.**

The metals are extracted from ore or recycled without the release of fossil gases. Iron oxide (magnetite, hematite, wustite) is converted to pure iron by the hydrogen reduction process. In traditional technology, this process takes place in coke furnaces, which results in CO<sub>2</sub> emissions. In the GreenIron furnaces, CO<sub>2</sub> emissions are zero.

Reduction furnaces will be available to actors in the entire lifespan of iron and other metals – including mining, steelmaking, milling stations, foundries, metal workshops and heavy ashes from incinerators. Thanks to GreenIron and SECO/WARWICK, this waste will be given a second life and can be reused as pure steel or iron.

Nowadays, reducing CO<sub>2</sub> emissions is very important, and GreenIron technology will become crucial for all industry participants who want to achieve a sustainable production cycle. In addition, the process's cost-effectiveness will increase the projects' profitability.

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### **About GreenIron**

GreenIron H2 AB is a privately held company with patented and proven energy-efficient technology to reduce metaloxides to pure metal. The process is suitable for the creation of metals from ore, residuals and waste. The technology is hydrogen based with only water as emission. When using GreenIron's process in conjunction with a steel mill you can, without any CO<sub>2</sub> emissions, create prime iron-based metals for reintroduction to the steelmaking process, from the waste and residuals formed in the steelmaking process. GreenIron enables a fully circular resource usage on site. GreenIron has a strong focus on minimizing CO<sub>2</sub> emissions and strives to create circular business models with minimized CO<sub>2</sub> emissions and high resource efficiency.

GreenIron: *Less mining. More circularity.*

[greeniron.se](http://greeniron.se)

### **About SECO/WARWICK**

SECO/WARWICK is a technological leader in innovative solutions for metals heat treatment. The company's specialization includes end-to-end solutions for 5 categories: heat treatment in vacuum, aluminum and in atmospheres, as well as heat exchangers brazing and vacuum metallurgy.

SECO/WARWICK Group has 9 companies located on three continents with customers in 70 countries. The company provides standard or customized state-of-the-art heat processing equipment and technologies to leading companies in the following industries: automotive, aviation, electronics, tooling, medical, recycling, energy including nuclear, wind, oil, gas, and solar and production of steel, titanium and aluminum.

SECO/WARWICK: *Invention Meets Reliability.*

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