

**The Royal Swedish Academy of Engineering Sciences, IVA,
has selected FerroSilva for its 100 list 2024:
Innovation through interdisciplinary research**

FerroSilva - cost-effective and carbon dioxide-negative iron sponge

Researchers: Peter Samuelsson och Rutger Gyllenram (KTH)

The FerroSilva process has the potential to turn the steel industry into a carbon sink. This in an economically justifiable way, with a globally scalable concept and without the need for large investments in new electricity production.

The process radically reduces greenhouse gas emissions by using residual products from forestry and agriculture to produce sponge iron as a raw material for future steel production. An iron raw material that is cost-effective, carbon dioxide negative and that consumes less than 10% of the electrical energy that the hydrogen processes require.

The process simultaneously generates liquid biogenic carbon dioxide on an industrial scale for e-fuels and more.

The plan is to build a first production plant with a capacity of 50 ktons of sponge iron per year, which is estimated to be put into operation in 2028. After that, there are plans for two larger plants with a capacity of 500 ktons per year each to be put into operation in the years 2031 and 2034.

At the moment, work is underway with preliminary design and financing of the first facility.

IVA's 100 list 2024 highlights a diversity of research projects from Swedish universities, on the theme Technology in the service of humanity - innovation through interdisciplinary research. Through selection, the projects have been judged to have great potential to create benefit, through commercialization, business and method development or social impact. All participating researchers are interested in increased contacts with business for the application and continued development of their projects.

<https://www.iva.se/det-iva-gor/utmarkelser/ivas-100-lista/ferrosilva---kostnadseektiv-och-koldioxidnegativ-jarnsvamp/> (in Swedish)

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