

Gjutgods från Kina och Polen

Material: Gråjärn, segjärn, stål, rostfritt, zink, aluminium, mässing och brons. Go to globalsupplier.eu



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I explore how public companies innovate.

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Here's An Idea That Could Change The Steel Industry

About three years ago, industrial giant [thyssenkrupp](#) announced it would focus on collaboration across its business areas to help achieve new targets for sustainable innovation. What it didn't announce was how personal that initiative would be for its employees, starting with two chemical engineers who visited the company's steel plant in Duisburg, Germany in 2013.

"We're less locked into old processes and habits now, so our people can be creative, take risks and even run 'startups' within our company," explained Reinhold Achatz, Chief Technology Officer at thyssenkrupp. "It's a cultural thing."

"We're allowed to think outside the box," said Ralph Kleinschmidt, Head of the Technology Development Department at thyssenkrupp. "For instance, when someone in a project group questioned why we weren't using 100 year-old chemistry to reuse gases emitted by our steel plants, he brought it up."

"We studied it and were impressed that it made sense," Kleinschmidt added.

This began a 15-year project, named Carbon2Chem, that will involve several thyssenkrupp business areas, and a number of Germany's most important companies in association with the [Max Planck Institute CEC](#) and [Fraunhofer Institute Umsicht](#). Its goal is to devise processes to turn that gas into ammonia, methanol and other base chemicals that can be used as platform for a variety of products, while significantly reducing carbon emissions. Plans call also for using excess renewable energy to do it, thereby improving the stability and efficacy of the electrical grid.



The eventual tech could impact not only the company's steel mills, but be made available to dozens of similarly configured installations worldwide.



thyssenkrupp's steel plant in Duisburg, Germany (Image credit: thyssenkrupp)

There's a process behind such innovation, of course, inasmuch that thyssenkrupp is a USD49.1 billion/year global company with 150,000 employees across 80 countries.

Achatz explained: "We analyze several 100 ideas every year, and put a subset of them into investment proposals that we present to our board. Every proposal is analyzed for its business model, social acceptability, and impact on the environment. We maintain a rolling, prioritized project plan."

"We want to lead in technology, and our business bridges the gap between basic and applied research," said Markus Oles, Project Coordinator Carbon2Chem. "For us, innovation is not drilling deep, but looking across technology and industry boundaries. As a diversified industrial company, thyssenkrupp is ideally suited for this."

"We have a small group of about 20 people working on this project," he added. "They come from across our businesses, and they keep their day jobs, too."

This cross-industry collaboration can be challenging at times, though, mostly because of the very disparate areas of expertise they afford.

"We're activating different areas of expertise in our innovation projects that used to be isolated from each other," said Kleinschmidt. "So, even if people in a steel plant have different immediate priorities from those working in chemicals or energy and power generation, the value-added opportunities a project creates make people quickly focus on shared goals."

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