

Market driven R&D

Eva Pétursson
Head of Strategic R&D

SSAB

PUBLIC

Market-driven R&D

Customer segments

Heavy Transport



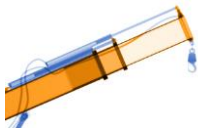
Automotive



Material Handling



Construction Machinery

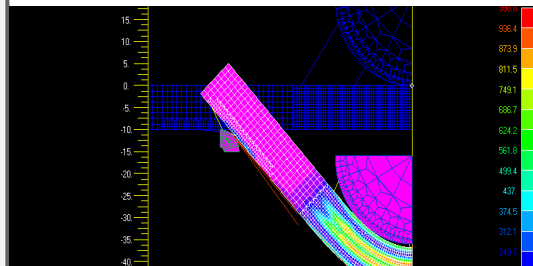


R&D area

Application

New applications

➔ Drives sales

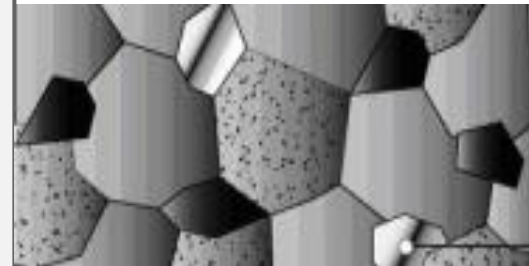


Challenges connected to utilization of HSS

Product

Innovative products

➔ Future high margin offerings



Optimize chemical composition and microstructure

Process

Efficient processes

➔ Improve cost-quality performance



Optimize chemistry and new process technologies

Advanced customers drive our product development

Special Steels – Lifting segment

STRENX™
PERFORMANCE STEEL



Automotive segment

DOCOL®
THE AUTOMOTIVE STEEL



3rd generation steels

The result is SSAB high-end products with balanced characteristics

SSAB products drive our customer's development

Understanding end user and customer benefits

- Active support in upgrading to more advanced steels for full utilization of material characteristics

HARDOX[®]
WEAR PLATE



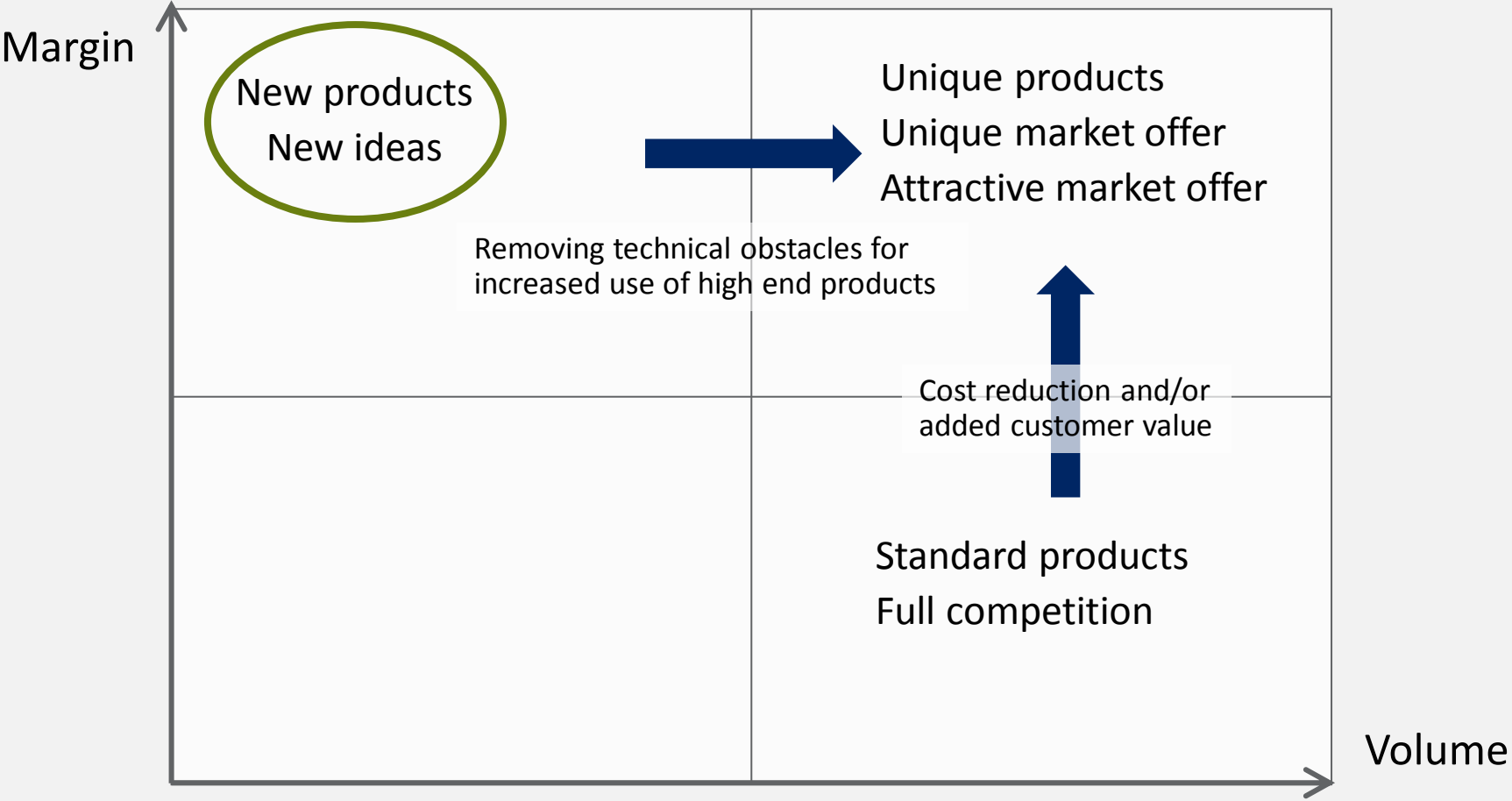
Customers business in focus

- Recognizing where and how our high strength- and wear resistant steels will benefit the end user
- Has since long been the model for SSAB
- Experienced in this way of working with activities ranging from R&D to conceptual studies



Possibility to build market

R&D contribution to unique product offering



Hardox 500 TUF

Remove technical obstacles for high-end products

Continuous upgrading

Wear life under common conditions

MS

Hardox400

Hardox450

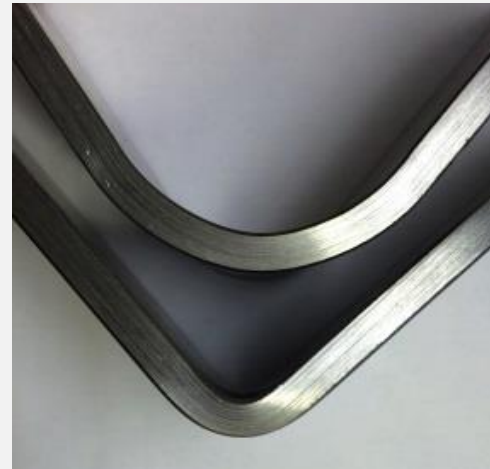
Hardox500 TUF



SSAB Services

Removing technical obstacles/adding more premium

Innovative bending method – unique offer to customers



- ▶ Making tight bending radius possible also for high-end products
- ▶ Crucial for applications where flat surfaces are required
- ▶ More optimized cross section design
- ▶ Patent granted March 2017

SSAB digitalization strategy

SSAB Offering

- Smart steel and services

Customer interaction

- Expand digital services

Production & Operations

- Digital insights and automation

SSAB SmartSteel

Cumulative data from different stages of the lifecycle opens for new levels of optimization

- ▶ Steel marked with unique ID
- ▶ Relevant data, experience and knowledge connected to ID
- ▶ Smart processes can read, use and add data
- ▶ Sensors in user phase continuously report status
- ▶ Data available to all stake holders

- ▶ Pilot with customer and open call for co-creation during 2016
- ▶ Ideas and initiatives are now further developed in R&D projects



World-leading R&D

- ▶ Market-driven R&D – close to customer
- ▶ Strong track record in innovative high-strength steels – products and applications
- ▶ Long-term research initiative to replace coal with hydrogen – zero CO2 emissions
- ▶ Digitalization opens substantial opportunities – both in products and in the production process

