

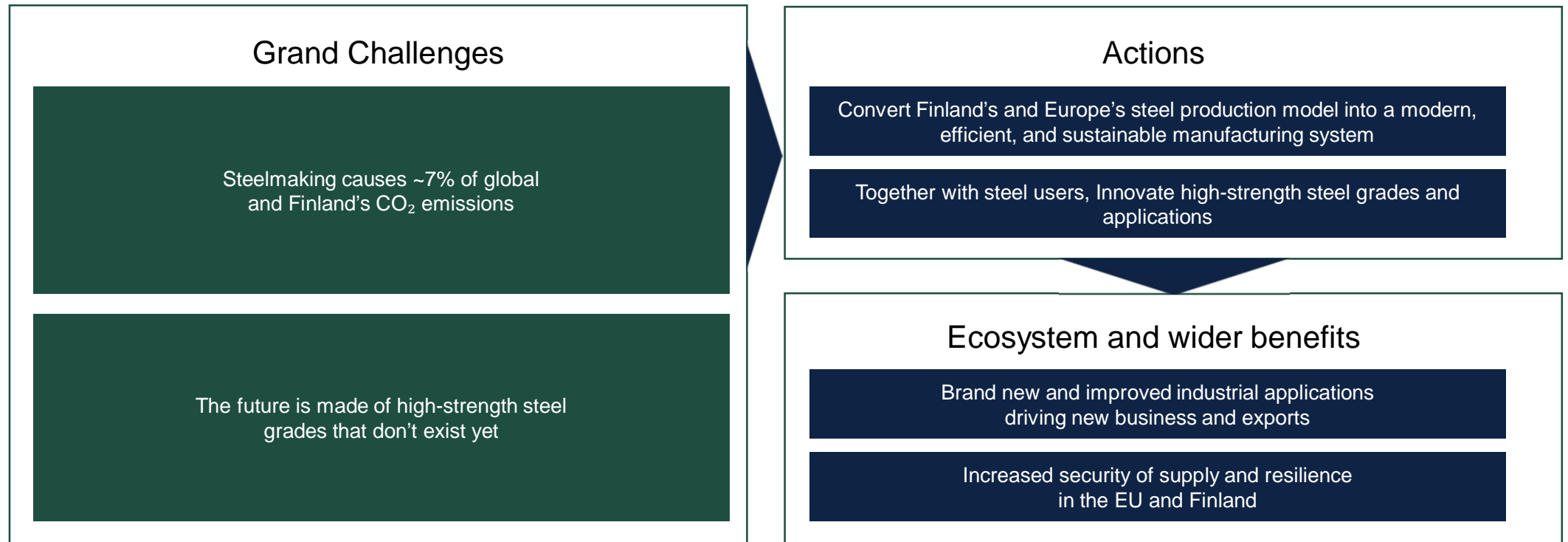
# Sustainable World through Steels – Public roadmap



**SSAB**

# Mission

Sustainable World through Steels creates next generation fossil-free steels that enable better products and a dramatic reduction in global emissions



# Why join?

The SWtS ecosystem transforms steel and manufacturing value chains while enabling research, innovation, new business and export opportunities.



## Steelmakers

Develop fossil-free processes, advanced steel grades and digitalized, efficient production methods.



## Fossil-free steel users

Tailor high-strength fossil-free steels for lighter, more efficient products and export growth.



## Digitalization companies

Co-develop and export AI solutions for steelmaking, supply chains and circularity.



## Recycling and chemical companies

Valorise steel by-products, pilot circular solutions and access novel EAF side streams.



## Universities and research centers

Access industrial data, drive innovation and train talent in sustainable steel and digitalization.



## Start-ups and SMEs

Validate innovations in industrial settings and accelerate technology commercialization.

# Roadmap

Four coordinated research themes for fossil-free steelmaking and circular value chains

THEME	CHALLENGES	EXAMPLE ECOSYSTEM TOPICS
<b>1</b> <b>Solutions for fossil-free electric steelmaking</b> Leader: <b>Jarmo Lilja</b>	<ul style="list-style-type: none"> <li>– Securing and using new raw materials for decarbonized steel</li> <li>– Securing access to fossil-free energy and its use in steelmaking</li> </ul>	<ul style="list-style-type: none"> <li>– Fossil-free energy technologies</li> <li>– Lab-scale technology demonstrations</li> <li>– New surface-treatment methods</li> </ul>
<b>2</b> <b>Digitalizing a sustainable, fossil-free supply chain</b> Leader: <b>Mikko Koskela</b>	<ul style="list-style-type: none"> <li>– Controlling production of small batches and numerous steel types</li> <li>– More sustainable, efficient maintenance</li> <li>– Redesigning production planning for complex steel product mixes</li> </ul>	<ul style="list-style-type: none"> <li>– Digital tools for maintenance and production</li> </ul>
<b>3</b> <b>Low-emission steel for high-volume applications and value chains</b> Leader: <b>Pasi Suikkanen</b>	<ul style="list-style-type: none"> <li>– Creating demand for premium-priced decarbonized products</li> <li>– Scaling scrap-based high-strength steel for the first time</li> <li>– Faster AHSS product design with guidelines</li> </ul>	<ul style="list-style-type: none"> <li>– Metallurgical research</li> <li>– Applications especially in maritime, automotive, energy, and construction</li> <li>– Model-driven user interfaces</li> </ul>
<b>4</b> <b>Circular use of steel-mill materials</b> Leader: <b>Marko Mäkikyrö</b>	<ul style="list-style-type: none"> <li>– Optimizing production considering side-stream properties</li> <li>– Turning side streams into marketable products</li> </ul>	<ul style="list-style-type: none"> <li>– Application development</li> <li>– Technology innovation</li> <li>– Standardization (e.g., cement industry)</li> <li>– Logistics solutions</li> </ul>
CHALLENGES ACROSS ALL THEMES		
Integrating data across SSAB and partner systems	Metallurgical know-how for decarbonized AHSS steels	Sustaining a shared R&D mindset over short-term gains

## Contact information

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Become a partner

<https://www.ssab.com/en/company/about-ssab/sustainable-world-through-steels#form>

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