



RI.
SE

RESEARCH INSTITUTES OF SWEDEN

Hela Sveriges forsknings- och innovationspartner

Koncernövergripande forskningsområden



**AI och Data
Science**



Blå tillväxt



Byggd miljö



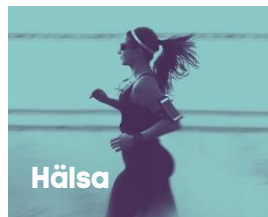
**Cirkulär
omställning**



**Digital
säkerhet**



Energi



Hälsa



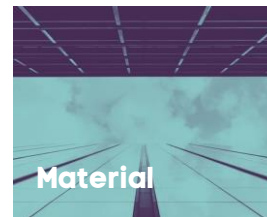
**Innovations-
system**



**Komponent-
tillverkning**



Livsmedel



Material



**Process-
tillverkning**



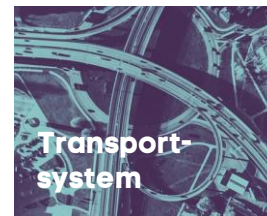
**Risk, säkerhet
och resiliens**



**Tjänste-
forskning och
digitalisering
av processer**



**Transporter
och mobilitet**



**Transport-
system**

Vårt erbjudande

Omställnings- ledning

- Strategiska färdplaner
- Omvärldsanalys
- Framtidsscenarier
- Policyutveckling



Tillämpad forskning och utveckling

- Forskningspartner
- Ledning och koordinering av forsknings-program
- Test och demo
- Industriella processer och uppskalning
- Problemlösning och expertstöd
- Innovationsledning



Provning, certifiering och kalibrering

- Provning
- Besiktning
- Certifiering
- Kalibrering



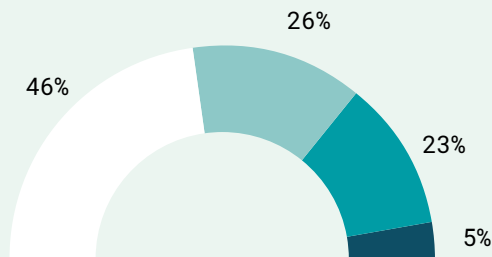
Livslångt lärande

- Kompetensomställning
- Kunskapsstärkande aktiviteter
- Utbildning



Netto- omsättning

3 618 MSEK



Fördelning av omsättningen

	Näringsliv	1 651 MSEK
	Offentliga finansiärer	954 MSEK
	Statliga medel	827 MSEK
	EU-medel	186 MSEK

Nionde plats i Karriär-
barometern bland unga
yrkesverksamma
civilingenjörer

Över 130 test- och
demonstrationsmiljöer

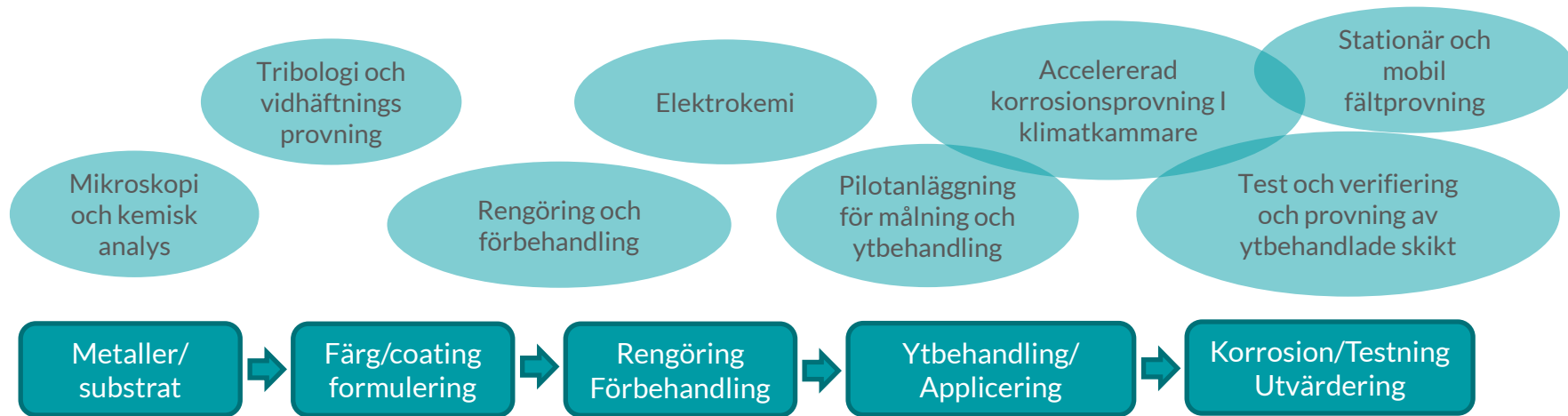
Ca 3 000
anställda

39% kvinnor

Klimatneutral
verksamhet
2025

94% av våra projekt
hållbarhetsdeklarerades
i december 2021

Ytteknologi på RISE: expertis över hela värdekedjan



Hur jobbar vi?

- Direkta företagsuppdrag
- Offentligt finansierade forskningsprojekt
- Medlemsfinansierade samarbeten
- Kurser, seminarier och utbildningar

Oberoende
tredje part

SurfCenter

**Competence center for a
sustainable surface
treatment industry**

What is a competence centre?

"Competence centres are **long-term** projects that extend over several years and consist of a **number of research projects** that participating parties can then use to create new innovations"

→ 5 + 5 years

VINNOVA

What is a competence centre?

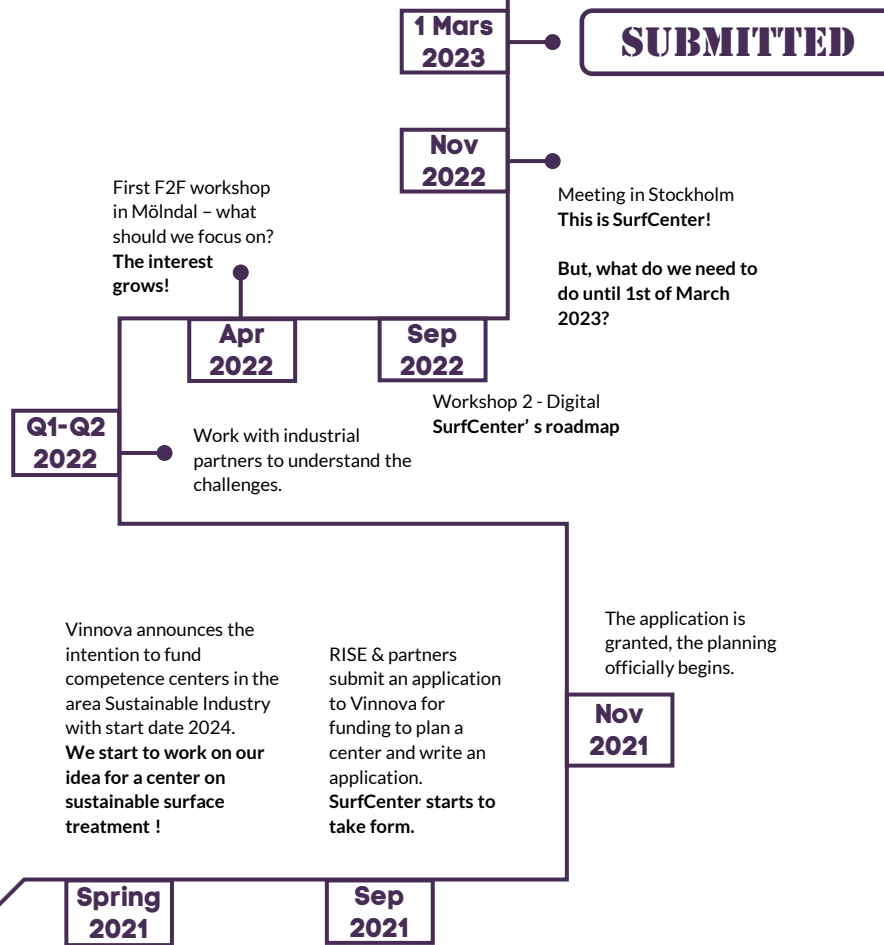
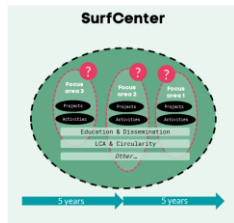
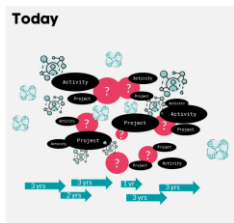
Why a competence centre for a sustainable surface treatment industry?

- Opportunity for an interdisciplinary approach to complex challenges
- Forum for long-term initiatives
- Competence development for future challenges
- Collaboration in research projects
- Access to test&demo
- Arena for International initiatives for surface treatment

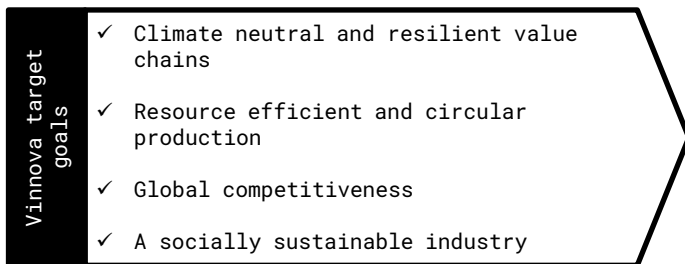


Background and work so far

After working in many different projects related to surface technology and tackling similar **challenges related to sustainability**, researchers at RISE thought that a more **efficient approach** was needed.



SurfCenter – Vision & Value



A sustainable Swedish surface treatment industry through a long-term excellent research collaboration leading to:

- < – Global competitiveness <<<<
- CO₂ neutrality
- Circular and ecological thinking
- Socially sustainable industry

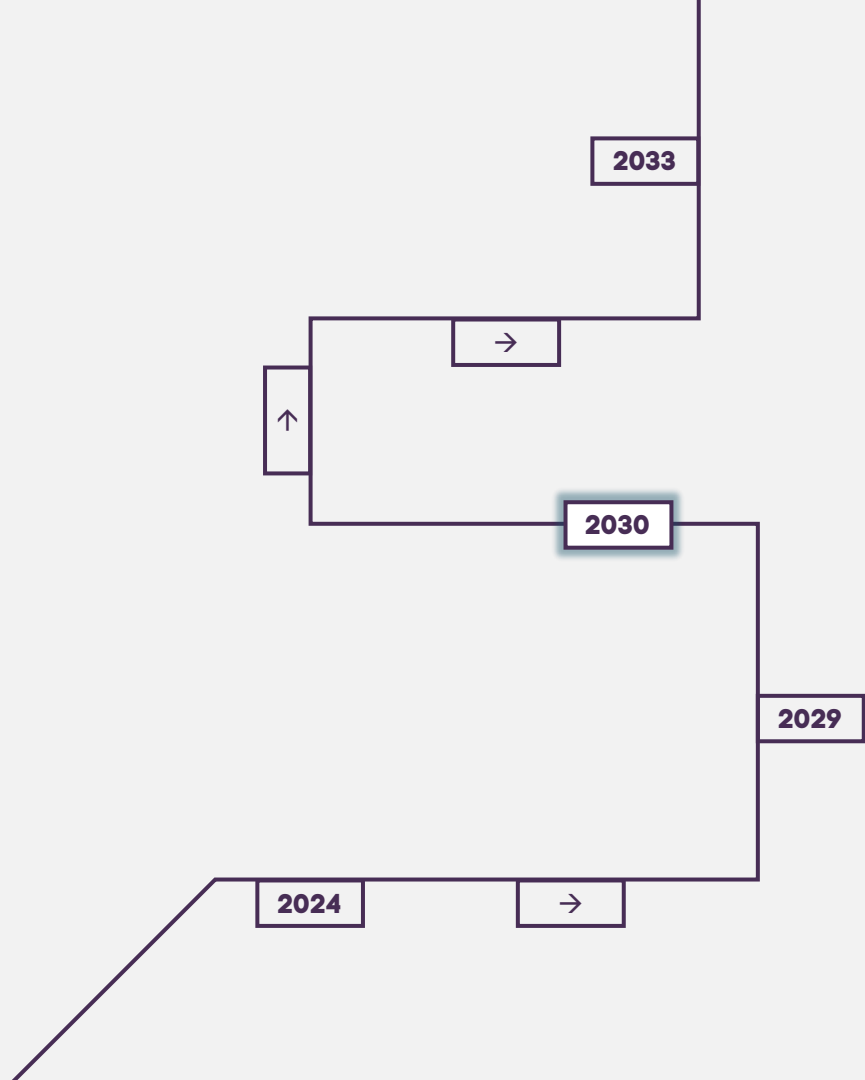
OUR MISSION:

Together find solutions to our shared challenges
for a sustainable development of surface
technology across all industrial sectors

OUR GOAL:

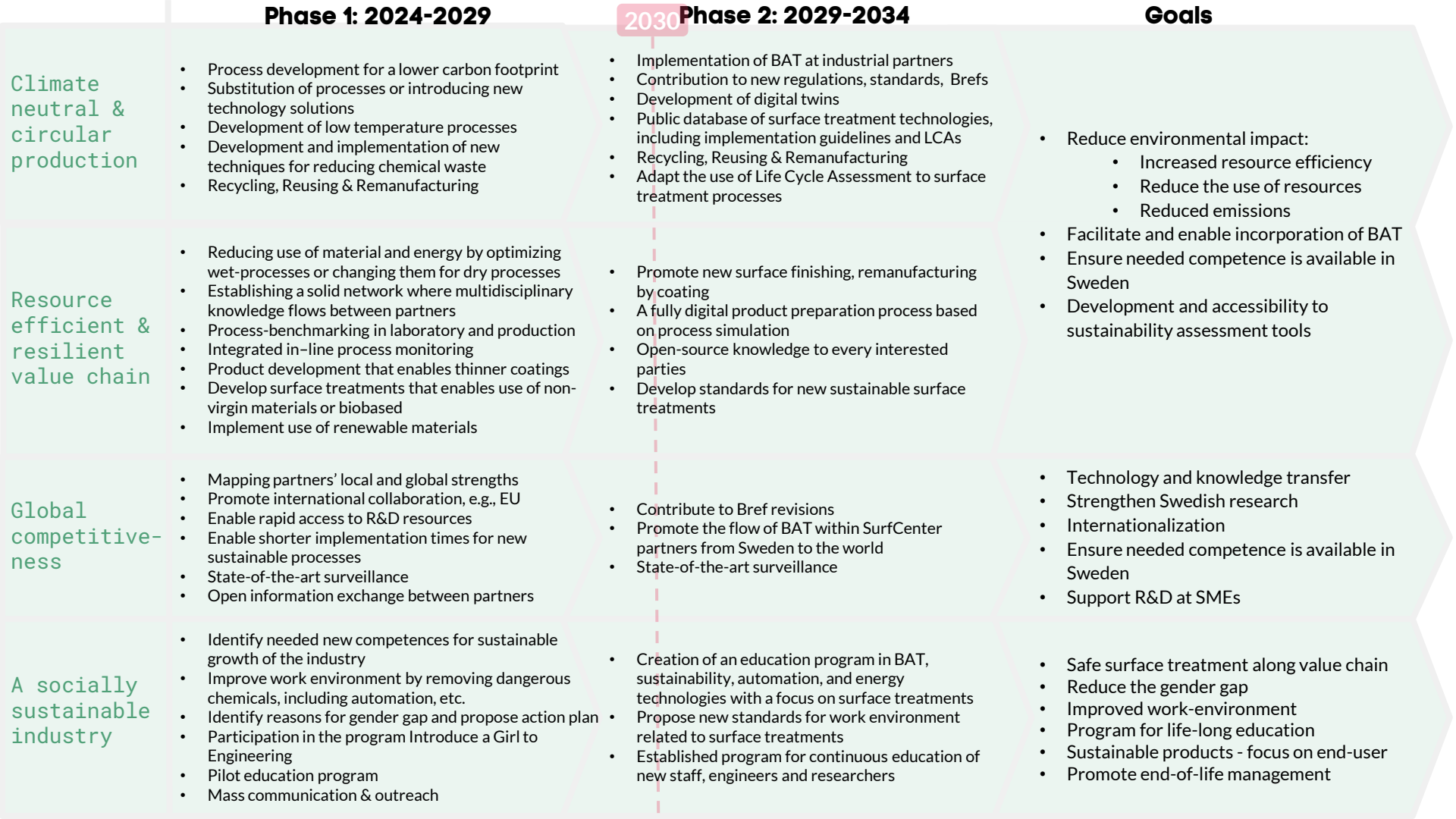
To develop and provide research, solutions,
expertise and future competences for a
sustainable surface treatment industry

SurfCenter Roadmap



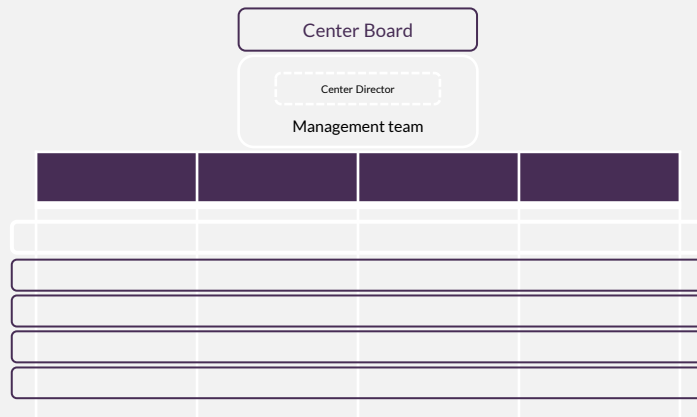
Roadmap for the Competence Centre – SurfCenter

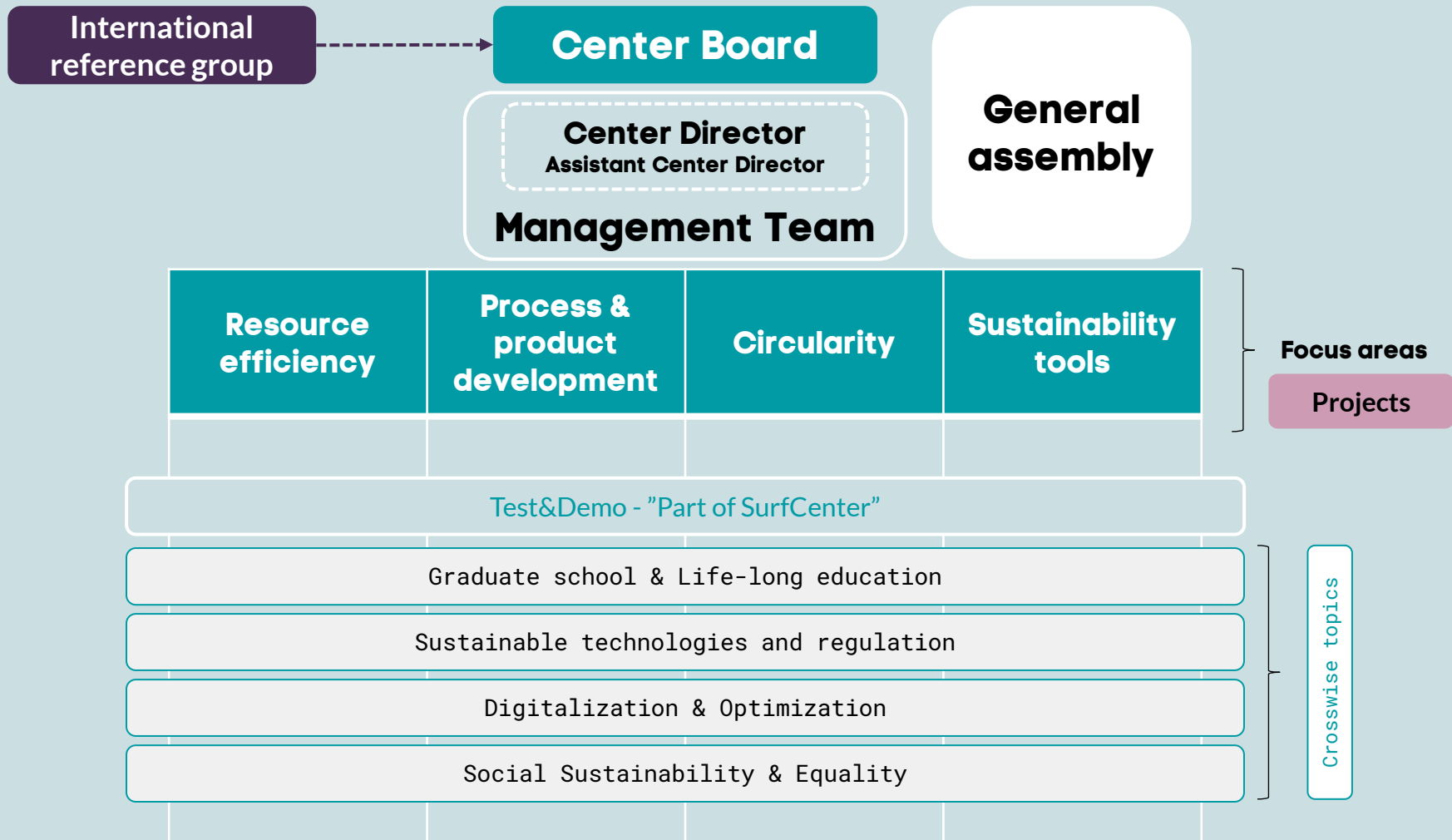
Why? Vision & value	Vinnova target goals ✓ Climate neutral and resilient value chains ✓ Resource efficient and circular production ✓ Global competitiveness ✓ A socially sustainable industry A sustainable Swedish surface treatment industry through a long-term excellent research collaboration leading to: • Globally competitive • CO₂ neutral • Circular and ecological • Socially sustainable			
	Process	Product	Competence/network	Society
What? Goals				
How? Approach				
Specific activities				



SurfCenter Organisation

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Focus areas

Resource
efficiency

Process &
product
development

Circularity

Sustainability
tools

Resource efficiency

- Development of low temperature processes
- Development and implementation of new techniques for reducing chemical waste

Take a look inside

Process & product development

- Process-benchmarking in laboratory and production facilities
 - Enable prediction and optimization of processes by digital tools
 - Increase process flexibility
- Development and/or evaluation of integrated in-line process monitoring
 - Enable digital control of process
 - Implementation of Digital Twins
- Development of products with improved quality and durability

Circular thinking

- Development of products with improved quality and durability
- Promote sustainable design:
 - Product development that enables thinner coatings
 - Implement use of renewable materials
 - Develop surface treatments that enables use of non-virgin materials or biobased

Take a look outside

Sustainability tools

- Adapt the use of Life Cycle Assessment to surface treatment processes
 - Enable shorter implementation times for new sustainable processes
 - Increase flexibility for product and material variations
- Facilitate the use of Life Cycle Assessment focus on product design
- Develop standards for:
 - New sustainable surface treatments
 - Current sustainable surface treatments lacking standardization specific to them

Crosswise topics

Test&Demo - "Part of SurfCenter"
Graduate school & Life-long education
Sustainable technologies and regulation
Digitalization & Optimization
Social Sustainability & Equality

Graduate school & Life-long education

- **Competence development:**
 - Company oriented education
 - Education programs for operators, engineers and product development on Surface treatment technologies
 - PhD programs

Sustainable technologies and regulation

- **Development of sustainability tools**
 - Calculation and measurement of, e.g., CO₂-footprint
 - New sustainability indexes fitted to surface treatment
 - ISO-standardization
 - Provide accurate data for environmental calculations – OPEN DATA

Digitalisation & Optimisation

- **Open information exchange between the partners:**
 - Sharing good and/or bad examples/best practices
 - Collaboration with Tier 2, 3, 4... suppliers
- **State-of-the-art surveillance:**
 - Continuous survey and communication about BAT and future developments develop an efficient communication channel
- **National and international active presence**

Social sustainability & Equality

- Identify the reasons for the **current gender distribution** in the surface technology branch
- Develop strategies for **gender equality** in the work force
- Develop **education programs** for operators, engineers and product development on Surface treatment technologies
- **Work environment**

Roles, activities and budget

Roles needed in SurfCenter

International
reference group

General assembly

- All center partners



Centre director

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Centre Board

- Min. 5 persons
- >50 % from non-academic partners
- Chairperson from industry
- Balanced gender distribution



Management team

- Centre director
- 4 Theme leaders
- 4 Topic responsible
- Administration



Focus areas



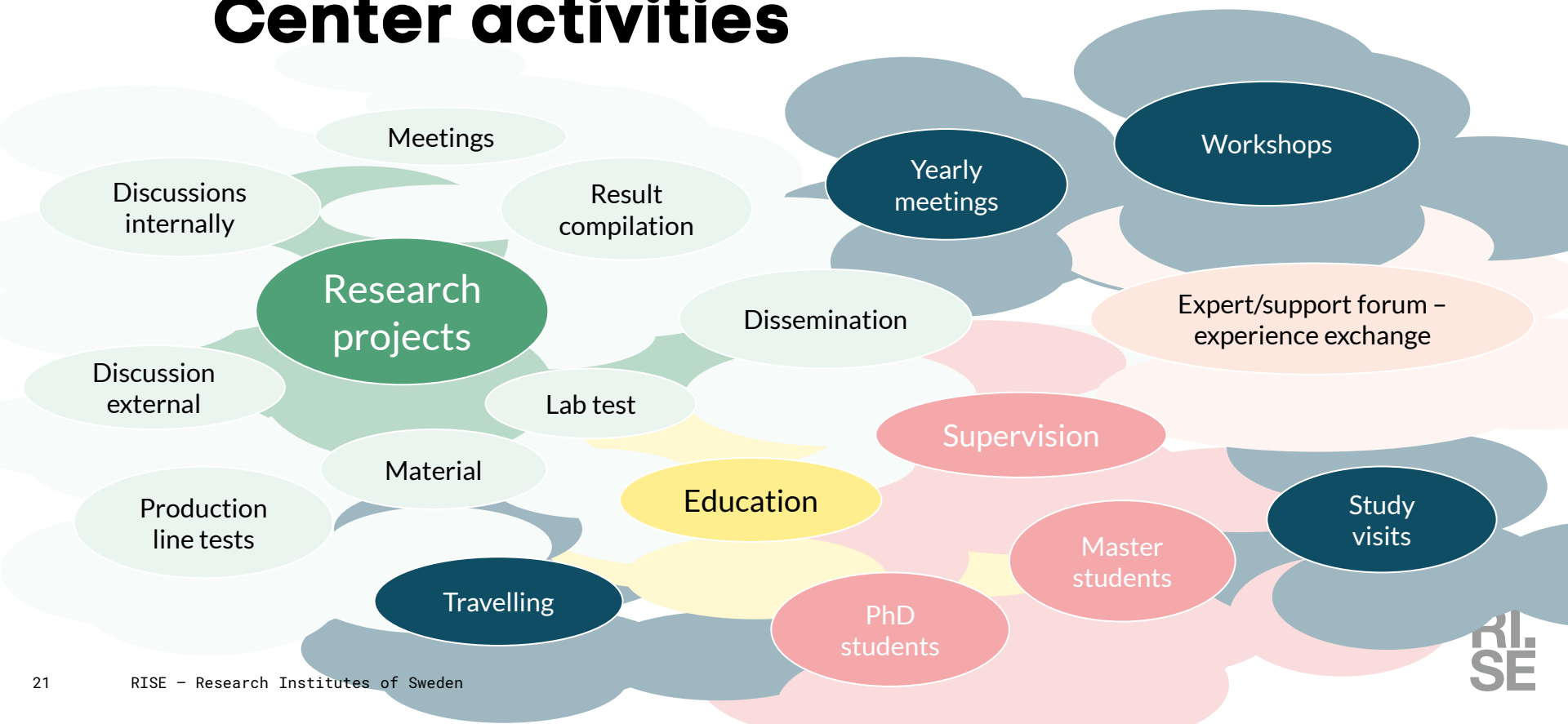
Projects

Crosswise Topics



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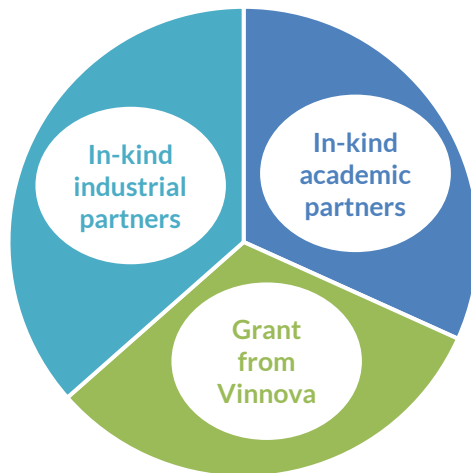
Center activities



Partners & Budget

Industrial partners:

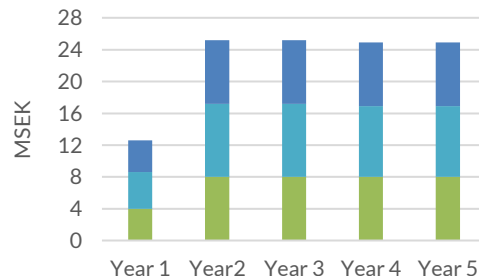
- Volvo LV
- Scania
- Volvo Cars
- SAAB
- IKEA
- Azelio
- Stena Recycling
- Element
- Nyli
- SYF
- SPF
- Svetskommissionen /AG42c
- Naturvårdsverket
- Provexa
- Ionbond
- IGP Powder



Academic partners:

- RISE - Coordinator
- Fraunhofer-Chalmers Center
- Jönköping University
- Linköping University
- University West

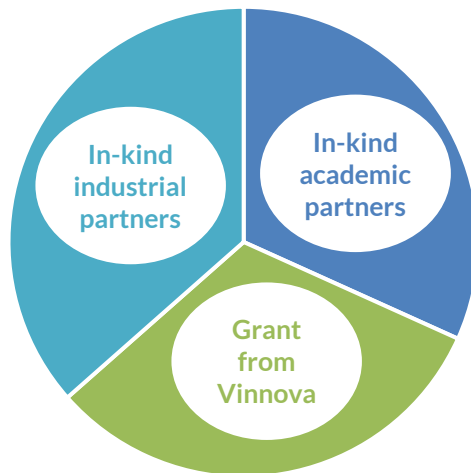
SurfCenter's budget 2024-2029



Partners & Budget

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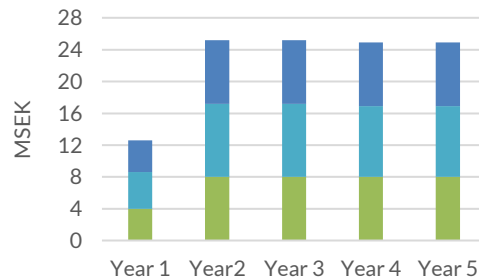
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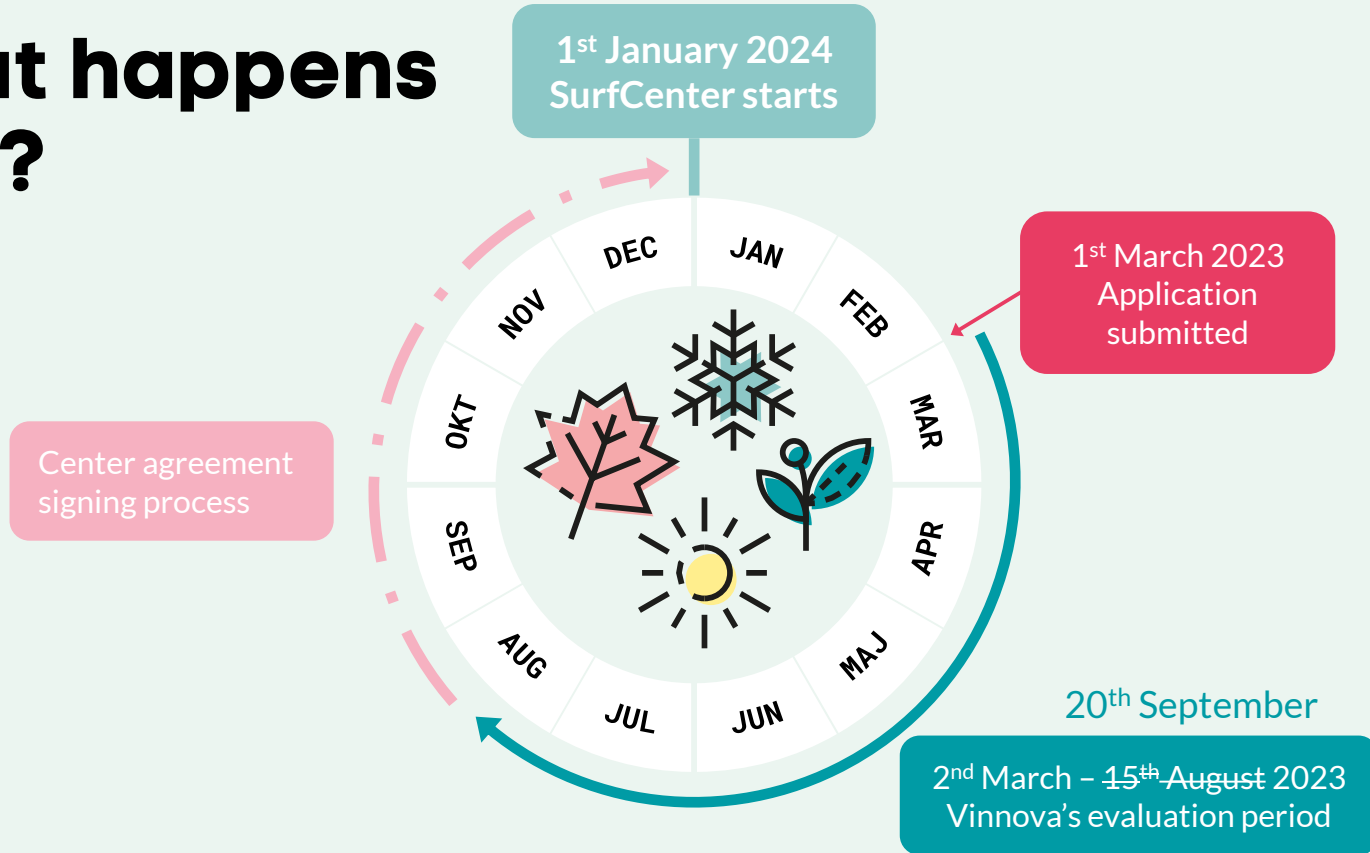
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SurfCenter's budget 2024-2029



What happens now?



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