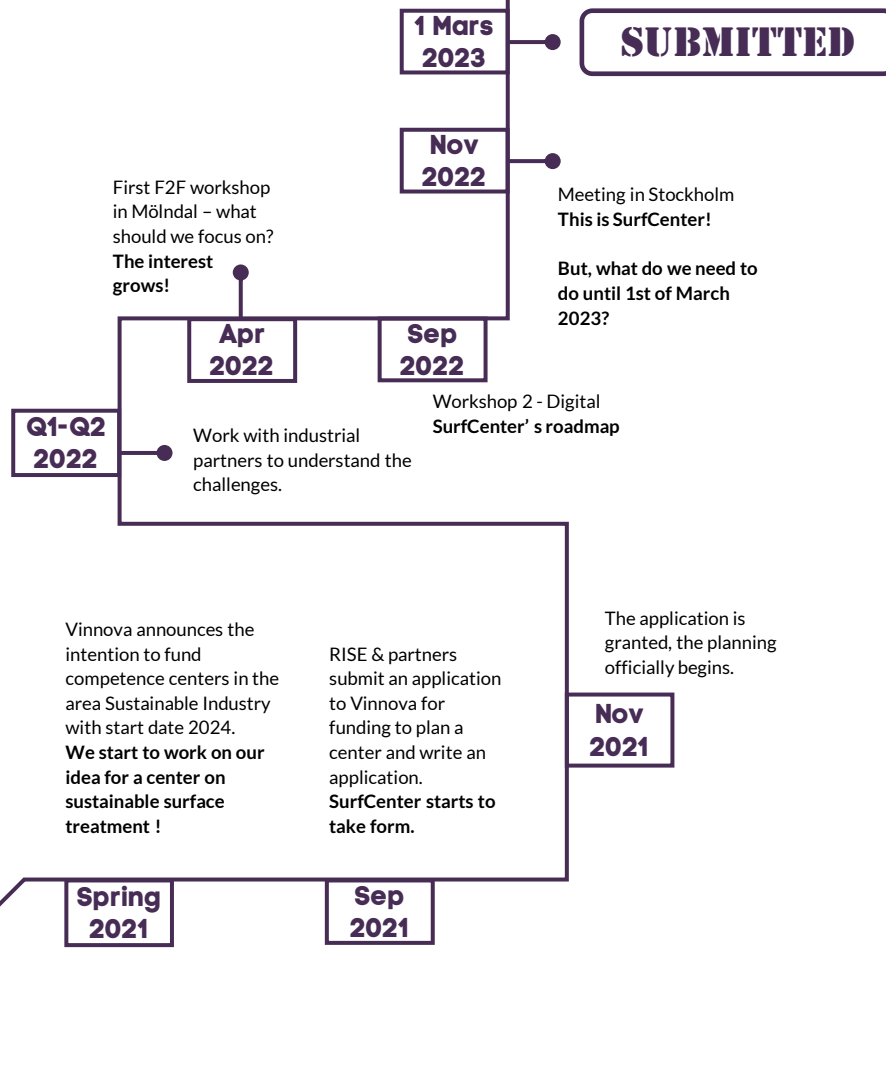
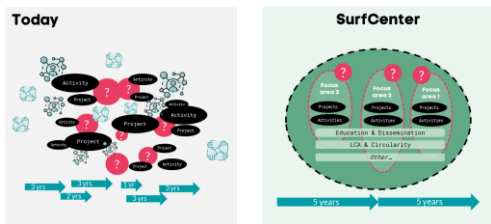


SurfCenter

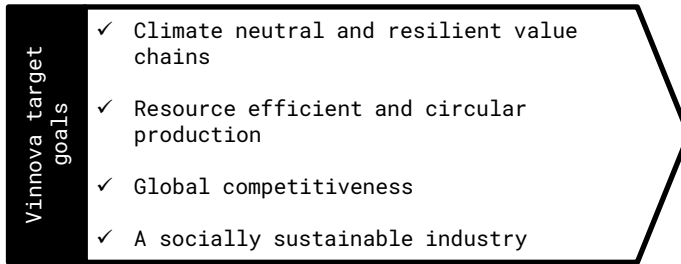
**Competence center for a
sustainable surface
treatment industry**

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

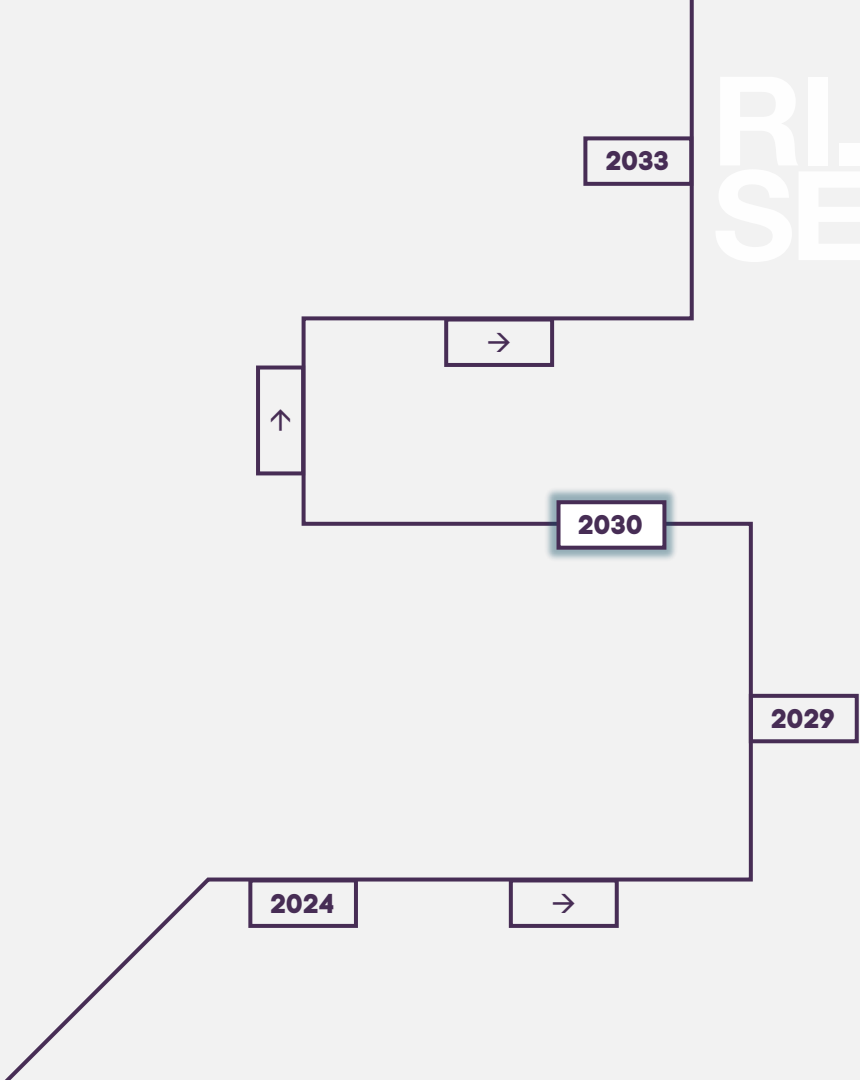
OUR MISSION:

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



Phase 1: 2024-2029

2030 Phase 2: 2029-2034

Goals

Climate neutral & circular production

- Process development for a lower carbon footprint
- Substitution of processes or introducing new technology solutions
- Development of low temperature processes
- Development and implementation of new techniques for reducing chemical waste
- Recycling, Reusing & Remanufacturing

- Implementation of BAT at industrial partners
- Contribution to new regulations, standards, Brefs
- Development of digital twins
- Public database of surface treatment technologies, including implementation guidelines and LCAs
- Recycling, Reusing & Remanufacturing
- Adapt the use of Life Cycle Assessment to surface treatment processes

- Reduce environmental impact:
 - Increased resource efficiency
 - Reduce the use of resources
 - Reduced emissions

Resource efficient & resilient value chain

- Reducing use of material and energy by optimizing wet-processes or changing them for dry processes
- Establishing a solid network where multidisciplinary knowledge flows between partners
- Process-benchmarking in laboratory and production
- Integrated in-line process monitoring
- Product development that enables thinner coatings
- Develop surface treatments that enables use of non-virgin materials or biobased
- Implement use of renewable materials

- Promote new surface finishing, remanufacturing by coating
- A fully digital product preparation process based on process simulation
- Open-source knowledge to every interested parties
- Develop standards for new sustainable surface treatments

- Facilitate and enable incorporation of BAT
- Ensure needed competence is available in Sweden
- Development and accessibility to sustainability assessment tools

Global competitiveness

- Mapping partners' local and global strengths
- Promote international collaboration, e.g., EU
- Enable rapid access to R&D resources
- Enable shorter implementation times for new sustainable processes
- State-of-the-art surveillance
- Open information exchange between partners

- Contribute to Bref revisions
- Promote the flow of BAT within SurfCenter partners from Sweden to the world
- State-of-the-art surveillance

- Technology and knowledge transfer
- Strengthen Swedish research
- Internationalization
- Ensure needed competence is available in Sweden
- Support R&D at SMEs

A socially sustainable industry

- Identify needed new competences for sustainable growth of the industry
- Improve work environment by removing dangerous chemicals, including automation, etc.
- Identify reasons for gender gap and propose action plan
- Participation in the program Introduce a Girl to Engineering
- Pilot education program
- Mass communication & outreach

- Creation of an education program in BAT, sustainability, automation, and energy technologies with a focus on surface treatments
- Propose new standards for work environment related to surface treatments
- Established program for continuous education of new staff, engineers and researchers

- Safe surface treatment along value chain
- Reduce the gender gap
- Improved work-environment
- Program for life-long education
- Sustainable products - focus on end-user
- Promote end-of-life management

SurfCenter Organisation



International reference group

Center Board

General assembly

Center Director
Assistant Center Director
Management Team

Resource efficiency	Process & product development	Circularity	Sustainability tools

Focus areas
Projects

Test&Demo - "Part of SurfCenter"

Graduate school & Life-long education

Sustainable technologies and regulation

Digitalization & Optimization

Social Sustainability & Equality

Crosswise topics

Partners & Budget

Industrial partners:

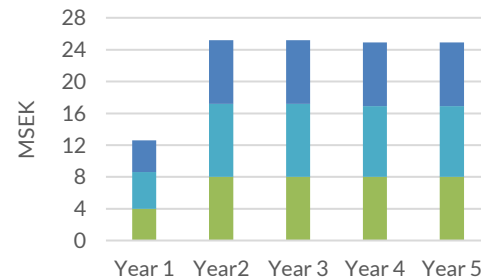
- Volvo LV
- Scania
- Volvo Cars
- SAAB
- IKEA
- Azelio
- Stena Recycling
- Element
- Nyli
- SYF
- SPF
- Svetskommissionen /AG42c
- Naturvårdsverket
- Provexa
- Ionbond
- IGP Powder



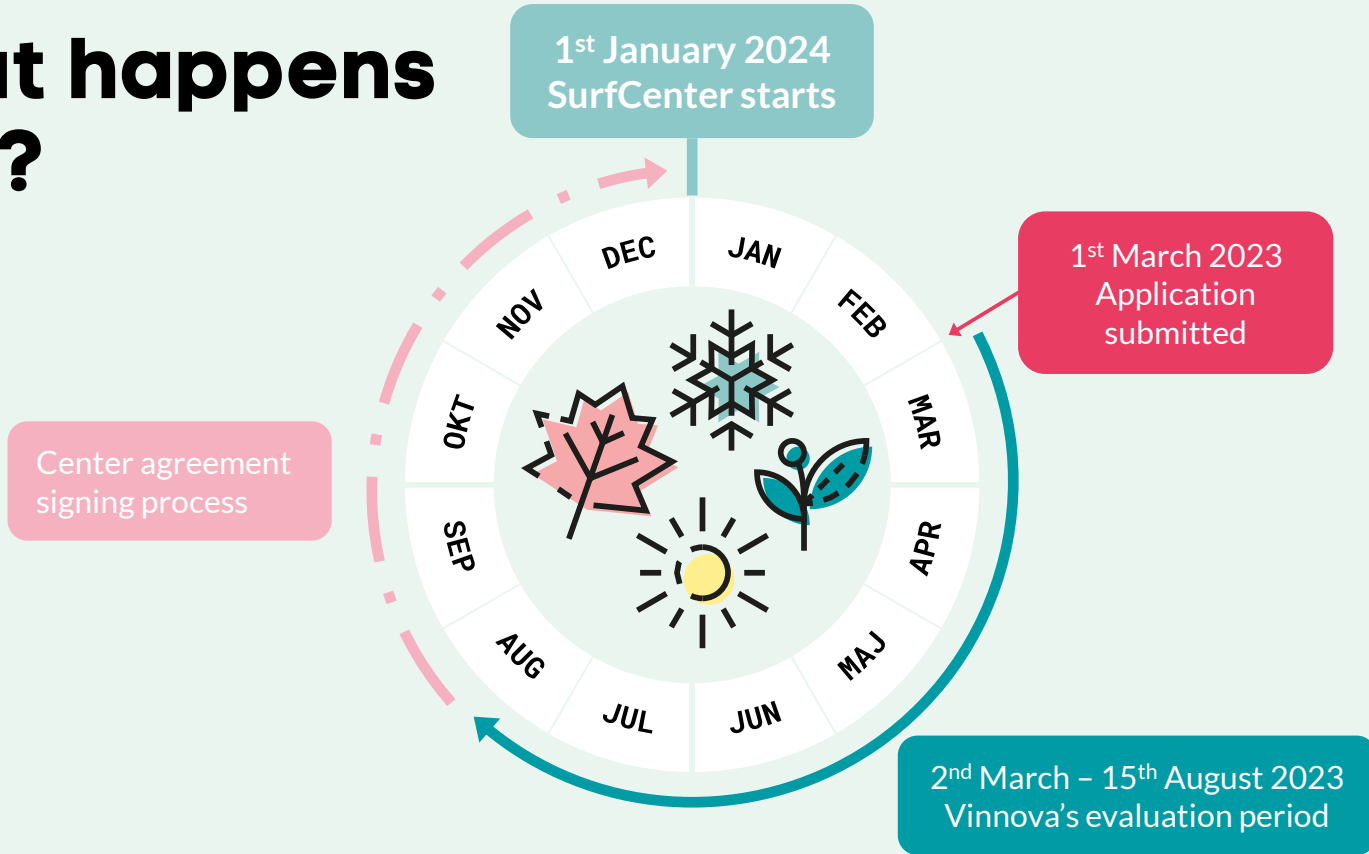
Academic partners:

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

SurfCenter's budget 2024-2029



What happens now?



Charlotte Ireholm

charlotte.ireholm@ri.se

070-780 61 42

Cecilia Goyenola

cecilia.goyenola@ri.se

070-780 62 17