



ACCELERATING INNOVATION!

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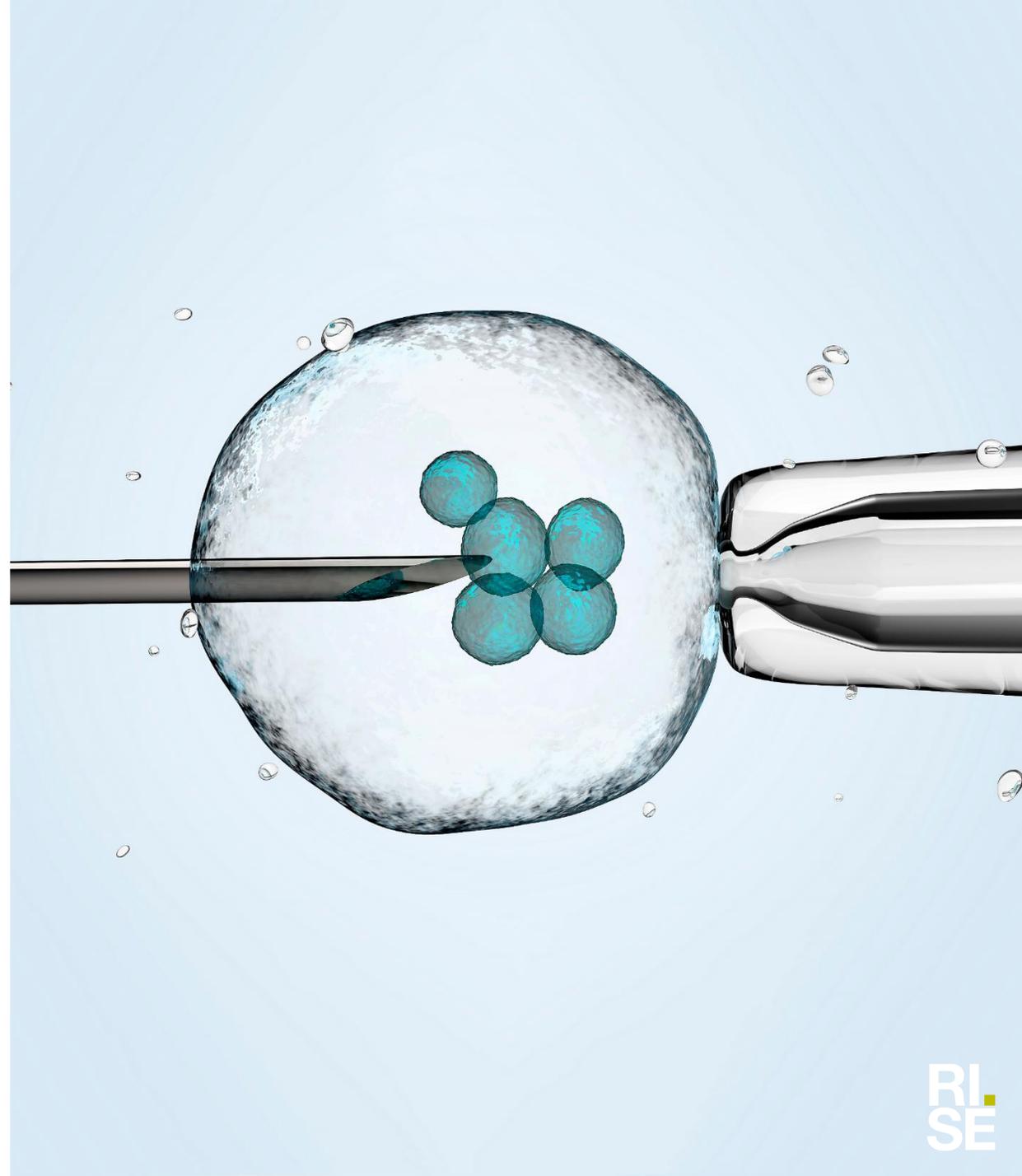
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RISE Research Institutes of Sweden



One strong, unified institute for Sweden

- Sweden needs a strong, national innovation capacity to compete on the international stage and to meet major global challenges.
- The new RISE aims to build a stronger Swedish institute sector that will actively support Swedish industry, providing increased benefits for trade and industry, and society in general.





**RI
SE**
Research Institutes
of Sweden

RISE Business & Innovation areas

Digitalisation

Energy and Biobased Economy

Sustainable Cities and Communities

Health and Life Science

Mobility



Data analysis makes for smarter saws

Challenge

How can we reduce energy consumption and create a better production flow in the Swedish sawmill industry?

Solution

Scanning logs is common in Swedish sawmills. It is, however, unusual to use the data from the scan after the logs have been sorted. The comparisons then make it possible to enable data from the finished result to control and optimise the next production run. RISE, is together with the Moelven Valåsen sawmill and the technology companies RemaSawco and Schneider Electric, investigating this further in a research project.



Flying with wood in the tank

Challenge

Developing a biobased aviation fuel is a huge challenge for the aviation industry. There is a definite will to identify green alternatives and to reduce dependence on fossil fuels.

Solution

Lignin was long seen as merely a low-value, residual product from the paper production process, but the results of RISE's research show that oil from lignin could serve as a cost-effective base for green aviation fuel – and thus a key piece of the puzzle in both the conversion of the aviation industry and the ambition to achieve the goal of a fossil-free Sweden by the year 2050.



Proteins to fight resistant bacteria

Challenge

Ever more bacteria are developing resistance to antibiotics, meaning that even seemingly simple infections can lead to death. Perhaps antimicrobial peptides are the future .

Solution

The EU project FORMAMP, coordinated by RISE, has succeeded in stabilising peptides and even made them more effective with the help of various nanoformulations. The next step is to see whether the results from the FORMAMP project can be advanced to usable pharmaceuticals in new projects.



Smart car – smart windscreen

Challenge

Is it possible to create a smart windscreen submitting information about the car itself and its surroundings?

Solution

Together with the electric vehicle company NEVS, RISE is developing interactive technology, which, in principle, converts the windscreen to a transparent monitor. With the help of cameras and sensors which interpret the car's surroundings, you can obtain information about such things as the distance to other vehicles, while you drive.



Sweden is ranked as **one of the worlds most innovative nations** - still faces a number of challenges

- Advantages:
 - Trust
 - Deregulation in the 1990s
 - Access to fiber-optics
- Challenges:
 - Keep investments in R&D and innovation on high levels
 - Better balance needed between academy and institute to ensure application of research results
 - Access to large scale test and demo
 - Access to professional education



Open innovation – a way to cut cost and time to market

- Drivers:
 - Cost efficient
 - Cuts time to market
 - Minimize risks
 - Out of the box
- Risks:
 - Exposure
 - Cost
 - Noise
 - IP



How to handle **IP-challenges** linked to open innovation

- Non confidential
- Do not sign NDA:s
- Always use a legal notice
- Patents
- The Black Box approach
- Use an intermediary



Erik Ronne, Vice President Innovation, RISE

Translucent Innovation

- Translucent Innovation is an open innovation service platform developed by RISE
 - Connected to 2300 researchers at RISE and 5500 companies and startups within SISP.
 - Free of charge
 - Safe
- RISE offers Translucent Due Dilligence to support evaluation of technology in safe mode





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