

MAX IV



TREESEARCH



Co-funded by  
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# Zooming into Biobased Materials



# Agenda – Day 1

## Day 1 – 25/9 afternoon

From 11:30 Registration

From 12:00 Lunch

12:45 13:00 Welcome – Kim Nygård, Magnus Larsson

13:00 13:30 Key-note Industry talk – Christel Andersson, Eskil Andreasson, Tetra Pak

13:30 13:50 *Unlocking Dry Forming: Using Scattering Tools to Understand Fiber Bonding*, Polina Naidjonoka, Yangi AB

13:50 14:15 *In-situ X-ray analysis of cold alkali dissolution of cellulose pulps of various origins*, Shun Yu, RISE AB

14:15 14:30 ForMAX-capabilities – Kim Nygård, MAX IV

14:30 15:00 COFFEE BREAK incl. Poster session

15:00 15:30 Treesearch – supporting research related to forest-based materials with state-of-the-art characterization tools – Daniel Söderberg, Treesearch Director, KTH

15:30 15:50 *Orientation distribution of within cross-sections of graphene-nanocellulose thin films*, Andreas Fall, RISE AB

15:50 16:00 Wrap-up Day 1 – Kim Nygård, Magnus Larsson

16:00 16:30 Poster session

16:30 17:30 Guided Tour @ MAXIV

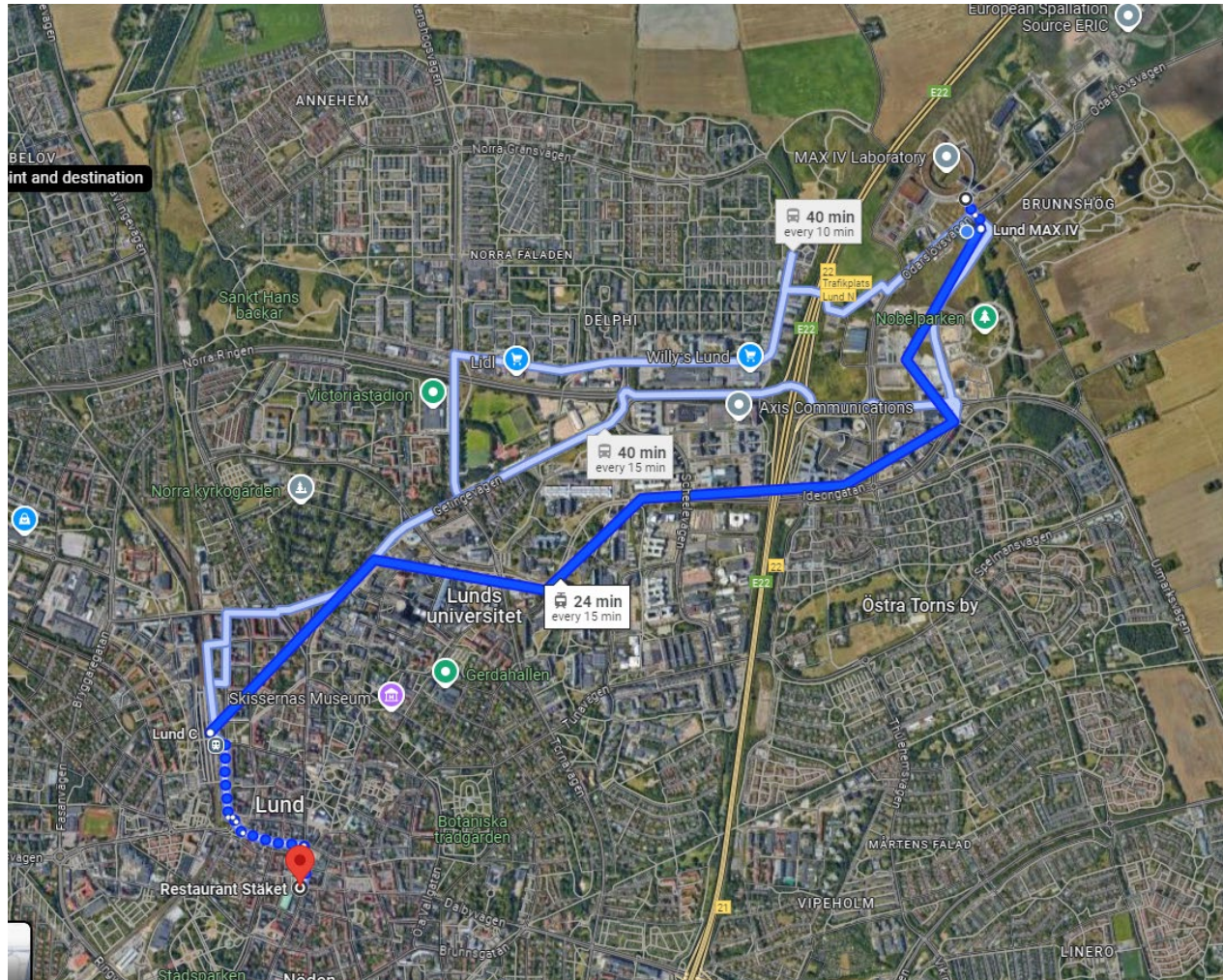
From 19:00 Workshop Dinner – Restaurant Stäket, Stora Södergatan 6  
222 23 Lund

# Agenda – Day 2

Day 2 – 26/9

09:00	09:30	<u>New rheological experiments at MAX IV - Roland Kádár, Chalmers</u>
09:30	10:00	<u>From Grenoble to Lund, from rocks to paper, from km's to nm's: 17 years of lab and synchrotron x-ray experiments to study material mechanics in 2D, 3D and 4D - Stephen Hall, Lund University</u>
10:00	10:15	Challenge & Solution-session – Introduction - Kim Nygård, Magnus Larsson
10:15	10:45	COFFEE BREAK
10:45	11:45	Challenge & Solution – session
11:45	12:00	Wrap-up – Kim Nygård, Magnus Larsson
12:00	12:45	Lunch
12:45	14:45	<b>ReMade@ARI session</b>
12:45	13:05	Access-modes (academic, industrial) – Nadia Day
13:05	13:20	Support via the Smart Science Cluster – Santiago Pablo Fernandez Bordín
13:20	14:45	<b>Proposal writing – workshop</b>
14:45		End of event

# Restaurant Stäket 19:00



Stora Södergatan 6, Lund



# This is **MAX IV**

- Advanced X-ray microscope
- Electron accelerator with 16 laboratories (beamlines)
- 4<sup>th</sup> generation synchrotron (first diffraction-limited light source)
- A user facility - open to researchers from all over the world



# Supported by academia and industry



Swedish  
Research  
Council

VINNOVA

*Knut and Alice  
Wallenberg  
Foundation*



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Institutet



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TEKNISKA  
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TREESEARCH

Linnéuniversitetet



MAXIV



Located in  
**Science Village  
Scandinavia**

City district with two of the world's  
most advanced science facilities

Photo: COBE

MAX IV  
Laboratory

Science  
Village

European  
Spallation  
Source (ESS)

MAX IV

Malmö

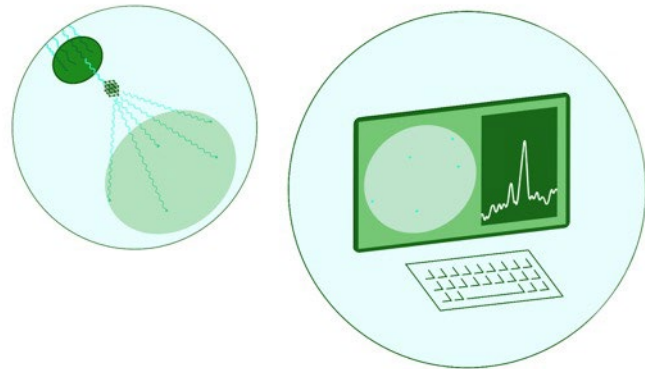
Lund

Copenhagen

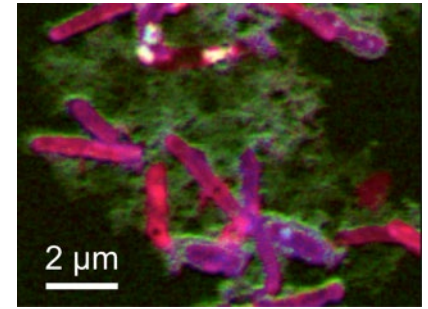
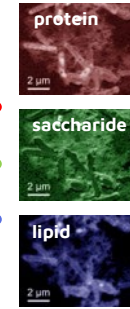
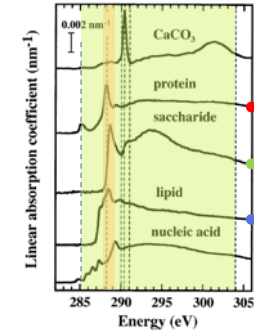




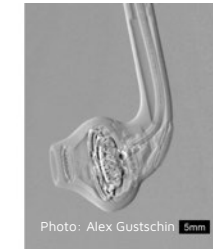
# Your detected data can be visualised in different ways



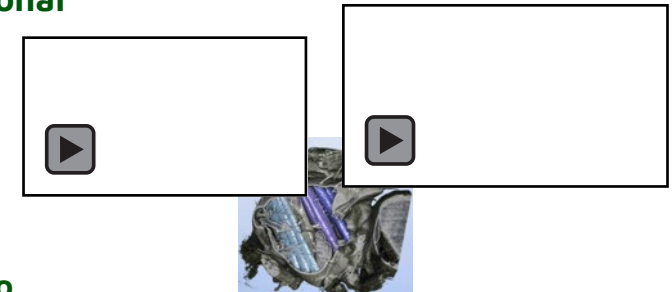
Spectroscopy – seeing chemistry



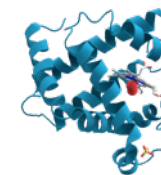
Phase-contrast imaging

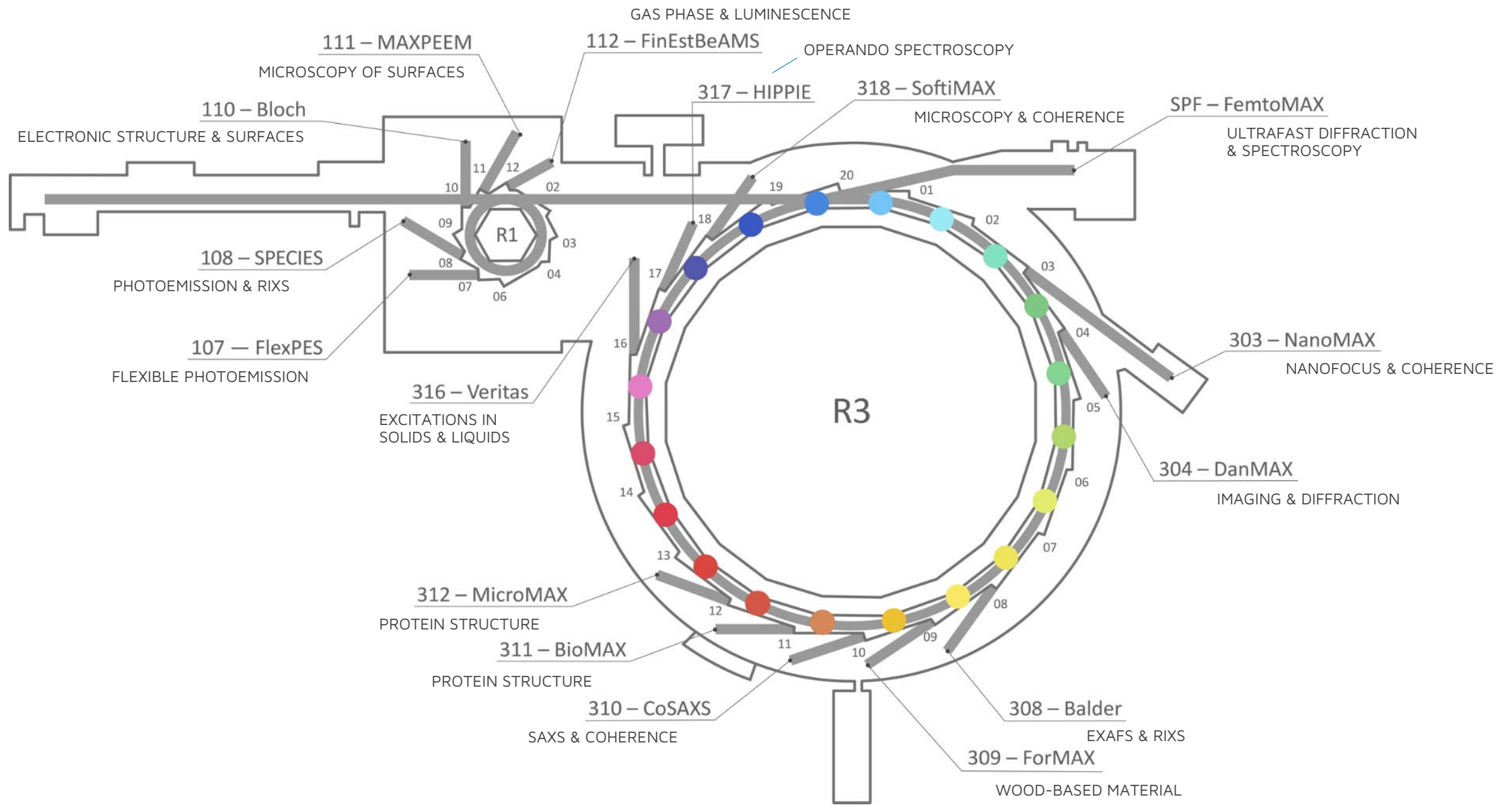


4-dimensional imaging



Structures (atomic to micrometric level)





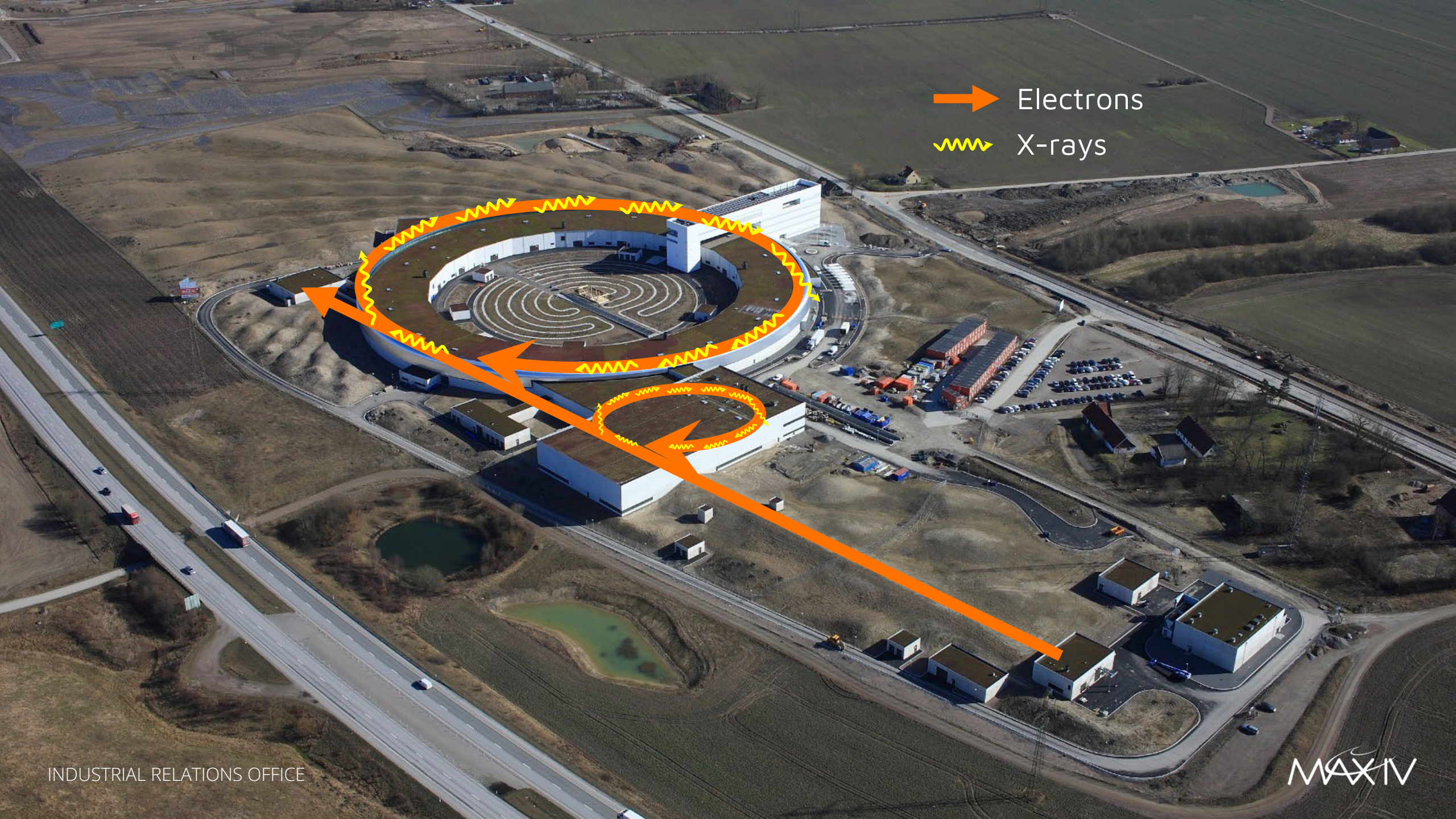


## Explore, discover, learn

- Study raw materials behaviour and properties at **unprecedented resolution**
- Enable radical **product optimisation**
- Improve manufacturing processes
- Obtain **input and data** for computational modelling, patents, marketing, etc
- Gain new insights – **transform and accelerate** your business

# How does it work?

➔ Electrons  
⚡ X-rays



**Industry Users**



**MAGNUS LARSSON**  
Head of Industrial Relations



**MARC OBIOLS-RABASA**  
Industrial Relations Officer



**MAGNUS FREDRIKSSON**  
Program Manager (Alfa Laval)



**CLAIRE LYONS**  
Project Coordinator InfraLife

Contact the  
industry office

[industryoffice@maxiv.lu.se](mailto:industryoffice@maxiv.lu.se)



## Strategic goals with industry

1. Broaden the industrial user base
2. Increase the industrial use
3. Develop MAX IV to support industrial needs
4. Employ a collaborative approach to industry engagement



## Two ways to get beamtime



- ✓ Free
- ✓ Apply for beamtime (2 open calls/year)
- ✓ Collaborate with an academic research partner
- ✓ Proposals ranked on scientific merit
- ✓ Publish your results



- ✓ Paid
- ✓ Faster, industry-tailored access
- ✓ Full confidentiality and IP rights
- ✓ One time project or long-term framework agreement
- ✓ You own your results

# Welcome to MAX IV

