

**LUND INSTITUTE OF ADVANCED
NEUTRON AND X-RAY SCIENCE**

LINXS

Visit us at: www.linxs.se



LUND INSTITUTE OF ADVANCED
NEUTRON AND X-RAY SCIENCE

LINXS

1st LINXS Science Day



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8.30-9.00 LINXS – Stephen
9.00 – 9.30 LINXS historical perspective - Peter
9.30-10.00 Coffee break

10.00-11.00 Theme – WG clips 1
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12.15 – 13.15 Lunch
13.15 - 14.00 Inspiration from LINXS activities
14.00 - 16:00 Group discussions

3 groups - 20 min / question:

- 1. What is LINXS for you?*
- 2. What do we want LINXS to be in 5-10 years?*
- 3. How do we get there?*

Summary and discussion

16.00 – Mingle and BBQ



MAX IV and ESS are the biggest investments in science infrastructure in the history of Sweden



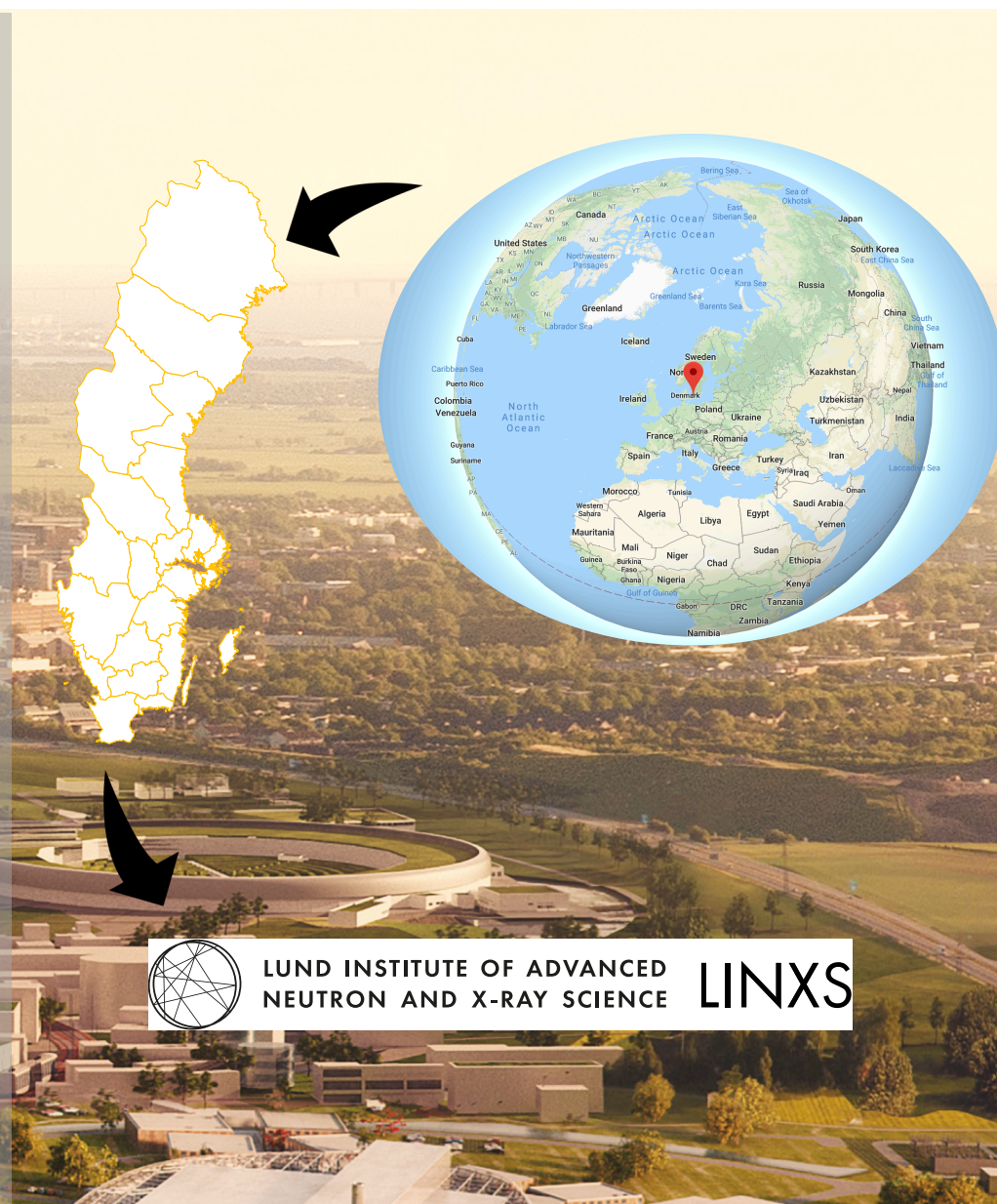
SETTING THE STAGE FOR OPTIMUM USE OF MAX IV AND ESS:

LINXS is an advanced study institute dedicated to becoming the nucleus for national and international scientific activities in Science Village Scandinavia situated between MAX IV and ESS.

LINXS will be an international competence centre, research networking hub and think tank for science with neutrons and x-rays.

LINXS is built on a stream of highly motivated world-leading scientists invited for short-term focused topical research visits.

More info: www.linxs.se/about





LINXS LUND INSTITUTE OF ADVANCED
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LOCATION 2021+

**SCIENCE
VILLAGE**
SCANDINAVIA

SCIENCE VILLAGE / ESS

MAX IV

BRUNNSHÖG CENTRUM

SOLBJER

HÖJDPUNKTEN

LOCATION
2018 - 2021

IDEON

LTH

UNIVERSITETS-
SJUKHUSET

LUND C

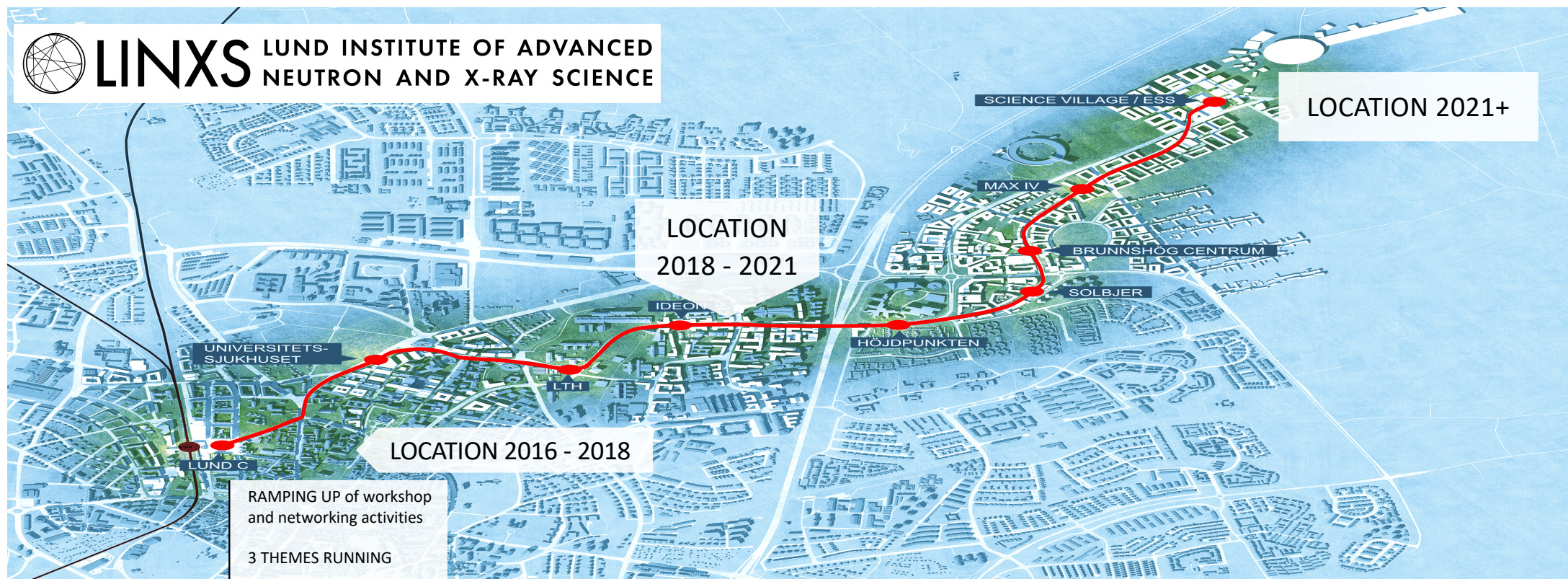
LOCATION 2016 - 2018





LINXS

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GENERAL PLAN

RAMPING UP of workshop
and networking activities

3 THEMES RUNNING

Interim location
established

First call for LINXS
postdoctoral fellows

2018

Regular hosting activities

Opening up for other
partner organisations and
membership

2019

CALL FOR NEW
THEME

Long term guest
hosting solution

2020

2021

Permanent location
in SVS established

Long term funding
secured

2022

Steady state
operations
reached at
16-24 MSEK/year

2023

MAX IV
3 BEAMLINES
available for user
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ESS
Start of user
operations

Aims and objectives of LINXS for 2019 – summary of full document

Scientific objectives

- Establish LINXS as a nucleus for x-ray and neutron based research in Lund
- Establish the LINXS premises as a vibrant, active and attractive work/meeting/interaction space
- Solidify and extend LINXS's scientific portfolio within and between the existing Themes
- Establish a path towards the development of new themes

Operational objectives

- Develop clear and transparent working practices
- Extend LINXS's remit beyond Lund University (develop partnerships)
- Secure long-term funding
- Plan for and initiate the process to find a new director

Search for a new Director

- To ensure the long term future of LINXS requires the appointment of a new director.
- A director of LINXS should have a broad, strong research profile in x-ray and neutron related science and associated international (and national) network.
- The position will be a professorial post: 50% LINXS and 50% at a host institute.
- It is envisaged that directors will hold the position 5 years, which is renewable.
- Search Committee:
 - Stacey Sörensen, chair.
 - Erik Swietlicki, LTH representative.
 - Oxana Klementieva, Med-fak representative.
 - Peter Schurtenberger, N-fak representative.
 - Marianne Sommarin, national representative
 - Martin Stankovski, administrative support.



LINXS LUND INSTITUTE OF ADVANCED
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SOFT MATTER

LIFE SCIENCE

HARD MATTER

STRATEGIC
ADVISORY
BOARD

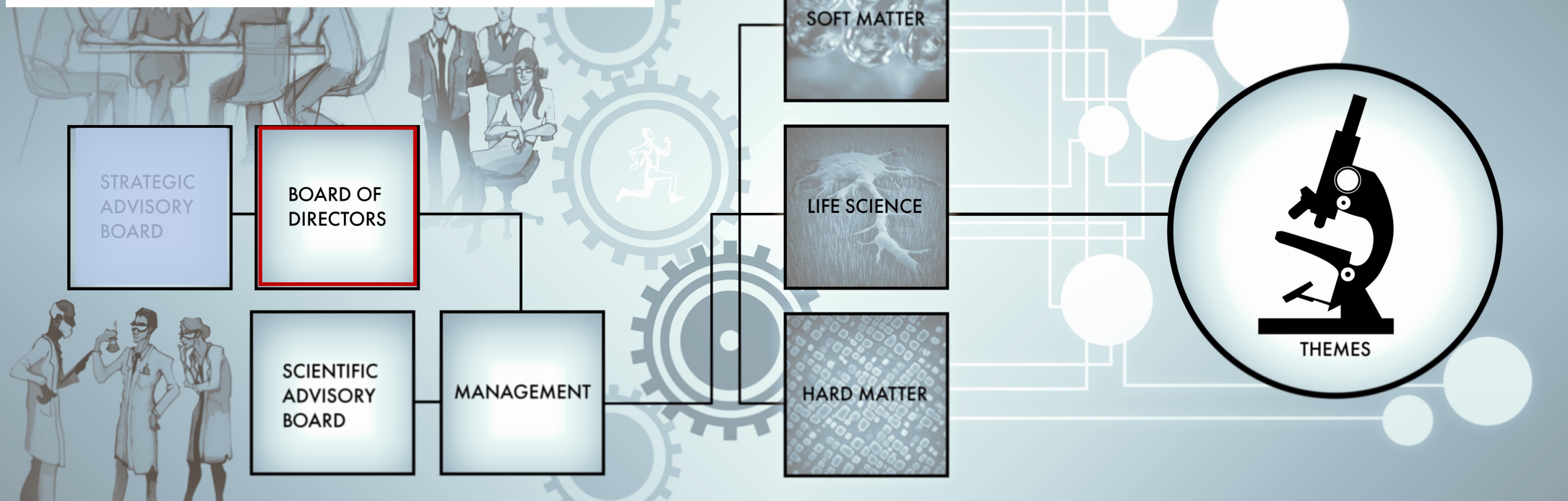
BOARD OF
DIRECTORS

SCIENTIFIC
ADVISORY
BOARD

MANAGEMENT

THEMES





Board



S. Lidin
Chair



U. Olsson
Nat. Fak



E. Swietlicki
LTH



K. Paulsson
Med. Fak



M. Thunnissen
MAXIV



S. Peterson-Årsköld
ESS



M. Sommarin
Extern (Umeå)



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THEMES

SAB



Lise Arleth
Chair
Copenhagen Univ.



Christiane
Alba-Simionesco



Stefan U Egelhaaf
Heinrich-Heine
University Düsseldorf



Daan Frenkel
Cambridge Univ.



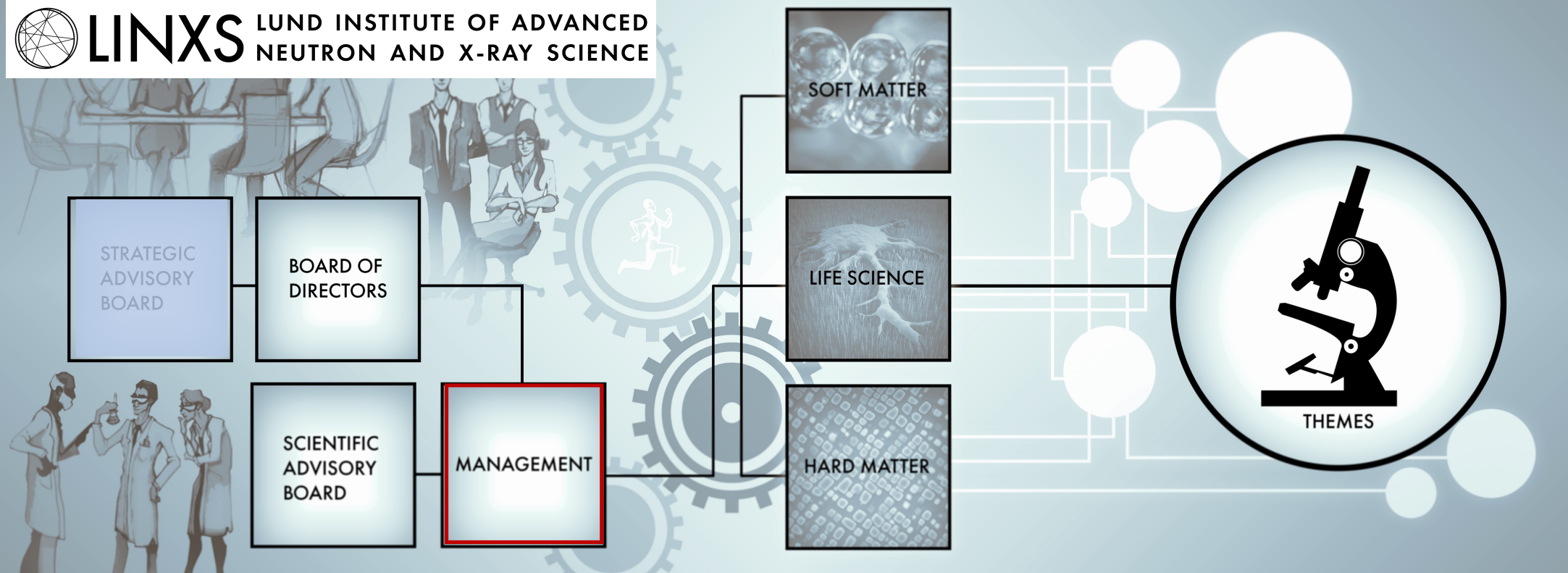
Christian Rüegg
Univ. Geneva/
PSI-SINQ



Marco Stampanoni
ETH Zürich/PSI-SLS



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S. Hall
Director



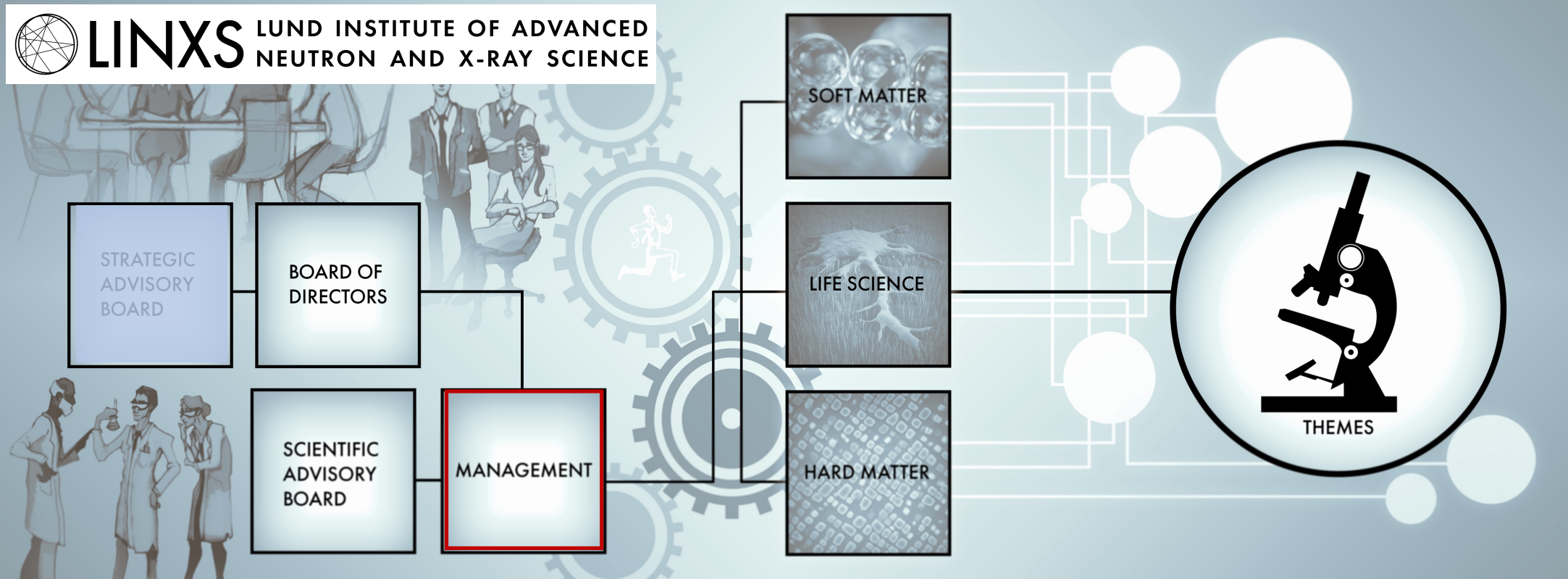
J. Lagerstedt
Vice-Director



M. Skepö
Co-Director



LINXS LUND INSTITUTE OF ADVANCED
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Admin head
Anna Ntinidou



Åsa Grunning
Science activities manager



M. Stankovski
Strategic development



Noomi Egan
Communications Officer



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THEMES

CURRENT THEMES & Working Groups

IMAGING

IMAGING WITH X-RAYS AND NEUTRONS, FROM ACQUISITION THROUGH PROCESSING TO APPLICATION

- **GeoArCH**: Geology, Archaeology and Cultural Heritage
- **Quantim** – 3D/4D image analysis
- **New imaging** possibilities with x-rays and neutrons
- X-ray and neutron imaging applications in **soil sciences**
- **TBT**: Tomography of Biological Tissues
- **Imaging Food**

DYNAMICS

UNDERSTANDING DYNAMIC PROCESSES THROUGH THE USE OF NEUTRONS AND X-RAYS

- Dynamics and structure of **biological macromolecules**
- **XPCS**: Characterizing soft matter with x-ray photon correlation spectroscopy
- Dynamics and structure of **membranes** and their constituents

INTEGRATIVE STRUCTURAL BIOLOGY

PUSHING THE LIMITS IN INTEGRATIVE STRUCTURAL BIOLOGY WITH NEUTRONS, X-RAYS AND COMPLEMENTARY TECHNIQUES

- **Biocompute**
- **Time resolved ISB**
- **Membrane proteins**
- **AMYLOID**: an integrative approach

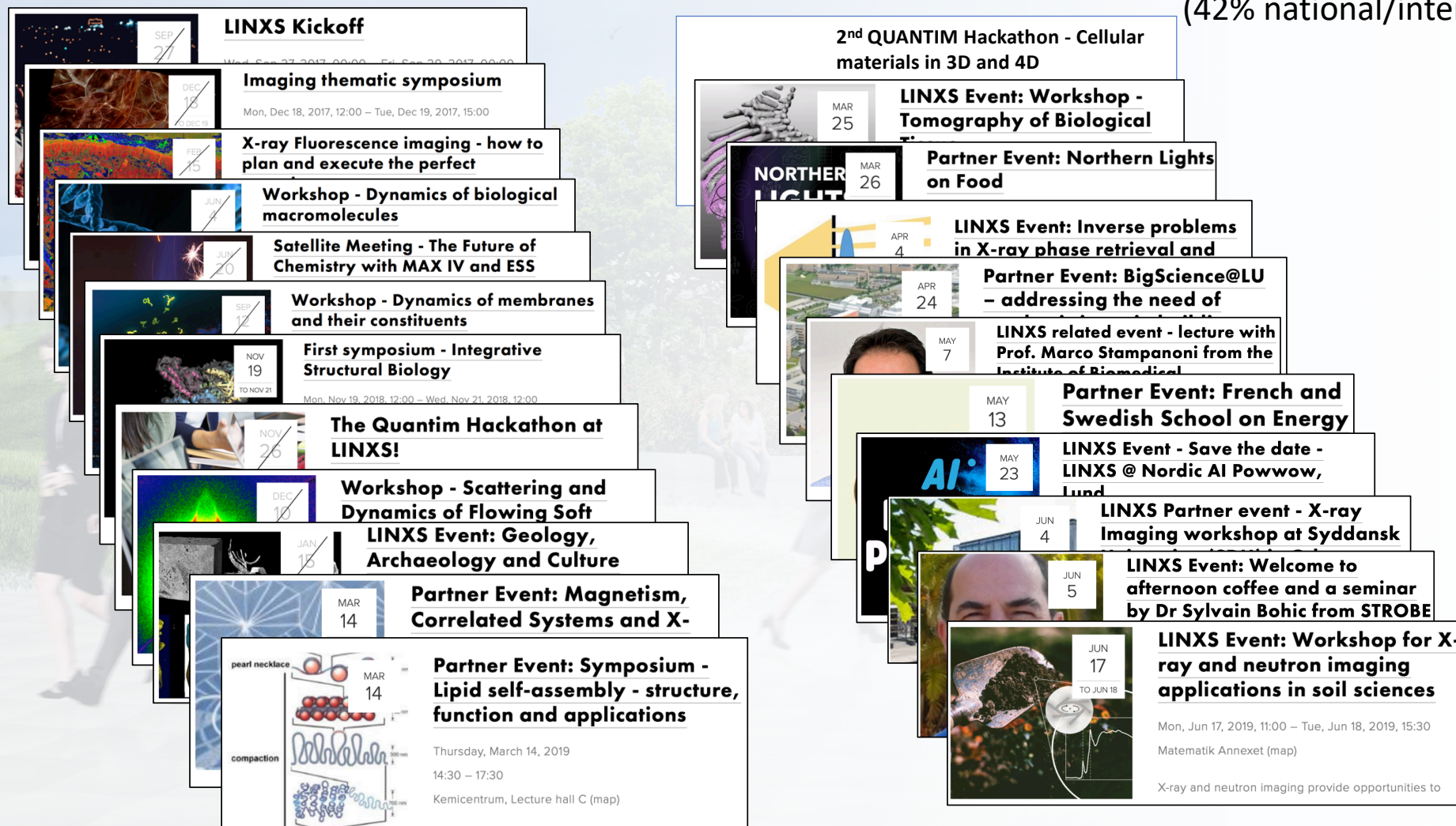
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SCIENTIFIC ACTIVITIES


Statistics Aug 2017 – Dec 2018:

Total number of participants: 773

(42% national/international)

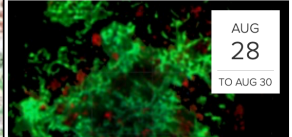


SCIENTIFIC ACTIVITIES – upcoming events




SEP
30
TO OCT 4

LINXS Hosted event - a non-specialized summer school: Imaging of 3D-structures



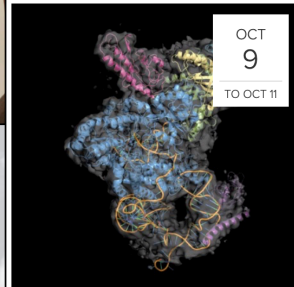
AUG
28
TO AUG 30

LINXS Partner Event - 8th Scandinavian Symposium, Amyloid Diseases and Amyloid Mechanisms (ADAM 8)



AUG
27

LINXS Event: Welcome to morning seminar with Dr Thomas Hellweg, Dep. of Physical and Biophysical Chemistry, Bielefeld University in



OCT
9
TO OCT 11

LINXS Event: 2nd Symposium - Integrative Structural Biology

Wed, Oct 9, 2019, 12:00 – Fri, Oct 11, 2019, 13:30
Kulturen (map)

Join us in Lund for a lunch-to-lunch scientific symposium from Wednesday (October 9th) to Friday (October 11st), noon to noon.

- Modelling of scattering data (autumn 2019)
- Coherent Diffractive Imaging (autumn 2019)
- 2nd Fluorescence imaging workshop (late 2019 / early 2020)
- IDP workshop (autumn 2019)
- XPCS workshop (autumn 2019)
- STXM imaging workshop (early 2020)

<http://www.linxs.se>

Visitors & Postdoc Programs



Prof. Dr. Jan K. G. Dhont

Director at Forschungszentrum Jülich GmbH
Full Professor at Heinrich-Heine University Düsseldorf
Department of Physics
Germany
April-May 2019



Prof. Dr. Thomas Hellweg

Faculty of Chemistry,
Dep. of Physical and Biophysical Chemistry,
Bielefeld University
Germany
June-August 2019



Prof. José Campos Terán

Departamento de Procesos y Tecnología
División de Ciencias Naturales e Ingeniería
Universidad Autónoma Metropolitana – Cuajimalpa
Col. Santa Fe, Mexico
Summer 2019-Summer 2020



Dr. Chris Garvey

Instrument Scientist
ANSTO
Sydney
Australia
(Collaboration with Malmö University)
Summer 2019-Summer 2020

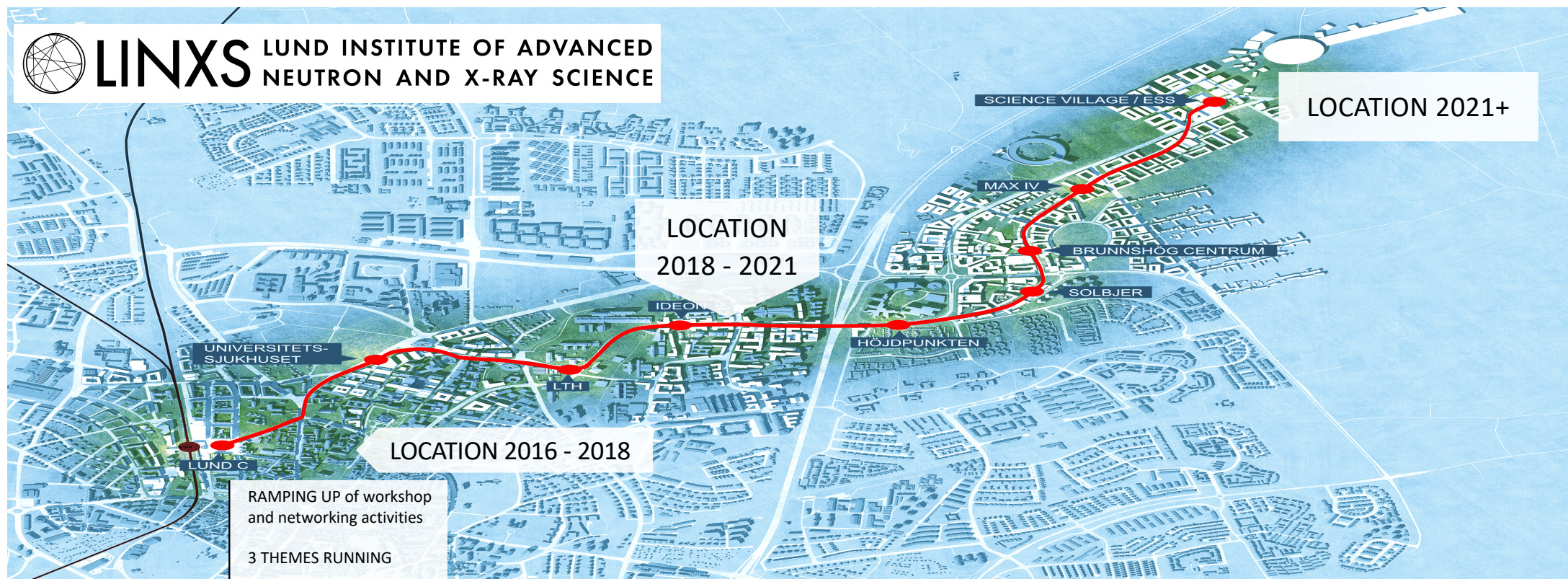


Dr. Anurag Kawde LINXS Postdoc Fellow



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