

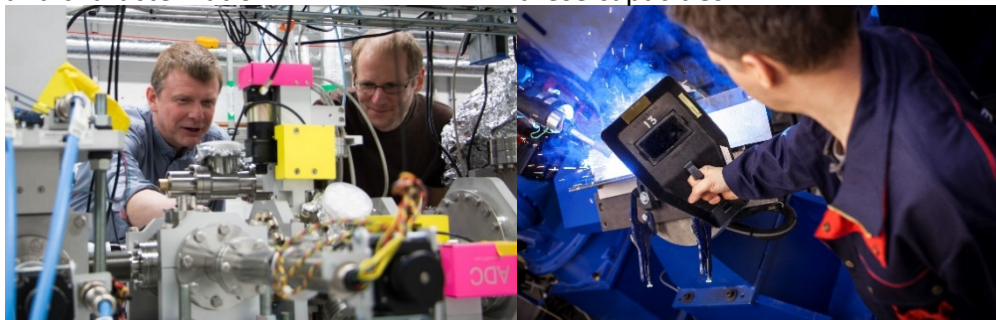
Second in a series of workshops planned within the BIR2Gain project,
*Big-Infrastructure Research for Big-Gains in Swedish Metallic Material
Industry.*

www.metalliskamaterial.se/bir2gain

New large-scale research facilities, the synchrotron MAX IV and the European Spallation Source (ESS), have been emerging in Lund. Along with the Swedish high-energy material science beamline at Petra III, they create unique analytical capacities in material development and characterization.

BIR2Gain aims at enhancing the gains in Swedish metallic materials sector from these facilities.

This workshop demonstrates the present status of available facilities and focuses on the examples of solving real-life challenges using these capacities.



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Med stöd från:



STRATEGISKA
INNOVATIONS-
PROGRAM

METALLISKA
MATERIAL

WORKSHOP

8-9 October **BIR2Gain**

LUND, 2018 **in the analysis of phase evolution and heat treatments**



EUROPEAN
SPALLATION
SOURCE



SWERIM



October 8

09:00 - 10:00 Registration with Coffee and nibbles

Introduction and updates on the developments of large-scale facilities

10:00 - 10:10 General introduction
(*Dmytro Orlov, Lund University*)

10:10 - 10:20 Vision from SIP MM
(*Anna Ponzio, Jernkontoret*)

10:20 - 10:40 Updates from MAX IV
(*Magnus Larsson, MAX IV*)

10:40 - 11:20 Updates from Petra III and Swedish High-Energy Materials Science Beamline (*Ulrich Lienert, DESY*)

11:20 - 11:40 Updates from ESS
(*Premek Beran, ESS*)

11:40 - 12:00 Updates from BEER and ODIN (*Robin Woracek, ESS*)

12:00 - 13:00 Lunch

Techniques and Instruments – I
(*Chaired by Joe Kelleher*)

13:00 - 13:45 Analysis of phase evolution by Diffraction: from laboratory to LSF sources (*Oliver Balmes, MAX IV*)

13:45 - 14:30 Imaging phases and their evolution: from laboratory to LSF sources (*Manuel Morgano, PSI*)

14:30 - 15:00 Coffee-break and poster session – I

Techniques and Instruments – II
(*Chaired by Peter Hedström*)

15:00 - 15:45 Revealing the details of microstructure by Diffraction line profile analysis
(*Gabor Ribarik, Eötvös Loránd University*)

15:45 - 16:30 Diffraction Imaging for revealing the details of microstructure evolution (*Henning Poulsen, DTU*)

17:00 - 18:00 Tour at MAX IV laboratory

19:00 - 21:00 Dinner

October 9

User examples – I
(*Chaired by Frederik Lindberg*)

09:00 - 09:30 Industrial uses of Neutron strain measurement and Imaging at ISIS
(*Joe Kelleher, ISIS Neutron Source*)

09:30 - 10:00 Understanding and mitigating the 475°C embrittlement in stainless steels - guided by neutron scattering (*Peter Hedström, KTH*)

10:00 - 10:30 Coffee-break and Poster session – II

10:30 - 12:00 Open discussion
Moderator Dmytro Orlov

"One-slide challenges" presented by industry representatives followed by open discussion driven by experts from academia and large-scale facilities

12:00 - 13:00 Lunch

13:00 - 14:30 Round-table discussion
Moderator Anna Ponzio

Building the Swedish national platform facilitating the use of large-scale facilities for metallic materials

14:30 - 15:00 Coffee-break and Poster session – II

15:00 - 15:45 Open discussion II
Moderator Magnus Larsson

Industrial access and demands beyond existing and planned capacities at the Swedish large-scale facilities

15:45 - 16:00 General reflections on the workshop, Final remarks and closure of the event
Moderator Dmytro Orlov

16:00 - 17:00 Scientists
(and coffee)
are available for peer-to-peer discussions

October 10

Satellite in-depth course

Advanced diffraction line profile analysis
by *Gabor Ribarik,*
Eötvös Loránd University

Hall IP2, M-house of LTH
Ole Römers väg 1, Lund

09:00 - 10:15 Session I;

10:15 - 10:45 Coffee break

10:45 - 12:00 Session II;

12:00 - 13:00 Lunch

13:00 - 14:00 Tour around research facilities in the Division of Materials Engineering at LTH

BIR2Gain is building a Swedish national platform facilitating the use of large-scale facilities for metallic materials. Its working title at present is '**Metal Beams**' but it is open for discussion to all the present and potential stakeholders.

The BIR2Gain project is in its second phase: taking the national collaborative platform off the ground with the following building blocks:

- Basic infrastructure for the platform;
- Key elements for the fruitful utilization by metallic material industries;
- Road map for efficient communication with Swedish national policy makers and integration with other national and international initiatives in the area;
- Elaborating sustainable model for long-term running and financing

Read more and register for the newsletter at

www.metalliskamaterial.se/metalbeams

