

**Big Science
Business
Forum
2018**

BIG SCIENCE BUSINESS FORUM 2018

PROGRAMME

OVERVIEW

DAY 0: MONDAY, 26 FEBRUARY, 2018

Time	Conference programme	Optional programme/side events
11.00-18.00		SITE VISITS TO ESS AND MAX IV IN LUND, SWEDEN; Hourly busses from Copenhagen, first bus leaving at 11.00 and last bus leaving at 14.00. Site visit takes approx. 4 hours. Registration required.
15.00-18.00		BUILDING A BIG SCIENCE MARKET – INDUSTRY LIAISON OFFICERS' ROLE AND CONTRIBUTION (By invitation only)
17.00	REGISTRATION OPENS	
19.00	WELCOME RECEPTION	

Exh

DAY 1: TUESDAY, 27 FEBRUARY, 2018

Time	Conference programme			
07.30	COFFEE AND REGISTRATION			
09.00	PLENARY SESSION I: Welcome and presentations from the BSBF2018 partners			
10.40	COFFEE BREAK			
11.10	PLENARY SESSION I continued			
12.30	STANDING LUNCH			
13.30	PARALLEL SESSION I:	A1 Procurement, IPR and standards	A2 Remote handling systems	A3 Cryogenic technology
				A4 Affiliated Big Science organisations I
15.30	COFFEE BREAK			
16.00	PARALLEL SESSION II:	B1 Technology Transfer	B2 Superconductivity and superconducting magnets	B3 Safety systems, licensing and protection of hazardous installations, access control, fire and gas detection
				B4 Affiliated Big Science organisations II
18.00	END OF SESSIONS			
19.30	CONFERENCE DINNER			

Exhibition

1-1 meetings

DAY 2: WEDNESDAY, 28 FEBRUARY, 2018

Time	Conference programme			
09.00	PLENARY SESSION II: Big science as a market			
10.45	COFFEE BREAK			
11.15	PARALLEL SESSION III:			
	C1 Electrical, electronics, electromechanical and RF systems	C2 High precision and large mechanical components – manufacturing and assembly	C3 Instrumentation & Control and CODAC	C4 Engineering methodologies and tools
13.15	STANDING LUNCH			
14.15	PARALLEL SESSION IV:			
	D1 Diagnostics, detectors and instruments	D2 Vacuum and leak detection technologies	D3 Basic material technologies and advanced manufacturing techniques	D4 Information and Communication Technologies
16.30	PLENARY SESSION III: Closing of BSBF2018			
17.00	END OF CONFERENCE PROGRAMME AND REFRESHMENTS			

Exhibition

1-1 meetings

DAY 3: THURSDAY, 1 MARCH, 2018

Time	Conference programme	Optional programme/side events
09.00-15.00		SITE VISITS TO ESS AND MAX IV IN LUND, SWEDEN: First bus leaving from Copenhagen at 09.00 and, depending on demand, more busses may be arranged. Site visit takes approx. 4 hours. Registration required.

CONFERENCE PROGRAMME

PLENARY SESSION I: WELCOME AND PRESENTATIONS FROM THE BSBF2018 PARTNERS

Time: Day 1, Tuesday 27 February 2018, 09.00-12.30

Keynote speeches by:

Søren Pind, The Danish Minister for Higher Education and Science

Sophie Hæstorp Andersen, Chairman of the Regional Council, Capital Region of Denmark

Carlos Moedas, EU Commissioner for Research, Science and Innovation

Presentations from the BSBF2018 organising Big Science organisations:

CERN – The European Organization for Nuclear Research: Frédérick Bordry, Director of Accelerators and Technology

EMBL – European Molecular Biology Laboratory: Silke Schumacher, Director International Relations

ESA – European Space Agency: Johann-Dietrich Wörner, Director General

ESO – European Southern Observatory: Xavier Barcons, Director General

ESRF – The European Synchrotron Radiation Facility: Francesco Sette, Director General

ESS – European Spallation Source: John Womersley, Director General

European XFEL – The European X-Ray Free Electron Laser Facility: Robert Feidenhans'l, Managing Director and Chairman of the Management Board

F4E – Fusion for Energy: Johannes Schwemmer, Director

ILL – Institut Laue-Langevin: Helmut Schober, Director General

Moderator: Angela Lamont, BSBF2018 plenary session moderator

“SECTION A” PARALLEL SESSIONS (27 February, 13.30-15.30)

PARALLEL SESSION A1: PROCUREMENT, IPR AND STANDARDS

Time: Day 1, Tuesday 27 February 2018, 13.30-15.30

Big Science organisations have different legal status, different member states and different procurement rules. Some organisations are international inter-governmental organisations with their own procurement rules while others are subject to EU public procurement rules and their tenders are not limited to a specific number of member states. Heads of Procurement from all organisations will present their procurement rules as well as relevant information for suppliers regarding intellectual property rights (IPR, in relation to procurement) and standards.

Speakers:

CERN: Anders Unnervik, Head of Procurement and Industrial Services Group

ESA: Gunilla Stjernevi, Senior Procurement Compliance Manager

ESO: Arnout Tromp, Head of Contracts and Procurement

ESRF: Ingrid Milanese, Head of Procurement & Contracts

ESS: Meredith Shirey, Head of Supply, Procurement & Logistics Division

European XFEL: Kitty Fritz-Nielen, Procurement and Logistics, Group Leader

F4E: Leonardo Biagioni, Head of Procurement

ILL: Philippe Guérin, Head of Purchasing & Contracts

Moderator: Christopher Bovis, Professor FRSA, Professor of International Business Law, University of Hull

PARALLEL SESSION A2: REMOTE HANDLING SYSTEMS

Time: Day 1, Tuesday 27 February 2018, 13.30-15.30

Increasingly, Big Science organisations have areas with challenging environments - due to hazardous materials, or various types of radioactivity & radiation, or environmental constraints (such as temperature, pressure, magnetic field, vacuum) or at inaccessible locations like in space. Operations hence require specialized remote handling (RH) / robotics interventions. Solutions developed for the science community may also help to solve challenges in other markets such as manipulation of very large components, decommissioning, space, power generation, mining etc. The technical area includes RH mechanics, system design & engineering, tooling design, operations planning, radiation tolerant components & systems, electronics, simulation, control and testing environments.

Speakers:

CERN: Jean-Louis Grenard, Project manager in heavy handling and robotics and Mario di Castro, Robotics engineer

ESA: Gianfranco Visentin, Head of Automation & Robotics section (TBC)

ESO: Max Kraus

ESS: Magnus Göhran, Monolith & Handling Group Leader

F4E: Carlo Damiani, Project Team Manager – Remote Handling

Moderator: Martin Townsend, Head of Business Development, United Kingdom Atomic Energy Authority (UKAEA), UK Industrial Liaison Officer for F4E/ITER, United Kingdom

PARALLEL SESSION A3: CRYOGENIC TECHNOLOGY

Time: Day 1, Tuesday 27 February 2018, 13.30-15.30

Many Big Science organisations need a range of cryogenic installations and systems in order to operate superconducting magnets, detectors or other equipment requiring cryogenic (extremely low) temperatures. The technical areas of interest include: cryogenic equipment, cryogenic storage and handling, vibration reduction, remote cooling, long lifetime to reduce maintenance, cryogenic materials, structural materials at cryogenic temperatures, etc. In this session, synergies between ground and space cryogenics will also be addressed.

Speakers:

CERN: Dimitri Delikaris, Group Leader Cryogenics

ESA: Olivier Pin, Head of Thermal Division

ESO: Gerd Jakob, Corporate Policies and Risk Manager

ESS: Philipp Arnold, Cryogenic Section Leader

F4E: Alain Teissier, Project Team Manager - Cryogenics

ILL: Eddy Lelièvre, Head of Service for Advanced Neutron Environment

Moderator: Michel Hübner, Swiss Industrial Liaison Officer for CERN, ESO, ESRF, ESS, European XFEL, F4E/ITER & ILL, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

PARALLEL SESSION A4: AFFILIATED BIG SCIENCE ORGANISATIONS I

Time: Day 1, Tuesday 27 February 2018, 13.30-15.30

ALBA, DESY, ELI-NP, ENEA, MAX IV, SCK•CEN – MYRRHA, PSI and SKA have all been selected to become a BSBF2018 Affiliated Big Science organisation. The eight Affiliated Big Science organisations belong to some of the world's largest international and national Big Science organisations and will present their investments in the coming years. This session will include ALBA, DESY, ELI-NP and ENEA, while the other four organisations will be included in parallel session B4.

Speakers:

ALBA: Gaston Garcia, Deputy Director

DESY: Arik Willner, Chief Technology Officer

ELI-NP: Dan Gabriel Ghita, Technical Director ELI-NP

ENEA: Aldo Pizzuto, Divertor Tokamak Test Facility

Moderator: Allannah Bayliss (TBC), UK industry liaison to CERN, Science and Technology Facilities Council, UK

“SECTION B” PARALLEL SESSIONS (27 February, 16.30-18.00)

PARALLEL SESSION B1: TECHNOLOGY TRANSFER

Time: Day 1, Tuesday 27 February 2018, 16.30-18.00

Although Big Science organisations are built for scientific purposes, their construction and operation generates a wealth of knowledge, some of which has the potential to be transferred to a broad variety of industries thereby impacting society. Representatives from all Big Science organisations will present their Technology Transfer policies, opportunities and way of working with the industry. Particular areas of interest are: technology broker networks, business incubation centers, licensing, open source etc.

Speakers:

CERN: Giovanni Anelli, Head of the Knowledge Transfer Group
EMBL: Jürgen Bauer, Deputy Managing Director, EMBLEM Technology Transfer GmbH
ESA: Frank Salzgeber, Head of Technology Transfer and Business Incubation Office
ESO: Eniko Patkos (TBC)
ESRF: Ennio Capria, Deputy Head of Business Development
European XFEL: Antonio Bonucci, Supply Chain Manager IKC
F4E: Victor Sáez, Group Leader – Market Intelligence

Moderator: Emir Sirage, Portuguese Industrial Liaison Officer for CERN, ESA, ESO & ESRF and IPC Delegate for ESA, Ministry of Science, Technology and Higher Education, Portugal

PARALLEL SESSION B2: SUPERCONDUCTIVITY AND SUPERCONDUCTING MAGNETS

Time: Day 1, Tuesday 27 February 2018, 16.30-18.00

Superconducting magnets are key components in particle accelerators and fusion energy experiments, where their primary role is to control the path and shape of beams of electrically charged particles. Progress is constantly made in the field of superconductivity and particularly the following technical areas are of interest to Big Science organisations developing future particle accelerators, colliders and fusion tokamaks: superconducting materials, superconducting RF cavities, superconducting links, magnet design and technology, cable and conductors production and test, manufacturing and testing of coils, high-temperature superconductors.

Speakers:

CERN: Luca Bottura, Group Leader Magnets, Superconductors and Cryostats
ESS: John Weisend, Specialized Technical Services Group Leader
F4E: Alessandro Bonito-Oliva, Project Team Manager – Magnets
ILL: Eddy Lelièvre, Head of Service for Advanced Neutron Environment

Moderator: Mauro Morandin, Italian Industrial Liaison Officer for CERN, Italian National Institute for Nuclear Physics (INFN), Italy

PARALLEL SESSION B3: SAFETY SYSTEMS, LICENSING AND PROTECTION OF HAZARDOUS INSTALLATIONS, ACCESS CONTROL, FIRE AND GAS DETECTION

Time: Day 1, Tuesday 27 February 2018, 16.30-18.00

Big Science organisations are typically characterized by high safety requirements to protect personnel, users, equipment, and surroundings against radiation, fire, gas, cryogenics, chemicals, heavy loads, and other hazardous items or situations. Many safety regulations and practices have some commonalities in the Big Science organisations but they are typically subjected to the regulatory requirements of the country they are based in. The technical areas of particular interest are for example: health and safety activities and legislation, radiation protection and shielding, nuclear and non-nuclear hazards, waste management and disposal, radiological and environmental monitoring, licensing regulations, access control.

Speakers:

CERN: Doris Forkel, Group Leader Radiation Protection, and Peter Sollander, Group Leader Industrial Controls & Safety Systems

ESO: Juan Carlos Palacio, Mechanical Construction Engineer Telescope & Large Structures Group

ESS: Peter Jacobsson, Head of Safety, Health and Environment Division

European XFEL: Emil Dupuich, Safety and Radiation Protection, Safety Engineer

Moderator: Christian Dierick, Lead Expert, Agoria, Belgian Industrial Liaison Officer for F4E/ITER, Belgium

PARALLEL SESSION B4: AFFILIATED BIG SCIENCE ORGANISATIONS II

Time: Day 1, Tuesday 27 February 2018, 16.30-18.00

ALBA, DESY, ELI-NP, ENEA, MAX IV, SCK-CEN – MYRRHA, PSI and SKA have all been selected to become a BSBF2018 Affiliated Big Science organisation. The eight Affiliated Big Science organisations belong to some of the world's largest international and national Big Science organisations and will present their investments in the coming years. This session will include MAX IV, SCK•CEN – MYRRHA, PSI and SKA, while the other four organisations will be included in parallel session A4.

Speakers:

MAX IV: Christoph Quitmann, Director MAX IV Laboratory

PSI: Leonid Rivkin, Deputy Director PSI and Head of Division Large Research Facilities

SCK•CEN – MYRRHA: Hamid Ait Abderrahim, Deputy Director-General International Relations, SCK•CEN, & Director, MYRRHA project

SKA: Simon Berry, Director of Corporate Strategy, and Ian Hastings, Head of Procurement Services

Moderator: Allannah Bayliss (TBC), UK industry liaison to CERN, Science and Technology Facilities Council, UK

PLENARY SESSION II: BIG SCIENCE AS A MARKET

Time: Day 2, Wednesday 28 February 2018, 09.00-10.45

The session will present views and experiences on the big science market by actors from industry and Industrial Liaison Officers (ILOs). The session aims at inspiring companies to engage in the big science market. It will also provide feedback from the industry to the big science organisations and suggestions for ensuring the existence of an innovative, prosperous and stable industrial supplier base. After short presentations from ILOs, prime contractors and SMEs in the big science market, the session will feature a round table discussion where the audience is most welcome to contribute with comments and questions. The session will include presentations from: a German ILO and former managing director of Babcock Noell GmbH ("Introduction to the Big Science market"); views and experiences on the Big Science market from prime contractors to the European Big Science organisations, CNIM Industrial Systems and VDL; views and experiences on the Big Science market from SMEs to the European Big Science organisations, Polyteknik AS and Active Space Technologies; as well as recommendations from a Danish ILO (Towards a consolidated European Big Science market place, recommendations from Industrial Liaison Officers).

Speakers:

Kurt Ebbinghaus, Deutsches ITER Industrie Forum (dIIF), Fusion for Energy Industrial Liaison Officer for Germany and former managing director of Babcock Noell GmbH.

Ludovic VANDENDRIESCHE, Vice-President, Nuclear & Big Science Business Line, CNIM Industrial Systems

Hans Priem, Business Manager Science & Technology, VDL

Jens William Larsen, Managing Director, Polyteknik AS

Ricardo Patricio, CEO, Active Space Technologies

Juliette Forneris, BigScience.dk, CERN and ESO Industrial Liaison Officer for Denmark

Moderator: Angela Lamont, BSBF2018 plenary session moderator

“SECTION C” PARALLEL SESSIONS (28 February, 11.15-13.15)

PARALLEL SESSION C1: ELECTRICAL, ELECTRONICS, ELECTROMECHANICAL AND RF SYSTEMS

Time: Day 2, Wednesday 28 February 2018, 11.15-13.15

Big Science organisations have a need for both standard and highly specialized electrical, electronics, and electromechanical installations and systems. This includes power supplies, transformers, installations, assembly and wiring work. Some organisations have an additional need for particular heating or particle acceleration systems based on RF (radiofrequency) or microwave generators with associated power supplies. In others radiofrequency amplifiers and associated power supplies are used to provide energy to particle beams, which are accelerated in normal conducting or superconducting resonators.

Speakers:

CERN: Stefano Bertolasi, Section Leader Electrical Network Projects, Serge Pittet, Power Electronics Designer, and Frank Gerigk, Deputy Group Leader Radio Frequency

ESA: Veronique Ferlet-Cavrois, Head of Power Systems, EMC & Space Environment Division

ESO: Christian Lucuix, Head of the Electronic Engineering Department

ESS: Anders Sunesson, RF Group Leader

F4E: Tullio Bonicelli, Project Team Manager – Neutral Beam & EC Power Supplies

Moderator: Ott Rebane, Estonian Industrial Liaison Officer for ESS & F4E/ITER, Institute of Physics, University of Tartu, Estonia

PARALLEL SESSION C2: HIGH PRECISION AND LARGE MECHANICAL COMPONENTS – MANUFACTURING AND ASSEMBLY

Time: Day 2, Wednesday 28 February 2018, 11.15-13.15

The building and operation of Big Science organisations relies extensively on the construction of large and complex mechanical systems such as magnet components, accelerating structures, support systems, shielding structures, and vacuum components. The needs for mechanical parts vary in terms of materials, sizes, volume, and degree of complexity; but the following technical areas are of particular relevance to most Big Science organisations: manufacturing of high to very high precision mechanical components, large machined components, pressure vessels and high temperature reactors, complex welded structures; as well as assembly, installation, validation and testing of the above components.

Speakers:

CERN: H  l  ne Mainaud Durand, Deputy leader of the Survey, Mechatronics and Measurements group

ESA: NN (TBC)

ESO: Lluis Cavaller, Mechanical System Engineer

ESRF: Philippe Marion, Head of Mechanical Engineering Group

ESS: Nick Gazis, Mechanical Design Section Leader

F4E: Angel Bayon, Technical Responsible Officer Vacuum Vessel

ILL: J  r  me Beaucour (TBC), Head of Mechanical Service of the Experimental Halls

Moderator: Ole Petter Nordahl, Norwegian Industrial Liaison Officer for CERN, ESRF & ESS, Norway

PARALLEL SESSION C3: INSTRUMENTATION & CONTROL AND CODAC

Time: Day 2, Wednesday 28 February 2018, 11.15-13.15

Big Science organisations have a particular need for high performant I&C (Instrumentation and Control) and CODAC (Control, Data Access and Communication) systems. These are used for the scientific exploitation of the facility for the data acquisition and processing of the data, and they are also used for the essential control systems for e.g. safety, machine protection, robotic systems etc. The technical areas of relevance include for example: real-time systems, SCADA (Supervisory Control and Data Acquisition, for example EPICS), electronics and FPGA design, automation, and network infrastructure.

Speakers:

CERN: Peter Sollander, Group Leader Industrial Controls & Safety Systems
ESA: Philippe Armbruster, Special Advisor in the Electrical Engineering Department
ESO: Jochen Haucke, Head of Control Software and Engineering
ESRF: Nicolas Janvier, Head of the Electronics Unit
ESS: Henrik Carling, Head of Integrated Control System Division
F4E: Filippo Sartori, Group Leader - CODAC
ILL: Paolo Mutti, Head of Service of Instrument Control

Moderator: Antoine Daël, French Industrial Liaison Officer for CERN & ESS, France

PARALLEL SESSION C4: ENGINEERING METHODOLOGIES AND TOOLS

Time: Day 2, Wednesday 28 February 2018, 11.15-13.15

Constructions or major upgrades of Big Science organisations require extremely rigorous methodologies to ensure the successful integration and assembly of a large number of components. It is also necessary to ensure the linking and interoperability of engineering information between the disciplines as well as between the different organisations involved in a Big Science facility. The relation between the (physical) components, the functions and the software based implementation and operation are further key elements for success. Engineering and design work is required in a broad range of domains such as: nuclear, mechanical, electrical, functional cooling, civil, or geotechnical engineering. Analysis and modelling tools are also frequently used for mechanical, electromagnetic, fatigue, nuclear, fluid dynamics, failure mode analysis and many more technical areas. CAD-related technologies (CAD, Project Data Management, Product Lifecycle Management) and design codes & standards are key technical areas, which require both in-house experience and support from the industry.

Speakers:

CERN: Bertrand Nicquevert, Lead chairman of the specification committee for Accelerators and Technology Sector
ESA: Joachim Fuchs, Head of System Modelling and functional verification section
ESO: Gerald Hechenblaikner, Deputy Director of Engineering, and Max Kraus (TBC)
ESS: Peter Rådahl, Head of Engineering and Integration Support Division
F4E: Pierre-Yves Chaffard, Project Team Manager – Tech. Support Services (TBC)
ILL: Jérôme Beaucour (TBC), Head of Mechanical Service of the Experimental Halls

Moderator: Ana Belen Del Cerro Gordo, Spanish Industrial Liaison Officer for F4E/ITER, Centre for the Development of Industrial Technology (CDTI), Spain

“SECTION D” PARALLEL SESSIONS (28 February, 14.15-16.30)

PARALLEL SESSION D1: DIAGNOSTICS, DETECTORS AND INSTRUMENTS

Time: Day 2, Wednesday 28 February 2018, 14.15-16.30

Big Science organisations have a specific need for a range of diagnostics, detectors, and instruments for the scientific exploitation of the facility. The instruments are often designed by scientific and academic laboratories and universities, but the construction of these require the input from a multitude of specialized companies. The technical areas include optical components, imaging components, spectroscopic, microwave, electric & magnetic field diagnostics, particle detectors, opto-electronic detectors & components, and fast read-out electronics, etc.

Speakers:

CERN: Luigi Serio, Group Leader Administration, Resources & Performance, and Thibaut Lefevre, Deputy Group Leader Beam Instrumentation (TBC)

ESA: Alessandro Donati, Advanced Mission Concept & Technical Manager, and Zoran Sodnik

ESO: Christian Lucuix, Head of the Electronic Engineering Department, and Jochen Haucke, Head of Control Software and Engineering

ESRF: Thierry Martin, Head of the Detector Unit

ESS: Thomas Shea, Beam Diagnostics Section Leader

European XFEL: Jan Grünert, X-ray Photon Diagnostics, Group Leader

F4E: Glenn Counsell, Project Team Manager – Diagnostics

Moderator: Toon Verhoeven, Industrial Liaison Officer for ESS & F4E/ITER, Dutch Institute for Fundamental Energy Research (DIFFER), The Netherlands

PARALLEL SESSION D2: VACUUM AND LEAK DETECTION TECHNOLOGIES

Time: Day 2, Wednesday 28 February 2018, 14.15-16.30

Vacuum chambers and components are pervasive in Big Science organisations with particle accelerators, detectors, instrument beamlines, coating systems and more. Throughout the phases of design, construction, operation, maintenance and upgrade of high & ultra-high vacuum systems, expertise is required for: manufacturing of HV and UHV components, vacuum sealing and leak-tightness technology, vacuum control systems, interlocks & monitoring tools; coatings, surface cleaning techniques, baking and outgassing procedures, and pumping systems.

Speakers:

CERN: Paolo Chiggiato, Group Leader Vacuum, Surfaces and Coatings

ESA: Gaetan Piret, Head of ESTEC Testing Division

ESO: Gerd Jakob, Head of Instruments and Cryogenic Systems Group

ESS: Marcelo Ferreira, Vacuum Section Leader

European XFEL: Martin Dommach, Vacuum, Group Leader

F4E: Gino Piazza, Technical Responsible Officer – Fuel Cycle

Moderator: Nikolaj Zangenberg, Director Metal and Surface Technology, Danish Technological Institute, Danish Industrial Liaison Officer for ESRF, European XFEL & ILL, Denmark

PARALLEL SESSION D3: BASIC MATERIAL TECHNOLOGIES AND ADVANCED MANUFACTURING TECHNIQUES

Time: Day 2, Wednesday 28 February 2018, 14.15-16.30

Big Science organisations are constantly pushing the limits in terms of materials technologies and advanced manufacturing techniques to improve the performances of their machines. The following technical areas are of high importance both for the development of current and future Big Science organisations: materials selection and testing for extreme conditions (radiation, pressure, temperature, stress, corrosion, particle bombardment, etc.), advanced manufacturing techniques (machining, welding, cutting, brazing, additive manufacturing, surface treatment and coating, etc.), development and testing of high temperature mechanical components.

Speakers:

CERN: Francesco Bertinelli, Group Leader in Mechanical & Materials Engineering Department

ESA: Tommaso Guidini, Head of the Materials Technology Section

ESO: Christoph Frank, Design Engineer, Instruments & Cryo Systems

ESS: Håkan Danared, Deputy Head of Accelerator Division

F4E: Stefan Wikman, Responsible Officer, Materials & Fabrication - ITER Department

Moderator: Timo Määtä, Principal Scientist, VTT Technical Research Centre of Finland, Finnish Industrial Liaison Officer for F4E/ITER, Finland

PARALLEL SESSION D4: INFORMATION AND COMMUNICATION TECHNOLOGIES

Time: Day 2, Wednesday 28 February 2018, 14.15-16.30

Big Science organisations rely heavily on a variety of IT and scientific computing services throughout their lifecycle (design, planning, construction, operation, upgrade, decommissioning). Many organisations (particularly with user-based facilities) need to develop software and infrastructure services for data management and analysis, and technical user support. The technical areas of interest in ICT include database design, programming, and management, data indexing, discovery and retrieval, data access and delivery methods, hardware control interfaces, embedded software, HPC, data centre IT infrastructures, data mining and analytics tools, big-data analytics, cloud-computing, data visualization and user interfaces, data security and protection, technical user support etc.

Speakers:

CERN: Olof Barring, Deputy Group Leader Computing Facilities, and Tony Cass, Group Leader Communication Systems

EMBL: Steven Newhouse, Head of Technical Services – Technology and Science Integration, EMBL-EBI

ESA: Michele Iapaolo, Technical Support Engineer, ESA & TPM Missions PDGS Operations Section

ESO: Dieter Suchar, Head of the Information Technology Department

ESRF: Bruno Lebayle, Head of the Systems & Communications Group (IT Infrastructure)

European XFEL: Krzysztof Wrona, IT & Data Management, Group Leader

ILL: Jean-François Perrin, Head of Information & Technology Service

Moderator: Natasa Pahlm, Industrial Liaison Officer coordinator, Swedish Governmental Agency for Innovation Systems (Vinnova), Sweden

PLENARY SESSION III: CLOSING OF BSBF2018

Time: Day 2, Wednesday 28 February 2018, 16.30-17.00

Concluding remarks about BSBF2018 by:

Lars Christensen, Chair of BSBF2018 International Organising Committee, Head of Division, Research Infrastructures, Danish Agency for Science and Higher Education
BSBF2018 International Organising Committee (TBC)

Moderator: Angela Lamont, BSBF2018 plenary session moderator

OPTIONAL PROGRAMME AND SIDE EVENTS

SITE VISITS TO ESS AND MAX IV IN LUND, SWEDEN

Time: Day 0, Monday 26 February, 2018, 11.00-18.00, and Day 3, Thursday 1 March 2018, from 09.00

Participants are offered a combined site visit to The European Spallation Source – ESS (one of the BSBF2018 organising Big Science organisations) and MAX IV (one of the affiliated Big Science organisations) in Lund, Sweden. Site visits will be available on 26 February and 1 March 2018.

ESS is a partnership of European nations committed to collectively building and operating a multi-disciplinary research facility based on the world's most powerful neutron source. The facility is under construction in Lund, Sweden, while the ESS Data Management and Software Centre (DMSC) is located in Copenhagen, Denmark. Participants will have a guided bus tour* of the ESS construction site in Lund. MAX IV is the Swedish national synchrotron laboratory located in Lund. The facility provides the highest quality of X-rays available to scientists from academia and industry and was inaugurated in June 2016. Participants will have a guided walking tour inside the MAX IV building.

[Please see the BSBF2018 website for conditions, registration and other information about the site visits.](#)

*If winter weather creates unsafe driving conditions for bus tours entering the ESS construction site, an alternative visit option may be offered for safety reasons.

Registration is required and time slots will be given on a first come-first serve.

BUILDING A BIG SCIENCE MARKET – INDUSTRY LIAISON OFFICERS' ROLE AND CONTRIBUTION

Time: Day 0, Monday 26 February, 2018, 15.00-18.00

This meeting is to meet and greet, share experiences, and possibly plan for future common actions, which can lead to a more integrated and prosperous Big Science market. Presentations will be given on how different ILO networks are organised nationally. The afternoon will end with a short workshop with six different themes that can be chosen when signing up for the event. Please note that this event is for Big Science ILOs, purchasing advisers or similar and is by invitation only.

Only by invitation