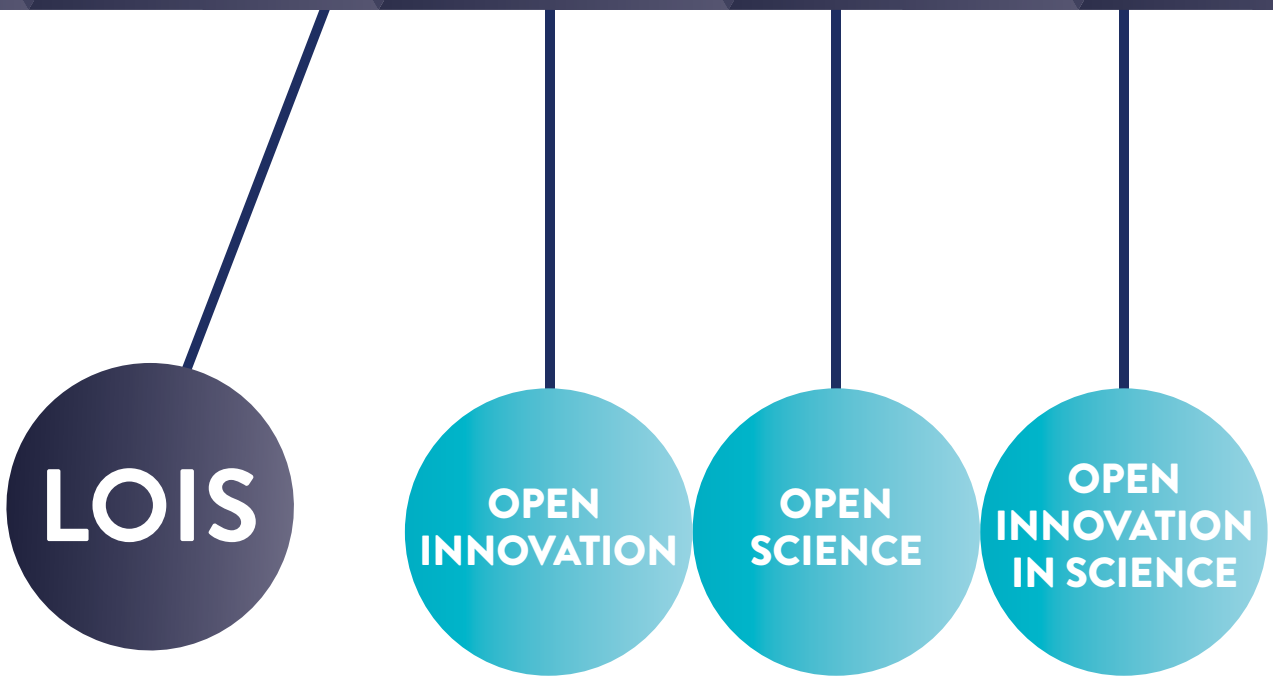
OPEN INNOVATION IN SCIENCE

An initiative of the Ludwig Boltzmann Gesellschaft



LAB FOR OPEN INNOVATION IN SCIENCE (LOIS)

PROGRAM INFORMATION 2018/19

APPLYING OPEN INNOVATION PRINCIPLES AND METHODS – IMPROVING NOVELTY AND IMPACT OF SCIENTIFIC RESEARCH

The Lab for Open Innovation in Science (LOIS) offers unique professional development for senior scientists from all scientific disciplines: scientists can learn about and experiment with principles and methods of Open Innovation along the entire scientific research process from generating research questions to eventually translating scientific knowledge into innovation.

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CONTENT

TIMELINE & CURRICULUM

LOIS comprises 13 individual training modules, supervised lab project work and lab project meetings on Open Innovation in Science (OIS) within a one-year period. Completed by a kick-off and a closing event, LOIS is grouped into seven major blocks:

MAY 2–5, 2018 (WED–SAT)
LOIS KICK-OFF
MODULE 1: Creating and Capturing Value in Science and Business
MODULE 2: Open Innovation Basics

JUNE 14 - 16, 2018 (THU-SAT)
MODULE 3: Applying Open Innovation in Science
MODULE 4: Individual Capacities for Openness and Sharing in Science & Open Innovation in Science Leadership

SEPTEMBER 27 - 29, 2018 (THU-SAT)
MODULE 5: Crowd Science and Crowd Funding
MODULE 6: User-driven Science
MODULE 7: Collaborative Science

OCTOBER 17-20, 2018 (WED-SAT)
MODULE 8: Science-based Entrepreneurship and Innovation
MODULE 9: External Partnering for Commercializing Science
MODULE 10: Technological Competence Leveraging
Lab Project Meeting #1

NOVEMBER 15-17, 2018 (WED-SAT)
MODULE 11: Ecosystems for Open Innovation in Science
Lab Project Meeting #2

FEBRUARY 6-9, 2019 (WED-SAT)
MODULE 12: Disseminating and Communicating Science
MODULE 13: Integrating Open Practices in Science
Lab Project Meeting #3

MARCH 21, 2019 (THU)
Lab Project Meeting #4
LOIS CLOSING

THE LOIS CURRICULUM INVOLVES:

- **Basic training modules on Open Innovation in Science** (Open Innovation strategies, concepts, models, methods, good-practice examples, contingencies and their application in a scientific context)
- **Specific training modules on opening up scientific discovery** (novel approaches to involving widely distributed knowledge in generating new scientific insight such as crowd science)
- **Specific training modules on opening up the translation of scientific knowledge into innovation** (open and collaborative approaches to science-based entrepreneurship and innovation)
- **Specific training modules on enabling and facilitating Open Innovation in Scienc**e (developing individual and organizational capacities for openness, sharing and collaboration in science)
- **Practice modules in the form of supervised lab project work and lab project meetings**

FACULTY

The LOIS faculty body consists of leading Open Innovation & Open Science experts from international universities, research institutions and companies who are involved as module coordinators, teachers and guest speakers.

The academic director is Marion Poetz, innovation professor at Copenhagen Business School and scientific director of the Ludwig Boltzmann Gesellschaft's Open Innovation in Science Research and Competence Center (OIS Center).

Marion Poetz

"LOIS has been developed in a collaborative fashion among Open Innovation and Open Science experts from all over the world and is continuously advanced by involving the OIS community. I am very grateful for the opportunity to establish such an experimental space for rethinking the way we do science and research, discussing opportunities for how we can improve novelty, quality and impact by means of applying Open Innovation principles and methods, and designing and implementing actual Open Innovation in Science projects. LOIS is an effective nudge for the cultural shift necessary to integrate open and collaborative practices into scientists' day-to-day work."

Marion Poetz, Scientific Director OIS Center & LOIS, Associate Professor, Copenhagen Business School

Markus Nordberg

"We are passionate, we want to push ourselves and we want to push the limits of our science - and the currency is knowledge. It is generating it, it is exchanging it, it is debating it in a passionate way. It is improving it – that is the process. The connection between our own science and the fire we have inside to push for that, and the potential links to society - that is what we should probably be thinking about in a new way. I do not believe one size fits all but I do believe - and I am really very passionate about this – that LOIS is the right way."

Markus Nordberg, Head of Resources Development, Development & Innovation, CERN

PARTICIPANT VOICES

Andrea Olschewski

"I signed up for LOIS hoping to improve my research…
…but I left with vastly more.
The program covered a lot of information, delivered in concise chunks that were easy to absorb. Marion and her colleagues have obviously put a lot of thought and expertise into designing LOIS, as the structure was clear, logical and effective. But it wasn't just about the new knowledge.
The main benefits came from doing assignments, receiving individual feedback and interacting with many renowned international experts and other participants."

Andrea Olschewski, Director, Ludwig Boltzmann Institute for Lung Vascular Research / Chair, Institute of Physiology, Medical University of Graz

Benedikt Salmen

"LOIS offered a thorough overview of several aspects of Open Innovation, delivered by a competent and highly committed faculty. The curriculum was carefully designed to give a conceptual overview of the different topics, provide "tools of the trade" to start implementing Open Innovation in Science principles and encourage to broaden and deepen the understanding of it. Apart from the carefully designed curriculum, it was also the intense and inspiring interaction with the fellow participants that proved to be the biggest surprise of the course-it helped to develop a truly interdisciplinary approach towards Open Science and Open Innovation and rekindled the passion to implement it in my professional environment.

Looking back I am still surprised how much of the LOIS input is now reflected in my daily work and shaping the planning and design of future projects."

Benedikt Salmen, Scientific Coordinator, International Graduate Program Medical Neurosciences, Charité

Slaven Stekovic

"LOIS offers scientists the opportunity to gain a deeper insight into the application of their research and translation of scientific results into social, economic and technological impact while keeping transparency, openness and efficiency in mind. Participants in this unique program manage to improve both their scientific and business skills, while broadening their network and collaborative potential. For me as a young scientist, this differentiator resulted in several interesting opportunities in pursuing my career goals and it has helped the further development of my ongoing research projects."

Slaven Stekovic, Researcher, Institute of Molecular Biosciences, Karl-Franzens-Universität Graz / Managing Director, TLL The Longevity Labs GmbH

TRAINING & PRACTICE MODULE DETAILS

KICK OFF

Faculty Member(s): Lucia Malfent (Operational Manager, OIS Center, Ludwig Boltzmann Gesellschaft)
Marion Poetz (Scientific Director OIS Center & LOIS, Associate Professor, Copenhagen Business School)

Keynote speakers (tba)

Date: May 2, 2018

Location: Vienna

Content:

- LOIS goals, framework, roles and culture
- LOIS teambuilding
- OIS concepts, good-practice examples and experiences
- OIS lab project introduction

BASIC MODULES (MODULE 1–3)

The OIS basic modules provide participants with an overview of state-of-the-art Open Innovation principles, methods, determinants and effects; classify them vis-à-vis existing open science concepts such as open access, open data or open evaluation; and facilitate an understanding of a framework for applying Open Innovation along the entire process of scientific discovery and exploitation.

MODULE 1 – CREATING AND CAPTURING VALUE IN SCIENCE AND BUSINESS

Faculty Member(s): Marcel Bogers (Associate Professor, University of Copenhagen)
Christoph Grimpe (Professor, Copenhagen Business School)

Date: May 3, 2018

Location: Vienna

Content:

- The institutional logics of research institutions and corporate firms
- The "business model concept" in science and business: How is value created in science and business and for whom, how is it delivered, who captures it, why and how?
- Innovation processes in science and business
- Science thinking and innovation thinking along the process of scientific discovery and exploitation
- The role of openness, external knowledge sourcing and collaboration in creating, delivering and capturing value in science and business
- Industry-science links and their governance

MODULE 2 – OPEN INNOVATION BASICS

Faculty Member(s): Karin Beukel (Assistant Professor, University of Copenhagen)
Marcel Bogers (Associate Professor, University of Copenhagen)
Marion Poetz (Scientific Director OIS Center & LOIS, Associate Professor, Copenhagen Business School)

Date: May 4 & 5, 2018

Location: Vienna

Content:

- Open Innovation basics and principles
- Good-practices and case studies of Open Innovation
- Distributed sources of innovation and knowledge
- Open Innovation search and collaboration methods and practices
- Antecedents and consequences of Open Innovation
- Structural, cultural and strategic arrangements in organizing for Open Innovation
- Intellectual property rights (IPR) basics, IPR strategies and IPR management in Open Innovation systems
- Opportunities, risks and contingency factors related to applying Open Innovation

MODULE 3 – APPLYING OPEN INNOVATION IN SCIENCE

Faculty Member(s): Lucia Malfent (Operational Manager, OIS Center, Ludwig Boltzmann Gesellschaft)
Marion Poetz (Scientific Director OIS Center & LOIS, Associate Professor, Copenhagen Business School)

Date: June 14, 2018

Location: Vienna

Content:

An interactive workshop aiming at:

- Mapping options for applying Open Innovation principles and methods along the entire scientific discovery and exploitation process, classifying them and developing an Open Innovation in Science funnel
- Identifying opportunities and challenges related to applying Open Innovation principles and methods in science
- Discussing which problems related to contemporary academic activities could/could not be solved by applying Open Innovation principles and methods in science
- Analyzing Open Innovation in Science cases and developing Open Innovation in Science project drafts

SPECIALIZATION MODULES (MODULES 4-13) AND LAB PROJECTS

The OIS specialization modules enable participants to develop in-depth knowledge about specific OIS methods, antecedents and consequences along the entire process of scientific discovery and exploitation.
In addition to the specialization modules LOIS participants have the opportunity to develop and run actual OIS projects (lab projects). Engaging in lab projects provides participants with the possibility to directly translate their learning into practice, and to experiment with OIS in a supervised environment.

MODULE 4 – INDIVIDUAL CAPACITIES FOR OPENNESS AND SHARING IN SCIENCE & OPEN INNOVATION IN SCIENCE LEADERSHIP

Faculty Member(s): Stefan Haefliger (Professor, Cass Business School, City University of London)
Tinna C. Nielsen (Founder and Global Change Agent, Move The Elephant for Inclusiveness)
Marion Poetz (Scientific Director OIS Center & LOIS, Associate Professor, Copenhagen Business School)

Date: June 15 & 16, 2018

Location: Vienna

Content:

- Training the ability to make connections and think outside of one's own discipline, questioning fundamental assumptions about one's own scientific practice and about the role and understanding of other sciences and scientific practices
- Experimenting with understanding and presenting work from other disciplines, reflecting on the ability to understand and selectively perceive and evaluate within the frame of one's own practice
- Questioning the individual potential for openness, revealing deeply ingrained beliefs, training the ability to navigate in the unknown
- Learning about concepts and methods for increasing the individual capacity for openness and sharing in science
- Understanding the role of leadership in facilitating more open, distributed and collaborative forms of scientific research activities
- Discussing characteristics and practices of Open Innovation in Science leadership

MODULE 5 – CROWD SCIENCE AND CROWD FUNDING

Faculty Member(s): Henry Sauermann (Associate Professor, ESMT Berlin)

Date: September 27, 2018

Location: Vienna

Content:

- Basics approaches, mechanisms and applications of crowdsourcing
- Applications and good-practice examples of crowdsourcing mechanisms in science (crowd science)
- Characteristics of crowd science projects
- Benefits and challenges of crowd science
- Case examples of applying crowdsourcing in different scientific disciplines
- Type and nature of tasks along the scientific discovery and exploitation process for which particular benefits or challenges of crowd science are likely to be most pronounced
- Crowdfunding science
- Outlook – prospects of applying crowdsourcing in sciences

MODULE 6 – USER-DRIVEN SCIENCE

Faculty Member(s): Marion Poetz (Scientific Director OIS Center & LOIS, Associate Professor, Copenhagen Business School)
Leid Zejnilovic (Assistant Professor, Nova School of Business and Economics, and Patient-Innovation)

Date: September 28, 2018

Location: Vienna

Content:

- The role of users, lead users and user communities in generating innovation
- Case studies and good-practice examples of users and user communities driving or significantly contributing to scientific discovery and/or exploitation (including CRIS – Crowdsourcing Research Questions in Science and Patient Innovation)
- Opportunities, challenges and contingency factors related to involving users in sciences
- Outlook – prospects of involving users in sciences

MODULE 7 – COLLABORATIVE SCIENCE

Faculty Member(s): Markus Nordberg (Head of Resources Development, Development & Innovation, CERN)
Philipp Tuertscher (Associate Professor, VU University Amsterdam)

Date: September 29, 2018

Location: Vienna

Content:

- Basic principles, concepts and case examples related to collaborative science
- Featuring the case of the ATLAS Experiment and other ongoing collaborative science initiatives at CERN
- Establishing structures in collaborative science projects
- Opportunities, challenges and risks involved in collaborative science projects
- Mechanisms for managing problems and conflicts in collaborative science
- Antecedents and consequences of initiating or participating in collaborative science projects related to knowledge ownership, co-authorships, tenure processes, etc.
- Outlook – prospects of collaborative science

MODULE 8 – SCIENCE-BASED ENTREPRENEURSHIP AND INNOVATION

Faculty Member(s): Oliver Alexy (Professor, Technical University of Munich)

Date: October 17, 2018

Location: Vienna

Content:

- Basic principles and mechanisms related to translating science into innovation (commercial and non-commercial modes of exploiting scientific knowledge): university-industry collaborations, science-based entrepreneurship (including science-based social entrepreneurship), patenting and licensing, etc.
- The role of openness and external partnering in science-based entrepreneurship and innovation
- Good-practice examples and case studies related to translating science into innovation
- Specific opportunities and challenges involved in science-based entrepreneurship and innovation

MODULE 9 – EXTERNAL PARTNERING FOR COMMERCIALIZING SCIENCE

Faculty Member(s): Karin Beukel (Assistant Professor, University of Copenhagen)
Marianne Weile (Director of Patents & Licensing, Novozymes)

Date: October 18, 2018

Location: Vienna

Content:

- Identification and selection of external partners for commercializing science
- Opportunities and challenges involved in partnering with externals
- Managing the differences in science vs. business related to objectives, pace, language, etc., in collaborating with external partners (companies, VCs)
- Contracting and IPR in the context of commercializing science
- The role and value of tech-transfer offices in supporting the commercialization of science
- Working with/using intermediaries and platforms for commercialization of science (e.g., researchers as suppliers to platform challenges)
- Human resource management and incentives in the context of commercialization of science
- Good-practice examples and case studies related to external partnering in the commercialization of science

MODULE 10 – TECHNOLOGICAL COMPETENCE LEVERAGING

Faculty Member(s): Reinhard Prügl (Professor, Zeppelin University)

Date: October 19, 2018

Location: Vienna

Content:

- Mapping statistics related to the utilization of science-based knowledge and technologies
- Systematically identifying, evaluating and selecting potential application areas for science-based technological resources and competences (patented or non-patented) using Open Innovation search methods
- Translating science-based technological competences and resources into value propositions for one or more application areas (e.g., markets)
- Developing implementation strategies for qualified application areas
- Good-practice examples and case studies related to technological competence leveraging in sciences

LAB PROJECT MEETING #1:

Date: October 20, 2018 (1/2 day)

Location: Vienna

Content:

- Developing OIS lab project ideas

MODULE 11 – ECOSYSTEMS FOR OPEN INNOVATION IN SCIENCE

Faculty Member(s): Patrick Kenis (Professor, Tilburg University; Visiting Professor, WU Vienna)
Martin Wallin (Professor, Chalmers University of Technology)

Date: November 15 & 16, 2018

Location: Vienna

Content:

- Ecosystems that facilitate Open Innovation in Science on the network level (stakeholders, actors and their relations in the external ecosystem)
- Ecosystems that facilitate Open Innovation in Science on the university/department/research unit level (organizational designs, cultural and structural arrangements, strategic antecedents, human resource management, etc.)
- Relevant characteristics of open (research) organizations and entrepreneurial universities
- Interactive workshop discussing and determining problems related to applying Open Innovation principles and methods in existing ecosystems and developing ways for addressing/ overcoming them

LAB PROJECT MEETING #2

Date: November 17, 2018

Location: Vienna

Content:

- Discussing and selecting OIS lab project proposals

MODULE 12 – DISSEMINATING AND COMMUNICATING SCIENCE

Faculty Member(s): Maria Theresa Norn (Head of Analysis, The Think Tank DEA)

Date: February 6 & 7, 2019

Location: Vienna

Content:

- Basic principles, methods and channels for communicating and disseminating science
- Relevant stakeholder groups, their characteristics and needs related to obtaining information about/from science
- Opportunities and challenges involved in increased demands for, and levels of, science communication and dissemination
- Good- and bad-practice examples related to communicating and disseminating science
- Using Open Innovation methods and tools (including platforms, social networks, etc.) for communicating and disseminating sciences
- Specific challenges involved in communicating and disseminating within the field of sciences

LAB PROJECT MEETING #3

Date: February 8, 2019

Location: Vienna

Content:

- Discussing intermediary OIS lab project results and experiences, further developing OIS lab projects

MODULE 13 – INTEGRATING OPEN PRACTICES IN SCIENCE

Faculty Member(s): Lucia Malfent (Operational Manager, OIS Center, Ludwig Boltzmann Gesellschaft)
Marion Poetz (Scientific Director OIS Center & LOIS, Associate Professor, Copenhagen Business School)

Date: February 9, 2019

Location: Vienna

Content:

Interactive workshop for discussing:

- How the application of Open Innovation principles and methods can become a sustainable model for creating and capturing value in science, i.e., how OIS is done not for the sake of openness, but for actually increasing the quality and impact of science
- How Open Innovation principles and methods best support science and which strategic, structural, or cultural arrangement it takes to sustainably incorporate Open Innovation methods and principles in scientific research processes
- Institutionalization practices, sustainable sharing and cumulative cross-disciplinary work
- Reflections and potential modifications related to the OIS map developed in Module 3

LOIS CLOSING

LAB PROJECT MEETING #4

Date: March 21, 2019 (1/2 day)

Location: Vienna

Content:
- Discussing updated (or final) OIS project results and experiences, outlook and next steps

CELEBRATION CEREMONY

Date: March 21, 2019

Location: Vienna

Content:
- LOIS reflections, graduation & celebration

TEACHING AND LEARNING METHODS

LOIS applies an interactive and problem-based teaching and learning approach. Training modules combine a mix of mini-lectures, ad-hoc group work based on exercises, good-practice examples and case study analysis, in-class workshops and discussions, and guest speakers. They focus on active participation and learning by participants. Lecturers (including guest speakers) support learning and participation through supplying conceptual, tool-based and reflective inputs.

To additionally facilitate the bridging between theory and practice, the course will enable participants to discuss and work on questions and challenges from their own professional environments. Some LOIS modules explicitly require pre-module work to facilitate in-class group work and discussions. Pre-module work instructions will be provided as part of a detailed syllabus for each training module via the LOIS online platform.

Problem-based learning is furthermore supported by designing and implementing actual OIS lab projects. Engaging in lab projects provides participants with the possibility to directly translate their learning into practice and experiment with Open Innovation in Science in a supervised environment. OIS lab projects are accompanied and facilitated via lab project meetings as well as individual supervision and coaching sessions with OIS experts. Lab project coaches will be selected and assigned on the basis of creating the best possible fit between the nature and focus of the OIS lab project and the coaches' expertise.

The program language is English.

Complementary to the LOIS modules, LOIS participants have the possibility to join additional OIS community workshops on topics which deepen or complement the LOIS learning.

PROGRAM CERTIFICATE AND TUITION FEE

LOIS Participants will receive an overall program certificate upon completion of the entire program at the Celebration Ceremony, as well as individual module certificates mentioning the title of the module and its start and end dates at the end of each training module.

The LOIS tuition fee for 2018/19 is EUR 5.500* (including course materials and catering during training and practice modules). We offer an early bird rate of EUR 4.500 for applications before July 31, 2017. The tuition fee does not cover travel or accommodation costs.

APPLICATION

LOIS 2018/19 offers professional development for 20 researchers and scientists from various scientific disciplines (including natural sciences, social sciences, applied sciences and humanities).

LOIS applicants need to be affiliated with a university or another research institution, hold a doctoral degree, have a minimum of three years of relevant experience as scientific researchers and demonstrate proficiency in written and spoken English.

Applications must be submitted via www.apply-now.at by November 15, 2017. If you experience any difficulties with the submission, please contact us at office.ois@lbg.ac.at.

All applications will be pre-filtered according to formal criteria. Formally qualified applications will subsequently be reviewed by an international jury of Open Innovation in Science experts.

Applicants will be informed about their admission via e-mail by December 15, 2017!

*2018/19 rate supported by funding obtained from the Austrian National Foundation for Research, Technology and Development.

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FURTHER INFORMATION AND CONTACT

VISIT OUR WEBSITE

www.ois.lbg.ac.at

WATCH LOIS VIDEO MATERIAL AND GET SOME IMPRESSIONS ABOUT OUR WORK

Lab for Open Innovation in Science

JOIN AND FOLLOW US ON SOCIAL MEDIA

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PLEASE CONTACT US FOR ANY FURTHER QUESTIONS:

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