Let´s Benefit from Research Infrastructures. New opportunities for top research

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What are research infrastructures? http://ec.europa.eu/research/infrastructures
Unique facility - excellent research - open access services - international overlap
=> RIs represent unique facilities, resources, collections & related services used by the scientific community to conduct top-level research
=> RIs offer unique research services to users from different countries, attract young people to science & help to shape scientific communities
=> RIs bring together a wide diversity of stakeholders to look for solutions to many of the problems society is facing today
=> RIs are responsible for some of the greatest scientific discoveries & technological developments
=> RIs play an increasingly important role in the development of knowledge and technology

European Research Area (ERA): **http://ec.europa.eu/research/era**

Mapping of the European Research Infrastructure Landscape (MERIL), portal.meril.eu
= Database of European RIs

Physical Sciences & Engineering • Materials • Energy • Environmental Sciences •
Biomedical Sciences • Social Sciences & Humanities • E-infrastructures

I. Intergovernmental RIs
Well-established RIs supported by almost all EU member states
EIROforum, www.eiroforum.org = Cluster of European intergovernmental RIs

CERN: Geneva, Switzerland, **home.cern**
EMBL: Heidelberg, Germany, **www.embl.de**
ESA: Paris, France, **www.esa.int**
ESO: Garching, Germany, **www.eso.org**
ESRF: Grenoble, France, **www.esrf.eu**
EUROfusion: Garching, Germany, **www.euro-fusion.org**
ILL: Grenoble, France, **www.ill.eu**
XFEL: Schenefeld, Germany, **www.xfel.eu**

II. Pan-European RIs
RIs are listed in the ESFRI Roadmap, including those with ERIC legal status
European Strategy Forum on Research Infrastructures (ESFRI), www.esfri.eu
= Strategic instrument to develop the scientific integration of Europe
Cluster of Pan-European RIs: **www.esfri.eu/roadmap-2016**

European Research Infrastructure Consortium (ERIC)
https://ec.europa.eu/research/infrastructures/index_en.cfm?pg=eric
= Specific legal form to facilitate the establishment and operation of RIs with European interest

European Environmental Research Infrastructures (ENVRI), www.envriplus.eu
= Cluster of environmental RIs across Europe

CTA: Cherenkov Telescope Array, Heidelberg, Germany, **www.cta-observatory.org**
E-ELT: European Extremely Large Telescope, Garching, Germany, **www.eso.org/public/teles-instr/elt**
ELI: Extreme Light Infrastructure, Brussels, Belgium, **www.eli-beams.eu**
FAIR: Facility for Antiproton and Ion Research, Darmstadt, Germany, **www.fair-center.eu**
KM3NeT: Kilometre Cube Neutrino Telescope, Amsterdam, Netherlands, **www.km3net.org**
SKA: Square Kilometre Array, Manchester, UK, **skatelescope.org**
SPIRAL2: Facility for the production and study of rare isotope radioactive beams, Caen, France, **www.ganil-spiral2.eu**

CERIC-ERIC: Central European Research Infrastructure Consortium, Trieste, Italy, **www.ceric-eric.eu**
EMFL: European Magnetic Field Laboratory, Brussels, Belgium, **www.emfl.eu**
ESRF: Upgrade of the European Synchrotron Radiation Facility, Grenoble, France, **www.esrf.eu**
ESS: The European Spallation Source, Lund, Sweden, **europeanspallationsource.se**
EUROFEL: Free Electron Lasers of Europe, Hamburg, Germany, **www.iruvx.eu/e20**
XFEL: European X-Ray Free-Electron Laser Facility GmbH, Hamburg, Germany, **www.xfel.eu**
ILL: Upgrade of the European Neutron Spectroscopy facility based at the Institut Laue Langevin, Grenoble, France, **www.ill.eu**

ECCSEL: European Carbon Dioxide Capture and Storage Laboratory Infrastructure, Trondheim, Norway, **www.eccsel.org**
EU-SOLARIS: European Solar Research Infrastructure for Concentrating Solar Power, Almeria, Spain, **www.eusolaris.eu**
HIPER: High Power Laser Energy research Facility, Oxford, United Kingdom, **www.hiper.org**
IFMIF: International Fusion Materials Irradiation Facility, Rokkasho, Japan, **www.ifmif.org**
JHR: Jules Horowitz Reactor, Cadarache, France, **www-rjh.cea.fr**
MYRRHA: European Fast Spectrum Irradiation Facility, Mol, Belgium, **http://sckcen.be/en**
WINDSCANNER: The European Windscanner Facility, Roskilde, Denmark, **www.windscanner.eu**

COPAL: Heavy Payload Long Endurance Tropospheric Aircraft, Toulouse,France, **www.eufar.net/copal**
EISCAT_3D: The next Generation European Incoherent Scatter Radar System, Kiruna, Sweden, **www.eiscat.se**
EMSO: European Multidisciplinary Seafloor Observatory, Rome, Italy, **www.emso-eu.org**
EPOS: European Plate Observing System, Rome, Italy, **www.epos-ip.org**
EURO-ARGO ERIC: Global Ocean Observing Infrastructure, Plouzané, France, **www.euro-argo.eu**
IAGOS: In-Service Aircraft for a Global Observing System, Brussels, Belgium, **www.iagos.org**
ICOS: Integrated Carbon Observation System, Helsinki, Finland, **www.icos-infrastructure.eu**
LIFEWATCH: Science and Technology Infrastructure for Biodiversity and Ecosystem Research, Seville, Spain, **www.lifewatch.eu**
SIOS: The Svalbard Integrated Arctic Earth Observing System, Longyearbyen, Norway, **www.sios-svalbard.org**

ANAEE: Infrastructure for Analysis and Experimentation on Ecosytems, Paris, France, **www.anaee.com**
BBMRI-ERIC: Biobanking and BioMolecular resources Research Infrastructure, Graz, Austria, **www.bbmri-eric.eu**
EATRIS-ERIC: European Advanced Translational Research Infrastructure in Medicine, Amsterdam, Netherlands, **eatris.eu**
ECRIN-ERIC: European Clinical research Infrastructures Network, Paris, France, **www.ecrin.org**
ELIXIR: European Life-science Infrastructure for Biological Information, Hinxton, UK, **www.elixir-europe.org**
EMBRC: European Marine Biological Resource Centre, Paris, France, **www.embrc.eu**
ERINHA: European research Infrastructure on Highly Pathogenic Agents, Lyon, France, **www.erinha.eu**
EU-OPENSCREEN: European Infrastructure of Open Screening Platforms for Chemical Biology, Berlin, Germany, **www.eu-openscreen.eu**
EURO-BIOIMAGING: European Research Infrastructure for Biomedical Imaging, Heidelberg, Germany, **www.eurobioimaging.eu**
Infrafrontier: European Infrastructure for Phenotyping and Archiving of Model Mammalian Genomes, Neuherberg, Germany, **www.infrafrontier.eu**
INSTRUCT: Integrated Structural Biology Infrastructure, Oxford, UK, **www.structuralbiology.eu**
ISBE: Infrastructure for Systems Biology-Europe, London, UK, **project.isbe.eu**
MIRRI: Microbial Resource Research Infrastructure, Braunschweig, Germany, **www.mirri.org**

CESSDA: Consortium of European Social Science Data Archives, Bergen, Norway, **www.cessda.eu**
CLARIN ERIC: Common Language Resources and Technology Infrastructure, Utrecht, Netherlands, **www.clarin.eu**
DARIAH-ERIC: Digital Research Infrastructure for the Arts and Humanities, Paris, France, **www.dariah.eu**

ESS ERIC: European Social Survey, London, UK, **www.europeansocialsurvey.org**
SHARE-ERIC: Survey of Health, Ageing and Retirement in Europe, Munich, Germany, **www.share-project.org**

PRACE: Partnership for Advanced Computing in Europe, Brussels, Belgium, **www.prace-ri.eu**

III. National RIs of European interest
National and regional RIs that receive EU support, in particular through Integrating Activities projects for transnational access, open to all European researchers from academia and industry
Overview of the national RIs: **www.esfri.eu/national-roadmaps**
Czech RIs, www.msmt.cz/vyzkum-a-vyvoj-2/velke-infrastruktury-vyzkumu

58 Czech RIs: AUGER-CZ, BNL-CZ, CANAM, CEITEC Nano, CENMAT, CERN-CZ, CTA-CZ, ELI Beamlines, ESS-CZ, EU-ARC.CZ, FAIR-CZ, Fermilab-CZ, HiLASE, ILL-CZ, IPMINFRA, LNSM, LSM-CZ, PALS, SAFMAT, SPIRAL2-CZ, SPL-MSB, VdG, CATPRO, COMPASS, CVVOZEPPowerLab, JHR-CZ, Reactors LVR-15 & LR-0, RINGEN, SUSEN, WCZV, ACTRIS-CZ, CzeCOS, CzechGeo/EPOS, CzechPolar2, NanoEnviCz, RECETOX, SoWa, BBMRI-CZ, C4SYS, CCP, CIISB, CZECRIN, Czech-BioImaging, CZ-OPENSCREEN, EATRIS-CZ, ELIXIR-CZ, NCMG, AIS CR, CLB, CNC, CSDA, ESS-CZ, LINDAT/CLARIN, RIDICS, SHARE-CZ, CERIT-SC, CESNET, IT4Innovations

Open Access Services of RIs
1) Checking of facilities and services of the RI.
2) Formulation of research project.
3) Preparation of an application form.
4) Submission of project application before specific deadlines.
5) Review report of responsible experts.
6) Evaluation of the project by the RI according to technical aspects, feasibility, costs, scientific excellence, novelty, uniqueness and impact of your project.
7) Final decision and detailed feedback to the proposal.
8) Specification of analysis & time schedule, signing of a contract agreement.
9) Preparation of samples and analysis according to instructions.
10) Analysis of samples by the RI, data interpretation.
11) Receiving of analysed data from measurements, consultation & discussion.
12) Acknowledgement to the RI in publications and whenever you will present the data. You are expected to share the results in open access regime.

Key words: equipment, facility, services, open access, application form, booking system...

Tomas Mozga (1980) studied molecular biology, genetics and environmental chemistry at the Masaryk University in Brno. Tomas graduated in 2004 as MSc and worked in science for almost eight years. Since 2010 he has been mainly working as a project coordinator, project administrator, project manager, event organiser, innovator and change maker in academic and public sphere: Masaryk University in Brno; Alumni and Friends of Masaryk University; SoWa Research Infrastructure, Biology Centre CAS in České Budějovice; University of Chemistry and Technology Prague; Institute of Organic Chemistry and Biochemistry CAS in Prague. Tomas has been sharing his experience in project management with students to encourage their creativity and activity and to help them realise their risky and innovative projects. Five years (2011-2016) he lived and worked in Uppsala, Sweden. Tomas is mostly interested in science management, science project management, European Research Area, European science strategy, open access, mobility, knowledge society, communication, outreach, sustainable development, innovations & visions, strategical thinking, synergism, networking, cooperation, teamwork.
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