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# Report on internationalisation, access, user policy and governance with respect to SSRS-4

### **CREMLIN Deliverable D5.5**

CREMLIN WP5: "Science cooperation with the SSRS-4 synchrotron radiation source in the field of photon science"

Task 5.4 "Organize a workshop on internationalisation, access and user policy, governance with regard to SSRS-4"

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#### Preamble

Existing national and multinational photon sources in Europe have developed a variety of models for governance, operation and user access in their respective facilities. Recommendations for the governance and user access should be worked out before the construction of SSRS-4 in order to facilitate the highest possible level of support and acceptance for SSRS-4 from all stakeholders.

#### The European context

Europe operates 12 national and 1 international accelerator-based synchrotron light sources covering a wide range of wavelength from the infrared to very hard X-rays. Most of these facilities are 3<sup>rd</sup> generation facilities (<u>https://www.leaps-initiative.eu/synchrotrons/european\_facilities</u>). They are commonly classified as low, medium, or high energy facilities. New facilities and upgrades to existing facilities are conceived as 4<sup>th</sup> generation sources (MAX IV, ESRF, SLS-II, etc.). The European light source infrastructure serves about 25,000 users, who are used to gain access to any of these facilities, national or international, based only on the principle of scientific excellence. All European light source facilities are open to Russian users and the Russian Federation has formally joined the two international European facilities for synchrotron and X-FEL radiation, ESRF and European XFEL, as a member country.

The planned new Russian facility SSRS-4 is first and foremost conceived as a national facility, similar to most European facilities, but it is also clear that such a facility would have an important role to play in an international/European context. Europe as well as the Russian Federation have therefore both declared their interest in opening the facility to the European user community at large and embed the facility into the European research infrastructure network for photon science. Access, user policy and governance are therefore a critical issue, which must be dealt with before the construction of the facility starts. Clarifying these issues early on could also be a keystone for attracting European partners to invest in SSRS-4 (joint laboratories, beamlines, etc.). Such a massive construction project could clearly benefit from the technical expertise accumulated in the European facilities over the last decades.

## Actions within WP5

The topics of internationalisation, access, user policy and governance have been discussed extensively by the project partners and beyond. Two WP5 dedicated workshops at DESY

- The SSRS4 Project: Status and Discussion of Possible Scenarios for an SSRS4 (11/07/2016)
- Towards a conceptual design for the Russian SSRS-4 (23/01/2018)

as well a CREMLIN-wide workshop within WP2 on "Funding and Joint Research Programmes at the Megascience Facilities" at the ESRF, 15-16 June 2017 gave ample opportunity to discuss all aspects related to internationalisation, access, user policy and governance.

While it is clear that the SSRS-4 facility is considered by the Russian Federation as a national project, the Russian CREMLIN partners made it clear that international participation is highly welcome.

#### **Developments outside CREMLIN**

LEAPS - the League of European Accelerator-based Photon Sources

LEAPS is a strategic consortium initiated by the Directors of the Synchrotron Radiation and Free Electron Laser (FEL) user facilities in Europe. Its primary goal is to actively and constructively ensure and promote the quality and impact of the fundamental, applied and industrial research carried out at their respective facility to the greater benefit of European science and society. LEAPS has been formally launched in Brussels, 13 November 2017 (<u>https://www.leaps-initiative.eu/</u>). In its goals and strategy LEAPS has made explicit reference to data policy and Open Science. It explicitly wishes to promote the standardisation of access procedures in the spirit of the European Charter for Access to Research

(https://ec.europa.eu/research/infrastructures/pdf/2016 charterforaccessto-ris.pdf

Once established, SSRS-4 could become a partner/associate to the LEAPS initiative.

#### Recommendations

The CREMLIN partners recommend to adopt a charter for access to SSRS-4 which is fully compatible with the European Charter for Access to Research Infrastructures (for reference please refer to <a href="https://ec.europa.eu/research/infrastructures/pdf/2016">https://ec.europa.eu/research/infrastructures/pdf/2016</a> charterforaccessto-ris.pdf).

The project should be internationalised as soon as possible, including

- the establishment international advisory bodies (MAC Machine Advisory Committee, SAC Science Advisory Committee),
- joint development initiatives in accelerator-related technologies on a bi- or multilateral basis between the Russian Federation, the European Union, and the European member states,
- the establishment of international laboratories/beamlines.

International advisory committees are a standard at research infrastructures around the world. They ensure transparency and allow potential partners to get involved in the life of the facility. They are also important for ensuring high quality operational decisions.

The European-Russian CREMLIN team strongly recommends the establishment of a peer-reviewed, open-access proposal system at SSRS-4. Proposal review panels should include members from the international scientific community. The access to beamtime should be granted on the basis of scientific excellence and should be free of charge for public academic use.

The infrastructure of the SSRS-4 facility will be provided by the Russian Federation, but foreign entities could and also should participate in the project via the establishment of multilateral laboratories, the construction and utilizing of beamlines. Models for such an engagement have been developed in the past, e.g. at the extremely successful Russian-German beamline at BESSY-II, and should be included in the governance of SSRS-4 from the outset.