EOSC FESTIVAL 2023
National Tripartite Event
Poland
SOLARIS National Synchrotron Radiation Centre: open-access infrastructure for research

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SOLARIS National Synchrotron Radiation Centre
Introduction to SOLARIS

SOLARIS is a third-generation light source and since 2018 provides open access to research infrastructure.
SOLARIS accelerators & synchrotron radiation

Synchrotron radiation:
spectral and intensity properties
beyond laboratory methods:
- electronic
- atomic
- molecular
- structural

Accelerator tunnel (@ -8m level) 80m length

Storage ring
1.5 GeV

Linear accelerator

96m circumference

Beamline

Beamline

Beamline

Beamline

30m
SOLARIS research infrastructure

Beamlines & Cryo-electron microscopes - package of unique experimental methods for extraordinary research projects
Access to SOLARIS and users' community

Scientific access:
• free of charge and with open call for projects 2x per year
• applications accessed on scientific merit by the international committee
• typical projects execution takes 2-5 days with 24h operation
• development of dedicated platform for open-access infrastructure (SUN - Solaris Users Network)
Access to SOLARIS and users' community

Number of projects per year:
- ≈ 370 applications
- ≈ 200 experiments
- ≈ 700 scientists
- ≈ 70 research units
SOLARIS: interaction with non-scientific community

Starting in 2024: visitors hub and knowledge path dedicated to primary and secondary schools
SOLARIS data procedures

SOLARIS users generates about 180TB of data monthly, but SOLARIS is not the owner of the data.

Support for storage and access to experimental data:

• the guaranteed data storage period is 6 months for synchrotron research lines and 3 months for CryoEm/Glacios
• data placed on a disk array, so the risk of data loss is minimized
• remote access to experimental data is possible for authorized persons (for a week from the request for remote access)
• Solaris has ISO-27001 certificate that significantly increases the level of data security.

We are open to be a partner in discussions on EOSC and in area of needs reported by the scientific community for IT infrastructure, computing and data storage.
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Thank you for your attention!

Project is supported under the Polish Ministry and Higher Education project: "Support for research and development with the use of research infrastructure of the National Synchrotron Radiation Centre SOLARIS" under contract nr 1/SOL/2021/2

06 | 11 | 2023 by Jakub Szlachetko