INTEGRATION OF RSPACE ELN WITH ARGOS AND ZENODO

ABOUT
Research Space provides RSpace, a digital research platform that includes a fully featured electronic lab notebook integrated with a sample management system. Through integrations between RSpace and other research tools including file storage/sharing apps like Owncloud, NextCloud, DropBox, Google Drive, and One Drive, specialised tools like the PyRat animal colony management system and the Clustermarket equipment scheduling system, protocols.io, and others, it is also possible to create links in RSpace to data related to the experiment/project being documented in RSpace that resides in these external tools. This results in a rich and more comprehensive presentation of the experimental record, which through additional integrations can be deposited in data repositories including Dataverse, Dryad and Figshare, facilitating FAIR principles and workflows.

CHALLENGE
The pilot involved the design and development of two integrations, one between the RSpace ELN and Zenodo, and the other between the RSpace ELN and Argos. The aim of both integrations is to further promote and adopt the FAIR principles.

RESULTS
Two essential integrations have been achieved, marking significant advancements in research data management. The first, a groundbreaking RSpace – Argos Integration, facilitates the seamless transfer of data generated in RSpace during a research project into Argos. This integration includes data from other tools, enhancing the overall information associated with the project’s data management plan in Argos. Upon export to Zenodo, the comprehensive dataset provides users with a more detailed and complete understanding of the project, significantly improving its discoverability and reproducibility.

Notably, this integration represents the first-ever connection between Argos and an electronic lab notebook. The second integration, RSpace – Zenodo, enables the direct deposition of project data from RSpace into Zenodo, ensuring a more comprehensive and accurate representation of the project in Zenodo. This integration also stands as a pioneering effort, marking the first-ever integration of Zenodo with an electronic lab notebook. Together, these integrations enhance the accessibility, completeness, and reproducibility of research projects, marking a significant milestone in research data interoperability.

HOW THEY USE EOSC SERVICES
The pilot used the Zenodo API to implement the integration with Zenodo and the RSpace API to implement the Argos integration.

IMPACT
The pilot started with mature commercial components but with speculative workflow and integrations amongst themselves. Upon completion of the pilot, a working prototype was produced, and integration and technology issues were resolved.