

# Digital economy for Open Science

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Open Science is the practice of science in such a way that others can collaborate and contribute, where research data, lab notes, and other research processes are freely available, under terms that enable reuse, redistribution, and reproduction of the research and its underlying data and methods.

The transition to Open Science is challenging and will need to be facilitated by focused and united efforts of major stakeholders in science, and a more flexible research publishing system, as well as new incentives and rewarding mechanisms.

Currently, all steps of the scientific discovery process use inert business models that lead to the following issues among others:

- The conflict of interests between major science publishers and the research community. Consequently, paywalls and monopoly of publishers block scientific progress.
- Negative results are published with a low impact factor which leads to losing both the time and resources of researchers pursuing the repetition of findings.
- Reproducibility crisis.
- Applying for research funding can be time-consuming and expensive for individual researchers and small groups of scientists.
- Funders struggle to find the right projects to fund, spending enormous amounts of money in administration and operational expenses.
- Lack of ways to perform a cross-check of submitted grant proposals leads to duplicate spending of funds.
- Tracking and measuring the impact of research is based on inefficient and outdated mechanisms.

Initiatives like Plan S are calling for Open Access, but with the current state of affairs, the EU and its members are having difficulties in achieving solid results.

DEIP proposes Open Research & Innovation Protocol as a foundation for interconnected open science ecosystem. The protocol will democratize and streamline the processes of creation and assessment of research, fair resource distribution, and sharing of research data and results. Underlying blockchain technology provides a digital infrastructure for the protocol and enables transparency, traceability, and decentralized co-ownership of the system.

The protocol establishes a new digital economy for open science, where rewards are based on the contribution to the scientific discovery and impact of innovation. It allows to launch, secure, review and monetize research project and opens up a new market of scientific research and innovation. And, through its openness and accessibility, it provides scientists and researchers with the collaborative environment for financing, conducting, reviewing, publishing and reusing research.

The first implementation of the protocol is set to be officially launched in 2020, and addressing the entire ecosystem of funders, researchers and research organizations in the EU. We are partnering with scientific organizations and academic institutions, such as Oslo University, Marie Curie Alumni Association, Eurodoc, Belarusian State University and Blockchain for Science.