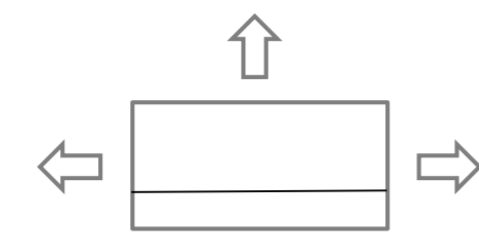




# Current Open Research Information and Open Science

## The HeOSP Project

The project "Hessian Open Science Portals" (HeOSP) brings together Current Research Information Systems (CRIS) and Open Science. As one of several projects within the Hessian Digital Pact, HeOSP aims to improve the interoperability of CRIS and their openness to the public in the spirit of Open Science. HeOSP will build upon CRIS to facilitate public access to local Open Science information. The project is based on the cooperation of seven hessian universities: Technical University of Darmstadt, Goethe University Frankfurt, Justus Liebig University Giessen, University of Kassel, Philipps-University of Marburg, Technical University Mittelhessen, RheinMain University of Applied Sciences.



## CRIS Services

CRIS are databases for recording research activities and research output at universities. Quality-checked and valid data is either entered directly into the CRIS, or transferred from other university data sources, such as directories of persons, project data from financial and research administration, large-scale equipment from infrastructure databases and project results from publication servers or patent directories. And CRIS operate nodes to OpenAccess and OpenData. In this way, a CRIS covers the entire administration process of a research project in a structured manner with reliable data and enables the linking of projects and research output.

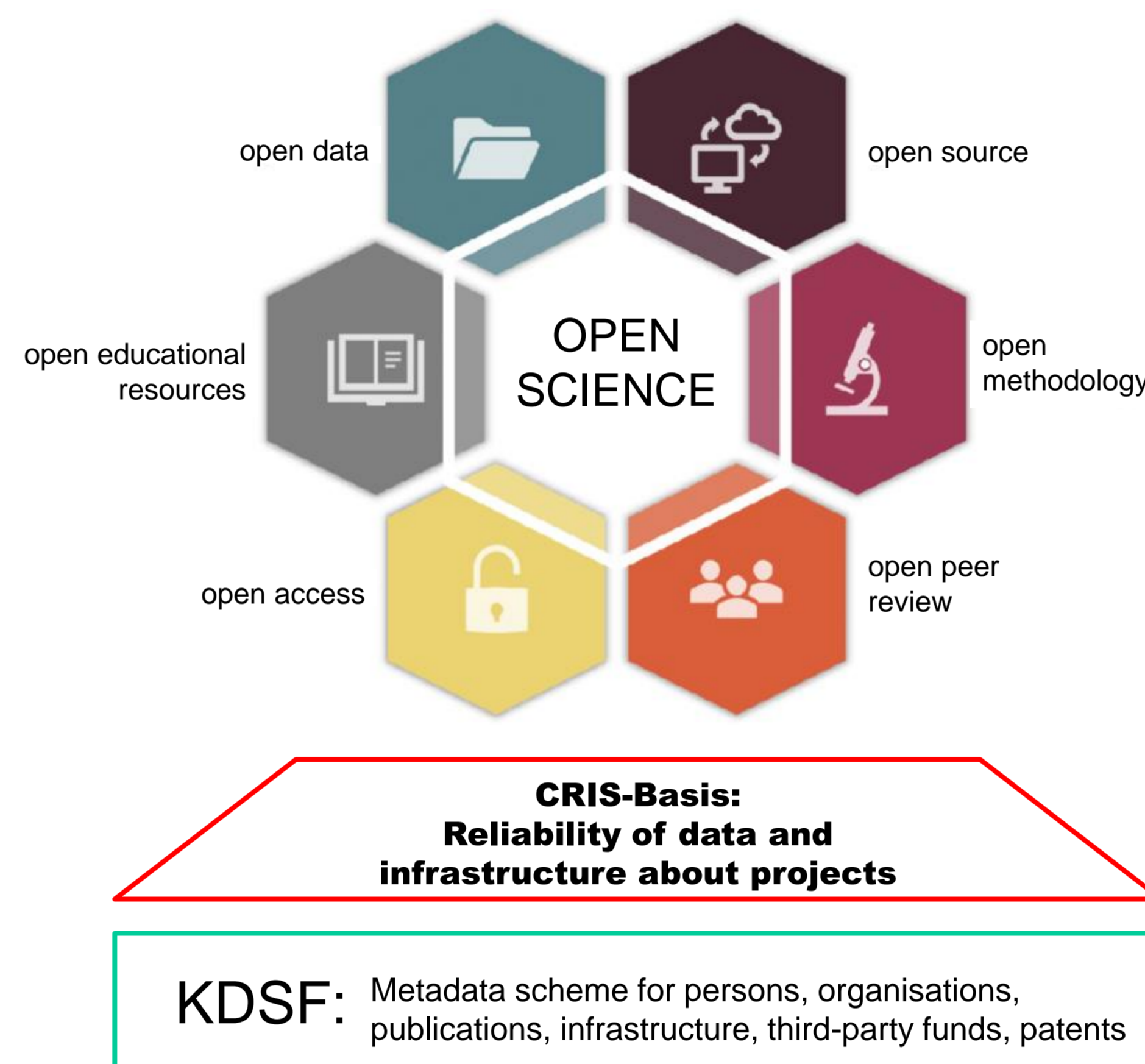


## Open CRIS

CRIS will be an enabler for efficiency gains in the area of science management. This results in increased transparency and greater public visibility of research achievements, particularly with regard to open science. Complex questions relevant to research and transfer can be answered and science communication is facilitated. At the participating universities in Hesse, services and software are used in CRIS that support and enable the openness of research information e.g. DSpace-CRIS, Converis, HISinOne-RES. Openness of research information is the default status. Restrictions result from ethical, data protection and security-related principles [1].

## Standardisation

Current research information systems cover a wide range of processes and are very heterogeneous according to the specific university research landscape. Data standardisation is therefore crucial for the exchange of information, the generation of reliable statistical analyses and open science hubs. Data storage in CRIS is structured according to the Core Data Set for Research (KDSF) recommended by the German Council of Science and Humanities using international identifiers. These include persistent identifiers such as DOIs (Digital Object Identifiers), ORCID IDs (Open Researcher and Contributor IDs), and ROR (Research Organisation Registry). This leads to sustainable documentation of diverse research activities, research results and measurability.



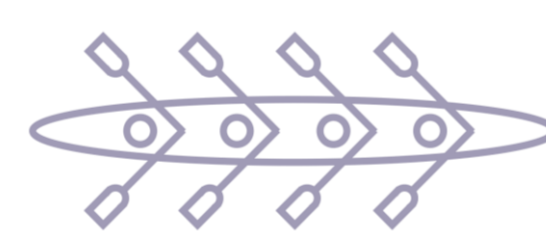
## Areas of Impact from CRIS for Open Science

The integration of current research information systems and Open Science shows significant potential in the following areas:

- Referencing of research projects, research data, research infrastructure/large-scale equipment, publications and other research results in the CRIS
- Reliability of data quality and accessibility
- Interactive access and analysis options
- Reporting and visualisation of research performance
- Assessment of open science achievements

## Open Science Metrics

Structured data management in current research information systems allows measurable elements such as open access publications (open access rate), shared research data and collaborative projects to be recorded, analysed and presented in a comprehensible manner. The recording of performance indicators for comparison between different research institutions and projects can also be derived from a CRIS. In this way, CRIS serve as a solid basis for the reputation of individual researchers, institutes and universities. This contributes significantly to increasing the measurability of open science performance, to the benefit of researchers whose various open science activities would otherwise go unnoticed.



## Strategic Decisions

In addition, current research information systems serve as the basis for university reporting. In this way, they provide evidence-based support to the presidential boards in strategic decisions, but also make the research profile and research performance visible to third-party funders, e.g. DFG, as well as to the science ministries. Such evidence-based decisions about the careers of researchers, about the future of research organisations, and ultimately about the way science serves the whole of humanity, contribute to the creation of transparency and academic sovereignty is promoted.

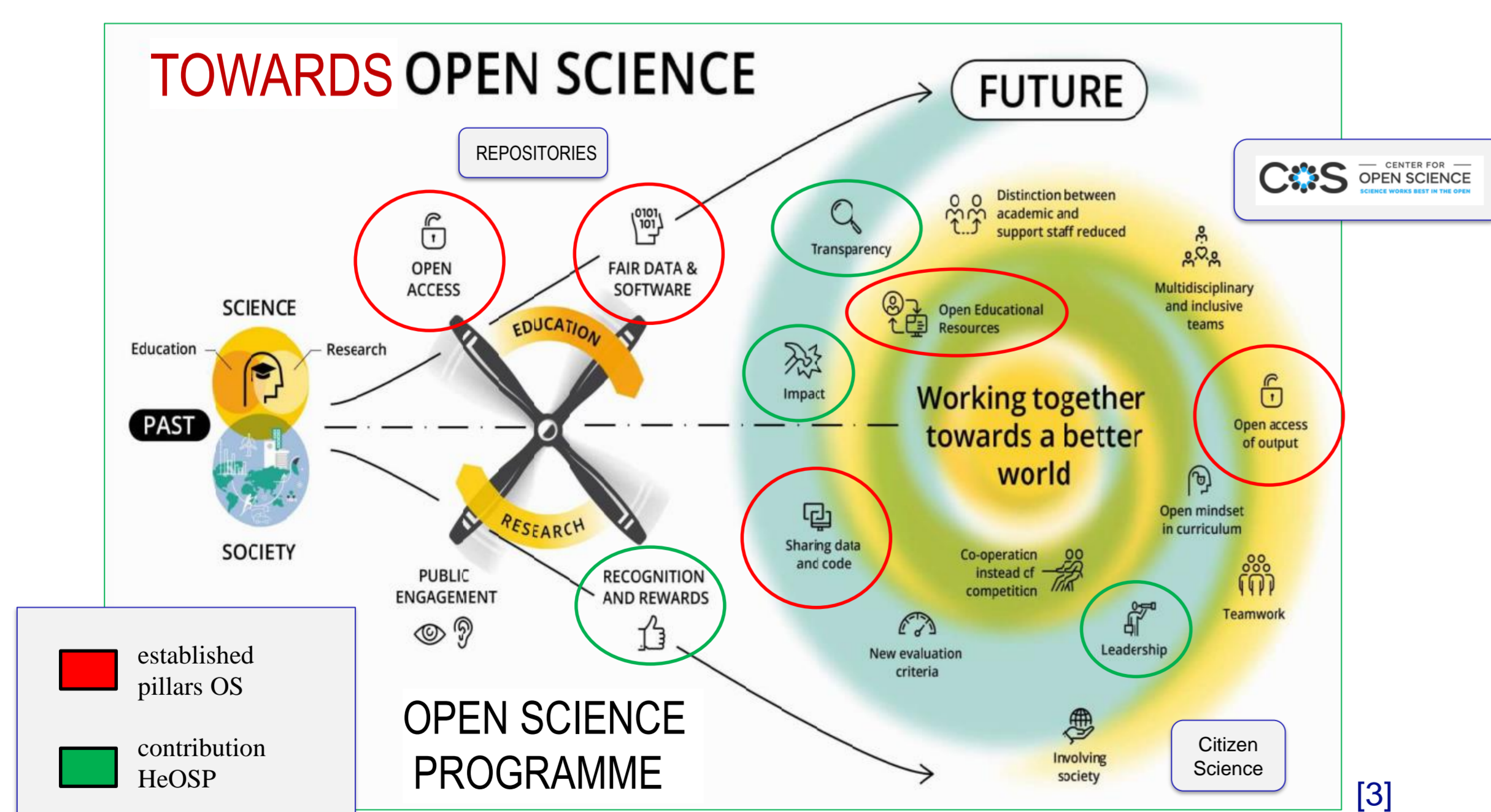
## Conclusion

CRIS contribute to the implementation of Open Science by ensuring the quality and accessibility of data about research, offering interactive access and evaluation options, and visualising research performance. They enable a transparent presentation of research results and facilitate collaboration and exchange within the scientific community. Overall, CRIS help to increase the measurability and comparability of open science achievements and create the basis for future scientific developments, which strengthens trust in scientific research. Current research information systems thus stand for the networking of science, business, politics and the population.

## Vision

CRIS have the potential to make an impactful contribution to the digital transformation of research and to open science. In this way, they help to realise the vision of Open Science, in which everyone works together towards a better world. The illustration on the left shows specific areas in which CRIS can realise their potential and fill recent gaps in the already established system of repositories. In the HeOSP network, we are setting the course to achieve this goal.

With this in mind, we are in favour of setting up CRIS in accordance with open, ethical, data protection and security-related principles as laid down in the Barcelona Declaration (<https://Barcelona-declaration.org>).



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## funded by



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<https://uni-marburg.de/L3dVrR>



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