

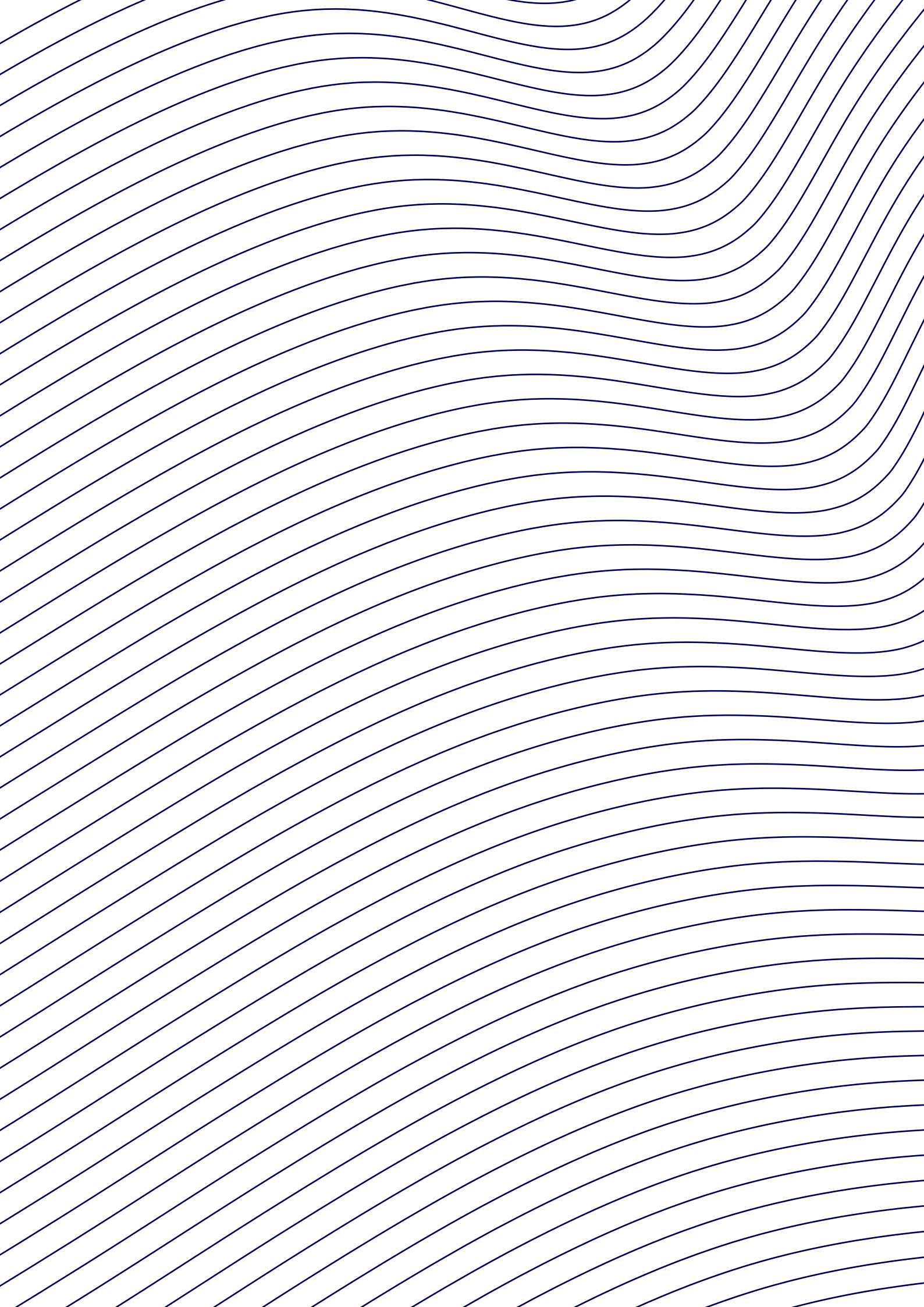
CCSD 

Centre pour la Communication
Scientifique Directe

Disseminating and archiving knowledge and expertise for the advancement of science

2022-2027
update of the
CCSD road map

July 2022



The CCSD's missions are fully in line with the drive for Open Science and, since its creation in 2000 by the CNRS, the CCSD has been a major player in open access, particularly through HAL. The French Digital Republic Act, the Jussieu Call (for Open science and bibliodiversity), the commitment displayed by the French government in terms of Open Science policy, the growing development of institutional policies as well as the European and international context, all provide a favourable environment for development of the CCSD's activities and services, and create opportunities to assert its leadership on Open Science issues.

In this context, the Open Science Steering Committee validated the CCSD road map in 2019 with the goal of making HAL the repository of French higher education and research results, anchoring the national archive in the French and international ecosystem and consolidating its role in the development of Open Science. The strategic direction adopted aimed to improve and develop the services provided to researchers and institutions (overlay services). It was also intended to strengthen interoperability with other information systems internationally, and contribute to the creation of a coherent ecosystem combining publications, software and data. In addition to these technical aspects, the Open Science Steering Committee secured the overall development of the system by adopting a new funding model for HAL and a new governance model for the CCSD.

The 2020 and 2021 CCSD activity reports detail the actions taken and the initial results. Far from being set in stone, these actions are part of a fast-moving environment (the 2nd National Plan for Open Science, launch of the national data repository, for example) and are growing rapidly due to the CCSD's success in responding to calls for proposals. Of particular note are the OpenAire Nexus¹ and FNSO² projects on Episciences and especially the launch in 2022 of the HALiance project on facilities of excellence for research.

The latter project has far-reaching consequences for the future of HAL: it aims for a major renewal of hardware infrastructure, technologies and services in a limited time while maintaining the archive's current operations. These various developments and their impact on the CCSD's activity have led us to update the road map. This document extends and structures the strategic direction taken in 2019, reiterates the CCSD's framework for action, and incorporates the commitments to various projects, with HALiance at the top of the list.

This updated road map is organised around three main strategic directions:

First, to **anchor the CCSD within the Open Science ecosystem, both nationally and internationally**. The CCSD should consolidate its role in the service of French public policies, in close collaboration with the scientific information infrastructure and research funding agencies. It must also strengthen its partnerships with the major players in Open Science in Europe and around the world, asserting its role and promoting its platforms. In particular, recognition will come through formalising its alignment with Open Science criteria of excellence.

The goal is also to **increase usage of the three CCSD platforms**. Improving the quality and relevance of the services provided to researchers and institutions is a fundamental driver. Emphasis is placed on simplifying existing procedures, adding new features, improving support for users, providing clear and transparent dissemination of information and promoting the contributions of the various user communities.

The third and final component concerns the capacity of the CCSD to **sustain its activity over time**. How can it maintain access to its services and platforms? This is an essential issue, given that most French higher education and research institutions use it. The answer is based on a combination of different factors: an efficient governance model, the expertise of the CCSD team members, a sustainable business model based on diversified sources of funding, and open and secured technological choices.

1 <https://www.openaire.eu/openaire-nexus-project>

2 <https://www.ovuirlascience.fr/hal-open-workflows-and-interoperability/>

The CCSD in the service of open dissemination, promotion and archiving of scientific publications

Missions

The CCSD's mission is to facilitate all forms of direct scientific communication, to give greater visibility to French research through the open dissemination of its results and to ensure its sustainability. The CCSD serves the scientific and academic communities. It has created, developed and operates the HAL+ research infrastructure. Included in the research infrastructure road map, it is based on three technological and service platforms:

- HAL, the national multidisciplinary open archive of French research;
- the Episciences platform for journal publication and editorial innovation;
- Sciencesconf, a toolbox for the organisation of scientific events.

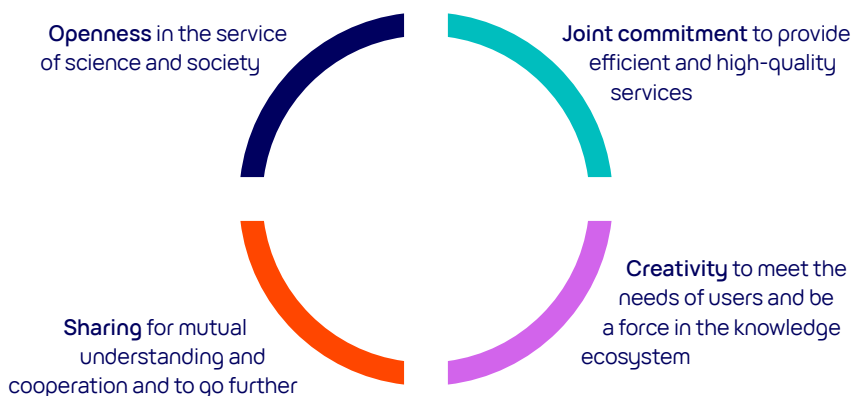
These platforms allow researchers and their institutions to make their scientific results visible, discoverable, usable and accessible in the long term and to take control of the knowledge communication process. They cover all scientific fields and the full range of scientific results (articles published in peer-reviewed journals, pre-publications, conference communications, theses, books, source codes, etc.) and their coordination with the data and software used or produced in the research process.

The CCSD is a support and research unit (UAR) under the supervision of three bodies: CNRS, Inria and INRAE. It is supported by the Ministry of Higher Education and Research and more than 130 French universities, *grandes écoles* and research organisations that use HAL.



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Values

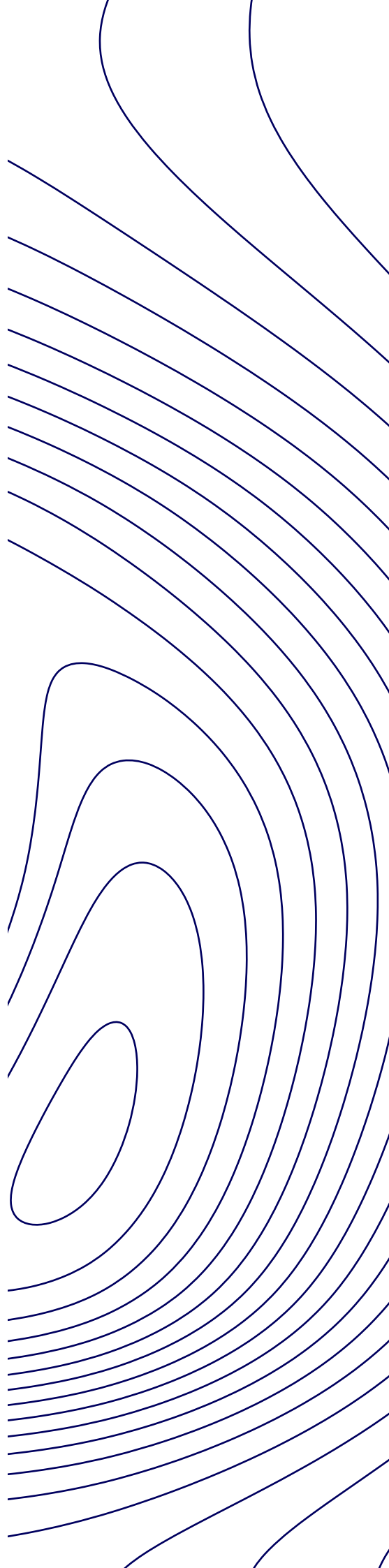


Community

It is at the heart of a vast community made up of researchers, libraries, universities, research organisations and laboratories, along with citizens in search of scientifically reliable information.

In 2021, there were 133 institutional HAL portals, 10,000 conferences were organised using Sciencesconf and there were more than 85,000 active users.

The CCSD is committed to these communities through its governance structure, its user engagement activities and its communication strategy.



Strategic direction of the CCSD

Equipex+ HALiance is a key strategic project for the CCSD, lasting five and a half years from 2022. Its implementation is a major component of the CCSD road map. Centred on the HAL archive, its goal is to expand the service offer linked to the archive, strengthen interactions with other players in the knowledge ecosystem and fully satisfy Open Science criteria of excellence.

The HAL archive of the future is an archive networked with other scientific information systems, with input from diverse channels and connecting publications, data and software.

1. Anchor the CCSD within the Open Science and knowledge ecosystem in a durable and exemplary way and assert its leadership

1.1/ Be a driver for national public policies

- Take part in the national coordination of Open Science research infrastructure (HALiance);
- Contribute to building an ecosystem linking publications, data, code (HALiance);
- Forge partnerships with research support stakeholders.

1.2/ Develop the CCSD's international visibility, partnerships and actions

1.3/ Align with Open Science standards and best practice (HALiance)

1.4/ Contribute to bibliodiversity

2. Increase usage of HAL, Episciences and Sciencesconf

2.1/ Improve and expand the service offer

- Facilitate the work of researchers (**HALiance**);
- Optimise the management of their scientific results by institutions with a HAL portal (**HALiance**);
- Increase the use of identifiers and alignment with baseline data (**HALiance**).

2.2/ Earn the recognition, trust and commitment of the user communities of the three platforms

- Offer comprehensive and structured training (**HALiance**);
- Promote a collaborative and participative environment;
- Give visibility and clarity to the actions of the CCSD and its three platforms;
- Have a brand and identity with strong recognition and a positive image.

2.3/ Prepare the publishing system of the future and maintain the innovative nature of the platform features

- Encourage and take part in user community initiatives;
- Focus on three fields of research and experimentation: analysis of uses, technical and functional experimentation, science and society.

3. Ensure the sustainability of HAL, Episciences, Sciencesconf and their service offer

3.1/ Implement shared governance

3.2/ Motivate and retain qualified personnel

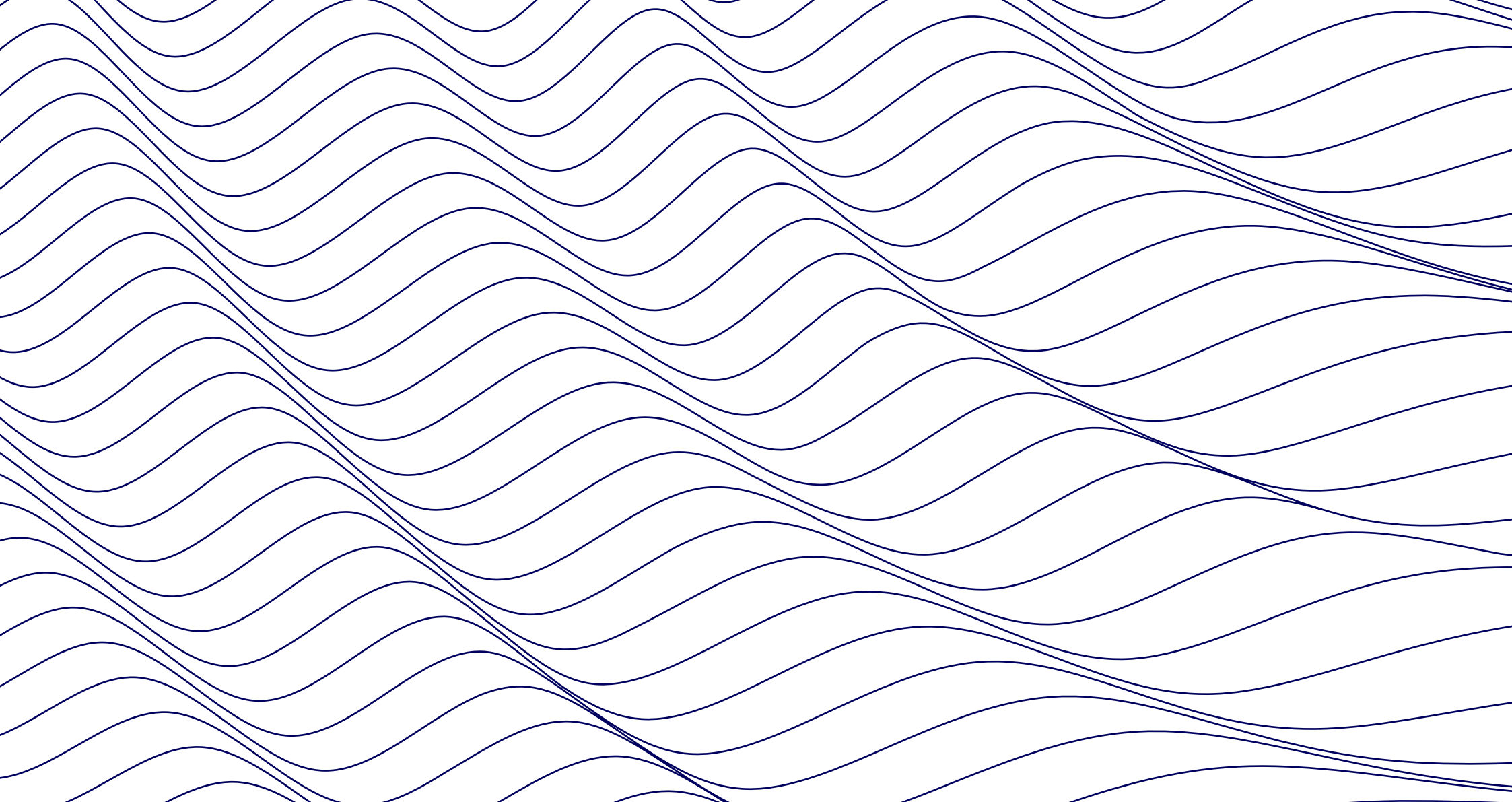
- Strengthen CCSD staffing in line with the strategic direction set out in the road map;
- Stabilise the use of contract staff;
- Provide CCSD staff with the necessary conditions for their fulfilment and reaching their full professional potential.

3.3/ Have a sustainable business model

- Provide a consolidated vision of the CCSD budget;
- Diversify sources of income.

3.4/ Secure and improve the performance of the technical infrastructure

- Optimise the efficiency and security of the infrastructure and the hosted data (**HALiance**);
- Ensure that the code for HAL, Episciences and Sciencesconf is open access (**HALiance**);
- Strengthen consistency across the three platforms and pool costs.



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