



D6.24 Senior level engagement

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Abstract

In relation to our ExPaNDS deliverable D6.24 we have and continue to create senior management engagement interviews with facility member senior managers and directors. This report shares the interviews conducted so far and the gained outputs.

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Executive Summary

The Photon and Neutron (PaN) Research Infrastructures (RIs) across Europe play an important role in scientific research, helping scientists from a wide variety of different disciplines gain a deeper insight into major questions for their respective fields.

The wider aim being to ultimately aid solving 21st century global challenges by accelerating scientific progress with the encouragement of data sharing through the European Open Science Cloud (EOSC) and making data widely available to help scientific progress.

Besides providing support to achieve those goals, it is essential for ExPaNDS to closely involve key audiences in this process. As different groups of the PaN community have different interests and consequently need different treatment, we created a stakeholder map allowing us to target different groups individually. This deliverable is about our efforts to communicate the importance of FAIR data handling and our involvement in the EOSC with key decision makers from our community. To make this effort most effective we are interviewing our senior management individually, allowing us to make those statements available through our media channels. This serves two goals; it gives us direct access to our management, and it allows us to share the positive feedback from our management to support and boost our ideas and objectives. The impact of this senior engagement advocacy we believe will be far reaching, thanks to the individuals' different scientific interests not to mention their involvement and presence at local, national and international level. We decided to approach senior management during the final period of our project to allow us to present our achievements.

This document describes the story board of the interviews, introduces the biography of the already interviewed management, provides the key statements of the interviewed individuals and the criteria for subsequent candidates whom we'll approach in the future.

Finally, our conclusion will summarise the outputs of the interviews.



Motivation

ExPaNDS offers a unique opportunity to produce a sustainable ecosystem of EOSC enabled PaN standards, data sources and services as it harnesses disparate activities to build on and develops existing initiatives and tools within national PaN RIs.

By making PaN data and PaN data services federated and easily accessible through EOSC portals, marketplaces and regulations, the ExPaNDS project makes them more valuable and usable, with the increased probability of them to be sustained after the end of the project.

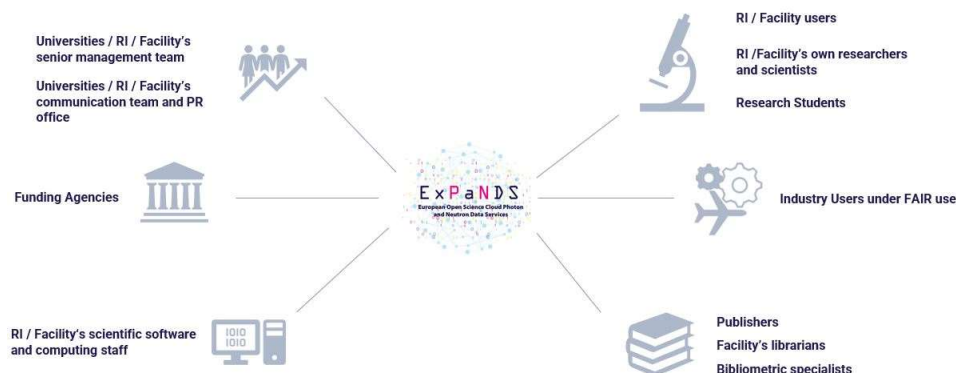
This is achieved through raising the profile of the achievements via all our stakeholder channels, including senior facility management.

One of the main dissemination building blocks, during the second half of the ExPaNDS project, is the engagement of senior management at the PaN facilities in our efforts to create common data policy standards.

The rationale and benefits for Open Science is very clear, some questions do arise as to why this has not been realised sooner, and of course the understanding is required what these challenges are and the opportunities to make this change happen.

Our initial plan to organise special sessions or interviews during some high-level events did not come to fruition as those events either were hosted online only, or restrictions such as travel limitations or time restrictions did not allow for extra activities such as interviews. We therefore changed the strategy and planned and continue to plan a series of interviews of high-level management at the member facilities themselves.

The aim of the grant has been to raise the profile of the ExPaNDS collaboration to key audiences, ensuring key messages are disseminated regularly, and establishing core communications channels that reach our main audiences (Stakeholder map – see below) including government, funding agencies but also senior management at our facilities.



Whilst the senior management have been involved throughout the grant to date we wanted to obtain their support in sharing the progress already achieved and what is scheduled in the remaining time of the grant. Our approach was bottom up and top down. Each director is responsible for their facility and through their advocacy we can high-light the advantages of FAIR data and how open data for open science really can be achieved, showcasing the direct and positive impact open data has for science. With the influence of senior management, who are also part of other collaborations we can further



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raise awareness and impact on what is not just a European challenge but, in our opinion, also requires focus on a global level.

Strategy

Some strategies and actions are needed to achieve the transformation of research, and we believe that a European wide effort is needed but also extending this to any scientific domain and disciplines.

There are a number of challenges or concerns to be tackled that many consider as challenges to Open Science, including but not exclusive are:

- **Socio-cultural:** for instance, the lack of awareness on the benefits and importance of opening up research data; concern around time and effort-consuming activity adding to existing workflows; diverse approaches that researchers have from different disciplines and being at different career stages to name a few.
- **Technological:** whilst infrastructures have grown both in quality and quantity, wide ranging aspects may still be improved to support researcher workflows.
- **Political:** commitment on a political level is a main requirement and requires to be integrated into government agendas, with new policies being formulated and developed. True open science landscape may only happen at International level but will only be influenced by the individual paces of countries.
- **Organisational:** is dependent on the readiness of each organisation / facility towards the smooth transition to an open research culture.
- **Economic:** despite one of the main arguments for tackling 21st century challenges being its higher efficiency of research there is still significant investments required to develop the technical, political, and organisational aspects for open science.
- **Legal:** challenges around the rules for disclosure of data and other inputs / outputs of research is ongoing with the requirement of frameworks to protect the rights of privacy, personal information, and commercial interests for instance.

The purpose of our interviews is to highlight the complexity around the challenges of open data and open science at our member facilities, but also showcasing the support and advocacy for this important challenge by senior management and further afield.

We considered the below range of questions when interviewing:

- What are the benefits of open data?
- What are the challenges for large scale facilities to make their data FAIR? (FAIR = Findable, Accessible, Interoperable and Reusable)
- What are the challenges in the funding area around open data?



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- What are the global challenges in this area?
- What are the challenges with the user community when it comes to making the data open?
- How achievable is it to digitalise the full experiment?
- What is the role of funding agencies in relation to open data?
- What were your thoughts around the ExPaNDS and PaNOSC grants so far?
- How do we create the equivalent of the successful Protein Data Bank (PDB) for the PaN Community?



Concluded Interviews

Professor Andrew Harrison OBE (Diamond Light Source)

Prof. Harrison graduated from Oxford with a degree in chemistry in 1982, then studied for a doctorate in the field of inorganic magnetic materials under the supervision of Peter Day in the Inorganic Chemistry Laboratory, Oxford (D.Phil. 1986). He began independent research in the same area, gaining a Royal Society University Research Fellowship (1988) and spending time as a postdoctoral fellow at McMaster University, Canada (1989) before taking up a lectureship in chemistry at the University of Edinburgh in 1993. His research interests were centred in magnetic materials and the understanding and exploitation of microwave heating in chemistry.

Prof. Harrison has provided outstanding leadership to major scientific facilities both in Europe and the UK, following his earlier career where he made major contributions to the chemistry of materials. As Director General of the Institut Laue Langevin (ILL) in Grenoble and was appointed as the CEO of [Diamond Light Source](#) the UK's national synchrotron and world leading science facility in Oxfordshire in 2013. Diamond is currently co-ordinating the programme for Diamond-II which combines a new machine and new beamlines with a comprehensive series of upgrades to optics, detectors, sample environments, sample delivery capabilities and computing, making Diamond a 4th generation synchrotron. Diamond is also an active member of [LEAPS](#) - the League of European Accelerator based-Photon Sources and currently the Project Manager for [Lightsources.org](#) is based at the facility. [Lightsources.org](#) – a collaboration which groups 23 synchrotrons and 7 Free Electron Laser facilities across 4 geographic zones - is a global resource, providing information and updates about light sources research and achievements, and opportunities for careers and international collaboration. In Europe, light source facilities have welcomed over 24,000 users, who have had an impact on a wider network of over 35,000 researchers, with over 23,400 unique articles published in peer-reviewed journals.

Prof. Harrison has shaped their scientific output to embrace the needs of an increasingly multi-disciplinary user community addressing grand challenges of relevance to both academia and industry. Building on this experience, he has played a significant role in the strategic development of future research infrastructures in Europe and beyond.

Prof. Harrison has chaired EIROForum, the collection of European International infrastructures, served on advisory bodies for institutes and organisations across Europe, Japan and the USA and has been a UK delegate for the ESFRI Council of the European Commission¹ and chaired many international advisory and strategic bodies, engaged in extensive outreach and advocacy activities, from popular public lectures to regular engagement with government ministers and European Commission politicians. He has an outstanding international reputation for his work on magnetic materials and neutron diffraction and has been acknowledged as one of the UK's leading research leaders, with a high degree of international recognition and influence.

¹ <https://www.chem.ed.ac.uk/staff/academic-staff/professor-andrew-harrison-frse>



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Here the final advocacy piece featuring Prof. Harrison: <https://vimeo.com/725646271/1ca47d0847>

We have gleaned the following positive quote from our interview with Prof. Harrison, which can be used as a key message when talking with stakeholders:

*"We are increasingly seeing in some communities, the **recognition that by sharing the data** on an appropriate timescale, ideally as soon as possible, there are some **real benefits** to be had. So, I think the challenge, the cultural challenge is to demonstrate to the science community at large that actually the **benefits greatly overwhelm the risks**."*

Professor Andrew Harrison, CEO at Diamond Light Source



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Professor Roger Eccleston (ISIS Neutron and Muon Source)

Prof. Eccleston has completed a PhD in Physics from the University of Warwick and is a Fellow of the Institute of Physics. He is a trustee of the Careers Research Advisory Centre, a Guardian of the Sheffield Assay Office and a Freeman of the Company of Cutlers in Hallamshire. In 1987 Prof. Eccleston first worked at ISIS as a sandwich student, before taking on the roles of Instrument Scientist, Group Leader and Division Head between 1992 and 2004 and as Director of Science and Technology Facilities Council's (STFC) Technology Department between 2007 and 2009 and was appointed Director of the STFC' [ISIS Neutron and Muon Source](#) in Autumn 2021.

Prior to joining STFC Professor Eccleston² was Deputy Vice-Chancellor (Academic) and Professor of Materials Physics at Sheffield Hallam University. He had previously been Pro Vice-Chancellor for Research and Global Engagement, and Pro Vice-Chancellor and Dean of the Faculty of Arts, Computing Engineering and Sciences. His research interests are in magnetic model systems and neutron instrumentation.

Professor Eccleston is leading the ISIS Neutron and Muon Source through the next phase of its development, working with dedicated colleagues to ensure they continue to provide world-leading facilities and produce outstanding research in partnership with the user community³.

The ISIS Neutron and Muon Source is a member of [LENS](#)⁴ – the League of advanced European Neutron Sources – which was established in 2018. LENS has a not-for-profit purpose of promoting the cooperation and projects between European-level neutron infrastructure providers that offer a transnational user programme. The individual members remain independent but together through LENS join forces to support and strengthen the European neutron science by creating an effective, collaboration eco-system of neutron facilities. The collaborations emphasis is on the relationship between user communities and funding organisations, continuous improvement of source facilities, optimising resources between and aligning policies among partners – all to ensure excellence to the communities they serve.

Our believe is that through the LENS connection, we are able to share the impact and achievements of the ExPaNDS grant to a broader audience.



² <https://www.isis.stfc.ac.uk/Pages/Roger-Eccleston.aspx>

³ https://www.isis.stfc.ac.uk/Pages/News21_Director.aspx

⁴ [About LENS \(lens-initiative.org\)](#)



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Here the final advocacy piece featuring Prof. Eccleston: <https://vimeo.com/725957374/5b8a8d2d83>

We have gleaned the following positive quote from our interview, which can be used as a key message when talking with stakeholders:

"To get optimum value out of having open data and a consistent approach to having data we need to be inclusive, we need to actually involve as many different facilities and research establishments as possible and that is a **really big coordination job**.

What the **ExPaNDS** and **PaNOSC** grants provided is an **excellent basis** for continuing this work on open data and being able to share data. They set a really very **clear direction** for how we can develop this further and really great opportunities then to **build on what has been achieved**. This is a big endeavor, and that **support has been critically important**, but the next step is also vitally important."

Professor Roger Eccleston, Director at ISIS Neutron and Muon Source



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Upcoming and potential future Interviews

The individuals which we are engaging with and due to the nature of their role at each facility, makes their time incredibly limited. We are pleased to confirm the following interviews have been secured at the point of document creation:

- Dr Caterina Biscari at ALBA near Barcelona
- Prof. Dr Helmut Dosch at Deutsches Elektronen-Synchrotron (DESY) in Hamburg

We have also created their biography information in readiness for the interviews which are due to take place before the end of this year.

In addition to the interviews already scheduled, we will seek to conclude further senior management interviews for the purpose of advocacy and to highlight the achievements to date by the grant through well-known individuals with the primary focus on our member facilities, such as MAX IV, PSI, ELETTRA, SOLEIL, HZDR and HZB.

The focus criteria for these individuals will be based on the length of experience and knowledge on subject matter or leading by example, embracing open data and open science whilst also considering their work with other collaborations so that we can reach as many of our stakeholders as possible.



Dr Caterina Biscari (ALBA)

Dr Caterina Biscari⁵ is the director of the ALBA synchrotron, the first synchrotron light laboratory in southeast Europe, located in Cerdanyola del Vallès (Barcelona). The green light was given in 2021 to start on the ALBA II project, an ambitious program that will transform ALBA into a 4th generation synchrotron facility upgrading the accelerator and other components and building new beamlines.

Dr Biscari holds an undergraduate degree in Physics from the Complutense University of Madrid and has worked in a number of laboratories throughout her scientific career, particularly in Italy and at the European Organization for Nuclear Research (CERN). Before joining the ALBA synchrotron, she was the Director of Technology and Deputy Director of Science for the Frascati National Laboratory's Accelerator Division at the Italian National Institute of Nuclear Physics.

Dr Biscari is also a member of the European Physical Society Executive Committee, where she has presided over the accelerator group, and has also participated in advisory boards for projects in a number of countries, including the Advisory Committee for the CERN accelerators and for the start-up of the National Center for Oncological Hadron Therapy in Pavia.

The Directors of all the European synchrotron and Free Electron Laser facilities have decided to establish a strategic consortium – the League of European Accelerator based-Photon Sources – LEAPS – whose primary goal is to actively and constructively promote and ensure the quality and impact of fundamental, applied and industrial research carried out at their facilities.

Dr Biscari has been involved with LEAPS for some time and was appointed the LEAPS Director for 2020 and 2021 and remains the current LEAPS Vice-Chair. LEAPS was launched in late 2017 with 16 member organisations representing 10 different countries with 19 light source facilities across Europe who signed an agreement to strengthen their collaboration. The efforts of LEAPS fully aligned with the policies and programmes of the European Union with this integration of European research infrastructures being key for the use of resources by avoiding the deprecation of efforts and for maximising the scientific, economic, and societal impact.



⁵ <https://www.biocat.cat/en/news/caterina-biscari-new-director-alba-synchrotron>



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Professor Dr Helmut Dosch (DESY)

Prof. Dosch is a physicist and head of the Deutsches Elektronen-Synchrotron ([DESY](#)) in Hamburg. His research areas are solid-state physics and the use of synchrotron radiation to research surface and interface phenomena. Prof. Dosch became internationally known for his pioneering work in the field of phase transitions on surfaces, in particular for his work on the surface melting of ice and on critical phenomena at alloy interfaces. Before joining DESY, the solid-state physicist was director of the Max Planck Institute for Metals Research in Stuttgart. He has been a member of the DESY Board of Directors since March 2009.

For his ground-breaking research work Prof. Dosch received several awards, including the X-ray plaque of the city of Remscheid and an honorary doctorate from the Kurchatov Institute in Moscow. In 2020 he was accepted as a member of the National Academy of Sciences Leopoldina in the Physics section⁶.

Besides overlooking the upgrade of Petra III to Petra IV, DESY an outstanding 4th generation synchrotron. Top-level research is scarcely possible today without networking and cooperation among various institutes, countries and scientific disciplines. DESY too operates within strong networks. Research at DESY focuses on four areas: accelerators, photon science, particle physics and astroparticle physics.

Prof. Dosch was previously the chair of LEAPS in 2019 and remains actively involved. Both facts make him the ideal multiplier of our ideas and activities.



⁶ https://second.wiki/wiki/helmut_dosch



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Dr Britta Redlich (FELIX Laboratory)

Dr Redlich is the director of the [FELIX Laboratory](#) – Free Electron Lasers for Infrared eXperiments - at the Radboud University in Nijmegen and leads a research group on Infrared and THz spectroscopy using the FELIX free electron lasers (FELs). She obtained her PhD on studies of the adsorption of small molecules on insulating surfaces using infrared spectroscopy from the University of Hannover (Germany) and held a postdoctoral position at University of Münster (Germany). An Emmy-Noether fellowship from the German Research Foundation, DFG, was awarded to study laser-induced desorption processes using the Free Electron Laser FELIX at the FOM Institute Rijnhuizen in Nieuwegein. In 2003, she became staff scientist and facility manager being responsible for the user program and operation of the FELIX laser. At the FELIX laboratory they develop and exploit intense, short-pulsed infrared and Terahertz free-electron lasers.

Dr Redlich is member of a number of international consortia of accelerator-based light sources and laser including LEAPS, LaserLab Europe and FELs of Europe⁷.



⁷ <https://www.cdt-acm.org/people/dr-britta-redlich/>



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Conclusion

Following the interviews conducted to date we can see a positive increase in recognition of making scientific data openly available and the fact that sharing this data can yield substantial benefits when it comes to our PaN RIs learning about new materials and researching the building blocks of life at the atomic and molecular level. It is important to highlight to the ever-growing science community at large that the benefits greatly outweigh the extra efforts, which has been supported by Prof. Harrison's comment.

To achieve our goal of open data and get optimum value for our research we need to ensure a consistent approach, encourage inclusiveness and involving as many different facilities and research establishments, not just within ExPaNDS but further afield as was highlighted by Prof Eccleston. This is by no means an easy task and will continue to be a large coordination job. We further note that there are various challenges still to be considered and bridged in the ongoing endeavor which is Open Data.

Between ExPaNDS and our sister project [PaNOSC](#) the feedback from both Professors confirms that we have provided a good foundation to continue the work on open data and being able to share data. The project has set a clear direction of how this may be developed further and opportunities to build on what has been created so far.

We touched on how the PaN community is organised in Europe through collaborations called LEAPS and LENS, who contribute to the centralised European data federation project – the European Open Science Cloud (EOSC). Further there is also the vast opportunity to engage with global collaborations such as [Lightsources.org](#) to continue raising the awareness and benefits open data can have for science.

Through these interviews of senior management, gaining their advocacy and these collaborations with their wide-ranging connections not just to the EOSC there is great possibility to achieve sustainability after the end of the ExPaNDS grant and to really help our researchers to continue solving 21st century global challenges.

