

# IRIS Strategy 2025

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# Introduction

Over the past 5 years, IRIS has encountered and answered many challenges, across all its areas of activity. However, with the growth in our community, the increasing demand for computational resources, and the growing need to realize the benefits of a joined-up and federated approach to providing resources, there are new challenges to be met. This strategy outlines the IRIS aims and priorities to address these challenges over the next 5 years. This has been developed under broad consultation with the IRIS community to ensure that IRIS continues to develop towards the best possible support for the science goals of our community.

## IRIS VISION AND MISSION

IRIS is a community driven project helping to develop and grow the digital research infrastructure that allows STFC to continue to play a leading role in world class science. IRIS aims to deliver computing infrastructure to provide capacity and capability to STFC's data intensive computing Infrastructure. This includes computing (CPU) capacity, data storage capacity, network equipment, software infrastructure and digital assets needed to efficiently use the hardware.

**Vision: Create a nationally connected digital research infrastructure system that gives the IRIS community members the opportunity to perform excellent scientific research.**

**Mission: Provide innovative, sustainable, and secure infrastructure, services, and skills for its community members in an accessible and flexible fashion with the help of the right governance structure.**

## BACKGROUND

IRIS was first envisioned in 2015 (then known as UKTO) when a need was felt within STFC's scientific community for a joined-up infrastructure to better support STFC's science. In 2017, the community gained funding through an STFC grant call to fund a pilot

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phase to develop “A Common Cloud Platform for STFC Science: e-Infrastructure to support the STFC Science communities”. While modest in scale, the project acted as a nucleus supporting the growth of a “bottom-up” community sharing computing infrastructure and good practice to support STFC science. This evolved into IRIS 4X4 with £4m funding from 2018-2022 whose objectives were to:

- Deliver additional computing capacity to meet the growing needs of both STFC’s existing and newly developing scientific communities.
- Create the digital assets needed to manage and analyse the increasing amounts of data produced by the UK National Facilities.
- Enhanced federation of computing across STFC for improved cost effectiveness and sharing of expertise, and as a prerequisite for developing a National DRI.

This was a novel project of its kind for collaborative computing that capitalised on existing infrastructures and organizations to provide computing resources and build digital assets through grants. From April 2022 core funding of £2.4m per year has been provided through STFC together with substantial funding through the UKRI DRI Programme. During this time IRIS has successfully grown from a pilot project into a fully-fledged operation with a large group of partners providing capability and making use of resources managed through IRIS. We have established a vibrant and highly active community that has realized real benefits to STFC and its scientific mission.

## COMMUNITY STRUCTURE

The IRIS Community consists of:

1. IRIS Providers: IRIS providers are the institutions that provide the hardware resources to different IRIS users based on the RSAP allocation by IRIS. The major IRIS providers are SCD, DiRAC and GridPP.
2. IRIS Activities: IRIS activities are the projects that utilize IRIS resources available at the sites of the IRIS providers for their research.
3. IRIS Core Team: The IRIS team consists of Technical Director, Scientific Director, RSAP Chair, Project Manager, Capacity Manager and Project Secretary.

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# IRIS Strategy

IRIS needs a strategy that not only orientates the project on a streamlined route to deliver high impact but also meets the needs of the community on all levels. The IRIS strategy has been structured around objectives that ensure that IRIS is delivering the right hardware, resources and support required to support the people, partners, collaborators, and institutions that form the current and future IRIS community. Notably, these strategic goals are carefully aligned with the UKRI strategy [1], UKRI corporate plan [2], STFC strategic delivery plan [3] and other relevant reports and reviews [4] [5] [6]. By harmonizing with these overarching visions, IRIS aims to contribute to the national e-infrastructure, supporting and strengthening UK research.

## THEMES

The first five IRIS objectives are structured around the five themes for change. These are:

### **Accessibility**

Accessibility refers to the seamless access that members of the IRIS community have to its resources. When infrastructure is challenging to use or imposes unnecessary obstacles, it jeopardizes its full potential. Such barriers result in inefficiency, higher costs, wasted time, and missed opportunities. Ensuring smooth access is crucial for maximizing the benefits of the IRIS project.

### **Sustainability**

Environmental sustainability encompasses ensuring that IRIS operates in a manner that is ecologically sustainable. IRIS will align with the UKRI Environmental Sustainability Strategy [7] and the STFC Environmental Strategy [8] to achieve its own strategic objectives. Additionally, it demonstrates the commitment of IRIS to environmental protection and enhancement by integrating sustainability considerations into its operational and investment decisions.

### **Cybersecurity**

Cybersecurity encompasses a multifaceted approach that involves various aspects, including operational procedures, policy formulation, and external engagement to safeguard the IRIS community against cyber threats. By implementing robust security

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measures, IRIS will ensure the confidentiality, integrity, and availability of the community's valuable resources.

### **Innovation**

Innovation in IRIS translates to innovation in the tools, techniques, and training to enable the community to empower the community to achieve its utmost potential. This innovation extends beyond individual components; it also addresses the need to seamlessly join up disparate infrastructures - either through the synthesis of existing approaches into new, better, integrated systems or through the development of new solutions. IRIS will align with the UK Innovation Strategy [9] to build on its innovative initiatives.

### **Flexibility**

Flexibility in IRIS refers to its ability to remain agile and responsive. This adaptability ensures that IRIS can swiftly address emerging challenges and seize new opportunities. Moreover, this flexibility provides resilience against the ever-changing circumstances of the fast-paced world. By staying nimble, IRIS can effectively navigate the dynamic landscape of e-infrastructure development and continue to serve the needs of its community.

## **DOMAINS**

The IRIS strategic themes listed above cut across all areas of activities that we organize into five strategic domains:

### **Community and Communications**

This domain centers around the individuals within IRIS, emphasizing how we interact and organize ourselves, and how we leverage the community to be more than the sum of our parts structure our collaboration. The community itself is a formidable asset, drawing upon a diverse array of experience and skills. Our collective strength lies in uniting these varied perspectives. To ensure sustained success, it is crucial that we nurture and expand this vibrant community.

### **Skills and Training**

IRIS will benefit by nurturing and enhancing the skills required across the IRIS community. It encompasses a wide spectrum, including providing targeted training and curating



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existing training resources available through our partners and external providers. By investing in skill development, IRIS ensures that its community remains adaptable, knowledgeable, and well-equipped to tackle the challenges of e-infrastructure development.

### **Service and Operations**

For IRIS to thrive, it must establish efficient and effective services and maintain seamless operations. Beyond merely connecting the federation through essential services, IRIS must also establish clearly defined and universally understood processes for overseeing day-to-day operations and promptly addressing any issues that may arise. By doing so, IRIS ensures its resilience and continued success.

### **Policy and Governance**

IRIS must evolve its governance to address the upcoming challenges while upholding accountability to its community and empowering them to actively shape the future of IRIS. To sustain success, additional policy development is essential for long-term planning, ensuring funding stability, and establishing succession plans for IRIS to continue to serve its community effectively.

### **Resources and Hardware**

The resources provided by IRIS must align with the community's requirements in terms of both capacity and capability. Effective management of resource allocation, access, and usage is crucial to sustain successful provision. By ensuring efficient utilization, IRIS can continue to serve its community effectively.

### **Inclusive and Diverse Environment**

IRIS must persistently advocate for and champion a creative, vibrant, and dynamic community by actively promoting equality, diversity and inclusion in its community and integrated infrastructures. These principles are essential for fostering an environment that drives innovative developments and facilitates the growth of forward-looking technical capabilities. As a project, IRIS will benefit by referring to the UKRI's Equality, Diversity, and Inclusion Strategy to develop its own EDI initiatives. [10]

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# Objective 1: Connected Community

**“To have a connected IRIS community that operates sustainably and effectively for the development of IRIS project and the IRIS community.”**

IRIS represents a collaborative community, engaging in both small and large-scale projects with national and international academic and research partners. Given the widespread geographical distribution of IRIS community members, most interactions take place virtually, with hybrid events like the IRIS collaboration meeting provide opportunities for face-to-face engagement. This objective highlights the importance of establishing sustainable and effective connections within the IRIS community with a culture of accessibility, innovation, and sustainable growth.

## **Accessibility**

As the IRIS community continues to grow, it faces challenges related to maintaining a high level of accessibility and effectively resolving related issues. While the existing support system relies on best efforts from providers and collaborative relationships managed by the IRIS project management team, there is a need for more coordinated oversight of problem resolution. Addressing these gaps will contribute to a more seamless experience for community members.

**Priority 1A: To enable accessible community engagement with agile feedback mechanisms and collaborative decision-making.**

## **Environmental Sustainability**

A key purpose of the community coming together is to share resources and knowledge related to environmental sustainability. To achieve this, we must actively engage in discussions, especially regarding Net-Zero initiatives and carbon emissions. Additionally, building strong community support for activities aimed at measuring and mitigating our carbon footprint is essential.

**Priority 1B: To communicate environmental sustainability awareness to the IRIS community and mobilize support for effective carbon mitigation strategies.**



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## **Cybersecurity**

IRIS facilitates computing through shared infrastructure, which brings together multiple science projects, allowing them to share pooled resources. While this collaborative approach offers advantages, it also exposes IRIS to cybersecurity risks. Addressing these risks is a top priority, necessitating effective communication within the community regarding threat intelligence and cybersecurity incidents. IRIS must ensure that its members are well-informed about these risks and establish robust structures and processes to defend against and respond to cyber threats.

**Priority 1C: To educate IRIS community about Cybersecurity threats and ensure strong processes are in place to communicate threat intelligence.**

## **Innovation**

IRIS takes pride in fostering innovation within the community and achieves this through its Technical Working Group (TWG) and related workshops, as well as financial support via the Digital Asset Programme. By leveraging IRIS, the community gains accessible access to key use cases and community contacts, facilitating the testing of innovative ideas. Moving forward, IRIS should actively promote awareness of innovative technology adoption within its ecosystem and offer training for future advancements.

**Priority 1D: To accelerate innovation in the IRIS community by fostering a culture of sharing expertise and feeding innovation.**

## **Flexibility**

IRIS must sustain the ability to swiftly adapt to evolving requirements and technological shifts. Responsive and flexible communication plans enable the seamless exchange of insights and experiences within the community. To achieve this, IRIS should leverage various communication channels, tailoring them to meet the specific needs of the community.

**Priority 1E: To enhance community information sharing through diverse communication channels to facilitate flexible engagement.**

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## Objective 2: Trained and Skilled Community

**“To have a trained and skilled IRIS community of scientists, researchers, engineers, technicians, and operational staff with the technical expertise to use, support and develop IRIS resources and services and meet the need for innovation within the community.”**

High-quality training is acknowledged by UKRI and STFC as a critical component of their digital research infrastructure strategies. This emphasis on training is also a strategic priority for IRIS. To foster technical expertise for operating and utilizing IRIS facilities, as well as to drive innovation, IRIS must provide and curate training for its community members. Currently, IRIS facilitates the exchange of expertise and experience through the Technical Working Group (TWG) and associated workshops and collaborates with the Software Sustainability Institute and the DiRAC HPC Project to develop training initiatives. Moving forward, IRIS should expand this effort to establish a comprehensive portfolio of training options, both internally and through its external partners.

### **Accessibility**

Onboarding new users and communities presents a significant challenge. To tackle this, it is crucial to provide high quality documentation, comprehensive training, and continuous user support. These resources empower community members to maximize the effective utilization of available resources.

**Priority 2A: To create and curate training programmes and documentation to support more effective use of IRIS resources.**

### **Environmental Sustainability**

There are three areas that are relevant for environmental sustainability training for IRIS community. These are adoption of sustainable practices to ensure alignment with UK net zero strategy; effective sustainable software development practices to ensure we make effective use of the resources available; and carbon aware algorithm development to ensure we achieve environmental sustainability. By fostering education and collaboration in these three areas, IRIS paves the way for a more environmentally conscious future.

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**Priority 2B: To foster a collaborative training environment with suitable investment focused on adoption of sustainable practices.**

### **Cybersecurity**

As a large federated infrastructure, Cybersecurity is a primary concern for IRIS. A key component of our Cybersecurity strategy is to curate or provide training for: users to enable secure use of our resources; operators to ensure secure deployment and management of services, and for Cybersecurity professionals to run our Cybersecurity operations.

**Priority 2C: To build resilience in the IRIS community by curating and providing appropriate cybersecurity training for the IRIS community.**

### **Innovation**

Working within research communities, IRIS aims to foster innovation through innovative training approaches, finding new solutions and approaches and working with new technologies. Drawing on the breadth of the community IRIS should stimulate and facilitate cross-training and sharing of expertise to drive innovation.

**Priority 2D: To facilitate innovative cross-training between communities within and outside IRIS and the sharing of expertise and facilities to drive innovation.**

### **Flexibility**

IRIS encourages its community members to share skills training opportunities so that the community can develop collectively. IRIS will need to train our community to be flexible to adopt upcoming technologies. Community members will also need to be trained to be flexible in using multiple tools and technologies so that there is better adaptability to work in different research infrastructures in the UK. Finally, given the hybrid structure of the IRIS community, training provision will also be flexible to accommodate the different needs of community members.

**Priority 2E: To curate the skills training for IRIS community to help them become flexible to adopt upcoming technologies.**

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# Objective 3: Excellent Services and Operations

**“To have excellent services and operational support for an effective federated digital research infrastructure that drives innovation and accelerates scientific discovery.”**

IRIS provides the opportunity to deliver significant computing resources to achieve impact not possible with individual institutional resources. It also supports the creation of digital assets to deliver long-term impact for science. As well as managing access to the hardware through our provider partners, IRIS runs a set of core services that work towards providing a joined-up infrastructure. This includes aspects of identity management, usage accounting, and resource management and allocation.

## **Accessibility**

IRIS needs to continue to address significant barriers to entry for its systems and services. This means continued development towards effective federation of IRIS services including accessible federated identity and access management system and tools to facilitate data management. IRIS will also need to manage the accessibility of its core and community services to meet the best practices while managing the interoperability.

**Priority 3A: To enable better community accessibility of IRIS resources through federation services.**

## **Environmental Sustainability**

IRIS needs to continue to develop its monitoring and accounting services to enable providers and users to both monitor and mitigate the environmental impact of their use of resources. Improved service management and improved reliability of services can minimize downtime, reduce loss of time due to delays in issue resolution, and ensure more efficient use of resources.

**Priority 3B: To move towards sustainable services and operations through improved service management.**

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## Cybersecurity

IRIS needs to continue to develop its Cybersecurity operations, joined-up with efforts within its provider communities, such as SCD, GridPP and DiRAC, as well as with the broader programme in the UKRI DRI Security workstream. This includes the deployment of specific hardware and software and, the provision of the appropriate structures and processes, and communication channels to ensure operational Cybersecurity.

**Priority 3C: To continue to develop effective operational Cybersecurity in collaboration with partners and the UKRI DRI Programme.**

## Innovation

IRIS needs to remain open and proactive towards new ideas and approaches to its service provision and operations. This can be achieved through identification of new needs within the community, horizon scanning in wider external contexts, and stimulating innovation through community building and funding.

**Priority 3D: To foster innovation in the provision of services and operations.**

## Flexibility

The many diverse workloads running on IRIS facilities require many different configurations and platforms. IRIS should continue to explore how to develop and deploy solutions that support this diversity. This needs to be co-created with the community to ensure the appropriate balance between flexibly meeting user needs and managing operational cost and complexity.

**Priority 3E: To enhance flexibility in IRIS services and operations through the co-creation and development of IRIS services across our community of providers.**

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## Objective 4: Effective Governance

“To have effective governance and leadership that champions the IRIS community and enables it to achieve its goals through well-defined and community-focused policies and governance structures.”

As IRIS evolves, IRIS strategic focus centers on effective governance, adaptability, and value delivery. IRIS governance model optimizes resource utilization, supporting the community effectively despite modest resources. While goodwill contributions have sustained us, IRIS acknowledges that the core funding security is pivotal for forward planning, improved forecasts and benefit tracking to enhance our viability. By demonstrating value-for-money, IRIS secures support for IRIS’s critical operations.

### Accessibility

On-boarding and retaining new communities is a key priority for IRIS and this needs to be facilitated through clear and well documented policies. These need to be concise and clear about expectations when accessing IRIS managed resources without imposing unnecessarily burdensome administrative loads on providers or users of our infrastructure and services.

**Priority 4A: To continue to develop and review IRIS policies to ensure they continue to facilitate effective and barrier free access to IRIS.**

### Environmental Sustainability

As a project, IRIS has played a pivotal role in advancing environmental sustainability within the UK computing landscape. By pooling resources and enabling shared access across diverse scientific endeavors, IRIS promotes efficiency and collaboration. However, IRIS’s dedication to sustainability extends beyond resource sharing—it encompasses responsible energy consumption, lifecycle assessment, and proactive measures. As IRIS strives towards NetZero goals, carbon reduction must be a central focus in IRIS policy development.

**Priority 4B: To develop environmental sustainability policies for IRIS that align with the national and international environmental sustainability policies and net zero commitments.**

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## Cybersecurity

Cybersecurity of our systems is essential. IRIS should continue to develop and improve its risk assessment and risk management planning to account for both Cybersecurity assurance and incident management in step with developments in operational Cybersecurity. The IRIS governance structure should support the IRIS team to take strong decisions to make its systems secure as per IRIS security policies and the external regulatory environment.

**Priority 4C: To create and maintain appropriate cybersecurity governance, supported by appropriate standards and frameworks, to enable the evaluation and treatment of cybersecurity risk across the IRIS infrastructure.**

## Innovation

Innovation is an inherently risky process and not all activities exploring new technologies and approaches are expected to yield positive outcomes. IRIS needs to develop a practical policy that outlines its risk appetite with respect to innovation that balances risk against fostering innovation.

**Priority 4D: To create an innovation policy that outlines ways to approach innovation in IRIS with a healthy risk appetite and the pathway for IRIS and external collaborators to collaborate in innovative developments.**

## Flexibility

The list of projects supported through or providing support to IRIS is constantly evolving with new ways of interacting and sharing resources and expertise. The policies and governance need to reflect this and not be a barrier in the way of finding new ways to build out our federated infrastructure. The IRIS governance structure should also be flexible to the changing requirements in the UK research domain as well the policy changes in the UK government that impact funding and international collaborations.

**Priority 4E: To maintain a continuous improvement culture to support flexibility in IRIS governance with regular review of existing policies.**



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## Objective 5: Outstanding Infrastructure

**“To have an outstanding infrastructure that provides the cutting-edge resources that enables IRIS members to succeed in world-leading research in both academic and industrial context.”**

IRIS resources are shared by many projects across the UK and internationally. The IRIS resources are deployed at multiple sites and are managed by multiple teams for utilization by multiple activities. Allocation of resources to projects and forecasting of future requirements is managed through the RSAP process. This provides input into procurement decisions that are negotiated with providers.

### **Accessibility**

IRIS, as a forward-thinking research infrastructure, supports various large and small scientific research projects requiring general and specialized resources. Going forward, IRIS will maintain and grow the capability to adapt to the growing scientific requirements and accessibility needs of its users through standardization. The capability to migrate workloads between provider sites is anticipated to be a key priority in achieving this and should direct the evolving federation of the infrastructure.

**Priority 5A: To create an accessible research infrastructure that has user-centric design that empowers diverse scientific needs of the community.**

### **Environmental Sustainability**

IRIS does not currently centrally collect information on power usage, carbon emissions, and sustainable practices at individual provider sites. It should be a priority for IRIS to develop this as standard practice to allow IRIS to provide formal reporting for STFC and UKRI. At present IRIS agrees a 4-year lifetime for hardware after which no obligation remains on the provider to provide those resources to IRIS. As a community, IRIS will develop measures to improve the total environmental cost and impact of ownership of systems.

**Priority 5B: To procure, utilize, and retire IRIS hardware resources sustainably, monitored through standardized reporting.**

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## Cybersecurity

IRIS currently does not provide additional funding for cybersecurity activities as part of its core capital spending. For example, this could include cybersecurity operation centres, firewall and IPS and IDS appliances. In many cases this is something already covered by site security practices but as we develop and improve our cybersecurity operations this is something that should be a priority, working together with the UKRI DRI workstream on security.

**Priority 5C: To secure IRIS resources with appropriate cybersecurity systems, working together with the UKRI DRI Security workstream.**

## Innovation

IRIS has incidental access to some resources through our provider partners of innovative new software, hardware, and technologies. IRIS needs to develop a more formal approach to providing access to novel resources for prototyping, experimentation, and evaluation.

**Priority 5D: To support innovation in IRIS hardware and software resources by providing access to novel platforms and technologies.**

## Flexibility

In order to meet changing needs and requirements IRIS needs to maintain a healthy mixture of resources with tools and processes that support job portability and flexibility in deployments with pre-emptive computing.

**Priority 5E: To utilize shared infrastructure more flexibly through a healthy mix of resources and tools to support portability and flexible deployments.**

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# Objective 6: Inclusive and Diverse Environment

**“To foster an inclusive and diverse environment that prioritizes representation and measures progress to build an equitable workplace where all voices are valued.”**

IRIS is committed to creating a workplace that values and celebrates diversity. The EDI in IRIS community is promoted by encouraging participation of diverse professionals in IRIS core team and IRIS community engagements such as collaboration meetings and different working groups with a focus on creating better equality and inclusion driven approach. We encourage our collaborators to promote opportunities to people with diverse skills and ambitions. Additionally, IRIS promotes diverse ideas and viewpoints that drive the community capability and the resulting benefits. To further foster this, IRIS strategy has the EDI objective included that guides the delivery of the change needed to build a diverse and inclusive community.

## **Representation**

IRIS values the contributions from its diverse community to develop its initiatives. Going forward, IRIS will aim to increase representation of underrepresented groups at all levels of community, including leadership positions. It will ensure diverse voices are heard by actively seeking input from community members with different backgrounds and perspectives and highlighting success stories and achievements of diverse employees to inspire others and promote visibility.

**Priority 6A: To create a more inclusive culture where every community member feels respected and valued.**

## **Education**

IRIS currently is not actively involved in the delivery of EDI strategies by its funding bodies and collaborators. However, as the community is growing the need to educate the community on various EDI initiatives is also growing. Hence, IRIS will partner with its collaborators to provide regular equality, diversity, and inclusion training for its community. It will also raise awareness about unconscious biases and equip the community with tools to mitigate them. IRIS will educate community members on positive impacts of diversity, cultural competence, and the importance of allyship.

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**Priority 6B: To educate the IRIS community about EDI values to cultivate awareness and empower the community to bring positive changes.**

### **Policymaking**

IRIS will conduct a comprehensive review of existing policies, procedures, and practices to identify any potential biases, and will revise documentation to ensure that it is inclusive and equitable. IRIS will also implement transparent and fair recruitment, promotion, and funding processes to increase the diversity of people able to participate in IRIS initiatives. It will also encourage its collaborators to do the same.

**Priority 6C: To build a just and unbiased structure with transparent and equitable policies, procedures, and practices.**

### **Empowerment**

IRIS will develop novel approaches in collaboration with partners to unlock the potential of all its community members at all levels and from all groups to present their ideas and experiences for systematic innovation. Together with its partners, IRIS will create inclusive principles that leverage the full spectrum of talent and creativity of the IRIS community and foster opportunities and benefits for all.

**Priority 6D: To develop inclusive principles in collaboration with IRIS partners to empower, acknowledge and reward the diverse contributions of its community members.**

### **Monitoring**

IRIS will measure the progress of its EDI initiatives by setting measurable goals related to equality, diversity, and inclusion. It will regularly track progress through data collection and analysis and adjusting the initiatives as needed based on the outcomes.

**Priority 6E: To create an equitable collaborative environment through evidence-based informed decisions where everyone feels valued, respected, and empowered to contribute their best.**

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# Appendix 1: Historical Context

**IRIS project had the following planned deliverables:**

## **A. Assessment of needs: RSAP**

On a yearly basis IRIS performs an assessment computing need with their scientific communities. This is called the Resource Scrutiny and Allocation Process (RSAP), which gives the best available picture of needs vs available capacity allowing decisions to be made on what hardware to procure and what additional funding should be sought.

## **B. Hardware procurement**

Based on the RSAP process, IRIS procures hardware each year through grants to partner resource provider organizations such as GridPP, DiRAC and STFC Scientific Computing at RAL. Capital hardware grants are issued to ‘buy into’ existing infrastructures on a yearly basis.

## **C. Creation of knowledge transfer forums**

IRIS has created a technical working group to discuss items of interest to the technical staff within IRIS partners and encourage knowledge transfer. Additionally, a biweekly operations meeting has been established which helps troubleshoot issues with using the infrastructure.

## **D. Digital assets creation**

IRIS has built a small portfolio of digital asset sub-projects to improve usability, federation and functionality of existing infrastructure. These mainly target areas of common use such as identity management.

**The outputs of these deliverables were envisioned to be:**

### **1. Growing and developing the scientific computing community:**

- Encouraging trust, cooperation, and expertise sharing.
- Facilitating technical discussion and problem solving.
- Representing community for using Hardware and Software.
- Engaging with the national and international DRI community.

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## **2. Supporting the future planning of DRI:**

- Understanding what resources the community needs.
- Establishing common practice and policies.
- Forming a “bottom up” roadmap to help shape tomorrow's e-Infrastructure.
- Working to help provide a cohesive picture of STFC’s scientific DRI needs.

## **3. Allocating and overseeing use of shared resources:**

- Ensuring robust and fair allocation process.
- Matchmaking providers and activities
- Managing accounting system to see usage in one place.

## **These outputs were estimated to have produced the following benefits:**

1. Science impact from facilities increased, covering wide range of science disciplines.
2. Retain reputation of UK as reliable partner in projects.
3. Attract/retain highly skilled staff in UK.
4. Development of National e-infrastructure.

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