



Jisc annual report 2020-21

Against the SFC-Jisc Outcome Agreement 2020-21 update

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Introduction

1. **Jisc** is the UK's digital body dedicated to the education and research communities. We believe that education and research improves lives, and technology improves education and research.
2. Our vision is for the UK to be a world leader in technology education and research. Our mission is to power and empower our members with the technology and data they need to succeed.
3. Through investment in its capabilities, Jisc enhances the UK's critical national digital infrastructure for education and research and supports innovation using advanced technologies.
4. We work in partnership with Scottish universities and colleges to ensure that they not only make the most of the digital opportunities available, but at the same time make substantial savings compared with doing so individually.

SFC funding of Jisc

5. Jisc is funded by the UK HE and FE funding bodies to deliver essential UK-wide digital infrastructure. We are a critical part of building both the capability and capacity of Scotland's further, higher and vocational educational sectors, using grant-in-aid from the Scottish Funding Council (SFC).
6. The UK funding bodies have agreed a shared funding model for Jisc¹ on the basis of a two-thirds contribution from HE and a one-third contribution from FE. Proportions are then divided between the respective nations across the UK. The funding provided by the SFC is approximately 20% of Jisc's total core grant funding.² HE institutions in Scotland provide a contribution of approximately £1m (incl. VAT) via member subscription fees.

¹ Described in the Jisc – HE and FE Funding Bodies Memorandum of Understanding, 2012.

² In 2020-21 this equated to £5.2m for HE (12% of Jisc's total funding) and £2.9m for FE (8% of Jisc's total funding).

Jisc-SFC funding agreement 2019-2022

7. Jisc and SFC agreed a new **three year funding agreement 2019-20 to 2021-22** in August 2019. The agreement provides certainty to institutions as to Jisc's priorities over the three years and clarifies the outcomes we seek to achieve on behalf of the Scottish education and research sectors. It should be noted that any activity after the first funded year (2019-20) is subject to a flat cash funding settlement from Jisc's core funders, including from the SFC. Any cuts to our funding could result in some of the activity in the agreement being reduced or stopped and/or increases to the HE subscription fee in Scotland.

Reporting against our priorities

8. This report outlines the outcomes and progress against the priorities in the Jisc-SFC Outcome Agreement 2019-22 for the **academic year 2020-21**. It complements UK-wide updates on Jisc's progress given to the Funders and Owners Group (FOG) in October 2020 and in May and October 2021.

Strategic context

Jisc strategy 2019-22

9. Jisc's **strategy** for 2019-22 is to build on our transition to a membership organisation, taking our achievements to the next level and enhancing what we do to the further satisfaction of members and funders. We will:
 - Deliver world-class core services by continuing to listen and invest to ensure that our service and capability levels within our core offer remain fit for members' future needs.
 - Offer value-added services by developing vibrant new services that are co-designed and driven by the needs of members in HE, FE and research, and are distinct from the commercial market.
 - Inspire with thought leadership in order to stimulate transformative change in the sector's use of technology to improve teaching, learning and research.
 - Satisfy members and funders.
 - Provide financial leadership by ensuring that our membership subscription is kept 'low', with an aim to maintain increases that are inflation-based or less, subject to grant funding. We will also aim to address the balance of funding/income and to achieve a goal of 50% from non-grant sources.
 - Transform Jisc by being well run and operating effectively and efficiently.
10. Jisc is guided by our sector strategies in the areas of **higher education**, **further education and skills** and **research & innovation**. The challenges and needs raised by our **Education 4.0** and **Research 4.0** thought leadership campaigns, as well as our response to the Covid-19 pandemic, **Learning & teaching reimagined**,

have fed into our [co-design process](#).

11. Jisc is also guided by the high-level priorities of the SFC and the Scottish Government when planning its work. Recently we worked on the digital elements of SFC's [Review of coherent provision and sustainability](#) and other priorities include:
 - The outcomes in [SFC's Strategic Framework 2019-22](#)
 - Scotland's [College and University sector ICT strategy 2019-21](#)
 - [Digital Scotland](#)
 - [Working collaboratively for a Better Scotland](#): outline strategic plan 2018.

Report on progress against priorities

Priority: Cyber security

Highlights

12. In 2020-21, the cyber threat landscape continued to deteriorate with attacks on UK education and research organisations increasing in terms of volume, frequency and sophistication. HEIs were recently highlighted as [targets for Russian state-sponsored cyber criminals](#) in a joint statement by the National Cyber Security Centre (NCSC) and its US counterparts.
13. Following a number of damaging ransomware attacks during 2020 clearing and enrolment period, Jisc provided detailed advice and guidance to universities and colleges on how to mitigate against cyber-attacks to enable them to be better prepared this year. However, the UK sectors have seen **17** ransomware incidents so far this year in 2021, which is more than seen in the whole of 2020.
14. Similarly, DDoS attacks, where attackers attempt to flood a network with traffic or overload systems to make them unusable, continue to be targeted towards education and research organisations. In the past year, **34** Scottish institutions were targeted with **138** verified **DDoS** (distributed denial-of-service) attacks. However, thanks to timely mitigation measures from Jisc, no DDoS attacks against members so far have caused any significant disruption to the availability of member services.
15. Mitigations have ranged from detailed guidance and advice derived from forensic analysis of attacks and continued identification and mitigation of new attacks. We communicate directly with our members where we have identified any weaknesses in their digital infrastructure, based on threat intelligence that we have received or generated. For example, over a thousand individuals representing our member organisations attended a series of three ransomware-specific briefings in 2021, followed by guidance and support.
16. In the reporting period, we have also invested in a national filtering infrastructure to provide further protection against ransomware attacks. We are improving the capacity of our DDoS mitigation infrastructure to meet the changing threat environment; through investment in security orchestration, automation and response (SOAR) tools that will provide faster response times and greater efficiency across our defensive capability.

17. We established a new [cyber security threat intelligence sharing system](#) to help research and education organisations across the globe prevent and mitigate cyberattacks.
18. We have continued to seek to be a thought leader for our sectors through, for example, our annual [cyber security conference](#) and published [a key report](#) on the impacts of cyber crime on institutions. We published joint guidance with QAA regarding [cyber security in relation to essay mills hacking university websites](#) putting students at risk.

Update on agreed outcomes 2020-21

19. Jisc protects the [Janet network](#) (as well as our members who use the network) from cyber security threats such as DDoS and we provide a wide range of additional [cyber security services](#) to keep our member's online environments and physical infrastructures secure. Our target was to increase the use of our enhanced cyber security services in order to improve the cyber security posture of our Scottish HE & FE members. In AY 2020-21, we have:
 - Significantly exceeded our target for [cyber security portal](#) use. The portal allows members to monitor their own network traffic and use data on DDoS attacks for quicker mitigation against attacks. Our target was to sign up 500 unique users and we increased our numbers from 392 users in 2019-20 to 1624 users in 2020-21.
 - Significantly increased take-up of [penetration testing](#) by 34% since 2019 (our target was 20%). The service simulates real work cyber-attacks in order to highlight member IT vulnerabilities and non-compliance with third party standards such as [Cyber Essentials](#).
 - Increased take up [critical protection](#)., While we did not hit our target of 77 subscribers (15 in Scotland), achieving 35 (3 in Scotland), we will continue to promote this service to those members who wish to have a wider range of options to help mitigate DDoS attacks more quickly and in a more customisable way.
 - Significantly exceeded our target of 60 UK members taking up [Cyber Essentials](#) with 106 UK members signing up. Of these, 7 in Scotland took up this service to help gain and renew Cyber Essentials certification. We also launched [Cyber Essentials plus](#) training offer for the next step after certification.
 - Significantly exceeded our target of 9 UK HE & FE members taking up [managed SIEM](#) to help proactively manage cyber threats, with 59 members taking up the service. We met our target for 2 of these members to be from Scotland.
20. **Completion of cybersecurity portal and self-serve for members:** We continued to develop the functionality of our popular [cyber security portal](#), fully implementing its appointment booking system. We have seen increased interactions between Jisc and its members on cyber security matters as they can now easily raise cyber security incident (CSIRT) tickets with us via the portal.

Summary

Cybersecurity: indicative outcomes		
Priority	2020-21 agreed outcomes	2020-21 update
Increased use of enhanced cyber security services ³	<ul style="list-style-type: none"> - 500 HE & FE members (100 in Scotland) will sign up to the cyber security portal - Increased use of the penetration /testing by 20% from August 2019 - 77 enhanced Critical Services protection (formerly called 'enhanced DDoS services') taken up by HE & FE members (15 in Scotland) - 60 HE & FE members (12 in Scotland) to take up the Cyber Essentials service - 9 HE & FE members (2 in Scotland) to take up the managed SIEM service 	<ul style="list-style-type: none"> - 1624 HE & FE members (141 in Scotland) have signed up to the cyber security portal - Increased use of the penetration /testing by 34% from August 2019 - 35 enhanced Critical Services protection (formerly called 'enhanced DDoS services') have been taken up by HE & FE members (3 in Scotland) - 106 HE & FE members (7 in Scotland) have taken up the Cyber Essentials service - 59 HE & FE members (2 in Scotland) have taken up the managed SIEM service
Completion of cyber security portal including 'self-serve' for members	<ul style="list-style-type: none"> - Jisc's DNS registry and the Primary Nameserver service are added to the portal in Q4 2020 - Institutions are able to make payment for Jisc's cyber security services directly from the portal 	Increase in functionality has included booking service calls and greater interaction with Jisc (e.g. raising cyber incidents).

Priority: Efficient institutions

Highlights

21. **Janet access programme:** In 2020-21 our key priority to help Scottish institutions be more efficient was to continue to deliver our programme to **upgrade and rearchitect access** to Janet across the UK. This critical programme will meet the growing needs of our members for high speed connectivity, agile implementation of new technologies and easier deployment of end-to-end services. Three UK regions are now complete and full implementation of the updated access networks across the rest of the UK will complete by 2023-24.

³ Wording of outcomes throughout document may be altered from original Outcome Agreement 2019-22 for clarity and to reflect more recent changes.

22. Network topology design work for the four Scottish regional networks was undertaken in 2020-21. Now that the funding has been confirmed, orders for dark fibre access circuits have been placed with suppliers and the new access network infrastructure is expected to be delivered in 2021-22. Transition of member connections to the new access infrastructure will also commence in 2021-22.
23. Work in Scotland is expected to complete by end 2023 when all member connections provided on new access infrastructure will be delivered in a more efficient and agile manner.
24. In March 2021, we held a **Tech 2 Tech event** to update Scotland's members on the access programme in Scotland.
25. In addition to the increased 100G connection we continue to supply to the Archer national supercomputing service at Edinburgh University, we have increased network capacity to Abertay University to support a new **5G innovation hub project** innovation hub to be located in Dundee. Testing 5G (fifth generation mobile) technologies will help drive growth and increase opportunities for employment and investment in the city and the wider Tay cities region. More widely, we continued to monitor developments and opportunities for the use of 5G in further and higher education.
26. Jisc's **cloud services** offered the best value cloud solutions and technical expertise and in-depth knowledge to our members. We made great progress with the **OCRE cloud procurement framework** – with a total estimated contract value of £34.6m. We produced a **case study** about the Coulthard Institute of Art's transition to lower cost cloud provision.
27. Our **trust and identity services** continued to help institutions to manage access to their resources. For example, we completed the re-design of the **OpenAthens** database, enabling us to meet future customer requirements: achieved without any downtime for any customers from small libraries to the NHS – all moved across seamlessly by the efforts of a very strong technical team.
28. Legacy codesign work on intelligent campus has informed a key pillar of our **HE strategy** around transforming infrastructure in universities. In the strategy, we have committed to continuing research into the intelligent campus, learning spaces and digital platforms, to explore how these contribute to a seamless student experience. This includes how digital and physical estates work together so that they are responsive to student journeys and interactions as well as to help universities achieve their net zero targets.
29. We made significant efforts to enable online education in China through pilot projects with commercial partners and a new **Global Education Access Framework** service providing members with cost effective and trusted access to connectivity globally.

Priority: World leading research

Highlights

30. The power of research and innovation are evident: UK research programmes and international collaborations are at the forefront of tackling global challenges, from Covid-19 vaccines to the climate crisis. In 2021, we published our **Research and innovation sector strategy 2021 to 2023** with our vision for the UK to be world

leaders in technology for research and seven areas of activity where we are uniquely placed to act in the continued development of technology, digital and data approaches, and advice and guidance to support their effective implementation.

31. We have consulted widely on our research and innovation strategy with institutions and stakeholders including the University of St Andrews. Strategy implementation is steered by the Jisc research strategy forum including PVC-R representation from three HEIs in Scotland, and from the SFC.
32. Notable achievements in the research and innovation space in 2020-21 have included:
 - Jisc Licensing negotiated 36 Transitional Open Access Agreements (TA) with 33 publishers enabling c.51% of UK research output to be covered by UK funder compliant arrangements.
 - 139 UK HE members or 83% of UK HE members take at least one TA. With all Scottish HE members subscribed to the SAGE Journals SHEDL Read & Publish 2020-2022 Agreement, **100% of Scottish HE members take at least one TA agreement**
 - The re-negotiation of existing agreements by Jisc has saved the UK HE sector over **£7.1 million** during the 2020-21 academic year (see *Annex B* for further details of savings as a result of the work of Jisc Collections)
 - Launch of **Digital Research Community**, a secure, open community of practice for research leaders, researchers and research support professionals. It has now grown to over 320 mailing list subscribers and has established monthly lunch catch-ups and will run a webinar series
 - Representation on the roundtable on Future Research Assessment in the UK.
 - Leading and facilitating the UK HE sector's **negotiations for an open access agreement with Elsevier**. In these negotiations, universities on behalf of their researchers and students have two core objectives: to reduce costs to levels they can sustain and to provide full and immediate open access to UK research. Negotiations are ongoing
 - Partnered with Wiley, UK universities and the British Science Association (BSA) to create a new digital collection: the British Association for the Advancement of Science - Collections on the History of Science (1830s-1970s). Jisc members receive free access to the collection, and universities can put their own archives forward for digitisation as part of the initiative
 - Engaged with UK Research and Innovation (UKRI) on Open Access and developed dashboards which underpinned their recently launched **Knowledge Exchange Framework**.

Update on agreed outcomes 2020-21

33. **National bibliographic knowledgebase (NBK)**: Jisc continued to increase the numbers of institutions contributing their academic and specialist library catalogues into the NBK. Our target was to achieve 200 UK contributors (24 in Scotland) and we achieved a total 176 contributions from UK libraries (19 in Scotland). We also continued to develop and improve the services supported by the NBK including a new *Contributor dashboard* to better enable libraries to monitor the data they submit to the NBK, and *Analyse*, giving contributors an easy-to-use tool to identify and analyse problems in their catalogue data.
34. We continued with a key area of stakeholder engagement known as '**Plan M**', which seeks to develop and pilot a new model for the supply and use of bibliographic metadata throughout the library supply chain and which has the potential to streamline the metadata marketplace in the UK so that it is more coherent, transparent, robust and sustainable.
35. Outputs of the service included:
 - Update of Quick Guide: **Using aggregators to boost your collection**
 - Guides: **Policy compliance, Ensure your digital collections integrate with your organisation's systems**
 - **Presentation at UKSG 2021**
 - **Library services blog**
 - **Library hub community advisory board.**
36. **Open scholarship**: although our target was for 17 universities (2 in Scotland) to be subscribing to our **research repository and preservation services** by July 2021, we saw four institutions subscribed to these services (1 in Scotland). The pandemic and the REF has stalled most activity around procurement of new systems for research in the past year and it should be noted that these are high value products, which can take anything up to three years to procure from first enquiries in normal times. We continue to engage with the research management and library community around our services, and regularly provide information and demonstrations of our products to HEIs. However, it is worth noting that they are not designed to compete with the commercial market; we are looking to produce good, value for money products for smaller institutions and unique functionality around interoperability among proprietary systems.
37. Outputs of the service have included:
 - Advocacy and consultancy for digital preservation and data retention – we offered reviews of relevant policies and advice on conducting data asset surveys to HEIs
 - Webinars: **What is digital preservation and should you be worried?** and **On your marks, get set: preserve!** Explaining digital preservation and how to get started, and how to work towards integrated research management workflows
 - An **ARMA** study tour for research managers to find out more about how Jisc can support research management.
 - **Research outputs repositories dynamic purchasing system**: enabling universities to purchase a research repository from a list of nine pre-qualified

suppliers who conform to sector standards around the management of digital research outputs. This may be particularly useful to members in 2021-22 as, post-REF, they review their systems and make decisions about whether to procure a new system

- Contributions to Jisc Involve [research blog](#)
- Publication of a [cost-benefit analysis](#) of a UK PID (persistent identifier) Consortium to explore how PIDs can be used to make efficiencies in open research workflows and reduce bureaucratic burdens on research, innovation and HE.

38. **Jisc's role in European open access:** We continued to maintain the UK's current depth of participation and leadership in open access, in spite of Brexit. In 2020-21, we:

- Responded to and tracked the developments in both UKRI policy and [Plan S](#) policy and community response in workflow development and information needs
- Prepared and positioned Jisc open access services to develop rapid response compliance and advisory support as policies are implemented
- Supported the sector (with UKRI and the Wellcome Trust) to utilise the [Open Access Switchboard](#), an international, independent intermediary, connecting parties and systems, streamlining communication and the neutral exchange of OA related publication-level information and are represented on its board of directors. The switchboard is free for Jisc members to use
- Jisc continues to provide project management and subject expertise to [cOAlition S](#). Work continues to implement Plan (supported by cOAlition S European research funding bodies) according to schedule.

39. **Jisc's role in European research infrastructure:** Jisc continued to maintain the current depth of participation and leadership of Jisc in European NREN collaboration in spite of Brexit, via:

- Continued engagement with the European Open Science Cloud (EOSC) and EU Research Infrastructures, and involvement in the latest round of EOSC projects including the conclusion of:
 - EOSC Hub (governance and sustainability)
 - EOSC Synergy (researcher skills and national readiness for EOSC)
 - EGI ACE (green computing)
 - EOSC Future (researcher skills, innovation exploitation, service planning and onboarding, digital innovation and green computing).
- Joining the EOSC Association as an observer rather than full member until the UK's Association to Horizon Europe is ratified. We have assisted the formation and charter drafting of the EOSC Association's task forces and have applied for membership to the task forces.
- Working with UKRI and BEIS on the implications of Brexit for UK's continued engagement with EU research infrastructures and e-infrastructures, and with UKRI, developed an engagement plan with UK researchers and institutes so that they will see the benefits they might achieve from EOSC. This was submitted to an EOSC

Association survey on national initiatives. As part of this engagement, we held a [tech2tech webinar](#) on EOSC in March with over 100 participants, with a follow-up event in autumn 2021.

Research: indicative outcomes		
Priority	2020-21 agreed outcomes	2020-21 Update
National bibliographic knowledgebase	- By July 2021, 200 libraries (24 libraries in Scotland) should be contributing data to the NBK	By July 2021, 176 libraries (19 libraries in Scotland) have contributed data to the NBK
Open scholarship	- By July 2021, 17 universities (2 in Scotland) should be subscribing to research repository services (previously open research hub) - Maintain current depth of participation and leadership of Jisc in European open access, in spite of Brexit	4 universities (1 in Scotland) are subscribing to research repository services. See para 36 above We continued to maintain our depth of participation and leadership in European open access in spite of Brexit (see para 38 above)

Priority: High quality teaching and learning

Highlights

40. This past year has seen Jisc publish its two key strategies: [Powering UK Higher Education 2021-24](#) and [FE and skills strategy 2020-23](#). We have continued to meet with various university and college leadership teams, and other key sector stakeholders, to present our new priorities from the strategies.
41. We continued work on two further initiatives: [Shaping the future of FES](#) and [L&T reimaged](#). These programmes have identified, surfaced and aggregated the key challenges HE and FE members have faced during the pandemic crisis; we continue to explore how to tailor our support accordingly. This included further research into specific areas of concern such as the impact of digital exclusion on BAME learners.
42. We supplied and installed three virtual classrooms in a new service to address the challenges of the remote student experience, including supporting [Weston College](#) – the first for further education in the UK.
43. We supported the [National Skills Fund](#) launch with a reading list of learning resource content to support FE teaching practitioners and learners.
44. The use of ‘eBooks for FE’ by students has increased by over 50% in the space of one year.
45. A key area of growth has been consultancy; we created, launched and delivered the HE Consultancy Service.

46. We launched the **Employability toolkit** to help members with decision-making and planning for developing student employability
47. We collaborated with partners on published reports, including:
 - **What do graduates do report** offering insight into the graduate labour market
 - **The future of employer-university collaboration – a vision for 2030** (with Emerge Education)
 - **Student and staff wellbeing in higher education** (with Emerge Education)
 - **Rethinking assessment** (with Emerge Education)
 - **AI in tertiary education.**
48. One of the many challenges that has emerged as a result of the shift to online learning during the pandemic, is lack of access to reliable connectivity and to the hardware and software necessary to access education. Learners struggled to cover the costs of the mobile phone data they needed to complete their coursework remotely, faced unreliable wifi, or have to face challenges to obtain suitable bandwidth for their needs. Our efforts to raise the profile of this ‘digital poverty’ with news articles, blogs, engagement with sector partners and stakeholders helped to inform the Get help with Technology scheme for FE students, though it remains that there is a lack of support for HE students. Along with UUK, GuildHE and Ucisa, we have called on governments to do more to support HE students who continue to suffer hardship.
49. In Scotland, we started and continue to explore an opportunity to work with the Scottish Funding Council to replicate the roll out of eduroam across public spaces in Scotland in order to address digital poverty.
50. We also started to explore how we can help our members see the potential for artificial intelligence (AI) in education. AI has the potential to transform teaching and learning by providing a personalised learning experience that improves, among many things, social mobility and student wellbeing through AI-powered personalised learning. A new national centre for AI is under development and we have published a series of **AI demos** to help our members explore the possibilities for themselves.
51. We took forward the ‘Supporting the digital revolution for learners’ theme within the SFC’s review of coherent provision and sustainability by holding 17 roundtable events, and delivering a summary report to the SFC.

Update on agreed outcomes 2020-21

52. **Building digital capabilities:** Our target has been to increase take up of the service to ensure that more of Scotland’s students develop digital skills to prepare them for the workplace of the future, and that more staff understand why digital capability matters. While we exceeded our target to sign up five Scottish FE colleges by signing up six (Ayrshire College, Dumfries and Galloway College, Fife College, Glasgow Clyde College, South Lanarkshire College, and West College Scotland) we did not meet our target to sign up eight HEIs (the five subscribers included University of Edinburgh, University of the Highlands and Islands, University of St Andrews, Abertay University and SRUC). Key outputs have included:
 - Access to an active **community of practice** with a strong emphasis on

leadership by the community, learning from each other and sharing what works

- Access to the **digital framework** underpinning the digital capabilities **discovery tool**. Subscribers to the service also benefit from access to the full discovery tool, which has been revised to address the challenges of teaching effectively online during the pandemic
- **Online event** 19 May 2021 with recordings, transcripts and slides from the event available; a summary of the event is also available on our **blog**
- **Online event** 17 November 2020 with recordings, transcripts and slides from the event available; a summary is also available on our **blog**
- **Online webinar** 24 September 2020, with recordings, transcript and slides from the event available
- Our training events achieve a **98% overall satisfaction rating**. We offer an extensive training offer of courses and workshops relevant to building digital capabilities including: [Designing for digital capabilities in the curriculum](#), [Digital leaders programme](#), Developing a digitally inclusive organisation (Data, evidence and accessibility, Student entitlement and Joined up thinking), [Developing learners' employability skills](#), [Digital storytelling](#), and [Supporting learners' digital identity and wellbeing](#)
- Dedicated **blog** and collection of **case studies**
- A wide variety of **advice and guidance**.

53. **Digital experience Insights surveys**: Our target each year is to increase participation in this survey in order to help build richer insights into the digital student experience in Scotland, and to help individual Scottish institutions improve their understanding and use of digital technologies in their own contexts. This year saw a survey return of 76,800 student, staff and professional services participants (8,800 in HE/FE Scotland) from 83 institutions (six HE/FE in Scotland). We exceeded our target for the overall number of participants by 800, however we did not reach our target of reaching 20 institutions in total (we engaged six in total). We think that with the pandemic circumstances, many institutions were not in a position to take up the service. However, with the increased focus on digital experience in 2021-22, we expect a higher take-up this academic year.

54. The **HE national sector** and **FE national sector reports** are now available on our website. Analysis of staff and professional services sectors will follow from September 2021. Other key outputs have included:

- Access to an active **community of practice** (subscribers to the service receive two priority places per institution for each event as well as additional support webinars)
- Dedicated **web pages** and **blog**
- **Reports, briefings and toolkits**
- **Resources** and **guides**.

Summary

High quality teaching and learning: indicative outcomes		
Priority	2020-21 agreed outcomes	2020-21 update
Building digital capability	- 41 HE members (8 in Scotland) and 30 FE members (5 in Scotland) to take-up the service	We gained 50 HE subscribers (5 from Scotland) and 40 FE subscribers (5 from Scotland)
Digital experience Insights survey	- Survey completed with a minimum return of 50,000 student, staff and professional services participants (8,000 in HE/FE Scotland) from 90 institutions (20 HE/FE in Scotland) with targeted promotion by Jisc Scotland Account Managers.	Survey was completed with a return of 76,800 student, staff and professional services participants (8,800 in HE/FE Scotland) from 83 institutions (6 HE/FE in Scotland)

Priority: Jisc to operate at high standards of efficiency and effectiveness

55. Our corporate strategy is underpinned by strong financial foundations that enables us to maintain the best quality service and deliver our product and thought leadership strategies while ensuring membership subscription is kept 'low'. Our aim is to maintain increases that are inflation-based or less, subject to grant funding. We run ourselves efficiently, ensuring that costs as a proportion of revenue grow less than inflation and we aim for an annual operating surplus of around £1m pa, while at the same time fully investing our restricted income in core purpose improved offerings.
56. We aim to be regarded as the best-run sector agency, with a people strategy that ensures we have the right culture, the right skills and the right internal processes to make things easy to do within Jisc, and make Jisc easy for members and customers to do business with.

Update on priorities 2020-21

57. **To maintain 100% HE & FE membership in Scotland:** We have maintained 100% HE and FE membership in Scotland. We absorbed inflation for 2020-21 HE subscriptions and negotiated with publishers with respect to online access to publications to help institutions with the financial challenges brought by Covid-19.
58. **To conduct a full and comprehensive review of Jisc products and services including mitigation strategy and policy approach:** Our portfolio analysis has now concluded and we have agreed to prioritise, in terms of growth, usage, market penetration, and revenue a number of our products and services.
59. **To increase sales of non-core services to members:** We have continued to

improve the performance of Jisc Commercial with a corresponding strengthening of the balance sheet and inter-company loans repaid in this financial year. The appointment of the MD for commercial and sales enablement is driving the performance of Jisc Commercial through its enhanced base which now includes activity from OpenAthens and student services as well as core Jisc services.

60. **To achieve full implementation of a GDPR risk framework into our contractual arrangements:** Jisc's GDPR contract remediation programme is substantially complete, with some further work on updating and modernising certain historic contracts. Work is also ongoing to take account of recent developments relating to Brexit and the Schrems II judgment (invalidating the Privacy Shield), including updates to Jisc's standard data protection templates and the standard contractual clauses.
61. **All key Jisc services will be compliant with ISO27001 and all key Jisc-wide processes compliant with ISO9001:** We continue to expand our ISO 9001 quality management and ISO 27001 information security certification. This year we have brought data analytics, student services and six other process areas into the scope of our quality management system. We have also done work to align some of our health and safety activities with the requirements of ISO 45001:2018 – the international standard for occupational health and safety.
62. **To aim for a % annual improvement of Jisc member satisfaction (using established baseline perception), with the long-term goal of achieving 95% satisfaction:** Overall satisfaction with Jisc by UK HE senior leaders was down slightly at 86% (n= 219)⁴ (compared to 91% in 2019-20) and work is ongoing to understand this. Net promoter score (NPS) improved to a good +25 (from +7 in the previous year). Satisfaction from FE survey respondents in 2021 was very high with 91% (n=234) of UK FE leaders satisfied with their Jisc product, service or event. FE net promoter score was also a very high +41 (compared to +18 in 2018-19⁵).
63. **Impact in numbers:** we have continued to use our Impact in numbers methodology (see *FOG20(04)*) to calculate savings, efficiencies and value information for our funders and members. We will update some of the percentages used within the methodology depending on the results of a new set of independent value studies that we have commissioned and are set to be delivered at the end of 2021.

Jisc

September 2021

⁴ See further detail about our HE and FE senior leader's surveys in *FOG(21)10 Member engagement*.

⁵ Due to COVID-19, and several other FE sector surveys going out at the same time, we did not carry out the FE senior leadership survey in 2020 and we instead did an analysis of satisfaction with discrete interactions.

Annex A Impact in numbers

Since 2014 we have developed our approach to presenting information based on stakeholders' requirements and that uses accurate and reliable data. In some instances, the collection of this data is outside of our control and has shown significant changes in the time that we have used it for reporting. These changes in quality have led us to adopt a more agile approach, moving away from a single global value, savings and efficiency (VSE) figure, to a set of complementary metrics that give a more rounded view. This new approach was endorsed by the Jisc Funders and Owners Group in February 2020.

The approach uses a range of data from the Hadfield Consultancy studies that were commissioned between 2017 and 2019. Findings from the studies, supported by further feedback from other participating members and publicly available expenditure data, have enabled us to develop a provisional model of the sector-wide cost savings and costs avoided. This model is currently being reviewed and amended as we have commissioned another set of studies and a review combining all the findings which will be ready in the new year.

Impact in numbers does not just look at the financial savings or costs avoided that Jisc services achieve, but the other positive ways a Jisc membership impacts organisations and sector for the better.

Overall sector savings - Scotland

Our chosen metric to use in the modelling of overall sector savings is expenditure on 'academic services' (HE) and the equivalent for FE. Academic services expenditure is defined by HESA as:

"...expenditure incurred by centralised academic services such as the library and learning resource centres, central computers and computer networks (including maintenance and operating costs), expenditure on centrally run museums, galleries and observatories, and any other general academic services not covered elsewhere."

By using Jisc services:

Scotland's FE colleges save the equivalent of 5% of their academic services expenditure⁶.

Scotland's FE colleges avoid spending the equivalent of 6% of their academic services expenditure.

For Scottish FE this is roughly equivalent to **£4.01** million per annum.

⁶ Scotland does not publish FE academic services expenditure separately, only overall funding (see Table 2 (point 50, p12) in the [Outcome agreement funding for colleges – indicative allocations for 2019-20 for overall teaching funding allocations by college](#)). Thus we have assumed a similar expenditure per college compared to English FE. £324 million was spent by 231 English FE institutions in AY 2019-20 (the latest figures taken from <https://www.gov.uk/guidance/esfa-financial-management-college-accounts>). This works out as £36.5 million over 26 Scottish FE colleges.

Scotland's HEIs save the equivalent of 3% of their academic services expenditure⁷.

Scotland's HEIs avoid spending the equivalent of 0.75% of their academic services expenditure.

For Scottish HEIs this is roughly equivalent to **£13.8** million per annum.

Specific savings

The Chest agreement savings have not yet been confirmed. As last year they cannot be broken down by nation however they will be higher. For AY19-20 the total HE savings for the four nations was £51.4 million; the FE savings was £21.1 million; and the overall transactional savings was £7.9 million.

We are progressing a new method for quantifying the efficiencies for CSIRT. However, the number of denial of service (DoS), often distributed DoS (DDoS) attacks, were reasonably consistent to the previous academic year. In AY19-20 there were nine tickets for attacks on five HE organisations while in AY20-21 there were 16 tickets for attacks on eight HE organisations; while for Scottish FE in AY18-19 there were 12 tickets raised for attacks on four organisations, which reduced to five on four organisations in AY20-21. (Note the institution may be attacked multiple times whilst they are in mitigation which is recorded under the same ticket). The main reason for this was that due to the continuing national lockdown due to COVID-19 fewer number of attacks were targeted at sites connected to Janet. It is well documented that students at institutions, particularly in FE, cause a significant portion of attacks using free or paid-for 'stresser' sites. There is a good chance that when students are not on campus there is less incentive to want to disrupt lectures and exams, which is clearly the case during previous out of term times. For reference overall the cyber security team recorded 139 attacks on 34 institutions that a network was provided to by Jisc in AY20-21.

⁷ The total figure for 2019-19 academic service expenditure is taken from filtering **Country of HE provider to Scotland, Academic departments to Total academic services**, and **HESA cost centre to 201 Total academic services** on <https://www.hesa.ac.uk/data-and-analysis/finances/expenditure>. This gives a total expenditure of £369 million.

Annex B Progress indicators

1. Uptake of Jisc services by institutions

Key:

Orange: Relevant and included in the Jisc subscription bundle

Blue: Relevant but not included in the subscription bundle ('optional' services)

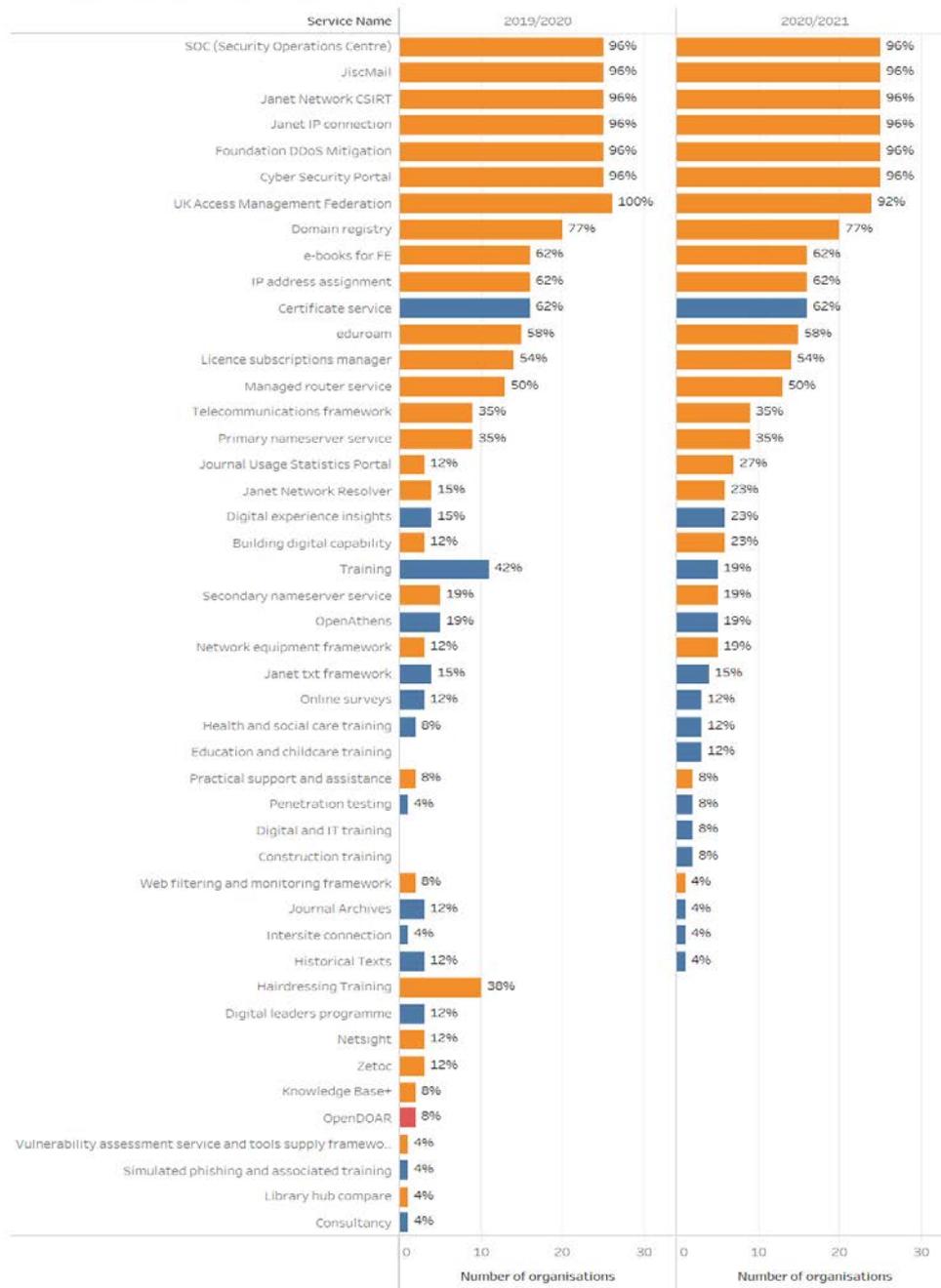
Red: Not deemed relevant to that sector or included in the subscription bundle

Notes

- Eduroam data is incomplete as nine member colleges access eduroam through UHI. Argyll College connects via an extended LAN rather than the usual tail circuit hence Janet IP connections, cyber security portal, CSIRT, etc., are not showing 100%.
- The Digital leaders programme ran in AY2020-21 but the numbers will not be uploaded until the end of September 2021.
- Known issues with Google Analytics have meant we could not track usage of: Hairdresser training, Knowledge Base +, or OpenDOAR in AY2020-21.
- There are data source issues for Netsight and Zetoc usage although they have been running in AY2020-21.

FE uptake of active services in Scotland

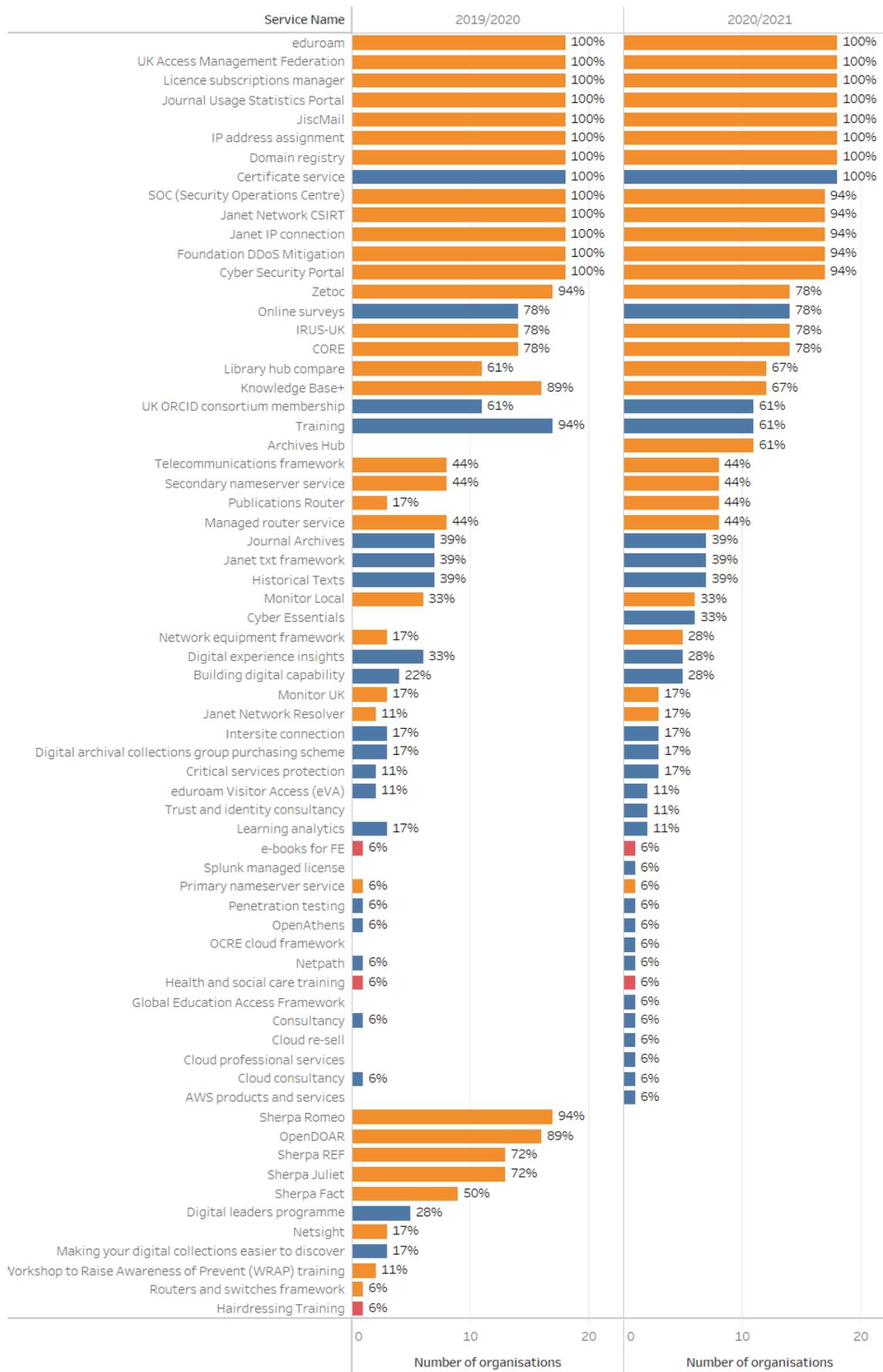
Academic Year: FE



HE uptake of active services in Scotland

Notes

- As in FE the Digital leaders programme was delivered this academic year, but numbers will not be uploaded until the end of September 2021.
- Known issues with Google Analytics have meant we could not track usage of: Archives Hub, Hairdresser training, Knowledge Base +, Sherpa Romeo, Sherpa Juliet, Sherpa REF, Sherpa Fact or OpenDOAR in AY2020-21.
- There are data source issues for Netsight usage although it has been running in AY2020-21.
- No WRAP training was done by Scottish institutions in AY2020-21.



2. Savings secured by Jisc on licensed digital content

HE savings

All Scottish Universities subscribe to at least one [Transitional Open Access Agreement](#) which includes journal content that we negotiate specifically for the SHEDL consortia. From a total expenditure of £18.2m in AY 2020-21, we saved Scottish HE members a total of **£2.4m⁸**.

Scottish HEI's currently subscribe to 21 archive agreements, 14 of which are free of charge. The negotiations saved them **£259k** in AY 2020-21. The total commercial value of the archival content is **£1.3m** (based on the agreements that they subscribe to).

FE savings

From a total expenditure of £60.8k in AY 2020-21, we saved Scottish FE members a total of **£224k**. It is worth noting that FE colleges in general subscribe to a lot of free of charge agreements.

Additional supporting info:

Scottish FE colleges subscribed to 13 archive agreements in AY 2020-21, all of which are free of charge. Our negotiations saved them **£98.4k** and they have access to archival content that has a total commercial value of **£907k**.

Other savings

In AY 2020-21, Jisc Licensing negotiated 36 Transitional Open Access Agreements with 33 publishers enabling c. 51% of UK research output to be covered by UK funder compliant arrangements.

The Transitional Open Access Agreements put in place in 2021 are known to have reduced total UK sector expenditure with the publishers by over £5.5 million and to have rapidly increased the number of articles being published OA to between 85-100%, up from around 20-30%, for a larger number of publishers.

139 UK HE members or 83% of UK HE members take at least one Transitional Open Access Agreement. With all Scottish HE members subscribed to the SAGE Journals SHEDL Read & Publish 2020-2022 Agreement, 100% of Scottish HE members take at least on Transitional Open Access Agreement.

3. Number of institutional engagements being managed by Jisc Scotland.

In 2020-21, Jisc held **156** events and/or training sessions which included at least one delegate from a Scottish institution. All of these events/training sessions were held online. A total of **2140 delegates from Scottish institutions and organisations** were registered, with 470 from FE, 1547 from HE, and 123 from other organisations (such as stakeholders and intermediaries).

Particularly significant amongst the events was [Connect More 2021](#) in June. Due to COVID-19 restrictions, the 4-day was held online and celebrated 'local excellence in the teaching and learning space'. It was aimed at users and consumers of Jisc products, solutions and

⁸ Jisc saved UK HE a total of £8.1m through our Transitional Open Access Agreements.

services. Of the 192 Scottish delegates (85 from FE, 95 from HE and 12 others). The event achieved a satisfaction rating of 70%, with 78% satisfied with the keynote presentations.

Jisc's flagship annual UK-wide event, **Digifest**, was delivered online over four days in March 2021 and saw high attendance from Scotland with 264 Scottish delegates (81 from FE, 179 from HE and 4 others). The post-event survey showed a marked difference in satisfaction between those who were attending for the first time (81% satisfied) and those who had previously attended a live event (58%). This difference can be traced to returning delegates missing the networking opportunities in particular. Although attendees were more isolated than they would have been at an in-person event, many of those who attended referenced the convenience of the on-demand and online aspects of the event.

In addition to funder, stakeholder and community engagement, Jisc continued to work closely and proactively with its members in Scotland in order to ensure they're getting the most value from their membership of Jisc. There were 132 take-ups of service from Scottish members in the reporting year 2020-21, across 39 different services. This included upgraded connectivity at Glasgow Kelvin College, University of the West of Scotland, Robert Gordon University and Abertay University.

With regard to examples of engagement, Jisc account managers worked with members on the transition to Jisc's new Certificate Service, which, in addition to greater functionality around security certificate provision, also has increased savings for members.

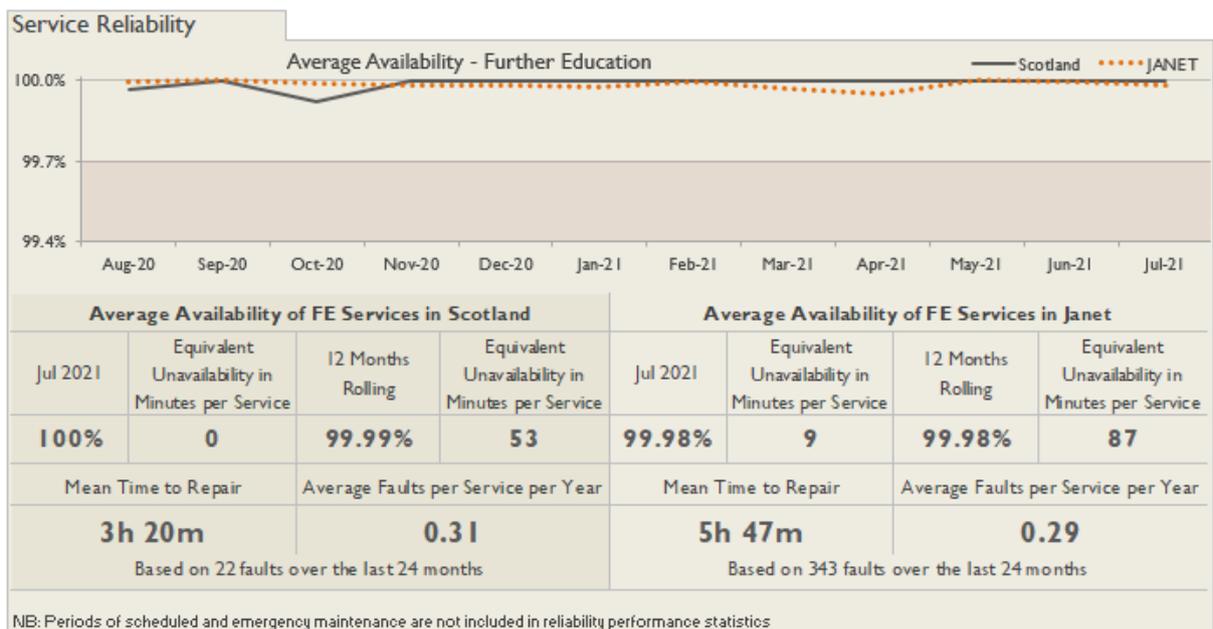
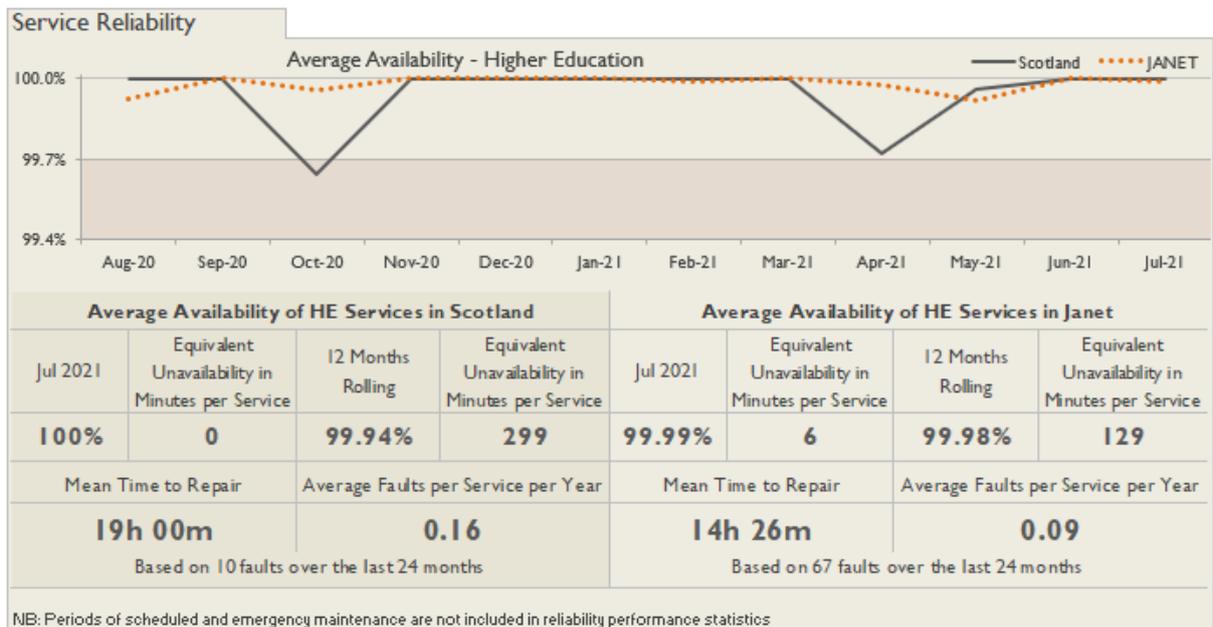
Jisc has been selected by GÉANT as the UK's sole Amazon Web Services (AWS) reseller on the OCRE cloud framework, which enabled the University of Dundee to access £300k worth of AWS services efficiently in support of research.

In the reporting year, there has been a substantial increase in the number and intensity of cyber attacks on the education sector, and this has been the case in Scotland too. We, along with other sector agencies, helped the University of the Highlands and Islands in relation to the ransomware attack it sustained, for example.

In terms of connectivity, the University of Edinburgh sought to provide the highest standards of internet access across its student accommodation. Jisc's account manager worked successfully with the university to install or upgrade intersite connections in order to meet that objective.

In addition to the above, and in response to the COVID-19 lockdown(s), Jisc partnered with the College Development Network, with some input from Education Scotland, to deliver '**Virtual Bridge**' sessions, around support for moving teaching and learning online. In the reporting year, 101 sessions were delivered, all of which were recorded and form an ongoing resource.

4. Janet network performance and reliability



The **service level commitment** sets a target minimum of 99.7% availability for each service averaged over a 12-month rolling period.

Annex C Equality update

SFC's grant funding letter to Jisc dated 9 June 2020 requires Jisc to demonstrate how its work has contributed to the delivery of the Public Sector Equality Duty and the Scottish Specific Duties (Equality Act 2010).

Equality KPIs

- **Indicator:** *100% of all Jisc sector events will take place in a wheelchair accessible venue.*

As all of Jisc's events in AY 2020-21 were held online, we are unable to measure this indicator. However we expect to return to face to face events between Q4 2021 and Q1 2022 when we should be in a position to measure this indicator.

- **Indicator:** *Consideration for the needs of the hearing impaired will be given for 100% of all Jisc sector events.*

As all of Jisc's events in AY 2020-21 were held online, we are unable to measure this indicator. However, we ran a full programme of online events across a variety of platforms (e.g. Zoom, Eventsair and Pixelmax). Each were accessible to varying degrees, and each had a compliant accessibility statement. Online events generally increase accessibility, and as we emerge from the pandemic we are exploring a combination of physical, online and hybrid events as requested by delegate feedback.

- **Indicator:** *Female keynote speakers at Networkshop will equate to 50% total keynote speakers in order to promote the role of female professionals in the sectors Jisc serves.*

At [Networkshop 2021](#) (online), one out of the three keynote speakers were female (33.3%). We will continue to promote the role of female professionals in the sectors served by Jisc.

Equality summary

Jisc has put equality, diversity and inclusion at the forefront of its people strategy. By driving a strong culture throughout the organisation, we are ensuring that colleagues have an environment where they feel they can bring their authentic selves to work.

Diversity

There has been an increase in the diversity within Jisc. We undertook a detailed review and research programme, working with external experts, resulting in us implementing 'Always Inclusive' as one of our guiding principles. Now, working with a seven-pillar framework, we are using this to drive progression in diversity awareness, inclusive leadership, policy and process, and improving diversity data collection and analysis. We hold diversity data in accordance with GDPR principles. Colleagues are encouraged to share their diversity data however this is voluntary.

Supporting staff with disability

Jisc supports individuals with disabilities by providing appropriate support and/or adjustments. We do this by providing full and careful consideration to applications for employment from registered disabled candidates with due regard to their aptitudes and abilities. In line with our commitment to a diverse and inclusive workforce, disabled

employees have equality of access to training, development and progression. Sympathetic support is also given to support the return to work and retention of a newly disabled employees, providing where required a period of rehabilitation, support and training.

Jisc takes a proactive approach to supporting the health, safety and wellbeing of all staff and works with an independent occupational health provider, who liaises with staff, line managers and the HR team to determine if there are any measures or reasonable adjustments to be considered to support the individual in the workplace. In the summer of 2021 we partnered with a new Occupational health and employee assistance programme provider, to continue to deliver and enhance the support provided.

Our proactive approach is driven by our iMatter Strategy. We have trained a further 26 mental health first aiders this year bringing us to a total of 43 mental health first aiders across the business. We have also introduced wellbeing champions who help to create and deliver numerous wellbeing initiatives to support our staff and raise awareness. We continue to support our staff during the COVID-19 pandemic for both their physical and mental wellbeing.

Jisc has ensured that it uses platforms which offer closed captions for all staff webinars and meetings. The internal communications team has further improved the accessibility process, ensuring that all company-wide presentations to staff are accessible and inclusive. We have held numerous consultations to ensure that our 2021 in-person staff conference will take an inclusive approach with significant reasonable adjustments being implemented.

Gender and bonus pay reporting

Forty-four per cent of our workforce is female. Our latest gender pay gap report can be found on our [website](#), and which shows that our mean pay gap reduced by 2.6%, which was the largest reduction seen since we started reporting on this in 2018. This reduction has been supported by more women joining the Executive Leadership Team. We continue to be above the national average for women in tech roles; but we will not be complacent. We have 32% of our tech roles taken by women compared to 25% nationally. The main factors that contribute to Jisc's gender pay gap are that we have fewer women in leadership and technical roles and so we are actively engaged in a range of actions to address the challenges in closing the pay gap. Our commitment to this is demonstrated in the changes we have made to our recruitment processes and by creating new external partnerships to support the widening of our talent pool, plus improved collection and analysis of recruitment data from application to appointment. We have an excellent track record on flexible working, and have shifted to hybrid working following the pandemic, ensuring that we are an output-based organisation.

Key diversity and inclusion achievements AY 2020-21

We have made significant progress with embedding our diversity and inclusion (D&I) strategy to ensure equality for all colleagues within the business. Highlights include:

- Launch of D&I strategy
- A growing employee-led inclusion group to support the D&I strategy (e.g. supporting awareness raising and celebratory events for International Women's Day and Pride month). Members also receive D&I training. We expect to see further employee groups to form as momentum builds.
- Neurodiversity and Neurodivergence group to support colleagues who identify as neurodiverse, and share information with individuals to learn more through spotlight sessions

- Implementation of the Black FE Leadership Group's anti-racism toolkit
- Partnership work with Pink News, with Jisc colleagues presenting at their STEM careers fair and encouraging candidates who identify as LGBT+ to work for Jisc
- Creation of a bespoke programme for our hiring managers on recruiting inclusively
- Growth in Jisc network of mental health first aiders.
- Continued signatory to [Tech Talent Charter](#)
- Review of all policies and Jisc's diversity data form with D&I lens to reflect progressive culture change
- D&I section of the employee intranet to ensure strong communication to the business on our strategy, initiatives and opportunities to be involved with our equality work. Our Equality, Diversity and Inclusion Yammer network now has 169 members with an additional LGBT+ Yammer network having 30 members.

Corporate social responsibility

Our [approach to corporate social responsibility](#) (CSR) reflects the steps that we are taking to ensure we are, and remain, a good corporate citizen. Social responsibility encompasses everything we do that has an impact on society around us – it is our values and behaviour as an organisation.

We are committed to ensuring that Jisc is a responsible corporate citizen. To do this, we must (among other things):

- Identify and address issues of equality, diversity and inclusion amongst our current and future workforce
- Ensure that employees are supported in their mental and physical health and treated with dignity, respect and in accordance with basic human rights
- Understand our suppliers' commitments to CSR issues and practices and ethical approaches to business in our investment strategy.

Our achievements in AY 2020-21 have included:

- **Mental health:** launched a health cash plan for all colleagues and focussed on mental health support for staff
- **Diversity and inclusion:** developed D&I strategy and set up a dedicated working group to improve awareness and processes at Jisc (see above)
- **Modern slavery strategy:** dedicated working group to improve awareness and processes. Modern slavery awareness training is mandatory for all staff and we offer enhanced training on modern slavery and procurement to ensure that our supply chain is as ethical as possible
- **Gender pay gap:** continued to address our gender pay gap and encourage women into the technology sector.
- **CSR policy:** completed colleague engagement survey to understand issues of concern to staff. Currently rolling out CSR champions across Jisc.

Key equality achievements on behalf of our members

Jisc has helped its members to implement the [web accessibility regulations](#) in a number of ways:

- Updated [accessibility statement](#) and [accessibility section](#) on website.
- Three published guides: [Practical steps to meeting accessibility regulations](#), [Accessibility regulations: what you need to know](#) and [Video captioning and accessibility regulations](#)
- Training opportunities including [drop in clinic](#), and sessions in [vision and buy-in](#) and [objective setting and auditing](#)
- Members may share experiences and work together to crowdsource resources on our accessibility community Microsoft Teams site and via our digital accessibility mailing list
- Accessibility [blogs](#), [features](#) (e.g. [Forget the rhetoric](#)) [member stories](#) and other [resources](#).
- Training and information for members to support their learners' digital identity and wellbeing, particularly during the pandemic. For example, we updated our [Guide to digital inclusion and practice](#). We began working closely with the Office for Students on a mental health project looking to scale up, embed and sustain positive practices that proactively consider mental wellbeing in learning for part-time, commuter and distance learning students
- Publication of a number of [reports](#) and blogs on a range of topics such as [Equality and STEM](#) as well as a [Digital inclusion tool-kit](#)
- Two dedicated subject specialist staff with expertise in accessibility and assistive technology, respectively.