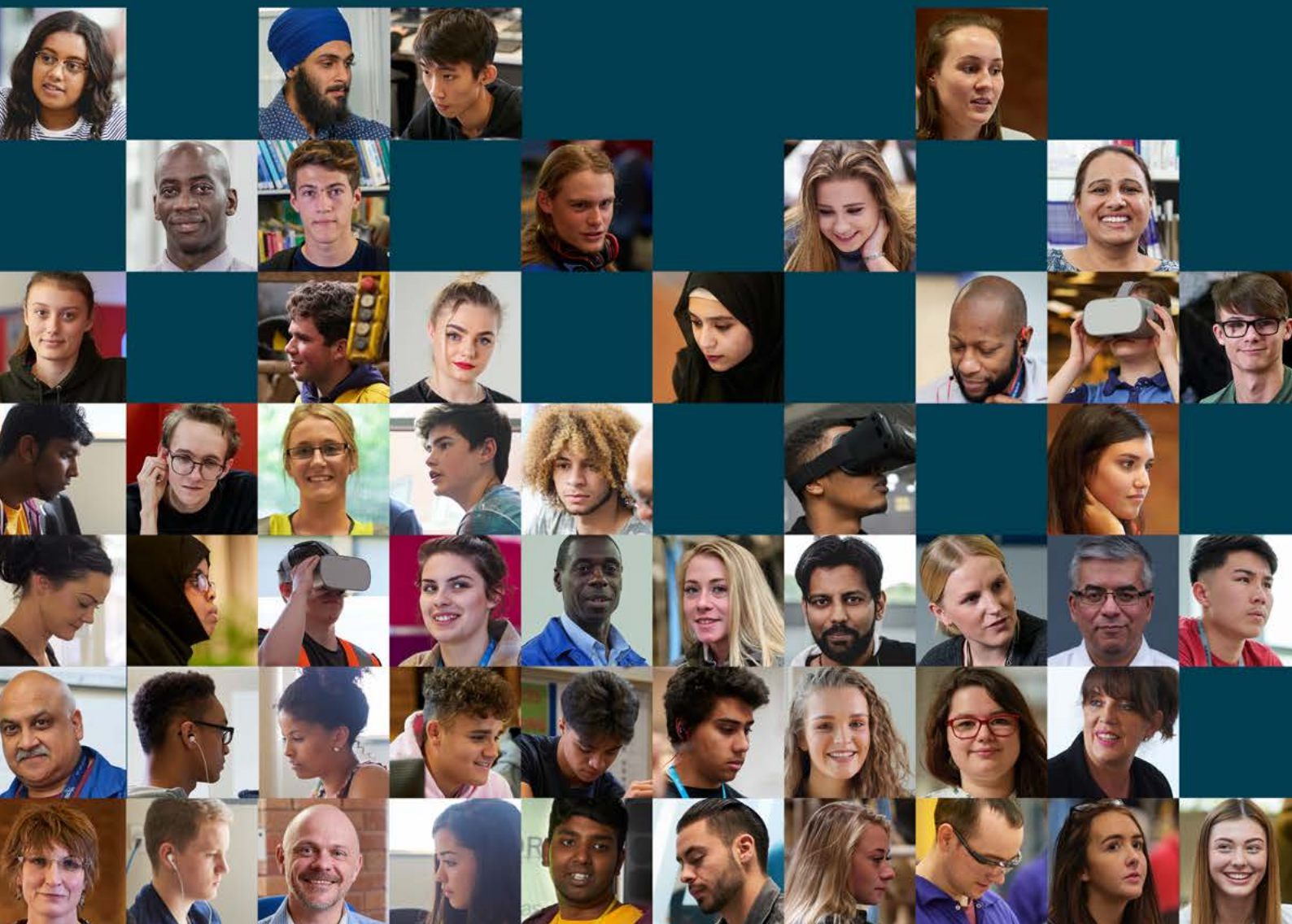


# Jisc elevating the UK Further Education and Skills sectors

How Jisc, as a trusted lifelong learning digital partner, will support the UK FE and Skills sectors over the next three years - 2020 to 2023



# Who's this document for?

This document is for institutional leaders, their staff, governors/trustees, funders, sector membership organisations, agencies and employers.

We share our thoughts as to how FES providers can elevate teaching and learning, training and assessment, learner experience and business operations and intelligence. And we present our three-year plan to assist UK providers on their digital journeys.

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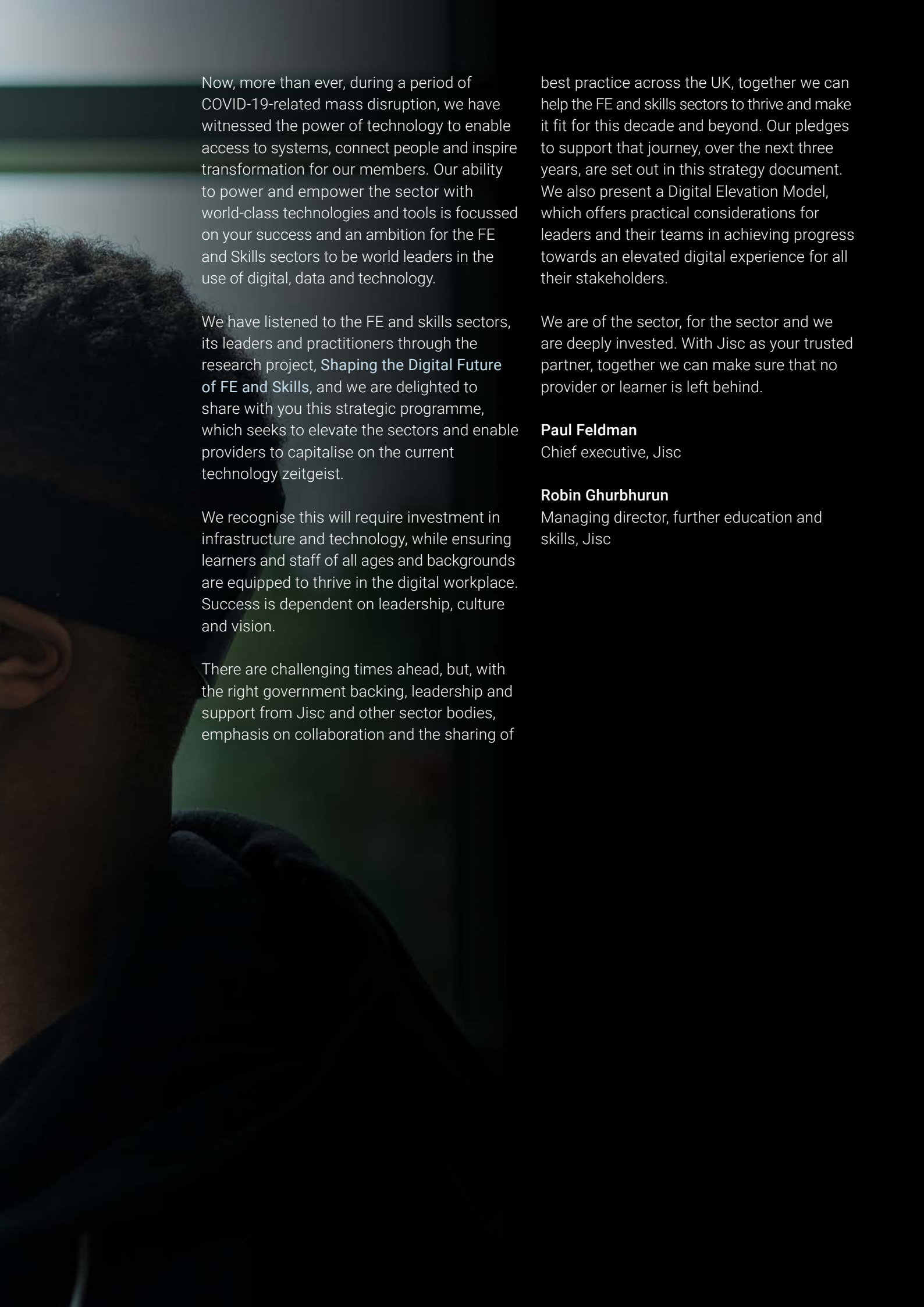
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## **Foreword**

We believe that education and training improves lives and that technology improves education and training. Our purpose focusses on 'Technology for Good'.





Now, more than ever, during a period of COVID-19-related mass disruption, we have witnessed the power of technology to enable access to systems, connect people and inspire transformation for our members. Our ability to power and empower the sector with world-class technologies and tools is focussed on your success and an ambition for the FE and Skills sectors to be world leaders in the use of digital, data and technology.

We have listened to the FE and skills sectors, its leaders and practitioners through the research project, **Shaping the Digital Future of FE and Skills**, and we are delighted to share with you this strategic programme, which seeks to elevate the sectors and enable providers to capitalise on the current technology zeitgeist.

We recognise this will require investment in infrastructure and technology, while ensuring learners and staff of all ages and backgrounds are equipped to thrive in the digital workplace. Success is dependent on leadership, culture and vision.

There are challenging times ahead, but, with the right government backing, leadership and support from Jisc and other sector bodies, emphasis on collaboration and the sharing of

best practice across the UK, together we can help the FE and skills sectors to thrive and make it fit for this decade and beyond. Our pledges to support that journey, over the next three years, are set out in this strategy document. We also present a Digital Elevation Model, which offers practical considerations for leaders and their teams in achieving progress towards an elevated digital experience for all their stakeholders.

We are of the sector, for the sector and we are deeply invested. With Jisc as your trusted partner, together we can make sure that no provider or learner is left behind.

**Paul Feldman**

Chief executive, Jisc

**Robin Ghurbhurun**

Managing director, further education and skills, Jisc

# Introduction

In March 2020, providers in the UK closed their doors and rapidly moved to wholesale remote learning and teaching. Emergency IT infrastructure and software was brought in at pace, along with fast-track digital upskilling for staff and learners. Such upheaval posed a challenge for many but most prevailed with their best endeavour.

As FES providers return to some form of normality our collective learning, through the research programme '[Shaping the Digital Future of FE and Skills](#)', tells us that providers are placing an increased emphasis on elevating their digital ambitions. From the report's recommendations it is clear that learner digital and data poverty coupled with staff digital capability are priority actions for providers to address, thus ensuring no member of staff or learner is left behind by this digital paradigm shift. Recognising the significant challenges for the sector, government and sector bodies, FES providers will, more than ever, need to be agile and accessible in new and different ways. We are keen to ensure an outstanding online experience for learners and stakeholders and this strategy seeks to support the sector with their digital ambitions.

We're here to help you.

As your trusted technology partner we will, through innovation and co-design with the providers, government and sector bodies provide digital services that elevate the sectors' ability to serve people as lifelong learners. We have and will help you manage with extraordinary short-term challenges as well as, in the longer term, excel in your response to the policies of all UK governments, regional skills needs and the impact of Industry 4.0.

In this document we introduce the concept of a Digital Provider Environment. It helps us think about all the aspects that mould and elevate learners' experiences such as overriding regional drivers and policies and the elements that each provider controls.

Our Digital Elevation Model illustrates how FES providers are already using digital, data and technology, where to evolve next and a glimpse into how learners, staff and stakeholders will benefit in the future. Over the next three years we will ensure you get the most from our existing portfolio and will be developing new products and services that FES providers need and want – we will co-develop them with the sector to ensure they elevate learning, teaching, learner support as well as FES providers' underpinning systems.

We're here to advise and support all FES providers on their journey.

## Contact us

[fes@jisc.ac.uk](mailto:fes@jisc.ac.uk) with feedback or if you want to discuss our ideas, suggestions and portfolio.

Find your Jisc account manager [jisc.ac.uk/contact/your-account-manager](https://www.jisc.ac.uk/contact/your-account-manager) – we are ready to discuss any, or all aspects contained within this strategy.



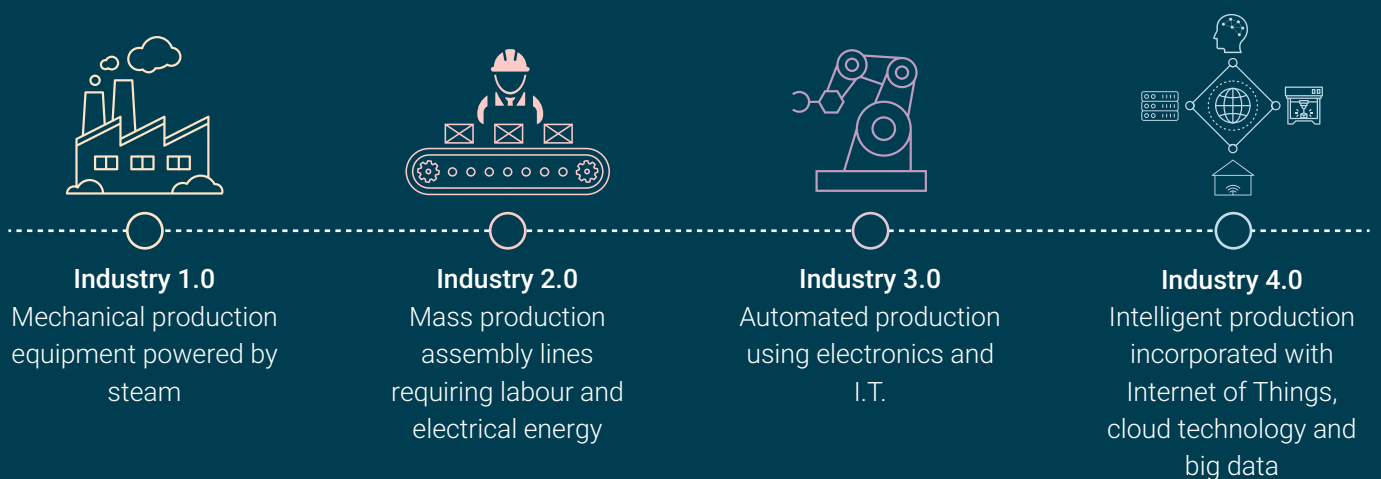
### **FES definition**

FES Providers, in the context of this document, refer to Further Education Colleges across the four nations, Sixth Form Colleges in England (including academies which were previously sixth form colleges) and Wales, Specialist Colleges and Independent Specialist Colleges in England and Welsh Government grant funded Adult and Community Learning providers and Work Based Learning providers.



## Further Education and Skills context

The 4<sup>th</sup> industrial revolution is underway. Digital, data and technology underpin this revolution and the UK's FES sectors are best placed to respond to develop the workforce required.



### What is shaping the future for learners and providers?

Employers depend upon future employees with the requisite academic, technical and vocational skills as well as the confidence and self-awareness to shape their and society's future. We believe digital confidence and skills form a critical part of learners 'personal inventory' as all industrial sectors are increasingly shaped by and depend upon digital, data and technology. Indeed, the World Economic Forum (WEF) has stated that technology (alongside maths, economics, engineering and science) "are the backbone of the fourth industrial revolution"

and that lifelong learners need to develop 'digital fluency' to thrive in the future workplace.

Technological innovation is also shaping learning content and resources and their distribution. The digitisation of textbooks, content gamification and emerging AR and VR resources are highly relevant to FES learners. Personalised (through the application of AI and machine learning) learning experiences will increasingly blend with traditional classroom learning. Challenges will remain in engaging hard to reach groups, but the very same innovations have the power to assist.



The FES curricula and learning environment will not remain fixed and will continually respond to the UK's nations' and regional skills requirements as well as technological advancement. In the short term COVID-19 is affecting which sectors will drive future growth and in the longer term the WEF states that "career paths will become less linear and will change faster" and highlights the importance that learners develop deep subject knowledge as well as the ability to make 'inter disciplinary connections'. This approach supports lifelong learners to 'learn, unlearn and relearn' through regularly revisiting FES settings, or bitesize learning or longer courses, and so creates an ever more meaningful relationship between provider and learner.

The challenge for FES providers is to meet the challenges of Industry 4.0 by utilising the same new and emerging technologies such as artificial intelligence, machine learning, automation and the Internet of Things within their learners' educational journey - what Jisc describes as Education 4.0.

### **International, UK government and regional drivers**

In 2017, the UK government produced its own industrial strategy which sets ideas, people, infrastructure, business environment and places as the five foundations of productivity improvement (each aligned with various policies). It also sets Grand Challenges such as AI and Data, Economy, Clean Growth, Future of Mobility and Ageing Society.

The UK government industrial strategy's relevance to FES, in England, includes the aim to establish a technical education system that rivals the best in the world to stand alongside our world-class higher education system, invest in maths, digital and technical education and help to address the shortage of STEM skills. A National Retraining Scheme already supports people to re-skill, while Institutes of Technology support STEM subjects at Level four and five and there is the introduction of new gold standard 'T' levels for technical and

vocational subjects. The industrial strategy also brings into focus the importance of FES providers' relationships with Local Enterprise Partnerships, other providers, with the Towns Fund, Transforming Cities agenda and Local Industrial Strategies. Critically, labour and industry data will assist providers to respond to local needs and tune learning programmes and resources. How these challenges are met, due to Covid-19, may change but they nonetheless prevail.

Moreover, the UK government 2020 (March) budget included £2.5bn funding for the National Skills Fund and £1.8bn investment in the FES estate (over the next five years), continued investment in apprenticeships and eight new Institutes of Technology. In September 2020, the Government announced a major expansion of post-18 education and training in England to level up and prepare workers for a post-Covid economy. The Lifetime Skills Guarantee for Adults will provide increased flexibility and access to key sector skills programmes and regional digital skills bootcamps.

The UK government's International Education Strategy acknowledges the UK international skills offer as one of the UK's lesser known strengths setting out an ambition to grow this area of provision where there is capacity to do so alongside sustaining essential domestic provision. Providers, through the effective adoption of digital technologies, skills content and pedagogic practice can extend, through the Department of Industry and Trade/British Council, their reach to new international markets.

## The snapshots below reflect the digital ambition of all four UK regions

**In Scotland**, colleges work towards Outcome Agreements, informed by the **College Outcome Agreement** Guidance setting out general priorities, including, for 2020-21, skills alignment, the apprenticeship family, developing the young workforce, public health, STEM education and training, digital and climate change emergency. In 2020, a Colleges Scotland working group created a Digital Ambition strategy, and with a shift in focus due to Covid-19, began work on an implementation roadmap to meet shorter term needs. In parallel, the Scottish Funding Council (SFC) is undertaking a landmark review of the coherence and sustainability of FE and HE institutions, including consideration of how the SFC can help ensure the digital infrastructure necessary for the sector to be world leading.

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**In Northern Ireland**, the college sector is guided by the **FE Means Success** strategy, adopted in 2016, elaborated in the **Programme for Implementation**. This is enabled through the Department for the Economy's funding and its policy initiatives. The Department has promoted collaboration between the six colleges, which has included its **Systems, Technology and Services** programme (leading to the take-up of a common learner management system), but without national digital policy or strategy development.

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**In England**, the DfE, in 2019, launched the '**Realising the potential of technology in education: A strategy**'. It states that English colleges "spend £140m a year on technology" but most likely spend more. Getting the most from this investment is critical for each provider – to improve learner and staff experiences both in and out of the classroom. The strategy highlights the importance of securing digital infrastructure, developing digital capability and skills and promoting effective procurement and digital safety. These are themes that directly relate to our work with FES providers.

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**In Wales**, the **Well-being of future generations (Wales)** act's principle aim is to improve social, economic, environmental and cultural well-being in Wales. FES providers are pivotal in achieving these aims as well as developing a skilled workforce and meeting the ambitious target of 100,000 new, high quality, higher level apprenticeships. In addition, Welsh Government's view that digital skills are essential for personal, professional and economic success formed the basis of the **Digital 2030 Framework** and **Wales 4.0 Delivering Economic Transformation for a Better Future of Work**. Wales 4.0, for example, starts with the premise that 'business as usual' is not an option for economic success and makes radical recommendations around artificial intelligence, robotics, industrial innovation, and significant reforms focusing on capacity and agility in the Post-16 sector.

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# FES stakeholder needs and ambitions

Many of the themes previously mentioned resonate throughout deliberations and early findings from the [Commission on The College of the Future](#). Initial findings highlight the importance of developing providers' workforce and investing in rigorous CPD.

Jisc's own insight, depicted below, presents the needs and ambitions of leaders, managers, teachers and learners and has been compiled from over 25 recent sources including 'Shaping the Digital Future of FE and Skills'<sup>1</sup>.

Strikingly, digital, data and technology have a role in meeting these ambitions:

- In delivering cost savings and Value for Money through sector wide content, system software negotiations and ensuring providers maximise the impact of the systems they already have, including how systems interoperate to enable informed decisions to be made and learner experience improved
- In using regional skills and employment insight to drive responsive and timely curriculum and learning design
- In designing and delivering blended physical and online learning spaces for the future – allowing a flexible and personalised learning journey for life, whether via academic, vocational or any other pathway
- By supporting collaboration between all staff to support learners with their learning, apprenticeship, training, transition into the workplace and their wellbeing

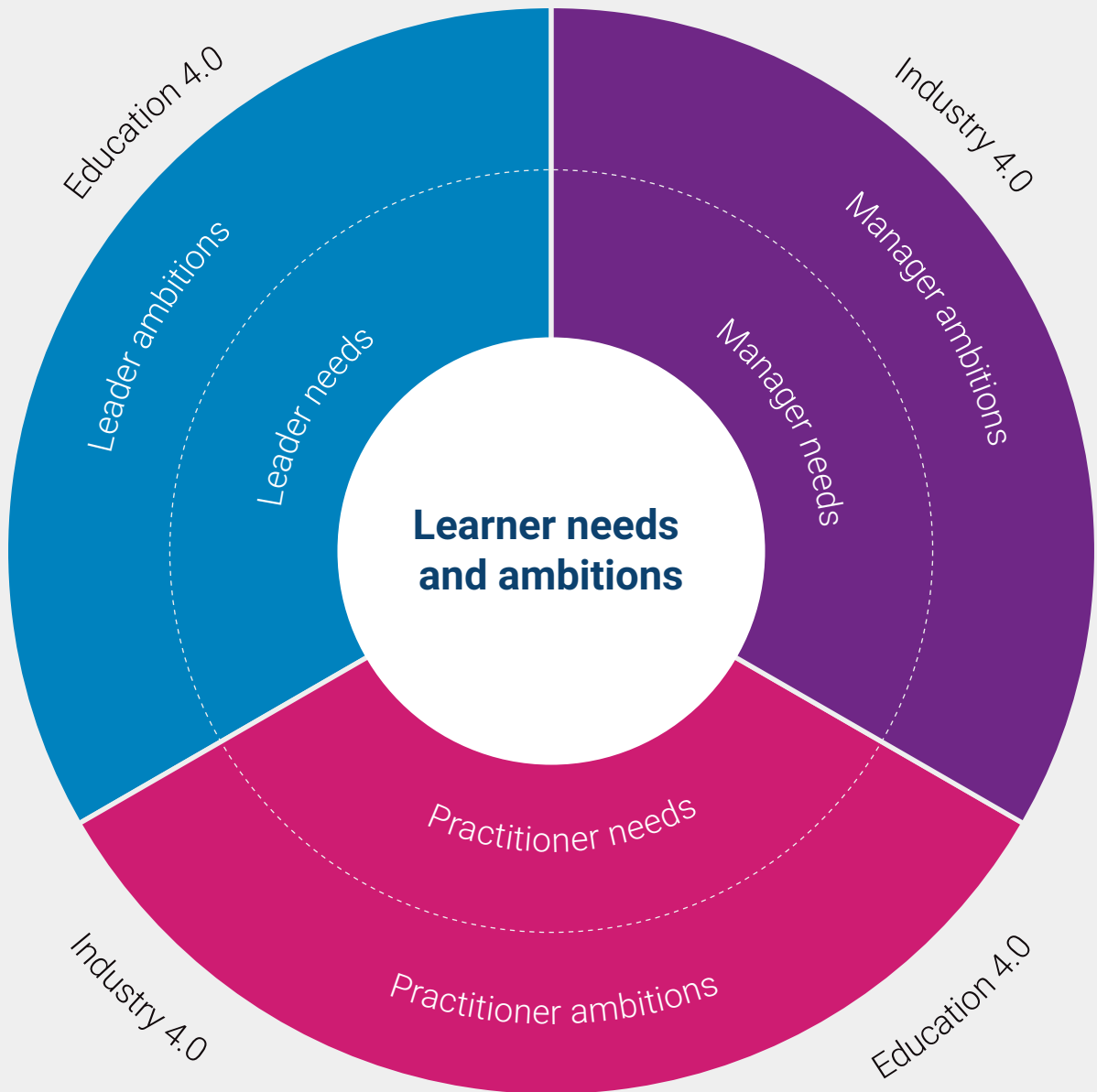
- Ensuring staff, learners and FES provider assets are protected from cyber security attacks and incidents including phishing/ fraudulent activities
- And ensuring digital leaders and digitally capable staff are equipped to enable digital elevation across all facets of [the provider environment](#)

We know that providers, across all nations, align with different qualification and levels frameworks but at their heart are focused upon the same needs – catering for learners at all levels, delivering a wide ranging curriculum with relevant and compelling content and for an extensive variety in learners' ages and circumstances. For example, the average age of an English college student is 29 and one third of English students aged 19 and under, who enter HE through UCAS, studied at a college.

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<sup>1</sup> Insight gathered via Jisc FE Leaders Survey 2019; Jisc student digital insights survey 2019; Jisc teaching staff digital insights survey 2019; DfE realising the potential of technology in education; AoC issues facing colleges survey 2018; AoC skills shortages and findings gaps; AoC college governance survey 2019, AoC developing 4 nations college blueprint for a post Brexit economy; Digital 2030 : a strategic framework for post-16 digital earning (Wales only); Collab Group General election 2019: a view from education leaders, AoC impact of Brexit on Colleges; Martin Doel: defining the future of FE; DfE T-level action plan 2019.

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	<b>Ambitions</b>	<b>Needs</b>
<b>Learners</b>	<ul style="list-style-type: none"> <li>• Access to learning, training and employment experiences</li> <li>• Improved prospects</li> <li>• Evidence of achievements</li> <li>• Confidence to learn independently online</li> <li>• Prepared for the digital workplace</li> </ul>	<ul style="list-style-type: none"> <li>• Personalised learning experience</li> <li>• Access to flexible learning opportunities</li> <li>• Access to technology and connectivity</li> <li>• Support for health and wellbeing</li> <li>• Learner advice and guidance</li> <li>• Learning spaces and facilities</li> <li>• Confidence in safety and privacy</li> </ul>
<b>Leaders</b>	<ul style="list-style-type: none"> <li>• High learner achievement</li> <li>• Financial sustainability</li> <li>• Introducing a flexible, inclusive and diverse offering</li> <li>• Meeting employer and economy needs</li> <li>• Staying responsive to external change</li> <li>• Transformative digital leadership and governance</li> <li>• Provide a safe and secure online environment</li> </ul>	<ul style="list-style-type: none"> <li>• Responsive and resilient workforce</li> <li>• Adaptive, secure, robust environment and infrastructure</li> <li>• Flexible and adaptive assessment methodologies</li> <li>• Highly skilled staff with digital capabilities</li> <li>• Strong partnerships</li> <li>• Sector collaboration and sharing best practice</li> </ul>
<b>Managers</b>	<ul style="list-style-type: none"> <li>• Deliver value for money</li> <li>• Curricula responsive to learner and employer needs</li> <li>• Implementing qualification and assessment reform</li> <li>• Effective delivery of blended and hybrid learning models</li> <li>• Comprehensive staff digital CPD programme</li> <li>• Collaborative culture</li> </ul>	<ul style="list-style-type: none"> <li>• Digital leadership and influence</li> <li>• High learner participation and satisfaction</li> <li>• Efficient curriculum delivery models</li> <li>• Effective physical and virtual spaces for training and learning</li> <li>• Access to peer networks</li> <li>• Support for innovation and change</li> <li>• Effective industry partnerships/placements</li> </ul>
<b>Practitioners</b>	<ul style="list-style-type: none"> <li>• Learner success</li> <li>• Transformation of digital pedagogy and assessment</li> <li>• Space for CPD, collaboration and innovation</li> <li>• Influencing and engaging leadership teams</li> <li>• Recognition</li> </ul>	<ul style="list-style-type: none"> <li>• Sharing good practice</li> <li>• More time to innovate and access to high quality online resources</li> <li>• Access to high quality CPD</li> <li>• Effectively manage well-being</li> </ul>

## The Jisc FES portfolio

This diagram presents our current portfolio. It is designed to align with FES providers' needs and ambitions and across the breadth of the Digital Provider Environment. It presents portfolio components that are particular to learners, leaders, practitioners and support staff as well as the 'underpinning technologies' and 'trusted partner' support that benefits all.

Jisc's full catalogue of services for FES and skills can be found at [jisc.ac.uk/membership/our-catalogue-of-services-for-further-education](https://jisc.ac.uk/membership/our-catalogue-of-services-for-further-education)

Jisc's catalogue for Welsh skills providers can be found at [jisc.ac.uk/wales](https://jisc.ac.uk/wales)

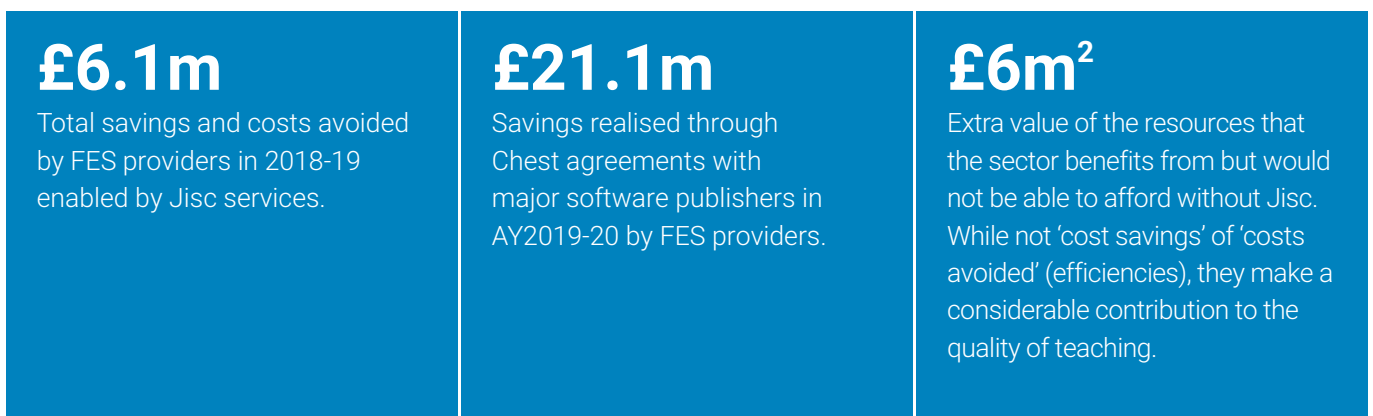




## How we support UK FES sectors

FES providers tell us that they trust Jisc, that we contribute to a greater choice of learning resources, cyber protect institutions and save them money and staff effort. Nonetheless, we must continue to do more to elevate all providers and continually deliver value for money.

Jisc enables FES providers to benefit from economies of scale and other community-orientated benefits that would not be possible under a disaggregated model. The estimated total financial impact per annum of Jisc for the UK FES sectors is £63.2m.



<sup>2</sup> The figure is based on usage and cost of purchase through commercial channels.

### Portfolio

The [diagram on p.17](#) aligns our portfolio with FES providers' needs and ambitions and across the breadth of the Digital Elevation Environment. It presents portfolio components that are particular to learners, leaders, practitioners and support staff as well as 'Underpinning technologies' and 'Trusted partner' support that benefits all.

### Leadership

We provide advice and guidance to help set and embed an appropriate digital strategy

across the organisation. Our sector wide resources, content and software negotiations saves providers money to invest in other priorities. We are also introducing more provider-based innovation opportunities by helping EdTech start-ups with easier sector access. And we continue to research and co-develop an Education 4.0 future in areas such as [the future of e-assessment](#)'.

### Learner experience

We provide learners with access to affordable, relevant and compelling digital content and

resources through discounted publisher and vendor deals. In addition, learners safely access their on-site digital content through our high speed, reliable and secure connection. We provide learners with the opportunity to feedback on their digital experience through our Digital Experience Insights survey, the sector outcomes of which are publicly shared.

### **Staff experience**

We provide tools that help institutions identify, manage and improve staff digital capabilities. We provide advice and guidance on staff well-being, effective digital pedagogy, learner engagement and online assessment. We also provide learning resources that help practitioners and support staff discover, share and manage the use of relevant and compelling digital vocational content and resources.

### **Curriculum development**

Through the provision of FES digital curriculum content (including eBooks) and resources. We also provide advice and guidance to help providers design and implement learning spaces that successfully blend the physical and online learning experience.

### **Underpinning technologies:**

- We keep staff, learners and provider assets connected and protected through our Janet network and extensive cyber security provision and services
- We provide various managed services that allow providers to focus on teaching, learning, assessment and training
- Our trust and identity services help deliver ease of access to learning resources and services
- Cloud services assist providers to save money, time and effort as well as ensure they can access services from any location whilst making the most of emerging collaboration and communication tools

- Data and Business Intelligence services ensure provider data and systems integrate and help them make informed and timely learning, operational and strategic decisions. Including the application of Labour Market Intelligence data

### **Trusted partner**

We play a role in supporting FES providers perform at the forefront of best practice and in bringing the community together to tackle common problems and develop shared solutions - both during a period of mass disruption and as we prepare for recovery and renewal. We are doing this through regional and national events, thought leadership activities and papers and advice and guidance - that are open to all. We also help providers with bespoke consultancy support - across all aspects of the Digital Provider Environment.

In addition, we continue to work with UK governments in response to Covid-19 whilst planning for the future. In Wales for example, Jisc has assisted with sector-wide learning continuity planning. In England, Jisc has participated on the executive leadership group for the Department for Education's EdTech strategy, in which it features prominently, in planning for a post Covid-19 future. Jisc has worked with various government departments and initiatives to ensure FES learners are not disadvantaged in the move to online learning by supporting the call for fair access to learning devices, connectivity and data. In Scotland, Jisc has contributed to the development of sector digital strategy, capital funding requirements, and is working with telecommunications companies to secure affordable access to online learning in 2021 and beyond. In Northern Ireland, Jisc assisted the administration in considering sector-wide digital strategy.

# Jisc's Further Education and Skills strategy - 2020-2023

We have strong foundations to build upon and over the next three years we will:



## Satisfy

**Satisfy Jisc FES members:** Through the development of our products, services and guidance we will support providers along their own digital elevation journey. We aim to improve leader satisfaction from 89% in June 2020 to 95% in 2022/23.



## Provide

**Provide world-class services:** We provide products, services and guidance that benefit learners, leaders, practitioners and support staff. We will continue to ensure all FES providers are aware of these services.



## Develop

**Develop value-added services:** We will invest in, with the sectors' help, our existing and new FES products and services that will transform and elevate learner and staff experience, save money and reduce administrative effort. We think it's important to share our current plans and so present some year-by-year highlights below.



## Inspire

**Inspire with thought leadership:** We will remain the first port of call for FES with regards to advanced e-infrastructure, cyber security, data analytics, learner experience and Education 4.0. We will also focus, over the next 3 years, upon 'shaping', 'leading' and 'refreshing' the 'digital future for FES' through sector-wide collaboration, best practice sharing, research and practical advice and guidance. Our Digital Elevation Model will inspire change to elevate learner and staff experiences.



## Support

**Support national sector strategies and funders:** We will support the emergence and implementation of national digital strategies in each nation, and community-wide approaches to taking up the digital opportunity. We consider, in each nation, the procurement and state aid rules landscape, in order to ensure optimum provider take-up.



## Invest

**We will invest, across Jisc, in developing services for all UK FES sectors':** We aim to launch over twenty services specific to FES, in the next two academic years with a mixture of advice and guidance, sharing best practice, piloting and product launches. Our new products and services will reflect the sectors needs and complement the Digital Elevation Model. We know it takes time to embed new practices and expect take up to accelerate over the next three years.





Please talk to us about our three-year strategy and plans. We are agile and will ensure that our priorities reflect your priorities.

## Value-added portfolio roadmap – highlights

The diagram below brings to life our planned introduction of new 'value-added' products, services, events and advice and guidance. To ensure our developments are relevant and compelling we will co-design and develop them with you. As we respond to your needs we will further develop and refine this roadmap into years two, three and beyond - with evolving products, services and support.

### Year 1

Up to July 2021



#### Leadership (including trusted partner activities)

Refresh and promotion of a FES Digital Vision and Leadership programme, new quarterly Digital First Leadership events and a FES Digital Leadership and Governance Self-Assessment Toolkit.

#### Learner experience

We will provide new licensed content, develop a new FES online repository to enhance learner experience, provide advice and guidance for staff to support the digital wellbeing of learners as well as guidance regarding the automation of learner chat bots. We will also pilot a career and employment data services pilot.

#### Staff experience

The provision of new online learning course templates and Teaching, Learning and Assessment support in leading the 'Digital Future of FES'. Digital Capability service launched alongside digital well-being advice and guidance. The introduction of 'Software Negotiation as a Service' to progress interoperability of systems, to improve staff and learner experience and cost savings across FES software provision.

#### Curriculum development

We will make new licensed content available, update advice and guidance regarding FES and HE-related resource discovery, improve our Learning Resources Utilisation tools (e.g. JUSP), launch an eAssessment Framework and associated guidance and develop our new Virtual Library product. Later in the year we will provide a new FE Online Repository, including guidance, an eAssessment App and aim to pilot Curriculum and Learning Resource Analytics following a period of provider discovery.

#### Underpinning technologies

A range of new products and guidance including Managed Cloud Service and piloting of a Remote Access Service. We will continue to protect providers with a range of security services, including a Managed Cyber service, and will help providers achieve the accreditations they require such as through our Cyber Essentials certification service. We will help providers use authentication provision with an Open Athens Lite service as well as Managed Eduroam and Managed Shibboleth services.

# Yr. 1

## Year 2

Between July 2021 and August 2022

### Leadership (including trusted partner activities)

We will continue our Digital First Leadership events and launch a Digital Leadership and Governance Benchmarking Service to assist providers with quality assurance.

### Learner experience

We will introduce Augmented and Virtual Reality (AR/VR) licensed content and a Careers Explorer for FES service.

### Staff experience

The launch of a Digital Capability Benchmarking service and pre-populated online course templates.

### Curriculum development

The availability of AR/VR licensed content will increase teaching/training opportunities and depending upon pilot success, launch a Curriculum and Learning Resource Analytics service to help learner insight and experience.

### Underpinning technologies

We will launch a Managed IT service for FES providers, a Cyber Essentials Plus certification service and will support providers in achieving ISO27001 certification. We will also begin predictive analytics pilots and provide advice and guidance regarding Smart and Augmented Learning Spaces.

Yr.2

## Year 3

Between July 2022 and August 2023

### Leadership (including trusted partner activities)

Digital First Leadership and other relevant events and new services developed from previous engagement.

### Learner experience

Additional licensed content (including AR/VR) and further development of the Careers Explorer service.

### Staff experience

'Refreshing Digital First Leadership' events develop a Jisc accredited Digital Capability Kitemark.

### Curriculum development

Provision of Simulated (AR/VR) Assessment tools and the development of Mixed Reality delivery content.

### Underpinning technologies

Infrastructure as a Service introduced alongside the launch of a Predictive Analytics service, dependent on pilot success, service and Smart and Augmented Environments 2.0. We will continue to build on our managed security services to respond to provider needs.

Yr.3

# The Digital Provider Environment

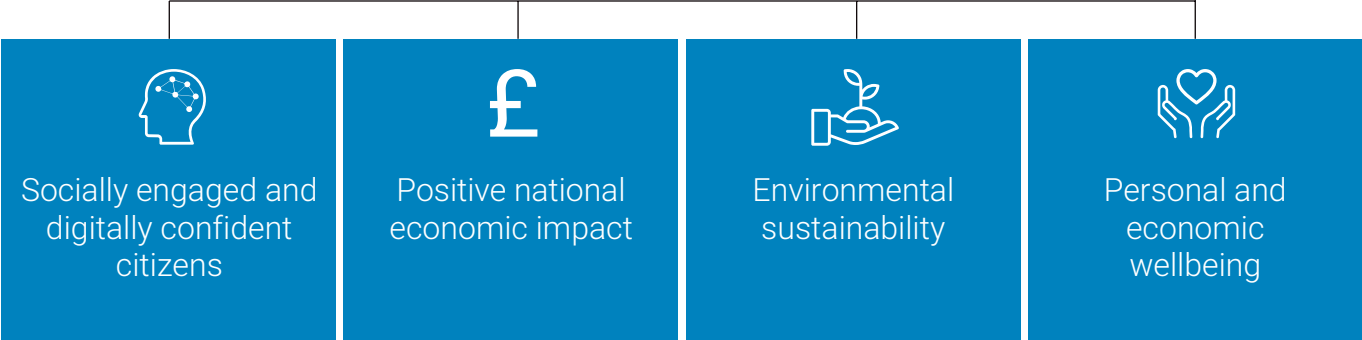
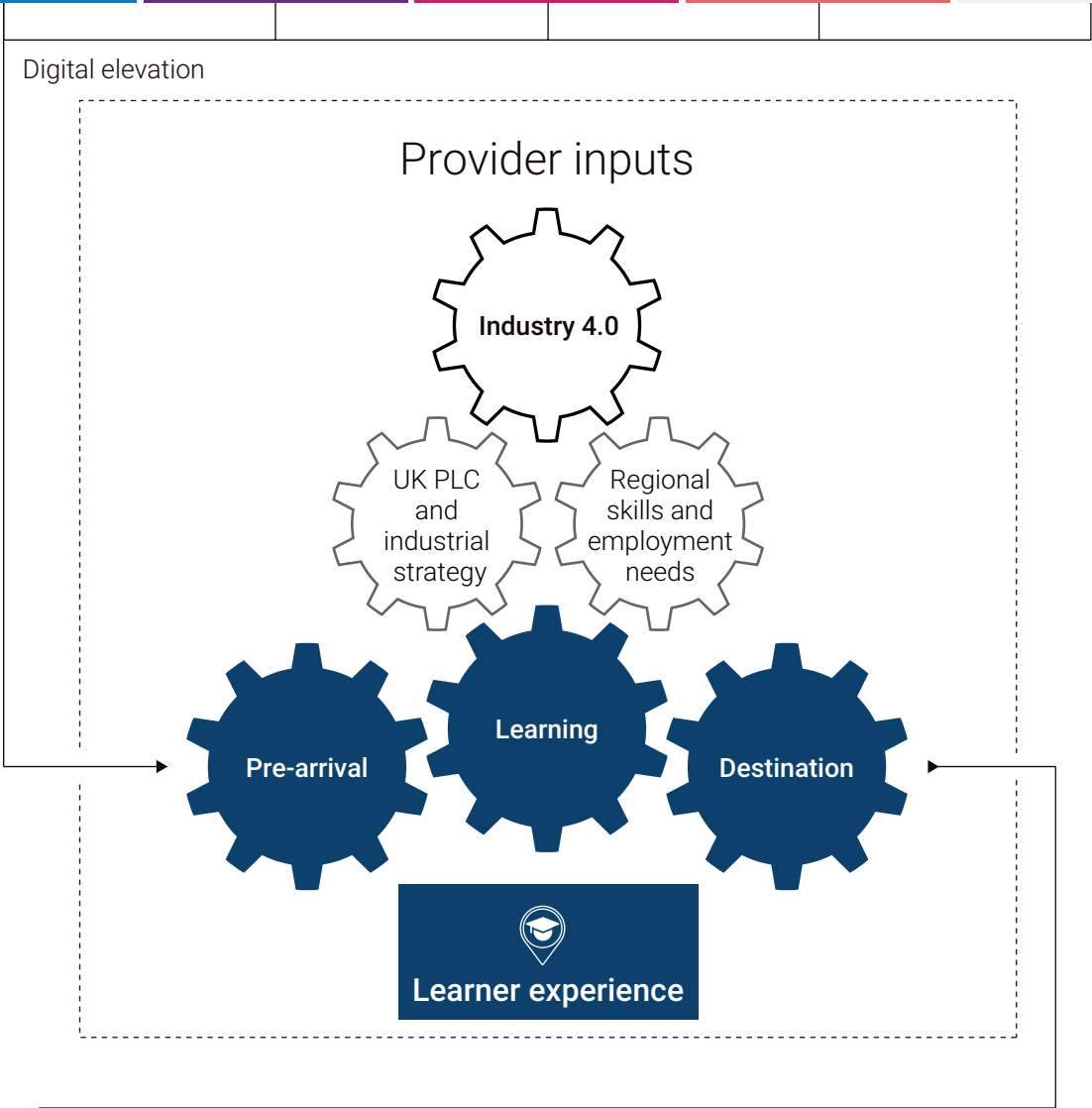
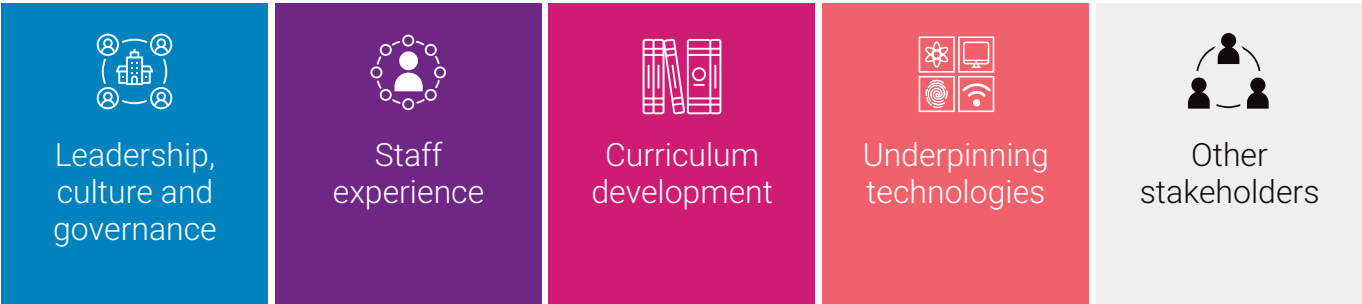
The Digital Provider Environment presents the interrelationship between the external drivers previously outlined, the lifelong learner journey and the inputs that providers must mould within a financially constrained reality.

We have used this environment to create a Digital Elevation Model that supports providers to elevate their use of digital, data and technology across all aspects – to help meet learner, leader, practitioner and manager ambitions and to ultimately deliver positive outcomes.

The Digital Provider Environment includes various provider inputs – the elements that impact learner experience and ultimately the intended outcomes. These inputs reflect all institutional activities, and their successful deployment depends upon the skills and experience of leaders, managers, teaching and support staff, stakeholders and of course learners.

‘Digital elevation’ refers to how digital, data and technology can elevate the provider inputs, detailed on [page 28](#). Digital, data and technology have the power to improve the learner experience before they arrive, at their learning place and when they have reached their next destination. We believe in a lifelong reskilling journey and digital can help across all phases. In 2019 half of FES students agreed that digital skills would be useful in their chosen career – to help them engage with employers, build employability skills, prepare for the digital workplace and develop their digital capabilities.

### External drivers



### Outcomes



# Introducing the Digital Elevation Model

Our Digital Elevation Model brings to life how digital, data and technology will help FES providers elevate their digital ambitions.

The model will allow providers to plan and invest in a digital journey relevant to their unique circumstances, and, in the devolved nations, will assist sectoral strategy and collaboration. We will also, over time, use the model to signpost providers to useful information and resources from Jisc and other organisations.

The model has been designed to allow providers to recognise their current use of digital, the possibilities that digital presents and a pathway, using digital, to further transform and elevate performance and outcomes. In its simplest form the Digital Elevation Model will spark conversations across different provider functions – Learning Resources (LR) and IT, leadership and teaching/training leads, LR and teaching/training leads and leadership and IT.

## **Foundations**

The ‘must haves’. The policies, processes and digital, data or technology elements that each provider must have in place as the foundations for further progress.

## **Transform**

The ‘should haves’. Building on the ‘Foundations’, the very same elements that we expect, and hope providers have or are planning to put in place to transform the end user experience.

## **Elevate**

The ‘can haves’. Building on ‘Transformation’, some of these aspects might currently be in operation across a small number of UK FES providers. This is where early adopters will lead future innovation across the regions and truly elevate the experience of all FES stakeholders.

We recognise that providers will be at different stages of elevation maturity across each theme and will start at either Foundation, Transform or Elevate dependent on their own circumstance. It should be noted the intent is not for the model to be used in a linear mode but for provider’s own self-assessment to determine their thematic starting points.

## **Leadership**

Leadership, culture, governance and financial management – establishing a digital first culture and providing digital leadership across the organisation.

## **Learner experience**

The digital elements that improve the learner experience before, during and after their time at a provider. This includes consideration of the use of labour market intelligence and data, virtual communities and induction, careers exploration and guidance, personalised learning and adaptive learning programmes, improved collaboration, automated placement/work experience, micro-credentials and the use of destination data to assist lifelong learning opportunities.

## **Staff experience**






For curriculum staff (teachers/assessors), helping to embed best teaching and assessment practice, digital skills and the impact of digital tools and online resources. For support staff, carefully ensuring robust ethical and safeguarding code of practice that allows data to assist learner support. And for all staff to improve their digital awareness and capabilities.

**Curriculum development**

Compelling and relevant teaching, learning and assessment resources that enable personalised learner progress, the use of sector data/insight to help shape curricula, curriculum analytics to help maximise impact and tools that enable effective collaboration and maximise the impact of support staff expertise.

**Underpinning technologies**

The advanced digital infrastructure and cyber security that institutions increasingly rely upon, the identity and authentication tools and policies that underpin staff and learner experience, the use of intelligent data to inform institutional efficiency and teaching, learning and assessment decisions and the effective use of learning spaces to support pedagogies and interventions.

	<b>Foundations</b> The must haves	<b>Transform</b> The should haves	<b>Elevate</b> The can haves
 <p>Leadership, culture and governance</p>		→	→
 <p>Learner experience</p>		→	→
 <p>Staff experience</p>		→	→
 <p>Curriculum development</p>		→	→
 <p>Underpinning technologies</p>		→	→

We present a detailed version of the Digital Elevation Model at the [back of this document](#).

# The Digital Elevation Model - detailed version

The Digital Elevation Model provides statements that allow anyone working within a FES Provider to review the status of their Digital Elevation in terms of the **Foundations** they have put in place, the elements to **Transform** and where possible the **Elevate** components that ensure a provider is at the forefront of digital best practice.

Stakeholders can start their review in any area, from top to bottom or left to right. The model also allows staff to plan and enact progress from **Foundations** (the must haves), to **Transform** (the should haves) and to **Elevate** (the can haves).

We will be developing an interactive version once we have gathered further sector feedback.

We also introduce whether an entry relates to:



People



Process



Digital, data or technology  
component

**Digital Elevation Model page guide (click on section heading)**

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## Theme: Leadership, culture and governance

The elements for leaders and governors to implement and track across their organisation.

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
Digital culture	<b>F1</b> Promoting a culture of dignity, courtesy and respect towards others in the digital environment.	<b>T1</b> Inherent culture of dignity, courtesy and respect towards others in the digital environment.	<b>E1</b> A culture that maintains its digital etiquette adapting to changes in technology.
	<b>F2</b> Promoting diversity, equality of opportunity and inclusion in a digital environment.	<b>T2</b> Inherent culture of diversity, equality of opportunity and inclusion enabled by digital tools, services and processes.	<b>E2</b> A culture of digital equality, inclusion, enablement and empowerment.
	<b>F3</b> Encouraging a digital by design approach to all new processes and procedures.	<b>T3</b> Challenging the effectiveness of existing processes and procedures through a digital first culture.	<b>E3</b> Staff exhibit a digital mindset displaying new habits and behaviours.
	<b>F4</b> Leaders and managers create cultures, structures and processes that support digital adoption and optimisation.	<b>T4</b> Promotion of a culture of managed risk taking and innovation.	<b>E4</b> A culture where staff and learners are increasingly agile and positively adapt their behaviour to the rapid changes in technology.
	<b>F5</b> Promoting a culture of trust in single source of data/systems.	<b>T5</b> Inherent culture of using analytics to improve effectiveness.	<b>E5</b> A culture of embracing hybrid human/machine working.
	<b>F6</b> Promoting ways of collaborating that change the way staff work and interact with one another in a digital environment.	<b>T6</b> Inherent culture of using digital collaboration tools where appropriate.	<b>E6</b> A culture of cross provider digital adaptation, innovation, collaboration and sharing.



## Key:


































People



















































Process



Digital, data or technology component

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
Digital leadership	<b>F7</b>  Leaders across the organisation understand the potential of digital to transform the learner experience/journey and teaching, learning and assessment that is clearly articulated and communicated throughout the curriculum.	<b>T7</b>    Leaders feel enabled to make appropriate decisions to utilise digital to transform teaching, learning and assessment and learner experience. The use of digital technologies is starting to become embedded throughout the learner journey.	<b>E7</b>    Digital is positively transforming teaching, learning and assessment and learner experience. Leaders are confident in embedding and enabling the use of digital across all aspects and levels of the curriculum.
	<b>F8</b>  Leaders understand the potential of digital to transform the business operations of the provider that is clearly articulated and communicated throughout the business.	<b>T8</b>    Leaders feel enabled to make appropriate decisions to utilise digital to transform business operations across the provider. The use of digital technologies is starting to become embedded across the business operations of the provider.	<b>E8</b>    Digital is positively transforming the business operations across the provider. Leaders are confident in embedding and enabling the use of digital across all aspects and levels of the organisation.
	<b>F9</b>   Leaders understand the potential of digital to transform staff experience that is clearly articulated and communicated through staff policies and procedures.	<b>T9</b>    Leaders positively seek opportunities to transform staff experience by augmenting aspects of their roles.	<b>E9</b>    Leaders pro-actively use digital to transform staff experience by augmenting their roles where appropriate.
	<b>F10</b>    Leaders ensure staff well-being policies and tools are made available for their employees.	<b>T10</b>    Leaders use digital analytical tools to proactively safeguard and support staff well-being.	<b>E10</b>    Leaders respond to automated notifications of staff-wellbeing issues.































Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
<b>Digital leadership (cont.)</b>	<b>F11</b>  Allocated Capex/Opex specifically aligned to digital strategy. A min percentage commitment of turnover with identified KPIs and RoI business cases across the provider operations.	<b>T11</b>  Foundation+ allocated budget for digital innovation projects, seed funding of projects with rapid/agile approaches to spin out developments. Business cases for securing external (funding) capex investment.	<b>E11</b>  Transform+ industry sponsored commitment to digital investment. Sustainable model for continuous refresh and development.
<b>Digital governance</b>	<b>F12</b>   Governors have a strategic understanding of the benefits and added value technology can provide across the business and have a monitoring mechanism in place.	<b>T12</b>    Governors challenge existing business operations and teaching, learning and assessment processes to ensure they make appropriate use of current digital technologies.	<b>E12</b>    Governors pro-actively challenge the business to adopt new ways of operating by taking advantage of emerging digital technologies, which are either delivering quality improvements or business efficiencies elsewhere in the sector or in business.
	<b>F13</b>    Governors can access provider information electronically and can participate in board meetings remotely.	<b>T13</b>    Governors model best practice by embracing the use of technology and data to carry out their roles e.g. paperless board meetings, utilising live data dashboards rather than historical reports etc.	<b>E13</b>    Digitally confident governors suggest creative and innovate solutions which augment their roles.
	<b>F14</b>    Governors ensure the provider has robust cyber security in place.	<b>T14</b>    Governors constantly review and support appropriate ongoing investment in the provider's cyber security arrangements.	<b>E14</b>    Governors (from industry) regularly challenge the provider's cyber security arrangements and ensure these are commensurate with standard (their own) business planning.

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
<b>Digital governance (cont.)</b>	<b>F15</b>   Governors ensure the provider has a robust business continuity plan in place e.g. resilient connectivity and accessibility to services on premise and remotely.	<b>T15</b>   Governors constantly review and support the provider's business continuity arrangements ensuring business critical systems can continue to operate and some aspects teaching, learning and assessment can be delivered.	<b>E15</b>    Governors challenge the provider's business continuity arrangements to ensure the seamless continuity of the business can operate in its entirety.
	<b>F16</b>  Governors are cognisant of the digital skills learners require to live, work and participate in today's digital world.	<b>T16</b>   Governors challenge curriculum to ensure learners are provided with the digital skills they require to live, work and participate in today's digital world.	<b>E16</b>   The governing body has a representative from the digital sector and/or business which embraces the affordances of digital technologies who can challenge and support the way the provider embeds digital skills across the curriculum.
	<b>F17</b>   Overall digital, data and technology strategy sponsored by Board.	<b>T17</b>   Overall digital, data and technology strategy monitored and challenged by Board.	<b>E17</b>    The Board pro-actively recommends creative and innovative ways that digital, data and technology can be used to improve the overall effectiveness and efficiencies of the organisation.



## Theme: Learner experience

The elements that will constantly improve learner experience from before, during and after their arrival at the provider.

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
<b>Pre arrival (to FES Provider)</b>	<b>F18</b>   Providers know what specialist software or adaptations their newly enrolled learners need to help them study. Learners can assess their digital capabilities and know their areas for support.	<b>T18</b>    Curriculum planning references use of deployed adaptive technologies.	<b>E18</b>   All learners have access to appropriate assistive technology at the point of need.
	<b>F19</b>  Providers survey learners to understand their access to connectivity and digital devices.	<b>T19</b>    Providers allocate bursary funding (or equivalent) to ensure disadvantaged learners have access to digital devices and connectivity.	<b>E19</b>    Providers proactively make available connectivity and digital devices for all learners.
	<b>F20</b>   Online engagement and application tools (e.g. provider app, social media) which are designed to be responsive and accessible to learner devices.	<b>T20</b>   Online nudging (e.g. bots) techniques to retain/convert applicants into enrolments.	<b>E20</b>   Virtual induction (prior to attendance), Taster accreditation (badges).
	<b>F21</b>   Online tasters and open days to stimulate interest ahead of enrolment.	<b>T21</b>   Online enrolment and payment system.	<b>E21</b>   Virtual induction (prior to attendance), Taster accreditation (badges).
	<b>F22</b>  Virtual provider tours available.	<b>T22</b>  Virtual community for applicants (get to know peers before attending).	<b>E22</b>   Virtual induction (prior to attendance), Taster accreditation (badges).

## Key:



























People
























Process















Digital, data or technology component

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
<b>Pre arrival (to FES Provider) (cont.)</b>	<b>F23</b> Access to labour market intelligence and data (data collection/analysis) to assist learner career choices and guidance.  	<b>T23</b> Automated careers explorer tool providing learner career choice and guidance.  	<b>E23</b> Transform plus mapping to course offer.  
<b>Learning / training</b>	<b>F24</b> Learner access to digital induction and well-being programmes.  	<b>T24</b> Learners proactively take ownership of digital well-being (in/out of provider). 	<b>E24</b> Learners pro-actively share back/reflect 'good practice' examples and support peers. Confident to manage digital identity in to career. 
	<b>F25</b> Learners know their digital capability which supports their personalised learning programme.  	<b>T25</b> Learners are using a range of digital devices to support their learning and are developing their digital capabilities relevant to their course/ vocation.  	<b>E25</b> Learners are digitally confident to actively participate in the digital workplace.  
	<b>F26</b> Learner App provides access to core provider learning and admin tools e.g. VLE, timetable, target setting, student support, provider information.  	<b>T26</b> Learner App provides Foundation level plus real time communication, collaboration and way finding functionality.  	<b>E26</b> Learner App includes Transform plus intelligent skills and career function to assess skills and (location based) career opportunities (nudging included). 
	<b>F27</b> Ability for learners to take online diagnostics and to have access to individual baseline reports. 	<b>T27</b> Learners receive personalised automated learning targets based on diagnostic outcomes. 	<b>E27</b> Learners receive an adaptive learning programme for the course duration. 



Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
<b>Learning / training (cont.)</b>	<b>F28</b> Regular staff notification to learners on attendance, timely progress and status of performance to achieve intended outcome.  	<b>T28</b> Automated status notification of Foundation aspects plus use of wider set of metrics e.g. learning resources, pastoral and enrichment activities, bookable resources.  	<b>E28</b> Transform plus AI alerts (based on historic learner cohort data) on useful resources to support improvements and/or stretch and challenge learning.  
	<b>F29</b> Access to digital learning platform which supports delivery, assessment, collaboration and communication.  	<b>T29</b> Access to learning platform enables peer support within and across different levels of learning programme e.g. L3 learners actively able to (and encouraged to) support L1 learners.  	<b>E29</b> Learners pro-actively engage (learner led) with and use the digital learning platform in innovative and creative ways to support their own learning and the learning of their peers.  
	<b>F30</b> Ability for learners to take online formative assessments enabling them to progress at their own pace.  	<b>T30</b> Embedded formative online assessment plus opportunities to take online summative assessment.  	<b>E30</b> Transform plus access to remote online secure assessment invigilation (e-Proctoring).  
	<b>F31</b> Work placement/ experience opportunities platform - e.g. digital job boards. 	<b>T31</b> Automated work experience/ placement platform matching student location, progress, assessed knowledge and skills to employers. 	<b>E31</b> Transform plus ability for learners to pitch to identified employers. 




Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
Destination	<b>F32</b> Learners access Learner App's lifelong journey function, mapping performance to learning goals and career ambition.  	<b>T32</b> Automated certification of micro-credentials (badges) to promote achievement. 	<b>E32</b> Transform plus AI based career pathway planning (using labour market data), CV/skills register generator using nudge technology.  
	<b>F33</b> Learners can access alumni student progression data based on their choice of course.   	<b>T33</b> Learners can connect with Alumni mentors and promoted job opportunities.   	<b>E33</b> AI/machine learning enabled destination data to assist planning, alumni lifelong learning opportunities and employer engagement. 























































## Theme: Staff experience

The digital aspects that enable all staff to be digitally confident and able to assist learners progress.





















Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
All staff	<b>F34</b> Regular review of staff digital capability including areas for improvement embedded within staff appraisal/ annual performance review. Job adverts for new staff include digital capabilities required for the role and diagnostic assessment.	<b>T34</b> Staff intrinsically update their digital skills through bitesize online courses, securing digital badges and applying these skills to their work.	<b>E34</b> Digitally confident staff develop solutions through creativity and innovation thus augmenting their roles.
	<b>F35</b> Digital tools to enable staff to update student data at point of presence (noting ethical and safeguarding code of practice).	<b>T35</b> Seamless collection and distribution of data related to learner's well-being with appropriate and timely intervention measures in place.	<b>E35</b> Automated collection and distribution of data based on previous interactions/ behaviours leading to timely intervention.
	<b>F36</b> Staff are aware of and can access the digital tools available to manage their well-being.	<b>T36</b> Staff proactively monitor their own well-being using analytical tools.	<b>E36</b> Automated nudges alert staff in order to optimise their well-being.
Curriculum staff	<b>F37</b> Curriculum job descriptions include 'good level of digital capability' as desirable criteria.	<b>T37</b> Curriculum job descriptions include 'good level of digital capability' as essential criteria. Well qualified curriculum staff with a combination of quals, experience, recent industrial experience and digital capability.	<b>E37</b> Deep understanding of tech/digital potential and application within curriculum, teaching and assessment.

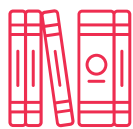
**Key:**  
 People   
  Process   
  Digital, data or technology component

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
<b>Curriculum staff (cont.)</b>	<b>F38</b>   Review learner support plans to augment role of people and technology where appropriate (release people to do the humanistic side of the job).	<b>T38</b>   Implemented augmented learner support plan (some aspects of learner support are automated).	<b>E38</b>   Personalised support plan for learners is automated and adaptive with timely human intervention triggers.
	<b>F39</b>   Curriculum teams are supported by learning resources team to access relevant digital content.	<b>T39</b>   Curriculum teams can confidently access, curate and create digital content for their courses using appropriate licensing e.g. Creative Commons (Pe, T)	<b>E39</b>  Development and procurement of customisable digital content forms part of curriculum design and evaluation process. Result is engaging and interactive digital content being embedded within curriculum course design.
	<b>F40</b>   Curriculum teams understand instructional design which enables them to plan basic online/blended learning sessions.	<b>T40</b>   Curriculum teams have access to template VLE courses and exemplars which enable them to confidently plan and design good quality online/blended learning sessions.	<b>E40</b>   Curriculum teams evaluate, review and develop online blended learning sessions based on learner engagement and feedback.
	<b>F41</b>   Curriculum teams have an awareness of data sets that can be used to contextualise the learner experience.	<b>T41</b>  Curriculum teams have access to a variety of subject data sets which they use to contextualise and enhance the learner experience.	<b>E41</b>  Curriculum teams and their learners pro-actively identify new subject relevant data sets which can be used to contextualise and improve the learner experience.

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
<b>Curriculum staff (cont.)</b>	<b>F42</b> Curriculum teams understand digital pedagogies and tools for classroom and blended delivery.   	<b>T42</b> Curriculum teams can identify digital pedagogical practice and apply this appropriately to the delivery of learning.   	<b>E42</b> Curriculum teams can confidently support learners with their digital skills and application through blended delivery which incorporates the digital workplace skills related to their programme of study.   
	<b>F43</b> Curriculum teams understand a variety of digital tools which support blended delivery, collaboration and communication.   	<b>T43</b> Curriculum teams can confidently utilise a variety of digital tools which support blended delivery, collaboration and communication.   	<b>E43</b> The use of digital tools which support blended delivery, collaboration, communication and assessment is embedded across all curriculum teams.  
<b>Assessment</b>	<b>F44</b> Curriculum teams understand digital assessment practices and how this is applied when appropriate to do so.   	<b>T44</b> All assessment data is recorded and stored digitally. Assessments are accessible and automated, where appropriate, and secure. Learners have access to their e-portfolio to share their work.  	<b>E44</b> Assessment analytics, making use of predictive, live and historical data ensures assessments are appropriate, authentic, accessible, automated (where required), continuous and secure. Learners can share their e-portfolios with their future employers.   
	<b>F45</b> Curriculum teams ensure learners can take online formative assessments enabling them to progress at their own pace.  	<b>T45</b> Foundation plus access to online summative assessments.  	<b>E45</b> Transform plus access to remote online secure assessment invigilation (e-Proctoring).  






Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
<b>Support staff</b>	<b>F46</b> Ensure all learner support staff e.g. personal tutors, careers, counselling, finance have access to and can utilise ALL relevant learner record data (collect once use many times).  	<b>T46</b> Support staff pro-actively respond to learner issues and concerns through automated dashboard alerts.   	<b>E46</b> Personalised support plan for learners is automated and adaptive with timely human intervention triggers.   
<b>IT staff</b>	<b>F47</b> IT teams support and are actively involved in curriculum and learning resources related system development/procurement and product roadmaps.  	<b>T47</b> IT team Service Level Agreement in place with Learning Resources and Curriculum teams ensuring support for existing and new systems development.  	<b>E47</b> IT teams proactively work with curriculum and learning resources to identify software/system solutions which improve service delivery and learner experience.   
<b>Managers</b>	<b>F48</b> Highly skilled managers with digital capabilities can confidently engage with provider systems to perform their duties. 	<b>T48</b> Proactive managers effectively deploying digital resources and digitally capable staff to improve operations and enhance learner/staff experience.  	<b>E48</b> Digitally confident managers develop solutions through creativity and innovation thus augmenting their role.  





















## Theme: Curriculum development

The resources and curriculum design and management that underpin digital learner and staff experiences.

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
Digital vocational and learning resources	<b>F49</b> Learning Resources plan aligned to and identified within Curriculum delivery plans. 	<b>T49</b> Learning Resources as a Service - the LR learning Resources team proactively supporting curriculum teams. 	<b>E49</b> Learning Resources are responsive and adaptive to individual student learning needs. 
	<b>F50</b> Learning Resources staff with digital capabilities to curate digital content. 	<b>T50</b> Learning Resources staff facilitate online information, research and independent study. 	<b>E50</b> Data immersion and visualisation using sector specific data sets e.g. construction, hospitality; support independent learning and scenario simulation. 
	<b>F51</b> Established virtual learning platform integrated with provider MIS. 	<b>T51</b> Teachers and assessors can create and monitor online independent learning and assessment activities, personalised to learners' progress. 	<b>E51</b> Automated delivery of higher learning and thinking skills associated with next level and steps of learning. 
	<b>F52</b> Accessible and inclusive rich multimedia curriculum relevant content. 	<b>T52</b> Access to digital augmented and virtual reality (industry relevant) content/equipment. 	<b>E52</b> Teaching, learning and assessment within simulated environments. 
	<b>F53</b> Use of learning collaboration tools encourage sharing of content within institution. 	<b>T53</b> Content Management repository to manage a cohesive/relevant digital content for the curriculum. 	<b>E53</b> Automated curriculum content pushed from CMS to end users based on real-time data entry. 
Curriculum	<b>F54</b> Curriculum is designed with an awareness of emerging digital practice within the programme of study. 	<b>T54</b> Foundation + co-designed with key stakeholders (Industry/ HE) in preparing learners for the digital workplace. 	<b>E54</b> Transform+ a scalable/ responsive curriculum modularised with micro-credential opportunities. 

**Key:**  
 People   
  Process   
  Digital, data or technology component

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
<b>Curriculum (cont.)</b>	<b>F55</b>  Curriculum is constructed with awareness of digital tools available to deliver teaching, learning and assessment.	<b>T55</b>  Adoption of methodology to blend delivery of curriculum with technology through storyboarding (instructional design).	<b>E55</b>   Course delivery designed to enable adaptive personalised learning, supported by data (AI) and machine learning.
<b>Curriculum analytics</b>	<b>F56</b>  A curriculum strategy that ensures all curricula follow a consistent model governed by a data defined data set.	<b>T56</b>   Smart curriculum planning responsive to historical data and current learner experience.	<b>E56</b>  Dynamic and flexible curriculum responding to predictive, live and historical data as the learners' progress through their curriculum.
	<b>F57</b>  Develop ethical code of practice and policy relating to well-being (and other) digital data collection.	<b>T57</b>    Digital systems ethically monitor and flag human intervention to support student well-being.	<b>E57</b>  Personalised digital assistants support students throughout their learning journey.
	<b>F58</b>  There are defined learning plans for all learners. Learning plans are dynamic and are changed following appropriate interventions.	<b>T58</b>   There are responsive and smart learning plans for most learners.	<b>E58</b>   There are intelligent adaptive learning plans for all learners.



## Theme: Underpinning technologies

Aspects that underpin all stakeholders’ digital experience and the ability for providers to safely operate and collaborate.

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
e-infra-structure	<b>F59</b> Robust digital infrastructure strategy in place aligned to business objectives and priorities.	<b>T59</b> Adaptive digital infrastructure plan responsive to business and curriculum change (e.g. BYOD).	<b>E59</b> Secure and seamless 365/24/7 access to all systems from any device and any location.
	<b>F60</b> Robust telecoms infrastructure in place to support communication and collaboration.	<b>T60</b> IP telephony or alternative collaboration software in place for all staff to reduce communication and travel costs.	<b>E60</b> Transform+ extension to wider provider end users (e.g. students, governors, employers).
	<b>F61</b> High bandwidth and available connectivity (1 Gigabit minimum for FE colleges in England) for main, resilient and diverse back up and inter site connections.	<b>T61</b> Greater bandwidth depending upon needs and strategy e.g. multi-site provider and extent of systems/software being hosted in the Cloud.	<b>E61</b> Resilient high bandwidth connectivity across the provider estate with direct secure (peered) connectivity into Cloud based applications and systems. Provision of secure connectivity for remote access. Strong cyber defence capability.
Cyber security	<b>F62</b> Mandatory information security training and awareness programme in place for all users of provider systems.	<b>T62</b> Information security training included as part of formal continuing professional development or as credit towards qualifications.	<b>E62</b> Mature cyber security processes in place that follow established frameworks.
	<b>F63</b> Governing body / Executive aware of cyber security risks to the provider.	<b>T63</b> Awareness of cyber security governance frameworks such as BS31111 and NCSC Board Toolkit.	<b>E63</b> Implement a formal programme of cyber security governance, for example by completing the NCSC Board Toolkit or undertaking an audit to BS31111.

Key:





























People
































Process




















Digital, data or technology component

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
Cyber security (cont.)	<b>F64</b> Achieve Cyber Essentials Plus (3rd party assessment of maturity). 	<b>T64</b> The Provider is working towards achieving ISO27001 certification. 	<b>E64</b> ISO27001 certification for the entire campus/all sites. 
	<b>F65</b> Implement multifactor authentication for access to all critical systems and services. 	<b>T65</b> Implement multifactor authentication for access to all systems and services. 	<b>E65</b> N/A
	<b>F66</b> ISO27001 conformance (Wales). 	<b>T66</b> N/A	<b>E66</b> N/A
	<b>F67</b> Ensure connectivity to the Provider is protected by a robust denial of service mitigation solution. 	<b>T67</b> N/A	<b>E67</b> N/A
	<b>F68</b> Implement DNS protection to mitigate web requests being directed to compromised or dangerous websites. 	<b>T68</b> Critical services (e.g. learning platforms, website, finance system, student records system, enrolment) protection. 	<b>E68</b> Endpoint Detection and Response implemented. 
	<b>F69</b> Implement central logging of critical systems to assist in incident investigations.  	<b>T69</b> Access to a computer security incident response team to help mitigate and resolve cyber security incidents.   	<b>E69</b> Security Information and Event Management (SIEM) solution in use (locally hosted or using a managed SIEM service). 
	<b>F70</b> Mandated information security awareness training for all applicable users of provider systems.  	<b>T70</b> Regular and random manual cyber security assessment of user compliance.  	<b>E70</b> Transform + automated assessment and intervention. 
WiFi	<b>F71</b> Robust, reliable and secure campus wide WiFi for provider end users.  	<b>T71</b> High density whole campus Wi-Fi for end users and visitors.  	<b>E71</b> Transition to WiFi 6 to create super smart networked estate and into the wider community supporting IoTs and environmental sustainability. 

Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
<b>Cloud</b>	<b>F72</b>  A cultural readiness to move from capex to opex (consumption based) commercial models. 	<b>T72</b>  Mixed economy of pay as you use services.	<b>E72</b>  Entirely Cloud based software systems maintaining data sovereignty.
	<b>F73</b>  An understanding of current estate and benefits of Cloud technologies. Cloud plan and governance model in place to ensure correct access and permissions to systems and software.	<b>T73</b>  Seamless procurement and adoption of fit for purpose cloud services across the business supporting transformation, growth, and the overall objectives of the provider.	<b>E73</b>   Cloud first approach to adoption and management of new and emerging services with continuous optimisation to keep pace with the change of technologies.
	<b>F74</b>   A hybrid approach to data and software storage on premise/ Cloud.	<b>T74</b>  Cloud native technologies underpinning the integration of digital services and software.	<b>E74</b>  Utilisation of Infrastructure as a Service and Platform as a Service to de-couple from reliance on physical infrastructure on site.
<b>IT skills</b>	<b>F75</b>  Access to and use of IT specialist staff who are certified/qualified.	<b>T75</b>   Foundation + outsourcing of highly specialist services.	<b>E75</b>   Augmentation of IT specialist skills and capabilities through AI and machine learning.
<b>Identity and authentication</b>	<b>F76</b>   Access to policies/ processes based on user profiles, their rights and roles.	<b>T76</b>   Secure single sign (SSO) for all services and platforms, from finance to student systems. Benefit user experience and security.	<b>E76</b>  Advanced authentication (e.g. biometrics) technology to improve user experience.
<b>Data and business intelligence</b>	<b>F77</b>   Data plan and governance in place which ensures all data (analogue/digital) is collected and stored digitally, aligned to provider operating processes.	<b>T77</b>   Access to analyst skills and analytics tools to help maximise power of data, providing access to live and trustworthy automated data and workflows through integrated systems.	<b>E77</b>    Automated and interactive business and provider intelligence (and resultant action) - covering both live and historical data.



Sub-theme	Foundations (F) The must haves	Transform (T) The should haves	Elevate (E) The can haves
	<p><b>F78</b> Timely input of learner progress data is analysed and presented as a learner dashboard.</p>  	<p><b>T78</b> Live learner progress data compares learner progress to their targets and expected outcomes identifying areas for improvement.</p>  	<p><b>E78</b> Automated interventions that adapt to learner progress. Providing staff with in-depth learner analytics and a predictive data dashboard.</p> 
<b>Learning space and estate management</b>	<p><b>F79</b> An estates strategy that includes a digital overlay/map of the physical environment accessible to all users.</p>  	<p><b>T79</b> Smart environment where spaces collect and record data (use of connected devices), including environmental, utilisation and appropriateness to support decision making and end-user orientation e.g. wayfinding.</p> 	<p><b>E79</b> Intelligent environment where resource utilisation and automated interventions support the end user experience on campus and remotely.</p> 
<b>Learning space and estate management (cont.)</b>	<p><b>F80</b> Centralised electronic timetabling, room and resource booking systems in place.</p>  	<p><b>T80</b> Foundation plus self-service booking application for end users.</p> 	<p><b>E80</b> Intelligent timetable that proactively makes changes based on existing utilisation of resources and spaces improving end user experience and learner outcomes.</p> 
	<p><b>F81</b> Learning space/zones plan (formal/informal learning) including consideration of minimum/maximum number of learning spaces.</p> 	<p><b>T81</b> Everyday dual-use spaces including ability to facilitate small group active collaborative learning opportunities.</p> 	<p><b>E81</b> Transform plus access to hybrid physical and virtual spaces driven by learner need supporting immersion and simulation experiences e.g. virtual or augmented reality.</p>  

## Contact us

[fes@jisc.ac.uk](mailto:fes@jisc.ac.uk) with feedback or if you want to discuss our ideas, suggestions and portfolio.

Find your Jisc account manager [jisc.ac.uk/contact/your-account-manager](https://jisc.ac.uk/contact/your-account-manager) – we are ready to discuss any, or all aspects contained within this strategy.

Jisc  
4 Portwall Lane,  
Bristol BS1 6NB  
0300 300 2212

[help@jisc.ac.uk](mailto:help@jisc.ac.uk)  
[jisc.ac.uk](https://jisc.ac.uk)  
@Jisc

