

# Collaboration for a sustainable future

Unlocking the value and potential of higher education through new shared approaches to digital, data and technology



## Contents

1	Acknowledgements
2	Foreword
3	Executive summary
5	Section 1: Introduction
8	Section 2: History and context
12	Section 3: Where are the opportunities for collaboration?
24	Section 4: How could it happen?
28	Section 5: Next steps
29	Appendix A: Initial opportunities
33	Appendix B: Glossary



## Acknowledgements

Jisc and KPMG would like to thank the following for sharing their time, insight and advice as part of this work:

Name	Institution
Vipin Ahlawat	Loughborough University
Kevin Braim	St Mary's University
Oliver Davy	University of Derby
Leon Etherington	Leeds Beckett University
David Gillard	University of Hertfordshire
Chris Green	The University of Lincoln
Fiona Grieg	University of Winchester
Mark Hughes	Cardiff Metropolitan University
David Johnston and Archie Maclver	University of the West of Scotland
Mark Johnston	The University of Glasgow
Professor Monique MacKenzie	University of St Andrews
Professor Richard Medcalf	Birmingham Newman University
Professor Raheel Nawaz	University of Staffordshire
Nicola Owen	Lancaster University
Daniel Perry	Keele University
Ben Rogers	Cardiff Metropolitan University
Greg Sawyer	CAUDIT
Sue Starbuck	Royal Holloway, University of London
	UCISA
Professor Mark Thompson	University of Exeter
Professor Shân Wareing	Middlesex University

We are grateful to **CAUDIT**, **UCISA** and its trustees for both their input into the content of this report and for permission to use the Higher Education Reference Model (HERM) (Version 3.0.0, © 2024 CAUDIT). For access to and further information on the HERM please contact UCISA – **execsupport@ucisa.ac.uk**.



## Foreword



UK higher education institutions are facing mounting financial pressures, changing student expectations, complex research and innovation challenges, and a rapidly evolving technological

environment. The need to work together to share resources, expertise, and best practices has never been more apparent.

As the Chair of the Jisc Board, I welcome this report, commissioned by Jisc, produced in collaboration with KPMG, which explores the potential benefits of greater digital collaboration across our sector.

Not only does this report highlight the numerous opportunities for institutions to work more closely and effectively together, it provides a roadmap for how such collaboration can be achieved. And it is perhaps no surprise that technological solutions are not the main barrier to better working partnerships – much more important will be a willingness to standardise our practices and processes, alongside the cultural change required to deliver this. If there is to be significant change, it will require strong leadership.

I hope that this report will serve as a valuable resource for institutions as they navigate the digital challenges and opportunities of this and future decades. It is my hope that it will spark a renewed commitment to collaboration across the sector, and that it will help to ensure that institutions can continue to provide a world-class teaching and learning, research, and innovation environment for many years to come.

#### **Professor Paul Boyle**

Chair of Jisc board Vice-Chancellor, Swansea University

## **Executive summary**



The higher education sector faces challenges that threaten the sustainability of many institutions. As part of addressing those challenges the way institutions operate must be looked at and addressed collectively. This report has been commissioned to contribute to the sector's efforts to face the challenges of today, by reflecting on the opportunities for collective, collaborative and inter-institutional activity within the realm of digital, data and technology.

Commissioned by Jisc, working in collaboration with KPMG, the work has engaged a wide breadth of HE sector leaders, academics, professional service staff and IT professionals. It has also drawn on insight from outside the UK HE sector, including local government, the NHS, international HE as well as the private sector. Its purpose is to catalyse discussions already percolating in the sector, including in the recent Universities UK blueprint, and spur institutions and sector bodies into taking action.

While the sector does have experience of successful collaboration (see Section 2), the **default approach amongst individual institutions is frequently to 'go it alone'**, and seek solutions to digital, data and technological challenges in isolation. This is despite every university facing the same issues, wanting the same benefits, and using the same systems.

This is in part based on **a false assumption relating to differentiation**: the majority of activities in an institution do not yield competitive advantage in terms of recruiting students and staff, or winning research income.

The major technical obstacle to collaboration is the inconsistency and lack of standardisation of processes, data structures, and wider operational models endemic both within institutions and across the sector. Issues of licensing, security and data privacy can be overcome technologically; but common systems or services require common approaches.

There is no shortage of ideas with regard to the form that collaboration could take. Analysis of the many contributions to this report and consideration of other examples from other sectors and internationally has shown that there are five predominant themes in which to consider what could and should be explored:

**1. Greater central coordination of activity** including establishing and embracing common models, standard definitions, and driving consistency across all institutions.

- 2. Central provision of digital, data and technological (DDaT) skills development and resource to support institutions facing high demand, low supply, and competition from other sectors for DDaT skills and resource.
- **3.** Sharing approaches to the procurement, implementation and management of applications with potential across most systems supporting teaching and learning, research and professional services.
- **4.** Sharing of, or commissioning whole services, a theme which has the greatest opportunity for institutional benefits but will require the longest lead times to realise them.
- **5. Co-building technology specifically for the HE sector** although this should be approached with caution, not least as there are multiple existing technologies already available. Working with providers to develop innovative solutions based on existing technologies may be better than building from scratch.

As Universities UK acknowledge in their blueprint for the sector, any business case in support of shared services would need to overcome the challenges of VAT; and be predicated on longer (i.e. 10-30 year) timelines.<sup>1</sup>

In order for any collaborative initiative to be successful it will require a combination of:

- Senior leader backing (particularly amongst Vice-Chancellors)
- Institutions across the sector embracing the mindset of 'adopt don't adapt' with regard to digital, data and technology
- Incentives to collaborate, or explicit instructions from government
- Trust amongst participating institutions
- Interested but objective mediator(s) to progress initiatives further, most likely from within existing sector bodies, associations and service providers

### Conclusions

There is no shortage of support or lack of diverse options for sharing and collaboration in the sector. The financially challenging circumstances of the current environment, while difficult, also present an opportunity for creativity and experimentation since institutions may be willing to consider approaches that would have previously been deemed too complicated to undertake. However, time is of the essence, and it would benefit institutions to start the journey now, before external factors mandate a particular course of action.

Realising the ambitions outlined in this report stretches beyond the remit of any one body, and, as Universities UK also note in their blueprint, will require the establishment of multiple coalitions of the willing amongst institutions, students, academics, government, funding agencies, sector bodies, vendors and others.

A lack of technological solutions is not the issue. The real opportunity comes from changing how the sector operates through the prioritisation of true collaboration over competition and standardisation over customisation wherever possible and appropriate.

Leading bodies in the sector should seek to:

- Convene 'coalitions of the willing' from across HE to advocate for standard approaches
- Coordinate a consistent message from the sector to government
- Conduct further analysis on the feasibility and costs associated with priority opportunities for collaboration, the costs of maintaining the sub-optimal status quo, and a roadmap of actions to underpin a move towards more effective approaches

<sup>1</sup> Opportunity, growth and partnership: a blueprint for change from the UK's universities (universitiesuk.ac.uk).



## Section 1: Introduction

### Introduction and challenges facing the sector

The sharing of knowledge, ideas and experience lies at the heart of the academic endeavour.

In the course of teaching, academic staff collaborate with students at their own university, those visiting from other institutions, and increasingly, with wider audiences via blended and online courses. In the realm of research, multi-disciplinary, inter-institutional and international collaboration has long been the norm, with funding streams enabling and even mandating cooperation beyond the boundaries of an individual research group.

While universities are widely known to be academically collaborative, there is a perception that they have struggled (for whatever reason) to collaborate effectively outside of the academic domain.

In reality, however, universities are harnessing collaboration and even shared services in all aspects of student and academic life: SCONUL access cards permit entry to university and college libraries across the UK; your institutional log-in details allow you to access Eduroam at any university and British Universities and Colleges Sport (BUCS) has enriched the student experience through coordination of both elite and amateur sport for over 100 years. In fact, in the timeline of a student journey, collaboration signals the very beginning, with UCAS pooling and coordinating the admissions process for all undergraduate applications. For staff also, many will have begun their professional journey having browsed and applied to postings on Jobs.ac.uk. Wider in the higher education ecosystem, organisations such as Jisc with the Janet Network, and other services support and foster collaboration across all institutions.

At a time of intense pressure within the sector, this report explores how collaboration might play part of the solution for institutions grappling with their long-term sustainability and what next steps could be taken.

### Challenges

During the period of this report's research, headlines have heralded the end of the 'golden age of English universities'<sup>2</sup>, warnings around the need for many to cut costs<sup>3</sup> and frank admission from the new government that tax-payer-funded bailouts are unlikely.<sup>4</sup> These headlines reflect a turbulent environment, in which every UK university, to a greater or lesser degree is facing the same challenges in funding, recruitment, changes in public perceptions of higher education and rising costs. To date, the default reaction of institutions (with the exception of requests for greater funding from government), has been to look inwards through increased drives to grow student numbers; reviews of operating models, often with unfortunate-but-necessary reductions in headcount; and disposal of property and other assets.

Yet the challenges of today differ from previous crises in that they are all coming together, and though individually they could be addressed, the reality is that this combination of challenges is making life difficult for many universities across the country. In the same landscape, we are seeing rising student complaints about the quality of their education, growing need for welfare and mental health support and increasing demand for a better student experience.<sup>5</sup>

While developments in the realms of technology, digital and data offer much hope for the sector, each institution also faces a collection of the same IT challenges, including:

- Managing legacy IT estates and associated technical debt, with complicated webs of integrations serviced by historic ways of working
- Managing multi-million pound digital transformation programmes often expected to deliver efficiencies alongside service improvements
- **Transitioning to cloud** and embracing the new ways of working that software-as-a-service (SaaS) necessitates, including the associated increases in ongoing licence fee subscriptions and the shift from capital to ongoing costs
- **Competition for technical skills and resource** amidst a national shortage, with higher paying private enterprises also in need of the same expertise
- Cyber security threats ongoing, with several institutions falling victim in the last year to ransomware, breaches and blackmail
- **Changing quality and performance regimes** requiring institutions to be able to report data accurately on a wide (and ever changing) range of metrics, which in most institutions requires large administrative efforts in the absence of effective technical architecture and poor data quality
- Variability of good quality data management which was reported as a key challenge in almost every institution that was engaged

<sup>2</sup> Funding crisis means 'golden age of universities is over' (thetimes.com).

<sup>3 &#</sup>x27;UK universities must cut costs to survive, warns Augar' (ft.com).

<sup>4 &#</sup>x27;Labour would let UK universities go bust 'if necessary' (timeshighereducation.com).

<sup>5</sup> University student complaints hit record high in England and Wales for fourth successive year (BBC News).

### Aims and objectives

This report has been commissioned to contribute to the sector's efforts in addressing the challenges it currently faces. It aims to do this by exploring the opportunities that digital, data and technology provide for collective, collaborative, and inter-institutional activity that would lead to more efficient and beneficial implementation, use, and management of institutional applications, platforms and systems.

**Jisc** is the digital and data body dedicated to shaping the future of education and research. By harnessing the power of technology and data, Jisc provides vital digital infrastructure and shared services that inform, protect and promote UK education and research.<sup>6</sup>

Jisc has partnered with KPMG on this report to complement Jisc's own expertise and bring an external perspective. **KPMG** is a leading professional services firm that provides audit, tax and advisory services to clients in almost every country in the world and has extensive experience in setting up shared services across multiple sectors. KPMG's Higher Education practice worked with 130 of the UK's universities last year, scrutinising finances, developing digital strategies and supporting cloud migration programmes.

More important than the views of Jisc or KPMG, however, is the voice of the UK HE sector itself. Research behind this report has engaged with Vice-Chancellors, Deputy and Pro Vice-Chancellors, research-focused and teaching-focused academics, Chief Operating Officers, Chief Information Officers, Chief Finance Officers and Head Librarians. The 22 institutions that engaged with this work include universities from every corner of the UK, large and small, research-focused and teaching-focused. As well as universities, the views of colleagues from UCISA, Jisc, KPMG and other cross-institutional sector bodies have been sought to lend their experiences from looking across multiple institutions. This report also looks to set out how several of the recommendations from Universities UK's blueprint for the future of the sector could be progressed.

"Any shared service model will have to factor in the varying levels of technical debt across the sector, influence of the big technology providers and vendor distribution across key digital systems (including both administrative and student-facing systems)."

Professor Raheel Nawaz, Pro Vice-Chancellor (Digital Transformation), Staffordshire University

<sup>6</sup> Further information about Jisc is available at: jisc.ac.uk/about-us.

## Section 2: History and context



### Spectrum of collaboration

In order to consider the breadth of collaboration that could be possible, Figure 1 below illustrates the spectrum of possibilities: on the left-hand side, where the degree of collaboration is less formal, sits the sharing of lessons learned and leading practice. With increasing degrees of cooperation, and with this, formality, as you move right, eventually (and the illustration below is not 'to scale') arriving at full mergers and acquisitions.

"Universities are a bit weird in that we are competitors and collaborators at the same time."

### Anonymous

Various points along this spectrum, with increasing degrees of complexity, potential benefits and risks, have been considered through this report.



### Case study

Collaboration around student record system (SRS) implementation. One CIO interviewed as part of this work explained that, as they were procuring a new student record system, their chosen supplier had named four other universities at which they were also currently implementing. That CIO contacted their equivalents at each of those institutions, established a regular schedule of meetings at the CIO and project level that have continued now for several months. As a result, the institutions have been able to share lessons learned with each other, better prepare for issues that others have faced, and are able to share insight with their own institution on how their implementation is progressing compared with peers.

### **History**

The hypothesis that collaboration around digital, data and technology might benefit both individual institutions and the sector as a whole is neither original, novel nor even unproven. The last 30 years alone have seen the establishment of sector shared services, mergers of institutions to create bigger and more resilient new universities and, particularly around the time of the 2020 Covid-19 pandemic, huge strides forwards in digital adoption.

### **Current collaboration**

In a typical university in mid-2024, collaboration can be seen right across its operations, in learning and teaching, research and enabling capabilities. The diagram (Figure 2) below uses UCISA's Higher Education Reference Model as a canvas to show where shared or collaborative digital, data and technology initiatives typically exist in a university today.<sup>7</sup>

"Collaboration has always been a significant factor in the success story of higher education, especially in the academic space. As financial pressures continue to mount and advancements in technology afford ever great opportunities for efficiency and effectiveness, the potential to extend this ethos across the entire university delivery model has never been greater." Sam Sanders, Advisory lead for Education, KPMG

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<sup>7</sup> There is a significant disparity in the terminology used across the sector to describe activities. For example, some universities refer to students Onboarding, whereas others refer to this as Induction. For the purposes of having a common language (in itself something that would benefit the sector were it fully embraced) we are using the Higher Education Reference Model (HERM). The HERM is curated and evolved by the Council of Australasian University Directors of Information Technology (CAUDIT), in partnership with corresponding communities in the UCISA, EUNIS, and EDUCAUSE associations. It's use here is with the permission of UCISA.

#### Figure 2: Higher Education Reference Model - showing areas for collaboration Showing where Core capabilities and value chains universities typically Learning and teaching collaborate currently. Design Recruit Enrol Deliver Assess Confer Student admission Student enrolment Curriculum deliverv Curriculum management Student recruitment Student assessment Completion management Over and above Curriculum Enrolment Student allocation Completion award Curriculum design Learning earning & Learning omestic stud tudy applicati earni ng 8 'sharing best teaching resource planning ecruitment recognition eaching resou assessment managemen nanagement practice'. Curriculum Timetable Student research Curriculum Matriculation Learning & Student production accreditation management assessment teaching deliverv supervision BLE BLOOMSBURY LEARNING EXCHANGE Offering Curriculum Collaboration Student manage management improvemen Student liability Financial aid Student academ ross-institution Scholarship Curriculum management management progress management ud disestablishment **UC**AS managemen Outsourcing Placement Examination Special Research Student management management consideration candidature misconduct management management management Student support Careers advice Academic advice Core skills Financial advice Student grievance HE development management RESEARCH · CAREERS · PROSPECTS Research Plan Conduct Fund Assure Disseminate Research opportunities & planning Research funding Research assurance Research management Research delivery Research dissemination K UK Research and Innovation Research fund Research ethics Research funds Research output Research Research integrity esearch data Research creation Research outcome ollaborativ opportunity pportunity sourcing management managemen management anag management managemen managemén ORCI Research grant Research Research quality Research Research impact Research Research project nfrastructure commercialisation management performance management programme nanagement management desian managemen management management Jisc Enabling capabilities SCONUL Library administration Governance, risk, & compliance Strategy manage Business capability managemen Risk management Library collection Vision & strategy Business planning Enterprise Customer Business process Service Policy Quality Compliance Business development architecture experience management management management management management continuity nanagement management managemen Strategic plan ollection access Portfolio & Project Product Incident Complaint & Investigation rnal aud **Benefits** managemen nanagement programme management management managemen managemen management compliment managemen management HEFESTIS HEFESTIS uciso Marketing man Legal services nication technology management Advancement ma Engagement & relationship management Information & co Alumni Contract Alignment, planning, & Development & Advertising Campaign Market research Communications Engagement Relationship Legal advisory Build, acquisition. fundraising & implementation management management management management management management managemen organisation Brand Donor, sponsor, Marketing Merchandising Outreach Extension Dispute resolution Monitoring, elivery, **norman** ManagedServices & philanthropist planning management management management & litigation sunnor assessment & management evaluation (iobs.ac.uk ИКИРС Human resource manage Financial manag Workforce training Organisational Workforce alent acquisitio Remuneration Financial planning Accounts payable Accounts General Price modelling Tax management Pavroll & analysis design & development & benefits receivable accounting planning management Rank Project Asset Investment Treasury Workforce Workforce Workforce Human resource LONDON UNIVERSITIES managemen management relations managemer nen ccounting managemen resource performance support management managemen management APUC 12 Information ma Facilities & estate management Supporting services PURCHASING Advanced Business ata manager Information Building & facilities Property Campus Housing & Gallery & museum hildcar Healthcare Health, safety, & wellbeing transportation analytics intelligence 8 governance managément accommodation management management reporting managemen management management managemen leaning & waste dentity & access Information Enterprise content Records Campus securit Commercial Membership Sport & recreation Retail intina BUCS security management management tenancy management athletics management management managemen management British Universities eduroam Intellectual Artefact & Space utilisation Digital Environmental Event enue collection property preservation sustainability management nanagem<u>en</u> management nanagemen managemen managemen management

For access to the HERM please contact UCISA execsupport@ucisa.ac.uk.

"The Wales Higher Education Library Forum (WHELF) is a long-standing collaboration in libraries. We have in place one of the most successful large-scale tech sharing projects in the UK in our shared library management system and as a result many institutions can now access technology that likely wouldn't have been viable if acting alone."

Mark Hughes, Head of Library Services, Cardiff Metropolitan University

### Benefits from collaborating

Growing appetite within the sector to revisit opportunities for collaboration is driven by a desire for a number of different types of benefit:

- **Financial**: many stakeholders discussed the financial cost savings they've already gained from collaboration: sharing set up costs; reducing the expense of endless as-is assessment and over-customisation/ configuration; sharing licence costs; collectively negotiated prices for licensing; less manual intervention and fewer workarounds
- Improvements in the student and staff experience: utilising better or more up-to date technologies; faster response times; and fewer errors
- **Community:** sharing resources, best practice and services creates a sense of community amongst institutions that collaborate, embedding consistency, scalability and agility across the sector, and offers an opportunity to raise standards for all
- Effectiveness: with better quality systems acquired through shared services, institutions can enjoy working with greater efficiency and reduced duplication of effort. Institutional attention and staff resource can be freed up to focus on higher-value activity

Whilst the benefits above haven't been quantified as part of this report, it is clear from the narrative across the sector that institutions are increasingly looking for collaborative and shared solutions to the issues of today.

#### **Case study**

Previously, library services in universities across Wales each had separate library management systems. Recognising the benefits of a common platform, a group of peers from nine institutions developed a joint proposal, obtained individual institution buy-in and were then able to procure one of the leading library management systems to be shared by all participants. This initiative resulted in each university having independent instances of the software, sharing some functionality, under a single licence. As a result, they all now use a leading system that they could not have justified individually, have been able to save cost at an institutional level and retain the ability to exit the scheme at appropriate contract renewal/review points. The 2023 'WHELF Shared LMS Highlights' states that there has been a saving of £150,000 each year on the system subscription by purchasing as a consortium.<sup>8</sup>

<sup>8</sup> Benefits report - WHELF.

## Section 3: Where are the opportunities for collaboration?



### Flip the question

"Rather than ask 'where can we collaborate?' We should be asking, why aren't we collaborating anywhere and everywhere we can?" **Professor Mark Thompson, Professor in Digital Economy, University of Exeter** 

One of the key themes that has emerged from the analysis for this work is that every institution, to a greater or lesser degree, faces the same challenges, wants the same outcomes for their students and staff, uses the same digital systems and technologies and regularly deals with the same suppliers.

## Which begs the question: why aren't universities collaborating around *everything* where meeting a common minimum standard is the key requirement?

What can be learned by intentionally 'flipping the question' and taking as a starting assumption, that given the uniformity of challenges faced and the benefits desired, the premise that every university is more alike than different and ought to be collaborating in as many ways as possible?

Contributors highlighted three logical reasons for not collaborating, which will be applied in turn in this section:

- 1. Differentiation: the elements of an institution that create a unique and distinct benefit for students and staff. The things that set university X apart from university Y. The things as a Vice-Chancellor I should want to tailor at my institution as they convince students to study here, and/or staff to work here.
- 2. Technical feasibility: the limitations of technological capability, hardware, integrations, licensing and even geography could prohibit collaboration. It might not be technically possible to share particular systems, for example.

**3.** Business case: while sector-wide the rationale for greater collaboration may prove sound, the upfront and ongoing cost, complexity of delivering change, the state of an institutions existing technical estate, individual institutional capacity and risk appetite may mean that, at a particular moment in time, the business case doesn't stack up for a particular institution.

The intention, by asking the question in this way, is to avoid narrowing the field too early and thereby allow us to consider the full breadth of opportunities for collaboration. It is not our intention to suggest that the three filters above are the only lenses to use to evaluate the approach. There are others to take into consideration such as cultural feasibility, operational feasibility and complexity. However, in the views of those consulted, differentiation, technical feasibility and the business case were the most commonly raised.

### Filter 1 – Differentiation

Anyone who has worked in the higher education sector for any length of time will have heard 'our university/ faculty/department is unique.' Indeed, with subjects ranging from life sciences to modern languages, clinical training to business schools, the combinations and breadth of disciplines at any institution are individually unique, with large areas of overlap. The content of their research, pedagogic approaches and course contents are not all the same.

It is also important to acknowledge that universities compete with each other. One need not be an ardent believer in 'the market of higher education' to concede that institutions will necessarily compete for the finite numbers of students, staff and research grant funding.

At the same time, stakeholders noted that much of the variation and tailoring in UK institutions is historic, legacy variation rather than end-user driven. Practices are more commonly embedded as a result of previous ways of working or of workarounds necessitated by integrations between old systems.

Most processes do not drive student recruitment or retention: procure to pay (P2P – the steps by which any organisation hands over cash to a supplier following receipt of goods or services) is P2P anywhere: even in a bank or supermarket. While treatment of the depreciation for research assets may be unique to an institution, the steps taken to dispose of the asset at the end of its life need not be. Furthermore, when services are delivered at each institution this tends to result in unnecessary tailoring, which adds further cost, complexity and risk.

The capability map (Figure 3) below, which has been tested with contributors to this report gives an indication as to which capabilities, from a differentiation point of view, could be shared between institutions. This leaves a large proportion of activity which, although every institution completes in isolation currently, ought to be well suited for sharing.

#### Figure 3: Higher Education Reference Model – showing areas of differentiation



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Showing which capabilities differentiate one institution from	Core capabilities and Learning and teaching	Core capabilities and value chains Learning and teaching						
another.	Design	Recruit		Enrol	Deliver	Assess Cor	nfer	
The key questions we have asked are: "Does this service materially impact the student or staff experience"	Curriculum management           Curriculum planning         Curriculum design           Curriculum production         Curriculum accreditation	Student recruitment International student recruitment	Study application management         Learning recognition management           Matriculation         Figure 1	Student enrolment Enrolment Student allocati Timetable management	Curriculum delivery           Learning & Leaching resource preparation         Learning & teaching resource management           Learning & teaching delivery         Student supervision	Student assessment         Com           Learning assessment         Co           Student research assessment         Co	npletion management	
experience	Offering Curriculum management improvement	Student management						
Differentiated	Curriculum disestablishment	Scholarship management Student liability management Placement Examination	Financial aid management Special Research	Cross-institutional study Student				
Maria		management management	consideration candidature management management	misconduct management				
Mixed		Student support Careers advice Academic advice	Core skills Financial advice	Student grievance				
Not differentiating	Research		development	management				
	Plan	Fund	ssure	Conduct		Disseminate		
	Research opportunities & planning	Research funding R	esearch assurance	Research management Resea	rch delivery	Research dissemination		
	Research opportunity management Research project design	Research fund sourcing Research grant management	Research ethics Research integrity management management Research quality management man	Research funds management Research programme management infras management man	arch data Research creation gement Research resource management gement	Research output management         Research management           Research impact management         Research commerc managet	h outcome ment h cialisation ment	
	Enabling capabilities							
	Strategy management         Business capal           Vision & strategy development         Business plan           Strategic plan management         Change management	bility management Customer experience architecture Portfolio & Programme management	Business process management         Service management           Product management         Benefits management	Governance, risk, & compliance           Policy         Quality           management         Quality           Incident         Investigation           management         Investigation	Risk management Compliance management Internal audit Complaint & compliment management	Lit Business L continuity n management c c	brary administration ibrary collection nanagement Collection access nanagement	
	Advancement management	Marketing management	Engagement & relation	onship management	Legal services Inf	ormation & communication tech	hnology management	
	Alumni Development & management fundraising	Advertising Campaign management management	Market research Communications management	Engagement Relationship management management	Legal advisory Contract A management pl	ignment, Build, acquis ianning, & & implement	ition, tation	
	Donor, sponsor, & philanthropist management	Marketing Merchandising planning	Brand Outreach management management	Extension management	Dispute resolution & litigation si	elivery, service, & Monitoring, upport assessment, evaluation	, &	
	Human resource management		Financial man	agement				
	Organisational Workforce design planning	Talent acquisition Workforce training & development	Remuneration Financial plan & benefits & analysis	nning Accounts payable Accounts receivable	General Price modelling accounting	Tax management Payroll managem	lent	
	Workforce Workforce resource performance management management	Workforce Human resource support anagement	Bank management	Procurement Project management accounting	Asset Investment management	Treasury management		
	Information management		Facilities & estate management	Supporting	services			
	Advanced Business analytics intelligence & reporting	Data management Information governance	Building & Property facilities management	Campus transportation management Classing 8 waste	dation Gallery & museum Childcare management Childcare management	Healthcare Health management & well mana	h, safety, Ibeing agement	
	management security management	management management	management continencial tenancy management	management managem	ent management management	athletics mana management	igement	
	Intellectual Artefact & property collection management management	Digital preservation	Groundskeeping management management management	Space utilisation Travel management managem	ent Event Venue management management	Mail management		
For access to the HERM please contact UCISA exec	csupport@ucisa.ac.uk.							

## "Students don't choose to go to a university based on their finance system." Anonymous

### Filter 2 – Technical feasibility

Within the realm of digital, technology and data, there are various types of technical capability including hardware, IT systems and applications, networks, integrations, identity management, security, artificial intelligence (AI), data management and projects and programmes to configure and implement any of the above

Against these technical capabilities that all institutions manage, there are technical feasibility considerations, including:

- **Standardisation of processes**: for any of the above to be shared, the surrounding processes need to be uniform both across and within institutions. Multiple contributors noted that within a typical institution there is often large variability in processes, which would need to be standardised for collaboration
- **Consistency of data**: a shared service or system cannot accommodate the full breadth of variety in data quality and formats that currently exist across institutions. Common structures would need to be agreed which may require multiple institutions to make changes within the institution. This would also limit those institutions' ability to unilaterally amend their structures. Outputs from shared services would be similarly consistent. Again, however, the sector already does this, from UCAS to HESA
- **Common licensing**: any attempts to share existing systems may encounter difficulties from the licensing arrangements they have with their suppliers. While not a technical point, suppliers are also unlikely to look positively on attempts to reduce their fee income. Nevertheless, as the example shown through WHELF, Jisc and others have shown, single licence arrangements, whereby multiple instances under that licence do exist in the sector and are not, therefore, technically impossible
- **Integrations**: any external collaboration will need to interface with an institution's existing systems. The wide variation in system configurations across the sector may mean that it is not practicable to integrate a common platform with dozens of tailored in-house systems
- Security: any external connections, between a university's internal network with that of a shared environment risks vulnerability should either the shared service, or any individual institution lack sufficient security. This can be mitigated, however, by ensuring that effective standards are applied to both the shared service and the institutions taking part
- **Data privacy**: with regulation such as GDPR threatening significant penalties for organisations that do not protect personal data, ensuring that only approved users can access data would also be essential

### Case study

Seventeen years ago, Northumbria University recognised that many of its students worked outside of traditional business hours, creating a need for extended IT and tech support services. To address this challenge, Norman Managed Services was established. Norman provides 24/7/365 support via voice, chat and email, ensuring that students receive assistance whenever they need it. As an established higher education IT support specialist, Norman understands the unique needs of the sector and is committed to providing tailored solutions. Today, Norman continues to operate from Northumbria University and serves over 40 subscribers in the UK higher education sector.

#### Figure 4: Filter 2, technical feasibility

	Capabilities								
Considerations	Hardware	IT systems and applications	Networks	Integrations	Identity management	Cyber security	AI	Data management	Projects and programmes
Standardisation of processes									$\checkmark$
Data consistency			← All	equire a degr	ee of consister	ncy →			$\checkmark$
Integrating									$\checkmark$
Common licensing	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Security	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Data privacy	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

The table (Figure 4) above summarises the technical challenge: **broadly speaking anything is technically possible, provided there are common models adopted across institutions, and consistency** *within* **institutions**. The challenge is going to be more around trust, the extent to which standardisation can be driven within and across institutions and whether common approaches can be agreed upon.

#### **Case study**

Shared Services and global collaboration (particularly around digital, data and technology) have long been the norm in the world of private enterprise. In sectors such as healthcare, infrastructure, retail, professional services, energy and financial services, organisations that have embraced common ways of working have realised cost savings, grown revenue and improved service performance. The sectors to these organisations' success were not dissimilar to those outlined in this report: decisive leadership, a willingness to adopt rather than adapt, and genuine commitment. Some examples include:

- > A leading British grocery retailer that expanded to two new geographic markets following an exercise to obtain commercial advantage through collaboration with other organisations;
- > A steel producer that saved more than 25% of their costs associated with Finance, HR and Procurement through the establishment of a shared service centre; and
- > A conglomerate with interests in energy and infrastructure that embedded standard processes, data models, and technologies across their entire group, identifying more than 60 improvement opportunities and more than £5m of savings

### Filter 3 – Business case

The third, and final filter that contributors advised any institution must consider is whether, at that particular time, the financial and risk calculations stack up at each institution. Any institution considering a collaborative initiative, therefore, needs a business case that answers two key questions: is it the right thing to do now from (1) a financial and (2) a non-financial perspective?

### The financial case

#### Key costs to consider:

- **Financial constraints**: with 40% of institutions currently facing budget deficits<sup>9</sup> asks for up-front investment are unlikely to be approved, particularly when pioneering a new path and with benefit realisation timelines of more than ten years. Where the Return on Investment does stack up, up-front expenditure is likely to be needed to allow for the cutting of costs later
- Value Added Tax: when organisations in the UK charge for services they are required to add VAT, currently at 20%. Paying your own staff, however, does not incur VAT. While charges to students and activity closely related to education and directly used by students are VAT exempt, any shared service for the sector is likely to incur VAT charges, adding an additional 20% cost. There may be opportunities for cost sharing group exemptions, although this is hard to do in practice, owing to the multiple conditions required by HMRC. Universities UK have recently also called for action on VAT from the government

#### Benefits:

- Reduced business-as-usual (BAU) pay costs: by sharing systems or whole services, institutions individually ought to be able to avoid the need for in-house expertise and capacity, thereby saving salaries, pensions, NI contributions and other associated costs. Learning lessons from the private sector, however, any savings associated with an individual system or service are likely to yield moderate, but not game-changing benefits
- Reduced BAU non-pay costs: reductions in licence fees and other non-pay costs are another area in which savings may be made, including in the reduction of overall time and effort spent across the sector negotiating and procuring systems. Jisc has demonstrated in the digital content domain what can be achieved through collective licensing and negotiation on behalf of the sector at scale
- Savings from implementation: perhaps an area of greatest opportunity. Institutions spend millions each year on projects and programmes implementing systems and transforming the surround services. From sharing lessons learned and good use cases, embracing the philosophy of 'adopt don't adapt', and signing up to shared services could reduce institutions' spend on transformation considerably
- **Contribution to income growth / retention**: as a result of better data, subsequent management information and insight and as a result of higher quality systems and services, participating institutions might better attract and retain students (and their tuition fees)

### Case study

The North London Partners Shared Services ('NLPSS') is a centralised hub that focuses on delivering NHS corporate recruitment at scale. NLPSS is a partnership comprised of 10 North London NHS trusts, working together to help staff access information, systems and processes that they need. Delivering this service at scale frees up NHS resource in each individual trust.

9 If a university goes bust, which students lose most? - BBC News.

### The non-financial case

**Risks**:

- **Reputational**: there are multiple reputational risks such as how might the loss of local jobs, in an institution claiming to have a 'civic mission' be reconciled?
- **Contractual**: any arrangement between institutions or with a third party would need to define division of responsibilities, set out how work and capacity would be prioritised, set out service-level agreements as well as escalation processes. Issues of liability and intellectual property (IP) would all need prior agreement
- **Delivery**: at the same time, how does this compare with the delivery risk of 'going alone'? Few stakeholders claimed their university has abundant technical, business change and other transformation capabilities or capacity
- **Scope creep**: often when optimising a process, projects uncover a range of activities and challenges that are impeding progress of optimisation, leading to scope creep. What started as a small set of changes, becomes a huge beast of change that creates even more blockers and barriers

#### Benefits:

- Student and staff experience: any improvements to the speed, consistency and quality of services are likely to be well received
- Institutional focus/attention: freeing up capacity for reinvestment
- **Reduced duplication of effort**: as a result of both standardisation and (potentially) central/consolidated delivery of services (as opposed to fragmented and devolved delivery)
- Better enabling lifelong learning and transfers between institutions: this is increasingly being encouraged for the sector. Collaboration, particularly the embedding of standard approaches, is essential for this to work effectively

For each institution, the exact calculations will vary according to that institutions' financial position, IT architecture, internal capacity and risk appetite.

"The benefit of collaboration would be releasing capacity for additional activity in the existing workforce."

Professor Monique MacKenzie, Vice-Principal (Digital Education, Research and Environment), University of St Andrews

### **Opportunities and themes**

Contributors to this report have suggested multiple specific opportunities that they believe are worth pursuing, from standard definitions of a student journey to shared student administration services; from sharing high-performance computing facilities, to shared specialist technical resources. The full list of suggestions harvested as part of this engagement is included in Appendix B.

Whilst the opportunities suggested span teaching and learning, research and enabling capabilities, when aggregated up they largely fall into five themes:

- 1. Greater central coordination of activity whereby a sector body (potentially an institution, collection of institutions or third party) oversees:
  - **a)** establishing standard models to be shared openly including standard definitions of things such as a student journey, use cases for common Finance, HR, (and other) systems, business requirements, code, process maps, data models, etc. and using them to drive consistency across the sector;
  - **b)** taking the lead amongst institutions looking to explore, procure or implement systems to share insight, including pricing and lessons learned;
  - **c)** speaking 'with one voice' to government, providers and other third parties to secure the best possible terms (such as appealing to government to reduce VAT specifically for shared services, or for negotiating pricing arrangements with system providers).

In the first instance, this could be achieved through a sector wide organisation (such as Jisc or UCISA) convening a group of willing institutions to develop content, convene interested groups, organise mechanisms for storing and updating documentation, develop subscription/opt-in models, and agree how the costs of such coordination might be borne.

Institutions that are prepared to adopt common models and assets might see benefits such as reductions in the cost to deliver transformation programmes or the need to negotiate licensing arrangements. Institutions should not, however, underestimate the change management effort that will be required to support staff to adopt new resources or resist the temptation to 'customise' them for a perceived rather than actual institutional circumstance that requires it.

Opportunities under this theme are at the easiest end of the spectrum: they do not require regulatory change, do not necessarily need the establishment of new entities, nor do they require unpicking of existing technical estates, but would need a willing party to lead on behalf of the sector and given a mandate from the sector to provide that leadership.

2. Central provision of digital data and technological (DDaT) skills development and resource to support institutions facing high demand, low supply and competition from other sectors for skills and resource.

The buying-in of specialist technical and IT training is common across many sectors, with multiple UK and international providers already established.

Wider digital skills, behaviours and mindset development for all staff, however, is a gap that contributors have identified in the current technical training market. Were an organisation to identify digital skills needs across the sector, oversee the delivery of training across multiple institutions, as well as handle operational tasks such as scheduling, individual institutions could benefit from improvements in technical and digital skills, elevate digital practices and mindsets, and even save on recruitment as a result of lower turnover of staff.

Centralised pooling of high-quality technical resource, in a manner not dissimilar to Unitemps, could coordinate the sharing of high-demand resource across institutions, set professional standards within the sector, and help institutions with DDaT recruitment.

In other sectors, such as the NHS and Civil Service, digital academies have been set up for these purposes. Those organisations coordinate support at scale for all technologies, for all staff, as well as for digital and institutional leaders.

**3.** Sharing of applications with opportunities across teaching and learning, research and the back office. As with so many of the opportunities discussed before, the sharing of applications themselves is not technically nor operationally challenging, where there is genuine appetite to navigate the cultural challenges that would need to be overcome.

The key questions, therefore, for institutions looking to share applications are ones of:

- Establishing the case for change to overcome significant cultural obstacles and obtaining buy-in
- **Construct**: whether shared applications would best be delivered via:
  - Third party hosting (such as by Jisc, a lead institution, or by a third party)
  - Clustering of participating institutions, establishing a preferred pool of systems such as is being implemented currently by the UK government for multiple civil service departments
- **Funding**: the ideal case for which would come in the form of government seed funding. In reality, however, investment is unlikely in the short-term and so the sector could identify a test case in which commercial concessions are negotiated with providers. A 'proof of concept' such as this might demonstrate both the viability of such initiatives and the sector's openness to change. Indeed, the sector has already shown a grown willingness to adopt collective approaches to the negotiation of agreements with a range of vendors

The immediate next steps therefore could include coordination amongst interested institutions and third parties to validate the feasibility of sharing a range of administrative systems. This analysis would need to consider:

- An elaboration of the strategic case for doing so
- Assessment of potential systems that could be shared
- Minimum entry criteria including capacity, process maturity, standardisation, cultural point of view and stage in current systems' lifecycles
- Regulatory and legal considerations
- Coordination across procurement bodies, organisations such as Jisc that negotiate licences, groups representing universities such as Universities UK and organisations that represent professional groups within universities such as Association of Heads of University Administration (AHUA), The British Universities Finance Directors Group (BUFDG), Research Libraries UK (RLUK), SCONUL and UCISA to agree negotiation objectives
- Analysis of outline costs and projection of indicative benefits
- Potential funding approaches

Identification of the best systems to share might be based on ease (in which case finance or HR may be the best candidates); those for which there is the biggest sector appetites (student record systems and digital research infrastructure) or opportunity to level-up provision (in which case research management systems).

Initiatives focussed solely on sharing digital applications would be liberated from geographical constraints (with the possible exception of the need for key individuals to meet face to face from time to time) and as such may be best explored on a mission group basis, or by institutions across the county in similar positions in terms of their finances, or technological lifecycles.

It would be important to bear in mind what the sharing of applications, in particular the up-front cost and scale of change to manage might preclude or delay embracing fuller shared service models in the future.

- 4. Sharing of or commissioning whole services. A topic that the sector has been considering for a long time, and potentially offers the greatest scope for benefits in the longer term. Like many contributors to this report, the recent Universities UK blueprint also advocates for shared services as an area for exploration. While back office and administrative services might be the easiest cases to start with owing to the presence of high volume and transactional activities which could be pooled, the sector should also consider centres of excellence for highly specialist activities that lend themselves well to the concept of sharing (in these instances focusing more on embedding greater resilience in specialist areas, as opposed to pooling transactional activity). Contributors to this report have suggested a:
  - a) Shared student administration service has a surprisingly large (given historic attitudes towards the uniqueness of these processes within an institution) amount of support for shared service delivery. The opportunities for improvement in the consistency of student data, the transactional nature of enrolments, placements, and assessments, and the opportunity to standardise the administration of credit bearing modules could yield benefits in efficiency and provide a much-needed platform for the lifelong learning agenda.
  - **b)** Shared student wellbeing services which might offer local or national solutions to the ever-growing demand placed on institutions for student wellbeing and mental health support. This would require extensive coordination across participating institutions, NHS, government and the charity sectors.



c) Shared finance, HR and procurement service(s) focussed on delivering transactional and discipline agnostic services such as payroll, accounts payable and accounts receivable, staff service desk, recruitment, etc. These are the areas most commonly deployed via a shared service model in the corporate world. Learning from effective operations in the private sector (in which national branches interface with a global shared service centre) UK universities could retain their own highly specialist and/ or discipline specific capability such as financial planning, workforce management and strategic vendor management in the form of business partners or local specialist teams, freed-up from the high-volume transactional activity.

The biggest challenge (again) for any of the initiatives above would be cultural. Institutions would have to be prepared to adapt to the shared ways of working and avoid attempting to customise. There is, however, precedent both in the sector (e.g. UCAS), across the public sector (NHS, local government and the civil service) and successful examples in abundance in the corporate world of success in this regard.

Shared services could be achieved through a number of different means based on scale of institution, mission group, or, perhaps most likely owing to the benefits of geographical proximity, on a regional basis. Shared Services could also involve sharing across:

- Other tertiary education institutions, particularly where common approaches to student administration might yield benefits in efficiency and student experience
- Lay the groundwork for wider vertical collaboration, including onwards mobility for local further education providers and developing pipelines of local applicants for universities

Multiple mechanisms could be explored for delivering shared services, including central vehicles, institutions establishing wholly owned subsidiaries for others to utilise, or the use of third parties.

**5. Co-building technology specifically for the sector** which is seen as a desirable option because of a common belief that many existing systems were not built primarily for the UK or HE market.

One opportunity that was continually raised was in relation to the student lifecycle. In part that is because, in the views of contributors, the UK market has been poorly served relative to other major systems, and the current suite of products do not deliver the dynamic, digital experience on an integrated platform that institutions want to underpin their student administration.

While the underlying drive for consistency behind these initiative ideas is laudable, the complexity of trying to pull together multiple sets of requirements from participating universities, the nature of HE itself and the need for up-front investment, make it unlikely that this would be a viable course of action.

With each of the five themes above, consideration should be given to both what is possible immediately and what might be possible in the longer term. Perfection should not be the enemy of good, and the sector should look to explore each theme further as Universities UK and others have called for, not least as a sufficient swell of support across institutions is likely to be needed before government funding is made available.

### Case study

Huron Consulting Group provides a comprehensive research administration platform that streamlines operations for universities, research institutes, hospitals, and other types of organisations. The platform offers a centralised system for proposal submission, award management, protocol management and conflict of interest disclosure. By leveraging Huron's solution, these institutions can improve efficiency, reduce administrative burden and increase compliance.

While it is not the intention of this work to narrow the broad field to a specific recommendation, the next step for any institution or other interested party would be to explore and iterate ideas, prioritise and identify the most appropriate initiative(s) to take forward.

Figure 5, below, illustrates how a prioritisation might look, where the opportunities from Appendix B are appraised based on the scale of benefit and the likely timescales to complete (bearing in mind the earlier point that for many, 10-30-year time horizons are likely).



#### Figure 5: Shortlisting matrix

#### **Case study**

The University System of New Hampshire (USNH) is a system of public colleges and universities in the state of New Hampshire and has campuses across three cities. The university system shares services across the 11 schools and universities, with a strong purpose and mission built around serving its community and improving student access. USNH is able to offer its roughly 16,000 students more than 100 major areas of study and the span of the system affords opportunities and capabilities to those it serves. This model is also used across other state university systems in the US and could provide the basis for exploring regional models of collaboration in the UK.

## Section 4: How could it happen?



Having established in Section 3, that opportunities for collaboration exist across a broad swathe of a university's operations, Section 4 turns to the practical reality of how any of these might be delivered.

## Why hasn't this already happened / what's stopped it previously?

### "My institution doesn't even collaborate with itself."

Anonymous

As Section 2 notes, the conversation around data, digital or technological collaboration in HE is not new. In pockets it already exists, with institutions that have embraced this type of collaboration enjoying many of the benefits.

We posed the question to our group of VCs, DVCs, PVCs, COOs, CIOs and CFOs: "what has prevented collaboration in the past?"

#### They told us:

- There **simply wasn't the need or drive** to collaborate in this way 10-20 years ago. university finances were far more buoyant and the technological and digital landscape was less advanced. It wasn't close to the top of their institution's agenda
- **Change is hard**. Change is especially hard in the HE sector. Navigating academic freedom, high risk aversion and a culture of extensive collaboration means it is difficult for individual institutions to navigate changes to systems and technology. The surrounding models for delivering services and organisational structures need to be looked at in conjunction with any change to fully realise experiential and financial benefits. Getting a system into one university is difficult enough, let alone doing this for multiple institutions

- The **prevalence of highly variable practices** within an institution. With faculties and even departments following local processes often involving manual steps and off-system working, and dependent on the tacit knowledge of key individuals has long been the norm. This makes external collaboration, which necessitates consistency and single ways of working near-impossible
- The sector can be **slow to react**, and institutions are often reluctant to be the first mover, particularly with regard to technology. Why take a chance on something un-tested? Many contributors acknowledged, however, that there can be a significant advantage in being an early adopter
- **Peaks and spikes** throughout the academic calendar mean, at an institutional level, time to pause, reflect on approaches and dedicate time and effort to exploring cooperation externally have been limited
- The prospect of **unpicking years of tangled IT infrastructure, internal systems and integrations** has been too daunting. One participant noted the sensitivity of sharing details of legacy IT estate with peers. Technical debt and the inability to stop investing money and effort into legacy systems that are there because they have always been there also plays a part
- Perceived threat from competitors particularly with the drive for a 'market in higher education' that has been pushed in recent years. Fear of losing out on student or staff recruitment has pushed the notion that many of the activities within an institution yield competitive advantage and therefore ought not to be disclosed to rivals
- Segmentation in the sector has played its part, with the more profitable and established institutions being able to ride out many of the issues that have increased recent focus on collaboration. Challenges are experienced by almost all in the sector, but because some are far better equipped to deal with it, segmentation has stunted the progression of collaboration
- Concerns on the part of **smaller institutions** of being drowned out, neglected or even ignored in favour of larger players in a collaborative exercise
- A lack of incentives or top-down pressure to collaborate. The challenges posed by 20% additional cost on any shared service from VAT, and limited institutional capacity, with resources directed to maintaining current states, meaning opportunities have been under-explored

"Universities are large and complex environments, it's difficult to navigate big changes, especially when trying to do it across multiple institutions." **Greg Sawyer, CEO, CAUDIT** 

That being said, contributors also pointed to multiple examples of the sector exhibiting behaviour far more aligned with what's needed for collaboration:

- The **Covid-19 pandemic** which peaked in 2020-21 compelled institutions to adapt and embrace digital technologies and virtual operations remarkably quickly, with examples of innovation and cooperation abundant
- Once that challenge of finding first movers is overcome, and an approach or system has been proven, **the sector can galvanise behind accepted ways of working remarkably uniformly** suggesting that were an initiative to overcome initial barriers, there is potential for a waterfall of institutions joining soon after
- Widespread discontent with some of the providers of core university systems. These providers are often global, and serve other, larger markets. This has resulted in a sense from UK clients that they are deprioritised, that the needs of the UK sector are not given sufficient attention, and increasingly that the sector must work together to leverage any collective power it can exert

### "The difficulty with collaboration on (for example) ERP or finance systems is that it requires a basic similarity and consistency in underlying policies and processes. And we often can't accomplish that within different parts of our own organisations!"

#### Anonymous

So, what would be the ideal conditions for collaboration? Contributors agreed that the following would need to be true or in place in order to succeed:

- **Trust**: particularly in a sector which places high value on personal relationships and integrity, leaders told us they would need to be able to trust colleagues from institutions that they're working with, and from any third parties. This extends beyond personal relationships, however, with institutions needing to be confident in the ability of any shared service to deliver, something best demonstrated through previous success; as well as assurance that escalation procedures would be in place and operate effectively
- **Effective governance**: including oversight, performance reporting, prioritisation criteria and escalation routes. This should be supported by a sufficient (and consistent) change management model

### "I would work with people that I trust."

#### Professor Shân Wareing, Vice-Chancellor, Middlesex University

• Driven by senior leaders: in one of the first group interviews conducted as part of our research, a group of CIOs all agreed that, for any initiative, drive from Vice-Chancellors in particular would be key to individual institutional buy-in, and visible sponsorship would be needed to persuade others in the sector. Many of the examples of effective collaboration already in existence (such as APUC and Jisc, below), in their view, originated as a result of top-level leadership and vision. This would also benefit from longer-term thinking and reduced policy complexity (and possibly even dedicated policy around digital collaboration)

#### Case study

APUC, the procurement Centre of Expertise for Scotland's 60 universities and colleges, was established in response to the 2006 McClelland Report, which called for public procurement reform. APUC's mission is to work collaboratively with member institutions to maximise the value of their procurement resources. By creating and providing shared procurement frameworks, APUC enables institutions to access a wider range of goods and services at competitive prices. This collaborative approach helps institutions deliver more with the funds they have, ultimately benefiting students and staff.

### **Case study**

Jisc, as part of its work for this sector, undertakes licensing and negotiation with publishers such as Oxford University Press and software vendors such as Adobe and Microsoft. Over the course of the last 25 years this activity has grown to offer institutions the ability to subscribe to over 400 products. Through close collaboration with experts and senior leaders in institutions from across the HE sector, Jisc has been able to give all institutions a voice in the negotiations, widen access to essential resources and applications, save institutions money (an independent study by Frontier Economics estimated that Jisc's licensing activity saved institutions at least £136 million per annum), as well as further the policy objectives of organisations such as UKRI and the implementation of their open access policy.

- Institutions embracing the attitude of 'adopt rather than adapt': being willing to accept the premise of Section 3 – that for the majority of services within a university, a common way of working, that still delivers all of the 'must haves' is preferable to individual delivery of an overly-customised service or system. Embracing this attitude, which the sector is increasingly doing, would also yield benefits *within* any institution
- Incentives to collaborate: our research and stakeholders could point to little by way of incentive or compelling factors that might drive collaboration from the top down, in the realms of learning and teaching and back-office/enabling capabilities (in this regard UKRI and DSIT play an active role in the research realm, through initiatives such as their Digital Research Infrastructure Committee)
- **Propositions need to be commercially viable**: delivering sufficient surplus to continue as a going concern, while pricing themselves competitively compared to private sector alternatives
- Assurance for smaller institutions: that they won't just be ignored when partnering with larger, wealthier or more prestigious institutions
- Longer time horizons for benefits: roughly 10 years should be the norm. Longer time horizons of 20-30 years could allow for more ambitious initiatives to be considered
- 'We' not 'me': those who were interviewed mentioned a key attitude shift that needs to happen in order for collaboration to be successful. It's taking the 'self' out of the equation and viewing problems and creating solutions with a group mindset. With this, the sector will need time to adjust to the new culture, and a sense of openness

"We should focus collaboration on areas that we're just starting as a sector, free from legacy infrastructure and existing barriers, such as micro-credentials and degree apprenticeships for many universities." Ben Rogers, Director of Registry Services, Cardiff Metropolitan University



## Section 5: Next steps

"We need a neutral third party to drive this, who's impartial and will take the risk (of competitive advantage) out of it." **Dan Perry, Chief Information Officer, Keele University** 

All contributors to this report agree that greater collaboration is a key area of opportunity for the sector. This report evidences the diversity of options for shared and collaborative services, the variety of stakeholders and scales at which shared and collaborative services could and should be considered.

Given the current trajectory, there is a window of opportunity for institutions to act now and help drive this forward before they are compelled into action by necessity.

Institutions, and other sector bodies therefore ought to consider a step-up in:

- **1. Mindset**: Discuss and debate the contents of this report. Does it resonate? Do you see your institution playing a role/benefiting from greater collaboration? Agree an institutional position, and make it known; and
- 2. Behaviour: Look to act now, in this golden moment while institutions still have the resources, capacity and autonomy to shape the solution(s). It won't necessarily be an easy journey, but one that does offer a way forward.

Leading bodies in the sector, including Jisc, should seek to:

- Convene 'coalitions of the willing' from across the sector, in the first instance looking to areas where groups of institutions have already established collaborative approaches
- Coordinate a consistent message from the sector to government
- Conduct a feasibility study and detailed business case on the priority opportunities for collaboration, the costs of maintaining the sub-optimal status quo and move towards more effective approaches

Realising the ambitions outlined in this report stretches beyond the remit of any one body, and, as Universities UK also note in their blueprint, will require the establishment of multiple coalitions of the willing amongst institutions, students, academics, government, funding agencies, sector bodies, vendors and others.

While a lack of technological solutions is not the issue, the real opportunity comes from changing how the sector operates through the prioritisation of true collaboration over competition and standardisation over specificity, wherever appropriate.

## Appendix A: Initial opportunities



Showing the list of initiatives suggested as part of the consultation for this report. This list is not intended to be exhaustive, but to demonstrate the breadth of opportunities available. They have been organised according to theme and area (learning and teaching, research and enabling capabilities).

Initial opportunities			
Theme	Area	Opportunity	More detail
1. Greater central coordination of	Learning and teaching	Collaboration advocate	'Neutral actor' to drive collaboration top-down, looking across multiple institutions, and driving policy changes where needed (such as UKRI and DSIT do for research).
activity		Block teaching	What opportunities for shared services might be enabled with universities switching to block teaching? Block teaching is an intensive approach to delivering education where modules are delivered over a short time period, typically four to eight weeks. The emphasis is on focused, immersive learning by having students engage with one subject at a time, allowing for deeper understanding and retention. It contrasts with traditional modular delivery where students juggle multiple modules over a semester.
		Academic development and training	With the possibilities of online and remote training and support, institutions could share materials and develop the skills of their teaching and research staff.
		Teaching materials	In certain topics and subjects there are opportunities that would allow for greater collaboration and sharing of materials (or even teaching), such topics as research ethics would be a good example.
	Research	Sharing of high-end research kit not used to capacity at all times	Allows institutions to either share or recoup costs on funded equipment through shared use.
		National repository of research outputs	To tidy, collate and store research outputs on behalf of multiple institutions.
		Shared high performance computing	Expansion of existing /additional shared HPC centres
	Enabling capabilities	Procurement frameworks and support	Universities using shared procurement frameworks with 80% standardised content and 20% unique to each institution. Flexible and dynamic, easy for users and suppliers.
		Repository of documentation and standard sector models	A single repository to house leading practice use-cases, code, templates and other models. This could include standard definitions of things like the student journey.
		Defined models for data governance and management	Widespread use of a consistent operating model around data that shows where each university's data is and the associated governance and management.
		'How to set up a partnership' framework	Framework for faculty members to refer to, to help navigate setting up a partnership with other institutions. E.g. how to manoeuvre the power dynamic and finances.
		Establish a vehicle by which licences can be procured on behalf of the sector	Universities as a group working together, gaining one licence which will give each of them access. This means one invoice is received, instead of individual invoices for the same product.

Theme	Area	Opportunity	More detail	
2. Central provision of skills and	Enabling capabilities	Sharing technical resource	Shared appointments between institutions, e.g. Chief Data Officer, Enterprise Architect, Information Security Officer, DPO, etc.	
resource		Central technical skills development provision	Common provision of training and development for highly technical expertise.	
3. Sharing of applications	Learning and teaching	Shared attendance system	Shared system to track attendance of students for lectures and seminars. Part of wider HR system.	
		Shared timetabling system		Shared timetabling platform, including UX interface allowing for easy display on a variety of devices.
		Common library management system	Such as the one that exists in Wales currently (WHELF).	
	Enabling capabilities	Managing estates	Shared system to help institutions manage their estates, including managing facilities to support campuses (shared vendors for development/design).	
4. Sharing of whole services	Learning and teaching	National student welfare service	A shared service across the sector for mental health support and counselling	
		National university press	Coordinating publications on behalf of multiple institutions.	
	Enabling capabilities	Cyber security	The sector could look at developing its own equivalent to Cyber Essentials that is HE specific and takes into consideration the sector needs. There would be separate instances with shared back office.	
		Service desk	Already an out-of-hours service provided by Northumbria (Norman Managed Services). Explore further opportunities for similar sorts of provision.	
		Shared back-office services (such as finance, HR and purchasing)	Either sector-wide, or between self-selecting institutions, to provide all transactional finance, HR, and procurement activities. Could include statutory reporting such as TRAC.	
			Collaboration between geographically proximate universities to share single finance / HR / payroll / other enabling capabilities.	

Theme	Area	Opportunity	More detail
5. Co-building technology	Learning and teaching	Shared virtual learning environments	Considering sharing a common VLE across multiple institutions, or exploring, on behalf of the sector, opportunities for the use of other existing systems, instead of multiple VLEs.
specifically for the sector	Research	Multi-tenancy research environments	Add Federated compute, analysis, data storage and research production environments and trusted and secure digital research infrastructure facilities
		Research management systems	Shared secure platforms for PGR research student management, output and impact management, grant management pre-and post-award, contracts, research data, ethics and due diligence
	Enabling capabilities	Shared student information / record system	Designing, implementing and operating a shared SRS based on a standard model with built-in automated reporting (such as HESA). This could also explore ways in which, like the VLE opportunity, existing systems such as MS Dynamics could be used as an SRS.
		Single learner analytics provision	Platform to allow greater understanding of student behaviours and would be a sector-led shared service. Needs to be commercially competitive / viable.



## Appendix B: Glossary

Term	Definition
Al	Artificial intelligence
BAU	Business as usual
CAUDIT	The Council of Australasian University Directors of Information Technology
CIO	Chief Information Officer
C00	Chief Operating Officer
DDaT	Digital, data and technology
DSIT	Department for Science, Innovation and Technology
DVC	Deputy Vice-Chancellor
HE	Higher education
HMRC	His Majesty's Revenue and Customs
IP	Intellectual property
Jisc	Jisc is the digital and data body dedicated to shaping the future of education and research
KPMG	Global Professional Services partnership with expertise in audit, tax and advisory in the HE sector
OfS	The Office for Students
PVC	Pro Vice-Chancellor
SaaS	Software as a Service
UCISA	The professional body for IT and Digital practitioners in UK Education
UKRI	UK Research and Innovation
VAT	Value added tax, currently 20%
VC	Vice-Chancellor
WHELF	Wales Higher Education Library Forum

## Contact your Jisc relationship manager

To discuss this report contact your relationship manager:

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