



**University of
Nottingham**
UK | CHINA | MALAYSIA

Digital Strategic Delivery Plan

Ratified by the Digital Strategy Committee

On 26th April 2021

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1. Executive Summary

The Digital Strategic Delivery Plan outlines several priority areas for investment over the next 2-3 years which support the University in achieving the vision and goals outlined in the University Strategy and realise its ambition of being a digital exemplar for the Higher Education sector. It has been developed in close collaboration with other strategic delivery planning areas in accordance with the University's Strategic Planning Framework.

“Digital” is a widely used term which has different meanings depending on context. For the purposes of this document, digital is defined as *“the effective combination of organisational and technological processes to generate value for the University and its stakeholders”*¹.

The two key elements within this definition can be described as follows:

- **Organisation:** A digital organisation is one that uses data to make better and faster decisions, develops iterative and rapid ways to achieve outcomes, and builds environments that encourage generation of new ideas and working methods. It also partners with other specialist organisations to extend capabilities where necessary.
- **Technology:** Digital technology is about ensuring the right system and data architecture is provided to meet a specific need of the University. This means combining secure, stable, standardised, and well-maintained systems that support critical core functions with agile and flexible solutions that support innovation and experimentation.

The Digital Strategic Delivery Plan is structured around five strategic priorities, which are a combination of in-flight initiatives and future oriented strategic planning activities. They are expressed as statements of strategic intent as follows:

Priority 1: We will establish a cross-functional Education Administration Continuous Improvement Team with the necessary range of skills to effectively operate and enhance the Campus Solutions system and associated business processes to improve the performance, efficiency, and effectiveness of the administration services it underpins.

Priority 2: We will deliver improvements in digital capability through the Digital Futures programme including the Digital Core, Digital Engagement and Foundational IT Services refresh projects, regularly ensuring the programme's alignment with University priorities and investment appetite.

Priority 3: We will identify and implement digital solutions to support an inclusive, agile working environment that provides the 'best of both worlds', blending digital and analogue solutions, giving choice for optimum efficiency and effectiveness in where, when and how we work and study.

Priority 4: We will collaborate with the university community to co-design a “Digital Development Framework”, renewing our vision for a digital exemplar university that embraces digital and technology services to enhance our research and education and improve student and staff experience.

Priority 5: We will increase the 'digital acumen' of the University, improving the institution's ambition and ability to identify and use new and existing technologies and working methods in context to deliver better outcomes for students, research teams, partners, and staff.

The Digital Strategic Delivery Plan is owned by the Digital Strategy Committee and will be implemented through several cross-functional investment programmes and projects.

¹ Definition derived from the 2015 McKinsey article: [What 'digital' really means](#)

2. University Strategy Alignment

This section describes how the Digital Strategic Delivery Plan aligns with the values, goals and enablers described in the University Strategy published in 2019.

Values

Inclusivity: We will promote the inclusion of all members of our diverse user community through co-design and testing of new digital solutions and strategies with the aim of increasing accessibility to information and services.

Ambition: We will strive to fulfil our ambition of being a digital exemplar for the sector, leading the way in the adoption of digital solutions that enhance the impact of our research, teaching and professional services and deliver a great experience for our students and staff.

Openness: We will clearly communicate our priorities, decisions, successes, challenges, risks and issues to all our stakeholders and continue to welcome feedback on the effectiveness and performance of our digital solutions and services.

Fairness: We will ensure that our governance and prioritisation processes are clear and straightforward to use, enabling consistent decisions to be made on where we should invest our limited resources to maximise benefit to the university.

Respect: We will incorporate the thoughts and feelings of our stakeholders by involving our user communities in the co-design of digital strategies and solutions.

Goals

Solving Problems and Improving Lives: We will enhance the student and staff experience by delivering new digital services and solutions, promoting usage best practices and improving process efficiency and effectiveness through automation of routine tasks, releasing time to be spent on high value activities.

Supporting Potential: We will provide digital competencies, skills and capabilities that will enable our research teams and students to make an impact within their field of work and study and our professional services teams to deliver high quality services.

Developing the campus experience: We will enhance our already outstanding campus environments through investment in smart technology to deliver a contemporary, inclusive and engaging campus experience for students, staff and visitors.

Cultivating a Global Mindset: We will enable global access to information and services where it is appropriate and safe to do so and increase our adoption of virtual collaboration technology to create an international experience for everyone, whether they leave their local campuses or not.

Fostering creativity, discovery and experiment: We will provide researchers, educators and students with the enabling technology and environments to innovate and experiment safely. We will continually evaluate and adopt new technologies and working methods, placing the University at the vanguard of research and development into emerging technology.

Contributing to sustainable development goals: We will embed environmental sustainability principles into our selection and implementation of new digital solutions.

We will employ technology to measure, monitor and proactively manage our energy usage and provide suitable alternative solutions that reduce the need for travel between our campuses.

Collaboration in all that we do: We will deliver a 'best of both worlds' hybrid of virtual and in-person collaboration methods and invest in digital solutions to enable effective and engaging relationships with our students, alumni, industry partners and supporters.

Enablers

People: We will deliver digital solutions that provide a choice of inclusive and flexible study, research and working methods and will equip our students, research teams and staff with digital skills and competencies that enable them to achieve their potential.

Infrastructure: We will maintain, replace and upgrade our digital assets (technology platforms, data and applications) to enhance our teaching and research activity and student and staff experience.

Governance: We will support highly effective decision making by ensuring the quality, integrity, availability, and accessibility of data.

Compliance: We will ensure that we meet our regulatory reporting and accessibility requirements and all relevant technology and data related compliance obligations.

Financial Sustainability: We will reduce duplication, complexity and redundancy within our digital solutions to maximise benefit and value from digital investments.

Risk: We will continually focus on the management of technology related operational and information security risk to ensure continued operation of the University and create a safe virtual environment for our community.

3. Campus Coverage

<p>Category 1:</p> <p>Global activities that are led and managed by the University, across the University</p>	<p>Category 2:</p> <p>Activities that have university-led global direction but are managed locally</p>	<p>Category 3:</p> <p>Activities that are managed locally</p>
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The primary focus of this version of the Digital Strategic Delivery Plan is on global (enterprise) and UK campus specific solutions. Specific strategic initiatives for China and Malaysia campuses will be incorporated in a future version of this document.

We will deepen the relationship between digital and technology leadership teams across our three campuses to collaborate on strategic direction as well as day-to-day service and change delivery. This will include co-design of the new Foundational IT Services Operating Model to identify opportunities to benefit from global models where possible.

In the meantime, digital solutions will be selected and implemented by balancing local, campus-specific requirements for functionality and service with economy of scale benefits that come from centralised, global solutions. The framework below demonstrates how these decisions will be made (with prior examples shown in italics).

		Process Standardisation	
		LOW OR DIFFERENT IN EACH CAMPUS	HIGH OR MOSTLY STANDARDISED IN EACH CAMPUS
Data Standardisation	LOW INTEGRATION OR DISPARATE DATA	<p>DIVERSIFY</p> <p>Campus specific solutions locally deployed and managed.</p> <p><i>Research Management (RIS)</i> (Sensitive information)</p>	<p>REPLICATE</p> <p>Global solutions locally deployed and managed.</p> <p><i>Libraries (Primo)</i> (No sensitive information)</p>
	HIGHLY INTEGRATED OR SHARED DATA	<p>CO-ORDINATE</p> <p>Campus specific solutions locally deployed and managed with global integration</p> <p><i>Identity Management</i></p>	<p>UNIFY</p> <p>Global solutions centrally deployed and managed</p> <p><i>Student Information System (Campus Solutions)</i> <i>Virtual Learning Environment (Moodle)</i></p>

4. Links to Other Strategic Delivery Plans

The Digital Strategic Delivery Plan is dependent on the University's financial sustainability plans and forecasts to inform delivery pace and timescales for all investment opportunities.

Links between the priorities outlined in this plan and those described in other Strategic Delivery Plans which have been developed so far are as follows:

Education and Student Experience:

- Establishing a cross-functional **Education Administration Continuous Improvement Team** to define and deliver a roadmap for improvement of student records management, support, and welfare services.
- Through the eAssessment project within the **Digital Futures Programme**, deliver new and improved digital capabilities to enhance curriculum design and delivery, student engagement, assessment and learning analytics.
- Increase automation of timetabling and scheduling systems to reduce the likelihood of clashes or poor student experiences.
- Within the **Digital Development Framework**, co-design the University of Nottingham Online target architecture to support diversification into non-traditional modes of Higher Education.

Research:

- Implement **Agile Working** digital solutions to enable virtual collaboration and knowledge sharing between research communities, external partners and funding bodies, and facilitate hybrid, remote and in-person access to specialist research facilities.
- Through the **Digital Futures programme**, deliver the next generation of high-performance computing to enhance the University's reputation in this field.
- Co-design the target architecture for **Digital Nottingham**; a platform to showcase and increase the impact of our digitally enabled research.
- Within the **Digital Development Framework**, describe the future state for digitally enabled research, aligned to an updated Research Strategy including:
 - Provision of data processing, storage and visualisation capabilities that maximise the impact of our world leading research activity.
 - Definition of processes for evaluation and adoption of emerging technologies in which we want to be world leaders in their development and / or implementation.

Knowledge Exchange:

- Enhancing our engagement with partners by delivering a Customer Relationship Management solution, using the **Digital Engagement** technology platform.

Global Engagement:

- Adopt **Agile Working** principles supported by digital solutions that enable collaboration without borders, removing unnecessary technology barriers to international data access.
- Enhance the international aspects of Campus Solutions development through the **Education Administration Continuous Improvement team**.

Civic:

- Within the **Digital Development Framework**, co-design the target architecture for **Digital Nottingham**, an environmentally sustainable facility in Nottingham to showcase data science and digital innovation.

Estates and Facilities:

- Through the **Digital Futures programme**, deliver new digital capabilities for facilities management, campus utilisation and planning, access and surveillance to achieve the vision of smart and environmentally sustainable campuses described in the **Estates Development Framework**.
- Deliver **Agile Working** digital solutions that enable flexible working, study, research, teaching and social spaces across campus to achieve the goal of being able to 'work and study from anywhere'.

Environmental Sustainability:

- Deliver **Agile Working** digital solutions that maximise the effective and efficient use of University estates, minimising the need for travel between campuses and supporting targets to reduce energy consumption of buildings and transport.
- Within the **Digital Development Framework**, establish environmental sustainability principles for selection and implementation of digital solutions, particularly in relation to scope 3 (indirect) emission impact of cloud providers.

Equality, Diversity and Inclusion:

- Through the **Education Administration Continuous Improvement team**, address gaps in data quality and completeness in our core student records system that pose a risk to our ability to meet legal or regulatory requirements as well as hinder insight into the effectiveness of the implementation of EDI strategic goals.
- Within the **Digital Development Framework**, establish EDI principles for the selection, design, testing and implementation of technology (hardware and software) and digital services, co-designing with our EDI experts and leaning on our own research in the field of user-centric design and technology accessibility.

People:

- Support the transformation of how we support our staff by replacing our legacy HR systems through the **Digital Core Programme**.
- Through the **Digital Development Programme**, enhance the ability of our staff to engage with digital concepts and tools, leading them to make greater and more effective use of the opportunities that they present.
- Enable changes in our culture, behaviour and ways of working by providing digital solutions to support **Agile Working** and enhance the staff experience.
- Within the **Digital Development Framework**, describe the culture, behaviours, capabilities, and skills necessary to be a truly digitally enabled university.

Size and Shape:

- Deliver an enhanced, contemporary, digital first impression of the university and support student recruitment targets through the **Digital Engagement Programme**.

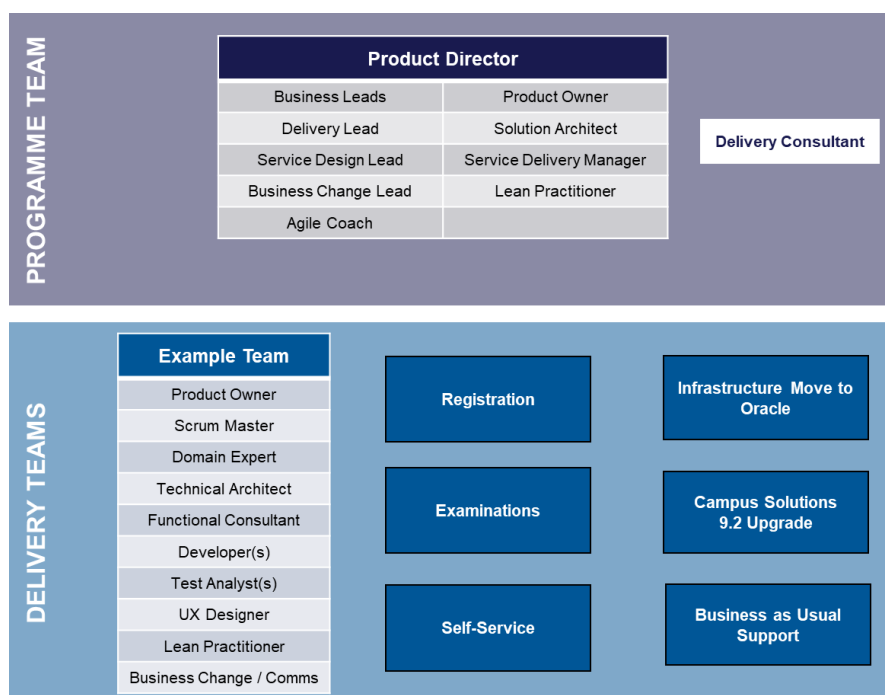
5. Strategic Priorities

Priority 1: Establish an Education Administration Continuous Improvement Team

We will establish a cross-functional team with the necessary range of skills to effectively operate and enhance the Campus Solutions system and associated business processes to improve the performance, efficiency and effectiveness of the administration services it underpins.

Campus Solutions is established and fully commissioned as the University’s student records management system for all three campuses, and we now need to build on this foundation to realise the benefits from this significant investment, enabling operational efficiencies and providing students and staff with an exemplary user experience.

The new Education Administration Continuous Improvement Team will be established early in 2021 under the leadership of the Deputy Registrar and a newly created Product Director role. This team represents a new digital partnership operating model, which supports our strategic goals of solving problems and improving lives and embedding collaboration in all that we do.



The team comprises two distinct elements:

- **Programme Team:** permanent team providing overall coordination, programme planning and delivery performance as well as contributing to delivery activities.
- **Delivery Teams:** transient teams set up to deliver specific business outcomes, including roles supplied by University teams such as Student Services, Admissions, Finance, Digital and Technology Services and our delivery partner, Infosys as appropriate.

A backlog of improvements has already been identified, which includes upgrading Campus Solutions to version 9.2 and phased improvements to Registration, Examinations and Admissions processes and functionality.

Priority 2: Deliver improvements in digital capability through the Digital Futures Programme

We will continue to deliver the Digital Futures programme including the Digital Core, Digital Engagement and Foundational IT Services significant projects, regularly ensuring the programme's alignment with University priorities and investment appetite.

The Digital Futures Programme was established in 2017 to deliver a 5-year roadmap of technology investment projects, which would provide a step-change improvement in the digital capability of the University.

The programme has continued to make progress, despite the disruption of the Covid-19 pandemic, with some scope and timescales revised to give priority to maintaining operations and review the impact of the pandemic on the University's capacity for investment.

The programme comprises three 'significant' projects supported by a portfolio of other important projects and technology investments. A high-level roadmap describing the current indicative delivery schedule is contained within the appendices (accurate as at Q1 2021).

Significant Projects

- **Digital Engagement:** Establishing a world-class, digital student recruitment experience in support of our ambition to create a marketing service that is fit for the future, enabling us greater control over the size and shape of our student body and reduce our vulnerability to market and competitor forces.

The programme has completed the procurement process to select the core technologies and an implementation partner. The in-house team will be established in the first half of 2021, discovery and roadmap development in August 2021 and phased delivery beginning in 2022.

- **Digital Core:** Improving the effectiveness and efficiency of delivery of our HR, Finance and Procurement services to students, staff and wider stakeholders by replacing our numerous, disparate legacy solutions with modern, flexible, scalable systems that will enable us to benefit from best practice processes.

The programme will begin the procurement process for selection of the technology solution and implementation partner early in 2021, awarding contracts and initiating the programme later that year, subject to final business case approval.

- **Foundational IT Services:** Providing a step-change improvement in the delivery of Digital Technology and Services to the University across three broad areas:
 - Improved service: Design and implementation of a new operating model comprising a blend of in-house and third-party specialist provided services.
 - Reduced operational and security risk: Replacement of our aging, on-premises, legacy technology infrastructure with modern, secure, scalable and extensible platforms, including greater exploitation of cloud-based services.
 - Reduced complexity: Modernisation and simplification of our complex application portfolio, retiring unused applications and consolidating or replacing the remainder with lower maintenance alternatives.

The programme was paused whilst the University assessed and responded to the impact of the Covid-19 pandemic. Having reviewed the delivery approach, it is now intended to appoint a strategic digital partner to update the strategic outline case and co-design the

target state for the University's Foundational IT services and a phased roadmap for delivery over several years.

Project Portfolio:

In addition to the significant projects described above is a portfolio of other important digital projects, aligned to 'Engagement Towers'. The appendices contain a brief description of the scope of each of these along with a list of known projects for prioritisation and delivery.

The benefits and priority of subsequently identified initiatives will be assessed by the appropriate Engagement Tower using the University defined processes and progressed through the demand and delivery process described later.

Emerging Strategic Priorities:

In addition to the broad range of projects already being progressed, three significant areas have been identified as requiring strategic focus.

- **Data and Intelligence:** An increase in the organisation-wide maturity of our data and information capability is necessary to derive greater value and insight from our significant data assets and continue to meet our statutory reporting obligations.

We will define a vision and strategy for becoming a data-driven university describing how we will deliver a step change improvement across several areas including (but not limited to): data quality and integrity, data architecture and governance, organisational competency in decision support, analytics and data visualisation techniques, business and artificial intelligence and automation, and data storage and integration infrastructure.

- **(Customer) Relationship Management:** The University exists within a complex network of informal and formal relationships between its students, alumni, research, industry and civic partners, suppliers and customers across all three of its campuses. This results in multiple touchpoints managed by different teams and across multiple different communication channels.

The Digital Engagement programme identified the need for a digital relationship management capability to support student marketing and recruitment, opening possibilities in areas such as student enquiry management and research partnerships.

We will define a strategy for digital enablement of the University's key relationships, using the foundations laid by the Digital Engagement programme to build an environment that gives deeper insight into our relationships and improves the efficiency and effectiveness of how they are managed.

- **Cyber Security:** This is not a new priority for the University, rather a reinforcement that this will remain an area of focus as the risk posed by cyber-attacks in all their forms continue to evolve.

We will deliver improvements in our cyber security control environment through the Digital Futures Programme and will continually review our risk exposure and invest further to strengthen controls where necessary.

We will also strengthen cyber security controls through further adoption of cloud platform services, where we can leverage the significant investment of our technology partners.

Priority 3: Deliver digital solutions that enable new methods of working emerging from the Covid-19 pandemic.

We will implement digital solutions to support an inclusive agile working environment that provides the 'best of both worlds', blending digital and analogue solutions, giving choice for optimum efficiency and effectiveness in where, when and how we work and study.

The unprecedented events associated with the Covid-19 global pandemic resulted in immediate and radical changes in how the University delivered its education and student experience, research, knowledge exchange and operational objectives.

Existing investment in digital services enabled the University to make a rapid transition to online teaching and remote working and helped to minimise the impact to its core operations. However, there have also been negative impacts in areas such as student and staff experience, remote access to on-campus facilities, team collaboration, knowledge sharing and community cohesion which need to be taken into consideration as we define new way of working and solutions for the long term.

We will initially focus on providing tactical solutions and basic agile working practices to support return to campus activities as national restrictions are relaxed throughout 2021. In parallel, we will partner with Estates and Facilities, HR colleagues and others to implement the organisation-wide Agile Working change programme that will address:

- **Where we work:** Mobile-first solutions that enable a 'work from anywhere' approach and support effective use of, and reduced travel between our campuses.
- **When we work:** Always-on services that allow students and staff the ability to choose how to use their time as effectively as possible for maximum impact.
- **How we work:** Digital alternatives to traditional activities where possible including: blended online and in person teaching, research and team collaboration, virtual and on-campus conferences, recruitment and community events.

Priority 4: Co-design a new Digital Development Framework with the University Community.

We will collaborate with the university community to co-design a "Digital Development Framework", renewing our vision for a digital exemplar university that embraces technology to enhance our research and education and improve student and staff experience.

The first three priorities align to existing in-flight or planned strategic investment focussed on enabling the key functions of the University through investment and continuous improvement. In addition to the successful delivery of these priorities, we need to continue to look forward to ensure that our digital strategy adapts to rapid changes in digital advances in the Higher Education sector and the wider world.

A key finding of the JISC Digital Insights Surveys commissioned in 2019 was that neither staff nor students felt sufficiently involved in decision-making about digital services. Wide participation in this exercise by the University community will address this concern and ensure that the vision for a digitally enabled university reflects these diverse perspectives.

It is anticipated that The Digital Development Framework will comprise several elements drawn from a wide consultation exercise undertaken during 2021.

- **Guiding Principles** to support decision-making, selection of technology suppliers, products and services and support investment and improvement activity.

- **Reference Models:** application and capability reference models, originally created in 2019, will be updated to reflect the investment over the last 3 years and incorporate future strategic investment identified in new and updated Strategic Delivery Plans.
- **Capability and Product Roadmaps** that describe the target future state for key functional areas of the University and their core applications and services, with roadmaps describing how the target state will be achieved.

Priority 5: Develop the culture, behaviours, and capabilities necessary for a digitally enabled university.

We will increase the 'Digital Acumen' of the University, developing both the ambition and ability to identify and appropriately use existing and emerging technologies to deliver better outcomes for students, research teams, partners and staff.

If we are to achieve our ambition of being a digital exemplar for the sector, we need to identify, develop and embed the competencies and skills necessary for a university operating in the digital era. Doing so will enable us to better prepare our students for life and work within the digital workplace and further enhance the impact of our research.

Digital Insights Surveys identified that most students and staff are comfortable with using technology and confident in trying out new technologies. However, students reported a lack of guidance about the digital skills needed for their course and insufficient opportunities to assess and discuss their digital skills. Additionally, teaching staff would like more and better training and support in digital teaching and learning tools and methods.

Whilst we need to address these specific concerns, this priority goes beyond merely providing training in specific technology skills or software applications. This will be achieved in several ways:

- A Digital Development Programme will be established to enhance the ability of our staff to engage with digital concepts and tools, leading them to make greater and more effective use of the opportunities that they present.
- We will partner with our teaching community and strategic technology providers to enhance curriculum content to include industry recognised digital skills and qualifications to increase the employability prospects of our students and attractiveness of our courses.
- We will partner with our own research community and strategic technology providers to identify relevant new and emerging technologies, supported by investment in formal skills development that will enhance our research offer to funders.
- We will develop cross-functional communities of practice to increase the uptake and adoption of established enterprise technologies to deliver greater benefit from our investment.
- We will provide and promote secure and stable software development tools and environments to enable business technologists to develop their own applications and automate processes where appropriate.
- We will identify key enabling strategic technologies and invest to build our skills and experience in depth within our Digital Technology Services and other technology specialist functions, creating new career paths and development opportunities through a Digital Talent Management framework.

6. Outcomes and Key Performance Indicators

The expected outcomes and benefits derived from delivery against the five identified priority areas are outlined below. Associated Key Performance Indicators and measures will be defined to align with the University Performance Framework, which is currently under review.

Priority 1: Establish an Education Administration Continuous Improvement Team

- Consistently improving Applicant and Student satisfaction scores
- Campus Solutions upgraded to the latest supported version by Dec 2021
- Simplified, more efficient and reliable registration process in 21/22
- Simplified, more efficient and reliable examinations and assessment process in 21/22
- Enhanced Student Self-service with reduced reliance on service points
- An established, continuous pipeline of value-added process and system enhancements

Priority 2: Deliver the revised Digital Futures Programme

- Enhanced digital marketing and student recruitment capability supporting achievement of size and shape targets (Digital Engagement).
- Step-change improvement in University HR, Finance and Procurement services.
- Step-change improvement in Foundational IT services.
- Legacy HR, Finance, Procurement and CRM systems decommissioned.
- Reduction in technology related operational and information security risk.

Priority 3: Provide digital solutions to enable new ways of working through and beyond the Covid-19 pandemic

- Successful return to campus for the University community.
- Improved staff engagement survey scores relating to digital services.
- Increased flexible use and collaboration space across campus and corresponding reduction of fixed use spaces.
- Digital solutions, services, policies and procedures in place to support adoption of new agile working practices and ambition.

Priority 4: Co-design the Digital Development Framework with the University Community

- Updated University digital vision and future state agreed, published and communicated.
- Target architectures and roadmaps produced for Education and Student Experience, Research and Knowledge Exchange, Core Professional Services and Enterprise Technology Services.

Priority 5: Develop and engage our people providing skills, capabilities, values and behaviours needed to deliver a modern, digitally enabled organisation

- Improvement in maturity in areas such as data literacy, digital culture and behaviours.
- Increased productivity through adoption of digital solutions such as automation tools across all functions within the University

- Digital Talent Management framework implemented to identify, recruit and/or train the key technology skills required within Digital and Technology Services team
- Modernised curricula enhanced with industry recognised qualifications
- Improvement in benchmarked Gartner Digital Enterprise Score and engagement grand mean scores in Gallop Staff Survey

7. Risk Management

“Failure to keep pace with and realise the benefits of increasing digitisation” has been identified as a top-level risk within The University Level Risk Register (ULRR 8). The Digital Strategic Delivery Plan is a key mitigating control for this risk as it describes how the Digital and Technology Services team and Digital Futures Programme will enable and meet the strategic goals of the University.

This risk is owned by the Chief Digital Officer and the effectiveness of controls and progress of mitigation plans is overseen by the Digital Strategy Committee, Significant Projects Executive Group and Digital Futures Programme Board (see Governance below) and independently reviewed by the University Audit and Risk Committee.

Several other risks have been identified within the Digital and Technology Services risk register, which may impact our ability to achieve the priorities outlined in this plan:

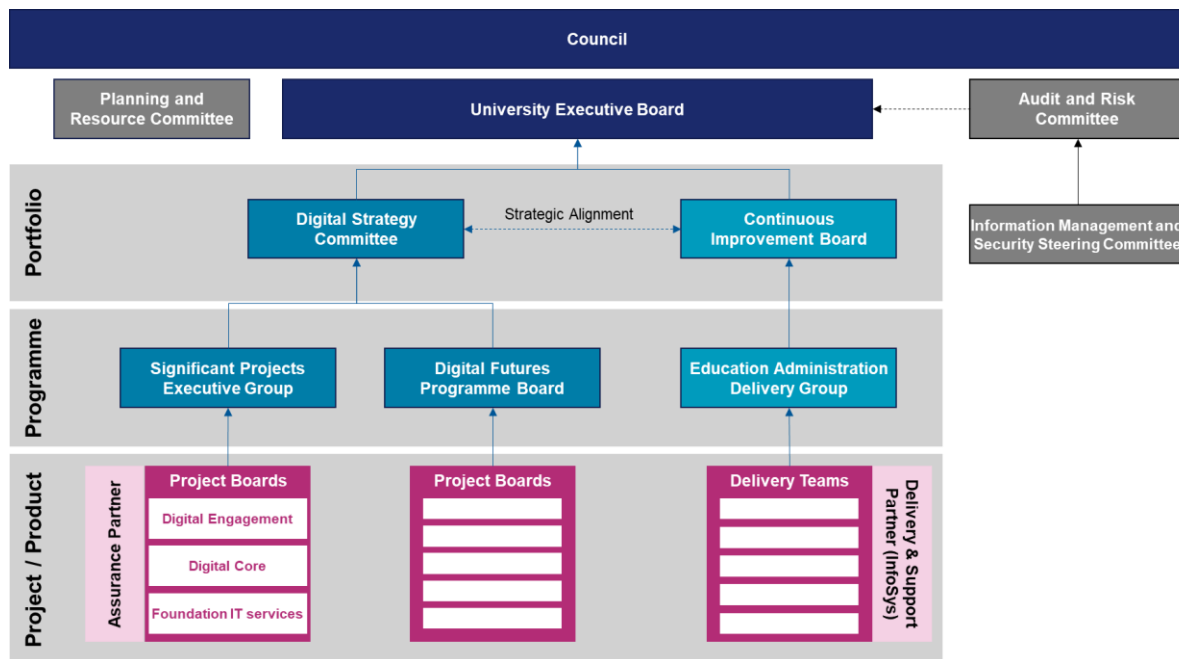
- **Demand and Change Delivery:** Demand for digital enablement is high; there is a risk that we are unable to meet every need and priorities will need to be agreed to achieve successful delivery.
- **Technical debt (various):** The need to maintain and upgrade legacy and aging technology and applications to protect operational resilience may divert resources away from delivering new strategic capability.
- **Enterprise Resource Management:** We have significant committed investment over the next 2-3 years and will need the right mix of skills and experience to meet new demand.
- **Alignment of Digital Investment Plans to University Strategy:** Change control of this plan and associated deliverables will be necessary to ensure investment remains aligned to evolving strategies from across the University.

In addition to the Digital Risk outlined above, there is a strong link with another University top level risk relating to Information Security (ULRR1) described as: “Failure to manage information, data and knowledge assets or IT systems and resilience sufficiently to protect them from or prevent a major loss, theft or breach in line with GDPR regulations.”

Several of the initiatives described above will deliver mitigating actions or strengthen the control environment in relation to this risk. All new digital solutions will be expected to comply with relevant information security policies and standards, adherence to which will be overseen by the relevant governance committees as described in the following section.

8. Governance

The Digital Strategic Delivery plan is approved by the Digital Strategy Committee on behalf of the University Executive Board. Oversight of the implementation of the strategy will comprise a combination of design and delivery governance, supported by assurance partners where applicable:



Design authority and oversight:

The Digital Strategy Committee oversees digital investment initiatives and major technology decisions to ensure they remain consistent with the Digital Strategic Delivery plan, compliant with information security policy and adhere to principles that will be defined within the Digital Development Framework.

Consideration will be given to the creation of a cross-functional Digital Strategy and Architecture Board to support the Digital Strategy Committee in its design authority role.

Delivery oversight:

The Significant Projects Executive Group ensures that major digital investment programmes of change (Digital Engagement, Digital Core and Foundational IT Services) deliver the required benefits within agreed time and budget constraints. The group is supported by individual specific Programme Boards, who have day-to-day accountability for project delivery.

A recently established Continuous Improvement Board will oversee the portfolio of Education and Student Administration improvement initiatives, whilst accountable to the Digital Strategy Committee for maintaining alignment with the overall strategic direction.

The Digital Futures Programme Board will continue to ensure that other digital investment projects outside of the three major programmes are delivered within the agreed time and budget and manage dependencies with those major programmes.

Risk Assurance:

As part of its broader remit, The Information Management and Security Steering Committee approves information security policy and provides assurance and support to Digital Strategy implementation through independent review of information security risk and compliance.

9. Implementation

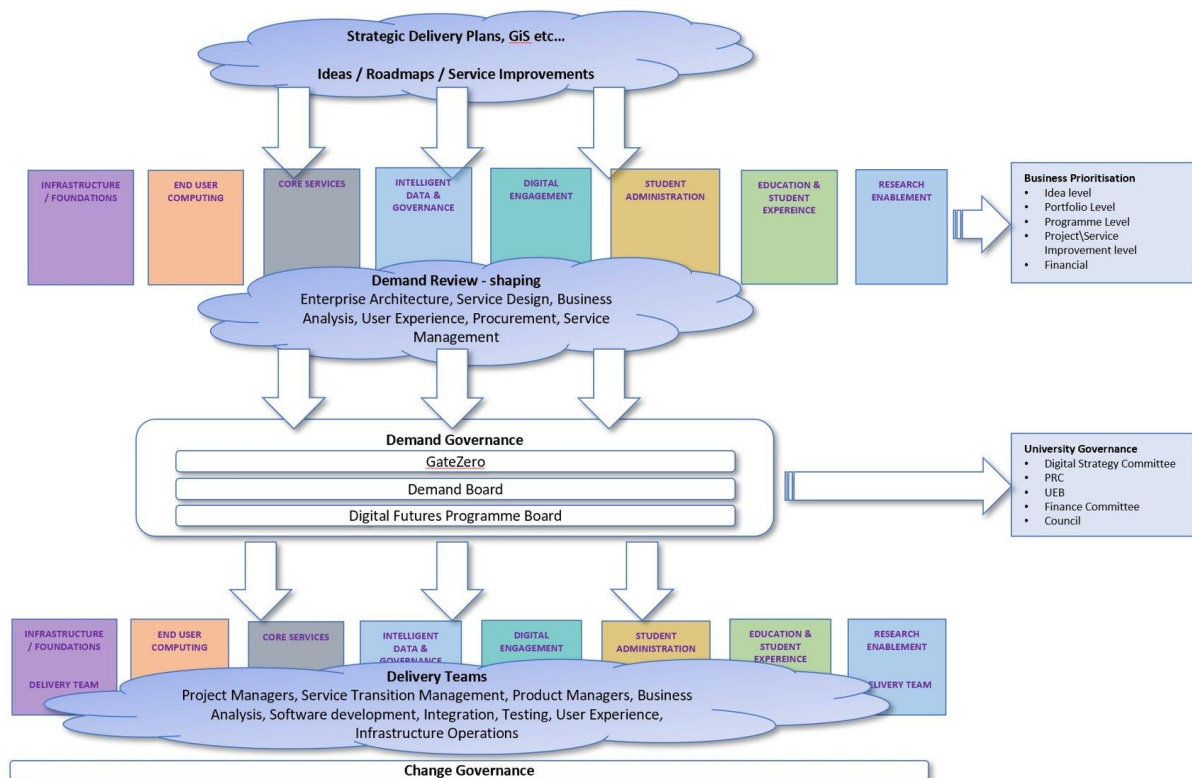
The five strategic priorities outlined within this strategic delivery plan will be implemented through the existing Demand and Delivery processes and governance structure. An overview of the process is shown in the diagram below.

New demand for investment identified from several different sources, including other strategic delivery plans, is assigned to an 'Engagement Tower' and prioritised in accordance with the agreed University priority framework. Once allocated to an engagement tower, demand is assessed to provide an indicative size and proposed delivery route (i.e. project, work package or small change, etc.).

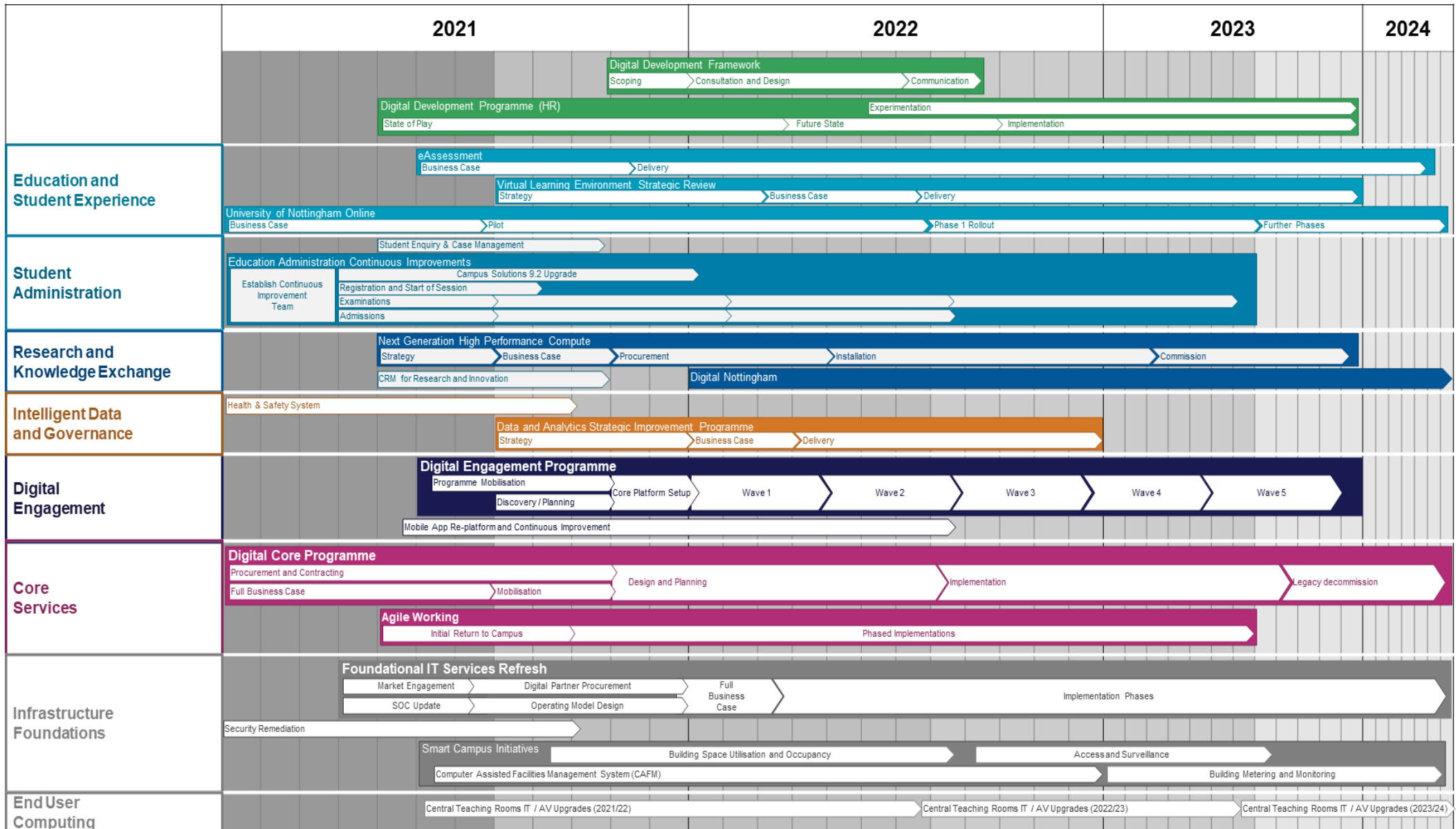
Once the request has been sized, it enters the formal Demand Governance process to develop a business case (if required), identify the resources needed and gain approval to schedule for delivery via the appropriate governance committee.

Following formal approval to proceed, the appropriate level of project governance is established, and resources allocated to the request to carry it through to final implementation.

An indicative delivery roadmap covering the next 3 years is included in the appendices for information, noting that some of the initiatives are yet to be formally approved.



10. Appendix 1: Delivery Roadmap



11. Appendix 2 - Investment Portfolio Summary

Tower	Scope and Description	Current Projects
Education and Student Experience	Digital solutions to support all aspects of education; including learning spaces standards, curriculum design, development and delivery, student assessment and feedback and learning analytics.	<ul style="list-style-type: none"> • eAssessment and exam proctoring • Virtual Learning Environment strategic review • Lecture and Video services strategic review • University of Nottingham Online
Student Administration	Digital solutions and services to support students through the full end-to-end journey and incorporates the activities of the Education Administration Continuous Improvement Team	<ul style="list-style-type: none"> • Campus 9.2 Upgrade • Student enquiry and extenuating circumstances management • Registration, Examinations, Admissions • Business as Usual small change
Research and Knowledge Exchange	Technology platforms, applications and services that support research and knowledge exchange activity, including specialist support for research bids and proposals.	<ul style="list-style-type: none"> • Relationship Management solution (CRM) for research partnerships • Next generation high performance computing platform • Digital Nottingham • Digital Research Service portfolio
Digital Engagement	A collection of capabilities including external relations, digital marketing, customer / user experience and ongoing relationship management.	<ul style="list-style-type: none"> • Digital Engagement Programme (Marketing and Student Recruitment) • Mobile App product roadmap and developments
Intelligent Data and Governance	All aspects of data management including statutory reporting, management information, decision support, analytics, and visualisation.	<ul style="list-style-type: none"> • Creation of an Enterprise Data and Analytics target architecture and roadmap • Tactical improvements to data quality for regulatory and operational reporting
Core Services	Digital solutions for Human Resources, Finance, Procurement, Legal, Commercial Services, Enterprise Risk and Compliance.	<ul style="list-style-type: none"> • Digital Core (HR, Finance and Procurement process enhancement and system replacement) • Business Continuity and Incident Management system
Infrastructure and Foundations	Estates and Facilities digital 'smart campus' investment initiatives Information security and operational risk mitigation Enterprise technology upgrades and enhancements (network, storage, compute, data centre services).	<ul style="list-style-type: none"> • Security Remediation • Computer Aided Facilities Management system • Health and Safety system • Tactical infrastructure replacements to maintain operational resilience (network, storage, compute)
End User Computing:	Personal and shared computing, audio-visual technology, telephony and mobile, desktop and cloud software applications and services.	<ul style="list-style-type: none"> • Audio Visual IT Refresh • Microsoft 365 Uptake and Adoption services and product team