

DIGITAL EXCELLENCE STRATEGY

2021-2025

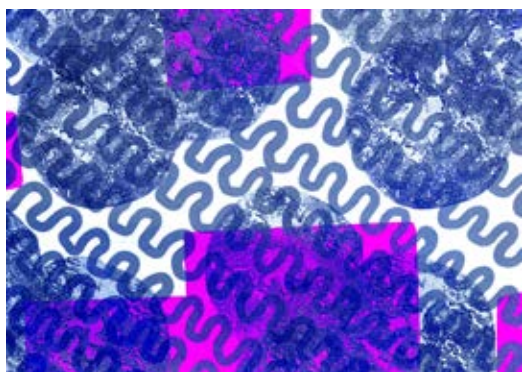


THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA



ACKNOWLEDGEMENT

The University of Newcastle acknowledges the traditional custodians of the lands within our footprint areas: Awabakal Nation, Darkinjung Nation, Biripai Nation, Worimi Nation, Wonnarua Nation and Eora Nation. We also pay respect to the wisdom of our Elders past and present.



FEATURED STUDENT ARTWORK

By Claire Cousins

We put a call out to students to feature their artwork in our Digital Excellence Strategy. We were inspired by Claire's artwork and have integrated her work throughout this brochure.

From the artist

My name is Claire Cousins, I've just completed a Bachelor of Visual Communication Design and will be doing an Honours year in 2022.

I have a strong understanding and love of illustration and design along with a confidence in connecting with people through storytelling.

My artwork was created using analogue mark making. It was then scanned, put through the Risograph printer and re-scanned. Colours were then altered to create a more modern aesthetic. It was a bit of an experimentation bringing together both analogue and digital.

It represents moving forward into the digital world.





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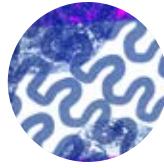
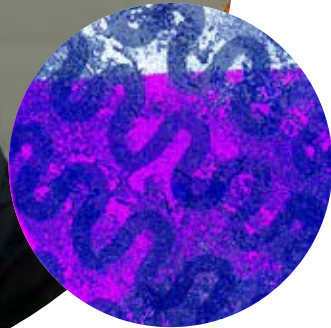
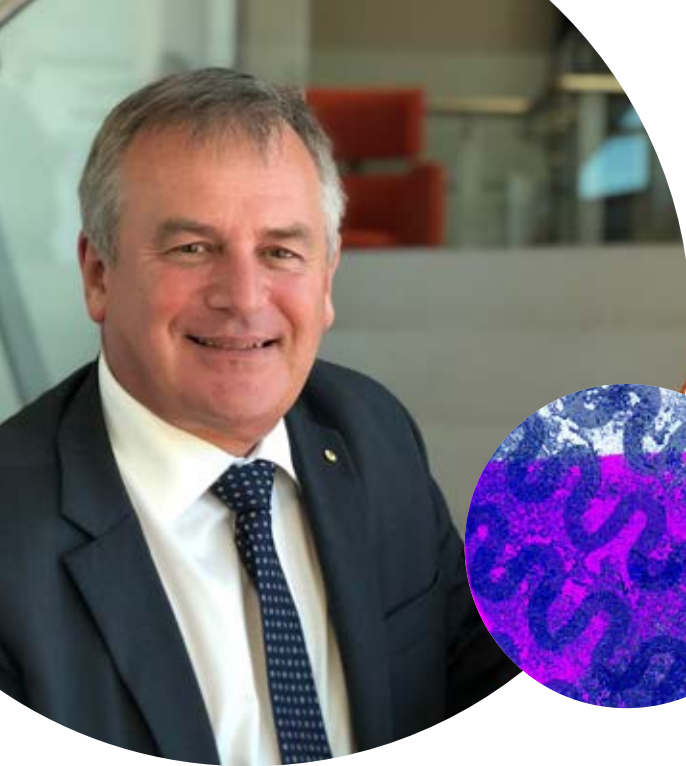
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MESSAGE FROM THE VICE-CHANCELLOR

We will offer a personalised and seamless experience across our digital environment through developing an ecosystem of digital platforms that enable us to create a deep and rich learning experience that is open and accessible at any time.

These platforms will open up our research capabilities and enable sophisticated analytics to support strategic decision making.

Looking Ahead Strategic Plan 2020–2025

The digital experience is increasingly core to how we operate, how we interact with our students and staff, how we undertake research, and how we engage with our communities.

This **Digital Strategy 2021–2025** outlines how we will maximise the opportunities and benefits afforded by digital technology to underpin the objectives of the **Looking Ahead Strategic Plan 2020–2025**. This includes ongoing focus on the foundational, technical elements required to deliver a robust digital backbone for the University, but increasingly the focus is on transformational digital opportunities and digital experience.

The scope of this Strategy is University-wide as digital technology touches all members of the University community and all activities undertaken in our organisation.

The opportunity is to achieve and maintain a thriving digital ecosystem that supports our strategic aspirations.

Professor Alex Zelinsky AO
Vice-Chancellor and President

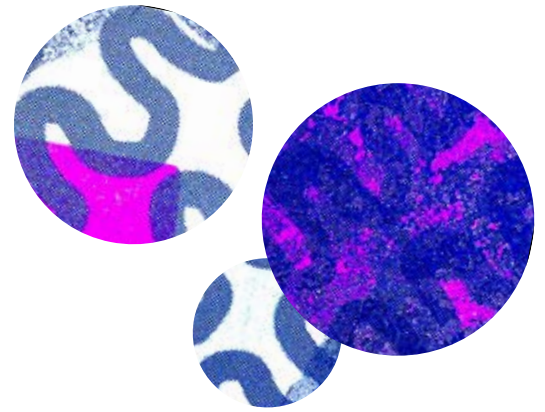


OUR VISION: DIGITAL EXCELLENCE

*The Looking Ahead Strategy 2020–2025
sets our vision to develop a thriving
digital ecosystem that:*

- offers a personalised experience, reflecting the preferences of our user groups
- attracts and retains talent through the opportunities afforded by digital technology
- allows seamless data exchanges through our digital and campus spaces
- provides insights-driven learning experiences to students anywhere, anytime and on any device
- facilitates world-class research in a data rich and collaborative environment
- strengthens connections among our students, staff, alumni, industry partners and the broader community
- increases efficiency and productivity through fit-for-purpose business systems
- protects data and privacy through robust cyber security

OUR DIGITAL MATURITY



*The IT Strategic Plan 2017–2025 was a foundational strategy aimed at raising the maturity of the University's Digital Technology Solutions (DTS) group to a level whereby it is seen as a **value-adding partner** within the business and a **leader within the sector**.*

In the period 2017-2020, we have set the vision for DTS as a client-focused enabler of organisational strategy. This has involved significant change to move from a more inputs-focused technology delivery model to a model driven by collaboration and outcomes.

KEY ACHIEVEMENTS INCLUDE:

- migration of compute and storage to the cloud and closure of the on-site data centre, allowing the focus to move to services rather than infrastructure
- delivery of anywhere, anytime, any device collaboration tools for staff and students
- implementation of unified communications for video conferencing and telephony
- development of a mobile digital channel
- implementation of enterprise-wide CRM, service management and analytics platforms
- shift from reactive to proactive servicing
- development of digital user experience standards
- growth in partnership approaches, both internally and externally
- uplift in cyber security capability

DTS is regularly assessed against 28 broad functional activities via a Gartner maturity assessment model. The assessed maturity from 2017 to 2021 has consistently increased across these activities from below average

to above average.

Recent surveys and feedback from students and staff indicate growing uptake and satisfaction with digital services.

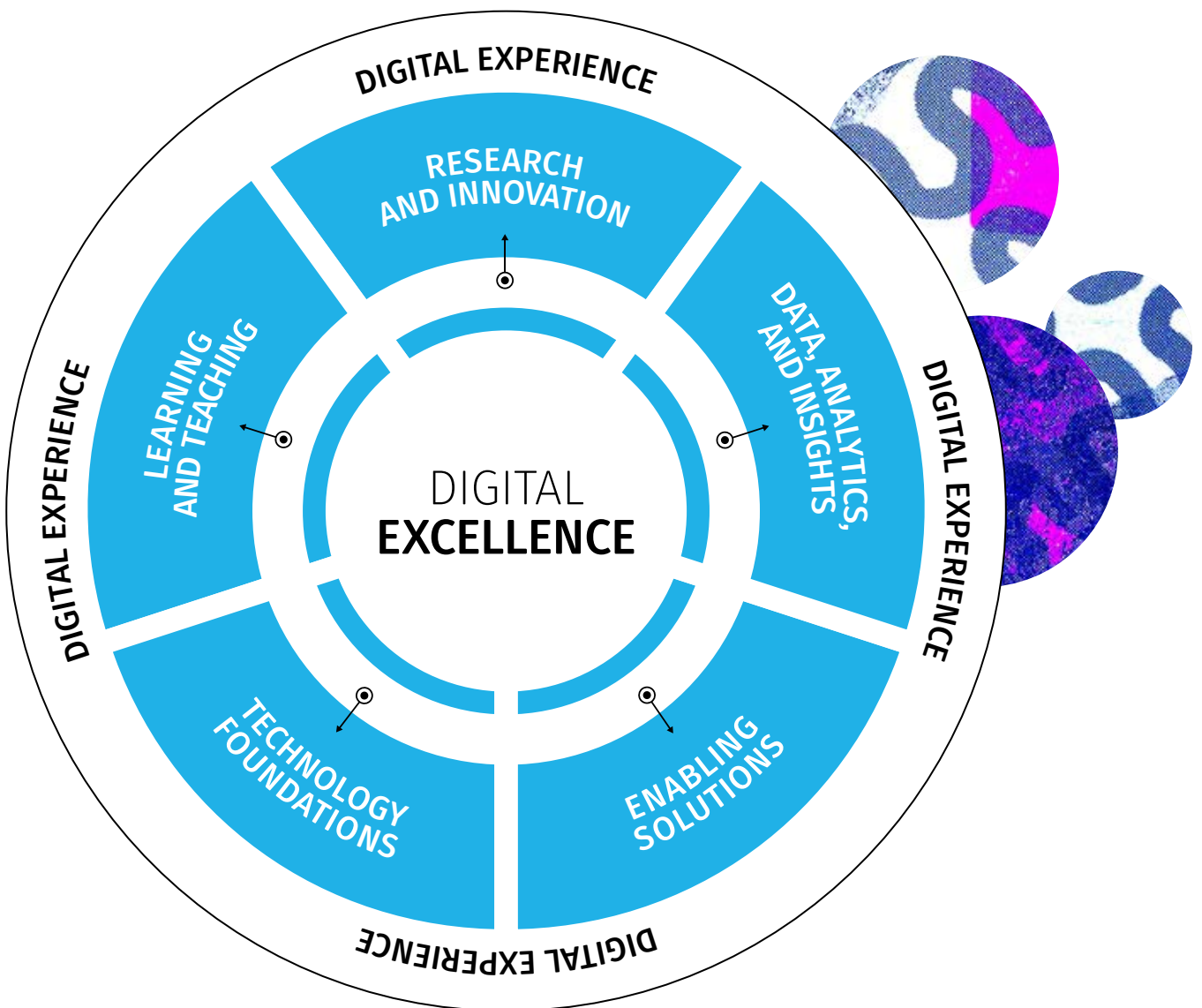
The challenge is to move to a higher maturity level – from an environment in which digital services are efficiently delivered to an environment in which digital capability drives innovation and transformation.

The opportunity now exists to build on recent improvements, to more closely align digital strategy to support organisational objectives set out in our Looking Ahead Strategy and to realise the transformative potential of digital capability.



DELIVERING OUR VISION: OUR PRIORITIES

*Our journey will be focused around **six key priorities** that support the delivery of digital excellence across the University.*





DIGITAL EXPERIENCE

*Digital experience is **the way our people respond to and feel about their interactions with technology.***

A GREAT DIGITAL EXPERIENCE INVOLVES:

- ensuring a user inspired design
- interacting seamlessly across all digital channels
- personalised access from any device
- anticipating future needs
- enhancing opportunities for engagement and collaboration
- connecting physical and digital spaces
- enabling people to move seamlessly between their respective profiles

KEY INITIATIVES

1. A SEAMLESS DIGITAL EXPERIENCE

An effective digital experience should seamlessly support processes and enable people to achieve their goals.

We will:

- develop solutions that are easy to access and use by putting the user at the centre of all digital design
- ensure seamless technology transfer when moving between the physical and virtual campuses or between user profiles
- make it easy to access and move through our campuses with digital wayfinding and signage

2. PERSONALISED AND CONNECTED EXPERIENCE

Our people have increasing expectations of their digital experience.

We will:

- support personalised digital experiences for staff and students through an understanding of needs and expectations
- provide simple entry points to all University systems and services through a digital portal with a mobile-first approach
- implement solutions that enable easy interaction between all members of our community including students, staff, alumni and partners

3. SUPPORTING THE MODERN WORKPLACE

Technology changes the way people work and is a key factor in workforce productivity. We need to make it easier for staff to work, collaborate and connect through linked systems and data.

We will:

- enable co-creation and sharing of content with external partners through collaboration technology platforms
- increase productivity and team-based working through a range of contemporary communication tools and technologies
- support on-boarding and ongoing training to increase digital literacy of our staff

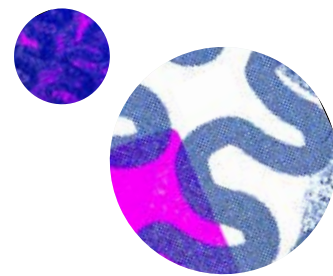


MEASURING SUCCESS

We will see an increase in satisfaction with our digital solutions as measured through satisfaction surveys and increased digital adoption



LEARNING AND TEACHING



*Meeting the changing needs and expectations of our students requires **innovative technology solutions**. Our approach will evolve with the needs of our students and transform our course offerings, not simply replicate old pedagogies and practices digitally.*

THIS INVOLVES:

- making available the right technology to ensure our graduates are digitally capable and workplace ready
- employing learning technologies that encourage innovation and flexibility in our course delivery and increase engagement with our students
- implementing tools and practices that bring the world into our classrooms and take our students out of the classroom and into the world
- establishing an assessment architecture that enables new and more authentic assessment practices to ensure our students are meeting their learning outcomes and getting the feedback they need to do so

KEY INITIATIVES

1. MODERNISING CORE STUDENT ADMINISTRATION PLATFORMS

Our core platforms must meet the needs of our learning administrators and offer a seamless experience for our students.

We will:

- ensure our systems provide flexibility to respond effectively to changes such as student designed learning plans and a variable academic year
- enhance the academic administration for admissions and curriculum design and management
- drive technology efficiencies in timetabling and University program management solutions

2. DIFFERENTIATED LEARNING, TEACHING AND ASSESSMENT SOLUTIONS

Methods for undertaking learning and teaching are evolving, with increasing student expectations for a more streamlined, flexible higher education experience.

We will:

- enable an engaging interactive learning and teaching experience through the provision of a modern, flexible learning management platform
- utilise innovative technologies to enhance teaching delivery methods
- enhance interactions for students by investing in new assessment methodologies to enhance learning outcomes

3. SUPPORTING LIFE-READY GRADUATES

Workplace learning opportunities promote skills development, build self-awareness, foster innovative thinking, assist in career planning and support student transition into the world of work.

We will:

- continue to invest in technology solutions to support work integrated learning opportunities
- leverage our strategic partnerships with leading technology suppliers to provide learning and employment opportunities for our students



MEASURING SUCCESS

We will see increased satisfaction with our learning and teaching solutions as measured through staff and student surveys



RESEARCH AND INNOVATION

*Research excellence and innovation underpin the University's engagement priorities. Our University requires **cutting-edge technology to enable and enhance the research lifecycle.***

THIS INVOLVES:

- delivering research platforms that support researcher effectiveness and productivity
- providing advanced technology solutions to manage large data volumes and compute-intensive research activities
- reducing operational and administrative workloads through further automation of research management processes
- enabling researchers to efficiently partner with their collaborators world-wide
- providing a digital research eco-system that will be attract top talent researchers

KEY INITIATIVES

1. MODERNISING CORE RESEARCH ADMINISTRATION PLATFORMS

University researchers and HDR candidates operate in a rapidly changing and increasingly competitive environment. Effective technology support can increase research productivity and reduce “pain points” in the research process.

We will:

- implement and streamline solutions to support the management of research activities and research candidature
- enable the efficient and effective use of research equipment and technologies
- build the capability of our researchers and administrators to obtain maximum benefits from research technologies and tools

2. ENHANCED RESEARCHER DIGITAL SOLUTIONS

Research is increasingly data intensive and powered by high performance computing. Cutting-edge technologies are required to tackle contemporary research challenges.

We will:

- connect our researchers with on-demand, consumption-based compute services
- support the effective storage and management of research data
- enable remote access to external research facilities
- establish strategic partnerships to uplift our researcher capabilities and provide development opportunities

3. UNIVERSITY AS A RESEARCH COLLABORATOR

As a leading research University, we must enable dynamic research collaboration with peers, other universities, industry and the community.

We will:

- implement collaboration tools that enable research teams to work seamlessly with others from any location
- provide information security to protect intellectual property, and meet industry standards and external partner needs
- establish strategic partnerships with industry bodies and providers of technology and computing services to deliver best-in-breed solutions

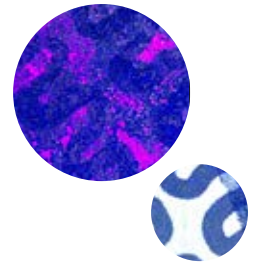


MEASURING SUCCESS

We will see increased researcher satisfaction with digital tools and services as measured through staff surveys



DATA, ANALYTICS AND INSIGHTS



*Information and insights are critical to any modern organisation. Our university needs to make **informed decisions based on reliable and timely information.***

THIS INVOLVES:

- integrating data across our core systems
- providing secure access to up-to-date, clear and accurate data
- generating reliable and relevant insights
- enabling the ability to proactively manage student support mechanisms
- providing organisation, campus and individual level insights

KEY INITIATIVES

1. STRENGTHEN INTELLIGENCE CAPABILITIES

There is an increasing level of demand for intelligence to support effective decision-making for our students, researchers and our business.

We will:

- enable new-generation, advanced analytics for greater predictability and early intervention
- empower university users with modern toolsets and smart data governance
- implement solutions which enable the cohesion of distributed data and models

2. BUILDING A MODERN DATA ECOSYSTEM

To be able to fully extract potential value from our data assets, we will need to ensure our technology architecture and environments are fit-for-purpose and designed for the future.

We will:

- integrate data across disparate platforms and systems to maintain data continuity
- boost operational efficiency and improve student experiences through automation
- create an operating model to support fast-moving data and increasing data volumes

3. DATA AS A COMMODITY

Our data analytics offerings need to align with the areas of greatest value and priority to the organisation.

We will:

- publish data to business units and enable them to monitor operations in real-time
- implement a framework and environment to provide open access to public and de-identified data
- develop scalable data storage solutions which support publication, security, and growth



MEASURING SUCCESS

We will see increased satisfaction with analytics and business intelligence capabilities and offerings as measured through staff surveys



ENABLING SOLUTIONS

*Enabling solutions include the range of business systems that support the University's core business processes including finance, HR, office productivity, service management, customer relationship management and estate management. **Core enabling solutions should drive efficiency and productivity improvement.***

THIS INVOLVES:

- ongoing modernisation of technology platforms and components to achieve efficiency gains and meet evolving user expectations
- redesigning our business processes to create efficiencies and improve the user experience
- ensuring our staff have the tools they need when they need them

KEY INITIATIVES

1. MODERNISING CORE BUSINESS SOLUTIONS

Effective business systems rely on efficient business process design, up-to-date technology platforms and positive user experience.

We will:

- continue to identify and execute on opportunities for business process optimisation
- modernise our corporate applications landscape to improve the performance and usability of core business systems
- leverage our existing applications by increasing re-usability and scalability

2. ENGAGEMENT AND SERVICE MANAGEMENT

Our staff need digital solutions that enable them to increase productivity while reducing complexity.

We will:

- provide our staff with the ability to track and measure engagements and manage relationships using relationship management technology
- enable people to solve their own issues or have easy access to support services - anywhere, anytime and on any device
- enable the management, collection and sharing of information to support a seamless virtual library experience

3. SERVICE AND TECHNOLOGY INNOVATION

Staff expect continuous improvement and innovation to improve their digital experiences and ways of working.

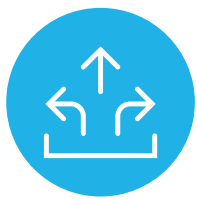
We will:

- trial technologies to enable staff to create their own solutions in a safe environment to meet continuous improvement needs and improve speed of delivery
- investigate the use of immersive and 'smart' platforms to improve engagement
- pilot new solution and technology operating models for business and corporate applications

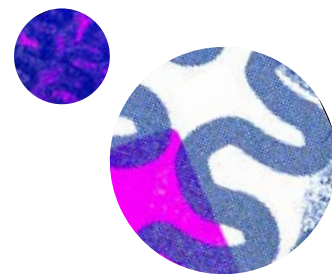


MEASURING SUCCESS

We will see an increase in the maturity of our core business capabilities as measured by our portfolio assessments and an increase in adoption of our standard technology tools and a reduction in support enquiries



TECHNOLOGY FOUNDATIONS



Continuous modernisation, maintenance and security of our technology foundations is key to achieving all our strategic digital objectives.

THIS INVOLVES:

- ensuring security of data and operations in response to a rapidly evolving cyber threat environment
- providing reliable and resilient underpinning technologies
- facilitating scalable services that meet immediate demands
- reducing environmental impacts through active management of e-waste
- leveraging partnerships and communities of practice to plan and deliver foundational technologies
- aligning to industry best practice

KEY INITIATIVES

1. ENHANCED CYBER SECURITY POSTURE

A proactive cyber security posture is required to protect University information and provide confidence to our user communities.

We will:

- continue to uplift our cyber security capability to reduce the likelihood and severity of cyber attack
- increase cyber security awareness among our user communities
- ensure adequate business continuity and recovery planning in the event of any cyber incident

2. ROBUST, STABLE AND EFFICIENT DIGITAL ENVIRONMENT

Digital solutions need to be built on robust technology foundations including hardware, software, networking, and data storage.

We will:

- maximise the efficiencies and scale of cloud platforms with a cloud first preference
- utilise market leading network technology with a focus on Wi-Fi first
- maintain an efficient architecture that drives an optimal application landscape and reduces complexity

3. EMERGING TECHNOLOGY

Technology is rapidly evolving and it is critical we understand the trends and technologies impacting the global higher education industry and beyond.

We will:

- pilot and invest in new network technologies to improve security and experience for remote access
- trial and collaborate on technology to improve experiences and utilisation through Internet of Things
- progress the use of machine learning and artificial intelligence automation capabilities

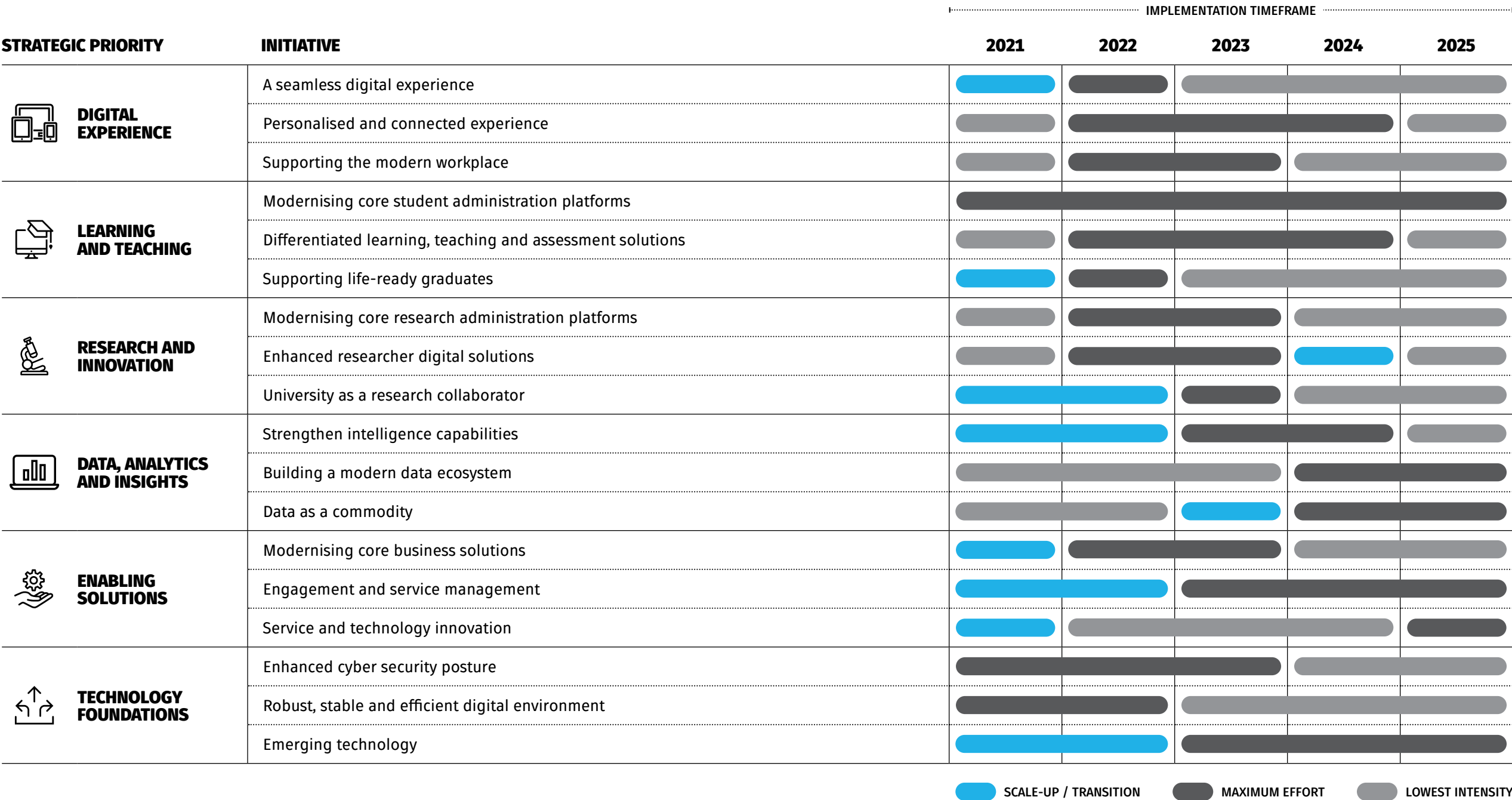


MEASURING SUCCESS

We will see continually enhanced security and conversion of emerging technologies into production

IMPLEMENTING OUR STRATEGY

Annual operational plans will be developed to support the achievement of this Strategy.



MEASURING OUR SUCCESS

These measures are our headline expression of success and will be supported by more detailed reporting to Executive and Council.

		KEY PERFORMANCE INDICATOR		BASELINE	
STRATEGIC PRIORITY	2025 GOAL	PERFORMANCE MEASURE	YEAR	RESULT	2025 TARGET
 DIGITAL EXPERIENCE	Increased satisfaction with our digital solutions	Your Voice question: “Our University provides the digital experience I expect from a modern organisation”	2021	58%	75%
		SFUN question: “The University provides the digital experience I expect from a modern organisation”	2021	83.8%	85%
 LEARNING AND TEACHING	Increased satisfaction with our learning and teaching solutions	Average for SFUN questions: “Overall, I am satisfied with the suite of technologies provided for learning and teaching”	2021	82.57%	85%
 RESEARCH AND INNOVATION	Increased researcher satisfaction with digital tools and services	New Your Voice question to be created targeting Researchers only: “Our University provides the digital experience I expect from a modern organisation”	2021	N/A	80%
	Increased use of self-service portal to provide consumption-based services	Reduction of requests related to research digital solutions	2021	764	50% Reduction
 DATA, ANALYTICS AND INSIGHTS	Increased stakeholder satisfaction with analytics and business intelligence capabilities and offerings	New Professional Services Customer Satisfaction Survey question to inform measure “Overall I am satisfied with the responsiveness of data and analytics services”	2021	N/A	75%
 ENABLING SOLUTIONS	Increase in the maturity of our core business capabilities	All strategic business capabilities to have at least average assessed technology posture	2021	7/18	18/18
	Reduction in support enquiries	Reduction of requests to services related to digital solutions	2021	7461	50% Reduction
 TECHNOLOGY FOUNDATIONS	Enhanced security posture	ASD Security Maturity Rating	2021	Partial Level 1	Full Level 1



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