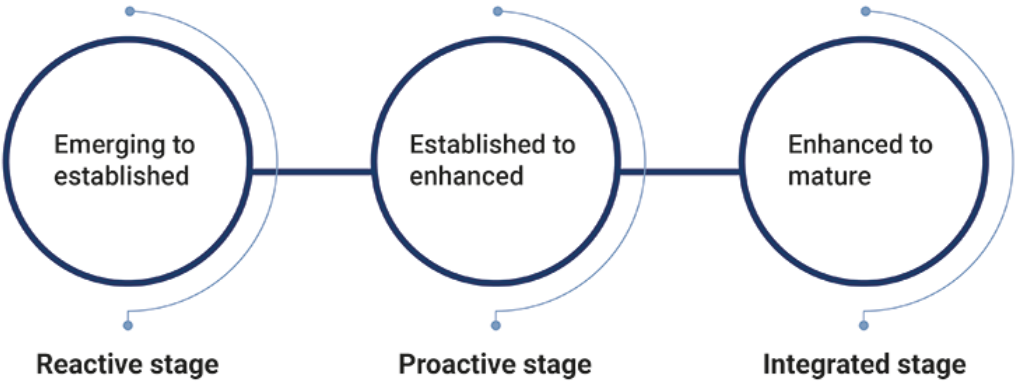
Jisc maturity model for digital transformation in higher education



Emerging to established

- Lack of strategic digital leadership
- Short-term investment
- Unintegrated systems and operations
- Lack of innovation
- Lack of wide stakeholder understanding and engagement
- Dispersed project-based digital activities

Established to enhanced

- Developing a proactive strategic approach
- Enabling effective digital leadership
- Making efforts to integrate systems and operations
- Engaging and upskilling all stakeholders
- Moving towards a service delivery model

Enhanced to mature

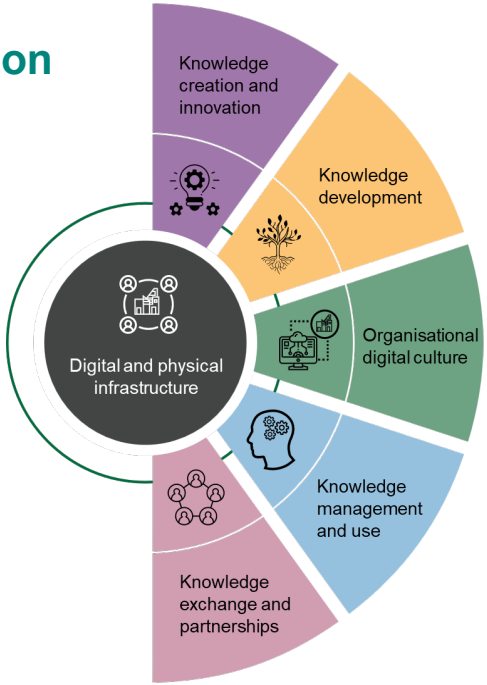
- Comprehensive and integrated strategic approaches
- Effective digital leadership
- Long-term, adaptable planning and investment
- Integrated and efficient systems and operations
- Engaged, informed and appropriately skilled stakeholders
- Partnership approaches to innovation
- Longer term delivery model approach (less project based)

Sheffield Hallam University

Cards developed by Alison Purvis at Sheffield Hallam University, with permission, using the Jisc Maturity Model: https://www.jisc.ac.uk/guides/digital-transformation-in-higher-education

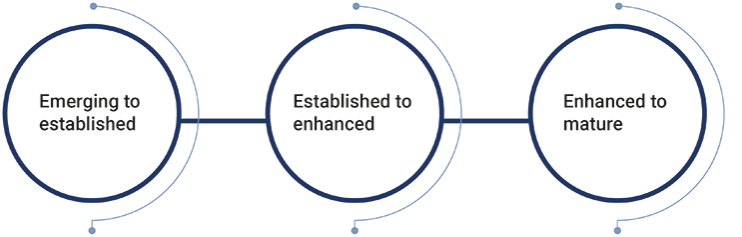
Jisc Digital Transformation Framework

- The Jisc Maturity Model is part of the Digital Transformation Framework toolkit
- https://www.jisc.ac.uk/guides/framework-for-digital-transformation-in-higher-education

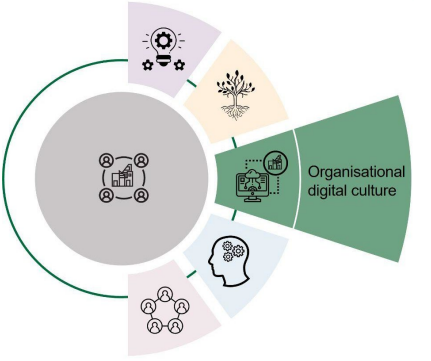


How to use these cards

- The file should be printed doubled-sided onto A6 card.
- The cards use abridged text from the Jisc Maturity Model (adaptation made with permission from Jisc). Users are encouraged to use the full model when considering specific actions to take forward following a card-based activity.
- Examples of how to use these cards include:
  - Focused discussions about the maturity levels of one of the areas of the Digital Transformation Framework
  - Identification of the areas that have the lowest maturity level and then sorting cards into priority for improvement.
  - Co-production with students through discussions about what should be prioritised for development.
  - Improvement of knowledge and awareness of digital transformation
- Common acronyms used to aid conciseness:
  - LTA – learning, teaching, and assessment
  - EDI – Equality, diversity, and inclusion
  - LMS – Learning Management System
  - VLE – Virtual Learning Environment

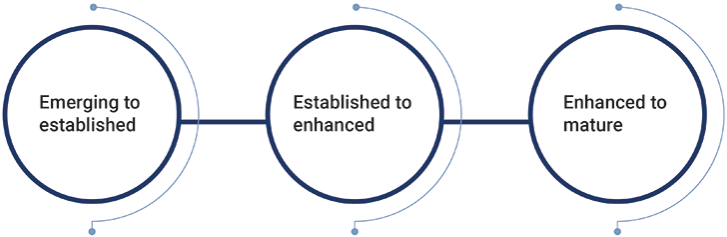


1
Develop and model an internal digital culture that is congruent with the organisation's mission and values

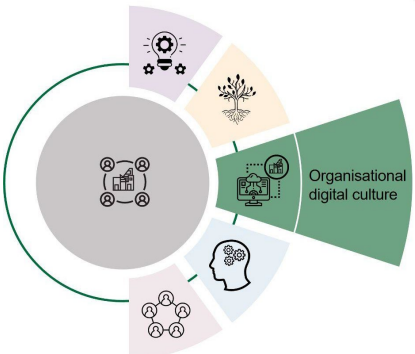


Digital culture and mindset

Emerging to established	Established to enhanced	Enhanced to mature
Integration and adoption of digital technologies, tools and practices is patchy. Some departments have developed strategic approaches to investing, developing and incorporating digital functions. Stakeholders do not have a shared understanding of the benefits of a strategic approach. There are plans to involve all stakeholders in developing a digital strategy or strategies that align with the organisation's vision and values.	Significant progress has been made towards developing a unified digital culture. A digital strategy articulates a shared understanding. Stakeholders have been involved in developing the strategy and the shared digital vision is enacted in some areas. Digital is embedded in all core strategies, with delivery overseen by a cross-institutional group.	Digital culture and technology use are fully integrated into mission, values and operations. The organisation is acknowledged as a leader in digital innovation and is actively shaping the future of digital education and research An agile, coherent, service-based model underpins all digital developments. There is a strong culture of collaboration, innovation and knowledge sharing, both within the organisation and with external partners.

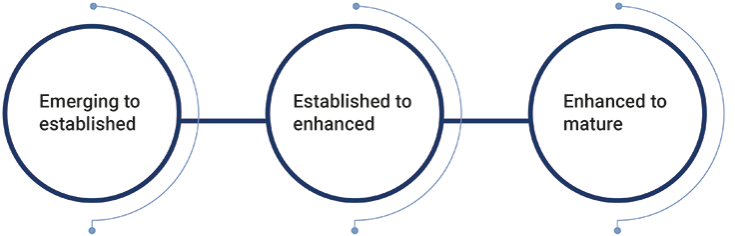


2 Embrace sustainable behaviours and mindsets



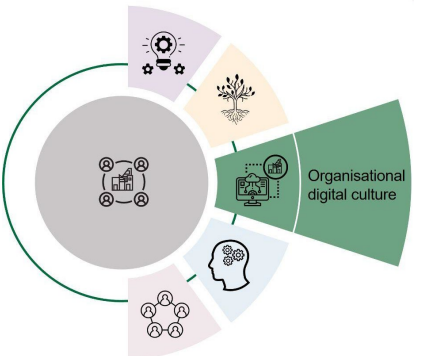
Digital culture and mindset

Emerging to established	Established to enhanced	Enhanced to mature
Stakeholders encouraged to embrace sustainable behaviours. Practices that minimise the carbon footprint and ecological impact of digital activities are promoted. Creation and consumption of digital content that raises awareness of sustainability challenges and promotes environmentally friendly actions is encouraged across the organisation, particularly within internal and external communications.	Sustainable digital practices are embedded and integrated into culture, values, policies and procedures. Cross-functional teams or working groups are established, focusing on sustainable digital practices. Positive ownership and accountability are fostered by encouraging stakeholders to share success stories, lessons learned and innovative digital sustainability.	The organisation leads by example and influences industry-wide change by actively participating in collaborations that focus on driving digital sustainability. A culture of continuous learning and innovation is cultivated by allocating resources for research and development in sustainable digital solutions. Sustainability skills, experiences and knowledge are shared both internally and externally through engaging in thought leadership activities.

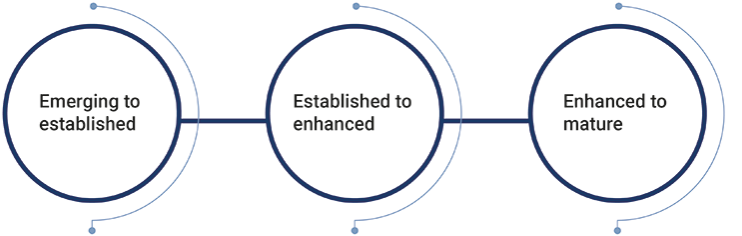


3 Effective digital leadership

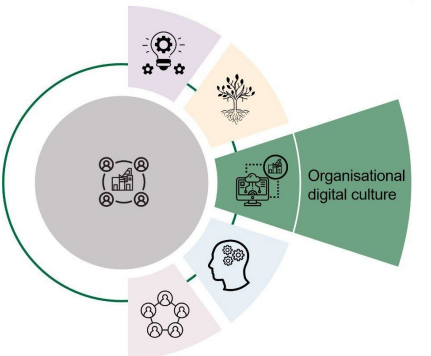
Digital culture and mindset



Emerging to established	Established to enhanced	Enhanced to mature
Growing awareness of digital leadership but few/no development opportunities for senior leaders. Confidence or capability to contribute to digital strategy is limited. Digital initiatives tend to lack cohesion. Senior leaders may not be held accountable for digital performance, limited modelling of good practice. Digital innovators, leaders, or champions have senior level sponsorship even if not all senior managers feel confident to lead.	The importance of digital leadership recognised, steps taken to support senior leaders. Some formal training and development for senior leaders around digital leadership, increasingly able to contribute to a strategic vision for digital. Senior leaders expected to model good practice and may be held accountable for digital performance. Effort to coordinate digital initiatives and to encourage innovation.	Effective digital leadership is recognised and rewarded. Comprehensive training and development exist for senior leaders and governors to enhance their digital practice. Senior leaders are held accountable for digital performance and expected to model good practice throughout the organisation Culture of continuous learning and improvement. Digital innovation and collaboration are encouraged through opportunities for all staff to develop digital leadership skills.

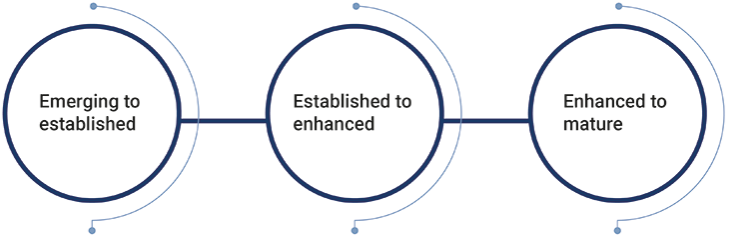


4
Ensure the digital culture of the organisation supports equity, diversity and inclusion (EDI)

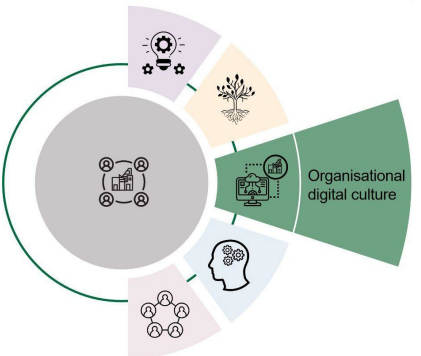


Digital culture and mindset

Emerging to established	Established to enhanced	Enhanced to mature
Importance of digital EDI is recognised. Awareness of diverse stakeholders' needs but no clear plan and responses are reactive. Digital access data is gathered and used, but no strategic approach to addressing gaps. Work underway to ensure that digital processes, systems and services do not create barriers. Regulatory info available on organisation website and web-based content meets accessibility standards.	Significant progress in promoting values of digital EDI. Ongoing dialogue to evaluate and improve strategies that address digital disparities. Accessibility and inclusion introduced in staff/student inductions. Guidelines to support inclusive behaviour in digital environments. Encouragement to identify the barriers and challenges around experiences.	Comprehensive and integrated strategy supporting digital EDI. Active working to dismantle barriers and create inclusive and equitable digital environment. Culture of inclusion reflected in policies, programmes and practices. Shared vision and understanding for everyday practice. Widespread understanding and knowledge around all aspects of accessibility, not just a focus on technology, content or regulations.

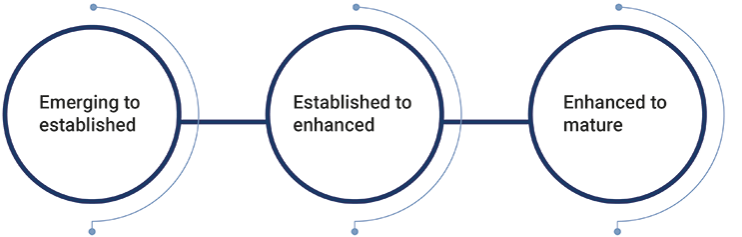


5
Digital capability of all stakeholders

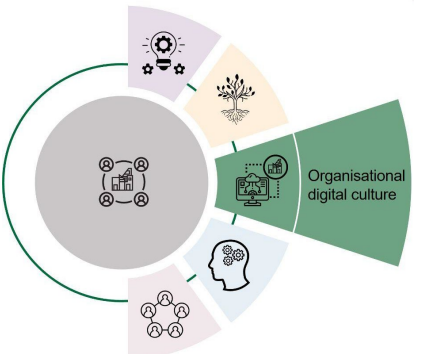


Digital culture and mindset

Emerging to established	Established to enhanced	Enhanced to mature
The importance of digital capabilities for all is recognised but not yet embedded. Some resources available to support digital capability development but lack of awareness of what digital capabilities are required. Digital capability is seen as the responsibility of one or two departments. Digital capabilities needed are included in some job descriptions and person specifications.	Strategic digital capability plan with active work to integrate digital capabilities into operations and culture. A variety of development programmes and offers that allow staff and students to demonstrate their digital capability. Opportunities to self-assess digital capabilities and confidence. Frameworks used to define digital capabilities. A roadmap has been developed to build digital capabilities.	Culture of digital capability woven throughout operations and policies. Digital capabilities embedded in staff recruitment, induction, appraisal and reward. Digital capabilities embedded in all courses for professional and career requirements. Recognised as a leader in capability development, known for its innovative programmes and initiatives. Regular reviews of digital capability requirements. Specialised roles and digital skills are recruited as appropriate.

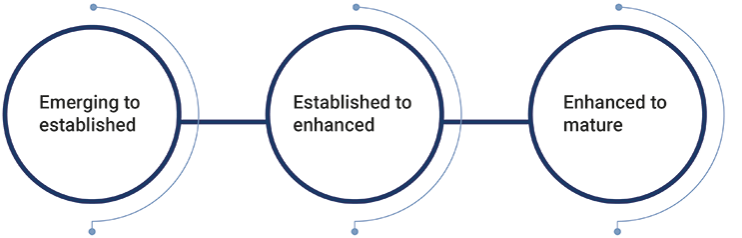


6 Establish and support a culture of innovation and experimentation

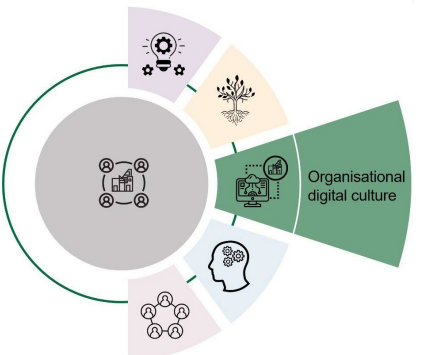


Digital culture and mindset

Emerging to established	Established to enhanced	Enhanced to mature
Isolated pockets of innovation, no formal structures or processes in place to support and encourage. Senior leaders not actively engaged in promoting a culture of innovation, little emphasis on risk-taking /experimentation. Traditional methods and processes preferred for decision making and problem solving. Isolated project-based activities take place.	Nurturing culture of innovation and experimentation. Some formal structures in place to support innovation and senior leaders have actively started to promote experimentation. Plans to invest in new technologies or processes to support innovation Still some resistance to change and a lack of formalised processes for experimentation.	Culture of innovation and experimentation evident. Formal structures and processes support innovation, senior leaders engaged in promoting and modelling a culture of experimentation. Risk-taking encouraged, and failure seen as learning. Continuous improvement focus and active investment in research and development, cross-functional collab. and idea sharing. ‘Digital by design’ approach for new system, seeking to redress bias towards convention.

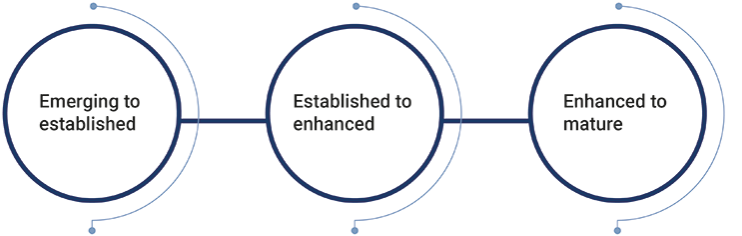


7
Develop and promote an external digital identity that reflects the organisation's mission and values

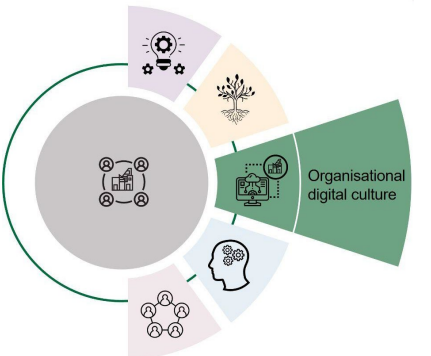


Organisational identity

Emerging to established	Established to enhanced	Enhanced to mature
Mission and values are evident on the corporate website and in social media. Branding guidelines for all communications and publications. Basic analytics tools are used to measure the performance of digital channels. Official digital channels comply with accessibility guidelines, but some externally and internally facing content does not fit the branding or accessibility requirements.	A strong and distinctive digital identity is evident on all digital channels. A well-designed and user-friendly website and active social media channels. Staff and students encouraged to maintain and support a consistent and accessible identity. Advanced analytics tools measure performance of digital channels, data informs digital marketing and communication strategies.	Organisational digital identity as a key driver for growth and success. Attracting and recruiting best staff and students, building an international reputation. Innovative and effective digital marketing ensures consistent identity, harnessing advanced technologies to engage and build digital communities. Data analytics and machine learning personalises digital experiences, virtual and augmented reality enhances users' experience of some content.

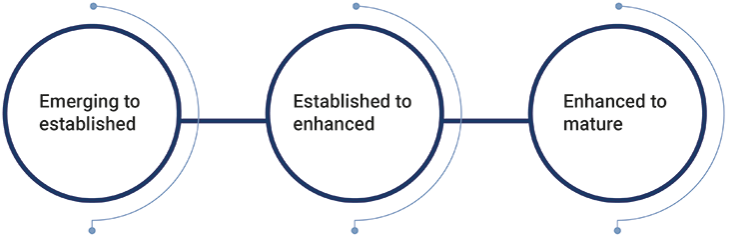


8
Staff and student digital identities



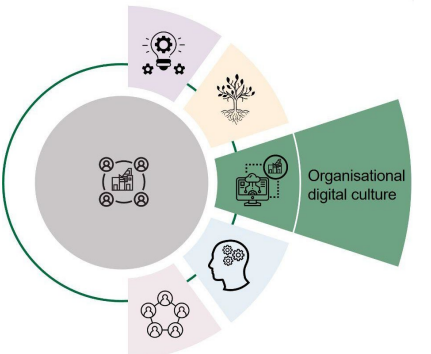
Organisational identity

Emerging to established	Established to enhanced	Enhanced to mature
There is limited formal support or resources for senior leaders, staff and students to develop their digital identities in a positive way. Training and professional development opportunities around digital skills include digital identity awareness, and staff and students are offered generic support and guidance on staying safe online.	The organisation offers staff and students contextualised support and guidance in managing their digital identity and online behaviour. Policies or guidelines have been produced to support the development of a positive individual digital identity or identities. The use of digital tools and technologies to enhance the development of positive digital identity is encouraged.	Digital identity and online behaviour are part of personal development planning for all staff and students and built into processes for managing these. Staff continually develop their professional digital identities. Students actively develop professional digital identities throughout their course. Students and staff co-create guidelines and protocols for acceptable digital behaviour in various contexts.

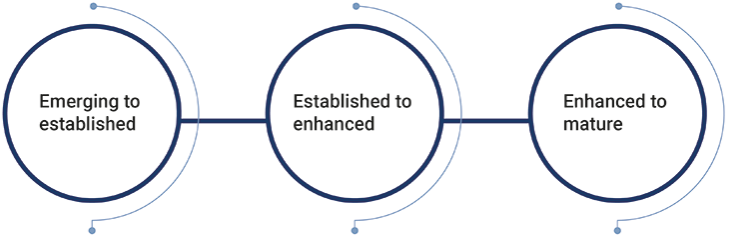


9
Strategic approach to digital wellbeing

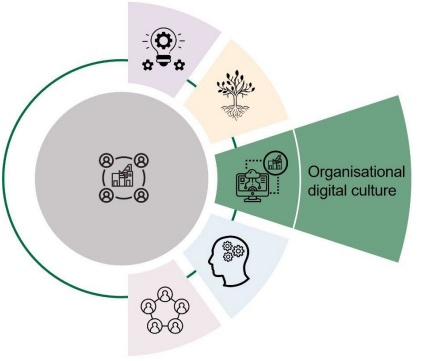
Organisational wellbeing



Emerging to established	Established to enhanced	Enhanced to mature
Wellbeing policies and support focus on mental health and do not specifically understand or address the concept of digital wellbeing. Responsibility for staff wellbeing sits with the human resources team. Responsibility for student wellbeing sits with the student support team. Organisational health and safety policies focus on ergonomic aspects of digital wellbeing.	Digital wellbeing is well articulated and understood policies and guidelines. Appropriate support for staff and students to ensure that using digital technologies for work and learning does not impact negatively on physical or mental health. Digital skills and capabilities for all stakeholders, opportunities include awareness of ways to enhance digital wellbeing.	Digital wellbeing is the responsibility of everyone, formal support is integrated, inductions include digital wellbeing, opportunity for all to self-assess wellbeing. Support available to mitigate negative impact, investment to help people make the best use of technology to enhance wellbeing. Digital wellbeing is embedded into curriculum design. Data analytics and nudges are used to identify problems and highlight solutions.

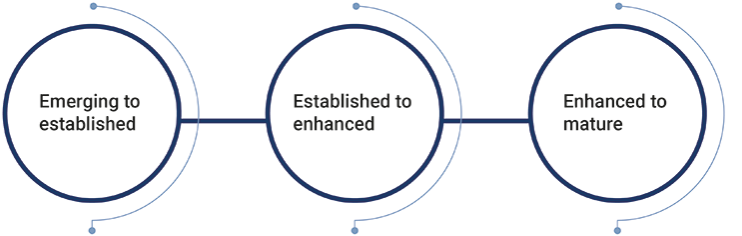


10
Adopt flexible approaches to work and study to accommodate different needs and preferences of all stakeholders

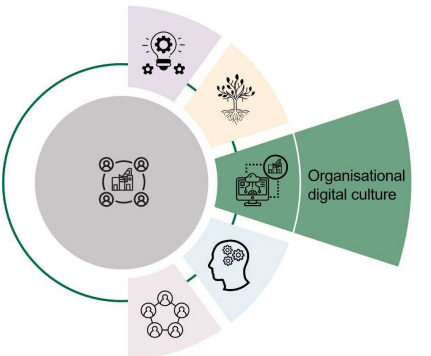


Organisational wellbeing

Emerging to established	Established to enhanced	Enhanced to mature
Flexible work and study arrangements are implemented on a case-by-case basis, without a coordinated strategy. Basic policies support flexible work and study, such as occasional remote working or adjustments for personal circumstances. Some infrastructure to support flexible work and study, inc. access to computers, learning spaces, internet connectivity and essential remote access software.	Strategic commitment to promoting healthy work-life balance. Ongoing support provided to help staff and students navigate flexible work and study options. Comprehensive policies and support systems in place for flexible work and study spaces. Physical and digital infrastructure supports flexible work and study.	Adaptable flexible work and study strategies champion continuous innovation and improvement to promote wellbeing. Proficiency in navigating flexibility, active contribution to development of policies and practices. Wide range of options to accommodate diverse needs and preferences. Diverse array of flexible work and study options, tailored to the unique needs. Seamless and flexible integration of work and study spaces, tools & platforms.

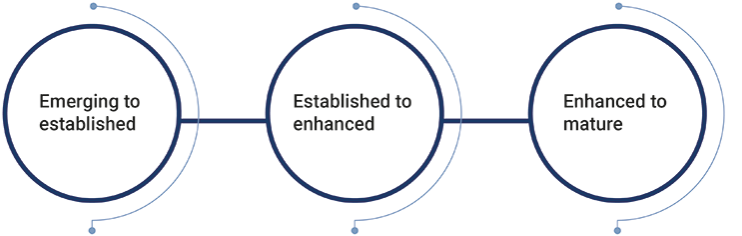


11
Leading and enabling digital transformation

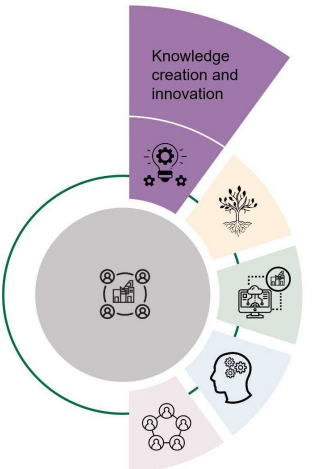


Organisational change

Emerging to established	Established to enhanced	Enhanced to mature
Leaders and governors understand the transformative nature of digital and have identified digital leaders for strategy development. A unified digital transformation strategy has begun to be developed. A baseline is being established, future development targets set, and prioritised investment identified. Senior leaders are being supported to develop digital leadership skills.	A digital transformation strategy has been developed. Stakeholders have been involved and have a shared understanding. Leaders and governors have agreed an investment plan for short-, medium- and long-term resource commitments. Development plan identifies achievable targets, KPIs, priorities and responsible owners, and is being used to inform department plans.	Digital transformation strategy and plan are implemented. Groups ensure a holistic and collaborative approach. Digital technologies are integrated with continuous review to stay ahead of trends & best practice. Continuous learning and development is evident, leaders are engaged in mentoring and coaching the future digital leaders. Creative responses to digital change have been implemented. Including rewarding innovation.

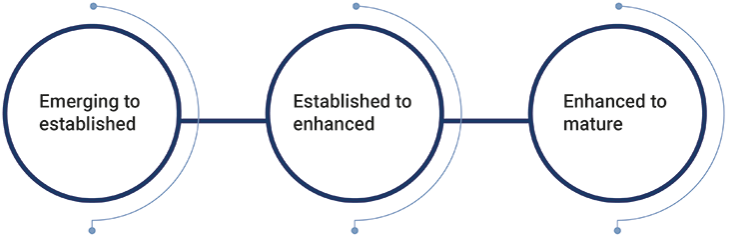


12
Horizon scanning to inform decision making

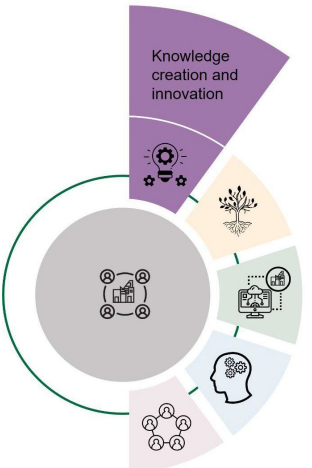


Digital vision and horizon scanning

Emerging to established	Established to enhanced	Enhanced to mature
Benchmarking conducted by specialists; results are primarily observed by individual enthusiasts. Benchmarking to inform strategic planning is not formalised. Trends responded to as they emerge, limited proactive efforts. News and developments monitored primarily through traditional media channels and ad hoc. Staff attend events to gain insights, but activities are sporadic and not strategic.	Individuals champion benchmarking to inform new initiatives. Trends monitored with a structured approach to inform planning and decisions. Diverse information sources are monitored to identify emerging trends. Different areas share insights and collaborate for trend identification. Staff regularly participate in or lead horizon scanning activities.	Senior management are advocates of benchmarking for strategic objectives. Proactive analysis of trends, shaping and influencing future sector development. Internal expertise and external networks are leveraged to identify and analyse trends. Partnerships with others for co-creation of innovative solutions to influence HE. Publishing research, white papers and opinion pieces that shape understanding.

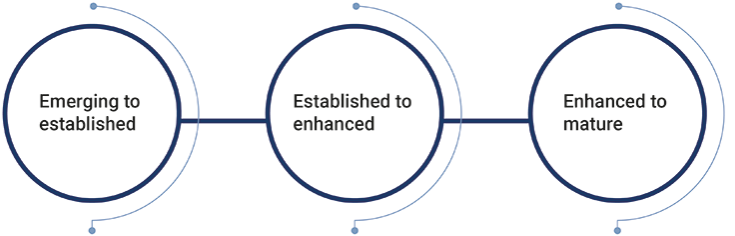


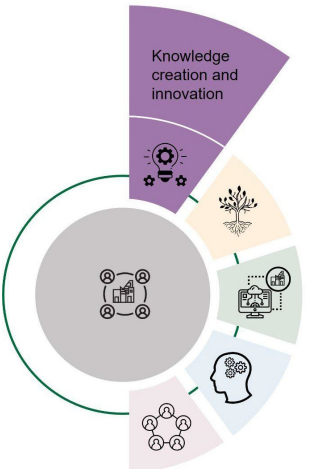
13
Establish a ‘futures-thinking’ mindset for senior leaders and governors



Digital vision and horizon scanning

Emerging to established	Established to enhanced	Enhanced to mature
Strategic planning is largely reactive, with a focus on adapting to changes as they occur rather than proactively shaping the future.	Strategic planning incorporates trend analysis and foresight activities, with an emphasis on anticipating and preparing for future challenges and opportunities.	Strategic planning goes beyond merely responding to trends, focusing on actively shaping the future through innovation, collaboration and leadership in higher education.

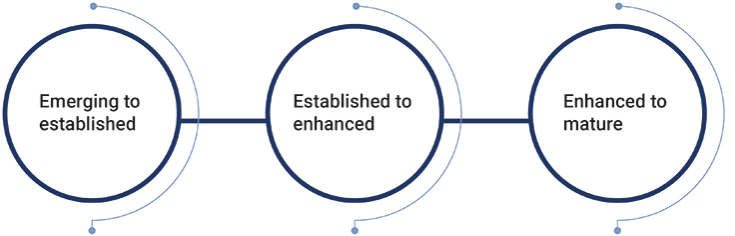




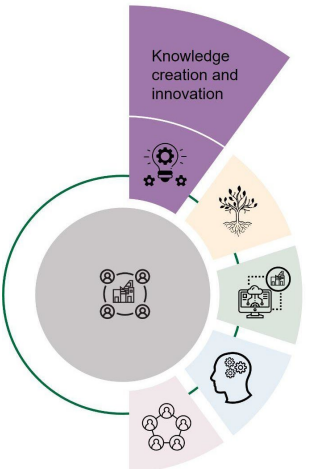
14 Strategy for digital transformation in research

Research

Emerging to established	Established to enhanced	Enhanced to mature
The organisation has plans to develop a strategy for digital transformation in research and to adapt and enhance policies for digital research infrastructure, research asset management, open research/publishing, knowledge exchange, collaboration with partners and research data management.	A strategy for digital transformation in research has been developed (or incorporated into the research strategy) and aligned with several relevant organisational strategies. An understanding is emerging around the 'ownership of the research lifecycle' and how the organisation can work with vendors and external partners to maintain ownership as appropriate.	Stakeholders have a shared understanding of the benefits of digital transformation to research with a commitment to ensure that digital approaches and methods align with core organisational values (e.g. equity and inclusion, environmental sustainability, ethical practice, internationalisation).

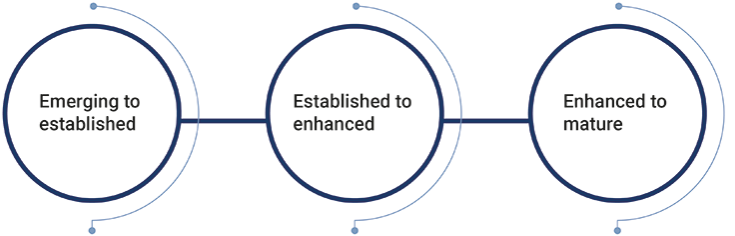


15
Investment in digital research systems and environments for research

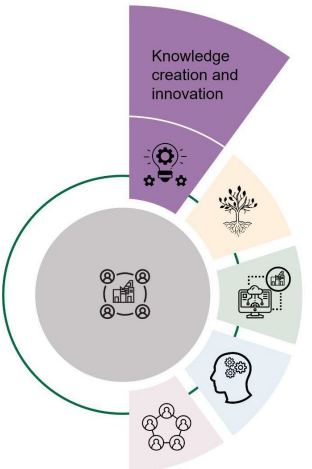


Research

Emerging to established	Established to enhanced	Enhanced to mature
Digital preservation and retention strategy and policies are being developed. Pilot projects in digital preservation are in place. A digital/data asset survey has identified assets, how they are used and how they should be managed. Staff are supported around changing practice and training is offered. Digital research data management activities are incorporated into organisational policies and practices.	The digital preservation and retention strategy and policies are established. Ongoing, recurrent budget reflects long-term needs. Basic systems and workflows for preservation and retention are in place. Internally facing integrations established. Comprehensive digital data management adopted, focusing on best practice, open data principles and data accessibility.	The digital preservation and retention strategy and policies are regularly reviewed and updated to reflect needs/priorities. Integrated systems are in place and integrated workflows are well established and operational. Robust research asset management systems adhere to best practices and relevant policies or regulations. Comprehensive digital data management system supports research, focusing on open data principles and data accessibility.

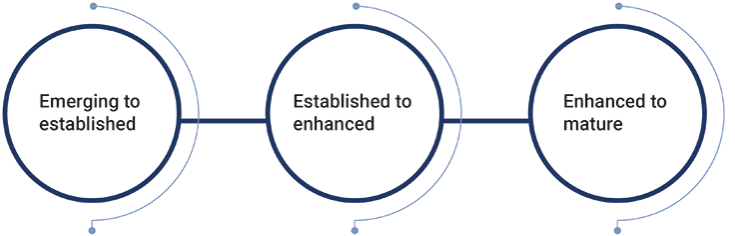


16 Investment in digital and physical infrastructure for research

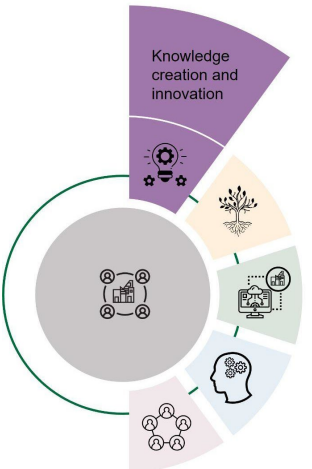


Research

Emerging to established	Established to enhanced	Enhanced to mature
The digital infrastructure for research includes access to secure, reliable technology, tools, connectivity, networks, services, information, collections and data. Researchers have access to specialised software, tools and physical spaces as appropriate to their discipline/s (e.g. statistical analysis software, data visualisation tools, labs, simulation and modelling tools and software).	Upgraded and integrated digital infrastructure for research includes advanced technologies and services. Investment in cloud-based services enables researchers to access and use computing resources on demand, scaling their use for specific requirements. An extensive selection of applications or tools tailored to the specific needs of various research disciplines or tasks is available.	Digital infrastructure for research is tailored to the needs of the community. A suite of technology has been designed and implemented to directly address specific requirements. Researchers have access to appropriate and effective tools, enabling them to work more efficiently and productively. Regular assessments inform strategic planning to support future requirements. A range of tools, services, hardware and software accommodates diverse computational needs and workloads.

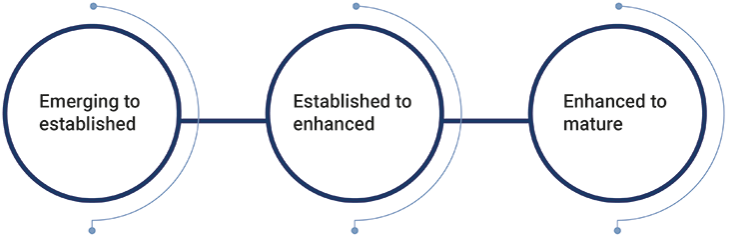


17 Opportunities for international research collaboration

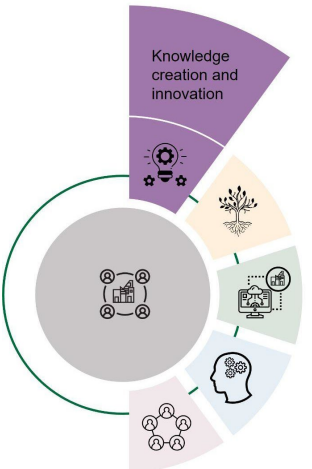


Research

Emerging to established	Established to enhanced	Enhanced to mature
Interdisciplinary and international collaborations depend on traditional approaches within faculties. Open research and publishing practices are emerging, with some support for researchers in pursuing these approaches.	Digital approaches enhance knowledge exchange (KE) activities and interdisciplinary collaboration opportunities, resulting in partnerships with a larger network of international institutions. Increased adoption of open research and publishing practices, with more support for researchers in pursuing these approaches.	Digital KE activities foster interdisciplinary collaboration and innovation. Extensive collaboration with external partners includes strong international network. Strategic investment identified for technologies and systems to support international research and work with partners. Commitment to conduct and coordinate due diligence on research partnerships. Strong commitment to open research and publishing ensures ample support for researchers.

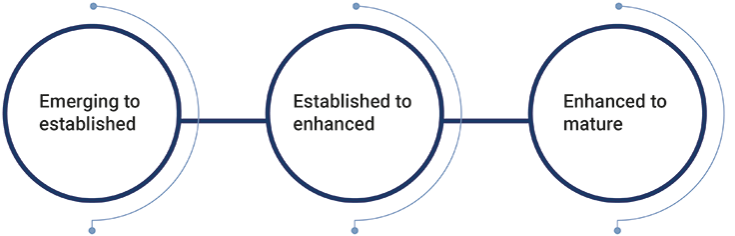


18
Ensuring ethical and responsible, transparent and secure research

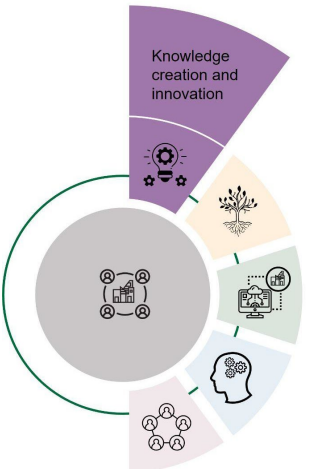


Research

Emerging to established	Established to enhanced	Enhanced to mature
The potential for digital approaches to developing trusted research practices is being explored, with attention to research integrity and ethics.	Strengthened, trusted research practices have been adopted, enhancing research integrity and adherence to ethical guidelines.	An emphasis on trusted research practices ensures widespread recognition of organisational research integrity and adherence to ethical guidelines. All research is ethical and responsible, has integrity and is trustworthy, reproducible, transparent and open. It is conducted in secure settings.

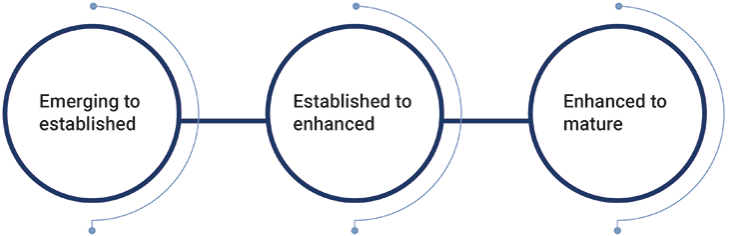


19
Supportive, enabling environment for the development of researchers

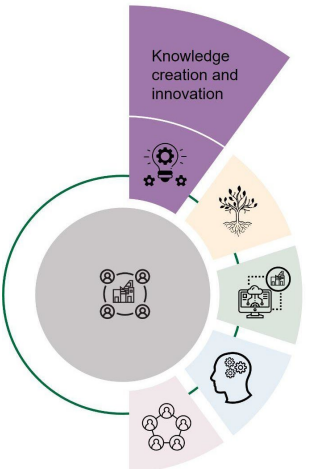


Research

Emerging to established	Established to enhanced	Enhanced to mature
A digitally enhanced research culture is evident, with researchers becoming more confident and proficient with digital tools and techniques. The library offers services, collections, resources and support for digital research.	A digitally enhanced research culture exists, with expanded training and support services for researchers. The library offers services and resources that support innovative research practices, such as data management, data visualisation and text mining.	A thriving digitally enhanced research culture exists, with researchers embracing digital tools and techniques and the institution offering extensive training and support services (e.g. data specialists, library and information specialists, IT system, research support teams). Equity, diversity and inclusion (EDI) is embedded into all research practices.

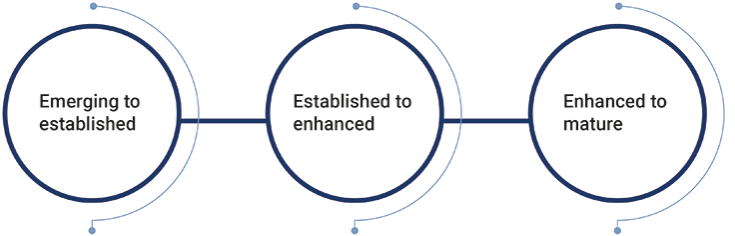


20 Recruitment and retention of researchers



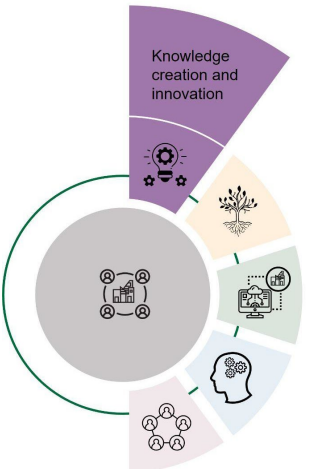
Research

Emerging to established	Established to enhanced	Enhanced to mature
Recognition of the importance of researchers having digital confidence and capabilities. Attracting and retaining highly skilled researchers with digital skills may be hampered due to lack of resources and temporary contracts. Regular training is offered to researchers on using digital tools effectively for research.	The organisation acknowledges the importance of recruiting and retaining digitally confident and capable researchers. A suite of valuable benefits and conditions attract and retain staff, such as flexible working, competitive salaries, long-term contracts etc. Digital skills and expertise for research are valued across the organisation.	Recognition of value researchers with digital skills offer digital transformation. Strategic and innovative approach to recruitment, retention and development. Senior researchers actively involved in developing strategies, policies and influencing innovation. Digitally confident, experienced researchers contribute expertise to professional groups and research communities.

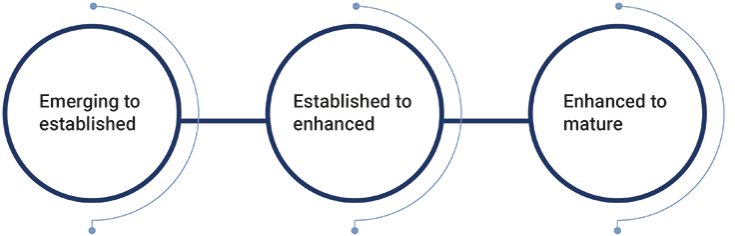


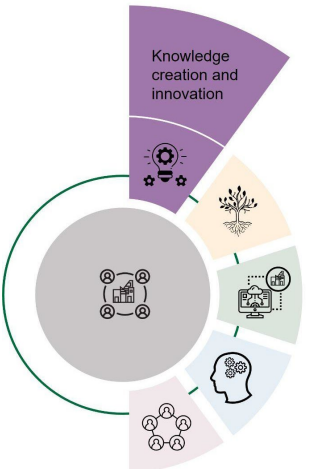
21 Development and training of researchers

Research



Emerging to established	Established to enhanced	Enhanced to mature
The organisation is investing in training and development opportunities to help researchers acquire new skills and stay up to date with the latest trends and technologies. There is a lack of understanding of existing levels of digital confidence and capabilities across research teams and no opportunities for cross-faculty sharing of expertise or experience.	There is significant investment in training to support researcher development and digital skills updating. Opportunities are offered for advanced certification as appropriate to specialisms and disciplines.	Consistently investment in development and well-being of researchers. Culture that supports professional growth and advancement. Research teams collaborate to integrate digital systems, services and networks into research practice. Staff share their digital research expertise and experiences outside the organisation through research, academic papers, professional networks and events. Open practices are encouraged, recognised and rewarded.

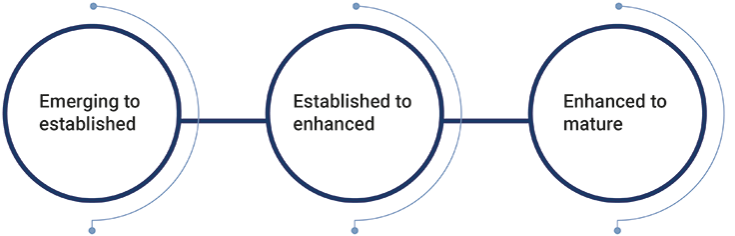




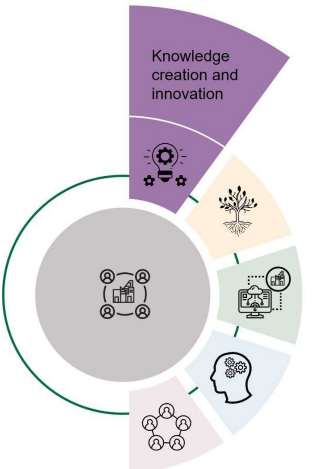
22
Specialist support to researchers

Research

Emerging to established	Established to enhanced	Enhanced to mature
Multiple teams support research activities. Communication and collaboration between teams is limited. No coherent approach to digital capability development. Technologies, tools and networks are in the IT strategy. Research resources are provided. Research support teams use specialist tools. Central offices integrate research support into their services.	Strategic investment and expansion to the digital infrastructure improves integration of research support systems, tools and data. Digital skills for research support teams are included in digital capabilities plans and a review of capabilities across teams identifies gaps and strengths. Coordination across research support teams is enhanced through digital communication and collaboration tools.	A comprehensive research support ecosystem is underpinned by a robust, reliable, secure digital infrastructure, highly available and connected networks, high quality data and asset management systems, and well-coordinated and collaborative research support teams. Library services are fully embedded in support of digital scholarship as an enabler and active partner in digital scholarship and research when relevant. Active role in support of digital scholarship.

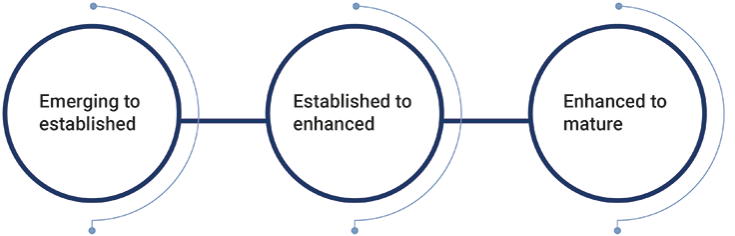


23 Promoting and enabling appropriate innovation



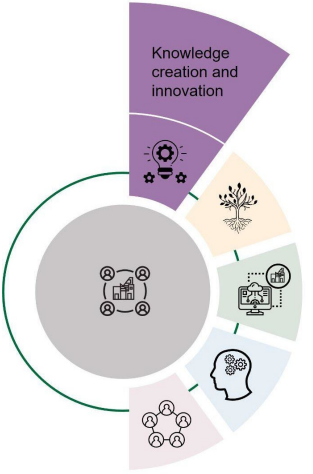
Innovation

Emerging to established	Established to enhanced	Enhanced to mature
Some formal processes for identifying and implementing digital solutions have been established for business management, education and research. Innovation often occurs through individuals or individual departments. Senior leaders may not have the appropriate skills and expertise to lead on digital innovation.	The organisation is actively working to enhance and coordinate its digital innovation capabilities across education, management and research. Leaders are encouraged to lead and model innovative approaches. Senior leaders and governors are offered support and training around digital innovation.	A strategic and coordinated approach to digital innovation across education, management and research activities which takes account of discipline needs and highlights potential for innovation partnerships within and across disciplines. All stakeholders have opportunities to participate. Leaders are recognised across the sector for developing and implementing innovative digital solutions to improve student outcomes, enhance management processes and drive ground-breaking research.

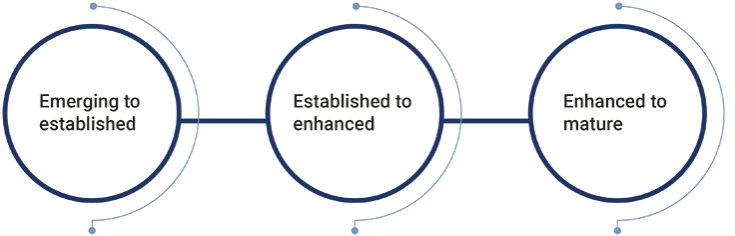


24
Enabling innovative practice

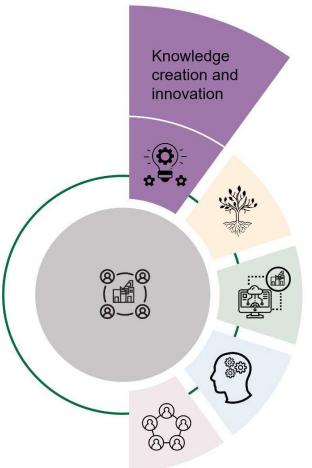
Innovation



Emerging to established	Established to enhanced	Enhanced to mature
Creative and innovative staff are sometimes unable to introduce or develop new ideas due to embedded policies, practices or restrictions. Staff do not have time or space to reflect on existing practices and consider new approaches. Students lack opportunities to input ideas or engage with decision making that affects them.	The organisation values and encourages creative input from staff and students through enterprise opportunities and engagement with wider partnerships. It seeks to recruit creative digital practitioners in professional roles. Students are given opportunities to give feedback on how digital developments affect them.	A culture of enterprise is encouraged and supported. A ring-fenced innovation budget has been established to support initial development of ideas and students are given opportunities to be involved as partners. A coordinated and strategic approach to applying for external innovation grants and opportunities is in place. Staff are encouraged and supported to take calculated risks and experiment with technologies.

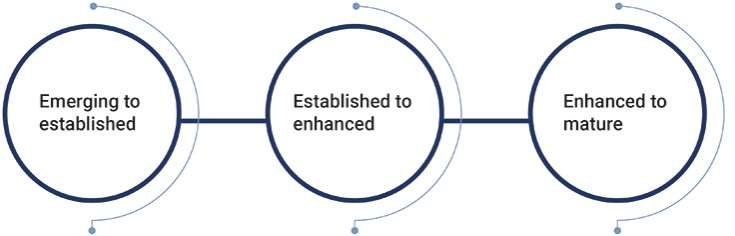


25 Innovative approaches to creating and using digital systems, tools and services

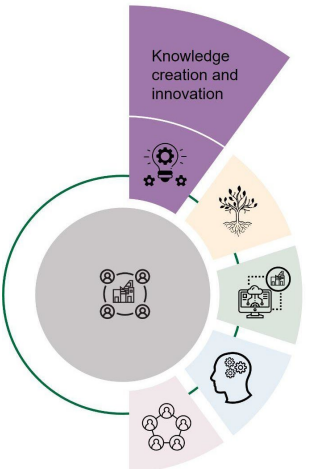


Innovation

Emerging to established	Established to enhanced	Enhanced to mature
Digital technologies are used in response to key areas of need, such as a learning management system or a digital research database. The organisation is using data analytics and other digital tools to improve decision making and efficiency. Previous IT initiatives and projects have resulted in pockets of innovation and the creation of individual in-house solutions and systems.	Advanced technologies, such as artificial intelligence or virtual reality, are used to improve teaching and learning, optimise processes and drive innovation. Digital platforms leveraged for connection and foster a culture of innovation. Strategic decisions are made to balance investment in new approaches with maintenance and support of legacy systems that still offer value.	Innovative technologies are used to solve complex problems and drive innovation. It has considered the benefits of establishing a digital innovation lab or incubator to foster collaboration and drive innovation across the organisation. Efforts have been made to integrate legacy systems with newer systems and services to create a seamless technical infrastructure that can cope with potential future developments.

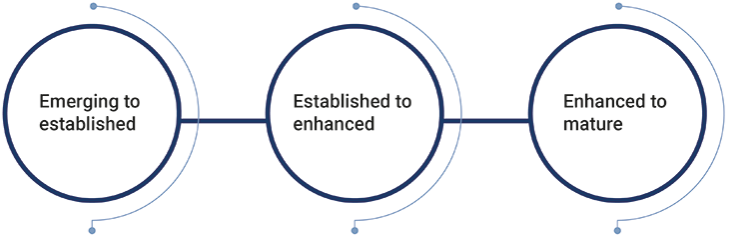


26
Impact of organisational research, enterprise and innovation on local, regional, national and international communities

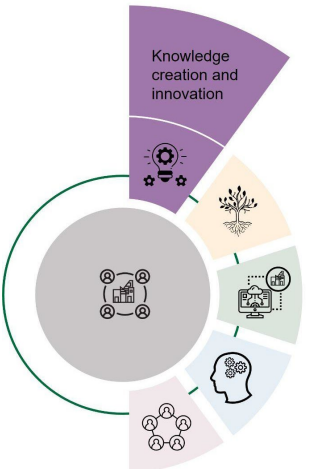


Wider Impact

Emerging to established	Established to enhanced	Enhanced to mature
Exploration of the wider impact of research, enterprise and innovation is beginning. Regulatory requirements for research are met but does no formal processes for evaluating impact. Informal feedback feeds into intelligence for impact. Researchers behave safely and ethically when managing research data and outputs, and when engaging in digital research with the wider public.	Working to enhance capacity for evaluating the impact of its research, enterprise and innovation include established formal processes and a strategic approach. Advanced data analytics and visualisation tools to identify and relationships and impact. Use of digital tools supports the creation of scholarly communities, research-led teaching, and good academic practice, including engagement of the public.	Org. recognised as leader in measuring and communicating the impact. Collaborative work with external partners supports better understanding of impact. Advanced methods are used to identify and measure impact. Actively communication of impact through public reports, dashboards, and other channels. Use of digital tools and communications positions the organisation as a global influencer in terms of open research, public engagement and knowledge exchange.

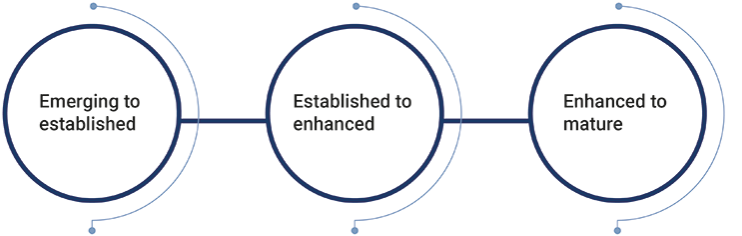


27
Impact of organisational decisions around technology investment, implementation and use on different business activities

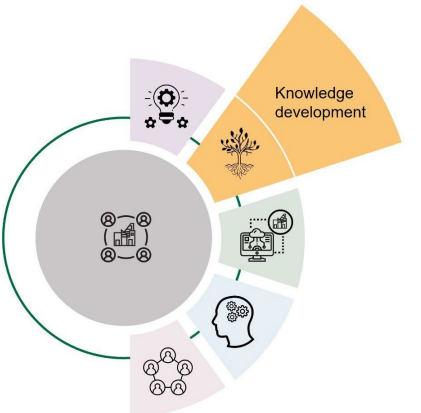


Wider Impact

Emerging to established	Established to enhanced	Enhanced to mature
Basic evaluations of technology investment, implementation and use are undertaken, limited understanding of the broader impact. Technology decisions, issues & improvement evaluated independently without coordination. Focus on the financial and operational aspects of technology with little consideration beyond. Limited set of quantitative and qualitative metrics is used for evaluation.	Structured approach to evaluating technology decisions, considering wider impact using sophisticated metrics. Evaluation coordinated to develop a comprehensive understanding of the impact of technology. Diverse set of quantitative and qualitative metrics used. Improvement opportunities identified through evaluation and changes are made to enhance the impact of technology decisions.	Culture of continuous evaluation and improvement, leveraging data-driven insights to optimise technology impact. Comprehensive evaluations consider the full range of impacts of technology decisions on all activities. Integrated into the strategic planning process, ensuring tech decisions aligned with overall goals and objectives. Current and future state indicators used, and innovative assessment methods, to measure success. culture of learning and adaptation drives ongoing enhancement.

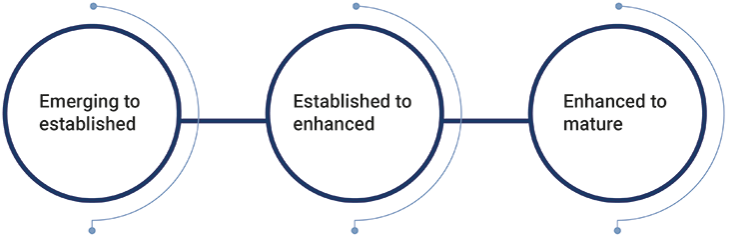


28 Strategic approach to digital learning teaching and assessment

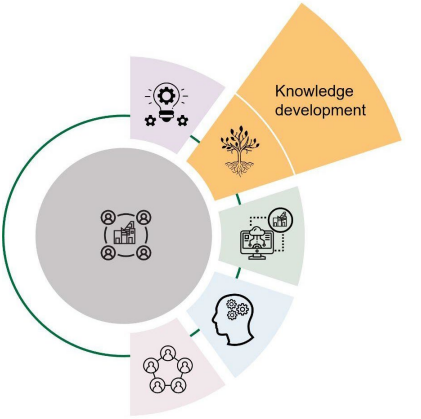


Curriculum development

Emerging to established	Established to enhanced	Enhanced to mature
Plans to develop strategic approach to digital learning, teaching and assessment (LTA). A range of curriculum models and design principles are reviewed for most appropriate approach. Digital learning is incorporated in most courses. Potential benefits and impact are not always apparent to learners. Good practice occurs in pockets.	A cohesive digital LTA strategy developed with input from faculty & students. Strategy aligns with values, goals and objectives. Structured approach to the development and practice of digital LTA. Quality assurance and enhancement frameworks reviewed and updated to reflect changing digital learning. Most staff are involved in the development and implementation of digital LTA.	The digital LTA strategy is forward-looking and adaptable, focused on continuous innovation and improvement. Innovative, pedagogically led approaches exist to design, validate and provide high-quality, flexible and blended learning experiences. Considerations around EDI, environmental sustainability, changing learner needs and expectations inform the ethical and appropriate use of technologies to support LTA. Staff are confident and proficient in digital LTA.

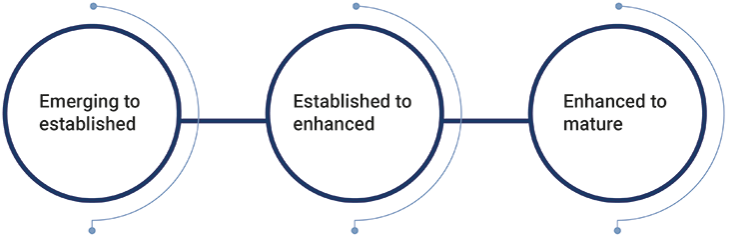


29
Strategic approach to the development & use of learning resources to support curriculum design & digital learning and teaching

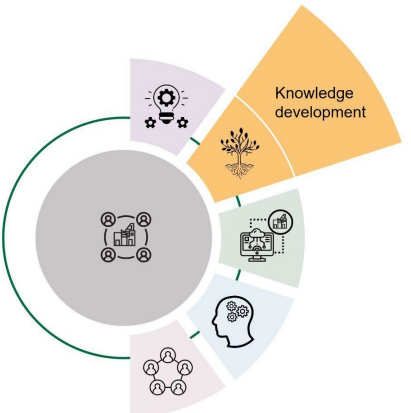


Curriculum development

Emerging to established	Established to enhanced	Enhanced to mature
The organisation has plans to produce a strategy or policy around the development, management and use of learning resources.	The digital learning, teaching and assessment strategy includes the development and use of learning resources to support curriculum design and digital learning and teaching (e.g. creating and using open educational resources [OERs], e-books, e-journals and other digital content). Use of learning resources is tracked and reviewed regularly.	Curriculum teams work closely with others to develop, manage and use learning resources to support digital learning teaching and assessment (e.g. students, learning technologists, library and information specialists, IT staff). Information on use informs ongoing resource development.

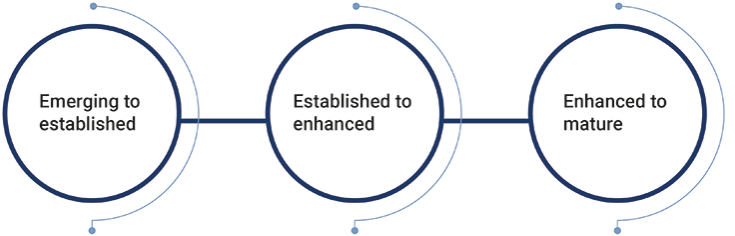


30
Student participation in curriculum design

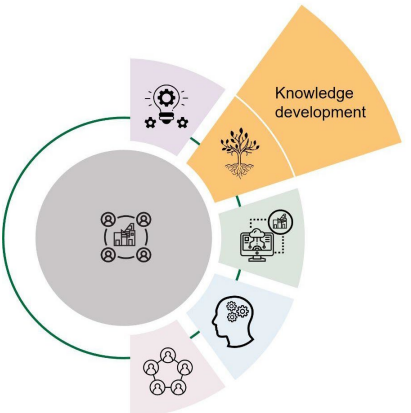


Curriculum development

Emerging to established	Established to enhanced	Enhanced to mature
Evidence about student digital capabilities, access to devices and networks and employability needs informs course and module design.	Feedback is gathered from learners about their digital learning experiences and feeds into curriculum design.	Students are active participants in decisions relating to course and module redesign and the use of digital technologies. They act as co-creators in curriculum development.

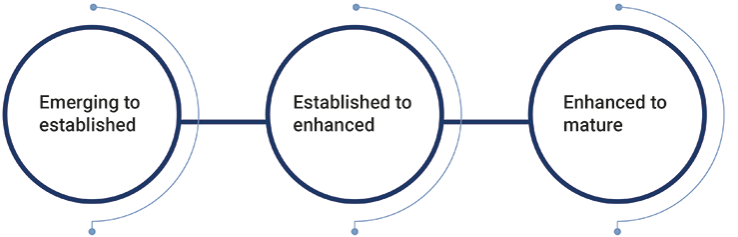


31 Appropriate learning models for current needs and to extend reach

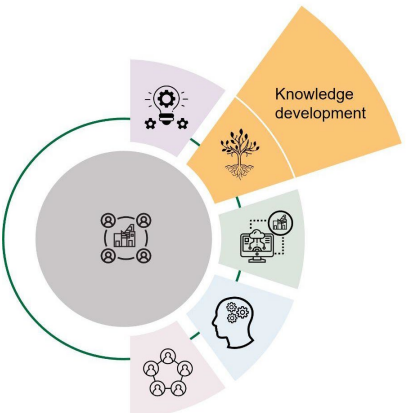


Curriculum development

Emerging to established	Established to enhanced	Enhanced to mature
Courses are blended to some extent, time spent in different modes of learning differs. A combination of traditional and technology-enhanced approaches exists with the majority of the curriculum still delivered traditionally. New approaches to are being investigated and reviewed, with the involvement of current students, alumni and external partners.	Digital learning is incorporated into a broad range of courses and programmes, with a mix of online, blended, and hybrid approaches. Policies and guidelines developed for various course types to aid design and delivery. Qualified and skilled staff use new approaches effectively. Data and analytics used to monitor and improve the effectiveness of the different approaches.	Digital learning is deeply embedded across all courses and programmes, with a wide variety of flexible and personalised learning pathways available to meet diverse student needs and preferences. Collaborations with international and cross-sector partners have facilitated the expansion of course offerings and the development of innovative approaches to existing courses, with evidence of enhanced learning experiences for different groups of students.

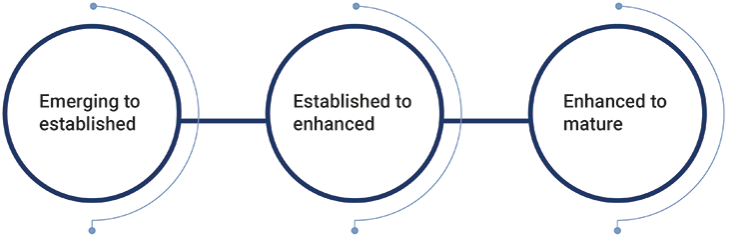


32
Responding to changes in graduate careers and life paths



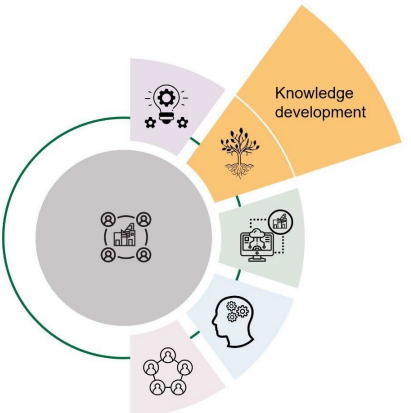
Curriculum development

Emerging to established	Established to enhanced	Enhanced to mature
Curriculum planning tends to be reactive, rather than proactively shaping the future. News and developments are gathered through traditional media channels and informal conversations. There is some engagement with industry partners and employers to gather insights into the skills and competencies required for graduate careers.	Curriculum planning is forward looking and adaptable, anticipating changes and adjusting accordingly. A wide range of info sources are used. Regular reviews of the curriculum ensure course offerings remain relevant and aligned with the evolving needs. Active engagement externally to gather insights into the skills and competencies required for graduate careers, and feedback is incorporated into curriculum planning.	Curriculum planning responds to current trends, anticipating change and preparing students for the future. Input from partners supports analysis of trends, combining data insights with expertise and research. Continuous improvement and innovation in curriculum planning is established, course offerings adapting in real-time. Strong, long-term external partnerships exist, to co-create educational experiences that develop the skills and competencies required for successful graduate careers.

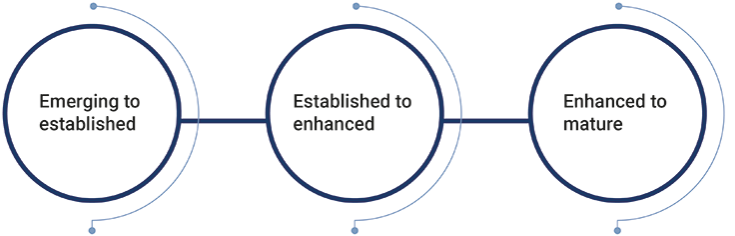


33 Design of digital assessment and feedback

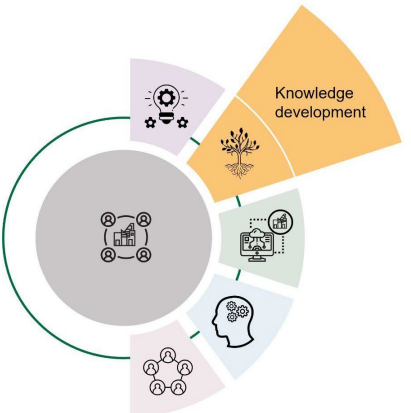
Curriculum development



Emerging to established	Established to enhanced	Enhanced to mature
Assessment design includes digital tools and technologies to support traditional approaches to assessment and feedback. Staff have some support for digital assessment. Plagiarism detection software use is common. Validation takes a risk-averse approach. Security & reliability are key criteria. Academic integrity and accessibility are considered in digital assessment design.	Imaginative use of digital methods. Various methods are adopted or trialled for diverse learner needs. Advanced assessment tools are introduced to improve efficiency and effectiveness. Development opportunities are offered. Collaboration and knowledge sharing promotes development. Improving digital accessibility & inclusivity for participation of all.	Digital assessment is integrated into curriculum. Advanced tech used to create personalised assessment. Peer- and self-assessment are supported. Data-driven decision-making supports continuous evaluation and refinement. Cross-faculty conversations support sharing of best practices. Staff are encouraged to experiment with innovative digital assessment methods. Organisation is seen as a leader in digital assessment innovation.

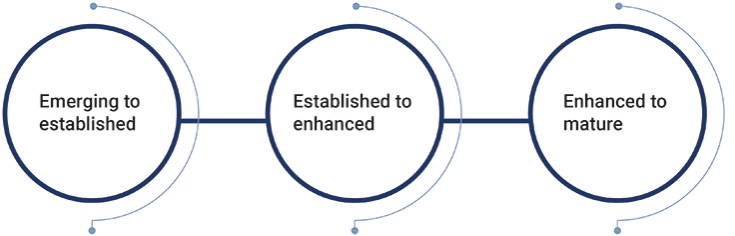


34
Embed digital learning capabilities and academic skills into courses of study

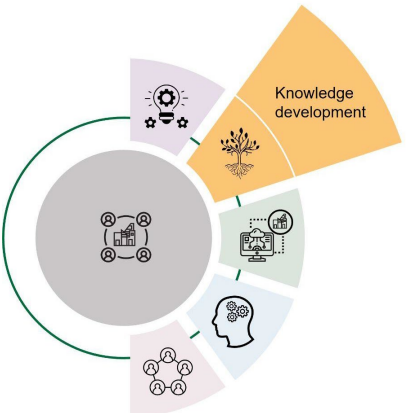


Curriculum development

Emerging to established	Established to enhanced	Enhanced to mature
Training for students offered in core tech & digital skills at induction and point of need. Resources are provided to support development of academic skills. Some course teams and student reps champion digital capabilities in learning, but not yet embedded. Digital capabilities are viewed as important learner/graduate outcomes and employability skills.	Students experience contextualised use of tech and build digital and academic skills through projects & assessment. Quality assurance supports embedding of digital capabilities into curriculum. The inclusion of digital practices important for employability. Students/researchers gain experience in using up-to-date digital tools and participate in digital communities of practice.	Development of digital capabilities and academic skills is fully embedded into curriculum. Innovative use of digital technologies is a key differentiator in courses. Digital capabilities for graduate attributes are fully embedded into the employability agenda. Digital tools accelerate and enhance learning by creating authentic learning situations. Strong links with industry and employers inform curriculum design to anticipate future employability requirements.

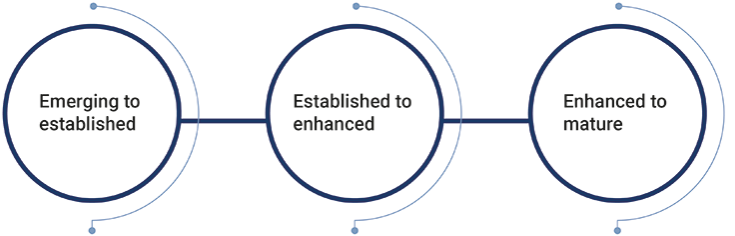


35
Encourage and support research into digital and online learning

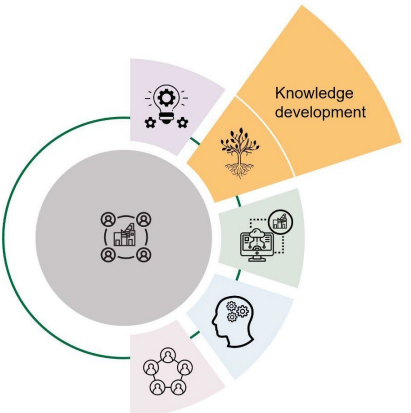


Curriculum development

Emerging to established	Established to enhanced	Enhanced to mature
Investigations into the potential of digital and online learning are led by specific teams or interested individual academics. Research activities focus on understanding basics, pedagogical approaches, and effective digital learning environments. Pilot projects explore digital and online learning feasibility. Some external collaboration and networking supports sharing.	Research activities around digital/online include evaluation of implementation. Research informs improving student outcomes, data analytics input to ongoing research. Dedicated centre for digital learning research and development serves as a hub for expertise. Partnerships with industry leaders, edtech companies and other educational institutions expand the scope and impact of research.	Organisation recognised as leader in digital and online learning research. Researchers explore innovative and disruptive technologies to support learning. The impact of digital and online learning is considered or included in all research activities. Organisation is actively involved in shaping national and international policies, advocating for equitable access and quality assurance. A culture of continuous improvement fostered using research findings practices shared with the community.

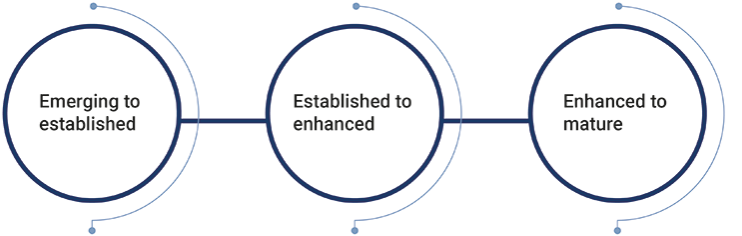


36 Digital personal/professional development opportunities for all staff

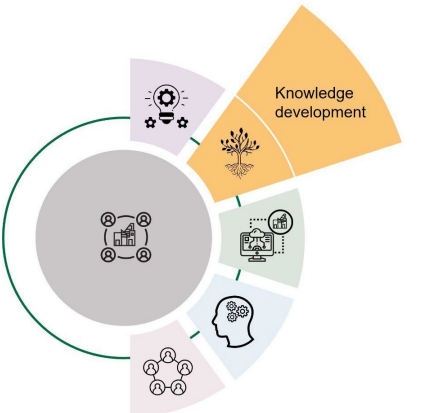


Digital Learning

Emerging to established	Established to enhanced	Enhanced to mature
Staff have limited opportunities to digital tools for reflection or professional development. Some basic online training opportunities exist as part of staff induction for health and safety, cyber safety, specific proprietary technologies. Staff development opportunities tend to focus on specific in-person training days, team development training or external courses or events.	Organisation offers digital learning opportunities for staff as part of its digital capabilities plan, as appropriate for individual role needs. Staff are encouraged to self-assess digital capabilities and identify development needs. Digital learning opportunities for staff are informed by good pedagogical design. Staff are encouraged to take part in external online courses.	Opportunities for reflection, recognition and reward for digital learning are offered. Digital learning and teaching expertise is harnessed to develop staff development opportunities outside the organisation. Courses focusing on digital learning and teaching are available at various levels and model good practice. Staff use provided digital tools to gain advanced professional qualifications and to carry out research in their discipline or professional area.

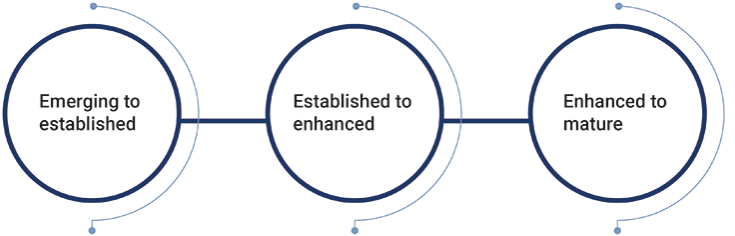


37
Development of digital capabilities among learners

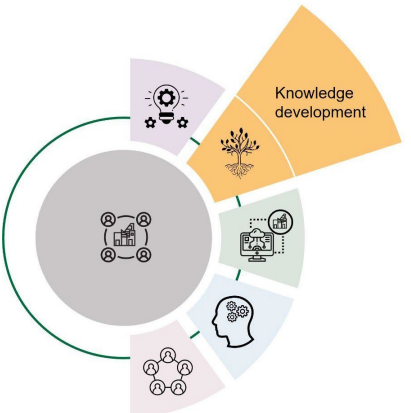


Digital Learning

Emerging to established	Established to enhanced	Enhanced to mature
Students provided with basic digital capability support. Guidance is available with some online tutorials. Access to networks, platforms, learning and study spaces prioritises students on campus. Basic induction offered. Reactive approaches to dealing with problems have been adopted. Course design includes some interactive elements, limited understanding of student digital capabilities.	Recognition of student need to develop capabilities. Comprehensive digital literacy offer for a range of digital capabilities. Proactive efforts support access to necessary resources inc. assistive tech and diverse learning spaces. Flexible and engaging course design. Students access support easily from a range of teams and services, responsive communication.	Supporting students to become effective digital learners' critical part of digital capabilities. Digital capabilities are integrated into curriculum. Shared understanding. A blend of in person and digital mechanisms ensures timely and responsive support. Targeted support and initiatives to ensure inclusion. Course design responds to diverse learning needs through co-production with students. Online interaction and collaboration, community and connection.

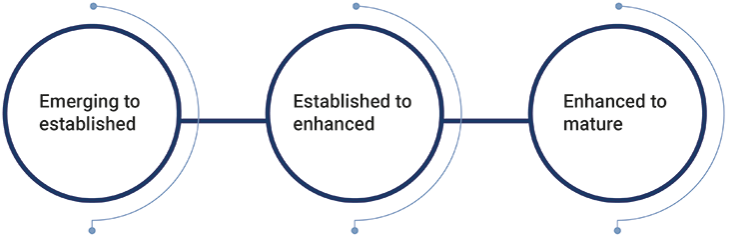


38
Digital opportunities to encourage self-regulated independent learning

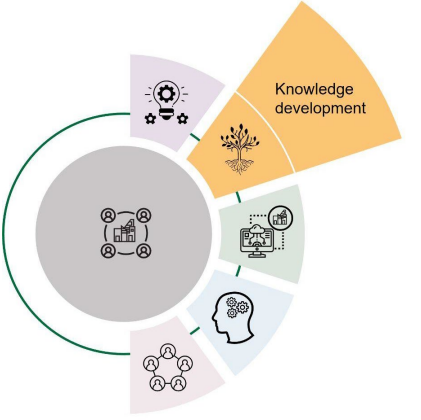


Digital Learning

Emerging to established	Established to enhanced	Enhanced to mature
Digital learning platforms offer basic features to support independent learning. Some opportunities for digital peer-to-peer collaboration and communication are provided, students are unsure of benefits Assessment focus rather than learning. Digital library services provide access to wider resources and online tutorials to help students broaden their research.	Digital learning platforms support self-regulated learning. Progress tracking and analytics allow learners to set goals and monitor their performance. Opportunities for peer-to-peer collaboration are encouraged. Adaptive learning technologies and personalisation support learning needs. Access to a wide range of digital diverse learning resources.	Reliable, accessible and flexible tools. Course-based independent learning activities. Analytics feedback enable data-driven decisions about their learning strategies. Learning communities widen participation and encourage discourse in discipline. Personalised learning pathways incorporate advanced adaptive learning technologies and AI. Access to rich, diverse learning resources. Time management and productivity tools help learners manage their learning.

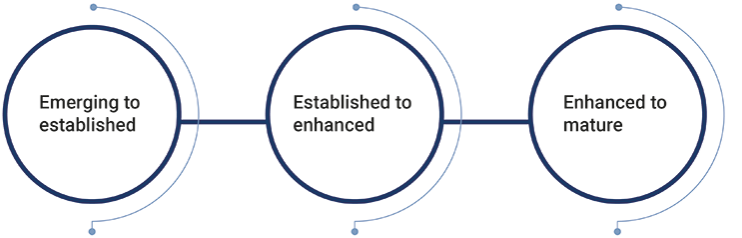


39 Awareness of the digital skills needed in chosen career pathways & opportunities to practice

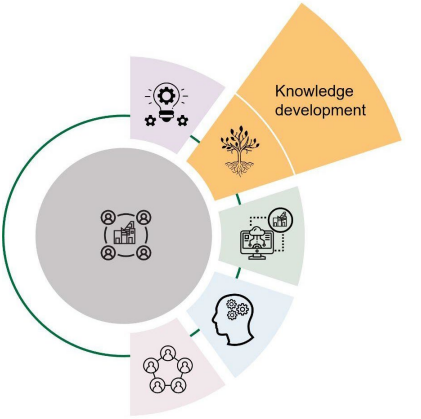


Digital Learning

Emerging to established	Established to enhanced	Enhanced to mature
Digital capabilities are viewed as important learner/graduate outcomes and employability skills. General digital capabilities such as digital proficiency, productivity, digital communication and collaboration are supported through basic online digital literacy guidance and support.	The inclusion of digital practices is an important aspect of building employability outcomes into the curriculum/research design. Students/researchers gain experience in using up-to-date digital tools for their particular discipline/future profession and participate in digital communities of practice.	Digital capabilities for employability are fully embedded into courses and updated to reflect changing needs and anticipated future demands. Digital tools accelerate and enhance learning by creating authentic learning and assessment opportunities. Students are engaged in conversations with curriculum teams, alumni, industry and professional partners around future employability needs and trends, which feed into course development.

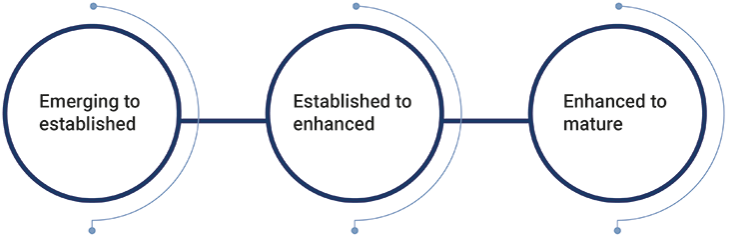


40 Opportunities for learners to record achievements and reflect on progression over time

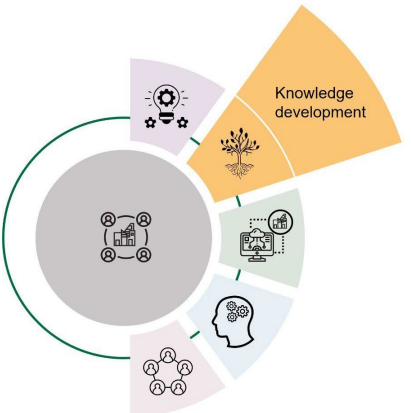


Digital Learning

Emerging to established	Established to enhanced	Enhanced to mature
Some digital solutions allow students to track attainment & progress. A Learning Management System is used. Traditional career services include in-person counselling and career fairs, supplemented with basic online resources, like job listings and resume templates. Some use of data analytics allows monitoring of student progress and provision of feedback.	Advanced systems help learners track attainment, progress, and reflect on personal development. Career development experiences are integrated, a wide range of career advising. Data analytics identify patterns in student performance and targeted interventions. Digital badges and micro-credentials are provided for students to showcase specific skills and competencies.	Comprehensive and personalised learning ecosystem. AI-driven systems adapt to learning needs. Digital career services include virtual mentorship, job matching algorithms, and personalised career roadmaps. Integration of learning analytics, predictive analytics, and adaptive learning technologies. Strong partnerships with local industry offer practical, skills-based learning experiences, and real-time feedback on students' career potential.

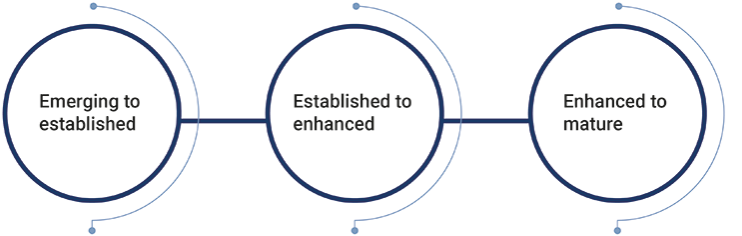


41
Diverse needs of digital learners

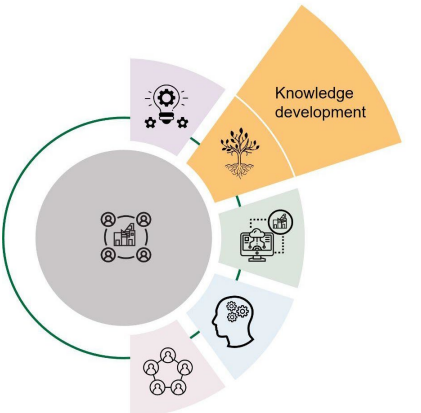


Digital Learning

Emerging to established	Established to enhanced	Enhanced to mature
Diverse needs of learner groups assessed to identify issues. Student feedback informed. Responses to student needs and requirements include some tailored content and services. Different modes considered for off-campus students. Content is generally accessible. Responses to diverse needs reactive with limited understanding of diversity.	Inclusivity and accessibility highlighted in organisational values. Digital learning designed with diversity in mind. Digital infrastructure developments have improved reliability, security and connectivity for diverse needs. Robust processes and collaboration for understanding needs. Blended learning provides some choice. Specialist support extended for remote learners.	Mix of in person and digital systematically used to understand and meet diverse learning needs. Recruitment and induction give clarity how technologies are used in courses ensuring realistic expectations. Induction includes development of a personalised learning plan. Students encouraged to review periodically. Innovative teaching methods contribute towards inclusive learning experience based on assessed needs.

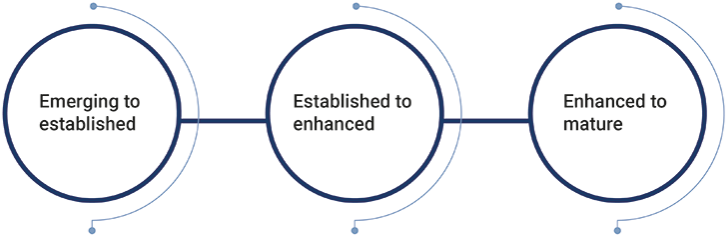


42
Seamless physical and remote access to digital information

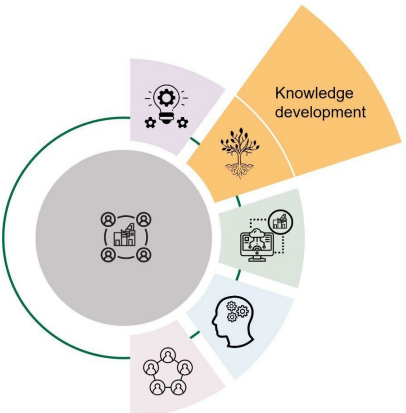


Digital Learning

Emerging to established	Established to enhanced	Enhanced to mature
Library offers digital services. Established technologies, tools and systems support operations. Expertise about technology supporting research and learning. Policies to support a 'digital first' approach. Regular reviews of digital collections to support curriculum. Library digital resources to support learning, teaching and research.	Library is significant contributor to digital transformation. Strong partnerships with others. Comprehensive digitised collections. Innovative approaches to providing shared digital resources. Specialised repositories augment digital resources to support learning. Library portal includes personalisation. Social media engagement. Seamless integration for sharing high-quality data and analytics.	Library seen as a leader in using technology and innovative support of learning & teaching. Specialists contribute to strategic plans for digital LTA. Systems are integrated and seamless. AI-based technologies enhance services. Specialists have strong relationships with faculty for impactful learning & teaching. Long-term accessibility and usability of digital collections. Data analytics and visualisation tools inform strategic planning.

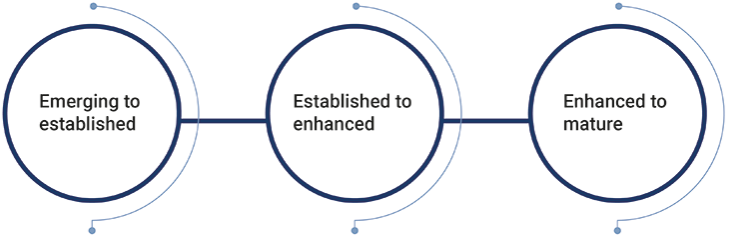


43 Digital learning, teaching and assessment infrastructure

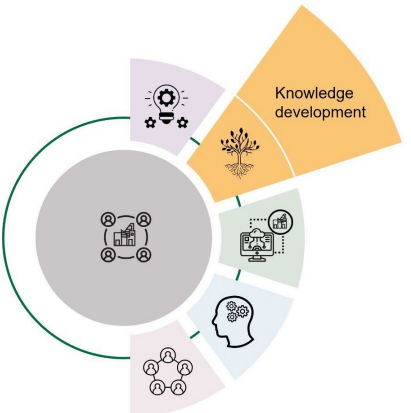


Digital Teaching

Emerging to established	Established to enhanced	Enhanced to mature
Digital teaching and assessment supported by a learning management system (LMS) or virtual learning environment (VLE). Tools are not always integrated, adoption is individual-dependent. Teaching is blended to some extent, mix of traditional and tech-enhanced approaches. Most formative and summative assessment practices make use of digital tools.	Digital learning includes enhanced LMS features to personalise learning. Virtual reality, augmented reality and simulation tools are piloted. Digital repositories for storing and sharing. Digital teaching in courses including automated grading, analytics, and adaptive assessments. Assessment practices reconsidered to respond to ethics, authenticity, integrity and diversity.	Strategic approach to digital teaching and assessment in a fully integrated LMS with personalised learning. Digital teaching embedded with flexible and personalised pathways to meet diverse student needs. Synchronous learning offered in person and off campus, supported by asynchronous. A strategic approach to digital assessment gives cohesive experience. Learners have clear understanding of formative. The organisation is seen as a sector leader in digital learning, teaching and assessment.

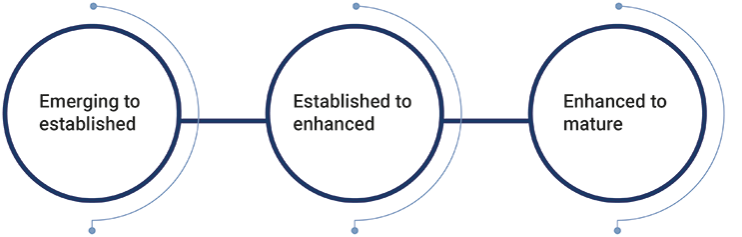


44 Recruitment and retention of teaching staff

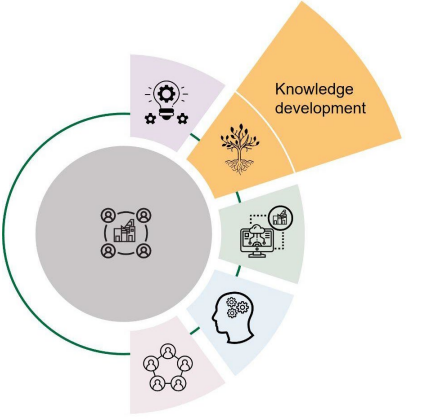


Digital Teaching

Emerging to established	Established to enhanced	Enhanced to mature
Importance of digital confidence and capabilities for LTA recognised. Some recruitment and retention procedures to attract and retain highly skilled digital practitioners often hampered due to lack of resources. Regular training offered to staff on digital LTA tools effectively.	The organisation acknowledges the importance of recruiting and retaining digitally confident and capable teaching staff. Benefits and conditions are offered to attract and retain staff, for example flexible working, competitive salaries, long-term contracts and attractive benefits. Digital teaching and assessment skills and expertise are valued across the organisation.	Recognition of highly skilled teaching staff value for digital transformation, strategic and innovative approaches to retain the best quality staff. Senior teaching staff actively involved in developing strategies and policies, and in influencing innovation in digital LTA. Digitally confident and experienced teaching staff contribute expertise to professional groups and communities of teachers.

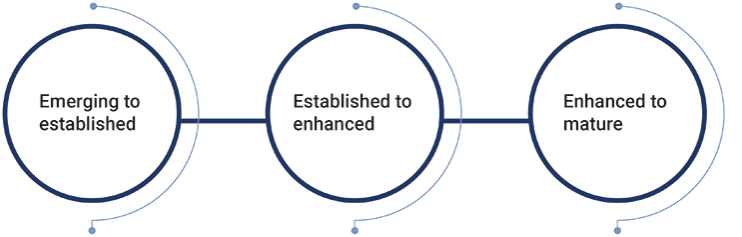


45 Development and training of teaching staff

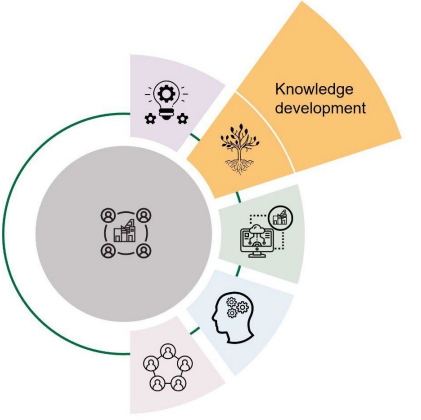


Digital Teaching

Emerging to established	Established to enhanced	Enhanced to mature
The organisation is investing in training and development opportunities to help teaching staff acquire new skills and stay up to date with the latest trends and technologies. There is insufficient understanding of faculty staff's existing levels of digital confidence and capabilities and there are no opportunities for cross-faculty sharing of expertise or experience.	There is significant investment in training to support teaching staff with professional development and skills updating. Opportunities for further teaching certification are offered and the value of technology enhanced teaching is recognised and rewarded.	Consistently investment in the development and well-being of staff, creation of a culture that supports professional growth and advancement. Staff collaborate to integrate systems, services and networks into digital practice. Staff share digital teaching and assessment expertise and experiences outside the organisation through research, academic papers, professional networks and events. Open educational practices (OEPs) are encouraged to increase high-quality education.

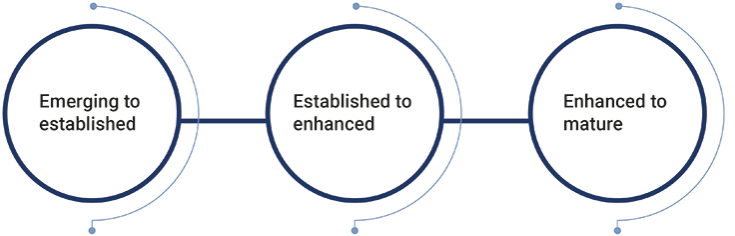


46
Offering a range of learning and study spaces

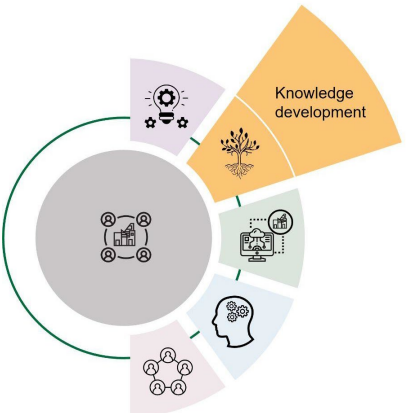


Digital Teaching

Emerging to established	Established to enhanced	Enhanced to mature
A wide range of learning, spaces available across old and new buildings. Learning spaces vary in digital facilities and quality. Disparate data sources about rooms maintained by different departments. Some integrated digital systems & commitment to exploring solutions. Learning space design is informed by pragmatics, through an estates management and technology lens.	Strategic approach to investment, planning and development of learning spaces is adopted. Audit of spaces prioritises development. Learning space design led by estates and IT teams. Outcomes focused on service not pedagogy. Spaces reflect traditional designs and approaches. No understanding of how technology is used. Learning spaces are primarily formal, with some informal learning spaces.	Strategic investment in smart campus design, inclusion & diversity embedded, specialist spaces, a coordinated approach to learning space, and flexibility to accommodate a range of teaching activities. Spaces support individual and group learning. Students' own learning spaces and devices considered in courses. A committee leads on learning space design with an inclusive membership. Software solutions produce data about space. Clear purpose of space.

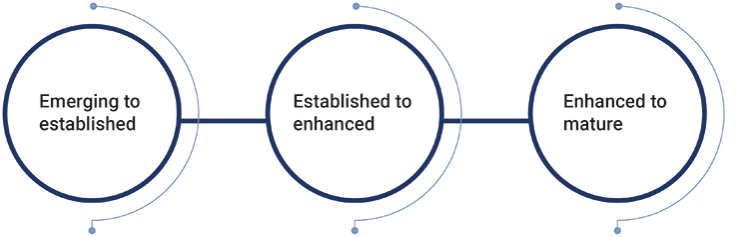


47
Strategies for the ethical use of learning analytics

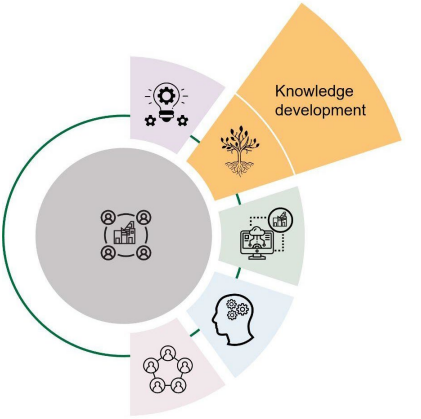


Digital Teaching

Emerging to established	Established to enhanced	Enhanced to mature
Recognition of learning analytics' (LA) potential to inform, not strategically implemented. Data collection, management and analysis is fragmented, uncoordinated and hampered by disparate unintegrated systems. LA capabilities vary across teams and there is little understanding or guidance around ethical use of student data to inform teaching and curriculum design.	A code of ethics for the use of data has been developed with a shared understanding of benefit. Staff have access to data management and visualisation and use effectively. Learning analytics informs development to enhance. All use of personal data in digital learning is lawful and transparent. Predictive analytics identify students who are at risk with support in place.	LA used effectively to inform development, progress tracking, interventions and feedback. Learner data is trusted, transparent, accountable and fair. Comprehensive and accurate data collection, integration and analysis capabilities informs decision making. LA insights drive personalised initiatives and interventions. Robust development ensures educators are skilled in LA to inform their teaching. Benchmarking and comparison initiatives continuously improve outcomes.

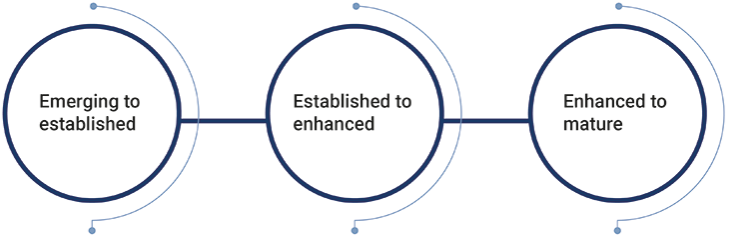


48
Identify and recognise how the variety of learner experience can inform developments

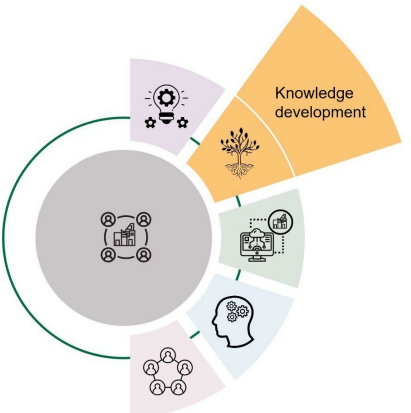


Learner Experience

Emerging to established	Established to enhanced	Enhanced to mature
The organisation uses several mechanisms to understand student experience but results not always coordinated. Survey fatigue affects the value of some results and value and impact of feedback unclear. Surveys inform student experience initiatives. Feedback through student representation. In-depth measures used to gather feedback. Informal feedback directly to staff.	Digital infrastructure developments have added a range of reliable and robust mechanisms to gather, manage and analyse student experience data. These augment direct feedback gathered from students to present a fuller picture of individual experiences, as well as opportunities to baseline and benchmark things such as digital experiences of learning, attainment, progression, digital capabilities, etc.	Organisation recognised for work with students as partners and for student voice. Range of student rewards/recognition. Learner experiences feed into developments in curriculum design, digital tools and technologies, student services, digital collections and learning resources. Diversity of student needs recognised and informs design and implementation of digital LTA. Integrated physical and virtual campus fosters positive, holistic experience for learners from recruitment to post-qualification.

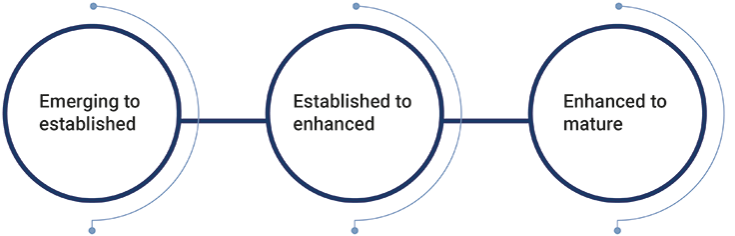


49
Supporting the wider experience of students

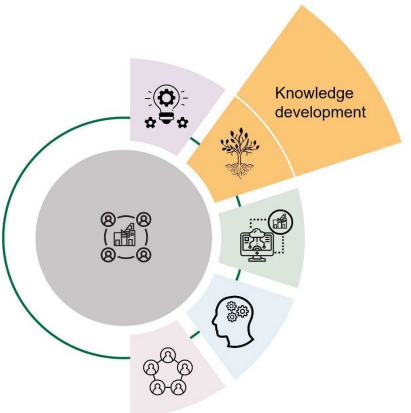


Learner Experience

Emerging to established	Established to enhanced	Enhanced to mature
Physical campus provides a range of traditional spaces, services and opportunities for belonging/mattering. The university website gives a welcoming first experience that supports recruitment and onboarding. Financial and administrative support information is provided during the application process through the website and student support services.	Students are encouraged to use social media and online platforms for communication and networking with their peers. Students can have an online presence in clubs, societies and extracurricular activities, and some virtual events /resources are available. Online access to financial literacy, help, resources, and forms. Digital tools enable tracking of financial aid applications and disbursements.	Organisation committed to providing progressive, supportive, inclusive experience through applicant, student and alumni journey. Connected and inclusive online community. Evidence of belonging/mattering. Virtual & physical participation in clubs, societies and extracurricular activities fosters networking and social integration. Digital financial literacy included in student digital capability. Comprehensive digital financial help, resources, tools and advice.

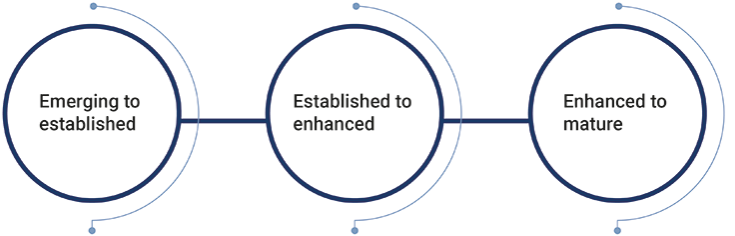


50
Alumni engagement

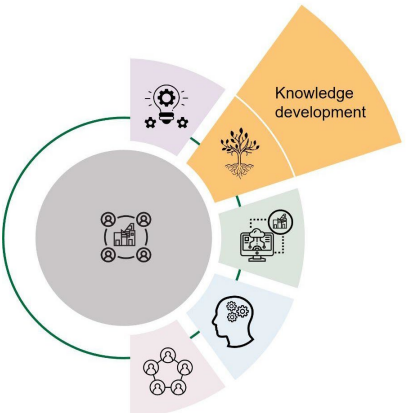


Learner Experience

Emerging to established	Established to enhanced	Enhanced to mature
The organisation offers alumni opportunities to engage through networking, mentorship and activities organised by the alumni support team or office.	Alumni have tools to stay connected to the organisation and engage in social opportunities and networks.	Alumni are seen as important partners and digital networking and tools support mentorship of students, as well as feedback around learner experience and employability/professional skills.

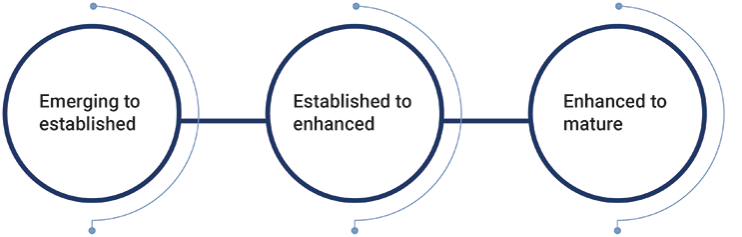


51
Support for digital and personal wellbeing of students

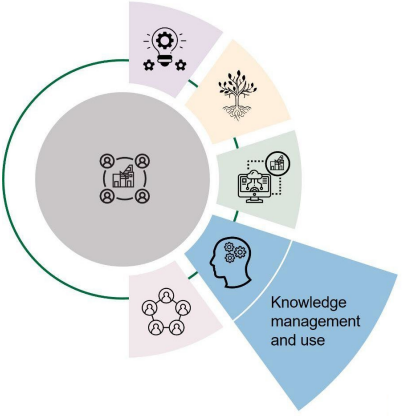


Learner Experience

Emerging to established	Established to enhanced	Enhanced to mature
Wellbeing support teams tend to focus on in person support services. Signposting to support and guidance services is offered through student induction, faculty staff and webpages.	Digital wellbeing is recognised as important for student health and wellbeing. Students are encouraged to consider the potential negative effects of using technology and gives guidance to mitigate. Tools support personal health and fitness; all students are encouraged to identify how assistive tech might benefit. Online resources and self-help tools are available to support mental health and wellbeing. Virtual counselling and support are available for students off campus.	Digital wellbeing is integrated into digital capabilities support for students. Comprehensive digital wellbeing resources are available. Integrated digital tools monitor and support student wellbeing proactively in ethically and appropriately. Students are aware of different aspects of digital wellbeing, including effects on physical and mental health, which aspects they can improve, how to ask for help and support, and how to use technology to enhance health and wellbeing.

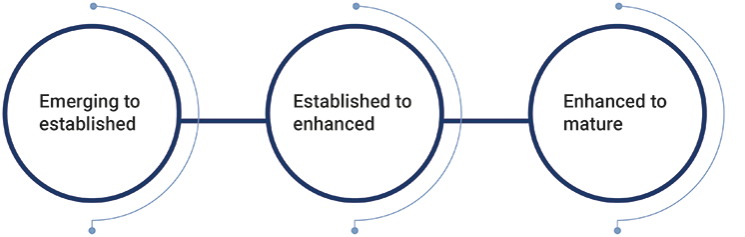


52 Strategic approach to information management

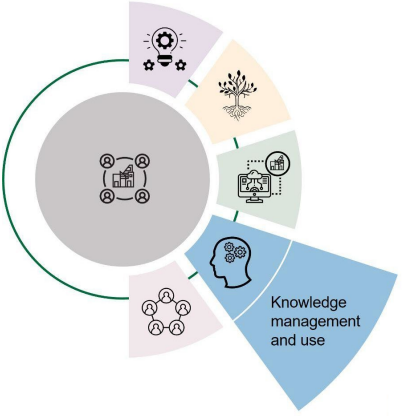


Information management and use

Emerging to established	Established to enhanced	Enhanced to mature
A plan to produce a digital information strategy and develop protocols for effective information management exists. Some digital information strategies, policies and protocols are in place, but limited infrastructure and support. Basic policies support digital information management, primarily focused on data privacy, security regulations and intellectual property rights.	A cohesive digital information strategy exists, with clear goals and objectives for improving digital information quality, accessibility and use. Digital information management strategies, policies and protocols are ensuring a comprehensive approach and improved systems. Policies support data governance, data quality, information sharing and open access principles.	The digital information strategy focuses on continuous innovation and improvement to drive information-driven decision making and organisational success. Digital information management is a core component of all business operations. Appropriate technologies and practices support a seamless, integrated digital information ecosystem. A comprehensive set of policies for digital information management and data-driven decision-making.

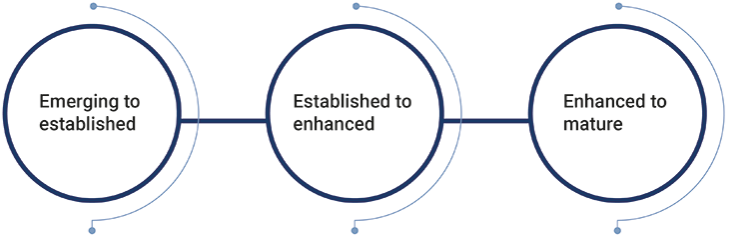


53 Systems to support information management

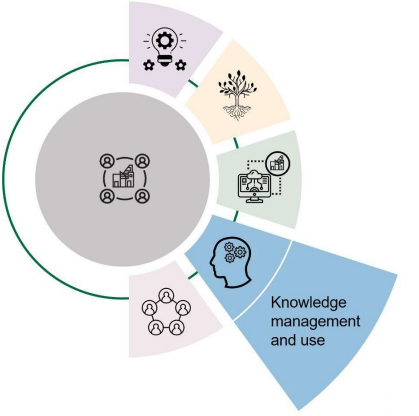


Information management and use

Emerging to established	Established to enhanced	Enhanced to mature
Infrastructure for digital information management includes basic storage solutions, essential software and minimal cyber security measures.	Infrastructure exists to support more robust digital information management, including improved storage solutions, advanced data processing tools and data analytics platforms.	Infrastructure includes the most appropriate technologies and seamless integration of digital information management tools and platforms across all aspects of the organisation. Robust criteria exist for assessing platforms offered by specialist library vendors.

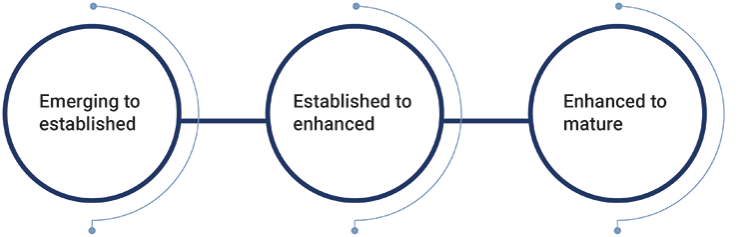


54 Information management skills and expertise

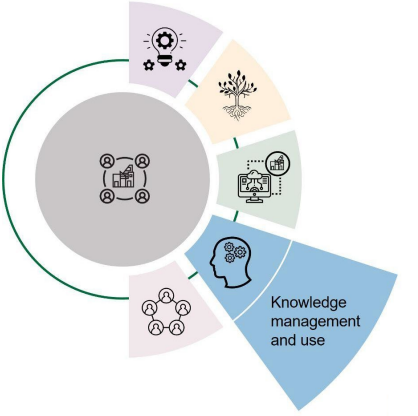


Information management and use

Emerging to established	Established to enhanced	Enhanced to mature
Little or sporadic training, minimal support or guidance. Information literacy sessions offered to students, refreshed over the course of studies. Stakeholders outside the library don't fully understand the concept of digital information literacy and importance to overall capability. Staff offered limited information literacy support on request.	Ongoing training and support to develop digital information management skills. The importance of information and research literacy is recognised. Targeted training, support and guidance are offered to research students and staff. Library and information specialists provide extensive web-based support, guidance and online tutorials to augment limited in person sessions.	Staff and students proficient in digital information management and actively contribute to developing strategies, policies & practices. Library and information specialists work with teams to embed information literacy into all courses, to support critical reflection, relevant situated practice and to enhance digital learning capabilities. Digital information literacy is acknowledged as a critical capability for all stakeholders and is included in an overall digital capability plan for all staff and students.

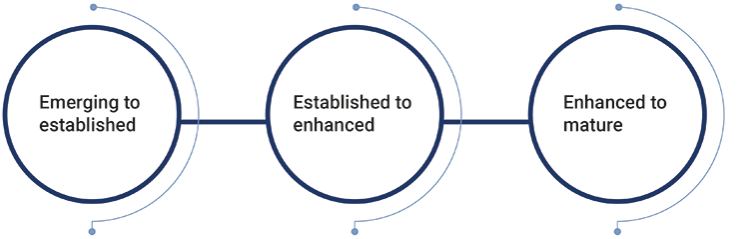


55
Digital library and archival collections

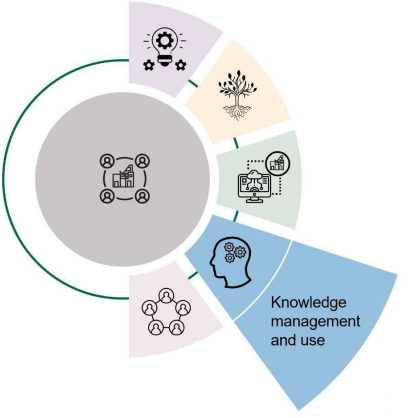


Information management and use

Emerging to established	Established to enhanced	Enhanced to mature
The concept of data ownership/curators is understood and partially implemented (global ownership) to support research and digital scholarship. There is a good understanding of the scope and breadth of collections needed to support curriculum and research requirements. Digital cataloguing is consistent, using recognised standards.	Role-based data owners/curators support research and digital scholarship. Systems and processes exist to support evidence-based decision-making approaches to collection management. Consistent, structured digital cataloguing supports systems interoperability and collections discovery. Development of open resources and publications is supported.	Individual data owners and robust succession plans to support digital scholarship. Evidence-based approaches to decision making to guide acquisitions and development. Systems to support collection management are integrated. Linked data helps to create data with real value. Development of open resources and publications is supported and encouraged. Information specialists work collaboratively to embed digital. Use of digital collections is tracked for impact.

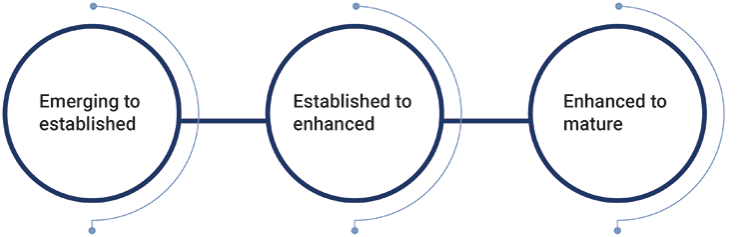


56
Digital transformation of library and information services

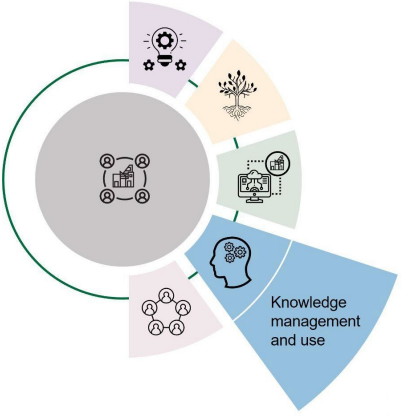


Information management and use

Emerging to established	Established to enhanced	Enhanced to mature
Established digital infrastructure to support learning, teaching and research functions. Information literacy training and inductions are available for new staff and students throughout their course. Policies and procedures are available for data privacy, security and intellectual property. The quality of data being fed into library systems from wider systems is inconsistent and data is sometimes inaccurate.	Standard services plus a digital repository for access to outputs. Enhanced digital resource discovery tools available. Information specialists use platforms, resources and online tutorials for skill development. Systems and services are integrated into LMSs and/or VLEs to provide seamless access. Collaboration for support of digital scholarship, collection management and data management.	Library service leads sector digital innovation and is a critical part of the organisation's digital transformation strategy. Digital library strategy aligns with strategic goals & digital strategy. High level of engagement with all stakeholders and partners. Library supports advanced data services. High-quality digital archiving. Emerging technologies are implemented or piloted. Open access initiatives supported & led. Effective data architecture for seamless integration.

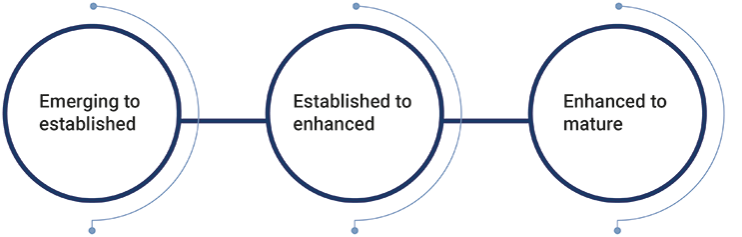


57 Recruitment and retention of specialist library and information staff

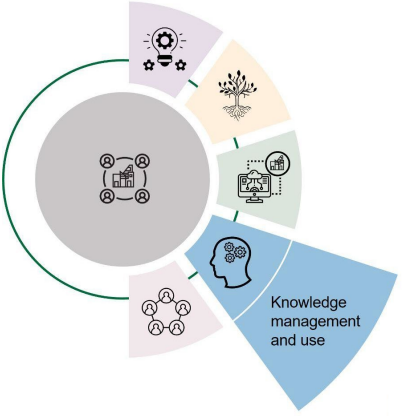


Information management and use

Emerging to established	Established to enhanced	Enhanced to mature
The organisation recognises the importance of employing qualified library and information specialists. Some effective recruitment and retention procedures are in place. Attracting and retaining highly qualified professionals may be hampered due to lack of resources or opportunities to influence strategy and/or decision making.	The organisation acknowledges the importance of recruiting and retaining highly skilled library and information specialists. Attractive benefits and conditions are offered to attract and retain staff, such as flexible working, competitive salaries and other benefits. The highly specialised skills and expertise are valued across the organisation.	The organisation recognises the value that highly skilled information specialists can offer. Strategic and innovative approach to recruitment and retention for quality staff. Senior library and information specialists are actively involved in setting organisational strategy and policy and they influence innovation. Library and information specialists contribute expertise to groups and communities in professional bodies.

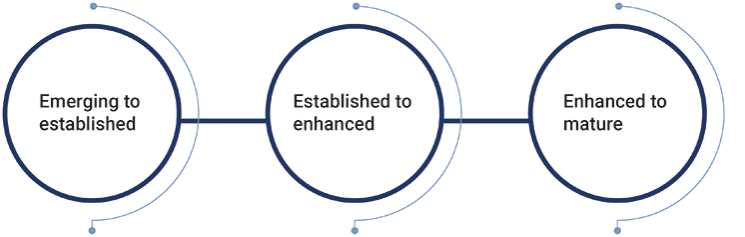


58 Development and training of specialist library and information staff

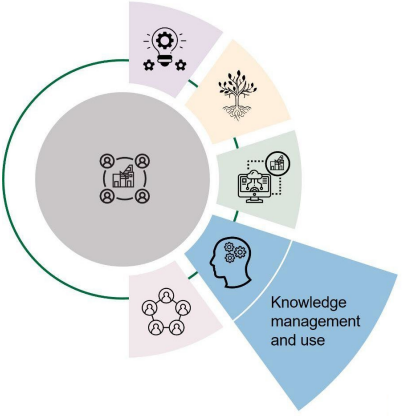


Information management and use

Emerging to established	Established to enhanced	Enhanced to mature
The organisation is investing in training and development opportunities to help library and information specialists acquire new skills and stay up to date with the latest trends and technologies.	There is significant investment in training to support library and information specialists' ongoing development. Opportunities for further specialist certification are offered.	The organisation is investing consistently in the development and wellbeing of their library and information specialists, and they have created a culture that supports professional growth and advancement. Library and information specialists are working closely with leadership and other appropriate teams to inform decision making, curriculum design and research activities.

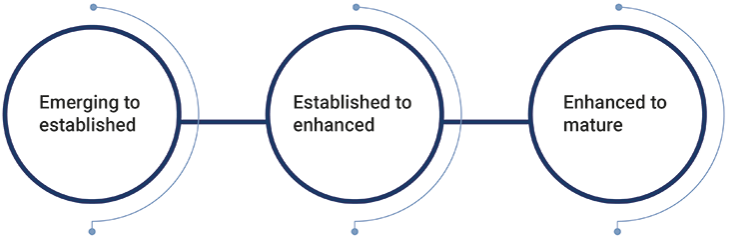


59 Partnership approaches to library and information strategies

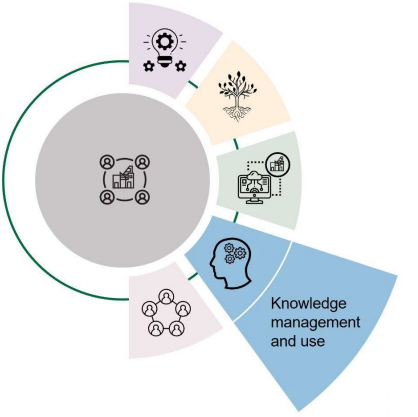


Information management and use

Emerging to established	Established to enhanced	Enhanced to mature
Partnerships have been developed with other institutions and external organisations to support the provision of academic library and information services. Collaborations include sharing resources and expertise, joint purchasing agreements and participating in consortia. Partnerships with technology vendors support the implementation and maintenance of digital library systems.	Robust partnerships exist with a range of external and internal stakeholders to support the provision of academic library and information services. Collaborations may include joint research projects, shared staff positions or joint educational programmes. Information specialists and research teams engage with digital library and research initiatives to explore innovative approaches.	Partnership approaches are incorporated into the library and information strategy. Strong, strategic partnerships have been established with a range of stakeholders including academic departments, other institutions, community organisations and technology vendors. There is a focus on creating an integrated digital library ecosystem that provides seamless access. Active development of digital library service provision, such as open access initiatives.

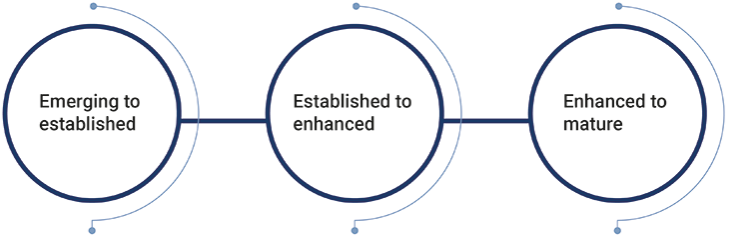


60 Strategic approach to digital data management and use

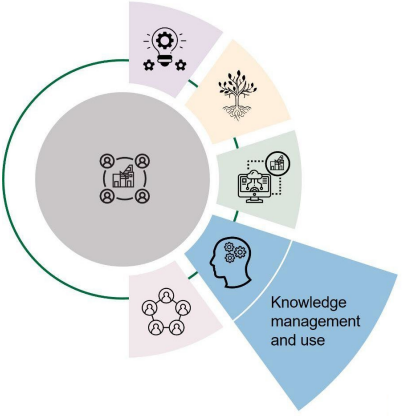


Data management and use

Emerging to established	Established to enhanced	Enhanced to mature
Recognition of the importance of taking a strategic approach to digital data. Data gathering, storage, management and analysis is fragmented, resulting in multiple versions of the truth, which are not trusted when transferred across systems. Improvements to data governance are being implemented to ensure data privacy, security and compliance with regulations.	A strategic approach to digital data is being developed. Stakeholders developing shared understanding of data strategy. Data-driven decision-making is supported by the development of a data architecture integrating fragmented systems. A centralised data management system is being developed, and data quality is assessed. Data governance policies and procedures have been implemented.	Strategies for digital data have been agreed, and effective collection, management and use of data is integrated. Data-driven decision making is established across all functions. Data management is centralised, seamless and efficient. Advanced techniques to derive insights. Staff have strong skills in analysis and interpretation. A comprehensive data governance framework is in place. The digital data strategy is regularly reviewed, updated and optimised.

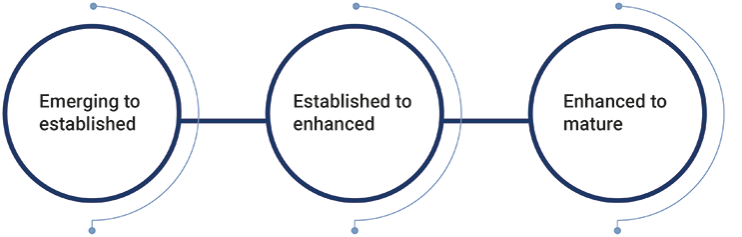


61
Data on specific groups of students for data requirement mapping

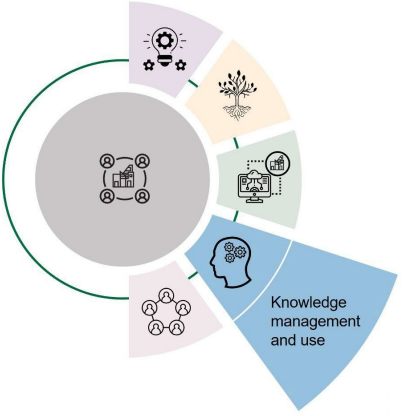


Data management and use

Emerging to established	Established to enhanced	Enhanced to mature
The organisation carries out only limited data requirement mapping for student data, which is stored in disparate systems and spreadsheets. Some ad hoc data mapping is done and lack of integration results in inaccuracies and incomplete data.	Data requirement mapping is seen as important, and the organisation is developing a systematic approach to managing student data. A centralised student data storage and management system is being developed to streamline data integration and improve data quality. Student data mappings are becoming more comprehensive, informative and reliable.	Student data requirement mapping is an integral part of data management practices across the organisation. Data quality, consistency and accuracy have high priority and a comprehensive data architecture supports efficient and seamless student data management and use. Data mappings are well documented and accurate, showing clear relationships between elements across different systems and applications.

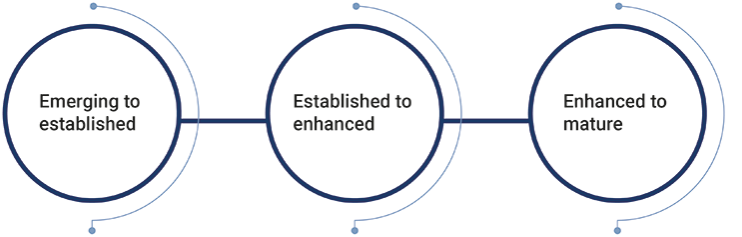


62 Provision of a robust data architecture

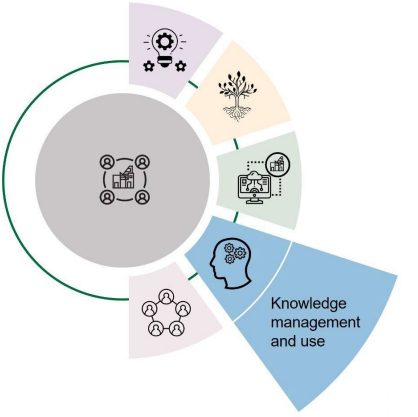


Data management and use

Emerging to established	Established to enhanced	Enhanced to mature
Source data is compiled on an ad hoc basis, limiting quality and comparability. Localised data sources are held within departments that are not accessible to all staff and they are not trusted across the institution, resulting in multiple, conflicting versions of the truth. Issues around data governance make it challenging to comply with relevant regulations around data privacy and security.	Data feeds are taken from good quality sources at regular intervals. Comparability is ensured to a high degree. Visibility and sharing of data between departments is increasing trust due to consistency and transparency of data gathering processes. A centralised data management system is being established. Data privacy and security mechanisms allow for effective compliance with relevant regulations.	An enterprise-wide business intelligence system is used to ensure quality-assured internal and external data, which is maintained as a central institutional resource. The organisation has an integrated and coordinated approach to data gathering and updating that promotes timely and consistent data. Adherence to data standards ensures comparability and stability. Policies and procedures for data governance ensure data privacy, security and compliance with all relevant regulations.

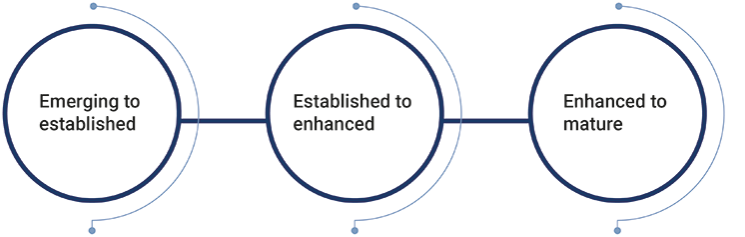


63 Recruitment and retention of specialist data professionals

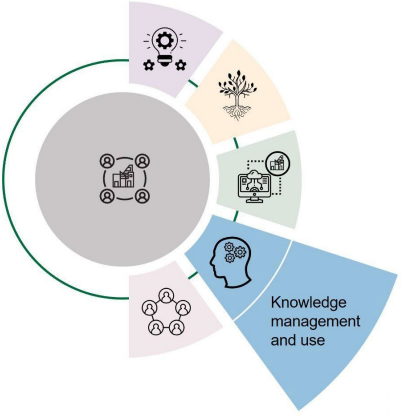


Data management and use

Emerging to established	Established to enhanced	Enhanced to mature
The organisation recognises the importance of having qualified data specialists. Some effective recruitment and retention procedures are in place. Attracting and retaining highly qualified professionals may be hampered due to lack of resources or opportunities to influence strategy and/or decision making.	The organisation acknowledges the importance of recruiting and retaining highly skilled data specialists. Benefits and conditions are offered to attract and retain staff – such as flexible working, recognition programmes, competitive salaries. The highly specialised skills and expertise are valued across the organisation.	The organisation recognises the value that highly skilled data specialists can offer to strategic digital transformation and takes a strategic and innovative approach to recruitment, retention and development to attract and retain the best quality staff. Retention efforts include competitive compensation and benefits packages, a culture of innovation and continuous learning, and opportunities for leadership roles and thought leadership within the industry.

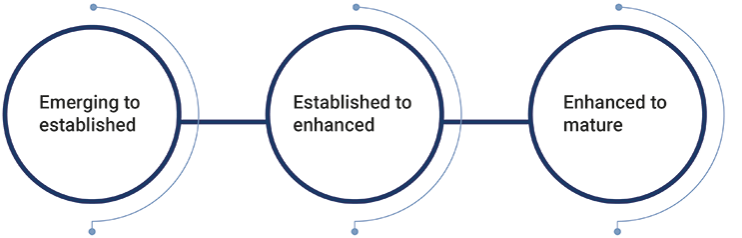


64 Developing appropriate data skills of staff

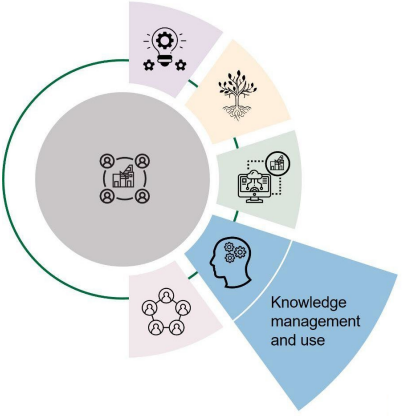


Data management and use

Emerging to established	Established to enhanced	Enhanced to mature
Developing the digital data capabilities of existing staff is done in an ad hoc way and occurs in pockets across the organisation, dependent on staff roles. Staff are reluctant to embrace data-driven approaches. Low levels of data literacy among staff have been recognised, so development and training opportunities are planned.	Commitment to upskilling staff with data literacy skills. Professional role profiles used to identify the levels of capability needed. Appropriate levels of staff development and support available for all staff to enhance data analysis and interpretation skills. Staff training in data security, analysis and interpretation. Senior leaders have specialised training to build digital data literacy and data-driven decision making.	Staff have a solid understanding of data literacy and they provide support to others as necessary. A cross-functional team of specialist data staff collaborates to identify opportunities to use data to drive innovation and inform decision making. Data literacy is seen as a critical element of a digital capability plan for all staff. Staff with high levels of data literacy act as champions. Training and development programmes are regularly updated to keep pace with evolving needs and advances

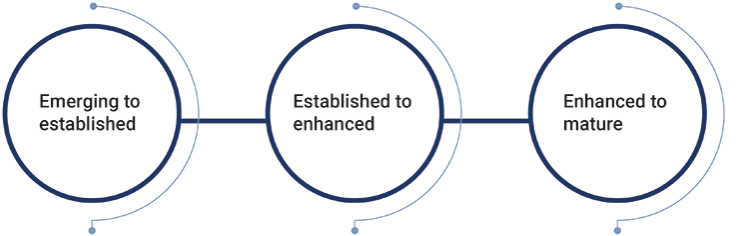


65 Developing data literacy of students

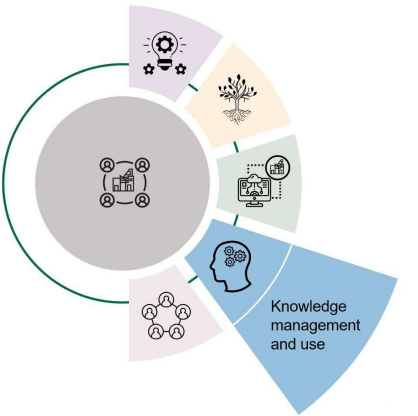


Data management and use

Emerging to established	Established to enhanced	Enhanced to mature
Data literacy is an inherent part of some courses but there is no coherent strategy to support the development of data skills for all students.	Separate data literacy courses are offered for students outside their formal courses and guidance, and online tutorials are available on the website.	Data literacy is seen as a critical element of a digital capability plan for all students. Data literacy is embedded into all courses as appropriate to the subject.

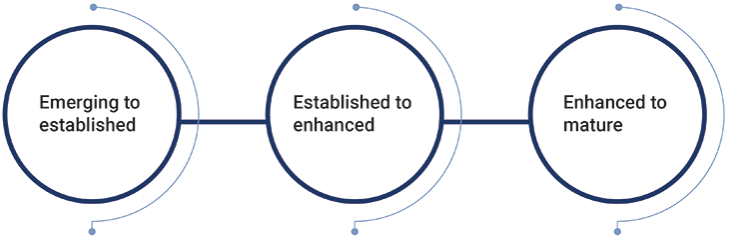


66 Strategic & integrated approach to the collection and management of corporate data

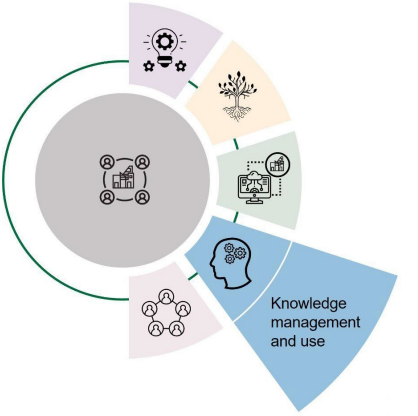


Business Intelligence (BI)

Emerging to established	Established to enhanced	Enhanced to mature
Basic BI capabilities enable the generation of standard reports such as student enrolment, staff workload and financial statements. Data analysis is mostly descriptive, providing simple summaries and visualisations of the available data. Reports are often created using simple tools. Limited integration between different systems, data often in silos.	Data from a variety of sources is integrated. These include student information systems, learning management systems, financial systems and research management systems. The organisation holds data in a centralised data store and uses specialist BI tools to analyse it and generate insights. There is a greater emphasis on data governance, data quality and security, and data is shared across departments to support decision making at a higher level.	A culture of data-driven decision making sees BI as a strategic asset to support strategy and goals. The digital strategies are aligned to BI. Advanced analytics techniques provide decision-supporting insights from data. Data used to identify trends, predict student outcomes and optimise resources and services. Data insights and decision-making processes are shared with stakeholders, promoting transparency and fostering shared ownership in success, as well as potentially supporting external stakeholders and partners.

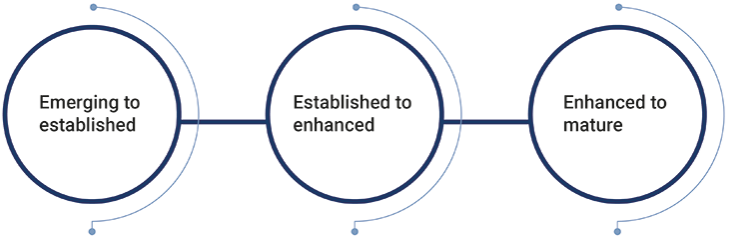


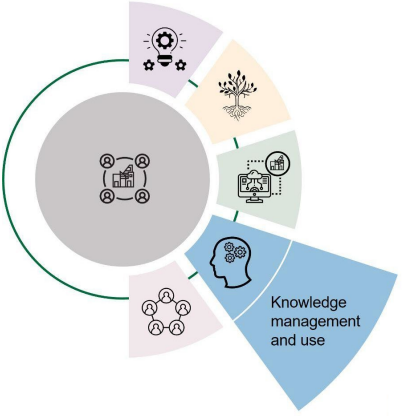
67
Digital evidence to inform decision making and in support of quality/compliance



Decision Making

Emerging to established	Established to enhanced	Enhanced to mature
The organisation recognises the importance of digital information and data to inform decision making, but there is limited capacity to collect and analyse it. Lack of integration between systems and data analysis results in primarily descriptive rather than predictive analysis. Decision making is largely based on intuition and experience rather than on data-driven insights.	Digital information and data are being integrated and advanced analytics capabilities established. Data is held in centralised data store, advanced BI tools are used to generate insights & visualisations. Decision making is increasingly data driven, and there is a growing culture of innovation. There may still be silos, limiting the ability to gain a comprehensive view of organisation-wide operations.	Digital information and data are seen as a strategic asset to support decision making at the highest levels of organisation. Investment in infrastructure support data-driven approaches, and staff recruitment and development prioritise digitally informed decision-making. Advanced analytics capabilities are used, including predictive analytics and machine learning, to drive innovation, improve student outcomes and achieve strategic goals. Culture of data-driven decision making. Horizon scanning feeds into planning.

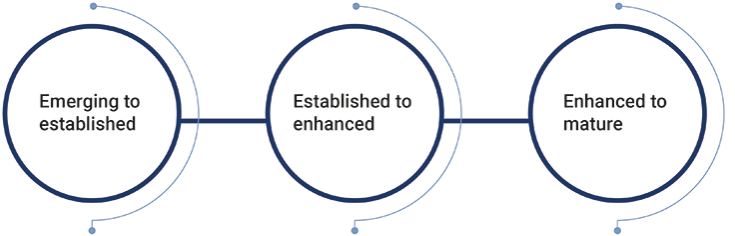


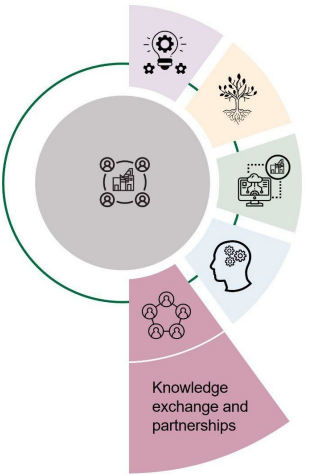


68
Informed decision making and leadership

Decision Making

Emerging to established	Established to enhanced	Enhanced to mature
Senior leaders and governors receive digital information and data from various sources, in an ad hoc way or by request to specific teams. Planning and decision making around digital transformation is informed in a piecemeal way by horizon scanning activities, departmental information, individual contributions and disparate, fragmented data.	Senior leaders and governors are aware of the importance of digital leadership and supported to develop appropriate capabilities for making informed decisions. They use digital tools, information and data to inform decisions on all aspects of university business.	Decision making reflects organisational values and goals. Senior leaders and governors are confident about using digital tools, systems, information and data to inform their decision making. Digital staff and student champions across the organisation feed into strategic decision making and a culture of partnership and co-design means that all stakeholders are given opportunities to feed into strategic planning and decisions that affect their working or learning experiences.

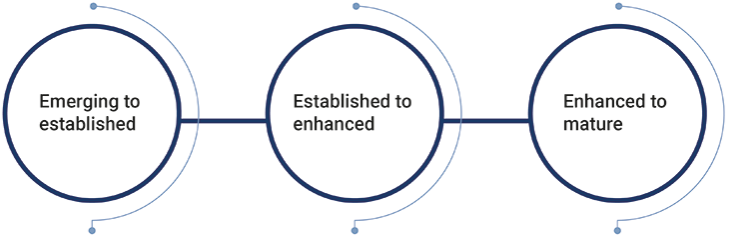




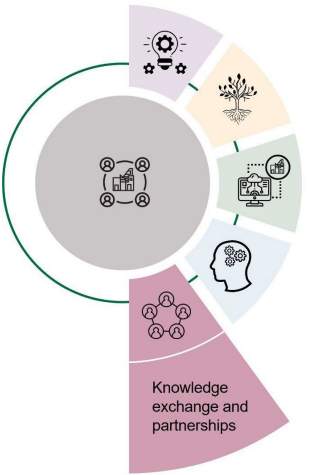
69
Strategic approach to digital communication

Communication

Emerging to established	Established to enhanced	Enhanced to mature
A digital communications (comms) policy is being established, and various digital communication channels are in use. Widespread consultation with stakeholders feeds into communication policy. Basic security measures and privacy practices ensure compliance with data protection regulations. Some limited tailoring of digital communication to different audiences.	Digital comms policy is in place with focus on engaging different audiences and optimising content. A range of appropriate digital channels are used for engagement and responsive comms. Implementation of robust security and privacy practices to protect personal information. Digital communication strategies tailored to user specific interests and requirements.	A cohesive and integrated approach to digital comms exists, aligns and synchronises efforts across all areas. Digital comms are a seamless and engaging experience. Users engage confidently & ethically. Regular audits and updates to security systems and protocols ensure robust data protection and privacy measures. Digital tools used to personalise and refine its comms. Data analytics and user behaviour insights used to deliver highly tailored comms, effectiveness is tracked.

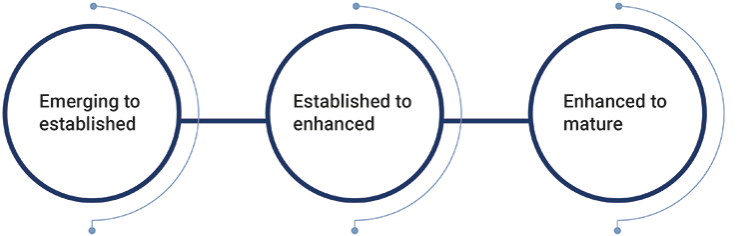


70 Digital media production and dissemination

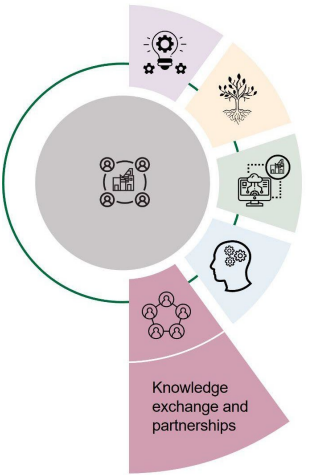


Communication

Emerging to established	Established to enhanced	Enhanced to mature
A comprehensive website acts as the foundational communication channel. It offers an elementary portal for staff and students to access a range of content. The organisation has a presence on selected social media platforms, primarily sharing news and updates with minimal engagement. Some multimedia content, such as images or videos, supports communication efforts.	A comprehensive website is responsive and mobile-friendly, providing an improved user experience. A presence on multiple social media platforms ensures increased engagement. Multimedia content, such as images, videos, and infographics, are used regularly to enhance communication efforts. Basic SEO practices increase the visibility of the organisation's digital content.	A comprehensive website offers personalised content, interactive features and seamless navigation, giving an exceptional user experience. A strong presence is evident on multiple social media platforms, with regular monitoring and analysis of metrics to inform strategies. Extensive use is made of multimedia content to communicate effectively. Advanced SEO practices are in place and digital content is optimised for maximum visibility and reach.

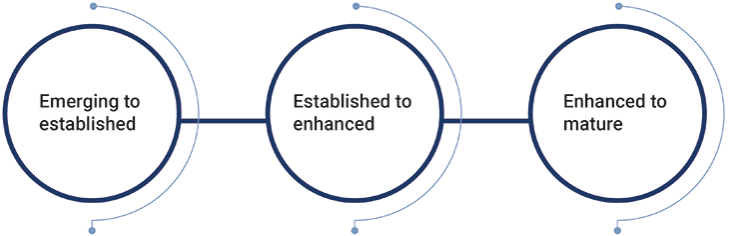


71
Equitable and inclusive digital communication and networks

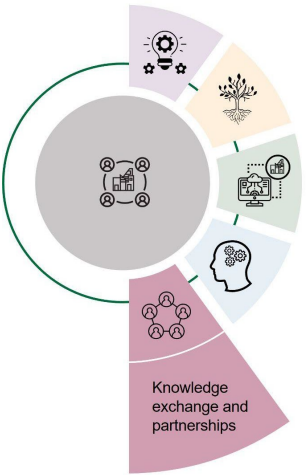


Communication

Emerging to established	Established to enhanced	Enhanced to mature
Equitable and inclusive digital communication and networks recognised as important in strategic documents. Limited understanding of issues affecting the diverse stakeholders. Compliance with UK regulations is the focus. Some individuals and departments champion improvements in digital communication to provide a more inclusive experience for students (e.g. guidance & support of digital etiquette).	Comprehensive approach to digital communication and networks, ensuring equity and inclusion. Skills addressed in digital capability plans. Offer of Accessibility tools and assistive technologies. Guidelines and policies for digital communication are available. Staff are encouraged to go beyond compliance with regulations and strive to greater equity and inclusivity in all digital communications.	A culture of equity and inclusivity permeates all digital communication and networks. All are empowered to engage in co-creating digital tools and resources that meet diverse needs and contribute to policies and guidance. The organisation actively collaborates to drive positive change in sector digital communication practices. All digital media and communication channels comply with regulations. Training provided for different ways of communication.

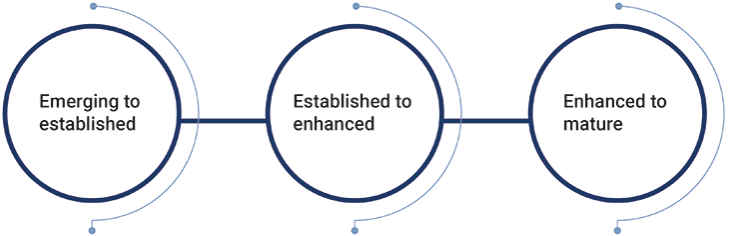


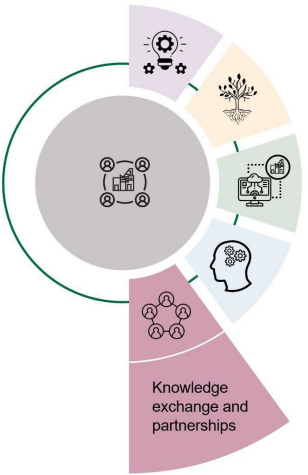
72
Enable recruitment, development and retention of staff with digital media skills and expertise.



Communication

Emerging to established	Established to enhanced	Enhanced to mature
The organisation recognises the importance of having qualified digital media specialists. Some effective recruitment and retention procedures are in place. Attracting and retaining highly qualified professionals may be hampered by lack of resources or opportunities to influence strategy and/or decision making.	The organisation acknowledges the importance of recruiting and retaining skilled digital media specialists. Various benefits and conditions are offered to attract and retain staff, such as flexible working, recognition programmes competitive salaries and valuable benefits. The highly specialised skills and expertise are valued across the organisation.	The organisation recognises the value that skilled digital media specialists can offer to strategic digital transformation and takes a strategic and innovative approach to recruitment, retention and development to attract and retain the best quality staff. Retention efforts include competitive compensation and benefits packages, a culture of innovation and continuous learning, and opportunities for leadership roles and thought leadership within the industry.

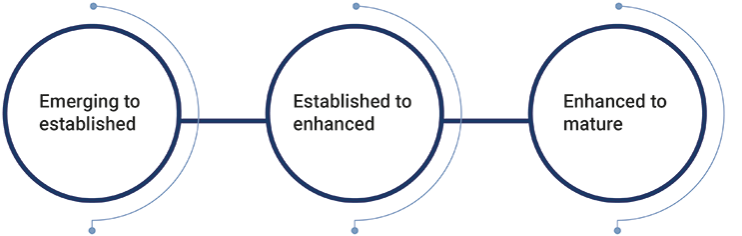




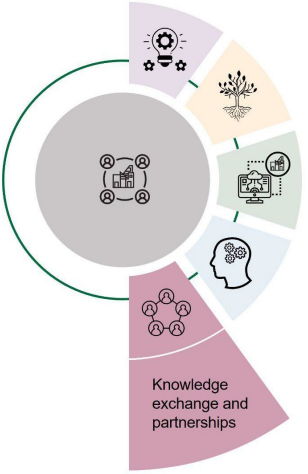
73
Culture of digital collaboration

Collaboration

Emerging to established	Established to enhanced	Enhanced to mature
Digital collaboration is encouraged in some areas but no coherent strategic approach. A range of digital tools to collaborate on and off campus. Digital and physical infrastructure supports collaboration. Measures minimise unsecure sharing. Students expected to collaborate in activities, but not always aware of benefits. No opt out if they find this challenging due to disabilities or differences.	Digital collaboration is included in digital transformation strategy. Developments have extended range of secure and reliable tools and spaces for collaboration on and off campus. Digital collaboration identified as important aspect of digital capability plan. Curriculum development and teaching incorporate digital collaboration with attention to diverse needs.	A mature digital strategy and a well-developed infrastructure support effective collaboration, & supports digital leadership. Strategic commitment to data privacy and security supports continuous improvement, ensuring effectiveness. Students and staff understand benefits and risks of digital collaboration and are confident in using digital to support need. Students can co-design collaborative learning activities. External collaboration with partners is well established.

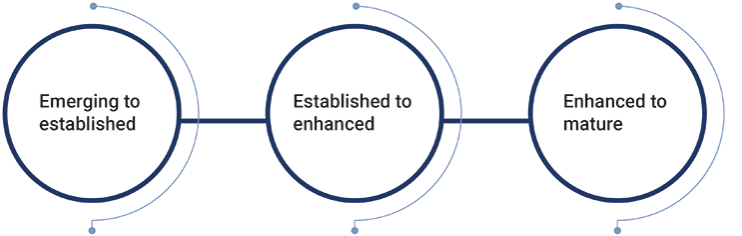


74
Open practices to support knowledge sharing and exchange



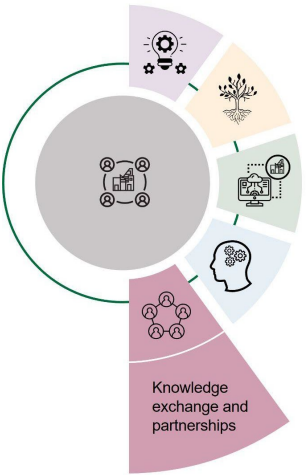
Collaboration

Emerging to established	Established to enhanced	Enhanced to mature
Basic steps taken to promote open knowledge and aim to integrate into culture and practices. Open access policy exists through the collaborative efforts. Implementation and awareness across the organisation are low. A few individuals use and/or develop open educational resources (OERs). Some ad hoc local, national or international collaboration.	Significant progress made to promote open knowledge exchange through coordinated collaborative initiatives and awareness-raising. Well-defined open access policy increases adoption of open practices. OER creation, licensing, making discoverable, use, training and support, is encouraged. Open knowledge events are encouraged, and staff participate in open research collaborations.	Open knowledge exchange is an integrated principle in strategic goals. A culture of openness and collaboration. A widely adopted open access policy has strong support. Use and development of OERs benefits students, enhances knowledge sharing and raises reputation. Digital content outputs are released openly and embedded in collaborative and widening participation activities. Partnerships with open-source communities promote innovation & collaboration.

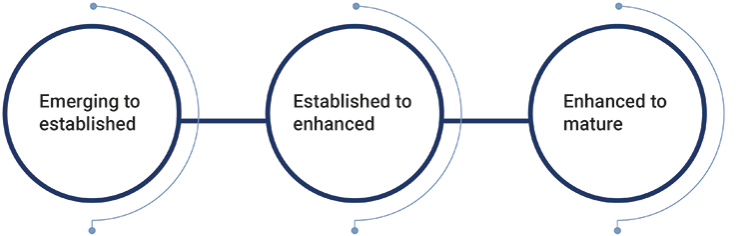


75 Supporting digital participation of all stakeholders

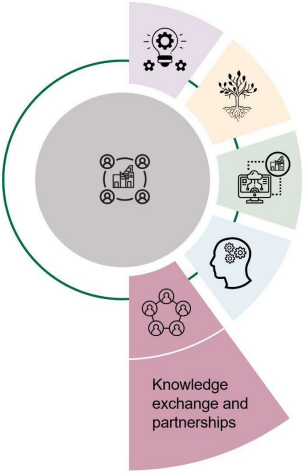
Community participation



Emerging to established	Established to enhanced	Enhanced to mature
Some systems, services and approaches support digital participation, but dependent on culture & practices of areas. Accessibility standards and regulations are met. Full access & inclusivity considerations are minimal or inconsistent. Staff and students make use of the organisation's internal communication tools. No widespread understanding of building confidence and capability to participate in learning communities.	Organisational missions and values acknowledge digital participation for enhancing opportunities. Stakeholders supported to understand benefits of digital participation. Digital platform, network and content accessibility is a key focus as a more nuanced understanding of the diverse needs of stakeholders develops. Digital participation is seen as a key element of broad digital capabilities.	A culture of inclusion and collaboration ensures users engage in digital participation. Digital platforms and content are accessible to users with diverse needs. Regular audits and improvements maintain high accessibility and inclusivity standards. Training and development for digital participation include broad aspects such as ethics, equity, digital wellbeing, cultural aspects, diversity and digital citizenship. Digital participation is embedded into curricula.

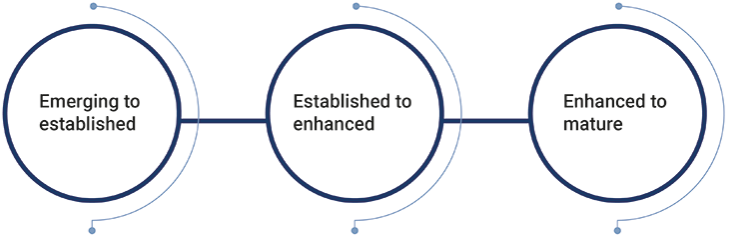


76
Supporting knowledge exchange and wider digital collaboration

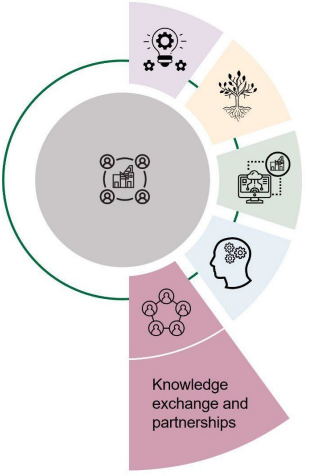


Community participation

Emerging to established	Established to enhanced	Enhanced to mature
Knowledge exchange (KE) and digital collaboration externally seen as important but no comprehensive approach to fully integrate. Research partnerships reflect individual faculty ambitions with little collaboration across different areas. The organisation has an open access policy but limited support for open initiatives with external partners.	KE and digital collaboration outside the organisation are in all strategies. Shared understanding of wider knowledge sharing. Partnerships with partners are supported by digital participation opportunities across various research areas. A clearly articulated open access policy is widely communicated. Active external engagement supported by capacity-building.	KE and digital collaboration strategies are integrated into strategic goals with a culture of openness and partnership. Robust portfolio of research collaborations and partnerships driving innovation and impact into communities. An open access policy is fully integrated into the research culture, with strong institutional support for open access A strategic approach to community engagement and KE results in partnerships and alignment with sustainable development goals.

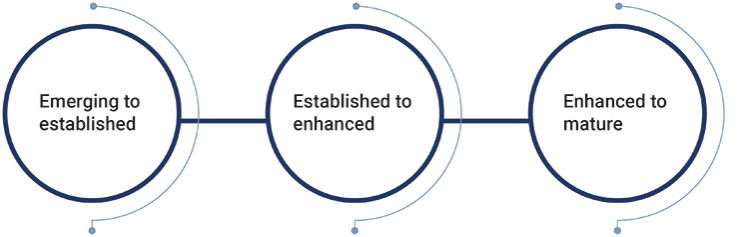


77 Consistent and coherent relationship management strategy

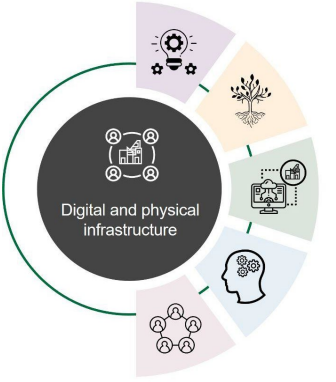


Relationship management

Emerging to established	Established to enhanced	Enhanced to mature
A responsive, user-friendly website provides comprehensive info. Social media supports communication, sharing updates and engaging with the audience. Various digital tools and networks support collaboration and communication. A single customer relations management (CRM) system to manage interactions. Ad hoc virtual events, webinars & workshops.	Secure, reliable digital technologies & networks support CRM strategy. A robust CRM system is in development to manage & track interactions. LMS offers advanced features for interaction and collaboration. Social media supports community building. Apps and platforms offer personalised support. Regular virtual events, webinars and workshops strengthen relationships.	Digital technologies and networks are central CRM strategy and enable adaptation. Advanced data analytics and AI-driven insights identify trends & inform decisions. Integration of emerging technologies improve student experiences. Comprehensive online mentorship programmes connect students with industry. Highly engaged online alumni networks and communities. Systematic collection and analysis of feedback contribute to stronger relationships.

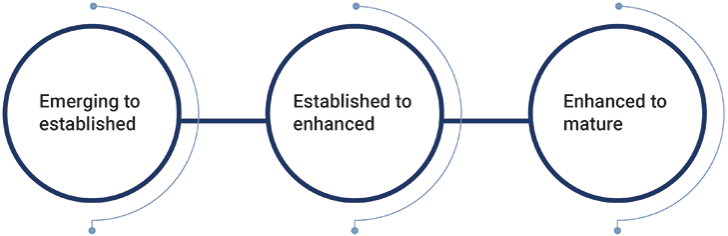


78 Trends and developments in technology and infrastructure

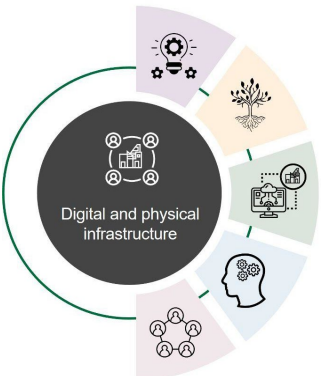


Robust digital infrastructure

Emerging to established	Established to enhanced	Enhanced to mature
Trends in technology are closely monitored as part of the organisation's broad horizon scanning activities. Enthusiastic individuals highlight and champion specific technologies. Technologies are sometimes adopted on an ad hoc basis without approval or strategic direction.	A coordinated approach to horizon scanning identifies trends in technology and how they relate to the HE sector.	Expert teams are allocated to horizon scanning around technological developments for each core area of business, and they come together to inform senior leaders. Local and regional partners feed into trends analysis around future needs and the international picture is also considered.

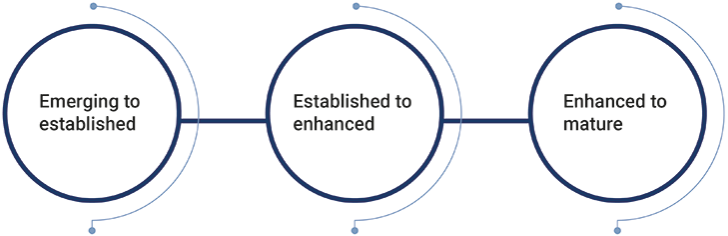


79
Informed strategic planning for digital infrastructure

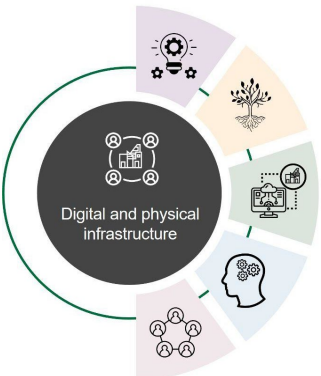


Robust digital infrastructure

Emerging to established	Established to enhanced	Enhanced to mature
Strategic planning for technology is largely reactive with a focus on adapting to changes as they occur, rather than proactively shaping the future. Existing digital infrastructure capabilities are assessed regularly to identify limitations in terms of reliability, scalability and best practice.	Strategic planning around technology incorporates trend analysis and foresight activities, with an emphasis on anticipating and preparing for future challenges and opportunities. Reliable, scalable infrastructure is secured, partially leveraging best practice and cloud platforms for high priority and important digital workloads.	Strategic planning for technology goes beyond merely responding to trends. All technology investments align with broad strategic priorities, considering anticipated benefits, opportunities and risks. The organisation contributes towards actively shaping the future through innovation, collaboration and leadership in higher education.

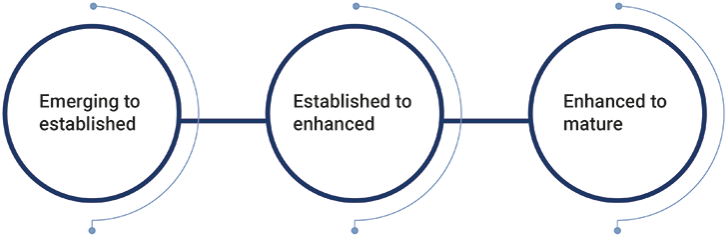


80
Coherent and flexible digital strategy

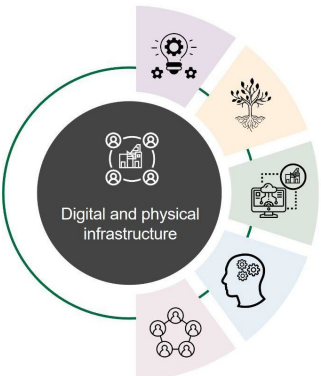


Robust digital infrastructure

Emerging to established	Established to enhanced	Enhanced to mature
A comprehensive IT strategy focuses on supporting existing functions and infrastructure. The focus is on maintaining the current state of IT infrastructure and addressing IT-specific challenges, such as security and scalability. Digital initiatives across the organisation are often siloed and there is little coordination with broader organisational goals.	An organisation-wide digital strategy recognises need to expand beyond IT functions/infrastructure. A governance structure takes forward strategy with representation. Digital investment planning supports digital transformation ambitions. The potential benefits of digital transformation are being understood through stakeholder engagement and involvement.	A digital transformation strategy integrates with other strategies to align with goals. A coordinated governance structure oversees strategy implementation & evaluation. Significant investments have been made for digital transformation. A strong culture of innovation and collaboration is developing. Benefits of digital transformation are visible across the organisation, with improved staff and student experiences.

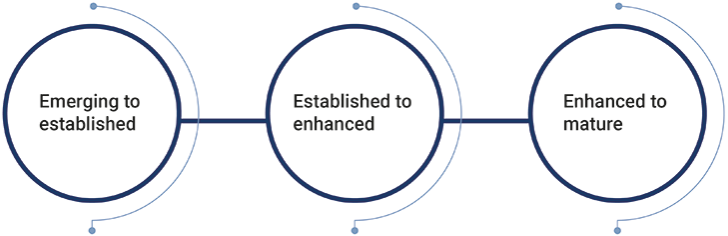


81
Strategic investment in transformative digital, data, and technology

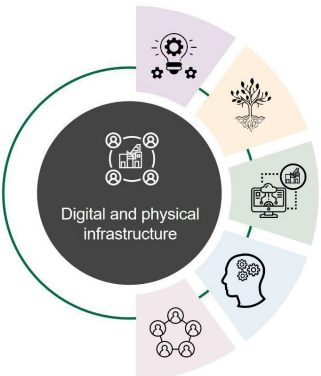


Robust digital infrastructure

Emerging to established	Established to enhanced	Enhanced to mature
Plan for technical and digital infrastructure investment reflects IT strategy. Investment decisions often response to current issues and challenges. Previous investment in legacy solutions impede more innovative and longer-term planning. Planning focuses on digitally enabled campus, upgrade existing hardware, software and systems, and implement basic cyber security measures.	Long-term investment strategy for infrastructure exists. Proactive approach]adopted to identify and mitigate risks, data and analytics inform decisions. Long-term sustainability is incorporated into decision making. Investment and planning of digital infrastructure to enhance LTA and research. Some investment in advanced technologies. Regular audits and advanced cyber security measures.	Investment strategies support long-term goals and ambitions. Investment planning is a strength, and a culture of innovation and sustainability is well established. Investment is based on informed decision making. Digital infrastructure investment for transformation and innovative approaches, fostering a culture of enterprise and collaboration. Data analytics & AI inform decisions. In-house services and a critically aware ‘cloud first’ approach mitigates single points of failure.

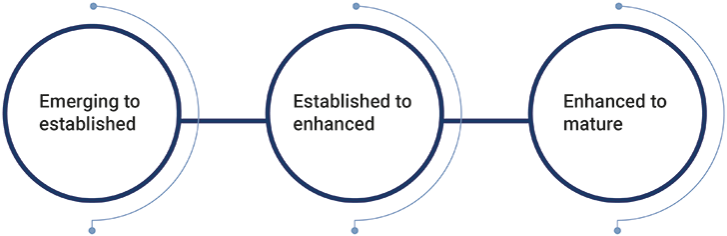


82
Enterprise architecture framework and strategy

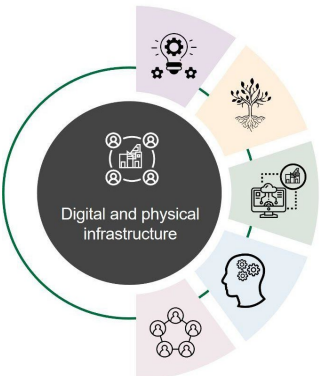


Robust digital infrastructure

Emerging to established	Established to enhanced	Enhanced to mature
The organisation manages IT systems and processes on an ad hoc basis, resulting in inefficiencies and inconsistencies. Governance and decision making are both fragmented around IT planning and management with minimal collaboration across departments. There is no overall documentation of architecture components.	The importance of enterprise architecture is recognised, and an Enterprise Architecture (EA) team has been created to oversee the development and management of an EA framework. Documented standards and processes exist and collaboration and communication between departments has improved governance structures.	EA is fully integrated into the institution's strategic planning processes. The EA team actively collaborates with other departments to innovate and drive strategic objectives. Continuous improvement efforts are driven by performance metrics and a regular assessment and improvement process. EA supports strong alignment between IT investments and strategic goals.

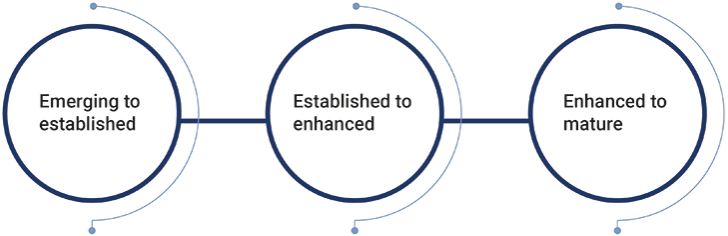


83
Ensuring reliable, safe and secure digital infrastructure

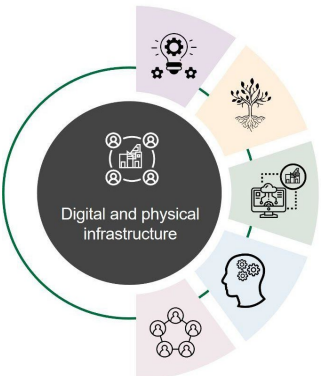


Robust digital infrastructure

Emerging to established	Established to enhanced	Enhanced to mature
Digital infrastructure planning and decisions offer a basic safety, security and reliability. Digital infrastructure assessed to understand risks to continuity. Key digital infrastructure workloads prioritised. Robust network infrastructure offers high-speed connections, redundancy measures and scalability. Cyber security measures in place, supported by education on threats.	Digital infrastructure offers optimised safety, security & reliability. Key workloads can withstand disaster using cloud platforms. Continuity plan includes comprehensive backup processes. A clear plan for Incident response. Robust network offers high-speed connections, multiple layers of redundancy & scalability. Leading-edge cyber security measures are being implemented.	Digital infrastructure sets excellent standards, leverages cloud platforms, workloads are reliable, scalable and secure. Highly available network/data centres, ultra-high-speed, advanced redundancy, scalability, & security. Sector-specific services based on intelligence from the Janet Network, meet cyber threats. State-of-the-art cyber security technologies are in use. Real-time monitoring and incident response capabilities in place, using advanced analytics to proactively resolve issues.

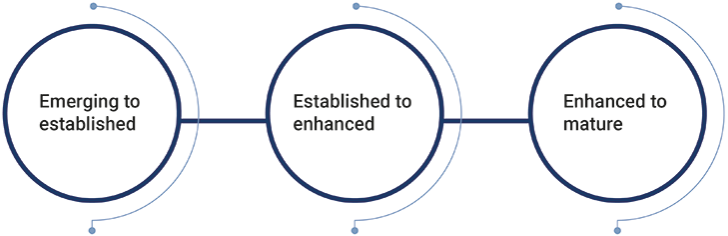


84
Equitable and inclusive digital infrastructure

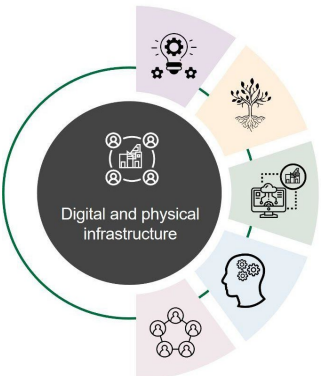


Robust digital infrastructure

Emerging to established	Established to enhanced	Enhanced to mature
Working to ensure digital processes, systems and services do not create barriers to participation,. Staff and services respond on demand to the expressed digital and technology needs. Data gathered on digital access and use. No strategic approach to identified gaps. Strong focus on ensuring digital processes, systems and services are compliant.	Ongoing dialogue to evaluate and improve strategies to address digital disparities. A range of targeted support to students, offering digital skills training, and providing mentorship and support to underrepresented groups. Encouragement to self-assess and identify digital devices, processes, systems or services as mechanisms for reducing barriers.	Actively working to dismantle structural barriers and create a safe and transparent digital environment for all. Equity and inclusion policies ensure proactive engagement in digital environment design. Staff have up-to-date devices, software and adaptations. Students receive targeted digital technologies to improve their learning experience. Curriculum teams proactively embed accessible digital technologies into curriculum design and delivery based on their expert knowledge.

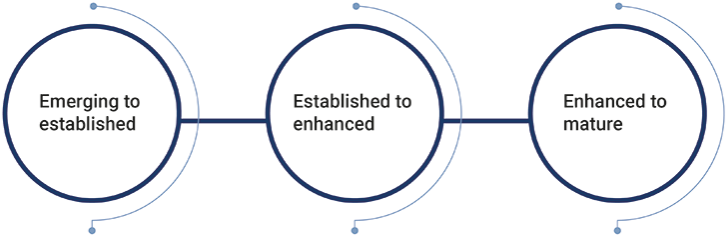


85 Sustainability and environmental impact of digital infrastructure

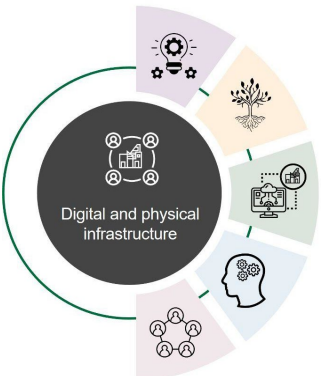


Robust digital infrastructure

Emerging to established	Established to enhanced	Enhanced to mature
Environmental impacts of digital technology are recognised and basic initiatives to address issues being established. Guidelines developed for responsible data management for efficiency. Virtual meetings encouraged to reduce travel. Power-saving measures implemented. Staff and students are educated on the environmental impact of technologies.	Measures in place to address environmental impacts of digital. Campus-wide energy-efficient practices have been implemented. E-waste management includes responsible recycling, repair & reuse. Sustainable procurement policy for digital tech. prioritises efficiency. Environmental impacts of digital are embedded into curricula. Research on environmental impacts of digital.	Organisation is a leader in addressing environmental impacts of digital technology, demonstrating best practices. Net zero energy consumption for digital technology is being pursued. Zero-waste e-waste management system is in operation. Procurement practice encourages suppliers to improve environmental performance. Leading in education, training and research on environmental impacts of digital.

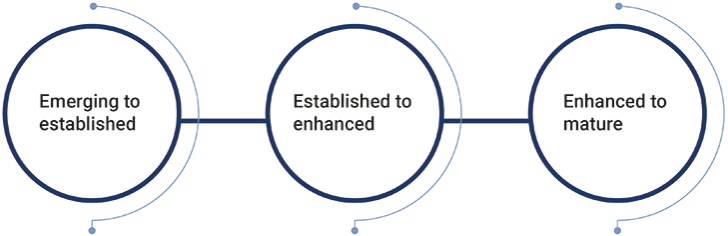


86
Supply chain risk management

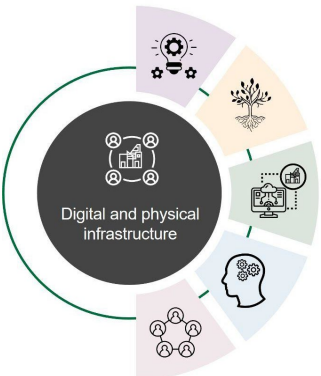


Robust digital infrastructure

Emerging to established	Established to enhanced	Enhanced to mature
Supply chain risk management is largely reactive, some efforts to develop a list of suppliers and contracts that is accessible. Not all supply chain systems are integrated, resulting in inefficient data use, difficulty tracking risk. Suppliers contacts include requirements for notification about vulnerabilities, incidents and compromises promptly. Service Level Agreements (SLAs) are in place.	Efforts to integrate digital systems and coordinate data to develop long-term effective governance of supply chain risk management. Strategic approach being developed to manage dependencies proactively. Contracts include requirements to report compromises etc. promptly. Governance and reporting mechanisms are being streamlined to ensure effective supply chain management.	Supply chain risk management is integrated through effective systems. Supply chain compromises, vulnerabilities, incidents and data theft can be understood quickly, and the impact determined. Supply chain risk management is integrated into strategies and operations and is a primary term of reference in data and information security management. Proactive collaboration with suppliers minimises potential risk. Governance of supply chain management coordinates to ensure business continuity.

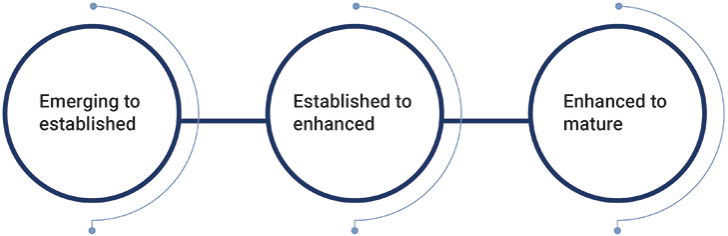


87 Provision of reliable networks and connectivity

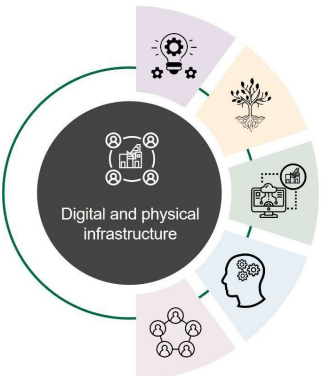


Digital connectivity

Emerging to established	Established to enhanced	Enhanced to mature
Network reliability is prioritised, redundancies in place, and some cloud services adopted. Advanced network security in place, regular security audits and ongoing cyber security training. Measures to ensure secure connection with external networks. Proactive approach to security, investment in monitoring, incident response planning and cloud-based solutions.	Comprehensive approach to ensuring secure and reliable digital connections and networks, extensive use of cloud services. Cloud services incorporate advanced technologies such as artificial intelligence for threat detection. Services monitored for vulnerabilities. Network and cloud service reliability are optimised, highly resilient infrastructure. Strong security culture.	Highly available, performance secure, and reliable digital environment using best practices and advanced cloud services. Collaboration with partners informs exploration and implementation of new solutions for cyber security, network management and cloud services. Effective use of cloud services allows flexibility to scale and adapt the digital environment more effectively, focusing on continuous improvement, innovation and the integration.

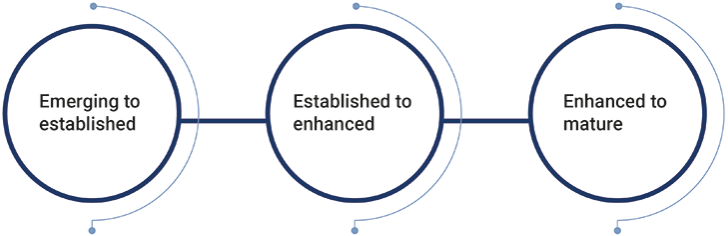


88
Meeting connectivity needs of diverse stakeholders

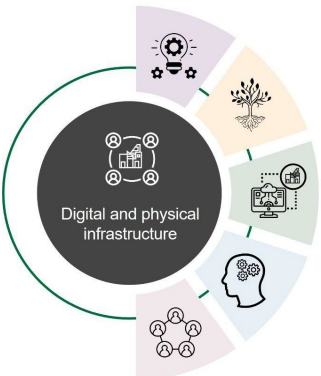


Digital connectivity

Emerging to established	Established to enhanced	Enhanced to mature
Efforts made to identify and assess connectivity needs of learner groups. Responses to student needs include some tailored content, services and technologies. Some blended learning options offered for off-campus, accessible resources developed. Responses often reactive and limited grasp of digital poverty, disability, mental health, neuro-divergence, language and social challenges.	Comprehensive approach for connectivity needs of diverse learners on/off campus. Robust processes for identifying & assessing the needs of learners, including data insights & dialogue. Wide range of online and blended learning options, support for remote learners. Inclusivity & accessibility in values and strategies. Collaboration with a stakeholders for services.	Advanced methodologies for identifying and assessing the connectivity needs of learners support regular dialogue. Innovative teaching methods and technologies contribute to personalised inclusive learning experience based on needs. Students and stakeholders are involved as active partners, fostering continuous improvement and innovation. Data confidentiality and integrity is ensured when all stakeholders access systems and services.

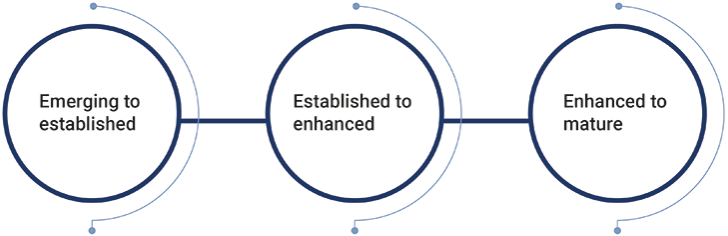


89 Cyber security protections, accreditation, support and protocols

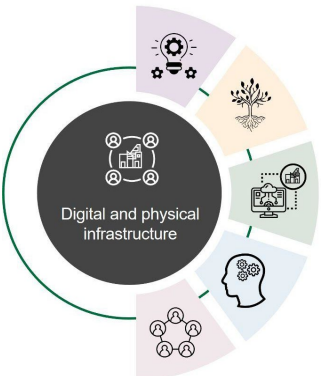


Digital connectivity

Emerging to established	Established to enhanced	Enhanced to mature
Cyber security is recognised as important and basic security measures to protect digital assets, networks and users have been implemented. Cyber Essentials certification is in progress and basic security controls are in place. Cyber security awareness and culture is limited. Focus is primarily on reactive measures.	A comprehensive and mature approach to cyber security is evident, strong focus on proactive measures. The institution adheres to recognised standards and Cyber Essentials. Robust security controls, encryption and multi-factor authentication. The organisation has a dedicated cyber security team. Regular training and awareness offered. Active network monitoring and regular security audits and assessments.	A robust cyber security culture emphasises the importance of cyber security. Comprehensive cyber security strategy. Appropriate technologies and advanced techniques protect assets, networks and users. Organisation seen as thought leader in cyber security. In-house team provides a range of services based on intelligence from the Janet Network. Continuous improvement of cyber security measures. Industry partner collaboration to explore and implement innovative solutions.

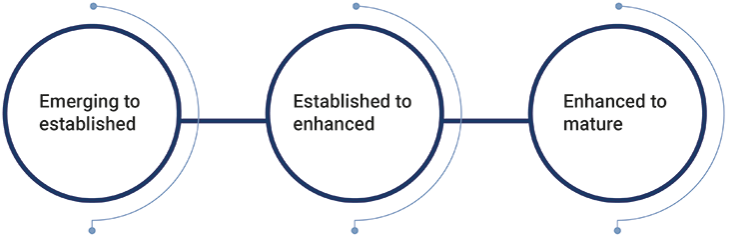


90 Recruitment, and retention of specialist IT staff

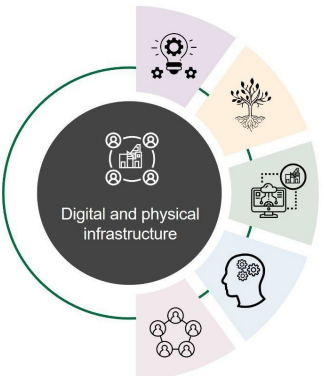


Digital support

Emerging to established	Established to enhanced	Enhanced to mature
The organisation recognises the importance of having qualified specialist staff with digital expertise. Some effective recruitment and retention procedures are in place. Attracting and retaining highly qualified professionals may be hampered due to lack of resources, skill shortages or opportunities to influence strategy and/or decision making.	The organisation acknowledges the importance of recruiting and retaining highly skilled, specialist staff with digital expertise. Benefits and conditions are offered to attract and retain staff, such as flexible working and competitive salaries. Their highly specialised skills and expertise are valued across the organisation. Specialist external consultants may be recruited for specific projects.	The organisation recognises the value that highly skilled, specialist staff with digital expertise can offer to digital transformation and takes a strategic and innovative approach to recruitment, retention and development to attract and retain the best quality staff. Senior staff from different digital support teams are actively involved in setting organisational strategy, policy and influencing innovation in information management, teaching and research.

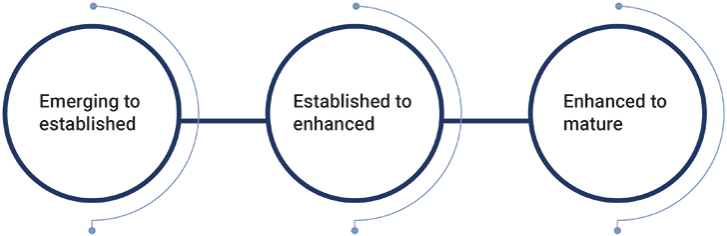


91 Development and training of specialist IT staff

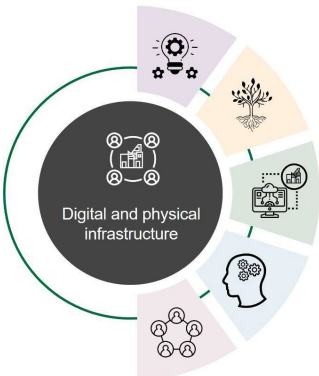


Digital support

Emerging to established	Established to enhanced	Enhanced to mature
The organisation is investing in training and development opportunities to help specialist staff with digital expertise acquire new skills and stay up to date with the latest trends and technologies.	There is significant investment in training to support specialist staff with developing and updating digital expertise. Opportunities for further specialist certification are offered.	The organisation is investing consistently in the development and wellbeing of specialist staff with digital expertise and has created a culture that supports and rewards professional growth and advancement. Staff from all digital support teams are working closely with leadership and other appropriate teams to inform decision making, curriculum design and research activities.

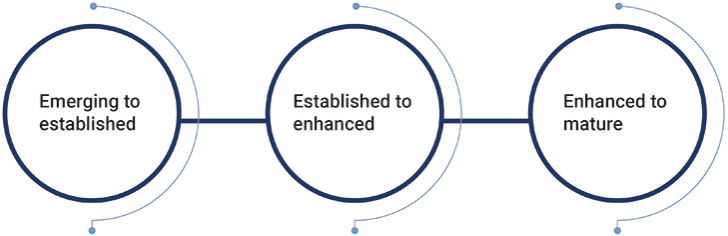


92
Provision of appropriate digital support

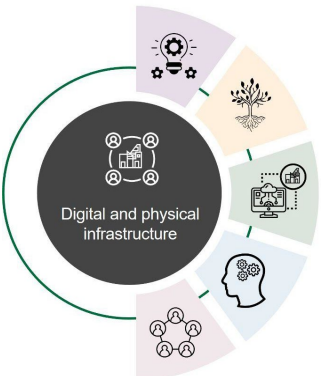


Digital support

Emerging to established	Established to enhanced	Enhanced to mature
A range of digital support is provided across the organisation (e.g. IT, learning technology, information and research technologies, data and analytics). Digital support teams tend to prioritise on-campus activities. Requests for expert insight and support are often directed to the wrong teams due to the lack of a cohesive approach. No strategic approach to mapping digital expertise to different roles.	The need for wide-ranging digital expertise is recognised by the organisation, and it takes a strategic approach to balance various digital skills and roles. Specialist teams support a range of activities on and off campus in a responsive way and prioritise according to team objectives. Some digital champions have been appointed but not all stakeholders understand how these can support them.	Integrated approach to review and respond to digital support needs. Staff with diverse digital expertise support others proactively and are involved in decisions and implementing new technologies. Digital support teams collaborate to meet digital support needs. Stakeholders can assess and feedback needs. Digital champions operate across the organisation. Staff and students have a clear understanding of support that meets their needs.

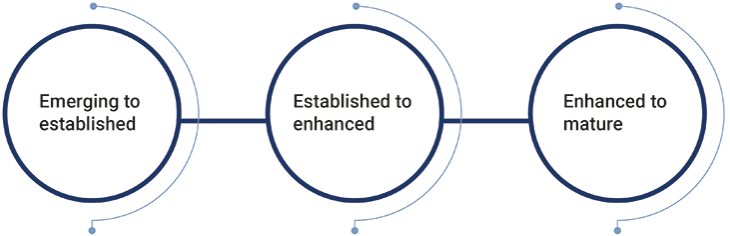


93
Strategic approach to integrating virtual and physical infrastructure

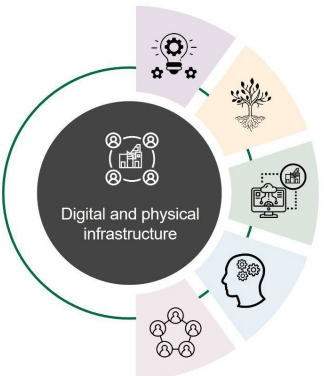


Estates management

Emerging to established	Established to enhanced	Enhanced to mature
Technology solutions prioritise on-campus. WiFi access is reliable and pervasive, audiovisual equipment is generally up to date. Some room configurations have out of date equipment, and equipment and space may be inadequately managed. Newly built spaces include digital systems. There is a commitment to explore new solutions to improve older buildings.	A strategic approach exists to integrate technology into estate. Focus on improving the user experience of staff and students to enhance all areas of business. Significant investment has enhanced digital equipment and connectivity. Automated systems for energy management, security and access control are in place. Data analytics is enabling optimised use of space and campus operations.	Integrating technology into the physical estate has helped to create a smart/intelligent campus. Wide range of technologies enhance LTA, research and campus experience. The organisation has invested in immersive learning environments and explored partnerships with technology providers to drive innovation. Campus infrastructure is highly connected and data-driven. Staff and students are regularly consulted around their experience of different spaces and how they use them.

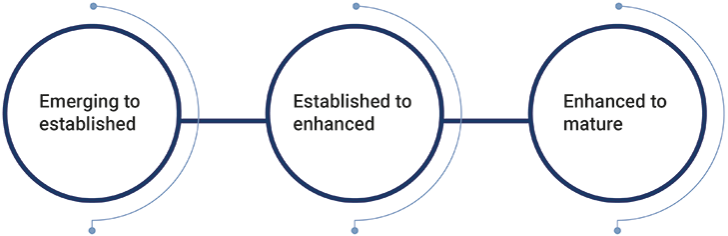


94 Environmental sustainability practices on the physical campus

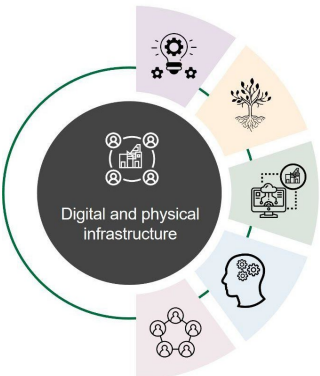


Estates management

Emerging to established	Established to enhanced	Enhanced to mature
Environmental sustainability and net zero initiatives for the physical campus are in the early stages of development. The organisation has set carbon reduction targets and basic guidelines for sustainable purchasing.	Sustainability initiatives are progressing and beginning to have a positive impact Carbon management plans have established targets, and a comprehensive sustainable procurement policy is in place.	The organisation demonstrates best practices and makes a significant impact on environmental sustainability and net zero initiatives. It is achieving net zero carbon emissions, with robust plans in place to offset any remaining emissions. Sustainable procurement requires suppliers to improve their environmental performance.

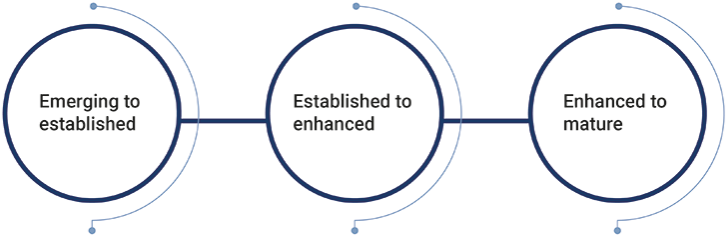


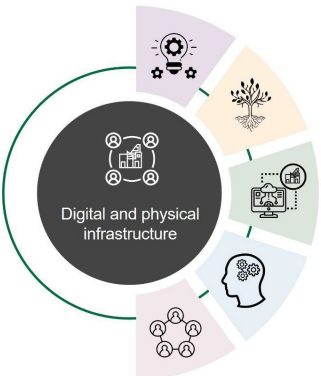
95
Energy efficiency on the physical campus



Estates management

Emerging to established	Established to enhanced	Enhanced to mature
Basic measures to improve energy efficiency are being implemented, such as switching to LED lighting and conducting initial energy audits. Renewable energy options are being explored, and small-scale pilot projects are being implemented.	Energy efficiency is being achieved through comprehensive audits, retrofitting buildings and implementing advanced energy-saving measures. Renewable energy systems have been installed and are being integrated into campus energy sources.	Advanced efficiency measures and innovative technologies are achieving net zero energy consumption in buildings. A significant portion of the campus's energy needs is met through renewable sources and energy storage solutions are being implemented.

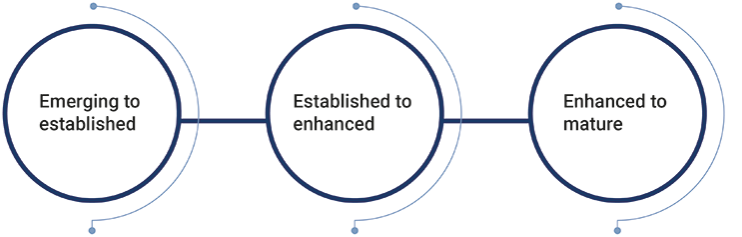


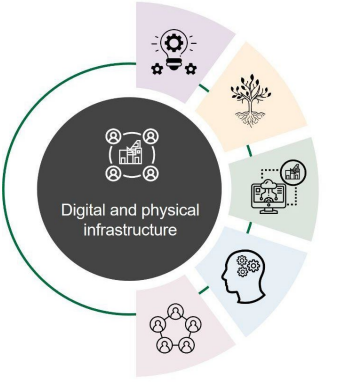


96
Green transportation

Estates management

Emerging to established	Established to enhanced	Enhanced to mature
Green transportation is encouraged through awareness campaigns and provision of basic infrastructure, like bike racks.	Green transportation infrastructure is expanding, and incentives are being offered for sustainable commuting.	Low-emission vehicles are available, and the organisation leads in innovative green transportation solutions.

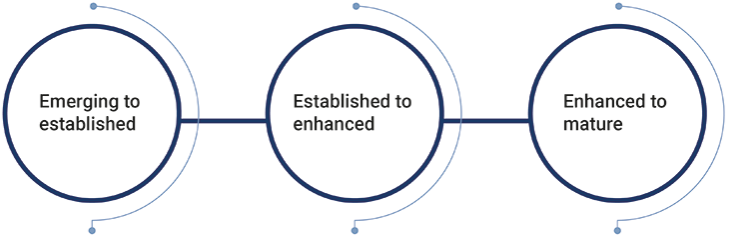


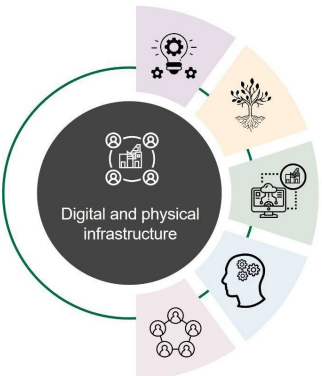


97
Waste reduction

Estates management

Emerging to established	Established to enhanced	Enhanced to mature
Basic recycling and waste reduction initiatives are in place and stakeholders are aware of water conservation measures.	Advanced waste reduction strategies and water-saving measures are in place.	The organisation has made significant progress on zero waste to landfill and promotes a circular economy culture on campus. Reductions in water use are achieved through advanced water recycling and reuse systems.

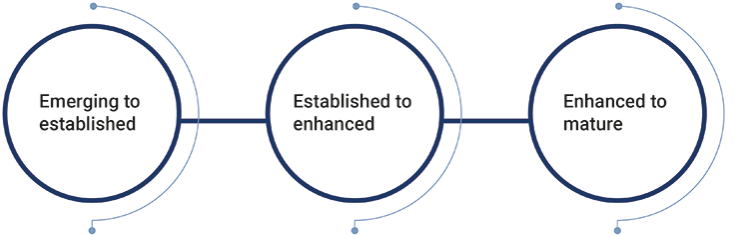




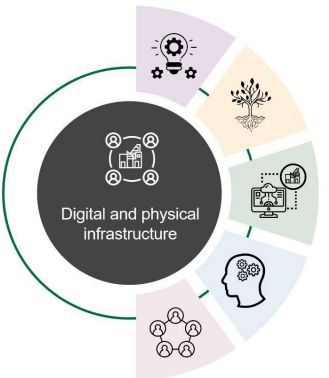
98
Green spaces

Estates management

Emerging to established	Established to enhanced	Enhanced to mature
Existing green spaces are protected and maintained; native species are included in landscaping.	Campus green spaces are enhanced through creation of wildlife habitats, and incorporation of green roofs and walls.	The campus provides an exemplary model of biodiversity and sustainable landscaping.



99 Community partnerships and initiatives for environmental sustainability



Estates management

Emerging to established	Established to enhanced	Enhanced to mature
The organisation is initiating relationships with local organisations to promote sustainability.	The organisation collaborates actively with other institutions, businesses and community groups on sustainability projects.	The organisation is leading regional and national sustainability initiatives and fostering strong partnerships with other institutions and bodies.