

IT STRATEGY

2017-2020

Version 1



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I. Strategic Context for Information Technology at UWE Bristol

UWE Bristol is an ambitious university.

Our core purpose - advancing knowledge, inspiring people and transforming futures - is embodied by Strategy

2020 and underpinned by three strategic programmes:

- Learning 2020
- People and Performance 2020
- Campus 2020

Information technology (IT) is integral to Strategy 2020, and to the current and future networks, communication channels, student-facing and administrative systems that support UWE Bristol's students and staff now and in the coming years.

The University offers more than 600 courses for over 28,000 students across four campuses. It operates in a rapidly changing environment where reductions in the teaching grant, employer apprenticeship levies, and the Teaching Excellence Framework create a fluid, potentially ambiguous higher education landscape.



Variations in tuition fees and student loan repayment rules coupled with the ever-increasing use of technology in schools, colleges and at home, means prospective students are more confident and demanding consumers of IT than ever before. Ubiquitous social media, 'apps' and mobile devices fuel the belief that IT should be seamless, available and accessible wherever, whenever and through any device.

Student and colleague expectations of IT are further compounded by swift changes in the technology landscape itself. Cloud-based application, infrastructure and platform services such as Skype, Amazon Web Services and WordPress are becoming more mainstream while clever integration of commercial off-the-shelf packages is rapidly replacing the need to build bespoke in-house systems. In the digital, communications and

media arenas, technology convergence is generating many emergent and evolving services including video on-demand, voice over internet protocol and internet protocol television. These include Netflix, Pinger and Hulu.

UWE Bristol has the second largest IT environment in the South West. It represents a complex combination of bespoke legacy systems, copious non-standard interfaces, and multiple vendor derived solutions that are challenging to understand, manage and maintain. This places pressure on all areas of the University - including IT Services (ITS) - when delivering the extensive, intricate day-to-day operational commitments of every Faculty and Professional Service.

This strategy, coupled with significant changes to the ethos and capability of the University's IT Services department, seeks to deliver technology enabled learning, teaching and working environments capable of meeting student and staff expectations through to 2020.





2. Influences on the IT Strategy

Student and staff feedback drives a programme of ongoing change within the ITS function designed to ensure UWE Bristol benefits from professional technology services now and in future. Six aims - defined by students, colleagues and ITS team members - influence IT Services approach when delivering this IT strategy:

1. Actively participate and add value in delivery of the University's 2020 strategy.
2. Improve customer service and satisfaction.
3. Deliver a simple, flexible and agile architecture.
4. Ensure ITS delivers strategically and tactically, on time, to quality and affordably.
5. Develop appropriate, sustainable capability and skills, and better manage ITS productivity.
6. Improve ITS employee engagement, satisfaction and prospects.

In addition to these aims, the IT Strategy is subject to a number of external influences:

- **Business intelligence** is increasingly used as a differentiator in the higher education (HE) sector. To benefit, universities are adopting more strategic, coherent approaches to data management whilst equipping their staff to interrogate information, analyse and pre-empt the associated trends.
- **Student and staff expectations** of technology are high and rising. Everyone expects to access information from anywhere, at any time, using an increasingly diverse range of mobile devices.
- **Our growing appetites for information** place ever increasing demands on mobile and wireless networks, bandwidth, systems availability, capacity and storage.

- Fuelled by the power of 'joined-up information,' many organisations strive to deliver a more **engaging, immersive and personalised experience** from the point of enquiry onwards.
- **Security** is everyone's business. Threats are evolving faster, becoming more complex and have the potential to be far more damaging than the HE sector has experienced in the past.
- **Cloud-based services** present a new paradigm for technology within the sector calling for a different approach to management, control and financial modelling of the associated systems.
- **Standards driven approaches** to IT procurement, development and operations is proven to improve efficiency and productivity whilst reducing risk.

Universities can reduce costs by adopting industry standard business and IT processes.

This IT strategy is fully aligned to UWE's overall strategy and strategic programmes. It is mindful of the context, identified influences and ambitions embodied in UWE Bristol's Strategy 2020, and the likelihood of further change in the sector, the country and internationally. It sets out four technology strategic themes with associated outcomes for the period 2017 – 2020 and is a living document subject to review and update on an annual basis.

Ultimately this IT Strategy seeks to simplify and standardise UWE Bristol's core technology, driving improved efficiency and enabling a digitally agile teaching, learning and working environment throughout the University.





3. UWE's Information Technology Themes

This IT strategy addresses UWE Bristol's 2020 ambitions, the realities of the University's current IT estate and wider influences facing organisations over the next 3-5 years.

The strategy is predicated on 4 strategic themes:

1 An environment where technology enhances learning, teaching and practice orientation.

This supports the following work-streams of UWE Bristol 2020 strategy:

1. Outstanding learning
2. Ready and able graduates
3. Research with impact

2 A modern, efficient and seamless university supported by fit for purpose business systems.

This supports the following work-streams of UWE Bristol 2020 strategy:

1. Outstanding learning
4. Strategic partnerships, connections and networks

3 Putting people first.

This supports the following key enablers of UWE Bristol 2020 strategy:

1. People: performance and development
2. Place: resources, estate and infrastructure

4 Cost effective and cohesive IT infrastructure.

This supports the following key work-streams and enablers of UWE Bristol 2020 strategy:

2. Place: resources, estate and infrastructure
4. Strategic partnerships, connections and networks

The IT Strategy delivers the following key outcomes across these themes:

1. A technology-enabled, seamless experience throughout the student journey.
2. Improved capabilities for student engagement, experience and feedback.
3. Real world experiences for our students via internships, shadowing and mentoring from ITS staff.
4. Access to relevant technologies for students and staff.
5. Accurate, timely, up to date information available for review and analysis throughout the University.
6. Reliable, secure access to IT infrastructure and systems whether on or off campus.
7. Transparent, accessible information about systems availability, performance, continuous improvements and project deliveries.
8. Professional, qualified ITS staff who demonstrate the UWE values, competencies and leadership behaviours.

Each theme and its associated outcomes is explored in more detail in pages 9 to 12.



3.1 An environment where technology enhances learning, teaching & practice orientation

UWE's technology and the skills of our ITS staff help enhance student experience by facilitating practice oriented teaching and learning, and enabling graduates to fulfil their potential.

We will achieve this through:

- One event capture solution to support technology enhanced learning.
- A single Virtual Learning Environment seamlessly integrated to a personalised student portal.
- A consistent online assessment capability amalgamated with the Virtual Learning Environment.
- Enhanced use of business intelligence and predictive analytics.
- Up to date technology in laboratories, libraries, teaching spaces and social learning environments.
- Collaborative engagement to design and specify specialist computing environments.
- A technology environment that facilitates use of university and personal mobile devices.
- Harnessing the professional skills of ITS staff to support work shadowing, undergraduate/ Masters projects and internships.
- Technology work streams fully embedded in UWE's strategic programmes utilising consistent governance frameworks.

Delivering the following outcomes and improvements:

- Access to relevant technologies for students and staff.
- Study materials available anytime, anywhere, through the Virtual Learning Environment.
- Improved capabilities for student engagement, experience and feedback.
- Improved profiling and understanding of our students.
- A modern, technology enabled environment in which to study and work.
- Real world experiences for our students via internships, shadowing and mentoring from ITS staff.

Supported through the following ITS aims:

- Actively participate and add value in the delivery of the 2020 strategy.
- Improve customer service and satisfaction.

3.2 A modern, efficient and seamless university supported by fit for purpose business systems

Transparent university business systems seamlessly integrated with university business processes to improve the staff and student experience and reduce the current administration burden.

We will achieve this through:

- An integrated solution providing one source of truth for student information management and administration.
- An integrated HR system that masters all staff data and significantly reduces manual processing.
- An integrated CRM (Customer Relationship Management) environment providing a single view of student interactions.
- A simple, unified approach to identity management for students and staff.
- Up to date information that is properly created, managed and secured.

Delivering the following outcomes and improvements:

- A seamless student experience throughout the student journey.
- One student identity from enquiry to graduation.
- An excellent experience for students and staff across all touchpoints with the University.
- Reduced HR administration and more accessible people and performance information.
- Accurate, timely and up to date information throughout the University.

Supported through the following ITS aims:

- Improve customer service and satisfaction.
- Deliver a simple, flexible and agile architecture.

3.3 Putting people first

Excellent customer service that meets and continually adapts to the evolving expectations of students and staff. Skilled ITS staff who are collaborative, motivated and feel proud to be part of IT Services at UWE Bristol.

We will achieve this through:

- Help desks, technical support and online self-service that quickly address student/staff IT queries.
- IT business partners working to align technology plans with customer expectations and future needs.
- Strong links with the Students' Union.
- Collaborative engagement with the Academic Practice Directorate & HR Learning and Development to ensure people are equipped to develop technology enhanced pedagogies and skilled to use current and future systems.
- Approved service delivery and continuous improvements plans available to everyone via an online service dashboard.
- Alignment of the University's ITS organisation with the Skills Framework for the Information Age.
- Technical upskilling and career development opportunities for all ITS staff.
- A diverse, flexible and engaged ITS workforce.

Delivering the following outcomes and improvements:

- Staff and student queries resolved in a helpful, efficient and timely manner.
- Transparent and accessible information about systems availability, performance, continuous improvements and project deliveries.
- Joined-up IT, Faculty and Professional Services plans.
- A strong, supportive partnership between ITS, Faculties, Professional Services and the Students' Union.
- Professional, qualified ITS staff who demonstrate the UWE competencies and leadership behaviours.
- Opportunities for ITS internships, placements and apprenticeships.
- UWE Bristol staff are equipped and able to use the University's IT tools and systems.

Supported through the following ITS aims:

- Develop appropriate, sustainable capability and skills, and better manage ITS productivity.
- Improve ITS employee engagement, satisfaction and prospects.

3.4 Cost effective and cohesive IT infrastructure

Transparent, reliable access to university business systems anytime, anyplace, anywhere. Systems proliferation and complexity is reduced, investment is optimised and project delivery times improve. The risk of serious IT incidents and business-limiting outages diminishes.

We will achieve this through:

- Ubiquitous Wi-Fi and a stable, reliable, secure network for students and staff.
- Cloud based services and storage that reduces our carbon footprint and helps improve student experience.
- IT Architecture roadmaps and blueprints to simplify the University's IT infrastructure, control costs and reduce risk.
- An approved and ongoing capital plan and a proactive technology replacement and maintenance schedule.
- A single information management strategy supported by an information security management system to adequately protect our information assets.
- A published 'dashboard' of IT projects, continuous improvements, systems availability and issues.

Delivering the following outcomes and improvements:

- Staff and students manage and access large quantities of data in a secure and seamless way.
- Options to reduce our on-site data centres with the future possibility of outsourcing or co-location.
- Reduced project delivery times and clear identification of project and ongoing support costs.
- Reliable, secure access to IT infrastructure and systems on or off campus.
- A five-year capital infrastructure investment plan supported by an annual maintenance schedule that keeps IT estate up to date and secure.
- Information is securely obtained, managed, processed and stored throughout the University.

Supported through the following ITS aims:

- Deliver a simple, flexible and agile architecture.
- Ensure we deliver strategically and tactically, on time, to quality and affordably.

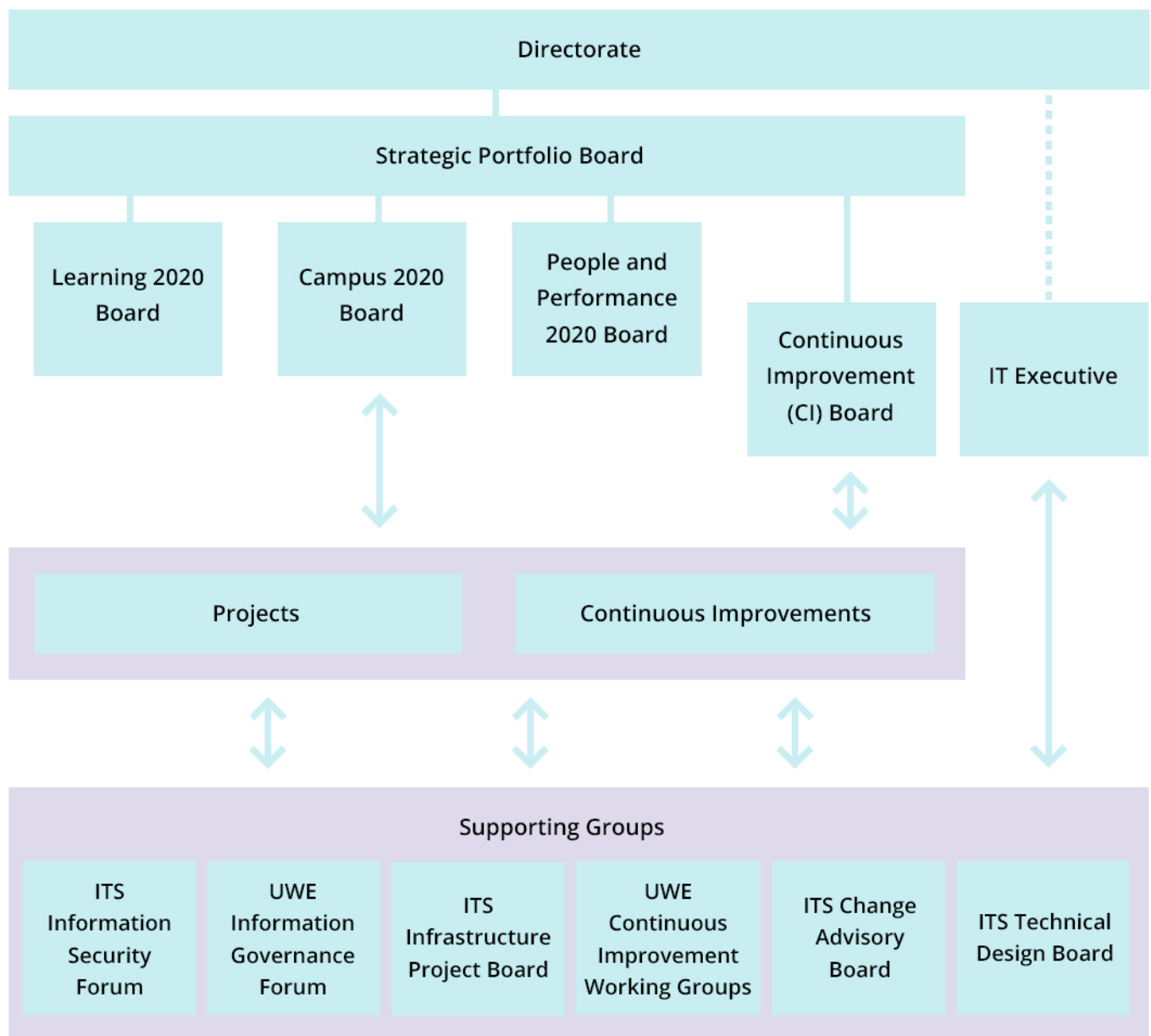
4. Structure for change & high level IT roadmap

4.1 Governance of IT Change

This IT Strategy will be delivered through a combination of:

- UWE Bristol's prioritised portfolio of strategic programmes and projects.
- The ITS five year infrastructure investment plan and annual maintenance schedule.

The governance structure for IT related change is highlighted below:





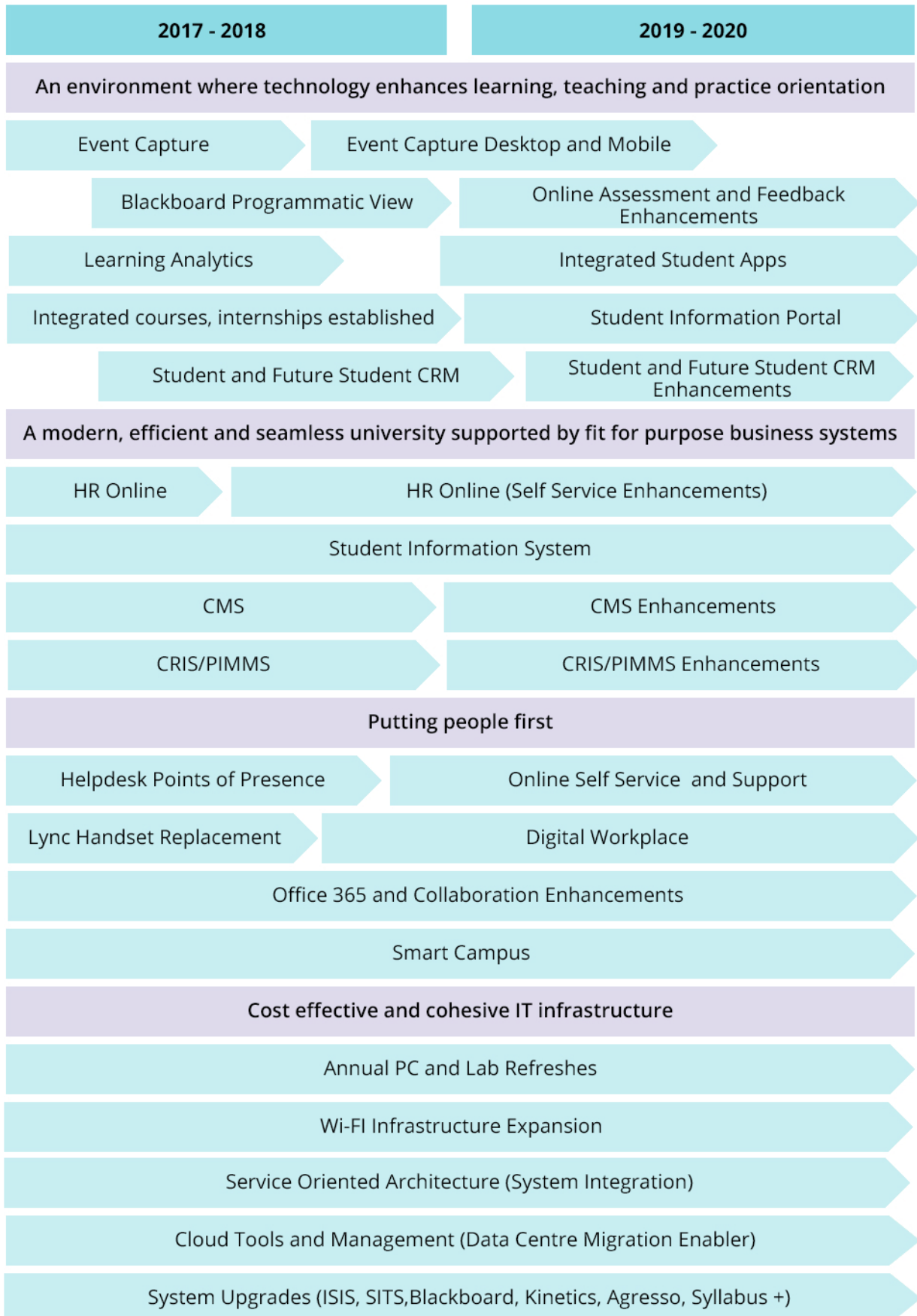
All requests for IT projects, system developments and changes are submitted to and reviewed by the Continuous Improvement Working Groups and/or University Strategic Programme Boards. Prioritisation of requests is then undertaken by the Continuous Improvement or Strategic Portfolio Board.

Whilst change is important, when necessary ITS will prioritise stability and security of the University's live IT services over projects to ensure current students are not detrimentally impacted by plans for future enhancements.



4.2 Roadmap of change 2017-2020

The high level road map below includes the key activities and timelines associated with delivery of the IT strategy:



4.3 Making Technology Decisions

Technology decision-making is informed by **Architecture Principles** endorsed by UWE Bristol's Board of Governors. These principles apply when commissioning, changing or updating the University's technology:

- **Simple, Intuitive & Usable:** Designed to meet student & colleague needs first & foremost. Easy to use, provides a positive education and work experience.
- **Sustainable, Efficient & Cost Effective:** Contributes positively to UWE's sustainability policy, delivers value for money, improves efficiency and effectiveness.
- **Resilient, Available & Accessible:** Wherever needed, whenever needed on whatever device. Meets student and colleague expectations in the UK and overseas.
- **Common Applications, Minimal Technical Diversity:** A familiar environment for students & colleagues reducing costs of maintenance and support while enabling consistent ITS skill sets.
- **Vendor Agnostic & Standards Driven:** Easy to integrate, decommission & change, provides improved flexibility, digital agility & control.

- **Data Integrity & Secure by Design:** Consciously acknowledges the value of data and protects it accordingly, provides one source of truth and minimises the risk of legal or regulatory sanction.

The Directorate have approved four guiding principles for **Information Management** and these too are embedded in the technology decision-making process:

- Information is **created, collected once** and **organised** in a manner that ensures its integrity, quality and security using existing master data systems where possible.
- Information is **stored, protected, preserved** and **retrievable**.
- Information is **up-to-date, managed, effective, efficient, available, reliable** and is of **high integrity** as required by business processes.
- Information is **archived, discarded** or **destroyed**.

These principles are applied through the Technical Impact Assessment process undertaken by IT Services as part of the UWE project management framework, Continuous Improvement Working Groups and CI board.



5. Measuring Progress

Delivery of the IT Strategy will be measured through the following Key Performance Indicators (KPI):

KPI	2017	2018	2019	2020
NSS learning resources theme:	88%	89%	89%	90%
Core System Stability:				
Blackboard	99.5%	99.7%	99.7%	99.7%
ISIS	99.5%	99.7%	99.7%	99.7%
Network	99.5%	99.7%	99.7%	99.7%
SITS	99.5%	99.7%	99.7%	99.7%
Sharepoint	99.5%	99.7%	99.7%	99.7%
99.5% availability = less than 3h 40m unplanned 'downtime' per month / 99.7% availability = less than 2h 12m unplanned 'downtime' per month				
Budget: Seek opportunities to generate a saving against capital budget	4%	5%	5%	5%
Staff Survey: Engagement index score	65%	70%	75%	80%
Reduction in number of systems maintained	2%	2%	2%	3%
Projects & continuous improvements delivered on time*	67%	69%	71%	73%
Security response to reported incidents within one working day	95%	96%	97%	99%

(* The industry standard benchmark for on time delivery is 28%-38%. Source: Complete collection of project management statistics for the period 2010 - 2015)

This IT Strategy will be reviewed and updated annually.