

College of Science and Engineering IT Strategic Plan 2018-2021

College Vision

Our vision remains for every School to be in the top three in the UK and the top 20 in the world. Some Schools have managed to achieve this already, whilst others are well on their way to doing so. We continue to aim for this across all Schools by the middle of the next decade.

We face unprecedented opportunities for science and engineering, “to make a positive difference to people’s lives” in addressing some of our society’s and the world’s grand challenges. We will apply ourselves to these challenges by cultivating a strong academic community which provides our staff with the best chance to excel, and gives our students the best experience possible. We will work collaboratively across our rich and diverse academic base within the College and across the University. We value our strong international mix of staff and students and will seek to protect, nurture and further strengthen this.

Strategy Statement

The College of Science and Engineering sees as critical the role that Information Technology (IT) has in delivering all aspect of our core business activities and recognises the critical role IT has in delivering success against our strategic aims.

Our staff and students are reliant upon our IT estate to enable learning, teaching, research and knowledge exchange to take place effectively and should expect high quality provision and service as standard.

The College works in partnership with Information Services Group (ISG) and Estates and Buildings (E&B) to provide both the physical and virtual infrastructure to deliver this expectation. It is through greater partnership and closer collaboration and communication that the full potential of our IT estate can be reached, now and into the future.

The approach to achieving the College’s objectives is to utilise where possible ISG provided services and support. College IT resources are deployed within each School as an essential component for delivering front line services to academic, administrative staff and students engaged in STEM teaching and research, and add the most value when they address the bespoke requirements of their local staff and students.

1. Leadership in learning

Within the area of Information Technology we make a strong commitment to improving the quality and consistency of our students’ digital experience and journeys. We will do this by:

- 1.1. Developing, delivering and integrating innovative technology solutions that support sound pedagogy throughout the learning and assessment landscape, including engaging with academics in the Centre for Science Education
- 1.2. Digital education that engages our students and offers flexibility in modes of study to both on-campus and off-campus students
- 1.3. High quality compute facilities to support experimental instruments and laboratory learning that deliver authentic learning experiences and assessment opportunities

- 1.4. Embracing mobile technologies that allow flexible, transformational teaching and learning to take place to the benefit of our staff and students.

2. Leadership in research

Within the area of Information Technology we aim to lead in world class research compute facilities and to enable staff and students to deliver paradigm-shifting research outcomes. We will do this by:

- 2.1. Utilising High Performance Computing (HPC) across the College with increased awareness and capacity to support the strategic research and data science objectives of Schools/Units
- 2.2. Working with trusted partners, to develop and sustain effective processing capacity and transformational tools to deliver world-leading research outputs
- 2.3. Utilising/delivering services that support a lifecycle management approach to research data including creation, transformation, storage, curation and preservation
- 2.4. Delivering services and facilities that support value-adding collaboration with external organisations, including co-creation, sharing, hosting and comprehensive communication channels
- 2.5. Supporting schools in effectively identifying and delivering bespoke systems or tools necessary to support REF2021 submissions.

3. Digital Transformation and Data

Within the area of Information Technology we aim to maximise the power of our data and leverage its value to empower and enable staff and students to achieve their objectives. We will do this through:

- 3.1. High quality data, which is created, transformed and managed through all stages of its lifecycle, adhering to the key principles of maintaining golden copy, data integrity, and information security
- 3.2. A portfolio of Business Intelligence and Management Information tools to inform strategic and operational decision making
- 3.3. Applying best practice in integration and automation of systems to allow efficient and effective transfer and processing of data between central and local systems
- 3.4. Prioritising information security and data protection in line with University policy and current legislation across all college delivered systems and services, taking advice from the Information Security Directorate and Data Protection Office
- 3.5. Actively engaging in institutional change programmes to deliver meaningful improvements and change to our staff and students' academic and administrative experiences/activities.
- 3.6. Develop, implement and maintain a College Data Centre strategy to ensure the security and resilience of our data assets.

4. Influencing globally and contributing locally

Within the area of Information Technology we aim to inspire, influence and deliver to our global audience and to make meaningful life enhancing contributions locally through:

- 4.1. High quality web provision that supports dissemination of research and teaching within and beyond the Higher Education and Research Sector
- 4.2. Leading partnerships with system and service providers that enhance our global and local reach through digital resources and media

- 4.3. Working to deliver the Edinburgh City deal objectives by leveraging each of the Schools/Units' unique IT strengths and promoting synergy through collaboration.

5. People, Finance, and Estate

Within the area of Information Technology we will invest in the development of our people and estate to deliver excellence in teaching, learning and research, in order to:

- 5.1. Ensure all staff and students have the opportunity to develop their digital skills through knowledge bases and training and to confidently approach their activities and embrace their digital workspaces
- 5.2. Deliver effective training and staff development opportunities to IT professionals across the College, to ensure that they have the appropriate knowledge and skills to deliver strategic objectives
- 5.3. Actively engage with equality and diversity initiatives, internally and externally to ensure we take all opportunities that develop and support a diverse workforce
- 5.4. Deliver technology solutions that support the expected growth in student numbers, increased research activities and transformation of our physical estate, to facilitate world class teaching, learning and research spaces
- 5.5. Engage with Estates' developments across the College, to ensure that IT and AV requirements specific to College needs are fully integrated into building projects
- 5.6. Develop, implement and maintain a resilience and emergency plan for all College and School IT systems as part of an overall business continuity plan.

Top IT priorities

1. **Partnership:** Working towards a greater collaborative partnership with ISG, including (but not restricted to) input into system design, procurement and continuous improvement for service delivery.
2. **Research Support and High Performance Computing (HPC):** Promoting HPC provision across the college and university and communicating the Colleges needs to influence planning for Research Support services.
3. **Teaching:** Improving the student experience with IT that support and enables their learner journey, including EUCLID, timetabling, Lecture Recording and provision of mobile computing,.
4. **Training:** Improving Staff and Student IT skills and upskilling them to handle existing and new software platforms
5. **Resilience:** Ensuring that local and central systems are resilient during business as unusual and plan for continuity in the event of extraordinary or unforeseen incidents.
6. **Compliance:** Complying with requirement such as Information Security and GDPR training and ensuring that the college can evidence this compliance in order to obtain accreditation where necessary or expedient