Imperial College Union
Board of Trustees / 19 July 2023

Digital Transformation - Update

Author(s):   Ashley Cory (Director of Support Services)
Purpose: To provide an update on the Digital Transformation Project
Decision: To consider

1. Current Context

In February 2023, the Union updated the Board with the latest information related to the Digital Transformation Project and requested that the Board delegate authority to the Digital Transformation Task and Finish Group to decide on potential future suppliers.

This authority was granted and the Task and Finish Group, on recommendation from the Director of Support Services, made the decision to engage with SUMS as a future supplier of a general Union management system. The Union has executed a licence agreement with SUMS and budgeted for licencing costs in the upcoming financial year.

To retain current strengths surrounding financial processing functions, a project plan has been agreed with SUMS to build an integration with elements of eActivities, our existing bespoke management system, with a long-term goal of moving these functions across to SUMS over time.

That project plan is included below.

2. Further project costs

With the above in mind, some further potential costs have been identified and fall within the scope of costs agreed by Board in February 2023. These costs include:

Description	Cost	Cash outlay 23/24	Cash outlay 24/25	Capital/Revenue
Extra staff costs	**£20,000.00**	£16,000.00	£4,000.00	Revenue
Hardware	**£20,000.00**	£20,000.00	£0.00	Capital
Design Fees	**£10,000.00**	£10,000.00	£0.00	Capital
Contingency	**£10,000.00**	TBC	TBC	TBC
Total	**£60,000.00**			

3. Next steps

- The project plan detailed below will be implemented with support from SUMS.
- The Union will recruit for the necessary staff resource to implement the project.

Imperial College Union
Project Plan – Digital Transformation Implementation 2023-24

Project Manager	Ashley Cory (Director of Support Services)
Staff Project Group	Ashley Cory (Director of Support Services), Cat Turhan (Director of Membership Services), Robert Pegg (Director of Commercial Services), Phil Stewart (Senior Web Developer), David Ashton (Financial Controller), Robert Fenner (Senior Activities Administrator), Clem Jones (Representation Manager), Glen Whitcroft (Marketing and Engagement Manager)
Project Start Date	01/06/2023
Project End Date	01/01/2025

1. Rationale

1.1. Description

A project to implement Imperial College Union's digital roadmap as defined by the initial scoping and selection phase of the Digital Transformation Project. This exercise defined the future roadmap for our systems infrastructure and selected SUMS as our main management system provider. This project focusses on the implementation of a SUMS solution over the next 12-18 months and details actions required of Union teams.

1.2. Business Case

1.2.1. Context

Prior to the pandemic, ICU took an approach to our digital infrastructure that primarily favoured the in-house development of bespoke solutions. These solutions have been built around ICU-specific business processes and are used to drive our core functions as a Union.

Since the beginning of the pandemic, and in line with our latest Strategic Plan, ICU has begun to explore a wider range of more modular third-party applications to support our existing infrastructure, involving several successful systems implementations.

1.2.2. Strategic Plan

Our 2021-23 Strategic Plan included a 'Integrated and innovative technology' enabler specific to our digital infrastructure:

Our digital infrastructure should support our entire operation to be as efficient, effective and collaborative as possible, reflecting Imperial's scientific and technological ambitions. It should anticipate future trends and resonate with our student population. We should procure, design and build our systems using technology that empowers individuals and teams at the local level, but also takes into consideration the ramifications on the wider organisation. This should include the development of support for our various student leaders and student groups, enabling them to undertake their own activities successfully.

We must work closely with the College to strike the balance between using hardware and digital solutions that (a) might already exist within the institution, (b) are purchased 'off the shelf' for our bespoke needs, or (c) where our needs are so distinctive, that a custom build is required. We should be mindful of the sustainability of our infrastructure, mitigating the risk of single points of failure and putting in place documented operation and development plans to ensure their long-term success.

1.2.3. Analysis

The following analysis supplies some context around the objectives of this project. We should aim to mitigate our weaknesses and keep our strengths wherever possible.

Our earlier approach to systems development has delivered some benefits:

- **Alignment with existing ICU business processes –** Our bespoke systems have been built around the way ICU has worked and are well-matched to our business processes.
- **Flexibility –** Bespoke systems provide the flexibility to develop around the unique idiosyncrasies of our organisation.
- **Breadth of data –** We capture large volumes of data using our systems.
- **Historic data –** The data we have captured spans many academic years.
- **Name recognition –** Our core systems are well-recognised by our student-users.
- **Student leader functionality –** We provide functionality that is well-built around the processes put in place by student leaders.

It has also led to some weaknesses:

- **Misalignment with current Strategic Plan –** Our current technology enabler mandates the exploration of more modular off-the-shelf solutions where appropriate.
- **Reliance on central systems support –** Some core processes involve manual intervention from the central systems team, disempowering teams at a local level and creating single points of failure in some team members.
- **Lack of modularity –** Many systems have become large in scope and heavily integrated with one another, making them difficult to support with current levels of resource and difficult to replace without significant change management.
- **Lack of documentation or structured training –** Many systems lack documentation and training material, and although this is improving, communicating how to develop and use our systems remains a significant challenge.
- **Limited reporting tools –** While we capture a large volume of useful data, the ability for the organisation to easily make use of that data is hampered by a lack of robust reporting tools.

1.2.4. Scope

During the selection of SUMS it was identified that at least in an initial phase, the Union requires an integration with eActivities to retain our finance functions. Therefore, the scope of this project will encompass the processes facilitated by:

- Dotorg (Main website and eCommerce)
- eVoting
- evoting Admin
- Election Stats Broadcasters
- eActivities (Where not related to finance)
- Front Gate
- Student Service
- All Power Apps

To focus on key objectives, the following digital systems will be considered out of scope for the project (but may be affected by changes to in-scope systems):

- Imperial Award
- CSP Websites and Webserver
- SIT
- SAP Business One
- Golem

- EPOS (MCR Systems)

2. Project Plan
2.1. Objectives
- **Obtain necessary resources for implementation -** It has been identified that extra resource is required to build integrations and secure the long-term future of our systems infrastructure.
- **Integration with eActivities-** To retain our existing strengths surrounding finance with an eventual goal of building these functions into SUMS.
- **Implementation of core SUMS modules -** To build and structure core SUMS modules ready for go live.
- **Website design and restructure-** To provide a new and improved set of webpages and content.
- **Training and onboarding** - To provide training for teams in use of the system, ready for go live.

2.2. Measurables
- Completion of project deliverables and objectives.

2.3. Deliverables
- **Project Plan –** This project plan must be created to define the project team and timeline.
- **Signing of agreement –** The agreement must be signed to initiate the implementation.
- **Resourcing –** A recruitment process must be conducted to hire for new web development resource required for the integration of SUMS and eActivities.
- **Bootstrap Work –** An exercise to model Imperial College Union organizational structures in SUMS and implement temporary data import mechanisms for both one-shot and regular data synchronisations from eActivities to SUMS to facilitate implementation and buildout.
- **Compliance –** work to ensure systems are compliant with College processes, PCI-DSS and GDPR.
- **Website design brief and content audit –** An exercise to generate concept briefs for a new website, and to redevelop a structure and slimmed down content for a new set of web pages. Design system.
- **Implementation & Buildout of SUMS core modules –** Build website and online shop. Process map all membership services processes and implement new processes and procedures for working with SUMs. Implement any additional functionality required in SUMS to facilitate porting of membership services processes. Implement.
- **eCommerce –** Buildout specifically of eCommerce module in SUMS and a project to provide retail with an alternative third-party eCommerce platform for general sales.
- **Redesign of eActivities –** A redesign and redevelopment of the structure and content of eActivities, retiring all functions no longer required.
- **Onboarding & Testing –** Onboard staff and early adopter student volunteers and train on new procedures. Perform testing and shakedown on new processes. Perform testing to ensure data integrations with eActivities work correctly. Develop training program for onboarding all student volunteers.
- **Go-live –** Establish timetable for switchover of each process and subsystem to new SUMS implementation. Onboard all student volunteers. Go-live with SUMS, switch off all temporary data synchronisations and ensure all permanent data synchronisations take over cleanly. Switchover.
- **Clean-up & Follow-ups –** Decommission temporary data synchronisations. Monitor real world use of new system and address any issues arising. Implement any outstanding functionality considered non-essential for go-live in earlier phases. Preserve archival content on ICU systems and implement ongoing presentation of archived content. Decommission all elements of ICU systems no longer in use.

▪ **Future development planning –** Planning for a future development phase to address requirements for moving retained eActivities functions across to SUMS.

3. Action Plan

#	Description	Lead	Due Date
1	**Project Plan Created**	AC	**19/06/2023**
2	**Signing of agreement**	AC	**23/06/2023**
3	**Resourcing**		**01/11/2023**
3.1	Define budget for staff and capex – approved by board	AC	19/07/2023
3.2	Recruitment for necessary staff roles	AC	01/11/2023
4	**Bootstrap Work**	PS	**01/11/2023**
4.1	Gain access to SUMS sandbox environment	PS/AC	31/07/2023
4.2	Gain trusted developer status	PS/AC	31/07/2023
4.3	Data integration	PS	01/11/2023
4.4	Single Sign On (SSO) with SUMS/eActivities	PS/AC	01/11/2023
5	**Compliance**	AC	**01/09/2024**
5.1	Define all College processes to follow	AC	31/07/2023
5.2	Security checklists complete	AC	31/10/2023
5.3	PCI-DSS compliance achieved	AC	31/10/2023
5.4	Data protection impact assessment (DPIA)	AC	30/08/2023
6	**Website design brief and content audit**	AC/GW	**01/09/2024**
6.1	Define approach to refreshing digital identity	AC	19/07/2023
6.2	Provide design brief	GW	01/11/2023
6.3	Obtain concept art and brand guidelines	AC/GW	01/01/2024
6.4	Define new site structure	AC/All	01/06/2024
6.5	Prepare content	All	01/09/2024
7	**Implementation & buildout of SUMS core modules**	SUMS/All	**31/05/2024**
7.1	Website	TBC	TBC
7.2	Online Shop	TBC	TBC
7.3	Membership Management	TBC	TBC
7.4	Elections	TBC	TBC
7.5	Events	TBC	TBC
7.6	Process mapping and implementation	All	31/05/2024
8	**eCommerce**	AC/RP	**31/07/2024**
8.1	Build-out of SUMS online shop	AC/PS	31/05/2024
8.2	Selection and provision of third-party online shop for retail sales	AC/RP	31/07/2024
9	**Redesign of eActivities**	PS/AC	**30/09/2024**
9.1	Menu restructure	PS/AC	30/09/2024
9.2	Retirement of obsolete functionality	PS/AC	30/09/2024
9.3	Theming	PS/AC	30/09/2024
9.4	E2 module for finance	PS/AC	30/09/2024
10	**Onboarding & testing**	All	**30/06/2024**
10.1	Staff training	SUMS/All	**30/06/2024**
10.2	Team module testing	All	30/06/2024
11	**Go live**	All	**30/09/2024**
11.1	Establish timetable for module switchover	AC	05/07/2024
11.2	Onboard of all student leaders	RF	31/07/2024
11.3	Disable temporary data feeds	PS	30/09/2024
11.4	Go live	All	30/09/2024

12	**Clean-up & follow-ups**	PS/AC	01/01/2025
12.1	Decommission of obsolete systems	PS	01/01/2025
12.2	Monitor system and deal with snagging	PS	01/01/2025
12.3	Implement modules not dealt with prior to go live	AC/SUMS	01/01/2025
12.4	Preserve and archive previous content	PS	01/01/2025
12.5	Lessons learned	AC	01/01/2025
13	**Future development planning**	AC	01/01/2025
13.1	Future phase plan	AC	01/01/2025