

# **Pilots Evaluation**

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1000 EUROPE'S FASTEST GROWING COMPANIES 2025















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### Introduction & Context

### **Purpose**

The Flexible Learning Programme (FLP) funded 20 pilots to test innovative approaches to teaching, learning, and student experience at the University of Manchester. This evaluation examines how pilots aligned with strategic objectives for flexibility, inclusivity, and future-ready learning.

### **Approach**

A meta-analysis of pilot completion reports and interviews with pilot leads, structured around four pillars:

- Innovation Themes types of innovations tested (technology, pedagogy, flexible delivery, interdisciplinary practice).
- Environmental Factors cultural and institutional enablers and constraints.
- Structural Alignment how systems, processes, and governance supported or slowed scaling.
- Outcomes Delivered student, staff, and organisational benefits, and their scalability/sustainability.

#### What the Evaluation Delivers

- Evidence mapped against FLP's benefits framework to identify patterns, enablers, and constraints.
- Lessons on how innovation embeds in a complex university environment.
- Recommendations for rationalising processes, scaling promising models, and sustaining benefits from pilots delivered





# **Executive Summary**



# Approach & Methodology



- The evaluation reviewed 20 pilots that applied and reached delivery stage within the stipulated timeframe. This included both fully delivered and partially delivered pilots, assessed against the objectives set out in their original business cases.
- To ensure consistency across diverse pilots, a structured evaluation framework was developed, informed by sector models such as the **Digital Teaching and Learning Principles Framework (DTPF)** and the FLP Benefits Framework. The framework grouped evidence into four domains: innovation themes, environmental factors, structural alignment, and outcomes delivered

#### **Evidence collection**

Pilot completion reports provided the baseline record of objectives, activities, outcomes, and challenges. These were supplemented by **semi-structured interviews with pilot leads**, designed to surface lived experiences and capture critical nuances around processes, system frictions, institutional context, and personal reflections on motivators and barriers.

### Coding and semi-quantitative analysis

All evidence was coded against the framework using **keyword mapping and thematic clustering**. This allowed both qualitative depth and **quantification of the strength and frequency of themes**, highlighting which benefits were most evidenced and which barriers most systemic. These repeated references to processes, constraints and motivators were aggregated to indicate intensity.

#### **Aggregate Analysis**

Findings from reports and interviews were triangulated to produce a portfolio-level view of delivery effectiveness, enablers, and constraints. Insights were further validated through benchmarking against sector research and peer practice, ensuring alignment with wider market trends in flexible learning. This multi-layered approach ensured both robustness of evidence and relevance to strategic decision-making.





# A four-point framework has been developed to triangulate and verify both qualitative and quantitative insight extracted from the Pilots Outcomes





#### 01. Innovation Theme

What areas of teaching, learning, and student experience the pilots explored, and how they applied pedagogy, technology, flexibility, and interdisciplinarity to push boundaries.



#### 02. Environmental Factors

How well the Flexible Learning team and localised areas of the University accelerated or constrained delivery of the pilots, identifying motivational drivers to optimise.



### 03. Structural Alignment

How well systems, processes, and governance supported pilots: were delivery mechanisms effective, decisions timely, systems reliable, and opportunities for expansion identified?



#### 04. Outcomes Delivered

What outcomes the pilots delivered, and whether benefits delivered were clear, scalable across programmes, and had the potential for wider Institutional implementation.

#### What the Framework will Deliver

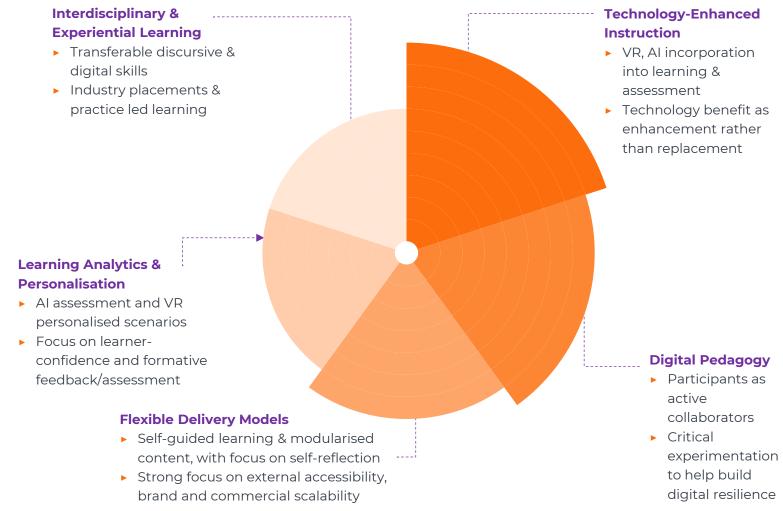
- A holistic view of how pilots performed across innovation, culture, structures, and outcomes.
- Identification of enablers and barriers across culture, pedagogy, processes, and systems.
- Evidence-based guidance on which innovations can scale and how.
- Strategic insight into how innovation contributes to institutional mission, student outcomes, and long-term sustainability.



# Pilots were assessed across five digital innovation themes, with Technology-Enhanced Instruction leading in driving engagement and assessment innovation.



Data excerpts from pilot proposals and final reports were mapped against five key innovation themes. These excerpts were then assessed using the Digital Teaching Professional Framework. The graph below displays the relative density of extracts per theme, weighted and mapped to a 10-point index.



### **Summary Recommendations**

#### **Digital Innovation**

Evaluate the cost-effectiveness and scalability of VR and measure efficiency gains from Al-powered student feedback.

#### **Student Experience**

 Digital learning must be aligned with dialogic, selfreflective practice to build digital and transferable skills

#### **Pilot Design**

► For future pilots, combine both digital innovation and adaptable learning outputs aligned to student experience



# Pilots provided an inclusive opportunity for staff with less research exposure to apply their professional expertise to digital and learning innovation



Qualitative interviews with pilot leads were conducted to deepen and quantify insights from written reports. Interview data were thematically coded to identify the main drivers and barriers to engagement, distinguishing between "pilot-level" factors and more complex, individualised "local" factors (which also include broader organisational elements). For clarity, these nuances are grouped as "local" factors in the analysis.

#### **Pilot Level Enablers**



Pilots created valuable research opportunities that bridged traditional teaching and research roles, significantly increasing engagement



FLP team support was frequently highlighted as instrumental in helping teams navigate complex, local process challenges

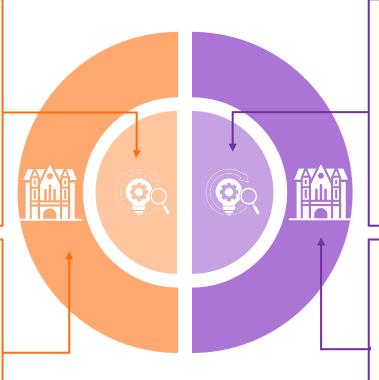
#### **Local Level Enablers**



The opportunity to scale pilot insights for wider organisational impact emerged as a key motivator



Utilising pilot delivery in shifting staff and student mindsets towards embracing digital innovation was identified as driving engagement



### **Pilot Level Constraints**



While flexible pilot approaches supported innovation, some teams facing local challenges expressed preferences for more structured guidance



Many participants also recommended greater visibility and knowledge-sharing between pilots, seeing this as a key enabler for enhanced collaboration

#### **Local Level Constraints**



Local finance and recruitment process clarity and complexities caused the highest levels of frustrations with pilot leads



Local awareness or levels of advocacy for flexible learning often led to challenges of deprioritisation, impacting sense of purpose and ambition



# Pilot leads valued the funding and platform to drive innovation, while recognising that structural barriers in local processes limited the experience.



We reviewed pilot completion reports and supplemented them with interviews to bring to life experiences and key themes. These insights were then aggregated to highlight the significant barriers (finance, payment, admin) and motivators (visibility, funding, participation) shaping delivery and scale.



Key Constraints: Time Lost to Admin

- Pilots described localised finance and payment processes as the most significant barrier — with long waits for finance codes, repeated follow-ups to process invoices, and stalled payments to students and consultants.
- These delays, combined with recruitment hurdles and fragmented admin support, meant Pilot Lead time was consumed by admin, adding further stress to already constrained staff schedules



Key **Enablers**: Platform to Innovate

- The FLP's provision of funding, visibility, and institutional backing gave staff opportunity to pilot leading innovation themes in teaching/ flexible learning, backed by formal resources.
- This opportunity, though not eliminating structural friction, motivated participation and lent credibility to work that might otherwise have remained aspirational.



#### **Pathway To Scale**

- For pilots to inform institutional change, interviewees perceived that **systemic bottlenecks** in finance, payment, and project admin must be **acknowledged and addressed**.
- Interviewees also perceived an opportunity for FLP to influence convening and advocacy efforts not by leading implementation, supporting setup of formal networks and clearer pathways to scale successful models into mainstream teaching and learning.



# Pilots delivered clear student and staff benefits, with early signs of scalability, but long-term impact depends on strategic alignment with local faculty goals



Evaluation of pilot reports and interviews showed that while most objectives were achieved, benefits to students were most evident where pilots were aligned with institutional priorities, enabling scalability and sustained adoption.



# Target Outcome Themes

- Pilots laid strong foundations enhancing student experience (confidence, skills, practical application) through piloting flexible, accessible and immersive learning.
- Staff-focused pilots(AI marking, digital hubs, co-creation) demonstrated potential for streamlined efficiency and effectiveness in teaching, assessment and analytics

### 60% fully delivered the

objectives set-out in the approved business case, most partially delivered were on track but require additional time/resources to fully deliver



### Scalability Potential

- Several pilots (e.g., immersive hubs, digital onboarding) showed strong potential for replication across programmes.
- FLP provided funding, legitimacy, and visibility that surfaced opportunities — but institutional dynamics remain primary driver of scalability.



### Strategic Fit & Effectiveness

- Effectiveness was strongest where outputs are already aligned with **faculty** strategy or initiatives at faculty/ school level.
- Without central ownership and workload integration, however, many pilots risk remaining isolated proofs of concept.



# Pilots empowered staff and students to drive digital innovation and embrace emerging technologies, fostering a culture of exploration and self-directed engagement





Pilots created **accessible pathways** for staff with limited research backgrounds to contribute their professional expertise to the advancement of digital and learning innovations.



Pilot leads appreciated having access to **funding and a supportive platform** to pursue innovative ideas, even while noting persistent structural challenges in local processes.



The adoption of innovative technologies empowered participants to take an **active role in their learning**, try out fresh strategies, and grow their skills through independent exploration and critical reflection.



Pilots achieved high levels of student engagement by integrating **blended digital learning** approaches that encouraged self-directed study, **supported reflective practices**, and facilitated meaningful human connections.



Pilots placed a strong emphasis on integrating emerging technologies, dedicating substantial efforts to the development of **VR simulations** and the implementation **of Al-driven assessment tools**.



Innovative technologies made it possible for participants to direct their own learning, engage with novel methods, and gain valuable skills through **curiosity-driven experimentation** and reflection.





# **Framework Deep Dive Sections**





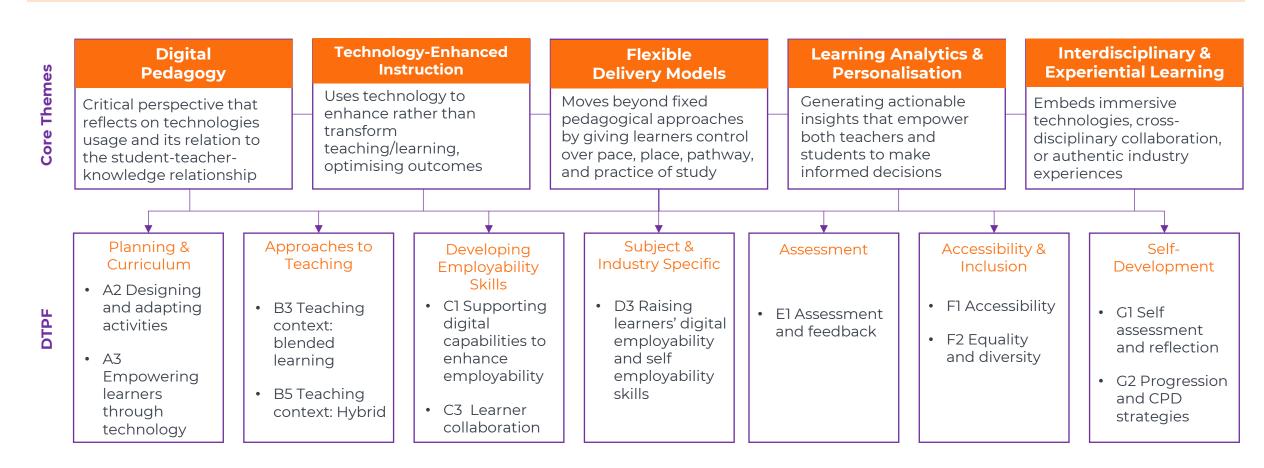
# **01: Innovation Themes**



# Innovation Theme Methodology Overview



- Enfuse adopted 5 Core Digital Innovation Themes and systematically evaluated the content of each theme.
- The focus and engagement with each Core Theme were then assessed using **7 Components of the Digital Teaching Professional Framework** to ensure comprehensive content coverage."



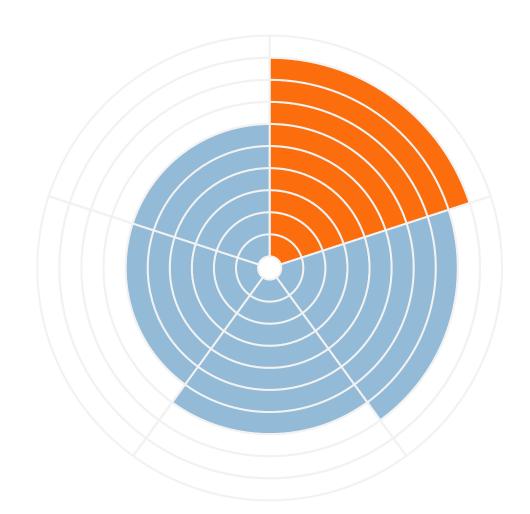


### Innovation Theme Technology-Enhanced Instruction



### **DTPF Analysis**

- ► Technology-Enhanced Instruction (TEI) was the most prominent Innovation Theme across the analysis.
- Adaptive learning systems and reflective technologies were used to support stronger peer connection, more personalisation, and **greater learner agency**.
- Al-based **accessibility solutions** (alt text, captions, screen reader support, curated video assets) drove focus on universal design across the pilots.
- Strategic use of AI marking (Graide, TeachMateAI), GenAI feedback, VR oral assessments, and analytics was applied to assessment practices.
- Several pilots directly bridged teaching and professional practice using sector-standard tools, digital badging, and professional role simulations.
- VR/AR simulations, GenAl workshops, hybrid formats, 3D modelling, and Canvas Studio integration delivered a multimodal technology ecosystem for learning.



Graph represents the density of written information across the pilot portfolio that directly aligns to innovation themes



### Innovation Theme Technology-Enhanced Instruction





**Emergent Technologies** 



Complementary Value



Psychological safety

### **Theme Summary**

- Technology-Enhanced Instruction (TEI) was a central feature of pilot initiatives, using new technologies to improve learning and assessment and foster psychological safety in applied settings.
- TEI mainly supplements rather than replaces traditional models, accelerating assessment and adding value while maintaining moderation and accuracy.
- Interaction between TEI and flexible/modular learning was limited; most incremental improvements were made within **established practices** rather than through direct technological innovation.
- Strategic opportunity exists in blending flexible learning strategies with emerging technologies for more harmonised and impactful innovation.

### Recommendations

- Expand VR simulation and Al-driven assessment across disciplines to optimise technology investments and foster innovative learning environments.
- Advance competency-based
   assessment and authentic
   professional simulation to align
   outcomes with evolving workforce
   requirements.
- Encourage the synchronous fusion of flexible learning objectives and emergent technology to drive comprehensive innovation themes.

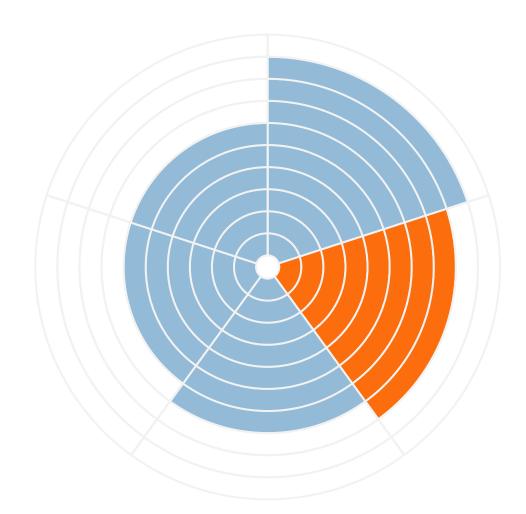


### Innovation Theme Digital Pedagogy

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### **DTPF Aggregate Analysis**

- Digital Pedagogy was the second most prominent theme, with multiple pilots that focused on it as a core driver of qualitative objectives
- Student **self-reflection** through critical analysis of technology and its implications, and the resulting self-directed learning development were central themes in digital pedagogy.
- Assessment practices were a major strength, especially alignment of technology with traditional assessments, exploring the relationship between technology and conventional assessment and how to realign technological applications to foster critical skillsets.
- Supporting these concerns and focuses, there was a consistent pilot lead reflection on supplemented in-person teaching juxtaposed with digital teaching.
- Application to real-world scenarios was generally more theoretical than skills-focused, which emerged via subsequent themes.



Graph represents the density of written information across the pilot portfolio that directly aligns to innovation themes



### **Innovation Theme Digital Pedagogy**





Active Collaboration



Critical Examination



Balanced Integration

### **Theme Summary**

- Digital pedagogy redefines teacher-learner relationships, positioning students as active collaborators and leveraging emergent technologies to drive self-reflection and critical thinking.
- Pilots prioritised not only practical technology use but also fostered critical examination of digital platforms' limitations, learner autonomy, and evolving ethical requirements.
- Structured simulations mirrored real-world digital workflows, building relevant skills and prompting deep reflection on pedagogical and technical challenges.
- Initiatives proactively addressed risks of AI overreliance, emphasising balanced integration of innovative technologies with established educational practices.

### Recommendations

- Prioritise blended learning models that integrate emergent technologies with reflective, in-person activities to maximise student engagement and learning outcomes.
- Position digital innovation as an
   enhancement to established pedagogical
   practices, not a replacement, ensuring
   balanced and resilient teaching strategies.
- Embed self-reflective and discursive elements into all digital learning activities, directing students to critically evaluate the boundaries, risks, and ethical responsibilities of technology use.

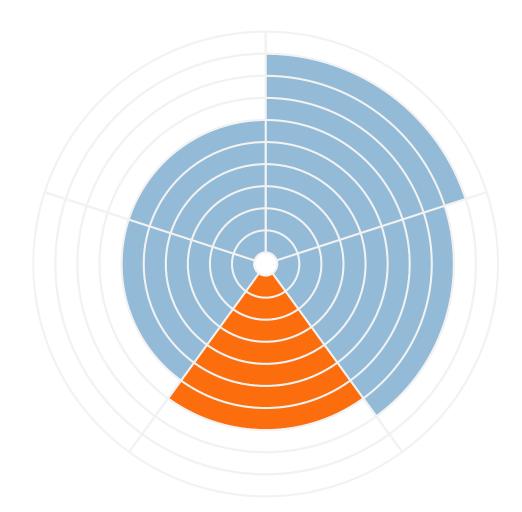


### Innovation Theme Flexible Delivery Models



### **DTPF Aggregate Analysis**

- Flexible Delivery Models (FDM), broadly focused on asynchronous, online resources promoting self-paced study and flexibility, supporting learners with work and life commitments.
- Accessibility was a core component, prioritised through global, standardised content and thoughtful scheduling for time zones, ensuring fair access for all.
- Content was mostly cross-disciplinary, encouraging broad skill application, even when rooted in specialist topics.
- Flexible delivery models fostered resilience, independence, and critical thinking as core skills among learners
- FDM approaches ranged from explicit self-direction and mastery learning to integrated alternative pathways.
- Curriculum changes were secondary; planning focus was on how learners engaged with existing materials.



Graph represents the density of written information across the pilot portfolio that directly aligns to innovation themes



### Innovation Theme Flexible Delivery Models





Self-directed learning



Structured & Scalable



Commercial acumen

### **Theme Summary**

- Flexible Delivery Models focus on modular micro-credentials and selfdirected online resources, offering both highly targeted and broader subjects, including resilience training, with a strong emphasis on accessibility and pre-enrolment engagement.
- Delivery strategies favour **structured, scalable course** design over technological novelty, often leveraging existing content and platforms rather than developing entirely new technologies.
- Commercial viability and sustainable scalability are core aims, with pilots designed to ensure practical, large-scale adoption while maintaining educational standards.
- As phased rollouts continue, qualitative feedback will need to be balanced with systematic quantitative data to better understand and enhance learner participation.

### Recommendations

- data on engagement with modularised content would be advisable, to strengthen case for change.
- Prioritise the integration of digital innovation within future flexible delivery pilots to maximise pedagogical advancement alongside scalability.
- Sustain the focus on accessibility by extending early access initiatives and supporting diverse entry points for a broader range of learners.

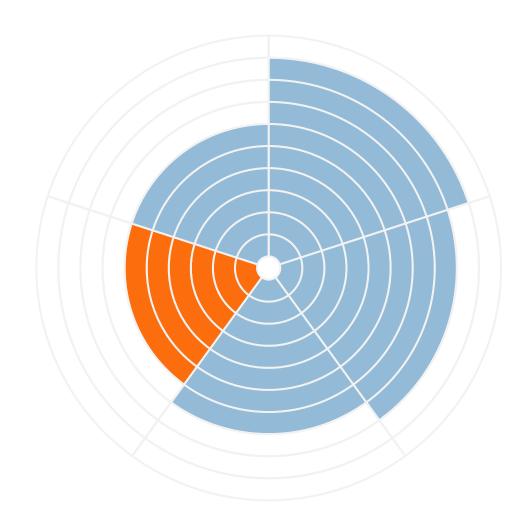


### **Innovation Theme Learning Analytics & Personalisation**



### **DTPF Aggregate Analysis**

- As with other Innovation Themes, Learning Analytics & Personalisation focused on **self-reflective** practices, employing student logs, mastery profiles, and tailored challenges.
- Technical innovation equally offered Personalisation via VR which enabled more 121 learning experiences, although the significant change from tech accelerated to previous methods was debated.
- Al provided instant, individualised feedback and streamlined assessment, demonstrating the ability to utilise learning tech to enhance the student experience.
- Pilots linked practical tool use and ethical considerations to real-world employability, with a core focus on student agency and stakeholder involvement in learning goals.
- Practical simulations and participant control reinforced competency development, critical thinking, and enriched feedback loops throughout course delivery.



Graph represents the density of written information across the pilot portfolio that directly aligns to innovation themes



### **Innovation Theme Learning Analytics & Personalisation**







Complementary Value



Iterative feedback

### Theme Summary

- Advances in digital innovation centre on using VR to create custom learning environments and employing AI to deliver personalised feedback and assessment in educational settings.
- VR pilots demonstrated increased learner confidence in laboratory and clinical scenarios, offering safe, individualised experiences without relying on peer intervention, while AI assessments enabled quicker, more tailored support.
- Personalisation played a vital role in most pilot projects, emphasising ongoing formative feedback, viva-style dialogue, and assessments designed to foster continuous, meaningful learner engagement.
- Combining immersive VR, Al-driven insights, and direct personal interaction defines this innovation trend, but participant feedback stressed the ongoing need to pair technology with reflective, handson learning.

### Recommendations

- **Expand the integration of VR and Al methods** for constructing adaptive,
  personalised learning journeys across
  subject areas.
- Retain and incorporate formative, discursive, and reflective assessment models to enhance student engagement and employability.
- Sustain a blended approach, combining Al-driven analytics with practical, humancentred interaction to maintain learning effectiveness and authenticity.

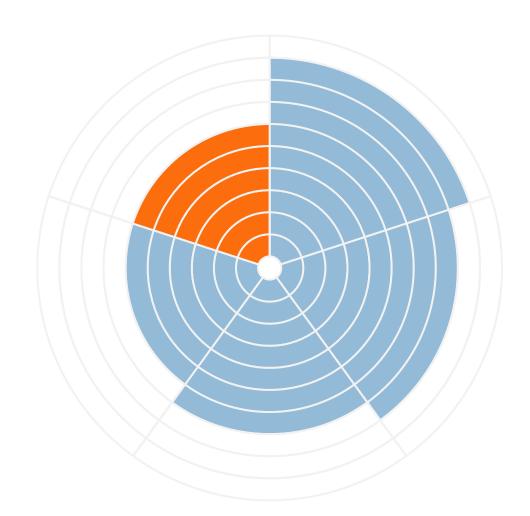


### Innovation Theme Interdisciplinary & Experiential Learning



### **DTPF Aggregate Analysis**

- For Interdisciplinary & Experiential Learning (IEL), pilots supported blended learning, integrating technology with in-person experiences to help **students identify optimal modalities**, though this was less prominent overall.
- Select projects formed interdisciplinary links through consortia like NTEC, broadening curricular access and fostering collaborative opportunities.
- Voce assessments supported discursive skill development, promoting sector and discipline transferability, albeit with limited focus relative to other objectives.
- Scenario and experiential learning addressed both subject-specific and broad audiences, with clinical and laboratory simulations enabling authentic, real-world experiences.
- Practice-based learning was increasingly embedded in curriculum design, with several pilots highlighting scalability across disciplines and depth of delivery.



Graph represents the density of written information across the pilot portfolio that directly aligns to innovation themes



### Innovation Theme Interdisciplinary & Experiential Learning





Transferable Soft-skills



Workplace Placements



Practice-led Learning

### **Theme Summary**

- Interdisciplinary & experiential learning featured especially via VR simulations in clinical and laboratory settings, though the ROI of VR versus traditional methods warranted additional evaluation.
- Students consistently preferred blended approaches that combined technology-enhanced learning with face-to-face components, and valued viva voce assessments for cultivating broadly transferable discursive skills.
- Scaling innovative practices across disciplines was a key aspiration but remained largely untested due to short pilot durations; efforts to embed workplace placements were strongly favoured, even within brief courses.
- Many pilots integrated real-world case studies and work-based learning, highlighting an applied, context-driven approach to curriculum design and the centrality of practice-led learning.

### Recommendations

- Conduct ROI analyses comparing immersive VR simulations to established experiential learning methods to inform future investment and design decisions.
- Embed workplace and placement experiences within the full spectrum of course durations, including microcredentials.
- Foster deeper external collaborations through consortium initiatives, strengthening interdisciplinary perspectives in curriculum design and implementation.



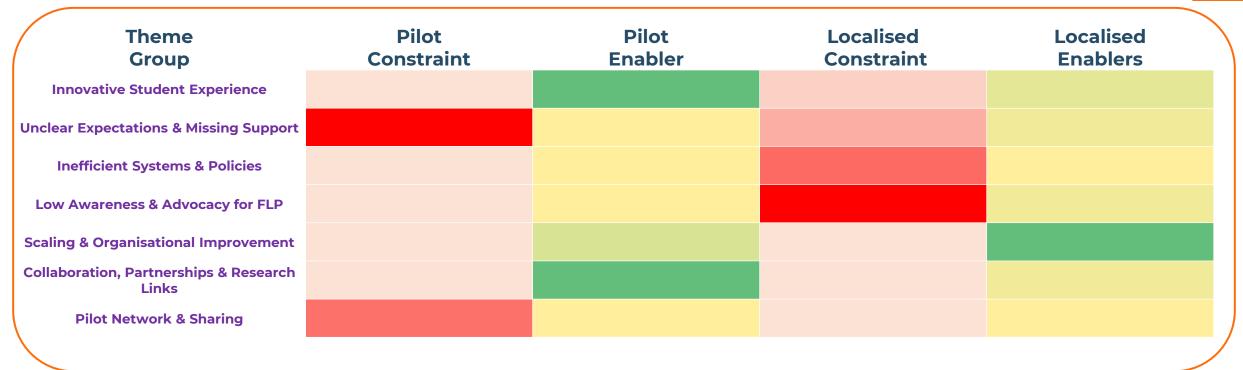


# **Section 2: Environmental Factors**



### **Environmental Factors**





# Context

- Environmental factors were collated via **semi-structured interviews** with all pilot leads. Interviews focused on the end-to-end experience of pilot delivery, collecting information on process, organisational dynamics and culture.
- Transcripts from the interviews were then **thematically coded** for core narratives and aggregated into groups of pilot **constraints and enablers** (within the remit of the Flexible Pilot Programme to influence or control) and constraints and enablers which exist within local university processes, practices and priorities

# Content

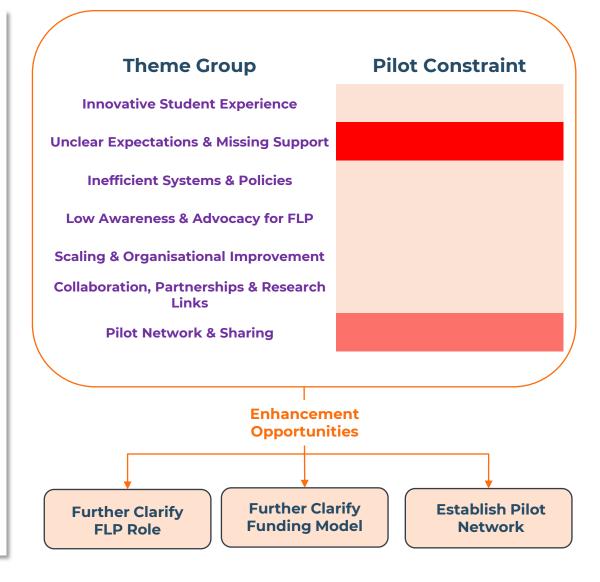
- ► The following section extrapolates on these quadrant areas, providing explanatory narrative on the aggregate findings, that extract key details that occurred across most pilot interviews.
- Each section also includes 3 strategic recommendations for enhancement, that would either seek to address the constraints or accelerate the enablers.



## Flexible Learning Pilot Constraints



- The primary environmental constraints at Pilot level were unclear expectations bookmarking at application/initiation and completion stages.
- There was a lack of clarity from Pilot Leads as to how the pilots were to be assessed at completion, and what constituted success. This indirectly influenced proposals and outcome strategies, including how they intended to measure outcomes.
- This also created confusion about whether the objective was digital innovation and experimentation, commercial scalability, or university/student impact.
- Related to this, there were differing expectations from pilots about the level of support to be provided by the FLP teams. Some saw the pilots as a grant funding model, while others expected more administrative, financial, or project management support. This resulted in varying degrees of disengagement or mismanaged expectations.
- While not necessarily a barrier, an area identified for improvement was the limited visibility most pilots had into other pilot activities, leads, or opportunities for cross-pollination. Many expressed a strong desire for a greater sense of community and improved information sharing, especially around challenging organisational policies like finance navigation.

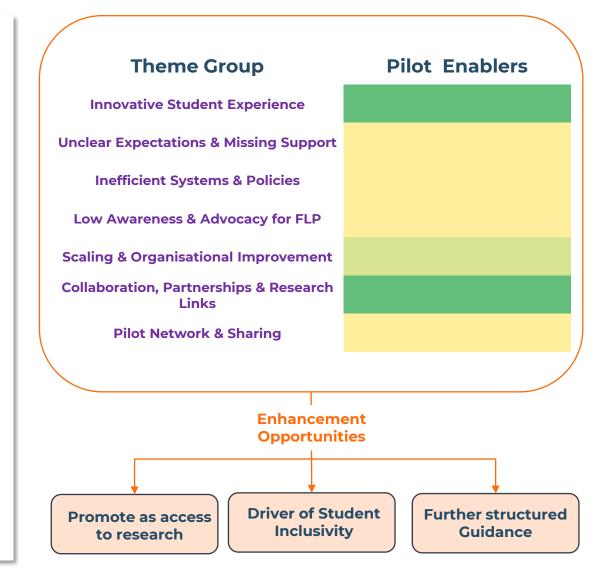




## Flexible Learning Pilot Enablers



- Two primary drivers existed at the individual and FLP level. The first was a clear desire to use the pilot programme to further, accelerate, or **expand research interests**. This often related to building on existing areas of enquiry or exploring new opportunities.
- Pilots frequently highlighted the benefit of being able to merge or transfer between **teaching and research pathways** and were very positive about the opportunity to take learnings from teaching into research potential. This was seen as a strong value add, likely to increase staff interest and engagement in future rounds, for those not already connected to research roles.
- ▶ Importantly, whether the focus was research, commercial aims, or organisational development, most noted that innovation in student experience remained a key driver. This was often associated with improving access and inclusivity. The motivation to enhance the student experience stood out during consultations, often ahead of purely research ambitions. Scaling successful pilots and highlighting student impact were viewed as ways to strengthen this key motivator.
- Overall, most pilots were complimentary about the support, guidance, and assistance from the FLP team. Many were keen to suggest improvements to existing FLP processes, such as more flexible governance and approvals tailored to pilot content, streamlining application processes, and **clearer guidance** for finance applications. It was also clear that the main process frustrations for pilots stemmed from broader institutional services.

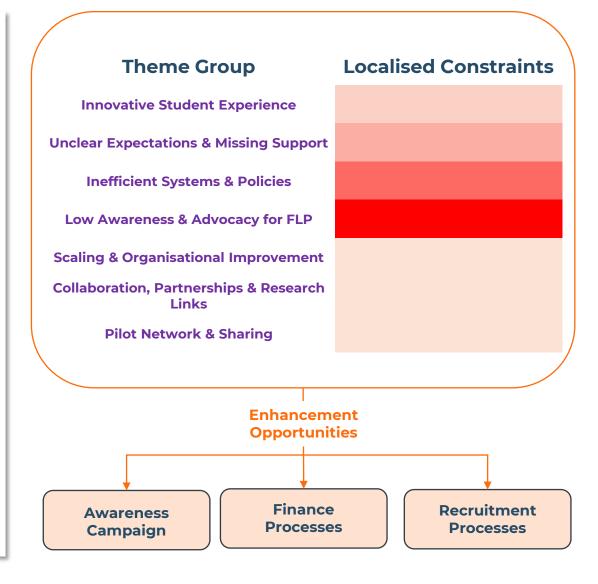




### **Localised Constraints**



- The two core localised barriers were systems and processes, and low levels of awareness and advocacy for FLP at the faculty/departmental level.
- Most system-related challenges were linked to cases where VLEs or teaching and assessment software were incompatible with digital innovation objectives, or where their limitations made it difficult to prototype new solutions. However, process-related issues emerged as the more dominant theme. The two processes highlighted above all others were finance and recruitment.
- Challenges with local finance processes resulted in significantly delayed payments, late disbursement of funds, limited clarity on who to contact internally, and a lack of guidance for individuals unfamiliar with setting up and managing finance codes. This led to high levels of frustration and, in some cases, a reputational risk due to late payments.
- Several pilots raised localised recruitment challenges, whether securing delivery, administrative or subject matter expertise. Issues were reported both in utilising PhD/student resources through existing recruitment processes and in delays experienced when contracting external support.
- The second major organisational barrier related to a lack of awareness and/or advocacy at the departmental or faculty level about the purpose and ambition of flexible learning, which often led to deprioritisation.

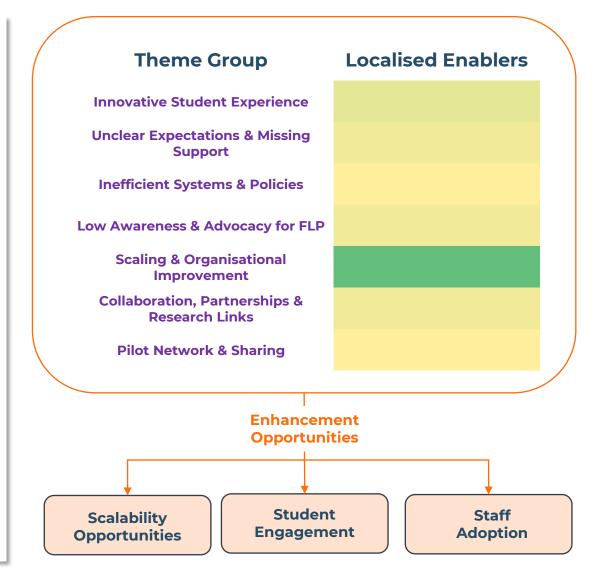




### **Localised Enablers**



- There was sustained interest across the pilots in how digital sessions, paired with in-person self-guided learning, helped prepare students for workplace skills and reduced the risk of technological overreliance.
- At the localised/broader organisational level, one key driver stood out above all others. While there was some investment in innovation for the student experience, and a focus on collaboration and research links, the main organisational driver was the **opportunity and motivation to scale the pilots.**
- Scalability was directly linked to organisational improvement. This included using digital innovation to boost productivity, increase personalisation of the student experience at scale, and identify technological enhancements that could significantly transform outcomes for students.
- Multiple pilots also highlighted motivators like staff upskilling, changes in attitudes and perceptions, usability of emerging technologies (especially AI) and facilitating staff and student mindset transformation.
- Pilots that expressed strong organisational motivation aimed to keep pushing for greater scalability and evaluation of their solutions, though much of this drive was self-motivated. Addressing these points in FLP outcomes and next steps could help leverage this strategic driver for many engaged with pilots.







# Section 4: Structural Alignment



# Framework for assessing structural alignment



To delineate the key elements of structural alignment, themes from pilot reports and interviews were systematically codified and weighted by recurrence, enabling us to identify the key structural enablers and barriers shaping delivery and scale.



### **Delivery Processes**

Operational support and resources available to enable pilots at pace and scale; identifies smooth enablers vs. bottlenecks.



### **Digital & System Landscape**

 Digital and technical systems that supported or constrained delivery; includes reliability, integration, and compatibility with pilot needs.



#### **Decision Structures**

 Governance and approval pathways that either enabled or delayed innovation; highlights timeliness, transparency, and bureaucracy



### **Opportunities for Expansion**

Potential to scale pilots based on lessons learned and institutional readiness; highlights feasible pathways and limits to adoption.

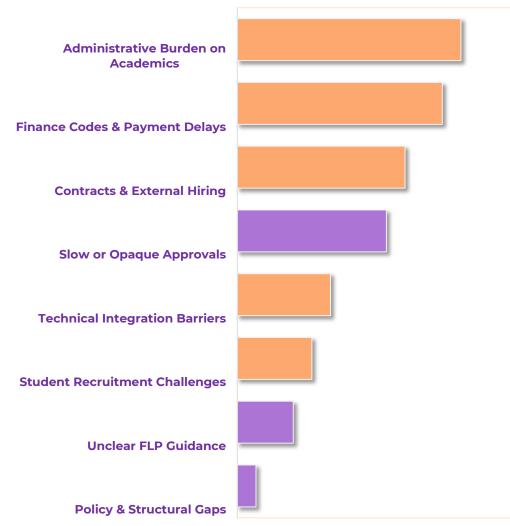


### **Structural Constraints Systems and Process Barriers**





Our evaluation coded barriers only where interviewees explicitly described them as constraints to delivery. Analysis brought forth two levels of barriers: deep-rooted University process and system challenges and narrower FLP-specific limitations..



#### **Contextual barriers**

- Administrative tasks were undertaken by pilot leads. In the absence of streamlined support, pilot leads were left to navigate procurement, finance, and reporting themselves.
- Finance processes were the most frequently cited as perceived challenge. Interviewees described six-month waits to set up finance codes, lack of understanding of point of contacts and process, repeated follow-ups to process invoices, and stalled payments to research assistants and consultants.
- Hiring interns, research assistants and casual staff was frequently delayed by complex HR protocols, visa restrictions and safeguarding requirements. These processes often prevented timely participation from both students and external contributors.
- Large-scale institutional changes, such as the Blackboard–Canvas migration, added dependencies outside of pilots' control and in some cases pushed timelines beyond the funded window.

#### **FLP-level barriers**

- Several interviewees felt funding rules were not always clear, citing uncertainty over eligible costs, budget caps, and the timing of fund release, which they said affected planning and timelines.
- Interviewees noted that FLP's role in delivery was limited. While the programme provided legitimacy and seed funding, day-to-day navigation of finance and HR processes was seen to remain largely with Pilot Leads.
- A number of pilots reflected that there was no structured pathway beyond the pilot. While delivery was supported, they felt there were limited mechanisms for evaluating outcomes, showcasing findings, or linking into institutional adoption routes.



### Structural Enablers Effective Systems and Process





Our evaluation drew on pilot lead interviews and a review of completion reports. We coded enablers only where interviewees explicitly attributed success to FLP structures or motivations, rather than to workaround efforts or individual persistence. This process surfaced two distinct layers:



#### **FLP-specific enablers**

- Interviewees consistently highlighted the importance of seed funding, which provided the initial resource and legitimacy to test new approaches that would otherwise not have been possible.
- The application process was perceived as proportionate, with a light-touch entry point that lowered barriers and encouraged participation from diverse teaching staff and professional staff.
- Several pilots valued the platform FLP created, noting that it signalled institutional support for innovation and opened opportunities to connect with wider networks.

#### **Contextual Enablers**

- Some pilots benefited from access to project managers, e-learning specialists, or administrative colleagues who helped reduce the load of procurement, recruitment, and technical setup.
- Collaboration with external partners including other universities, industry providers, and consultants brought in specialist expertise and credibility, enabling pilots to move faster and achieve wider reach.
- Recognition beyond departments, through conference presentations, policy discussions, or publications, reinforced the value of teaching innovation and supported momentum for adoption.



### Structural Alignment Key Takeaways





The largest barriers are rooted in a combination of localised and University processes rather than pilot ambition. Pilots have delivered an opportunity to raise and consider future adjustments to facilitate similar internal programmes.



### Leverage FLP insights to inform institutional reform

- Use FLP lessons to highlight gaps in rules, guidance, and administrative processes.
- Share outputs and recommendations to build visibility and strengthen advocacy for systemic improvements.



### Inform pathways for adoption and scale

- Build evaluation and dissemination routes so pilots can embed and grow.
- Convene cross-departmental discussions using pilot evidence to connect innovation with mainstream curricula.



Drawing on insights gained from the FLP pilots, the university can make meaningful institutional reforms by streamlining systemic processes to better protect staff time, and empower similar initiative leads to deliver on innovation opportunities.

### Highlight need to streamline systemic processes

- Pilot findings pointed to the need to simplify and align siloed finance, HR, and procurement systems.
- Streamlined systems would reduce delays, protect staff time, and avoid reputational risks.

### Reinforce central alignment of priorities

- Pilot outcomes emphasised the importance of coordinating with wider institutional initiatives (e.g., VLE migrations).
- Clear alignment would safeguard scalability and prevent competing priorities from derailing progress.







# **Section 5: Outcomes**



# **Evaluating Outcomes Evidence of Impact**



Pilots demonstrated strong delivery and consistent benefits, with student experience at the core and clear signs of innovation in teaching and staff efficiency -closely aligned with FLP's intended outcomes



#### **Outcomes Delivered**

- 20 pilots reviewed 60% fully delivered, 40% partially delivered.
- Even partially delivered pilots demonstrated benefits but often required more time or budget to meet all intended outcomes.



#### Student Focused Pilot Outcomes

- Most projects targeted improvements to student confidence, satisfaction, and engagement.
- These outcomes consistently matched FLP's stated benefit areas



#### Teaching innovation signals

- Pilots trialled VR, AI, new assessment formats, and microcredentials.
- release for staff and clearer guidance/templates—not finalised impact—mapped to FLP's Innovation in T&L and Staff Experience themes.



# **Evaluating Outcomes Framework**



In evaluating pilot outcomes, we focused on identifying key benefit areas aligned with the FLP strategy and benefits framework. Completed projects were assessed against their original business case objectives to determine whether they were fully or partially delivered. Evidence was drawn from completion reports and supplemented with semi-structured interviews to capture delivery nuances and system challenges. The findings were coded and grouped to highlight recurring patterns, opportunities for scaling, and the strategic alignment of pilots with institutional priorities.











Student Experience

Accessibility & Inclusions

Staff Experience

Innovation in Teaching & Learning

Organization Development

- Enhancing student satisfaction, confidence, and learning outcomes.
- Expanding flexible and authentic study options

- Reducing barriers to participation for all learners.
- Embedding inclusive design in content, spaces, and delivery.
- Supporting staff capability, confidence, and wellbeing.
- Introducing new tools, approaches, and collaborative practices.

- Piloting new pedagogies, technologies, and assessment models.
- Creating scalable and reusable approaches to teaching.

- Developing structures, governance, and processes to sustain flexible learning.
- Integrating pilots into curriculum and institutional practice.



# **Delivering Against Key Objectives**



Pilot delivery was assessed based on completion status and alignment with intended objectives, highlighting **both achievements and areas requiring extended timelines**, budget or resource to fulfil identified objectives



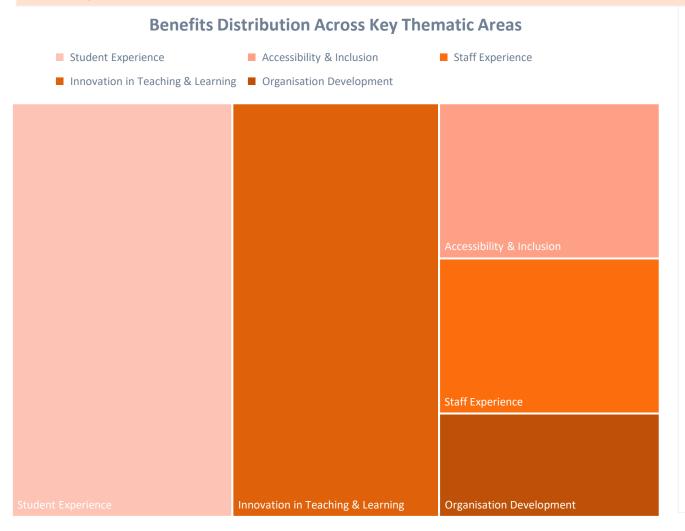
- **60% of pilots were fully delivered**, achieving all stated objectives within the pilot timeframe.
- **40% were partially delivered**, meeting core aims but with some outputs delayed or reduced in scope.
- Partial delivery was often linked to **student recruitment and engagement challenges** that limited pilot reach.
- Staffing and resourcing constraints also reduced the scope or pace of delivery in several cases.
- Some projects required **technical refinements or integration work** that extended beyond the pilot period.
- In other cases, **evaluation timelines continued into 2025**, with feedback and outcomes still in progress.
- Importantly, all partially delivered pilots **evidenced benefits in at least one FLP thematic area**.
- Overall, the portfolio demonstrates strategic alignment and forward momentum, with partially delivered pilots best understood as "in progress" rather than incomplete.



# **Benefits Alignment Key Themes**



Pilot outcomes were coded against FLP benefit themes, revealing strong contributions to student experience and innovation in teaching and learning as key target thematic areas.



- Our evaluation analysed the outcomes of all pilot completion reports and coded them against the benefit areas set out in the FLP framework.
- This mapping demonstrates that the pilots strongly contributed to the intended strategic objectives, particularly in the areas of Student Experience and Innovation in Teaching & Learning.
- The pilot portfolio focused on driving student experience but also built institutional capacity and staff capability
  - Student Experience: Improved satisfaction, confidence, engagement, flexibility of study.
  - Innovation in Teaching & Learning: VR, AI, digital twins, new assessments, co-created resources.
  - Accessibility & Inclusivity: Dual delivery models, inclusive design, remote access, neurodiverse support.
  - **Staff Experience**: Professional development, confidence with new tools, reduced burnout, productivity
  - Organisational Development: Potential inputs models for governance, curriculum integration, and scalable resources.



# **Deep-Dive: Student Outcomes**



Pilots evidenced that flexible, immersive, and inclusive approaches towards delivering teaching, **Student-focused pilots showcased immersive, flexible, and inclusive approaches** that enhanced engagement, confidence, and participation.

- Immersive and simulation-based formats (e.g., virtual consultations, digital labs) were trialled to enhance confidence and preparedness.
- Flexible delivery models such as blended, dual-delivery, and asynchronous formats aimed to deliver greater choice in how to engage.
- Alternative assessment methods (oral tasks, continuous assessment, viva voce) were piloted to develop broader skills beyond written outputs.
- Digital onboarding and support hubs were created to smooth student transitions, onboarding and integration into the University.
- Micro-credential and modular approaches tested scalable formats for professional learners and global audiences.
- Co-created and interactive resources were developed to increase engagement and personalise the learning experience

- Inclusive content design applied accessibility standards and adapted formats for diverse learning needs.
- Remote and digital-first options expanded access for commuters, placement-constrained, and distance learners.
- Assistive technologies and digital tools supported neurodiverse students and those requiring alternative formats.
- Culturally tailored and multilingual resources improved access for international and ESOL learners.
- Pre-arrival bridging resources were created to support equitable participation from the outset.



# Deep - Dive Staff, Innovation & Org. Development



Pilots supported staff development, **introduced innovative teaching practices, and tested scalable models** for organisational improvement. Pilots also trialled immersive formats like VR and AI-enabled assessment, developed resource hubs, and laid the groundwork for curriculum integration and governance models to sustain flexible learning..

# Pilots supported professional development and digital capability, helping staff adapt to new platforms and pedagogies.

- New tools and approaches provided efficiency gains in marking and feedback, particularly for less experienced staff.
- Co-creation and collaborative methods promoted greater staff engagement and ownership of flexible learning.
- Overall, staff-focused activity contributed to confidence, wellbeing, and readiness for innovation

### Pilots tested immersive and technology-enabled formats such as VR, AR, and digital simulations to enrich teaching.

- Al-enabled tools were trialled in teaching and assessment, exploring opportunities for personalisation and efficiency.
- Alternative assessment models (oral, continuous, scaffolded) were introduced to broaden learning outcomes.
- New course formats, including asynchronous micro-credentials, demonstrated pathways for scalable delivery.

### Pilots explored database and resource hub models as mechanisms to manage learning assets and streamline student support.

- They tested approaches for embedding flexible learning into curricula, including interdisciplinary modules and new induction pathways.
- Several projects highlighted the importance of clear ownership and governance to sustain digital resources beyond the pilot phase.
- Early communities of practice formed around emerging themes such as AI in teaching, indicating potential for institutional networks.



# Scalability & Strategic Fit of Pilot Outcomes



Pilots align with FLP strategy and future learning trends, and they evidenced potential for improving efficiency and effectiveness across the University. Yet, without defined pathways for institutional adoption, scalability and strategic fit remain fragile. Without **targeted interventions** — **ownership, resourcing, and integration mechanisms** — pilots risk staying as isolated proofs of concept rather than embedded levers of institutional change.

Figures include fully and partially delivered pilots (n=20)

> 60% of pilots voiced ambitions to scale, however most pilot leads voiced lack of pathways for wider embedding

> 50% pilot leads voiced concerns —around visibility of funding to continue pilot, lack of support, or reliance on individual champions.

> 30% pilots evidenced early institutional socialisation and embedding (e.g. student onboarding hubs, micro-credential courses, Immersive Learning).

#### What is the scalability potential of FLP funded pilots?

- Several pilots produced outputs were planned to extend beyond their immediate scope. Immersive learning simulations, for example, were intentionally developed with transferability in mind, and digital primers were structured for repurposing across multiple disciplines.
- In most cases, however, scalability was framed as aspiration rather than concrete plan. Pilots relied heavily on local champions, goodwill, or informal networks to suggest further roll-out. Without central pathways, ambitions for replication remained dependent on individual initiative.
- Where scaling advanced, it was because projects aligned with existing institutional structures for example, feeding into faculty strategies, programme reviews, or research agendas. These cases suggest that scaling succeeds when pilots "plug into" institutional boundaries rather than standing alone.

#### Are the benefits embedded for long term impact?

- Strategic fit and long-term embedding emerged as key questions– though there were outputs that could be sustained (such as micro-credentials developed, or immersive learning simulations for the specific course), While FLP provided seed funding and platform to bring the business case to life, few pilots highlighted that outputs would not persist or get embedded without continued resource, senior intervention, staff time, or ongoing funding support.
- Interviewees noted that once pilots concluded, responsibility for maintaining resources or embedding practices was unclear. For example, digital content developed under pilots had no designated owner for updates, and staff expressed concern about innovations "withering on the vine."
- Where stringer strategic fit was identified, it was because interviewees identified the need for dedicated central teams or structures (e.g. a VR support hub, a cross-university immersive learning network). These were framed as necessary preconditions for embedding innovations long term.





# Appendix a: Fund Model Design



# Pilot grant funding provided flexibility and autonomy, however alternative options can equally balance this with more adaptive support and structure



While messaging remained consistent and clear, some pilots encountered challenges that prompted a preference among leads for a more structured and facilitated approach. Regarding funding models, additional options are available that could offer increased guidance and structure, although these would also require greater resource allocation.

### **Grant Model**

- FLP staff act mainly as a funding body, with involvement limited to onboarding, closure, and risk/compliance escalations.
- Pilot teams manage delivery, resources, and stakeholders independently; no routine project or advisory support from FLP staff.
- FLP support is triggered only for significant operational, financial, or compliance risks.
- No additional FLP resources provided beyond grant; external expertise must be secured within budget by pilot leads.
- Standardised reporting at project end, assessed strictly against approval criteria; no follow-up or ongoing FLP feedback.

# **Adaptive Support Model**

- FLP staff provide structured onboarding, closure, and light-touch support
- Pilot teams retain primary responsibility for delivery, resource management, and stakeholder engagement
- Standardised templates are designed and made available for Pilots but are not prescriptive. These include information and guidance on core research project activities such as finance & recruitment
- FLP facilitates peer learning events or clinics at set intervals, enabling knowledge sharing without fully embedding advisory staff on every pilot.
- External expertise or additional resources beyond standard guidance must be planned for within each pilot's budget.

### **Enabled Model**

- Integrates financial support, structured guidance, and tailored resources
- Combines grant allocation with direct guidance and operational support
- Dedicated templates and workflow tools support consistent project setup, milestone tracking, and financial stewardship.
- FLP teams proactively support pilots in navigating institutional systems and onboarding, offering tailored interventions where required.
- FLP delivers guidance, training, and resources for upskilling pilots in areas relevant to project delivery and cross – departmental integration.





# **Innovation Fund Recommendation**



The following slides present recommendations for the future funding model of Flexible Learning Pilots. The first model envisions FLP operating solely as a funding or grant-awarding entity. The second model incorporates additional features of an Enabled delivery approach, providing both financial support and structured programme engagement.

### **Iterative Funding Release**

Funding should be distributed in sequential phases, regardless of the selected FLP funding or delivery model.

#### **Pilot Learning as Funding Driver**

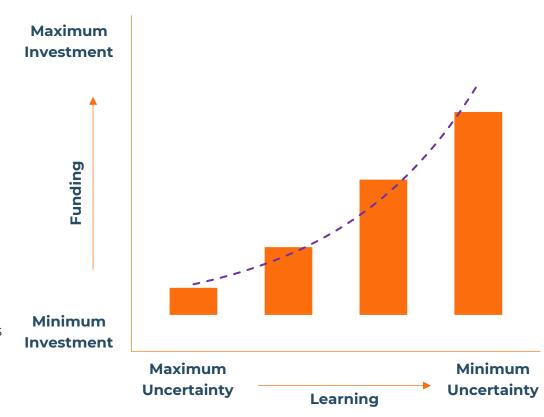
Funding decisions should be informed by the progress and learning achieved by each pilot, rather than predetermined schedules. Lessons learned and validation evidence should directly trigger subsequent resource releases.

#### **Uncertainty Reduction**

Release of future funds should be based on improved clarity regarding the pilot's potential for commercial viability, scalability, implementation feasibility, or research impact.

#### **Integrated Shutdown Mechanism**

Pilots should operate under a smart shutdown protocol. Funding releases are tied to achievement of validation criteria, not fixed timeframes, allowing for maximum insight gained before cost outweighs likely insight/application.





# Value Vs. Cost Smart Shutdown



Smart shutdown pilot projects allocate funding at defined milestones, contingent upon the realisation of new learning regarding the scalability, implementation, and transferable value of pilot outputs (as opposed to outcomes). Pilots can be customised to align with the University's strategic objectives but, as a standard, should at minimum address the following areas:

#### **Problem Validation**

- ▶ Does the pilot address a clearly defined student or staff need, or present a credible opportunity to enhance the student experience or staff effectiveness?
- ► Is the identified issue or opportunity substantial enough to warrant institutional investment?

#### **Solution Validation**

- ▶ Does the pilot solution provide significant enhancement or acceleration in student experience, access, educational outcomes, or in staff efficiency, digital capability, or ways of working?
- ► Is the solution actionable, achievable, and likely to deliver a competitive institutional advantage?

#### **Output Validation**

- ► Is the proposed output sustainable, ensuring ongoing relevance and ease of maintenance?
- ▶ Do intended users perceive this output as essential ("must-have") rather than merely desirable?
- Can end-users clearly articulate the distinct value or impact of the pilot solution?

#### **Institutional Validation**

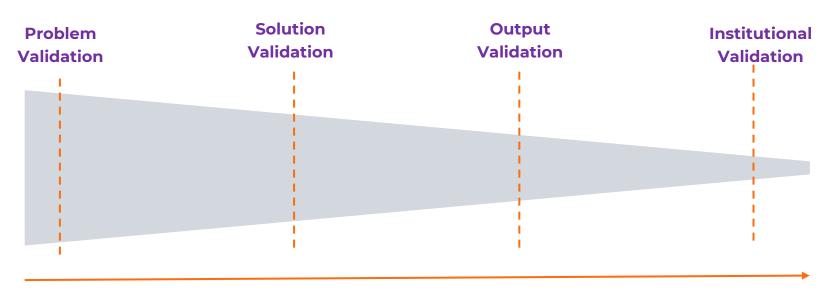
- Does the University possess (or can it feasibly acquire) the technology and skill base necessary for financial viability?
- What are the projected costs and risks associated with scaling the solution across the institution?
- ► Is there a credible path to sustainability or return on investment?



# **Innovation Fund Pipeline**



If the University were to implement this approach to pilot funding, it would enable a targeted strategy that supporting a **high volume of experimentation and exploration** while proceeding with only a limited number of **scaled deployments**.



Pilots closed and insight collected as viability validation is accessed at key junctions

- ▶ This method would help manage expectations, lessen funding burdens, and empower the FLP to **maximise insight and learning**.
- Funding could then be discontinued at appropriate points, particularly when the anticipated learning or outputs no longer justify continued investment or when diminishing returns are observed.
- This pilot pipeline model would deliver a focused portfolio of pilots with implementable outputs to drive staff and student impact.





# **Appendix b: Market Trends**

Market Direction, Capabilities to Invest in & Risks on the Horizon across identified innovation Themes



# **Market Context for HE Innovation**



The Higher Education sector is getting shaped by a dynamic interaction of technology, pedagogy, regulation, and strategic investment. Success requires focus beyond technology adoption to foundational enablers future proofing Universities and driving them towards the North Star.



#### Talent and governance are key priorities:

Faculty development, AI oversight, and digital literacy underpin successful tech adoption and institutional transformation.



#### Mainstreaming immersive & AI technologies:

VR/XR and gen AI shift from novelty to necessity—but only when integrated with course design and assessment strategies.



### **Regulatory rigor intensifies:**

Emerging policies demand transparent, risk-managed Al use, with student data privacy as a critical mandate.



#### Investment shifts to measurable impact:

Funding favours pilots with built-in pedagogy focus, clear guardrails, and outcomes aligned to strategic innovation themes.



# **Macro Trends Reshaping HE Innovation**



#### **Economic**

- Increased focus on ROI and measurable outcomes
- Universities to prioritize pilots with clear business cases and quantifiable impact.

#### **Social**

- Inclusive design remains essential in response to multiple student "polycrises" impacting engagement and outcomes.
- Al transforms study patterns and cognition, shifting investment focus from detection to digital literacy and authentic assessment redesign



# **Technological**

- VR/XR capabilities expand and become more affordable, fueling democratization of immersive learning.
- Institutions prioritize scalable, reusable XR content, especially where physical lab and placement access is constrained.

### Regulatory

- Uncertainty around AI persists, driving adoption of risk-based frameworks protecting privacy, IP, and integrity.
- Regulatory bodies expect clear, transparent AI policies and courselevel guidance to ensure ethical and compliant use.





# **Appendix c: What Innovation Looks Like**

Market Direction, Capabilities to Invest in & Risks on the Horizon across identified innovation Themes



# 1. Digital Pedagogy



### **HE Landscape: Where are we headed?**

- The sector is evolving from technology adoption to critically reshaping teaching relationships.
- Al, VR, and other tools support transformed knowledge co-creation, not just content delivery.
- Leading institutions embed digital literacy, Al use policies, and redesign assessments for staff integrity in the Al era.
- Staff development increasingly prioritises active learning and reflective practice that align pedagogy and technology

# Where are HE institutions investing to build capabilities?

- Institutional AI and digital use policies integrated into curriculum design.
- Structured staff development focused on assessment innovation and critical digital literacy.
- Embedding student outcomes that cultivate critical navigation of digital technologies.

- Over-reliance on AI risks undermining critical thinking.
- Lack of clear institutional policies causes inconsistency and confusion.
- Technology use without reflective redesign can leave pedagogy unchanged.



# 2. Technology Enhanced Instruction



### **HE Landscape: Where are we headed?**

- Technology-enhanced instruction focuses on using digital tools to optimize and augment existing teaching practices without fundamentally altering pedagogy.
- The sector widely adopts Al-assisted feedback, simulation, and VR for practical skill development, showing effectiveness when supported by instructional design and technical reliability.
- Evidence from leading institutions highlights gains in quicker feedback, improved competency outcomes, and alleviation of lab or placement bottlenecks.
- The theme centers on enhancing operational teaching effectiveness rather than pedagogical transformation or learner pathway flexibility.

### Where are HE institutions investing to build capabilities?

- Investment in AI-powered feedback systems with human oversight to improve accuracy and trustworthiness.
- Development of shared XR (Extended Reality) scenarios with effective AV infrastructure and technician support.
- Strong cybersecurity protocols protecting classroom tech and data workflows.
- Staff training focused on integrating tech to reliably augment rather than replace instructional delivery.

- Technology procurement without design alignment risks limited educational impact.
- Overdependence on automated Al outputs may compromise assessment integrity.
- Inconsistent technical support and unreliable infrastructure hinder effective use and adoption.
- Some initiatives yield lower than expected enhancements to student experience or learning outcomes.



# 2. Flexible Delivery Models



### **HE Landscape: Where are we headed?**

- The sector is rapidly shifting toward flexible learning paradigms that empower students with choice over when, where, and how they study.
- Hybrid, HyFlex, and blended models are emerging as the new normal, driven by student demand for autonomy and the need for institutions to expand access and resilience.
- Flexible models combine synchronous and asynchronous delivery, supported by robust digital infrastructure and inclusive design, to balance engagement with accessibility.
- Modular learning pathways, though distinct from digital pedagogy, underpin flexibility by

# Where are HE institutions investing to build capabilities?

- Design and implement robust hybrid and HyFlex delivery frameworks balancing synchronous and asynchronous methods.
- Invest in reliable infrastructure and technical support scalable for flexible operations (timetabling, staffing, and room technology).
- Establish clear policies on credit transfer, recognition of prior learning (RPL), and accredited micro-credential pathways.
- Embed learner support and proactive coaching informed by data analytics to ensure equitable flexibility.

- Providing flexibility without adequate learner support risks widening attainment and engagement gaps.
- Ambiguity in credit recognition and transfer policies limits uptake and progression.
- Operational challenges such as room and staffing reliability hinder consistent flexible delivery.
- Failure to balance synchronous and asynchronous elements reduces learner engagement and satisfaction



# 4. Learning Analytics and Personalisation



### **HE Landscape: Where are we headed?**

- Learning analytics is maturing from dashboard reporting to actionable, personalized insights that drive tailored learning experiences and decisions.
- Hyperpersonalisation is emerging as a key trend, using Al and real-time data to dynamically adapt learning pathways, communications, and support at an individual level.
- UK institutions increasingly adopt ethical codes promoting transparency, consent, and positive, equitable interventions aligned with sector standards.
- The focus is embedding workflows that convert data signals into timely, context-aware actions by staff or students, ensuring insights lead to impact.

# Where are HE institutions investing to build capabilities?

- Governance models ensuring ethical, transparent data use aligned with codes of practice (e.g., Jisc Code of Practice).
- Development of signal-to-action workflows with clear responsibility and defined service level agreements (SLAs).
- Deployment of hyperpersonalised tools enabling real-time adaptive learning paths and tailored nudges for students and staff.
- Mechanisms to collect and act on staff and student feedback on analytics usefulness and fairness.

- Analytics-action gaps undermine value where insights are not operationalised timely or effectively.
- Under-resourced advising teams and ambiguous workflows limit intervention effectiveness.
- Al-driven hyperpersonalisation risks over-targeting or bias without rigorous equity reviews and human oversight.



# 5. Interdisciplinary and Experiential Learning



### **HE Landscape: Where are we headed?**

- Interdisciplinary learning emphasizes structured collaboration between faculties and partnerships with industry stakeholders to co-design authentic, project-based learning experiences that bridge theory and real-world practice.
- Institutions are investing in dedicated interdisciplinary spaces (XR labs, makerspaces) and embedding workbased placements, internships, and co-supervised projects in curricula.
- Experiential learning frameworks prioritise reflection, inclusivity, and tangible outputs such as prototypes, startups, or public showcases.
- This approach prepares graduates for complex global challenges requiring cross-sector and cross-disciplinary problem solving.

### Where are HE institutions investing to build capabilities?

- Credit-bearing placements and co-supervised projects integrated into interdisciplinary curriculum design.
- Creation of open-access studios and labs facilitating collaboration across internal departments and with external partners.
- Strong partnerships with employers to embed authentic experiential learning with clear outcomes and measurable impact.
- Support frameworks for reflective, inclusive pedagogies recognising diverse experiential learning pathways.

- Standalone boutique projects risk limited scale and institutional integration.
- High costs and access barriers for immersive technologies require pooled resources, sharing, and skilled support.
- True interdisciplinarity can be compromised by superficial collaboration constrained within disciplinary silos.
- Experiential components risk being marginalised without clear recognition and integration..





# **Appendix d: Benchmarking Innovation themes** across Peers



# **ASU Innovation in Education: Thematics**



ASU has significant investments in **progressing flexible and technology led learning** across the identified sub themes. Its Dreamscape Learn VR labs are a flagship example showcasing immersive learning's impact on STEM education.

### **Digital Pedagogy**



ASU faculty use active, asynchronous online teaching—students access labs and course material flexibly, engage in problem-solving missions, and interact through multimediarich digital platforms designed by EdPlus.

#### **Technology Enhanced Instruction**



Dreamscape Learn VR labs are embedded as required modules in Biology 181 and 182. Immersive learning experience driving higher grades (90–94%), a 1/4 grade improvement in advanced courses, and increased STEM retention across more than 4,000 students.

#### **Flexible Delivery Models**



 ASU Online delivers flexible, multi-modal learning through synchronous and asynchronous formats and stackable online degrees, backed by robust digital infrastructure and learner support.

#### **Learning Analytics and Personalisation**



 ASU employs Al-driven learning analytics to personalize pathways and instructional strategies, supported by the Professional Educator Learning Hub and data-informed faculty development.

### **Interdisciplinary and Experiential Learning**



 Innovation districts including SkySong and Novus foster cross-sector collaboration, enabling interdisciplinary projects and scalable experiential learning beyond traditional settings.

### **Dedicated Spaces**

- SkySong Innovation Center: 1.2 million sq ft innovation campus
- Novus Innovation Corridor: 350-acre mixed-use innovation district
- MIX Center: immersive media and XR development hu

### **Mapping to Innovation Themes**

- 1.1: Active, async teaching; multimedia; engagement (4 Advanced)
- 1.2/1.5: Dreamscape VR labs; interdisciplinary XR (5 -Leading)
- 1.3: Flexible online programs; microcredentials (5 -Leading)
- 1.4: Al personalization; faculty development (4 -Advanced)



# **Evidence and Rationale: ASU's Mapping**



#	Theme	Rating	Evidence	Why this rating?
1	Digital Pedagogy (1.1)	Advanced	<ul> <li>Active, asynchronous teaching using EdPlus-designed courses adopted at scale.</li> <li>High learner engagement and satisfaction based on student surveys and participation rates.</li> </ul>	<ul> <li>Broad faculty and student buy-in, strong support systems, but not yet universal transformation of all courses across the institution.</li> </ul>
2	Tech-Enhanced Instruction & Interdisciplinary (1.2/1.5)	Leading	<ul> <li>Dreamscape Learn VR labs mandatory in STEM curriculum; &gt;4,000 students in 2-year, multi-cohort study.</li> <li>Statistically significant improvements in grades and STEM retention; supported by innovation hubs (MIX Center, SkySong).</li> </ul>	<ul> <li>ASU integrates immersive tech and interdisciplinary projects at institutional scale, with external peer-reviewed outcome evidence and dedicated infrastructure.</li> </ul>
3	Flexible Delivery Models (1.3)	Leading	<ul> <li>Multi-modal online programs (synchronous/asynchronous, degrees, microcredentials) delivered at scale.</li> <li>Strong technical infrastructure supports personalized pacing and wide student access.</li> </ul>	<ul> <li>ASU demonstrates sector-leading flexibility and access, with broad integration and enterprise-level support for diverse study models.</li> </ul>
4	Learning Analytics & Personalisation (1.4)	Advanced	<ul> <li>Al-powered personalized learning and analytics workflows implemented for faculty and students.</li> <li>Professional Educator Learning Hub provides real-time analytics and adaptive support for teaching.</li> </ul>	<ul> <li>Continuous analytics and personalization are advanced but not yet end-to-end automated for all learners; progress is strong but evolving.</li> </ul>
5	Governance & Policy	Leading	<ul> <li>Curriculum mandates and staff oversight ensure program credibility and sustainability.</li> <li>Independent, scholar-led evaluation (ASU Action Lab), ethical review, and external recognition (Edison Award).</li> </ul>	<ul> <li>Strong evidence of robust, institution-wide governance, rigorous evaluation, and sustained strategic investment ensures scale and credibility.</li> </ul>



# **Leeds University Innovation Thematics**



Leeds University is **advancing flexible and technology-enhanced learning** through its Digital Education Service, supporting inclusive blended and online education with growing innovations in digital pedagogy and immersive pilot projects..

### **Digital Pedagogy**



• Faculty co-develop digital and blended courses, leveraging multimedia, interactive content, and accessible design via the Digital Education Service.

Online programs incorporate microcredentials and inclusive pedagogies to support diverse learners.

#### **Technology Enhanced Instruction**



• Blended learning classrooms equipped with XR/VR tools enable immersive experiences. Leeds partners with Meta and VictoryXR on digital twin campus projects and immersive tours enriching learner engagement and context

#### **Flexible Delivery Models**



· Multi-modal options including synchronous, asynchronous, and learner-paced formats with stackable certificates and degrees allow adaptability. The SOUL framework facilitates project-based learning integrated into flexible curricula

#### **Learning Analytics and Personalisation**



• Real-time learning dashboards and AI analytics inform teaching strategies and personalize student feedback, supported by the Professional Educator Learning Hub and active research into learning data use

#### **Interdisciplinary and Experiential Learning**



Innovation districts and student-led XR showcases foster cross-sector collaboration, embedding experiential learning and employability skills development across the curriculum



# **Evidence and Rationale: Leeds Mapping**



#	Theme	Rating	Evidence	Why this rating?
1	Digital Pedagogy (1.1)	Established	<ul> <li>Comprehensive, collaborative digital course design and delivery through Digital Education Service</li> <li>Includes fully online degrees, certificates, and media-rich course support</li> </ul>	<ul> <li>Solid, professional service with growing reach but not fully embedded across all faculties; evolving institutional adoption.</li> </ul>
2	Technology-Enhanced Instruction (1.2)	Developing	<ul> <li>Blended classrooms with evolving digital tool use including Panopto and Minerva LMS</li> <li>Emerging immersive pilot projects with XR tours, no large-scale curriculum integration</li> </ul>	<ul> <li>Pilot-stage immersive tech deployments;</li> <li>limited scale and impact evidence compared to mature institutional adoption.</li> </ul>
3	Flexible Delivery Models (1.3)	Established	<ul> <li>Multi-modal learning pathways with SOUL framework supporting modular learning and credit accumulation</li> <li>Learning platforms and support infrastructure enable flexible student progression</li> </ul>	Established flexible options but full application across all programmes and integrated learner analytics remain in progress.
4	Learning Analytics & Personalisation (1.4)	Deveoping	<ul> <li>Usage of analytics dashboards and digital assessment innovation backed by faculty development and research</li> <li>System-wide adaptive personalisation and Al-unified analytics are developmental</li> </ul>	Early adoption phase with foundational tools; comprehensive learning personalization and automation are aspirations under active work.
5	Interdisciplinary & Experiential Learning (1.5)	Established	<ul> <li>Innovation hubs and XR showcases encouraging interdisciplinary, experiential projects with industry relevance</li> <li>Institutional scale and longitudinal impact data are still emerging</li> </ul>	<ul> <li>Developing experiential learning infrastructure; maturing interdisciplinary integration and evaluation underway, not yet fully embedded.</li> </ul>





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