

DIGIT Lab

Phase 0 Review

**Digital Innovation to Accelerate
Growth, Impact, and Transformation**

**A Next Stage Digital Economy Research Centre
providing research insights, knowledge
frameworks, and practical techniques to
accelerate digital transformation in the UK.**

9th November 2021

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The logo for DIGIT LAB, featuring the word "DIGIT" in white on a dark blue background, followed by "LAB" in a stylized, multi-colored font (red, orange, yellow, green, blue) that appears to be made of overlapping, curved shapes.

DIGIT LAB

DIGIT Lab – Digital Innovation to Accelerate Growth, Impact, and Transformation

DIGIT Lab is an EPSRC Next Stage Digital Economy Centre delivering a 5-year research programme backed by £12.4M in funding. It works with Large Established Organizations (LEOs) to understand barriers to productivity improvements through digital transformation using responsible and sustainable approaches to innovation. Started in March 2021, this report summarizes the initial 6-month activities (Phase 0) of this programme .

Introduction

The DIGIT Lab is delivering an ambitious research programme investigating a key question for the future of the UK Digital Economy:

Can Large Established Organizations drive Digital Innovation, Growth, Impact, and Transformation to increase productivity and deliver value while addressing employee well-being and meeting the rising expectations of our society?

The original proposal for the DIGIT Lab was developed and submitted for funding in 2019 and approved following a rigorous selection process in early 2020. However, due to circumstances exacerbated by the Covid-19 outbreak, approval for delivery was delayed. Eventually, the DIGIT Lab funding was released at the end of 2020 and the centre was initiated in March 2021.

Phase 0 Focus

Facing these delays and the challenge of beginning this ambitious programme in the midst of a global pandemic, the leadership team for the DIGIT Lab embarked on an immediate review of the proposed timetable, milestones, and approach to delivering on its objectives. In light of this, it was decided that the most appropriate way to proceed was to use the first 6 months of the programme as a “Phase 0” period to conduct a broad review of the activities to be undertaken with three key aims:

1. Determine the impact of the Covid-19 pandemic on the context, challenges, and opportunities for digital transformation in LEOs.

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2. Reassess the operational environment facing the academic and industry partners to optimize the execution of the programme within these constraints.
 3. Organize and prioritize the work to be undertaken for optimal impact in the emerging post-pandemic environment.

This report provides an overview of the work undertaken in DIGIT Lab Phase 0, explores the implications of this work for the future of the DIGIT Lab's activities, and makes several broader observations on the current state and future directions for research in the digital transformation of LEOs in these challenging times.

Background

From our previous DE research, and in discussion with our partners, what emerged was a fundamental challenge: to reimagine Large Established Organizations for the digital age. Beyond “digitizing” current products and practices, LEOs face several critical dilemmas: How to direct their digital transformation efforts to deliver greater value while learning more about products and services in use; When to compete by sharing and cooperating in ecosystems rather than directly challenging others entering their market; Where to prioritize the drive for efficiencies through automation without dehumanizing the workplace; How to structure digital delivery activities to be flexible and agile while ensuring employee wellness to create a workforce that is engaged, included, and supported.

With this context, the DIGIT Lab defines a comprehensive research programme building on over £10M of previous DE research investment conducted by the team to create a Next Stage Digital Economy Research Centre with the aim to:

1. Integrate previous results by bringing together organizational, business model, and technology innovation strands into a toolkit to accelerate time-to-value for LEOs;
2. Deepen our insights into the stresses created by digitization on organizations, teams, and individuals to meet the changing expectations of our society for responsible approaches to increasing productivity.
3. Create an engaged community of researchers and practitioners who work collaboratively to encourage research-led advances in practical settings, exchange knowledge, and enhance skills to deliver responsible, sustainable digital transformation for the benefit of the UK economy and beyond.

To achieve these aims, DIGIT Lab brings together a multi-disciplinary academic team led by the University of Exeter with the Universities of East Anglia and Oxford Brookes, and a strong consortium of over 20 partners. They cooperate in an ambitious research programme backed £3.6M of EPSRC research funding, £5.5M of industry support, and over £3M of academic support. Partners represent 4 key communities:

- Technology and testbed providers (including AWS, SAP, VMWare, BT, Digital Catapult, Digital Jersey).
- Users, practitioners and co-researchers (including Zoetis, AB Foods, Syngenta, ARUP, foundry4, dstl).
- Data providers (including Met Office, Centrica, Aggregate Industries).
- Disseminators and educators (including Digital Leaders, Scrum.org, Headspring).

Approach

Fundamental to the 5-year research programme for the DIGIT Lab is to bring together the robust research methods and insights of the academic partners with the pragmatic solution-oriented practices of the industry partners. The alignment between these two communities provides an essential cornerstone of the DIGIT Lab's delivery approach.

While these elements were highlighted in the original DIGIT Lab proposal, their importance has been further emphasized with the rapid adjustments to working practices and operating norms that have characterized the COVID-fueled -disruptions of the past 18 months. For many LEOs, initial emergency actions to ensure business continuity and resilience have given way to deeper concerns about ways to survive and thrive in what many call "the new normal".

Through the combination of these ideas, the DIGIT Lab maintains a strong focus on delivery, yet ensures flexibility to adapt its approach in response to the volatility, uncertainty, complexity, and ambiguity (VUCA) of the environment in which we live and work today. Consequently, the effects of the funding delay and covid pandemic have been assessed against the original centre proposal:

- Direct effects – The implications of a redefined digital landscape with a significant acceleration of digital technology adoption in key domains, a variety of financial pressures on organizations to redesign business models and operational plans to adapt to current market conditions and align with new sales forecasts, rapid

reaction to build resilience in supply chains, personnel changes and labour shortages in key areas, lack of opportunity for face-to-face engagement, etc.

- Indirect effects – The uncertainties due to adjustments in working practices, the diminished focus on academic-industry relations as organizations emphasize actions aimed at business continuity, overloading of IT, administrative, and financial support systems dealing with crisis management, a vastly different recruitment outlook for in-demand skills, many different personal stresses and strains as individuals manage major disruptions to their lives and livelihoods, etc.

In such an unprecedented environment, the challenge has been to maintain the original DIGIT Lab centre objectives and research aims while recognizing the need to:

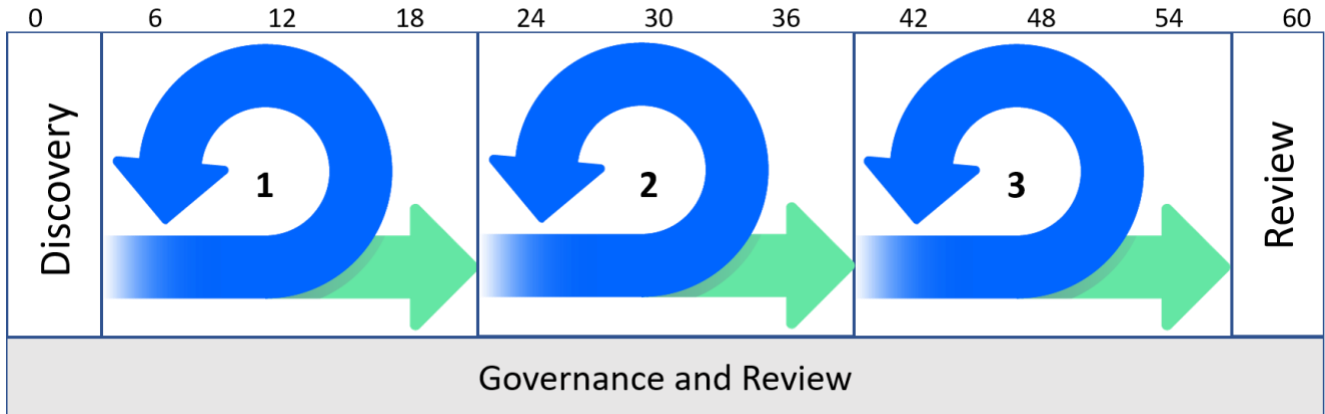
- Revise timescales to account for these impacts.
- Adjust working approaches to account for travel and meeting restrictions.
- Reshape programme phases to increase flexibility for ongoing uncertainty.

Iterative phased delivery

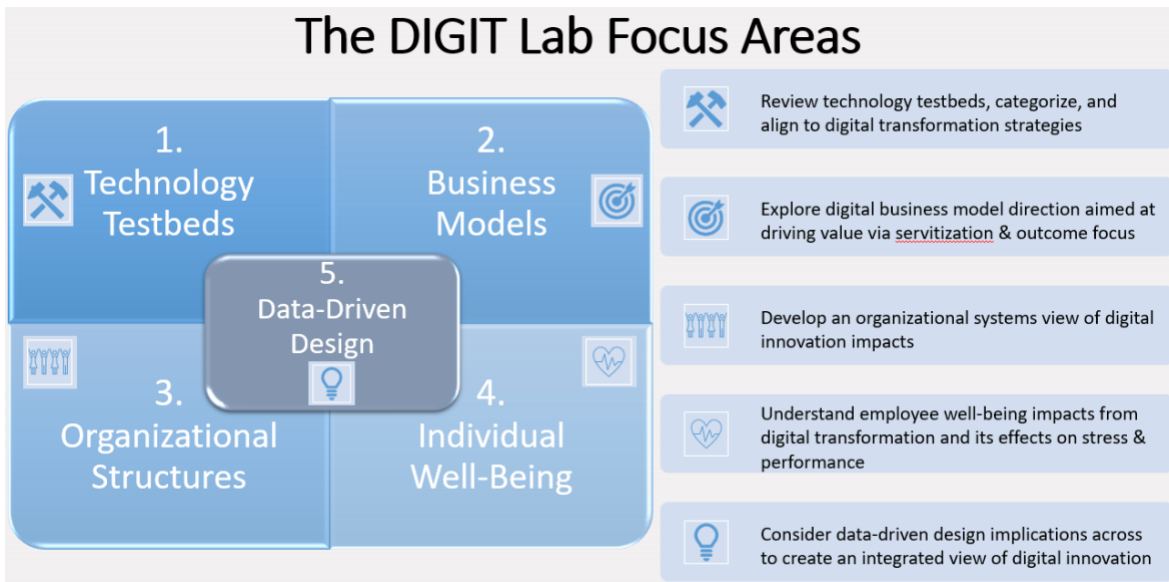
In responding to this context and to deliver the DIGIT Lab programme, a set of phases has been planned that allow for an iterative approach supporting:

- A co-designed delivery process involving academics, practitioners, policy makers, strategists, etc.
- An agile research profile to provide an adaptive disciplined approach to delivery of results.
- A high impact focus across academic and practitioner communities.
- A transparent delivery style amenable to strong management, review, and governance led by an Independent Advisory Board.

This phased approach is summarized below.



To deliver against this schedule, the DIGIT Lab teams are focused across 5 work packages (WPs), as summarized below. These WPs are organized as cross disciplinary projects that deliver outputs against the DIGIT Lab project plan.



Summary of Phase 0 Progress

To provide the strong foundation required for the DIGIT Lab centre, it has been necessary to maintain an intense focus on defining a robust framework suitable for delivering long-term impact while also ensuring the DIGIT Lab is able to adapt to the

volatility of the current environment. To address these competing concerns, the main focus areas in first 6 months have been as follows:

1. Set up administrative, governance, and reporting infrastructure

The initial ramp up activities for the DIGIT Lab commenced with the formal contract sign off across the three academic partners (the Universities of Exeter, Oxford Brookes, and East Anglia). This ensured that the financial and contractual details are in place for the work to begin and established appropriate internal reporting procedures between the university administrative agencies and the funding bodies.

Alongside financial reporting, additional governance processes outlined in the centre's proposal have been initiated. This includes 4 specific boards as follows:

- Independent Advisory Board (IAB)
- Equality, Diversity, and Inclusion Board (EDIB)
- Management Board (MB)
- Leadership Board (LB)

The details of these boards, their constituents, and their terms of reference are all available via the DIGIT Lab website and in related online documents. These boards have begun their activities with a defined schedule of meetings and are currently in operation to guide and support the operation of the DIGIT Lab.

2. Review programme goals and approach in light of covid pandemic

Particular attention has been required to assess the primary programme goals and objectives in light of the extraordinary conditions driven by the covid pandemic. The challenges surfaced require continued effort to ensure progress while address 3 key concerns:

- Revising timescales to account for direct and indirect covid-related delays.
- Adjusting working practices to account for travel and meeting restrictions, etc.
- Reshaping programme phases to increase flexibility to adapt to ongoing uncertainties.

3. Reaffirm partner commitments and involvement

Success of the DIGIT Lab requires coordinated activities across a wide range of partner organizations. Individual meetings have been undertaken with all project partners to understand their changes in circumstances in recent months and to assess the impact of recent events on their contribution in the near and medium term.

While individual circumstances vary, the partners remain excited and engaged with the DIGIT Lab centre. A broad approach has been to categorize their current interests and commitments into three broad groups. These will help to coordinate and manage their initial involvement:

- Community – a broad interest in DIGIT Lab with minimal initial involvement in defining the programme and its direction.
- Contributor – a specific interest in one or more focus areas in the project with a declared contribution of resources to advance work in these areas.
- Collaborator – a deep involvement across several aspects of the programme with significant support to define and contribute to the centre’s long-term aims.

Work is on-going to define and manage partners against these three categories.

4. Extend network of participants to broaden and diversify the community

Since the initial proposal submission, there have been many discussions across a range of individuals and organizations related to the DIGIT Lab’s mission. Following the programme’s award, we have been able to continue these interactions with the goal of broadening the network and expanding the influence of the centre’s work.

On an organizational level, there have been conversations with several potential additional partners. Four new partners have agreed to join the centre and are in different phases of formally becoming part of the team. These are Arup, Zurich Insurance (UK), Ramboll, and Dataswift.

On an individual level, several key digital transformation influencers have been recruited to become “Digital Fellows” as part of the DIGIT Lab. These are unpaid advisors acting as champions for the work and interests of the DIGIT Lab. They are important roles that strengthen the senior team with a wealth of experience across many areas of industry and academia. Initially 6 people have been formally defined as

Digital Fellows. Their details are available on the DIGIT Lab website. More Digital Fellows will be appointed, as appropriate, over the course of the DIGIT Lab programme.

5. Engage the community in discussions to open up the dialogue

An important initial set of activities of the DIGIT Lab has been to engage with several different digital transformation communities to position its role and activities. As well as creating interest in the DIGIT Lab's work, this dialogue will help to obtain additional input on where it can best align its priorities in relation to the wealth of on-going work in the area of digital transformation.

The DIGIT Lab has already participated in a broad set of talks, workshops, reviews, and discussion sessions. This includes a series of talks at the Digital Leaders workshops on Digital Transformation, a DIGIT Lab launch event with over 200 attendees, public workshops hosted by DIGIT Lab project partners, an invited research seminar at Henley Business School, and so on. Further details are listed in detail in the DIGIT Lab website.

6. Complete recruitment activities

As often is the case, initial recruitment activities are a priority for a new research initiative such as DIGIT Lab. For the DIGIT Lab this is particularly important given the current challenging circumstances for recruitment of researchers in high-demand areas and the limited pool of candidates relevant to its specific goals of undertaking multi-disciplinary work at the intersection of several disciplines. Consequently, defining, managing, and executing a strong recruitment approach has appropriately taken up a lot of early effort.

Currently, several key research posts have been filled and several more recruitment activities are in flight. Given the current recruitment environment, progress has been somewhat slower than was initially expected and the work plan has been stretched to accommodate this.

7. Establish initial research focus, approaches, and targets

While a great deal of effort in the initial stages of this programme have been dedicated to administrative and governance issues, there has also been significant attention

focused on reviewing the research programme. Much of this work has been aimed at 2 key objectives:

- A review of the original research aims in light of the covid-driven disruption being faced.
- Strengthening the research questions, research methods, and research philosophies of the 5 work packages.

As a result, each WP has made important initial progress on their research themes and is launching into the first phase of the programme, Phase 1, with a strong perspective and significant momentum. Reports and early outputs from each of the WPs are now emerging and can be accessed on the DIGIT Lab website and in the periodic management reports that are published by the centre.

Summary

Phase 0 of the DIGIT Lab centre has been successfully completed. The primary goal for this period was to carry out a review of the programme, establish appropriate governance structures, begin the ramp up activities essential for building a solid foundation to the centre's work, and to initiate the work packages as they transition to deliver on their ambitious research aims. Progress has been made in each of these areas. Where challenges and risks have been encountered, these have been highlighted and addressed. We look forward to driving the DIGIT Lab to the next phase of its work.

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