

Higher Education: Development Lifecycle Review



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Service Background

Overview: *What is a Development Lifecycle Review ?*

- Our Development Lifecycle Review is intended:
 - To review the maturity of your development and engineering practices
 - To make recommendations based on discussions and workshops to help develop maturity and opportunities to improve

Challenge: *Why is it needed?*

- Independent validation, Quite often, Higher Education Institutions are setting out on a journey that they have ideas on but have not had those had them validated by an external technical expert to see if there is anything missing before they set out on a significant investment on a product development journey
- To stay competitive, Higher Education Institutions are faced with the need to scale their development teams often hiring from training academies young, talented, enthusiastic but relatively inexperienced teams.
- These teams operate and deliver software at a fast-pace with high quality, innovation and reduced time to market.
- An imperative that can be difficult to meet due to various challenges, including:
 - Setup of configuration management and release management
 - Setup of development tools and how tasks and outcomes are reported across the SDLC
 - Specific issues related to configuration management, unit testing and code quality
 - Lack of wider industry experience leading to sub optimal implementation of improvements
 - Development of guiderails for the development team to follow

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Service Description

- The engagement will comprise of the review of appropriate organisational and project documentation, together with interviews and workshops with key stakeholders, together with analysis of information held within relevant lifecycle tools and applications.
- The assessment will be based on reviewing architecture, code, code quality, unit testing, configuration management, team structure & roles and will involve our practitioners collaborating with your team members to gather and analyse data, draft findings and establish recommendations.
- The recommendations will identify anti-patterns, assessment will conclude with the delivery of a Maturity Assessment Report and an Improvement Roadmap workshop which will provide a clear, prioritised set of recommendations, a high-level work plan together along with time estimates with a supporting business case.
- We will also provide some high-level guiderails on specific improvements with some worked examples for your team to follow
- We can then help you and your team to deliver the plan or you can continue yourself and, if required, re-run the assessment at relevant time intervals to see how you are progressing to the next stage of improvements

Service Features

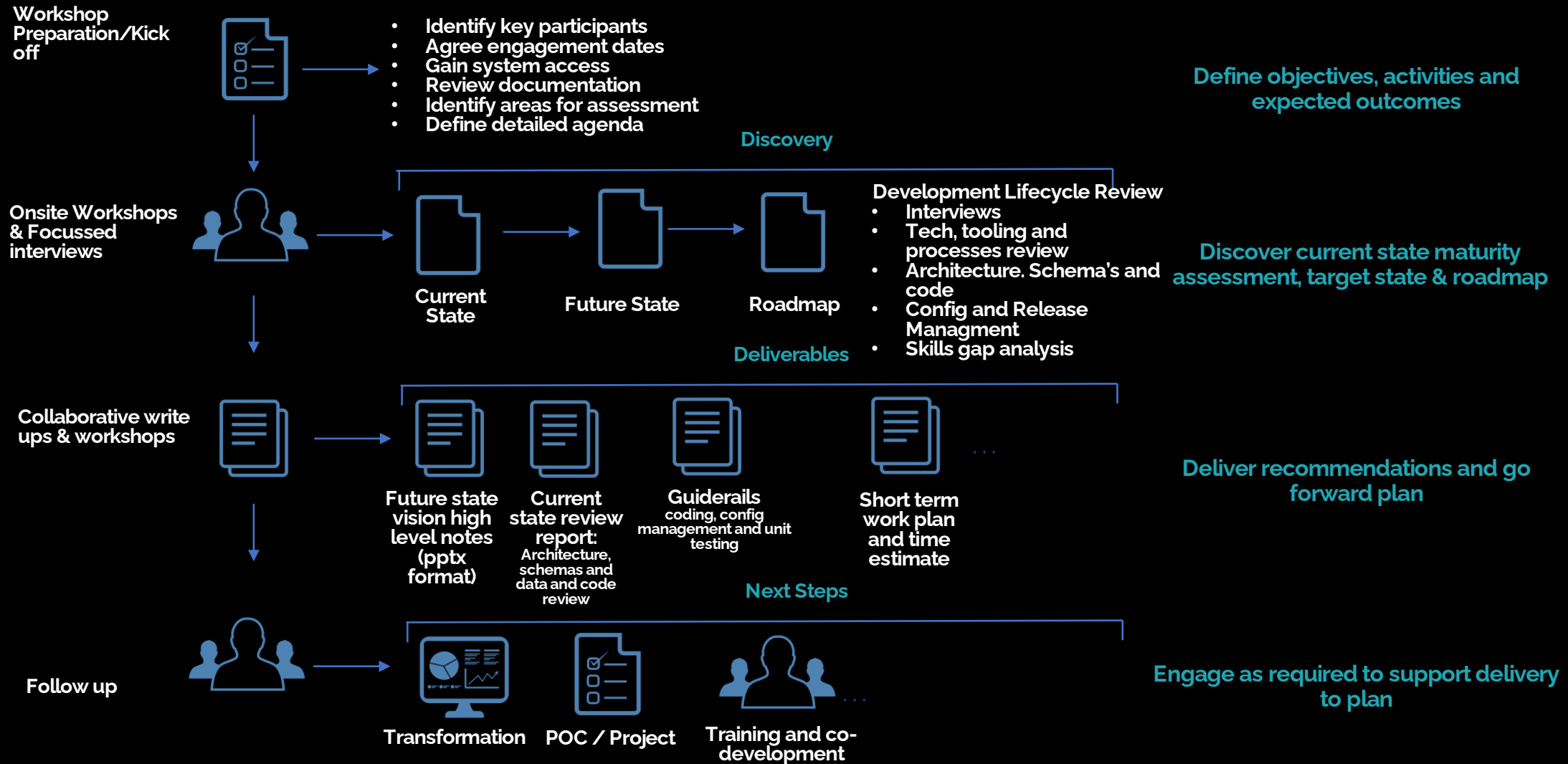
- Focuses on Code delivery objectives, activities and outcomes
- Customised roadmap and exercise that is repeatable for your needs.
- Produces detailed target state and process improvement plan.
- Reviews team skills for gap analysis.
- Assessment conducted over a short period (typically 1-2-weeks)
- Deliver ROI based benefits.

Business Benefits

- Gives you a roadmap focused on development delivery
- Improve teams quickly with tangible worked examples
- Repeatable (run the exercise on another development weakness)
- Focused improvable tasks

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Approach Overview



Higher Education: Development Lifecycle Review - Sample workshop agenda

Objective	Activities	Outcomes
1. Understand current state architecture	1.a. Review existing documentation 1b. Session with technical leads 1.b. Whiteboard session with technical leads	1.a. Current state architecture understood in detail
2. Review of code focusing on specific issues related to configuration management, unit testing and code quality	2.a. Walkthrough tools and Code 2.b. Session with technical leads 2.c. Review all documentation and requirements 2.d. Walkthrough code and specific issues	2.a. Current issues understood
4. Code review	4.a. Walk through codebase, repository and requirements	4.a. Code structure / implementation notes
5. Review Operational Model	5.a. Review team structure and roles	5.a. Recommendations on operational model
5. Identify anti-patterns, and improvements	4.a. From code review exercise, identify key deficiencies and anti-patterns in play 4.b. provide list key practices to improve with examples 4.c. Review recommendations with technical team	5.a. Improved code and development practices recommendations
6. Develop short term work plan (optional)	6.a. Create short term work plan 6.b. Present target state and work plan to stakeholders and technical team	6.a. Work plan agreed 6.b. Code surgery session support
7. Develop time estimates (optional)	7.a. In collaboration with the technical team run T-Shirt sizing session to estimate timeline for short term work plan	7.a. Timeline and cost estimates for delivery of short-term plan if required

Partners & Clients

Our Higher Education Clients



Our Partner Ecosystem



A Selection Of Our Higher Education Projects & Benefits

Client	Project Brief	Infuse Services Provided
University College London	Tribal SITS-to-Cloud project to manage, plan, implement testing strategies, tools, automation and frameworks around functional, non- functional testing across the test lifecycle. Enhance the UCL team Benefit: Automate 90% of testing and reduce regression testing on SITS to under 5-hours	Test Management, Functional Test Delivery, Continuous Testing, Performance Engineering and NFT
King's College London	Managed services across several projects: VLE, ERP, Access systems,, R&D, Curriculum, LMS, CRM and Student lifecycle. Benefit: 40 projects since 2018; saving 35% on testing costs since start of work	Development Lifecycle Review, Test Management, Functional Test Delivery, Continuous Testing, Performance Engineering and NFT
University of East Anglia	Managed services across several projects: Admissions, Curriculum, Tribal SITS, Tribal SITS-to-Cloud and Test Strategies. Benefit: Automated 200 tests across SITS and reduce regression testing to 3 hours	Test Management, Functional Test Delivery and Continuous Testing,
London Southbank University	Architecture and Test Lifecycle support for LSBU's LEAP programme encompassing the rollout of Salesforce, ESB, Identity management and a new cloud-based student record system since 2020	Architecture Review, Full Stack Development, Test Management, Functional Test Delivery, Continuous Testing, Performance Engineering and NFT
Queen Mary University of London	Re-architecture of the Moodle environment on Azure and performance testing of the clearing process and telephony systems (functional and non-functional) simulating 400 call agents since 2020. Testing of WiFi network throughout the university Benefit: Mitigated issues that would have stopped 75% of calls getting to the clearing agents 2 years in a row	Architecture Review, Performance Engineering and NFT
Edinburgh Napier University	DevOps maturity with recommendations in process of being implemented	ICM Assessment, DevOps roadmap, business case and transformation roadmap
University of Exeter	Performance Testing projects across VLE migrations and upgrades Benefit: Mitigate issues related to Moodle during enrolment and exams during the Pandemic	Performance Engineering and NFT
University of Aberdeen	DevOps (ICM) transformation assessment, test automation POC and tool chain assessment for Applications Management team	Infuse Capability Modelling/TMMi Model for DevOps
Anglia Ruskin University	Enterprise architecture consultancy around recommending integration roadmap of 100+ subsystems using Event Streaming	Architecture Review
University of Bristol	myERP the new integrated Finance, HR, Payroll and Procurement system Student Lifecycle Support Programme which will transform how students interact with the university Save over £1m in testing costs across the programme	Test Management, Functional Test Delivery, Continuous Testing, Performance Engineering and NFT
University of Bradford	Bradford are re-implementing Tribal SITS and have no test process, team or tools.	Test Management and Functional Test Delivery

Our Education Community Contributions

Event	Content Title/Link	Summary
UCISA CISG Dec. 2023	<u>Learn how Southampton Solent University (SSU) recently delivered a challenging student transformation programme on time and on budget</u> Aaron Tyler, SSU Programme Manager, Southampton Solent University	In this video (presented at UCISA CISG-2023), SSU Programme Manager Aaron Tyler presents how SSU rescued a challenging Student Record transformation programme that went live successfully in August 2023.
UCISA Webinar Nov., 2022	<u>UCISA Webinar - Why Non-Production Environment Management (NPEM) is critical to Digital Transformation success.</u> Jessica Roberts, Head of Transition & QA, King's College London	Learn how King's College London (KCL) approach Non-Production Environment Management (NPEM) using the Infuse NPEM model., giving them long term benefits in terms of time, cost, and better quality.
UCISA CISG Dec. 2022	<u>Learn how King's College London is leveraging the power of Cloud and Automation to deliver software continuously</u> Jessica Roberts, Head of Transition & QA, King's College London	Learn about KCL's continuous testing journey covering 35 projects across Testing, Non-production environments, Development lifecycle consulting, Test Automation, Performance Engineering
UCISA Leadership Mar 2022	<u>Are you ready for Clearing ?</u> Rupa Dey, Deputy CIO, Queen Mary University of London	Learn how QMUL handled clearing in 2021 and plan to handle clearing in 2022
UCISA CISG Nov. 2021	<u>Having your cake and eating it!</u> Ian Robotham, Assistant Director, University of Aberdeen	Learn how the University of Aberdeen plan to reduce cost, improve productivity, and improve student/staff UX through streamlined enterprise architecture
UCISA CISG Nov. 2020	<u>Storming and Performing with Covid-19</u> Richard Young, Assistant Director, Queen Mary University of London Jessica Roberts, Head of Transition & QA, King's College London Mark Sanders , Program Manager, University of Exeter	Learn about how University of Exeter (UoE), King's College London (KCL) and Queen Mary University of London (QMUL) successfully accelerated their digital transformation projects.
UCISA CISG Nov. 2019	<u>How King's College is utilizing Load and Performance testing on Moodle</u> John Newman, Senior Project Manager, King's College London	Learn how King's College London (KCL) approach Performance Testing on Moodle.
HE Strategy Forum Oct. 2019	<u>Streaming – A Field Report in partnership with Anglia Ruskin University</u> Paul Gallagher, Assistant Director, Anglia Ruskin University	Learn how Anglia Ruskin are transforming their system integration architecture to solve legacy point to point integration challenges.
HE Strategy Forum Feb. 2019	<u>Origami and Architecture in partnership with Anglia Ruskin University</u> Paul Gallagher, Assistant Director, Anglia Ruskin University	Learn how Anglia Ruskin are approaching innovation in Architecture
Video Case Study Nov 2018	<u>University of Bristol - Video Case Study</u> Nigel Summers. Test Manager, University of Bristol (SLSP Program)	Learn how the University of Bristol saved a significant amount in testing costs by using continuous testing

Why Infuse ?



Experience and Credibility



Established in 2002 with over 21 years of experience in software delivery and quality engineering consulting having helped successfully deliver over 500 projects around the globe.

We have successfully deployed test services on over 35 HEI clients so we understand your business drivers and ways of working. We have experience with systems such as Moodle, Tribal SITS, CourseLoop, SAP and have delivered services ranging from functional test delivery to test automation, performance testing, test environment management, and process optimisation.

We leverage experts across our practice to provide you with an end-to-end delivery capability from experienced test managers to scrum masters, agile coaches, architects, developers, and manual & technical testers.

All our resource are ISTQB foundation certified and bring expertise in testing together with experience and energy to quickly integrate with your existing team. We have a history of enhancing existing test teams to accelerate progress and are comfortable delivering within and managing a mixed team including in-house, contractor and third-party resource.

Our team are highly motivated and delivery focused, and will go above and beyond expectations to ensure the successful delivery of the test workstream. We have demonstrated our commitment to success on numerous previous test engagements.

We effectively deploy resource onsite, onshore and offshore on many of our engagements. Our experience of delivering from multiple locations provides you with a cost competitive proposition together with the ability to flex resource when required.

We have expertise across a wide range of innovative products from our own script-less test automation tool – useMango™ – to leading enterprise and open-source tools, through to our delivery accelerators.



Higher Education Specialists



Multi-disciplinary Team



Test Expertise & Team Integration



Highly Motivated & Delivery Focused



Competitive Delivery Model



Technical Innovation



Company Overview

Who We Are

- We are a team of 100+ engineers and consultants spread globally with a passion for modern software design, engineering and delivery.
- We possess deep expertise across Architecture, Agile, DevOps, Cloud Transformation, Quality & Performance Engineering.
- Since 2002, we have been helping companies of all sizes design, develop and deploy high quality software.
- Since 2018, we have been focused on supporting HEIs resolve their technology challenges as part of their digital transformation and cloud migration agenda.

Our Areas of Market Eminence

Consulting

Development
& DevOps

Quality
Engineering

Test
Environment
Management

useMango™
Test Automation

Our Vision and Values

Be the first choice for our clients for their technology delivery challenges



Be at the forefront of technical innovation

Champion and empower our people



Build long term, trusted adviser relationships with our clients



Act with honesty and integrity in all we do



If you would like further information on our service, please contact us.



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