ChallengeCurve

We help the challengers succeed

challenge curve

WE ARE LIVING IN THE AGE OF DISRUPTION

There will be winners and losers

monzo

STARLING BANK

TANDEM

CITY A.M.

FRIDAY 01 MAY 2020 3:55 PM

Why RBS killed digital bank Bo only five months after launch

LQID

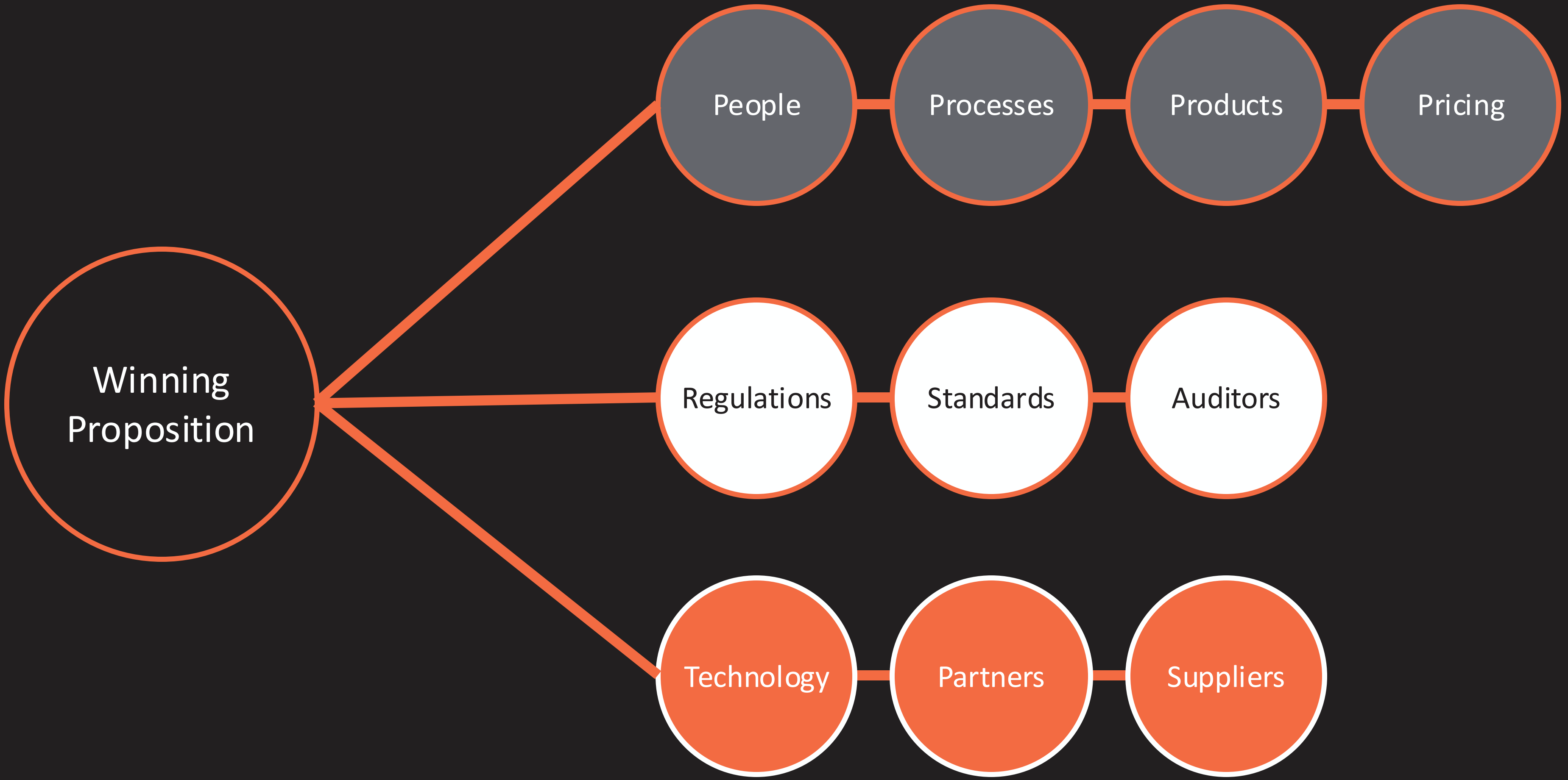
N26 withdraws from the UK: what does it mean for your money?

The challenger bank will close all current accounts by 15 April

What determines success and failure?

A winning proposition requires success in many areas

Some elements will be under your control, some outside your control & some you need help with



Things you want to do

Things you must adhere to

Things you need help with

Your needs will vary across the phases of your evolution

We can guide the success of your technology work-stream

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Define & Build

- Quality Assurance & Test Strategy
- Test Plans
- Test Governance
- Test Execution
  - Accelerators, Frameworks
  - Reporting
  - Traceability
  - Assets

Launch

- Delivery Acceptance
- Test Closure Reports
- Non-functional Testing
  - Performance
  - Load
  - Resilience
  - Automation
  - Business Continuity

Run & Change

- Delivery & Release Management
- Change Portfolio
- Automated Regression Packs
- Live Issue analysis

We have cross dimensional experience and capability

We know processes, applications, platforms and IT stacks across industries: finance to travel

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Domain experience

Banking	Credit Checks	AML	Reg Reporting
Cards	CRM	CDD	Treasury
Payments	Onboarding	Anti-Fraud	General Ledger

QA & Testing experience

Strategy	Management	Execution
Planning	Liaison	Auditability
Frameworks	Culture Alignment	Traceability
Outcome, Key Results	Governance	Reporting

Technical capability, experience

Technology	Applications	3rd Parties
AWS	Mambu	OnFido
Azure	Fiserve	Experian
Smartphone	10x	ComplyAdv.
Web sites	Others...	Others...

Appendix A
Digital Insights

There is no manual for launching a new initiative

We have been privileged to help others on their journey

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“Two roads diverged in a wood, and I—

I took the one less travelled by,

And that has made all the difference.”

Robert Frost, The Road Not Taken

Top 20 Digital Insights

Background and Objectives

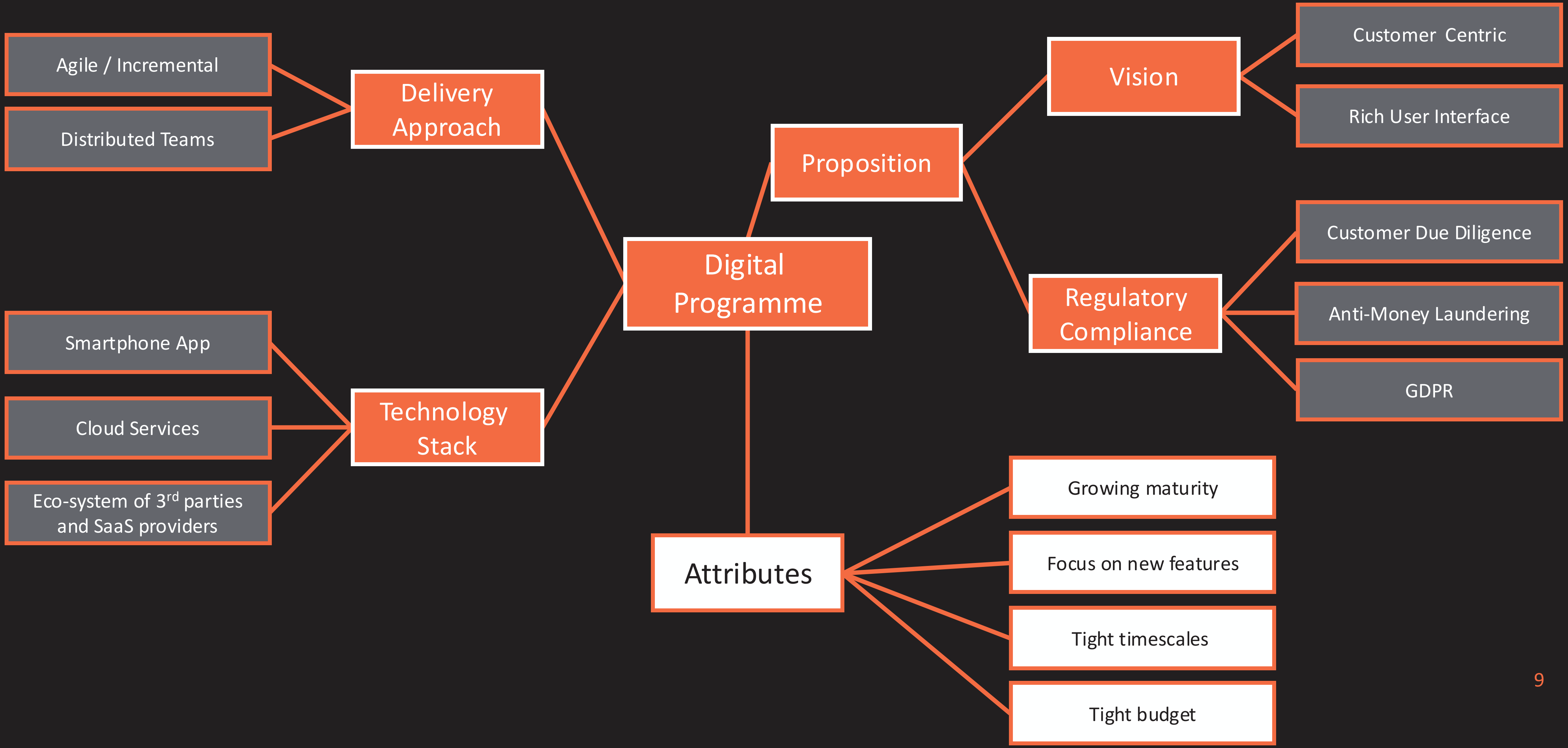
ChallengeCurve is a specialist Quality Assurance and Testing consultancy which helps clients launch their digital products & services.

- We have had the privilege of working on several major fintech/challenger bank programmes within the last 7 years such as Tandem Bank, 10x Technologies and Banked.com
- We have observed repeated patterns of behaviour, characteristics and ways of working which have been an impediment to the success of the programmes.
- These have led to delays in launch, increase in costs, poor team morale and increases in delivery risk.
- In addition, we have noted common attributes from those organisations which have been successful.

We wish to share our observations, insights and suggestions to mitigate your risk and help the successful launch of your initiative.

Digital Insights

Similar characteristics



Digital Insights

A sample of 3 insights

We have selected 3 insights out of our top 20 to convey our experience and how we can help ensure your success.

- Insight #06 Technical Debt
- Insight #12 Environment Downtime
- Insight #13 Non-Functional Requirements

For each insight we:

1. provide a definition
2. outline the symptoms and the detrimental impacts and consequences
3. outline how to mitigate against impediments

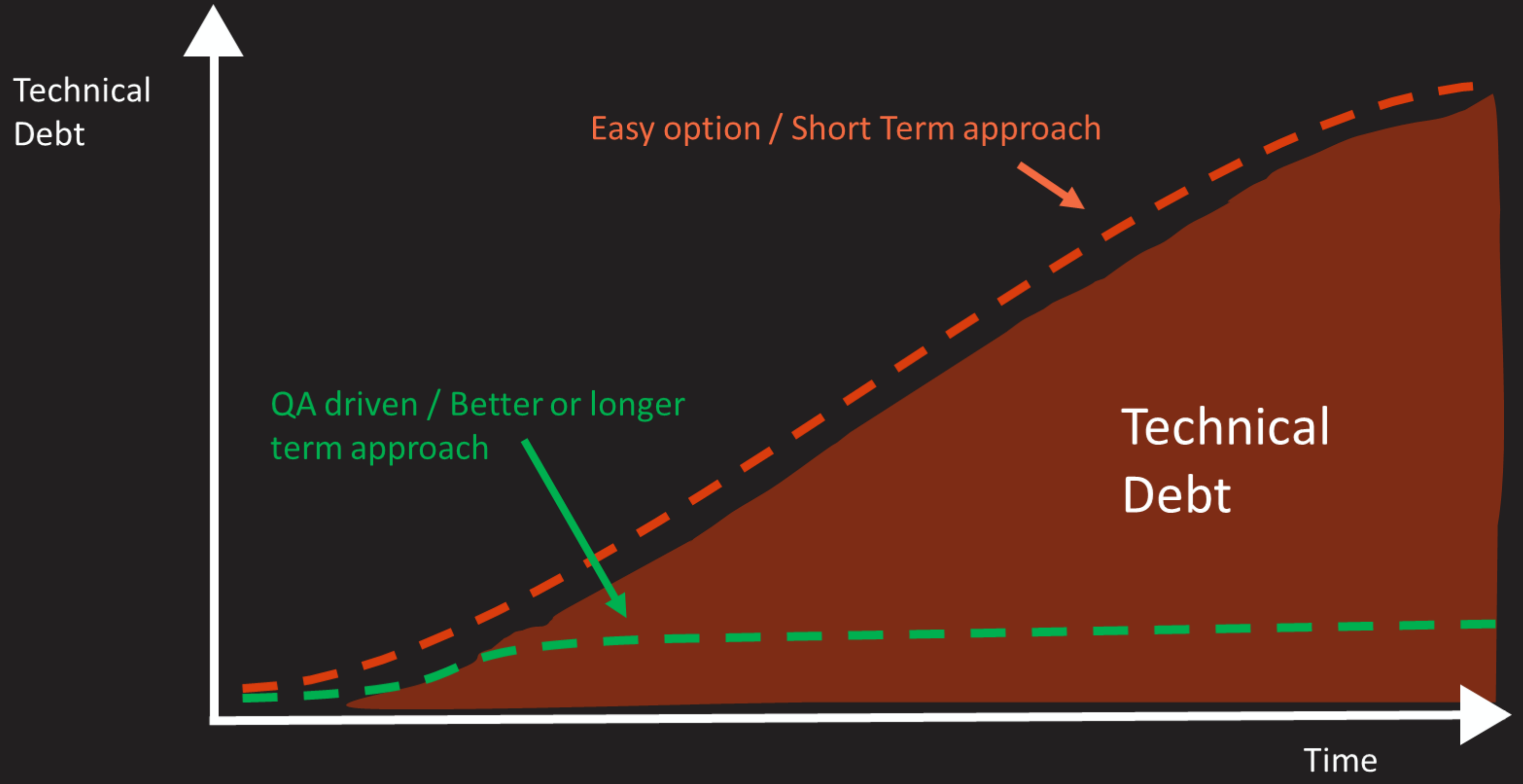
Insight #06 Technical Debt (1of 3)

You will incur "technical debt" from day one

"In software development, **technical debt** is the implied cost of additional rework caused by choosing an easy (limited) solution now instead of using a better approach that would take longer.

Analogous with monetary debt, if technical debt is not repaid, it can accumulate "interest", making it harder to implement changes"

Source: Wikipedia
https://en.wikipedia.org/wiki/Technical_debt



Insight #06 Technical Debt (2 of 3)

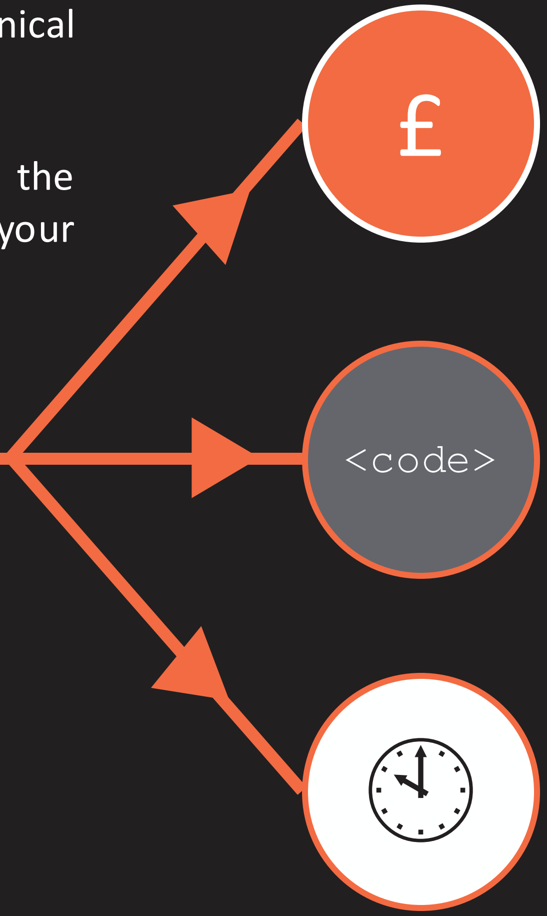
You will incur "technical debt" from day one

In the rush to develop new features vital other activities will be left behind or de-prioritised such as code refactoring and technical documentation.

Whilst there may no initial detriment of carrying technical debt, the full impact will be manifested later – often at critical stages of your journey

Technical Debt

Will lead to…



Increase in costs due to re-work

Code may become:
- Unmaintainable
- Redundant
- 'Flaky'

Remediating technical debt will impact delivery releases

Examples:
- Little or no code refactoring
- Lack of technical documentation
- Lack of test automation
- Out of date technical designs / architecture diagrams

Insight #06 Technical Debt (3 of 3)

Mitigation

Mitigation Actions

- **Set Targets**
  Ensure there are tickets for items which tackle technical debt.

- **Responsible, Accountable…**
  Ensure there is programme level and feature team accountability for preventing technical debt from building up.

- **Definition of Done**
  Ensure that each feature team's definition of done includes items such as technical documents, test automation and code-refactoring.

Insight #12 Non-Functional Requirements (1 of 3)

Non-functional requirements will be ignored or de-scoped

Functional requirements specify what the system or application must do, whereas non-functional requirements (NFRs) often address 'how' an application or system must behave.

How many customers should the platform support?
How many transactions per second should the payments engine be able to process?
How scalable is the platform?

Sometimes, other terminology may be used to define NFRs such as Service Level Operating requirements, usability standards, conformance with regulations, operability and security.

Regulations

Usability

Security

Resilience

Scalable

Insight #12 Non-Functional Requirements (2 of 3)

Non-functional requirements are dropped or ignored

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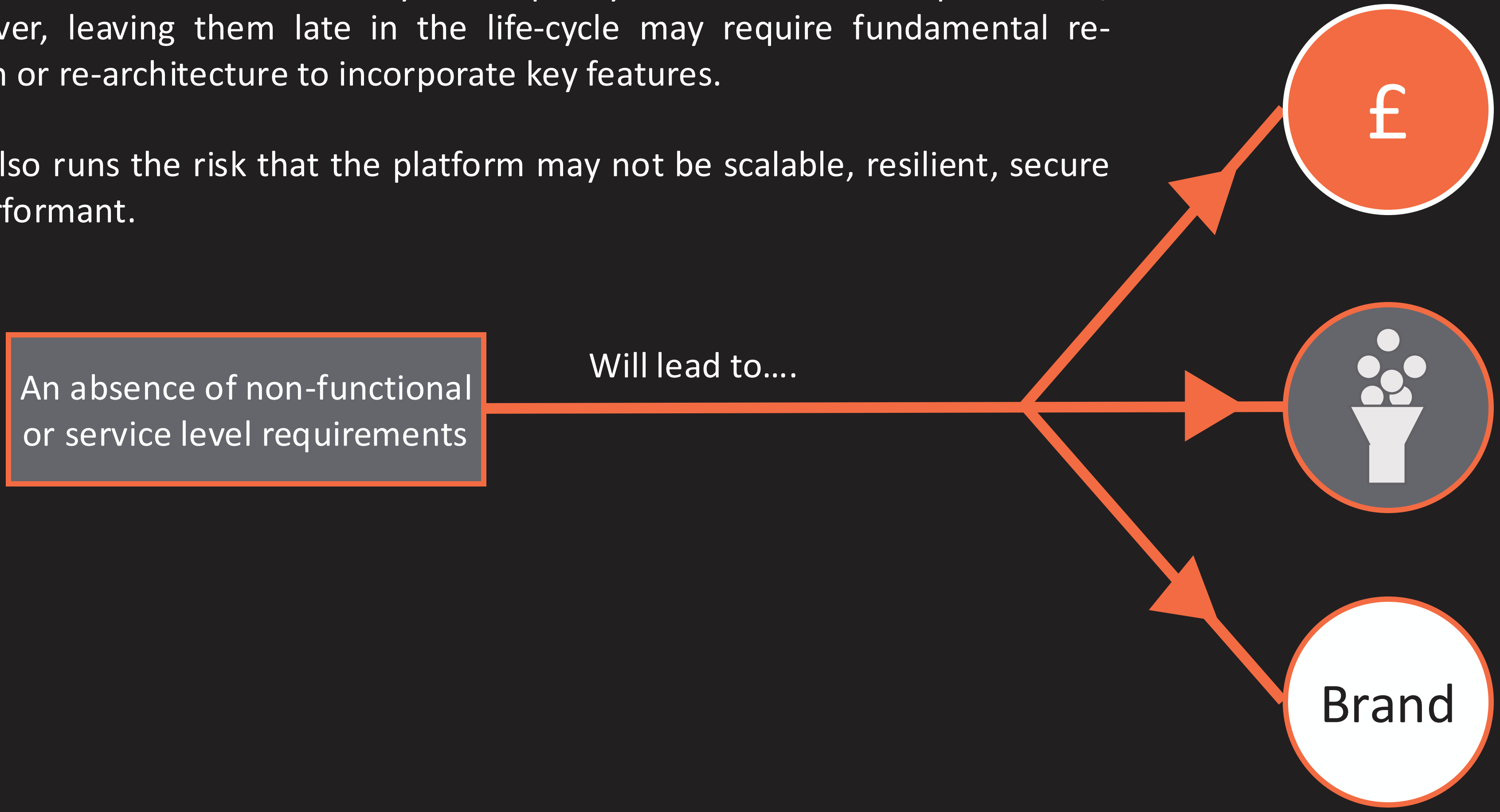
Often it is difficult to identify and specify non-functional requirements, however, leaving them late in the life-cycle may require fundamental re-design or re-architecture to incorporate key features.

This also runs the risk that the platform may not be scalable, resilient, secure or performant.



Increase in costs due to re-work

- Bottlenecks in performance
- Lack of scalability

Poor usability, security or resilience may lead to customers not trusting your brand

Insight #12 Non-Functional Requirements (3 of 3)

Mitigation

Mitigation Actions

- Start Early
  - Define NFRs early in the life-cycle as these will influence the system architecture, as well as help specify Service Level Agreements with 3rd parties and SaaS providers.
  - Commence initial load and performance tests to baseline responsiveness and throughput earlier in the pipeline.
  - Commence resilience testing to ensure system stability in the event that underlying services are not available or functioning as expected.
- Set Ownership
  - Identify and appoint 'owners' or champions to promote and help collate non-functional requirements.
- Embed NFRs into Epics and User Stories
  - Ensure that NFRs are built into user stories and have measurable success criteria.
- Seek Assistance
  - Engage specialists to help identify, collate and verify non-functional requirements.

Insight #13 Test Environment Downtime (1 of 3)

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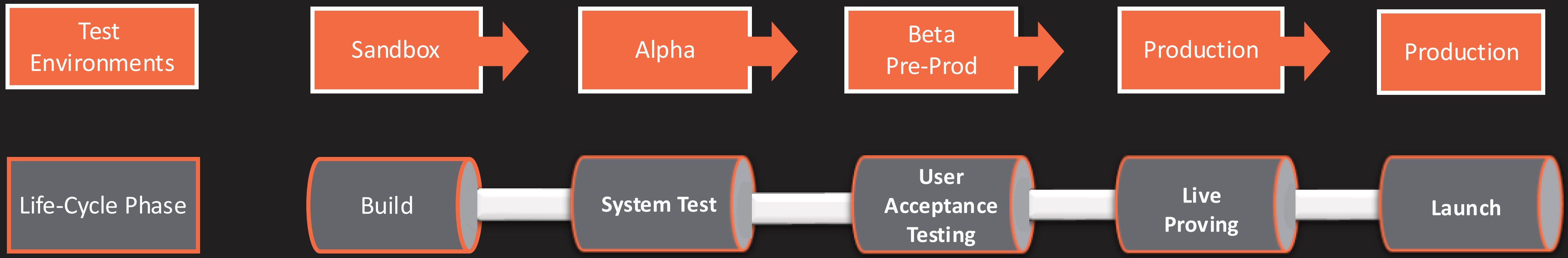
There will lots of environment downtime

The availability, stability and resilience of test environments is vital to maximise productivity and efficiency. Given that modern digital platforms comprise an eco-system of 3rd parties as well as bespoke code, often it can take the unavailability of just one component to render a test environment unusable.

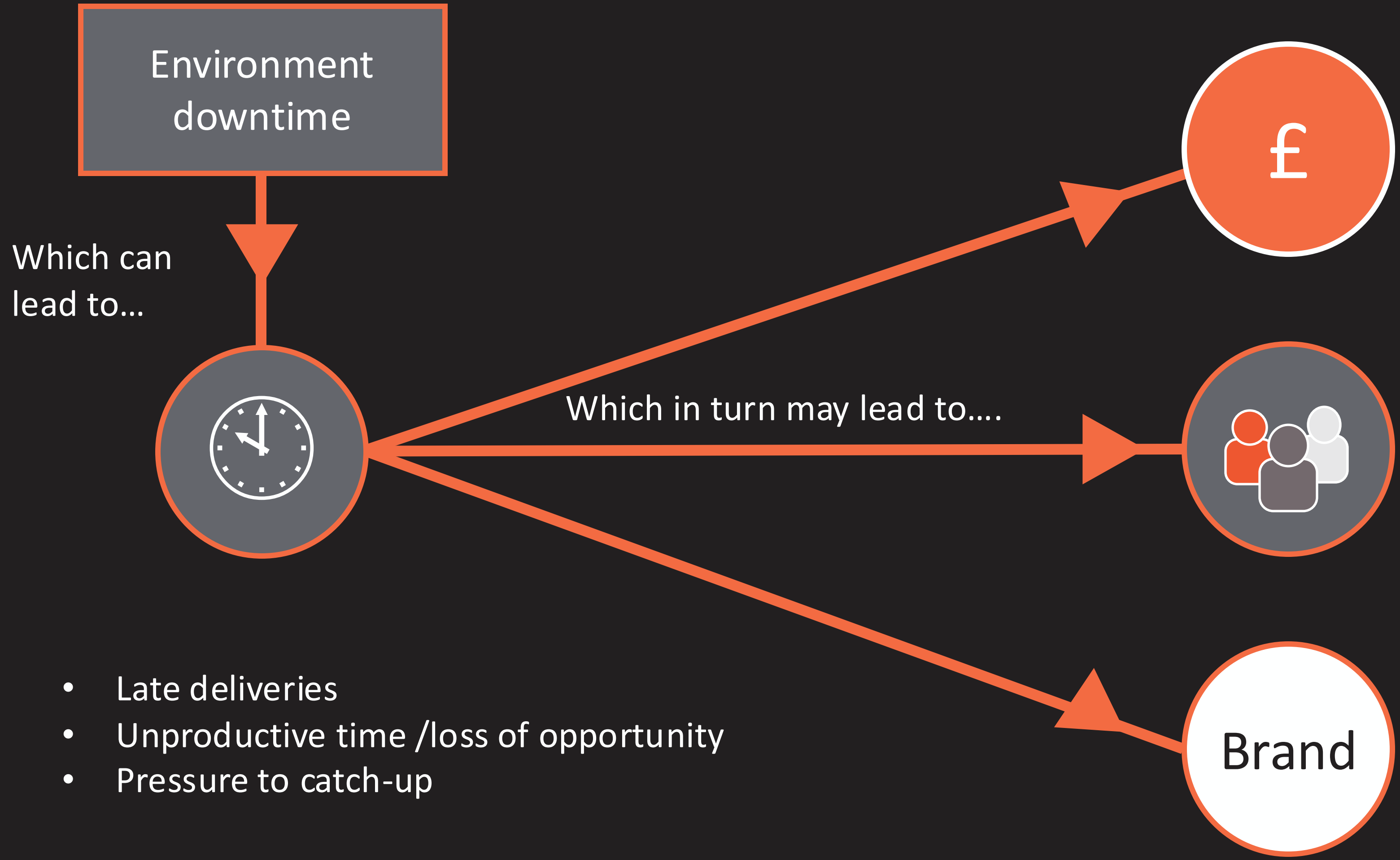


However, until start-ups or new programmes reach a sufficient maturity level, there will be environment downtime. The reasons may be many and may include:

- Poor governance and/ or poor configuration management on deployment releases
- Deployment of defective code into higher environments
- Unscheduled or broken changes made by 3rd parties and SaaS providers
- Lack of resilience handing within the application code

Insight #13 Test Environment Downtime (2 of 3)

There will be lots of environment downtime



Increase in costs due to late deliveries and on-going ‘burn rate’

- Poor team morale
- Stress on team

Rushed or ‘overloaded’ releases can result in poor quality and brand damage and missed targets

- Late deliveries
- Unproductive time /loss of opportunity
- Pressure to catch-up

Insight #13 Environment Downtime (3 of 3)

Mitigation

Mitigation Actions

- Controlled Scaling
  Do not scale delivery teams until development and test environments are stable and reliable.

- Governance
  Appoint an experienced and technically strong Release or Test Environment manager to represent Client Delivery.

- Protect
  No updates / changes to any environment on an ad-hoc basis – they must require approval from the environment owner(s). Environments must be stable for the teams to conduct their work.

- Service Level Agreements
  Ensure 3rd party contracts include SLAs on test environments as well as production especially for availability, load and change management.

Appendix B
ChallengeCurve Overview

ChallengeCurve Overview

A challenger QA & Testing consultancy focused on helping the 'Challengers'

Financial Services clients

- Tandem Bank
- Virgin Money
- Banked.com
- 10x Technologies
- Nationwide for Business (part of Nationwide Building Society)
- Nomo (part of BLME)

Other sectors

- National Health Service (strategic technology review of core systems)
- UK Challenger Telecoms company (strategic review)
- Smart Cities initiative (IoT, smartphone, big data programme)

ChallengeCurve Overview

We provide a full spectrum of QA and Testing services

We provide a full range of functional and technical testing services at a project or programme level.

We undertake short assignments and provide managed service engagements

We provide Thought Leadership, Strategy and Advice

We undertake deep-dive reviews, assessments and health-checks

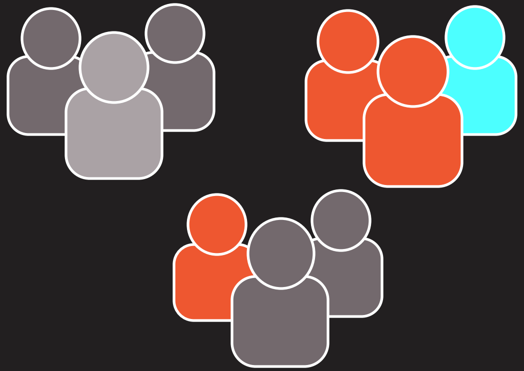
We have experience at managing our own, client and 3rd party teams

We provide clear, concise reports to key stakeholders to enable informed decision making

ChallengeCurve Overview

We provide multi-skilled consultants on our engagements

Multi-skilled QA & Test team



Core Activities

- Requirements gathering & Validation
- Create Acceptance Tests
- Create BDD scenarios
- Test Preparation
- Test Data generation
- Test Analysis
- Execution
- Defect Management
- MI / Reporting

Tools

- Microsoft Office suite
- Confluence / Jira
- Test Management
- API Testing tools e.g. Postman, RunScope
- Automation tools e.g. Selenium, Cucumber, Gherkin or similar

Domain Experience

- Financial Services
- Mobile banking
- User journeys e.g. on-boarding
- UI / UX appreciation
- Compliance and Regulatory awareness
- Foreign Language

Life-cycle

- Knowledge of the full SDLC
- Agile or Scrum experience
- Agile ceremonies
- Test Driven Development
- Release Management
- Environment Management
- CI / CD

Consultancy

- Leadership
- Management
- Oral communication
- Written communication
- Time Management
- Negotiation
- Client management
- Building Rapport
- Adaptable

Technical

- Test Automation
- Technical API testing
- Load & Performance testing
- Non-Functional requirements
- Release Management

Engagement Models /1

Consultancy based

Our consultancy engagements are short-term assignments, conducted by Principle / Director level consultants. Some examples include:

1. **QA & Test Strategy:**
   We define the most appropriate QA & testing approach that fits our client's software delivery programme and delivery methods. The strategy will define what will be in scope for testing, why testing is a priority, where testing will be conducted, when testing should take place, who should undertake the testing and how it will be done.
2. **Project Health-Check:**
   Review of an project's QA and Testing maturity. Key deliverable is a Finding and Recommendation report along with a roadmap for change.
3. **Deep-Dive Review:**
   Review of a failing system or application. We undertake root cause analysis by reviewing the symptoms, liaising with key users/stakeholders and review of application artefacts to determine the real reasons why something is not performing.

Engagement Models /2

Project based

Our project engagements are focussed upon ensuring that our clients' applications and programmes are "fit for purpose".

Key elements include:

- Multi-skilled team – functional and non-functional testing engineers
- Quick-start frameworks – we can mobilise quickly to set-up test processes
- Test Automation – user interface and API layer test automation suites
- Culture alignment – we aim to align ourselves to our client's ways of working and culture
- Courteous and challenging - we ask the awkward questions to mitigate risk
- Onsite and near-shore mix – we can provide the optimum balance between on-site personnel complimented with our near-shore team based in Northern Ireland

Engagement Models /3

Managed Service based

A ChallengeCurve Managed Service takes full responsibility of your Quality Assurance & Testing needs, enabling you to focus on core business priorities to help your organisation grow.

- Leverage our specialist skills and expertise with a fully-trained and flexible QA and Test team
- No need to invest time, money and effort into building your own capability, only to have to scale back during periods of downtime
- We can adjust demand to cater for the peaks and troughs of your project deliveries, so you don't need to worry about ramping-up or downsizing
- We provide independent, evidence based dashboards and metrics for each release upon which key decisions may be made

With decades of experience in Quality Assurance, Project and Operations Management, we work as a true partner in QA & Testing by fully embedding ourselves with your teams and other partners.

We deliver our services via our Test Centre of Excellence, based in Northern Ireland, where we can deliver efficiency at a very competitive economic price point.

ChallengeCurve Overview

London based with a cost-effective Center of Excellence in Northern Ireland

London based management team

Bank of England & Royal Exchange, London

Derry based Centre of Excellence

The Peace-Bridge across the river Foyle, Derry / Londonderry

- 20 full time QA & Test Consultants
- > 80 iphone, android, mac & window devices
- 3+ years in operation
- Based in new TechHub centre on the site of former army and naval barracks

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ChallengeCurve Contacts

Paul Nelis, Director

Email: paul.nelis@challengecurve.com

Mobile: 07739 407431

Chris Bean, Director

Email: chris.k.bean@challengecurve.com

Mobile: 07584 665755