# Automation at a large government department

Prepared By: Craig Moir
Role: Principal Consultant
Email: craig.moir@ttcglobal.com

CONTENTS

# Introduction of Craig Moir

Over 15 years working in testing

Over 10 years focus on Test Automation

Established and managed an Automation team

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# Overview

Automation team journey

Transition to Agile

Tools

# Main Regression

Reduced from 1920+ hours testing effort to 160 hours

8 weekly to 2 weekly release process

# Test Environment User Setup

Reduced from 2000 hours to 25 hours (Yearly)

Reduced Turnaround time from days to minutes

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# Other Notable

Automated Environment Sanity tests (40+ environments)

Automated Windows 10 Update suite (100+ applications)

Automated Data setup jobs (self-service via Jenkins)

Ran/updated automation suites for multiple system upgrades, replacements over 8 years
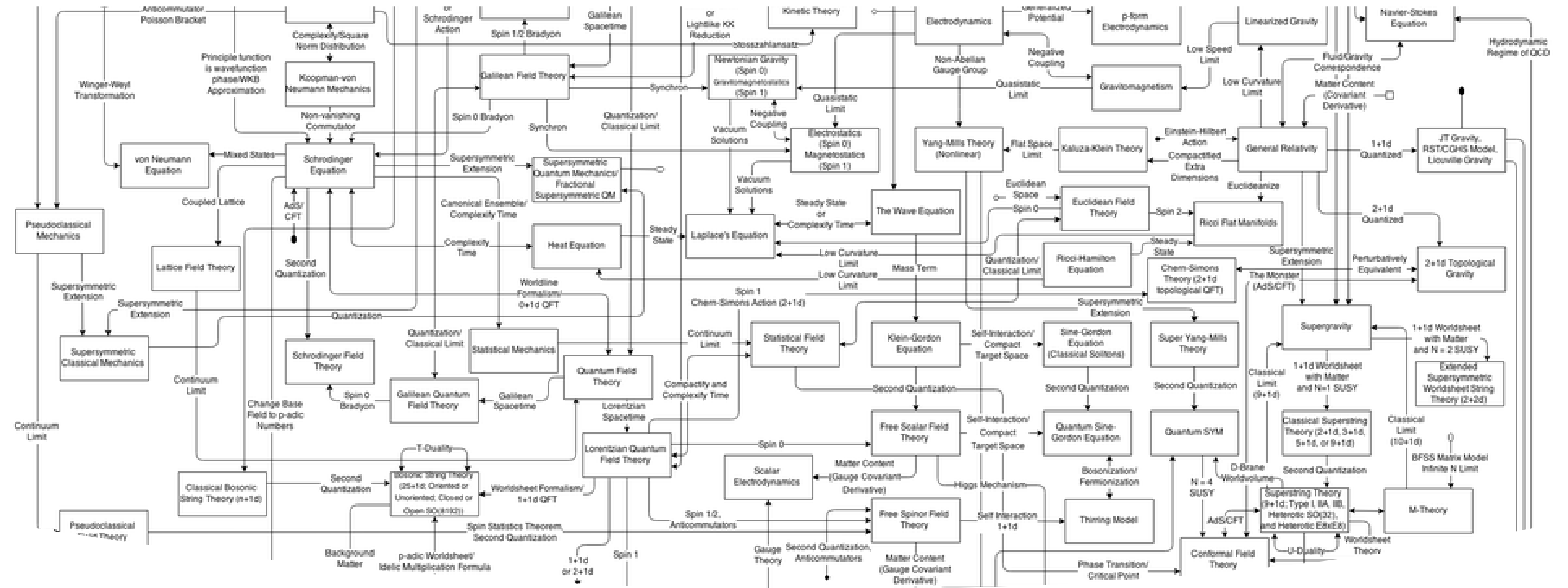
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# Organisation

Large Government department

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Over 9000 staff

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Large IT shop

# Complex Systems

# Structure 9 Years Ago

Mostly waterfall, some Agilish teams

Centralised testing services, engagement to get testing recourses allocated

Project teams created for large pieces of work
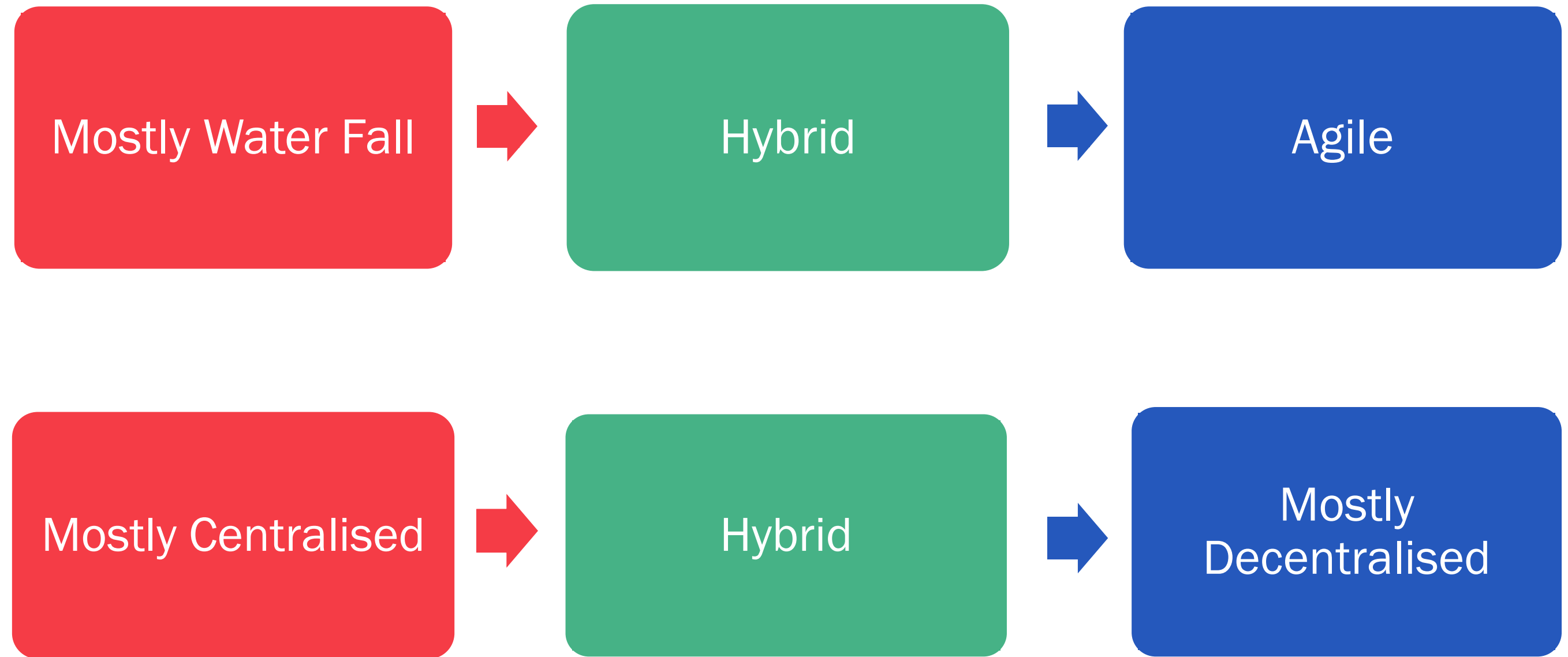
BAU teams for regular releases

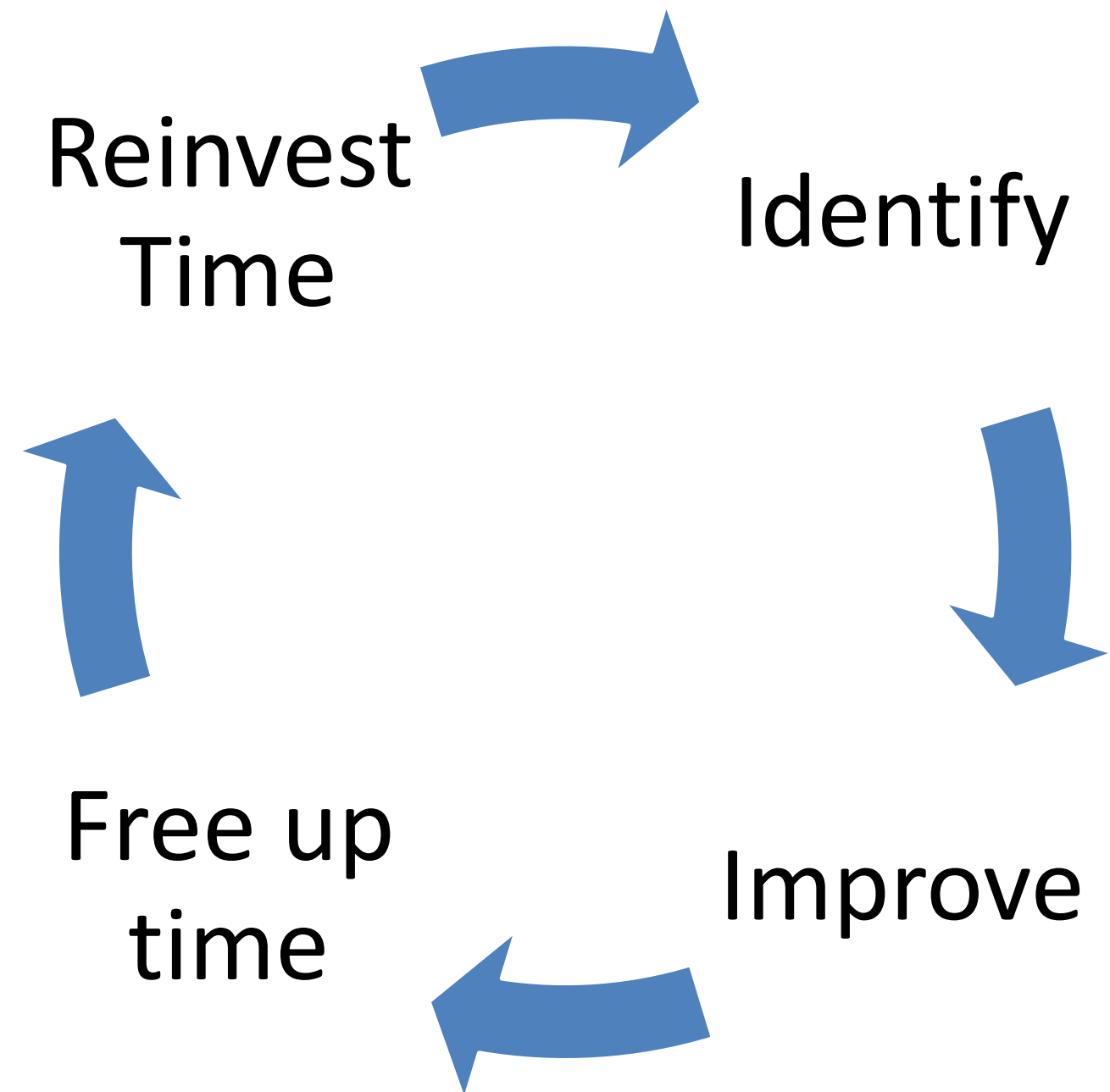ttc

# Automation Team Creation

Setup the Automation team (2013)
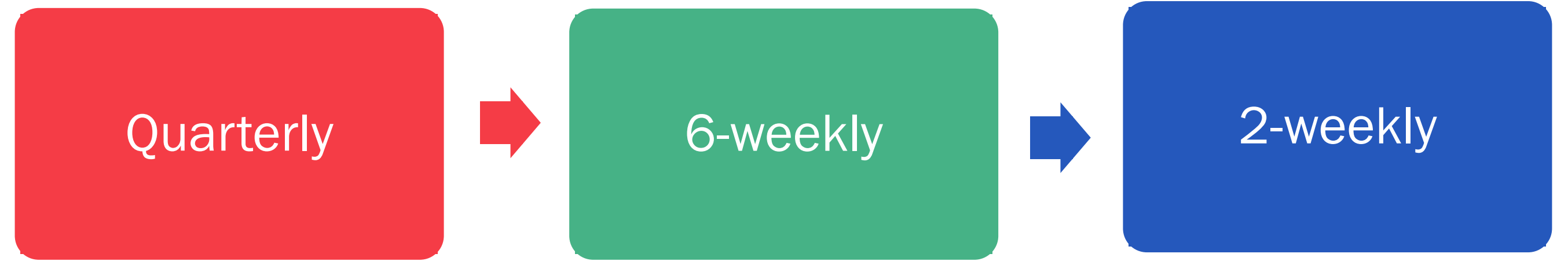
Started with Sanity, Smoke, Core Regression

The types of tests were end to end, going across multiple applications

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# Transition

Mostly Water Fall → Hybrid → Agile

Mostly Centralised → Hybrid → Mostly Decentralised

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# Continuous Improvement

Quarterly → 6-weekly → 2-weekly

Reinvest Time → Identify → Improve → Free up time → Reinvest Time

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# Current Team Structure

➢ The automation team operates as a shared service + capability support

➢ Embedded team members support the cross-application regression suites and the rest are imbedded in agile teams

➢ Additionally, the team supports manual testers who do some automation or want to learn automation.

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# Team Day To Day Operations

- ➢ Run and maintain regression for releases
- ➢ Run and maintain sanity tests and log defects for environments
- ➢ Maintain and execute User Setup scripts for environment access

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# Tools

## Tosca

- Jenkins
- Dex
- Tosca Reports

## Selenium + Java

- Jenkins
- Selenoid
- BDD HTML reports (Jenkins)

## Playwright + Python

- Jenkins
- pytest (xDist)
- pytest HTML reports (Jenkins)

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# Tools (cont)

**pDev**

- Manual Testing
- Open Source
- Tosca on request

**mDev**

- Tosca 80%
- Open Source 20%
- Targeted manual Regression

**Pre-Prod**

- Tosca 100%

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# Take Away

▶ Dedicated Team

▶ Focus on tests with the best ROI

    ▶ Maintainable scripts

▶ Focus on improvements

    ▶ Free up our time to further improve

▶ Appropriate tools

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# Thank You

If you have any questions, feel free to ask or contact me later.

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New Zealand (Auckland)
Level 6, Cathedral House
48-52 Wyndham St.
Auckland 1010, New Zealand
+64 9 948 2225
info@ttcglobal.com

New Zealand (Wellington)
Level 10, AMI Plaza
342 Lambton Quay
Wellington 6011, New Zealand
+64 4 210 2225
info@ttcglobal.com

United States
25211 Grogans Mill Rd #450
The Woodlands, Texas 77380
(832) 813-8063
sales.us@ttcglobal.com

Australia
+61 2 8999 1965
australia@ttcglobal.com

Singapore
Hong Leong Building
6 Raffles Quay, #33-03
Singapore 048581
+65 9822 6679
singapore@ttcglobal.com

UK & Europe
+44 7348 719098
Darren.webber@ttcglobal.com

Middle East
14th floor, Al Khatem Tower Wework Hub71,
Abu Dhabi Global Market Square,
Al Maryah Island Abu Dhabi, UAE
+971 58 5233912