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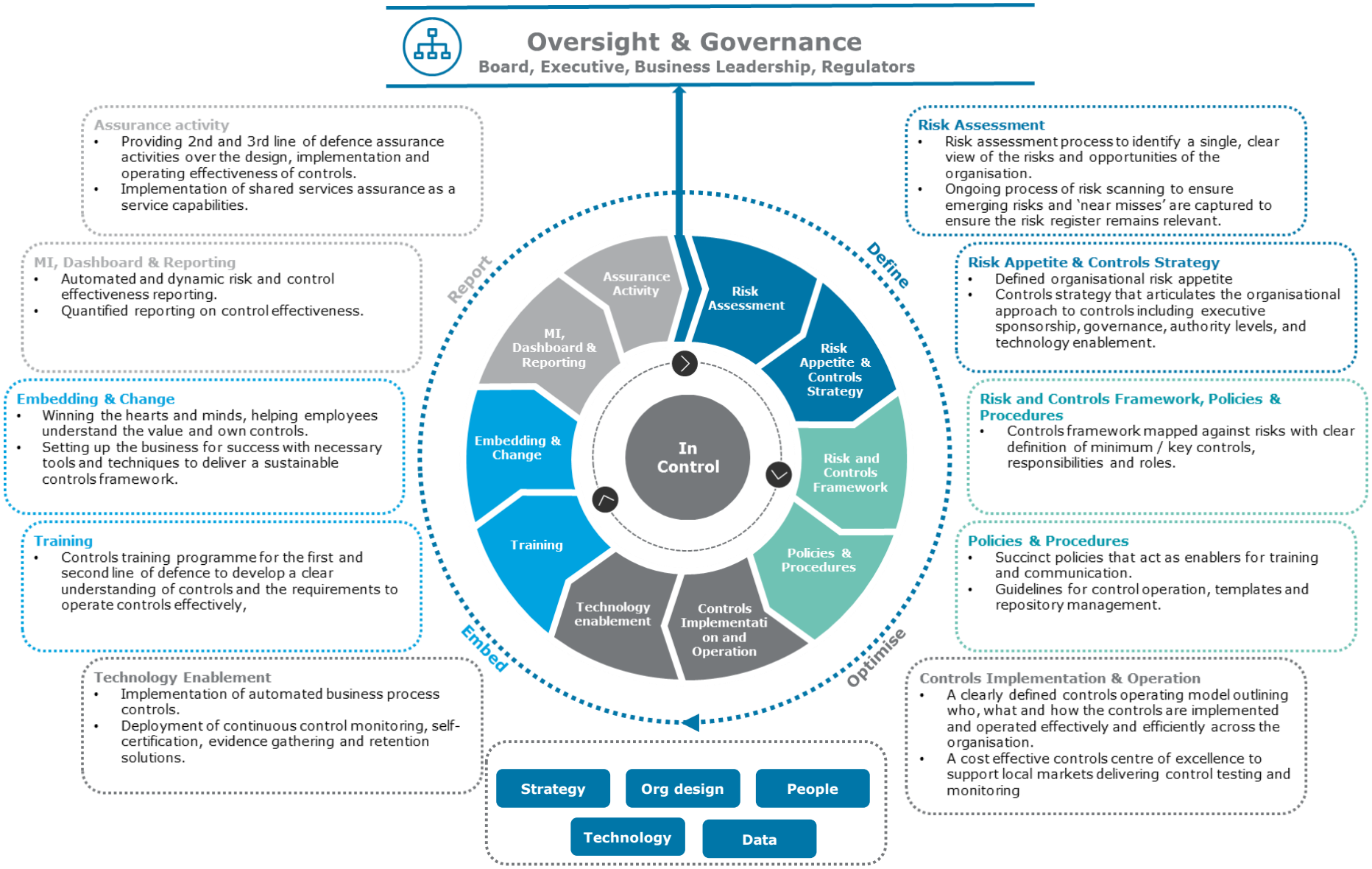
Controls in a Digital, Agile World

Controls Methods in a Digital, Agile World

Controls Design Methods

Effective, Risk Aligned Control & Assurance apply to digital programmes just as in 'traditional' programmes



Digital Controls by Design

Principle Building Blocks for a robust Control Framework in a digital world

1 Governance

Controls Design Authority Group (CDAG) should be formed to approve the controls design in line with defined minimum controls standards. **An owner should be identified for owning controls** on a more operational basis.

2 Take Control

Take Control of the Robots by implementing access, process and General IT controls (e.g. change management) controls over robots. Perform validation over machine learning & AI processes.

3 Shared Services

Establish a **Control Service Centre** as node within the Finance Shared Service Centre(s). Their remit would increase as the team matures from initially control testing support and reporting to exception management and test execution for all non-judgemental controls.

4 Process Design

Risks and Controls should be defined in each business process design document. All of the controls, **including controls over Robots** are brought together into a Risk and Control Matrix (RACM) to avoid gaps and for duplication to be managed in a more efficient manner.

5 Scope

The scope of controls should include **process controls, access controls** and **General IT controls, on all Finanacial system in scope**.

6 Control Awareness

Control Awareness Training should be given emphasising key roles and responsibilities as it relates to control ownership, control operation and effective monitoring to drive accountability and make effective above and beyond a 'box-checking' exercise. **Emphasise new risks and controls of digitisation and robots.**

7 Application Security

Application security should be designed to be **flexible and modular** so that roles can be **Segregation of Duties (SoD) free**, or assigned a mitigating control from an approved list.

Application security should be extended to Robots – what can they systems and data can they access, what can they share and distribute?

8 Automation

Standard application configuration should be used to automate controls and relevant 'inherent controls' called out in the RACM i.e. controls that are embedded in the application and do not require additional configuration.

Use **Robotics for Automation of Controls** where system configuration or integration is not available.

9 Security Automation

Automation of Segregation of Duties (SoD) checks, password resets and workflow approvals should be put in place to **maintain security post go-live**.

10 Automated Monitoring

A control monitoring or testing regime should be put in place to **ensure continuous effectiveness of the controls post go-live** – similar to the 'real-time' analytics strategy for other areas.

Controls should be designed into Hybrid Agile solutions from the outset

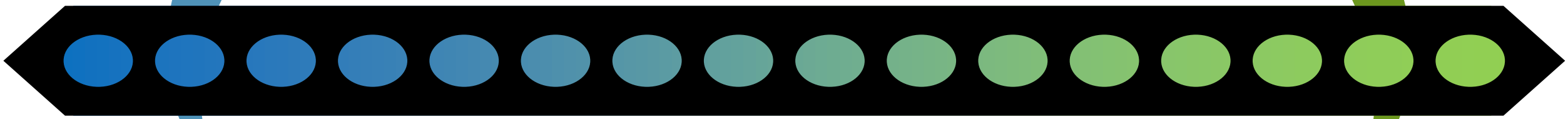
The application of adaptive, agile concepts and techniques in a traditional, predictive project. When Financial Controls are included in project requirements, they can be delivered in an agile way.

Retain from waterfall

- Predictability (scope/requirements, resources, schedule, and budget)
- Project controls
- Execution discipline

Retain from agile

- Flexibility
- Business owns priorities and features
- Rapid delivery of product increments
- Value-driven
- Execution discipline



Controls in Hybrid Agile

- Predictability
- Requirements include control objectives
- Flexibility at the control activity level
- Enhanced collaboration with internal stakeholders
- Frequent review of increments – Optimised RACM
- Execution discipline

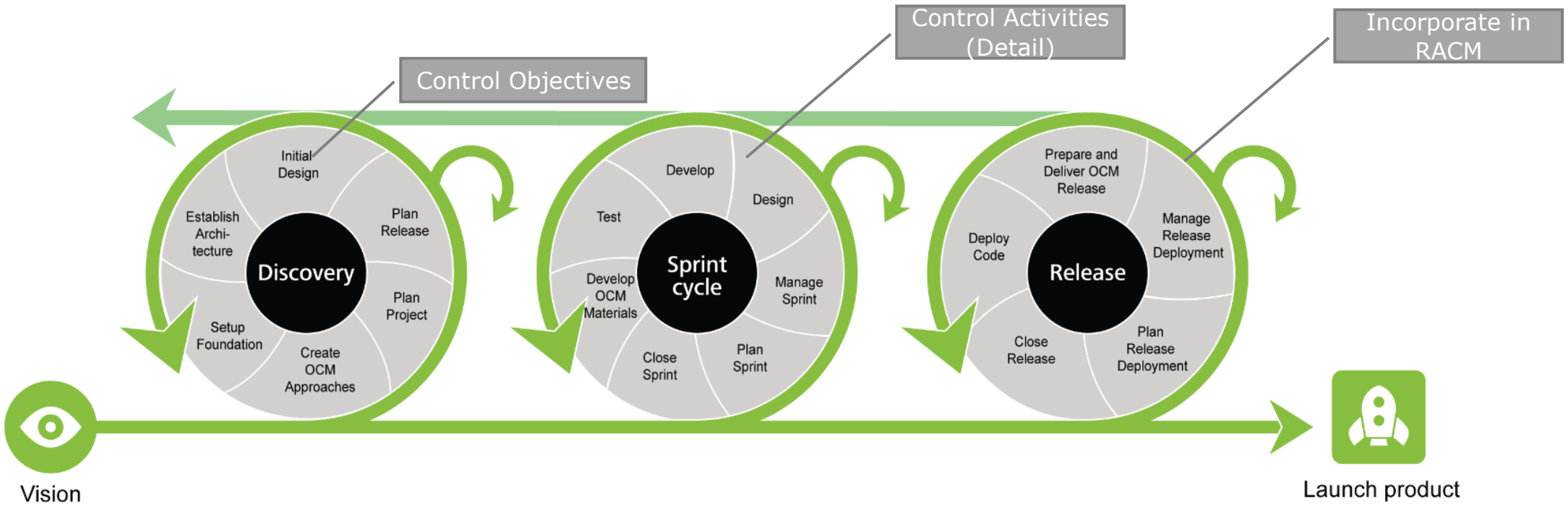
Approach-agnostic - Integrated processes and controls

Integrating Controls Design into an agile digital finance programme

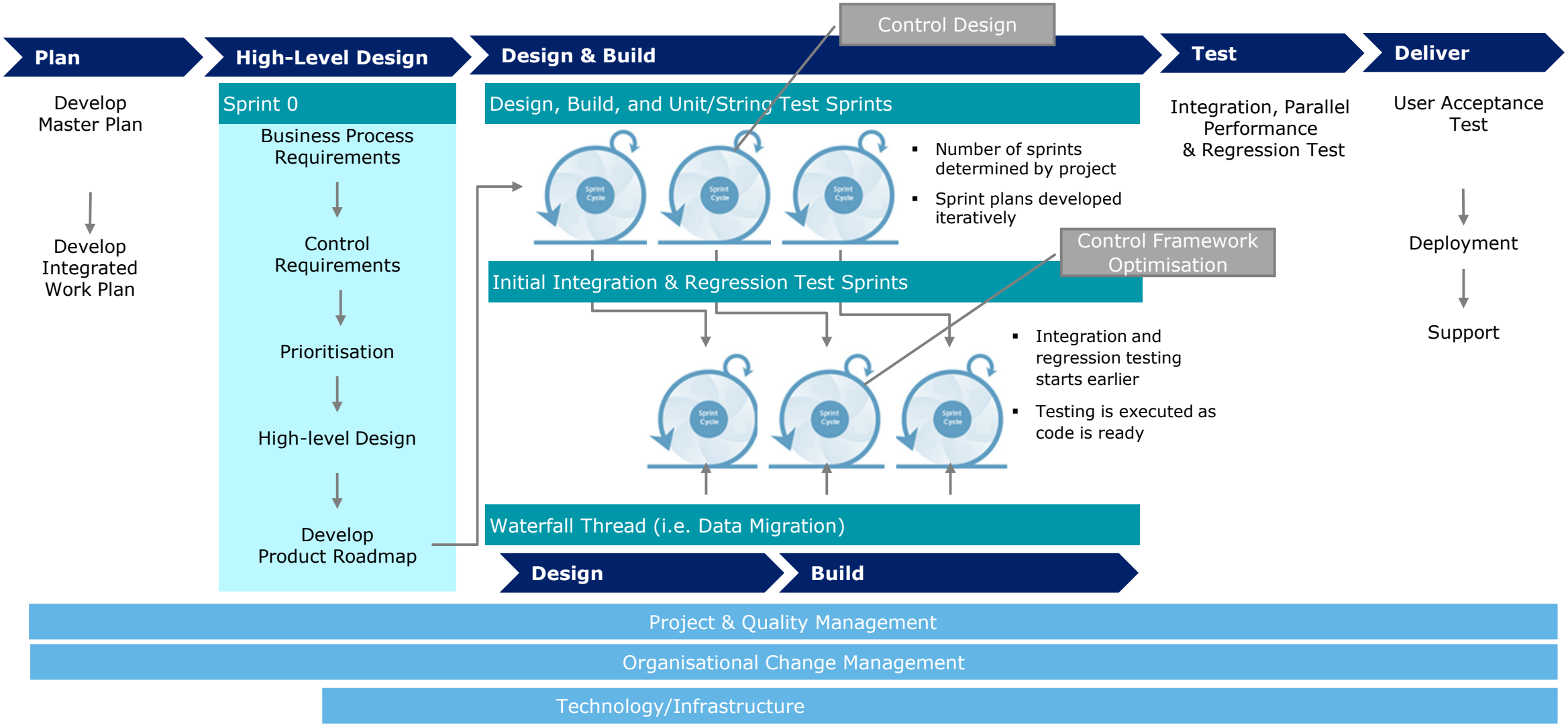
Control design is integrated into an agile programme by including the requirements in at the discovery stage. It is imperative that this is at the right level – i.e. the control objective level.

The sprint team then has the freedom to design, iterate and build the detailed control activities required to realise the control in the Sprint cycle.

The sprint outcome is then fed forward into the Risk and Control Matrix (RACM), which is iterated and optimized through collaboration between multiple cross-functional sprint teams.



Sample approach for hybrid agile project – where do controls fit-in?



Robotic Control Automation

What is Robotic Process Automation (RPA)?

Software!

Robots are	Robots are not
Computer coded software.	Walking, talking auto-bots.
Programmes that replace humans performing repetitive rules-based tasks.	Physically existing machines processing paper.
Cross-functional and cross-application macros.	Artificial intelligence or voice recognition and reply software.

Robots can provide a ‘thin layer’ of controls over systems where ‘standard’ configuration is not available i.e. Robotic Control Automation!

What processes are suitable to deploy with Robotic Control Automation?

Anything that is rules based and repetitive – Shared Services is a good place to start

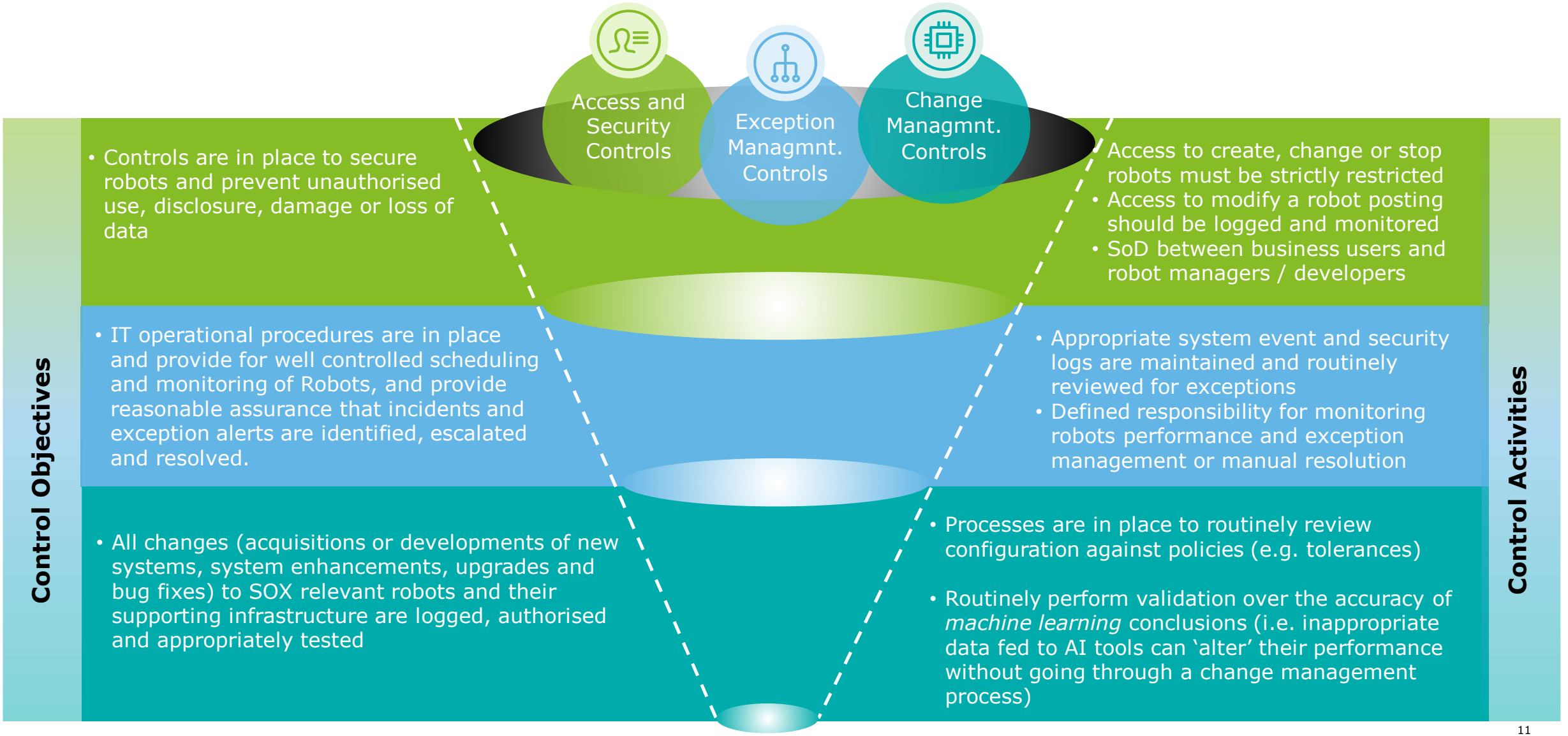
Sample processes suitable for robotics, illustrative

Sample Activities for Robotic Control Automation

- Logging onto web / multiple enterprise applications
- Scraping data from websites / applications
- Copying and pasting data
- Following if/then conditions and rules
- Extracting and reformatting data into reports or dashboards
- Extracting structured data from documents
- Merging data from multiple places
- Making calculations
- Filling in forms
- Reading and writing to databases

Controlling Robotised Processes

Creating a robust control environment in the digital world – the same fundamentals



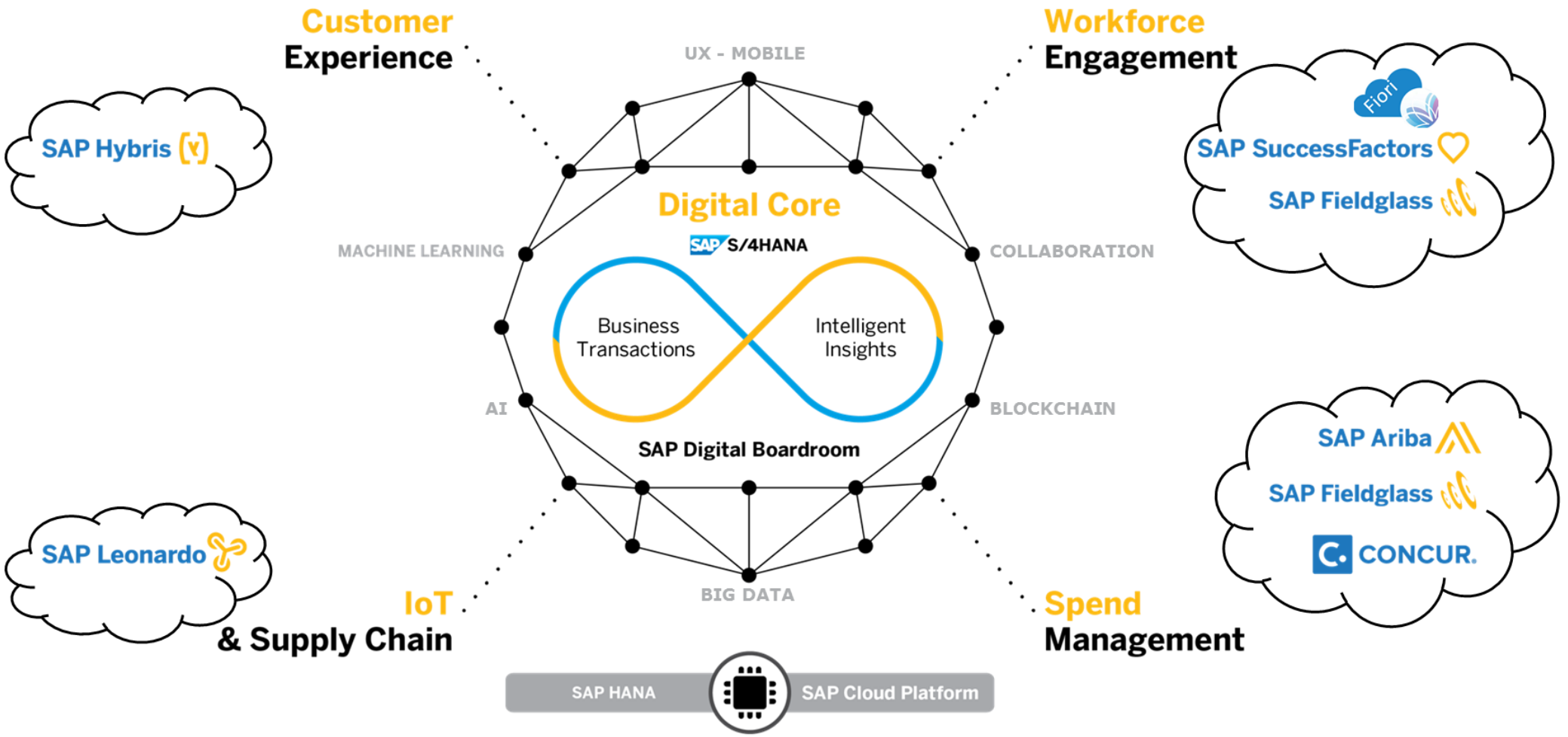
Additional Digital Risks

In addition to the other risks and controls discussed above, increasing digitisation brings new risks that need to be controlled

Appendix

Secure the Digital Core…..

Innovation and agility is driven by cloud applications, robotics, AI and ‘edge’ technologies



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