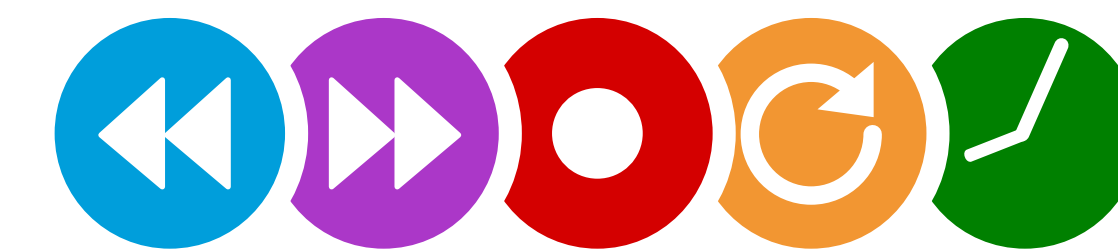




Business Process Preservation

How to capture, document & evaluate?



TIMELESS BUSINESS

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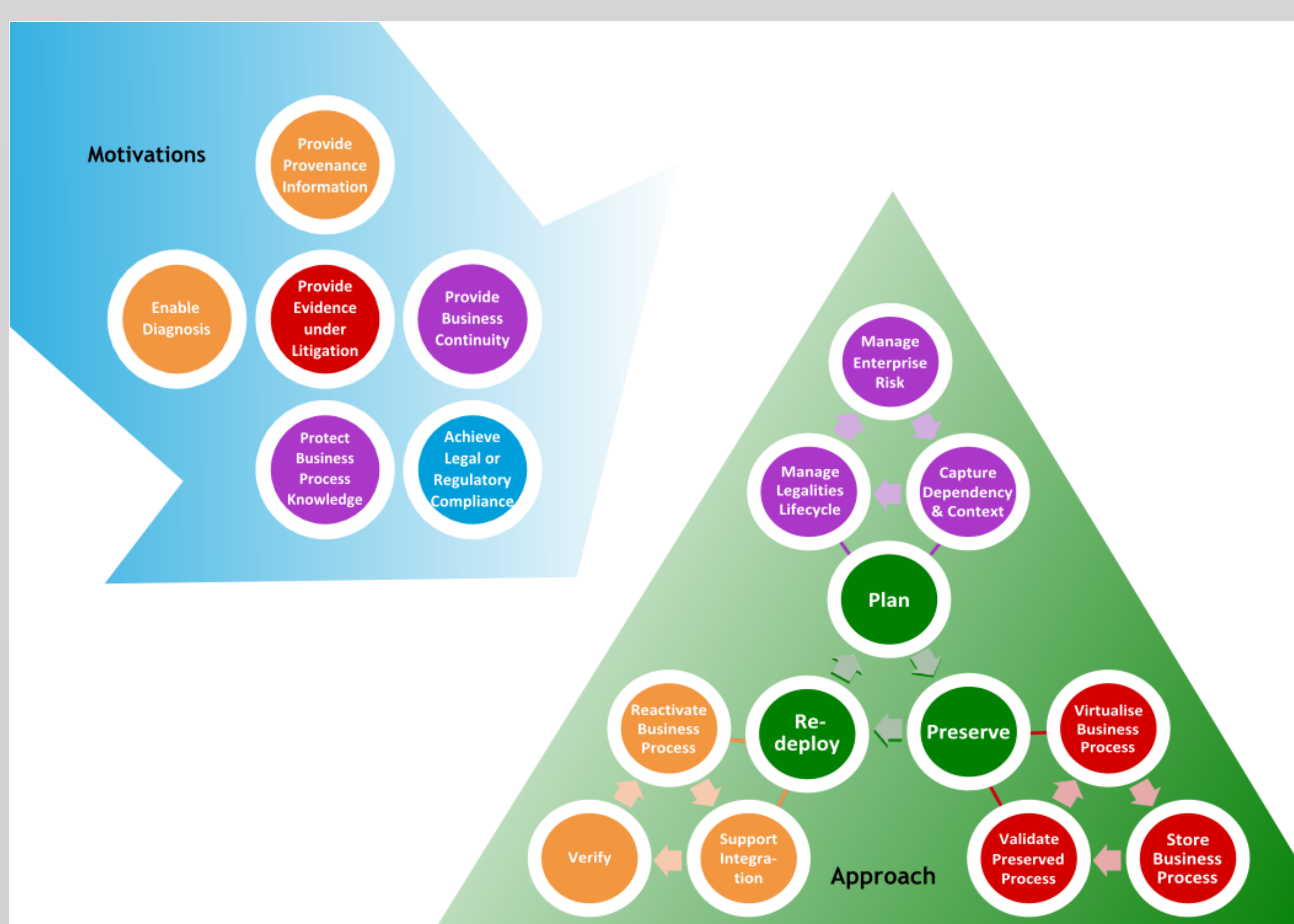
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Motivation

Process to preserve a business process (BP) for the long term. Preservation of the environment of processed, analyzed, transformed and rendered data - e.g. civil engineering, aerospace, medical data, scientific workflow.

- Strong dependencies between data, software services and infrastructure
- Consideration of legal and organisational aspects
- Re-run of process in the future



Phases

BP Preservation can be broken down in:

1. Planning

- perform enterprise risk analysis
- determine requirements for preserving relevant BPs
- capture and define relevant context and dependencies
- plan and assess preservation alternatives

2. Preservation

- perform required preservation actions (e.g. emulation of external services and migration of data)

3. Redeployment

- reactivate and rerun BPs in new execution environment
- verification of performance and behaviour

1. Planning

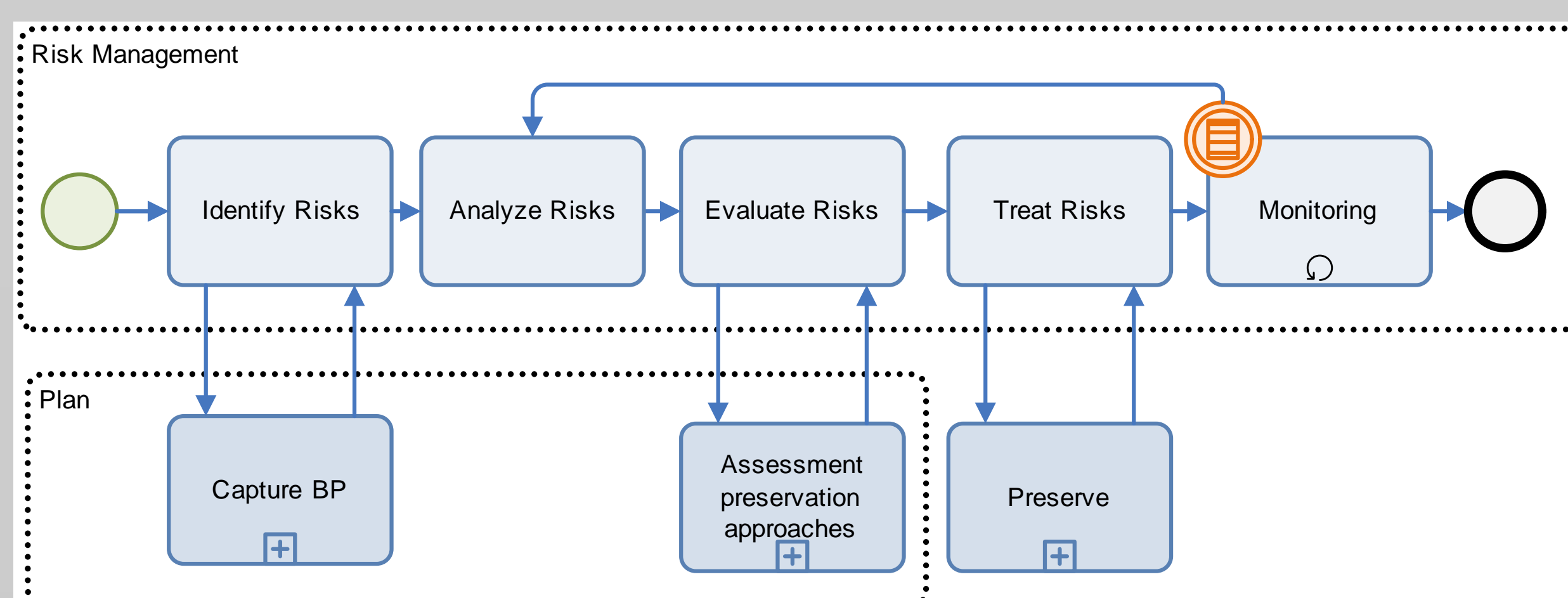
- **Risk management approach** (based on ISO3100)
 - Risk analysis of existing business processes
 - Identification of potential risks for the long term availability
 - Monitoring of preserved business processes
- **Context capturing**
 - Context of a business process identified including data, software, hardware, infrastructure, organisational and legal aspects
 - Context and dependencies modelled in Timbus context model
 - Highly complex model providing different views for stakeholders
- **Assessment of preservation approach**
 - Documentation of preservation requirements
 - Identification of potential preservation strategies, e.g. emulation of external software, the migration of data into other formats or the virtualisation of systems.
 - Maintenance of dependencies between components over time
 - Setting boundaries of archived system, identification of external dependencies
 - Assessment of strategies against preservation requirements
 - Decision making considering economic aspects

2. Preserve

- Execution of required preservation action
- Preparing business process for archival storage
- Capturing of validation data for behaviour and performance
- Verification for completeness of captured business process
- Transfer to archival storage

3. Re-deployment

- Reactivation of archived business process in new execution environment
- Support for the integration of preserved service into new infrastructure
- Verification of redeployed business process



Summary

- Three phase process to preserve a business process for the long term
- Maintenance of the execution environment of a business process and the relevant context
- Risk management approach to identify processes to preserve
- Context model to capture technical, organisational and legal aspects and their dependencies
- Guidelines and methods to transform live process to archival storage
- Assessment of preservation strategies to preserve the business process context considering preservation requirements and economic aspects
- Verification and validation mechanism to ensure the authenticity of the archived business process
- Monitoring of external dependencies of archived process
- Redeployment of business process on a new infrastructure

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