

# SAP Application Extension Methodology



This methodology isn't just about adding features—it's about implementing extensions correctly, maintaining consistency, and ensuring long-term sustainability within your SAP ecosystem.



# Why We Need a Methodology

## 1 Plan Extensions Systematically

It provides a framework to define the scope, objectives, and requirements of the extension, creating a clear roadmap for implementation.

## 2 Select Appropriate Technologies

It guides you in choosing the right technologies and platforms for your extension, ensuring compatibility and efficiency within your existing landscape.

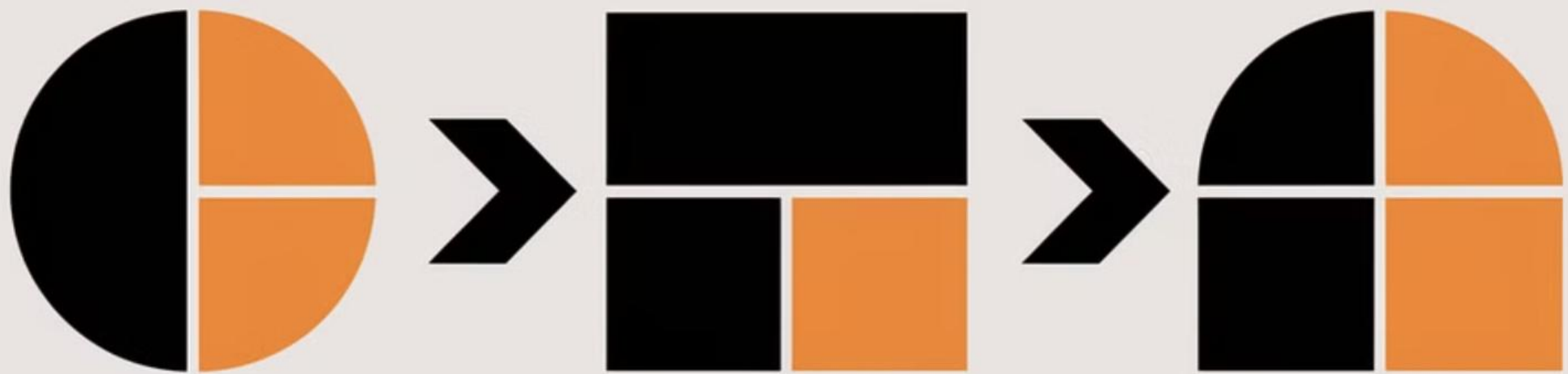
## 3 Maintain Consistency

It promotes standardization and best practices, making extensions easier to manage and maintain over time while addressing key challenges like maintaining a clean core.

## 4 Enable Collaboration

It fosters communication among different teams and stakeholders involved in the extension project, creating a shared understanding.





# Three Main Phases of the Methodology

## Assess Extension Use Case

Examine your business processes to determine exactly what the extension needs to accomplish. Consider the systems involved, data requirements, and user needs to create a comprehensive understanding of the extension's purpose.

## Assess Extension Technology

Explore available technologies and select those that best fit your requirements. Evaluate different extension styles while considering factors like performance, scalability, and security to ensure alignment with your IT strategy.

## Define Extension Target Solution

Integrate all components to build your extension. Choose appropriate building blocks, configure necessary services, and create a solution that meets your goals while integrating seamlessly with your existing SAP landscape.

# Phase 1: Understanding Your Needs



## System Analysis

Identify which systems the extension will interact with, how data will flow between them, and what dependencies and interfaces exist in your current landscape.

## Business Requirements

Define key requirements for the extension, problems it will solve, and benefits it will deliver to create a clear value proposition for stakeholders.

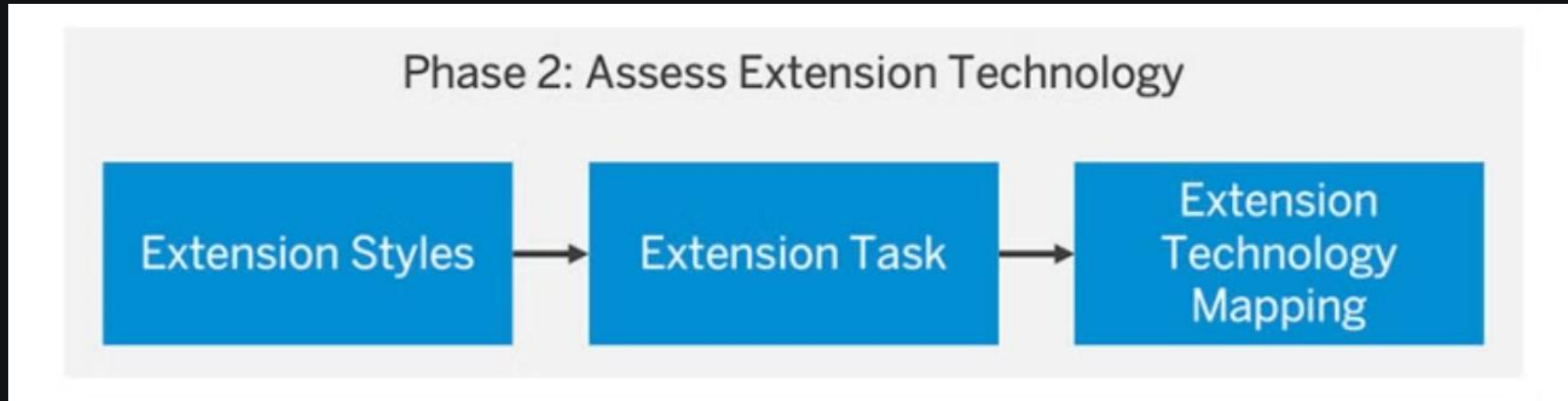
## Use Case Description

Document what the extension will do, how users will interact with it, and the specific steps involved in the process to ensure alignment with business needs.

## Context Definition

Assess the current state of your IT landscape, future plans, strategic directions, business drivers, constraints, and regulatory requirements.

# Phase 2: Choosing the Right Technology



## Extension Styles

Explore different approaches to extend SAP applications, including in-app extensions, side-by-side extensions, and cloud extensions to determine the most appropriate architecture.



## Extension Tasks

Identify specific tasks the extension needs to perform, such as adding custom fields, creating new user interfaces, or integrating with external systems.



## Technology Mapping

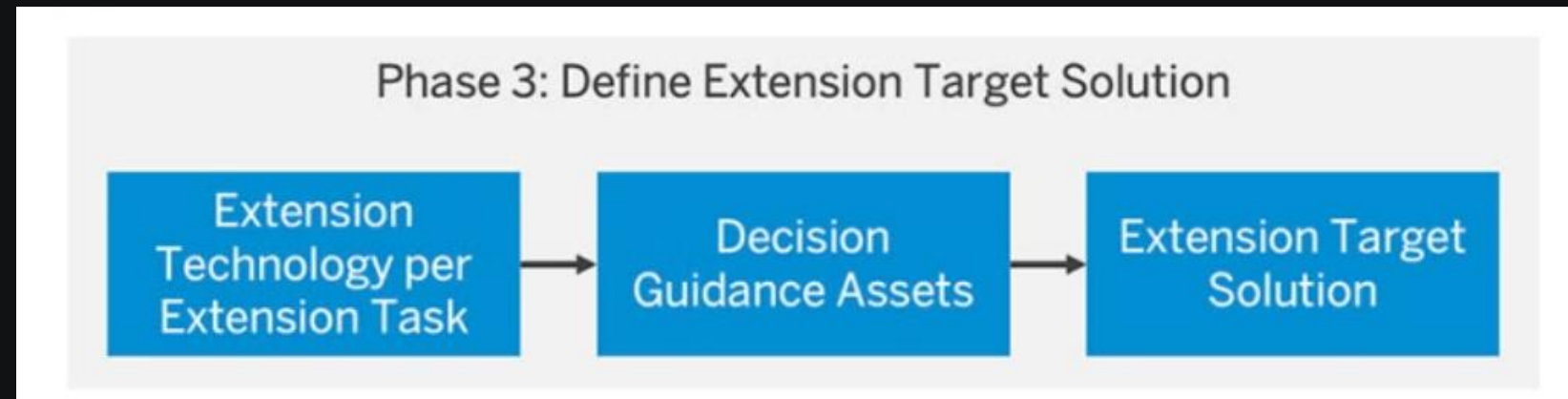
Match tasks to appropriate technologies, considering factors like cost, performance, security, and maintainability to ensure optimal technical decisions.



## Extension Domains

Determine where extensions will run—within the core SAP system, on the SAP Business Technology Platform (BTP), or in a hybrid environment.

# Phase 3: Building Your Solution



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## Select Building Blocks

Choose specific technologies and services for each task based on the technology mapping from Phase 2, ensuring all components work together cohesively.

2

## Leverage SAP Resources

Utilize SAP's guidance resources, including best practices, documentation, and sample code to accelerate development and ensure alignment with standards.

3

## Implement and Test

Build the extension, configure necessary services, and test thoroughly to ensure functionality, performance, and security meet requirements.

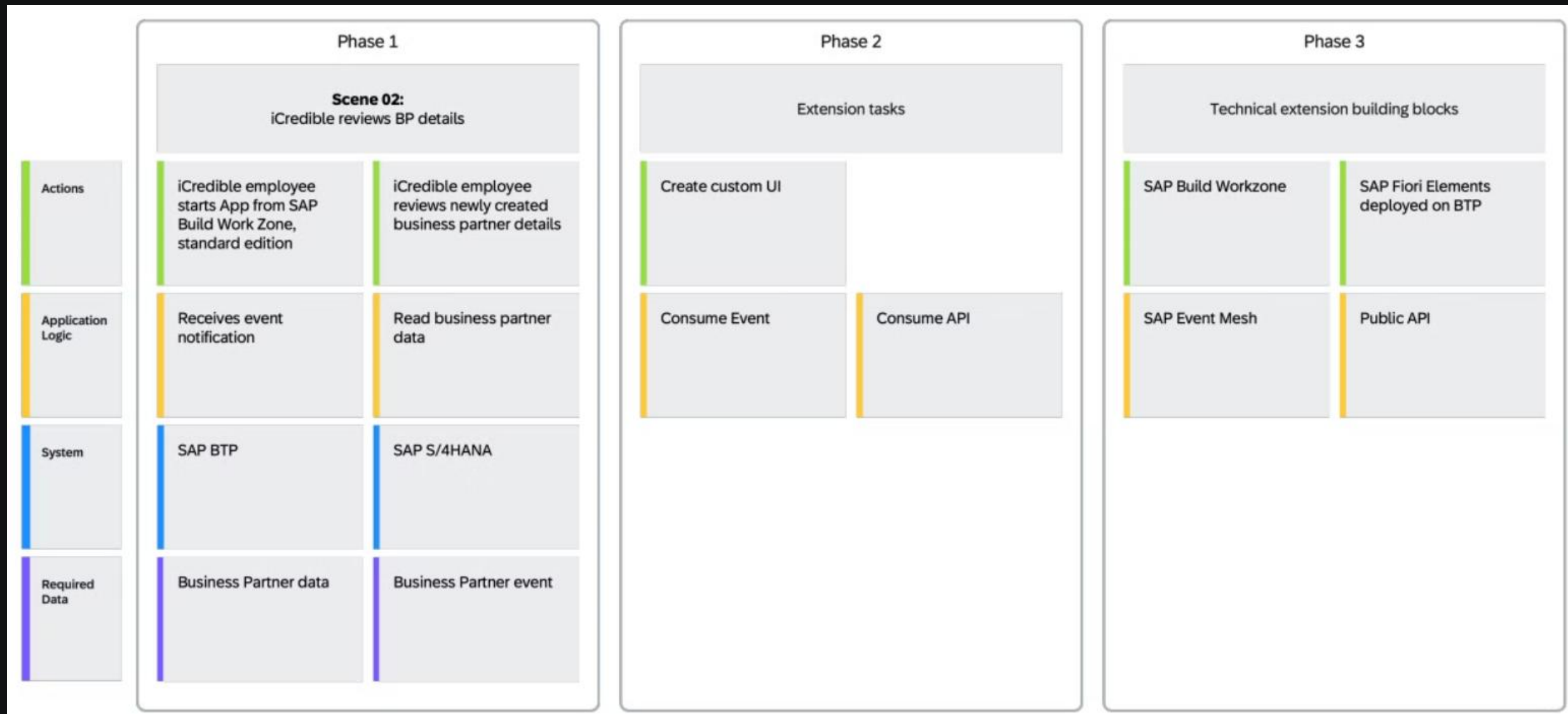
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## Document and Deploy

Create detailed documentation of the design, implementation, and operation, then deploy to production and establish monitoring procedures.



# Example of a filled out Extension Task Mapping Template



# Key Concepts for Success

## Extension Domain

The environment where the extension runs—inside the core SAP system or on a separate platform like SAP BTP, determining integration approaches.

## Platform Technologies

Specific technologies and services used to build extensions, such as SAPUI5, ABAP Cloud, and SAP Integration Suite.



## Extension Task

A description of what the extension needs to accomplish without technical details, focusing on the business function it provides.

## Application Pattern

A proven implementation approach for specific extension tasks, serving as a template for building particular types of extensions.

## Operation Concept

The operational aspects of the extension, including deployment, monitoring, and maintenance procedures to ensure long-term stability.





## Key Takeaways

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### Structured Phases

The methodology provides three comprehensive phases that guide you from initial assessment through technology selection to solution implementation.

100%

### Best Practices

Following the methodology ensures your extensions adhere to SAP best practices, maintaining compatibility and supportability.

1

### Unified Approach

It creates a common language and framework for all stakeholders, ensuring everyone understands the extension goals and implementation approach.

360°

### Complete Coverage

The approach addresses all aspects of extension development from business requirements to technical implementation and ongoing operations.