Clean Core in SAP: Dimensions and Guiding Principles

Today, we'll dive deeper into the specific dimensions of a clean core and the guiding principles you'll need to follow. It's important to understand that when we talk about clean core, we're not discussing a product or tool – it's a mindset and approach that helps you build a flexible, future-ready SAP system.

por Mayko Silva

The Five Dimensions: Processes

Flexibility

Design processes that can adapt to changing business needs without requiring complete overhauls.

Simplicity

Avoid unnecessary complexity that makes maintenance difficult and increases technical debt.

Adaptability

Think of processes like a versatile floor plan in a house - rooms that can serve multiple purposes as your needs evolve.

The first dimension of a clean core is **Processes**. This encompasses how you design and establish your business processes within the SAP system. The goal is to create processes that are flexible enough to adapt to changing requirements while remaining simple enough for efficient maintenance.

The Five Dimensions: Extensibility

1 **Standard SAP Code**

Keep the core SAP system untouched and standard.
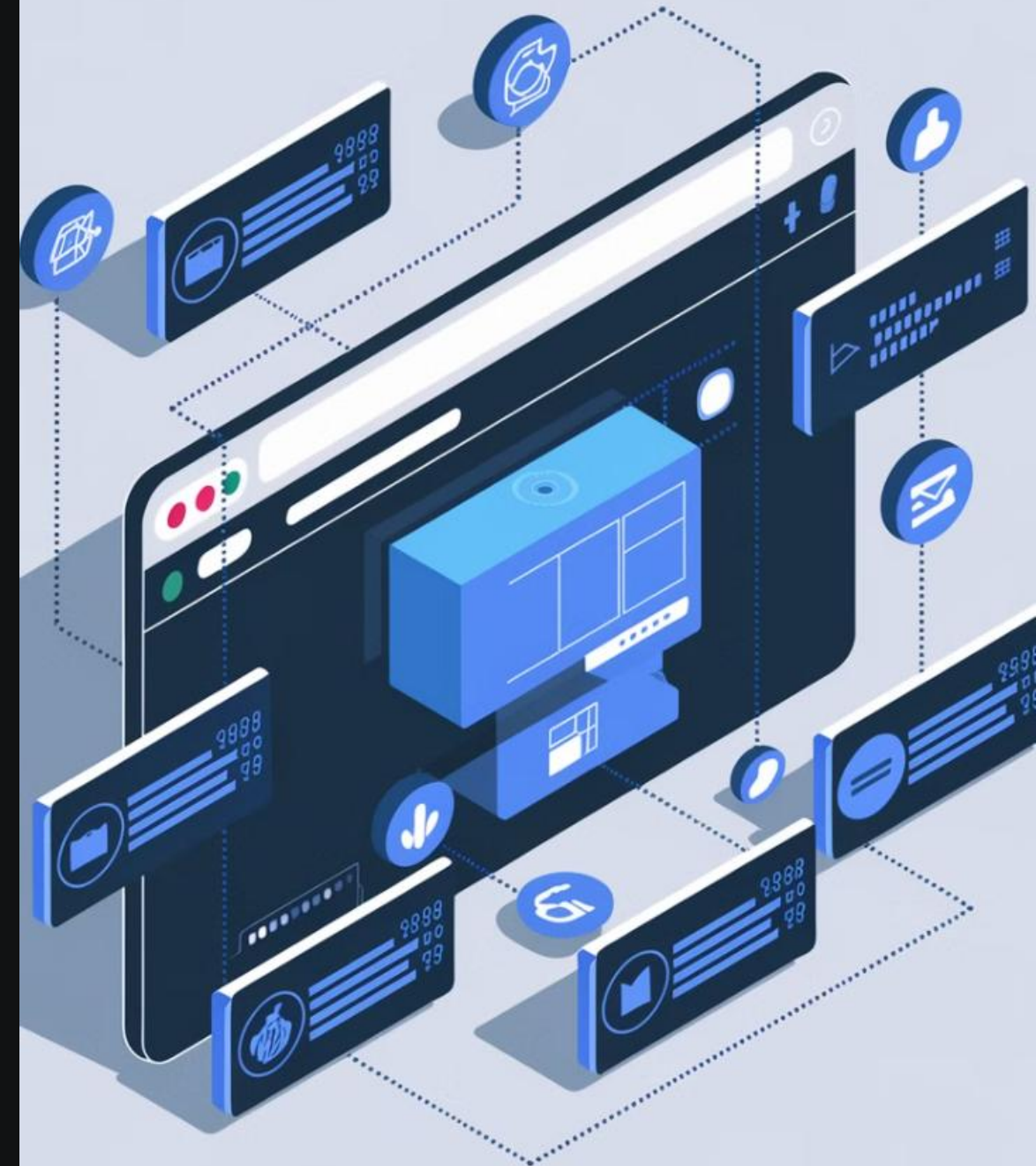
2 **Decoupled Extensions**

Build customizations that work alongside the standard without modifying it.

3 **Future-Proof System**

Ensure easier upgrades and maintenance by preserving the standard core.

The second dimension is **Extensibility**, which is crucial for maintaining a clean core. When extending or customizing your SAP system, you should do so in a way that doesn't alter the standard code. This "decoupling" approach is similar to using browser plug-ins instead of modifying the browser's source code directly.

The Five Dimensions: Integrations

Standard APIs

Utilize SAP's standard application programming interfaces whenever possible to ensure compatibility and support.

Robust Connections

Build integrations that are reliable and can handle errors gracefully without system-wide failures.

Maintainable Design

Create integration points that are well-documented and accessible for future maintenance needs.

The third dimension is **Integrations**, which focuses on how your SAP system connects with other systems. Clean integrations are like well-designed plumbing and electrical systems in a house – they follow standards, remain accessible for maintenance, and avoid custom setups that only specialists can troubleshoot.

The Five Dimensions: Data

Data Quality

Ensure accuracy and consistency across all data elements.

1

Efficient Volumes

Maintain only necessary data to optimize system performance.

2

Data Governance

Establish clear ownership and management processes.

4

Privacy Compliance

Implement proper controls for data protection regulations.

3

The fourth dimension is **Data**. In a clean core approach, your data should be lean, accurate, and well-managed. This is comparable to keeping an organized house – you retain only what you need, everything has its designated place, and you safeguard private information appropriately.

The Five Dimensions: Operations

Follow SAP Best Practices

Adhere to SAP's recommended operational procedures and configurations to ensure optimal system performance.

Efficient Maintenance

Implement streamlined processes for system updates, monitoring, and troubleshooting to minimize downtime.

Effective Management

Establish clear roles, responsibilities, and procedures for day-to-day system administration and support.

The final dimension is **Operations**, which encompasses how you run and maintain your SAP system on a daily basis. Clean operations follow SAP best practices and are both effective and efficient – similar to having a well-structured maintenance routine for your house with regular checks and timely repairs.

Guiding Principles of Clean Core

1 **Avoid**

Minimize unnecessary customizations and stay close to SAP standards.

2 **Be Aware**

Understand your technical debt and establish governance frameworks.

3 **Cloud Ready**

Extend and integrate in stable, transparent ways with zero modifications.

4 **Decouple**

Use SAP Business Technology Platform for innovation and differentiation.

Now that we've covered the five dimensions, let's explore the four main principles that guide a clean core approach. These principles work together to ensure your SAP system remains flexible, maintainable, and ready for future innovations.

Principle 1: Avoid

1 **Resist Unnecessary Customization**

Challenge each request for customization by asking if it's truly necessary or if standard functionality could meet the need with process adjustments.

2 **Prioritize Standard Functionality**

Explore all standard options before considering extensions, as standard features are supported through upgrades and updates.

3 **Question "The Way We've Always Done It"**

Be willing to adapt business processes to match SAP standards rather than customizing the system to match legacy processes.

The first principle is **Avoid** – a straightforward but powerful concept. Just because you *can* customize something doesn't mean you *should*. This principle encourages staying as close as possible to SAP standard functionality and avoiding extensions when they're not absolutely necessary.

Principle 2: Be Aware

100%

Visibility

Maintain complete awareness of all customizations and their business justifications.

90d

Regular Review

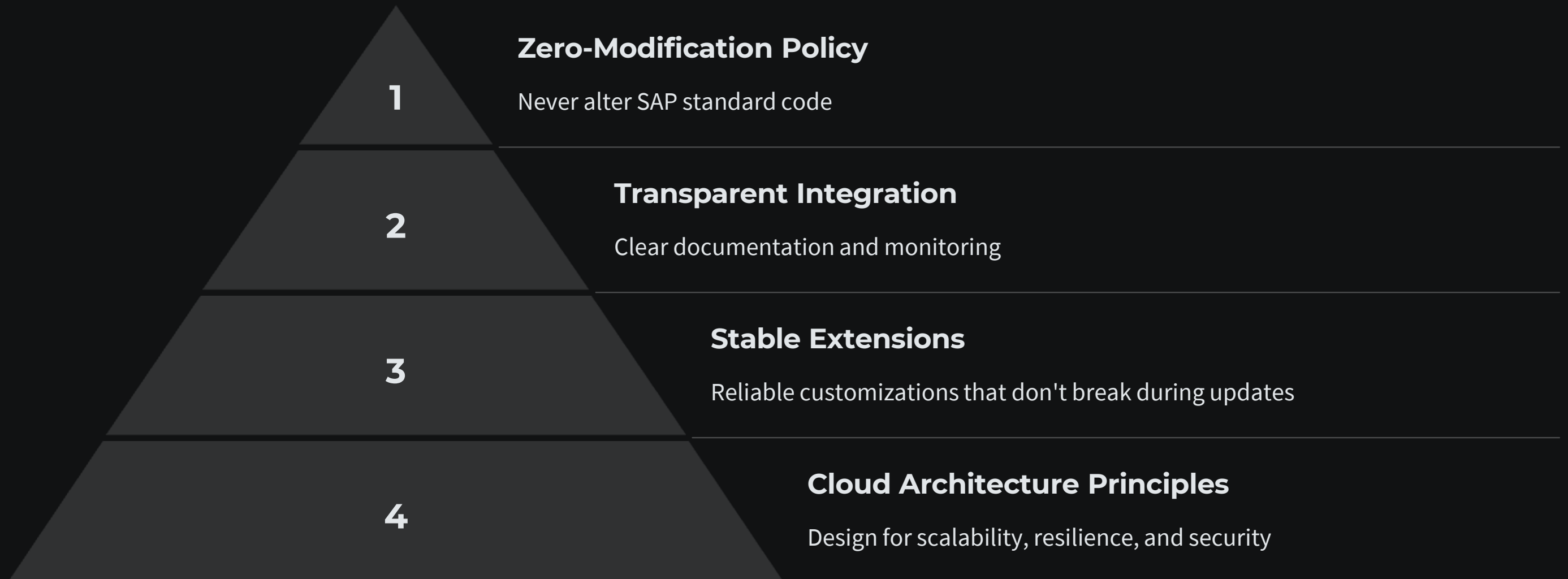Evaluate technical debt quarterly to prevent accumulation.

1

Governance

Establish a single framework for managing all system changes.

The second principle is **Be Aware**. This means knowing your technical debt, evaluating it regularly, and establishing a governance framework to manage it. A clean core strategy provides visibility into this technical debt, making it easier to address before it becomes overwhelming.

Principle 3: Cloud Ready

Zero-Modification Policy

1

Never alter SAP standard code

Transparent Integration

2

Clear documentation and monitoring

Stable Extensions

3

Reliable customizations that don't break during updates

Cloud Architecture Principles

4

Design for scalability, resilience, and security

The third principle is **Cloud Ready**. This means extending and integrating your SAP system in a stable, transparent way that aligns with cloud architecture principles. The cornerstone of this approach is the "zero-modification policy" – a commitment to never change SAP's standard code.

Principle 4: Decouple

SAP Business Technology Platform

Utilize BTP as your platform for innovation and differentiation, keeping custom developments separate from the core system. This creates a clean boundary between standard functionality and your unique requirements.
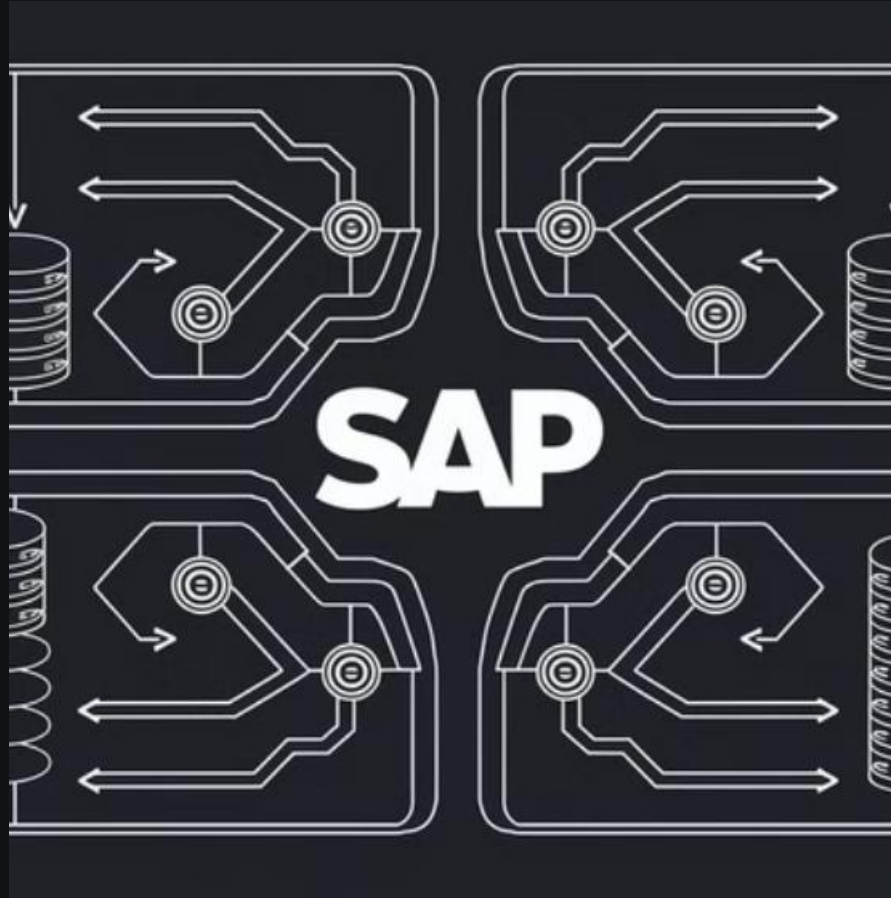
Standard APIs and Events

Build integrations and automations using SAP's standard application programming interfaces and event mechanisms. This approach ensures compatibility with future updates and maintains the integrity of the core system.

Implementation Considerations

The approach to clean core varies significantly between greenfield (new) implementations and brownfield (existing) implementations, with each requiring different strategies and timelines.

The final principle is **Decouple**. This means using SAP Business Technology Platform (BTP) as your foundation for innovation and differentiation, while automating processes using standard APIs and events. Decoupling ensures your customizations remain separate from the core system.

Greenfield Implementation Approach

For a **greenfield implementation** – starting fresh with a new SAP system – you have a unique opportunity to build clean from the beginning. This approach allows you to establish clean core principles from day one, without the burden of legacy customizations.

The key is to set up strong governance mechanisms and a comprehensive strategy that keeps your system clean and updated. By starting with clean core principles, you can avoid the accumulation of technical debt that often plagues SAP implementations.

Brownfield Implementation Approach

1

Establish Clean Core Principles

For all new deployments and changes

2

Plan Your Journey

Create a roadmap toward clean core

3

Step-by-Step Approach

For existing investments and customizations

For a **brownfield implementation** – working with an existing SAP system – the approach differs significantly. You'll need to establish clean core principles for any new deployments while developing a comprehensive plan for addressing existing customizations.
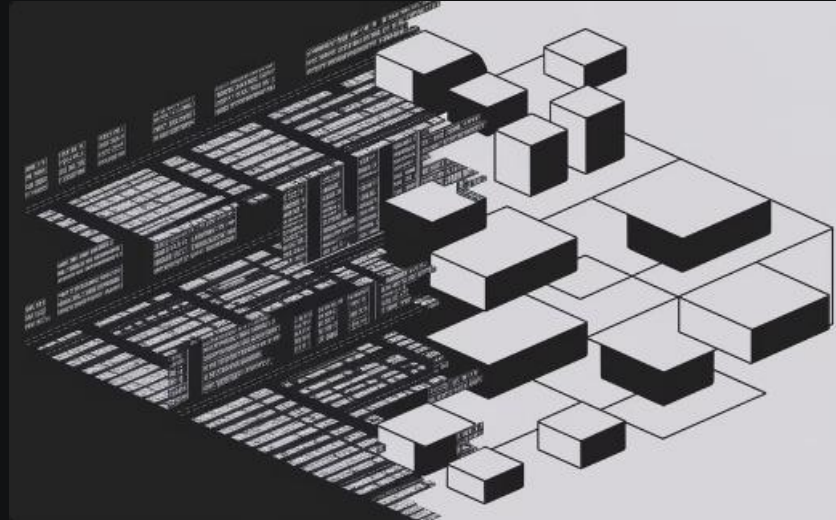
This journey requires a methodical, step-by-step approach that balances maintaining business operations with gradually moving toward a cleaner system architecture.
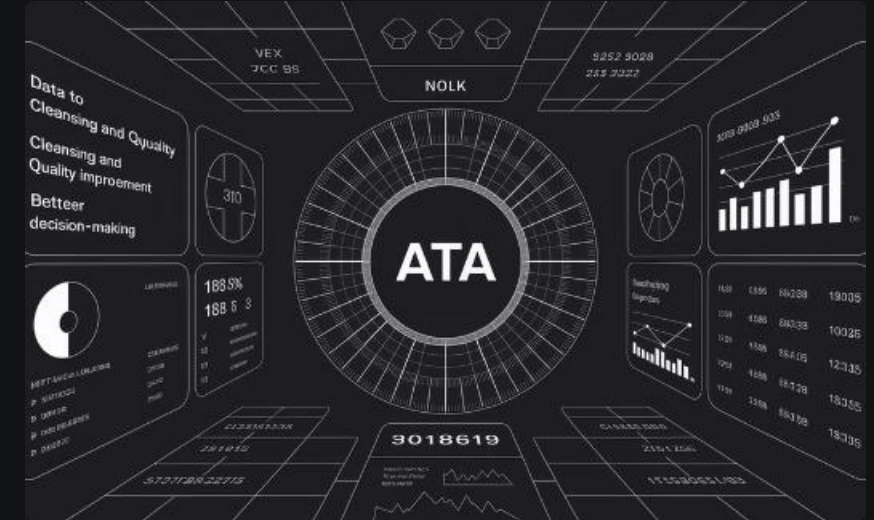
The Journey to Clean Core

Modernize Process Designs

Revisit business processes to align more closely with SAP standard functionality, reducing the need for customizations.

Transform Custom Code

Convert traditional custom code to modern extensibility approaches that maintain separation from the core.
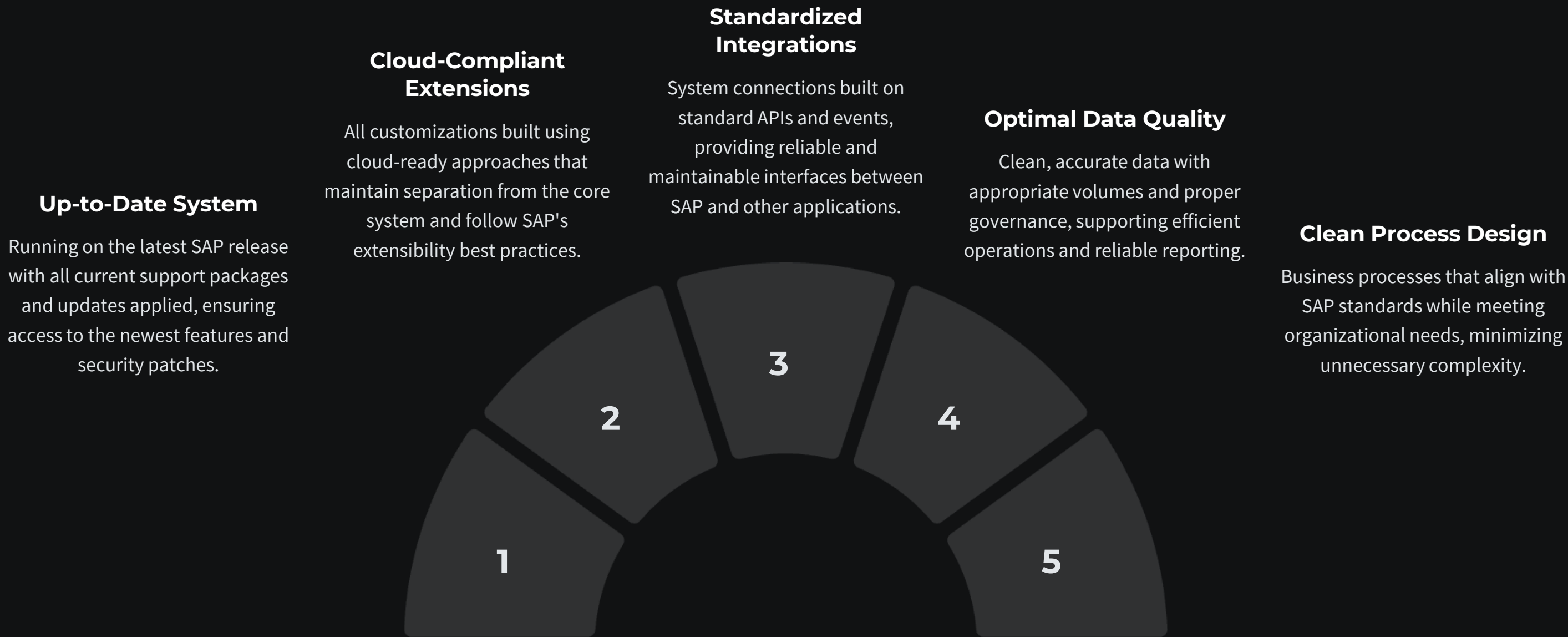
Cleanse Data

Improve data quality, reduce unnecessary data volumes, and implement proper data governance practices.

Achieving a clean core doesn't happen overnight – it's a journey that requires establishing the right mindset and governance model. For brownfield implementations, your strategy will include activities to both get clean and stay clean.

The Ideal Clean Core State

Up-to-Date System

Running on the latest SAP release with all current support packages and updates applied, ensuring access to the newest features and security patches.

Cloud-Compliant Extensions

All customizations built using cloud-ready approaches that maintain separation from the core system and follow SAP's extensibility best practices.

Standardized Integrations

System connections built on standard APIs and events, providing reliable and maintainable interfaces between SAP and other applications.

Optimal Data Quality

Clean, accurate data with appropriate volumes and proper governance, supporting efficient operations and reliable reporting.

Clean Process Design

Business processes that align with SAP standards while meeting organizational needs, minimizing unnecessary complexity.

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3

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1

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The best-case scenario for a clean core is an up-to-date system on the latest release, with cloud-compliant extensions and integration, optimal data quality, and clean process design. This ideal state provides maximum flexibility, easier upgrades, and a foundation for continuous innovation.