
The Clean Core Accelerator

A free, community-powered SAP prototyping platform that generates Clean-Core-compliant drafts for review and approval. Built by someone who was affected by an S/4HANA transformation — not by a consulting firm.

01. What is Clean-Core.io?

In simple terms, Clean Core means keeping the standard SAP ERP core code completely untouched. When custom code is mixed directly with standard classes and tables, future S/4HANA system updates become complex, slow, and expensive.

This is exactly where **Clean-Core.io** comes in. Built as a free community tool by someone who was personally affected by an S/4HANA transformation, this platform works as an intelligent accelerator. Upload your legacy ABAP code (such as raw database SELECTs or obsolete function modules) and generate the first Clean-Core-compliant draft for review and approval — saving days of manual mapping and boilerplate generation, without replacing the judgment of the expert.

THE PROBLEM: Z-TABLE CHAOS & RIGID CORE MODIFICATIONS

Historically grown SAP systems often contain hundreds of custom database tables and direct modifications. These Z-objects block standard upgrades because SAP can modify the underlying standard structures at any time.

The Clean Core Accelerator analyzes your legacy Z-objects and automatically recommends the optimal modernization track — ABAP Cloud RAP for in-app extensions or BTP CAP for side-by-side decoupling.

S/4HANA Extensibility Rule: Custom developments belong either as In-App Extensibility directly in the SAP ABAP Cloud Stack (RAP) or as Side-by-Side Extensibility on the SAP Business Technology Platform (BTP CAP). The standard core remains completely clean and untouched.

02. The Value: What benefits does it bring to you?

Clean-Core.io is not just a code translator — it is a comprehensive Clean Core Accelerator. SAP developers, architects, and community members benefit from immediate, tangible advantages:



ENORMOUS TIME SAVINGS

Manually searching for modern SAP standard APIs and rewriting legacy ABAP into modern Node.js microservices or RAP classes takes days. Clean-Core.io executes the analysis and code generation in under 2 minutes.



UPGRADE RESILIENCE

By replacing unreleased database dependencies with officially released standard SAP APIs (like I_Customer or API_PRODUCT_SRV), your ERP core remains fully upgradable and future-proof.



AUTOMATED TEST STUBS

The tool writes matching automated unit tests immediately – as ABAP Unit Test Doubles for RAP or as Playwright/Express testcases for CAP. This saves extensive QA cycles.



BPMN 2.0 & BUSINESS SOP

Business processes are exported in standard BPMN 2.0 XML schema with swimlanes. A two-stage blueprint layer maps RACI matrices, Level 5 SOP narratives, and internal compliance controls — importable into SAP Signavio or SAP Build.



THE FAST-PASS ADVANTAGE **ACCELERATOR**

Using the integrated Fast-Pass Stepper, you can bypass intermediate wizard stages and jump straight from the analysis page to the Delivery view to download your compiled ZIP package containing all modularized project files.

03. Community Pilot, Data Security & Compliance

Proprietary legacy source code is a highly confidential business asset. Clean-Core.io is engineered with strict cryptographic and operational safety boundaries to ensure data compliance and protection.

COMMUNITY PILOT: FREE ACCESS & BYOK

The platform is freely accessible via a Community Pilot. Every new user receives 5 free transformations to explore the platform.

For unlimited transformations, the platform supports the **Bring Your Own Key (BYOK)** model. Your private Gemini API key is encrypted directly inside your browser using PBKDF2 (100,000 iterations) and AES-GCM 256-bit encryption. Plaintext keys never reach our database. No credit card required — you only pay for your own Google API usage.

STATELESS AI ROUTING & MODEL TRAINING ISOLATION

All AI prompts are routed via a secure, server-side API proxy to Google Vertex AI.

In accordance with Google Cloud Enterprise data safety terms, all code snippets sent to the backend proxy are **strictly excluded from LLM model training and reinforcement cycles**. Your intellectual property remains strictly yours.

100% GDPR COMPLIANCE & SOVEREIGNTY (ART. 25 & 17 GDPR)

All server, database, and compute layers are hosted entirely within the GCP region **Belgium (europe-west1)**, satisfying European data residency policies.

Triggering account deletion initiates an atomic backend routine (Art. 17 GDPR - Right to Erasure) that permanently wipes Firebase Auth records, Firestore project documents, and stored ZIP files instantly. The system never parses or processes actual business master data.

TENANT SECURITY ARCHITECTURE

Every S/4HANA tenant connection is restricted to **read-only OData metadata reads and test execution**. No write operations are permitted. Credentials are processed in memory only — nothing is persisted on our servers.

Every tenant connection request is **manually reviewed and approved** by the platform administrator before activation, ensuring no unauthorized system access.

04. Technical Details: RAP vs. CAP & API Mapping

The modernization engine decides during Stage 1 based on syntax analysis which extensibility path is best suited for your legacy system:

TECHNICAL DIMENSION	IN-APP ABAP CLOUD (RAP)	SIDE-BY-SIDE (BTP CAP)
Runtime Engine	Runs natively directly within the S/4HANA core.	Runs decoupled on the SAP BTP (Node.js/TS).
Interfaces	Uses synchronous released CDS views.	Decoupled via OData APIs or Event Mesh.
RISE Compliance	Strict SaaS compliance (zero core modifications).	Upgrade-resilient Tier 2 custom API wrappers.
Focus Case	Immediate database updates and transactional locks.	Customer portals, external mobile apps, SaaS tools.

AUTOMATED API MAPPING & DECOUPLING

Direct SELECTs on old tables (like KNA1 for customers or BSEG for financials) trigger immediate audit errors. The engine maps these queries to modern standard interfaces:

- ✓ KNA1 (Customer Master) → Maps to CDS View I_Customer
- ✓ BSEG (Accounting Segment) → Maps to CDS View I_JournalEntry
- ✓ MARA (Material Master) → Maps to OData API API_PRODUCT_SRV
- ✓ VBAK (Sales Header) → Maps to RAP Entity I_SalesOrderTP

05. Quality Engineering & New Capabilities

A clean refactoring is only complete when the result is fully functional, auditable, and governed. The Clean Core Accelerator equips every transformation with built-in quality assurance, business documentation, and governance controls:

ADT COCKPIT SIMULATION

Generates standard ABAP Unit test classes with local database doubles, simulating execution in a virtual Eclipse ADT Test Cockpit console. For BTP CAP, Express unit test suites validate against S/4HANA sandboxes.

CLEAN CORE SCORE & TCO AUDIT

Quantifies technical debt and custom IP value. Features an interactive C-Level TCO & ROI calculator predicting upgrade-impact savings based on Clean Core compliance scores.

BPMN 2.0 & BUSINESS SOP

Maps modernized processes into standard BPMN 2.0 XML with swimlanes. Includes a two-stage blueprint layer with RACI matrices, Level 5 SOP narratives, and internal compliance controls.

LIVE TENANT VALIDATION

Connect your S/4HANA tenant and validate in real-time: connectivity, authentication, OData schema discovery, and live data reads — all read-only scoped and admin-gated.

JOIN THE COMMUNITY

Generate the first Clean-Core-compliant draft for review and approval. Start with 5 free transformations or bring your own Gemini API key (BYOK) for unlimited access — no credit card required.

[GET STARTED → HTTPS://CLEAN-CORE.IO](https://clean-core.io)