

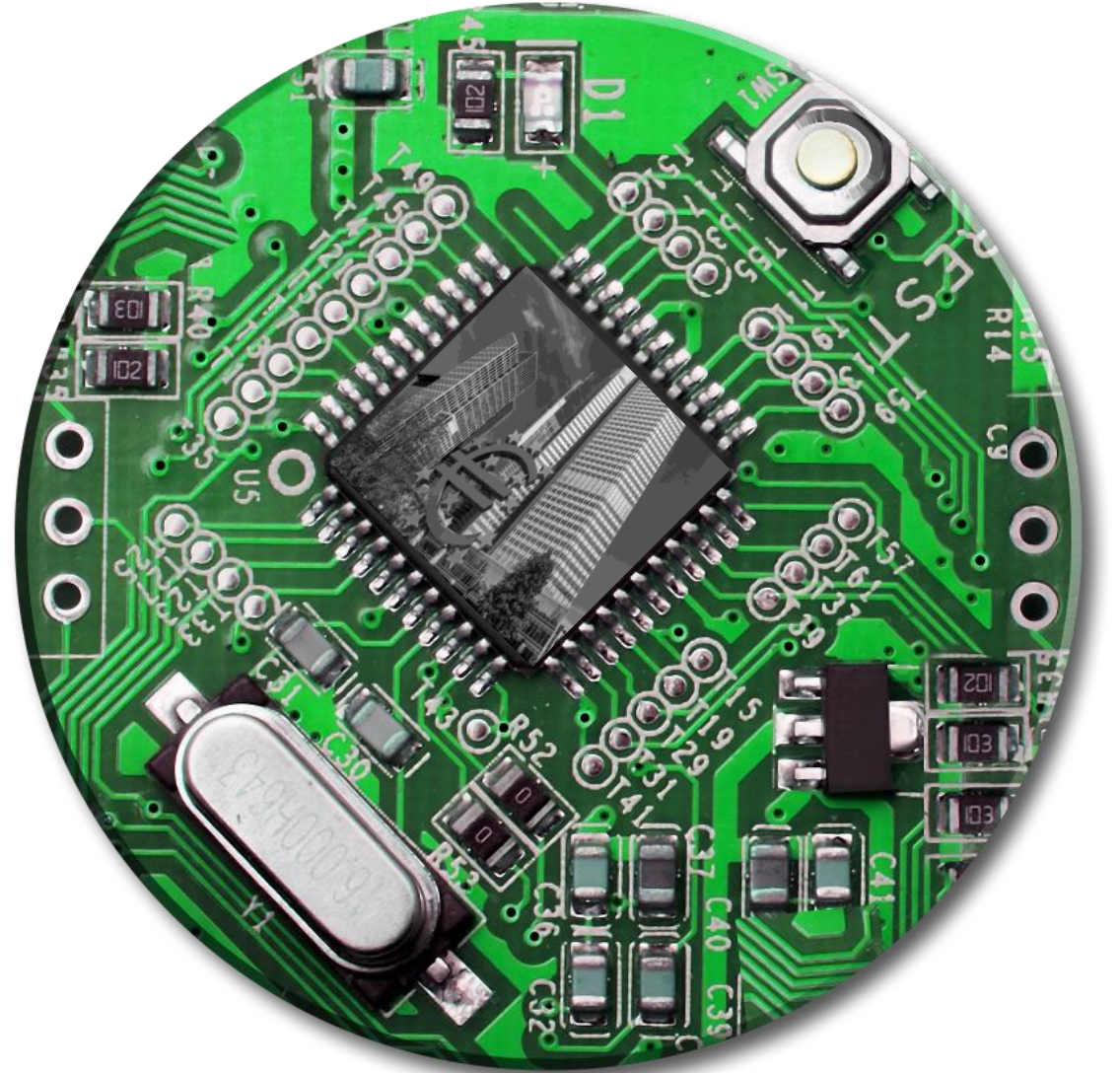


Together makes progress

What Will Define the Next Generation of European Banking?

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European banking, strategic inflection

European Banking at a €10 Trillion Inflection Point

European banking enters an **inflection point** where **AI, Trust**, and rapidly evolving **Operating Models** will determine future winners and losers.



C-suite and Boards face an urgent mandate to align **strategy** with AI disruption to compete in AI-driven market



The race is on to orchestrate **platform ecosystems** that unlock new value pools.



Trust-by-design architectures will underpin compliant, scalable **AI** deployment across critical processes.



AI-native operating models will separate scalable European winners from structurally constrained followers.



Pan-European dynamics require coordinated **governance** across markets, entities, and regulatory expectations.



Enduring **digital trust** becomes a prerequisite for growth, resilience, and regulatory confidence.

Today's strategic decisions will define tomorrow's **winners** and structurally challenged institutions.

European banking, Next-gen

Defining Forces Reshaping European Banking



Customers, Challengers, Tech

Cloud-native **new entrants** with modern tech stacks will raise the bar on instant, Their **lean economics**, automation-first operations and partnership-friendly models with platforms and Big Tech enable faster product launches, lower unit costs, and agile experimentation in new revenue pools

Regulation, Trust, Privacy, Resilience

Intensifying regulatory and privacy pressure, including GDPR enforcement, eIDAS 2.0, DORA, AML/CTF, and operational resilience regimes, **will tighten expectations** on data use, risk, outsourcing, and critical infrastructure.

Incumbent Banks

Incumbents hold the ultimate advantage:

- Fortress balance sheets
- Unmatched market depth
- Generational customer trust.

Rigid tech debt and **slow operational friction** risk turning these strengths into stranded assets.

Defining the Next Generation of European Banking

Incumbents' vs Challengers: Compete or Converge?

INCUMBENT BANKS

STRUCTURAL STRENGTHS

- Incumbent EU banks benefit from **deep trust**, strong **brand recognition**
- Access to low-cost deposits, that underpin resilient funding
- diversified balance sheets to enable them to offer a wider range of financial activities.

SCALE AND REACH

They hold substantial **regulatory capital** which gives stability operate broad product portfolios with extensive physical and digital distribution, enabling end-to-end services for retail, SME, and corporate clients across Europe.

CHANGE CONSTRAINTS

However, complex **legacy cores**, fragmented data, and risk-averse cultures slow change, while high fixed costs and branch-heavy footprints constrain experimentation and rapid operating model redesign.



European winners will blend incumbent **trust** and capital strength with challenger **agility** and design

- Use **targeted acquisitions** and joint ventures to fuse balance sheet depth with digital-native UX.
- Build **shared platforms** where incumbents provide regulated rails and challengers innovate at the edge.
- Move from head-to-head competition toward **orchestrated ecosystems** that compound network and data advantages.
- Anchor convergence in robust **governance**, ensuring AI-native innovation remains compliant, explainable, and auditable.

CHALLENGER BANKS

DIGITAL ADVANTAGES

- Challenger banks leverage :
- **cloud-native** and modular technology stacks to iterate rapidly,
- delivering superior **digital UX**
- simple, focused propositions that resonate with mobile-first European customer segments.

LEAN ECONOMICS

Their lean, **automation-first** operations and partnership-friendly models with platforms and Big Tech enable faster product launches, lower unit costs, and agile experimentation in new revenue pools.

STRUCTURAL RISKS

Yet limited regulatory **capital**, weaker brand **trust**, **narrower product sets**, and dependence on partner banks for core infrastructure expose challengers to **funding, compliance, and scalability vulnerabilities**.

European Banking Transformation

Three Strategic Imperatives which will define the next generation of banking



Shifting towards Bank as an Orchestrator

Open banking, PSD3, and platform economics are shifting value to ecosystem orchestrators, not product manufacturers.

The Challenge Traditional banking—where a bank manufactures its own products and distributes them solely through its own branches or app—is broken. It is **asset-heavy, slow to innovate**, and yields low returns.

The Orchestrator Solution: The bank **shifts** from a product manufacturer **to a platform matchmaker**. It curates both internal capabilities and external third-party services into a unified ecosystem, securing absolute control over the primary customer relationship.



Accelerating AI Adoption

AI to Grow- Operate-Secure

AI as a new decision fabric – Data as a continuous performance advantage.

- Banks that embed AI into every critical decision will unlock:
 - superior risk selection,
 - dynamic pricing,
 - hyper-personalised engagement,

AI-native operating model - AI speed and scale.

- The convergence of AI-enabled competition, margin pressure, and regulatory expectations makes AI non-negotiable.
- Traditional hierarchies and monolithic IT cannot respond at AI speed and scale.

AI is the core operational engine that makes the "Bank as an Orchestrator" model viable by dynamically connecting, securing, and monetizing third-party ecosystems.



Digital Trust

- **Legally Binding Identity Orchestration:** Banks will act as the **gatekeepers of trust**, bridging eIDAS 2.0 and KYC/AML protocols. Qualified Electronic Signatures (QES) via QTSPs turning multiple disconnected state-backed wallets into a legally robust, end-to-end digital trust chain.
- **Frictionless Fraud Prevention:** AI allows banks to analyze behavioral patterns and identity data in real-time. This allows them to automate compliance tasks in the background, minimizing customer friction without sacrificing security.
- **Platform Trust for the Digital Euro:** To gain mainstream adoption, users need to know their central bank money is secure and private. Banks build this digital trust by embedding advanced safeguards, such as AI-driven fraud analytics, into the core transactional infrastructure.
- **Open Banking and Ecosystem Governance:** As banks orchestrate third-party services, they must maintain a "trust advantage". They are responsible for ensuring that ecosystem partners meet stringent security and data protection standards

Qualified Trust Service Providers (QTSPs)—are organizations accredited by EU member states to provide highly secure digital services, such as electronic signatures, seals, and timestamps under the eIDAS regulation

BANK AS AN ORCHESTRATOR

Bank as an Orchestrator

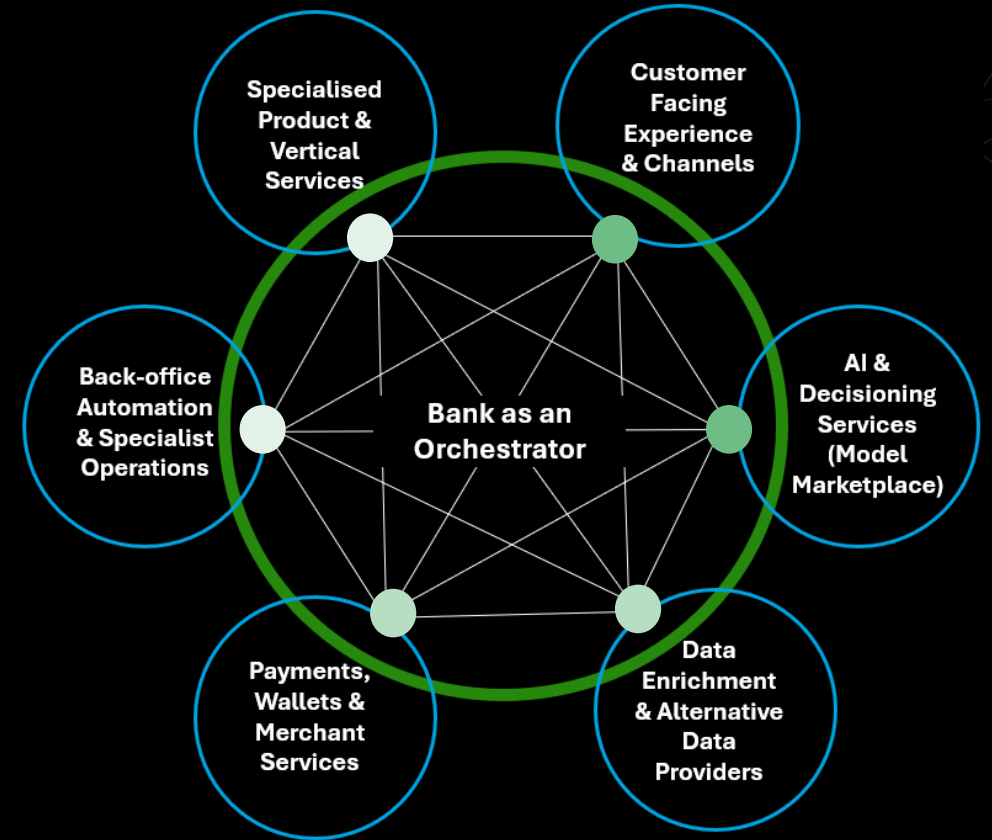
A bank as an orchestrator is the trusted platform that retains identity, ledger and risk while coordinating AI-driven services and specialist partners to deliver seamless, personalised financial experiences.

Drivers (next 5 years)

- **AI-native decisioning and automation** — real-time models enable dynamic routing, pricing and fraud controls across partner services.
- **Platformisation & ecosystem economics** — specialised fintechs and cloud providers make it cheaper and faster to compose new products via secure APIs.
- **Customer expectations + Trust** — demand for instant, privacy-safe, embedded finance combined with stricter identity/resilience rules forces banks to centralise trust and orchestration.

Benefits to the bank

- **Faster innovation and lower cost-to-market** — reuse partner capabilities to launch niche products without large build efforts.
- **Superior customer lifetime value** — unified Customer 360 + AI orchestration drives hyper-personalisation and higher cross-sell/retention.
- **Preserved liability and regulatory control** — bank keeps settlement, KYC/AML and risk gates while monetising the platform (fees, data-driven services).



Innovation. Transformed.

Core Retained Services

Centralised Core Ledger & System of Record

While external partners provide specialised products, the bank retains the core ledger to ensure stability, multi-asset accounting and the definitive record for deposits, funds and final settlement.

Unified Data Model & Analytics

Aggregate and synthesize data into a singular Customer 360 profile that cleanses, enriches and powers personalised offers and predictive insights in real-time to prevent a disjointed customer journey.

API Management & Ecosystem Gateway

The bank must maintain a scalable integration layer connecting internal systems to BaaS, fintech and Open Banking APIs, handling lifecycle, rate limiting and secure routing.

End-to-End Workflow & Process Orchestration

An orchestration engine (not hard-coded workflows) lets the bank design, update and manage event sequences (e.g., credit scoring, document generation and user notifications) for a frictionless UX.

Risk, Compliance & Fraud Management

Centralise risk and fraud rules so the bank (ultimately liable) can monitor transactions, trigger automated compliance checks and enforce policies in real-time.

Identity, Trust & Security Verification

The orchestrator must control identity: native KYC/AML and biometric authentication sit within the bank to ensure regulatory compliance and protect customer data in third-party interactions.

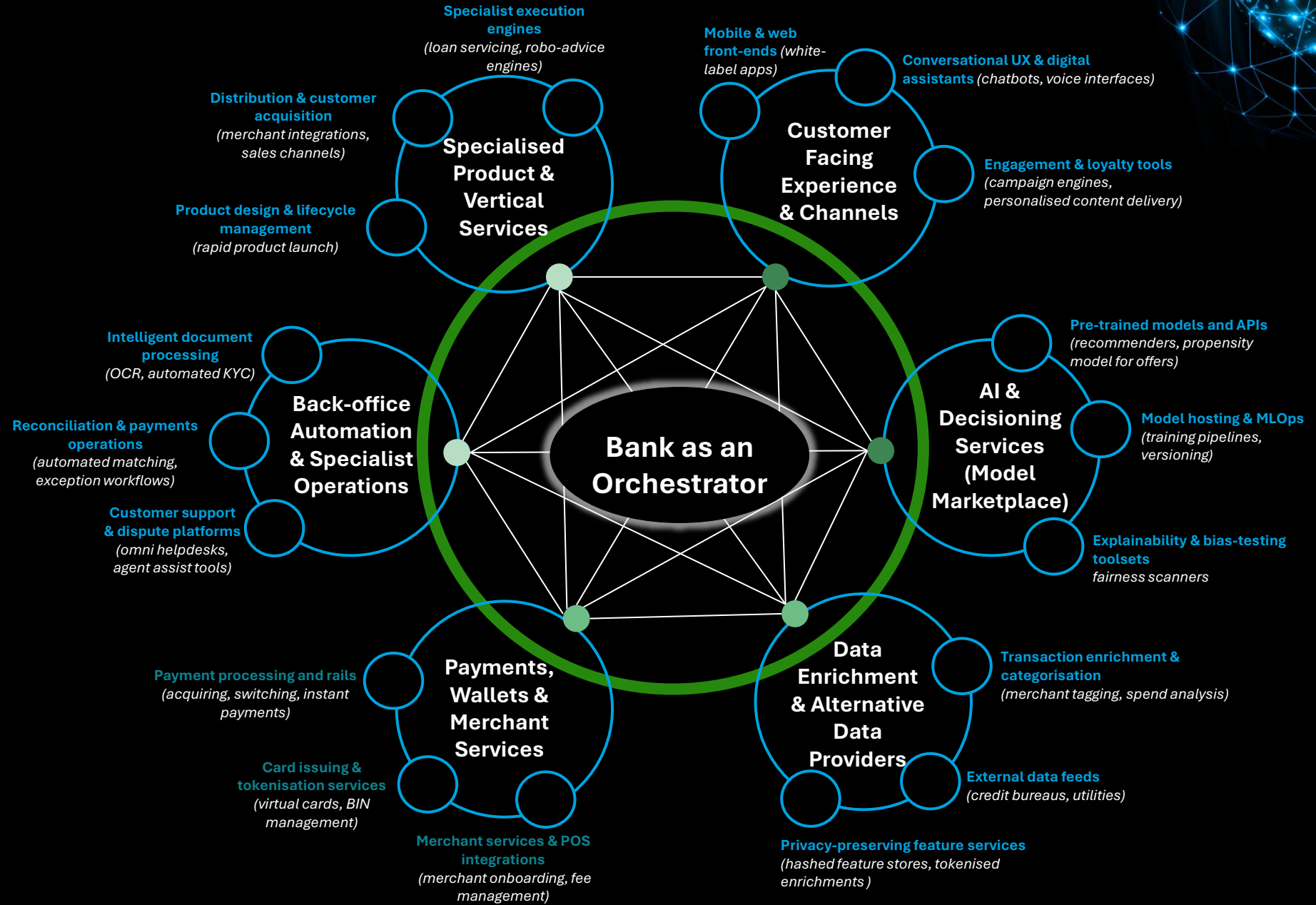


Maintain Digital Trust by encompassing services with legally binding identities, frictionless fraud prevention, trust platform, open banking and ecosystem governance



**Control the core.
Outsource the edges.
Accelerate innovation.**

- **Keep core controls in-house:** governance, identity/KYC, custody, system of record, final settlement.
- **Outsource modular specialists:** product engines, marketplace distribution, merchant services, pre-trained AI, data enrichment, payment rails.
- **Integrate via a central orchestration layer** to plug partner services in, speeding launches and scaling while retaining regulatory and financial control.
- **Outcome:** rapid, partner-driven innovation delivered under a single, customer-centric governance framework



European Bank, AI-Native transformation

The AI-Native Bank: AI To Grow-Operate-Secure

AI-Native Foundations

An AI-native bank operationalises intelligence across every decision while preserving **trust**, **privacy**, and regulatory compliance. A real-time decision fabric, augmented humans, privacy-preserving learning, and robust governance come together in practice to create a scalable, resilient AI operating model.

AI to Grow & Operate

Decision Fabric

Building a unified **real-time decision fabric** connects credit, fraud, pricing, and marketing models across all channels.

Standardised **MLOps pipelines** ensure versioned deployment, monitoring, and rapid iteration with consistent governance.

Augmented Humans

Equipping staff with **AI copilots** embeds decision support into daily workflows, **enhancing judgement and productivity**.

End-to-end **automation** handles high-volume, rules-based tasks, **freeing capacity** for complex customer interactions.

Privacy-Preserving Learning

Using **privacy-preserving learning** enables models to train on distributed, sensitive data without exposing raw PII.

Techniques like federated learning and **differential privacy** align innovation with GDPR and internal data ethics policies.

Governance & Explainability

Integrated **model governance** embeds risk management into CI/CD with automated documentation and bias checks.

Robust **explainability tooling** supports regulatory reviews, internal audit, and clear accountability for model owners and approvers.

AI to Secure



Safety By Design Architectures, controls, and testing embed risk mitigation into every AI use case from day one.

A unified real-time decision fabric exposes AI services via APIs, enabling consistent, **explainable decisions** across products and channels.



Regulatory Alignment Continuous compliance with GDPR and banking regulation is **built into models, data flows, and monitoring**.

Frontline staff use AI copilots while routine tasks are automated, combining **human judgement** with scalable, reliable execution.



Human In The Loop High-impact decisions retain **human oversight**, with clear escalation paths and override capabilities for critical cases.

Privacy-preserving learning techniques **protect customer data** while enabling richer insights and compliant innovation at scale.

AI is the core operational engine that makes the "**Bank as an Orchestrator**" model viable by dynamically connecting, securing, and monetizing third-party ecosystems.



AI to Grow



Monetising Ecosystem Value

AI turns the bank into a predictive value broker.

Hyper-Personalized Recommendation Engines: AI analyzes financial, behavioral, and partner data. It pitches the exact right internal or third-party product (e.g., matching a cash shortfall with an embedded fintech line of credit) at the point of need.

Dynamic Value-Based Pricing: AI algorithms analyze market demand, partner margin, and customer risk. They calculate optimal, real-time API monetization fees and revenue-share splits.

Churn Mitigation: Machine learning flags micro-behaviors indicating a client is shifting volume to a competitor, prompting automated loyalty workflows or counter-offers.

AI to Operate



Managing Ecosystem Complexity

AI acts as the intelligent fabric holding the architecture together.

Automated API Integration: Generative AI tools write, test, and map custom APIs. This slashes partner onboarding times from months to hours.

Intelligent Data Orchestration: AI standardizes unstructured data streaming from fintechs, ERPs, and IoT networks into unified customer profiles.

Predictive Capacity Scaling: Machine learning models analyze real-time transaction volumes. They auto-scale cloud infrastructure to prevent downtime during peak partner traffic

AI to Secure



Securing Perimeters

AI shifts security from perimeter defense to continuous zero-trust validation.

Federated Threat Intelligence: AI engines continuously scan partner environments. They detect anomalies and quarantine compromised nodes before breaches reach the bank's parameters.

Behavioral Identity Verification: AI models map normal user and API behavior. They block hijacked tokens or anomalous data-scraping attempts in real time.

Automated Compliance Mapping: Generative AI continuously cross-references ecosystem transactions against shifting European regulations (e.g., DORA, PSR1, AI Act), automated auditing, and reporting.

Digital Trust

Trust As The Bank's Defensive Moat: Identity, Consent And Liability



TRUST ARCHITECTURE

- Deliver **bank-grade KYC** and strong authentication across channels, enabling trusted digital identity for partners and embedded journeys while reinforcing the bank's **regulatory credibility**.
- Align with **eIDAS** and national ID schemes so third parties can rely on the bank as a secure identity provider, deepening ecosystem dependence and customer stickiness.

Identity And KYC

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Consent And Control

- Provide a single, customer-facing **consent cockpit** to view, grant, and revoke data-sharing permissions in real time, reducing perceived risk and confusion.
- Make **consent granular** and transparent, turning data sharing into a positive experience that differentiates the bank versus less transparent platforms and fintechs.

Data Sovereignty & Tokenisation

- Keep sensitive **PII** within the bank's controlled environment while exposing only tokenised or anonymised data externally, minimising breach impact and regulatory exposure.
- Enable compliant **data monetisation** with partners, positioning the bank as the safest data hub in the ecosystem and strengthening its defensive moat.

Liability & Auditability

- Operate a central **risk engine** that monitors transactions, AI outputs, and partner activities in real time, enforcing AML, sanctions, and conduct rules consistently.
- Use immutable, cryptographically signed **audit trails** to clarify liability, support regulators, and resolve disputes quickly, increasing trust in AI-driven decisions.

European Bank, Digital Trust

Digital Trust as a Strategic Asset

Trust Maturity Model

—EU Tier 1s - 2027 and Beyond—



- Stage 1: Reactive**
- At the **reactive** stage, the bank responds to security, privacy, and reliability incidents in an ad-hoc way.
 - Controls are fragmented, with limited **forward planning** and weak ownership of digital trust.
 - AI use is cautious and siloed, constraining participation in emerging, hyper-connected financial ecosystems.



- Stage 2: Compliant**
- At the **compliant** stage, the bank meets minimum **regulatory** requirements such as GDPR, DORA, and PSD3.
 - Policies, controls, and audits are formalised, but trust is still viewed mainly as a **cost of doing business**.



- Stage 3: Proactive**
- At the **proactive** stage, the bank anticipates threats and invests in advanced **monitoring** and resilience, aligned with frameworks like the Resilience Maturity Model and NIST 2.0.
 - It engages early with regulators on AI and data topics, enabling more confident AI adoption and selective ecosystem participation.



- Stage 4: Integrated**
- At the **integrated** stage, trust is embedded into product, data, and **AI development** lifecycles.
 - Privacy-by-design, security-by-design, and ethics-by-design are standard.
 - Ecosystem partnerships are assessed through structured trust criteria, supporting scalable participation in open finance and platform ecosystems across Europe.



- Stage 5: Strategic**
- At the **strategic** stage, digital trust becomes a visible **differentiator**.
 - The bank offers transparent communication, superior reliability, and demonstrable leadership in responsible AI and resilience.
 - This maturity underpins AI-native operating models, deep ecosystem **orchestration**, and strong regulatory credibility across hyper-connected markets.

Digital Trust

As an orchestrator, the bank's true competitive advantage is the unique ability to **guarantee absolute compliance, security, and continuous operational runtime** across a highly fractured, multi-party



Securing Outside the Orchestrator

Securing External Partners, Third-Party Providers, and Machine Agents. The orchestrator must treat all external ecosystems as untrusted, protecting the core ledger through automated isolation protocols.

Dynamic Sandboxing & Behavioural Quarantine

- Streaming external API partner traffic into dynamic, cloud-isolated micro-environments.
- Utilizing AI anomaly detection to spot spikes in data scraping or abnormal transaction velocities, automatically quarantining the third-party endpoint without impacting the wider digital ecosystem.

Machine Agency Trust Frameworks

- Establishing specialized authentication handshakes for situations where an external customer's autonomous AI assistant interacts directly with the bank.
- Validating that the external machine agent holds valid, unrevoked consent signatures before allowing it to trigger programmatic transaction loops.

Privacy-Preserving Federated Machine Learning

- Training fraud, financial crime, and risk models locally on external partners' infrastructure or across cross-border branches.
- Pooling encrypted mathematical model enhancements to improve ecosystem protection without transferring sensitive personal data across perimeter boundaries.



Digital Trust Moat

Quantum-Resistant Infrastructure

- Transitioning all API endpoints to Post-Quantum Cryptography (PQC).
- Protecting encrypted data payloads from future "harvest-now, decrypt-later" interception tactics.

Sovereign Identity & Verifiable Credentials

- Natively anchoring the bank into the EU Digital Identity (EUDI) Wallet infrastructure.
- Transforming KYC from a slow internal process into a reusable, cryptographic security passport for external partners

Algorithmic Trust Assurance

- Deploying active model governance to continuously audit automated decision pipelines.
- Ensuring zero algorithmic bias and total data lineage tracing to seamlessly meet the strict mandates of the EU AI Act.

Continuous Operational Resilience

- Moving past static business continuity planning to automated, live chaos-engineering protocols.
- Guaranteeing systemic, multi-region failover tolerances that satisfy DORA compliance without manual human intervention.



Securing Inside The Orchestrator

The core technical capabilities banks must jointly embed directly into the bank's internal platform middleware to orchestrate secure data streams.

Event-Driven Identity & Access Management (IAM)

- Abandoning persistent access credentials in favor of dynamic, contextual, short-lived cryptographic tokens.
- Authenticating the machine identity, the API endpoint integrity, and the underlying human context for every individual transaction call.

Intelligent Data Protection & Payload Obfuscation

- Utilizing AI-driven data masking to dynamically filter and scrub personally identifiable information (PII) before it enters data analytics pipelines.
- Generating secure, privacy-preserving synthetic data sets so internal data science teams can safely train machine learning models without exposing live consumer profiles.

Explainable AI (XAI) & Model Auditability

- Operating continuous log aggregators that record every autonomous decision made by the bank's internal operational AI agents [1].
- Building automated explainability layers capable of instantly producing human-readable logic reports during regulatory inspections

EU Case Studies of Blended Orchestration, AI and Digital Trust

AI is the core operational engine that makes the "Bank as an Orchestrator" model viable by dynamically connecting, securing, and monetizing third-party ecosystems.



ABN AMRO Tikkie: The Consumer-to-Business Payment Orchestration Grid

What started as a simple peer-to-peer (P2P) payment app in the Netherlands has evolved into a massive B2B and B2C commercial orchestration engine used by thousands of merchants

- **Orchestration Play** Tikkie is integrated into corporate webshops, retail checkout points, and invoicing systems via APIs. It abstracts the complexity of SEPA Instant Payments and iDEAL into a seamless, conversational context (WhatsApp, QR codes).
- **The AI Core Engine Integration:** Advanced machine learning algorithms run continuously beneath the Tikkie invoice and payment streams. The AI predicts merchant payment defaults, automatically optimizes invoice retry schedules based on payer behavioral history, and flags anomalous, high-frequency fraud patterns across millions of daily links.



BBVA: API_Market – Commercializing the Bank's Tech Stack

BBVA API_Market is one of the most mature financial API platforms in the world. They stopped viewing open banking as a mandatory regulatory check-box (PSD2/PSD3) and instead treated their core capabilities as a commercial software product.

- **Orchestration Play** BBVA API_Market allows third-party developers, fintechs, and large enterprises to plug directly into BBVA's identity, data analytics, and payment infrastructure. A corporate client can embed BBVA's core capabilities—like KYC (Know Your Customer) checks, account verification, and loans—directly into their own native business software
- **The AI Core Engine Integration:** The API Market relies on an enterprise AI Security & Traffic Orchestrator. As thousands of external applications flood BBVA with API calls, an underlying AI engine dynamically monitors traffic profiles. It utilizes machine learning to predict API DDoS attacks, automatically throttle malicious actors, and flag compromised third-party keys based on behavioral anomalies in data consumption.



Nordea: The ERP Orchestration Loop (Real-Time Treasury with Nomentia & SAP)

Corporate treasury traditionally relies on slow batch file uploads (like End-of-Day MT940 files). Nordea uses Premium APIs to embed real-time banking directly into external corporate software.

- **Orchestration Play** Nordea orchestrates native API integrations with treasury platforms like Nomentia and major ERP providers. This gives corporate clients instant cash position visibility and allows them to trigger high-volume instant settlements via premium endpoints like Multi-Payout Instant and Corporate Payout
- **The AI Core Engine Integration:** Machine learning engines run continuously across these API pipelines. The AI screens transactions in real time, automates cash-flow forecasting for the corporate client, and optimizes cross-border FX execution via their automated AutoFX engine.

What will Define the next Generation of Banks?

1. 🏭 **Orchestrate, Don't Manufacture**

The operating model imperative: European banks must **shift from vertically integrated product factories to trusted orchestrators** of modular ecosystems. Keep control of the non-negotiable core—ledger, identity, risk, compliance—while outsourcing specialized innovation to best-in-class partners via secure APIs. This is not optional; it's the only path to compete with AI-native entrants and platform powerhouses without being commoditized.

2. 🧠 **AI is Your Decision Fabric, Not a Pilot Program**

The competitive imperative: **Banks embedding AI** into every critical decision—across Grow (hyper-personalization, dynamic pricing), Operate (automation, efficiency), and Secure (fraud, compliance, zero-trust)—**will unlock step-change value**. Traditional hierarchies and monolithic IT cannot respond at AI speed and scale. The greatest risk is inaction; competitors are moving now.

3. 🛡️ **Digital Trust is Your Defensive Moat**

The resilience imperative: In a world of opaque algorithms, escalating cyber threats, and persistent fraud, **customers and regulators will reward institutions that provide transparent, secure, and trusted services**. Build trust-by-design architectures anchored in robust identity (eIDAS alignment), granular consent, data sovereignty, and clear liability. This transforms trust from a compliance cost into a strategic differentiator and regulatory advantage.

4. 🕒 **The 24-36 Month Inflection Point Demands Board-Level Decisions Now**

The urgency imperative: Decisions taken today on AI strategy, trust architecture, and operating model design **will determine which institutions shape the next generation of European banking—and which are shaped by it**. Margin compression, rising capital costs, and new competitors mean incremental optimization is insufficient. Structural transformation is non-negotiable; the time to act is now.



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