PSD2 API Solution

PRIORA

About Salt Edge

Salt Edge is an innovative FinTech company which delivers best-in-class Financial Solutions, helping Banks take their competitiveness to higher levels in an API driven banking landscape.

COUNTRIES	CLIENTS	CUSTOMERS	TRANSACTIONS
56	74	250 000	130 MILLION

Salt Edge Platform

PSD2 Access to Account (XS2A)

PSD2 Strong Customer Authentication

Value Added APIs

Identity Management

Priora

Data Enrichment

Data Aggregation

Spectre API

Fentury

Targeted Offers & Payments

Personal Finance Management

PSD2 — a Tipping Point

Mobile / Internet
New customer modes of accessing and transacting financial products and services

PSD2

FinTech / FinApps
Evolving Banking Landscape and new FinTechs emerging on the market

Why PSD2? It's about the consumer

Protect consumers and provide transparency of fees

Encourage lower prices for payment (Interchange fees already capped)

Make payments safer and more secure with Strong Customer Authentication

Introduce new market entrants to create a **level playing field**

PSD2: a game changer
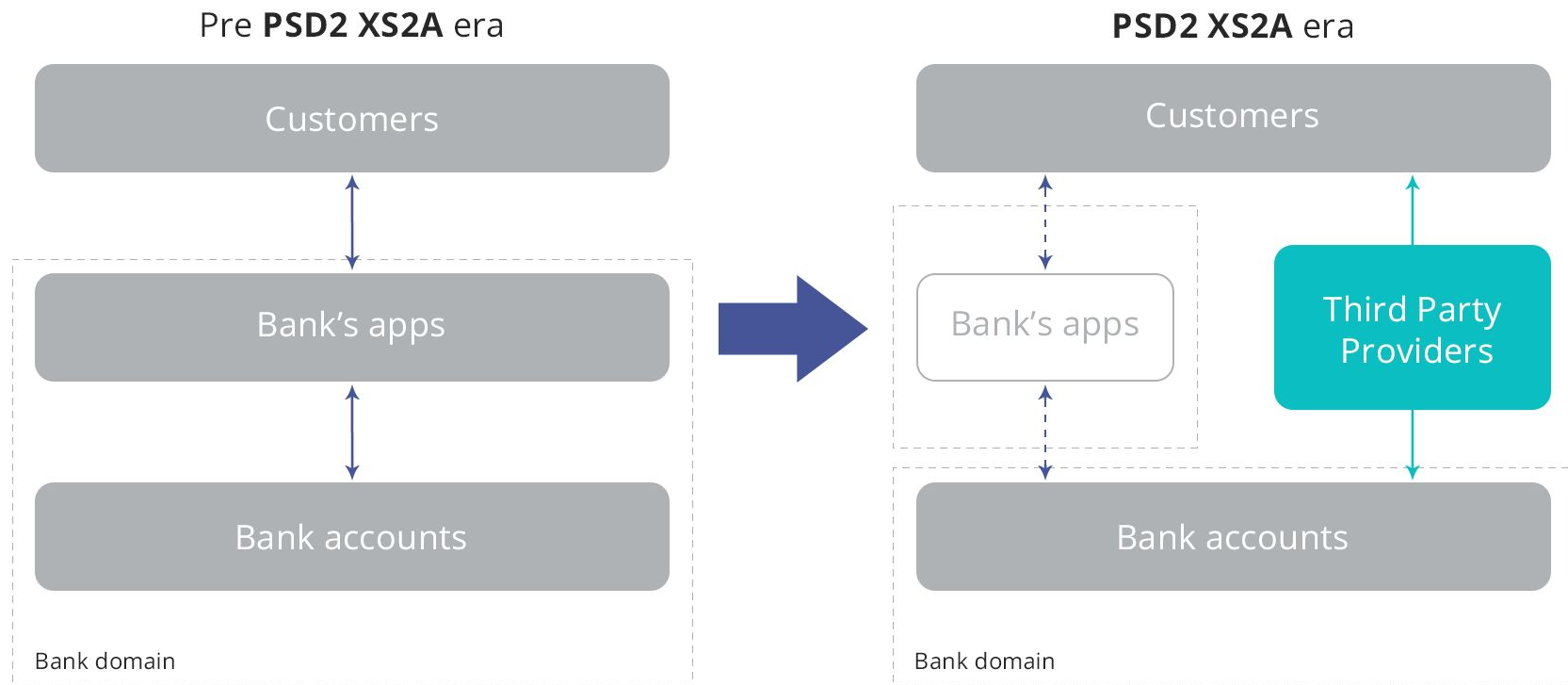
1

AISP: Account Information Service Providers

Access to accounts and transactions data in read-only mode

2

PISP: Payment Initiation Service Providers

Possibility to initiate payments directly from the account

Technically, what does this mean?

The World of Banking and Finance is changing...rapidly

Compliance

- Ever growing regulatory pressure since 2008
- Liquidity availability is a growing issue
- Increasing traditional and new competition emerging

Security

- Growing cyber risks
- 'Hackers' get smarter
- Stress test
- Core legacy technology that is not agile

Profitability

- Not making enough profits for shareholders
- Interest rates remain low, but economic uncertainty is higher than ever
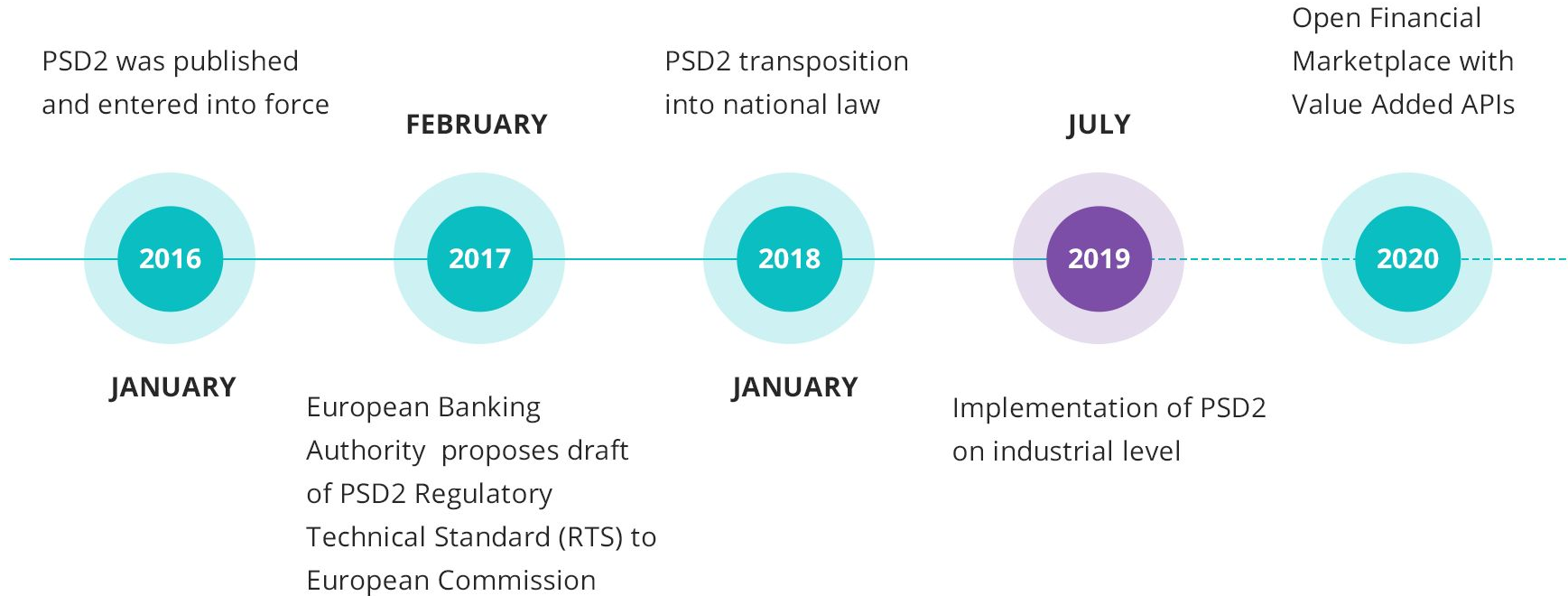- Traditional business model is no longer sustainable

Consumers

- Changing behaviour and devices
- Consumer expectations are rising all the time
- Bank brand is vulnerable to new competition
- Millennials

PSD2 Timeline: many changes in a short time

PSD2 was published
and entered into force

FEBRUARY

PSD2 transposition
into national law

JULY

Open Financial
Marketplace with
Value Added APIs

2016

2017

2018

2019

2020

JANUARY

European Banking
Authority proposes draft
of PSD2 Regulatory
Technical Standard (RTS) to
European Commission

JANUARY

Implementation of PSD2
on industrial level

What the bank should consider for **PSD2** compliance

People

- PSD2 experts
- Financial advisors
- Technical writers
- Risk assessment
- Setup specialists
- Developers
- Testers

- Customer support
- TPP support

Technologies

- Strong customer authentication
- Testing environments
- Fraud prevention system
- Information Security

- AISP and PISP workflows
- Software architecture
- API gateway
- Data Recovery

- Role-based access
- Tools for bank personnel
- Monitoring and Analytical tools

Processes

- Maintenance workflow and control
- Technical documentation
- Product updates
- Support of external APIs 24/7

- Secure communication channels
- Third Party Providers verification
- Security audit
- Logging

- Alerts and notifications
- Complaints handling
- Dispute resolution

What's your strategy within **PSD2 era**?

Back office supplier

Spend money to help someone else intermediate between you and your customer and build front-end relationships with them

The bank has to define its role in a PSD2 driven open economy:

Owner of the customer

Embrace open source technology opportunities to provide your customers with innovative services which will satisfy all their needs

Strategic Options

1. Comply with PSD2 requirements

• Access to Account - XS2A

• Strong Customer Authentication - SCA

• Transparency of Fees

2. Facilitate & Monetize Access

• Enable data access beyond law requirements (ATM & branch maps, currency exchange, etc)

• Monetize additional APIs, such as digital identification, opening accounts and cards, currency exchange, insurances, bill payments, etc

3. Provide Data Insights & New Services

• Personalize customer experience with Fentury

• Partner up with FinTech companies to get better: categorization, transaction localization, credit scoring, fraud prevention, social and behavioral analytics, etc

4. Expand to Open Financial Marketplace

• Collaborate with merchants and consumers to provide the best possible experience

• Cross-sell and upsell bank and partners' products and services

• Expand service offerings to address non-financial needs and create new revenue streams

Step 1: Comply with PSD2

Targeted Campaigns	Personal Finance Manager

Data Enrichment

Open Financial Marketplace

|	
Priora SaaS	Value Added APIs

Priora Connector

Internal Infrastructure
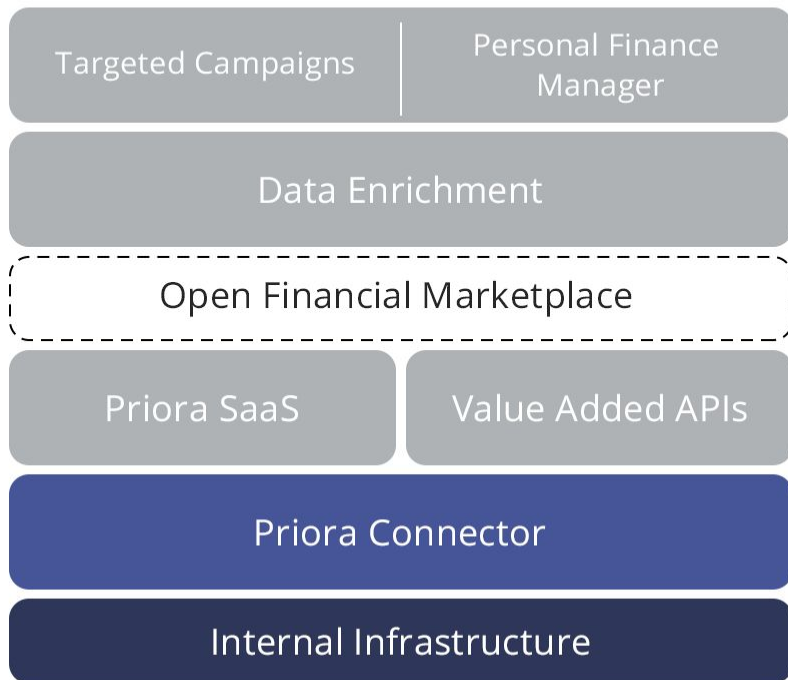
Prepare IT infrastructure for PSD2

• Consolidation interface of accounts' data outside the core banking system

• Core banking system firewalled against any type of external attacks

• Fully featured Testing Environment with well Documented processes of integration

• Salt Edge is handling scalability, fault tolerance and security updates of the APIs

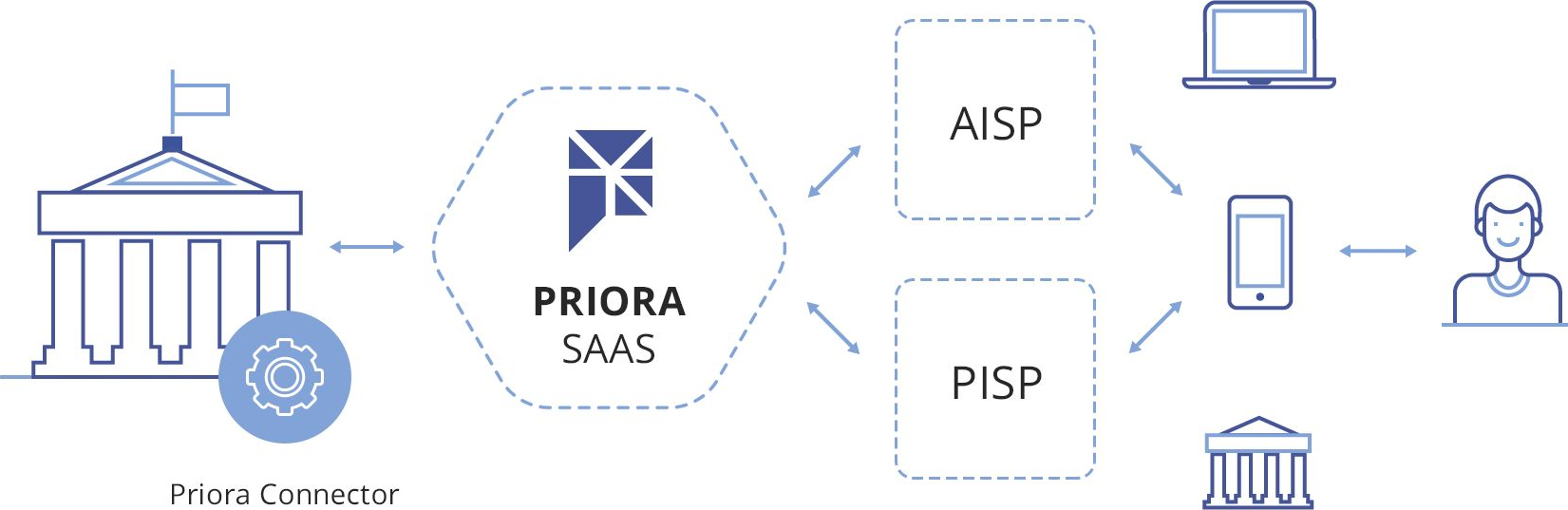• Custom Extension Point for integration of monitoring, logging and anti-fraud tools

Step 1: Comply with PSD2

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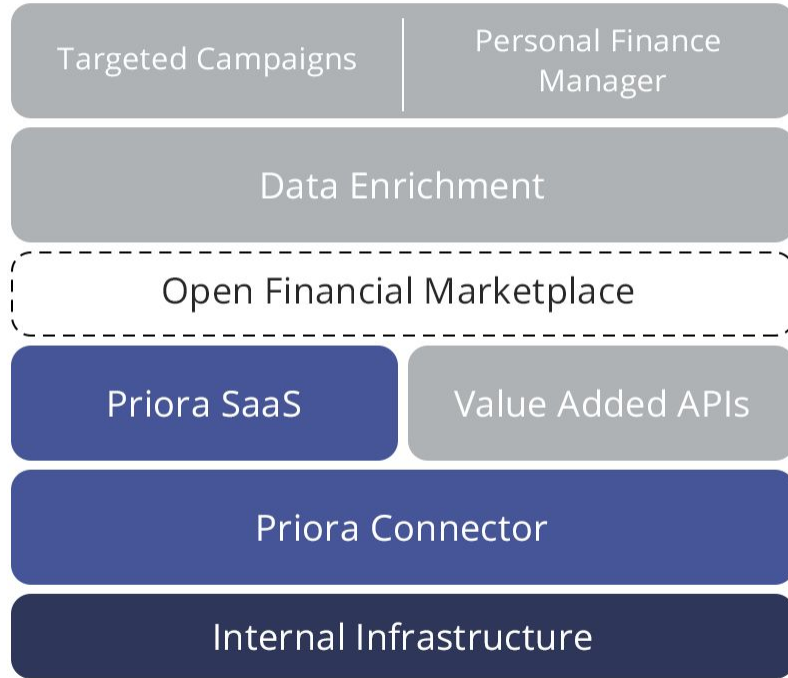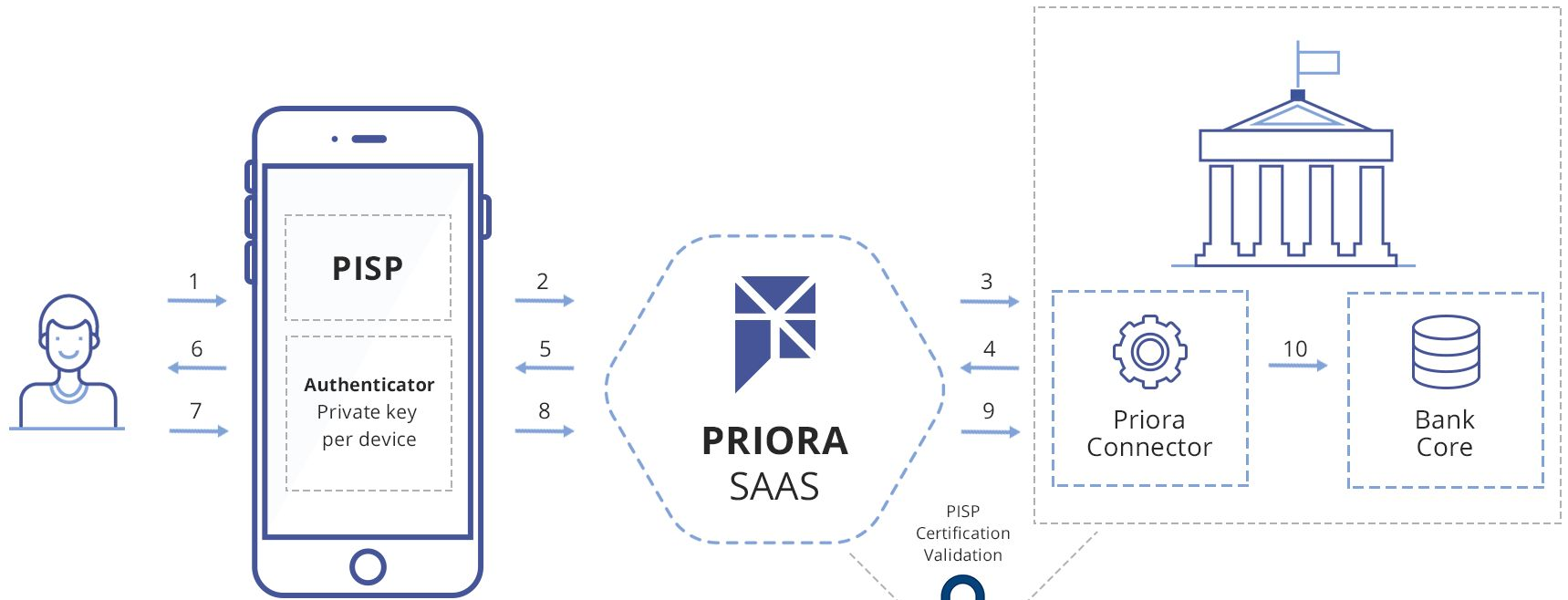
Ensure PSD2 compliance with Priora APIs

• Unified cloud system serving PSD2 XS2A API

• Priora Authenticator mobile apps for Authentication Code confirmation

• Well documented Testing Environments

• Payment exception handling rules and White listing merchant support with end-user approval

• Maintenance and necessary updates related to legislation, security changes

Priora Solution

AISP

PISP

PRIORA SAAS

Priora Connector

Technical Workflow of Priora Solution

PISP

Authenticator
Private key
per device

1
6
7

2
5
8

PRIORA
SAAS

3
4
9

Priora Connector

10

Bank Core

PISP
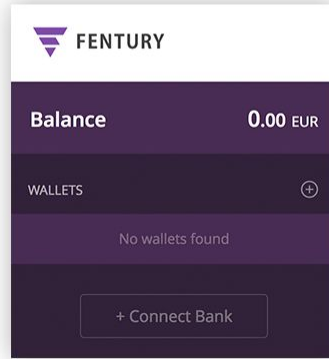Certification
Validation

eIDAS

1. Checkout
2. Initiate Payment (Payee, Amount)
3. Payment Verification (Payee, Amount, Exemption rules, Fund Availability, etc.)

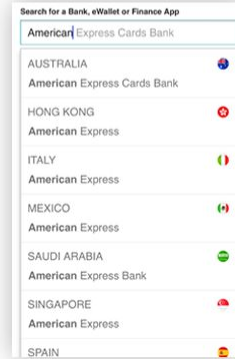4. Generate AuthCode (Encrypt with Public key per device)
5. Push Notification (Encrypted AuthCode)
6. Show AuthCode

7. Enter AuthCode
8. Confirm Payment (AuthCode)
9. AuthCode Verification
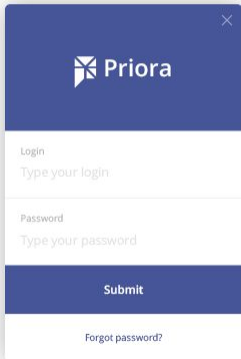10. Start Payment

AISP Workflow Example

2. Choose bank
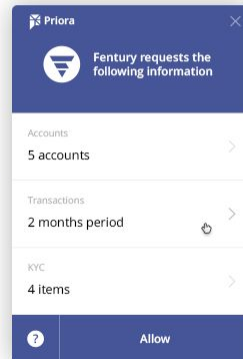
1. Connect a bank to a wealth management app

FENTURY

Balance   0.00 EUR

WALLETS   ⊕

No wallets found

+ Connect Bank

Search for a Bank, eWallet or Finance App

American Express Cards Bank

AUSTRALIA
American Express Cards Bank

HONG KONG
American Express

ITALY
American Express

MEXICO
American Express

SAUDI ARABIA
American Express Bank

SINGAPORE
American Express

SPAIN

---

3. Strong Authentication

Priora

Login
Type your login

Password
Type your password

Submit

Forgot password?

Priora   ×

Insert security code

A message was sent to
t..t@gmail.com

Enter code

< | Submit

Don't see your code? Resend it

---

4. Set permissions

Priora   ×

Fentury requests the
following information

Accounts
5 accounts   >

Transactions
2 months period   >

KYC
4 items   >

? | Allow

---

5. Confirmation & return to the app

Priora

✓

Success

Access to the info that you
selected was granted to
Fentury application

Continue

FENTURY

Balance   4,434.24 EUR

WALLETS   ⊕

No wallets found

PRIORA DEMO BANK
Updated a moment ago.   ⌄

Checking account   3,210.90 EUR

MasterCard   1,123.34 EUR

Visa   100.00 EUR
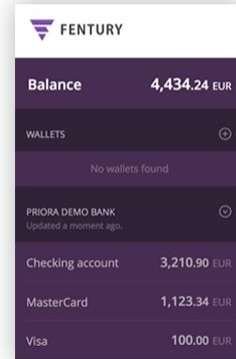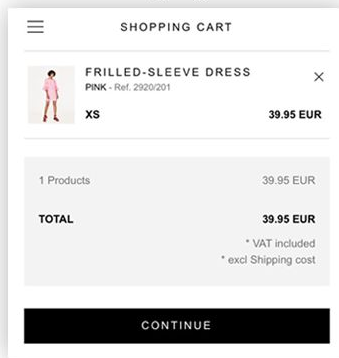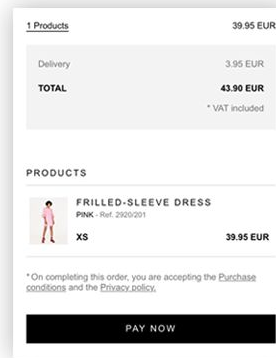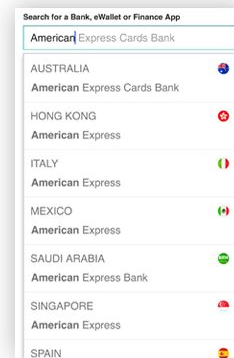
PISP Workflow Example

1. Merchant
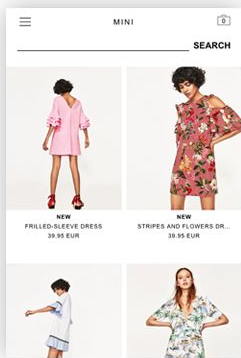
2. Shopping cart
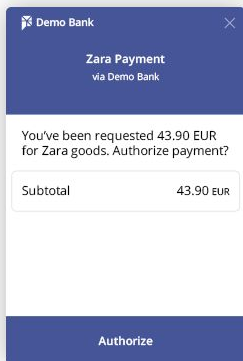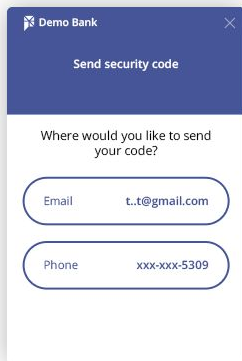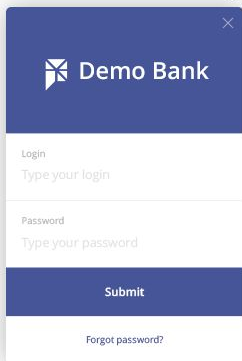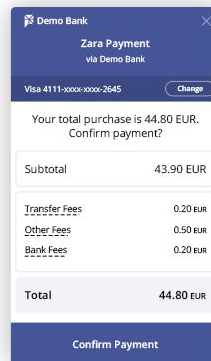

3. Checkout

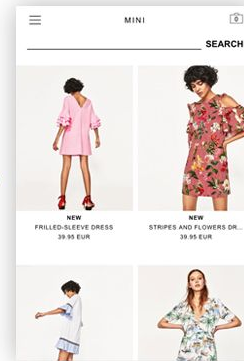## 4. Choose bank

5. Priora Connector

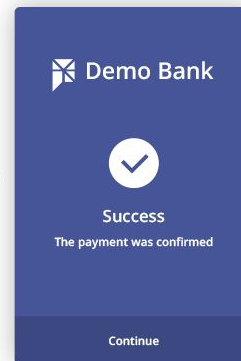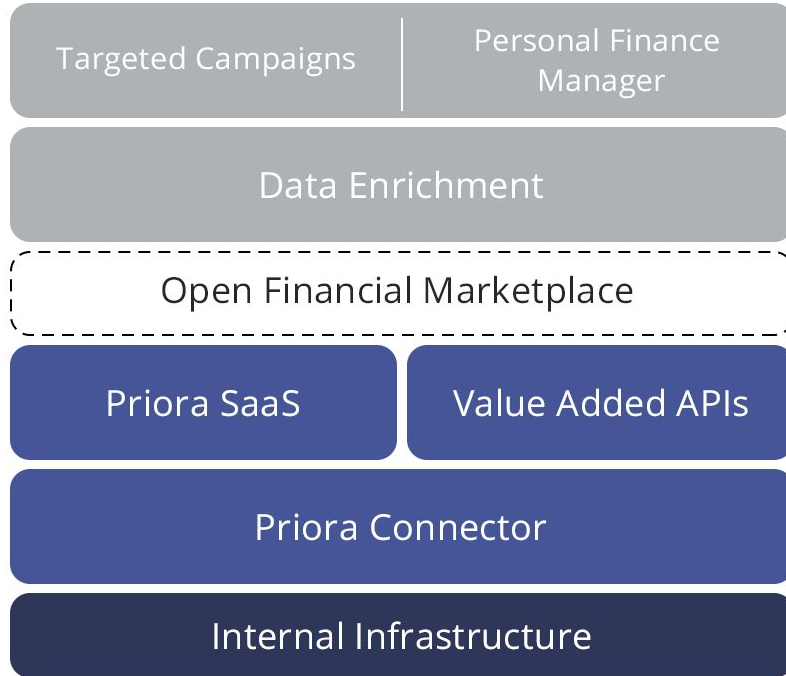## 6. Strong Authentication

7. Fees

8. Success

Step 2: Facilitate & Monetize Access

Targeted Campaigns	Personal Finance Manager

Data Enrichment

Open Financial Marketplace

Priora SaaS	Value Added APIs

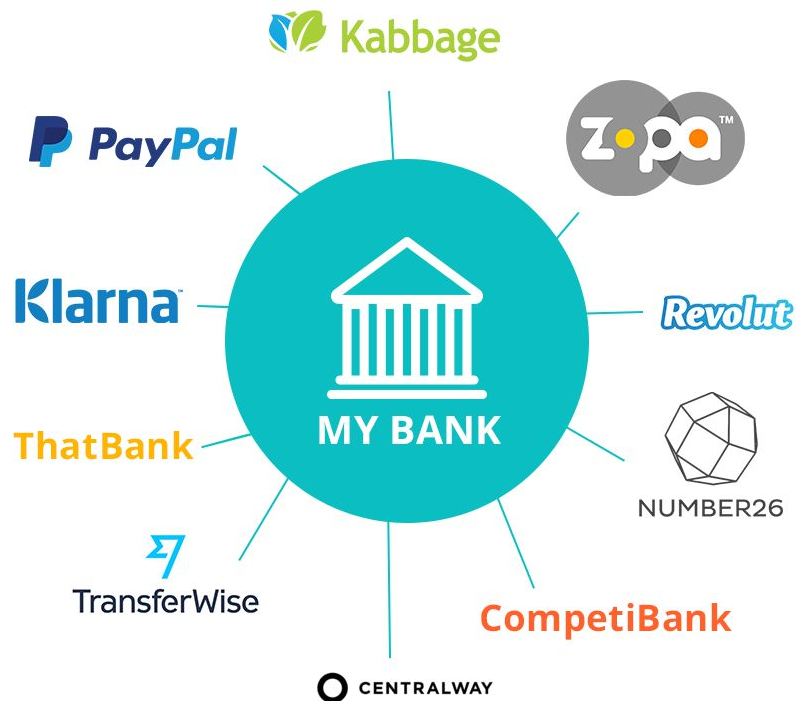| |
|---|
| Priora Connector |

Internal Infrastructure

Create Value Added APIs

• Digital Identification of Customers

• Seamless opening of cards and accounts (savings, loan, investments, deposits, credits, etc)

• Collaboration with third parties on combined Value Added APIs (currency exchange, insurances, bill payments, invoice factoring, etc)

• Monetization and invoicing on custom value added APIs
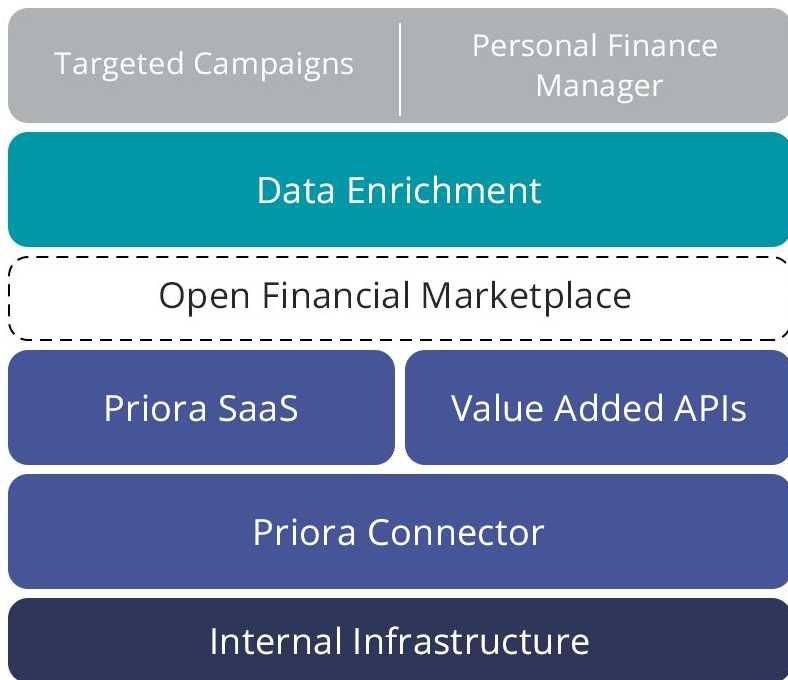
PSD2: Combine the Best Third Party Services

With PSD2 banks gain the possibility to provide the customer with a seamless end-to-end journey, which combines recommendation, analytics, payments, product choice, delivery, ongoing support services and the best of third party features in a single app.

# Provide and Consume Third Party Services

Banks

Investment

Loan Companies

Accounting

SALTEDGE
ECOSYSTEM

Wealth Management

PFM

Financial Advising

Invoice Factoring

Credit Scoring

Step 3: Provide Advice & New Services

Targeted Campaigns	Personal Finance Manager

Data Enrichment

Open Financial Marketplace

Priora SaaS	Value Added APIs

Priora Connector

Internal Infrastructure

Data Enrichment with Spectre API

• Data aggregation from banks, e-wallets, telecommunications and other types of providers

• Seamless Integration with any online and core banking systems

• Enrich data with additional information:
    + categorization (merchant type, category)
    + payee identification (name, address, phone)
    + location mapping (where, when, and how often customers make purchases)

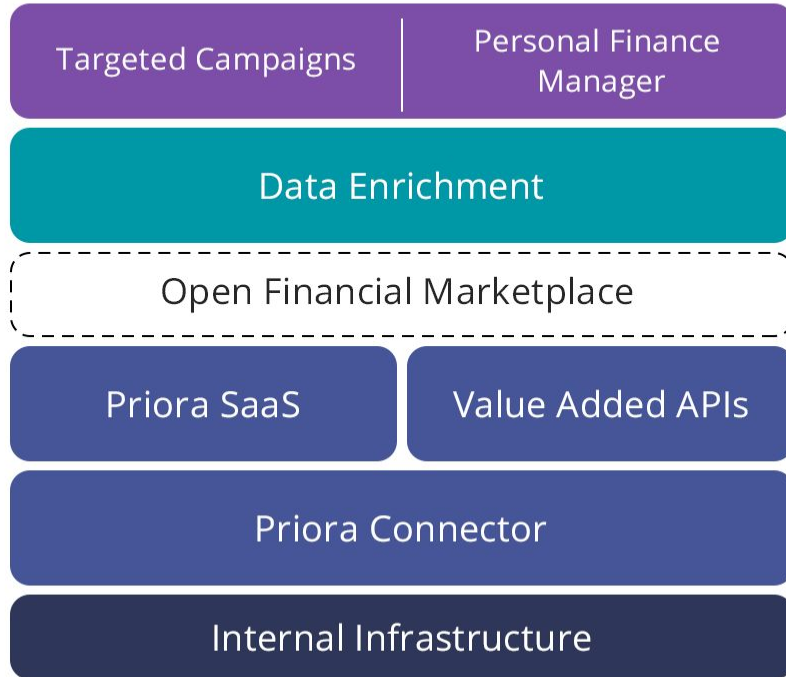# Competing after PSD2: Personalized Digital Banking
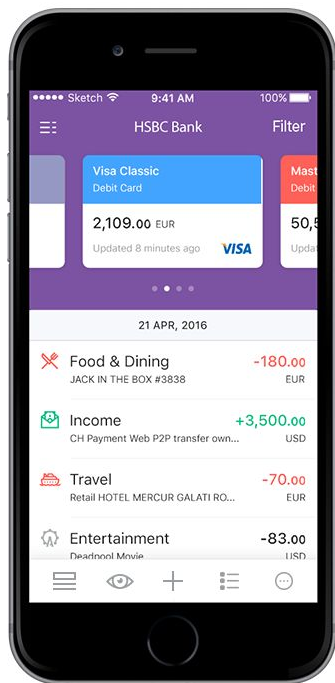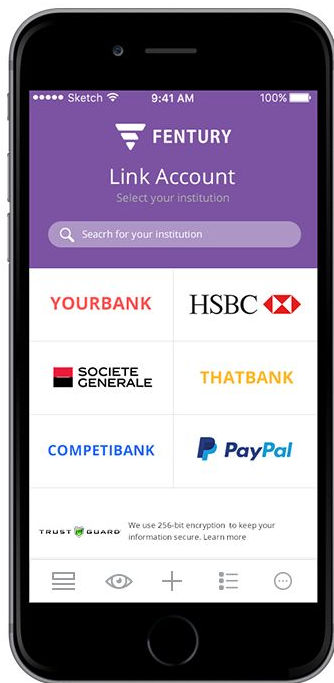
Spectre Data Aggregation API allows to import any type of financial data - from account balances to transactions details:

- Savings
- Credit, Debit cards
- Loans and Mortgages
- Insurances
- Investment
- Checking
- E-wallets

Step 3: Provide Advice & New Services

Targeted Campaigns	Personal Finance Manager

Data Enrichment

Open Financial Marketplace

Priora SaaS	Value Added APIs

Priora Connector

Internal Infrastructure

Personalize User Experience with Fentury

• Build a personalized digital banking experience powered by Fentury Solution

• 360° view of customers' entire financial life (including external accounts)

• Using Big Data and Data Enrichment:
+ Identify current needs of your customers
+ Predict customer behaviour scenarios and future needs

• Target specific customers with personalized offers which perfectly match their profile

Competing after PSD2 : Personalized Digital Banking
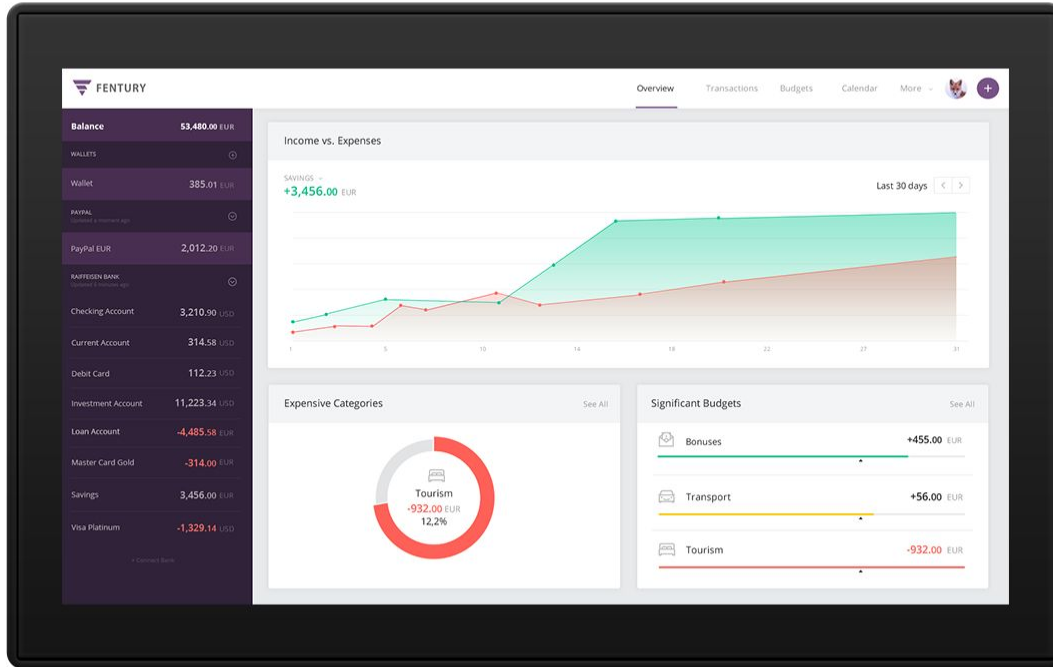
Bring Value to your customers by providing finance management tools:

- Budgeting
- Goals
- Financial Calendar
- Advanced Reports
- Advice & Notifications

Example of digital banking powered by Salt Edge
View demo at www.fentury.com

PSD2 Era: Unlock the Value of Financial Data

SALTEDGE

Data Enrichment

Personalized Digital Banking

Data Aggregation from other financial institutions

Added value APIs & new ways of monetization

PSD2 Compliance

Targeted Campaigns & Offers

Main Priora Features

Current:

- AISP and PISP flows
- Strong Customer Authentication
- Authentication Code flow and mobile apps
- Testing Environment and Documentation
- Third Party verification eIDAS
- Whitelisted Merchants
- Exemptions Handling
- Monitoring tools
- Triggers and Alerts
- Technical Support
- End Customer Management flow
- Bank Roles (i.e. support, engineer, admin)

Future:

- Open Standard for Financial APIs
- Digital Identification
- Value Added APIs
- APIs Monetization
- APIs Invoicing
- Open API Marketplace

Get Started with PSD2 Implementation

1 **Define your strategy:** Choose between simply being compliant with **PSD2** or taking advantage of all the possibilities it opens

2 **Be ready:** Prepare the IT infrastructure and ensure **PSD2** compliance before the time comes

3 **Personalize User Experience:** Stay ahead of the competition by providing your customers with valuable daily advice based on advanced analysis of their data

4 **FinTech collaboration & Data enrichment:** Work with FinTech players to diversify the possibilities of your non-core features

5 **Time is of the essence:** The deadline is closer than you think, choose a plan of action and start acting on it now!

3 days **innovation workshop** with Salt Edge Team

In our **3-day innovation workshop** you get to work with Salt Edge top business development and technical people, our **compliance and security** experts to help you **better understand the PSD2** implementation strategies. The workshop covers two main aspects:

    1) **Business** — what impact PSD2 will have and how to choose a winning strategy.

    2) **Technical** — the Priora Connector implementation and the establishment of workflows.

Request the workshop at **sales@saltedge.com**

The Future of Banking Starts Today

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