

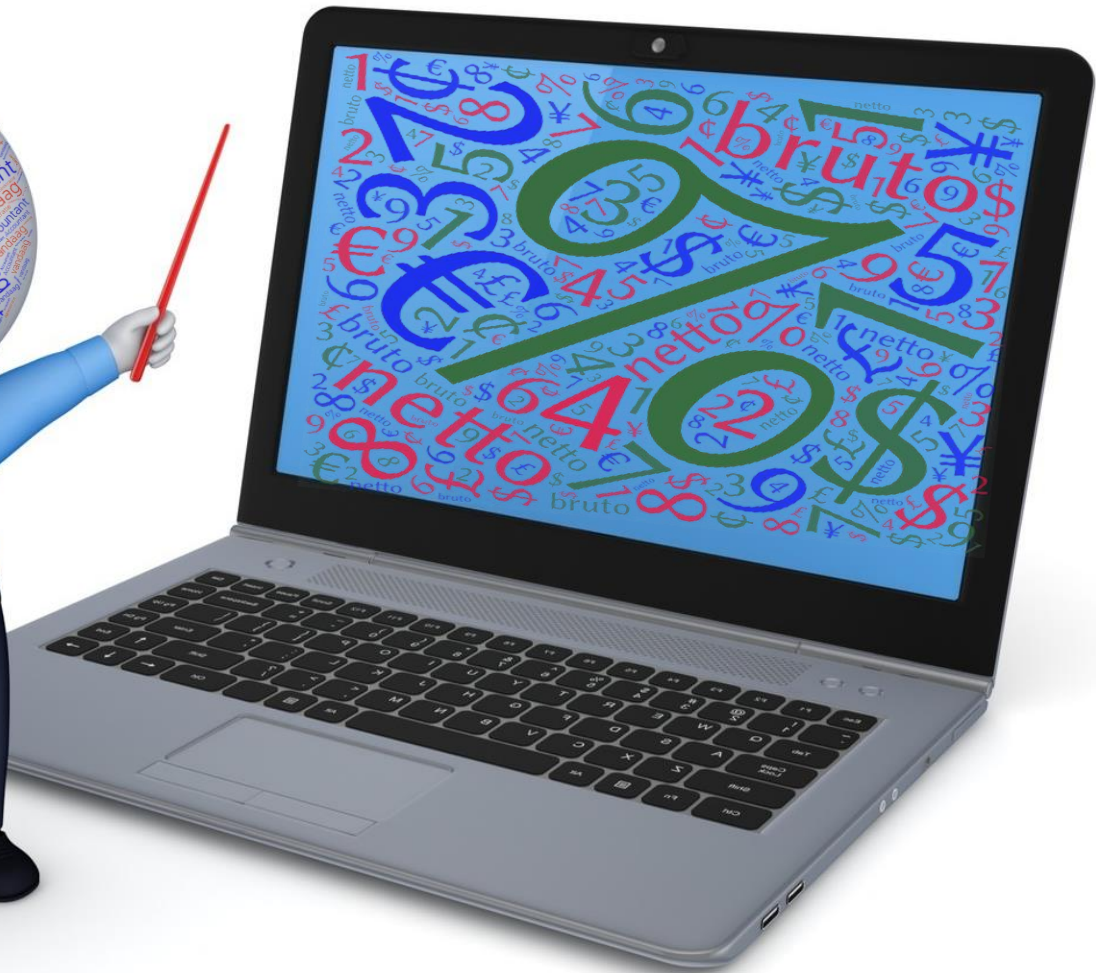


PSD2
Innovation and disruption

ICT Accountancy Jaarcongres
30th oktober 2019

YOUR AMBITION, REALISED TOGETHER

The accountant today





1. Introduction of Enigma Consulting
2. Customer Portfolio PSD2
3. PSD2 introduction
4. Strong Customer Authentication
5. PSD2 and accountants
6. Some innovative examples

Enigma Expertise

Introduction Enigma

Payments & Core Banking

- Match maker between banks, corporates and solution providers
- Interim Product- and Process Management
- Connectivity
- Core Banking, branch implementation
- Virtual Accounts, cash management solution

Risk & Compliance

- Subscription compliancy WFT and AVG (MiFID), Audit and advice
- Licensing Payment Institution/ EGI
- Realization (Operational) Risk Framework
- Interim Compliance Function
- Operational Risk Model Payment Processing
- Basel III, Mifid, IFRS
- Data Analytics / Predictive modelling

Treasury & Trade Finance

- Trade advisory and training
- BELLIN, sales and implementation
- Treasury barometer
- Treasury consulting, Cash management, Financial Risk management, TAAS, Treasury onboard

Retail & Digitalization

- Digital transformation support in insurance and banking
- Customer Journey, E-identity, e-signing
- Robotization
- Support Start-ups/ participation



Consulting
Projects
Solutions

YOUR AMBITION, REALISED TOGETHER

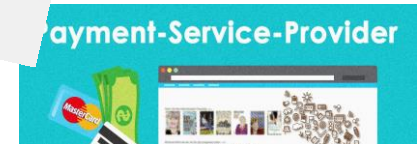
(PSD2-)License and Consulting

With respect to licensing, Enigma has been managing and supporting licensing applications with DNB for electronic money institutions, payments institutions, escrow services and exemptions to these for about 5 years now. Enigma Consulting advises and supports organisations with various motives:

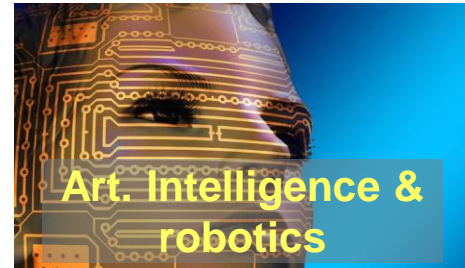
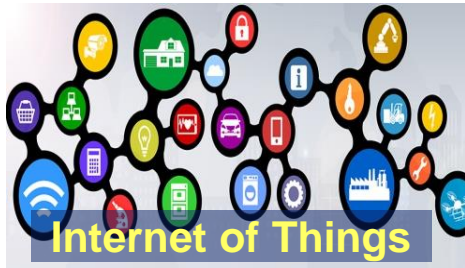
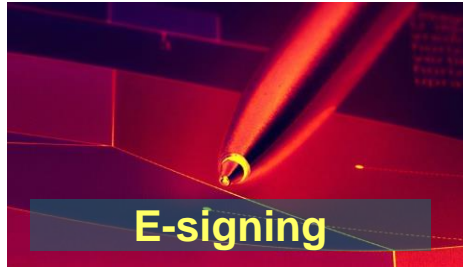
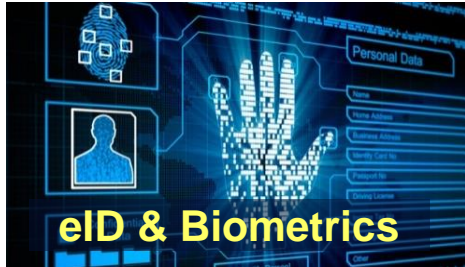
1. Fintechs
2. Start-ups
3. Payment Service Providers
4. Service providers (e.g. **Payroll Services**)
5. Lenders (Mortgage loan and credit facility)
6. Brexit-payment institutions
7. **ERP/Accounting solutions**
8. Crypto ccy companies
9. Wealth managers
10. (International) Online retailers



PSD2 Consulting



Trends & Innovation in Finance: Disrupt, Change, Shake Up



The Directive's purpose is to increase pan-European competition, innovation and participation in the payments industry also from non-banks, and to provide for a level playing field in a secure manner

PSD1 (2009)

- Clear basis for EU legislation for harmonizing credit transfers and direct debits (SEPA)
- Ban on valuation
- Costs "Shared" for EUR payments within the EU
- Introduction of "Payment institution" (license) with related services subject to licensing (in WFT)



PSD2 (2019)

- PSD2 scope extension (currency, one-leg)
- Ban on surcharging and "Cap" on interchange fees (Debit / Credit Cards)
- Introduction of 2 new services subject to licensing (services 7 and 8) and role (TPP)
 - Account Information Service provider
 - Payment Initiation Service provider
- Improved payment security - Strict guidelines for "Strong Customer Authentication" (SCA)

Under the Financial Supervision Act (Wet op het financieel toezicht), a payment service provider wishing to operate in the Netherlands must obtain a license from DNB

1. Services enabling cash to be placed on a payment account as well as all the operations required for operating a payment account
2. Services enabling cash withdrawals from a payment account as well as all the operations required for operating a payment account
3. Execution of payment transactions, including transfers of funds on a payment account with the user's payment service provider or with another payment service provider:
 - a. Execution direct debits, including one-off direct debits
 - b. Execution payment trx through payment card/similar device
 - c. Execution of credit transfers, including standing orders
4. Execution of payment transactions where the funds are covered by a credit line for a payment service user:
 - a. Execution of direct debits, including one-off direct debits
 - b. Execution payment trx through payment card/similar device
 - c. Execution of credit transfers, including standing orders
5. Issuing of payment instruments and/or acquiring of payment transactions
6. Money remittance
- 7. Account Information Services Provider**
- 8. Payment Initiation Services Provider**

PSD2 – Access-to-the-Account



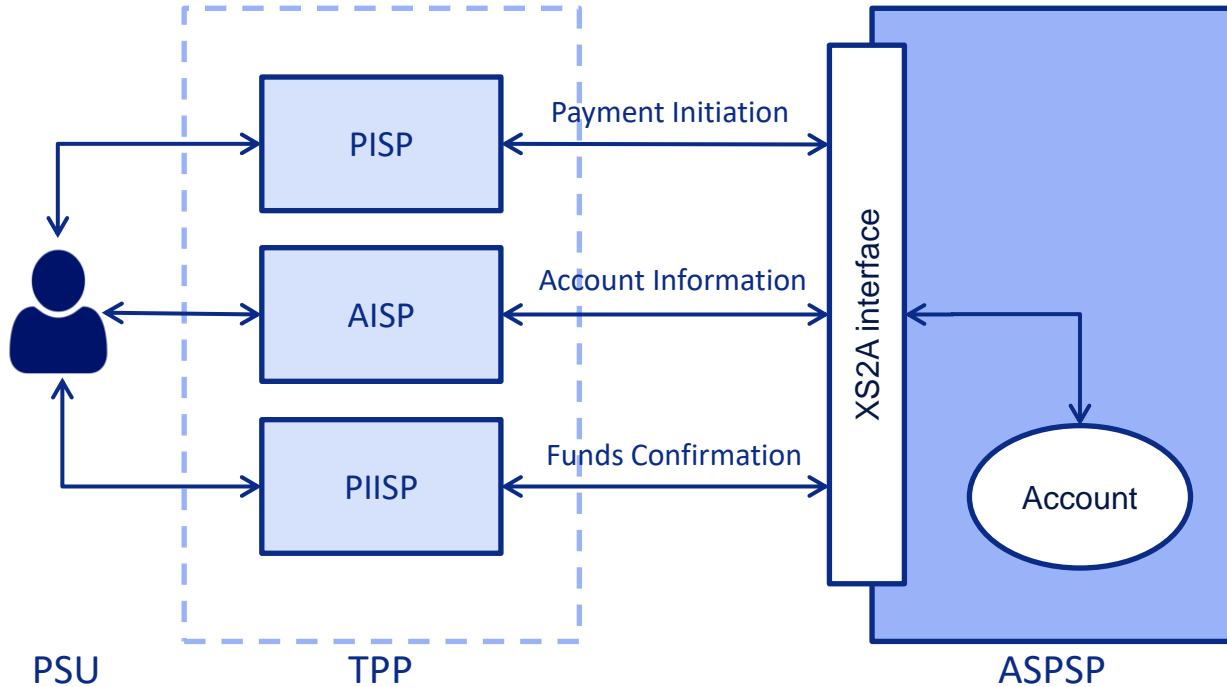
- Introduction of TPPs (Third Party Payment Service Providers).
- These have direct access to a bank account



Starting points:

- Same service as via internet banking
- Customer consent - Valid for 90 days
- Historical data (for example, 1 year)

Belangrijkste actoren



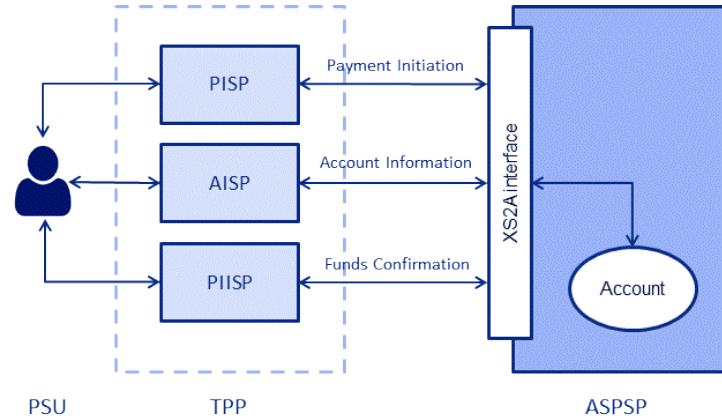
- ASPSP Account Servicing Payment Service Provider
- AISP Account Information Service Provider
- PISP Payment Initiation Service Provider
- PIISP Payment Instrument Issuing Service Provider
- PSU Payment Service User
- TPP Third Party Provider
- XS2A Access To The Account

- The services that an ASPSP offers must be available for all TPPs
- The services must be the same as the online services for ASPSP's own customers
- An ASPSP may not differentiate in pricing for the same services

PSD2: The change



- Open up European financial services market
- PSD2 has introduced that banks must provide secure access to their accounts through APIs.
- Purpose of directive is to enable external service providers, the so-called Third Party Providers (TPPs), to offer information and payment services directly to consumers.
- Secure Access (SCA)
- For banks, PSD2 will mean increased competition from non-banking institutions



Conditions

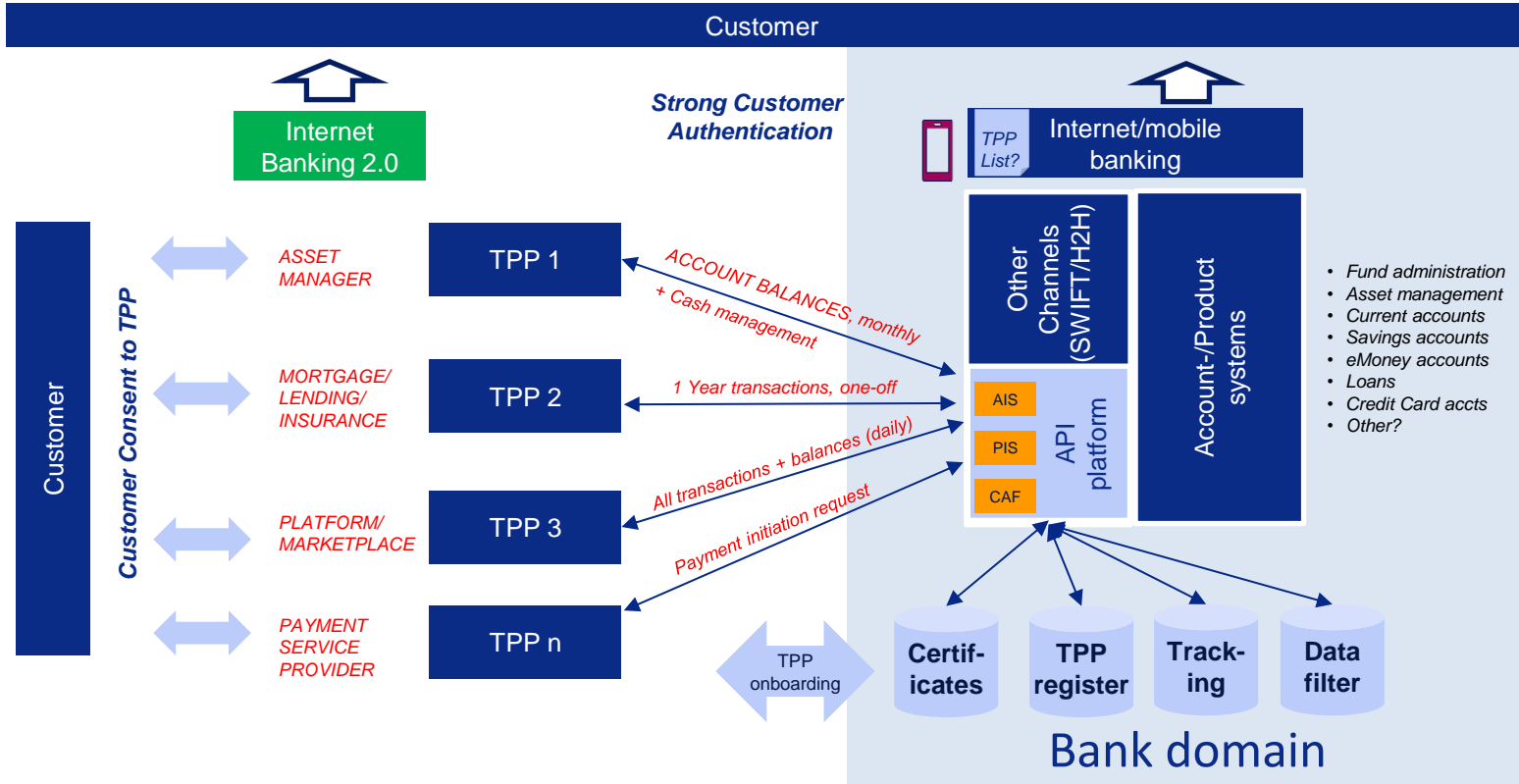
- Explicit permission PSU
- Strong PSU authentication (usually)
- Secure communication PSU - TPP – ASPSP

For TPPs (licensed) there are no costs associated with AIS and PIS!!

PSD2 – The value chain is going to change



- Impact banks:**
- 1 API orchestration
 - 2 TPP onboarding
 - 3 Customer Consent & SCA
 - 4 Change of Internet banking
 - 5 Account Management changes
 - 6 Customer Support
 - 7 Positioning



Strong Customer Authentication (SCA)



SCA, two out of three



Something you know (such as a password)



Something you have (such as a smart card)



Something you are (such as a fingerprint or other biometric method)

eIDAS

- Identification of ASPSPs and TPPs is based on eIDAS certificates
- issued by Qualified Trust Service Providers (QTSPs) under the eIDAS regulation

Which exceptions apply to SCA?

- Payments lower than 30 euros (<6, < €100)
- For payments at parking or public transport
- For contactless payments below 50 euros

- Subscription/repeat payments : only first
- Payments initiated from the seller: SDD, collection Cr Card
- "trusted beneficiaries" , tick by consumer at bank or payment service provider

- For business payments through adequately secured processes and protocols
- Payments with a low risk (riskbased analysis)

Interregional transactions not covered by PSD2.
A credit card from America can therefore be an exception

Implementation of SCA

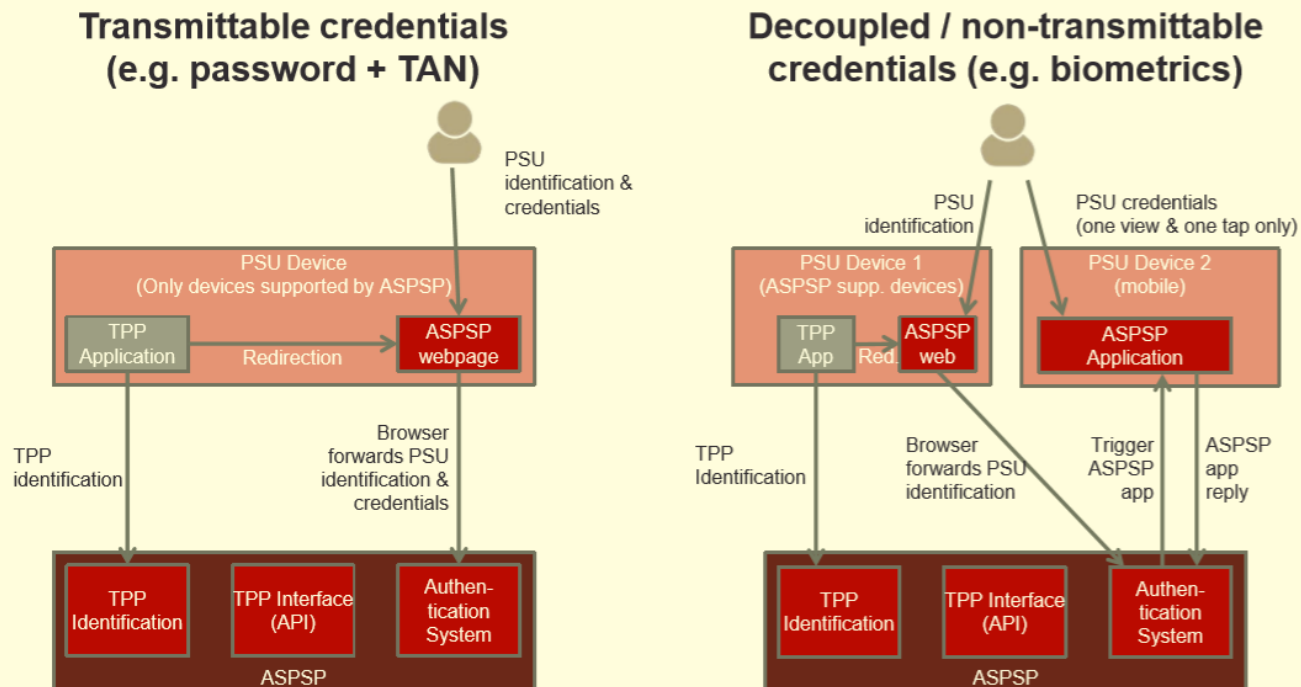
Dutch banks chose redirect model



Three Models

- Redirect
- Decoupled
- Embedded

Redirection Flows



Implementation of SCA

Innovative parties ask for embedded

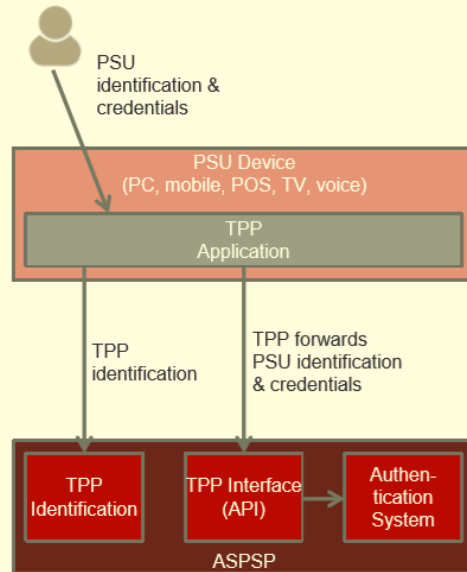


Three Models

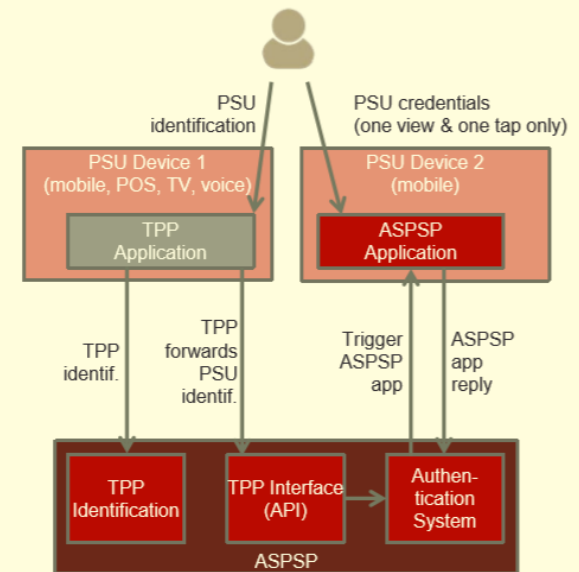
- Redirect
- Decoupled
- Embedded

Embedded Flows

Transmittable credentials (e.g. password + TAN)



Decoupled / non-transmittable credentials (e.g. biometrics)



PSD2 and accounting solutions

Business Case for solutions and accountants (with vision)

1. Current accounting links are being replaced by the (PSD2) APIs.
 - a) Not clear yet if and which banks will support current links and non-PSD2 access in the future.
 - b) Responsibility stays with the bank.
 - c) Which content will be delivered?
2. New business services based on PISP services
3. No charges for both AIS and PIS
4. Independency from banks and other providers
5. From push to pull, timing

Samenwerking met andere partijen



Binnenkort wordt de nieuwe regelgeving PSD2 van kracht. Vanaf dat moment wordt de Boekhoudkoppeling vervangen door een PSD2 geschikt product. Om deze reden heeft ABN AMRO besloten om tot die tijd geen nieuwe samenwerkingen met andere partners aan te gaan. Door PSD2 kunt u straks eenvoudiger een boekhoudkoppeling maken met uw pakket.

Know Your Customer (KYC)



And Anti Money Laundering (AML)

ANTI-MONEY LAUNDERING
Deter. Detect.
Prevent.



Rationale:

- Like a bank, the TPP has a gate keeper function
- Linked accounts

Transaction monitoring (Wwft) and KYC/CDD

- Risk-based
- Post-event, objective indicators (FIU), frequencies, divergent amounts
- economic ratio (business – private)

Exception:

- If there is a direct customer relation via the accountant (TPP doesn't know the customers)

Approach TPPs differs

- Some: all customer KYC
- Real Time monitoring

Others:

- Very low profile KYC and monitoring

Risk on a fine or criminal prosecution by the OM

Good Practise

Further guidelines (EBA) will follow



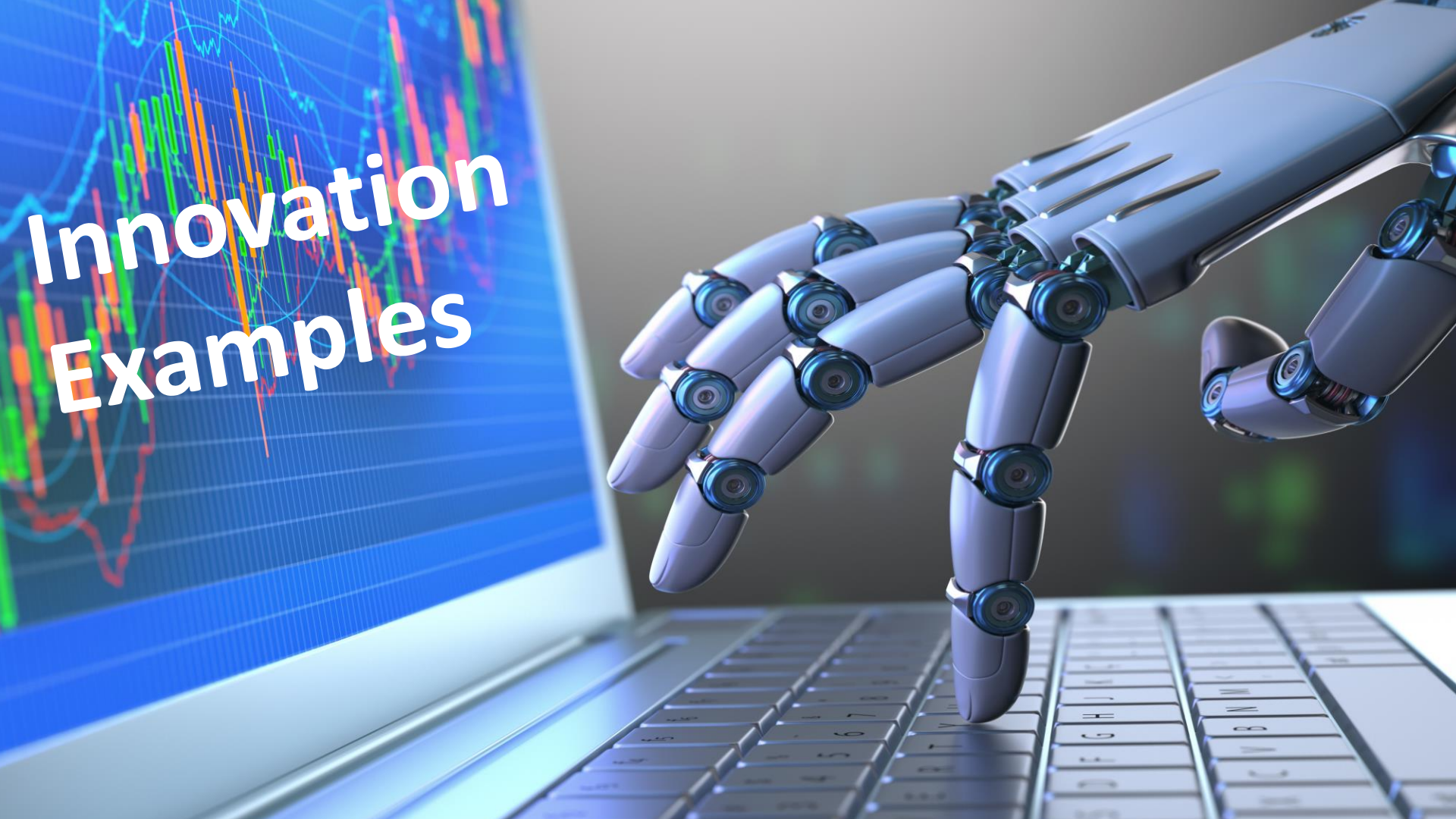
- Business Case
 - Business plan
 - Flow of funds
 - Services
 - Recovery and exit plan
- Sound business operation
 - Risk management framework
 - Risk analysis
 - Organisational structure: compliance, IA
 - Outsourcing
 - IT systems. Auth., Data collection
 - Incident follow up
 - BCM
 - Remuneration policy
 - Oath or affirmation
- Ethical business operation
 - Risk analysis
 - SIRA
 - Preventing conflicts of interest
 - CDD
 - Sanction screening
 - Transaction monitoring
- Fit & Proper policy makers
 - Propriety of (co-)policy makers
 - Two day to day policy makers
- Transparent governance structure
 - Legal
 - Governance
- Qualifying holdings (DNO, VVGB)
- Securing funds
- Minimum own funds solvency
- Indemnity insurance

Is PSD2 already developing in a dangerous direction?



1. License as a service
2. Licensed parties intermediaries between the company and consumer
3. Transparency for the customer
4. Chain and risk profile will increase
5. Responsibility for customer research organized?
6. Who is liable if the non-licensed company is careless with the account data obtained?
7. Is the consent consistent with the actually requested data?





Innovation Examples



Buddy

Problem

- 40% of all households experience financial stress
 - They do not have a good overview of their income and future expenses
 - They make irresponsible choices when entering into agreements
 - They receive claims and fines on advance payments of allowances and benefits
- 20% of all households have debts

Problem Owners

1. Healthcare providers (extra healthcare costs)
 - 50% care consumption related to stress
2. B2C corporates (defaults/absenteeism)
 - Subscriptions, telephony, Other fixed costs
 - Energy & local taxes
 - Education, Insurances
 - Living & mortgages, Transport
3. Municipalities (assistance and refinancing)
 - Municipalities spend solving the debt problems (costs society around 100,000 euros per household in debt)

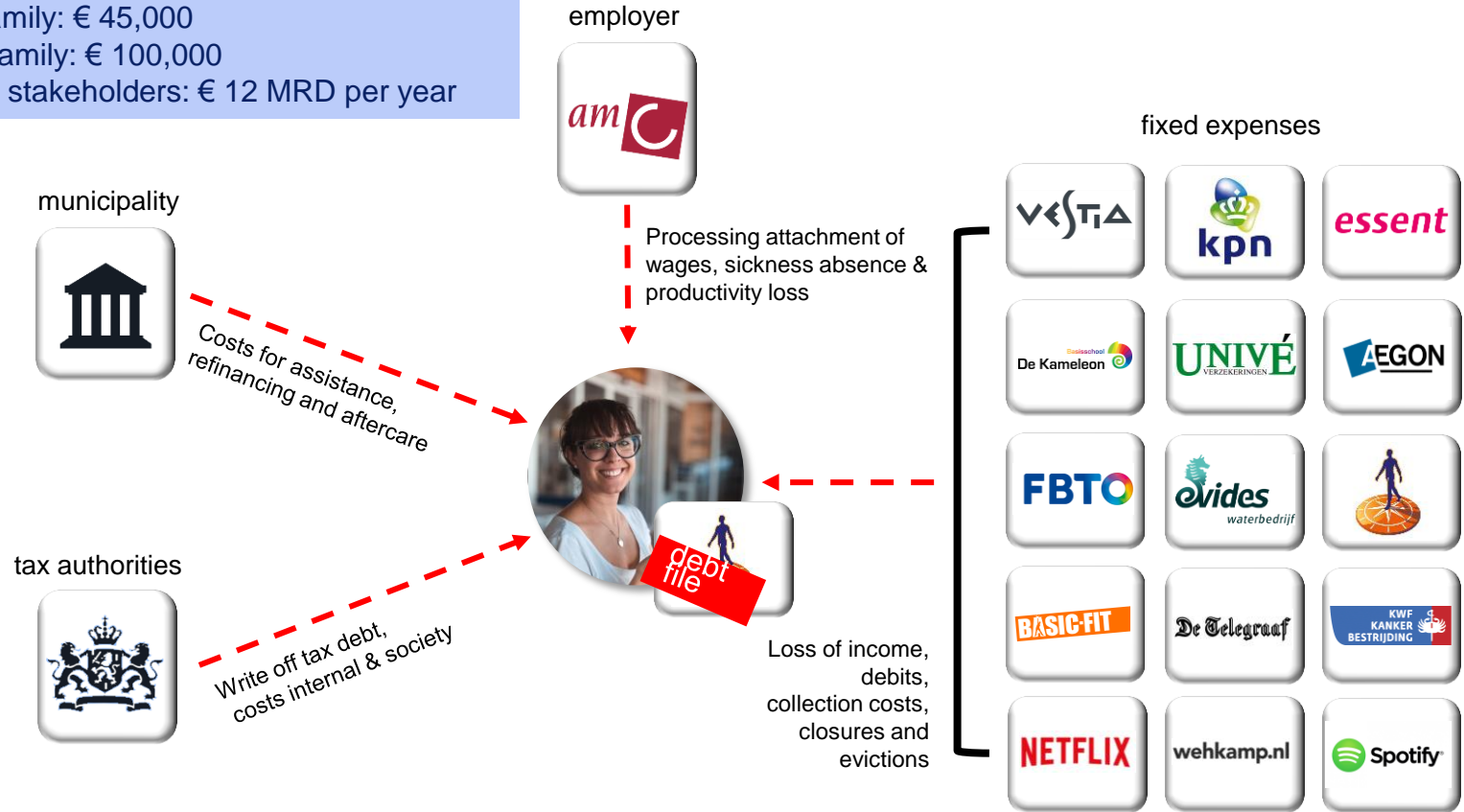
Buddy solution

Focus on residents with financial stress

Buddy



Avg debt per family: € 45,000
Avg costs per family: € 100,000
Direct costs for stakeholders: € 12 MRD per year



Buddy

Financial insight & overview

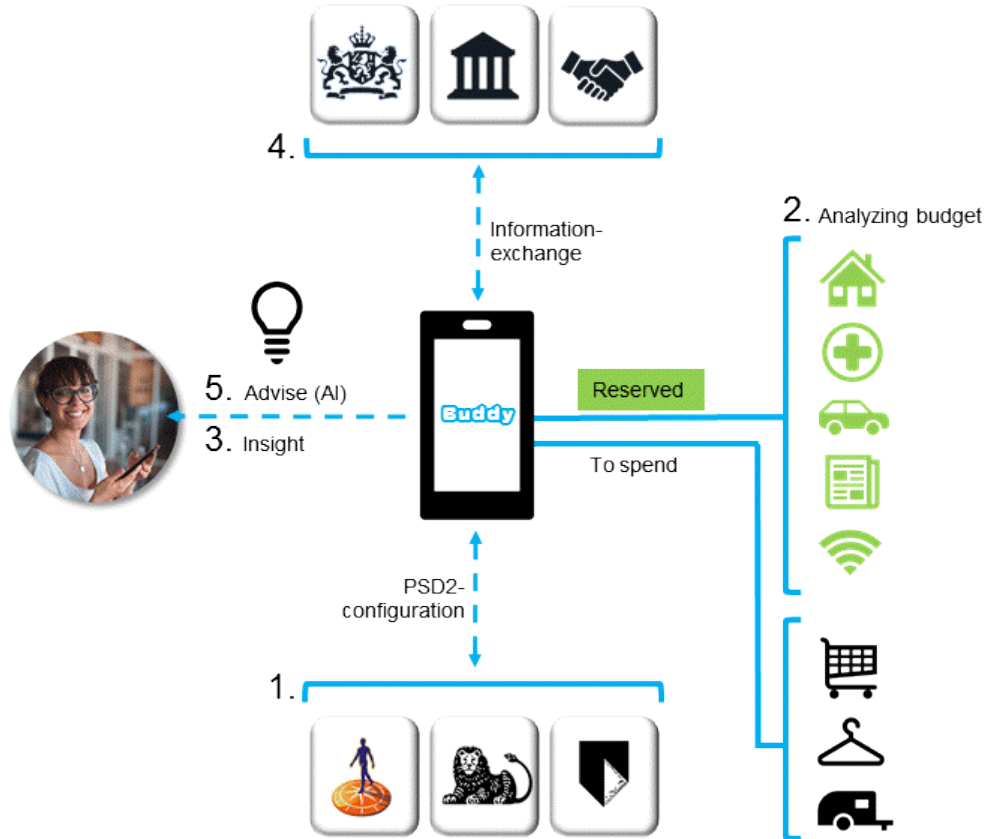
Reserve money automatically

To contact

- Municipality / UWV
- tax authorities -- allowances
- Creditors

Advising (Artificial Intelligence)

- Advising on fixed costs
- Advising surcharges
- Advising on purchases





FRAUD Prevention

- Mileage
- Smoking
- Company Stock
- Income



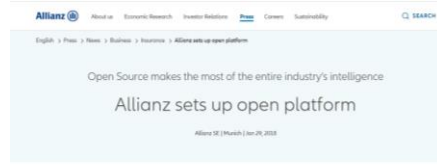
CDD



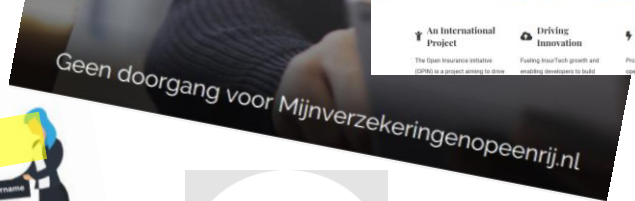
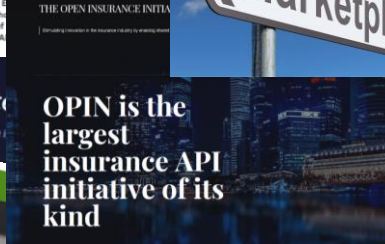
Cross selling/
life event



Financing check



Everybody's familiar with Allianz as an insurance company and financial services provider. Now, 128 years after it was founded, it's also offering software. An Open Source...



Pay quickly after recovery



Insure after purchase

PSD2 offers opportunities - Data mining on account information

Private lease or Insurance



Motorrijtuigenbelasting

| Naam/omschrijving | Bedrag af (debet) |
|--|-------------------|
| 3 BELASTINGDIENST | 32,00 |
| 85-NGF-3 31-03-2018 t/m 30-04-2018 HELP LIED WWW.BELASTINGDIENST.NL Kenmerk machtiging / incassant ID: 00228564 NL3522273653230000 Transactiereferentie: GVSXX20180423064692851 Verwerkingsdatum: 30-04-2018 | |

KENTEKEN

Mobiliteit diensten

| | | |
|------------|--|--------|
| 10-03-2019 | /TRTP/SEPA OVERBOEKING/IBAN/NL73RABO033300333 0/BIC/RABONL2U/NAME/anwb/REMI/ISSUE R: CUR REF: 1222171187221970 /EREF/NOTPROVIDED | 100,00 |
| 18-02-2019 | BEA NR:GX3504 18.02.19/16.53 ANWB VKPT0134 ZEIST,PAS008 | 11,15 |

Parkeer 'APP's

| | |
|---|------|
| ST PARKEERGELDEN NL | 1,19 |
| Parkmobile parkeren factuurnummer 4 4527614 Zie ook www.mijnparkmobile. nl Kenmerk machtiging / incassant ID: 6591872-506485 NL82ZZZ342442750000 Transactiereferentie: DD1023093506-5694788897 Verwerkingsdatum: 07-06-2018 | |

Onderhoud

| | |
|---|--------|
| Autoweerd Utrecht UTRECHT | 620,49 |
| Betaalautomaat 17:12 pasnr. 015 Verwerkingsdatum: 13-09-2018 | |

Tanken

| | |
|---|-------|
| SHELL MAARSSSEN MAARSSSEN | 77,83 |
| Betaalautomaat 07:37 pasnr. 015 Verwerkingsdatum: 19-06-2018 | |
| TEXACO DORST DORST | 73,54 |
| Betaalautomaat 09:41 pasnr. 015 Verwerkingsdatum: 18-04-2018 | |
| BP VOSSDAL BEEK LB | 77,94 |
| Betaalautomaat 20:39 pasnr. 015 Verwerkingsdatum: 04-11-2018 | |

Tanken buitenland -- dekking

Autoverzekering

| | |
|--|--------|
| IAK VOLMACHT BV | 165,85 |
| Kenmerk: 2007.2182.8004.7465 Omschr ijving: FACT: 113514777 PROLONGATIE IAK Verzekeringen B.V. Klantnr: 70 047465 Kenmerk machtiging / incassant ID: 560201601151807542800002 NL22ZZZ556886160001 Transactiereferentie: 2007218280047465 Verwerkingsdatum: 17-05-2018 | |

A photograph of a brick building facade. On the left, there are two large arched windows with multiple panes, reflecting trees and a blue sky. Below them is a smaller circular window with a decorative metal frame. On the right, there are two rows of smaller rectangular windows. A black sign with white text is mounted on the brick wall, slanted diagonally. The text on the sign reads: "I HAVE TO CHANGE TO STAY THE SAME".

I HAVE TO CHANGE
TO STAY THE SAME

Contact information



Paul Jans

Managing Director

✉ PJans@enigmaconsulting.nl

📱 +31 (0)6 51 08 47 97



www.psd2.nl