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by ergon

About and Beyond PKI, 11. April 2019

Securing the Payment Services Directive 2

Your Presenter



Michael Doujak, Product Manager Airlock Suite

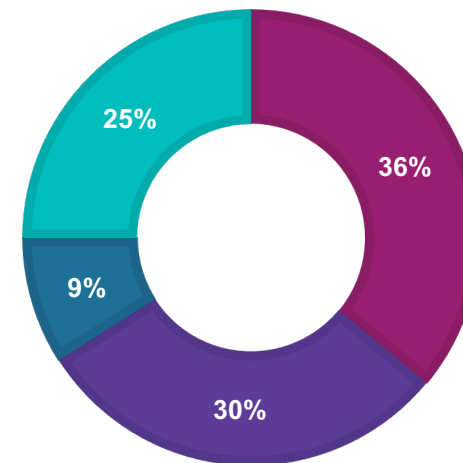
- 20 year experience in design and engineering of secure business solutions
- 15 years expertise in identity management and security
- Experience in PKI and qualified signatures
- Experience in eHealth and electronic health records
- Certified ISO 27001 Lead Auditor

Facts & Figures Ergon Informatik AG

- Founded in 1984 , Airlock since 2002
- 300 employees, 70 Airlock
- 84% with university degree
- 57 Mio. US\$ turnover, 15 Mio. Airlock
- Privately held, employee managed
- Located in Zurich

BREAKDOWN OF TURNOVER BY SECTOR

■ Telecommunications ■ Industry ■ Public sector ■ Finance



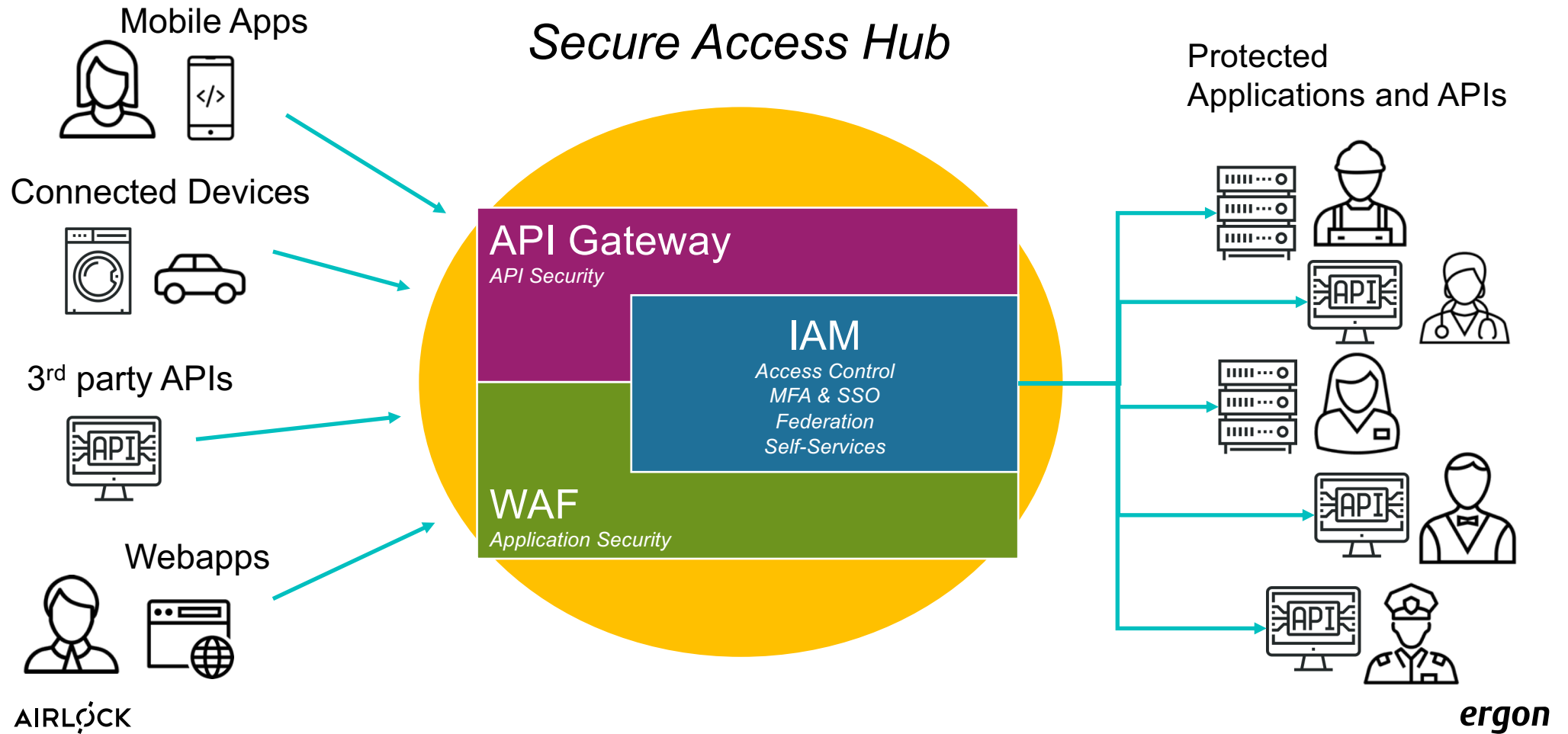
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Secure Access Hub



Payment Services (PSD 2) – Directive (EU) 2015/2366

PSD2 is, when

TPPs (AISP, PISP, CBP II) execute PI for the PSU representing the PAO using SCA at the ASPSP over STET or CAPS API XS2A or NextGenPSD2. To do so EBA requires them in accordance with eIDAS to be registered with a CSP that is certified as QTSP to obtain QWAC and QSEALC

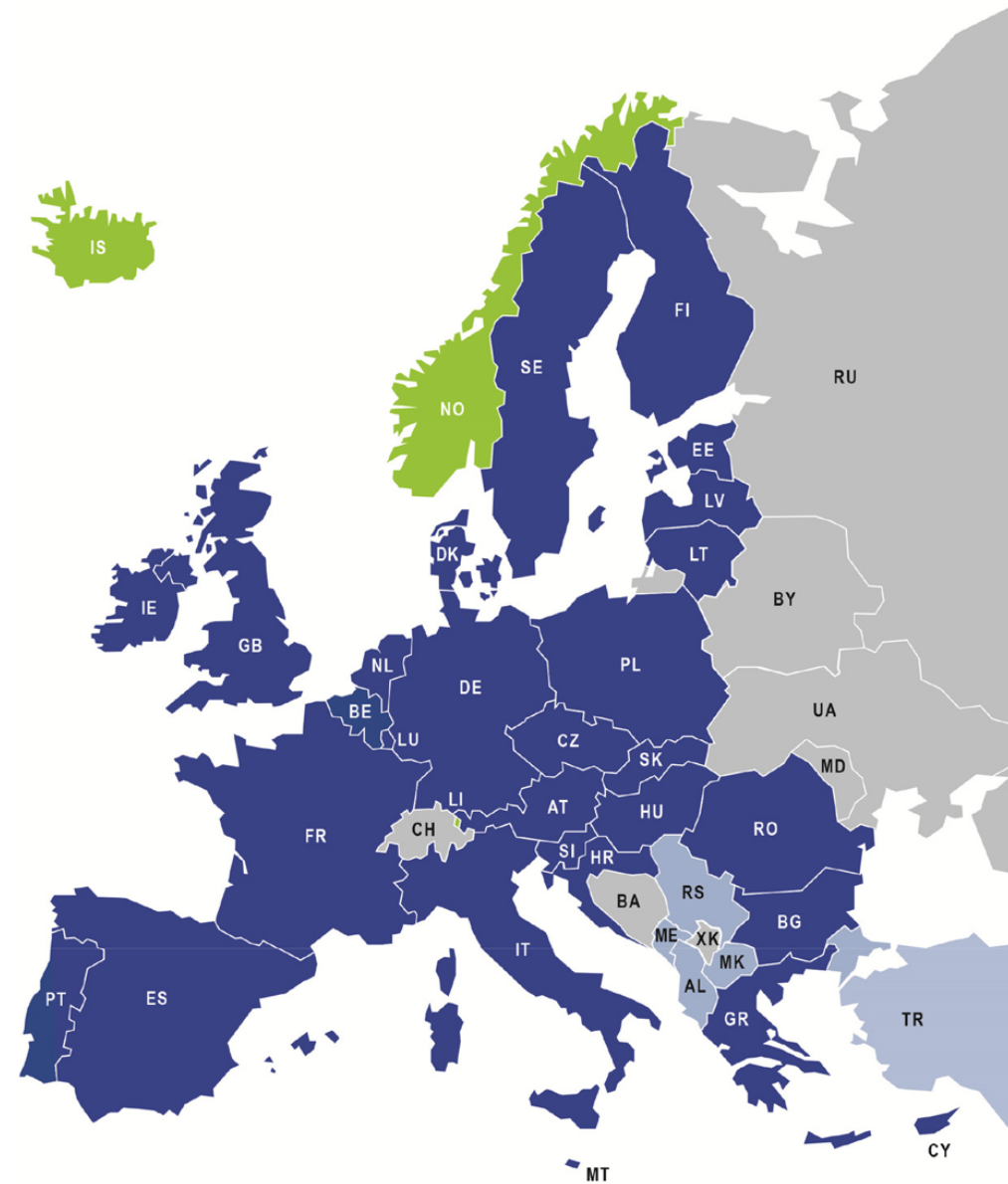
Political Intention of PSD2

Banks Access Requirements	Third Party Requirements
Access to Account Information Access to Transaction History Access to Funds Availability Accept Payment Instructions	Equity Targets Reporting and Auditing Accept Liability Contractual Obligations
15.3.2019	Test Systems of Banks are ready for Third Party Testing
15.9.2019	Production Systems of Banks are PSD2 enabled

PSD2 Applicability

- EU
- EEA (inclusion of FL)

Not applicable in Switzerland
But affects Swiss Banks



PSD2 does not require an API

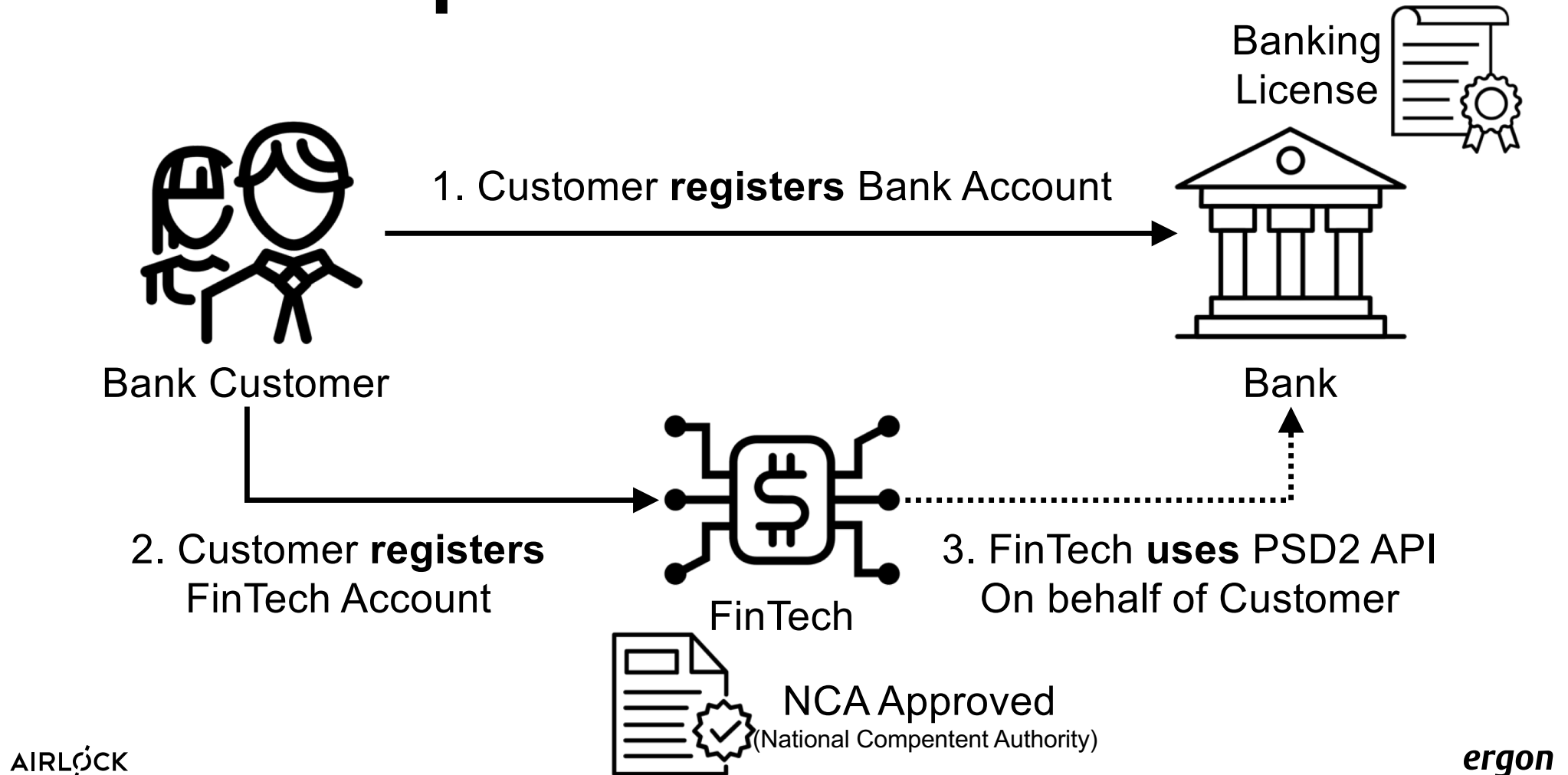
- but -

**An API seems like the only solution
that meets PSD2 requirements**

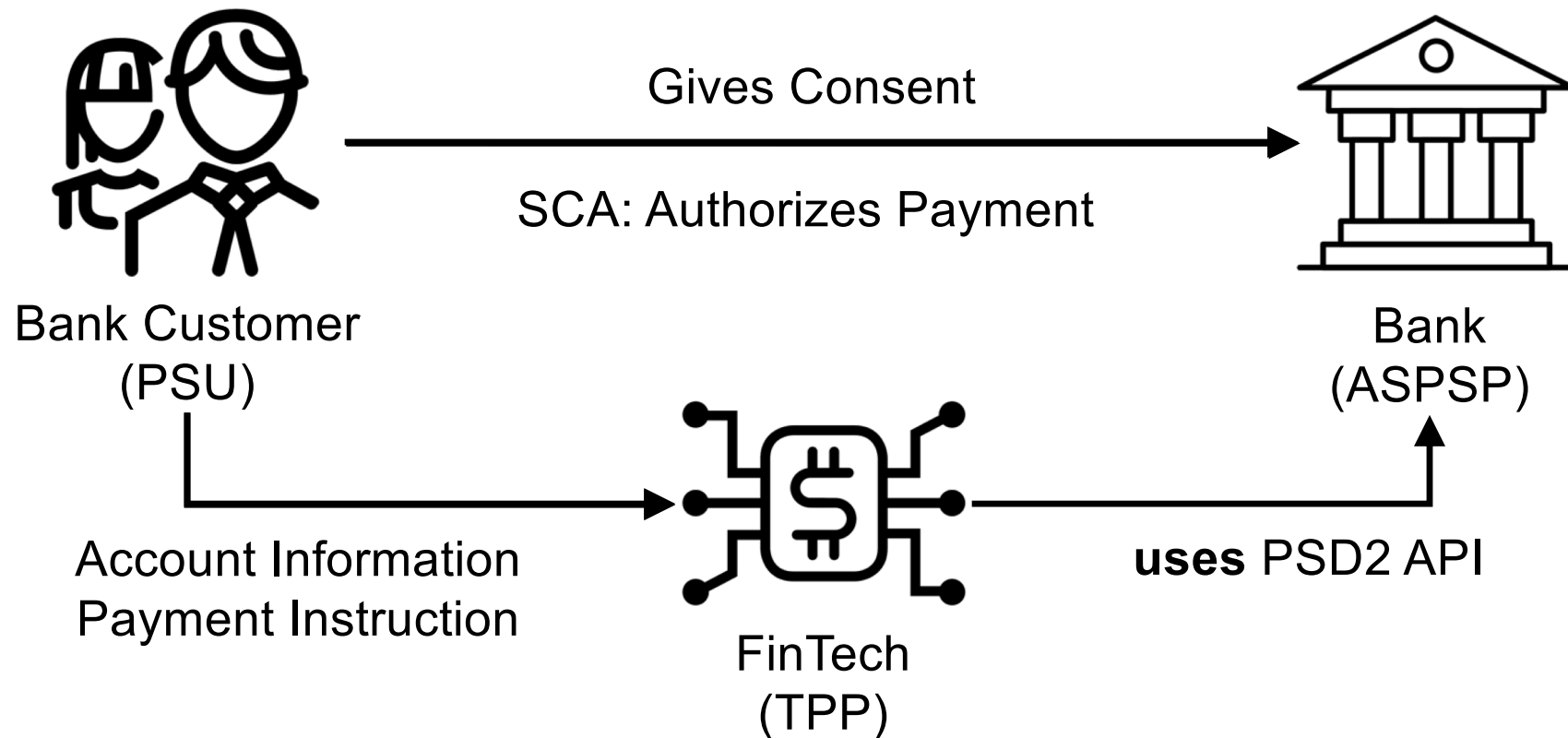
PSD2 API Specifications

Name	Adoption	Comment
<u>Open Banking</u>	UK	Started before PSD2
<u>NextGenPSD2</u>	Large German Banks, SIX, Raiffeisen	<u>The Berlin Group</u> founded for PSD2, PKI based Security
<u>STET</u>	Large French and Belgian Banks	Active since 2004, Focus on Card Payments, OAuth 2
<u>CAPS</u>	Northern European Banks, PayPal	Founded for PSD2

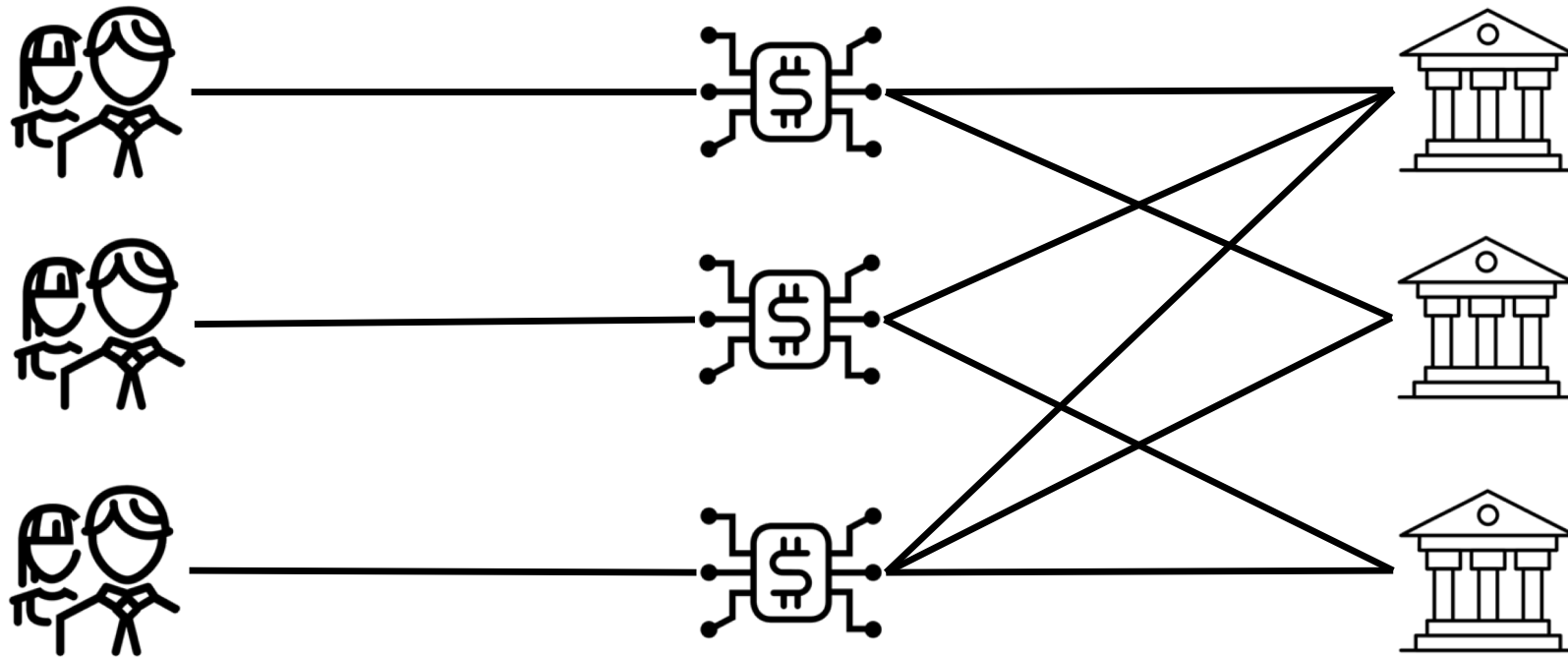
PSD2 Setup



PSD2 Usage



PSD2 Structure



Securing the Payment Services Directive 2

Features of PSD2 API Specifications

- Focus on Financial Transactions (ISO 20022)
- Secure Channel Requirement -> TLS 1.2
- Mutual Authentication of all Players
- Qualified Certificates for Banks and Fintechs (eIDAS)
- Strong Customer Authentication

PSD2 and eIDAS

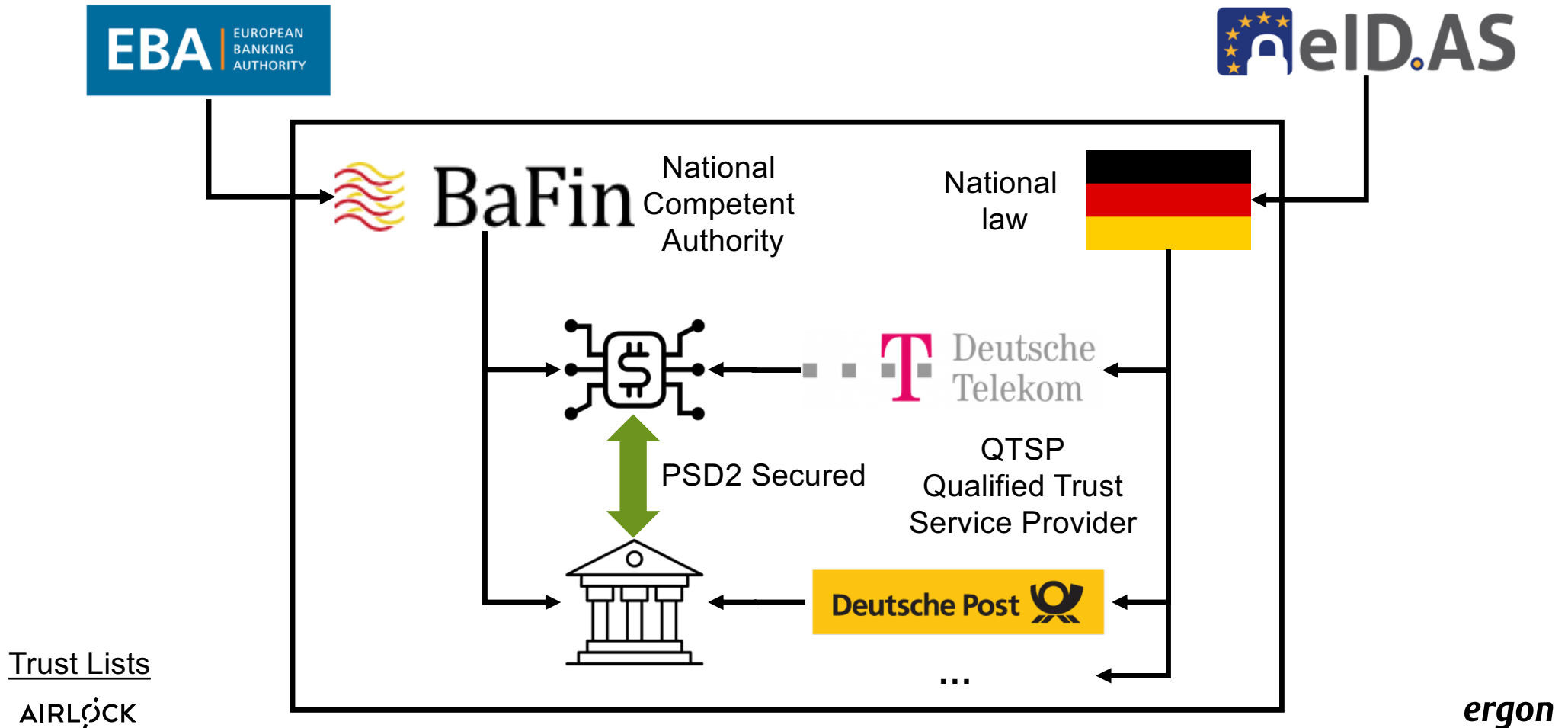


Directive (EU) 2015/2366
on payment services
in the internal market



Regulation (EU) No 910/2014
on electronic identification
and trust services
for electronic transactions
in the internal market

Security – eIDAS and PSD2



Security – eIDAS Certificates

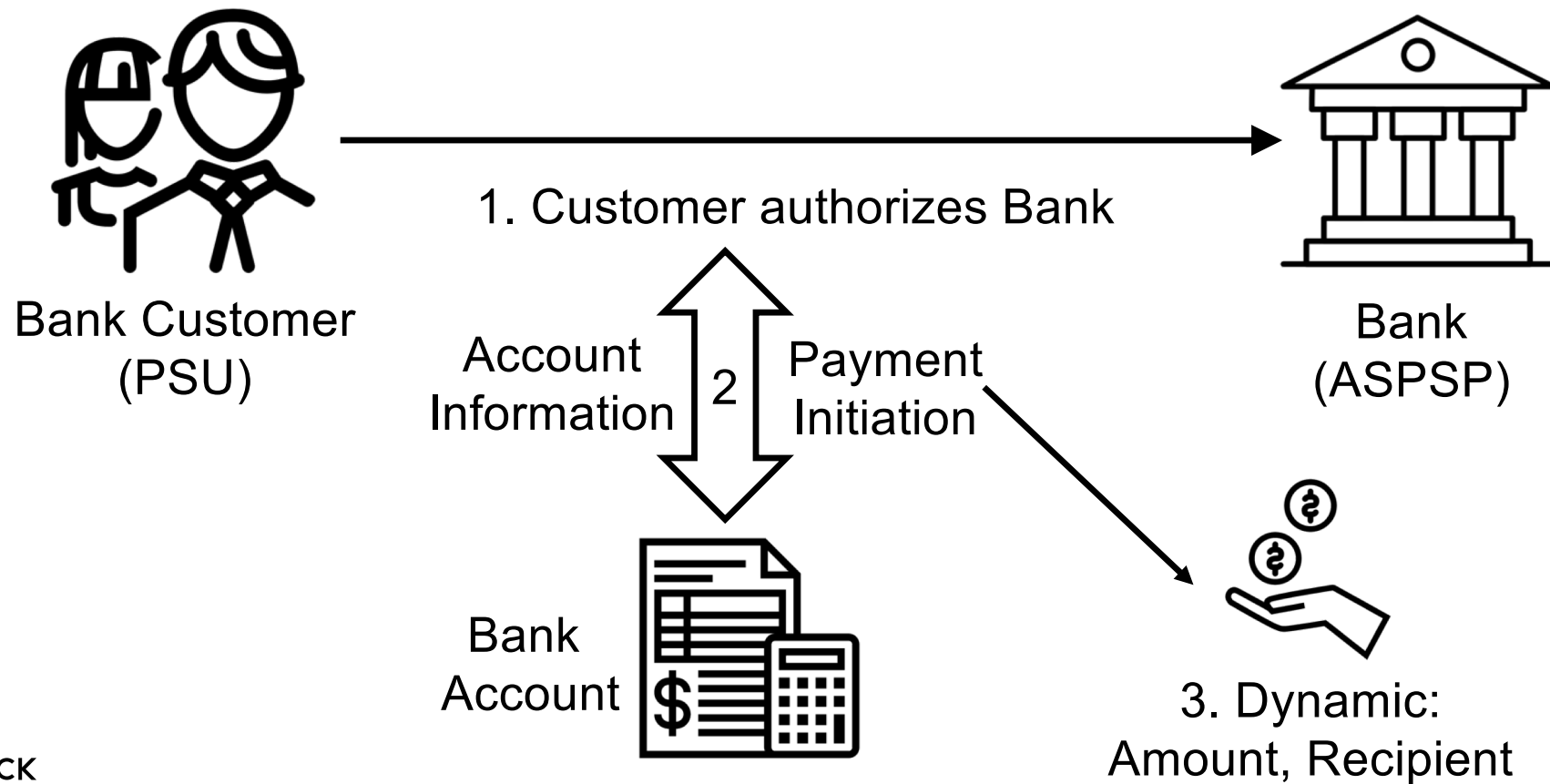
Flavour	Description
QWAC	Qualified Website Authentication Certificate
QSealC	Qualified Electronic Seal Certificate

Attribute	Contents
organizationIdentifier	Element in the SubjectDN Example: PSDGE-BAFIN-1A2B3C
Authorization Number	Part of the organizationIdentifier that identifies the PSP Assigned by the NCA
qcStatement	Role of the PSP <ul style="list-style-type: none">• PSP_AS – Bank• PSP_IC – Card based• PSP_PI – Payment Initiation• PSP_AI – Account Information

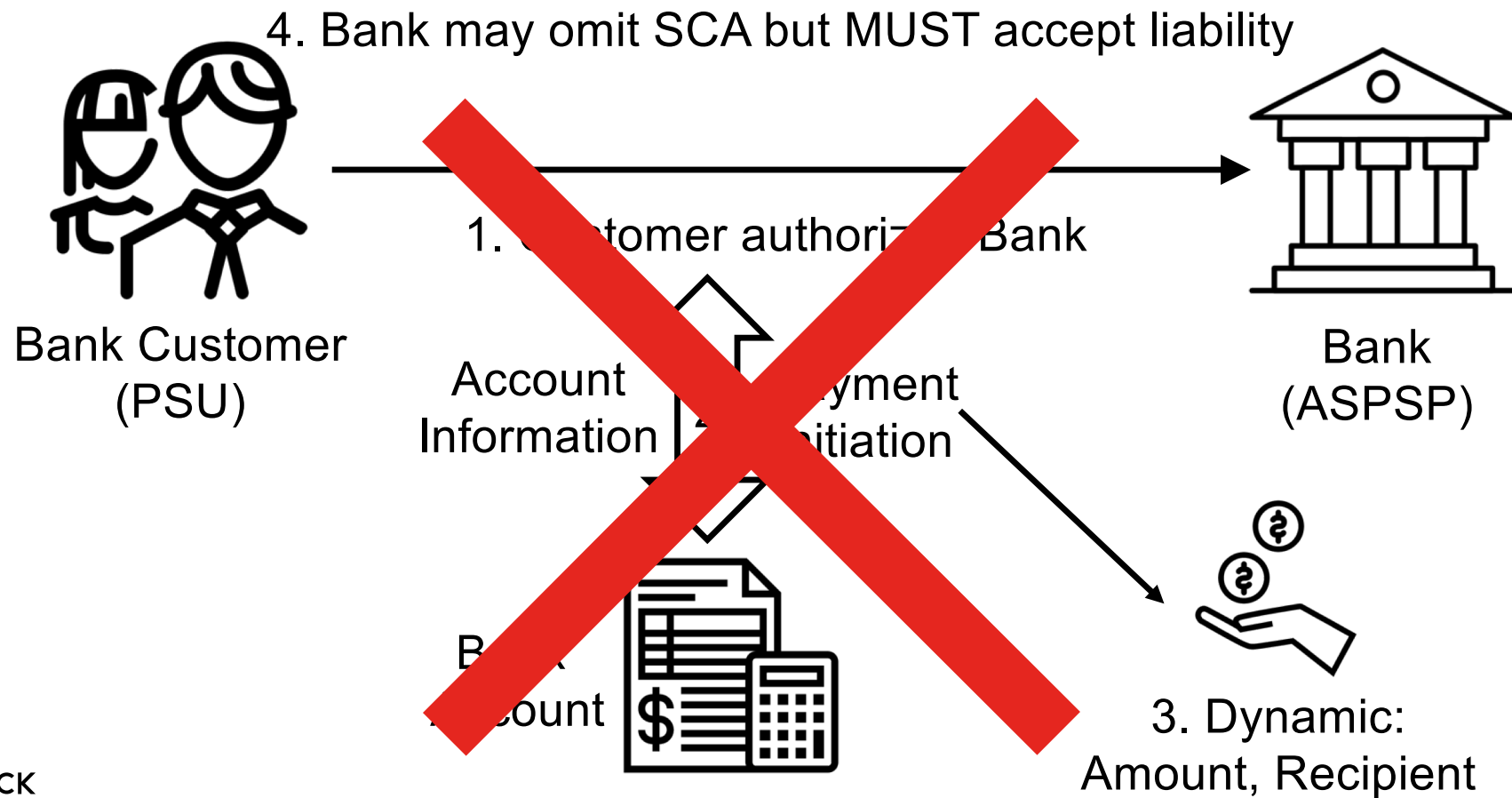
Customers Grant Consent

Transaction	Consent	Comment
Account Information	longtime*	The customer can authorize a Fintech to access a list of accounts
Availability of Funds	longtime*	The customer can authorize a Card Issuer to check the availability of funds
Payment Initiation	explicit	The Customer must consent to every transaction, see SCA

SCA – Strong Customer Authentication



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Summary – PSD2 Security

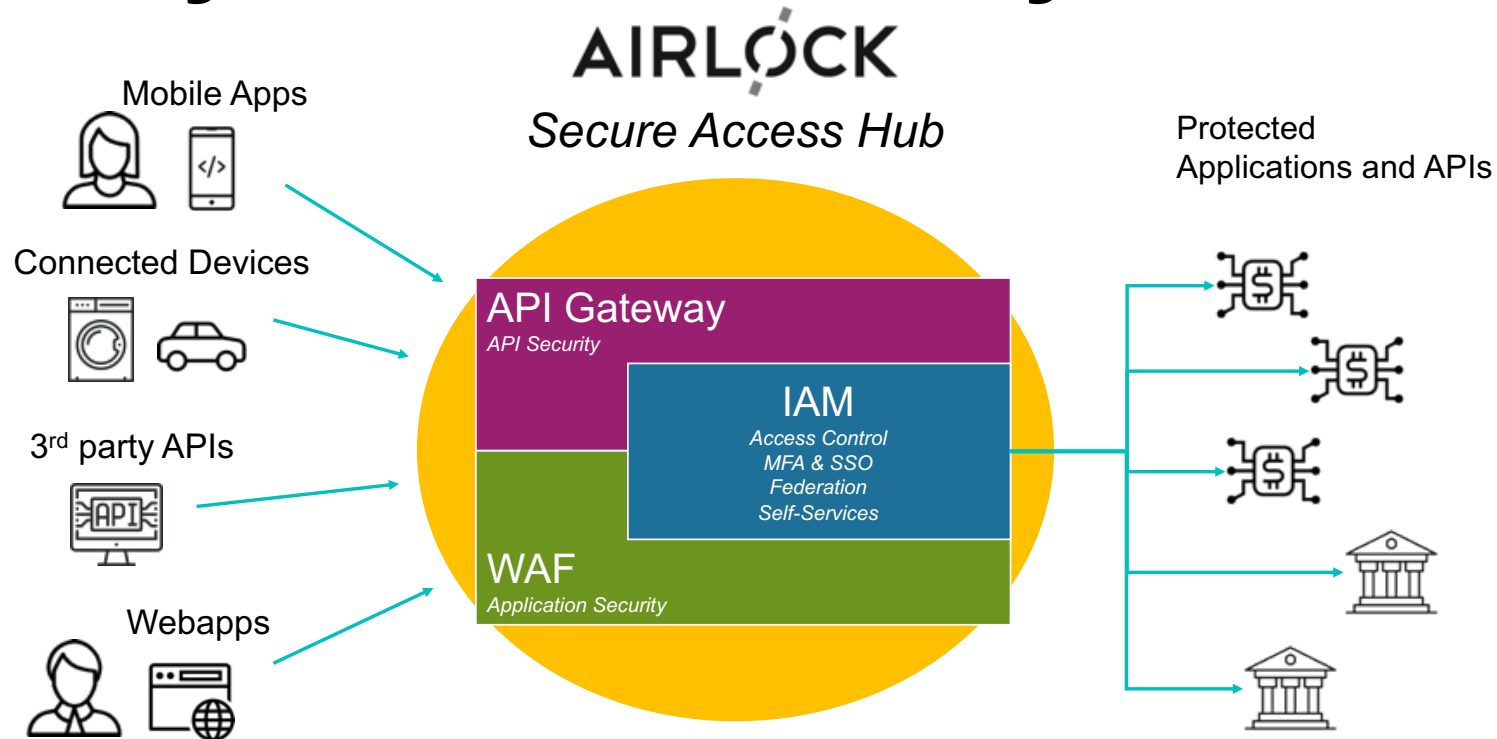
Strong Customer Authentication

Transaction Approval with Consents

Secure Networking with Mutual Authentication

Strong Legal Base

Summary - PSD2 Security



Strong Legal Base

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