



OPEN
BANKING
EUROPE

PRETA: Open Banking Europe

Directory Services

Building a Digital Europe. Together

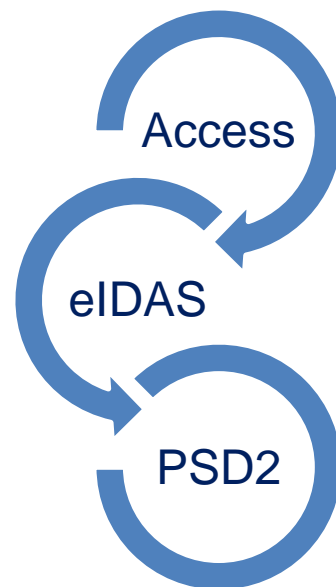


Overview of Today

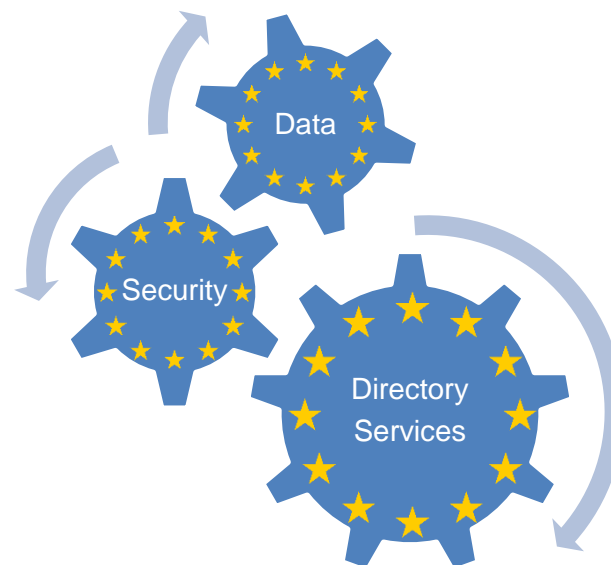


OPEN
BANKING
EUROPE

About
Open Banking
Europe



Access, certificates
and registers



An operational
directory



Moving forward,
together

About Open Banking Europe



John Broxis

Managing Director, PRETA

- **Has worked in Industry since 1997.**
- *Director STEP2*
- *Founder of MyBank*
- *Managing Director PRETA*
- **Roles within PSD2 Community:**
 - Member of ERPB PIS Working Group / Co Chair of Identity subgroup
 - ERPB Liaison to e-Signatures and Infrastructure PSD2 Working Group
- **Programme Manager for PRETA OBE**
- **Currently based in Paris**

“

***If you want to go fast, travel alone.
If you want to go far, travel together.***

”

- African proverb



**OPEN
BANKING
EUROPE**

Trusted in EU

EBA Clearing & Preta MyBank have been delivering successfully with Banks in Europe for over 10 years.

Pan-EU Coverage

Preta has ability to reach all Countries in the EU today, through existing relationships, trust and operational branches.

Experts in the Market

Our SMEs are connected within EU for Interfaces, Regulatory Practices, and International Standards Organisations.

Community Led

Design Decisions made by consensus and priority, so Europe's stakeholders can agree on standards before we all build XS2A.

Preta: Open Banking Europe Community



Competent Authorities & Associations

Get support for Regulatory Data Standards reviews & engage with EU dialogue on NCA data exchange procedures



ASPSPs

Join fellow ASPSPs as a stakeholder, to design and implement pan-EU PSD2 access to account services.



Third Party Providers

Sign-up to give early input to Identity and data mechanisms that will help smooth XS2A across the EU.



Qualified Trust Service Providers

Sign-up to engage with PSD2 Certificate issues and show the market that there are services available.



Solution Providers

Become a directory distributor for client deployments across the EU.

OBE Phase 2 Participants

ASPSPs

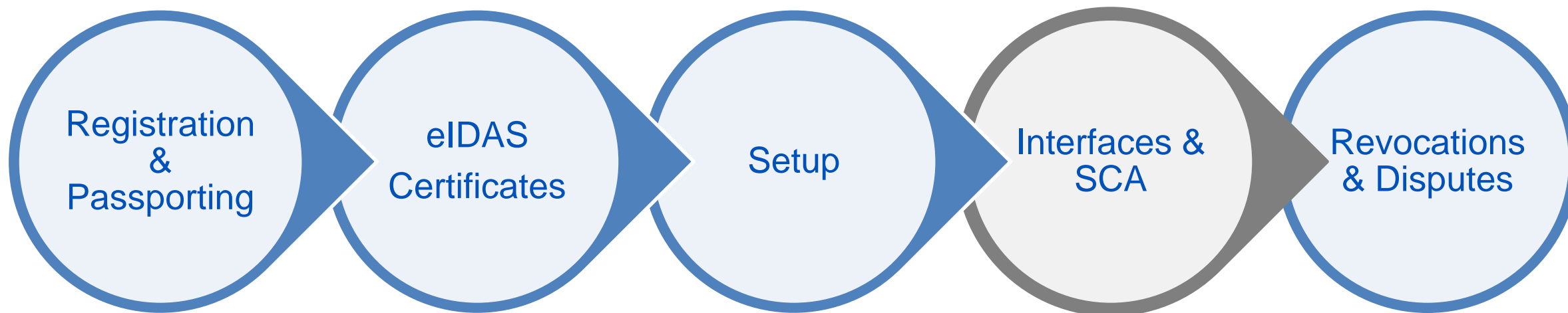


SERVICE PROVIDERS

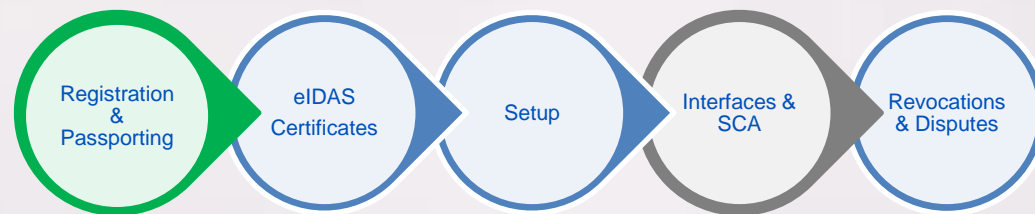




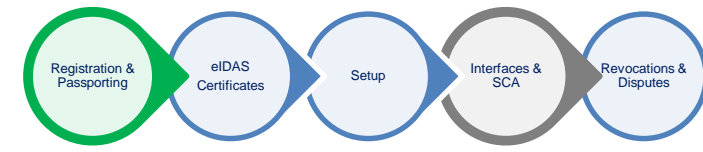
Global Unique Reference Number
Country + NCA code + Authorisation number
“SE-FI-12005”



Registration & Passporting



Registration and passporting



TPP

● **TPP applies to Home MSCA**

● TPP Notified of Authorisation

● **TPP applies for Passporting**

● TPP Notified of Passporting

Registration



- MSCA approves/rejects Authorisation
- MSCA issues Registration Number
- MSCA adds to Home Public Register

● MSCA passes request to Host MSCA.

● MSCA adds to Home Public Register



Made publicly available online
[Updates to EBA Register]

Passporting



● MSCA approves/rejects request

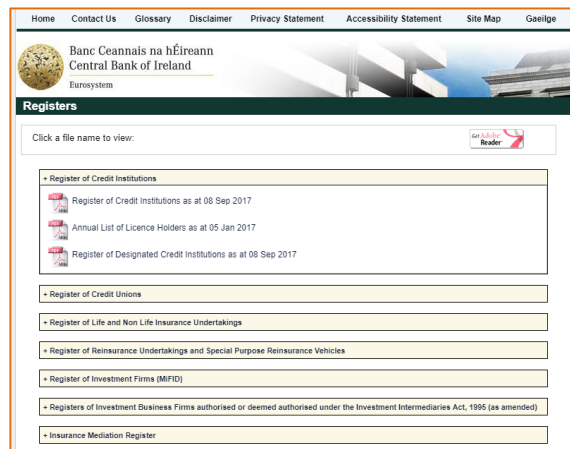


ASPSP

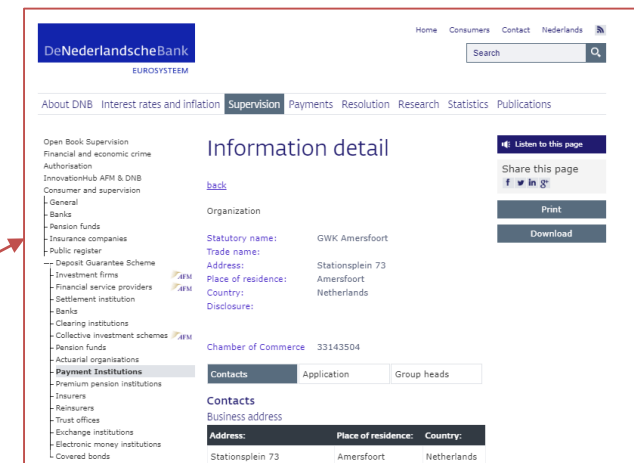
Preta Analysis of EU National Authorities Data

[Number of Member States]

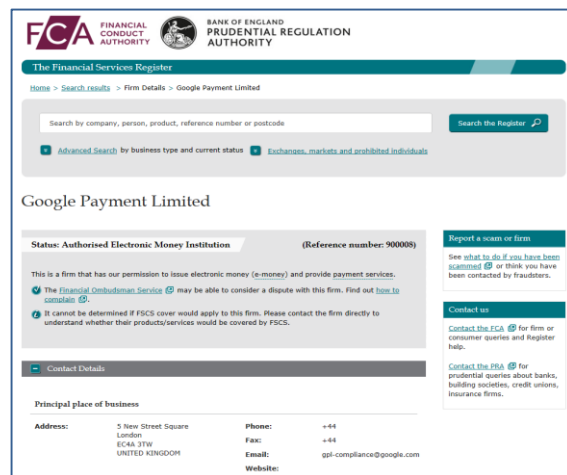
x 31



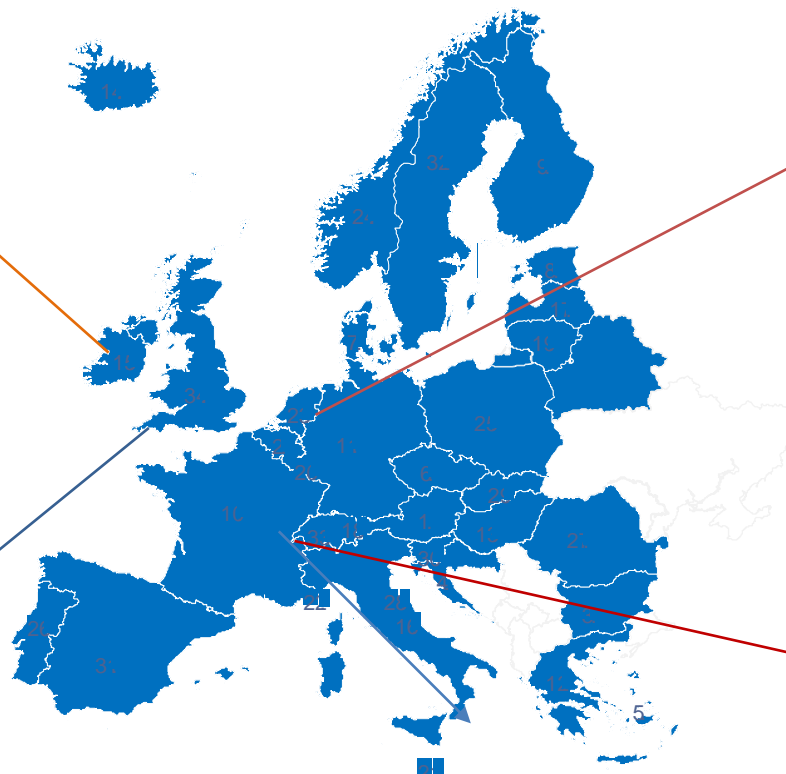
PDF Only (English), one Reg Numbers



Download (Dutch), own format, two Reg Numbers



Single Search Only (English), can't separate Credit Institutions



x 3

[PI, EMI, Credit Institutions]



Single Search Only (French), three Reg Numbers



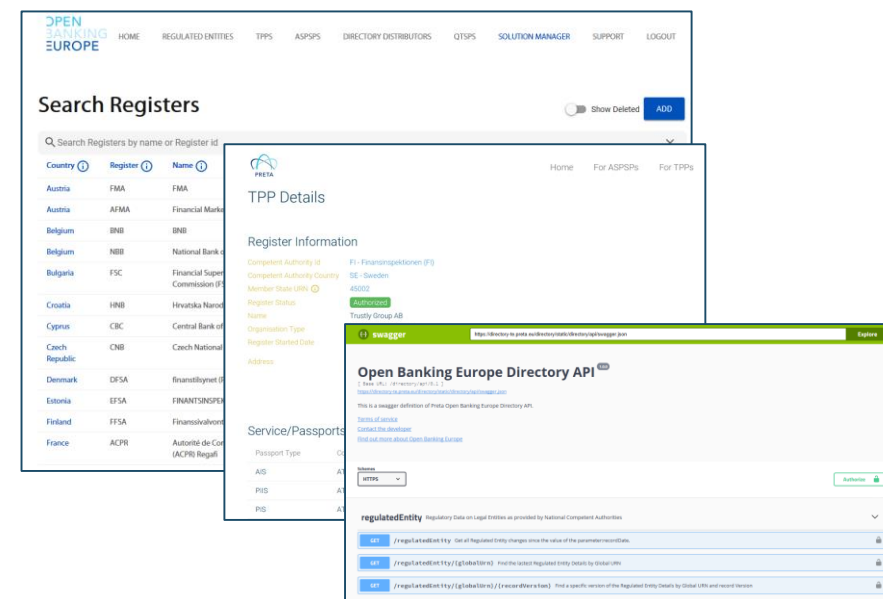
- | | |
|---|---|
| OBE_AT_Collected Data on National Registers F... | OBE_AT_Collected Data on National Registers v |
| OBE_BE_Collected Data on National Registers F... | OBE_BE_Collected Data on National Registers v |
| OBE_BG_Data on National Registers v0.1 | OBE_BG_Collected Data on National Registers V0.3 |
| OBE_CV_Collected Data on National Registers ... | OBE_CV_Collected Data on National Registers . |
| OBE_CV_Collected Data on National Registers ... | OBE_CV_Data on National Registers v0.1 |
| OBE_CZ_Collected Data on National Registers ... | OBE_CZ_Data on National Registers v0.1 |
| OBE_DE_Collected Data on National Registers F... | OBE_DE_Collected Data on National Registers v |
| OBE_DK_Collected Data on National Registers ... | OBE_DK_Data on National Registers v0.1 |
| OBE_EE_Collected Data on National Registers F... | OBE_EE_Data on National Registers v0.1 |
| OBE_ES_Collected Data on National Registers F... | OBE_ES_Collected Data on National Registers v |
| OBE_FI_Collected Data on National Registers F... | OBE_FI_Collected Data on National Registers v |
| OBE_FR_Collected Data on National Registers F... | OBE_FR_Collected Data on National Registers v |
| OBE_GR_Collected Data on National Registers ... | OBE_GR_Collected Data on National Registers ... |
| OBE_HR_Collected Data on National Registers ... | OBE_HR_Collected Data on National Registers ... |
| OBE_HU_Collected Data on National Registers ... | OBE_HU_Collected Data on National Registers ... |
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| OBE_IT_Collected Data on National Registers F... | OBE_IT_Collected Data on National Registers v |
| OBE_LI_Collected Data on National Registers F... | OBE_LI_Data on National Registers v0.1 |
| OBE_LT_Collected Data on National Registers F... | OBE_LT_Collected Data on National Registers v |
| OBE_LU_Collected Data on National Registers F... | OBE_LU_Collected Data on National Registers ... |
| OBE_LV_Collected Data on National Registers F... | OBE_LV_Collected Data on National Registers v |
| OBE_MT_Collected Data on National Registers ... | OBE_MT_Collected Data on National Registers ... |
| OBE_NL_Collected Data on National Registers ... | OBE_NL_Collected Data on National Registers ... |
| OBE_NO_Collected Data on National Registers ... | OBE_NO_Collected Data on National Registers... |
| OBE_PL_Collected Data on National Registers F... | OBE_PL_Collected Data on National Registers v |
| OBE_PT_Collected Data on National Registers F... | OBE_PT_Collected Data on National Registers v |
| OBE_RO_Collected Data on National Registers ... | OBE_RO_Data on National Registers v0.1 |
| OBE_SE_Collected Data on National Registers F... | OBE_SE_Seclected Data on National Registers v |
| OBE_SI_Collected Data on National Registers F... | OBE_SI_Collected Data on National Registers Fi... |
| OBE_SI_Collected Data on National Registers Pl... | OBE_SI_Data on National Registers v0.2 |
| OBE_SK_Collected Data on National Registers F... | OBE_SK_Data on National Registers v0.1 |
| OBE_UK_Collected Data on National Registers ... | OBE_UK_Collected Data on National Registers ... |

Design

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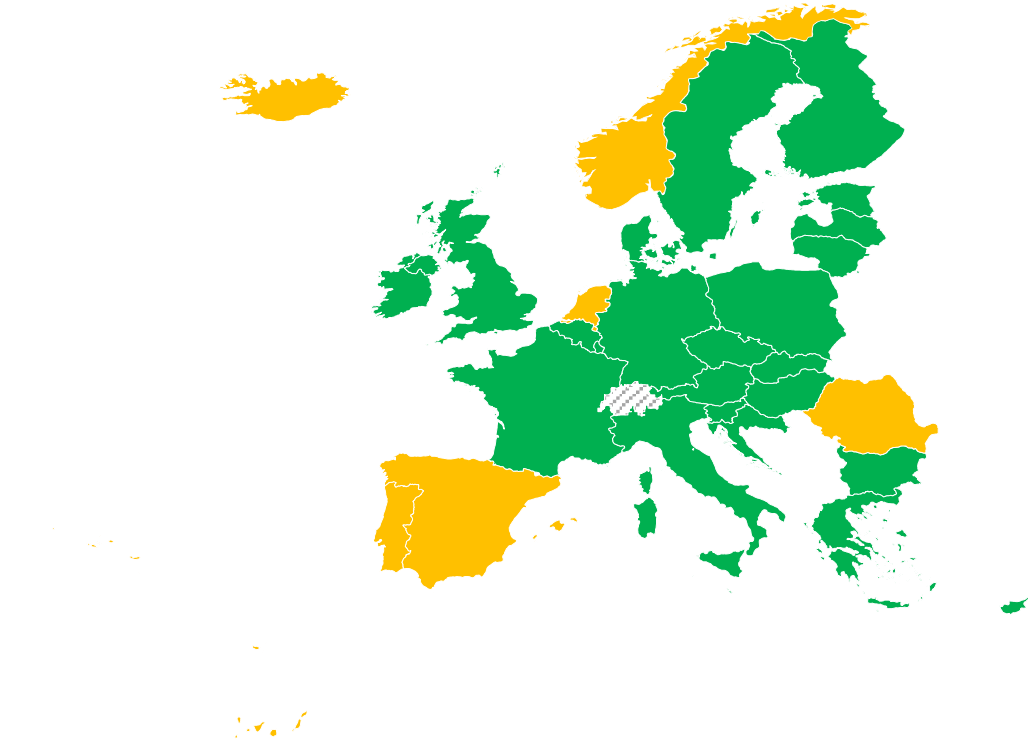
...detailed interface specifications
describing how to take data from
a national register and import it
into the directory

Develop



- ... working register import programs, secure api and notification system for participants, operational data.

Transposition status – September 2018

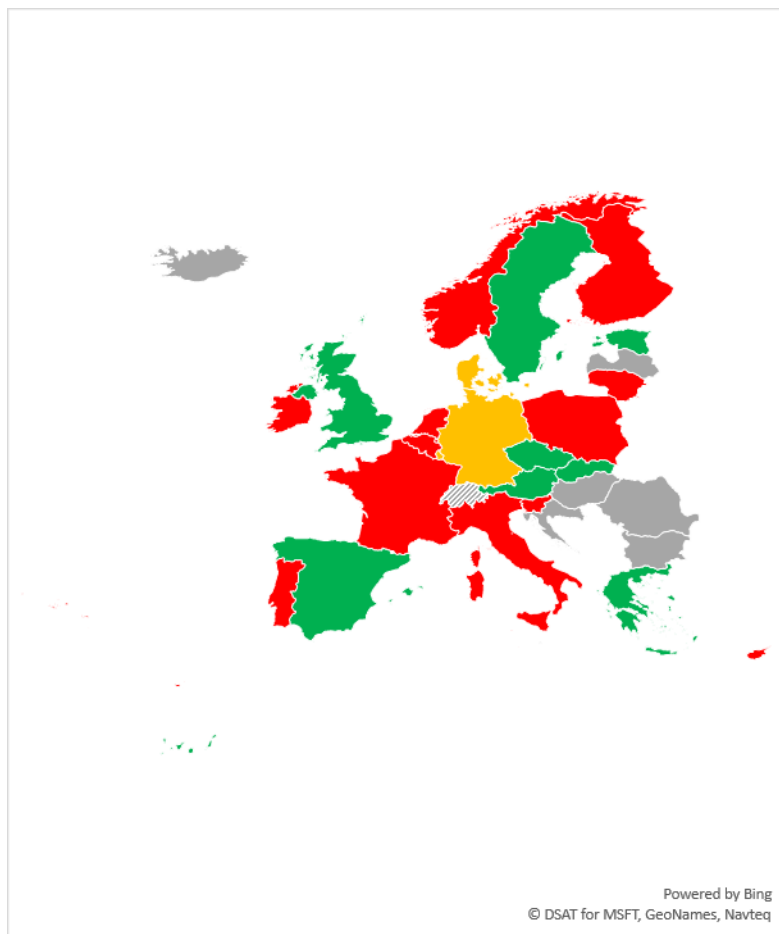


Full transposition:

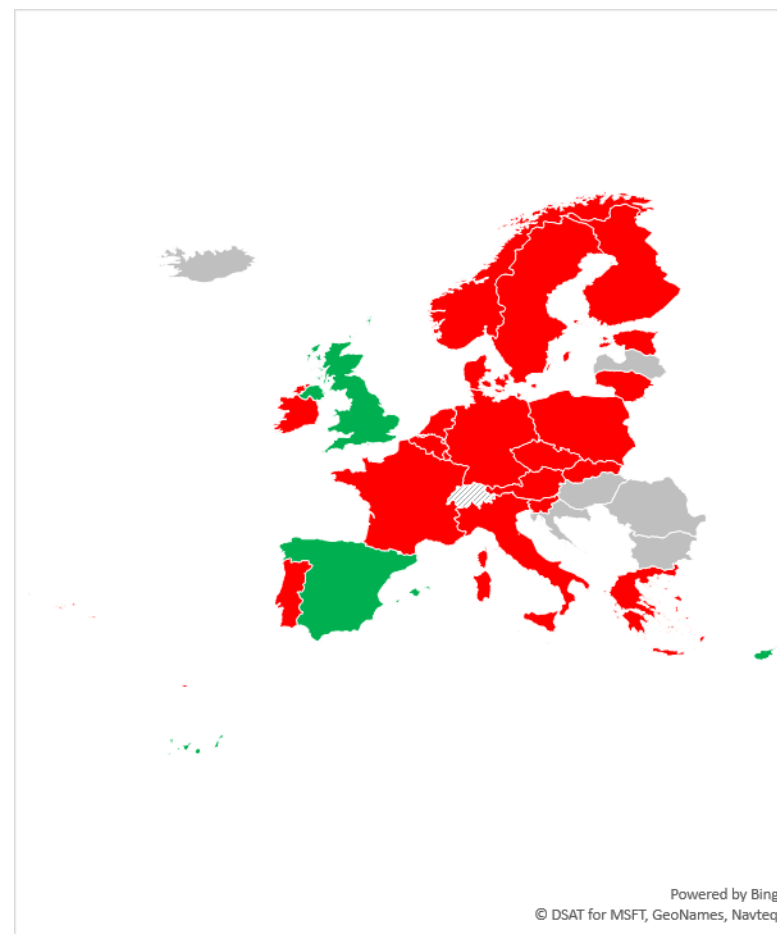
- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Poland
- Slovakia
- Slovenia
- Sweden
- United Kingdom

National Updates – Registers readiness / Nov 2017

Credit Institutions:

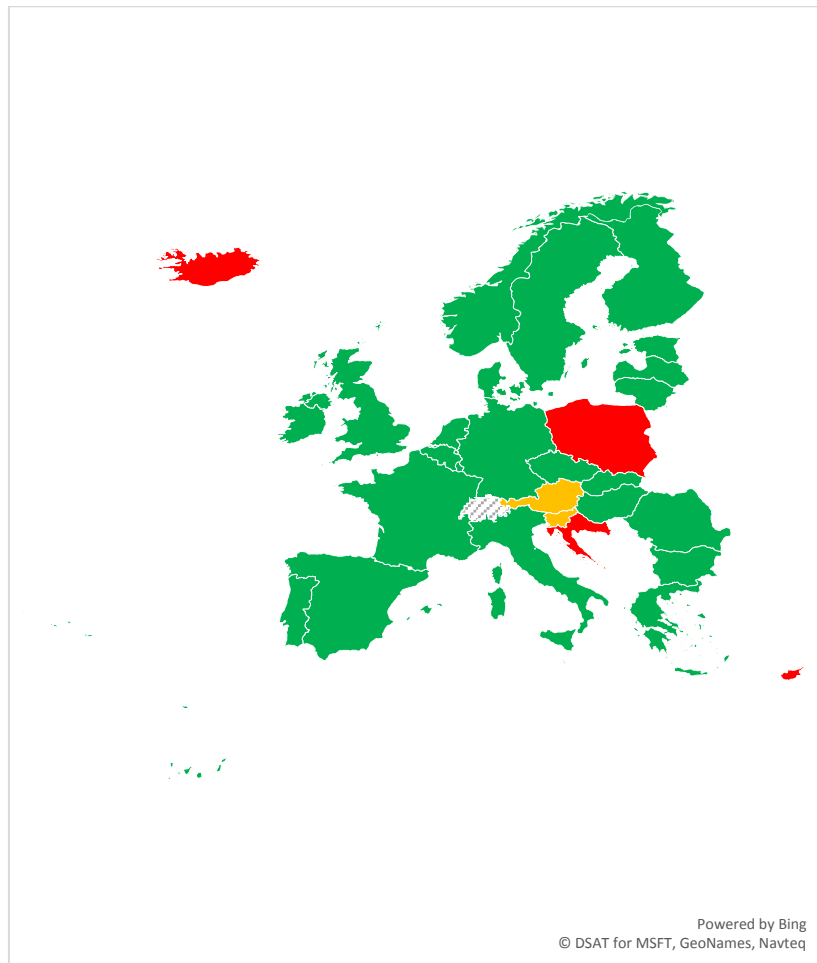


Payment Institutions & Electronic Money Institutions:

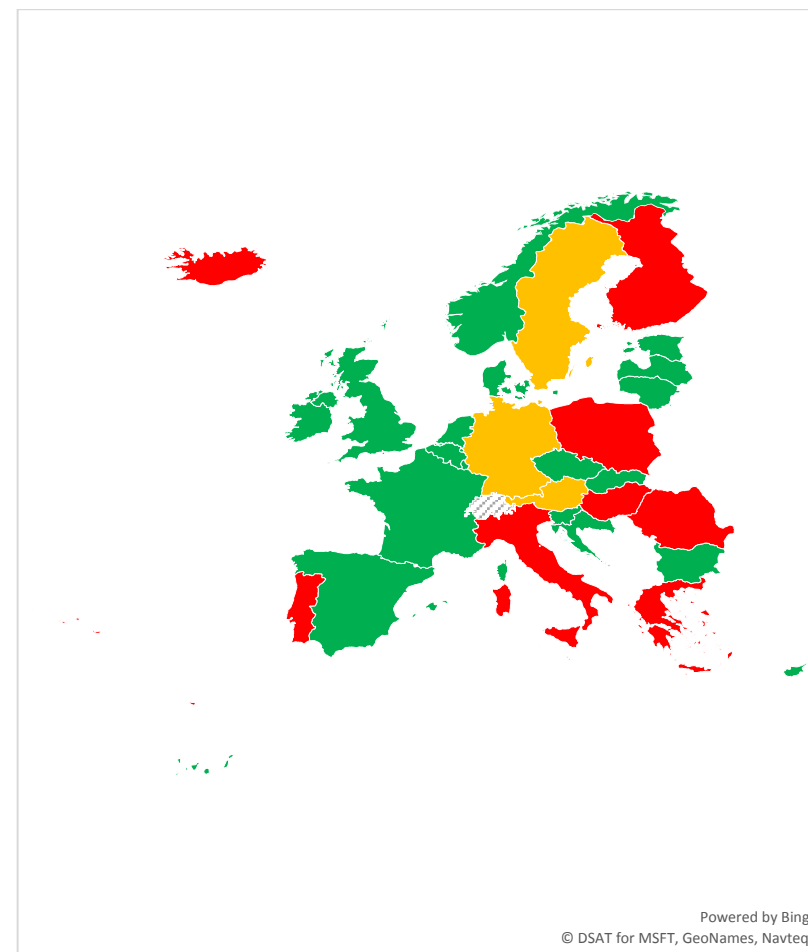


National Updates – Registers readiness / September 2018

Credit Institutions



Payment Inst. / E-money Inst.



Romanian Public Register: Status Update

Open Banking Europe - Preta x

https://directory-uat.preta.eu/directory/regulated-entity/country-filter...

România Regulated Entities

Country	Register	PSP Category	Competent Authority URN	Name	Record Version	Directory Status
RO	BNR	Credit Institution	10318789	IDEA BANK S.A.	2	Active
RO	BNR	Credit Institution	10556861	MARFIN BANK (ROMANIA) S.A.	2	Active
RO	BNR	Credit Institution	11447021	PATRIA BANK S.A.	2	Active
RO	BNR	Payment Institution	12402419	SMITH & SMITH S.R.L.	1	Active
RO	BNR	Payment Institution	14235694	WESTACO S.R.L.	1	Active
RO	BNR	Credit Institution	14622194	ProCredit Bank S.A.	2	Active
RO	BNR	Payment Institution	15901855	TBI CREDIT IFN S.A.	1	Active
RO	BNR	Credit Institution	1596646	BANCA ROMANA DE CREDITE SI INVESTITII SA	2	Active
RO	BNR	Payment Institution	16036850	ERB RETAIL SERVICES IFN S.A.	1	Active
RO	BNR	Payment Institution	16334236	BRD Finance IFN S.A.	1	Active
RO	BNR	Payment Institution	16409339	SPEED TRANSFER FINANCIAR S.R.L.	1	Active
RO	BNR	Credit Institution	16489311	PORSCHE BANK ROMANIA S.A.	2	Active
RO	BNR	Credit Institution	199915	BANK LEUMI ROMANIA S.A.	2	Active
RO	BNR	Payment Institution	21522090	MERIDIANA-TRANSFER DE BANI S.R.L.	1	Active
RO	BNR	Electronic Money	22170545	CAPITAL FINANCIAL SERVICES S.A.	1	Active

	RO Register	Count
Credit Institutions	INSTITUTIILOR DE CREDIT	25
Payment Institutions	INSTITUȚIILOR DE PLATĂ	8
Electronic Money Institutions	INSTITUȚIILOR EMITENTE DE MONEDĂ ELECTRONICĂ	2
Others?		

We have developed a dedicated Interface to retrieve the Regulated Entities from the **Romanian Register**.


A questionnaire was sent to the **Banca Nationala a Romaniei** to get clarifications on:

- **Regulatory Scope;**
- **Local Rules;**
- **Language issues.**

Register details

The Public Register is missing the following information:

- **PSD2 Services #7 and #8;**
- **Passporting Information:** the Register contains information on *Agents*. Are these all the passporting-out details? What about *free provision of services*?

MSCA questionnaire Draft 

2 Scope and Understanding

We understand that only those entities that have been granted the right to perform the following Payment Services as defined in Annex I of PSD2 are allowed to perform Access to Account functions.

Q1. Relevant Services

The relevant services are:

5. Issuing of payment instruments and/or acquiring of payment transactions.	PIIS
7. Payment initiation services.	PIS
8. Account information services.	AIS

Q1	Do you have any comments on this analysis?
A1	

Q2. Permission to perform such services

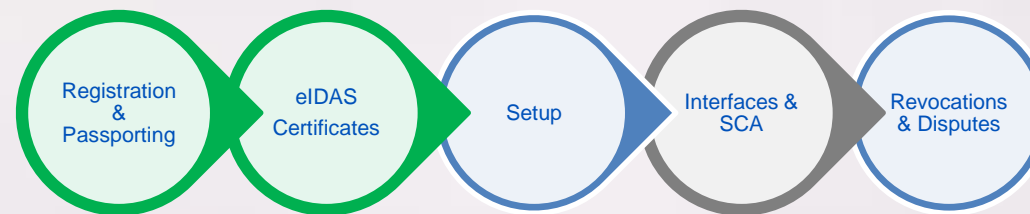
We further understand that the organisations that can be granted permission to perform such services are:

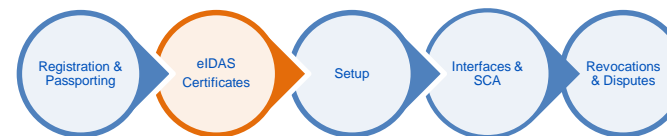
	PIS	AIS	PIIS
Payment Institutions	Y	Y	Y
Account Information Service Providers ¹	N	Y	N
E-money Institutions	Y	Y	Y
Credit institutions	Y	Y	Y

¹Account information service providers are a new type of entity created by PSD2 [Article ref], that perform AIS services, only.

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eIDAS Certificates

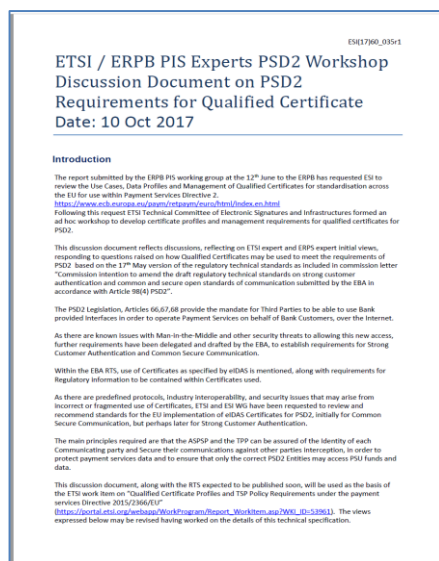




Define



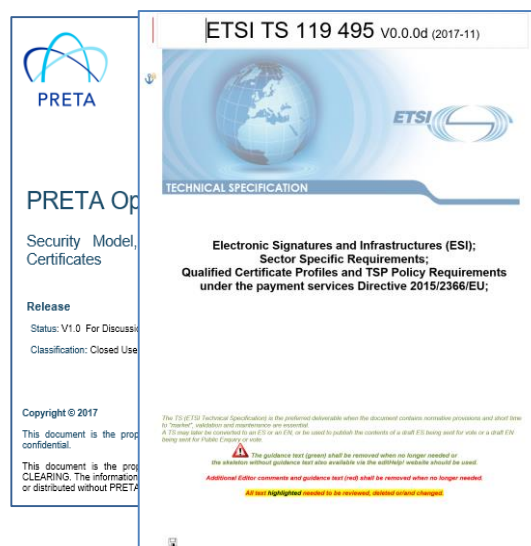
Engagements & Regulatory Analysis



Design



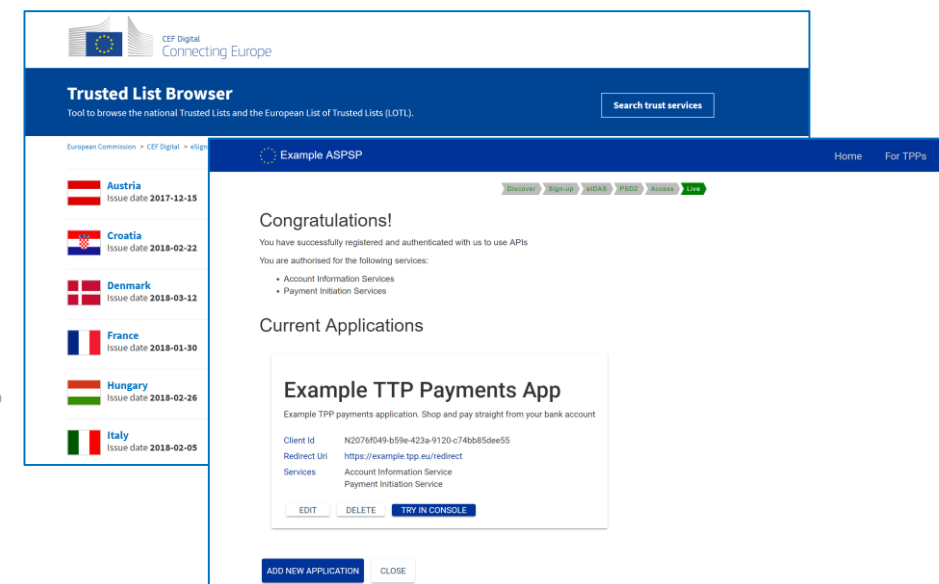
Design & Standardisation: Handbook & Miniguides



Develop



Test Data & Reference Implementations



...MOU with ETSI to:

- QTSPs / CAB Forum
- Industry in Public Event
- EBA & NCAs...

...Preta OBE Security Model

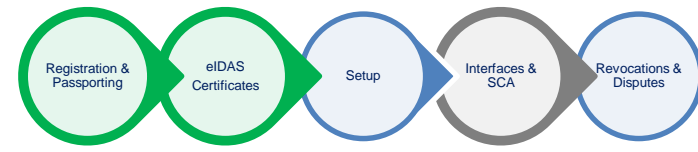
... ETSI Technical Standard (draft)

... Full TS and EN in 2018.

... Test Personas & Test PSD2 Certificates.

... Azadian demonstration on 20 March 2018 for PSD2 Certificates & Setup – validated by EBA.

Required PSD2 Data (EBA/EC)



November 2017

*Article 34
Certificates*

	Data Element	Data Format	Data Source(s)	Data Profile Location
1. For the purpose of identification, as referred to in Article 22(2)(a), payment service providers shall rely on qualified certificates for electronic seals as referred to in Article 3(30) of Regulation (EU) No 910/2014 of the European Parliament and of the Council or for website authentication as referred to in Article 3(39) of that Regulation.	Authorisation Number of PSP (single)	As provided from Source	MSCA PSD2 Register EU 2015/2366 Art.14 & National Credit Institutions Registers 2013/36/EU Art.8	For QSEAL: EU 910/2014 Annex III - Field (c) For QWAC: EU 910/2014 Annex IV - Field (c)
2. For the purpose of this Regulation, the registration number as referred to in the official records in accordance with Annex III (c) or Annex IV (c) to Regulation (EU) No 910/2014 shall be the authorisation number of the payment service provider issuing card-based payment instruments, the account information service providers and payment initiation service providers, including account servicing payment service providers providing such services, available in the public register of the home Member State pursuant to Article 14 of Directive (EU) 2015/2366 or resulting from the notifications of every authorisation granted under Article 8 of Directive 2013/36/EU of the European Parliament and of the Council ⁴ in accordance with Article 20 of that Directive.				
3. For the purposes of this Regulation, qualified certificates for electronic seals or for website authentication referred to in paragraph 1 shall include, in a language customary in the sphere of international finance, additional specific attributes in relation to each of the following: (a) the role of the payment service provider, which maybe one or more of the following: (i) account servicing; (ii) payment initiation; (iii) account information; (iv) issuing of card-based payment instruments;	PSD2 Role(s) of PSP (multiple)	Not specified	Not specified	For QSEAL: Not specified For QWAC: Not specified
(b) the name of the competent authorities where the payment service provider is registered.	Name of Home Competent Authority (single)	Not specified	Not specified	For QSEAL: Not specified For QWAC: Not specified
4. The attributes referred to in paragraph 3 shall not affect the interoperability and recognition of qualified certificates for electronic seals or website authentication.				

At its plenary meeting of the 10th October, the European Telecommunications Standards Institute ([ETSI](#)) agreed to create a set of standards for PSD2 eIDAS certificates, in accordance with the EBA RTS.

The new European Telecommunications Standards Institute ([ETSI](#)) PSD2 standards that OBE requested (as part of ERPB role):

- Official confirmation of the ETSI New Work Item for PSD2 Certificates is [here](#)
- Timeline for delivery of the new PSD2 Certificates standards document are [here](#)
- Details of the background discussions we had with ETSI for the ratification of PSD2 standards request is [here](#)
- The final standard ETSI TS 119 495 for publication is [here](#)

ETSI TS 119 495 V1.1.1 (2018-05)

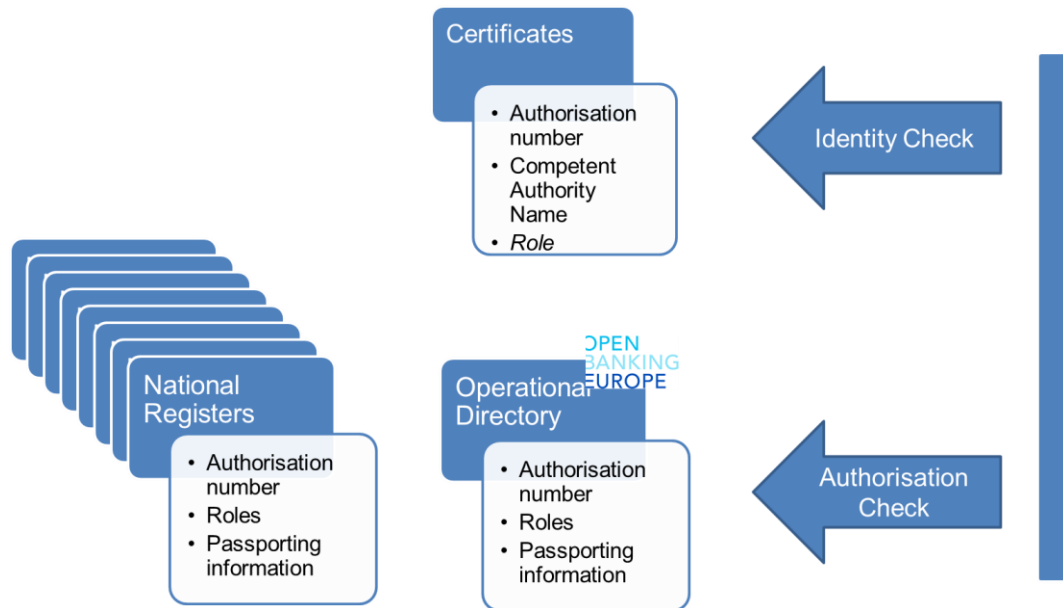


**Electronic Signatures and Infrastructures (ESI);
Sector Specific Requirements;
Qualified Certificate Profiles and TSP Policy Requirements
under the payment services Directive (EU) 2015/2366**

ASPSP Operational issues: Granting **Access** to the Account

ASPSPs have the obligation to allow access to regulated entities, and block access to those that do not have access. There is therefore a requirement that ASPSPs understand who is regulated.

Failure to properly authenticate, leads to the risk of unauthorised transactions and subsequent claims under PSD2, or unauthorised data sharing and subsequent claims under GDPR.



- ASPSPs will use eIDAS certificates for the **Identification** of a party.
- ASPSPs will use the National registers for the **Authorisation** of a party, i.e. understanding if a party is regulated and what that party is authorised to do.

Difficulties in interpreting the national registers require a consolidated source of information, such as the Open Banking Europe Directory.

The PRETA Open Banking Europe Directory

PRETA's Open Banking Europe Directory provides a single & compliant source of standardised information about active Regulated Entities that can perform Access To Account (XS2A) services in Europe.



Why Has The Directory Been Created?

Under PSD2, Account Servicing Payment Services Providers (ASPSPs) are obliged to allow Payment Service Providers (PSPs) with the appropriate payment services authorisations to access their customer accounts and to prevent access to any organisation without these authorisations.

Any failure to properly authenticate these PSPs will risk unauthorised transactions or unauthorised data sharing and later claims under PSD2, or the General Data Protection Regulation (GDPR).

So, how will this authentication take place? The common understanding is that ASPSPs will use:



eIDAS
Certificates

For identification, i.e. understanding whether a party is actually the party they claim to be.



National Competent
Authority Registers

For authorisation, i.e. understanding whether a party is regulated and what they are authorised to do.

How Does The Directory Support PSD2 XS2A?

The Directory provides a single, standardised reference point for ASPSPs and Third Party Providers (TPPs). ASPSPs can use it to accurately identify which TPPs are authorised to access their interfaces, and TPPs can use it to locate the ASPSP interfaces that they need to use to access the ASPSP's customer accounts.

All of the information available in the Directory can be easily accessed either by using the secure, browser-based Graphical User Interface (GUI) or by downloading using the Directory's Application Programming Interface (API), giving ASPSPs and TPPs access to the latest XS2A information, whenever they need it.

PRETA S.A.S. © 2018

1

A central, operational directory

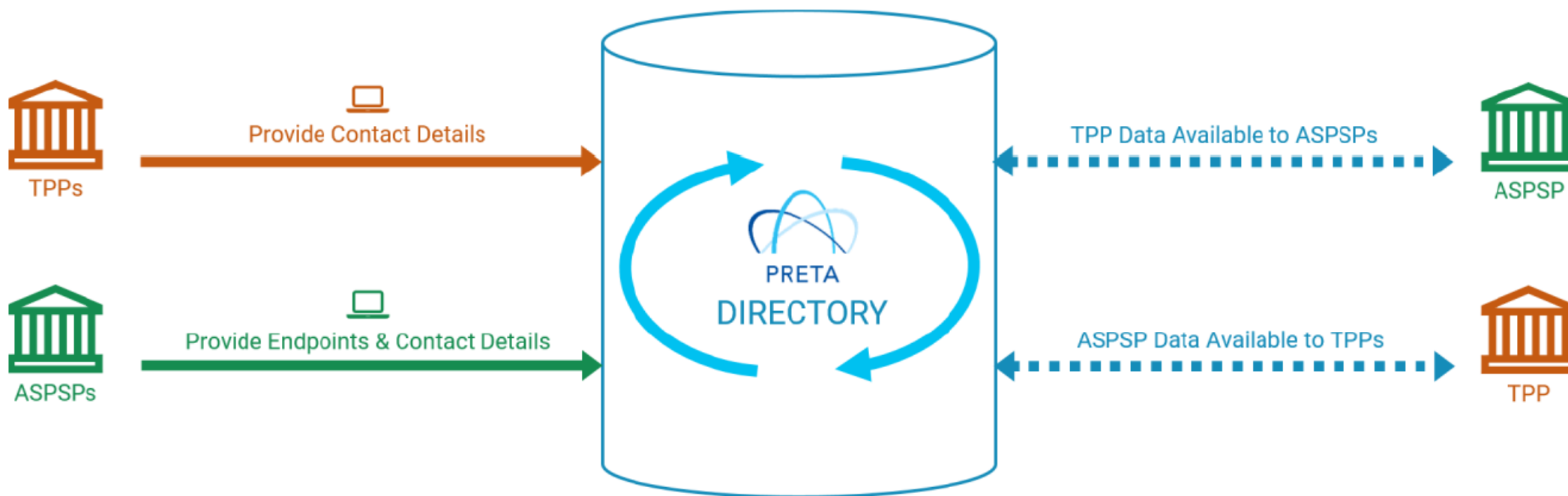
The PRETA Open Banking Europe Directory provides a single, trusted, & compliant source of standardised information for all active Regulated Entities that can perform Access To Account (XS2A) services and roles in Europe.

The image displays four overlapping screenshots of the PRETA Open Banking Europe Directory web application, illustrating its regulatory data capabilities:

- List Regulated Entities By Home Country:** A page showing a grid of regulated entities grouped by their home countries, with flags and names listed.
- Regulated Entity Details:** A page providing detailed information for a specific regulated entity, including its directory details, record version, and record date.
- Regulated Entity Role Passport Details:** A page showing the role passport details for a regulated entity, including its passport role and countries.
- TPP Details:** A page providing details for a Third-Party Provider (TPP), including its directory details, record version, and record date.

Operational Data

The Directory also contains information about ASPSPs that can be used by TPPs to identify the endpoints offered by ASPSPs and information about TPPs that can be used by ASPSPs to help interact with them.



Regulatory Data



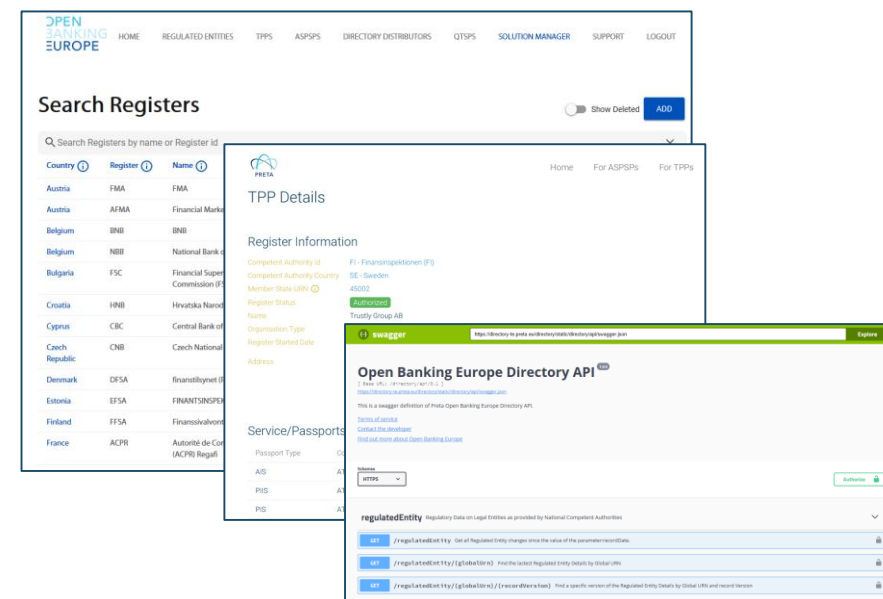
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|--|---|
| 00BE_AT_Collected Data on National Registers F... | 00BE_AT_Collected Data on National Registers v... |
| 00BE_BE_Collected Data on National Registers F... | 00BE_BE_Collected Data on National Registers v... |
| 00BE_BG_Collected Data on National Registers v0.1 | 00BE_BG_Collected Data on National Registers V0.3 |
| 00BE_CV_Collected Data on National Registers ... | 00BE_CV_Collected Data on National Registers v... |
| 00BE_CV_Collected Data on National Registers ... | 00BE_CV_Collected Data on National Registers v0.1 |
| 00BE_CZ_Collected Data on National Registers ... | 00BE_CZ_Data on National Registers v0.1 |
| 00BE_DE_Collected Data on National Registers F... | 00BE_DE_Collected Data on National Registers v... |
| 00BE_DK_Collected Data on National Registers ... | 00BE_DK_Data on National Registers v0.1 |
| 00BE_EE_Collected Data on National Registers F... | 00BE_EE_Data on National Registers v0.1 |
| 00BE_ES_Collected Data on National Registers F... | 00BE_ES_Collected Data on National Registers v... |
| 00BE_FI_Collected Data on National Registers F... | 00BE_FI_Collected Data on National Registers v... |
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| 00BE_GR_Collected Data on National Registers ... | 00BE_GR_Collected Data on National Registers ... |
| 00BE_HR_Collected Data on National Registers ... | 00BE_HR_Collected Data on National Registers ... |
| 00BE_HU_Collected Data on National Registers ... | 00BE_HU_Collected Data on National Registers ... |
| 00BE_IE_Collected Data on National Registers F... | 00BE_IE_Collected Data on National Registers v... |
| 00BE_IS_Collected Data on National Registers F... | 00BE_IS_Collected Data on National Registers v... |
| 00BE_IT_Collected Data on National Registers F... | 00BE_IT_Collected Data on National Registers v... |
| 00BE_LI_Collected Data on National Registers F... | 00BE_LI_Data on National Registers v0.1 |
| 00BE_LT_Collected Data on National Registers F... | 00BE_LT_Collected Data on National Registers v... |
| 00BE_LU_Collected Data on National Registers F... | 00BE_LU_Collected Data on National Registers ... |
| 00BE_LV_Collected Data on National Registers F... | 00BE_LV_Collected Data on National Registers v... |
| 00BE_MT_Collected Data on National Registers ... | 00BE_MT_Collected Data on National Registers ... |
| 00BE_NL_Collected Data on National Registers ... | 00BE_NL_Collected Data on National Registers ... |
| 00BE_NO_Collected Data on National Registers ... | 00BE_NO_Collected Data on National Registers... |
| 00BE_PL_Collected Data on National Registers F... | 00BE_PL_Collected Data on National Registers v... |
| 00BE_PT_Collected Data on National Registers F... | 00BE_PT_Collected Data on National Registers v... |
| 00BE_RO_Collected Data on National Registers ... | 00BE_RO_Data on National Registers v0.1 |
| 00BE_SE_Collected Data on National Registers F... | 00BE_SE_Selected Data on National Registers v... |
| 00BE_SI_Collected Data on National Registers F... | 00BE_SI_Selected Data on National Registers Fi... |
| 00BE_SI_Collected Data on National Registers Pl... | 00BE_SI_Data on National Registers v0.2 |
| 00BE_SK_Collected Data on National Registers F... | 00BE_SK_Data on National Registers v0.1 |
| 00BE_UK_Collected Data on National Registers ... | 00BE_UK_Collected Data on National Registers ... |

Design

[illegible]

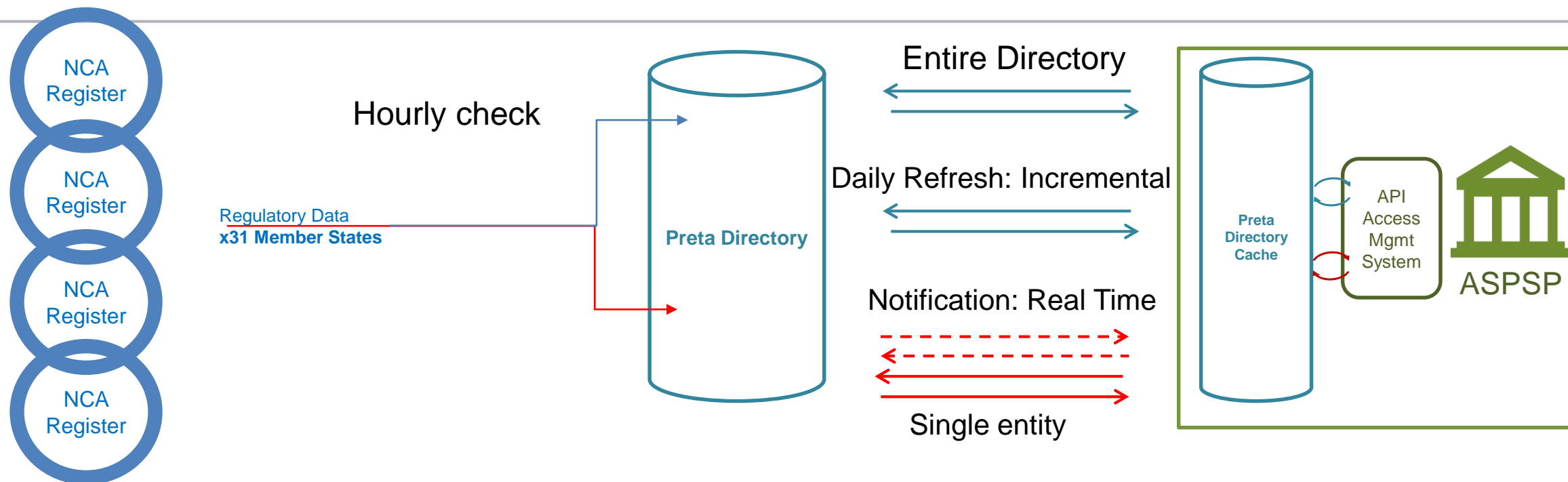
...detailed interface specifications
describing how to take data from
a national register and import it
into the directory

Develop



- ... working register import programs, secure api and notification system for participants, operational data.

Operational flow



1. Whenever a new NCA Register becomes available, the Directory will access the Register to download its Regulatory Data and then standardise it, before making it available in the Directory.
2. ASPSPs can download a cache of all of the Regulatory Data held by the Directory and view it using the Directory's browser-based interface. TPPs can download and view their own Regulatory Data.
3. The Directory will check every NCA Register once an hour for updates. If the Directory identifies that critical Regulatory Data has changed, a notification will automatically be sent (by web hook and/or email).

When an ASPSP or TPP receives a notification, they can download the updated Data, ensuring that they always have the most accurate Regulatory Data available to them.

Global URN ⓘ

SE-FI-45002

Direct Participant

Directory Status

Authorised

Record Version

5

Record Date

2018-01-19 19:32:59

Record Created By

Download-SE-FI

Competent Authority Source URL <http://www.fi.se/en/our-registers/company-register/details?id=72257>

Regulated Entity

Competent Authority Code

FI - Finansinspektionen (FI)

Legal Entity Identifier

Competent Authority URN ⓘ

45002

Started Date

Country

SE - Sweden

Address

Norrtullsgatan 6
113 29 STOCKHOLM

Status

Authorised

Name

Trustly Group AB

PSP Category

Payment Institution

Sweden

Started Date

Role Passports

Passport Role	Countries
AIS	AT,BE,BG,CY,CZ,DE,DK,EE,ES,FI,FR,GB,GR,HU,IE,IT,LT,LU,LV,MT,NL,PL,PT,RO,SE,SI,SK,SM
PIS	AT,BE,BG,CY,CZ,DE,DK,EE,ES,FI,FR,GB,GR,HU,IE,IT,LT,LU,LV,MT,NL,PL,PT,RO,SE,SI,SK,SM



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Company register

Trustly Group AB

Address	Norrtullsgatan 6 113 29 STOCKHOLM
Telephone	08-5052 11 20
Category	Payment institution
Other business	
Corporate ID number	556754-8655
FI identification number	45002

Authorization

3/20/2015 Inlösa transaktionsbelopp
10/29/2010 Genomföra betaltransaktioner
10/29/2010 Penningöverföring

VIEW

ed subsidiary of EBA CLEARING

Directory APIs

Style

Preta OBE APIs use industry standard

The Preta OBE Directory maintains

Security

Access to the APIs is over HTTP provided to all calls in the header

Usage Patterns

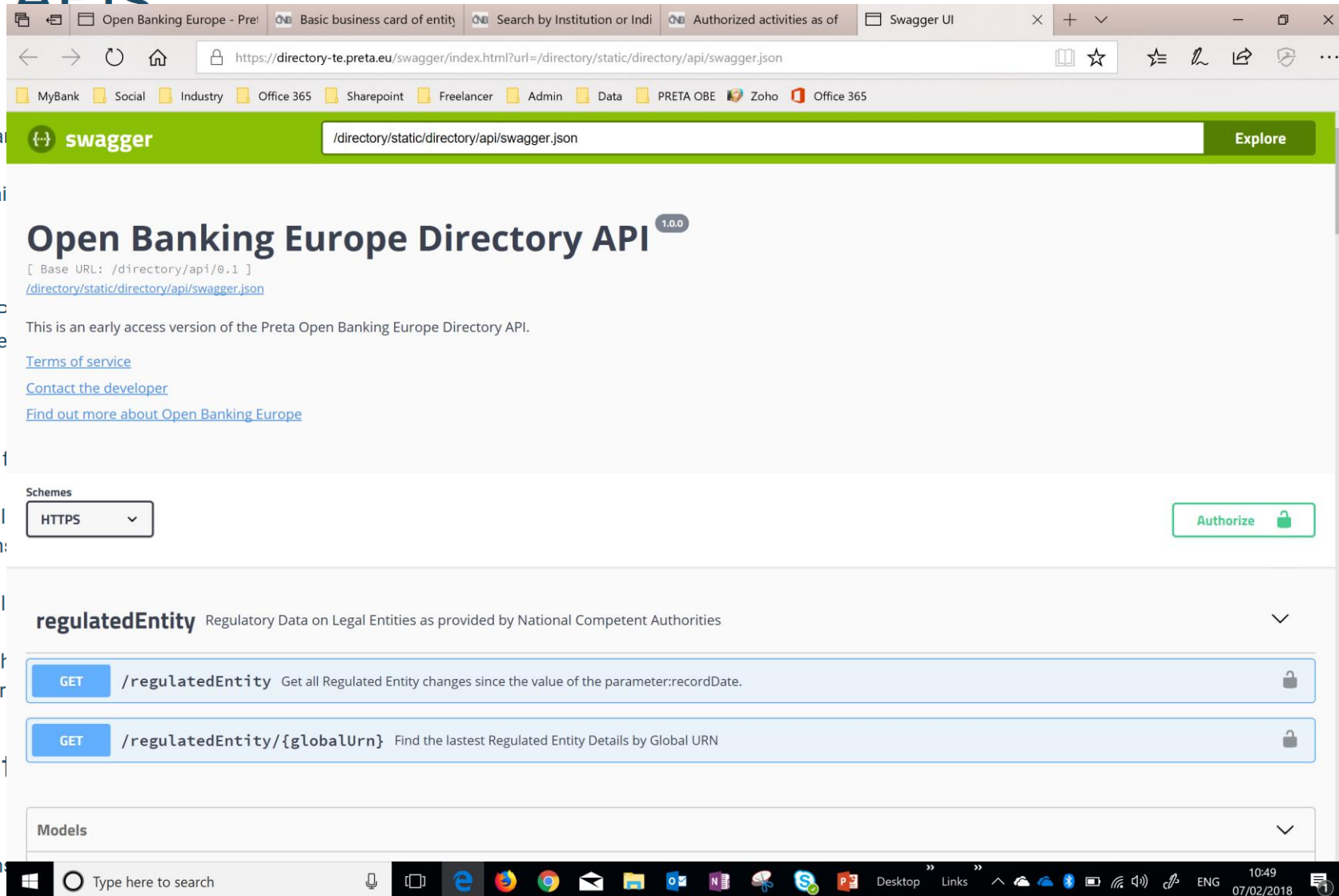
We anticipate 2 usage patterns

1. Directory Participants will changes (i.e. new version)
2. Directory Participants will

E.g. for Regulatory Data that by dashes <2 Digit Country

Detailed API definition

Detailed field level specifications



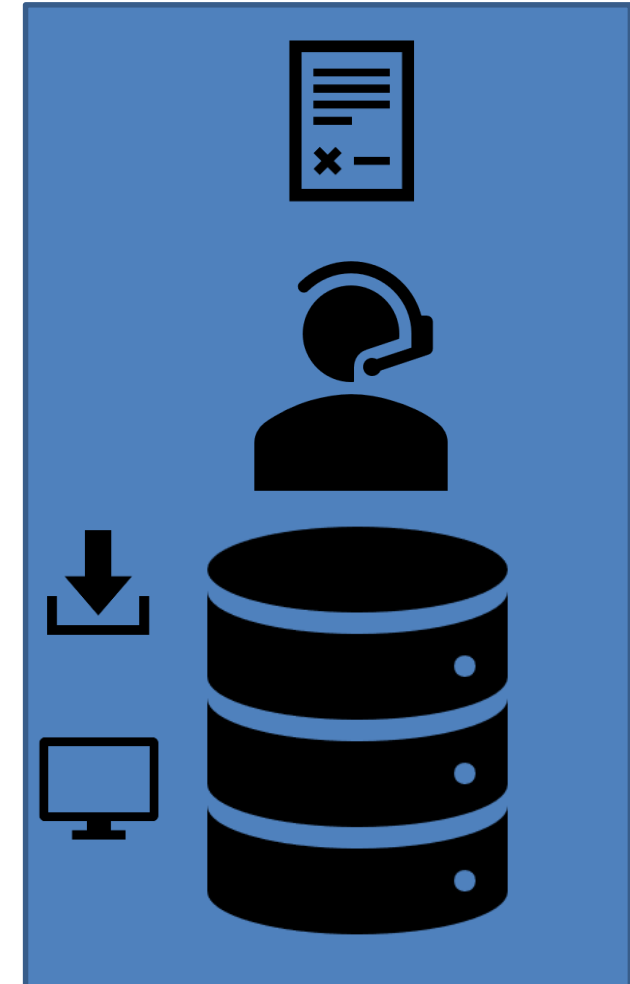
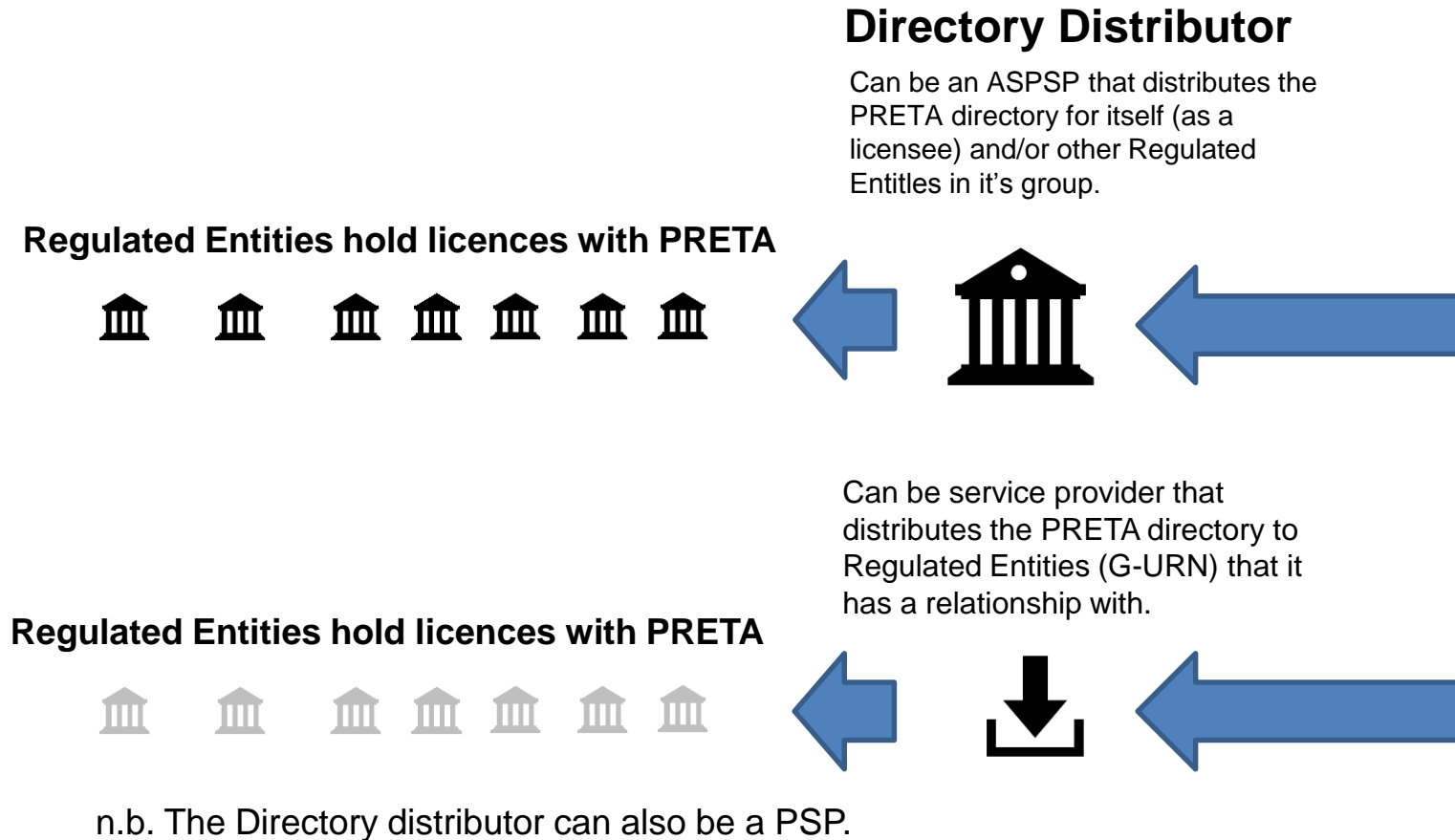
The screenshot shows the Swagger UI for the Open Banking Europe Directory API. The browser address bar displays the URL: `https://directory-te.preta.eu/swagger/index.html?url=/directory/static/directory/api/swagger.json`. The Swagger UI header includes a search bar with the path `/directory/static/directory/api/swagger.json` and an 'Explore' button. The main title is 'Open Banking Europe Directory API' with a version indicator '1.0.0'. Below the title, it states: 'This is an early access version of the Preta Open Banking Europe Directory API.' There are links for 'Terms of service', 'Contact the developer', and 'Find out more about Open Banking Europe'. A 'Schemes' dropdown menu is set to 'HTTPS', and an 'Authorize' button is visible. The 'regulatedEntity' section is expanded, showing two endpoints:

- GET /regulatedEntity**: Get all Regulated Entity changes since the value of the parameter:recordDate.
- GET /regulatedEntity/{globalUrn}**: Find the latest Regulated Entity Details by Global URN

 The 'Models' section is also visible at the bottom.

Participation model

ASPSP Participation model



A blurred background image showing several hands working on a table, possibly in a meeting or collaborative work environment. The hands are positioned over papers and documents, suggesting active discussion or task completion.

Moving forward

Status of work

- **Directory Version 1.0 (Test) is complete**
- **Directory Version 2.0 is underway**

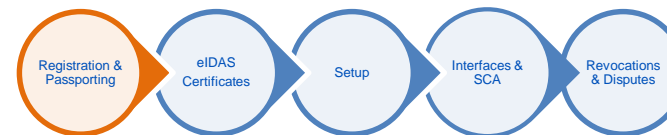
Complete Software Development

- Integration with national registers:
 - Operational data: definition to be completed
 - Industrialisation: there are a number of features that are not yet in place, but are being integrated such as audit reporting, dual verification and performance capacity.
 - Security auditing: it is planned to perform an external audit of the code and to run penetration
-
- **Directory Version 2.0 and go live 2nd January 2019**

Complete Non-functional deliverables

- Operational Documentation and processes
- Helpdesk
- Legal terms and conditions
- Pricing model

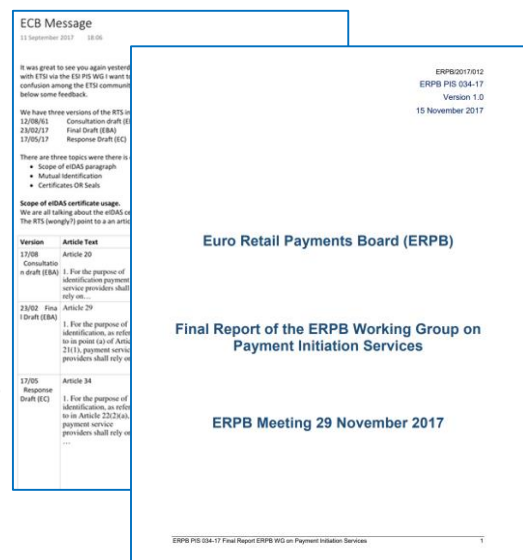
(1) OBE Directory



Define



Engagements & Regulatory Analysis

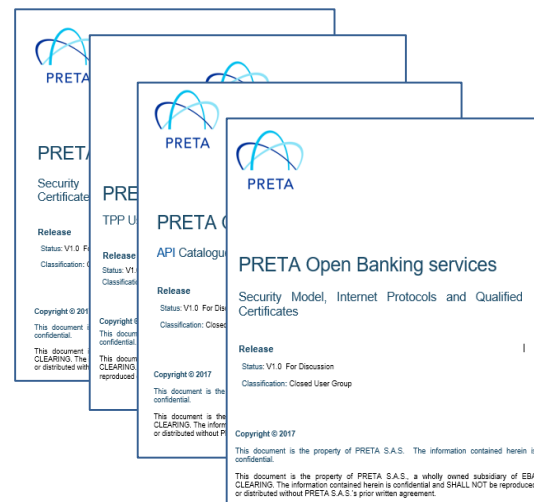


...Industry Engagements
via ECB, ERPB, NCAs

Design



Design & Standardisation: Handbook & Miniguides

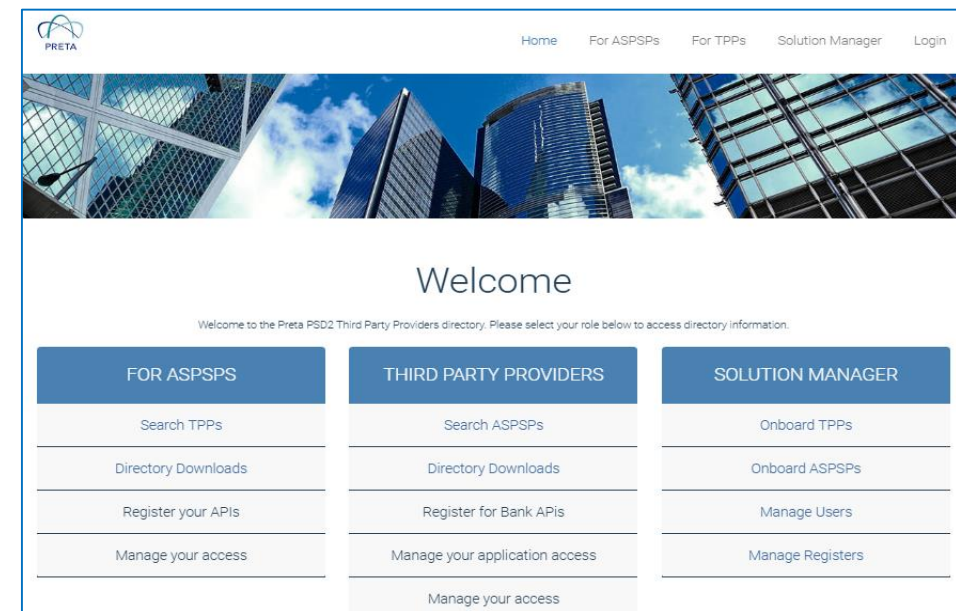


...Several special topic
Miniguides drafted and under
reviewed by PRETA OBE
Stakeholders

Develop

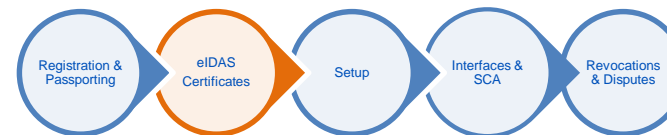


Test Data & Reference Implementations



... first draft of a pan-EU Data Model Standard
... on v0.3 of a Demo Directory, now open to
PRETA OBE Stakeholders to play/review.

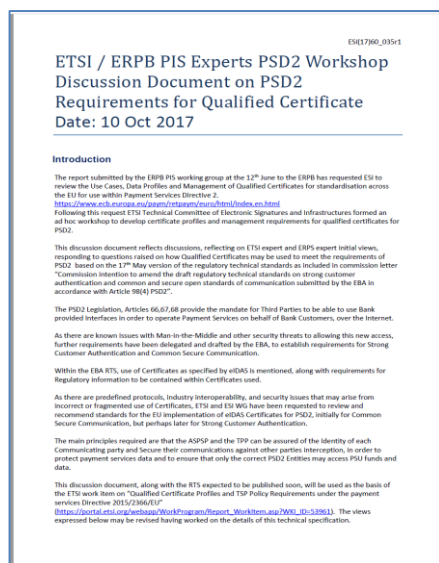
(2) ETSI/OBE – Certificates



Define



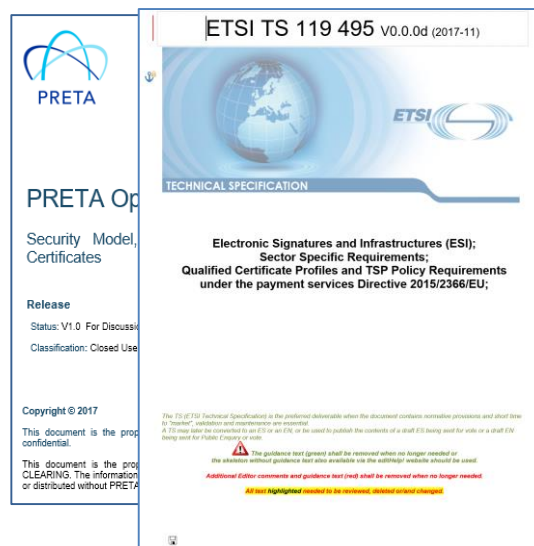
Engagements & Regulatory Analysis



Design



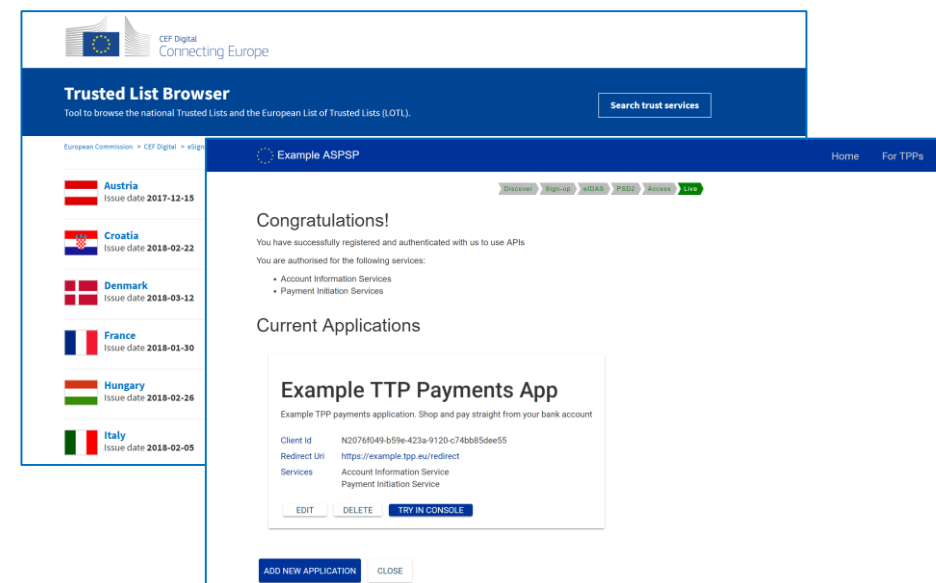
Design & Standardisation: Handbook & Miniguides



Develop



Test Data & Reference Implementations



...MOU with ETSI to:

- QTSPs / CAB Forum
- Industry in Public Event
- EBA & NCAs...

...Preta OBE Security Model

... ETSI Technical Standard (draft)

... Full TS and EN in 2018.

... Test Personas & Test PSD2 Certificates.

... Azadian demonstration on 20 March 2018 for PSD2 Certificates & Setup – validated by EBA.

(3) Testing and conformance

Define



- ☐ Community
- ☐ Workshops
- ☐ Regulatory Analysis
- ☐ API Handbook

Design



- ☐ TTF Definition
- ☐ Test Approach
- ☐ Test Cases
- ☐ Test Harness Reqs

Develop

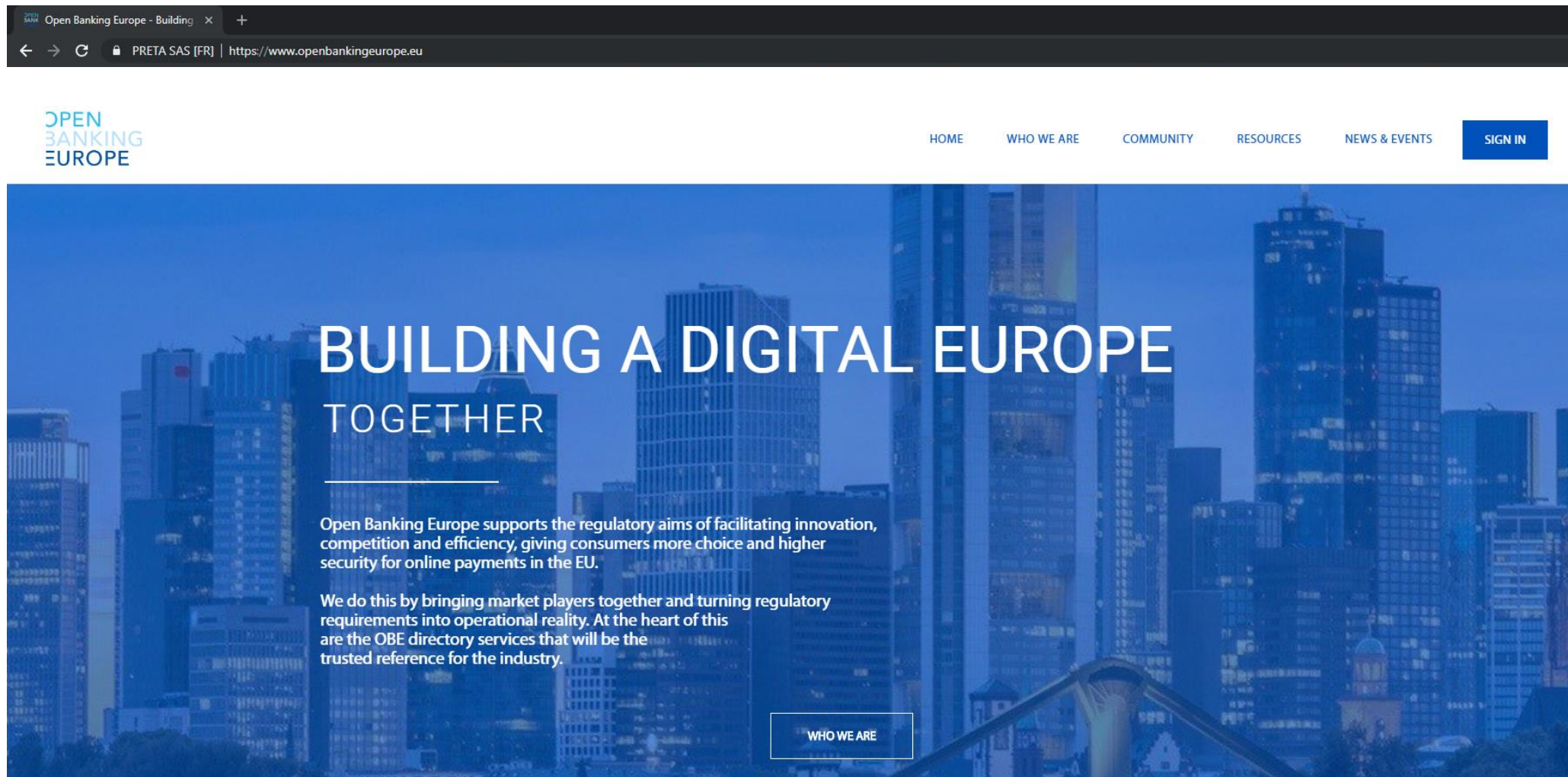


- ☐ Test Harness
- ☐ Reference Implementations

Deliver



- ☐ Bank Modules
- ☐ Test Tool
- ☐ Community Testing
- ☐ Reports for NCA Audit



For more information

www.openbankingeurope.eu