

Digital Trust Services Market

Snapshots on State of Play and Outlook



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Seminar Trust services/eID in Japan and EU

by Standardisation Committee of the NPO Japan Network Security Association JNSA Digital Signature WG/JT2A

November 15 – Tokyo & online

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Namirial Group Global Footprint

900+ Employees

● 85+ Countries with customer
 ● 0
 ● deployments in cloud & on-premises

150+ Strategic Partners **1000+** Partners

Local presences of Namirial Group

Group headquarters in Italy

Local Presences

Austria, Brazil, Costa Rica, Ecuador, France, Germany, Greece, Guatemala, India, Mexico, Peru, Portugal, Romania, Spain, Turkey, UK

Countries with

Partners & customersCustomers

Acquisitions since 2021 = new subsidiaries 2021 Nov – Netheos (now Namirial France) 2022 Feb – <u>Evicertia</u> Apr – Bit4id Group incl. Uanataca Sep – Agenzia Trotta 2023 Sep – <u>Unimatica</u>

Data as of November 2023



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Overall market perception from Namirial

- Market has become largely commoditized
 - Hundreds of vendors that offer various forms of electronic signatures, however just roughly 10-15 vendors with truly global relevance
 - 238 vendors offer qualified trust services in EU/EEA (as of November 14, 2023), however just a handful truly pan-European relevance
- Less low hanging fruit for a quick sale: Use cases addressed for digitization now are requiring a sound understanding of country-specific complex legal and regulatory requirements and the requirement for countryspecific trust service provider integrations.
- Market now characterized by many shades of grey among the vendors:
 - Rapidly increasing co-opetition as customers demand interplay with platforms for remote identification and digital onboarding
 - New players in digital trust services thanks to PKI-as-a-service
- Many vendors are struggling to remain or become profitable, tempted to raise prices
- Vendor Stickiness for unregulated use cases only requiring basic e-signatures as a Public Cloud solution is mediocre.
 - Many organizations reassessing value provided by a fully-fledged electronic signature solution if it makes sense to pay for a premium product.
 - Basic e-signature is increasingly offered as core functionality in other platforms or purpose-built software

High Level Trends in E-Signature Vendor Landscape

Many vendors intensified their attempts to replace DocuSign or Adobe

- DocuSign has a major lack in customer stickiness in basic use cases (e. g. customer contracts, employee document signatures, NDAs) - if not part of a more complex agreement workflow and analysis.
- Foxit, Nitro & others targeting Adobe customers: Same intention to enable a signature upsell for the PDF business
- Almost everyone has some QES offering a few with own QTSP in the group (Nitro: Connective), most with one or more QTSP partners (e. g. Conga: aruba.it, Asseco, firmaprofessional, itsme, Swisscom, TrustPro, Uanataca)

Erosion of revenue potential with basic e-signatures, feature became a commodity

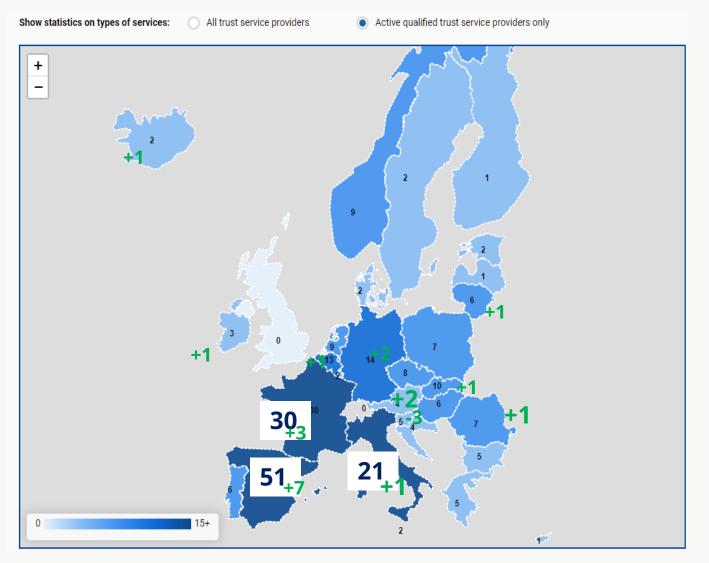
- Starting to be priced with unlimited transactions (envelopes) into larger solutions:
- Acrobat Pro / Document Cloud
- Box Sign provided to Box users at no additional cost incl. unlimited signatures in all Business Plans. Box claims in their earnings calls to have gained a significant amount of customers from DocuSign.
- YouSign: Free e-signatures for consumers
- Next in line with unlimited free basic e-signature offer could be Dropbox (Their Dropbox Sign product is the former Hello Sign; QEC for QES is provided by Namirial)

Landscape of Qualified Trust Service Providers in EU / EEA

238 active Qualified Trust Service Providers (QTSPs) in 29 countries - operating with different backgrounds

- Ownership: state owned vs. privately owned
- Technology: Increasing number of QTSPs operating based on PKI as a service
- Business Cultures: e .g. Nordics / Baltics different to Mediterranean
- Level of Trust in Government and its ability to digitize

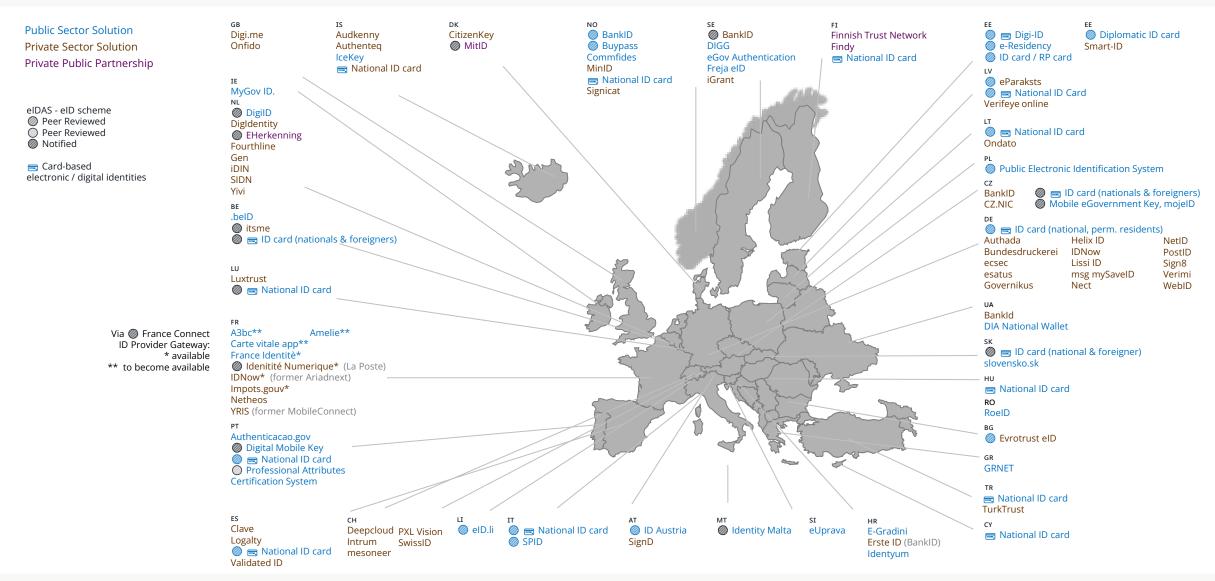
Spain, France and Italy have 43% (total: 102) active QTSPs due to an active role of their respective Public Admins to foster digitization & usage of digital certificates for the delivery of citizen services (subsequent familiarity of the private sector with these digital solutions)



Numbers in green = YOY changes – compared to status in October 2022

Landscape Remote ID Proofing & Digital Identity

2023: Many solutions on different levels of adoption



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Last update: November 3, 2023 © Joerg Lenz Namirial ; Information provided without guarantee for accuracy and completeness of data displayed; For clarity reasons organizations are only listed in their home / main country

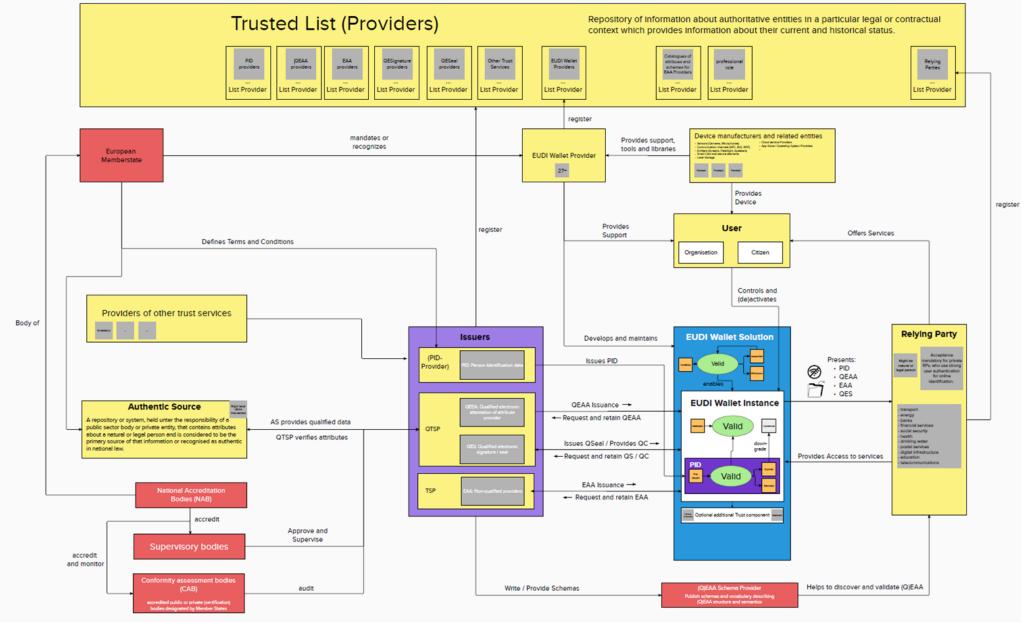
Source: Namirial Research and European Commission - eID User Community: Overview of (pre-)notified eID schemes (i. e. those that can be used across national borders thanks to their integration with the eIDAS network) <u>http://bit.lv/eIDSchemes-eIDAS</u>

eIDAS 2.0: Proposed major changes

Art.	Content
6a	Each Member State has to issue a European Digital Identity Wallet
6b	Requirements for relying parties for fraud prevention
7	Each Member State has to notify at least one eID scheme
11a	Unique and persistent identification of natural persons
14	Commission allowed to adopt implementing decisions related to third countries
17, 18, 20, 24	Amendments to align with Network and Information Security (NIS) rules
24	Harmonized rules for remote identification to be applied across the EU
29a	Requirements for qualified service for management of remote electronic signature creation devices
	Commission obliged to establish reference numbers of standards for preservation, qualified certificates, time stamps, electronic delivery and archiving
45	Providers of web browsers to recognized QWACs and display pertinent data in a user-friendly manner
45a-f	Provisions for (qualified) electronic attestations of attributes
45g	Qualified electronic archiving services in addition to preservation
45h+i	Establish a framework for trust services related to (qualified) electronic ledgers
48a	Statistics on European Digital Identity Wallet usage have to be collected

Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 910/2014 as regards establishing a framework for a European Digital Identity <u>https://digital-strategy.ec.europa.eu/en/library/trusted-and-secure-european-e-id-regulation</u>

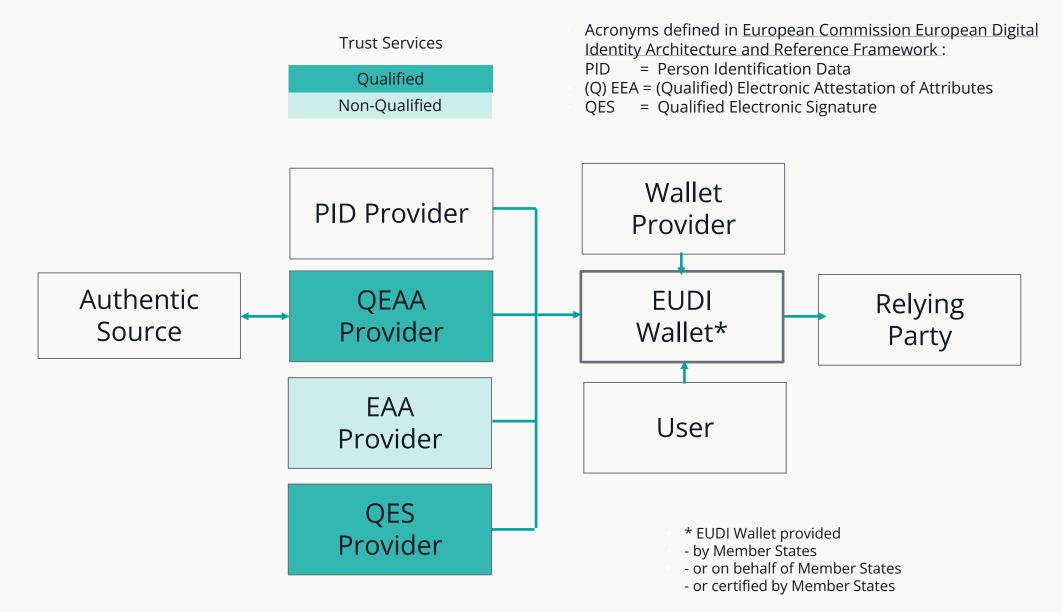




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Source: Adrian Doerk – Lissi – On-site Workshop among speakers at Bitkom eIDAS Summit May 10, 2023

EU Digital Identity Wallet Roles – in a Nutshell (based on ARF)



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Opportunities for QTSPs and their partners

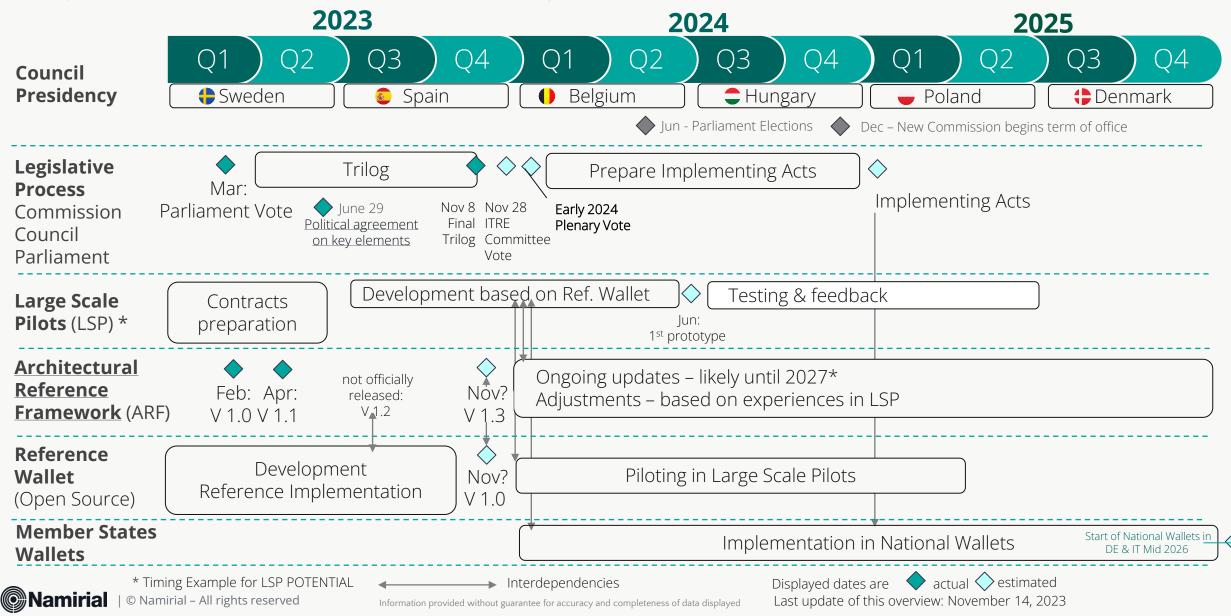
Increased strategic relevance of trust service providers and identity orchestration platforms

- Identity-related functions are becoming increasingly important or are required such as strong user authentication, identity proofing, digital identity wallet integrations, or use of digital certificates issued by a trusted entity
- Together with corresponding orchestration systems orchestrating processes for identification and/or signing and/or document handling QTSPs are able to deal with complex legal and regulatory requirements and hence having increasing strategic relevance – also sometimes considered as being part of the critical infrastructure (as seen in peak pandemic times)

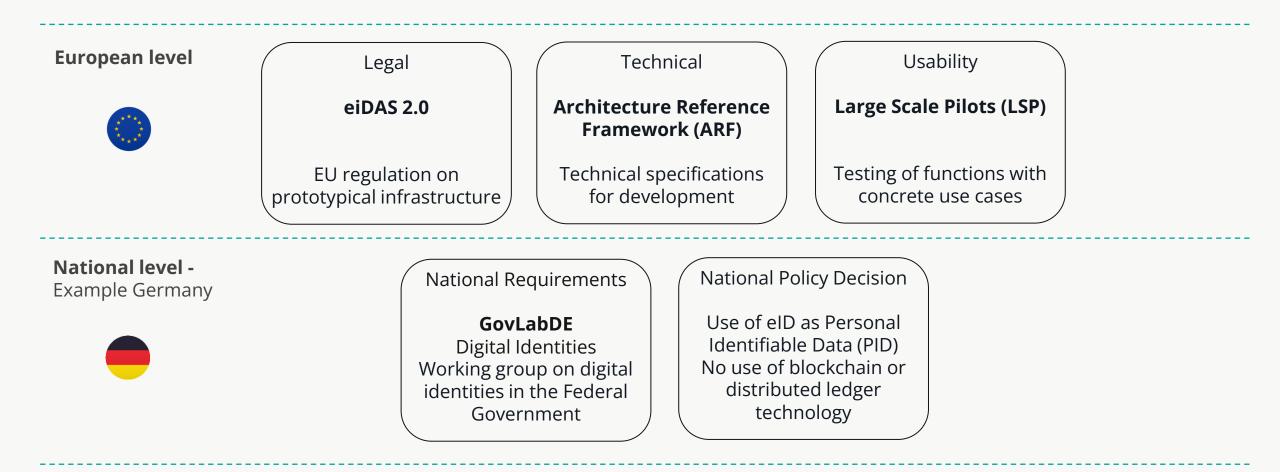


🔅 eIDAS 2 / EUDI Wallet - Timeline on EU Level

Every member state will introduce their own implementation of the wallet



EU Digital Identity Wallet - Framework conditions



Source: German Federal Ministry of the Interior- Unit DV I 5 Digital identities; authentication: German implementation of the eIDAS overall system - Kick Off of the consultation process, Slide 18 - July 31, 2023



Digital Identities – Activities on national level

GovLabDE = Interministerial project group in Germany's Federal Government

Members: Representatives from the Federal Chancellery, Federal Ministry of Economics and Climate Protection, Federal Ministry of Finance, Federal Ministry of the Interior and Federal Ministry of Digital Affairs and Transport as well as subordinate institutions

GovLabDE Priorities in 2023

- 1. Revision of "AusweisApp2" the official app for eID on German national identity card incl. new name (timing of launch t b d*).
- 2. A "large number" of private providers are in the process of integrating the online ID function (especially banks).
- 3. Start in late 2023: Communication campaign to promote the on German national identity card (not products, funding 8-12 M €)
- Start in Q4: Rollout Smart-elD with recourse to Secure Elements planned with 17 Samsung models* ** 4.
- Scaling of the eID system to higher usage figures 5.
- Concept for easier and cheaper (possibly free) access for service providers (<u>Authorization Certificates</u>) 6.
- Preparation for eIDAS 2.0 in the LSP POTENTIAL and architecture process for an own prototype for an eIDAS 2.0-compliant infrastructure (Version 1 to be released June 2024)

* Subject to changes ** Financing of operation under discussion as part of 2024 budget, might not start in Q4

Sources: Federal Ministry of Interior, Moritz Heuberger at Bitkom Working Group Digital Identities & Digital Banking March 2, 2023 & Round Table GovLabDE Digital Identities June 1, 2023 Slides & Protocol and Website about Digital Strategy Germany - Digital Identities - Answer of the Federal Government to the small enquiry of the parliamentary group of the CDU/CSU Status of the implementation of the eIDAS 2.0 regulation - printed matter 20/8040 (PDF) published September 1, 2023 // Overview last updated October 21, 2023

Digital Identities – Consultation process H2 2023

Initiated and orchestrated by German Federal Minster of Interior looking into Wallet as an ecosystem

Goals

Definition of the ecosystem of the German EUDI wallet

- 1. Conception, design and provision of the federal **government** EUDI wallet, various parties (incl. private sector) can contribute attribute proofs for later use
- 2. Ecosystem of **private sector** EUDI wallets, for whose recognition regulatory requirements (licensing, certification, etc.) are defined by the federal government.
- **3. Combination** of a **government** EUDI wallet (with core functions) and a variety of compatible **private sector** EUDI wallets

Timeline	Date	Workshop	Format	Participants	Topic(s)						
	July 31 1		virtual	all	Kick-Off - Information on upcoming process, clarification on tasks						
	during Augus	st			processing feedback processing, developing schemas for use cases & business models, preparing workshops						
	Sep 1	2	in presence	selected	Defining use cases & needs						
	Oct 23*	3	in presence	selected	Elaboration of potential wallet business models						
	Nov/Dec*	4	online	selected	Discussing privacy aspects						
	Q1 2024*	5	online	selected	Elaboration of wallet architecture						

Participation Rules

- Submission of proposals for business models for privately operated wallets on OpenCode
 - Participation in the workshop and the evaluation of the possible operating models
 - Public sharing of collected information on objectives, framework conditions, initial considerations as well as on the start of the public consultation process on Github https://gitlab.opencode.de/bmi/eidas2
 - Commenting on the published documents

Source: Federal Ministry of the Interior- Unit DV I 5 Digital identities; authentication: <u>German implementation of the eIDAS overall system - Kick Off of the consultation process, Slide set shown at Kick-Off July 31, 2023</u> – Research of delays October 24, 2023 - * New dates listed for workshops 3-5 compared to initial plan



EU Digital Identity Wallet - Large Scale Pilot Consortia

Pilots kicked off between May and July 2023

Consortium	Potential For European Digital Identity	NOBID	EU Digital Identity Wallet Consortium.	Digital Credentials 4 Europe DC4EU				
	POTENTIAL digital-identity-wallet.eu	NOBID nobidconsortium.com	EUDIW EU Digital Identity Wallet eudiwalletconsortium.org	DC4EU Digital Credentials 4 Europe dc4eu.eu				
Organizations From member states	148 19 + Ukraine	28 6	60 26 + Ukraine	82 21				
Use Cases	SIM eRegistration Bank account opening eDriving License eGov Service eSignature ePrescription	Payment transactions	Travel (main use case) Payment transactions Organizational Digital Identity	Education and educational credentials Social Security				
Participants from								
Germany	Federal Government, Bundesdruckerei, Banks (DSGV, DB, Commerzbank, ING), Telcos	German Savings Banks Association, Rewe	Bosch, Condor, Datev, msg, Neosfer, Idunion, Spherity	German pension insurance				
Italy	various organizations	various organizations	various organizations					

Source of data in table: Digital Innovation Observatories of the School of Management of Polytechnic University Milano – Working Group Digital Identity – <u>Oservatorio Digital Identity: Le notiva nel mondi dell'identità digitale:</u> <u>possibli consozi e progetti pilota</u> - presented in Workshop November 11, 2022; plus: additional research by Namirial, Last updated August 16, 2023

Namirial is engaging in Large Scale Pilot POTENTIAL

148 consortia members



About the Potential consortium:

The Member States:

Austria, Belgium, Cyprus, Czechia, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Ukraine.

The partners:

Ministère de l'Intérieur, Délégation à la Sécurité Routière, Agence Nationale des Titres Sécurisés, CIVIPOL Conseil Société De Conseil et de Service du Ministère de l'Intérieur, Direction Interministérielle du Numérique (DINUM), Docaposte, Thales DIS FRANCE SAS, IN Groupe, Institut Mines-Telecom, Cryptolog International, Orange SA, Institut National de Recherche en Informatique Et Automatique, Archipels, CEA, Luxtrust SA, Namirial SPA, Idemia Identity & Security FRANCE, Agence du Numérique en Santé, Bundesministerium des Innern, Bundesamt für Sicherheit in der Informationstechnik, Bundesverwaltungsamt BVA, Bundesministerium für Digitales und Verkehr, Kraftfahrt-Bundesamt, "Bundesnetzagentur für Elektrizitaet, Gas, Telekommunikation, Post Und Eisenbahnen", Ministerium für Wirtschaft Industrie Klimaschutz und Energie des Landes Nordrhein Westafalen, Telefonica Germany GMBH & CO OHG, Vodafone GMBH, Deutsche Telekom AG, ING-Diba AG, Arbeitsgemeinschaft Wallet.AT, Bundesministerium für Finanzen, "Bundesministerium für Soziales, Gesundheit, Pflege und Konsumentenschutz", Zentrum für Sichere Informationstechnologie - AUSTRIA, Technische Universität Graz, OENPAY Financial Innovation Hub GMBH, Rundfunk Und Telekom Regulierungs GMBH, T-Mobile AUSTRIA GMBH, Mass Response Service GMBH, Bitpanda Payments GMBH, Erste Group Bank AG, Raiffeisenlandesbank Oberosterreichag, Hypo Vorarlberg Bank AG, Österreichische Nationalbank, Federale Overheidsdienst Beleid en Ondersteuning, "Deputy Ministry Of Research, Innovation And Digital Policy – Cyprus", Ethniki Archi Ilektronikis Igeias, University of Cyprus, AUTOCONT AS, Ministerstvo Zdravotnictvi Ceske Republiky, Ustav Zdravotnickych Informaci a Statistiky Ceske Republiky, Riigi Infosusteemi Amet, Valtiovarainministerio, Digi-Ja Vaestotietovirasto, Liikenne- Ja Viestintavirasto, National Infrastructures for Research and Technology - Greece, ESZFK Egeszseginformatikai Szolgaltato es Fejlesztesi Kozpont Nonprofit Korlatolt Felelossegu Tarsasag, Presidenza Del Consiglio Dei Ministri., PagoPA SPA, Fondazione Bruno Kessler, ARUBA PEC SPA, IN.TE.S.A. - Iniziative Telematicheper I Servizi Applicativi, Istituto Poligrafico E Zecca Dello Stato SPA, Ministero Dell'Economia E Delle Finanze, Provincia Autonoma Di Trento, Trentino Digitale SPA,

Informatikos Ir Rysiu Departamentas Prie Lietuvos Respublikos Vidaus Reikalu Ministerijos, Ministry of the Interior of the Republic of Lithuania, Valstybes Imone Regitra, UAB Citybee Solutions, Ministere de la Digitalisation -Luxembourg, Centre des Technologies de l'Information de l'Etat, STICHTING ICTU, Dienst Wegverkeer (RDW), Kamer Van Koophandel, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, National Office for Identity Data Rijksdienst voor Identiteitsgegevens, Ministerie van Economische Zaken en Klimaat, Ministerie van Infrastructuur en Waterstaat, Centralny Osrodek Informatyki, Ministerstwo Rozwoju, Siec Badawcza Lukasiewicz -Poznanski Instytut Technologiczny, T-Mobile POLSKA SA, Centrum E-Zdrowia, Agencia Para A Modernizacao Administrativa IP. SPMS - Servicos Partilhados do Ministerio da Saude EPE, Instituto da Mobilidade e dos Transportes, Instituto dos Registos e do Notariado IP, Imprensa Nacional - Casa da Moeda, "Ministerstvo Investicii, Regionalneho Rozvoja a Informatizacie Slovenskej Republiky", Narodna Agentura pre Sietove a Elektronicke Sluzby, Ministerstvo Vnutra Slovenskej Republiky, Ministrstvo za Javno Upravo, SETCCE, Druzba za E-Poslovanje, ILIRIKA, Jefatura Central de Trafico, BPCE, La Banque Postale, Crédit Agricole S.A., BNP PARIBAS, Bayerisches Staatsministerium für Digitales, d-NRW AÖR, SIXT GMBH & CO. AUTOVERMIETUNG KG, AMADEUS SAS, Enterprise Autovermietung Deutschland B. V. & Co. KG, Commerzbank AG, Deutsche Bank AG, VLAAMSE DATANUTSBEDRIJF, Belgian Mobile ID, Bolt Services EE OÜ. Citvbee eesti oü, Ministry of Digital Governance - Greece, National Bank of Greece SA, Cosmote Kinites Tilepikoinonies Monoprosopi AE, Alpha Bank Anonymos Etairia, Synetairistiki Trapeza Ipeirou SYN.P.E., Trapeza Peiraios AE, Wind Hellas Telecommunications Single Member SA, Vodafone Panafon Anonymi Elliniki Etaireia Tilepikoinonion, Eurobank Ergasias SA, Syneteristiki Trapeza Karditsas SYN.P.E., Optima bank S.A., Ministry of Health - Greece, Ministero della Salute, Identity Documents Personalisation Centre under the Ministry of the Interior of the Republic of Lithuania, Koninklijke KPN NV, Ministerio de Sanidad, Ministry of Digital Transformation of Ukraine, National Commission for the State Regulation of Electronic Communications, Radio Frequency Spectrum and the Provision of Postal Services - Ukraine, NHSU, LLC Helsi, Doctor Eleks LTD, LLC Internet-Advertising RIA, Vchasno Service, Carsharing Solutions Limited Liability Company, Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek TNO, State Enterprise Dija, State Enterprise Ezdorovya, State Enterprise Infotech, UKRGASBANK JSC, KYIVSTAR G.S.M. CJSC, Samsung Electronics France, Deutscher Sparkassen und Giroverband EV. Bundesministerium der Finanzen.

Source: POTENTIAL Large Scale Pilot - The Potential consortium launched to pilot the new European Digital Identity Wallet (EUDIW) - Press Release, July 10, 2023



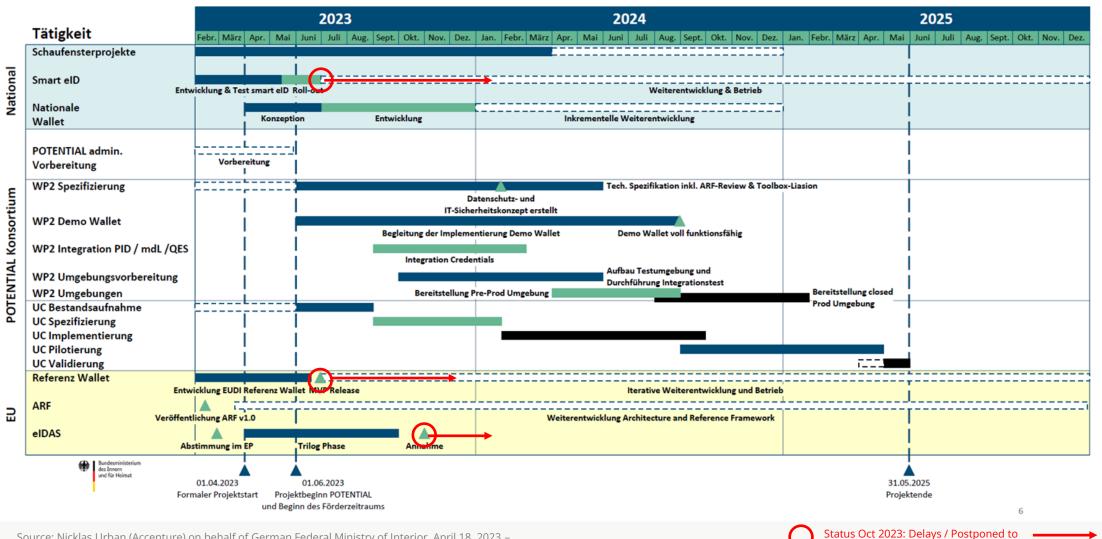
Use Case Szenarien	Use Case	Teilnehmen- denanzahl				۲			+-	-	E	-				-		۲		-	6	
elD (PID)	1: Electronic identification / authentication for eGov services	15	~	~	~	~			~	~	~		*		~	v	~	~	~	~		√*
	2: Electronic identification for account opening	8	~	~						~	V				~			~		~		√*
	3: Electronic identification for SIM registration	7	~	~						v	V					~	~					√*
Mobile Driving Licence (mDL)	4: Online car rental using electronic attestations for mDL	17	*	~	~	~		~	~	v	~		~	~	~	~	~	~	*		~	√*
Remote Qualified Electronic Signature	5: rQES for signing documents	11	\bigcirc	v	~	~				~	~				~			~	~	~		√*
eHealth	6: ePrescription	11	~	~		~	~				~	v	~				~	~			√*	√*

Bemerkungen: *keine Förderung gemäß Antrag, V = Vorsitz; Deutschland nimmt an den Anwendnungsfällen (Use Cases) 1 bis 5 teil, keine Beteiligung am Anwendungsfall (Use Case) 6

Source: Nicklas Urban (Accenture) on behalf of German Federal Ministry of Interior, April 18, 2023

Large Scale Pilot POTENTIAL – Timeline

In combination with activities on German National Level



Source: Nicklas Urban (Accenture) on behalf of German Federal Ministry of Interior, April 18, 2023 – (No EN version available. This content was created commissioned for the German speaking POTENTIAL participants)

Large Scale Pilot POTENTIAL – Next steps

Following the Kick-off on July 10 & 11 2023



Step 1

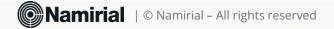
Research: Clarification of organisational and regulatory requirements governing the use cases: "Which rules apply in which states and in which industries, what information and what security is necessary in each case?"

- E. g. in Greece I need my father's name to open a bank account. This is information that I cannot easily prove online.
- If a French citizen signs a mobile phone contract in Germany, she has to prove her registration address but this is not stored on the French identity card.

Step 2

Testing implementation of EU Digital Identity Wallets with prototypes and gather empirical values.

Source: Moritz Heuberger (German Federal Ministry of Interior), Posting on LinkedIn July 26, 2023



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