



21.09.2016 FINLAND
WWW.SAFRANGROUP.COM



AN INTERNATIONAL
HIGH-TECHNOLOGY
GROUP

**3 CORE
BUSINESSES:**

Aerospace
Defense
Security

Over **70,000**
EMPLOYEES
in more than
60 COUNTRIES

€17.4 BILLION
in sales*

€2.4 BILLION
in adjusted recurring
operating income*

€2.1 BILLION
in R&D expenditures*,
equal to nearly 12% of
sales

Over **900**
INITIAL
PATENTS
filed in 2015

*2015

SAFRAN IDENTITY AND SECURITY

Systems deployed in
**MORE THAN
100 COUNTRIES**

A GLOBAL LEADER IN IDENTITY
AND SECURITY

R&D
Investment equal to nearly
7%
of revenue

€1.9 BILLION
of revenue

Workforce
8,700+
EMPLOYEES
in **57**
COUNTRIES

#1
worldwide in biometric
**IDENTITY
SOLUTIONS**
(fingerprint, iris and face)

Most comprehensive,
extensible **DIGITAL
IDENTITY** solution
for a national infrastructure



- 1. A GLOBAL LEADER IN IDENTITY AND SECURITY SOLUTIONS**
- 2. IDENTITIES IN THE PHYSICAL & DIGITAL WORLDS**
- 3. VISION & SOLUTION FOR DIGITAL IDENTITIES**
- 4. SAFRAN I&S IS YOUR DIGITAL IDENTITY PARTNER**
- 5. USE CASES**



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A GLOBAL LEADER IN IDENTITY AND SECURITY SOLUTIONS

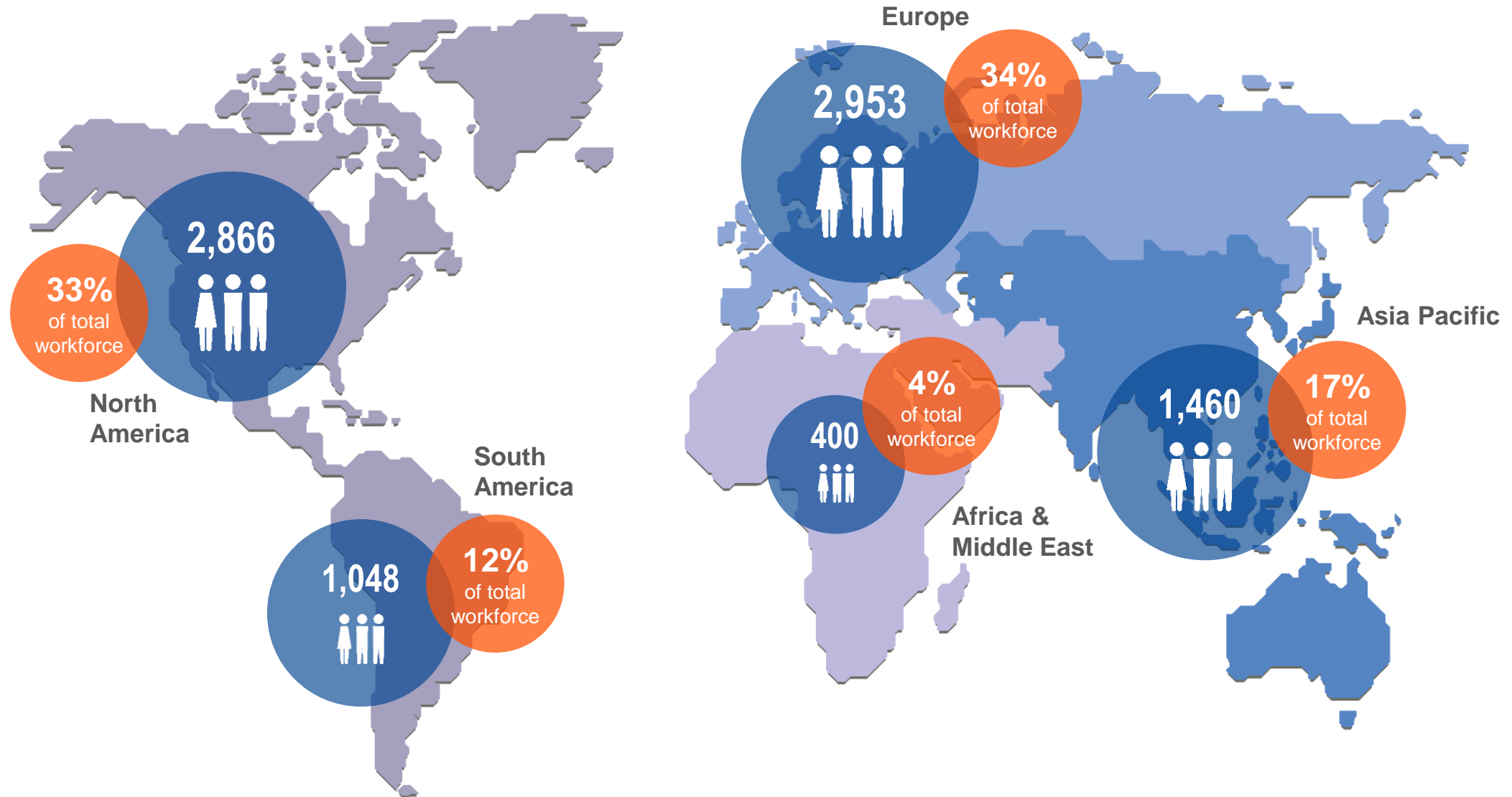


OUR PURPOSE:

Making life safer and easier in a connected world, through trusted identities



WORLDWIDE PRESENCE OF SAFRAN IDENTITY & SECURITY



#1 IN MULTI-BIOMETRIC TECHNOLOGIES

40 YEARS OF EXPERIENCE

in the development of fingerprint identification systems (AFIS)



CONTACTLESS FINGERPRINTS

capture in less than 1 second



FACIAL RECOGNITION « SELFIE-CHECK »

FIDO*
CERTIFIED



IRIS RECOGNITION



*FIDO (Fast Identity Online) Alliance for simpler, stronger authentication

CIVIL ID

- Civil ID management :
 - Biometric registration for citizens
 - Secure ID Documents (ID cards, passports, driver's license)
- Digital ID :
 - eServices (e-Gov)



COMMERCIAL ID

- Smart cards (telecoms & banking)
- Embedded connectivity & security
- Digital Transactions



PUBLIC SECURITY

- Law enforcement
- Border control
- Access control



CIVIL ID

We provide **civil ID systems** to **governments** and **public institutions** to **protect** their **citizens' identities** and offer **digital ID solutions** for **secure online services**



- **Complete ID management solutions**, ranging from **biometric registration** services to **document issuance**
- **Secure documents** including **national ID**, **passports**, **driver's licenses**, **election** and **healthcare cards**
- **Authentication platforms** for convenient access to **online services**

2.8 BILLION
ID documents
delivered

MORE THAN
55
government
programs

SELECTED REFERENCES:



- Albania
- Canada
- Chile
- Colombia
- Egypt
- France
- India
- Kenya
- Malaysia
- Mauritania
- Netherlands
- UAE
- USA


SAFRAN I&S DIGITAL ID SOLUTIONS

Enrollment & Lifecycle



Identity & Attribute Proofing

- Data & Biometrics Capture Proofing



Authentication & Credentials

- Knowledge, Key, Biometrics



Identity Federation

- Re-use of identities across public and/or private services

Usage / Digital Trust Services



Trusted Paperless Transaction

- Digital Signature, Seal, Timestamp



Traceability & Legal Archiving

- Compliance, Evidence Perpetuation



Mobile Payment

- Proximity, Online, In-app, Wallet

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IDENTITIES IN THE PHYSICAL & DIGITAL WORLDS




IDENTITY ACQUISITION




- In-branch KYC
- Self KYC on ATM or Kiosk
- Agent-assisted KYC
- Mobile KYC




Enrolment offering for **Multichannel** configuration




Hardware and/or **software** solutions




Accurate **biometric capture** and **deduplication**



Document **holder verification**

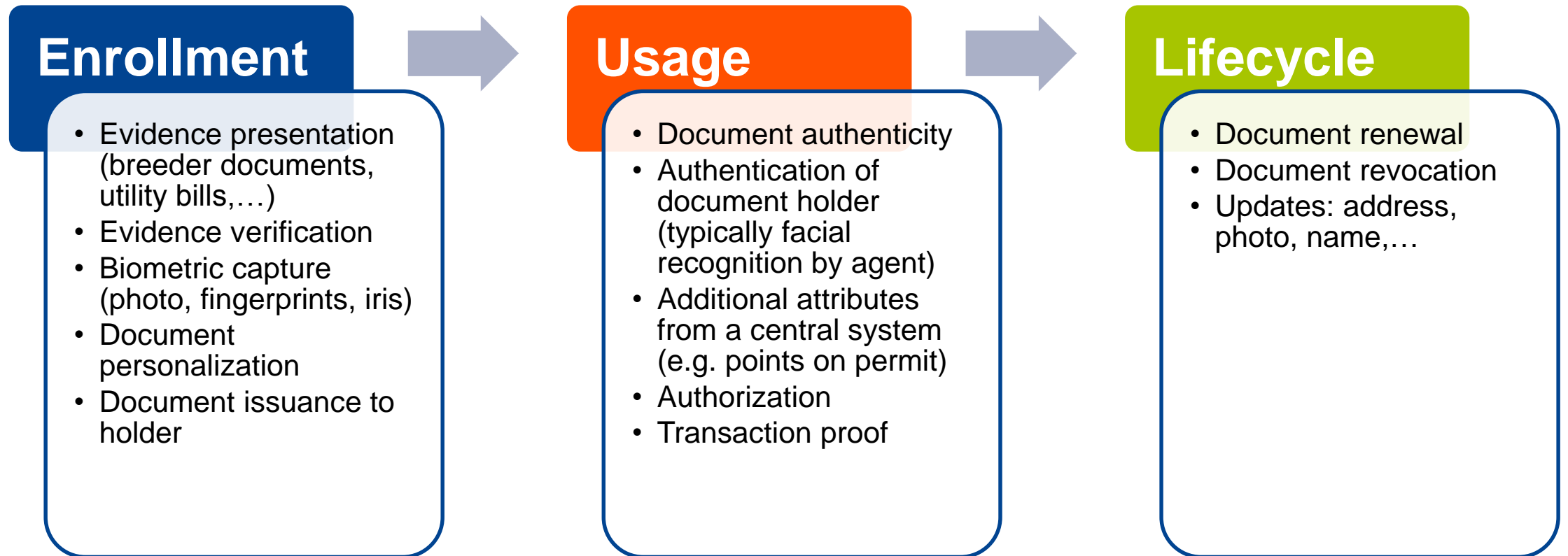


Back-ground **check** (uniqueness and eligibility)



Record lifecycle management

Physical world ID infrastructure



Challenges when moving from the physical to the digital world

Enrollment

- Is the user behind the screen real or fabricated?
- Is the user impersonated?
- Is the evidence authentic? Or a digital fake?
- How to capture biometrics remotely?
- How to securely issue digital credentials to only one user? And ensure exclusive control over those credentials ?
- How to approve an ID at the speed users have come to expect online ?

Usage

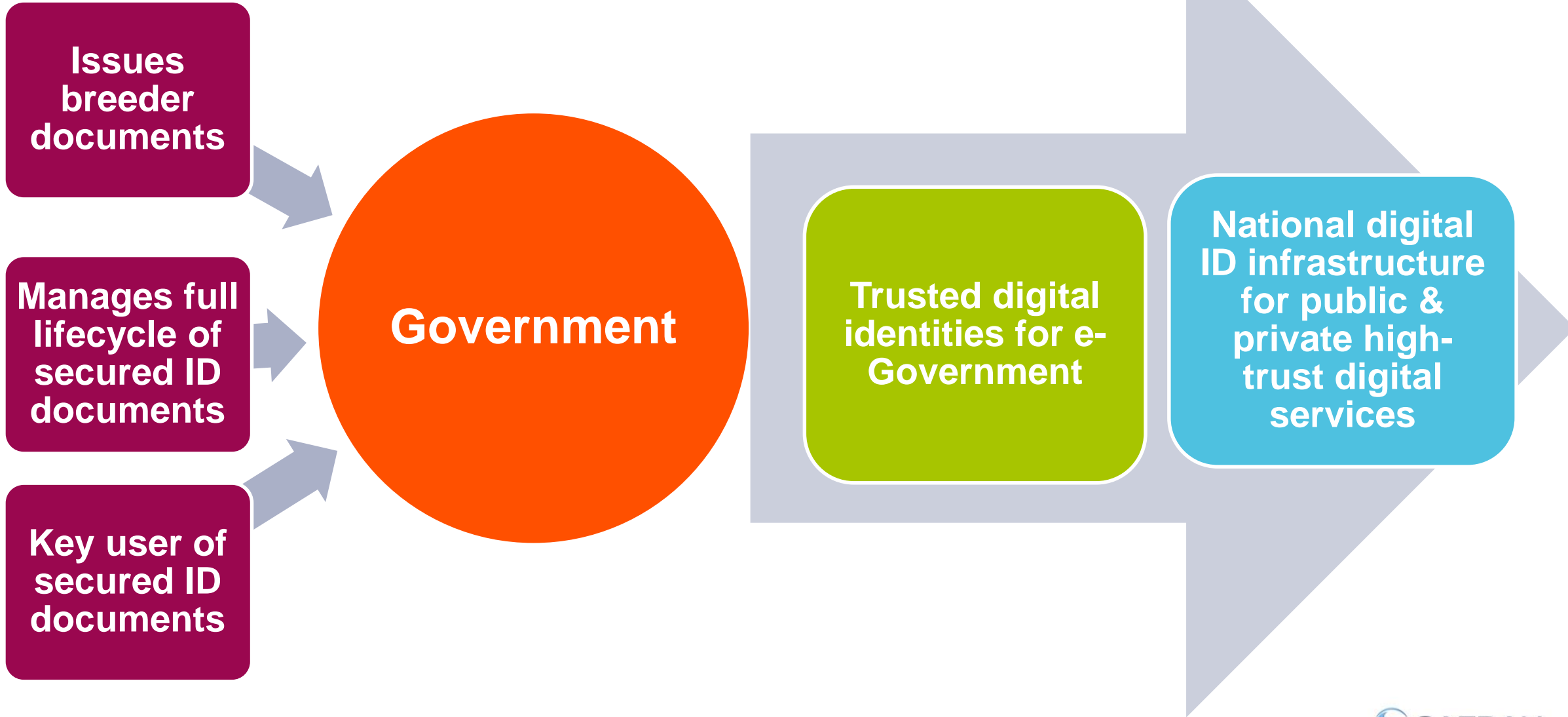
- How to make credentials interoperable and re-use them?
- How to make credentials stronger?
- How to seamlessly include payments in the user experience?
- How to have legally binding digital signatures?
- How to guarantee authenticity, integrity, legibility and legal value of transaction proof over decades?

Lifecycle

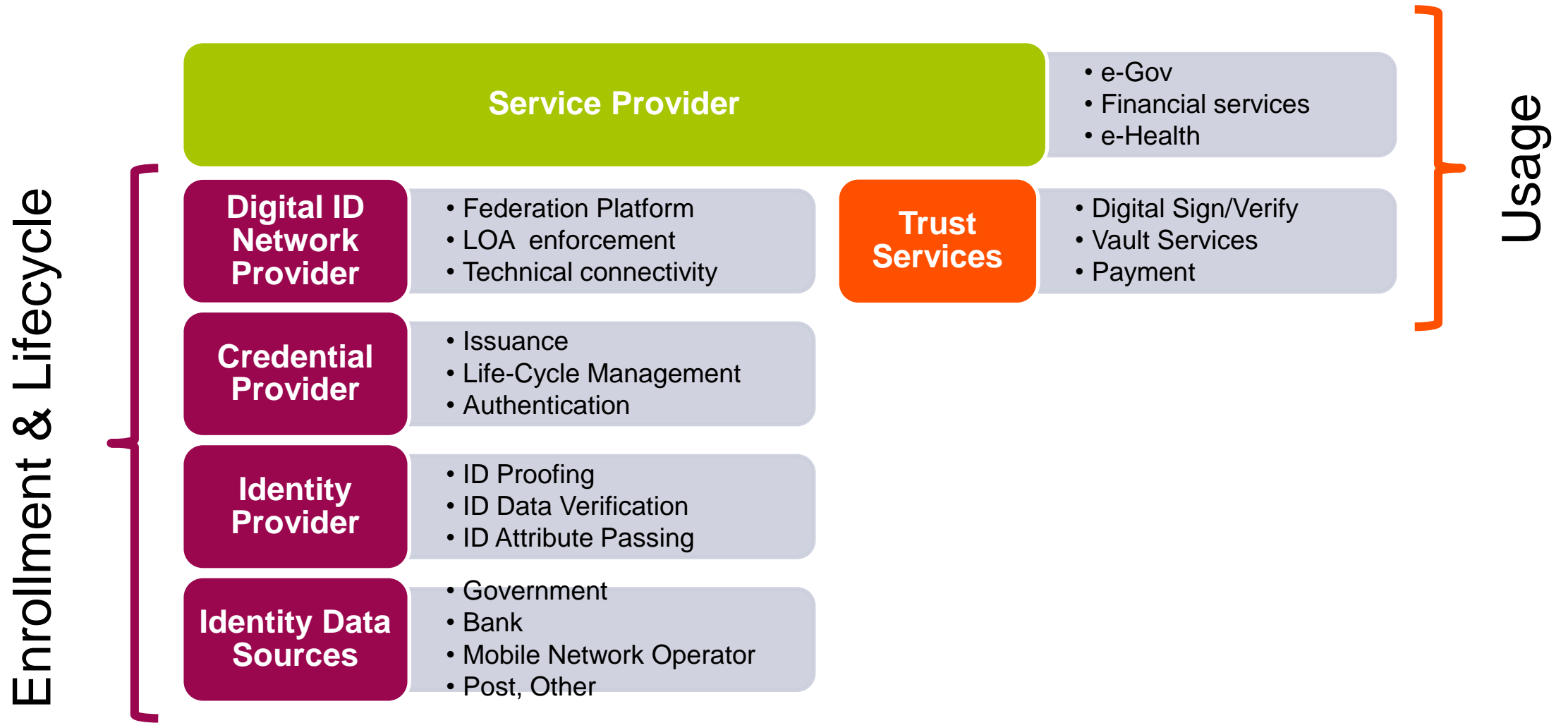
- How to manage a multitude of logins and credentials?
- How to keep a digital identity's attributes up to date over time?
- How to detect fraud?
- How to revoke a digital identity?
- How to recover a digital identity after it's been stolen?
- How to manage delegation?

- Deliver a great and speedy user experience
- Support new devices, channels & technologies
- Provide resilience to new types of attacks
- Ensure data privacy

Government is at the core of identity



FRAMEWORK FOR A DIGITAL ID NATIONAL INFRASTRUCTURE



What features does a « digital ID » need to address those challenges ?

- **Controlled set of processes for enrollment and lifecycle management**
 - To verify evidence and attributes at enrollment
 - To manage the lifecycle of attributes
 - That uniquely link credentials to a holder and protect that link
 - To manage the lifecycle of the credentials
- **Access to verified identity attributes for usage**
- **Framework defining usage**
 - Interoperability
 - Connectivity
 - Coherent levels of assurance

A national infrastructure rather than just a « digital ID »

Programme Producing Suomi.fi Services

The National Architecture for Digital Services Programme

Production use and development

Schedule 9.6.2014 - 31.12.2017

Steering
Ministry of
Finance



Operation
Population
Register
Centre



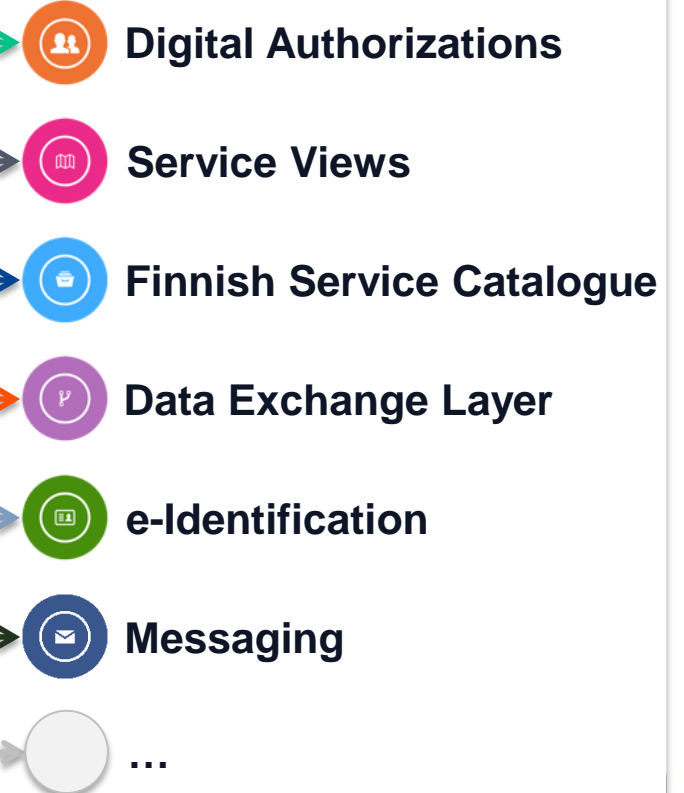
Budget € 100 million

Projects

- Roles and authorizations
- Service views
- Data exchange layer
- Digital authentication

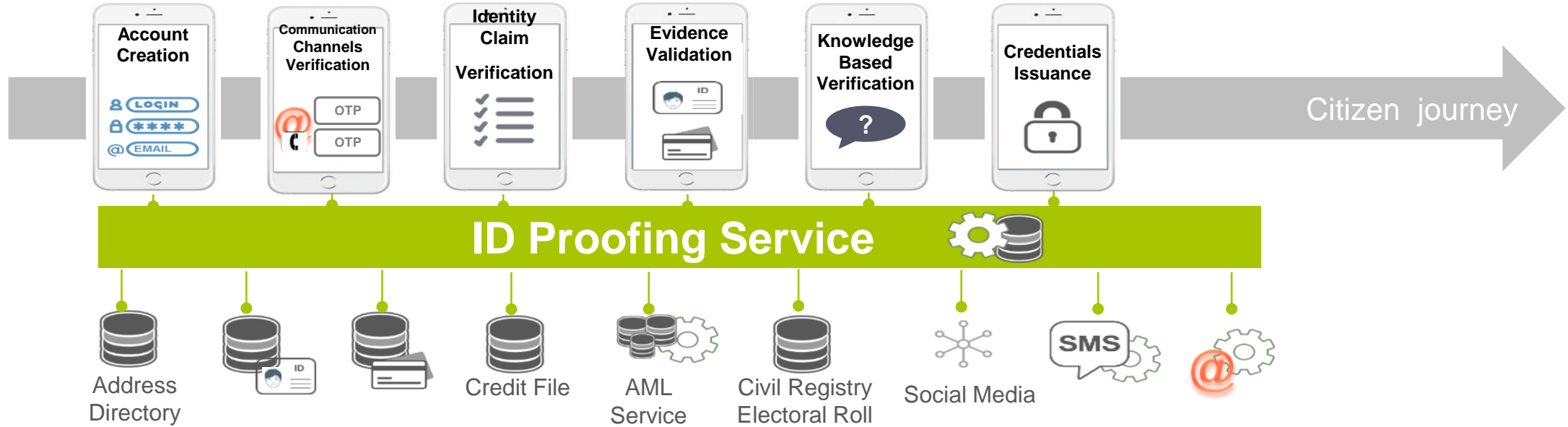
*Other digitalization
development*

*Suomi.fi Services for
organizations*

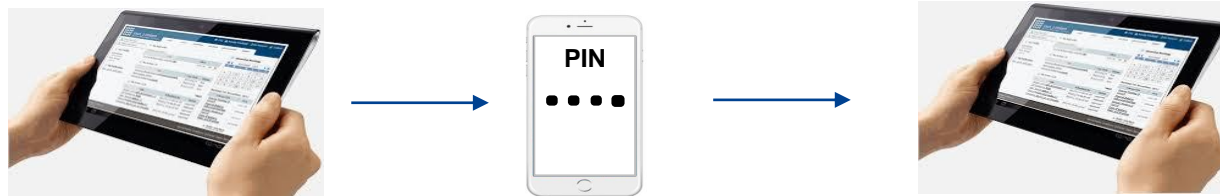


USE CASE: UK IDAP

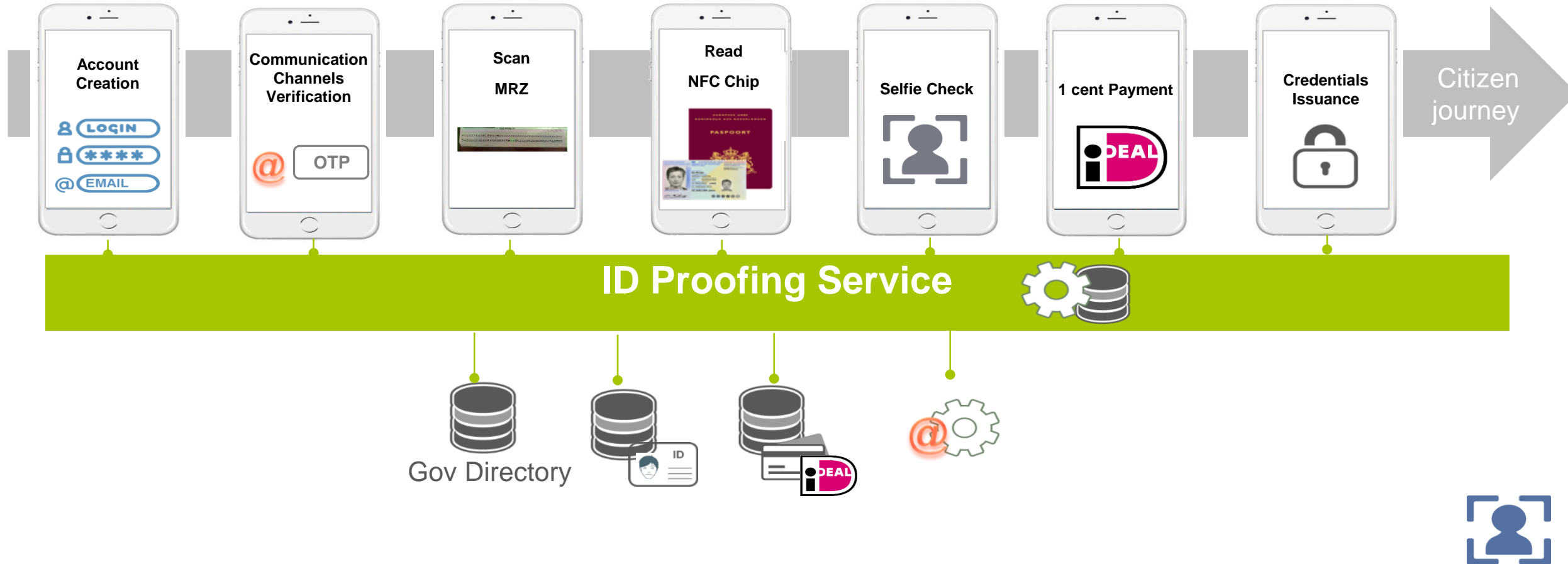
ID Proofing



Authentication



USE CASE: IDENSYS, THE NETHERLANDS





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VISION & SOLUTION FOR DIGITAL IDENTITIES

Key aspects of our vision: Safran is bringing it all together to deliver a national digital ID infrastructure that...

... is an enabler for improving existing services and inventing new ones

... bridges groups of users across public and private service silos maintaining overall coherent levels of assurance

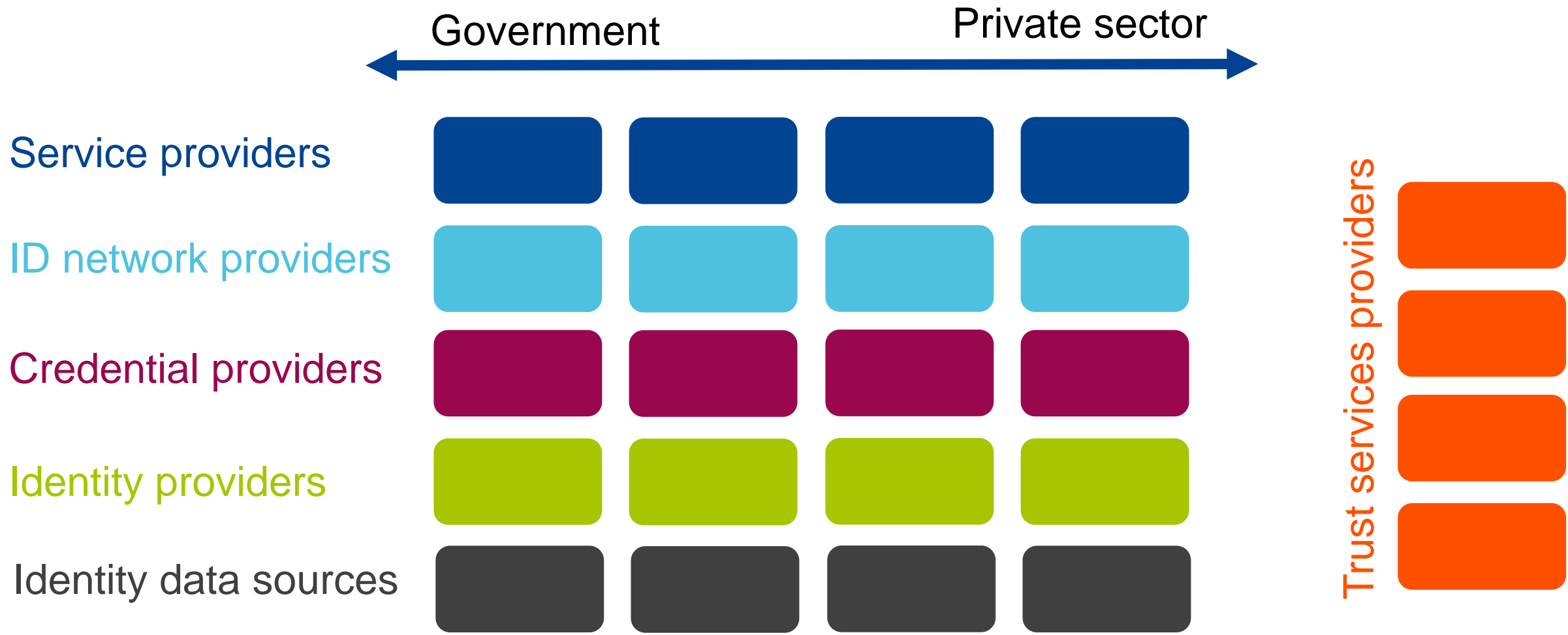
... gives ID holders control over their data and privacy

... leverages existing IDs and is compatible with future technologies and channels

... is standards-based and open to multiple actors at each level to provide freedom of choice

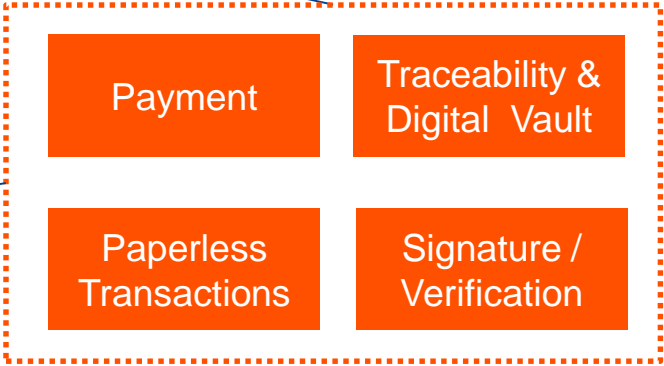
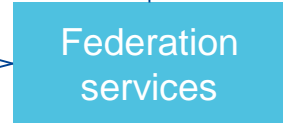
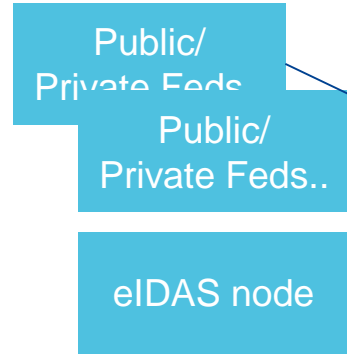
... is modular and extensible allowing phased deployments and upgrades

Open to multiple actors at each layer – public & private



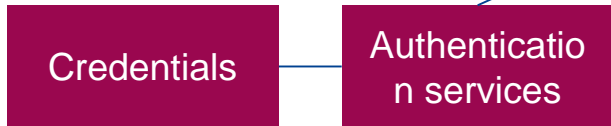
MODULAR DIGITAL ID NATIONAL INFRASTRUCTURE

Digital ID Network providers

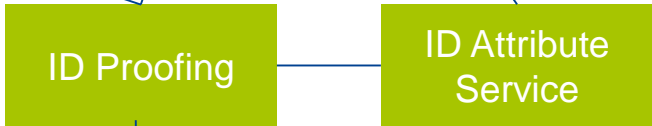


Digital Trust Services providers

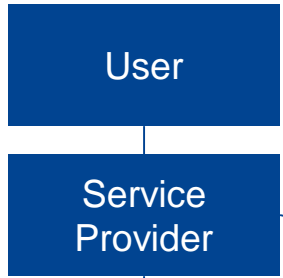
Credential providers



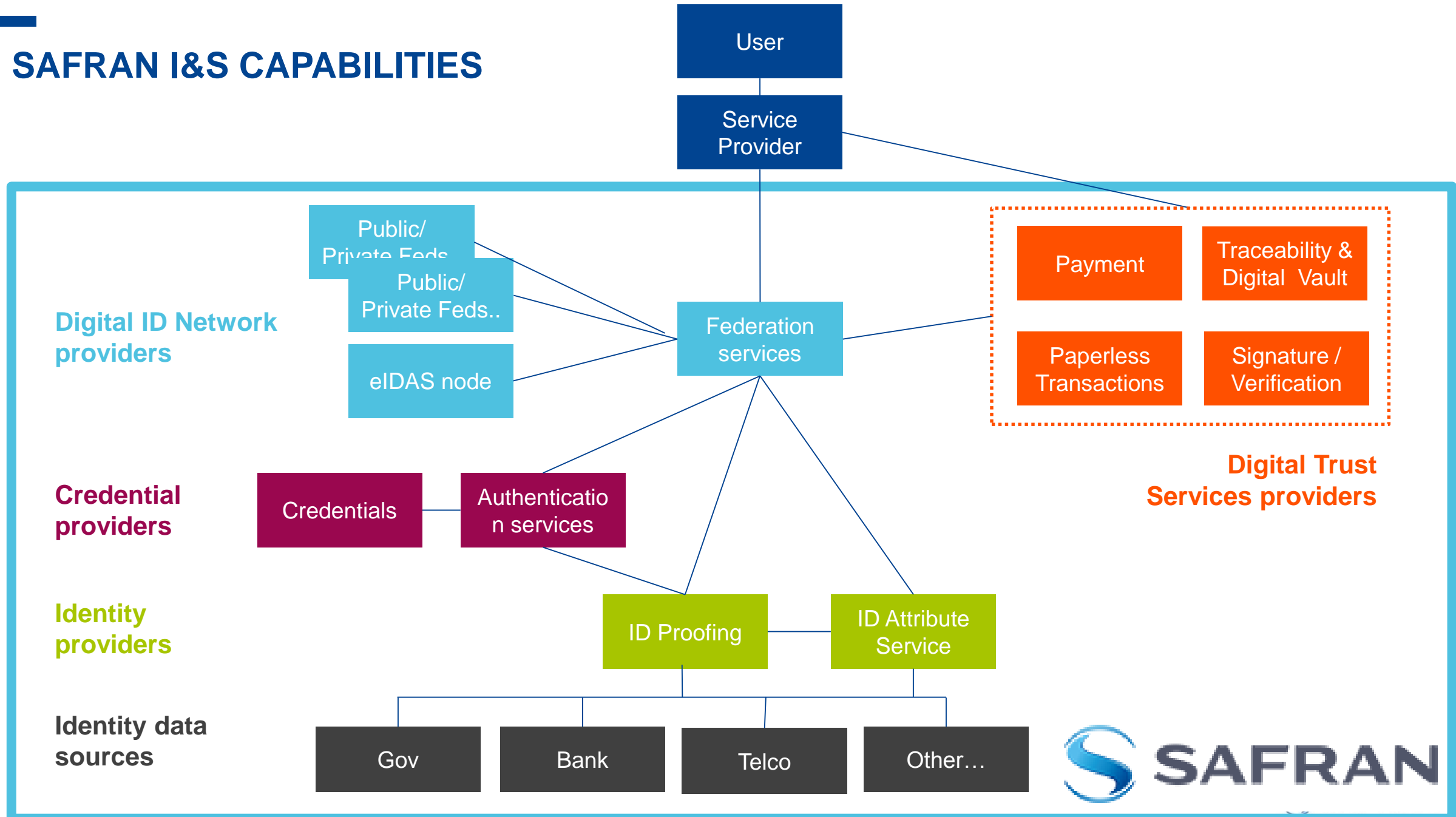
Identity providers



Identity data sources



SAFRAN I&S CAPABILITIES



SAFRAN I&S DIGITAL ID SOLUTIONS' FLEXIBLE DELIVERY MODELS

System Integration (Safran I&S or partner organization)

Business logic definition, data source and external service integrations, UI customization,...



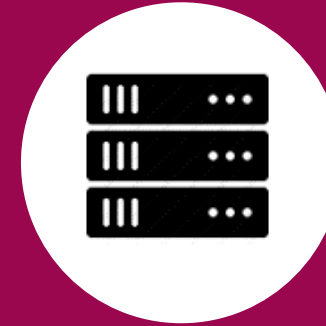
SaaS

- Deployed, operated, maintained and supported by Safran I&S personnel
- Service providers integrate standard web services
- Guaranteed SLAs
- Hosting and management certified to highest security standards



Hybrid operational models

- Safran I&S partners with public or private organisations for hosting, service management or support.



On-premise with dedicated programme

- Assistance for detailed requirements gathering and solution design
- Custom developments and third-party integrations
- Assistance for deployment and configuration
- End-to-end testing
- Certifications

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SAFRAN I&S AS YOUR DIGITAL IDENTITY PARTNER



Safran's Digital ID approach provides benefits to ALL parties in the ecosystem

Service providers (Public, Private)

- Increases Security: Solves auth challenges with robust identity proofing
- Builds Trust: Improves online trust with consumers for online services.
- Enables Growth: New high-value services. Multiple LoA Credentials.
- Reduces Expense: Credential Reuse. Lower helpdesk costs

Users (Consumers, Citizen)

- Simplifies Access: One credential for multiple applications.
- Provides Choice: Multiple digital credentials possible.
- Protects Privacy: Fine-grained consent for ID data sharing.

Data source providers (Governments, Financial institutions, Telcos,...)

- Revenue: Monetize through authentication and future services.
- Brand: Exposes IdP brand to user in an additional trust provider role.
- Security: Improves overall system security.
- Integrate Once: Network participation sets Unified framework for market engagement.

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USE CASES



USE CASE: UK IDAP PROOF AND HOLDER VALIDATION

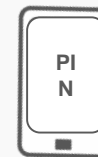
Safran Identity & Security has been awarded in 2015 to support the UK Govnt to verify the identity of the user and defined level of confidence to expand the delivery of online services



By March **2016** all online services requiring an identity to be using the **GOV.UK Verify tool**.



Data captured checked to validate the **Identity assurance level**.



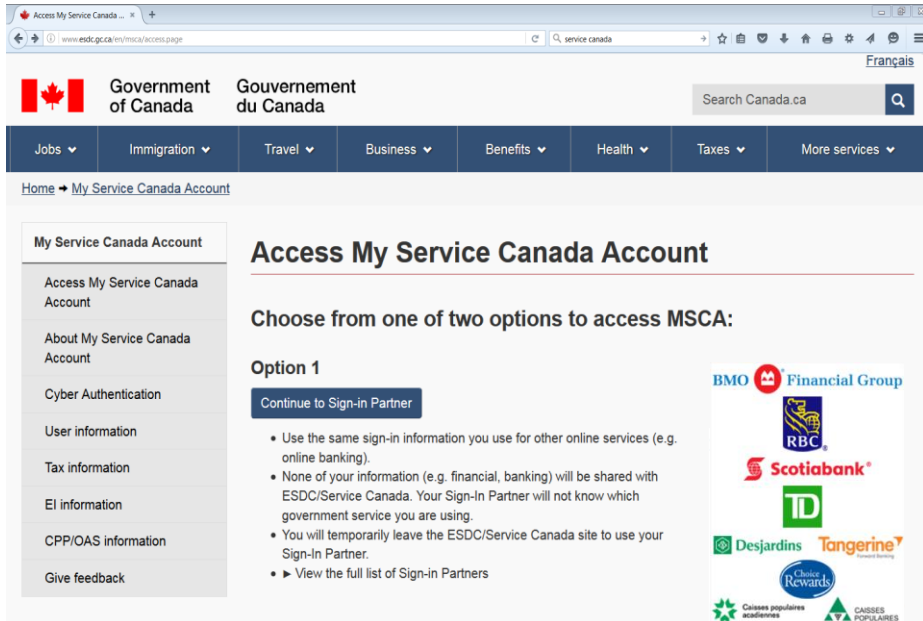
A future real **2-factor authentication** using the smartphone and PIN.



Users are empowered and in **control of their ID**. Their digital ID in their pocket.

USE CASE: CANADIAN FEDERATION

Safran's Digital ID Platform supports the largest federated credential service in the world using Canadian Financial Institutions as trusted identity providers.



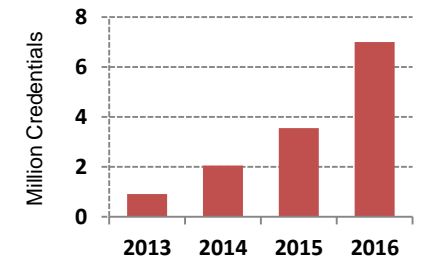
>80 online applications, including CRA (taxation), Services Canada



Convenient, privacy enhancing, using credentials people already have and trust.



Significant government savings coming from lower credential management operating costs.



- 390% growth '13 -'15
- Adding 200-400K new credentials per month

USE CASE: ALBANIA

Identity services for the public & private sector

The eALEAT platform enables Albanian citizens which have an ID Card and a biometric card reader to authenticate with a service or to sign a PDF document from home.



First Service provider, which is the QKR/NRC to **digitally sign official documents**



Authentication factors:

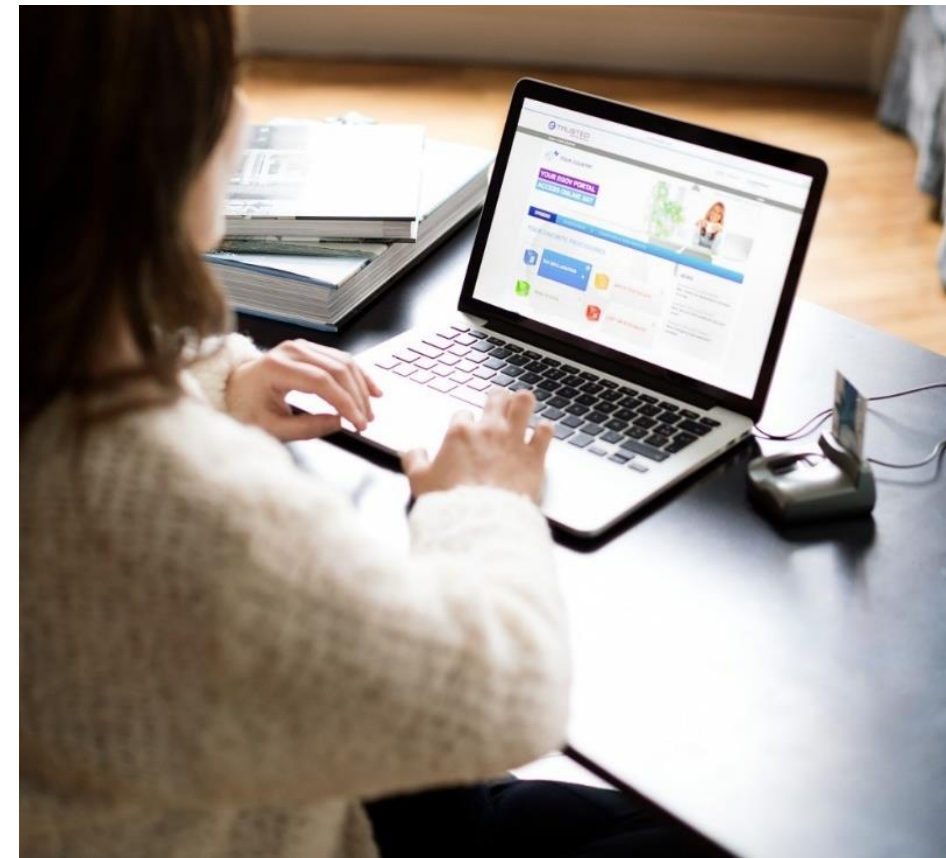
- PIN + certificate on chip
- Fingerprint (MoC) + certificate on chip



Service provider could also requests an authentication



SaaS mode



USE CASE: GROUPE BPCE

A unique trust platform to authenticate end-users



2nd largest banking group in France since 2009



Solution built around a Safran **versatile trust platform**



Around **900.000 versatile authentications** per day



Authentication to secure:

- BtoB **cash management** operations
- BtoC **online purchase**
- BtoB and BtoC **online banking**
- BtoC omnichannel **online contracting**



POWERED BY TRUST
