pitney bowes

General Data Protection Regulation (GDPR)

Major changes and <u>technical challenges</u>

Håkan Karlsson, Pitney Bowes Software, April 2017

Pitney Bowes?

Pitney Bowes: *IDENTIFY, LOCATE, COMMUNICATE*

Customer Information Management
- Customer Analytics
- Data Management & Integration
- Data Quality
- Maintenance & Support
- Professional Services

Location Intelligence
- Asset Management
- Enterprise Location Intelligence
- Geographic Information Systems
- Location & Business Data
- Location Based Services
- Maintenance & Support
- Market Analytics
- Professional Services

Customer Engagement
- Communication Archiving Solutions
- Contact Center Automation
- Customer-Engaged Billing
- Customer Lifecycle Management
- Customer Self Service
- Digital Document Delivery Platform
- Maintenance & Support
- Mover Marketing
- Production Intelligence
- Professional Services

Shipping & Mailing
- Address Management
- Domestic Shipping
- Ink & Supplies
- Inserting
- Management & Tracking
- Online Postage
- Outsourced Mailing Services
- Parcel & Mail Sorting
- Postage & Carrier Accounting
- Postage Management
- Postage Meters
- Print & Mail Production Management
- Printing
- Production & Finishing
- Productivity Solutions

Global Ecommerce
- Cross-Border Shipping

From physical post to digital communication, adding data management:
- Name, address, personal data
- Location analysis

DISCLAIMER

This presentation by Pitney Bowes is to highlight a subject of general interest and **does not constitute any legal advice** or apply to specific circumstances

WHY GDPR?

Increased Processing of Personal Data

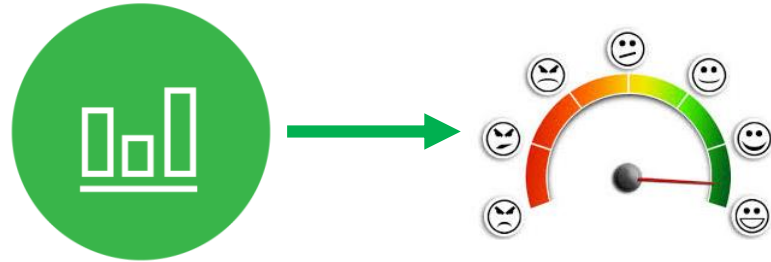Enrichment

Profiling

Outsourcing

Cloud

Customer Analytics

Social Media

Big Data, IoT, ML, AI …

From **Statistics** to **Sentiment**

From **General trends** to **Individual**

Increased Impact on Privacy

Your personal coupons this week

Some of the changes with GDPR

Unified law across the EU/EEA

Strengthened control for the individual

Consent and Opt-out

Roles and responsibilities

Audits and Sanctions

Challenging changes for Data Controllers and Processors

"This will potentially be even worse than the Y2K challenge"
Information Age, November 2016

"All organisations should reserve at least 2 % of their global turnover"
Kim Hindart, City Network, May 2016

"Companies who take the lead will be winners in Customer Satisfaction as well as Employer Brand"
Håkan Karlsson, Pitney Bowes, April 2017

"33 % report they are prepared, 39 % are unprepared and 28 % just don't know"
ComputerSweden, October 2016

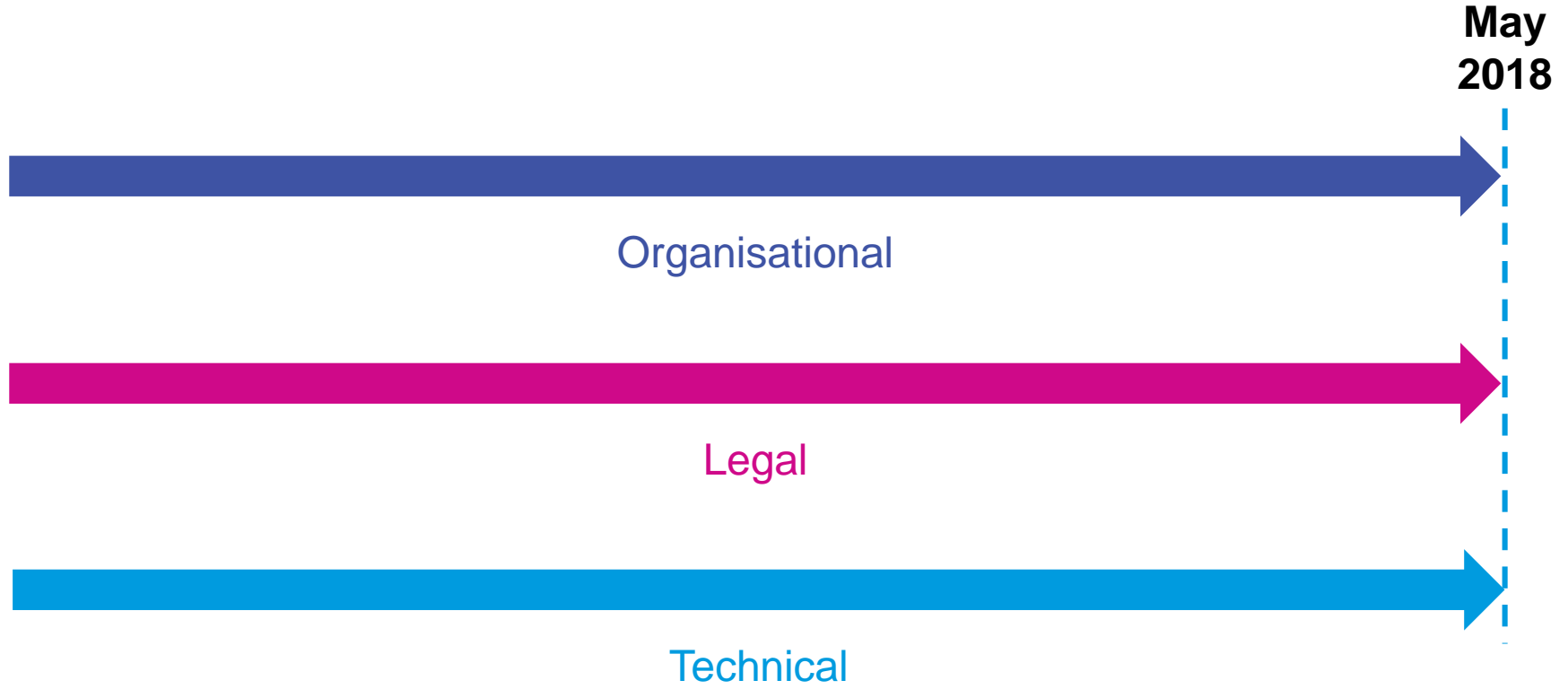"We estimate the need for an additional 28,000 Data Protection Officers"
Computer Business Review, november 2016
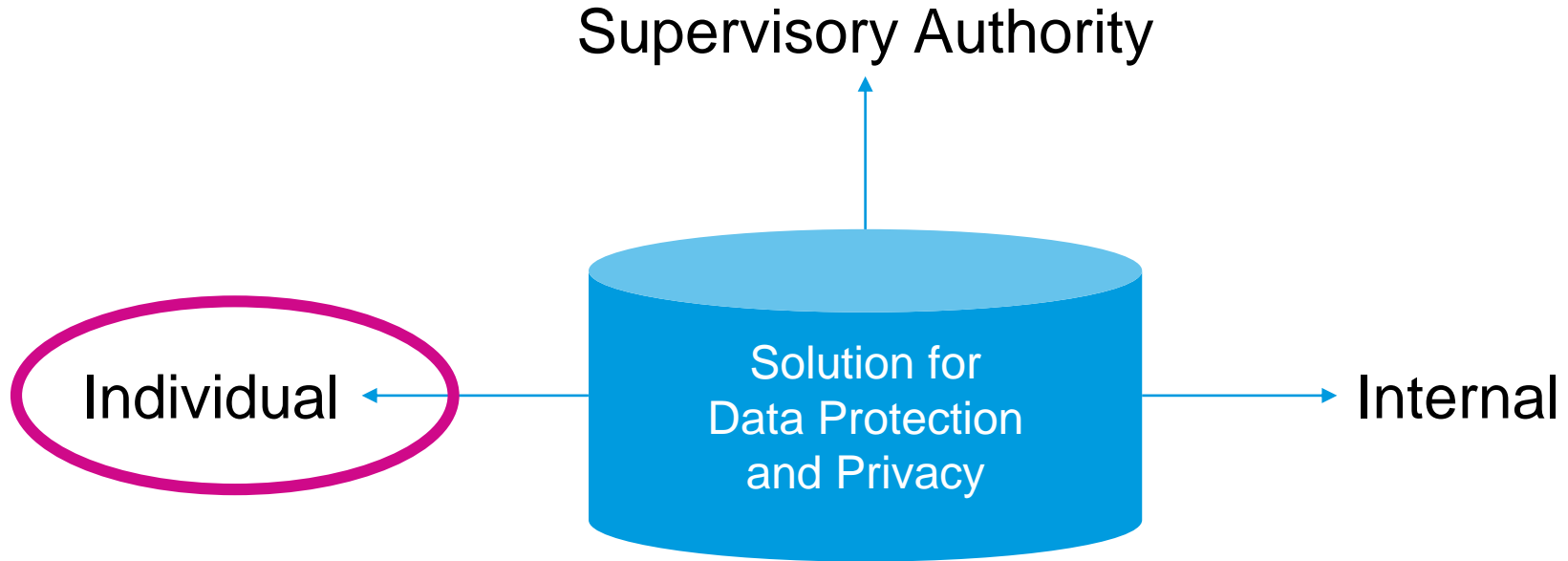
TECHNICAL CHALLENGES WITH GDPR

Key areas in GDPR affect technical capabilities

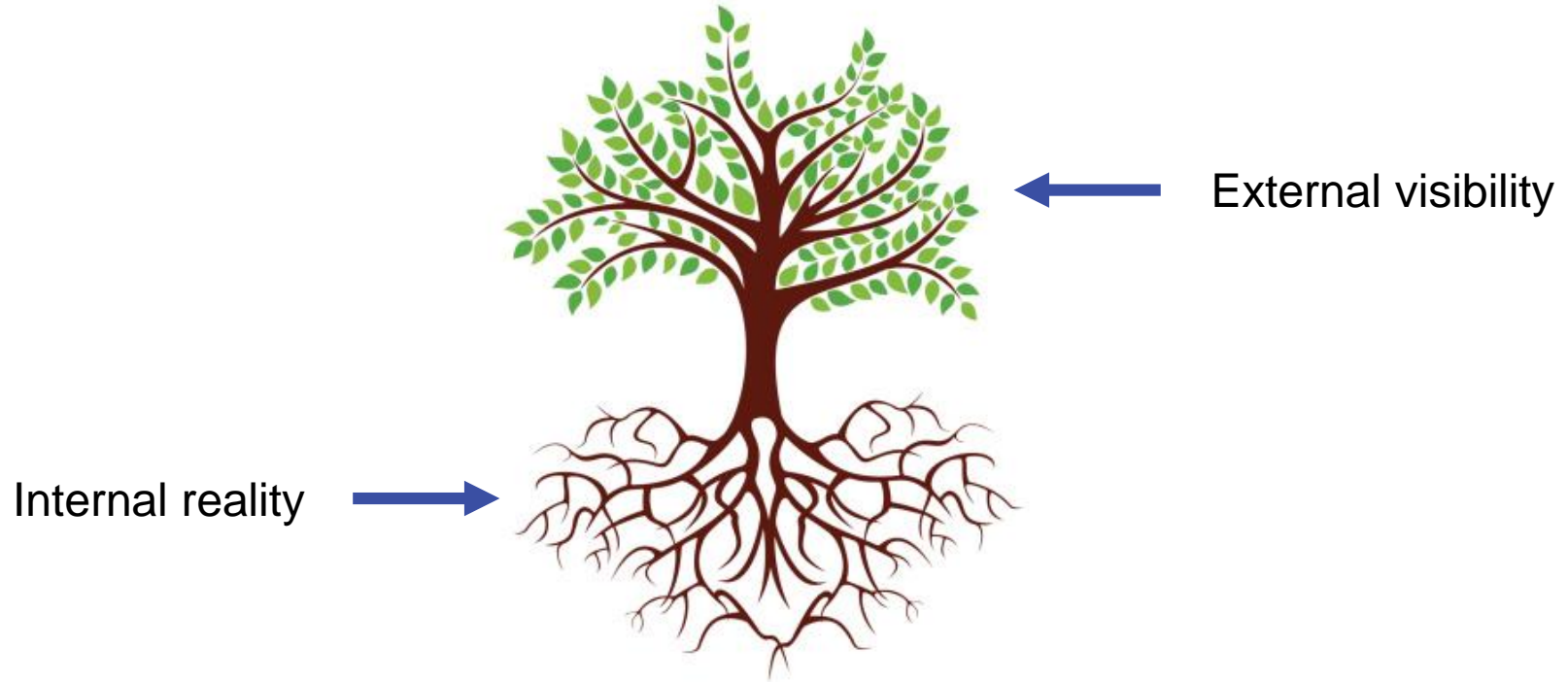| Key Theme	Regulation
Data Accuracy, Data Minimization, Data Security	Article 5
Conditions for Consent	Article 7
Information and Access to personal data	Articles 13-15
Right of Rectification	Article 16
Right to Erasure (*Right to be Forgotten*)	Article 17
Right to Restriction of Processing	Article 18
Notification Obligations (at rectification, erasure, restriction)	Article 19
Right to Data Portability	Article 20
Right to Object (Profiling, Direct marketing)	Article 21
Data Protection by Design and Default (Pseudonymisation, Data Minimization)	Article 25
Record of processing Activities	Article 30
Security of Personal Data, Notifications of a Data Breach	Articles 32-34

Compliance through parallel work

May 2018

Organisational

Legal

Technical

Answer to several stakeholders

Supervisory Authority

Individual

Solution for
Data Protection
and Privacy

Internal

An organisation has an organic reality

External visibility

Internal reality

Challenge 1:

WHERE and WHAT?

Internal Reality:
Many types of sources hold personal data

File systems

Databases

Cloud Services

Unstructured
Text

Business
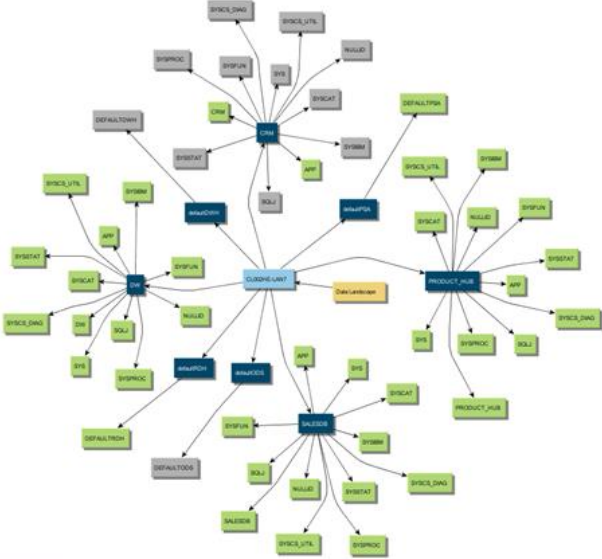Systems

Document
Archives

Inventory and classification of personal data

Data that **identifies the individual**, for example:

    Name and address
    Social Security number
    Phone number, e-mail, user names
    Account number, Customer ID
    Hardware ID (IMEI, MAC)
    IP address
    Geo-location, trace
    Unique combination of generic data

Data types **specifically mentioned:**

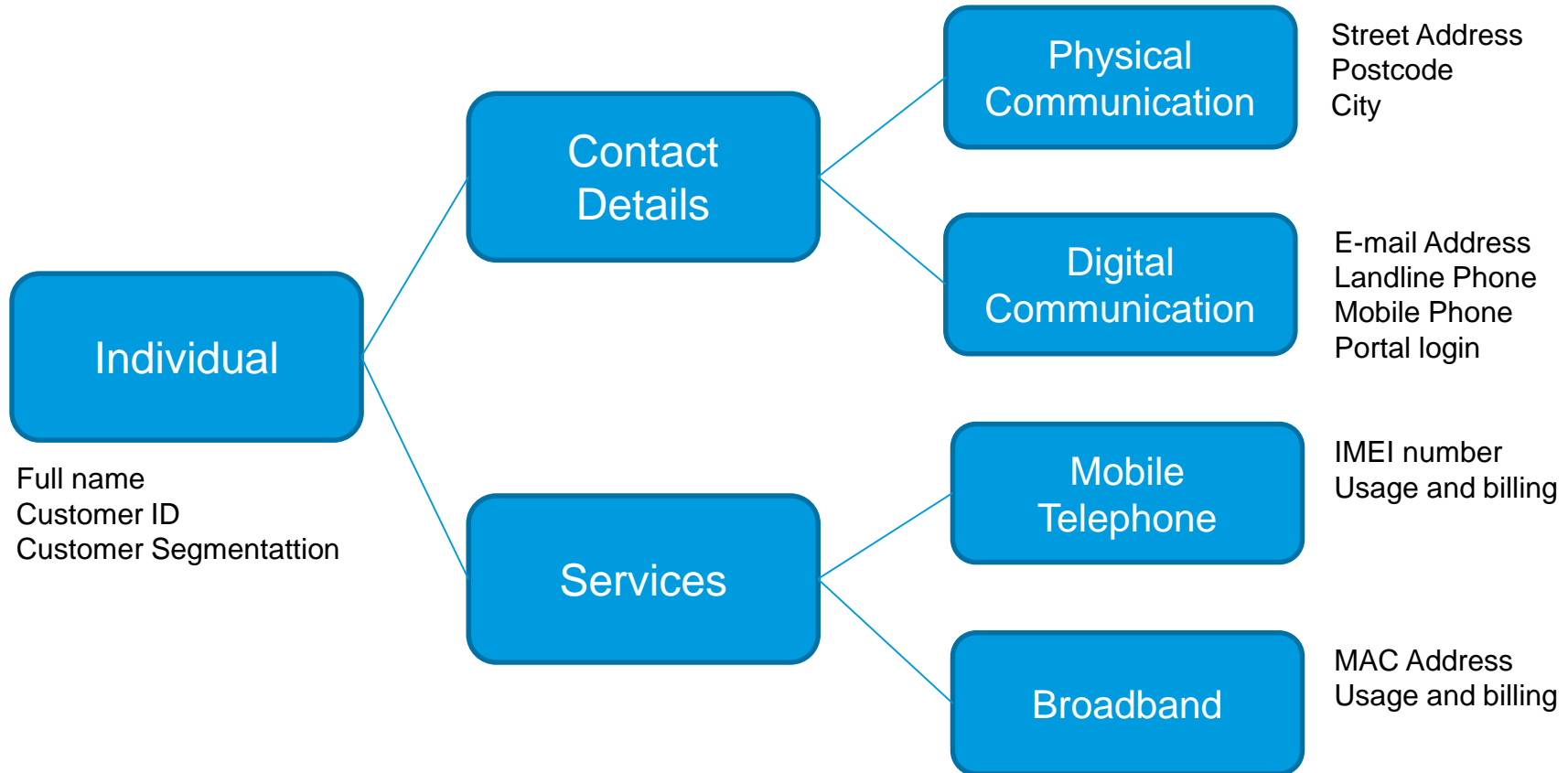Biometric   Mental   Economic   Cultural   Social

Challenge 2:

A COMPLETE VIEW
of all personal data

"Single View"

A comprehensive and interconnected **model of all personal data** across the organisation

Modelling the relations of all personal data
- now and in the ever changing future

Individual

Full name
Customer ID
Customer Segmentattion

Contact Details

Physical Communication

Street Address
Postcode
City

Digital Communication

E-mail Address
Landline Phone
Mobile Phone
Portal login

Services

Mobile Telephone

IMEI number
Usage and billing

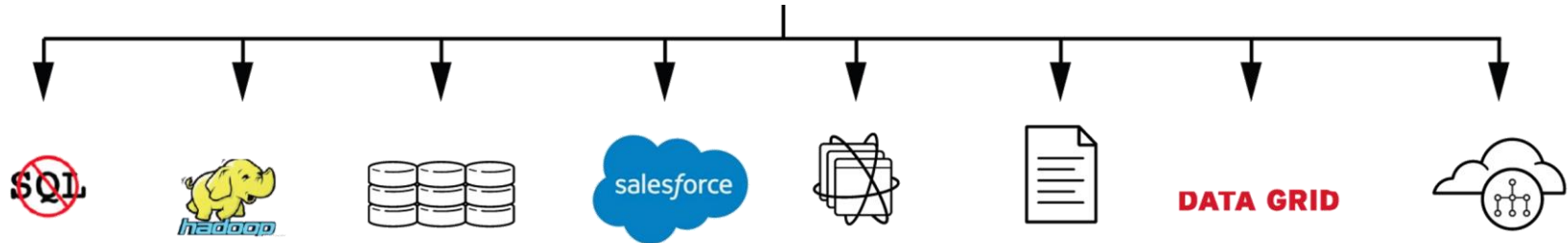**Broadband**

MAC Address
Usage and billing

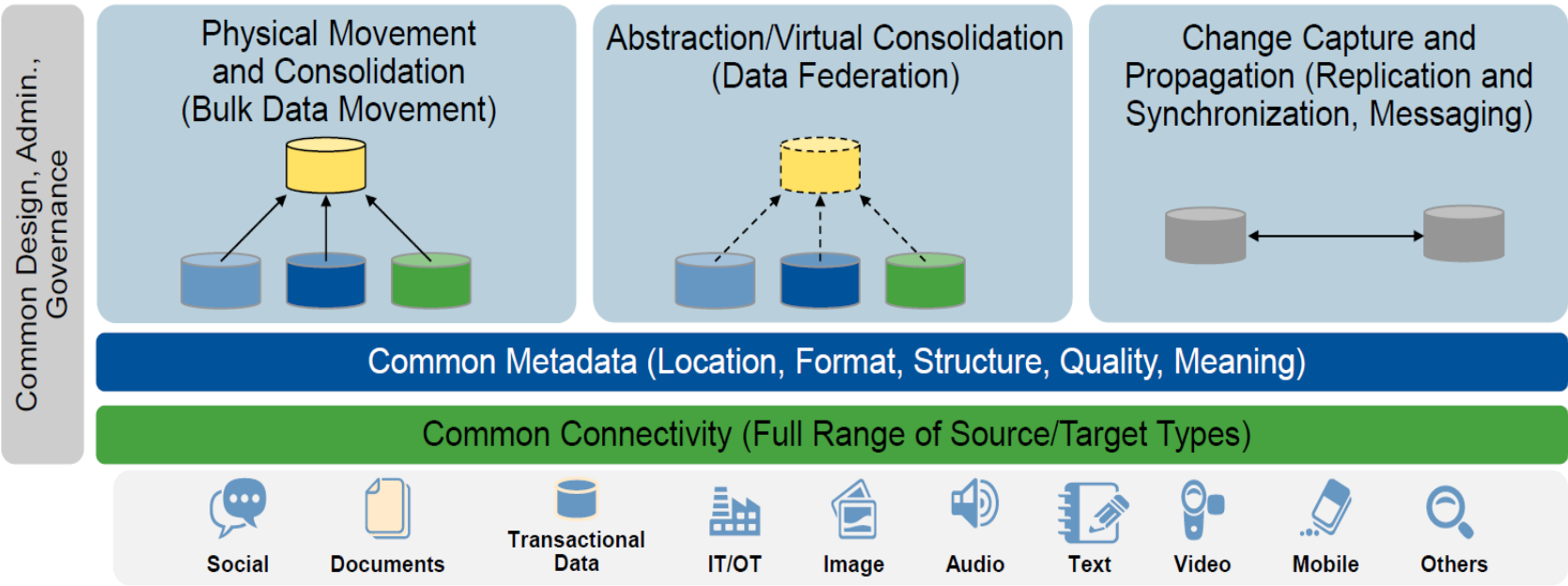# Integrating personal data from any source

We may be confident with:
- CRM and ERP
- SQL Databases
- Data Warehouse

But we also need to manage:
- Legacy systems
- Marketing systems
- Document archives
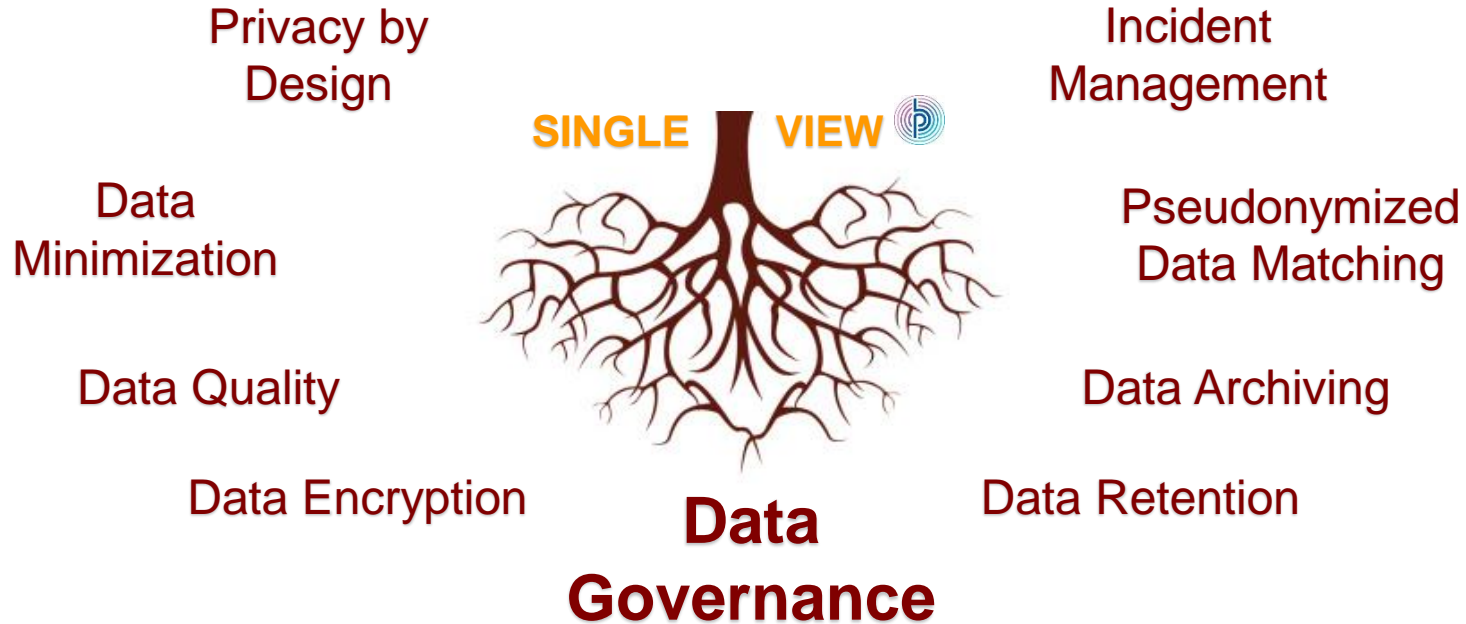- File systems
- Social Media
- Big Data
- Mergers & Acquisitions

Matching capabilities for selected MDM strategy

Challenge 3:

SECURE all the personal data
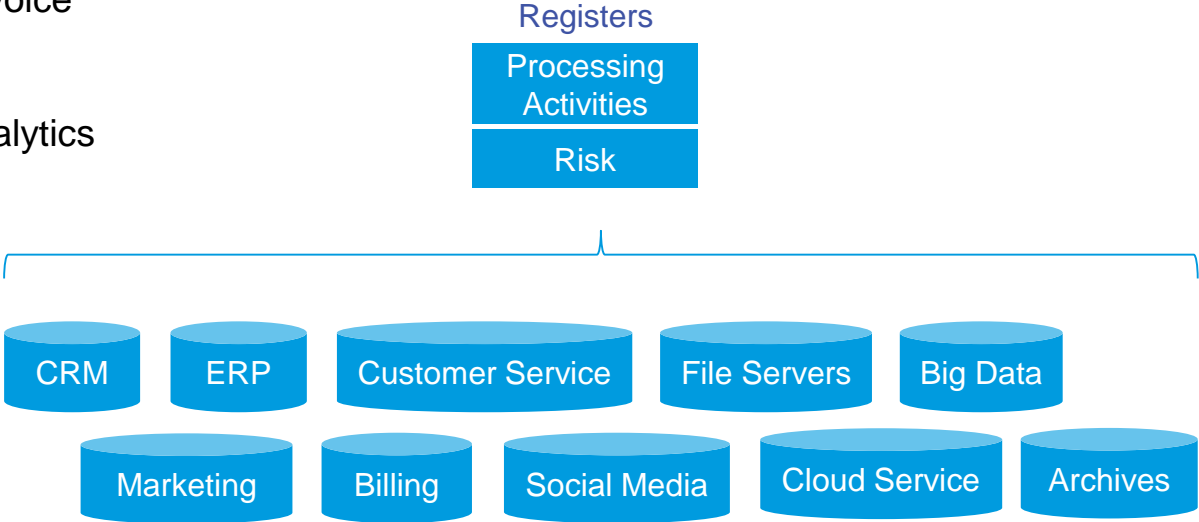
Data governance (articles 5, 25, 30, 32, 35)

Privacy by Design

Incident Management

Data Minimization

Pseudonymized Data Matching

Data Quality

Data Archiving

Data Encryption

Data Retention

SINGLE VIEW

Data Governance

Risk Registry covering all processing activities

Process examples
Marketing
On-boarding
Order
Payment / invoice
Shipping
Call centre
Customer analytics

Registers

Processing Activities

Risk

CRM

ERP

Customer Service

File Servers

Big Data

Marketing

Billing

Social Media

Cloud Service

Archives

Challenge 4:

DESCRIBE all the personal data

"Right of Access" includes the actual personal data plus additional information:

What **categories** of data are being processed?
For what **purpose**?
What are the **legitimising reasons** for processing?
What is the **retention time**?
To what extent is **profiling** being carried out?
With whom is the data being **shared**?
What are the **sources** of data not provided by the individual?

A comprehensive view of the rule-sets related to personal data

Risk assessment

Origin

System owner

Legal basis

Purpose

Recipient

Retention time

External contract

Challenge 5:

Provide required SERVICES TO THE INDIVIDUAL

# Services offering transparency to the individual

- **Fair notice**
  - Privacy information at on-boarding and upsell

- **Controlling the personal data**
  - Right of access
  - Rectification
  - Export (*data portability*)
  - Erasure (*right to be forgotten*)

- **View and alter permissions**
  - Withdraw previously given consent at any time
  - Opt-out from profiling and direct marketing at any time

- **Breach notifications**
  - Timely information of any data breach that will pose a risk

- **Queries and complaints**
  - Contact details for privacy queries
  - Method for filing an official complaint

Single View supports required transparency services

Easy Access
to services that allow individuals to gain full control of their personal data
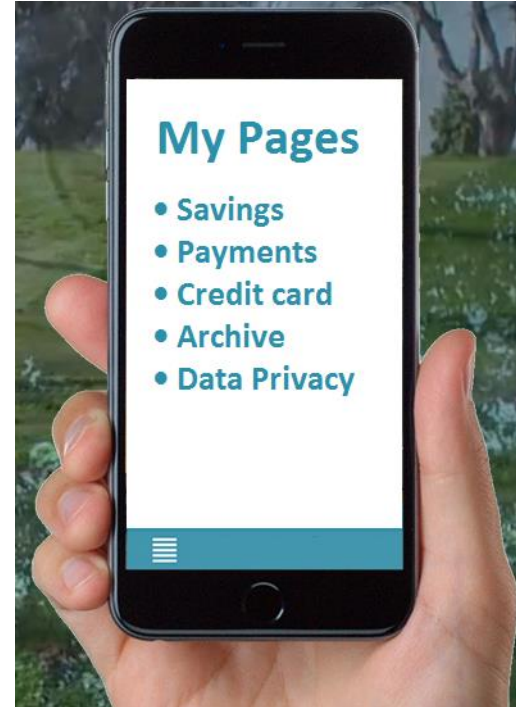
Self-service Portal

pitney bowes (p) | **General Data Protection Regulation**

< Identify   < Details

Your Personal Data that we Store and Why

Listed in the tables below is a list of the personal data that we store about you in our systems and why.

According to the General Data Protection Regulation, you may select any of these data fields and request us to remove them from our systems. When you request for data to be removed from our systems we will explain the context of our obligation to hold this data if applicable.

— Communications Exchanged

Columns...

In / Out	Date	Description	Status	1st Opened	Last Opened	Out of Office	Reply
⊙	Mar 23 2017 17:54:00	Dave: details and next steps for your GRN application (body)	✓				
⊙	Mar 23 2017 17:53:53	Dave: details and next steps for...(SMS)	✓				
⊙	Mar 23 2017 17:53:41	Dave: details and next steps for your GRN application	✓				

+ Contact Information

ocalhost:3000/#

Summary of technical challenges

Data governance + holistic view + services to the individual

Transparency

Privacy by Default

Consent

Opt-in Opt-out

SINGLE VIEW

Export Rectify Erase

Breach Notifications

Audit Reports

Privacy by Design

Data Minimization

Incident Management

Data Quality and Retention

Pseudonymized Matching

Data Governance

Authentication

Public web	Customer ⭐ portal	Phone	E-mail

Digital external access

Closed loop print

Physical Mail	Print Service

Physical external access

Single View of the Individual

⭐ Web Service API

Workflow Design

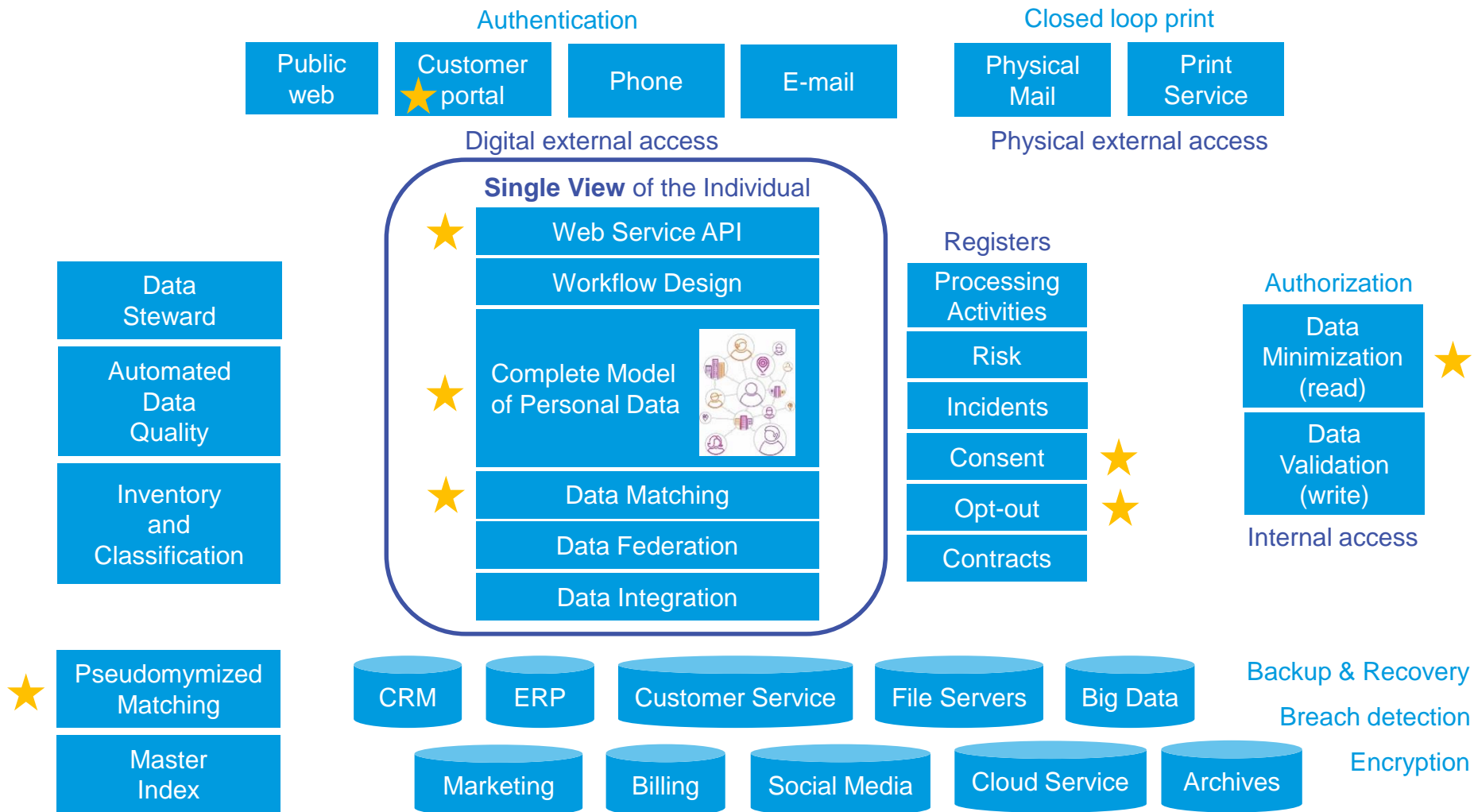⭐ Complete Model of Personal Data

⭐ Data Matching

Data Federation

Data Integration

Registers

Processing Activities
Risk
Incidents
Consent ⭐
Opt-out ⭐
Contracts

Authorization

Data Minimization (read) ⭐
Data Validation (write)

Internal access

Data Steward

Automated Data Quality

Inventory and Classification

⭐ Pseudomymized Matching

Master Index

CRM	ERP	Customer Service	File Servers	Big Data

Marketing	Billing	Social Media	Cloud Service	Archives

Backup & Recovery

Breach detection

Encryption

Where to start?

Assessing the technical challenges with GDPR

1. Map processes, data subjects and personal data

2. Complete model of all personal data

3. Risk registry including PIA (*audit report*)

4. Transparency services (*rights of the individual*)

5. Secure systems based on risk

6. Internal reports

Pitney Bowes Software offerings related to GDPR technical requirements

Key theme	Regulation	PB Software		
Data Accuracy, Data Minimization, Data Security	Article 5	SCV	Ps	DG
Conditions for Consent	Article 7	EOV	IM	
Information and Access to personal data	Articles 13-15	SCV	DSS	Va
Right of Rectification	Article 16	SCV	DSS	DG
Right to Erasure (*Right to be Forgotten*)	Article 17	SCV	DSS	
Right to Restriction of Processing	Article 18	SCV	DSS	
Notification Obligations (at rectification, erasure, restriction)	Article 19	SCV	DD	
Right to Data Portability	Article 20	SCV	DSS	
Right to Object (Profiling, Direct marketing)	Article 21	SCV	DSS	
Data Protection by Design and Default (Pseudonymisation, Data Minimization)	Article 25	SCV	Pse	DG
Record of processing Activities	Article 30	SCV	DD	
Security of Personal Data, Notifications of a Data Breach	Articles 32-34	SCV	DSS	

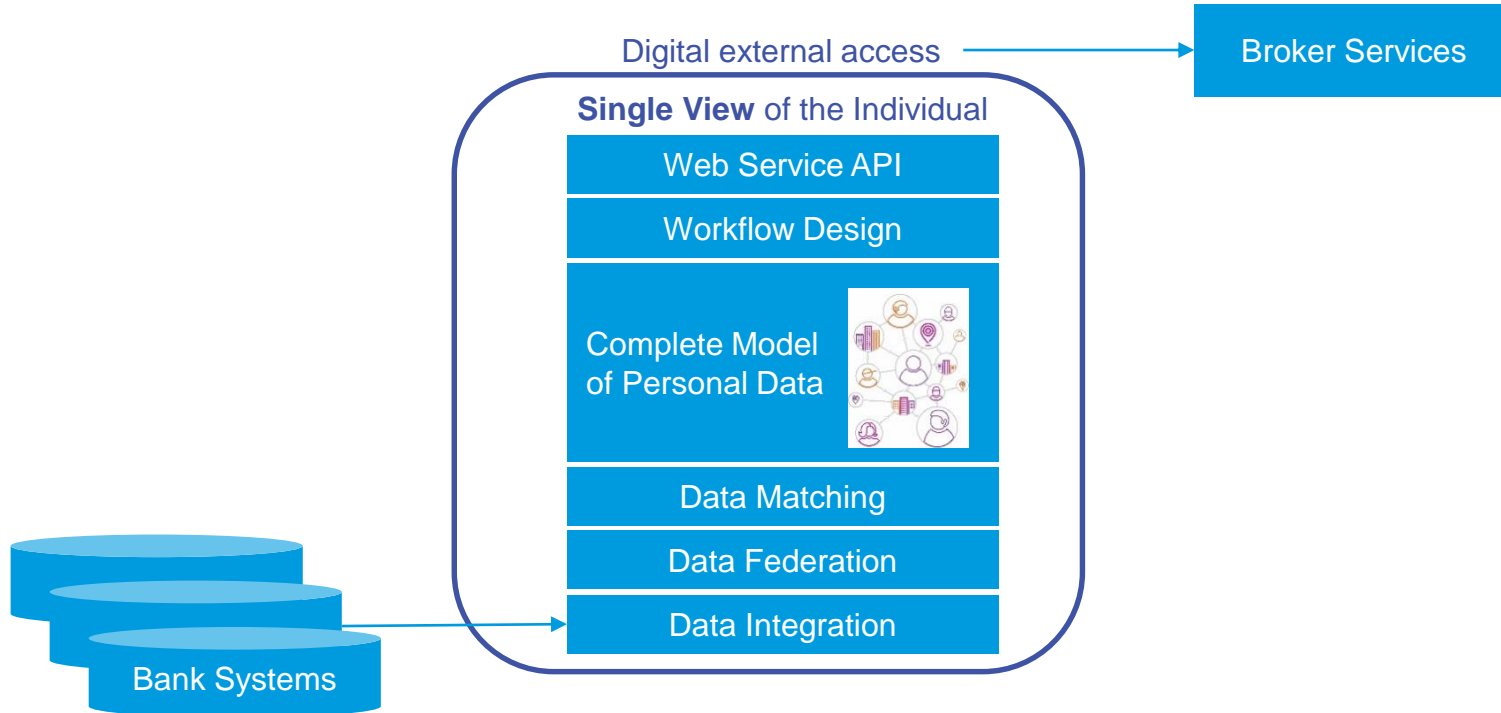|					
SCV	Single Customer View	Ps	Pseudonymisation	IM	Interaction Management	DSS	Digital Self Service
DD	Data Discovery	DG	Data Governance	EOV	EngageOne Video	Va	e2Vault / SmartView

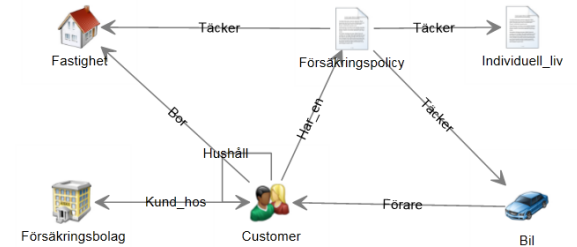# ADDITIONAL BUSINESS VALUES from a SINGLE VIEW
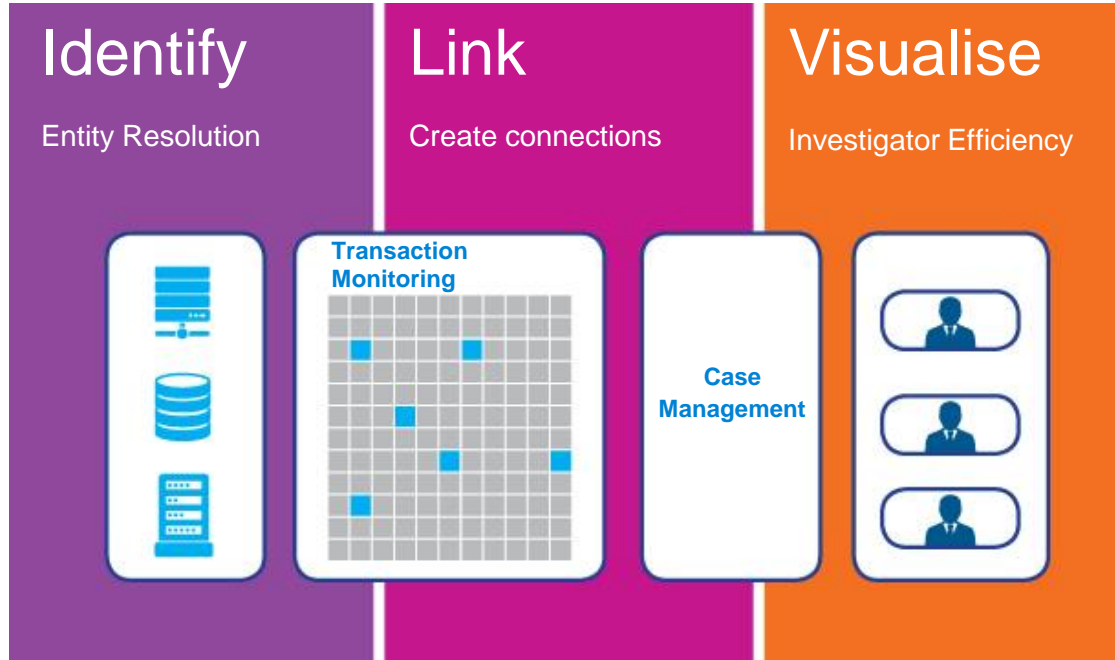
Single View will support:
– Compliance in a broader perspective

For example, PSD2 (Payment Service Directive 2)

Digital external access → Broker Services

Single View of the Individual

- Web Service API
- Workflow Design
- Complete Model of Personal Data
- Data Matching
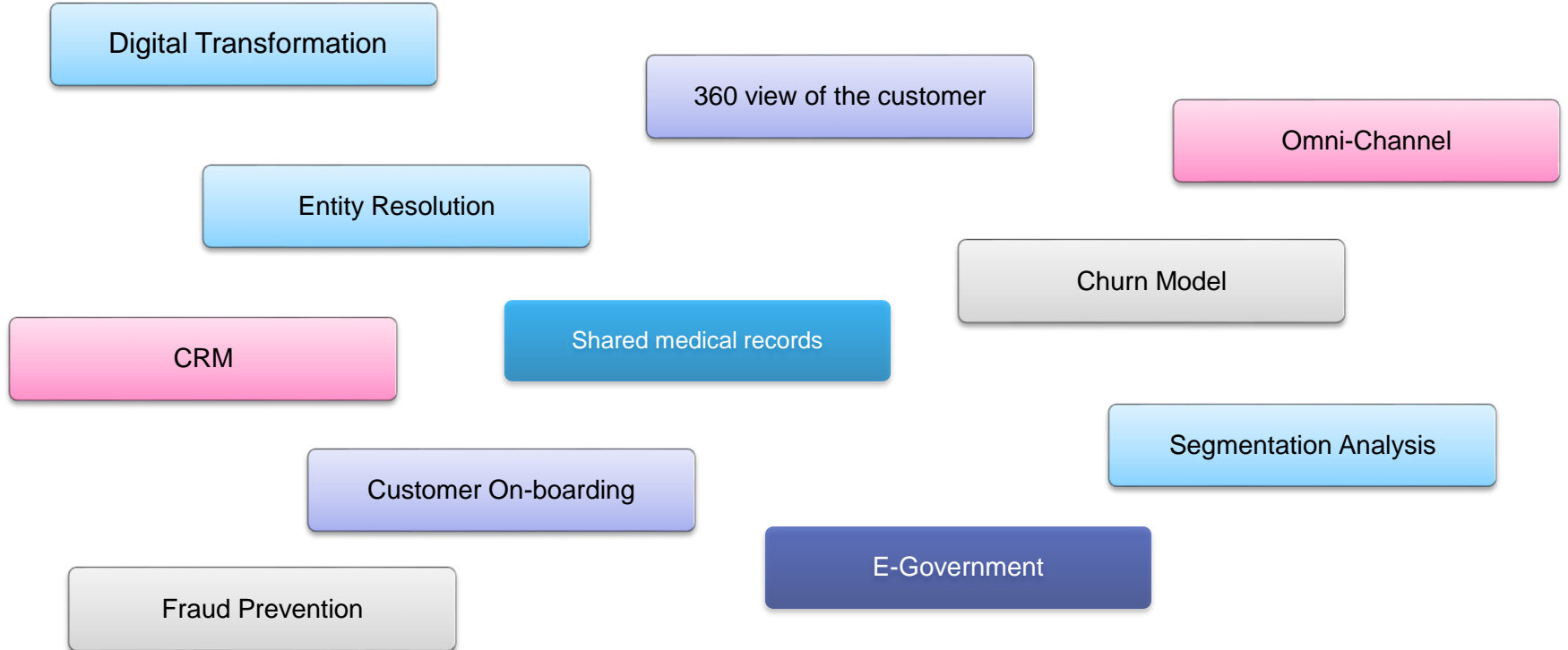- Data Federation
- Data Integration

Bank Systems

Single View will support:
– Advanced Analytics

Single View will support:
– Existing business operations

Digital Transformation

360 view of the customer

Omni-Channel

Entity Resolution

Churn Model

CRM

Shared medical records

Segmentation Analysis

Customer On-boarding

E-Government

Fraud Prevention

THANK YOU!