



EU GDPR – 300 days to comply!

A Personal Data Challenge

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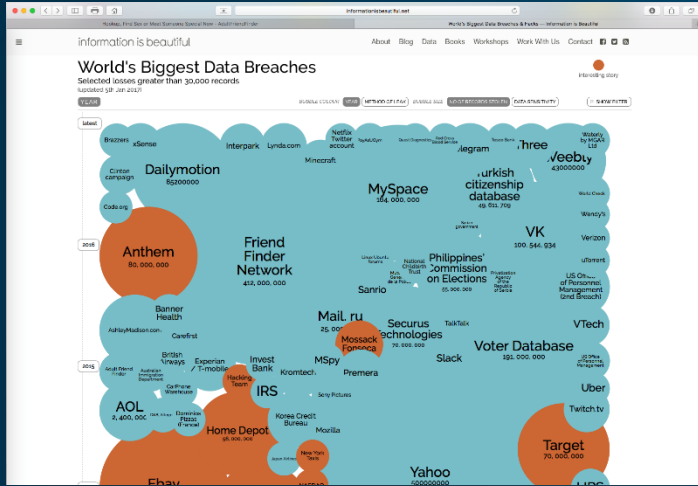
Business Days

Hours

Minutes

Seconds





Ashley Madison – July 2015

- An infidelity website, got its 37 million users leaked to the public by hackers

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TalkTalk fined £400,000 for theft of customer details

5 October 2016 | Business

In May, TalkTalk revealed that the attack had cost it £42m and that 101,000 subscribers had left in the aftermath of the attack.

UK 11 charities issued with In...

<https://fundraising.co.uk/2017>

11 charities issued with Intent to Fine notices by ICO

Posted by Melanie May on 31 January 2017 in News

1 Comment

24/7 WALL ST

Business | Technology | Investing | Economy | Special

Data Breaches Up 15% to Date in 2016

By Paul Anusik, September 9, 2016 7:50 am EDT



EU GDPR

- The impact on your Data Strategy
- SAS Approach and Solution
- Where to start?

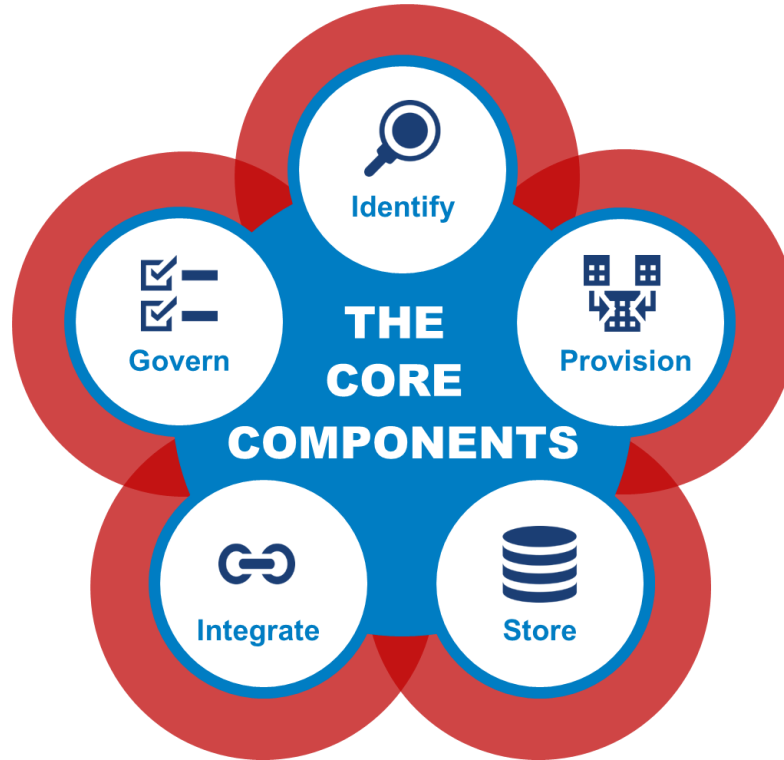


66% of the 366 Global IT surveyed companies **were reviewing their business strategies** in Europe and **60% believe will be fined**, all as a result of GDPR !

Ovum, December 2015

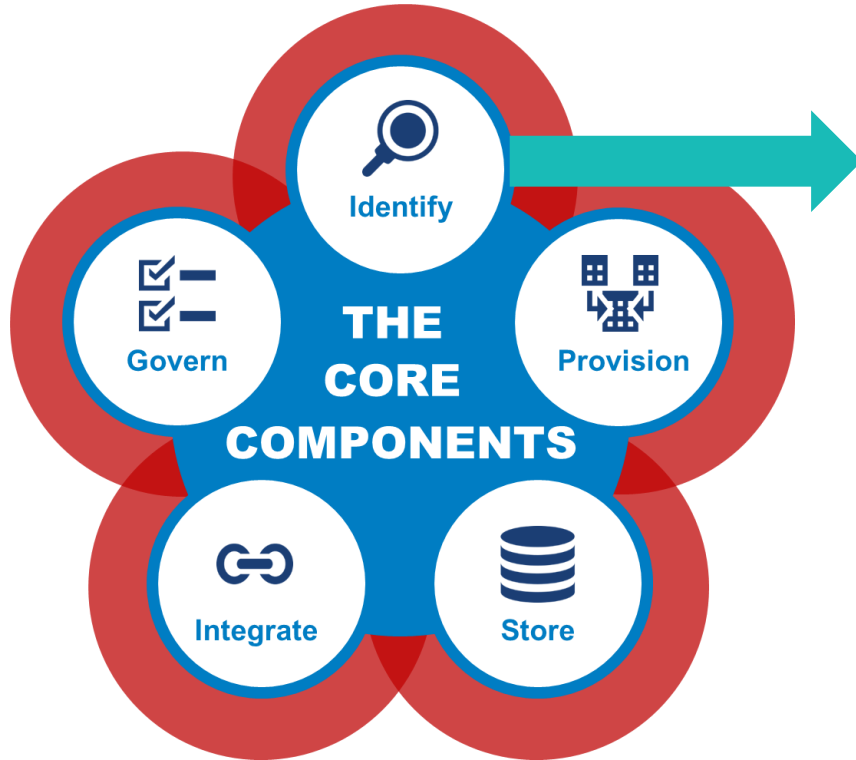
The 5 Components of a Data Strategy

The impact of the EU GDPR



The 5 Components of a Data Strategy

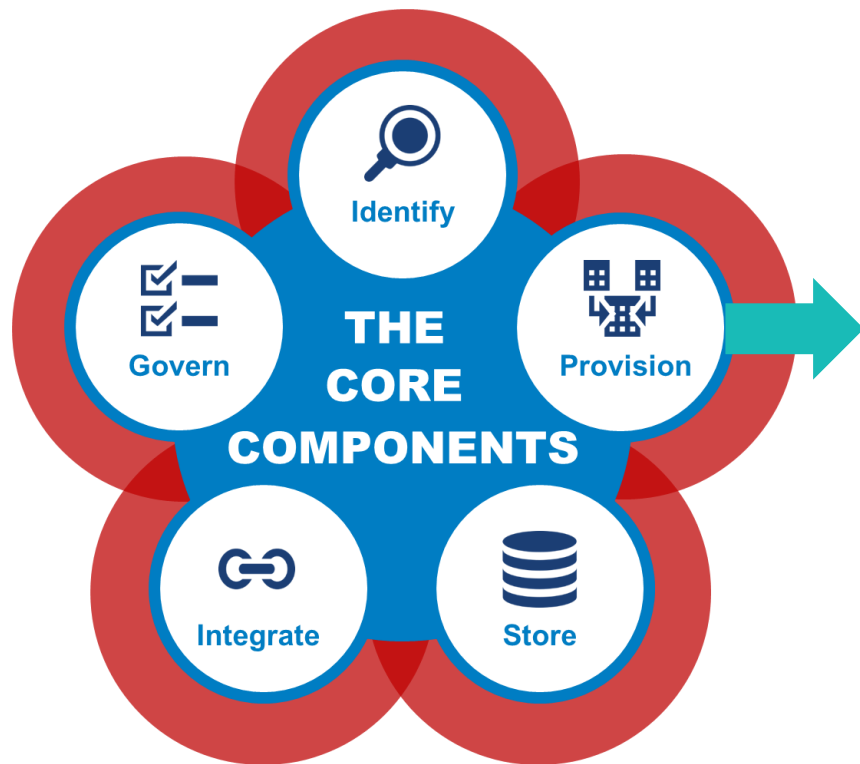
The impact of the EU GDPR



- How to identify personal data across data sources?
 - Structured and un-structured
 - At rest and in motion
- How to assess risk exposure?

The 5 Components of a Data Strategy

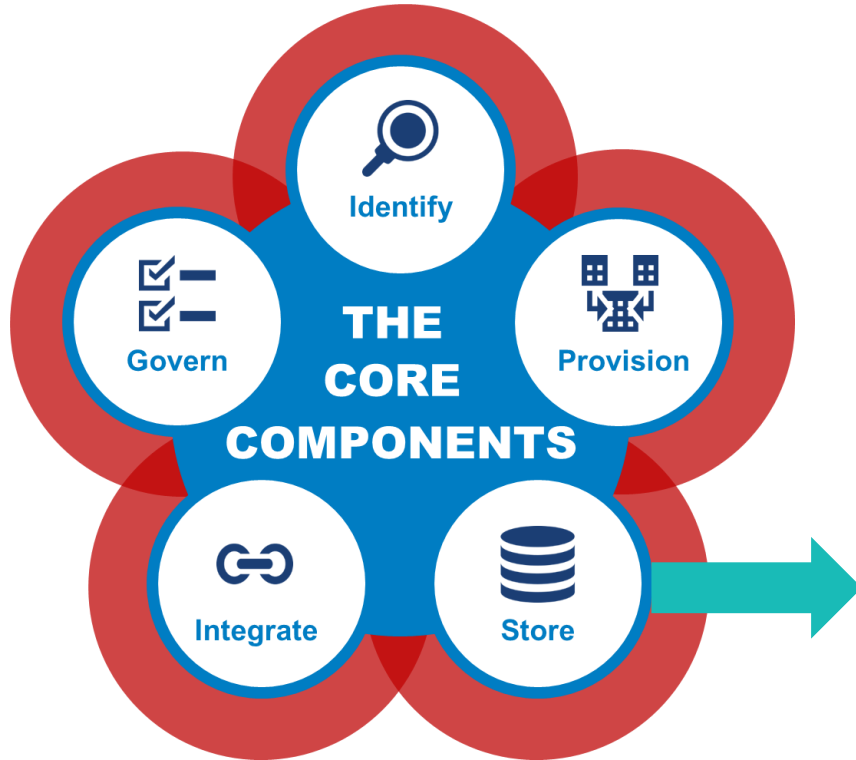
The impact of the EU GDPR



- Who has access to what personal data? For what purpose? For how long?
- Do we have the consent of the individuals represented in data sets?
- How to protect the data based on users and context (anonymization, pseudonymisation, encryption)?

The 5 Components of a Data Strategy

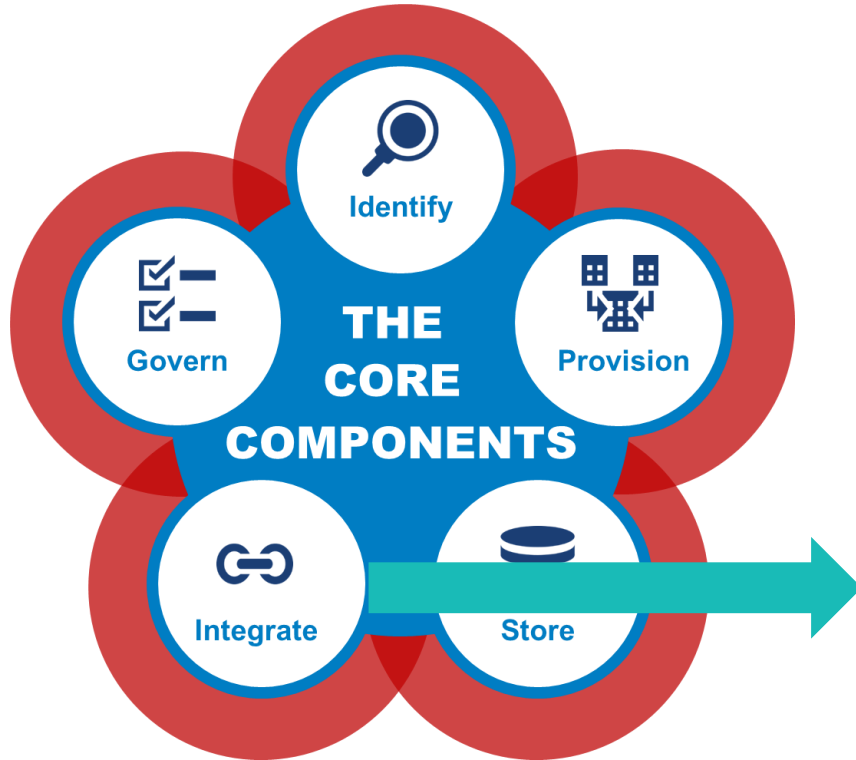
The impact of the EU GDPR



- Where is personal data stored across data sources?
- What are the retention rules?
- What data is held about an individual?

The 5 Components of a Data Strategy

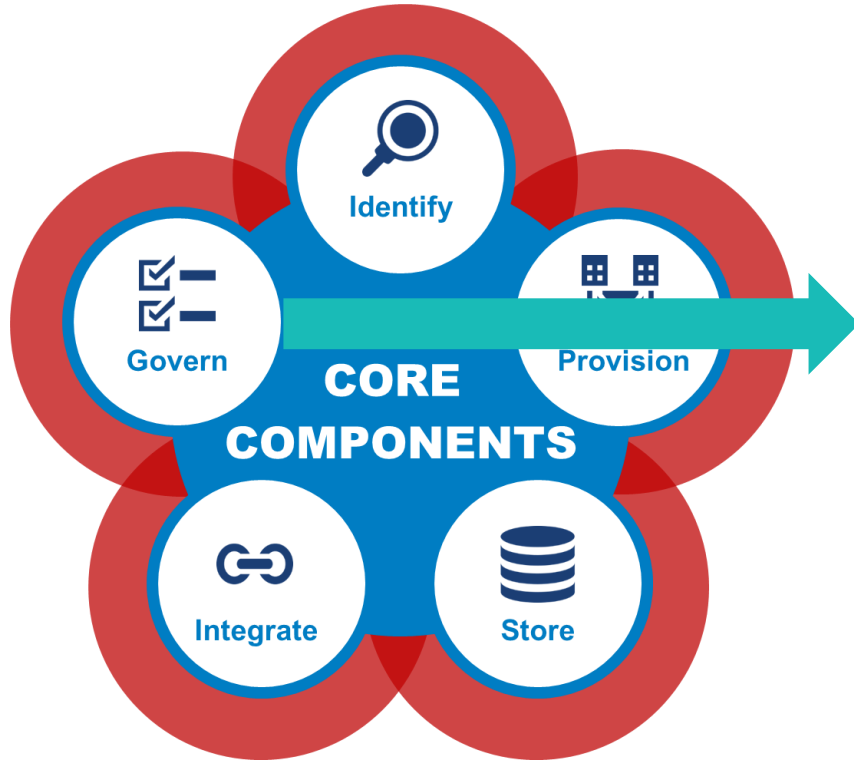
The impact of the EU GDPR



- Where does personal data flow across systems/applications?
- How to ensure data portability?
- How to support right to be forgotten?

The 5 Components of a Data Strategy

The impact of the EU GDPR



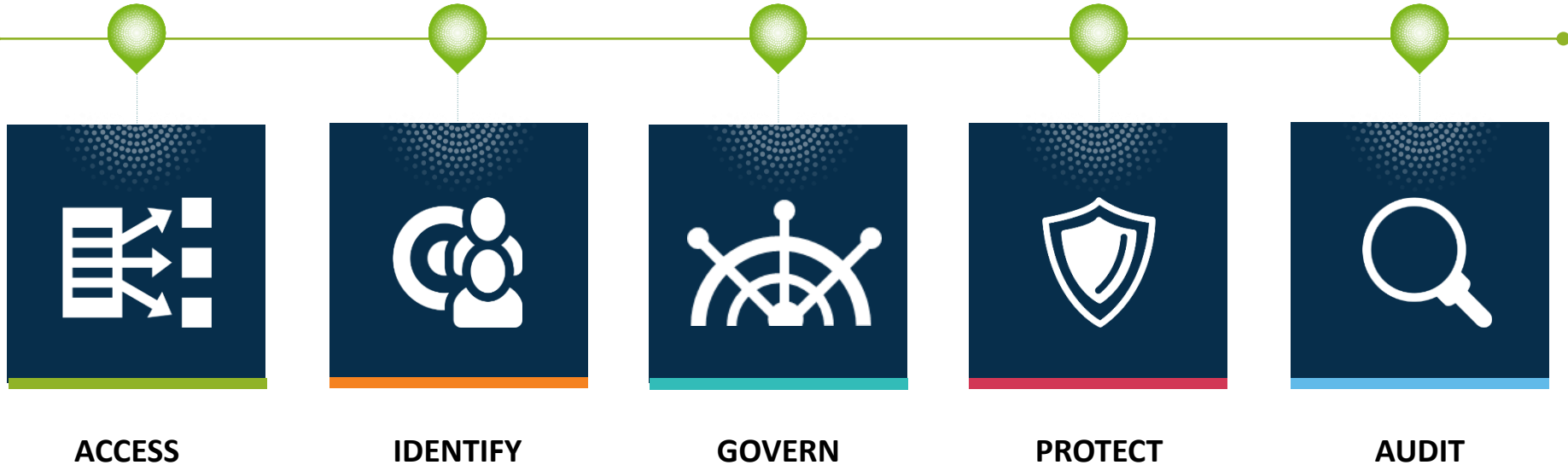
- How to manage personal data lifecycle?
- What are the access rights for each user group?
- What consent do we have from individuals?
- How to report on compliance?



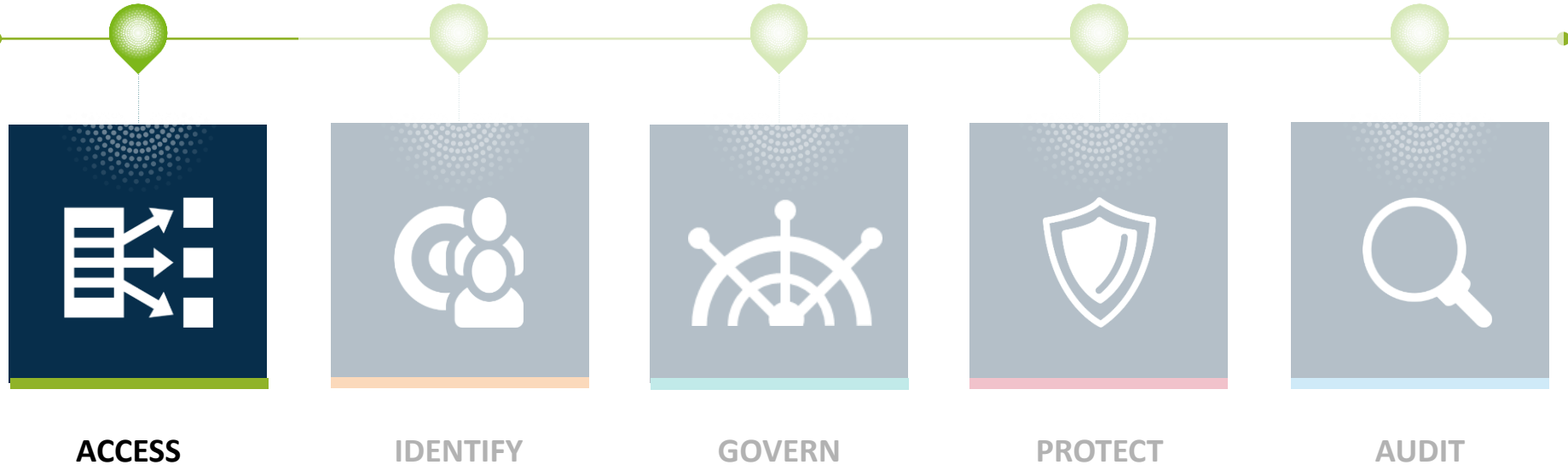
In the middle of difficulty
lies opportunity.

Albert Einstein

5-Step Approach for Sustainable Compliance



5-Step Approach for Sustainable Compliance



52% of all data stored is "dark data"

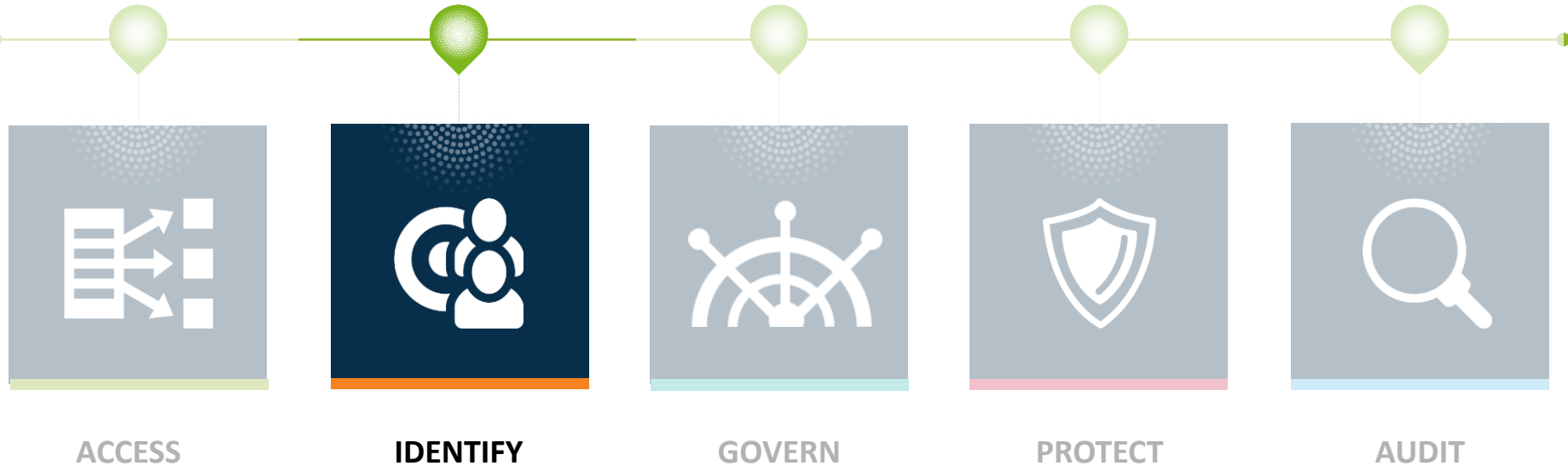
Source: Veritas

Personal Data is in all kind of data sources

- Access to any kind of Relational and Non-Relational Sources
- Unstructured and Big Data Integration
- Apply Enterprise-wide Security Policies
- Simplify the Security & Governance effort



5-Step Approach for Sustainable Compliance



33% of all non “dark data” is redundant, obsolete, or trivial

Source: Veritas

What is

Personal Data



Confidential Data



[Identify Person]

Name

Home Address

Business Address

Identity Card No

Passport No

Driving License

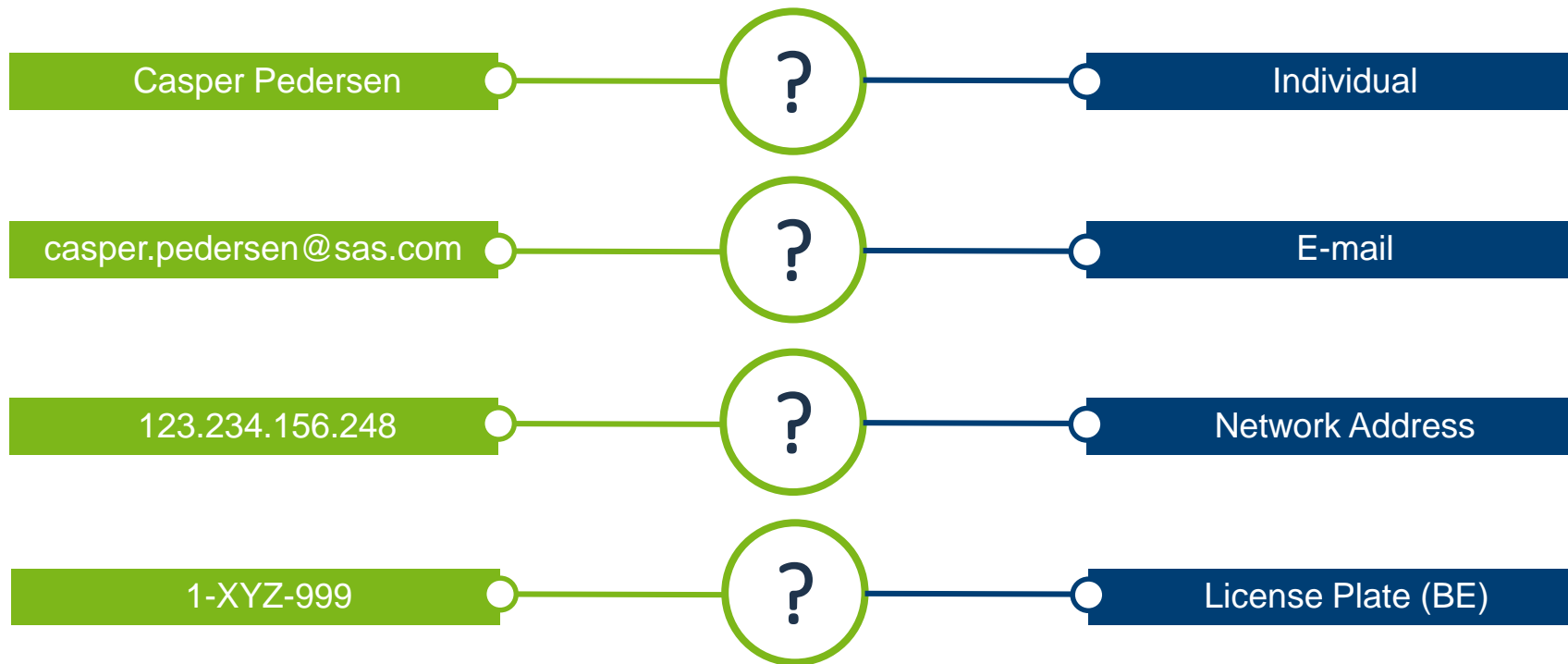
Income Tax No

Car Registration

Other

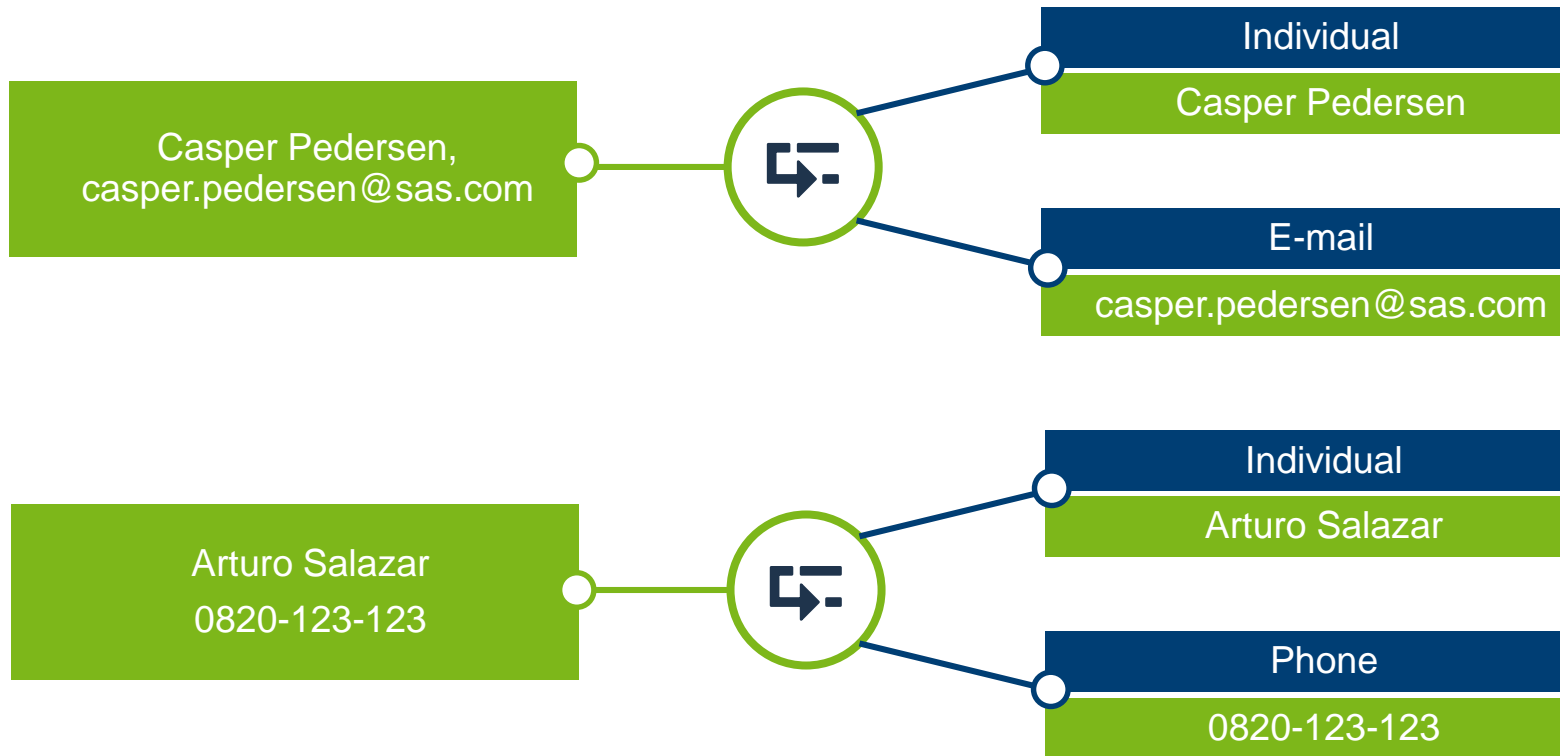
Personal Data Identification Analysis

Categorize the Information



Personal Data Discovery

Extract Information to Personal Data Attributes



Personal Data Discovery

- Example: Extracting social security numbers using the Quality Knowledge Base for Personal Data.
- The same technique applies for **ALL** Personal Data Types ...
- Easily find Personal Data where data is mixed and messy

The screenshot displays two SAS software interfaces. The top window is the 'SAS Federation Server Manager - Console', showing a list of functions including 'CHECK_ERR', 'DQEXTRACT', and 'DOGENDER'. The bottom window is 'Data Management Studio 2.7', which is running a workflow titled 'Find Social Security Numbers in Unstructured Data'. The workflow includes nodes for 'Job Specific Data 1', 'Field Extraction', and 'Branch 1'. The 'Field Extraction' node is currently active, showing a list of personal data records with social security numbers highlighted in yellow.

#	PERSON
1	Hans Jørgen Knudsen 0102030123
2	101011234 Petra Sørensen
3	1212300001
4	Peter 102701741
5	Hanne 9999999999 Hansen
6	H.C. Hansen 040340-1235
7	01 01 01 1234 Hanne Sørensen
8	01 01 01 1234 100 år Hanne Sørensen
9	10101-1234 Hanne Sørensen
10	01 01 01 1234 100 år Hanne Sørensen
11	100 årige 01 01 01 1234 - 1234 Hanne Sørensen
12	Hr. montør Anders Andersen 990203-2345
13	Jens Hansen 0102034567 Vestergade 17 1150 København K
14	Jens Hansen 0102034567 Vestergade 17 1150 København K
15	Jens Hansen 010203-4567 Vestergade-17-1150-København-K

Find **Personal Data** in Unstructured Documents

Process

1

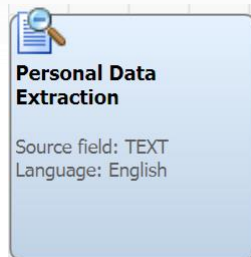
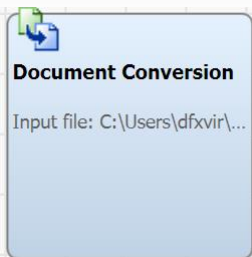
Convert
Document into
Readable Flow

2

Categorize &
Extract Personal
Data

3

Aggregate &
Present Results



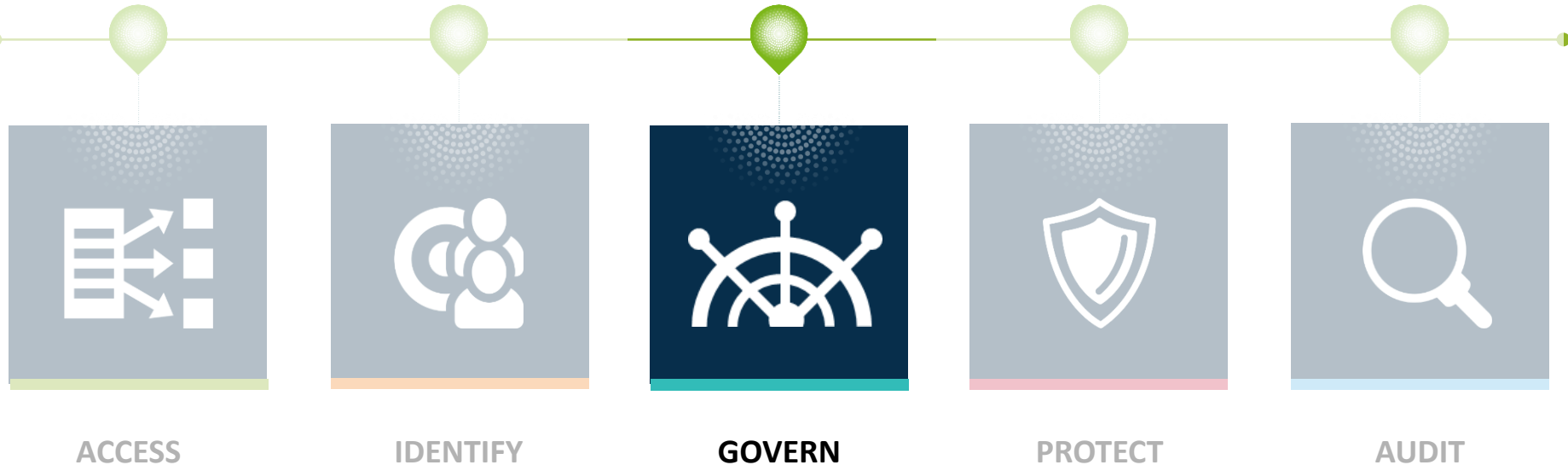
TAG	COUNT	FREQ	TOTAL
VEHICLE	1	0	22470
TITLE	164	0.73	22470
TIME_PERIOD	54	0.24	22470
PROP_MISC	9078	40.4	22470
PHONE	877	3.9	22470
PERSON	1356	6.03	22470
ORGANIZATION	520	2.31	22470
NOUN_GROUP	396	1.76	22470
MEASURE	4	0.02	22470
LOCATION	7915	35.22	22470
DATE	707	3.15	22470
COMPANY	410	1.82	22470
ADDRESS	988	4.4	22470

Personal Data Extraction from Unstructured Documents

A very simple example



5-Step Approach for Sustainable Compliance



60% of the organisations believe they will be fined, all as a direct result of GDPR

Source: OVUM, Dec. 2105 (366 Global IT organisations)

GDPR requires to leverage **Personal Data** as a corporate asset through the formal orchestration of

People

DPO, Processor, Controller,
Subject, Accountability



Processes

Data Acquisition, Transfer, Analysis,
Breach, Alteration, Destruction,
Retention, Minimization, Consent
Management



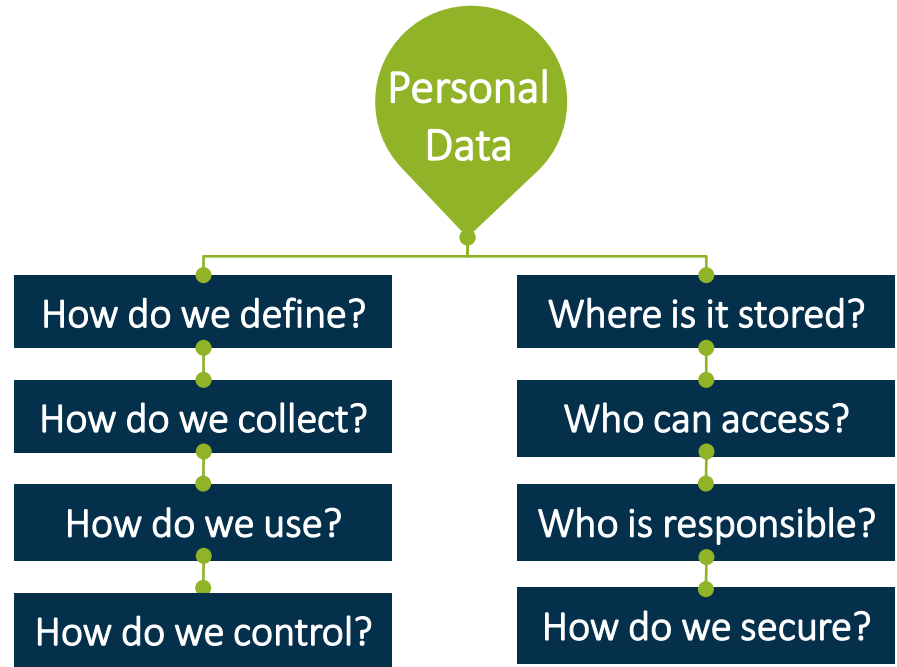
Technology

Data Access
Data Quality
Data Governance
Risk Management



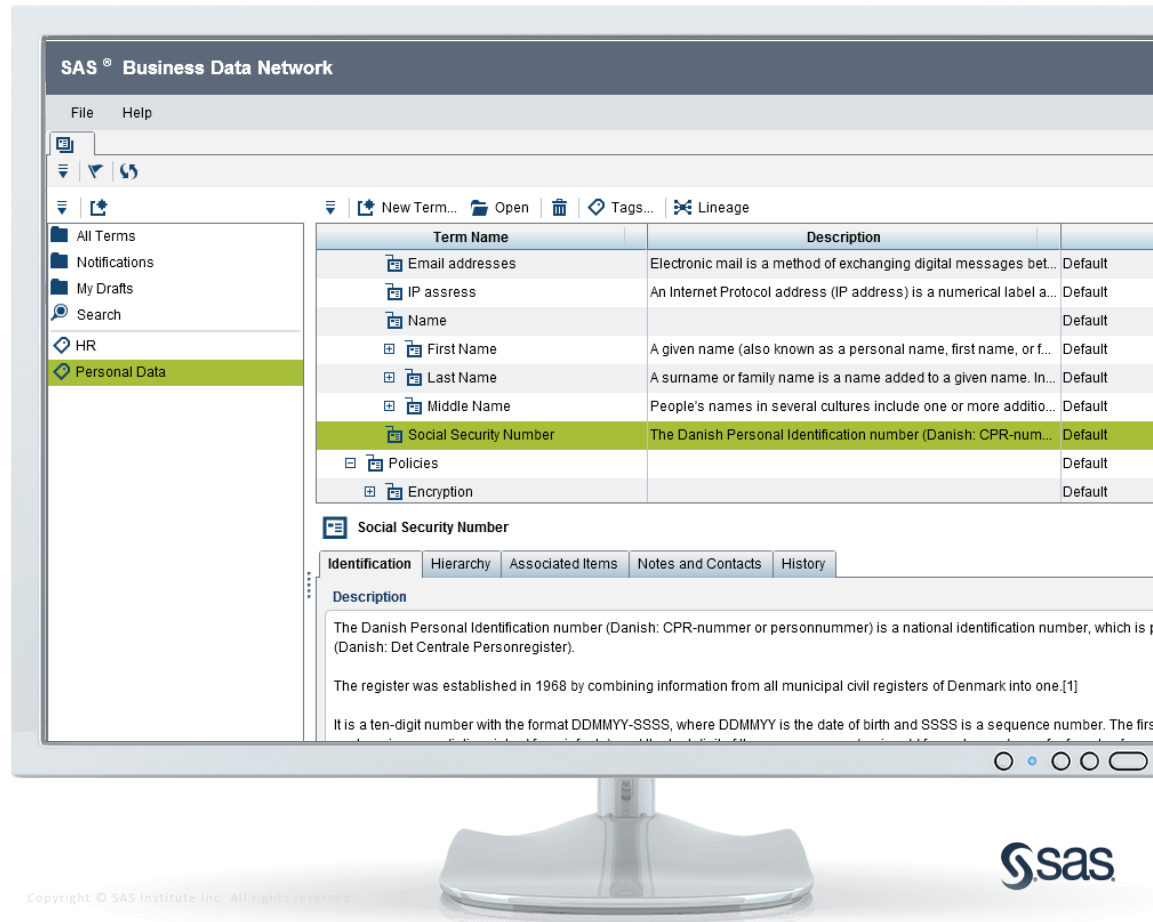
Defining Enterprise-wide Personal Data governance standards

- Document Personal Data and GRC terms definition and concepts between Business, Legal & IT
- Browser-based application to manage & document data standards
- Assign roles and responsibilities
- Collaboratively define business terms & data quality standards
 - Term hierarchies
 - Custom term attributes
 - Search terms
 - Security and authorizations
 - Versioning & roll back
 - Email notifications
 - 3rd Party Software Integration



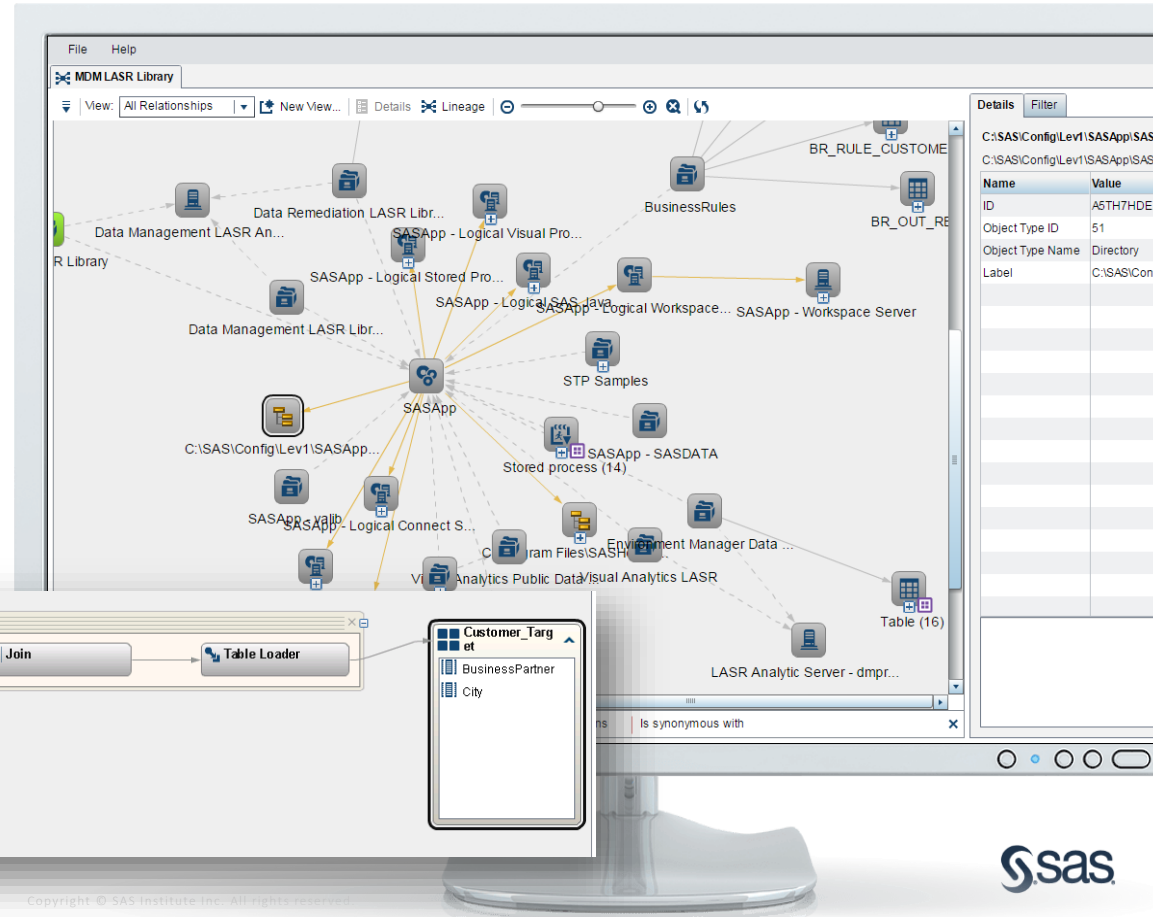
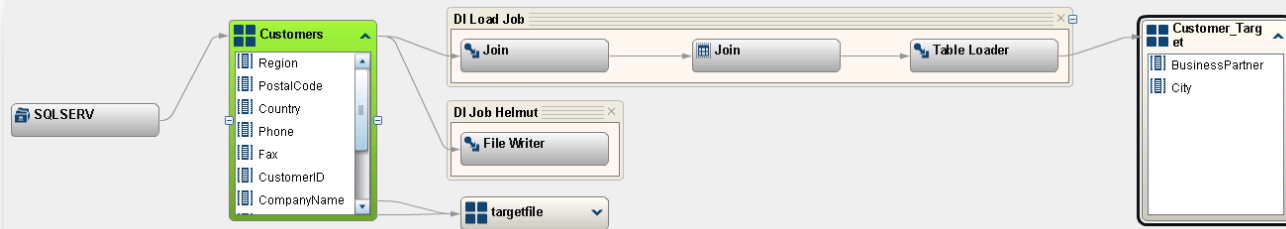
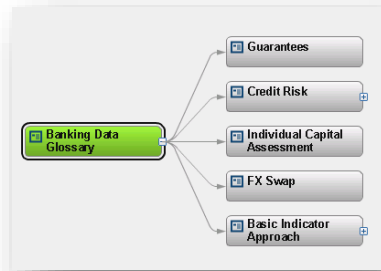
Defining and Govern What's Personal Data

- Automated Personal Data glossary
- Define Business Terms in order to align Business & IT
- Get a clear overview on roles & responsibility!

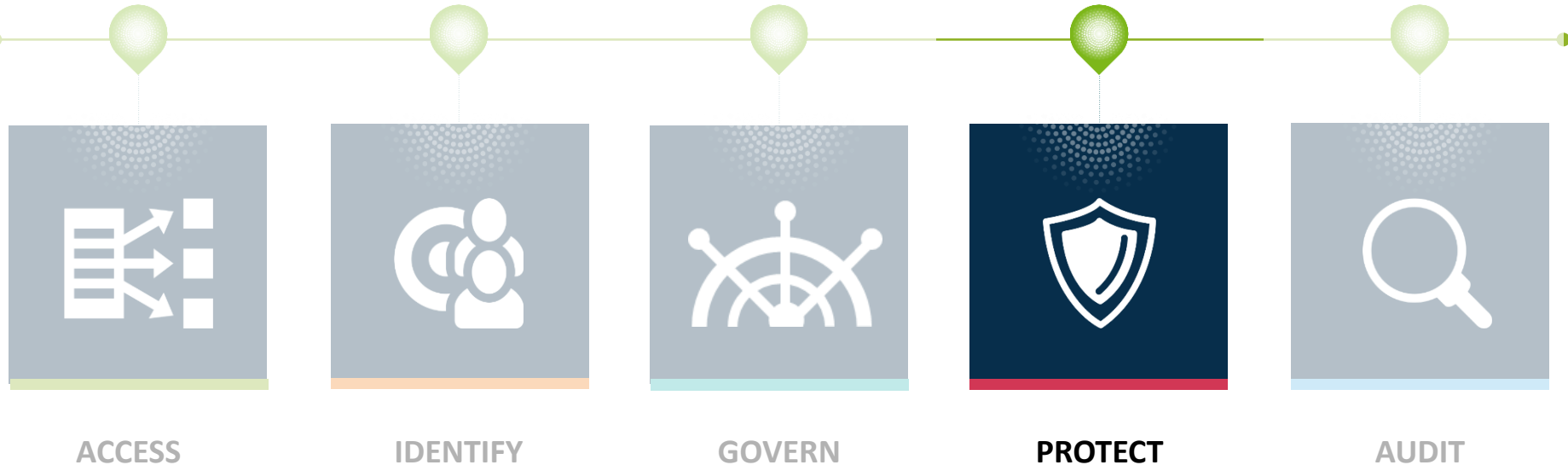


Defining and Govern Where's Personal Data

- Link Systems, Processes and Business Owners in data flows



5-Step Approach for Sustainable Compliance



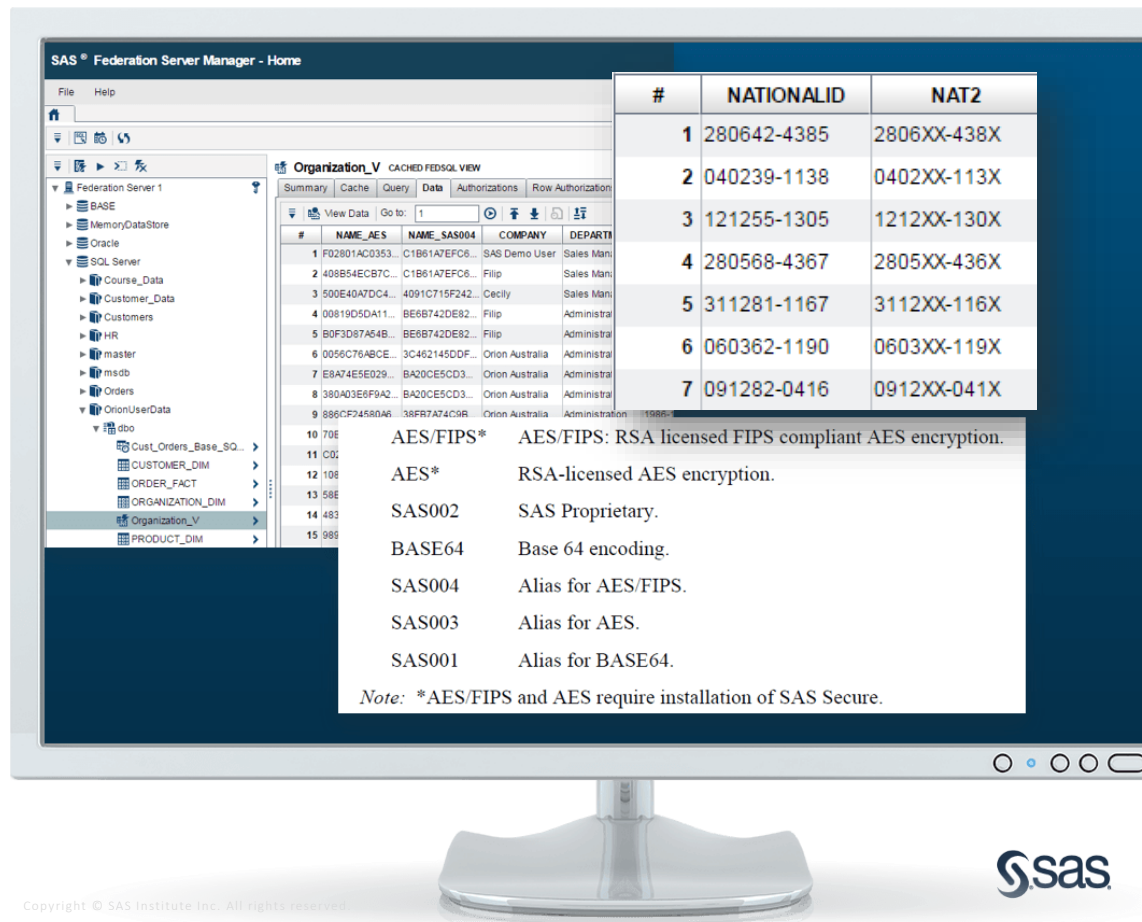
Among companies experiencing data breaches, **internal actors were responsible for more than 43% of data loss, nearly 50/50 between intentional and accidental**

Source: Intel, 2105

Securing Personal Data abstracting the data source

Implementing a Data Access Gateway providing:

- Anonymization (removing PD)
- Pseudonymization (replacing PD)
- Encryption (encoding PD)



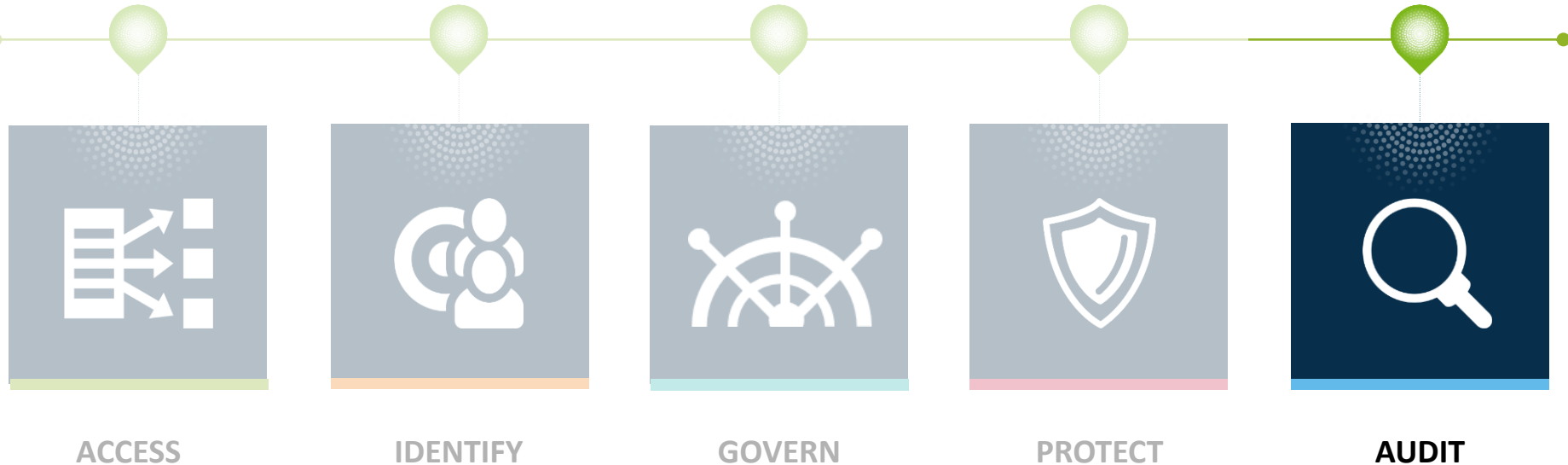
The screenshot displays the SAS Federation Server Manager interface. On the left, a tree view shows the hierarchy of data sources, including 'Federation Server 1', 'BASE', 'MemoryDataStore', 'Oracle', 'SQL Server', 'Course_Data', 'Customer_Data', 'Customers', 'HR', 'master', 'msdb', 'Orders', 'OrionUserData', and 'dbo'. The 'Organization_V' view is selected, showing a table with columns: #, NATIONALID, NAT2, NAME_AES, NAME_SAS004, COMPANY, and DEPARTMENT. The table contains 15 rows of data. On the right, a list of encryption methods is shown, including AES/FIPS*, AES*, SAS002, BASE64, SAS004, SAS003, and SAS001, each with a description of the encryption method. A note at the bottom states: '*AES/FIPS and AES require installation of SAS Secure.'

#	NATIONALID	NAT2
1	280642-4385	2806XX-438X
2	040239-1138	0402XX-113X
3	121255-1305	1212XX-130X
4	280568-4367	2805XX-436X
5	311281-1167	3112XX-116X
6	060362-1190	0603XX-119X
7	091282-0416	0912XX-041X

#	NAME_AES	NAME_SAS004	COMPANY	DEPARTMENT
1	F02801AC0353...	C1B61A7EFC6...	SAS Demo User	Sales Man.
2	408B54ECB7C...	C1B61A7EFC6...	Filip	Sales Man.
3	500E40A7DC4...	4091C715F242...	Cecily	Sales Man.
4	00819D5DA11...	BE6B742DE82...	Filip	Administra
5	B0F3D87A54B...	BE6B742DE82...	Filip	Administra
6	0056C76ABCE...	3C462145DDF...	Orion Australia	Administra
7	E8A74E5E029...	BA20CE5CD3...	Orion Australia	Administra
8	380A03E8F9A2...	BA20CE5CD3...	Orion Australia	Administra
9	886CF24580A6...	38FR7A74C9R...	Orion Australia	Administration
10	70E	AES/FIPS*	AES/FIPS: RSA licensed FIPS compliant AES encryption.	
11	C02	AES*	RSA-licensed AES encryption.	
12	108	SAS002	SAS Proprietary.	
13	58E	BASE64	Base 64 encoding.	
14	483	SAS004	Alias for AES/FIPS.	
15	989	SAS003	Alias for AES.	
		SAS001	Alias for BASE64.	

Note: *AES/FIPS and AES require installation of SAS Secure.

5-Step Approach for Sustainable Compliance



72 hours, is the time organisations have to report a breach.
A failure to report a breach, when required to do so, could result in a fine in addition to the fine for the breach itself.

Source: EU GDPR

Monitoring and Reporting on Personal Data Access

- Log and monitor usage of personal data.
- Audit usage of personal data to demonstrate compliance with privacy controls.
- Managing Data Quality to ensure the effectiveness of compliance measures and processes.

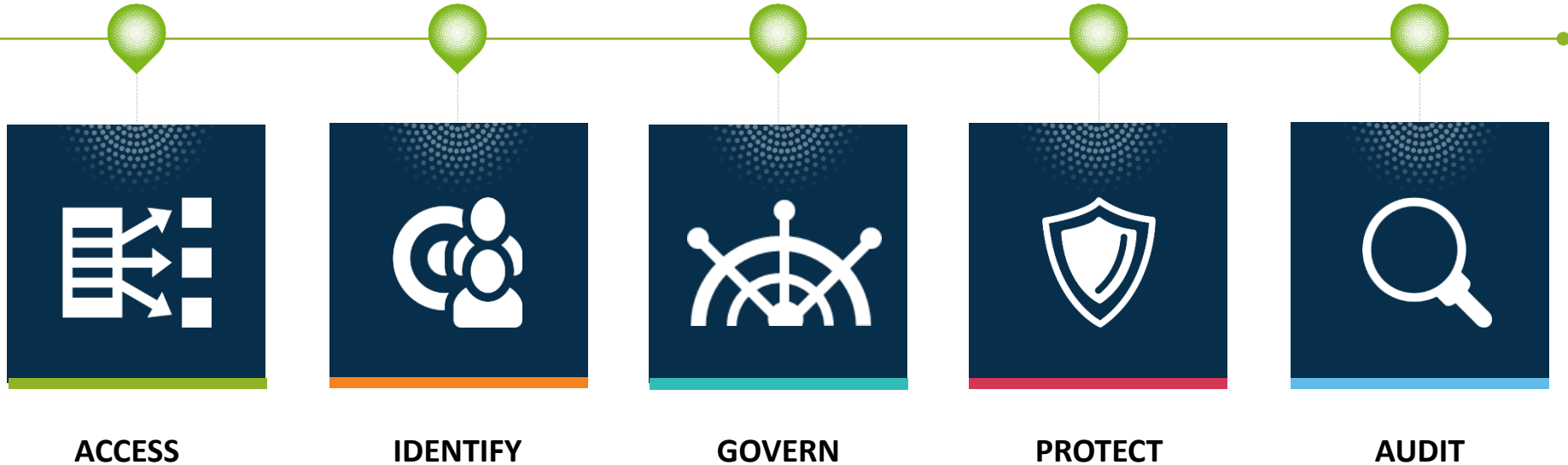


Monitoring and Reporting on Execution

- Monitor, Analyze and report on the effectiveness of compliance processes and controls
- Monitor, analyze and report to prove that personal data is not at risk.
- Monitor, analyze and report on systems access, to detect eventual data breaches.



5-Step Approach for Sustainable Compliance



SAS for **Personal Data** Protection





SAS for **Personal Data** Protection - Accelerator



Why SAS?

Time & Cost

- Pre-built GDPR assets based on proven technology
- Quick Start Services & Partners

Open

- Connect to any source, anywhere, anytime
- Not a black box – the GDPR accelerator is expandable

Complete & Integrated

- Centralized security management
- Virtual user-based data access across many sources

Solid DQ Foundation

- Proven Quality Knowledge Base available in most languages
- Single view of individuals for effective consent management, right to be forgotten

Beyond compliance

- Building the foundation for sustainable data governance
- Supporting data-driven initiatives for new business benefits

What's next?

- **Resources**

- [SAS for GDPR Solution Brief](#)
- SAS 5-Step for GDPR Whitepaper
- [Webinar](#)

- **Hands-on workshop**

- Formalize needs
- Identify challenges & gaps
- Raise internal awareness
- Experiment with SAS solution
- Identify way forward

- **PS Quick Start Offering**

- Kick-Off Workshop
- Installation & basic configuration
- Implementation for 1 data source
- Coaching of your resources



Thank you for your time and attention...

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