

# Data Privacy within S/4 HANA & SAP Business Suite

## Implementation Approach

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2018

CUSTOMER

## Personal disclaimer

SAP does not provide legal advice, nor does the presenter.

The implementation of data protection requirements at any data controller is a complex challenge with interdependent legal and technical aspects. The responsibility to identify and implement adequate technical features remains with the controller as for the organizational aspects.

The following presentation is only about technical features which might in that sense help a controller achieving compliance with data protection regulations.

The project approach is to be published GDPR and SAP - Data Privacy with SAP Business Suite and SAP S/4HANA (Lehnert/Luther/Pluder/Christoph/ Fernandes) and has been published in 2017 in the German original.

It is clearly the opinion of the presenter / corresponding author and does not necessarily reflect SAP's point of view.

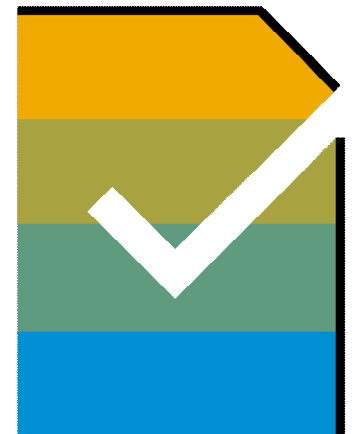
# Agenda

## Data Privacy within S/4 HANA & SAP Business Suite

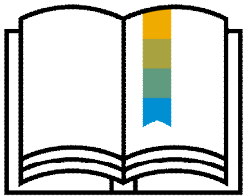
§ Implementation approaches

§ Procedure model for the inductive approach

§ Technical implementation of the procedure model

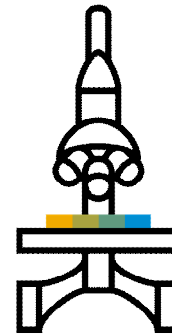


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## Deductive approach

- § Process analysis or according Process design (Greenfield)
- § Description of the processing purposes and processing operations
- § Regardless of the technical approach and real data set



## Inductive approach

- § Identification of the personal data located in the relevant systems
- § Technical transparency regarding personal data
  - Regardless of systemic boundaries, processing purposes and controller
  - Inventory and scoping



## Assumption:

Deductive approach for new systems, it seems to be closer to the legal requirements “You should know what you want to do”

Inductive approach for existing systems, it seems to be closer to the reality in the system.

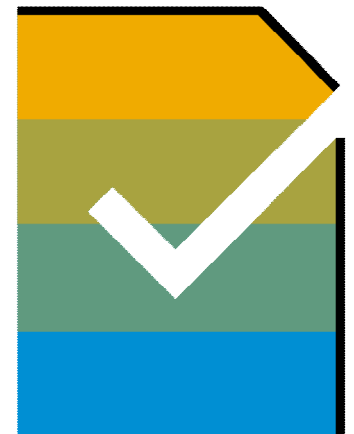
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§ Implementation approaches

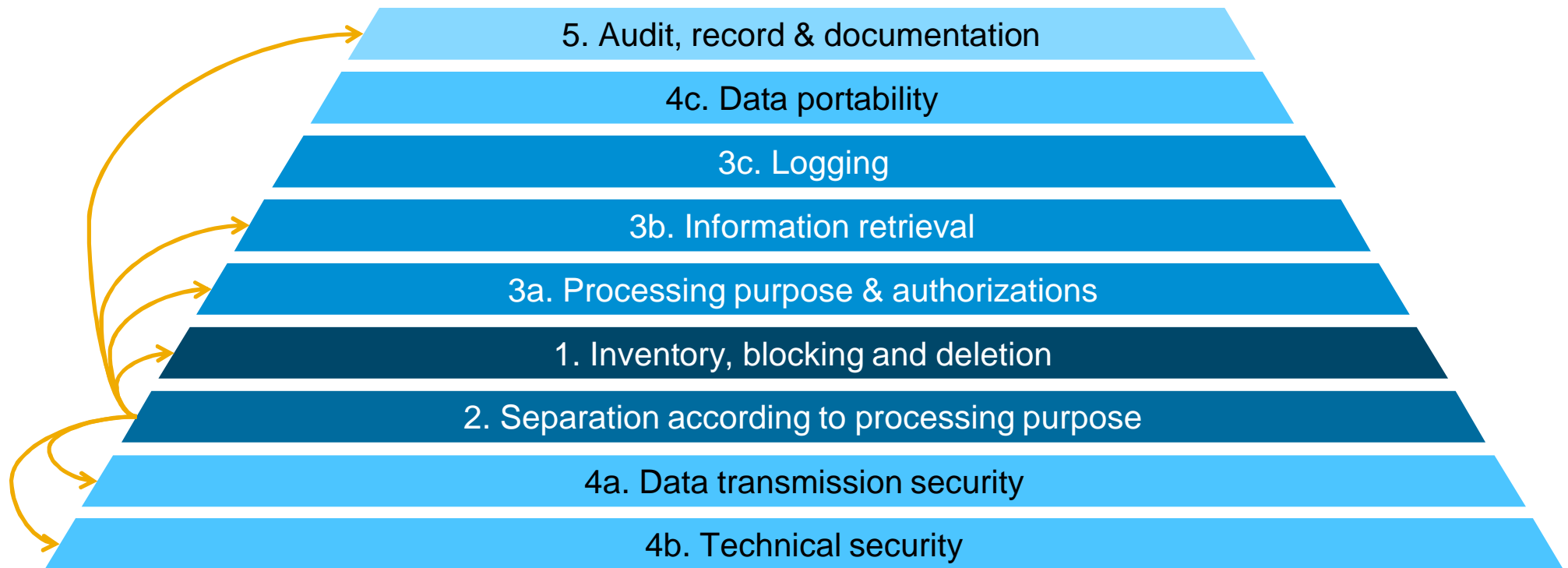
§ Procedure model for the inductive approach

§ Technical implementation of the procedure model



### 3. Data Privacy within S/4 HANA & SAP Business Suite

Procedure model for the inductive approach



Source: Rheinwerk Verlag: Lehnert, V. et.al.; *GDPR and SAP - Data Privacy with SAP Business Suite and SAP S/4HANA* ; 2018

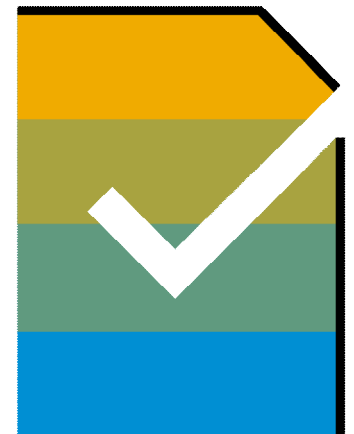
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# Data Privacy within S/4 HANA & SAP Business Suite

## Procedure model for the inductive approach

### Step 1: Inventory, blocking and deletion

#### Identification of personal data, for

- § Blocking and deletion
- § Information retrieval
- § Record of processing activities

#### As part of the blocking and deletion the following information is gathered

- § Data structures and dependencies between data
- § Data inconsistencies
- § Organizational structures
- § Missing technical attributes for defining the processing purpose





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## Procedure model for the inductive approach

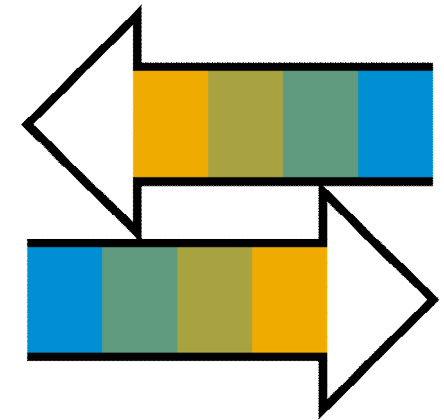
### Step 2: Separation According to processing purpose

#### Documentation of the processing purpose, for

- § Blocking and deletion
- § Authorization concept
- § Record of processing activities
- § Information retrieval

#### Review of definitions for

- § Organizational structures – line-organizational attributes (LOA)
  - Explicit definition of the controller
- § Master data structures – process-organizational attributes (POA)
  - Explicit depiction of the processing purpose



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## Procedure model for the inductive approach

### Step 3a: Processing Purpose & Authorizations

#### Projection of processing purpose through authorizations, via

- § Organizational differentiation – line-organizational attributes (LOA)
  - Access to personal data restricted to the processing of one controller
- § Differentiation of processing purpose – process-organizational attributes (POA)
  - Access to personal data restricted to the processing purpose

#### Implementation of permitted activities

- § Functional specification of access authorizations
- § Strictly implemented minimum principle also for read-only authorizations
- § Definition of access risks in relation to LOA and POA



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## Procedure model for the inductive approach

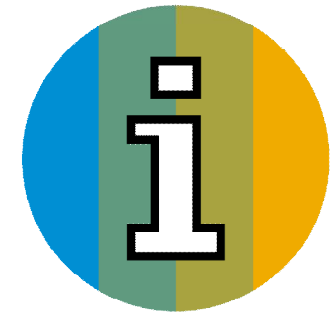
### Step 3b: Information retrieval

#### Re-use of the identified personal data

- § Identified ILM-objects as base
  - ILM objects containing personal data are the base for Information retrieval
- § Retention Rule Generator provides the processing purpose
  - Interlinkage between the ILM-object and the purpose of processing

#### Categorizing the Information retrieval model, for:

- § Information – to be provided
- § Information Retrieval Framework
- § Record of processing activities



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## Procedure model for the inductive approach

### Step 3c: Logging

#### Ensuring the necessary logging functionalities, via

§ Control configuration for logging, such as:

- System-log
- Transport logging
- Table logging – particularly for custom configurations
- Security Audit Log
- Change log – particularly for custom functions

#### § Read Access Logging or UI-Logging

- Logging of read access especially to sensitive personal data
- SAP template configuration is set in consideration of sensitive personal data (Art. 9, par. 1 EU GDPR)



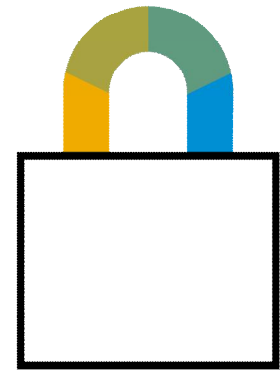
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## Procedure model for the inductive approach

### Step 4a: Data transmission security

#### Safeguarding the data transmission, via

- § Record of possible and used interfaces
  - Using the interface landscape identified during the data blocking and deletion phase as a basis
- § Identification of the processing purpose for the interfaces
- § Transmission restriction according to the processing purpose
  - Appropriately defined authorizations for system users within the RFC connections
  - Using UCON to restrict function modules that can be called by RFC
- § Data transfer encryption
  - Particularly for external recipients
  - Communication safeguarding (e.g. RFC, Client/Server)



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### Step 4b: Technical Security

#### In addition to the already presented measures

##### § Authentication control

- Secure procedures to enable system access based on personal authentication

##### § Access control – prevent security vulnerabilities

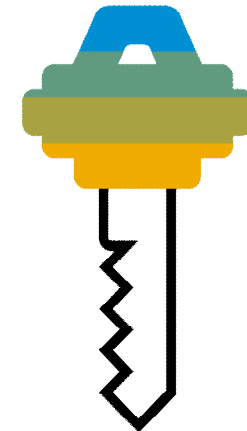
- Import of security notes
- Screen for security vulnerabilities in custom code

##### § Availability control

- Data backup & recovery
- Business continuity

##### § Configuration settings controls

- SAP Configuration Validation
- SAP Early Watch Alert
- SAP Security Optimization Service



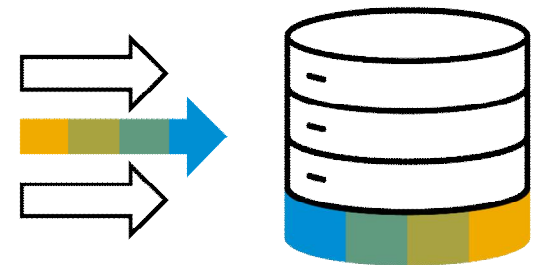
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### Step 4c: Data Portability

#### Information retrieval based on:

- § Data identified during the information retrieval phase
  - Provide personal data in a structured, commonly used and machine-readable format
  - Information Retrieval Framework



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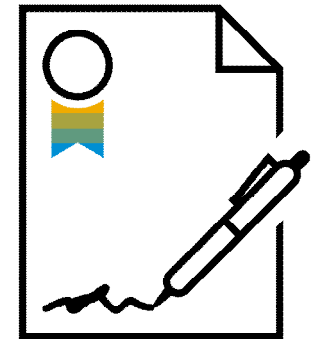
### Step 5: Audit, record & documentation

#### Record obligations

- § Record of processing activities
- § Record of technical and organizational measures
- § Record of control (ICS)

#### Obligatory content:

- § Documentation of the processing purpose and retention periods via LOA and POA
- § Documentation of record to ensure correctness of personal data
- § Documentation of record to ensure restricted access
- § Documentation of Information retrieval and information process
- § Documentation of interfaces
- § Documentation of security safeguards





## Source

**The content of this presentation is taken from the following publications. Still Ksenia Tretjakova (SAP Deutschland SE), Anna Otto (SAP Deutschland SE), Horst Liermann (SAP Deutschland SE) have had substantial impact on the publication and the implementation story at all**

**GDPR and SAP - Data Privacy with SAP Business Suite and SAP S/4HANA  
(Lehnert/Luther/Pluder/Christoph/ Fernandes)**

[https://www.rheinwerk-verlag.de/gdpr-and-sap\\_4652/](https://www.rheinwerk-verlag.de/gdpr-and-sap_4652/)

**Datenschutz mit SAP (Lehnert/Luther/Pluder/Christoph)**

[https://www.rheinwerk-verlag.de/datenschutz-mit-sap\\_4524/](https://www.rheinwerk-verlag.de/datenschutz-mit-sap_4524/)

# Thank You

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