Celonis IBC
Data Privacy by Design
Introduction

With its Process Mining Technology Celonis offers a state-of-the-art tool for **analyzing business processes** within the company. By **visualizing the as-is processes**, Celonis supports companies in simplifying existing processes and thereby increasing their **efficiency and quality**. Having optimized processes leads to **increased employee satisfaction**, too.

When using the Process Mining Technology, Celonis helps you as the controller of the personal data analyzed within the Intelligent Business Cloud to execute **GDPR**-related data privacy policies your organisation might setup through its Privacy by Design approach (cf. Chapter II).
Introduction

Additionally, Celonis has taken multiple efforts to ensure compliance with GDPR within its organization, providing you with the assurance that Celonis is a trustworthy processor of all your personal data (cf. Chapter III).

The fact that numerous customers – including several public authorities and publicly-owned companies (e.g. Bayerischer Rundfunk, Deutsche Telekom, Deutsche Bahn, IG Metall) – already are successfully using Celonis’ Process Mining technology confirms the high standards of Celonis’ software Customers (cf. Chapter IV).
Data Protection by Design

1) Lawfulness, Fairness and Transparency

- The IBC helps You to process personal data lawfully, fairly and in a transparent manner in relation to the data subject.

2) Purpose Limitation

- The IBC supports the need to collect personal data only for a specific, explicit and legitimate purpose and only as long as necessary to complete this purpose.

3) Data Minimization

- In order to visualize as-is processes in Celonis, there is no inherent need to process user information or personal data.
- The depth of the analyses can be adjusted flexibly within the data provision and setup of the analyses, helping You to minimize the use of personal data within the IBC.
Data Protection by Design

4) Accuracy & Accountability

• Through repeated synchronization with Your Source System, we assist Your efforts to keep all personal data You control accurate and up to date, also within the IBC. The set up of the IBC as shown in the other principles supports Your effort to be fully accountable for the use of personal data within the IBC.

5) Storage Limitation

• Once personal data are no longer required to operate analyses within the IBC (including in the event of termination of Your subscription) You can request the deletion of all personal data within the IBC, which also operates with a predefined deletion concept.

6) Integrity and Confidentiality

• Following the of data thrift, no personal data will be used that is not explicitly needed for the analyses. In case user information is needed (e.g. for reviewing the dual control principle), this data will be pseudonymized. It is also possible to anonymize data. Industry best practice security mechanisms ensure data processed is safeguarded.
1) Lawfulness, Fairness and Transparency

- The GDPR requires **You as the controller of the personal data processed** within the IBC to process such personal data “lawfully, fairly and in a transparent manner in relation to the data subject”.

- All processing activities within the IBC are properly logged, allowing you to **clearly identify to which extent personal data have been processed**. Where required (which should be an exception as all personal data on the IBC are originating from Your own source system), Celonis can support access requests of data subjects in accordance with applicable law.

- This ensures full **transparency** and compliance with the GDPR.
2) Purpose Limitation and 3) Data Minimization

- Data collected for different purposes can be processed for the intended use only and in compliance with the predefined purpose. First and foremost, a selection of relevant/uncritical data depending on process and analysis focus is possible. **Pseudonymization or anonymization of sensitive data is also supported.**

- Celonis processes personal data within the platform only to a very limited extent. In order to visualize the as-is processes in Celonis, there is **no need for user information or personal data.**
2) Purpose Limitation and 3) Data Minimization

- User information and user authentication in the Celonis Intelligent Business Cloud are limited to username and mail address to identify the user. Both can be set, changed and deleted by the user himself and are not exposed to others.

- The depth of the analyses can be adjusted flexibly with the data provision and setup of the analyses. There is no need to include critical user information from the source system. The authorization concept is whitelisting users for data objects and analyses. Access to data, view on data assets and analysis can be restricted with highest granularity and in compliance with the need to know principle and in accordance with the intended use. A differentiated authorization concept at company level ensures user-specific restriction of analysis.

For details, see the next three slides.
2) Purpose Limitation

CELONIS PROCESS MINING

PROCESS ANALYSIS / DETAILS

What is Process Mining? What are the necessary prerequisites?

✓ Pure Process Analysis
✓ Usage of existing data, no need for re-collection of data
✓ No need for personal data
2) Purpose Limitation & Authorization Concept

**USER MANAGEMENT VIA LDAP**

- Authorization I (Department)
- Authorization II (Business unit)
- Authorization III (Divisional management)

**Authorization Concept**

**USER MANAGEMENT @ CELONIS**

- **Viewer**
  - Responsibilities: evaluation and process analysis within his field of activity and responsibility
  - A viewer has only *reading rights* and is able to only analyze areas under his responsibility

- **Analyst**
  - Responsibilities: Creation of analyses/reports, definition of key figures
  - An analyst has the same authorization as a viewer plus the authorization to build analyses and reports (writing rights)
  - An analyst’s authorization is restricted to the user’s area of activity
  - Responsibilities: Connection of new processes and data sources
  - A data scientist’s authorization is the same as for an analyst with additional writing rights on the data model

A **differentiated authorization concept** at company level allows to ensure **user-specific restriction of analysis authorization** at various levels (e.g. accounting area, region, etc.).

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1) Lightweight Directory Access Protocol
3) Data Minimization

PSEUDONYMIZATION

Sample data:
User: Max Mustermann
User: Erika Mustermann
User: Max Mustermann
User: Max Mustermann

DATA SECURITY / PERSONALISED DATA

✓ Option 1: Pseudonymization is happening directly during data extraction. To achieve this goal a SAP function module is used, that pseudonymizes the data on the fly, hence ensuring that the plaintext data never leaves the SAP system.

✓ Option 2: All personalized data will be pseudonymized in the database, making it available in the analyses only pseudonymized.

✓ All personalized data will be converted into non-trackable hash-values (green).

✓ Pseudonymization is done by using a Hash algorithm of the SHA1/2 family.

Same values are mapped to the same values.
4) Accuracy and Accountability

• The GDPR principles require You as the controller of personal data to keep any personal data **accurate and up to date**.

• As data for analysis in Celonis is necessarily pulled, **access to accurate process data** is granted by the customer.

• Through ongoing Synchronization of the IBC with your Source System, all personal data is being **kept in sync with your source system**, i.e. if there is a correction in the Source System, it will be directly applied on the Celonis platform, **helping you to achieve compliance with this requirement**.
4) Accuracy and Accountability

- Celonis Process Mining provides a range of possibilities to ensure that you meet accountability requirements, i.e.
  - as shown before, the minimization of personal data in use, that all processing activities within the IBC are properly logged,
  - allowing you to clearly identify to which extent personal data have been processed and
  - guarantee subject requests for data deletion and accessibility

...due to our Privacy by Design setup of the solution.
4) Accuracy and Accountability

1. Lawfulness, Fairness and Transparency
2. Purpose Limitation
3. Data Minimization
4. Accuracy
5. Storage Limitation
6. Integrity and Confidentiality

- The features and functionalities of IBC as shown in the previous principles displayed, support your effort to be fully accountable for the use of personal data you process within the IBC.
5) Storage Limitation

• GDPR principles oblige You to keep all personal data in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the personal data are processed.

• You are able to delete any source data from the IBC at any point in time.

• We support this requirement further through deletion of all remaining customer data (including personal data) once your Subscription Term has ended. All data is only kept as long as necessary for the purpose of performing the agreement. Of course, You will be able to extract Your data instance prior to such deletion in order to adhere to any storage and/or other retention requirements.

• Celonis has implemented robust deletion concepts and timeliness which ensure a consistent approach to data deletion.
6) Integrity and Confidentiality

- Celonis acknowledges that You are required to process all personal data in a manner that ensures appropriate security of the personal data using appropriate technical or organizational measures.

- Celonis has a 2-factor authentication mechanism that can be activated by a customer. Additionally, an IP range logging in the access form can be added so that only people from the local network can log on. The authorization concept is whitelisting users for data objects and analyses (see details on user management).
6) Integrity and Confidentiality

- **Where personal data are needed** to be processed in the IBC for process analyses purposes upon Your request, for example to ensure compliance to the dual control principle, this **data can be used in an anonymized or pseudonymized format**.

- For this approach **two options exist**: a) Pseudonymization or anonymization in the data replication pipeline b) Pseudonymization or anonymization **directly on the analytics database**. For details, see the next slide.
6) Integrity and Confidentiality

1. Source system
2. Data transformation
3. Data Analysis

IT-System (e.g. SAP ERP)

Data preparation and cleansing

Datalake in IBC

Analysis of business processes

Option 1:
From here: only pseudonymized, personal data

Option 2:
From here: only pseudonymized, personal data

Data can be pseudonymized during data extraction (Option 1) or during data transformation (Option 2).
Data Protection Compliance as a Company

Data Protection Policies
Celonis has created and actively uses data processing procedures, website policies, a data protection policy and a detailed data protection manual.

Data Protection Officer
A data protection officer for Celonis SE and its European subsidiaries has been appointed.

Training
All Celonis employees are trained on a recurring basis regarding data protection compliance.

Supplier Audit
Celonis continuously monitors its suppliers to ensure supplier agreement are in compliance with GDPR, including in view of any processing activities which may be carried out outside the EEA.

Self-Assessment
The overall efforts taken by Celonis as an organization, including a required self-assessment conducted together with our data protection officer, ensure compliance with the GDPR.

ISO Certification
Celonis has obtained a certification of its information security systems in accordance with ISO 27001, and is ISO 9001:2015 certified.
Selected Customers

PUBLICLY-OWNED COMPANIES / PUBLIC SECTOR / TRADE UNIONS

INDUSTRIAL SECTOR

✓ Successful examination and active usage in more than 250 companies (amongst others 30% of all DAX companies)
✓ Declaration of consent by various workers’ councils, inter alia Deutsche Telekom and Bayerischer Rundfunk
Addendum

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