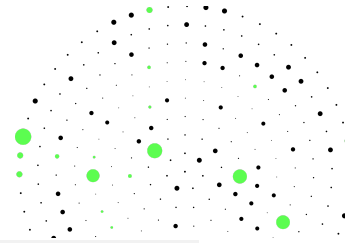PRODUCT DESCRIPTION:

Execution Management System

The Celonis Execution Management System (EMS) is a technology built to achieve execution capacity breakthroughs. The EMS utilizes event-based data modeling and consists of real-time data connectivity, the Core Mining Engine, the Automation Engine, the Celonis Studio and the EMS Marketplace that all run on the EMS platform.

1. Real-Time Data & Platform

FEATURE	DESCRIPTION
INTELLIGENCE API	Intelligence API is a set of read-only Representational State Transfer (REST) APIs that allows Your developers to consume information stored in EMS knowledge models and embed actionable intelligence into the platforms upon which You routinely rely (e.g., Salesforce or ServiceNow). Intelligence API permits external access to EMS records (types and items) and Filters in order to retrieve lists of record instances from EMS data models. This makes it possible to develop REST API consumers adapted to Your specific Knowledge Model(s) and ingest EMS data from the Knowledge Model(s) into Your other platforms. Intelligence API is only available to Premium EMS subscribers. Use of Intelligence API is subject to the provisions of the Celonis API Fair Use Policy located at www.celonis.com\terms-and-conditions.
CELONIS EMS CONNECTOR FOR POWER BI	The Celonis EMS Connector for Power BI is an addition to Power BI that allows You to natively connect Power BI to Your Celonis EMS instance as You would connect, for example, to a SQL-based database. The Celonis EMS Connector for Power BI will automatically list all published knowledge models and allow the importing of records that are defined in the knowledge models. You will be able to define records in PQL inside the knowledge models and load them not Power BI, enabling the full PQL experience inside Power BI. The Celonis EMS Connector for Power BI is limited to a maximum of 200.000 rows and 20 columns and is only available within the Premium EMS Team.
DATA LAKE	The Data Lake is the storage to hold the consolidated source system data as well as the data transformation technology to run the data transformations that will create the Event Logs.
DATA INTEGRATION	Data Integration connects to a multitude of source systems to capture events in th form of digital footprints. Furthermore, it allows the User to transform the extracted data to construct a data model. The data pipeline can be orchestrated and automated through an user interface.
PROCESS CONNECTOR	The Process Connector is the combination of extracting, connecting and transforming data for one source system. System Extractor

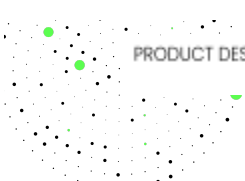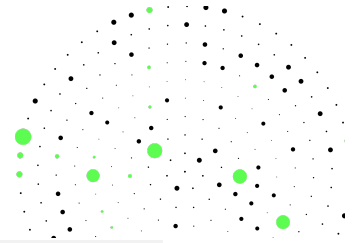|	The System Extractor is the software component that extracts data from the source system and sends it out to EMS.
	Data Job
	A Data Job is the collection of data integration tasks which extracts and transforms the source system data and makes them available in the EMS.
	Data Model
	The Data Model is the logical description on how events and other data are related to each other. This can include one or multiple Event Logs.

2. Core Mining Engine

The Core Mining Engine is an in-memory engine that leverages process mining to measure execution capacity and identifies execution gaps. It works with business logic or Machine Learning to sense gaps that have the biggest impact on execution capacity and trigger actions in the Automation Engine.

FEATURE	DESCRIPTION
CELONIS PQL	Celonis PQL (Process Query Language) is Celonis' proprietary process-oriented query language to derive insights from process data.
MACHINE LEARNING	Machine Learning (1) provides other Celonis Products such as Process Analytics, Action Flows, or open application framework applications with advanced analytics data including predictions, simulation scenarios, or analysis of unstructured data, (2) is a platform for data scientists to build advanced analytics use-cases in an open ecosystem, (3) contains a python package to help the User solve the most common process related Machine Learning tasks. For heavy Machine Learning workloads, a dedicated instance is available as an add-on product.
MULTI-EVENT LOG	The Multi-Event Log capability combines processes into a single view to provide cross-process analysis, context and KPI calculations. Multi-Event Log enabled data models can have multiple case tables and thus multiple event logs in the same data model linked together by foreign key relationships, removing the need for complex SQL-joins when defining activities. Users can identify inefficiencies using cross-process KPIs and visualize end-to-end processes within a single analysis.
SIGNAL LINK	The Signal Link defines an out signal to link the data to each other written in the transformation script.
BUSINESS MINER - STANDARD FEATURES	Tailored to users who are experts in their business processes but less familiar with EMS, Business Miner is a quick and easy way of looking into different aspects of business processes. With Business Miner, You can leverage the powerful functionality of EMS without having to understand all of its technical details. By selecting and answering a series of simple questions, it is possible to retrieve detailed information about your business processes, get suggestions on how to improve them, discover potential savings by optimizing Your processes and collaborate with Your colleagues in a shared space. Moreover, a simplified

onboarding experience enables new users to quickly get started. Business Miner makes the power of Celonis EMS accessible to a new, non-technical audience across the enterprise in order to significantly increase and accelerate business performance. All EMS customers have access to the Business Miner standard explorations for the following use cases: Throughput Time; Meeting Deadlines; Unwanted Activities and Automation Rate.
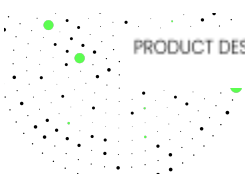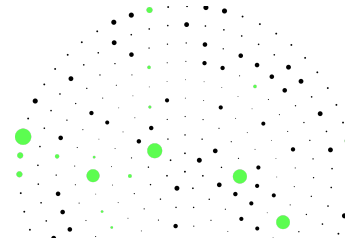
3. Automation Engine

Action Flows provide a real-time automation engine integrated with Celonis' process mining technology to perform next-best actions in cloud, on-prem, and custom applications. Next-best actions comprise unattended automations in enterprise IT systems as well as "human in the loop"-type automations by creating tasks & alerts for users in the EMS. Action Flows can be built using a no code drag & drop builder.

FEATURE	DESCRIPTION
DRAG & DROP ACTION FLOW BUILDER	Configure action flows with a visual, no-code drag & drop editor.
PRE-BUILT AUTOMATIONS	Use 10,000+ pre-built automations across 700+ applications to perform automations.
ON-PREM AUTOMATIONS	Automate in 15+ enterprise on-prem applications using the Celonis On-Prem Agent.
AUTOMATIONS IN CUSTOM SYSTEMS	Perform API-based automations in custom systems.
PROCESS MINING INTEGRATION	Use Celonis Process Query Language (PQL) to enable automations through application of Celonis data.
ADVANCED ERROR HANDLING	Use advanced error handling features to recognize and resolve issues before they become apparent to the business.
ADVANCED AUTOMATION TOOLING	Use repeaters, iterators, aggregators, routers and more to configure advanced Action Flows.
SCHEDULED ACTIONS	Schedule whenever an Action Flow should be executed (e.g. daily, every Tuesday at 9 am, ...).

4. Celonis Studio

The Celonis Studio is a low code development interface that allows the User to build, customize, package, and publish execution applications and process analyses. The Celonis Studio is made up of a few key building blocks: Skills, Views, Analysis, and folders.
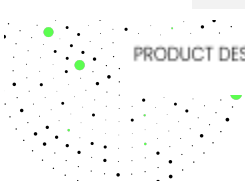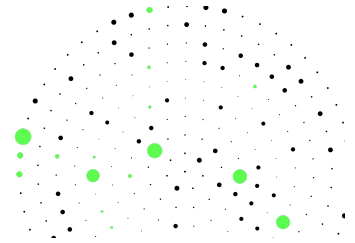
FEATURE	DESCRIPTION
ALERTS & RECOMMENDATIONS	An Alert highlights changes or other important conditions in the data and can be seen by any user who has access to the underlying data. It does not contain a prescribed action. The prescribed actions will be messaged to User via a Task. Tasks have visibility restrictions and can only be seen by certain defined users.
PACKAGES	Packages are the main structural element in the Celonis Studio and contain collections of assets that interact with each other to generate an execution app. Within packages the User can create Views, Skills, Knowledge Models and Analysis.
SKILLS	A Skill is an intelligent automation. They are composed of a sensor, which contains the logic to determine when the Automation needs to run, together with one or more Action Steps that define what happens after the Sensor is triggered. Skills are executed by the Celonis Automation Engine. The Action Steps can be automations (API calls) to other systems, alerts to end-users, or prioritization of work in Celonis user-specific Views.

a. Analyses Features in the Celonis Studio

FEATURE	DESCRIPTION
ACTIVITY EXPLORER	The Activity Explorer provides an alternative to find out how activities relate to Your process.
BOOKMARKS	Bookmarks can be used to store findings. By setting a bookmark, the currently used filters will be saved for future use.
CASE EXPLORER	The Case Explorer allows the User to explore the process based on the end to end variants
CHARTS AND TABLES	Charts and Tables can be created and edited to illustrate certain data. The following components can be used: OLAP tables, column charts, pie charts, donut charts, line charts, area charts, marker charts, scatter plots, bubble plots, histogram charts, single KPIs (gauge, number, fill, and radial), pivot tables, box plots, and world maps.
CONFORMANCE CHECKER	The Conformance Checker uses artificial intelligence to automatically detect non-conformant cases and to outline their violations, root-causes and impact on KPIs, by comparing the mined as-is process against a target process model. To define the target model, the Conformance Checker supports importing .bpmn files (BPMN 2.0 Standard), modeling processes with the built-in process modeler or automatically documenting the mined as-is process as the target model.
DESIGN COMPONENTS	With Design Components the User can enrich the analysis sheets with various design features. The following components are available: variable input, button, button dropdown, text components, image, line, logo.
FILTERING	Dynamic filters allow the User to create selections from any component of an analysis sheet, filtering the whole analysis document. Only cases that meet the selected filter criteria are then examined in the components.

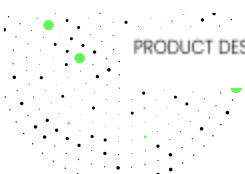| KPI LIBRARY	Saved formulas allow the User to create their own reusable KPI Library. It is possible to define replaceable parts of the formula with the help of customizable parameters. Thereby the User can define which parts of the formula are editable by other users.
PROCESS EXPLORER	The Process Explorer allows the User to explore the process based on the frequency of activities performed in the process.
PROCESS REPOSITORY	The Celonis Process Repository is an integrated and centralized environment for documenting and maintaining business processes. It supports versioning and it integrates with third party Business Process Management tools. The stored models can also be accessed directly from the Conformance Checker.
PROCESS SIMULATION	Process Simulation allows the User to measure the impact of possible changes on Your processes and their effect on Your operations. You can dynamically simulate all parts of the process and, thereby, assess optimizations without risk.
SELECTION COMPONENTS	Selection Components are built to facilitate the creation of filters. The following components can be used: dropdown, date picker, cropping, search.
SELECTION VIEWS	Selection Views are predefined filters, which enable the User to filter based on a selection of attributes, activities, process flows, throughput times, rework rates, or cropped subprocesses.
THROUGHPUT TIME SEARCH	The Throughput Time Search allows the User to examine the throughput time between two specific activities.
VARIANT EXPLORER	The Variant Explorer allows the User to explore the process based on the end to end variants.

5. EMS Marketplace

The Marketplace allows for distribution and no-code installation of execution apps and instruments developed in the Celonis Studio. You can use it to distribute applications and instruments publicly on a market place that allows them to be sold. As a customer you will find execution apps and instruments ready for installation for various processes and use cases.
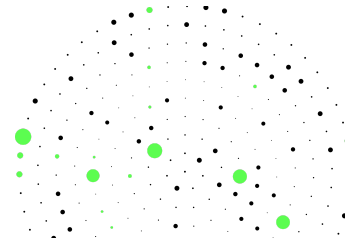
a. Execution Applications

Celonis Execution Apps are intended to identify execution gaps and deliver an approach to fix them. They are tailor-made for specific processes with pre-built, role-based views, best practice KPIs, and Action Flows.

Celonis provides two types of Execution Apps:
i) Standard Execution Apps, which facilitate the quick discovery of value within your processes. Celonis Standard Execution Apps are available at no cost for self-installation within the Marketplace; and

ii) Premium Execution Apps, which go beyond the initial "identify and fix" and leverage best-practice process knowledge to resolve root causes quickly. They are compact and targeted pre-built solutions that deliver:
1. Advanced functionalities for complex use cases (e.g. Shipping emission app);
2. Combined insights from multiple processes (e.g. Inventory app); or
3. An operational workspace within which a process can be executed, monitored and managed on an ongoing basis (e.g. AR apps).

Premium Execution Apps are separately purchasable as additional modules alongside the standard EMS functionality.

i. Standard Execution Apps

Celonis provides Quickstarts for Accounts Payable, Accounts Receivable, Inventory Management and Order Management. The apps help customers to identify, prioritize, and resolve process inefficiencies fast, minimizing the time-to-value and maximizing the value of Celonis for our customers.
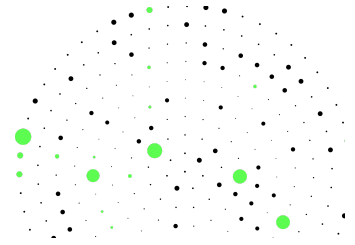
ii. Premium Execution Apps

Celonis AR Apps

The Celonis AR Apps consist of three use-case specific applications for Collections, Credit and Disputes. The apps provide a 360-degree view of AR operations by connecting data across all source systems, apps and desktops.

They enable data-driven prioritization and risk assessment by taking into account various influencing factors and past behavior. They then enable role-based, intelligent execution by identifying common inefficiencies and triggering appropriate actions in real-time.

Sustainable Spend Management App

The Sustainable Spend Management App unifies siloed Procurement & ESG (Environmental, Social & Governance) data sources including purchase requests, ESG scorecards and high-risk suppliers into a single solution to boost the productivity of Category Managers by helping them to meet the highest ESG standards expected by customers, regulators and investors.

The App offers a single solution to view, prioritize and efficiently manage supplier sustainability. It integrates sustainability ratings and scorecards of suppliers into the Celonis EMS, integrates high-risk suppliers indicated by a rating provider, recommends which suppliers to prioritize and streamlines taking action to request ESG rating.

6. Process Analyses

Process Analyses enable analysts to measure execution capacity and identify execution gaps. They are tailor made to measure specific KPIs on a unique process and contain pre-built views for analysts.

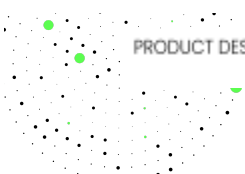## 7. Other Components

Transformation Center
The Transformation Center helps the User monitor the performance of all Your processes in one central place. It provides the User with an overview of Your objectives and KPI development. The Transformation Center is designed to measure the success of Your process improvement and transformation initiatives.
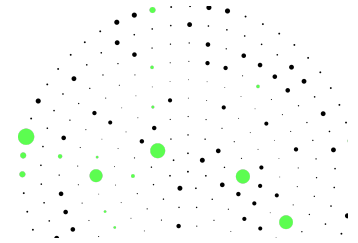In the Transformation Center, the User can define qualitative objectives (e.g. strategic initiatives) and assign associated quantifiable KPIs for any data model. This allows You to align Your team, department and company and monitor your transformation journey.

Platform & Team Management
The platform administration is a set of capabilities and administrative controls that correspond to all aspects of the EMS platform, including deployment settings & configuration, licensing and team management.

FEATURE	DESCRIPTION
APPLICATION KEYS	Application Keys are used to authenticate scripts and applications.
PERMISSION & ACCESS CONTROLS	With the Permission & Access Control You are able to authorize different Data and User Permissions in the EMS Team.
TEAM SECURITY & PRIVACY	Team Security & Privacy defines which Users are capable of sharing and accessing the content in the EMS. A Two Factor Authentication enforces users to validate their identity via email before they can log in and the history of the log-ins will be tracked additionally.
USER AUTHENTICATION	User Authentication tells the system who the User is and authenticates the business system underneath. It also contains Celonis Identity Provider, which enables management of user accounts within the EMS Team and a Single Sign On function that integrates the EMS with user authentications via active directory or similar in order to require all users to login with a central user account.
USER MANAGEMENT	With User Management You can manage Your Team Settings within the EMS tenant. A Team's members may consist of Users, Analysts and Admins and the Team can be organized into specific User Groups.

8. Optional Components

The following optional components are available at an additional cost to Standard and Premium EMS customers.

COMPONENT	DESCRIPTION
WORKFORCE PRODUCTIVITY	The Celonis Workforce Productivity component enables businesses to securely collect and analyze user interactions on desktops in order to increase efficiency by gaining full visibility, understanding changing behaviors and capturing employee experience. In order to be in line with individual requirements, this component is highly configurable and data capturing can be limited according to each specific use case. The law varies significantly between countries and use-cases, therefore You are advised to consult Your legal experts before activating Workforce Productivity for Your Users. Celonis bears no liability for Your use of this functionality.
BUSINESS MINER NON-STANDARD EXPLORATIONS	Process-specific explorations beyond the standard features defined in Section 2, above, are available at an additional cost.
PROCESS SPHERE	Process Sphere delivers a completely new experience for users to explore their end-to-end processes in a powerful, intuitive, and consumable way. This solution broadens the perspective of process mining from analyzing a process through a single case ID to analyzing the entire business through the real-world relationships between objects and events. Objects are the individual items that are processed, for example, invoices, sales orders or purchase orders. Events are the process steps relating to those objects such as approvals, changes, or status updates. Process Sphere brings a complete and accurate 3-dimensional view of end-to-end business process execution as it occurs in reality and for the first time, customers can visualize their end-to-end processes in one interactive exploration.

The Celonis Execution Management System is a cloud service accessed via web interface. Full functionalities are only available in a full cloud deployment.

This Product Description for the Celonis Execution Management System replaces the Product Description for the Celonis Intelligent Business Cloud as of its release date. Therefore, all features previously described in the documents relating to the Celonis Intelligent Business Cloud are now collectively described in this Product Description for the Celonis Execution Management System and its successive versions. Please note that the preceding provisions do not apply to licensees of SAP Process Mining by Celonis, Cloud Edition.