



Data standard for process mining

ICPM 2021- XES workshop

Elham Ramezani, PhD

KPMG Centre of Excellence for Process Mining



Current challenges with input data for process mining

Data sourcing

Data is scattered across multiple systems/sources.
Complex data structures without documentation.

Data extraction

Data processing

Example challenge: Workflow data not sufficient enough

MDM Operations Coverage



50+ markets



80+ FTEs



20+ product types



400+ requests per day

Key Challenges

- High process Cycle time, Missed SLA
- Lost business due to unsatisfied stakeholders
- High manual efforts
- Low standardization and automation
- Lack of visibility into skill-gap areas

Our Solution

Enhanced approach combining Process Discovery, Process Analytics and NLP capabilities for **Structured and Unstructured data analysis helped** to uncover more granular inefficiencies and key root causes.

Key Considerations

Attrition - Loss of tacit knowledge

Distributed work environment

People don't remember specifics

Current challenges with input data for process mining

Data sourcing

Data is scattered across multiple systems/sources.
Complex data structures without documentation.

Data extraction

Big volume of data.
Continuous data extraction/ streaming data.
Extracting data based on object dependencies.

Data processing

Example challenge: Extracting data on object dependencies

Warehouse Management



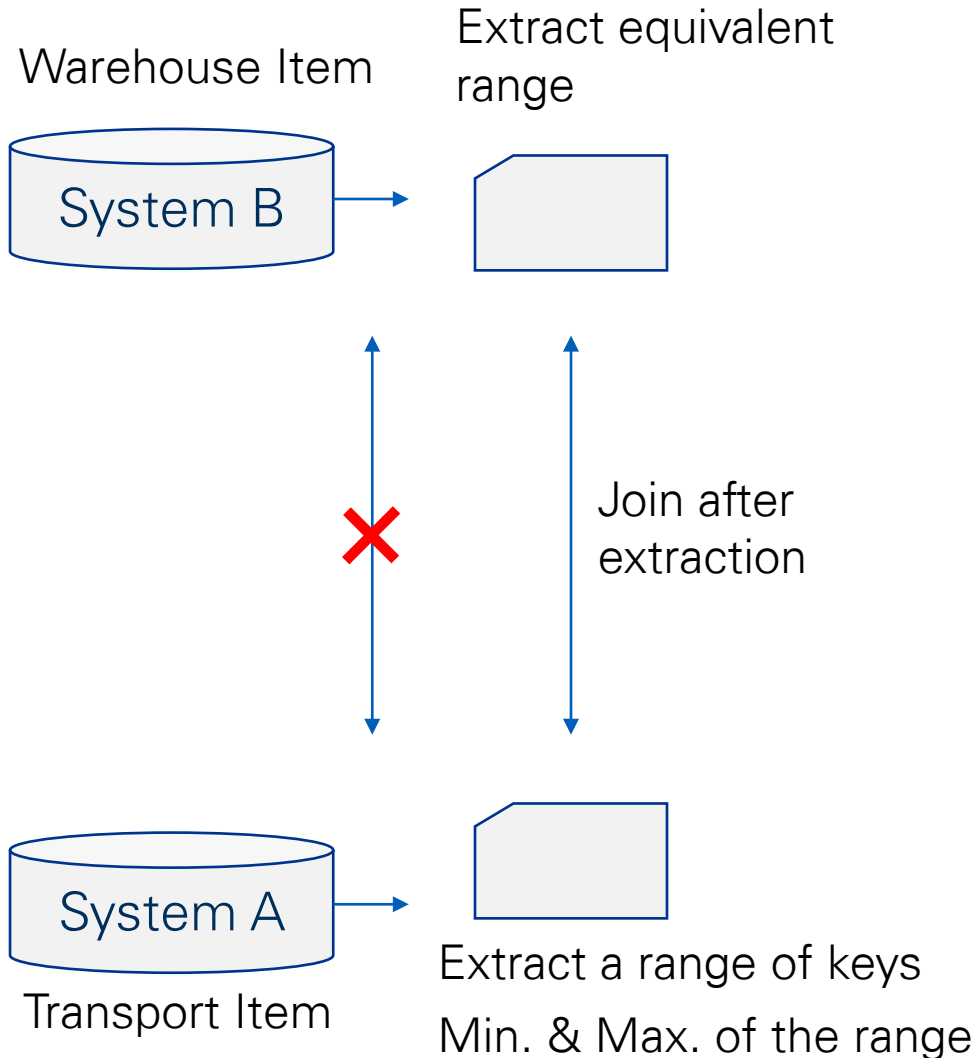
EU & NA



10+ systems



60 prod. sites



Potential challenges for continuous data ingestion

Extract more/less data than needed

Delay in data preparation

Some manual steps need to be done

Extensive reconciliation required to ensure completeness and accuracy of data

Current challenges with input data for process mining

Data sourcing

Data is scattered across multiple systems/sources.
Complex data structures without documentation.

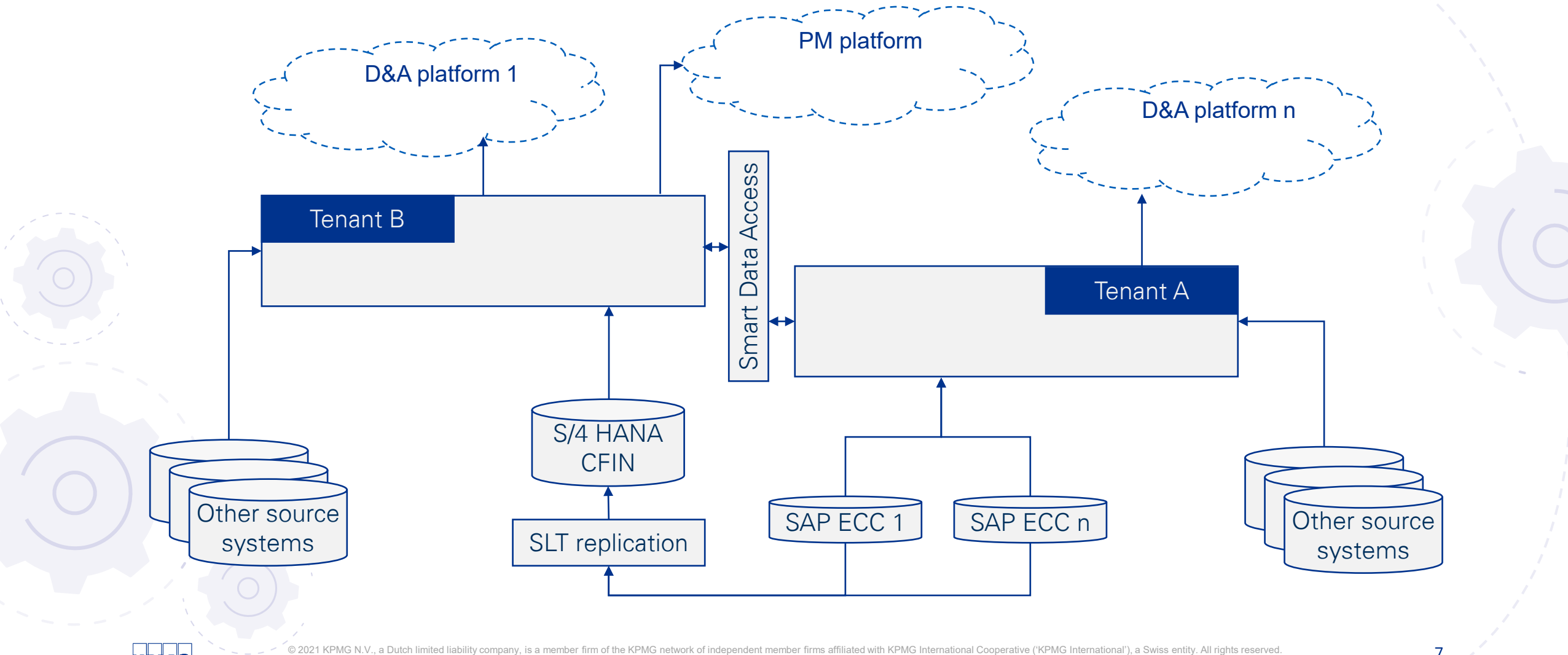
Data extraction

Big volume of data.
Continuous data extraction/ streaming data.
Extracting data based on dependencies.

Data processing

Distributed event log creation.
Complex data pipelines.
Inconsistent data formatting and logging mechanisms.
Continuous data ingestion to PM tools.
Missing information about relations between data points.

Example challenge: Complex data pipeline



Source systems currently do not generate XES

XES is hardly being used in industry unless for exchanging data between process mining tools.

Wide adoption of XES/ Event data standard

Extensibility

Tie event data standard with other relevant technologies for: i) distributed event data preparation ii) streaming data iii) querying event data.

Expressivity

Cover different event data: e.g., transaction log, message log, JSON files, etc.

Flexibility

i) Remove the strict notion of case. ii) Move from one big and heavy event log to ease the processing of big data volumes.

Simplicity

Speed up XES/ event data standard generation by developing low code data transformation tools.



For any question related to this document, please contact:

Elham Ramezani , PhD

Senior Manager- KPMG Global Centre of Excellence for Process Mining

Ramezani.Elham@kpmg.nl



KPMG on social media



KPMG app

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2021 KPMG International Cooperative ("KPMG International"), a Swiss entity. Member firms of the KPMG network of independent firms are affiliated with KPMG International. KPMG International provides no client services. No member firm has any authority to obligate or bind KPMG International or any other member firm vis-à-vis third parties, nor does KPMG International have any such authority to obligate or bind any member firm. All rights reserved. The name KPMG and the logo are registered trademarks of KPMG International.

The KPMG name and logo are registered trademarks of KPMG International.