

Public Procurement Data Strategy

DG GROW G4 - Public Procurement Data Initiatives

Agenda

Design a data strategy (Member states and Commission level) in the area of public procurement



Introduction

- Why a Public Procurement Data Space (PPDS)
- What would be its interaction model



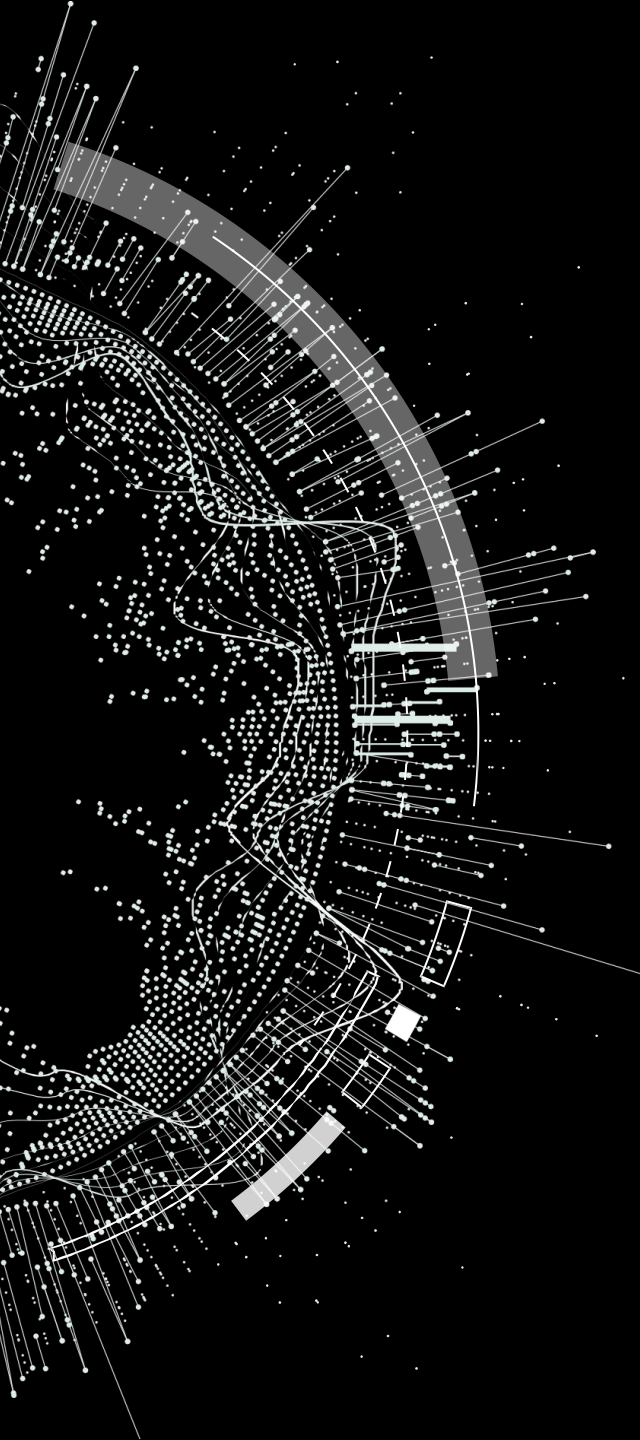
Data Architecture

- How the PPDS should be structure from a data architecture perspective



Scenario and roadmap

- What are the main scenario and implementation next steps



Introduction

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The European strategy for data and the impact for public procurement data

The European strategy for data

- Annex 8. Common European data spaces for public administrations – main focus on law and public procurement data

Public procurement data

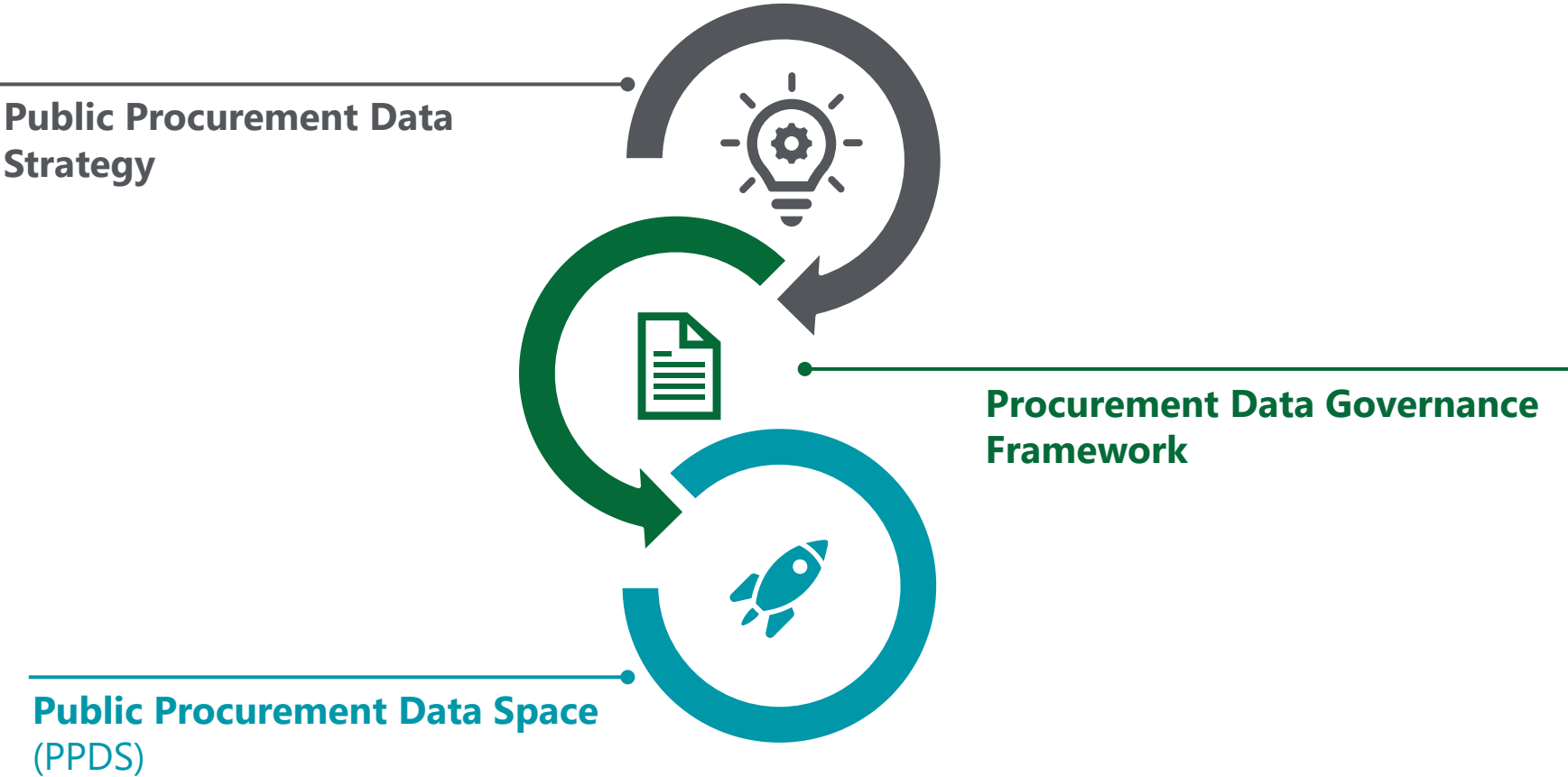
- OPPORTUNITIES: essential to improve transparency and accountability of public spending, fighting corruption and improving spending quality
- CHALLENGES: spread over several systems in MS, different formats, not easy to use for policy purposes in real-time, data quality issues

OBJECTIVE: Establish a data space "**covering both the EU dimension (EU datasets, such as TED) and the national ones**"



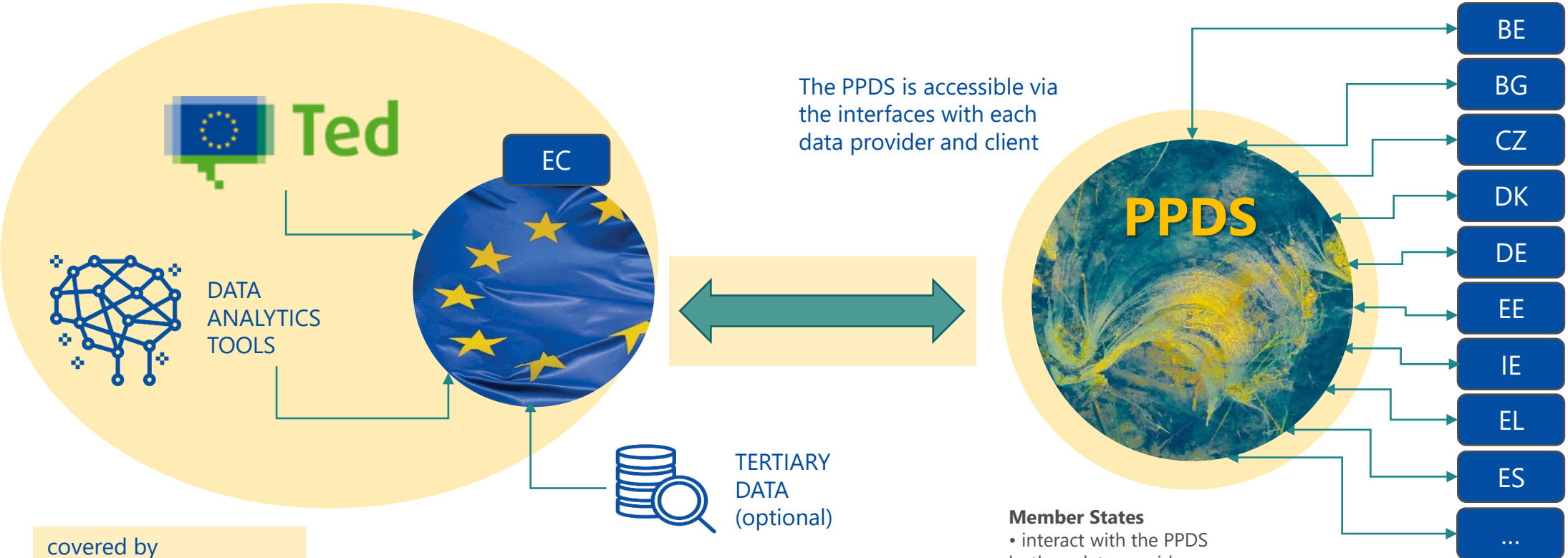
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Public procurement data strategy, data governance and data space



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Interaction model



covered by
PROCUREMENT
DATA GOVERNANCE
FRAMEWORK

The Commission

- interacts with the PPDS both as data provider and client
- is the owner of the PPDS
- has its own internal organisation, data sources and analytics

Member States

- interact with the PPDS both as data provider and client
- have their own internal organisation, data sources and analytics



Architecture

Data Architecture overview

The Layers of the Data Architecture

MS Layer

- **Member State layer:** layer specific to the Member States where information and data are produced and consumed.

Client Layer

- **Client Layers:** information consumers that require public procurement related information and insight to support their business processes.

Analytics Layer

- **Analytics Layer:** layer where analytics services are being provided and insight generated.

Integration Layer

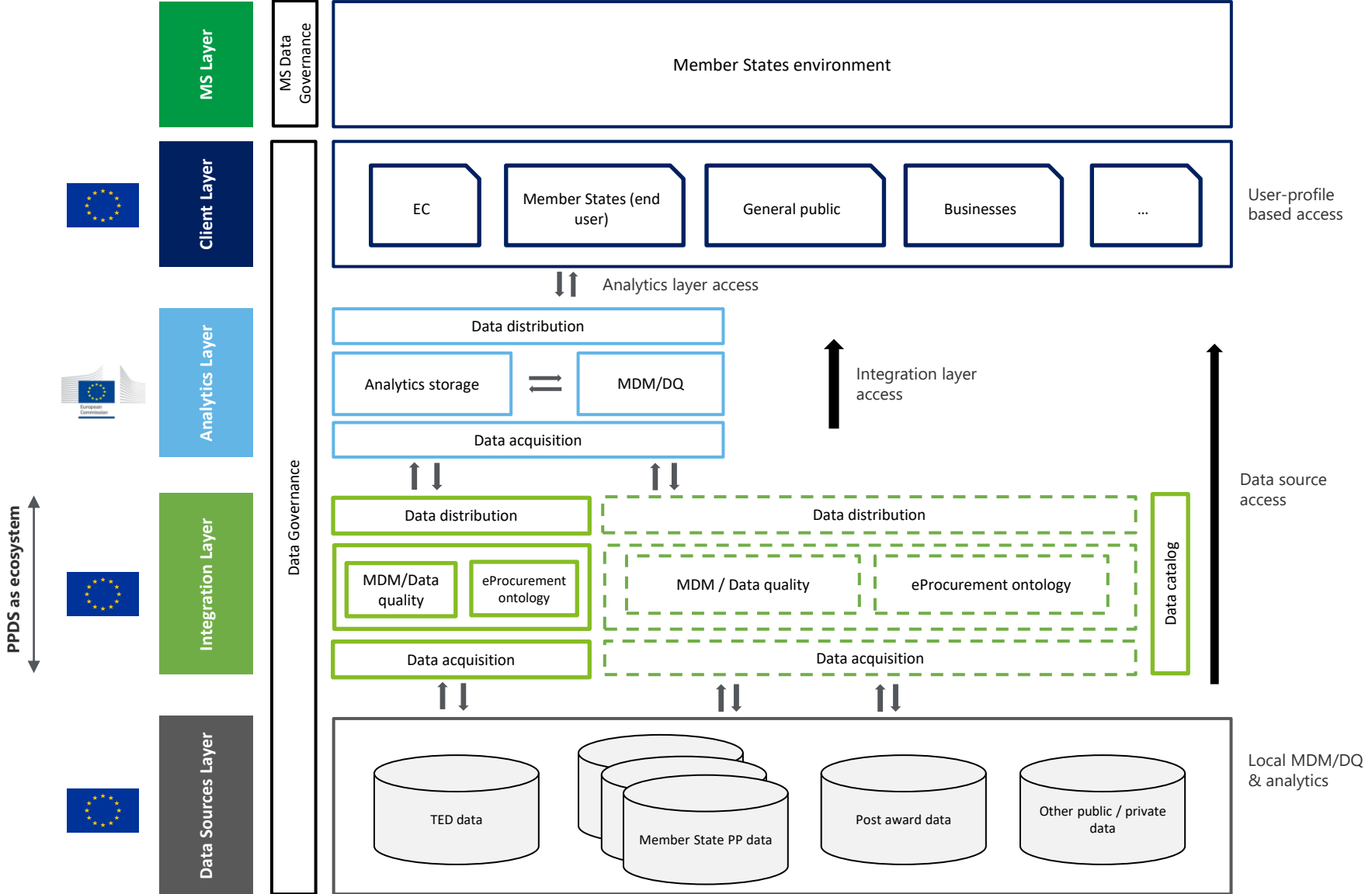
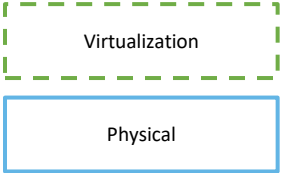
- **Integration Layer:** layer in between that consolidates and merges the information coming from multiple systems and subsequently distributes it to various systems.

Data Sources Layer

- **Data Source Layer:** source systems layer that support business processes and where the information is usually created.

How should the data space be structured

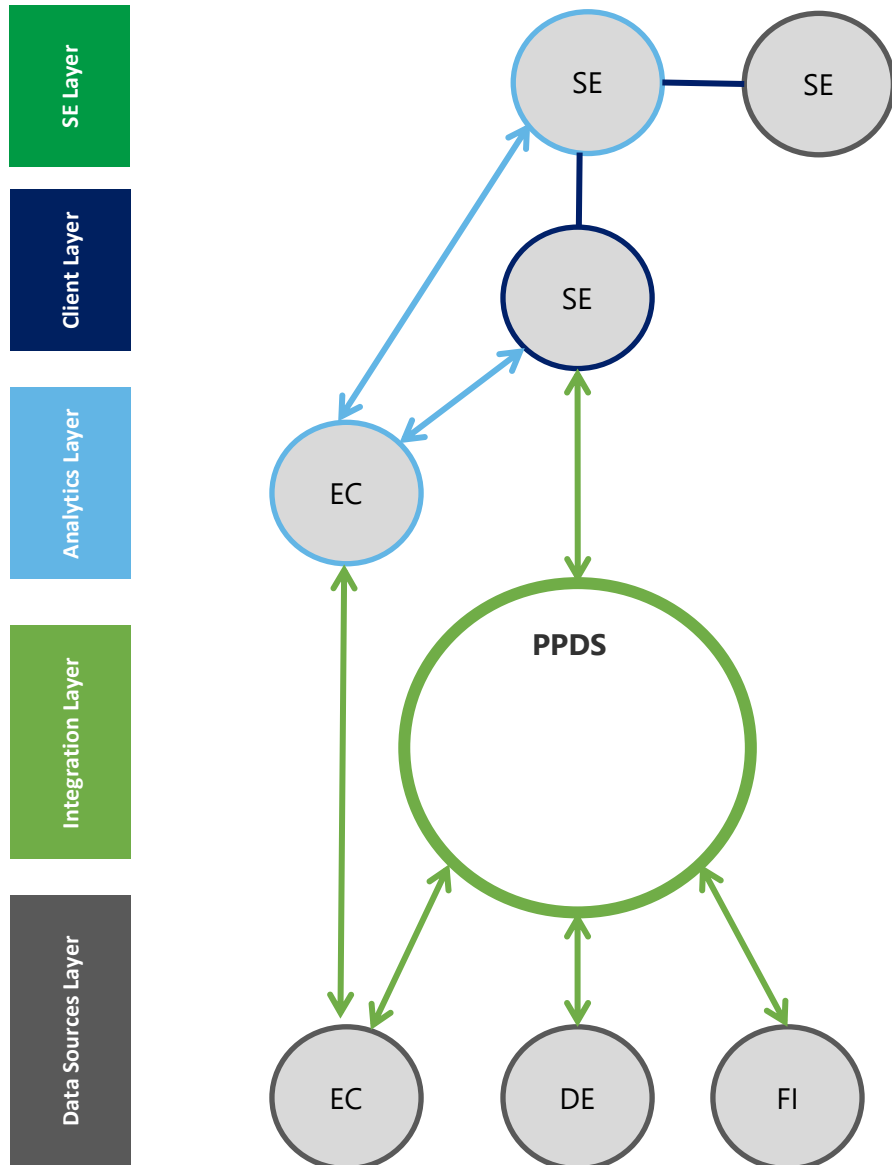
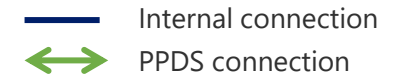
PPDS as a federated model



- Legend**
- MDM: Master Data Management
 - DQ: Data Quality
 - MS: Member States
 - EC: European Commission
 - PP: Public Procurement

Data Architecture overview

Client Layer illustration



Example use case

Sweden wants to integrate Finland and Germany data to benchmark its public procurement figures and also reuse KPIs from the Commission

Data source

- Three data sources are available from the data providers (Germany, Finland, the Commission)

Integration

- Finland and Germany data are distributed through the PPDS via API to be accessed by Sweden and The Commission
- This data is integrated using the common PPDS model

Analytics

- The Commission uses its own tools to calculate KPIs for Public Procurement and this can be used by the Member States

Client

- Sweden accesses PPDS data and consult the Commission KPIs (user-based access, deletion of data)



Scenario & Roadmap

Scenario Analysis (1/3)

Three scenarios varying in terms of data scope and complexity

To reach the target architecture, a set of scenario has been defined. They vary in terms of data scope, complexity and build on each other (Basic PPDS to comprehensive PPDS). Each scenario is further detailed below according to the architecture layers.



General Objective

- PPDS focusing on the fundamentals, integrating TED data (eForms and current standard forms)
- Extended PPDS focusing on Member States notices
- Comprehensive PPDS including post-award data and tertiary data sources like business registers

Layers	Scenario 1: Basic PPDS	Scenario 2: Extended PPDS	Scenario 3: Comprehensive PPDS
Client layer	<ul style="list-style-type: none"> • Client to access available eForms data and related analytics products 	<ul style="list-style-type: none"> • Client to access available pre-award data and related analytics products 	<ul style="list-style-type: none"> • Client to access available pre/post award data and related analytics products
Analytics Layer	<ul style="list-style-type: none"> • Simple data acquisition (EC as source) • Analytics data model (EC) • Set-up of the data quality capability (integration) • Data distribution: data and analytics product (API and dashboard) 	<ul style="list-style-type: none"> • Complete pre-award data (EC and PPDS) 	<ul style="list-style-type: none"> • Complete PP data (EC and PPDS)
Integration Layer	<ul style="list-style-type: none"> • Simple data acquisition (EC as source) <p>Data integration:</p> <ul style="list-style-type: none"> • eProcurement ontology based (Iteration based on key variables to be integrated) • Set-up of the (master) data quality capability (integration) <p>Data distribution using eProcurement format</p>	<ul style="list-style-type: none"> • Complex data acquisition (EC and multiple MS data sources) • MS mapping to eProcurement ontology <p>Data distribution using eProcurement format</p>	<ul style="list-style-type: none"> • Complex data acquisition (EC, multiple MS data sources, post-award, public / private data sources) • Data scope extension (post-award, public / private) <p>Data distribution using eProcurement format</p>
Data Sources	<p>Unique and homogeneous data source</p> <ul style="list-style-type: none"> • eForms implementation • Standard forms migration and decommission 	<p>Multiple and heterogeneous data sources</p> <ul style="list-style-type: none"> • Open data / National / regional / CA registers integration 	<p>Multiple and heterogeneous data sources</p> <ul style="list-style-type: none"> • Post-awards registers • Public / private data

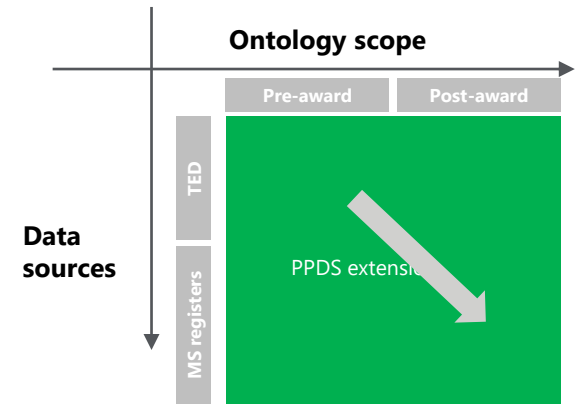
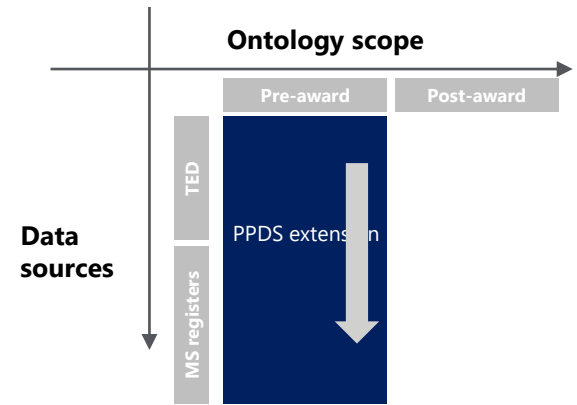
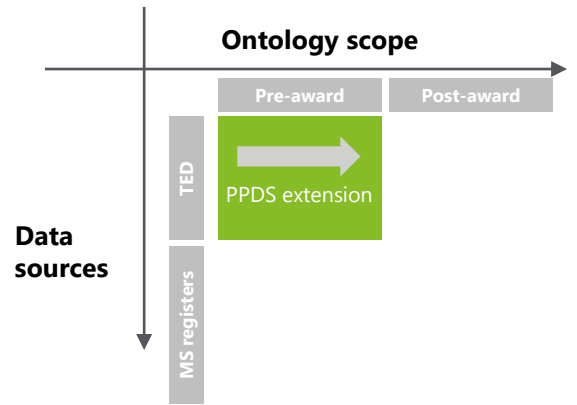
Scenario Analysis (2/3)

Scope and iterative approach

Two main dimensions are driving the scope of each scenario: the amount of data sources to integrate (e.g. Member States registers) and the coverage of the ontology (e.g. a subset of data element or variables). This should be considered when moving towards the implementation (e.g. iterative approach per dimension)



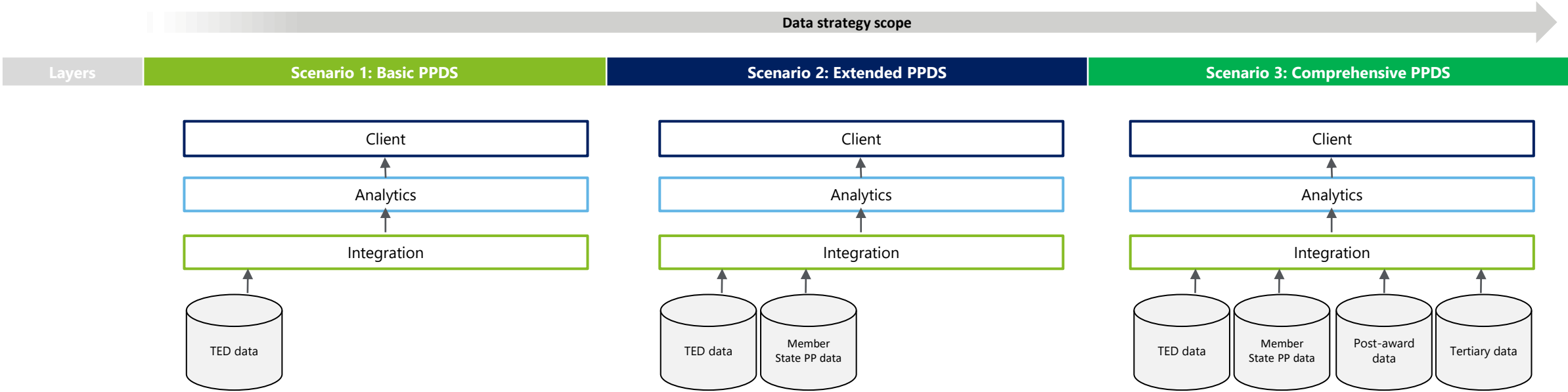
- General Objective**
- PPDS focusing on the fundamentals, integrating TED data (eForms and current standard forms)
 - Extended PPDS focusing on Member States notices
 - Comprehensive PPDS including post-award data and tertiary data sources like business registers



Scenario Analysis (3/3)

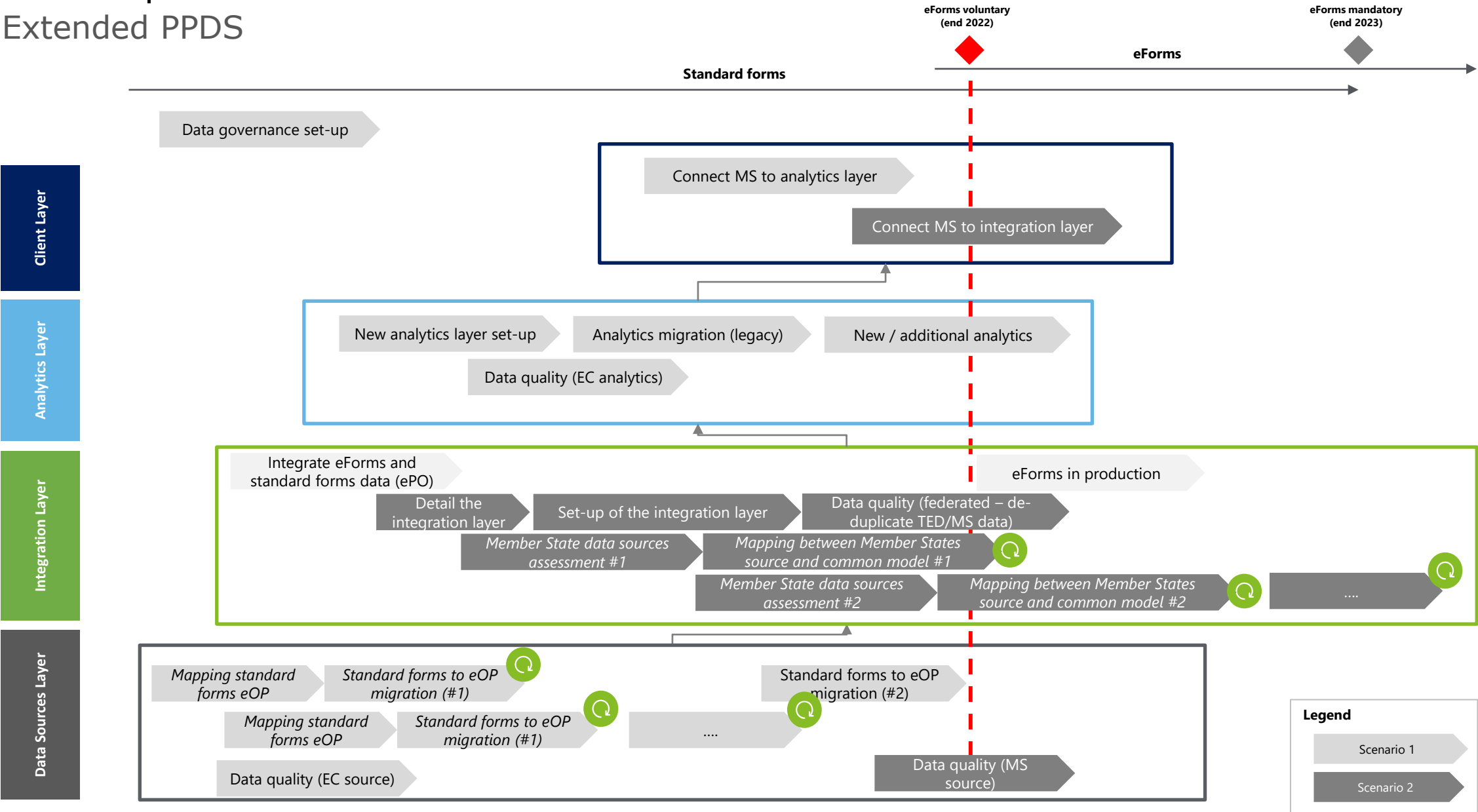
Addition of data sources across the scenarios

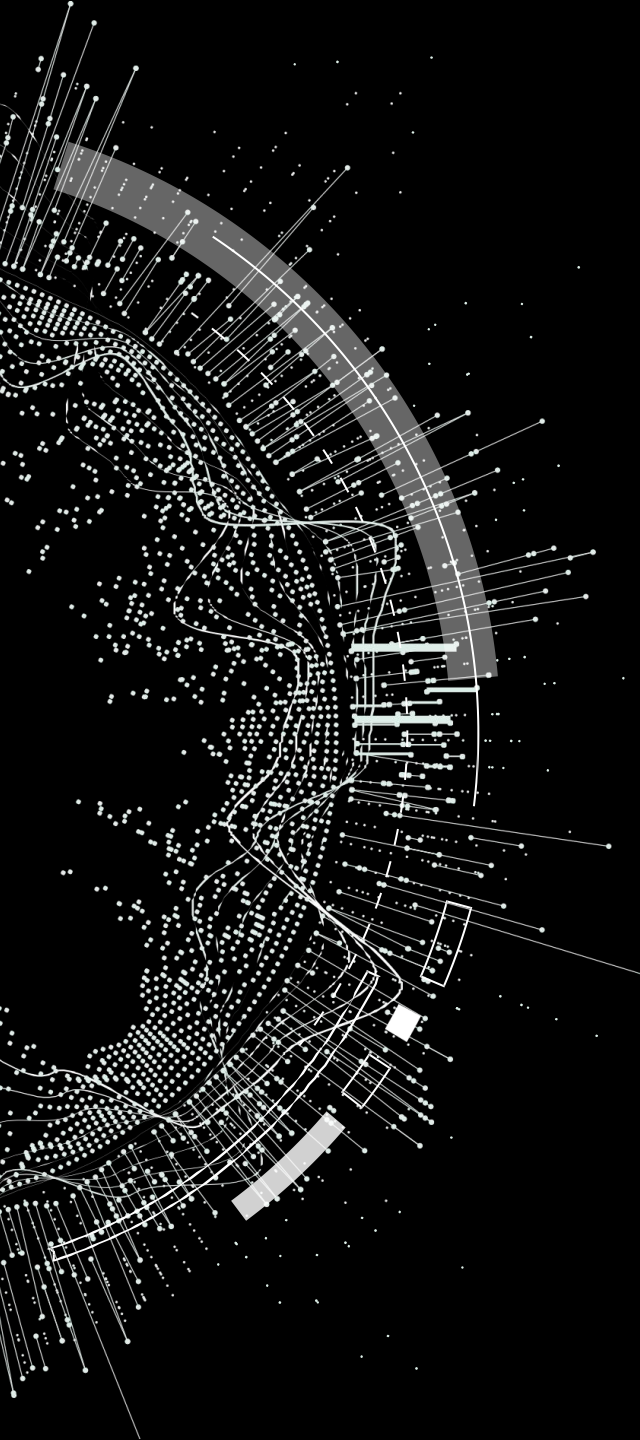
The three scenario progressively include additional public procurement data sources from the data providers. The addition of those data sources triggers additional considerations in each of the architecture layer to ensure data can be distributed to the PPDS stakeholders.



Roadmap for Scenario 1 and 2

Extended PPDS





Glossary

Glossary

Explanation of terms

Terms	Explanation
PP	Public Procurement
TED	Tenders Electronic Daily
MS	Member States
EC	European Commission
PPDS	Public Procurement Data Space
ePO	eProcurement Ontology
CA	Competent Authority
MDM	Master Data Management
DQ	Data Quality