



**Conférence Européenne
des Directeurs des Routes**

**Conference of European
Directors of Roads**

[Final Event CEDR Call 2018 BIM](#)

**Project CoDEC
Connected Data for Effective Collaboration**

Day 2 - 25th May 2022

Stockholm

Project CoDEC

1. Demonstration Overview (5min)

Sukalpa Biswas (Project Co-Ordinator, TRL)

2. CoDEC Data Dictionary (5min)

Sukalpa Biswas (Project Co-Ordinator, TRL)

3. CoDEC Data Ontology & API
(15min)

Jose' Baraterio (WP 3 Lead, LNEC)

4. Pilot Project 1 (15 min)

Jelena Petrovic' (BEXEL), Darko Kokot (ZAG)

5. Pilot Project 2 (15 min)

Jelena Petrovic' (BEXEL), Jose' Baraterio (LNEC)

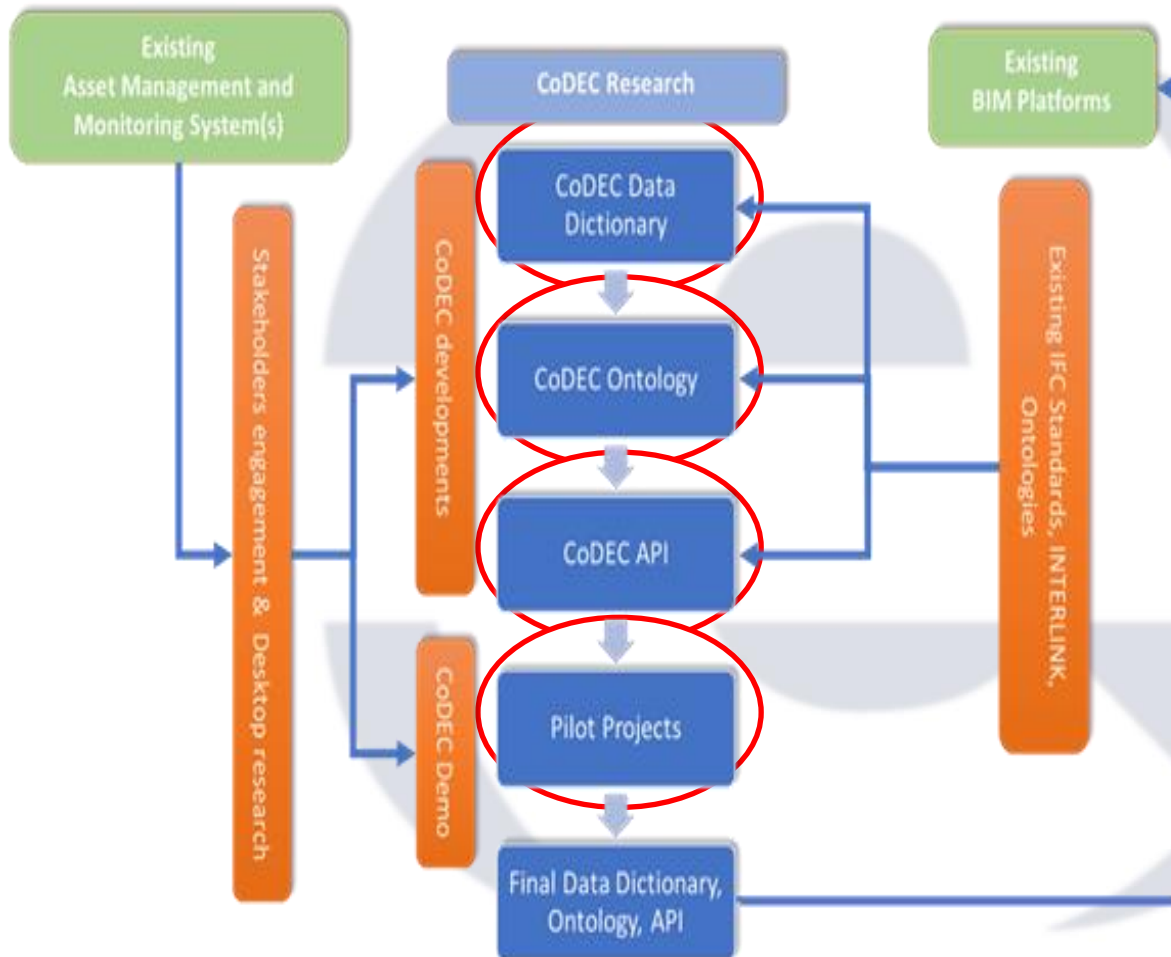
6. Pilot Project 3 (15 min)

Shubham Bhusari (RHDHV)

7. Discussion and Questions (20
min)

All

Demonstration Overview



CoDEC has developed:

1. CoDEC Data Dictionary,
2. CoDEC Ontology,
3. CoDEC OpenAPI

CoDEC tested developed solutions through:

- three pilot projects

CoDEC developed solutions are :

- Future- proofed
- Expandable and Implementable

List of Pilot Projects

Pilot projects :

- **Pilot Project 1:** Integration and 3D visualisation of sensor data in a BIM Model of a **Tunnel**
Implementation Partner : AWV (Belgian-Flemish NRA)
- **Pilot Project 2:** Linking and visualizing condition data with a **Bridge** BIM model
Implementation Partner : RWS (Dutch NRA)
- **Pilot Project 3:** Enhancing legacy data by linking the BIM model of a **Road** to a GIS
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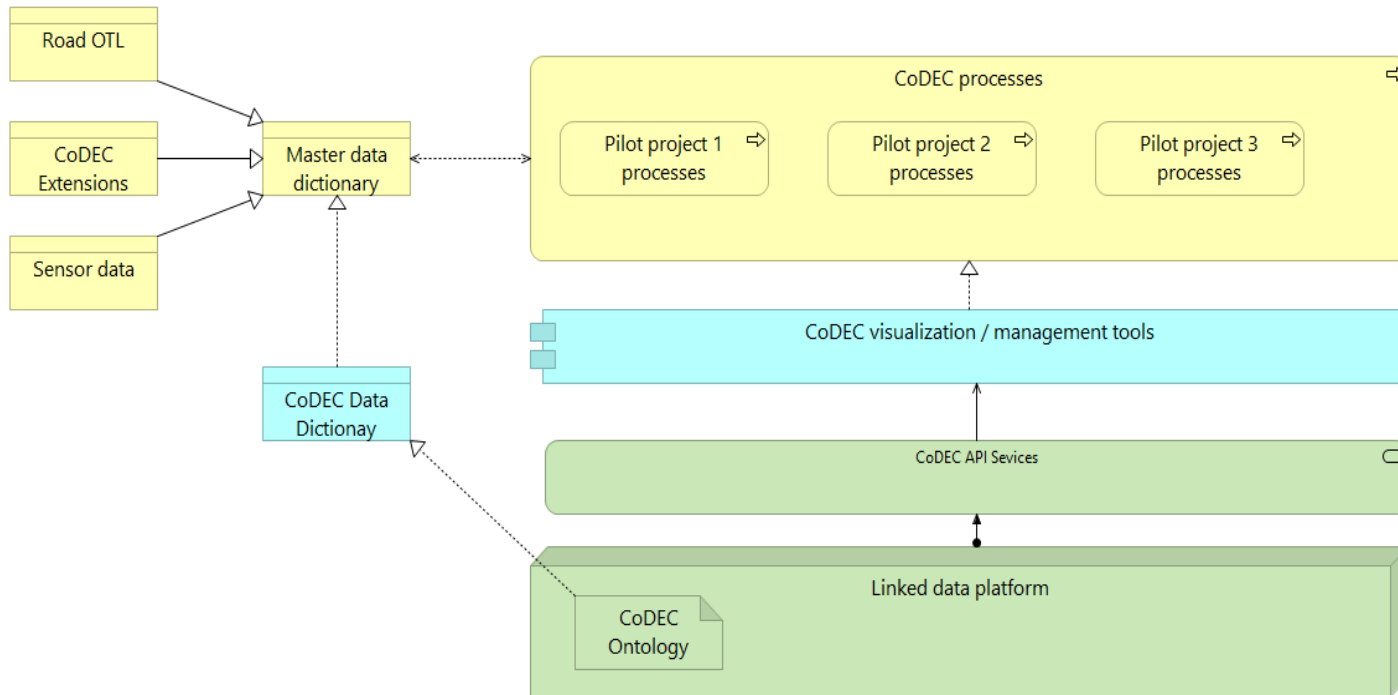
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Overview of Ontology and API





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Pilot Projects' overview

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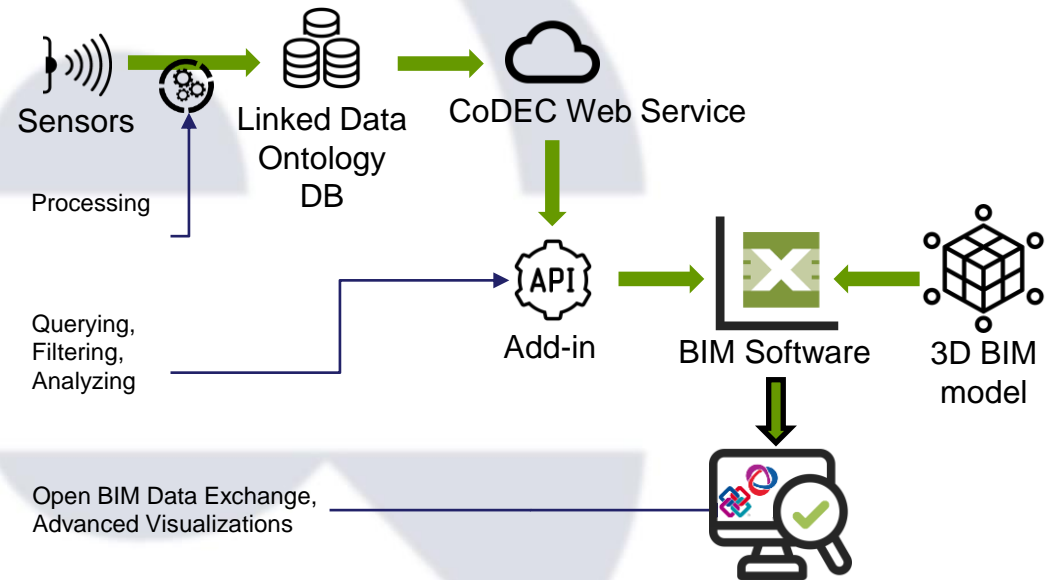
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Pilot Project 1

Overview of Pilot Project 1

Objectives

- Enhance BIM model of a tunnel with CoDEC OTL
- Link BIM model with **monitoring** data
- Be able to query the data (CoDEC API)
- Advanced 3D visualisation of the entire BIM model



Pilot Project 1



Demonstration

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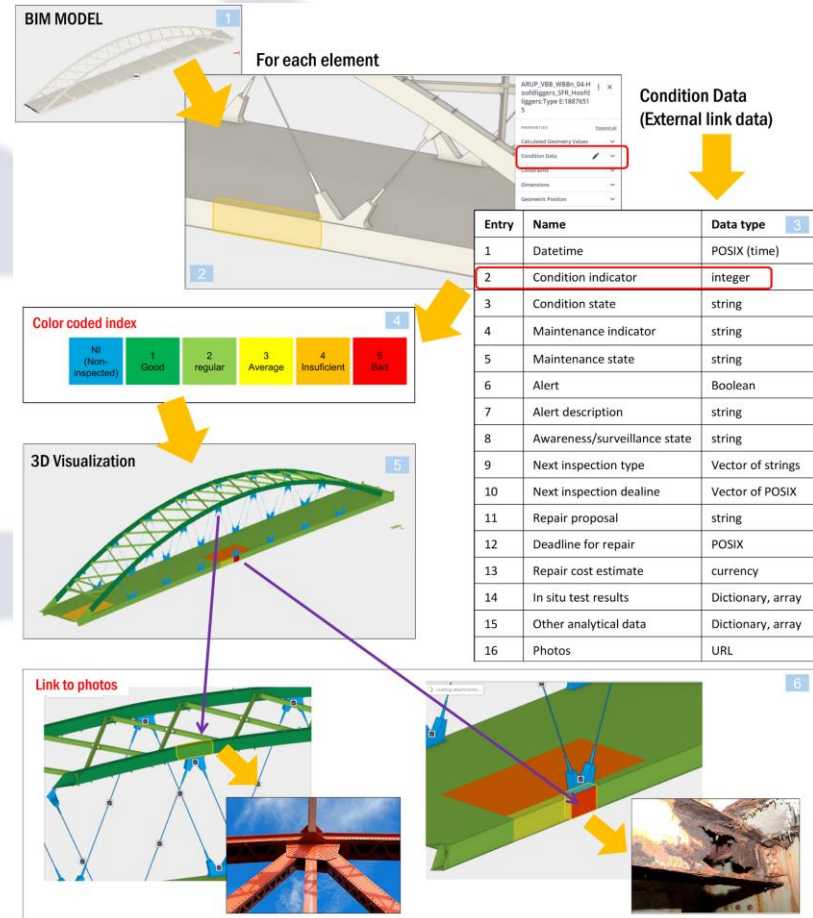
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Pilot Project 2

Overview of Pilot Project 2

Objectives

- Enhance BIM model of a bridge with CoDEC OTL
- Link BIM model with risk and condition data
- Be able to query the data (CoDEC API)
- 3D visualisation of the entire BIM model, exploring risk and condition data



Pilot Project 2



Demonstration

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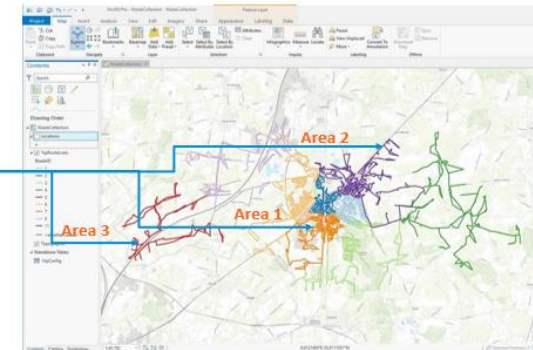
Overview of Pilot Project 3

Objectives

- Enhance legacy data in **BIM models** by **linking** it to **GIS based Asset management systems**.
- Showcase linked database for two use cases: **enriching existing data** (using Lidar inventory survey); **add new data** (gradient data) into BIM model



CoDEC
Use one preconfigured methodology to link selected data rapidly and at scale from various BIM models to GIS-based AM platforms



Pilot Project 3



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CoDEC partners

CoDEC

Connected Data for Effective Collaboration

Project facts

Starting date: 1st October 2019

Duration: 24 months

Project Coordinator

TRL THE FUTURE OF TRANSPORT
Sukalpa Biswas
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www.codec-project.eu

This project has received funding from the CEDR Transnational Road Research Programme Call 2018



CoDEC

Connected Data for Effective Collaboration

THANK YOU!

