



# CoClass

## Background & Implementation

Tallinn, May 28 2019

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Swedish Building Services

# Model data for different uses

CoClass



Reference designation  
=J1001.JJ2003.RNB05010  
++01-202



**Classification**  
RNB Regulating  
damper

## Properties

**Size:** 250

**Air flow:** 202 l/s

**Sound level:** 30 dB(A)

**Colour:** faint gray RAL  
7037

## Maintenance activity

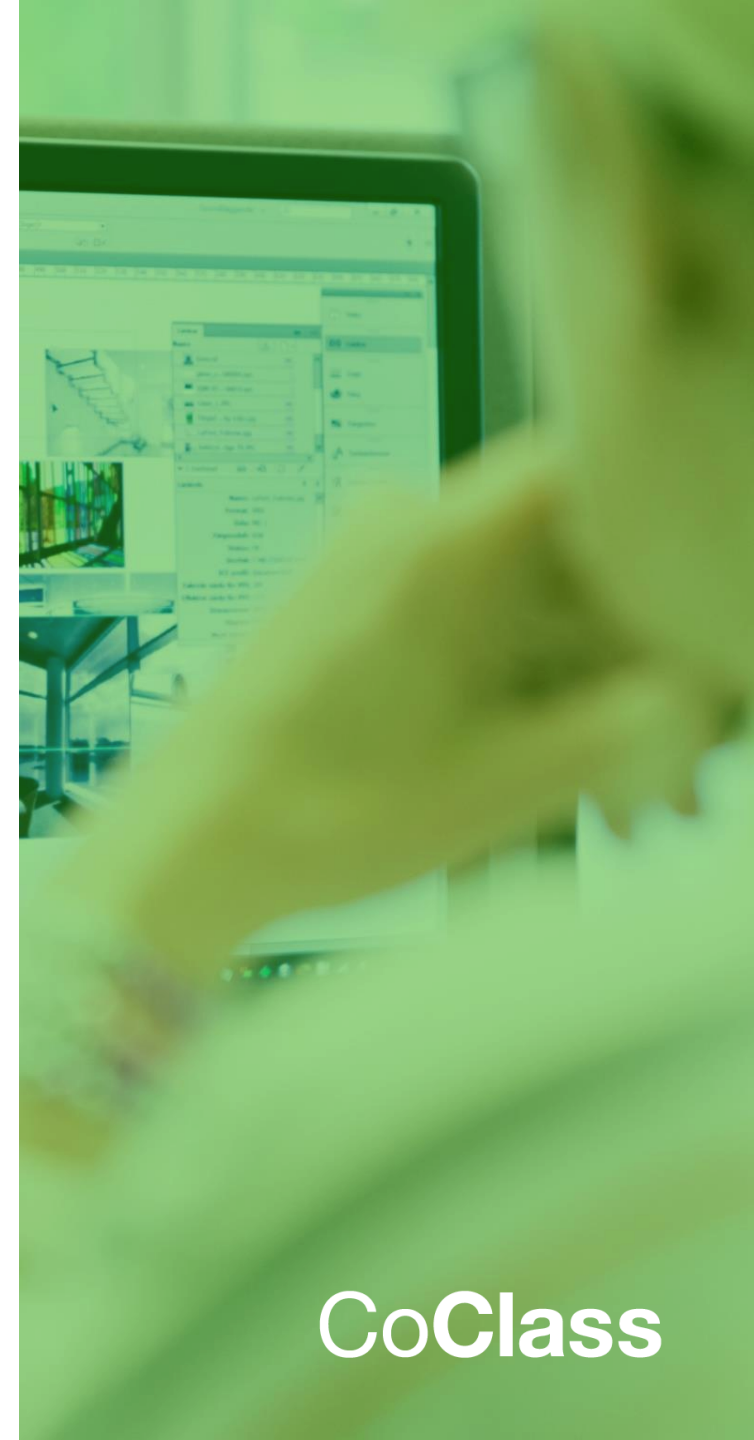
Clean when needed with  
lukewarm water and dish soap.  
No tools needed for access.

Air distribution system no 01 > Extract air distribution system no 03 > Regulating damper type 05 no 010

House 01 room 202

# Starting initiative

- Stockholm Bypass project (20 km road tunnel), Swedish Transport Administrator (Trafikverket)
  - Model based procurement and production using CAD files
  - BSAB 96 extended for CAD layer names
- BSAB 2.0 project
- IEC/ISO 81346
  - CCS Cuneco Classification System, Denmark
- Denmark and Sweden added classes for buildings and infrastructure to 81346-2 and 81346-12



# How agreement was gained

- No strong opposition or heated debate
- Swedes have a large degree of trust in authorities
- Svensk Byggtjänst (Swedish Building Services) has strong position in the building sector
  - Trafikverket's lead has been important
- The foundation in international standard is considered crucial
  - Design, construction and goods are more often sold and bought on a European market
  - Software implementation requires a large market



# Alternative views

- Create a Swedish system, based on known technical solutions
  - Similar to Uniclass and Omniclass
- IFC is enough!
- BIP codes
  - Based on extended Swedish standard for object designation (e.g. B = Beam, SB = Steel Beam)
- BIMTypeCode
  - Based on BIM7AA (Denmark)
    - Based on SfB (old Swedish and international system)

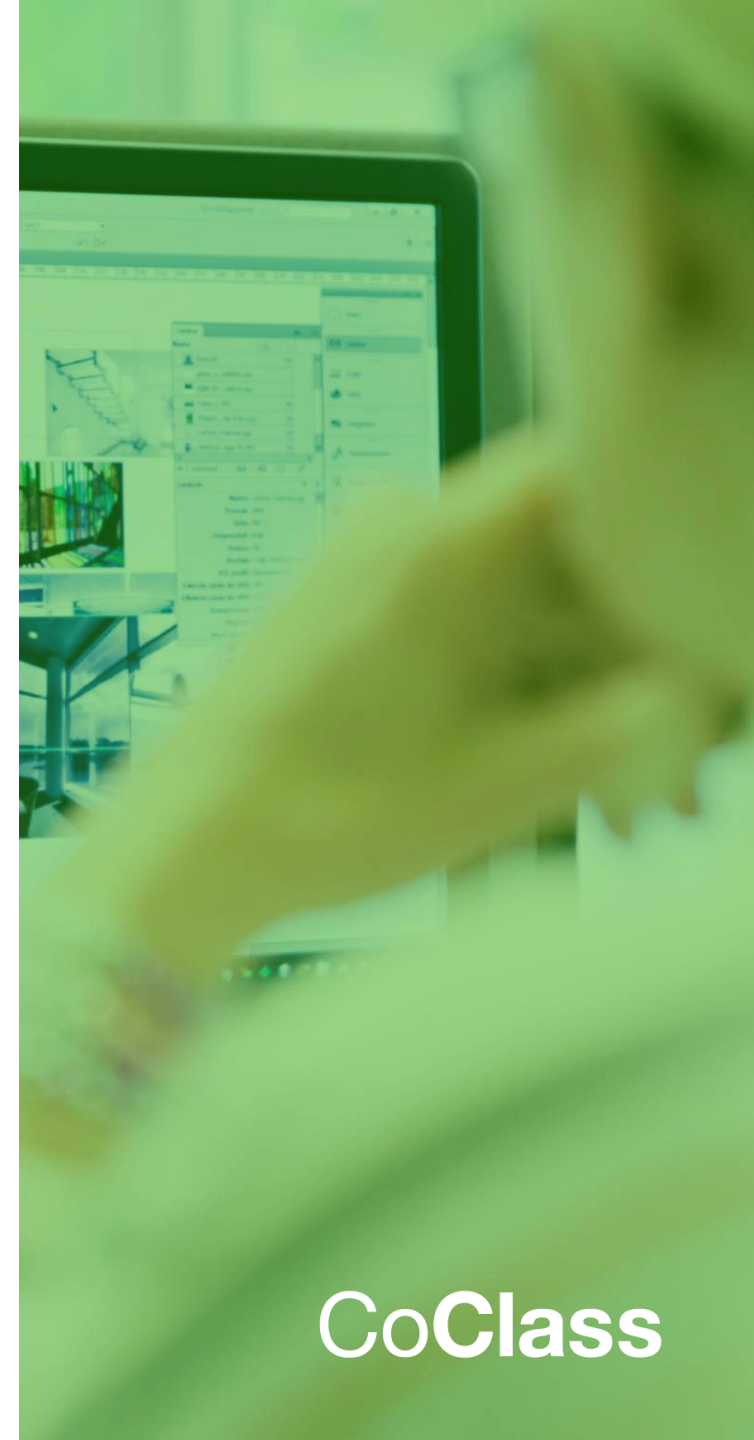


# Owners



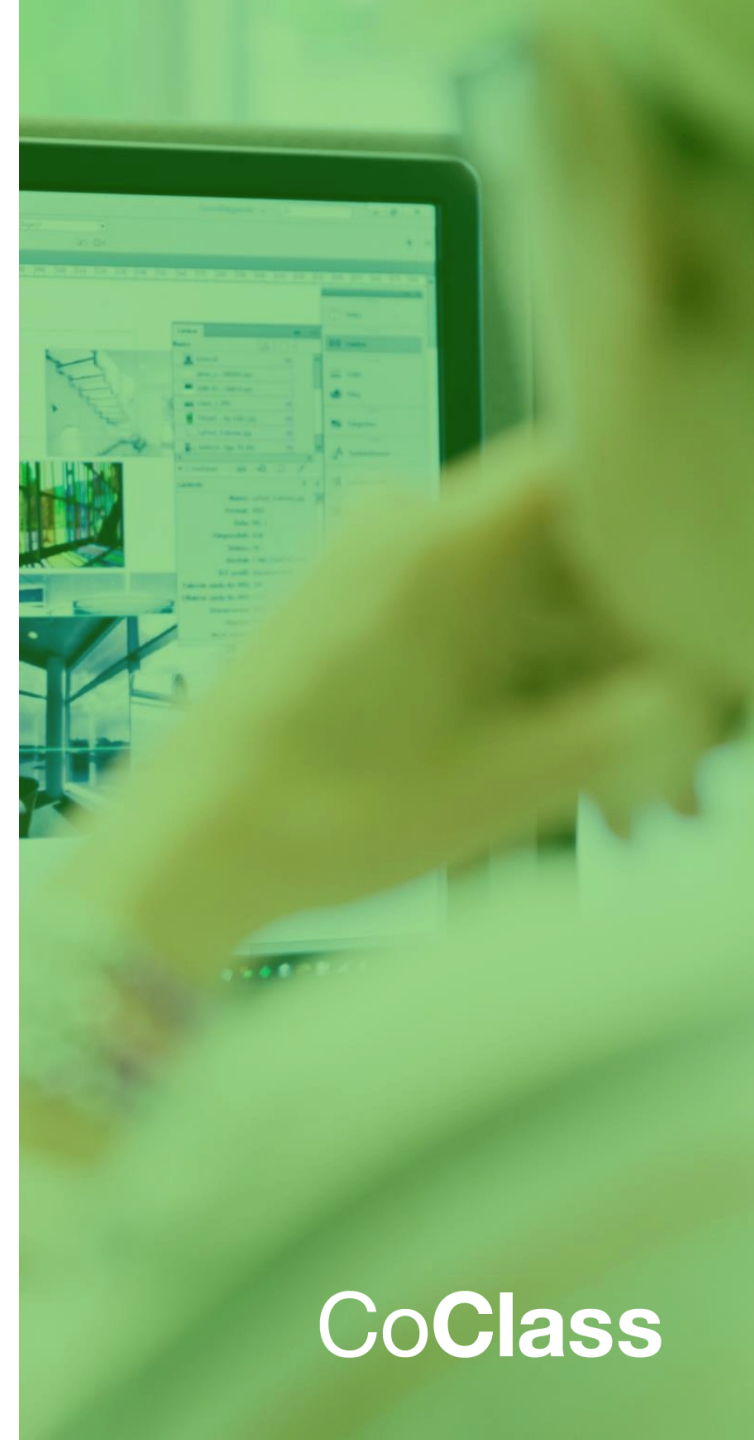
# Owner strategies and opposing views

- Large difference in implementation time-frame
  - Trafikverket has started
  - The others are waiting, testing, or promoting use
    - SKL: blanket procurement document for preschool
    - SLL: subway design documentation
    - Swedavia: still relies on BSAB 96
- Trafikverket's asset management is using the old version of 81346-2, and an altered version of 81346-12
  - Discussion on-going regarding changes in some component classes



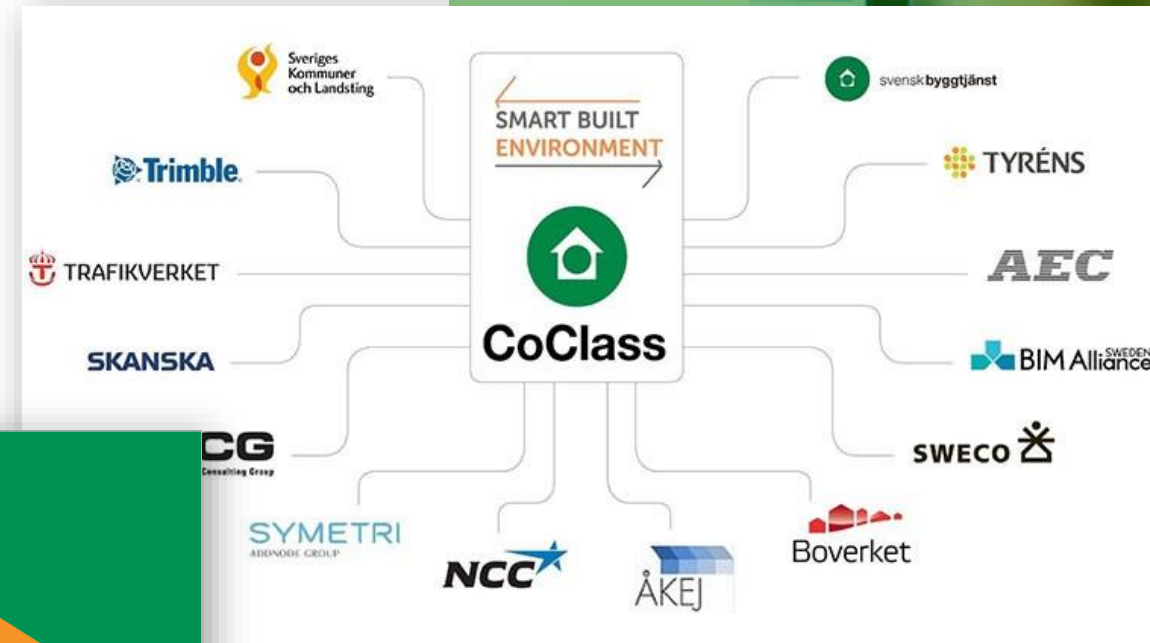
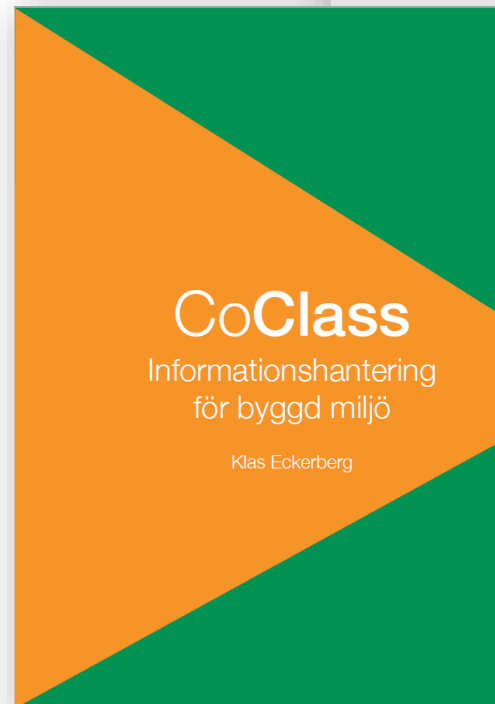
# Current market status

- No legal requirements
  - Market-oriented governmental organizations
- Very large interest in many projects in the Smart Built Environment program
- Large interest from the business community
  - Digitalization is finally become real and affecting core business
  - Great trust in international standards
    - Skanska, NCC, Peab, JM, ...
- The Church of Sweden, the city of Karlstad
- SKB, the Parliament administration, ...



# Implementation issues

1. Software implementation
  2. Software implementation
  3. Software implementation
- CoClass book
  - Series of courses
  - Webb site with examples
  - More customer visits



CoClass

# Next steps

- CoClass Studio
  - Create your own data models
  - Share with others
  - Collective learning



CoClass



START

READ

EDIT

TREEVIEW **small** large hide

**Tables** CoClass Studio

CoClass Version 1.0.0

CATEGORIES

Construction complex

Construction entity

Space

**Construction element**

Functional systems

Constructive systems

Components

Work result

PROPERTIES

Properties

ACTIVITIES

Maintenance activities

HIDE TREE

## Edit structures

### Create a new structure

1.0.0

Create

### Key for api access

## AAB Flerfamiljshus

CoClass version 1.0.0



## Nye Veier

CoClass version 1.0.0



CAH	⊖ CAH Road	Construction entity		
F	⊕ F Traffic space	Space		
EBA	⊖ EBA Services tunnel	Space		
A	⊖ A Ground system	Functional systems		
AB	⊖ AB Foundation construction	Constructive systems		
UGB	UGB Slab plate	Components		

# Next steps

- AMA Function
  - Use CoClass for procurement of design-bid-build projects
- CoClass International!
  - Sweden, Estonia, Czechia
  - Finland? Latvia? Lithuania? Norway? Denmark? Poland? Russia?
  - Germany?? France???
  - **United Kingdom, United States, Canada**



Questions?

Thank you for  
your attention!