

MOLIO

CONSTRUCTION INFORMATION CENTRE

Molio specifications, development and challenges

Introduction

The current structure is challenged by different factors. These are for example :

- Complex building elements composed of building elements from different disciplines
- Desire of increasing and wider use of digital data
- Increasing use of functional tender
- Specifications for simple projects are disproportionate
- New requirements in constructions agreement terms and building regulations

Molio will therefore restructure the structure of the specifications to overcome the challenges as far as possible.

Current structure

Every works specification is composed by two parts:

- Work specification - general
- Digital standard specifications

Work specification - general contains the generic knowledge and generic requirements that belong to a work area. It's a collection of project-independent determinations that serve as a common reference base for the building elements associated with a work area.

Digital standard specifications are project-specific requirements as additions or deviations to the Work specification – general.

In the current structure are specifications based on work and building elements.

New structure

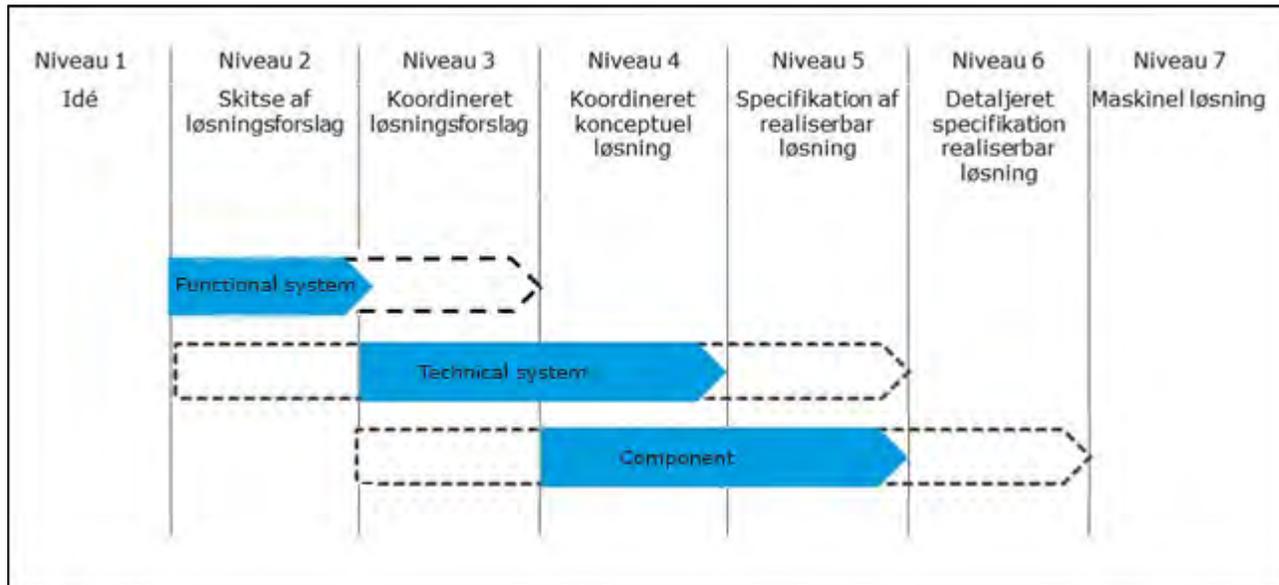


Figure 1: Link between building elements and information levels e.g. CCS Classification .

The new structure will be able to handle the functional tender of building components, typically in the form of components and technical systems, where it is clear which discipline they belong to, for example, whether it is a wooden structure or a steel structure.

Building elements and building elements specifications

The main change of the specification tool is that in the future it will be based on specifications of building elements with associated Work specification - general specifications.

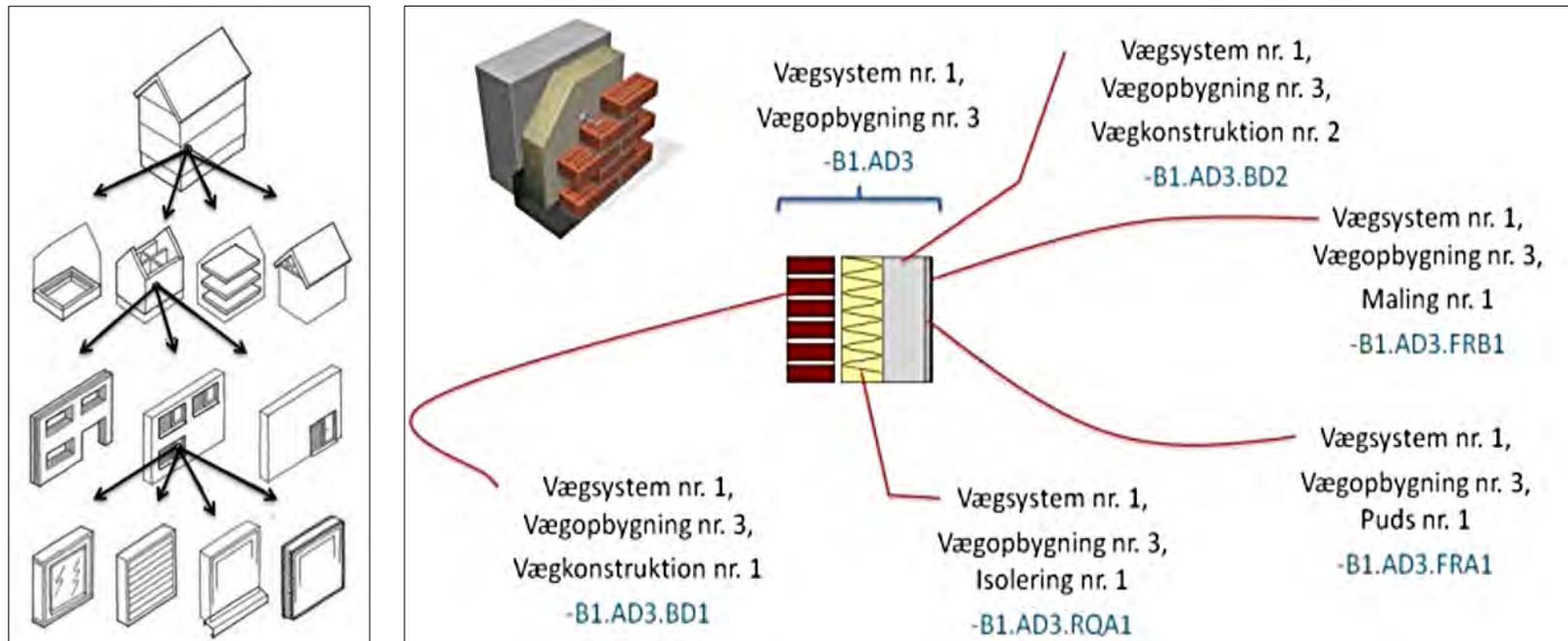


Figure 2: Example for building element, that consists of more building elements e.g. CCS Classification and Identification.

Building element specifications

Building element specifications are project-specific and relate directly to the Work specification - general for the work area.

Building element specifications can describe a building element or a performance in the form of a non-physical building component.

Work specification - general

For each work area, Molio prepares one or more Work specification - general .
As something new, Work specification - general will be directly associated with one or more building specifications and no longer have a digital standard specification attached.

A Work specification - general contains the generic knowledge and generic requirements that belong to a work area.

It's a collection of project-independent determinations that serve as a common reference base for the building elements associated with a work area.

The Work specification - general table of content is:

2. General specifications
3. Projecting
4. Production

When starting with section 2, it is to ensure the consistency of work specifications, where section 1 is scope of bit.

Development

In the development of new structure we have following milestones:

- Phase 1 presented to Molio specification group (06. Maj 2019)
- Phase 2 presented to Molio specification group (02. July 2019)
- Phase 3 presented to Molio specification group (21. august 2019)
- Hearing workshops September 2019
- Approval by the board November 2019
- Specification in new system by authors march 2020
- Molio implementation and test
- Launch 1. December 2020

Bygningsdelsbeskrivelse Ydervægge, skalmur mod tung bagvæg

1. Omfang

Arbejdet omfatter levering og montering af:

- Blank skalmur med varmeisolering foran eksisterende facade, gavle og false
- Fugtspærre, kuldebrosisolering, bindere, armering, konsoljern m.m.
- Sålbenke under vinduer.

2. Almene Specifikationer

2.1 Generelt

Denne bygningsdelsbeskrivelse gælder sammen med *Molio B2.240, Basisbeskrivelse – murværk*

2.3 Andet gældende grundlag

Der henvises specielt til snit, bygningsudsnit og detaljer, samt planer og facader, dog således at alle tegninger iht. ingeniør- landskabsarkitekt - og arkitekttegningslister er gældende

Hovedtegninger:	Oversigt farver	Tegn nr.: A-N-00-0---(99)104
	Planer	Tegn nr.: A-N-21-1-X-(99)101-105
	Facader	Tegn nr.: A-N-21-2-X-(99)101-102

Bygningsudsnit: Snit CC/GG Tegn nr.: A-N-21-3-X-(99)102

Detailtegninger: Detaljemappe Tegn nr.: A-N-00-5-X-(99)100

2.4 Referencer

2.4.1 Generelt

Gældende dato: 2019.01.21

2.5 Bygherrens kontrol og godkendelse

2.5.3 Godkendelser

Prøver vil blive kommenteret inden for 10 arbejdsdage fra modtagelse/meddelelse om, at prøven er udført.

2.5.4 Prøver

Følgende prøver på materialer og produkter skal forelægges bygherrens tilsyn til godkendelse:

- Håndprøver facadetegl 3 stk.
- Håndprøve farve og overflade sålbænk

Følgende prøver for fastlæggelse af udfaldskrav skal udføres:

- Der udføres samlet prøvefelt bestående af opmuring og fugning. Prøven kan efter byggeledelsens godkendelse indgå i det færdige arbejde.

2.11 Relationer til andre arbejder

2.11.1 Generelt

Ud over den almen tværfaglig koordinering, skal der i særlig grad rettes fokus på koordineringen med følgende arbejder:

- Elementmontage.
- Facadelukning vedr. montering af vindueselementer med montagebeslag samt falselementer.
- Sökkelpuds, vedr. afslutning fugtspærre og beskæring.

2.11.2 Forudgående arbejder

- Betonelementer, leveret med indstøbte trådbindere, som rettes ud under nærværende arbejde.
- Sokkel for skalmur i letklinkerbeton.
- Konsolbeslag og falselementer for facadelukning.

2.11.4 Efterfølgende arbejder

- Facadelukning.
- Sökkelpuds.

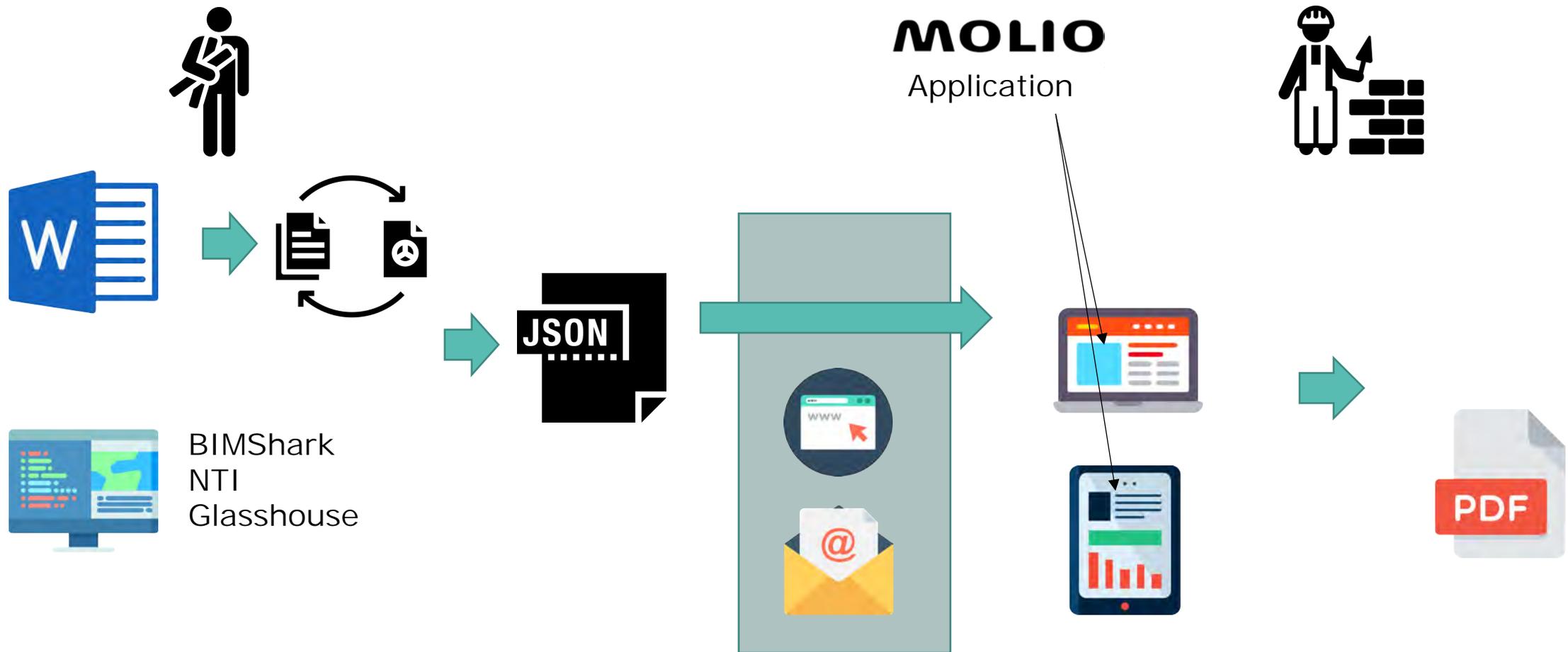
Specifications with property data

Byggesten

Massive vandstrøgne, facadesten. Synlige flader uden sætmærker.

Stentype:	HD
Kategori:	I
Dimension:	228 x 108 x 54 mm
Toleranceklasse:	T2
Geometri:	Gruppe1
Trykstyrke liggeflade middel:	20 N/mm ²
Trykstyrke liggeflade normaliseret:	15 N/mm ²
Frostbestandighed:	F2
Saltindhold:	S0
Brandmodstand:	A1
Bruttodensitet:	D1, 1800 kg/m ³
Farve:	Rød

Digital specifications in new structure



Challenges

In the development of new structure we encountered following challenges:

- .Do you have experience having to systems to maintain in a longer period?
- How many specifications do you have? (Buildings)