BIM - Multiplatform approach at Doka

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Who is Doka

Doka – a company of Umdasch Group

- Formwork technology, shop fitting & innovation think tank under one roof

Doka Headquarters in Austria

- Research & Development, Production & Operations

The Doka Group – at a glance

1868	Founded
5	Continents
70	Countries
160	Branches worldwide
1.281	Million € consolidated revenues Umdasch Group
91	% Foreign share
> 6.200	Employees

Formwork systems

- Framed formwork for walls

  Framax Xlife plus

Construction site

- Nant de Drance
  Wallis, Switzerland

Construction site

- Cityringen
  Kopenhagen, Denmark

Construction site

- MS-3 Ostróda
  Ostróda, Poland

Construction site

- The Exchange 106 Tower

  Kuala Lumpur, Malaysia

Doka The Formwork Experts

~ 60,000	Projects / year with
~ 23,000	Customers
about 4,500	Formwork items
> 40,000	Sample solutions
> 10	File formats for drawings and models
160	Branches worldwide
34	Document languages

actual requirements and BIM services at Doka

Construction site

- Muskrat Falls
  Labrador, Canada

Construction site

- Muskrat Falls
  Labrador, Canada

- model in Navisworks
  (used in design phase,
  not further maintained
  in construction phase)
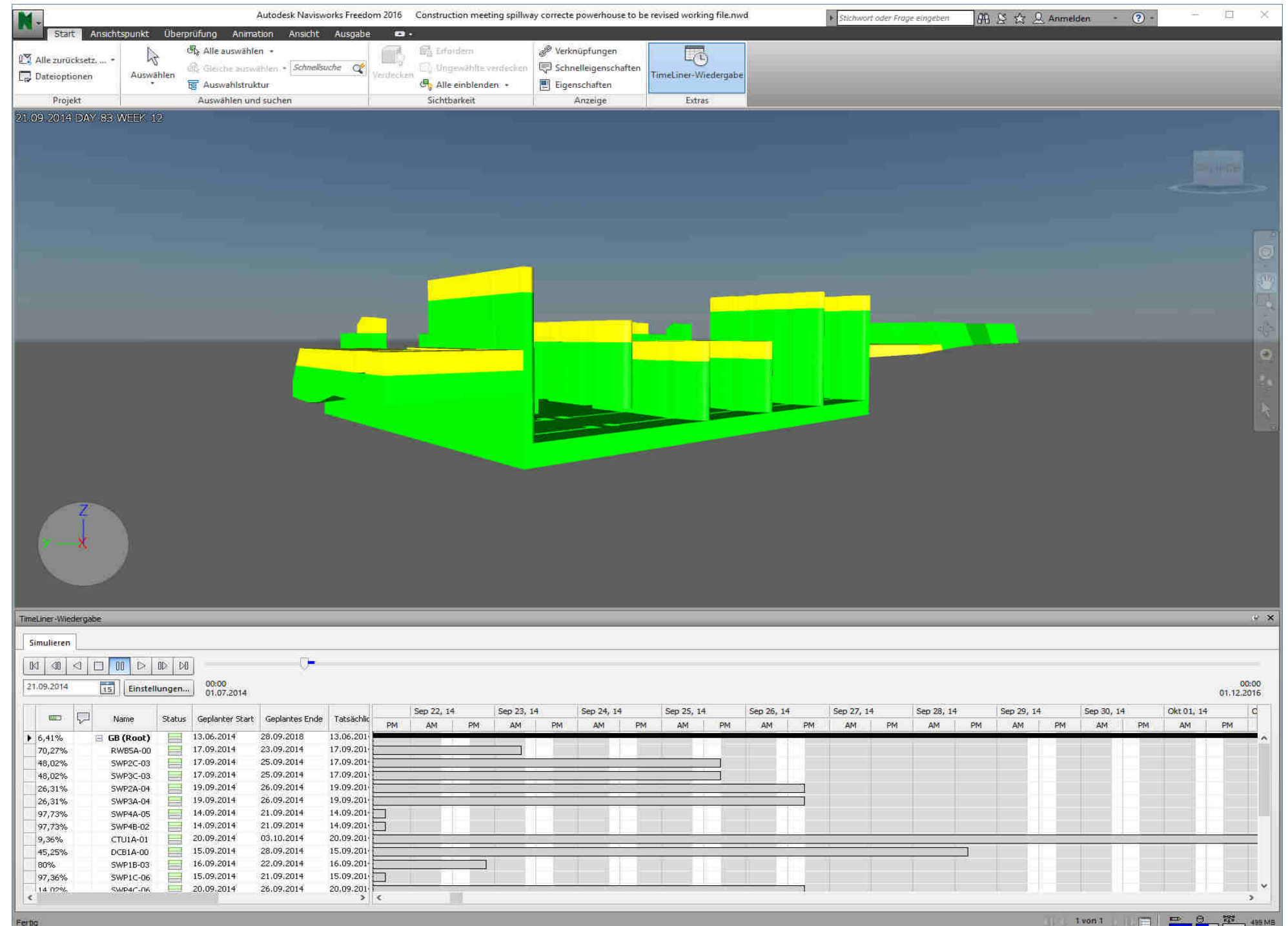
Construction site

- Vamma Hydroelectric Power Station, Norway
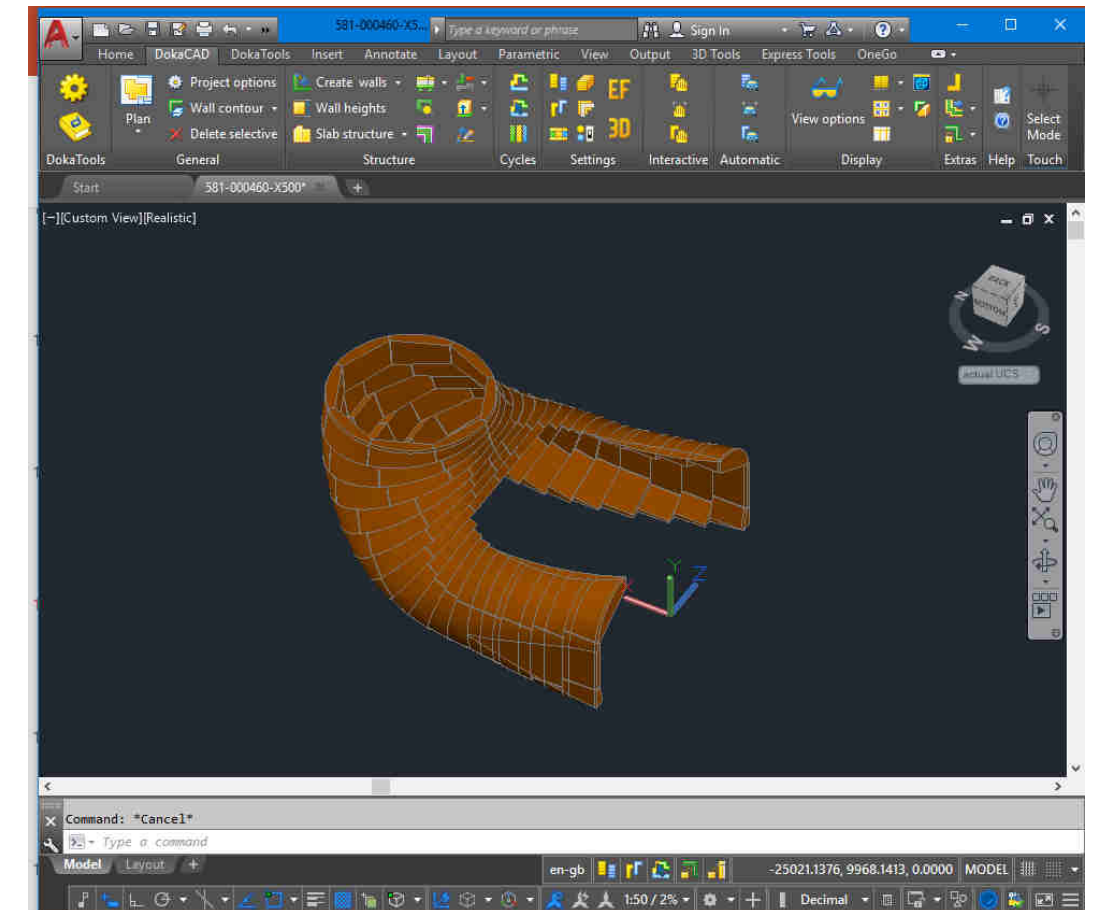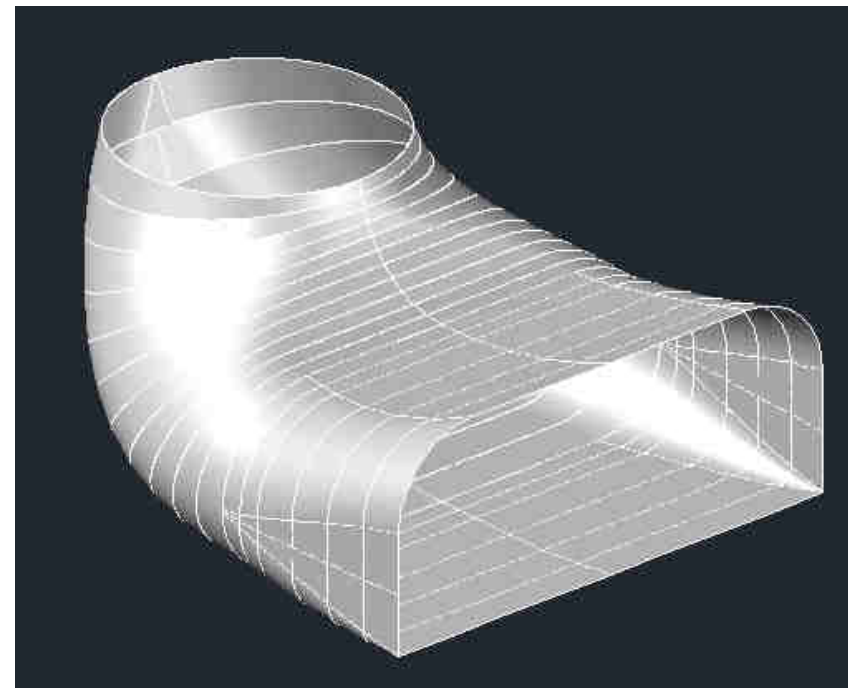
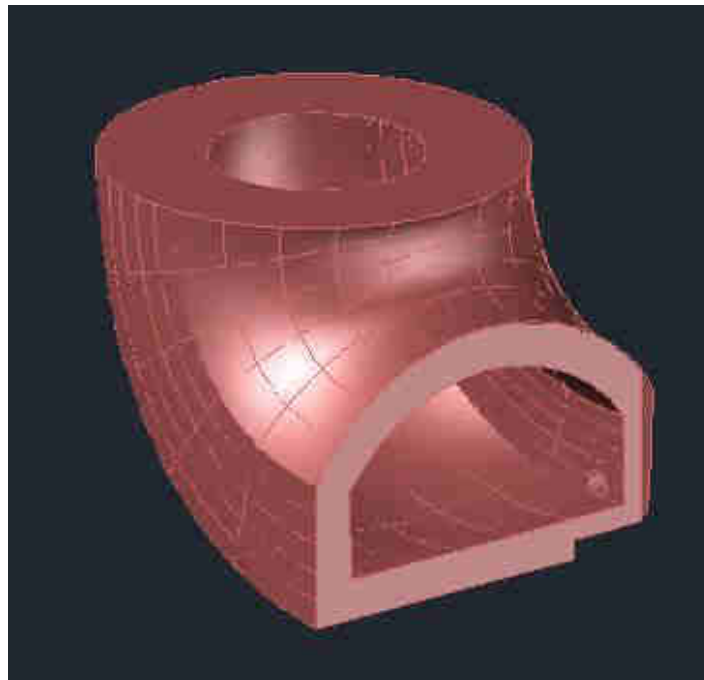- model in Navisworks

  for visualization
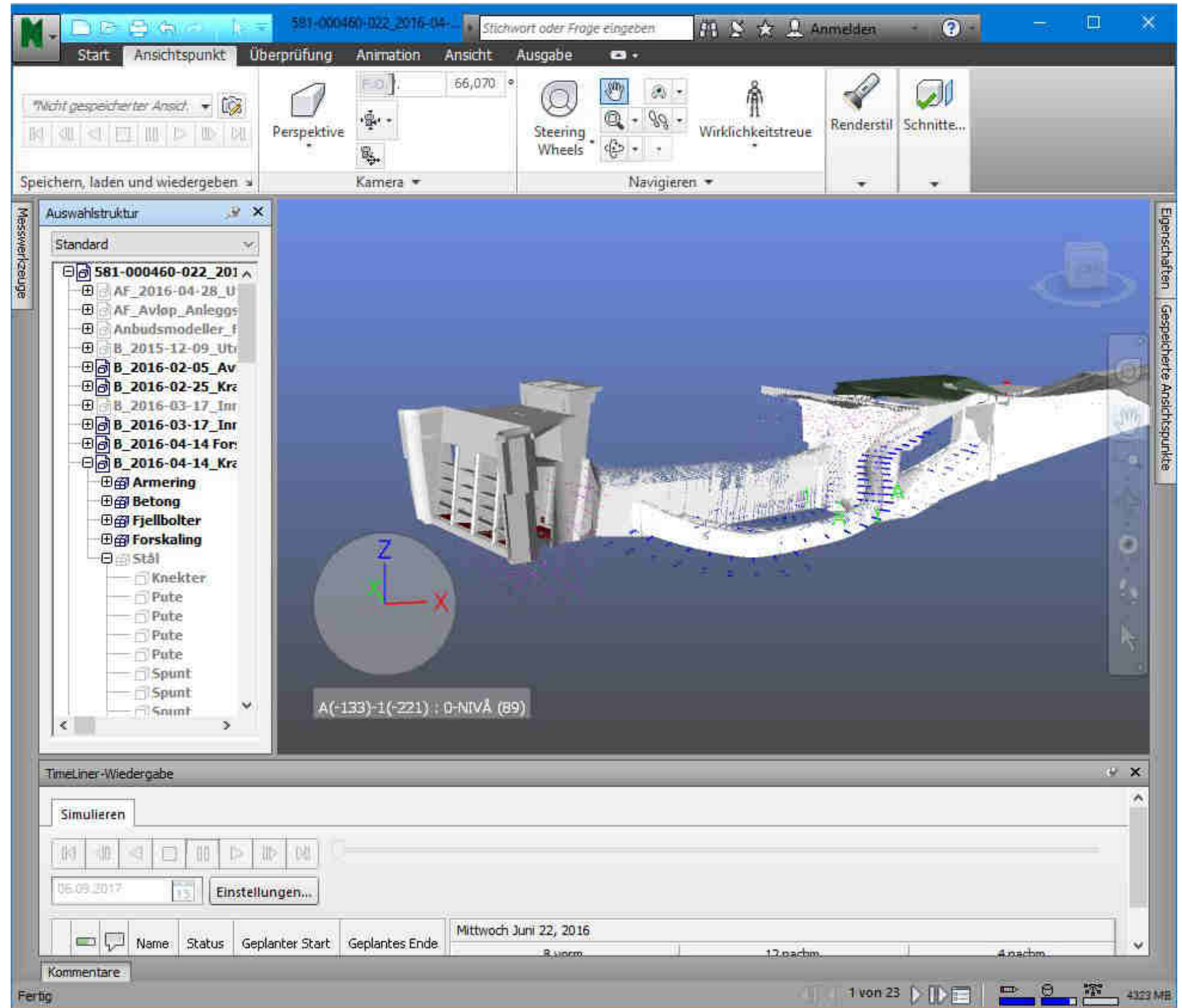
Construction site

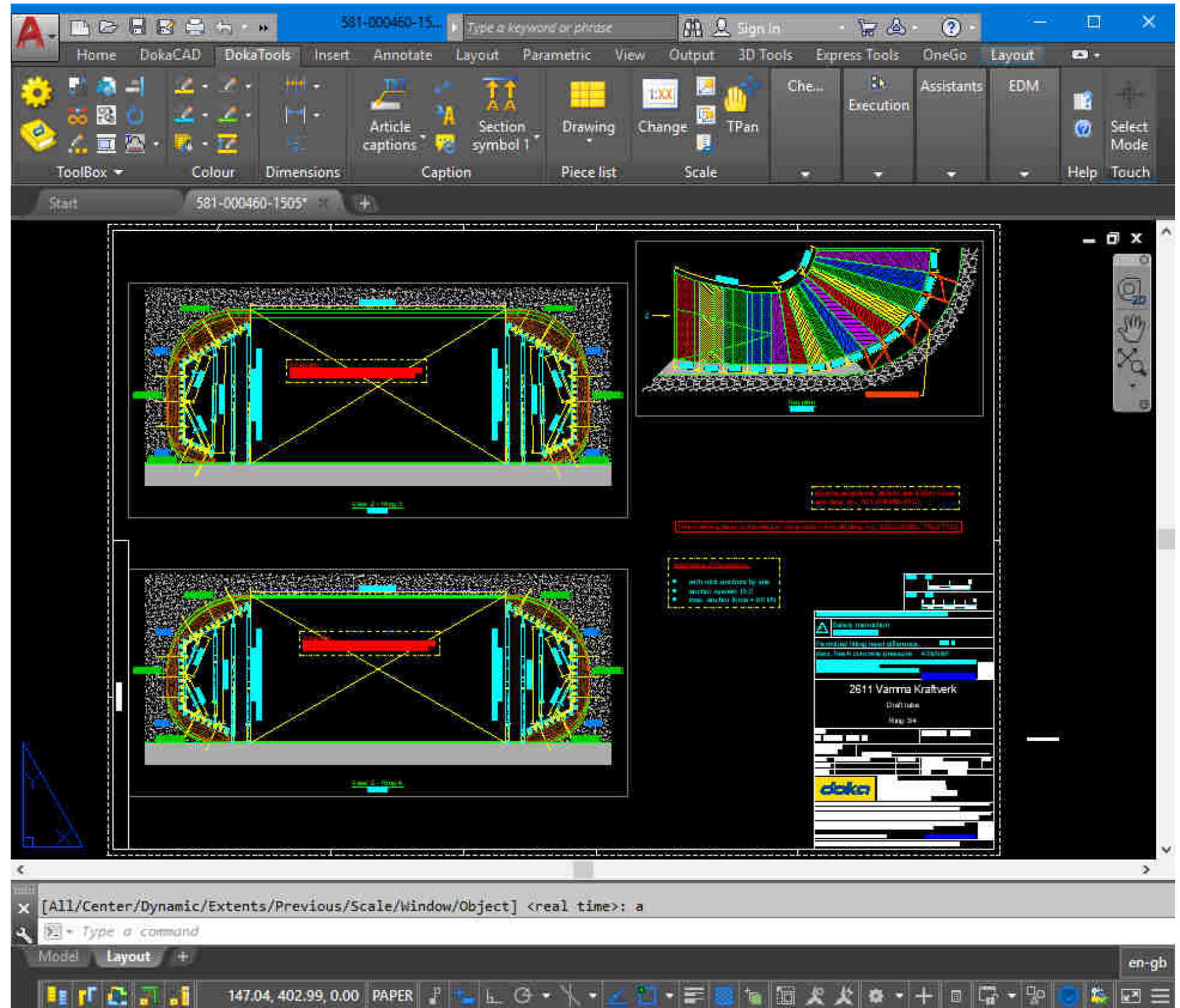
- Vamma Hydroelectric Power Station, Norway
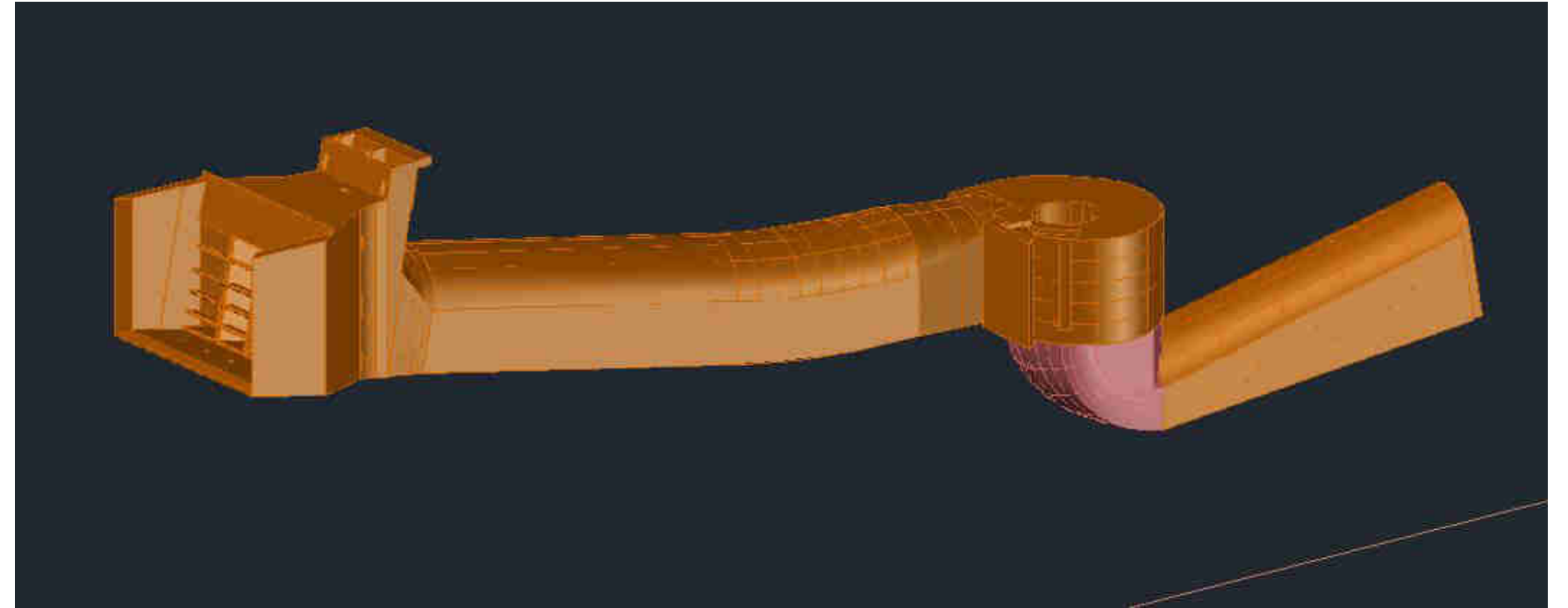
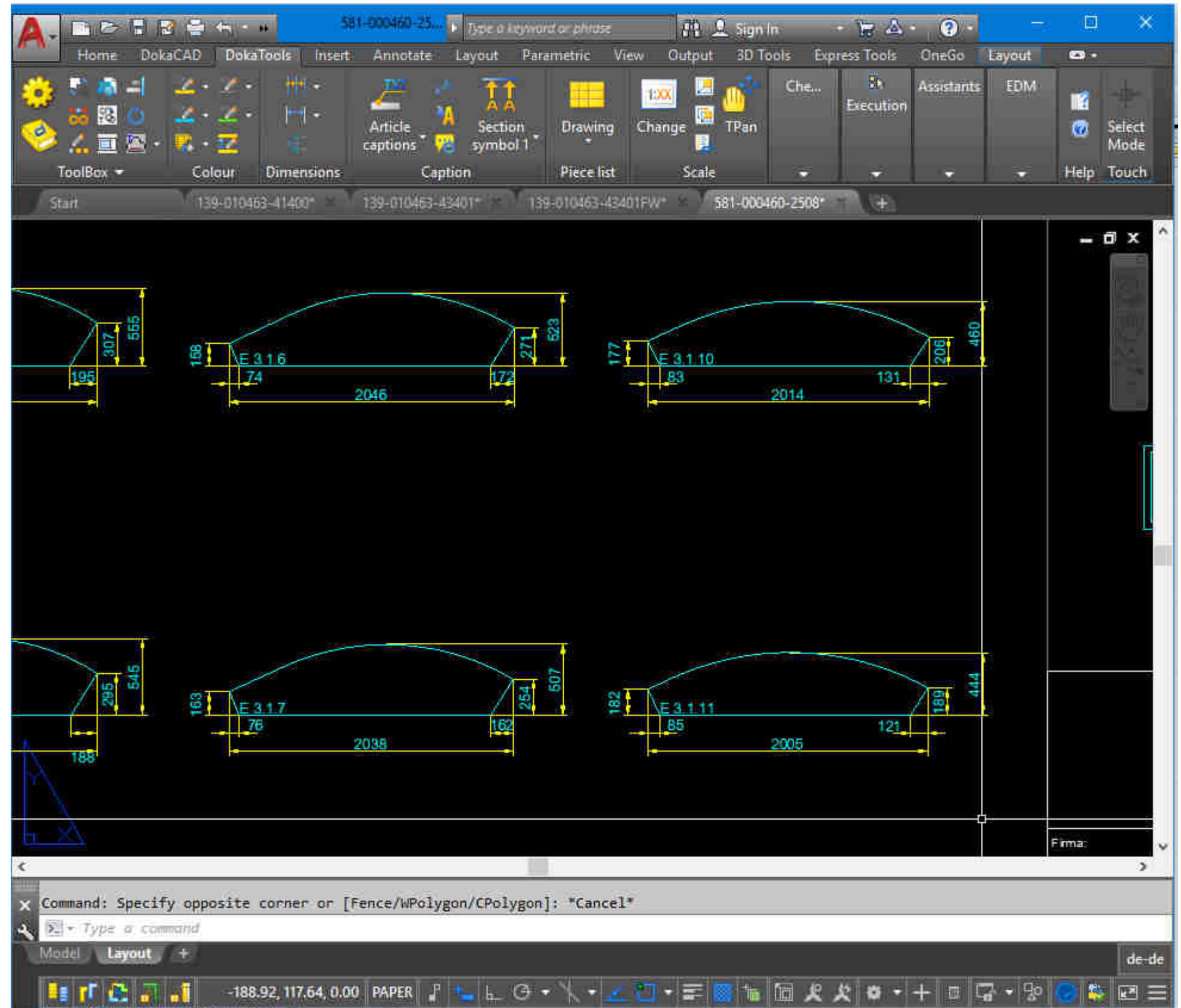- from model to formwork (via *.sat data file)

Construction site

- Vamma Hydroelectric Power Station, Norway

- from model to formwork

Construction site

- Vamma Hydroelectric Power Station, Norway
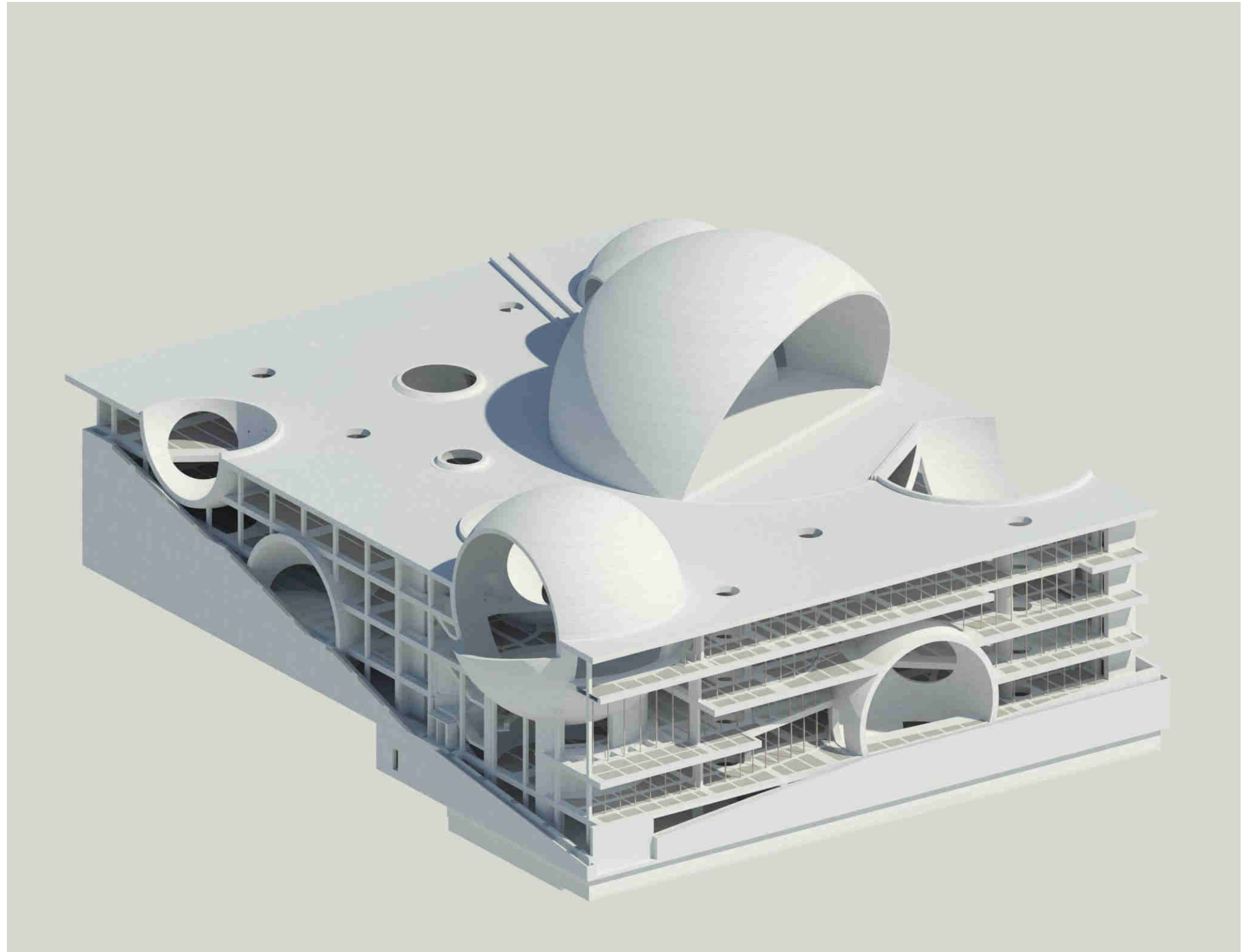
- from model to formwork, mainly manual formwork planning

Construction site

- Vamma Hydroelectric Power Station, Norway
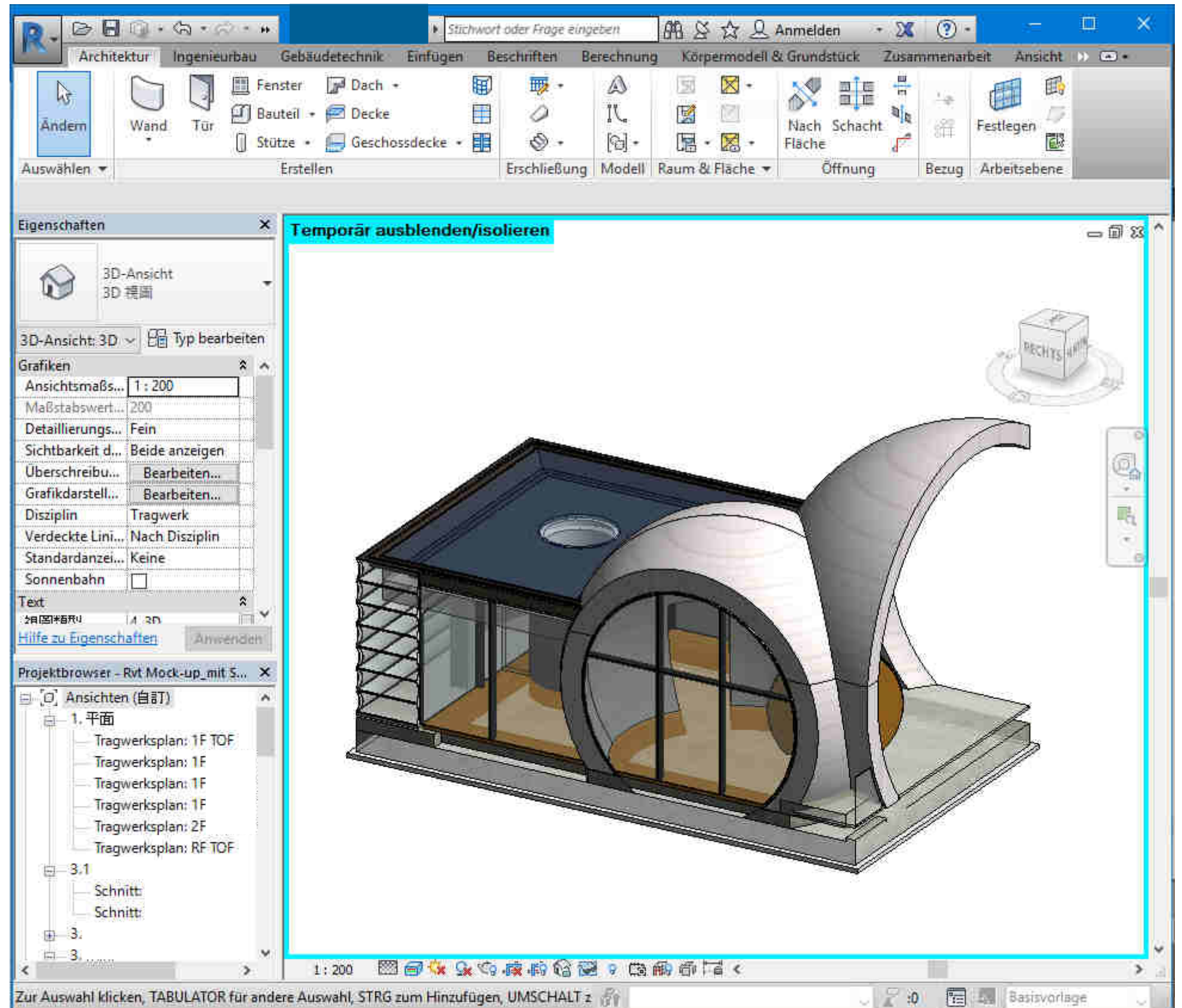
- assembly and use

Construction site
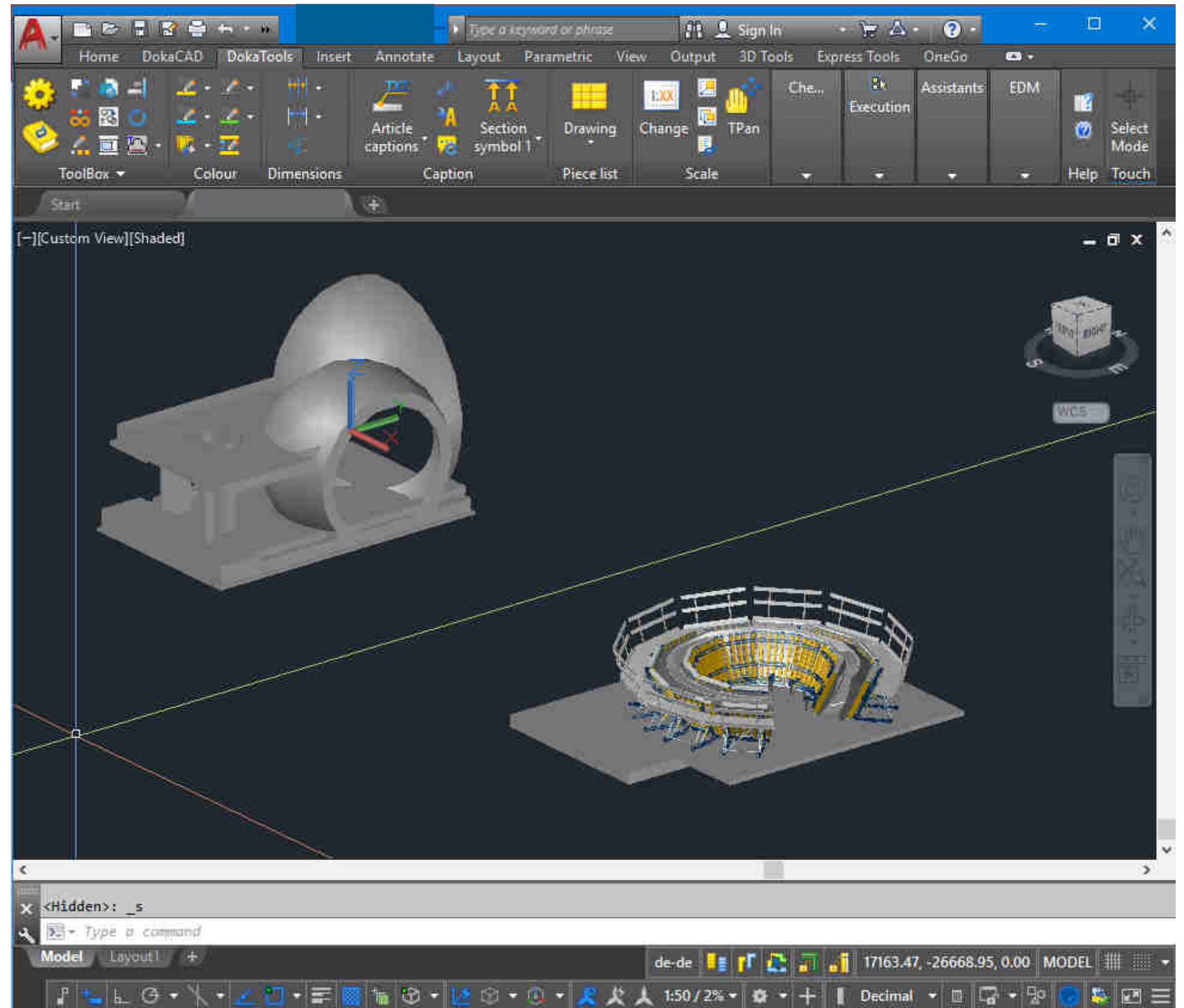
- current project in Asia

Construction site

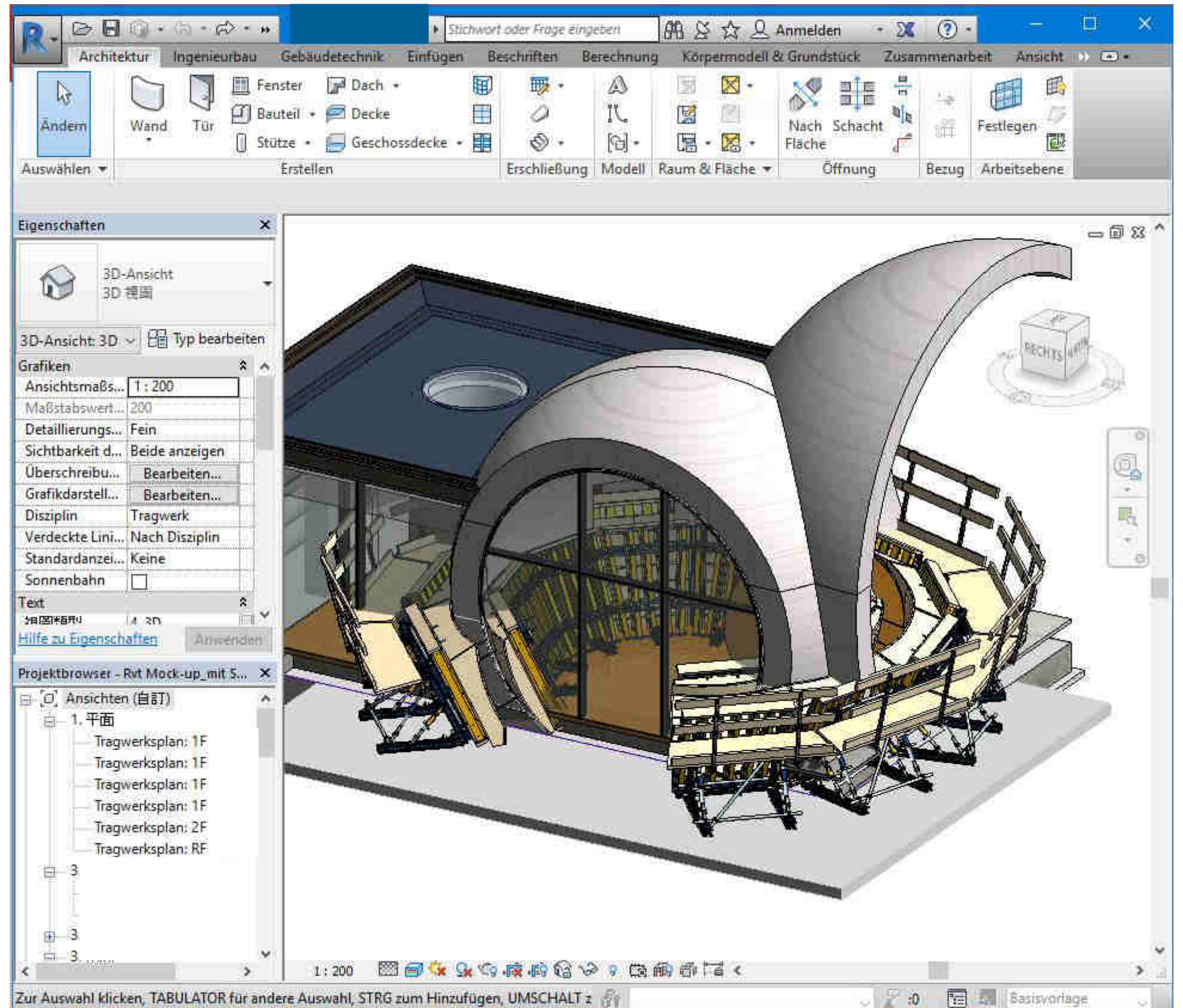- current project in Asia

- from model to formwork

Construction site

- current project in Asia

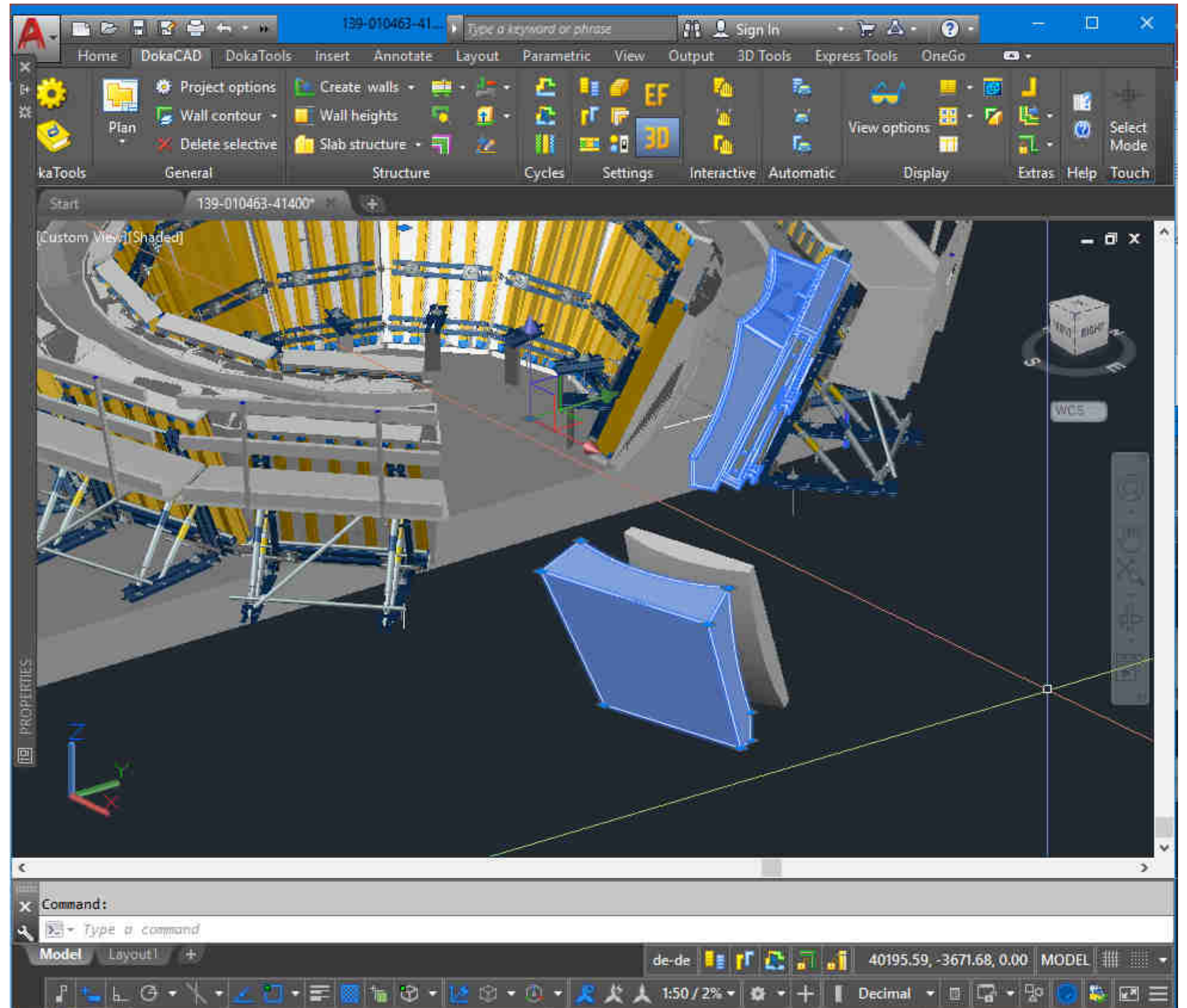- from model to formwork (via *.dwg data file, volume model)

Construction site

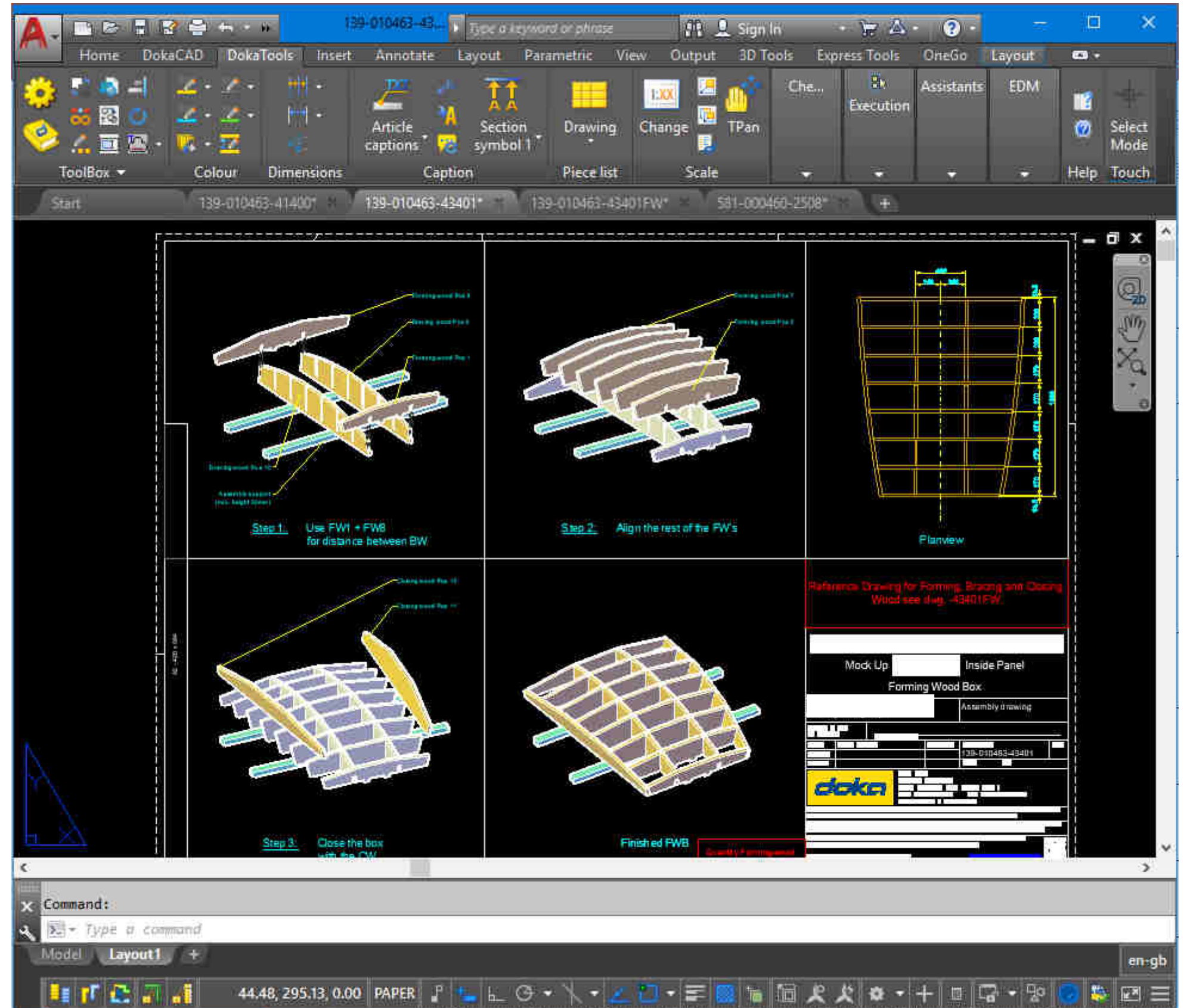- current project in Asia

- from model to formwork

Construction site

- current project in Asia
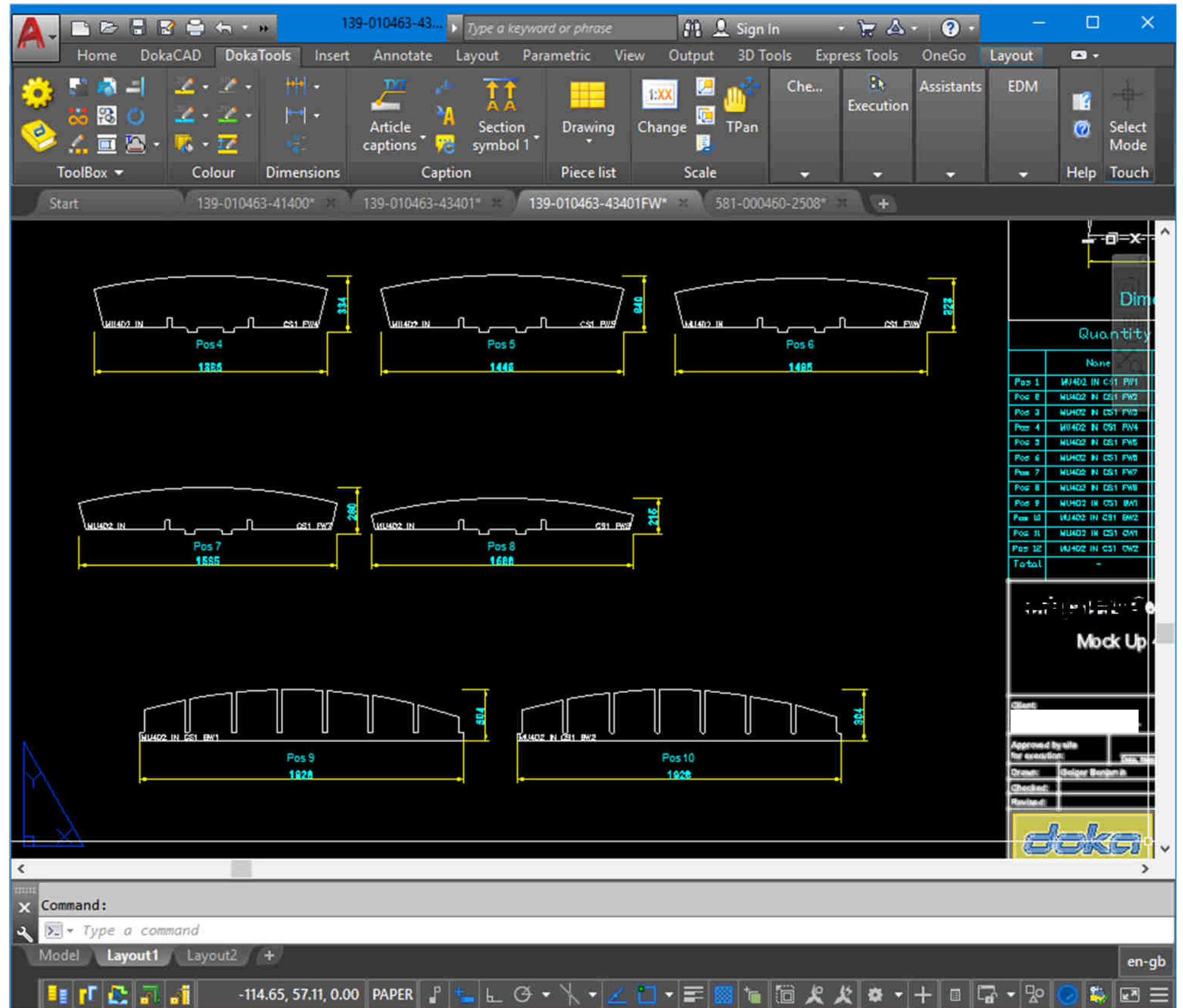
- from model to formwork

Construction site

- current project in Asia

- from model to formwork

- interlocking
   plug connection

- connect instead scale

Construction site

- current project in Asia

- from model to formwork
- Automatic generation of forming woods
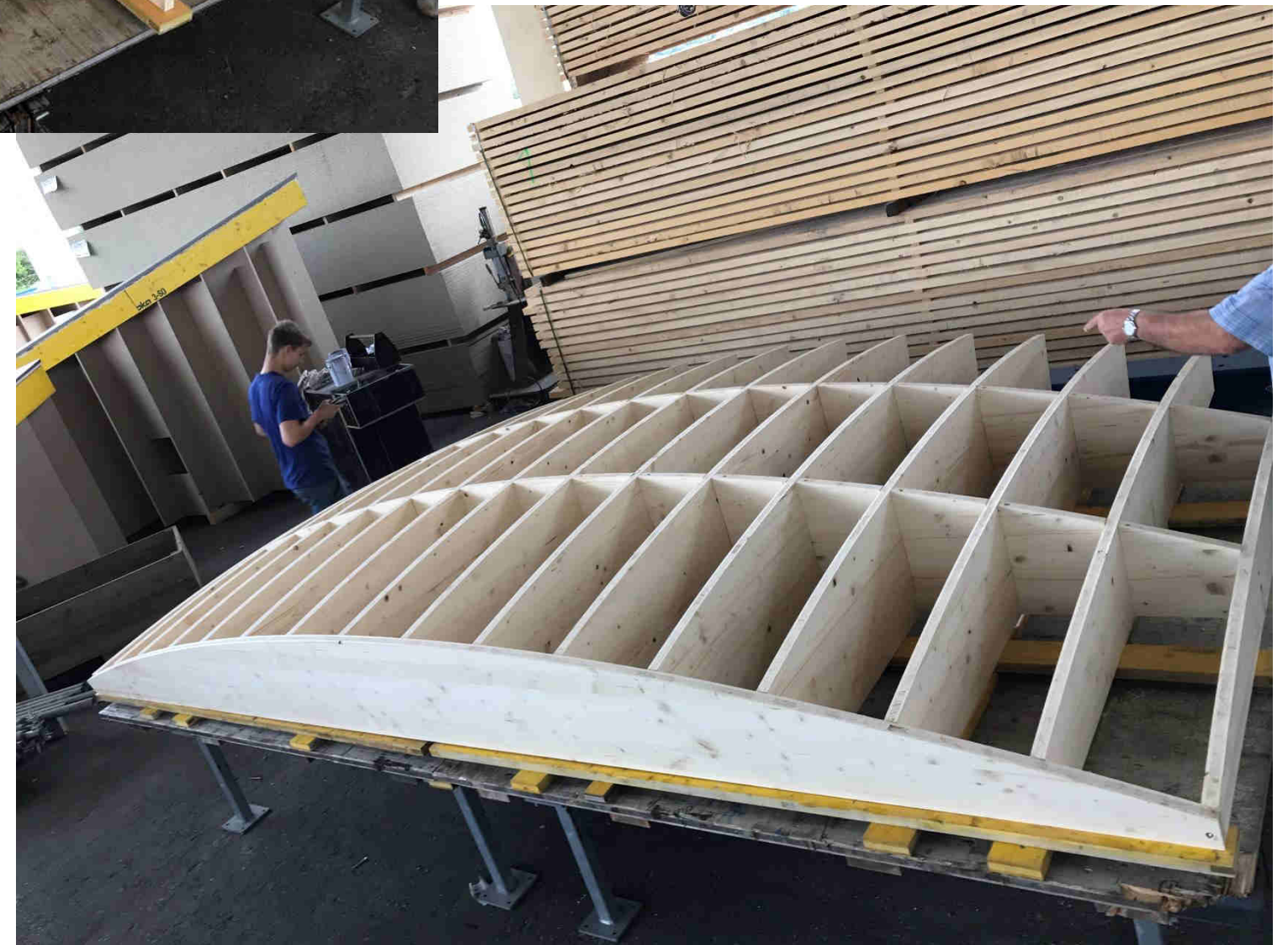
  out of solid planks

Construction site

- current project in Asia

- from model to formwork

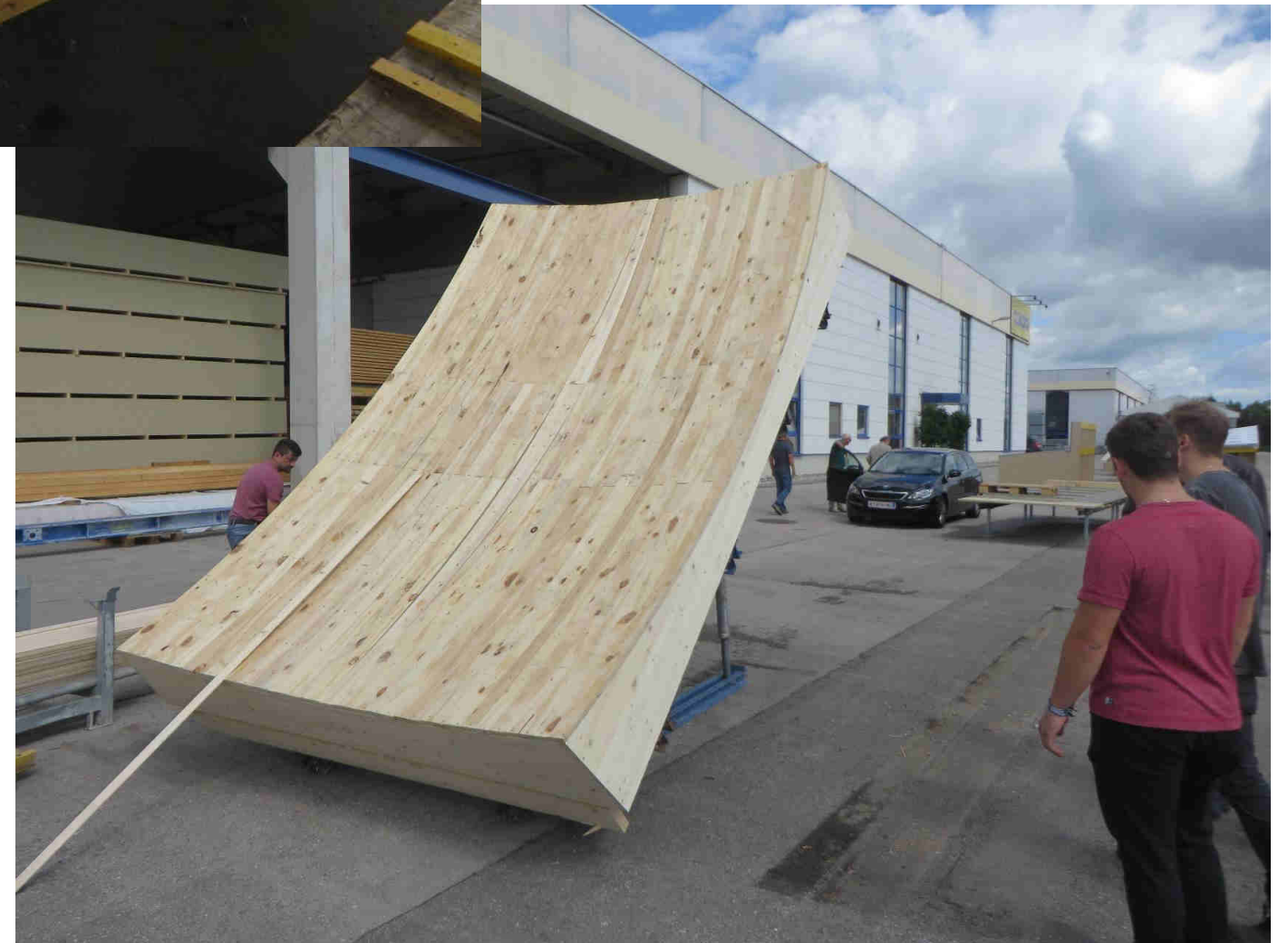- transfer of geometry to
  CNC-milling machine

Construction site

- current project in Asia

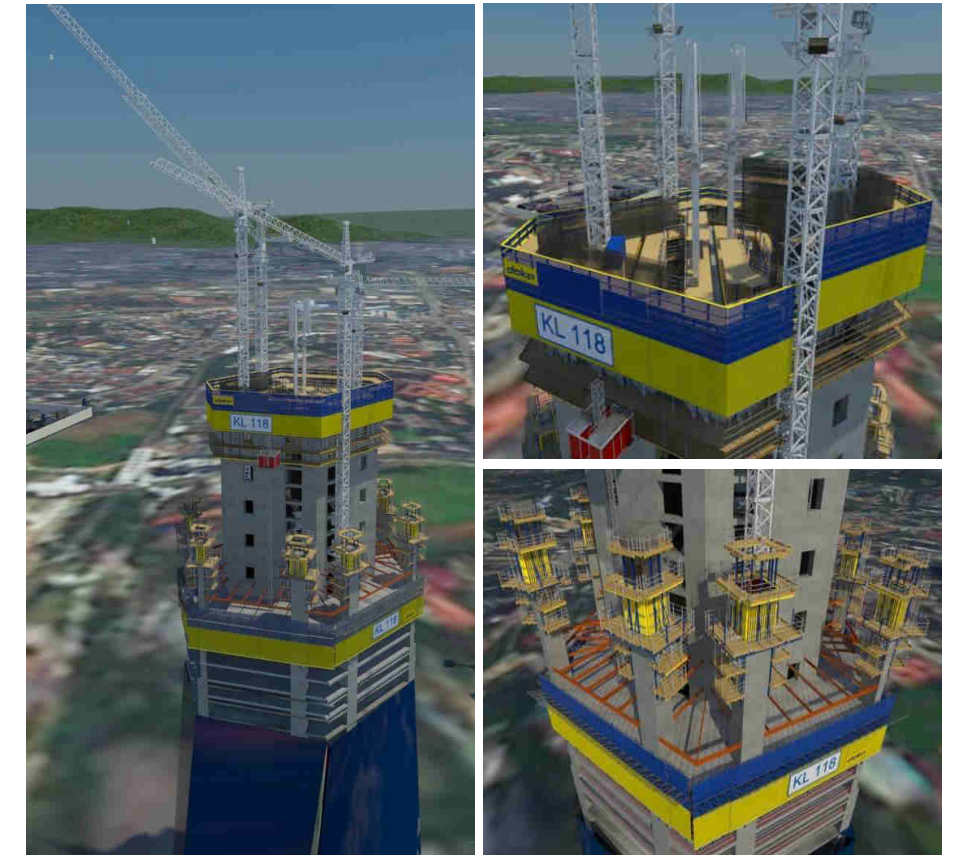- from model to formwork
- assembly Mock-up

Construction site

- current project in Asia

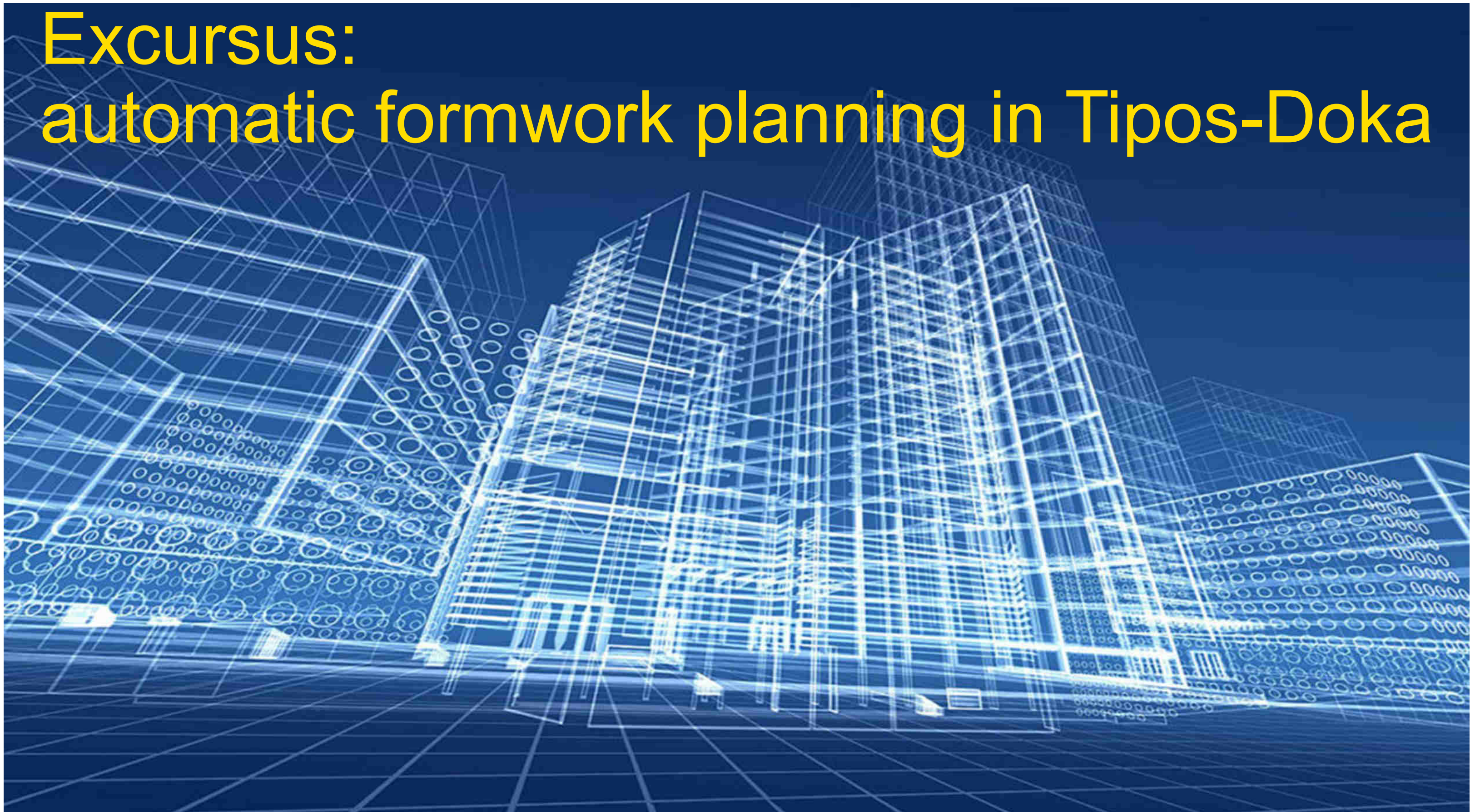- from model to formwork

- assembly Mock-up

Doka BIM services

- Tipos-Doka and DokaCAD free of charge

- transfer BIM models for formwork planning, support of Autodesk Revit, Tekla Structures, Rhino and IFC

- 3D visualization of complex formwork sequences (on base of renderings)

- miniaturized models in 3D-print

- BIM library for Tekla
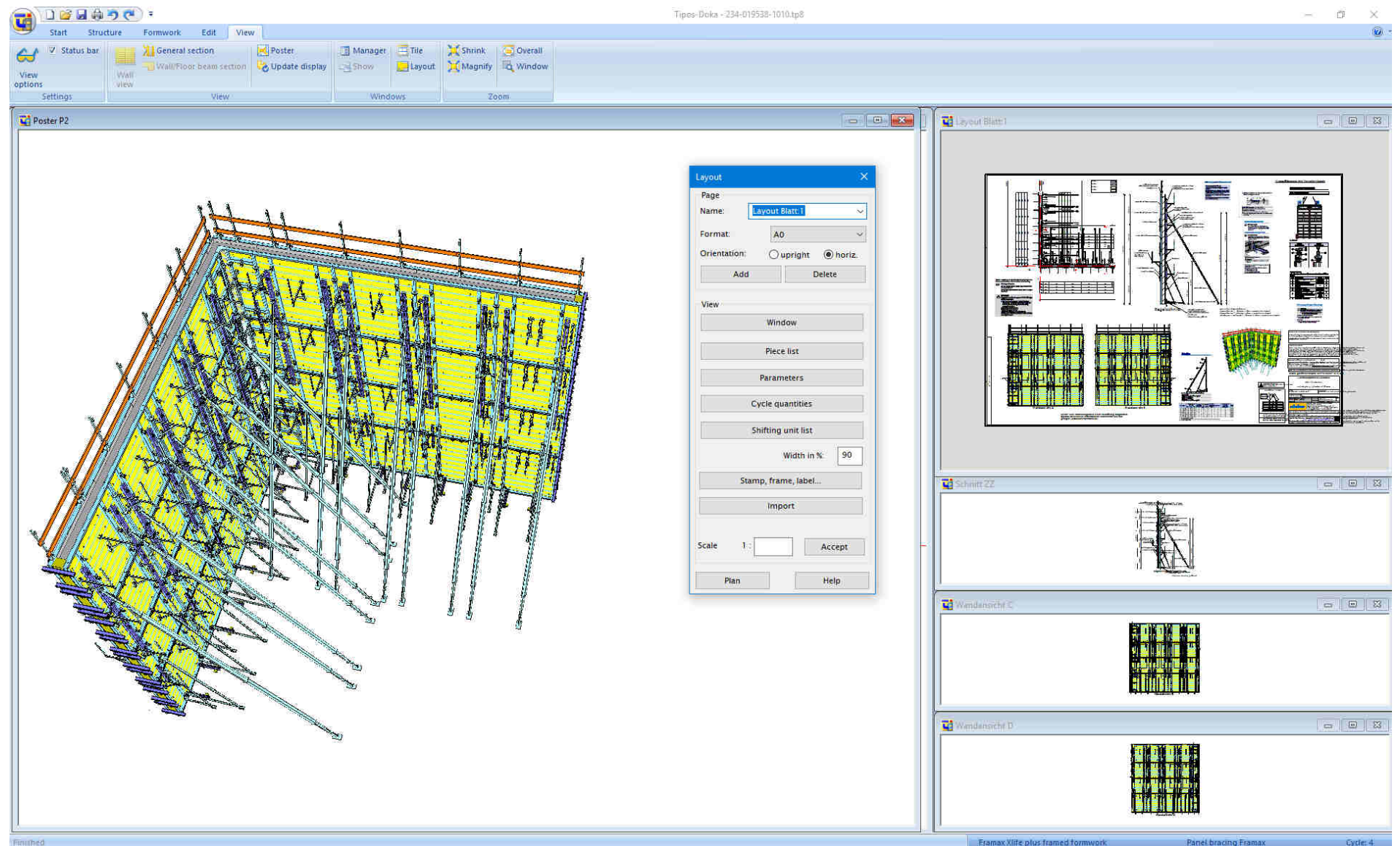
- BIM library for Revit

588149000_Fra... 588152000_Fra... 588153400_Fra...

588504500_450x 588505500_300x 588506500_2700...

588546500_1050 588547500_750x 588548500_1220...

Excursus:
automatic formwork planning in Tipos-Doka

Whereto with Business-Logic?

high professional knowledge in Tipos-Doka and DokaCAD

- formwork know-how
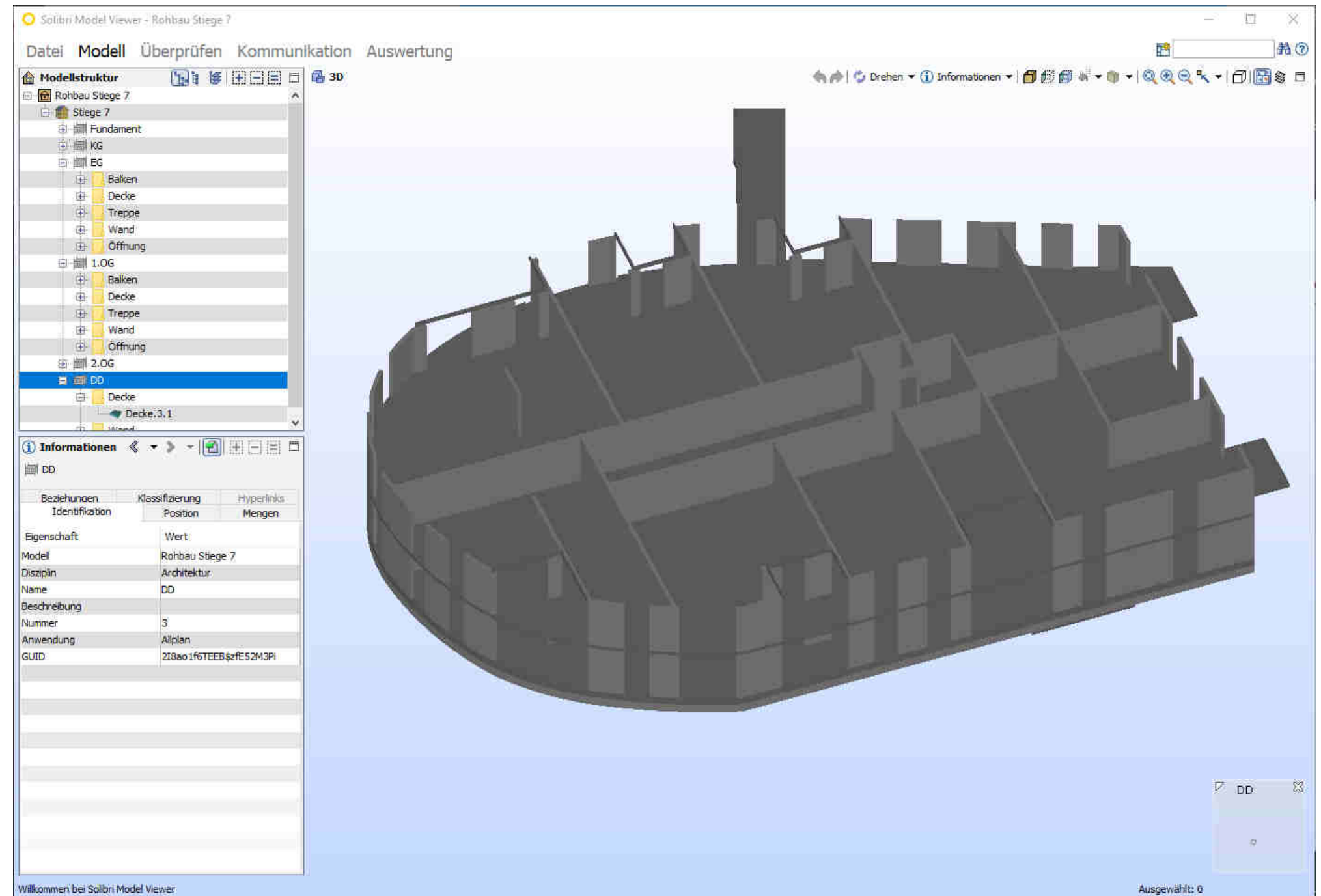
- construction rules

- Static

- Logistics

- …

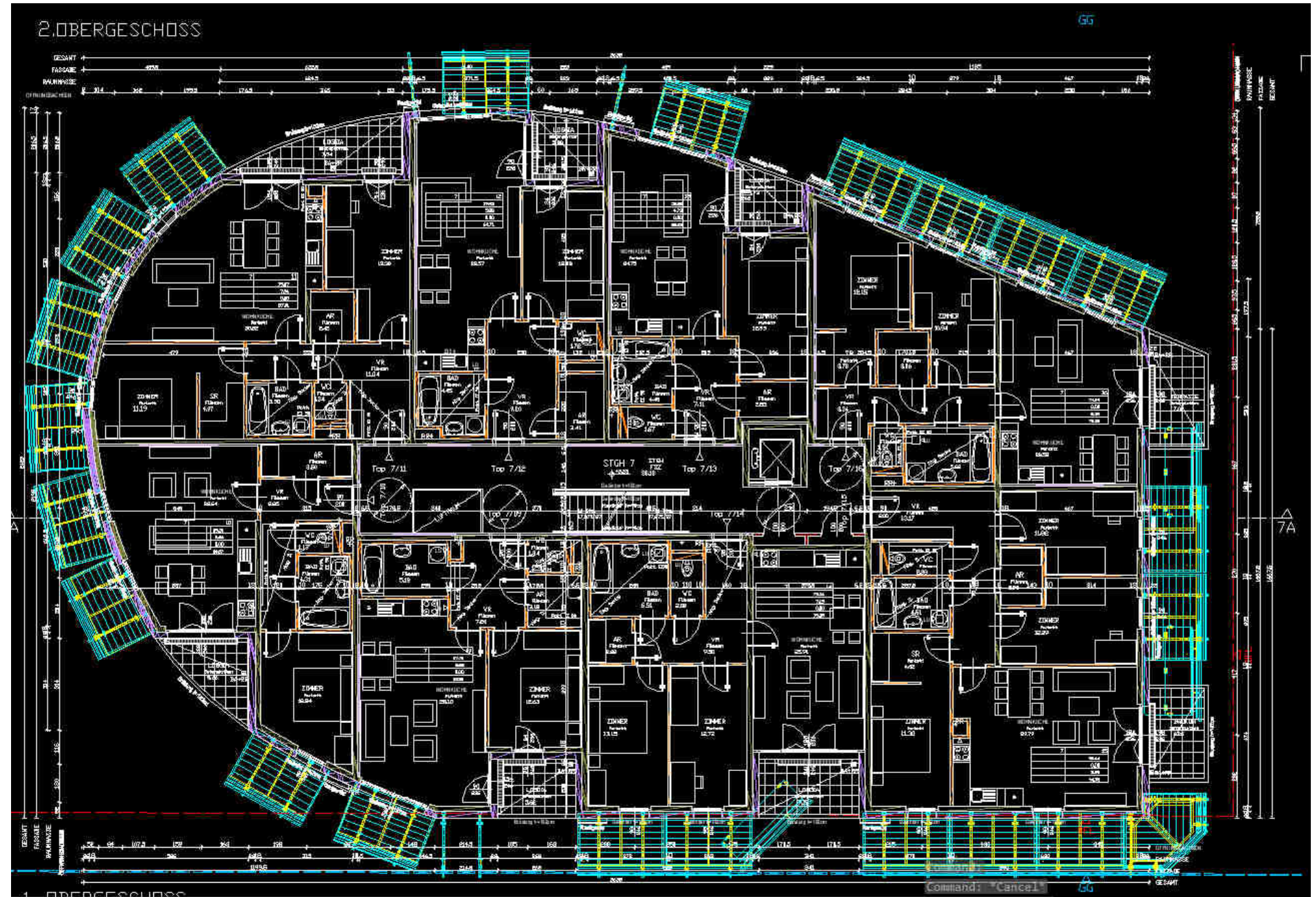# BIM – possible integration / adaption on existing software environment

BIM – formwork is geometry
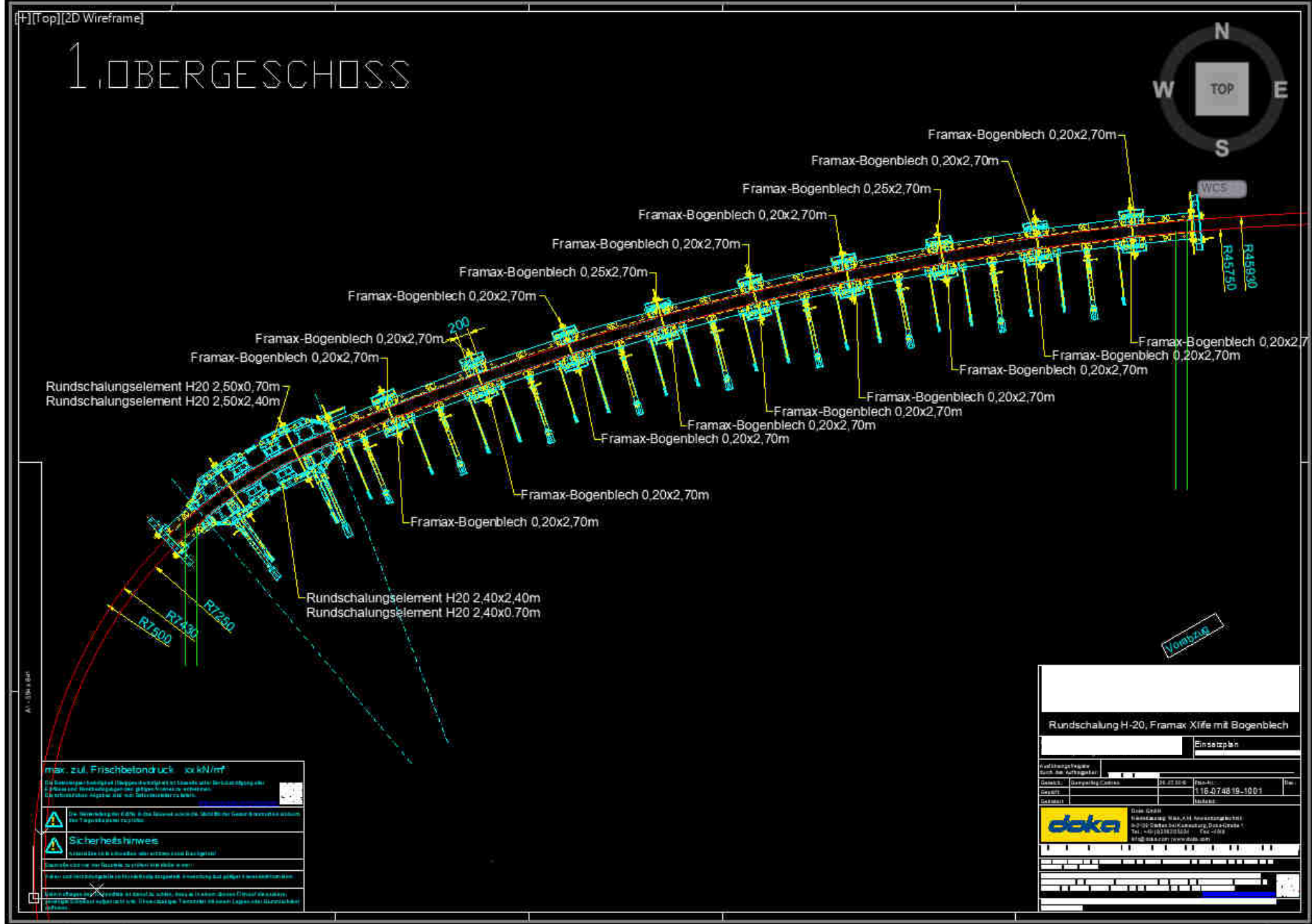
- IFC-model in Solibri Model Viewer

BIM – formwork is geometry

- for initial thoughts often a 2D drawing is enough
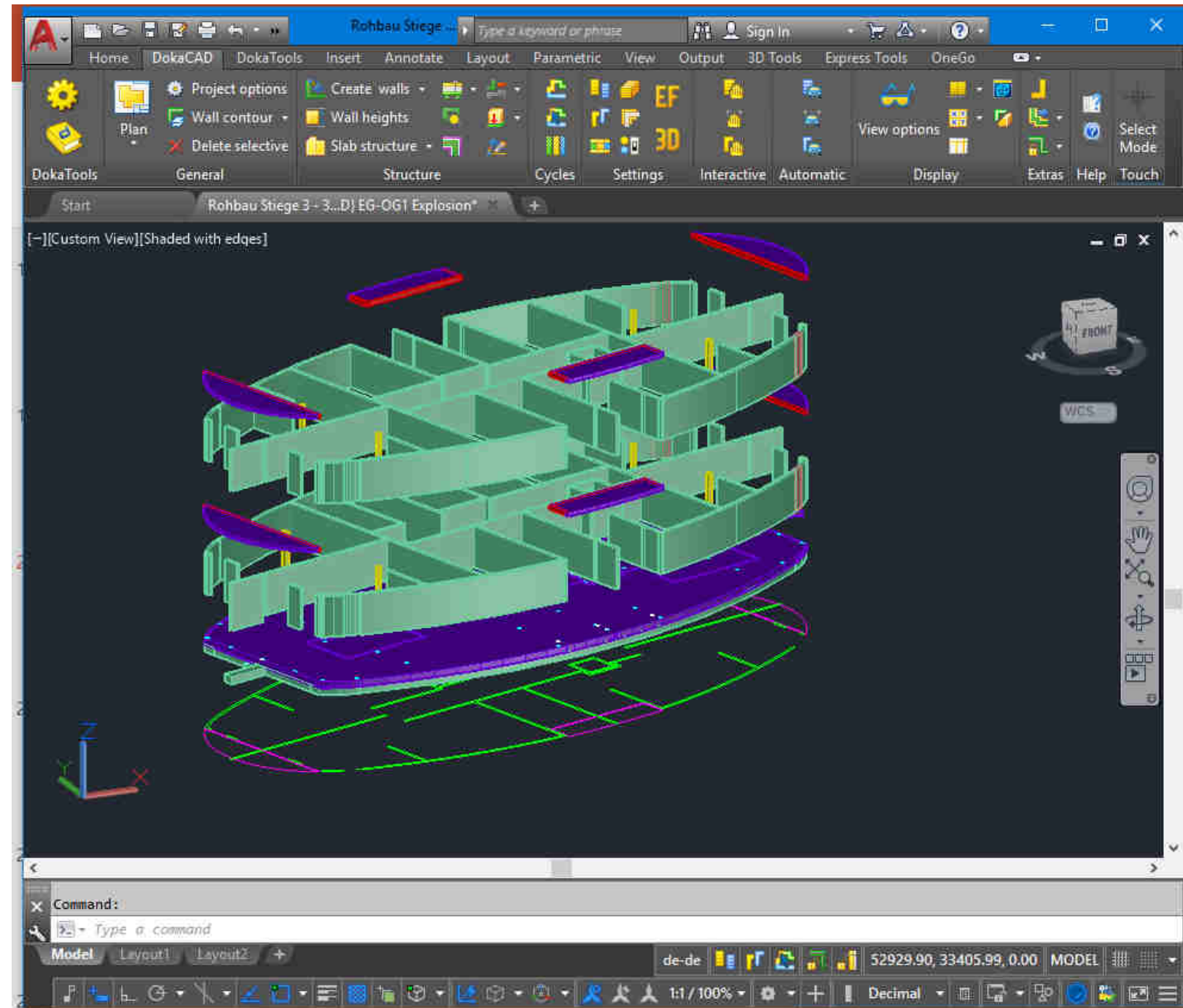
BIM – formwork is geometry

- also for planning

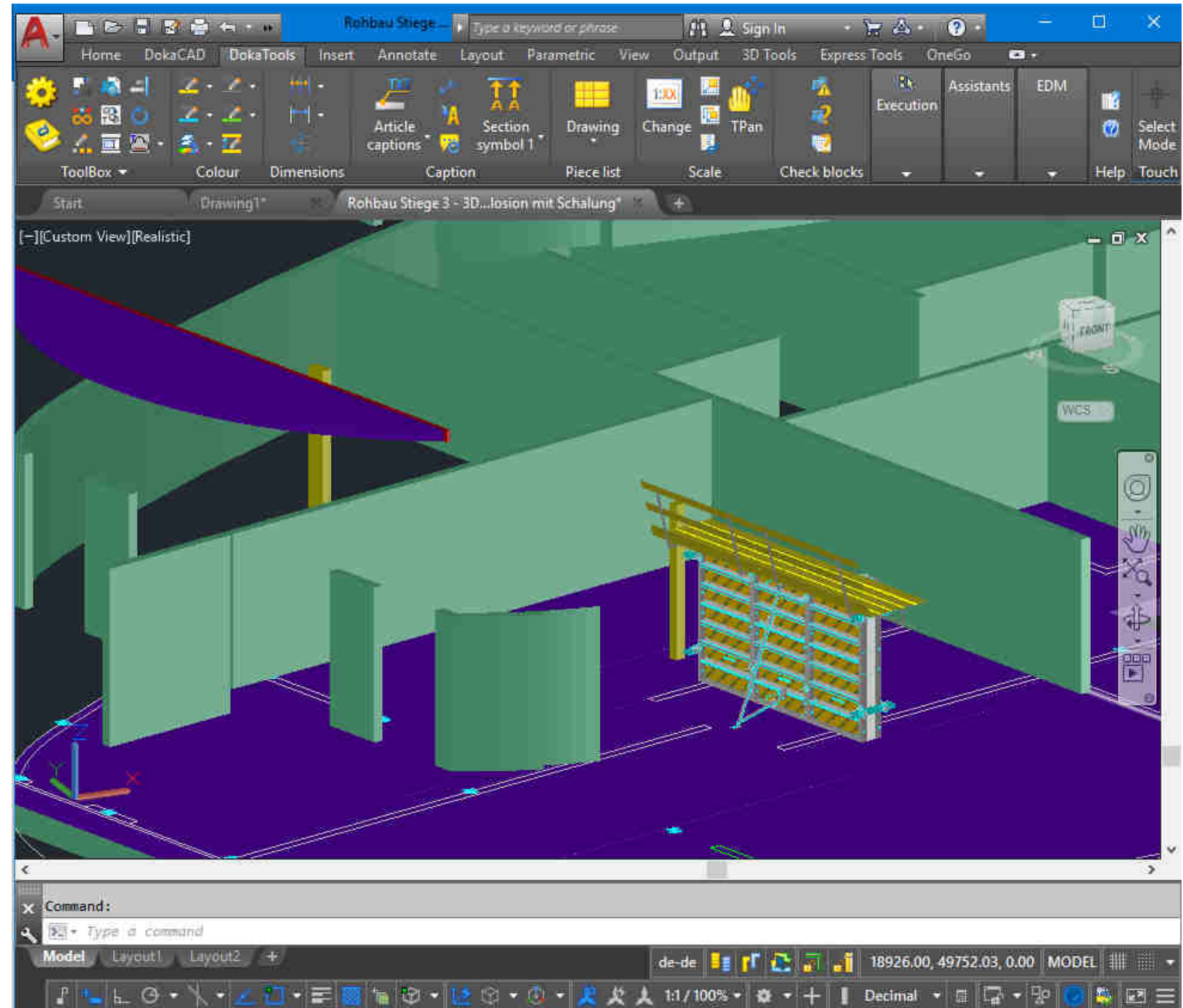 a 2D drawing

  is often enough

BIM – formwork is geometry – new ways

- import of IFC-model via Revit to AutoCAD

- layout automatically diverted for formwork planning

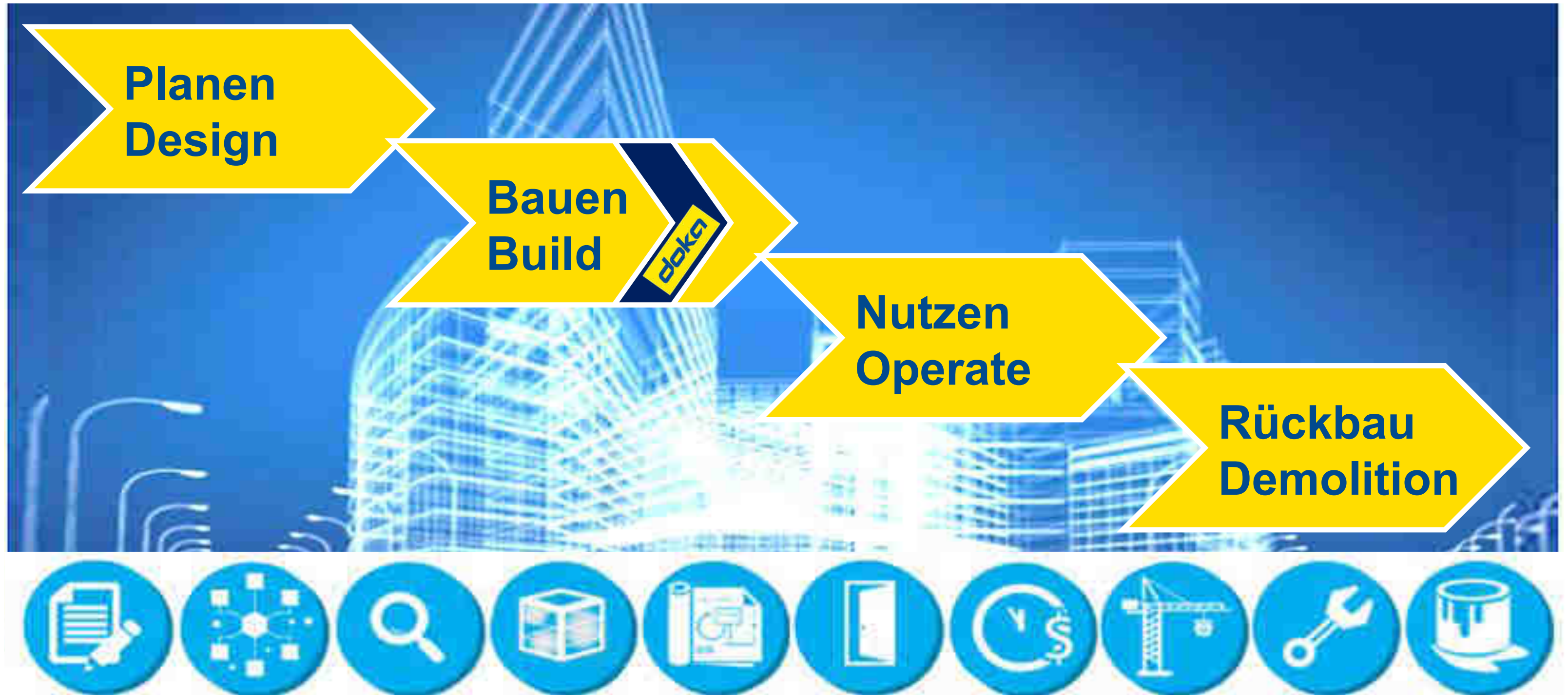# BIM – formwork is geometry – new ways

- import of IFC-model via Revit to AutoCAD

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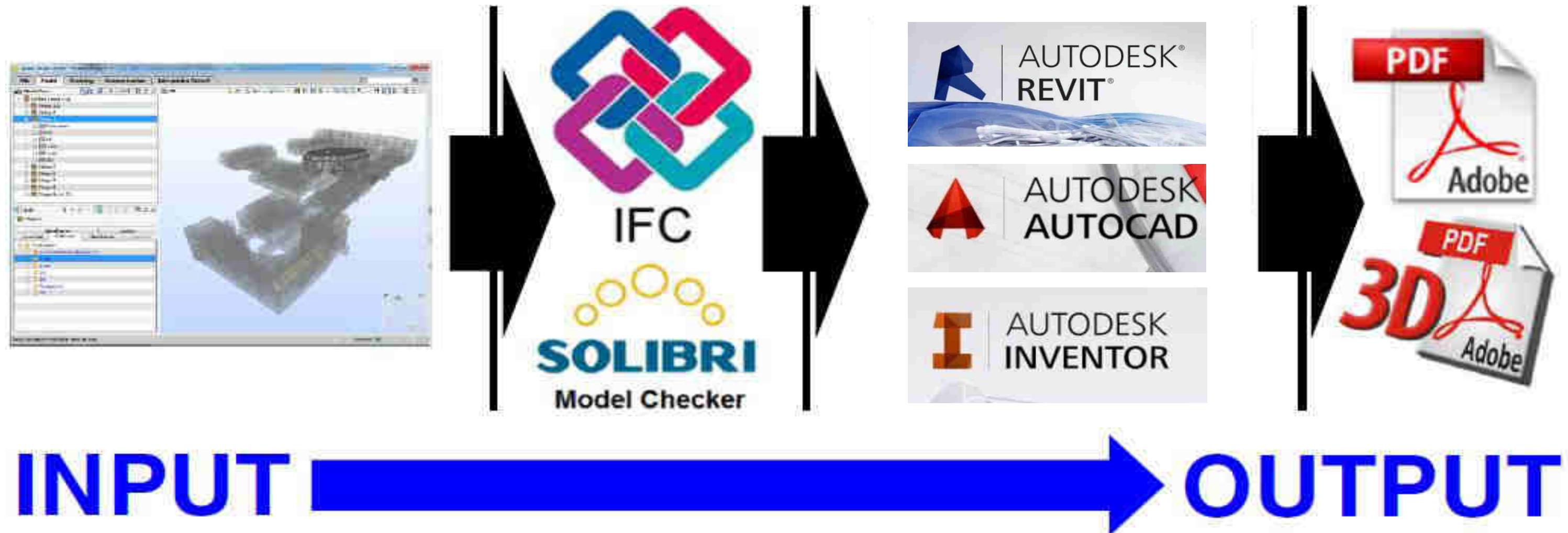- formwork for walls automatically planned

The major picture …

BIM along the lifecycle of a building
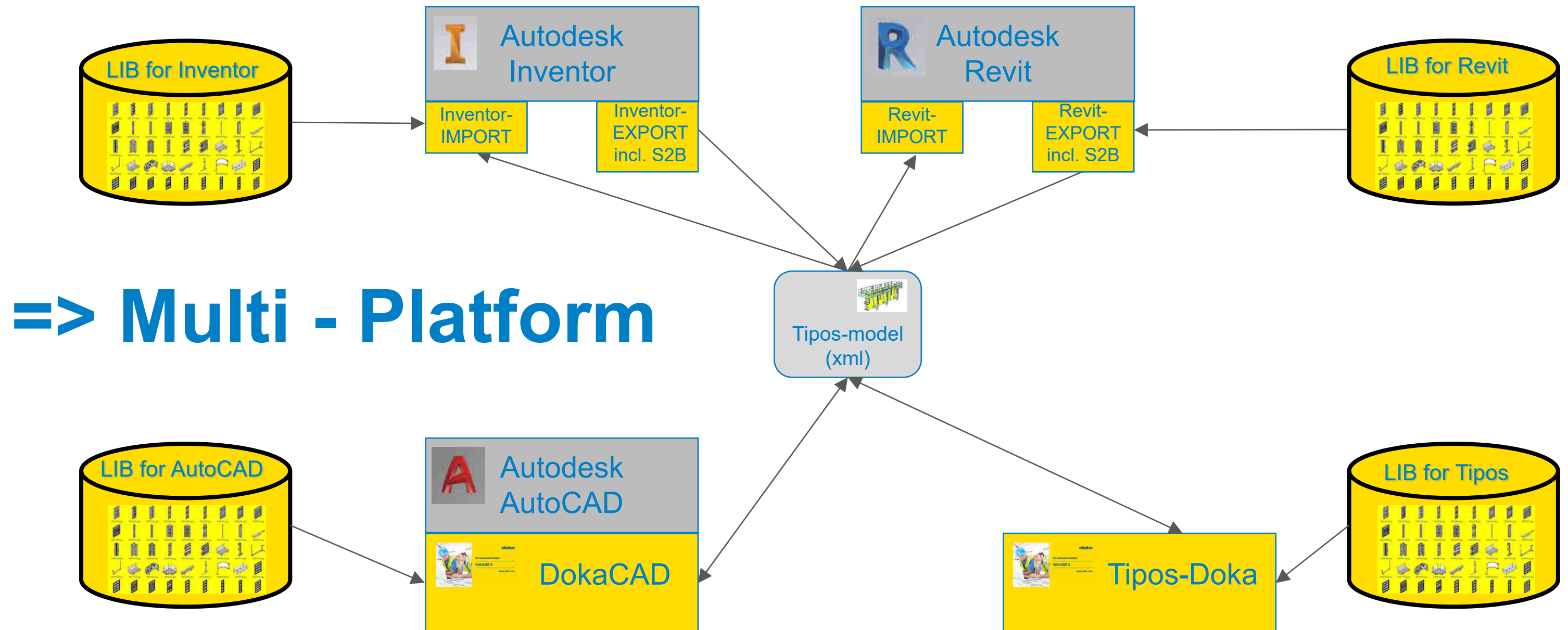
BIM current situation at Doka

- process between Doka and contractors mainly linear

INPUT ➤ **OUTPUT**

Excursus:
data exchange Tipos-Doka ⇔ DokaCAD

Tipos-model import and export in Revit / Inventor / …
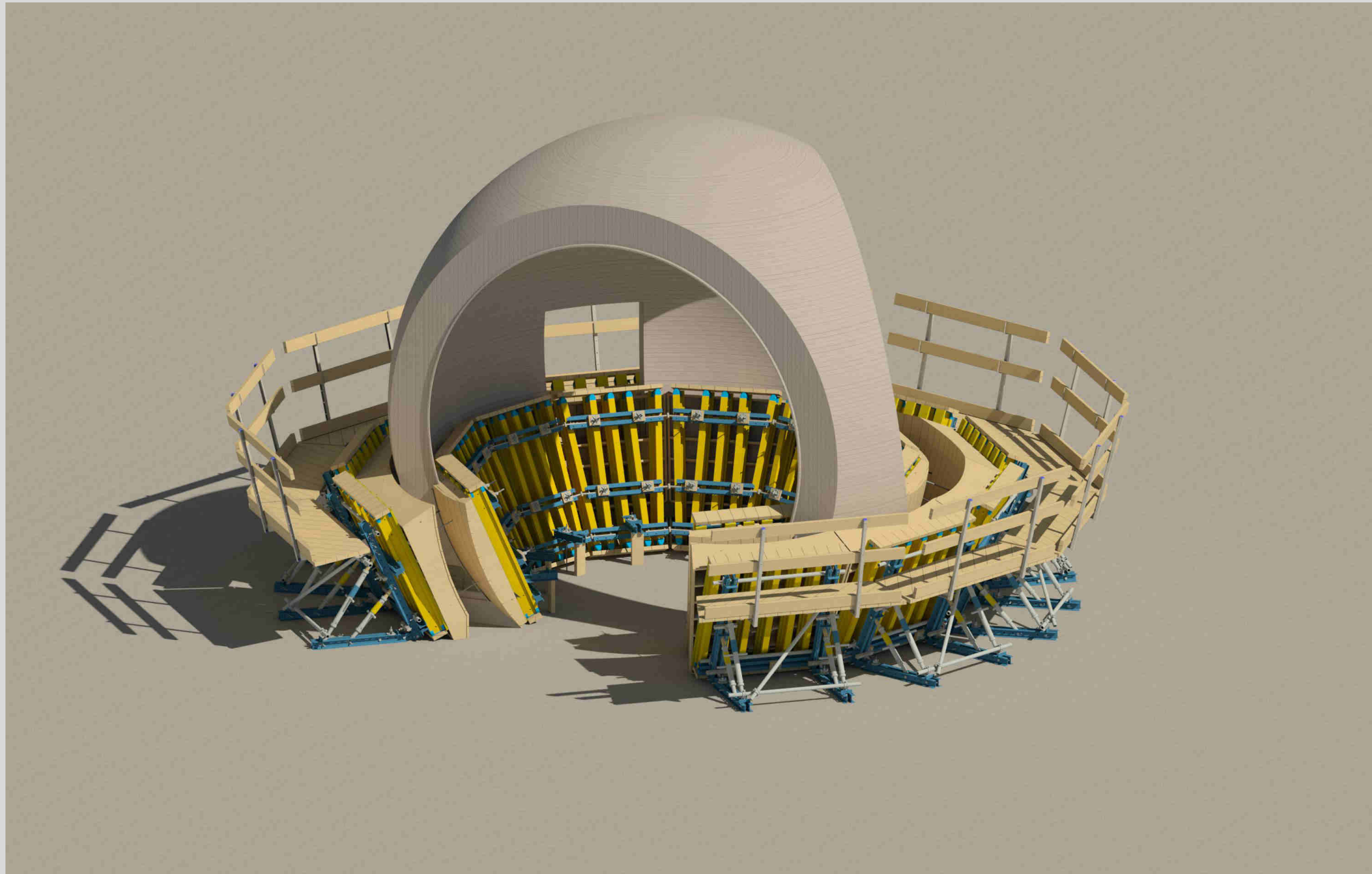

=> Multi - Platform

Smooth transition from CAD to BIM

BIM with Doka

Multi – Platform approach

Thanks for your attention!