# PHILIPPGROUP

We provide strength and stability in an ever-changing world.

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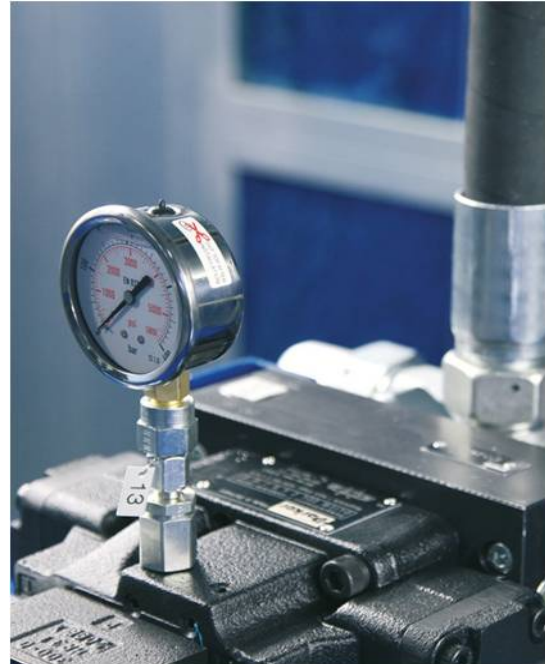# Who we are – Supplier for precast concrete industry

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# Our divisions

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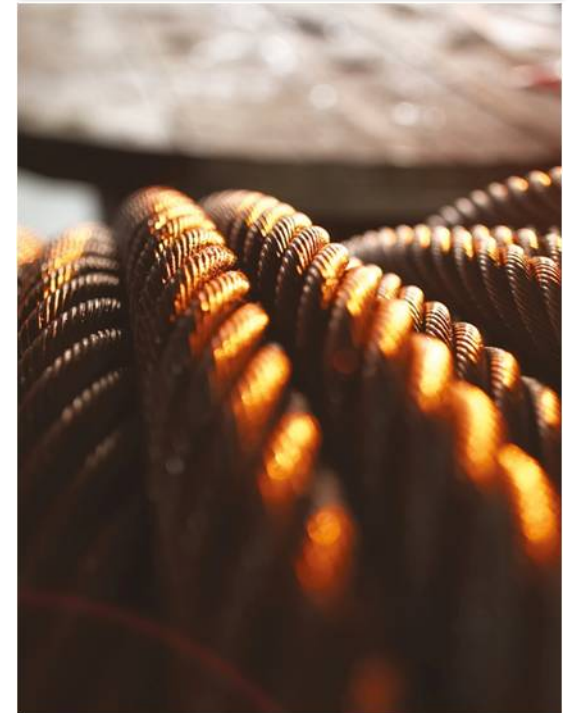| Transport and mounting systems for precast concrete industry | Hydraulics, pneumatics, aggregate and cylinder construction | Lifting and lashing technology |

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# What we produce – Mounting parts

**Systems for lifting of precast concrete elements**

**Facade technology**

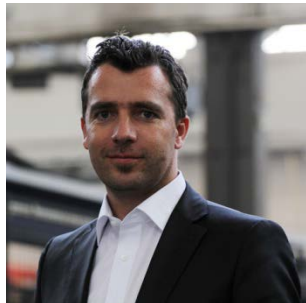**Connection technology**

**Noise reduction system**

**Fixing technology**

**Earthing technology**

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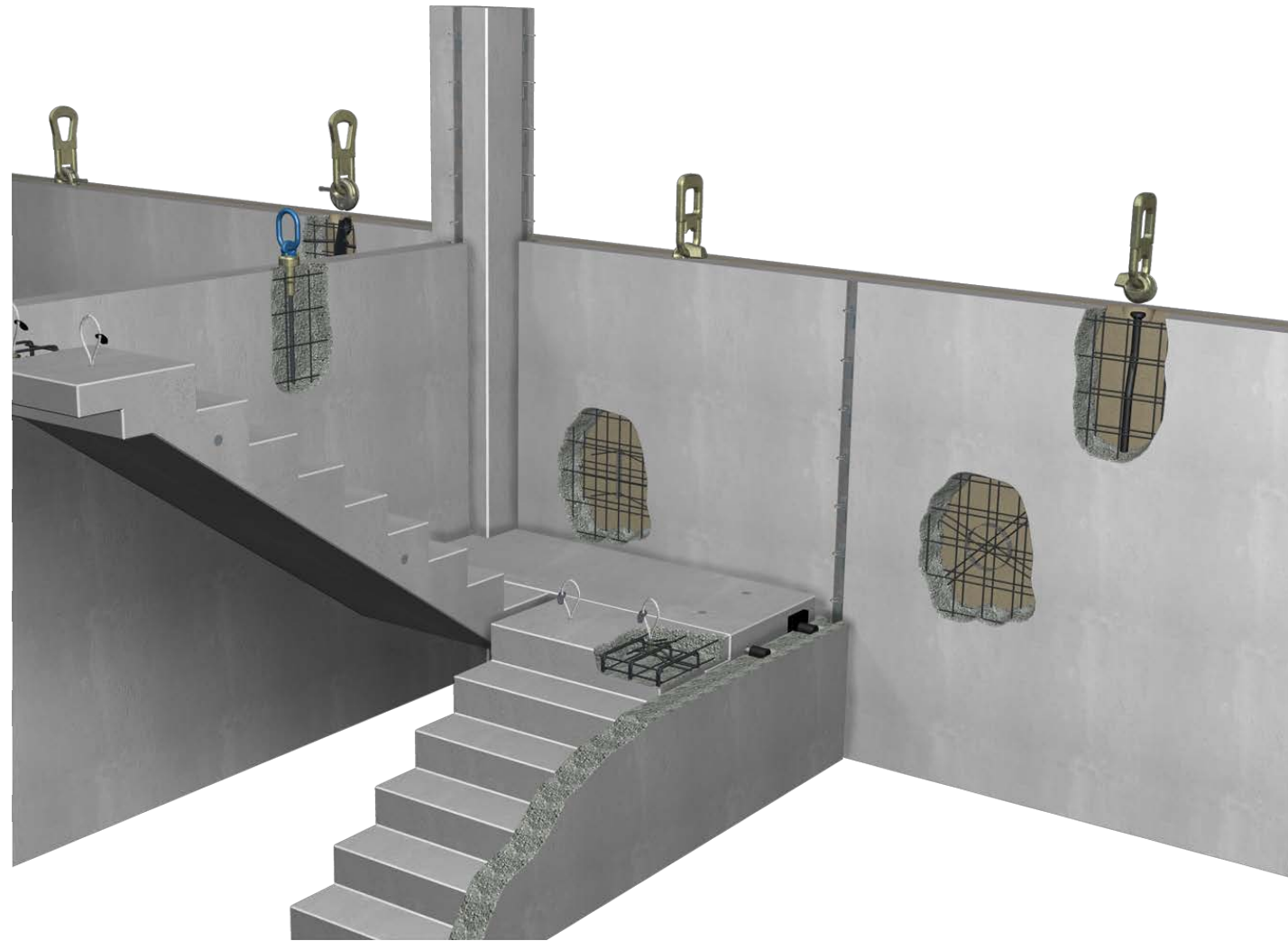
# Our professionals

**About 300 professionals work at PHILIPP daily hand in hand.**

**As a big team they realise projects and push further developments.**

**Here, the direct dialogue with colleagues and customers is in the focus.**
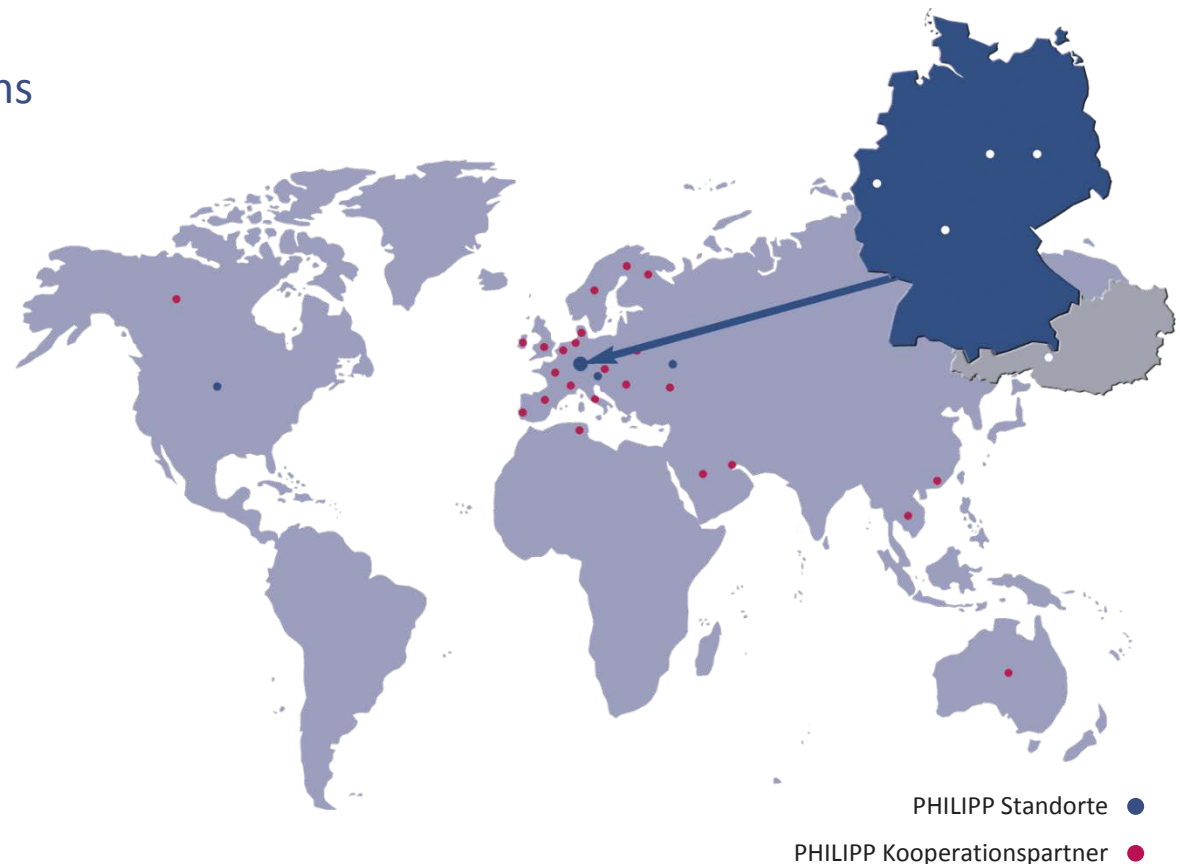
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# Our locations

We think internationally, we are Europeans and have German roots.

More than 30 sales cooperations worldwide.

Four German locations in Aschaffenburg, Neuss, Coswig and Dardesheim.

Own subsidiaries in Austria, USA, Australia and Russia.

PHILIPP Standorte ●

PHILIPP Kooperationspartner ●

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# What means BIM?

"Building Information Modeling (BIM) is a digital representation of physical and functional characteristics of a facility. A BIM is a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle; defined as existing from earliest conception to demolition."

Source: National Building Information Model Standard Project Committee (NBIMS)

BIM must not be equated only with the pure 3D building model!!!

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# Building data base

2D         plane design, plan

3D         three-dimensional design, model

4D         + Time (construction time model)

5D         + Quantities and costs (cost model)

6D         + Product Lifecycle Management
           (building utilisation, demolition, recycling)
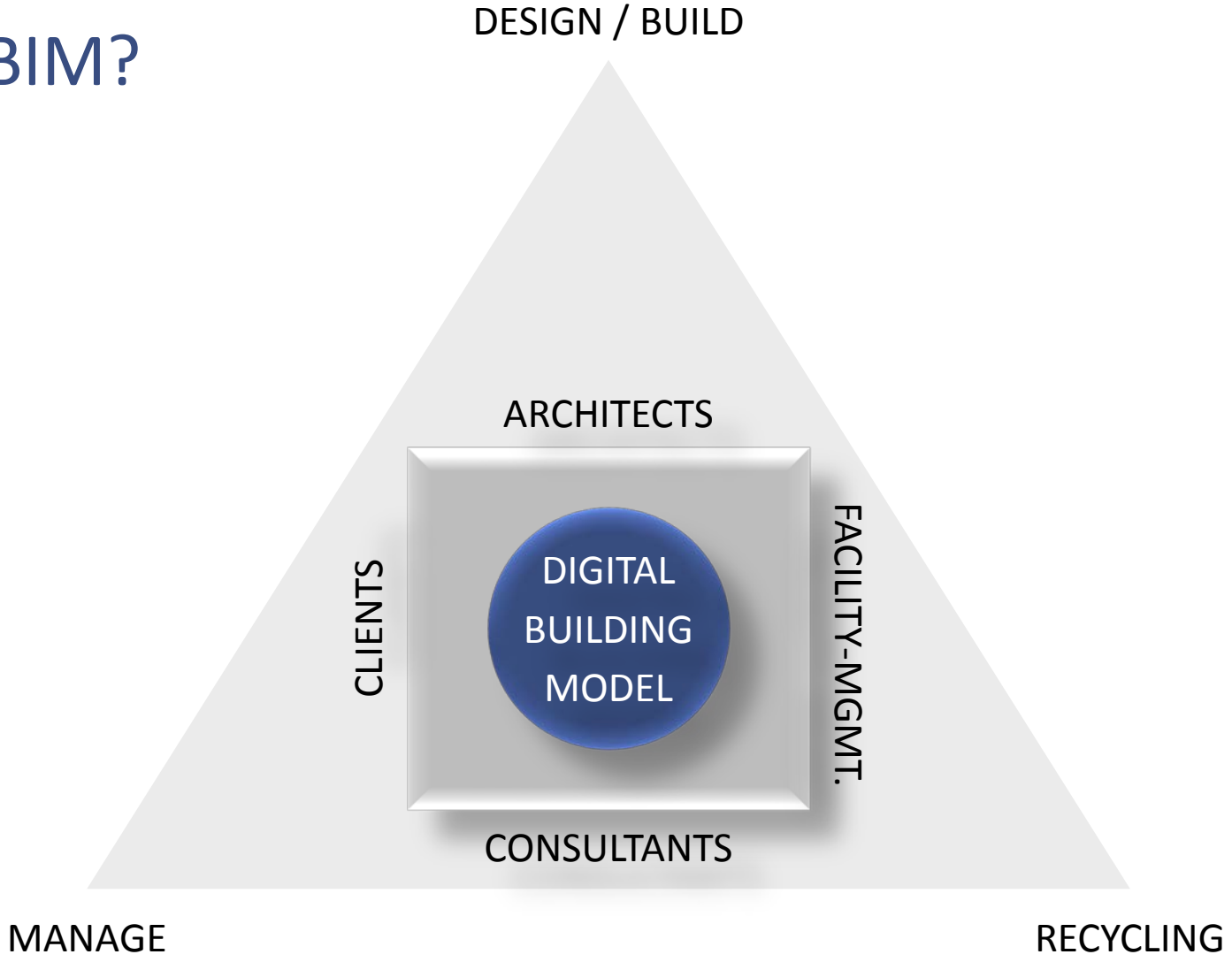
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# Why BIM?

- In many cases the structural and civil engineering lag behind with the efficiency in the processes and automation level

- E.g. plans are made drawing-oriented

- Multiple input of data because of interface problems

- Geometric and object data are stored separately

- Changes take a significant part of the planning
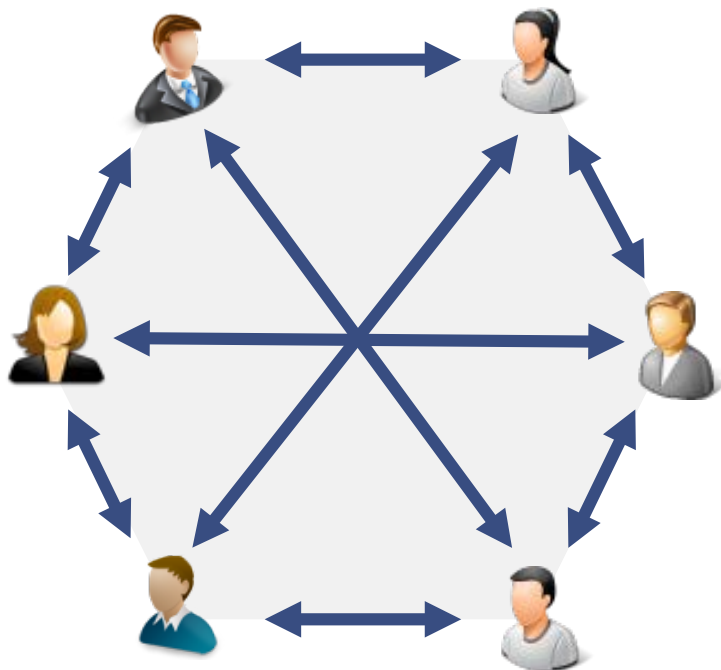
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# Why BIM?

- Long-term optimisation process in the company and part of a change in the project management as well

- Continuous integration of all relevant building data (design, build, managment) in a central database

- The aim is an integrated, cooperative way of working during the entire life-cycle of a buidling, Round Trip Engineering
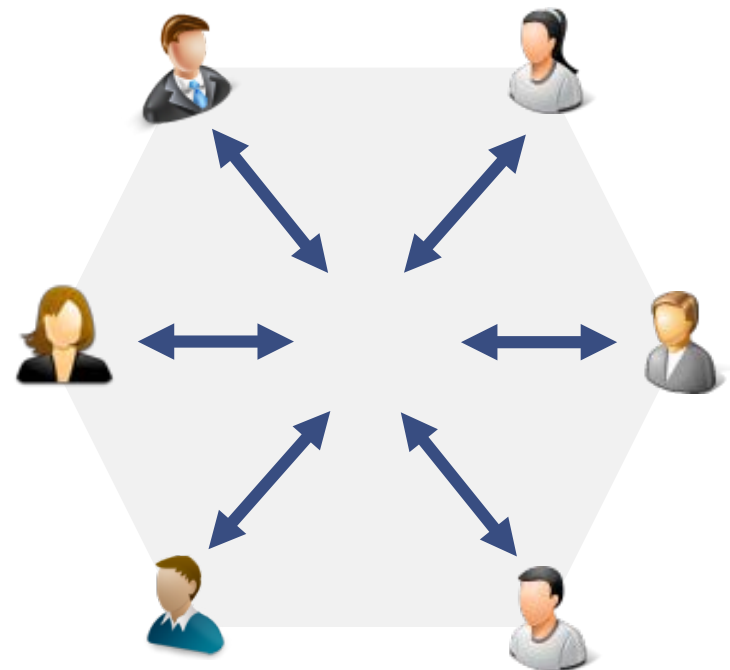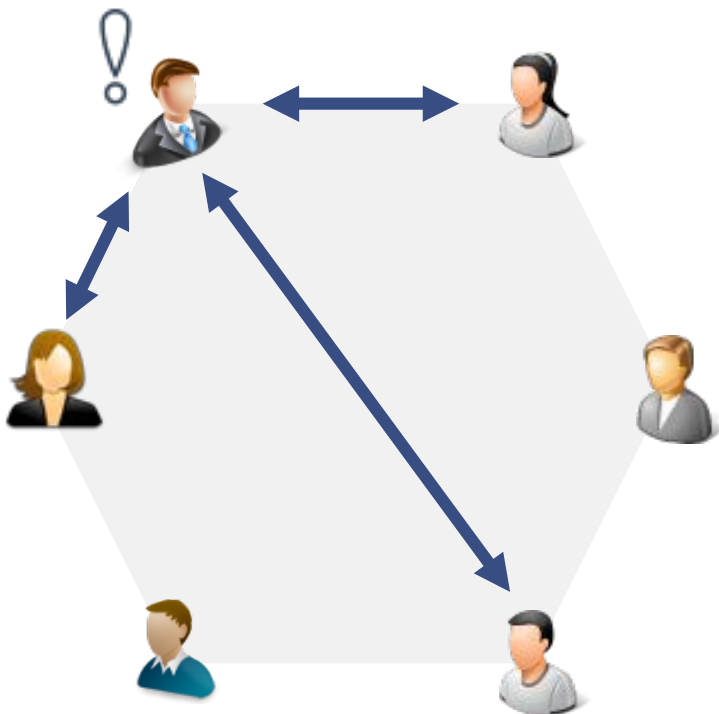(see also PLM in different economic sectors)

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# Why BIM?

DESIGN / BUILD
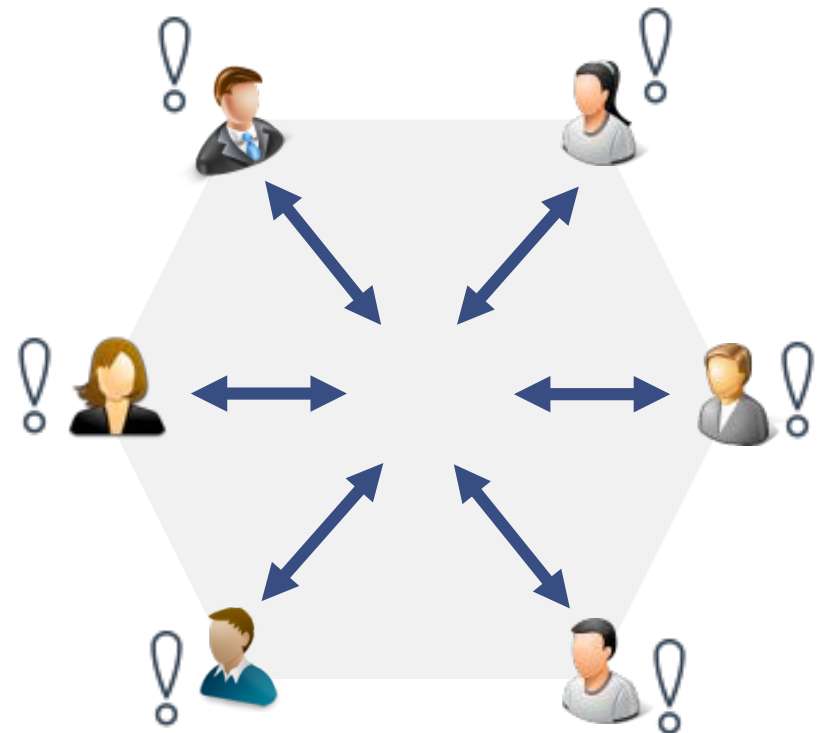
ARCHITECTS

CLIENTS

DIGITAL BUILDING MODEL

FACILITY-MGMT.

CONSULTANTS

MANAGE

RECYCLING

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# Communication



TRADITIONAL

BIM

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# Responsibility



TRADITIONAL                                                          BIM

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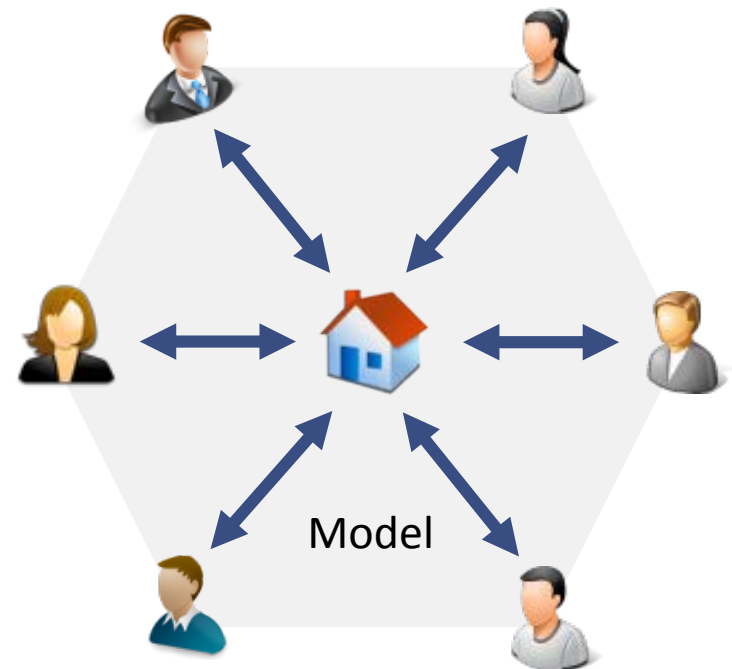# Tools



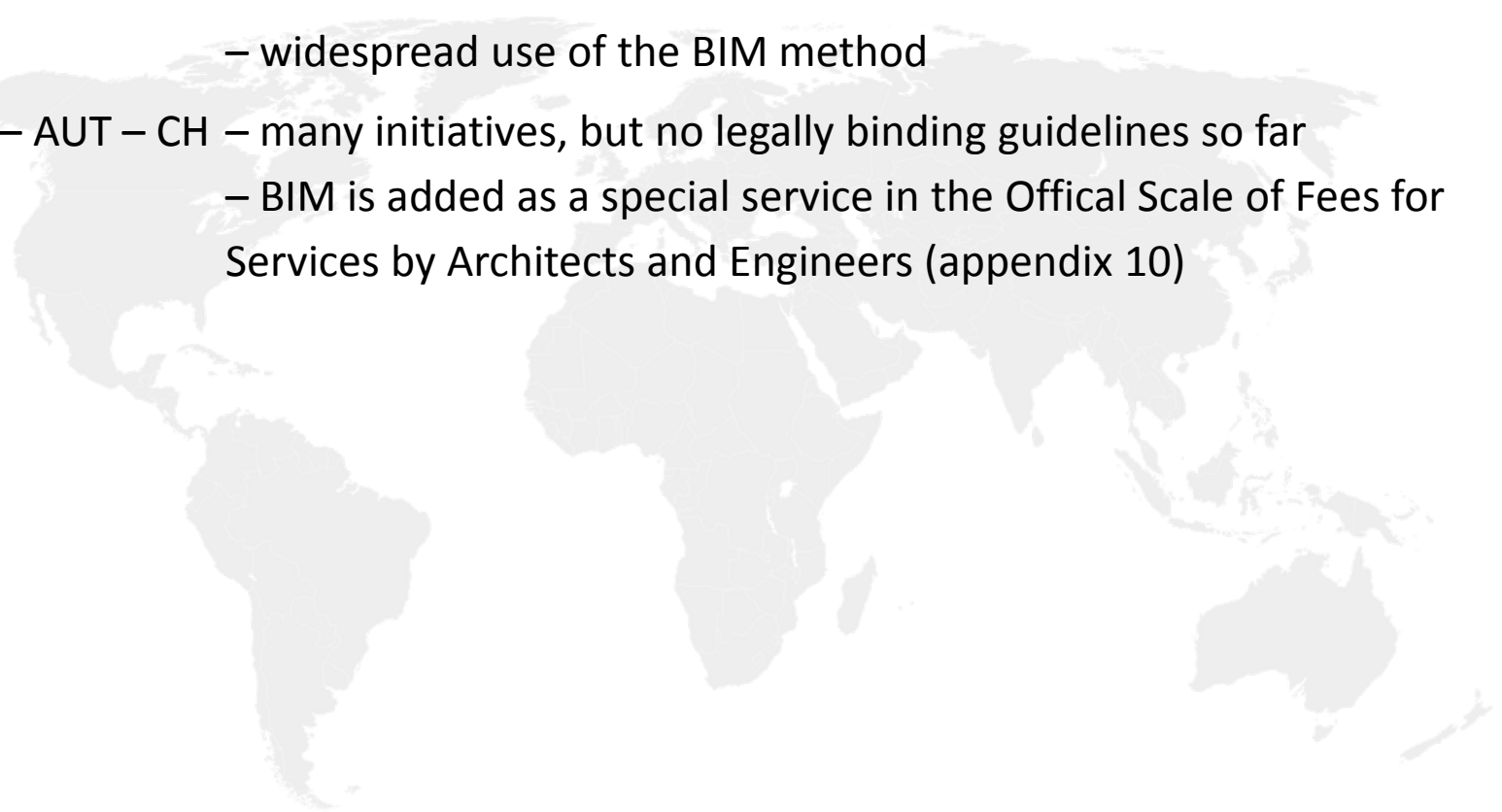TRADITIONAL                                                      BIM
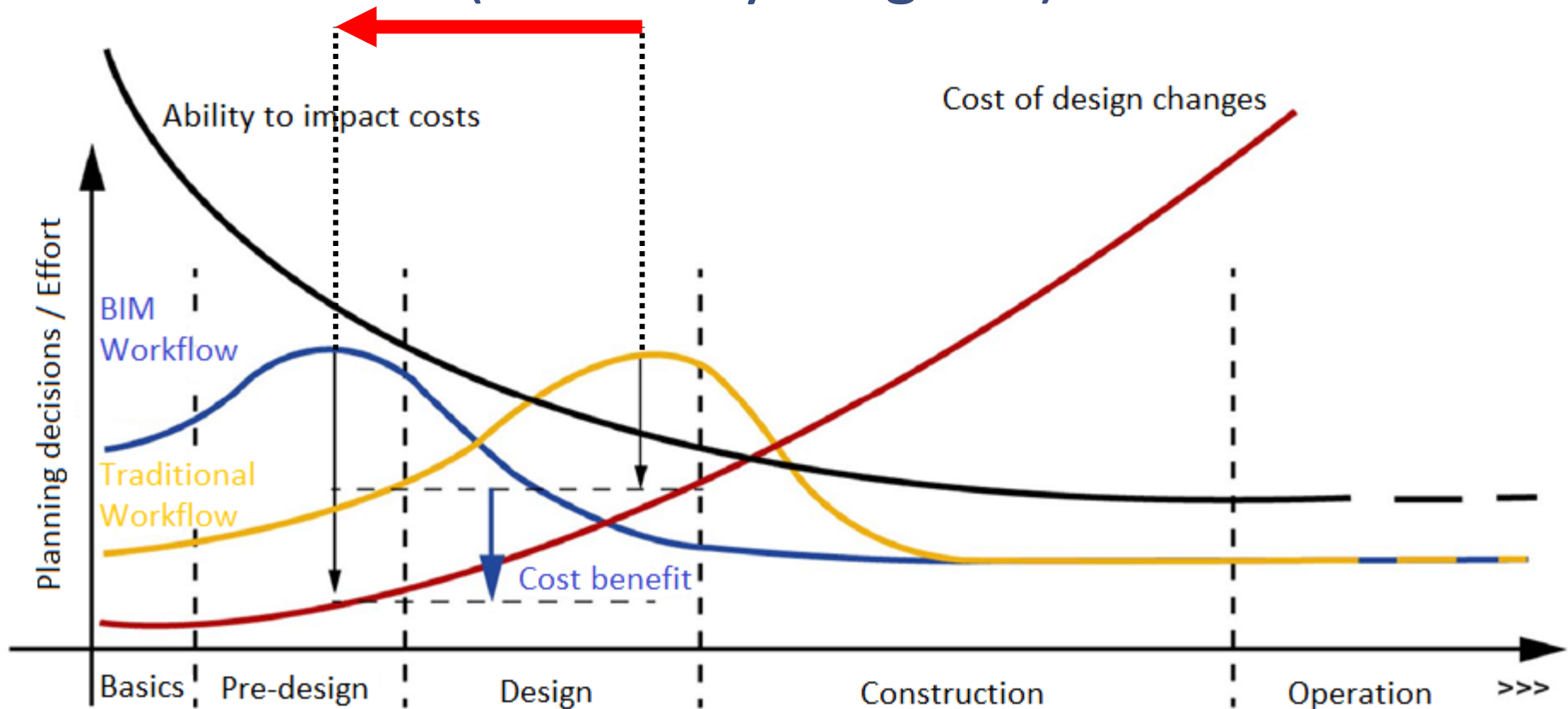
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# Advantages

- Higher planning reliability, cost and time certainty

- Risk mangament will be simplified

- Better control over the quality of planning and production processes

- Open accessible building information usable by all persons involved

- Early and reliable decision making

- Fast, visual survey of the building model – thus better/reproducible verification

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# Where is BIM already a standard?
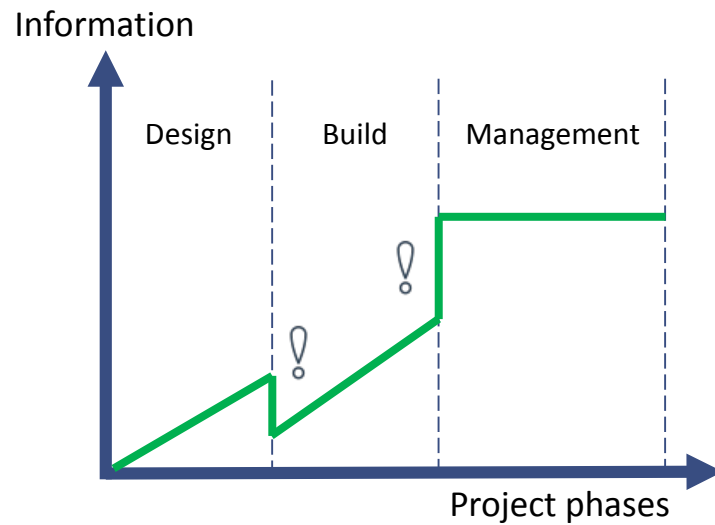
- Scandinavia        – BIM is mandatory for public works

- UK                 – as from 2016 BIM is mandatory for public works

- USA                – widespread use of the BIM method

- GER – AUT – CH  – many initiatives, but no legally binding guidelines so far

                     – BIM is added as a special service in the Offical Scale of Fees for

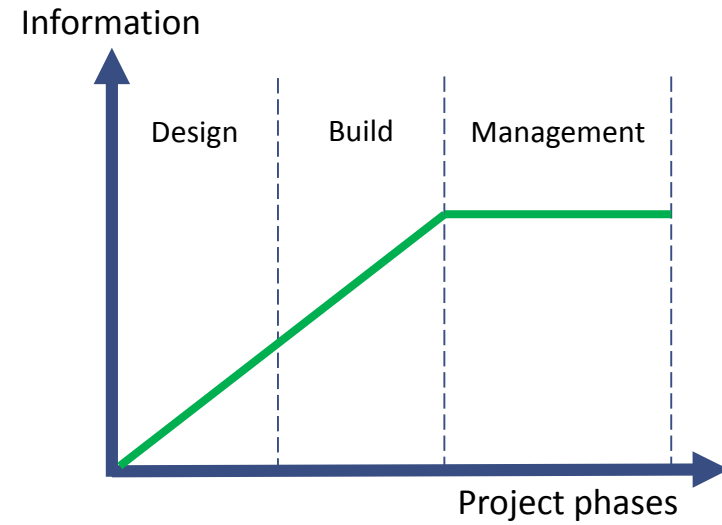                     Services by Architects and Engineers (appendix 10)

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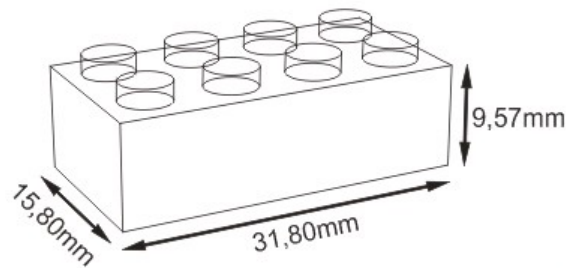# Shift of effort (McLeamy Diagram)



Source: Die Auswirkungen von Building Information Modeling (BIM) auf die Leistungsbilder und Vergütungsstruktur für Architekten und Ingenieure sowie auf die Vertragsgestaltung, 2011, Liebich, Schweer, Wernik, Wohlhage

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# Information flow



TRADITIONAL

BIM

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# Tools – IFC data

Object-oriented data model (**I**ndustry **F**oundation **C**lasses)

Article no.
Length
Width
Height
Weight
Material
Colour
Costs
Manufacture date
Delivery date
…

- Only geometric data

- Further information etc. distributed

- All data attached to the object

- Centrally retrievable and evaluable

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BIM

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# IFC data - Interfaces

Volume-oriented model



surface-oriented model
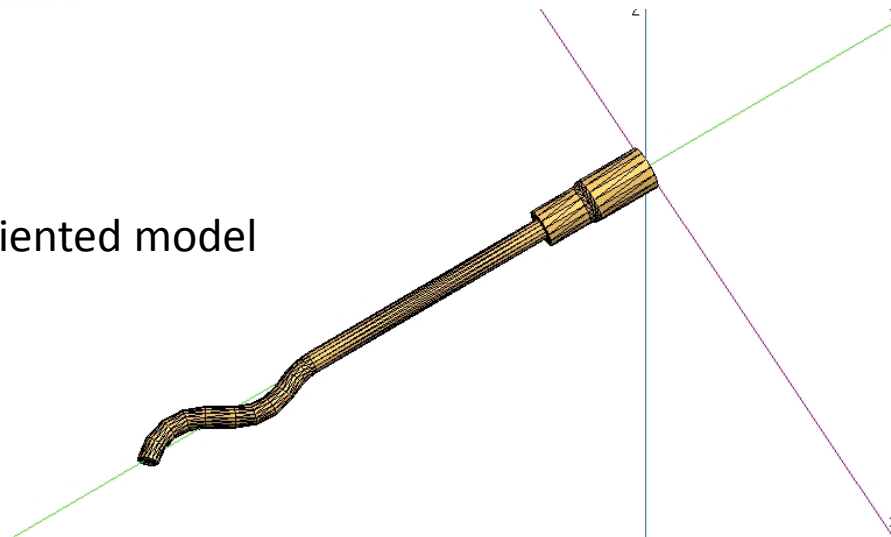
# eCATALOGsolutions for the building industry

- eCATALOGs are well-established in the mechanical engineering, automotive industry, plant engineering, etc. long ago

- Building industry is in some aspects behind

  - Innovations and new processes need more time

  - Implementation of a continous 3D construction of elements resp. complete structures

  - Mostly time-consuming DIY of catalogs as the offer is limited

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# eCATALOGsolutions for the building industry

- Especially in the precast concrete industry a lot of mounting parts in many variants are used

- Here the key question is:
  Implementation of catalogs directly in the most important CAD systems or offer a universal library for all?

- eCATALOGs – reasonable addition to the BIM process

- CADENAS has taken the opportunity and optimises export formats resp. creates them new (e.g. IFC)

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# PHILIPP PartCommunity

- Standard PartCommunity project

- Time for project: approx. ½ Jahr, PHILIPP eCATALOG online since Oktober 2015

- Mounting parts: ca. 1,200 pcs. from 6 different product groups

- Most important exchange formats: Revit, Allplan, DXF/DWG and IFC

- Most important CAD systems:

    - AutoCAD, Revit Structure from Autodesk

    - Allplan from Nemetschek

    - Strakon from DICAD

    - Structures from Tekla

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# PHILIPP PartCommunity

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# BIMcatalogs.net

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# Outlook

- BIM is not a temporary hype but a serious development

- BIM forces the building industry to strike new paths

- BIM and IFC provide an opportunity to optimise inefficient data exchange mechanism, planning structures and processes


- In december 2015 the German Federal Ministry of Transport and Digital Infrastructure has presented a phased plan for the introduction of BIM

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Strength and stability

www.philipp-gruppe.de