



Slavomír Matiaško

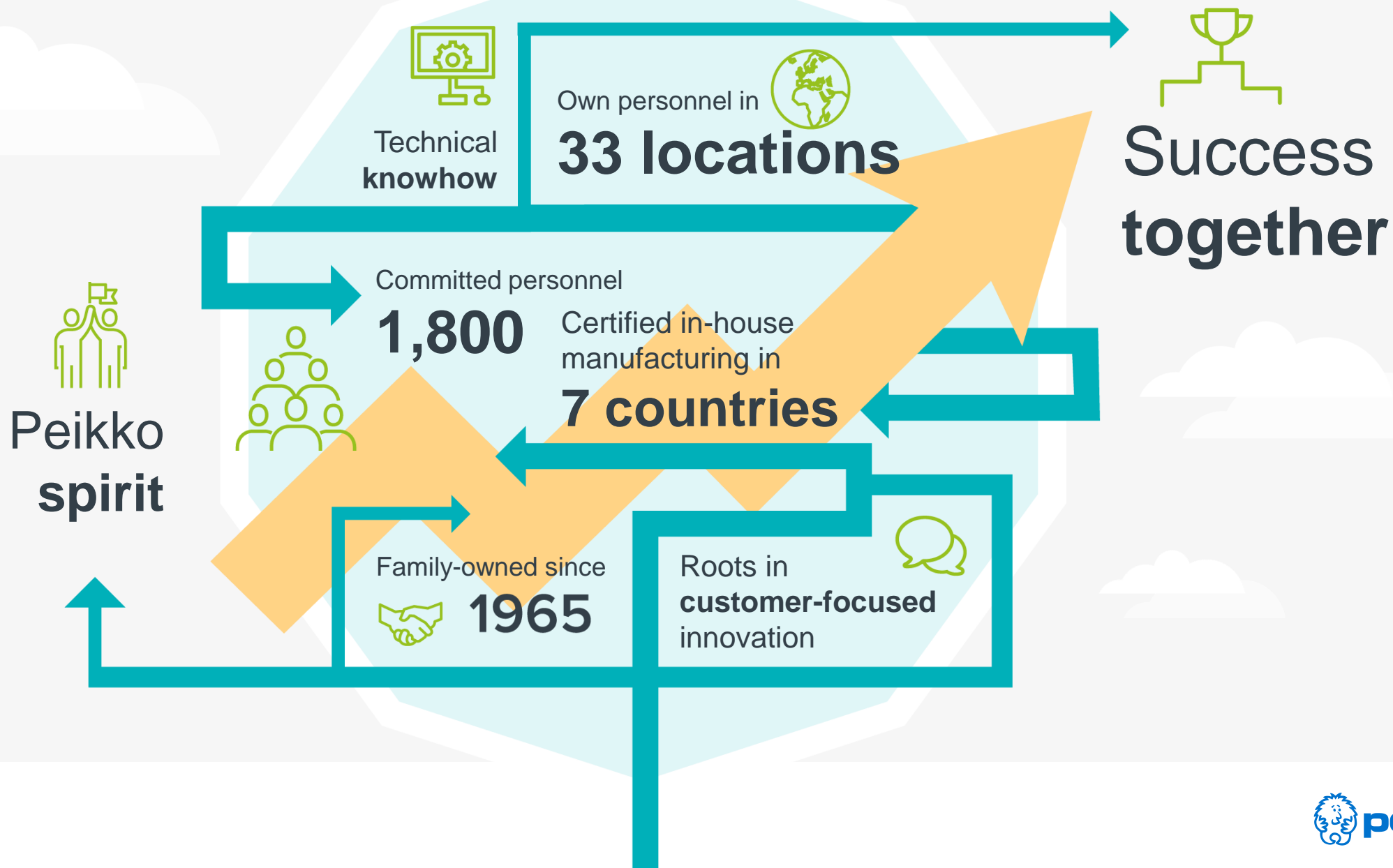
Precast Connections

Content

- Peikko as company
- Benefits of Precast
- Precast Connections for seismic areas
 - Column Connections
 - Overdesign
 - Optimized
 - Beam to Column Connections
 - Moment resistant bolted connection
 - Hinged connection
- Wall Shoes
- Expert's view



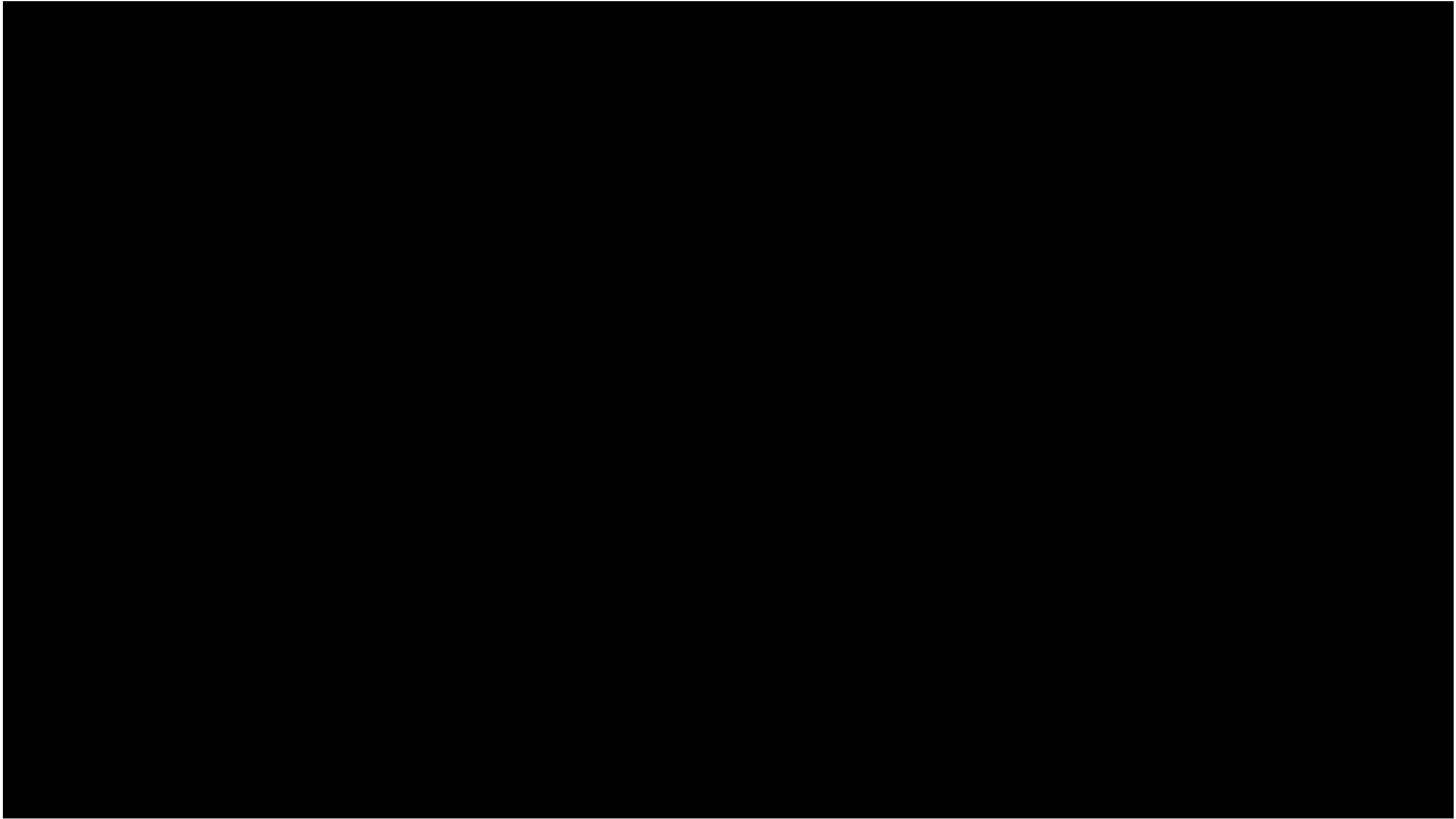
THIS IS **PEIKKO** IN 2018

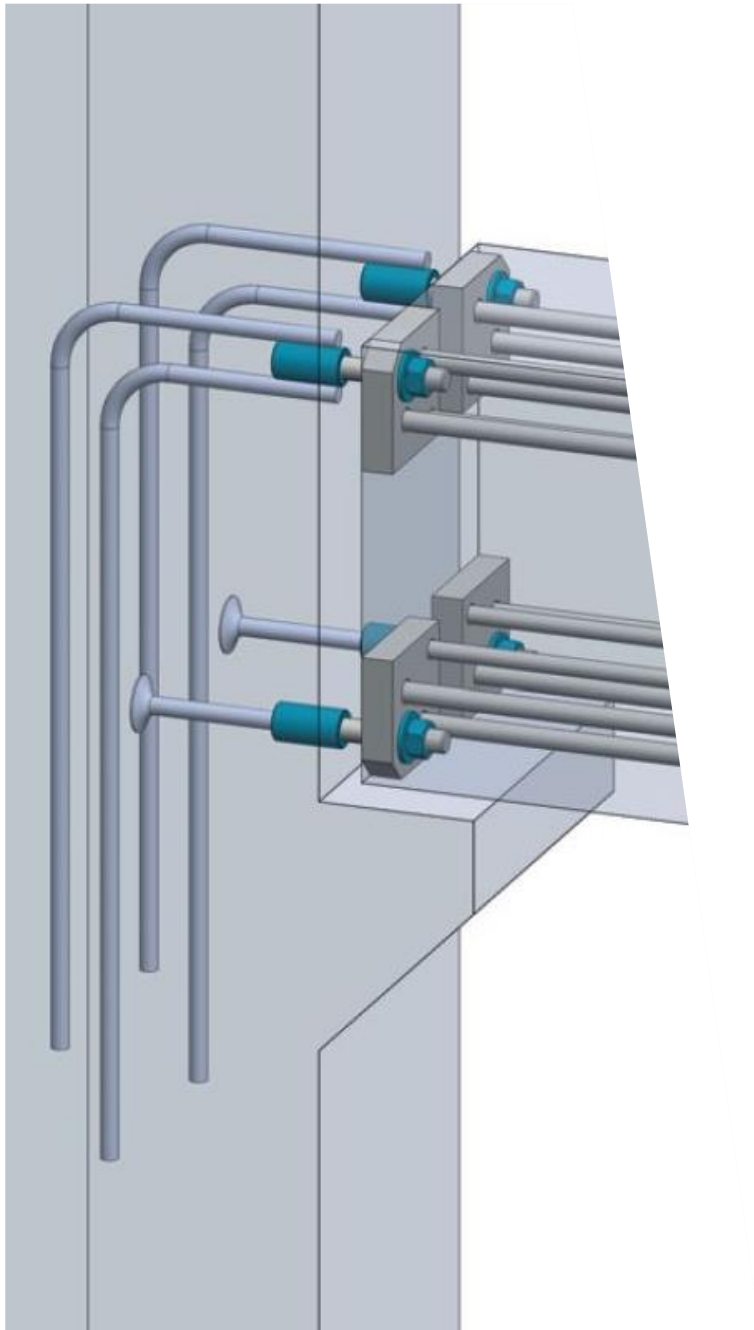


WHY DO WE EXIST?

Peikko changes the
building industry to be
more efficient

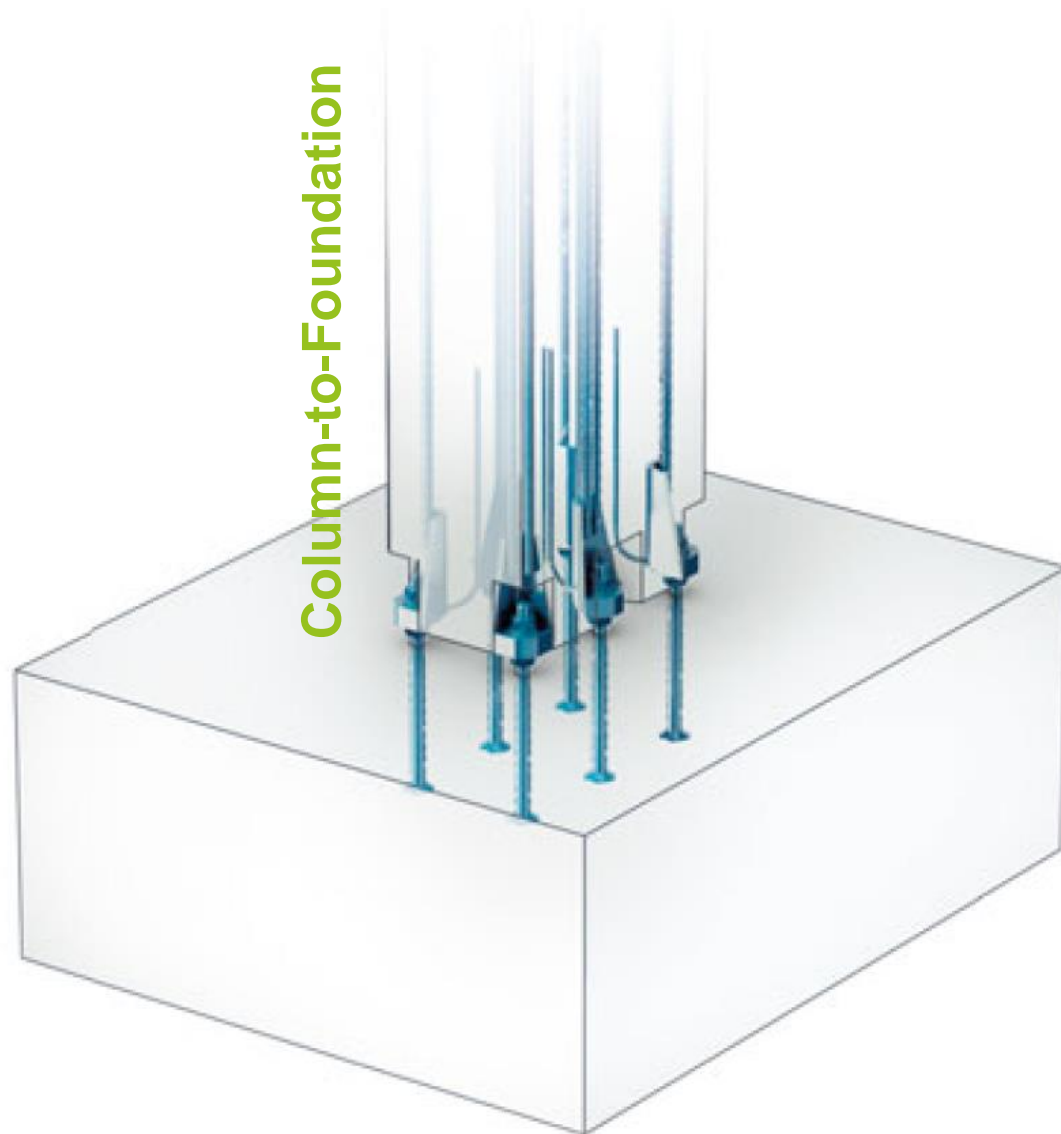




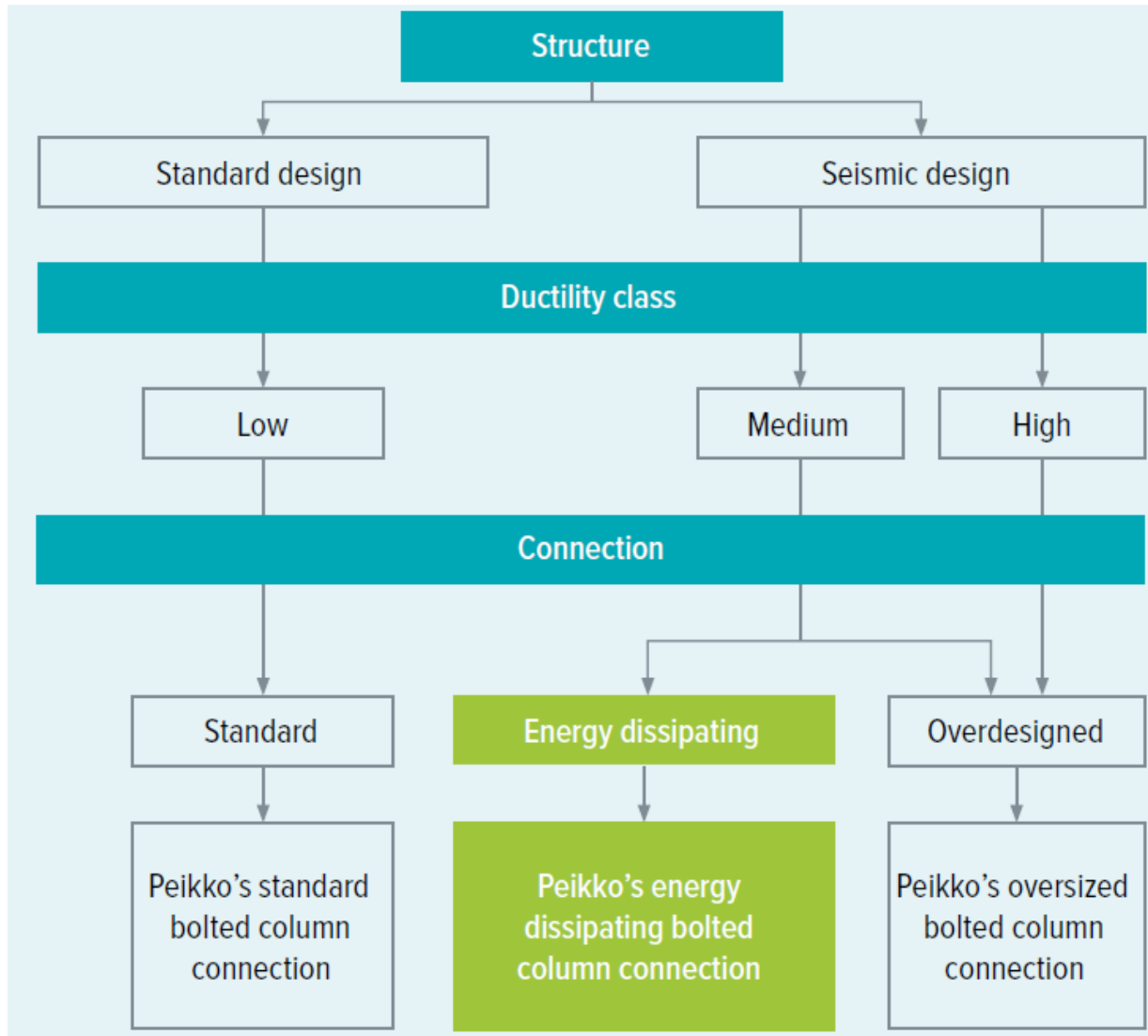


Precast Connections

Column Connections



Column Connections



Column Connections

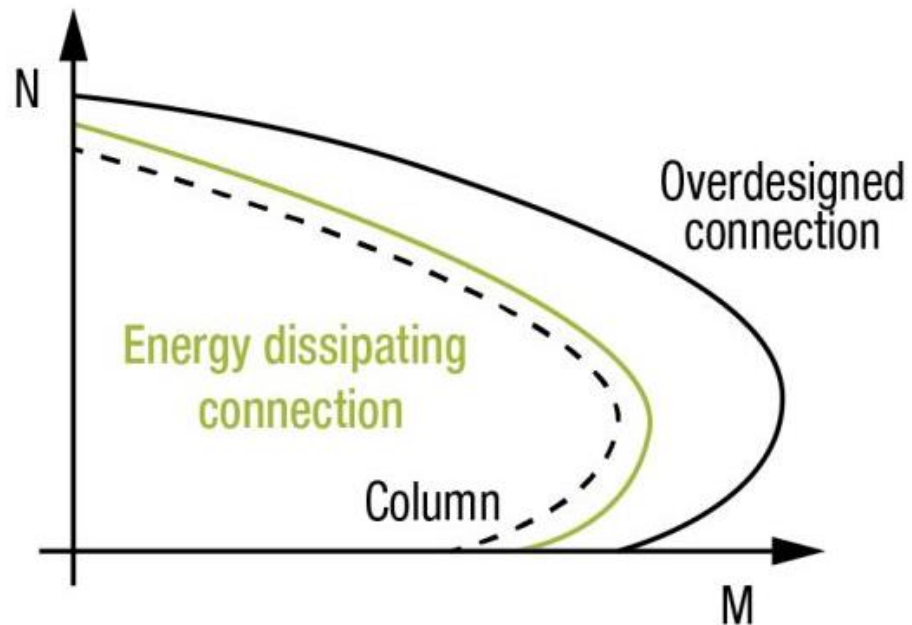
- Energy dissipating connection (HPKM[®] / HPM-EQ)

Reduced
column
cross-section

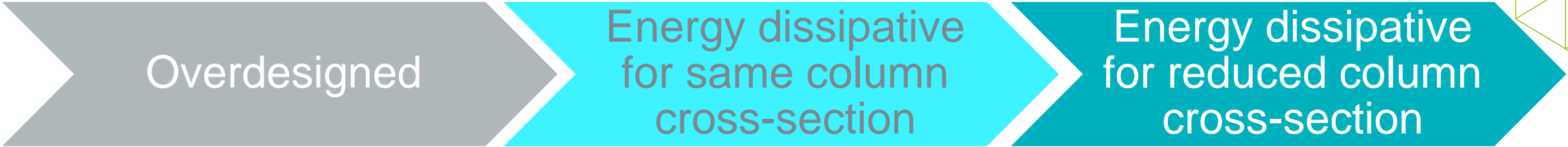
Savings in
foundation

Easy
assembly

Reduced man
and crane
hours



28 % savings in concrete volume



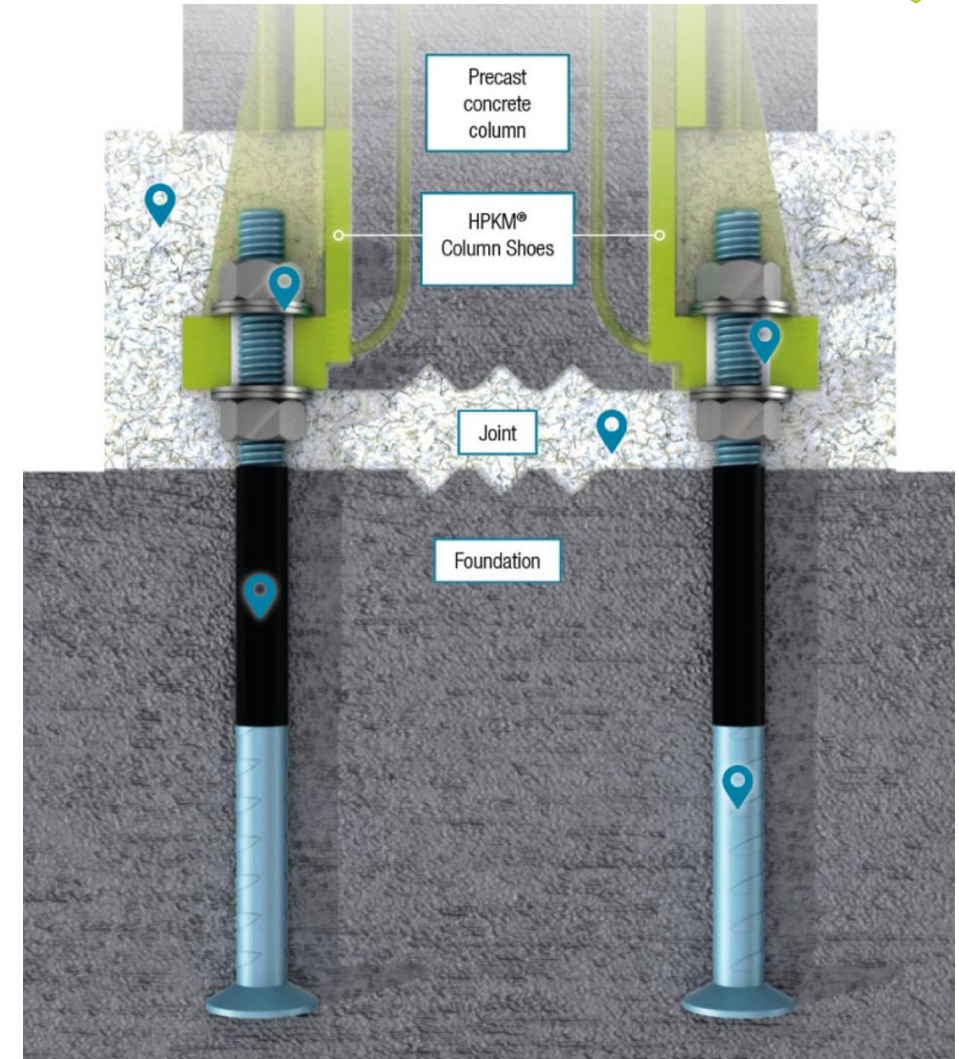
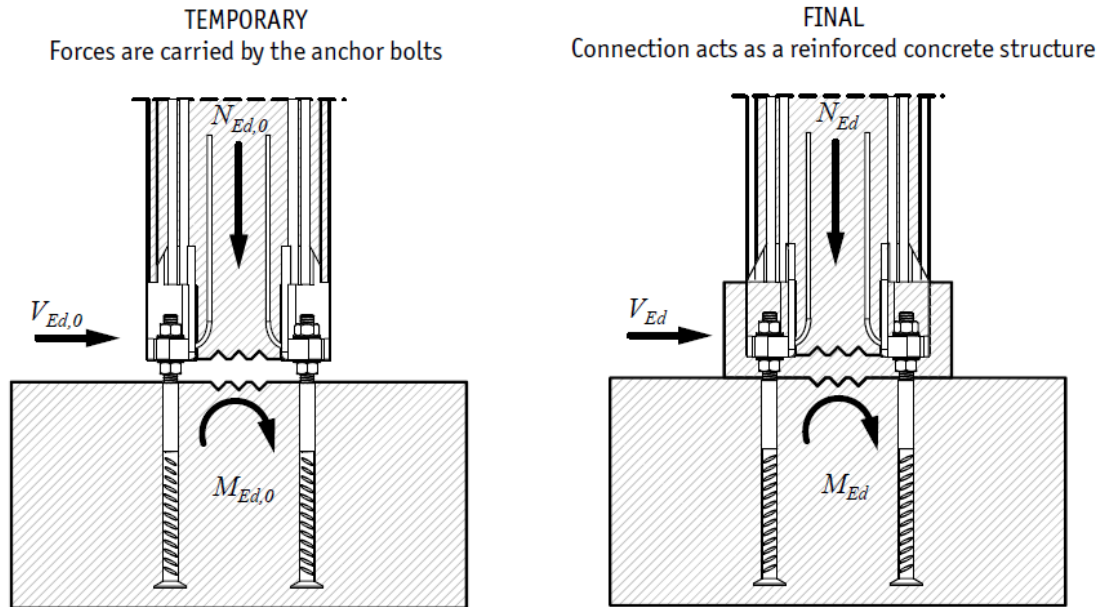
Energy dissipative	Over-designed
90x90	
12 HPKM39 + 12 HPM-EQ 39L	8 PEC52 + 8 PPM 52L
✓	X

No space for shoes;
Capacity is not reached;

Energy dissipative	Over-designed
55x55	65x65
8 HPKM39 + 8 HPM-EQ 39L	12 HPKM30 + 12 HPM 30L
✓	✓

28% concrete savings

Column Connections



Column Connections

- How to design?

Connection is compatible with EN 1998-1

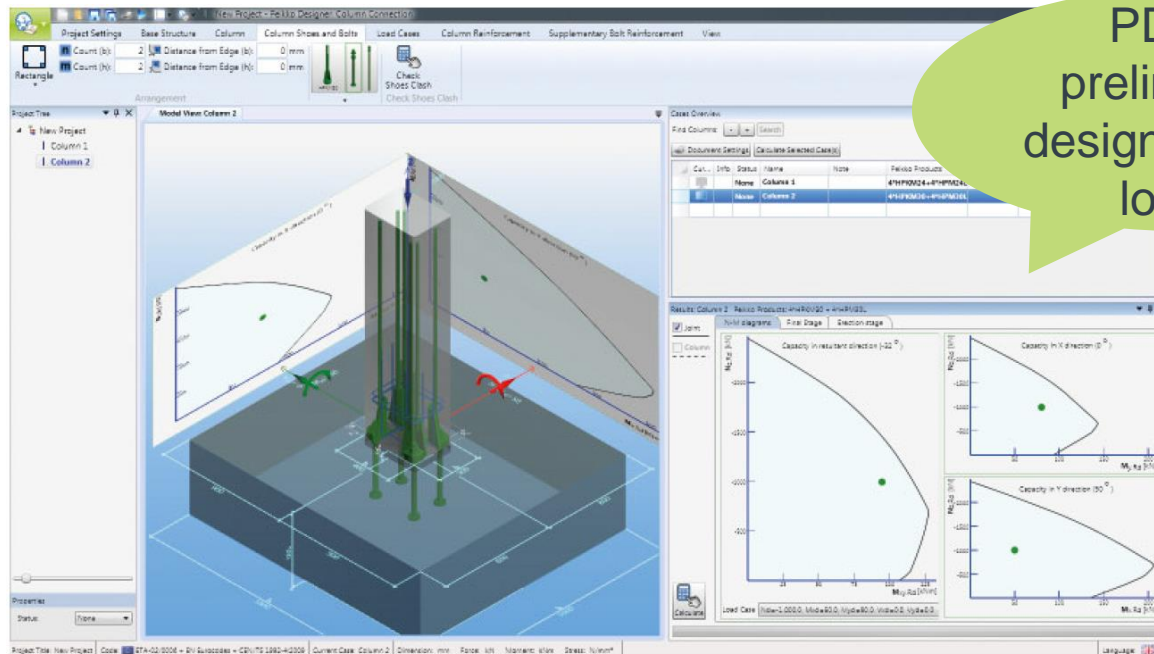
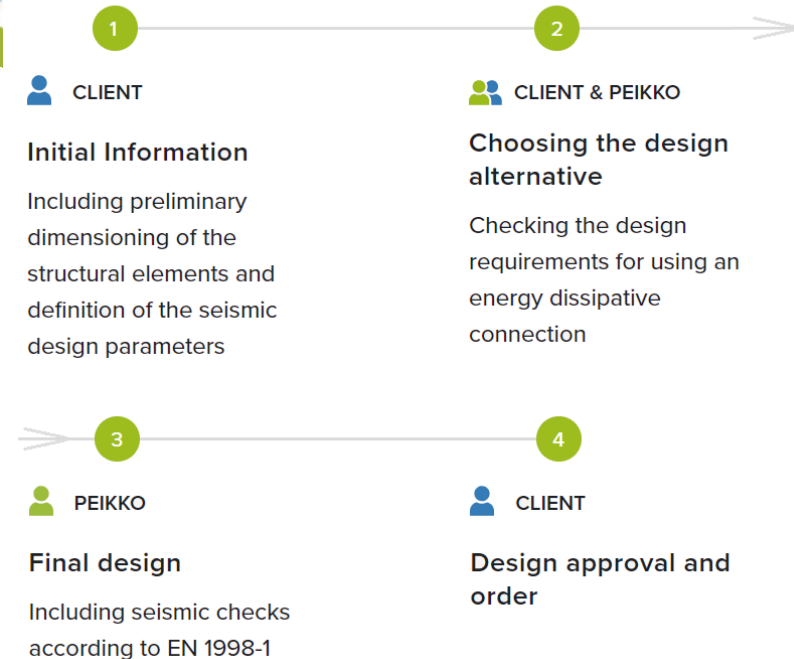
Bolts and Shoes are covered by ETA

PD for preliminary design – static loads

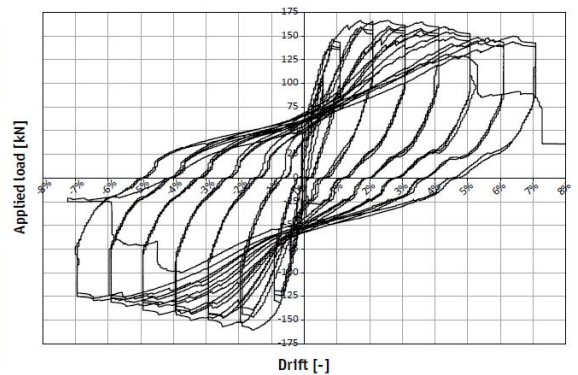
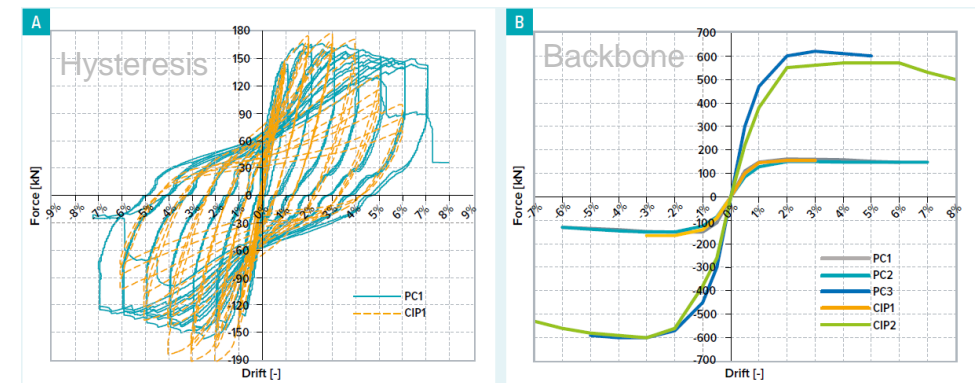
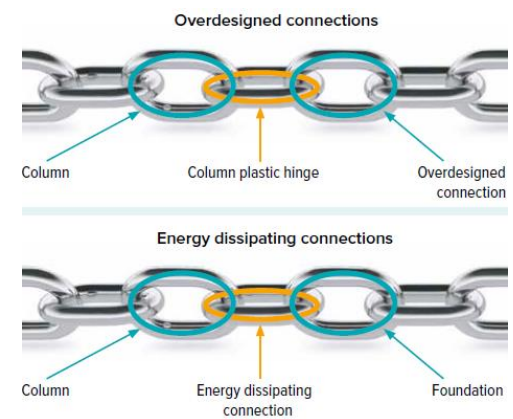
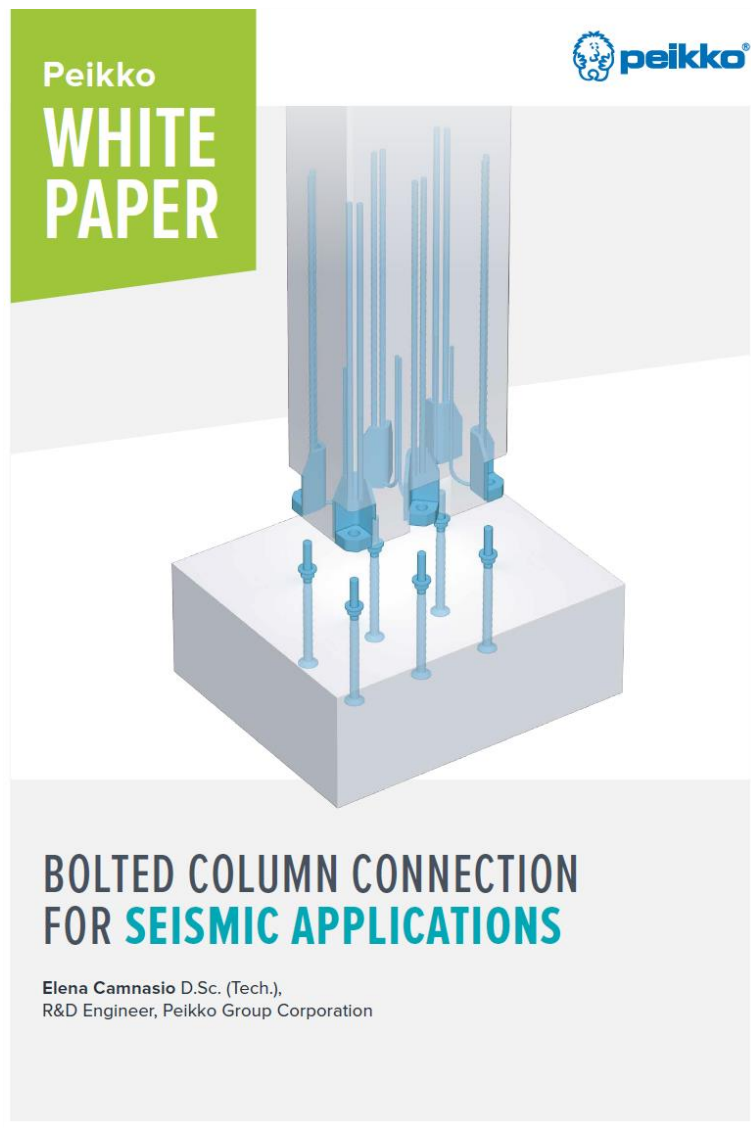
Details in Technical Manual



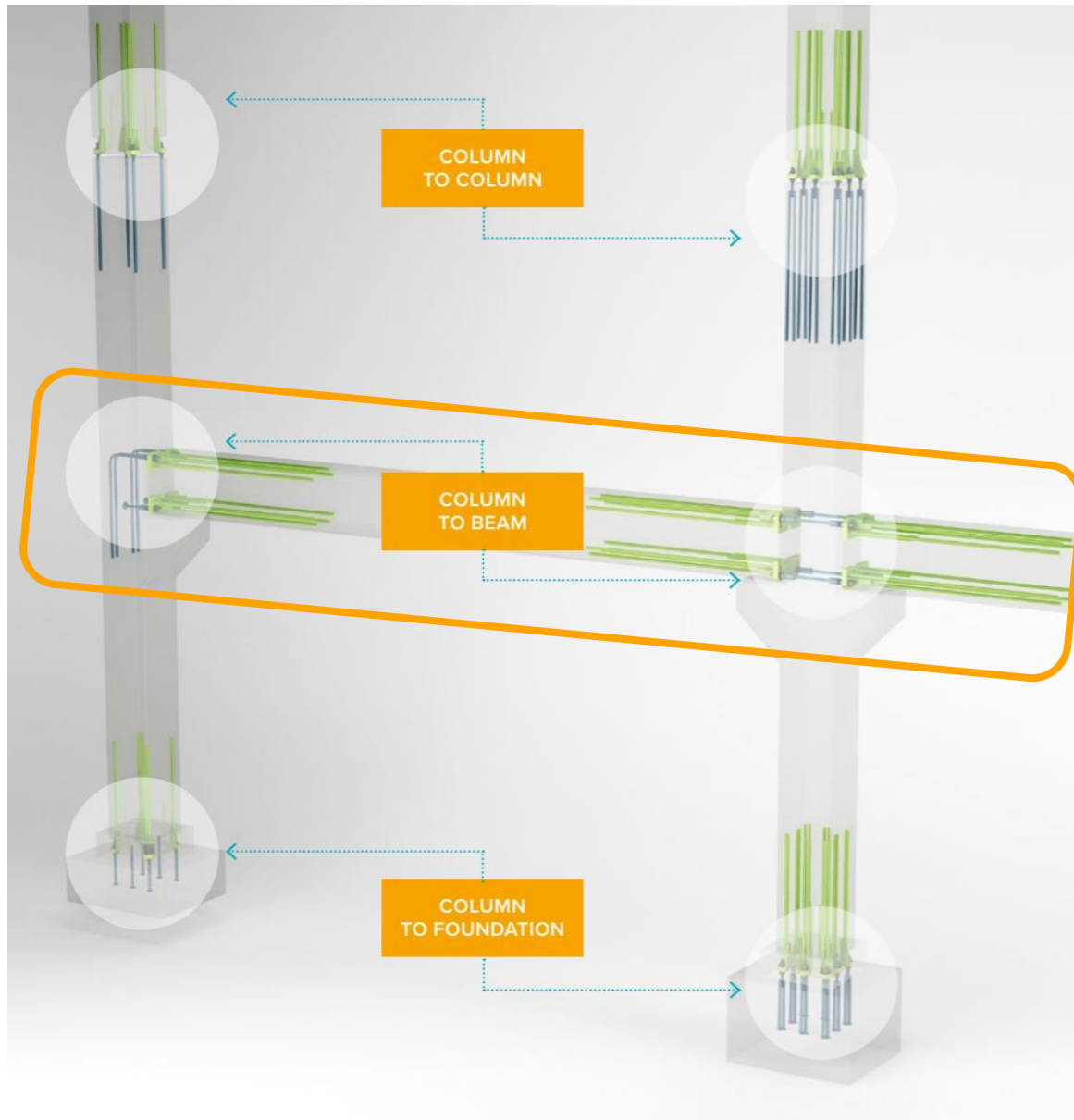
Seismic Column Connection design process:



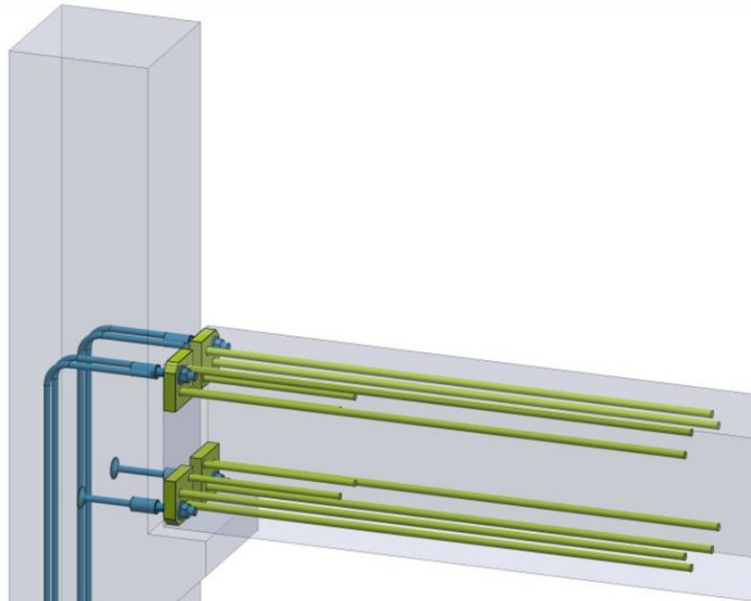
Column Connections



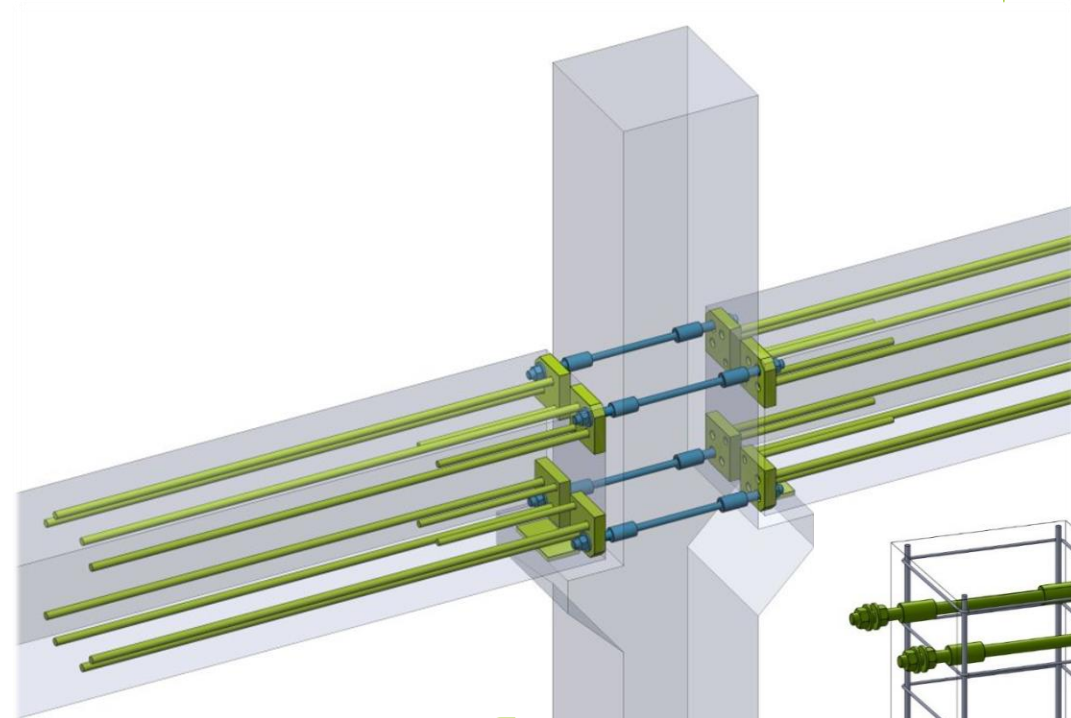
Beam to Column Connections



Beam to Column Connections



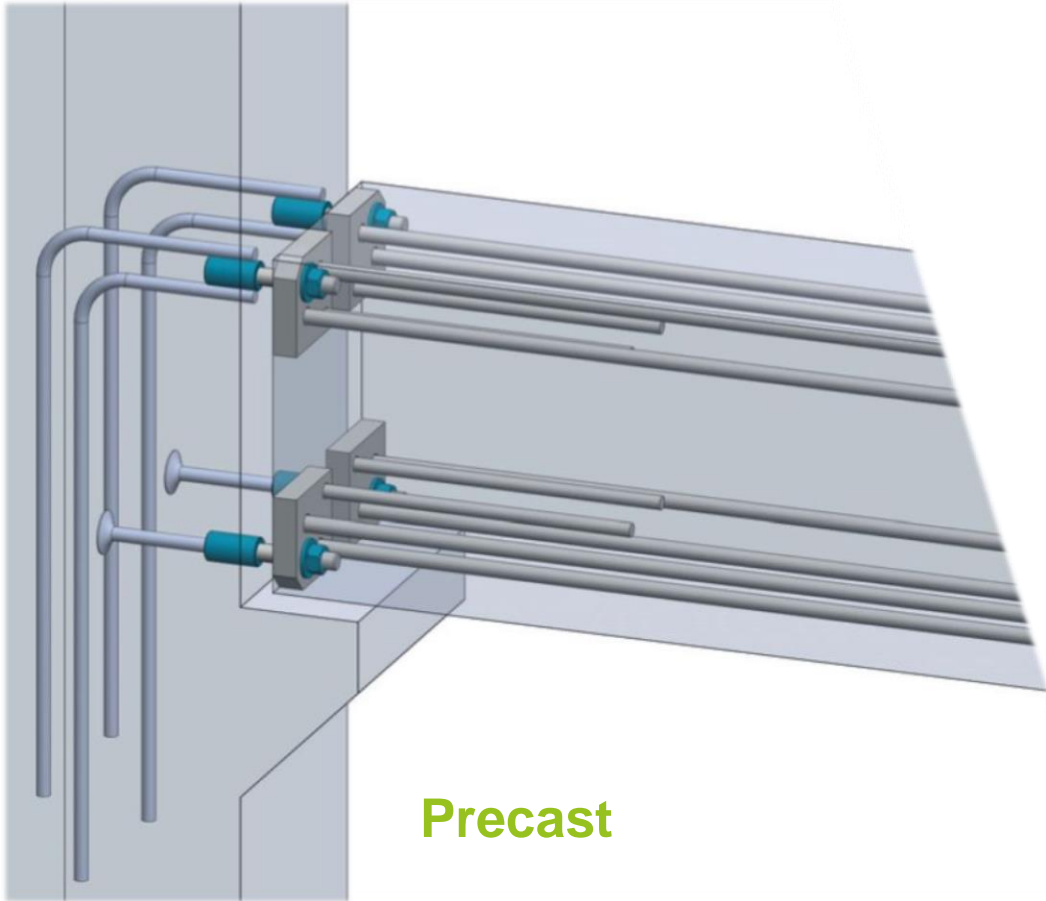
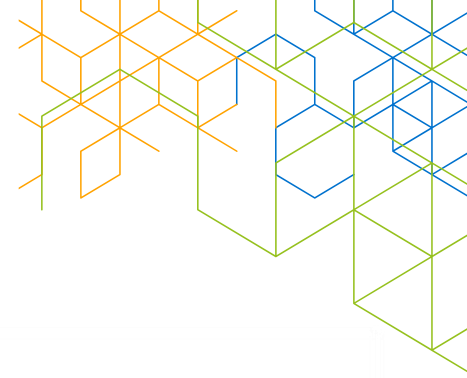
Edge Column



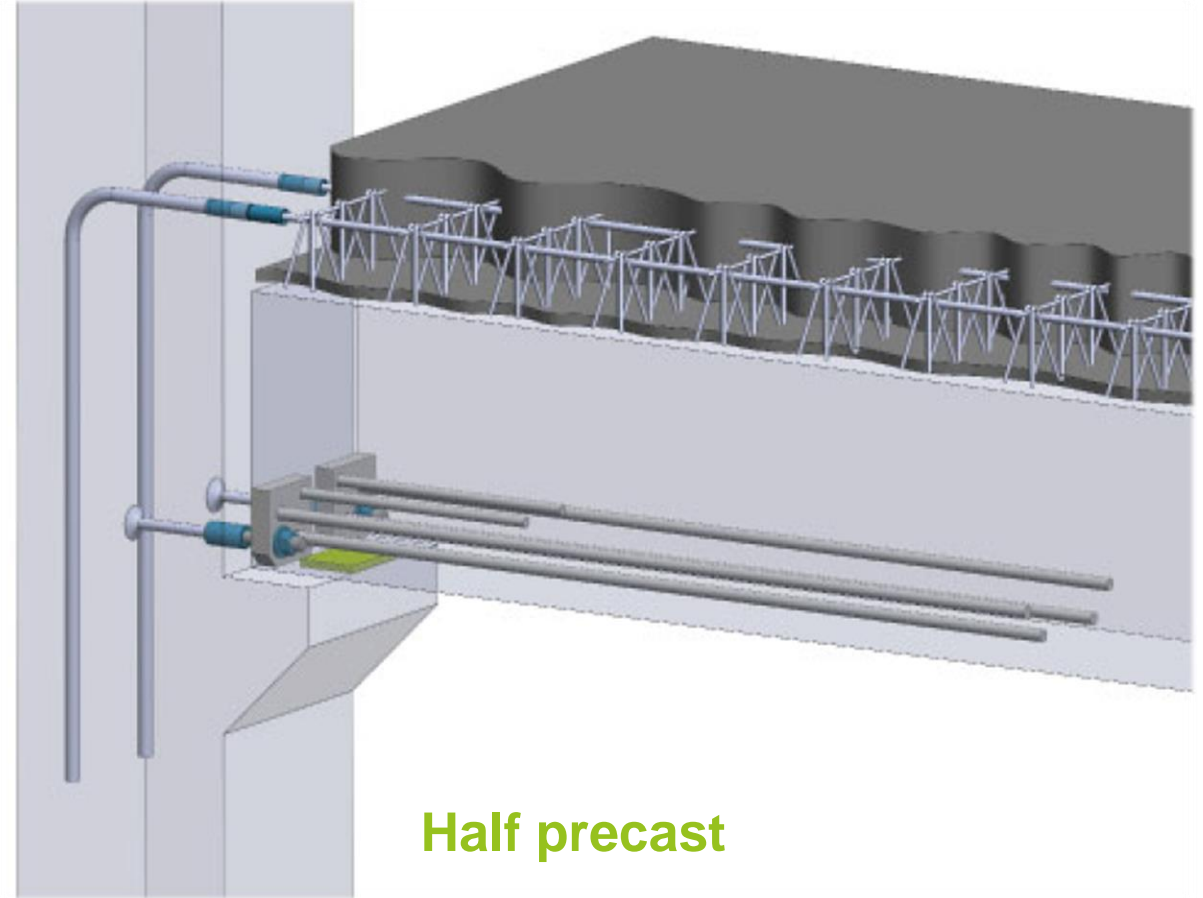
Middle Column



Beam to Column Connections



Precast



Half precast

Beam to Column Connections

Continuous
precast beam
system

Wide range of
loads
(up to 940 kN)

Easy and
fast erection
of beam

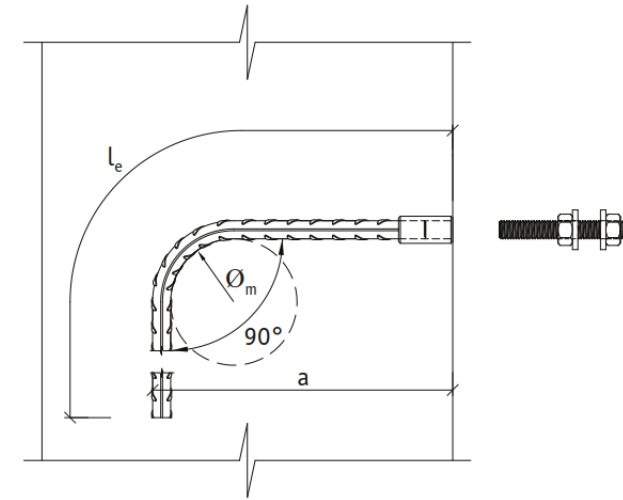
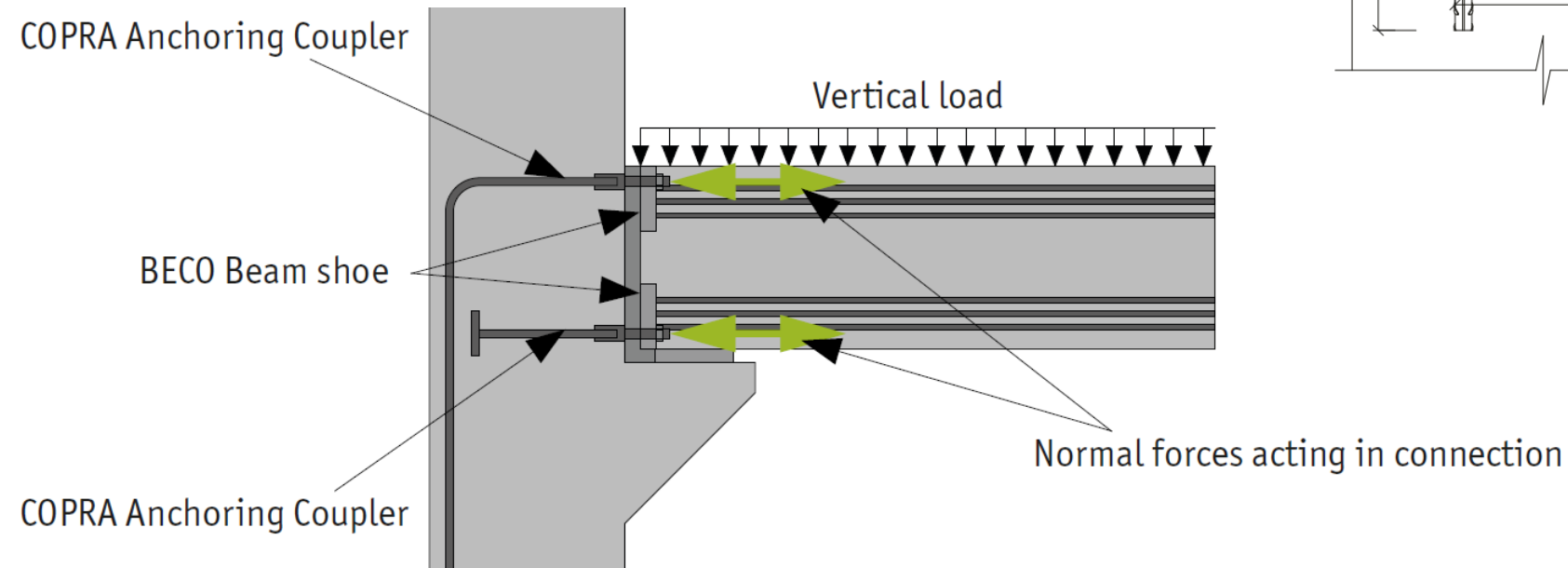
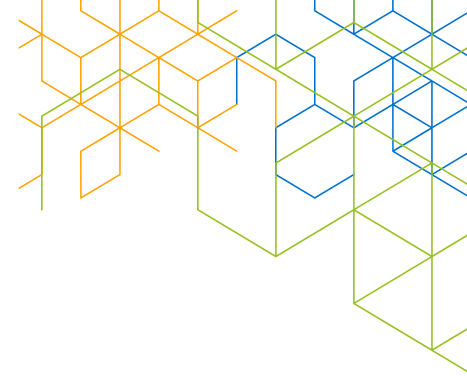
COPRA®

Genuine bolted
connection

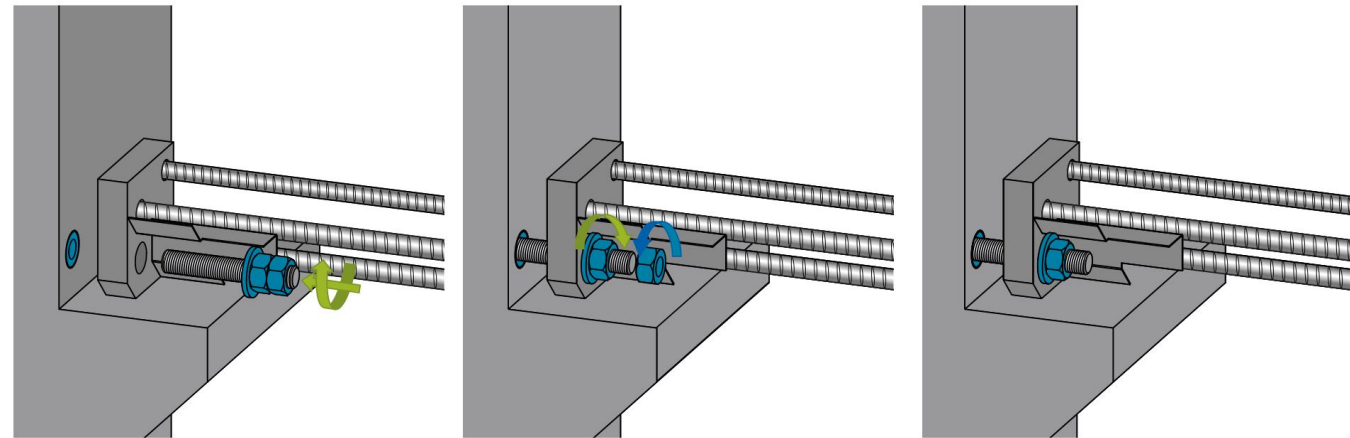
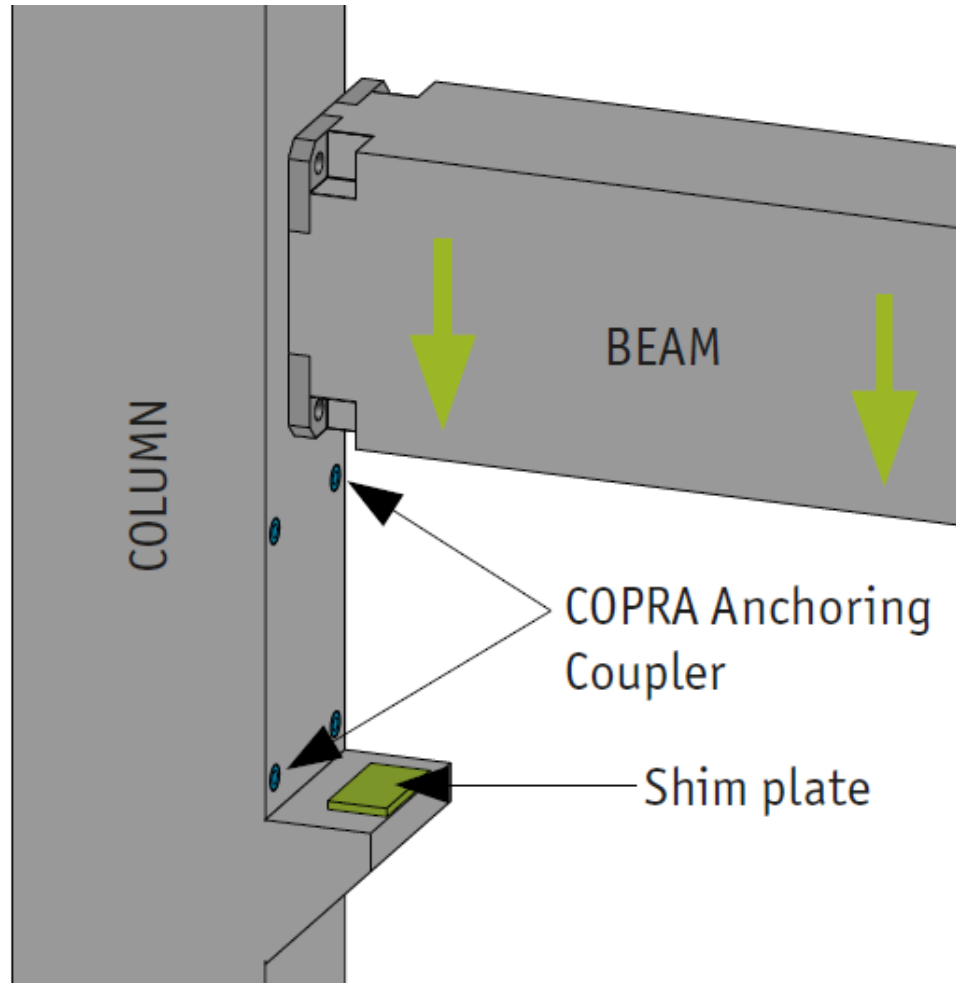
BECO®



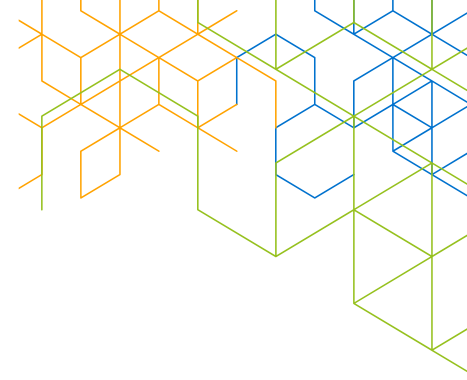
Beam to Column Connections



Beam to Column Connections



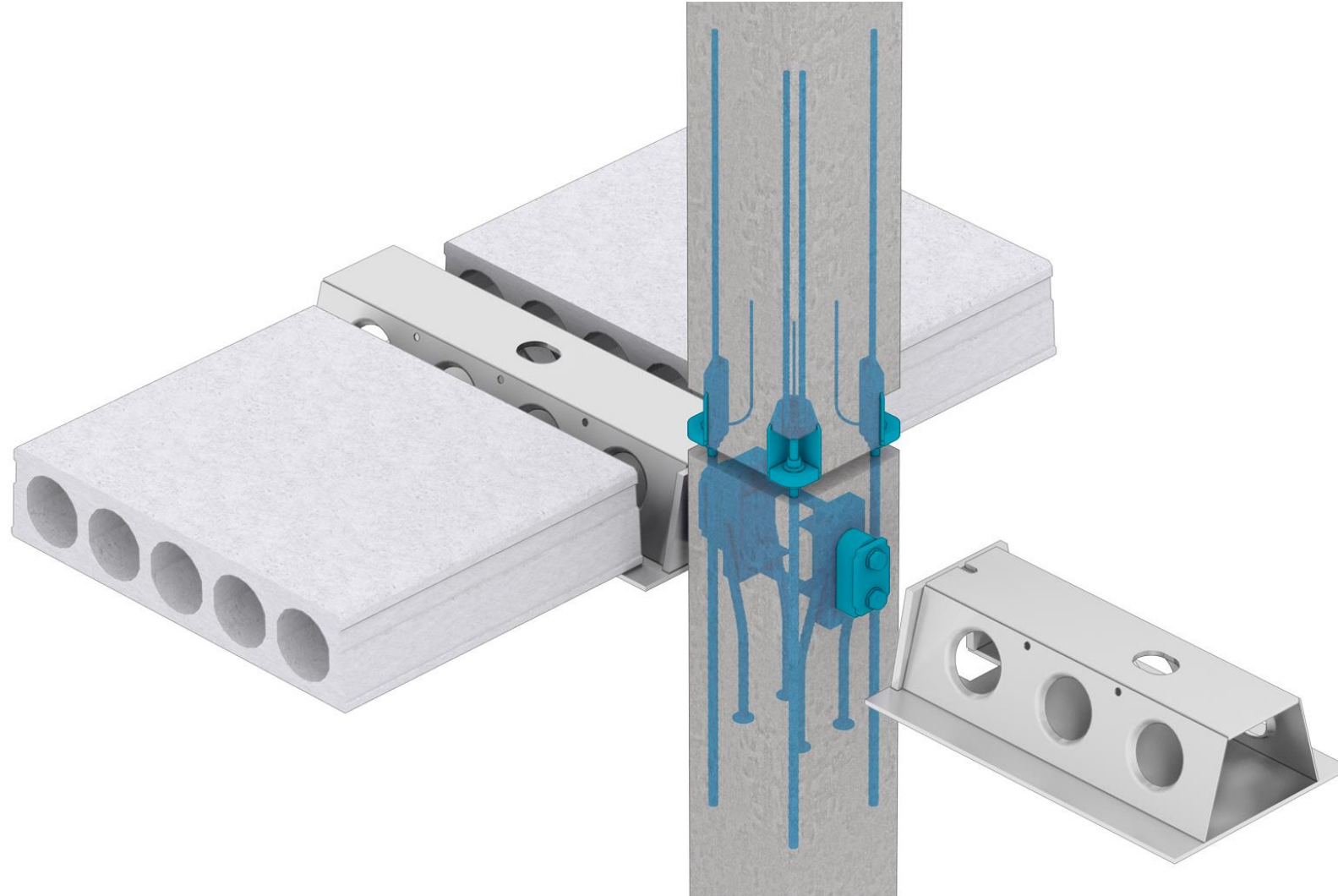
Beam to Column Connections



Beam to Column Connections

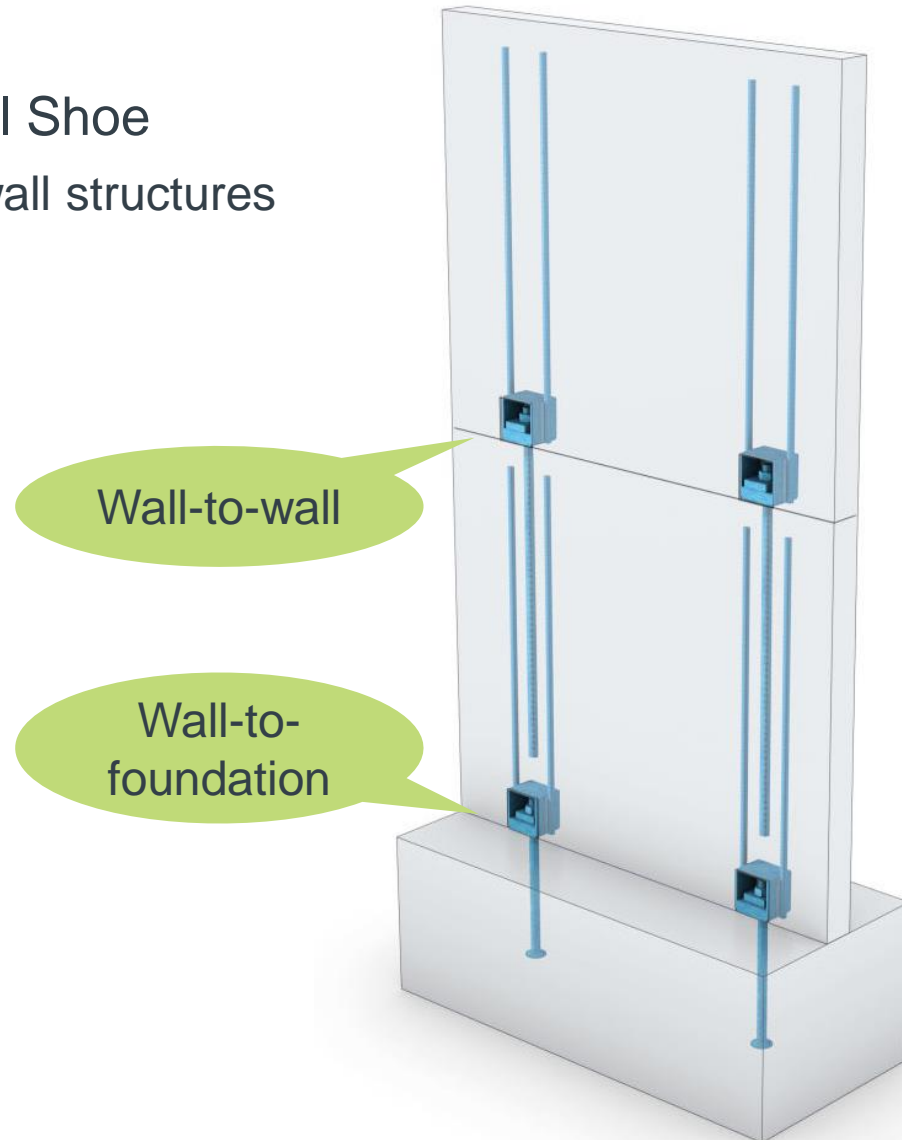


Beam to Column Connections



Precast Wall Connections

- SUMO® Wall Shoe
 - stiffening wall structures



Expert's View

Keijo Andersson





So, we would like to hear about your experiences using Peikko Column Connections.

THANK YOU !