



HIGH PERFORMANCE CONCRETE

FUTURE POTENTIALS OF HIGH PERFORMANCE CONCRETE

DIPOLI 23.01.2014 - HANS BRUUN NISSEN













UHPFRC

HPC

UHPC

HiCON

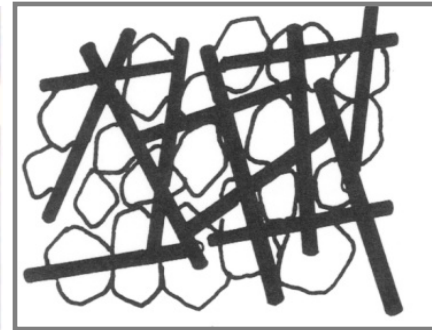
HSC

CRC

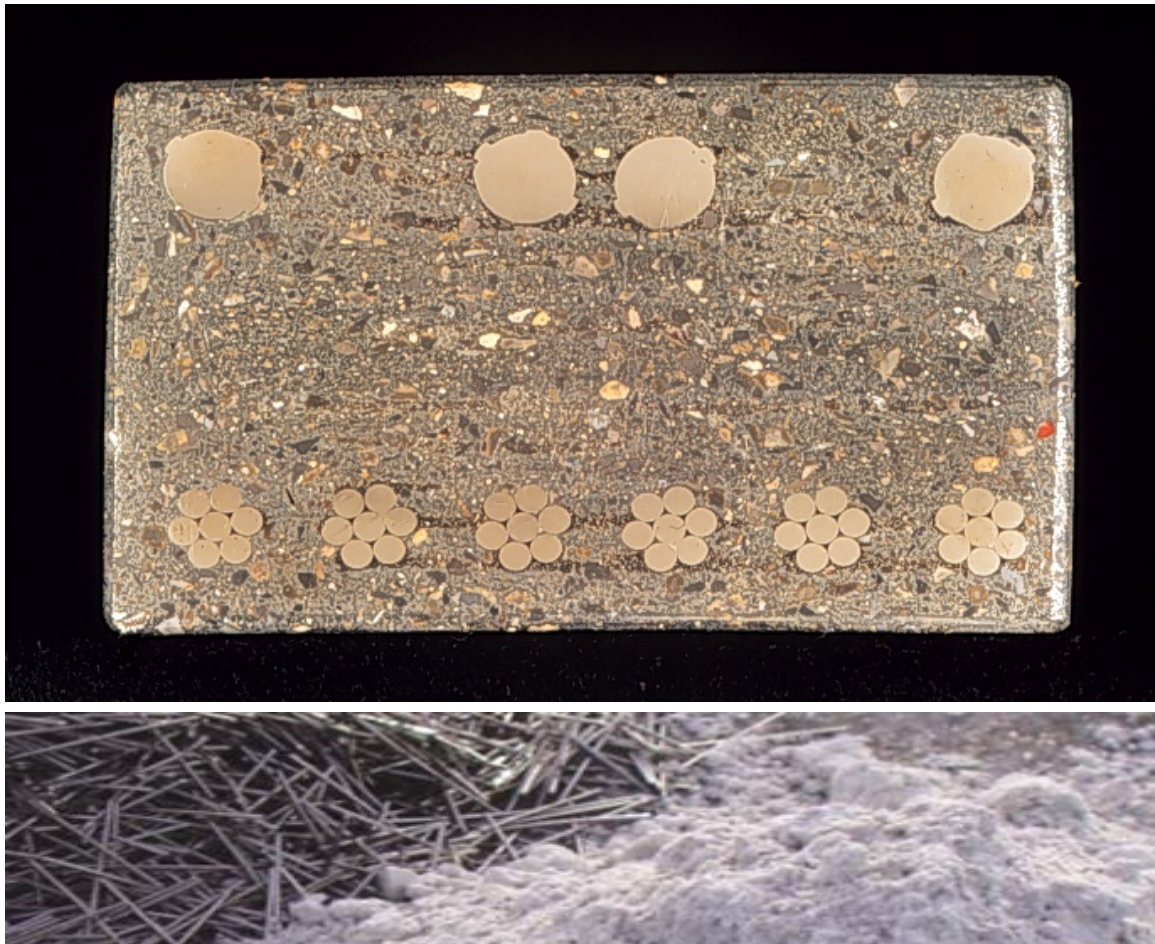
HIGH PERFORMANCE CONCRETE



UHPFRC Principle

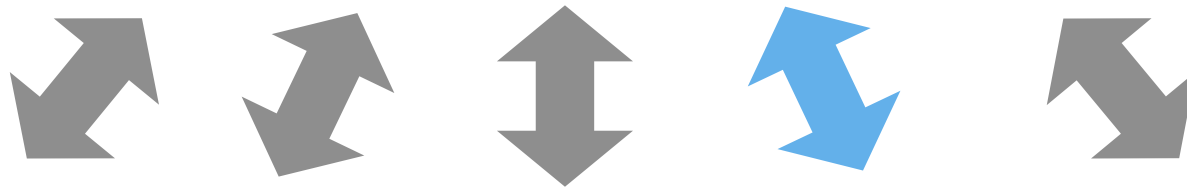


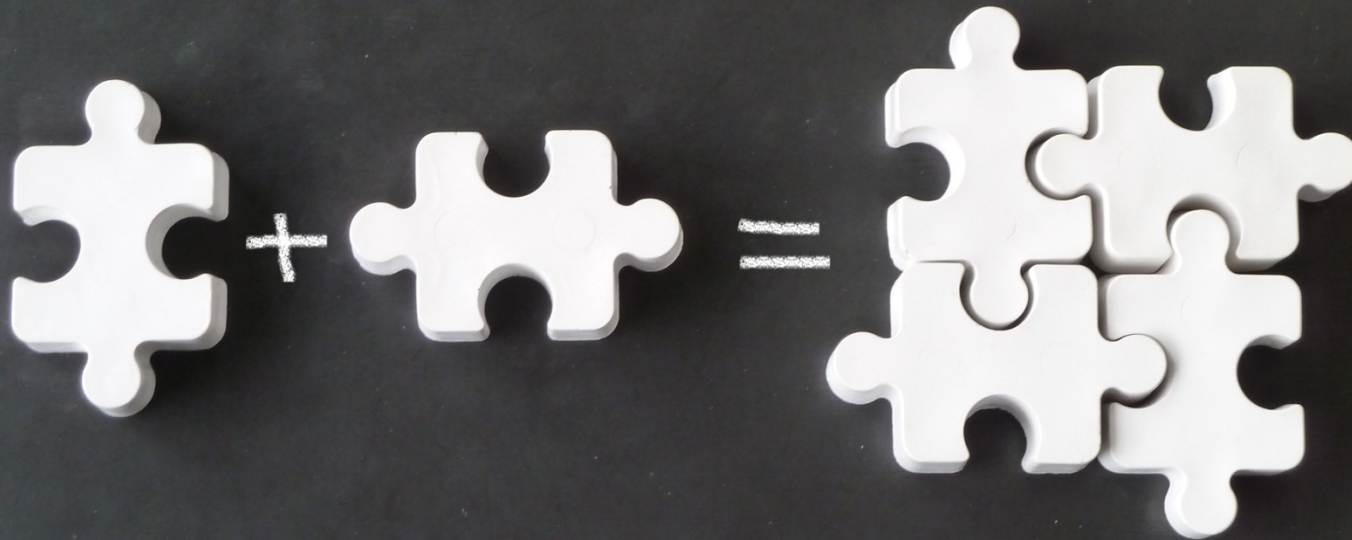
CRC® – Compact Reinforced Composite 1986



HiCON

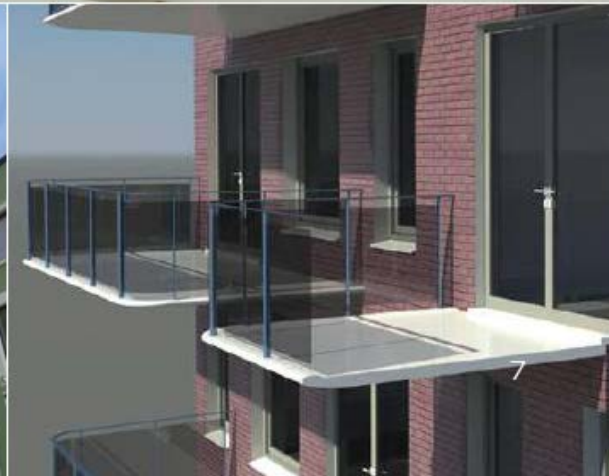
HIGH PERFORMANCE CONCRETE





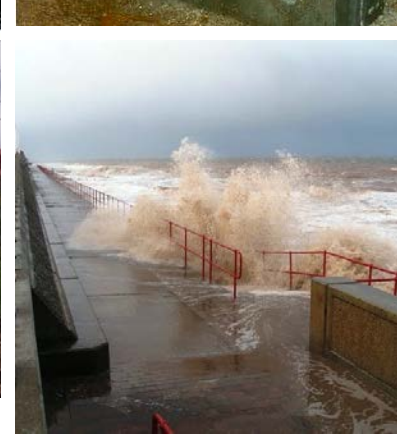
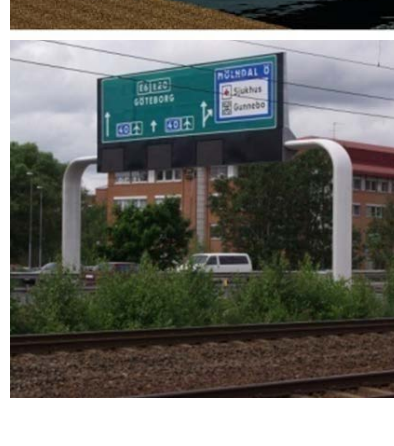
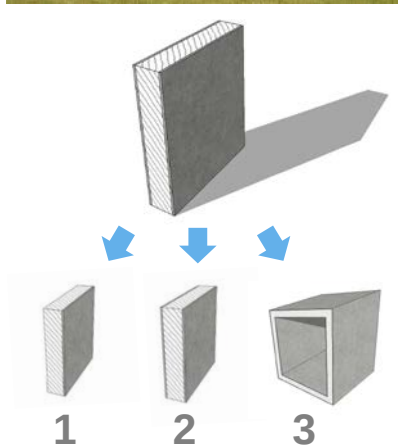
The first CRC® Applications





Future Potentials

HiCON
HIGH PERFORMANCE CONCRETE





CONVENTIONAL
CONCRETE BALCONY



HI-CON BALCONY

ADVANTAGES OF HIGH PERFORMANCE CONCRETE

-  Thin and minimalistic design
-  High strength - almost like steel
-  Freedom in shape and aesthetic design
-  100+ years durability
-  More daylight in apartments
-  Low maintenance on surfaces
-  Lower weight on building and larger area
-  Smaller cranes needed for installation
-  Lower transportation costs
-  Fire resistant





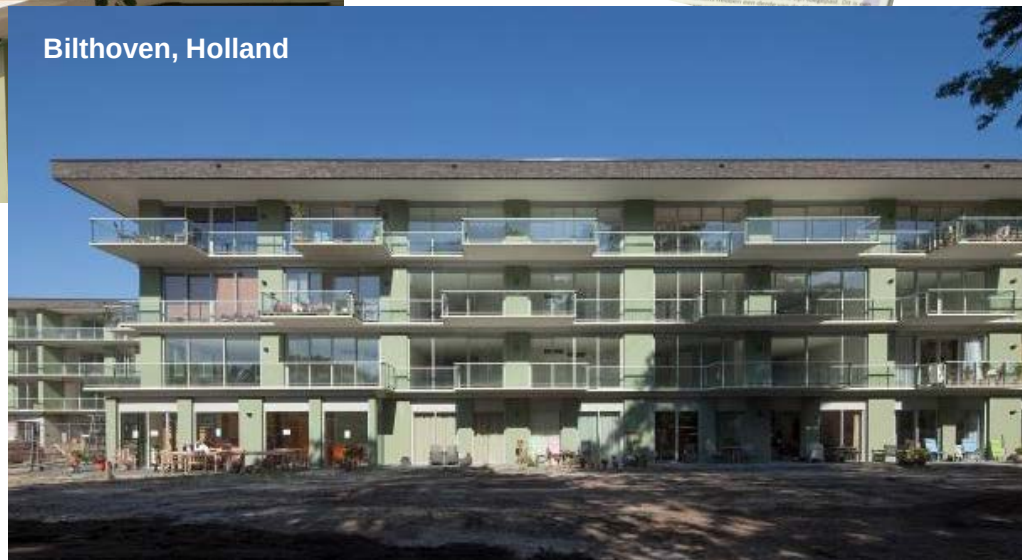
Delft, Holland



Concrete Award in Holland



Bilthoven, Holland





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UHPC Potentials
DIPOLI 23.01.2014







HiCON
HIGH PERFORMANCE CONCRETE

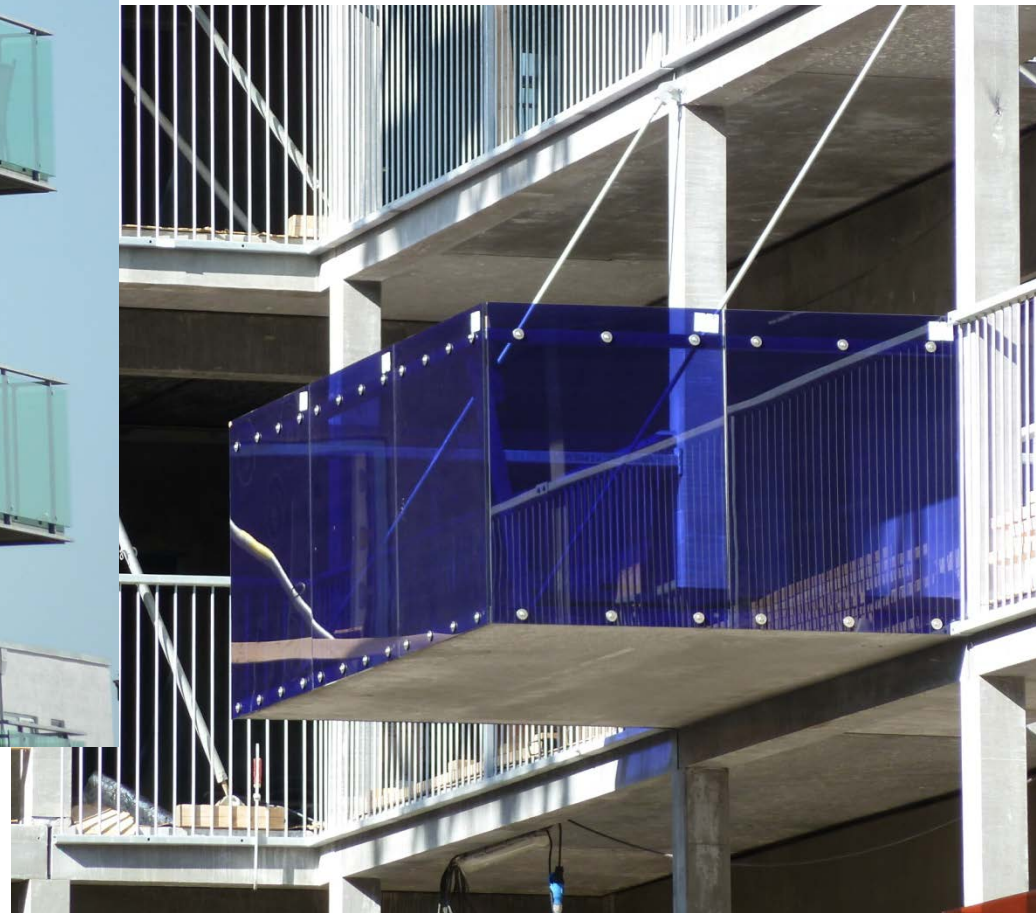
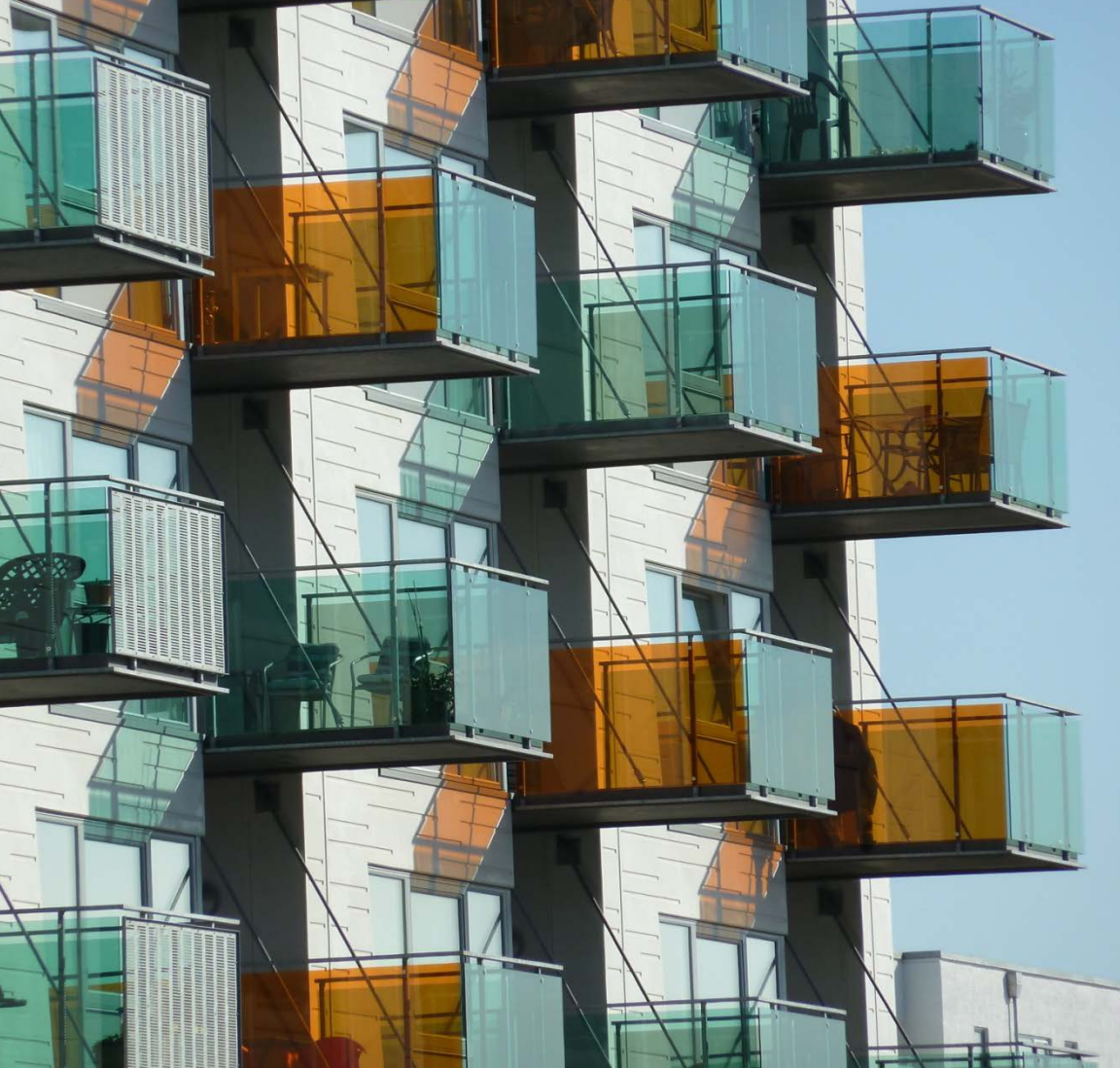


UHPC Potentials
DIPOLI 23.01.2014









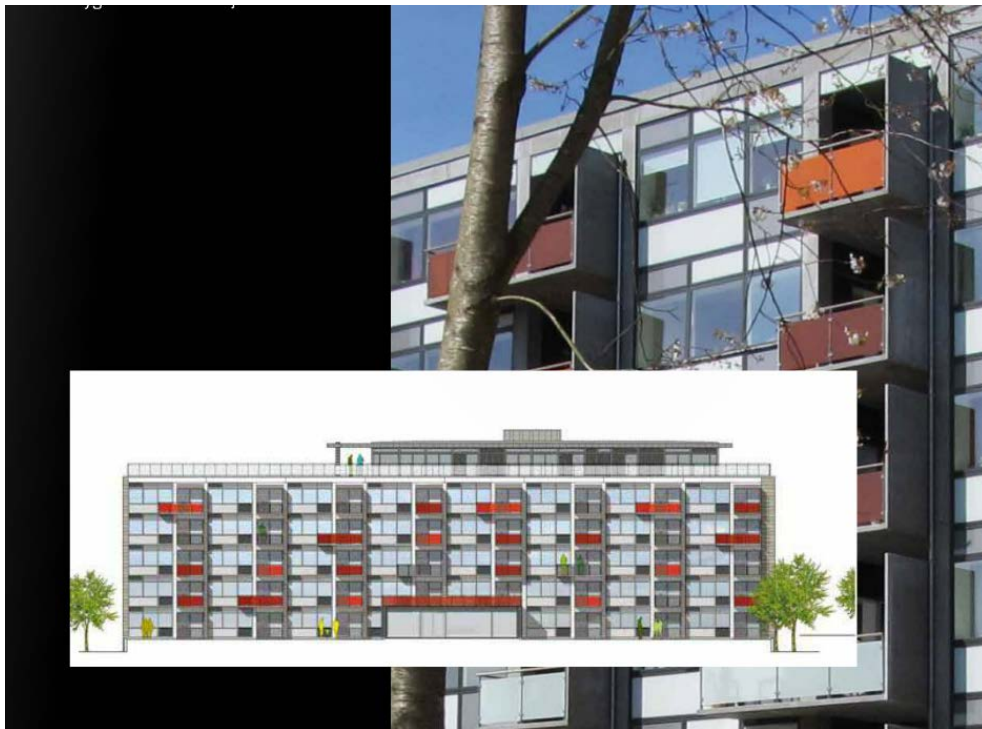




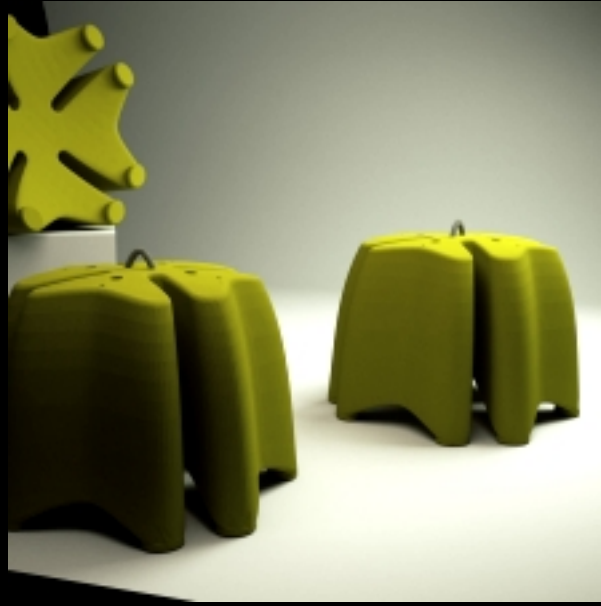
Finlandsparken før renovering



Nye altaner giver facaden ny karakter og beboerne ekstra plads.



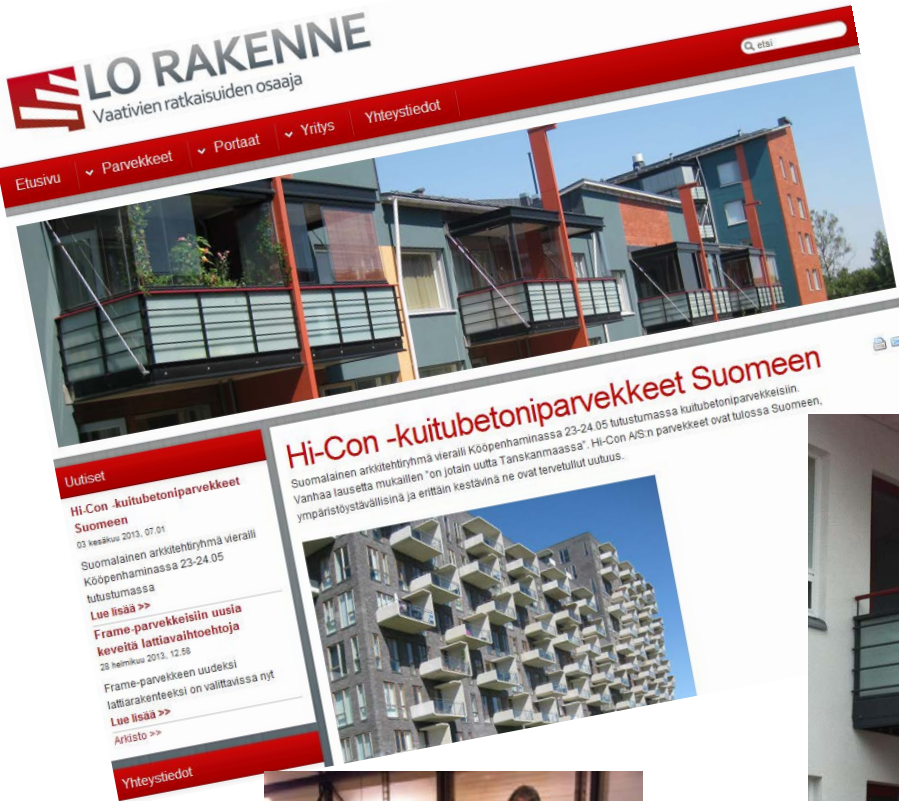




Norway & Sweden



Balconies, Finland

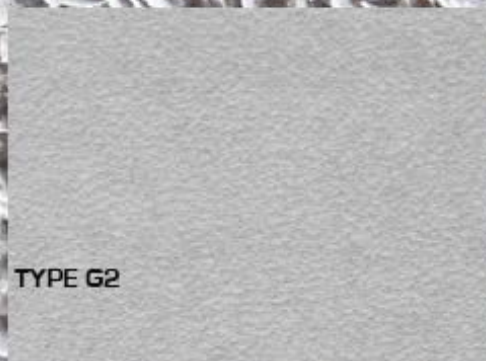


Finland

UNLIMITED SURFACES



TYPE G1



TYPE G2



TYPE G2S



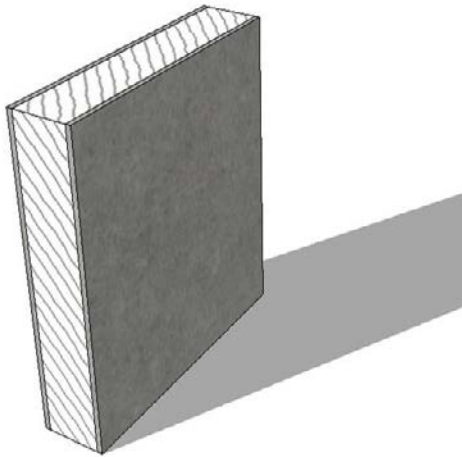
TYPE G3



TYPE G6



TYPE G7



A New Technology Platform

3 Main Areas:

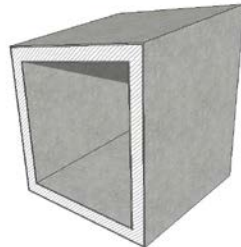
1. Facade Systems
2. Sandwich Panels of the Future
3. Future Construction Systems



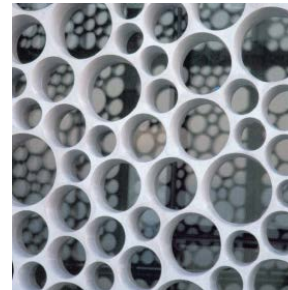
1



2



3



Facade Energy Renovation – EPS Insulation



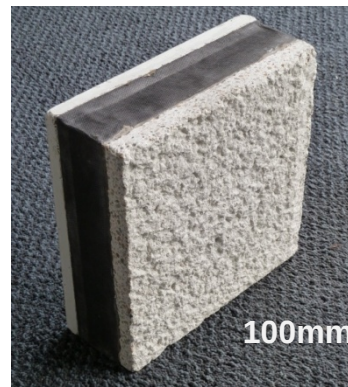
Stockholm, Sweden



Facade Energy Renovation – Vacuum Insulation



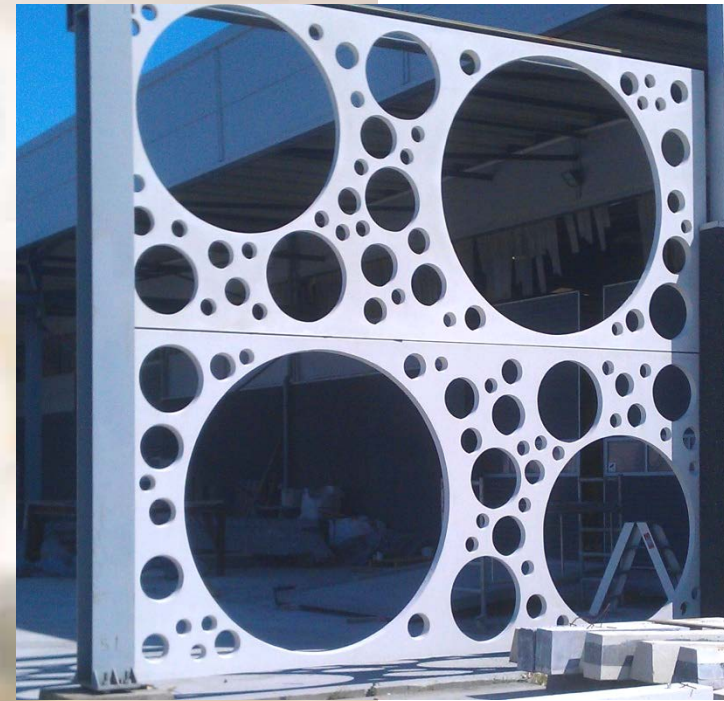
Copenhagen, Denmark



100mm vs normal 600mm wall !



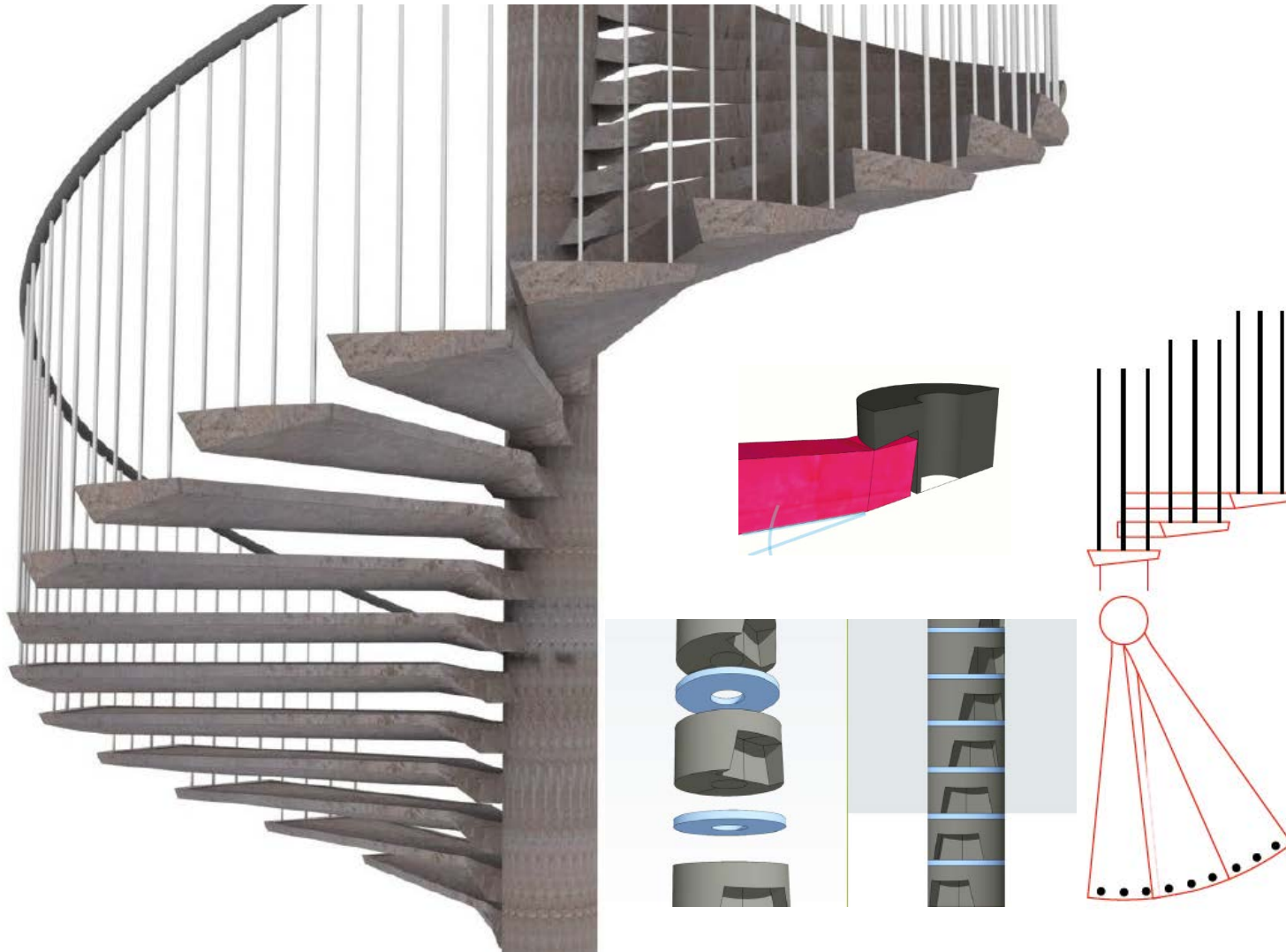


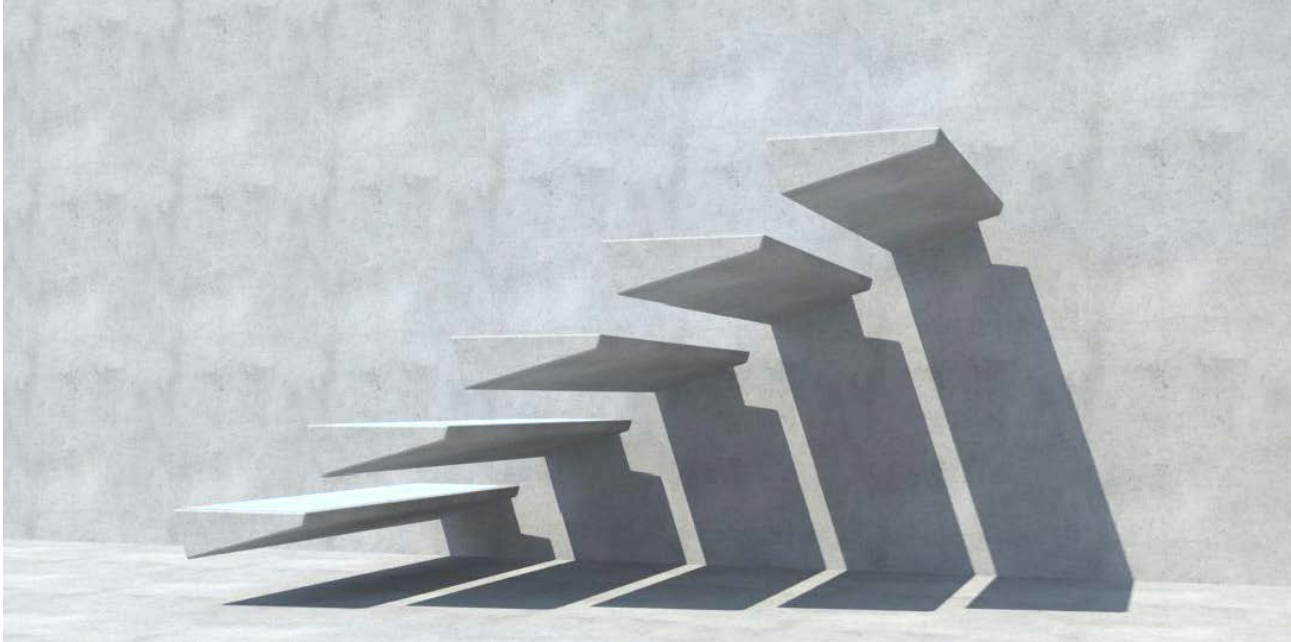








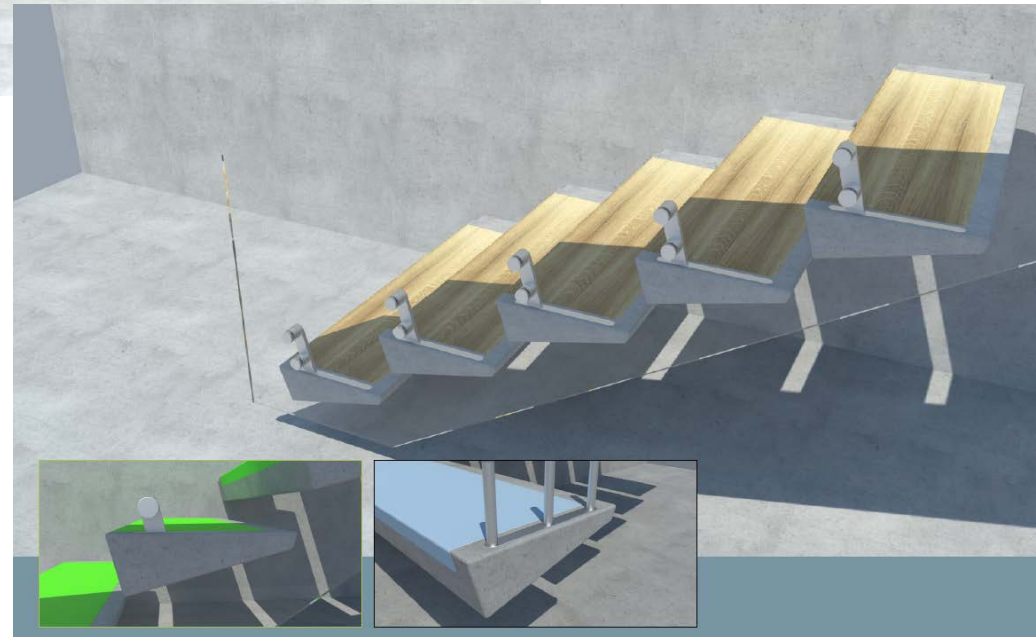


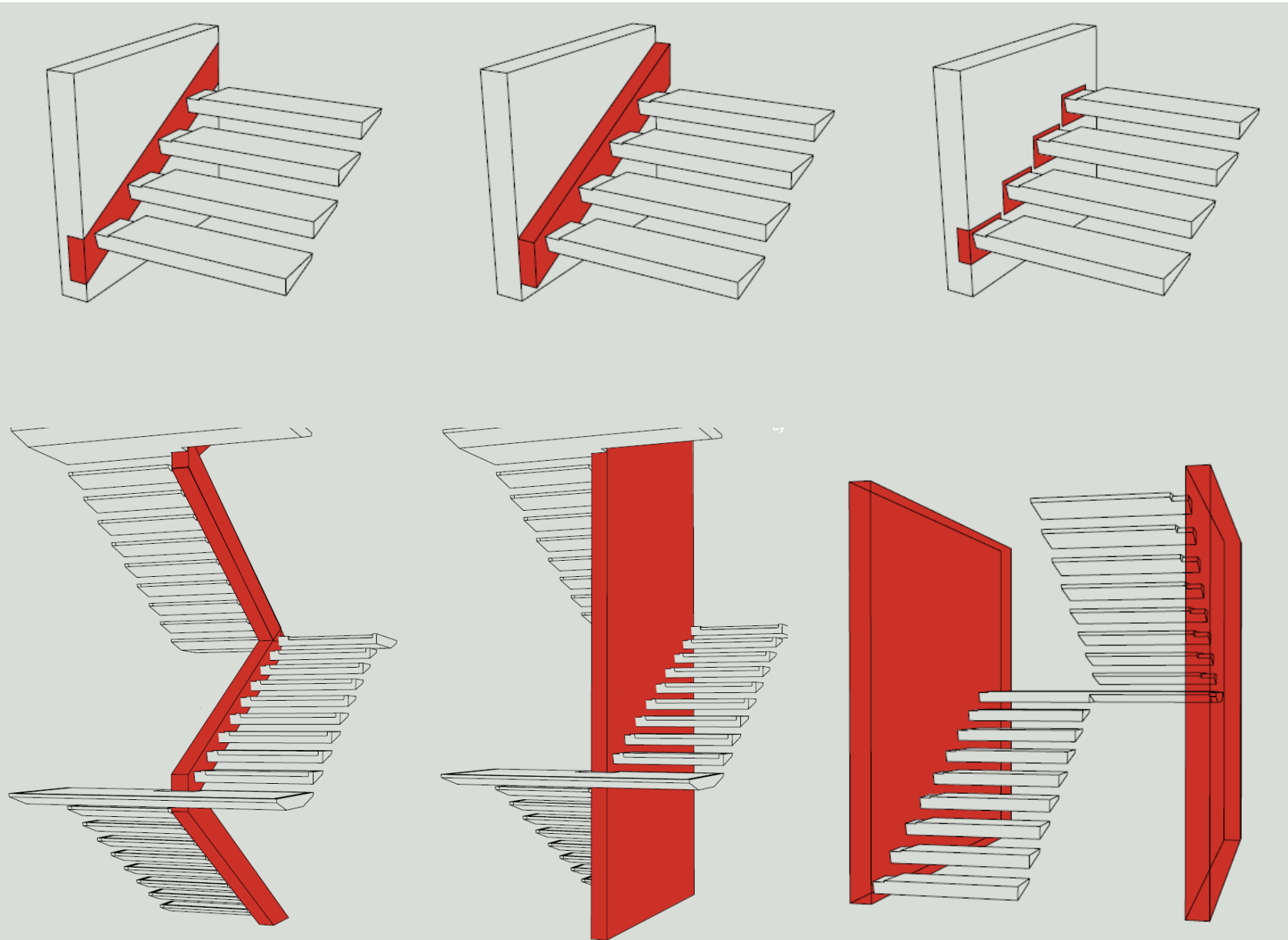


Træbeklædt trinflade

Ren beton

Vinyl-/linoleumsbeklædt trinflade







Questions

