Inclusion of *services* at initial design phase for optimal delivery and life cycle cost
1. WHY USE A COLLABORATIVE DESIGN PROCESS?
2. HOLISTIC PLANNING FOR OPTIMAL DELIVERY AND LIFE CYCLE COST CONTROL
3. THE PRODUCTS AVAILABLE
4. WINSTA® PLUGGABLE CONNECTION SYSTEM AND BENEFITS
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WHY USE A COLLABORATIVE DESIGN PROCESS?

• Specific to offsite building is that the initial design needs to take into account not only construction, but also delivery and install.
• Collaborative design encompasses structure & services from the outset.
• Volumetric construction includes both design for manufacture (dfm) and design for assembly (dfa).
• Connected technology solutions are planned to work together from the earliest concept design stage.

• Offsite construction encourages a move away from the compartmentalised design approach.

• Volumetric construction can break the silos.
HOLISTIC PLANNING FOR OPTIMAL DELIVERY AND LIFE CYCLE COST CONTROL

• Building services and technology integration shouldn’t be a ‘bolt-on’ at the installation stage.

• Delivery in the same manner, with the same advantages, that are apparent with the offsite construction model.

• Plan with connected technology, solutions and hardware in mind.

• Flexibility designed in.

• Enables contracted support services to be defined prior to delivery.
THE PRODUCTS AVAILABLE

Completing the modular construction offer
WINSTA® PLUGGABLE CONNECTION SYSTEM

Fast, reliable, tried and tested millions of times!

--- Flat cable ---
- WINSTA® IDC
  - 2.5 … 16 mm² / 76 A / 400 V
- WINSTA® KNX
  - 0.8 mm / 3 A / 50 V

--- Round cable ---
- WINSTA® MIDI
  - 0.5 … 4 mm² / 25 A / 400 V
- WINSTA® MAXI
  - 0.5 … 6 mm² / 35 A / 400 V
- WINSTA® MINI
  - 0.25 … 1.5 mm² / 16 A / 400 V
- WINSTA® RD
  - 1.5 … 2.5 mm² / 20 A / 250 V

Protection against mismating
Push-in CAGE CLAMP®
Approval according to IEC 61535/ IEC 61984
PRE-WIRED PRODUCTS
The individual WINSTA® distribution box

- DISTRIBUTION BOXES CAN BE PURCHASED PRE-ASSEMBLED OR FOR ASSEMBLY BY THE USER.
WAGO MODULAR WIRING

Offsite pre-assembly or delivered fully tested to factory or site

- The WAGO concept of modular wiring is the compliment to volumetric construction.
- Factory manufactured small power, lighting distribution and control wiring solution. It is manufactured and 100% tested in a controlled environment.
- It can be easily reconfigured to accommodate changes to the electrical installation during the life of the building without the major upheavals associated with traditional wiring installations.

- The complete modular wiring system is maintenance free as it uses clamp technology.
- The modular wiring system can be prefabricated, replacing traditional on-site cabling.
- WAGO modular trunking and wiring systems virtually eliminate waste during the installation as all cables & components are accurately measured and removes the need for cutting on site.
CONCLUSION

• Planning from early concept stages
• Collaborative design that considers construction, delivery and support
• Knowledge of solutions and products available
• The right solutions, fully integrated:
  – Connectivity
  – Automation
  – Compatibility
  – Enabling technology