

# 研討會

## 推動建築同層排水工法、發展整體衛浴設備系統

主辦單位

台灣衛浴文化協會、中華民國不動產協進會

時間：2020年9月24日PM.13:30-17:00

地點：將捷國際商業大樓 (B4會議廳)

# 主講人簡介

□ 姓名：黃智文

□ 服務單位：

➤ 和成集團世奈霸實業有限公司 總經理

□ 簡歷：

➤ 和成工程營業部經理

# 專題報告

□主題名稱：

**同層排水系統：牆前同層側排水系統之工法與案例**

□內容目次：

1. GEBERIT同層排水系統

2. WHO WE ARE

3.OUR REFERENCES

4. FULFILLING NEEDS:USABILITY

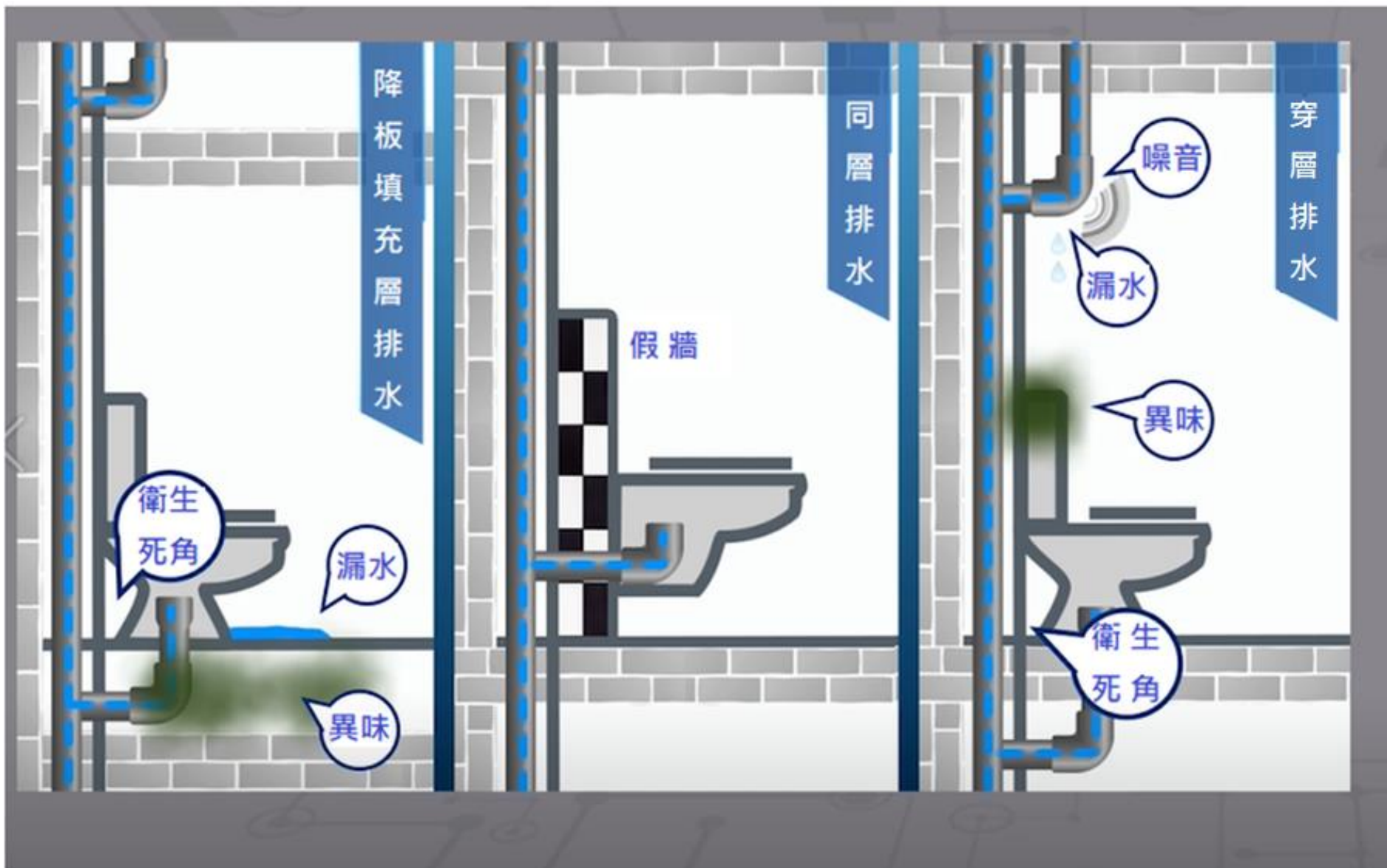
5. FULFILLING NEEDS:SPACE

6. FULFILLING NEEDS:CLEANLINESS

7. FULFILLING NEEDS:COMFORT

# 同層排水系統

GEBERIT NORTH AND SOUTH EAST ASIA

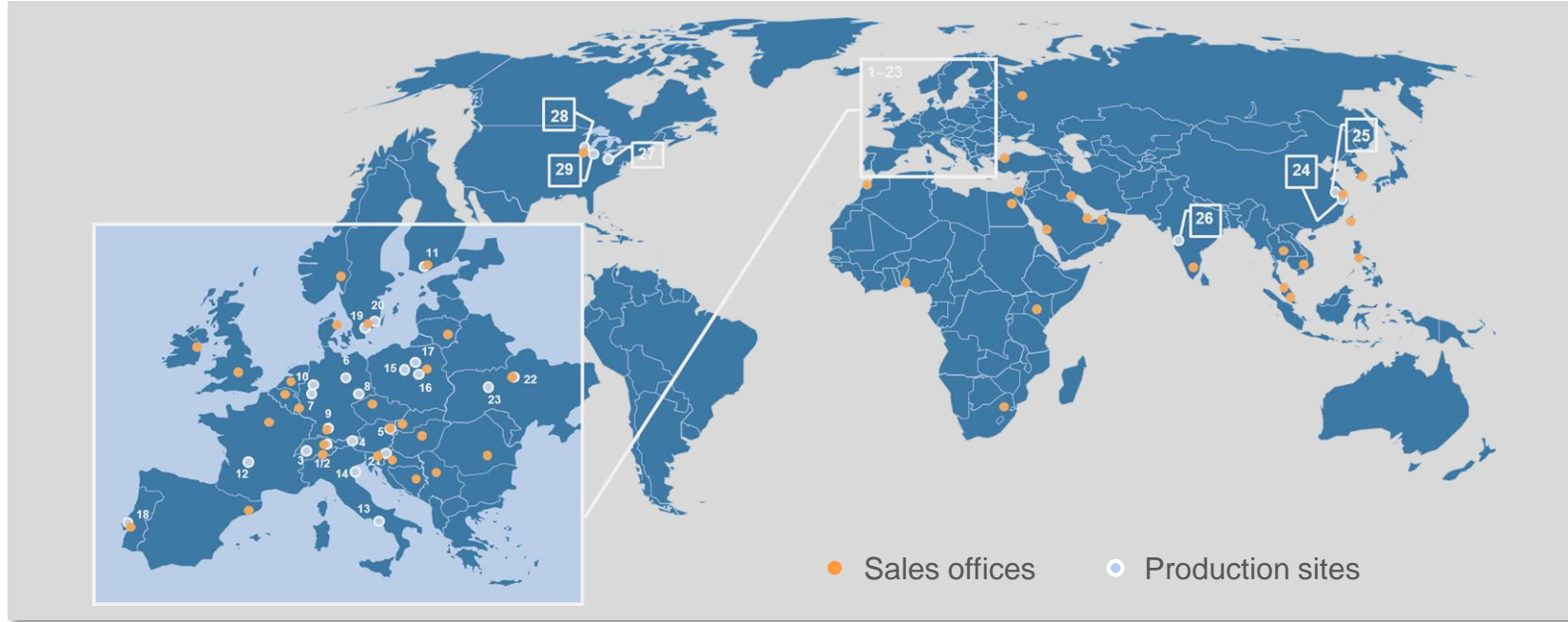







**WHO WE ARE**

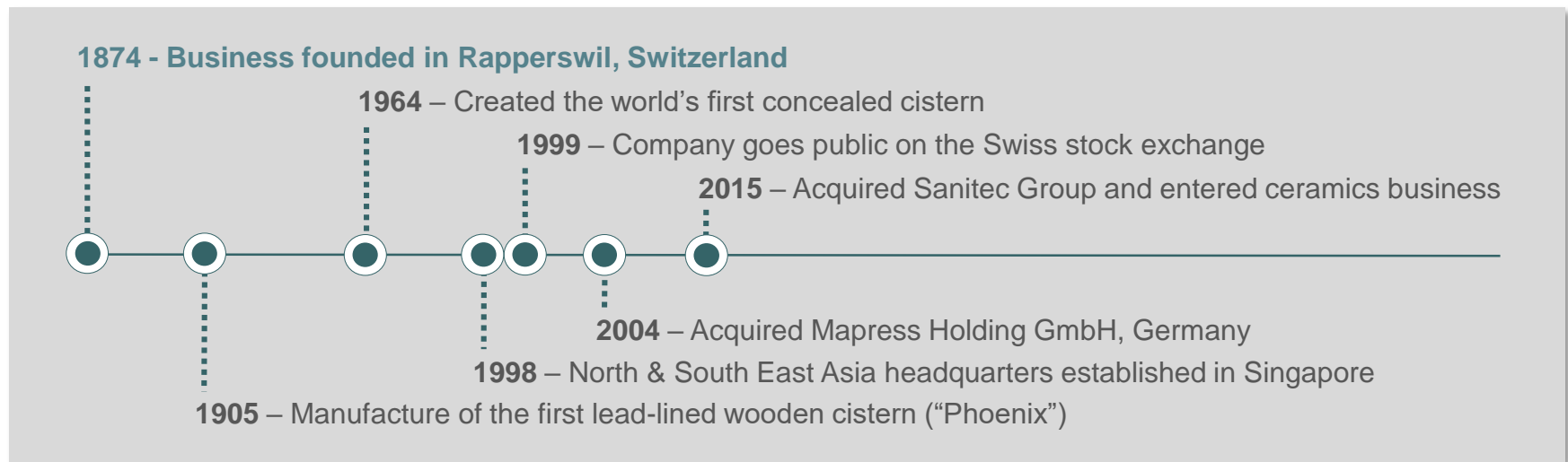
# THE EUROPEAN MARKET LEADER IN SANITARY PRODUCTS



**~50**  
countries with sales organisations

**29**  
production sites

 **3.1 BILLION**  
Swiss Francs in net sales







# OUR REFERENCES

# PARKSIDE, 2017

Freudenstadt, Germany

Developer: Borgmann Bauträger GmbH

Architect: Schmelzle+Partner Architekten

## Products:

1. Mapress Stainless Steel supply system
2. Silent-db20 and Silent-PP drainage systems
3. GIS installation system
4. Sigma80 actuator plates
5. AquaClean Mera Comfort shower toilets
6. Wall drain for floor-even showers



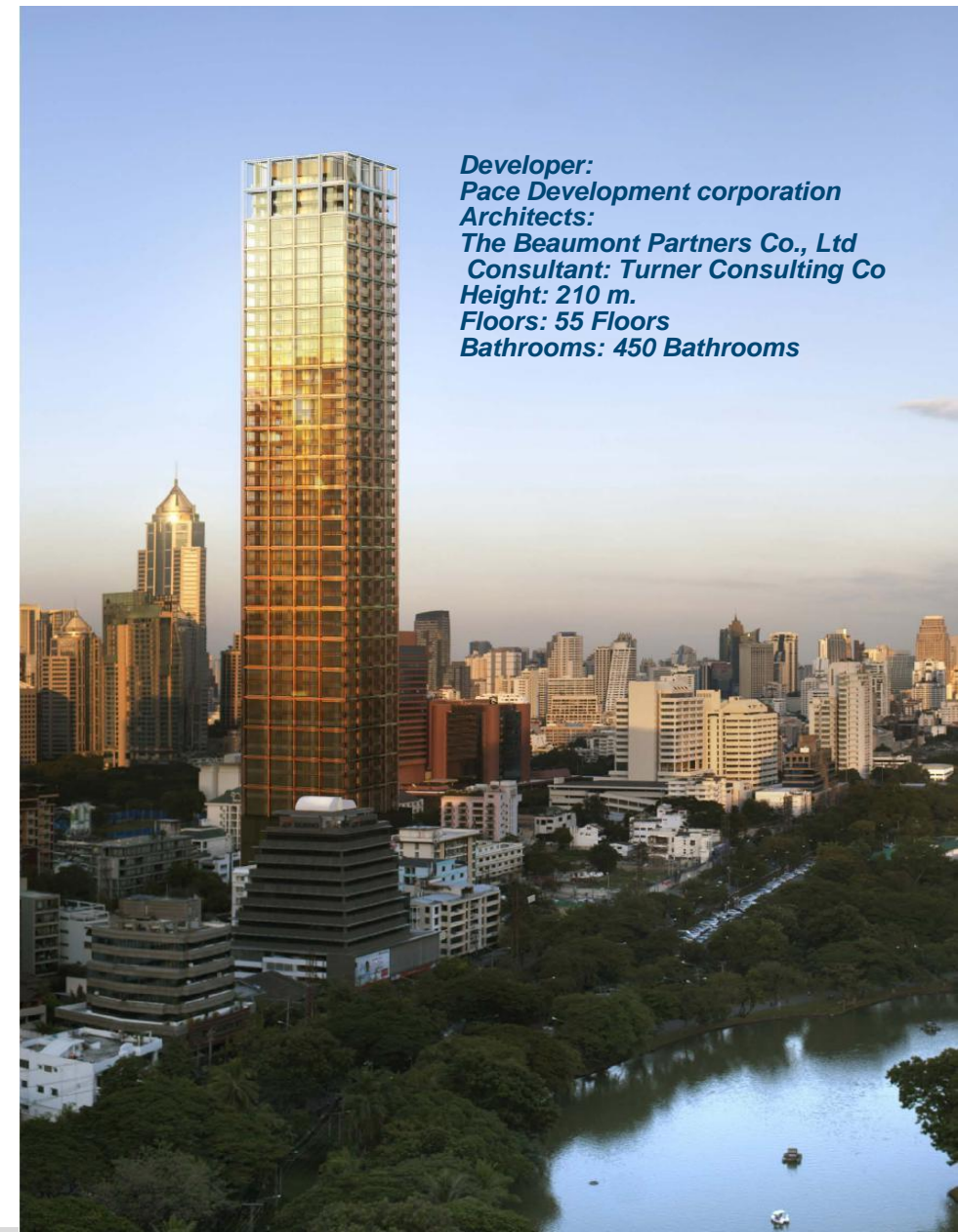
# NIMIT LANGSUAN

## BANGKOK, THAILAND

SPACE-SAVING DRAINAGE OF ULTRA HIGH BUILDINGS



*“By incorporating innovative products and ideas from around the world that combines aesthetics and function like Geberit Sovent, we strive to achieve our vision in delivering an unsurpassed essence of living to our clients” says ISorapoj Techakraisri CEO, PACE, Thailand*



**Developer:**  
Pace Development corporation  
**Architects:**  
The Beaumont Partners Co., Ltd  
**Consultant:** Turner Consulting Co  
**Height:** 210 m.  
**Floors:** 55 Floors  
**Bathrooms:** 450 Bathrooms



# GINDI TLV TOWERS

## TEL AVIV, ISRAEL

GINDI TLV is a huge new residential and lifestyle complex in the heart of Tel Aviv. In Tel Aviv space is a precious good, and thus the developers were interested in getting a solution that could save as much space as possible. Geberit single stack Sovent system as they could downsize the diameter of the pipes from 160 mm to 110 mm and the space-saving ended up in a size of an apartment.



*“Space is an issue in every project! The shaft got smaller by the help of Sovent. An average difference of 0.06 sqm resulted in a total saving of about 45 sqm per tower. The size of a small apartment!”*

### ALL FOUR TOWERS:

Developer: Gindi Tel Aviv Towers Ltd.

Architects: MYS Architects / Yasky Mor Sivan

Consultant: Zvi Pollak

Height: 160 - 180 m

Floors: 46 - 50

Bathrooms: approx. 1152 in each tower

To be completed: 2023



# AMANORA GATEWAY TOWERS, 2020

Pune, India

Developer: City Corporation, Pune

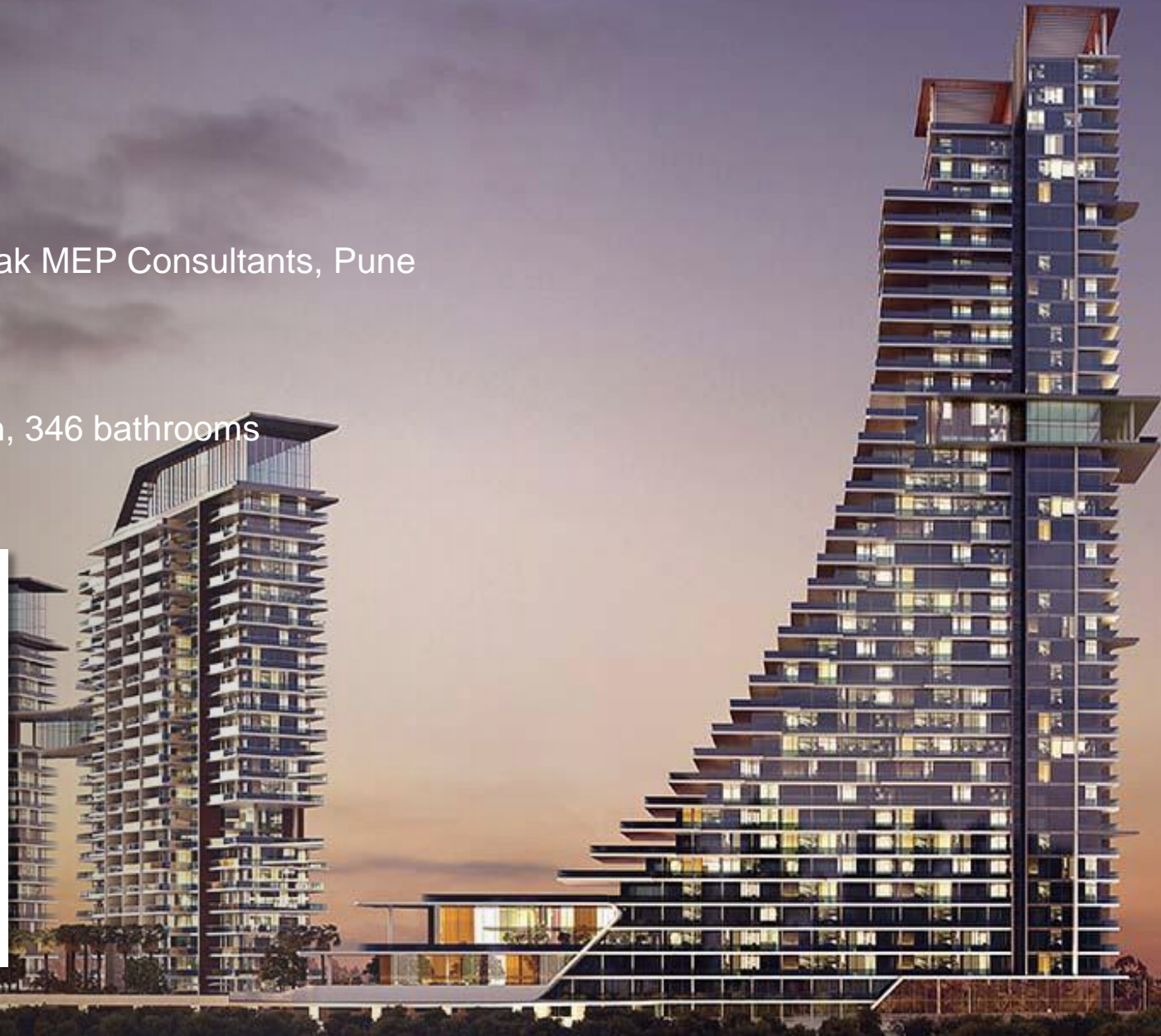
Architect: P&T Singapore

Consultant: Consultant: Siddhivinayak MEP Consultants, Pune

Products:

1. First-ever SuperTube installation, 346 bathrooms

1





DESIGN  
MEETS  
FUNCTION



# FULFILLING NEEDS: USABILITY

DESIGN

SPACE

CLEANLINESS

COMFORT

ACCESSIBILITY

USABILITY

# CREATING SPACE

## Geberit Installation Systems (GIS)

- ✓ Saves floor and ceiling space when floor drainage is kept on the same floor



SLIDE 16  
COMPANY PRESENTATION 2020



DESIGN



SPACE



CLEANLINESS



COMFORT



ACCESSIBILITY

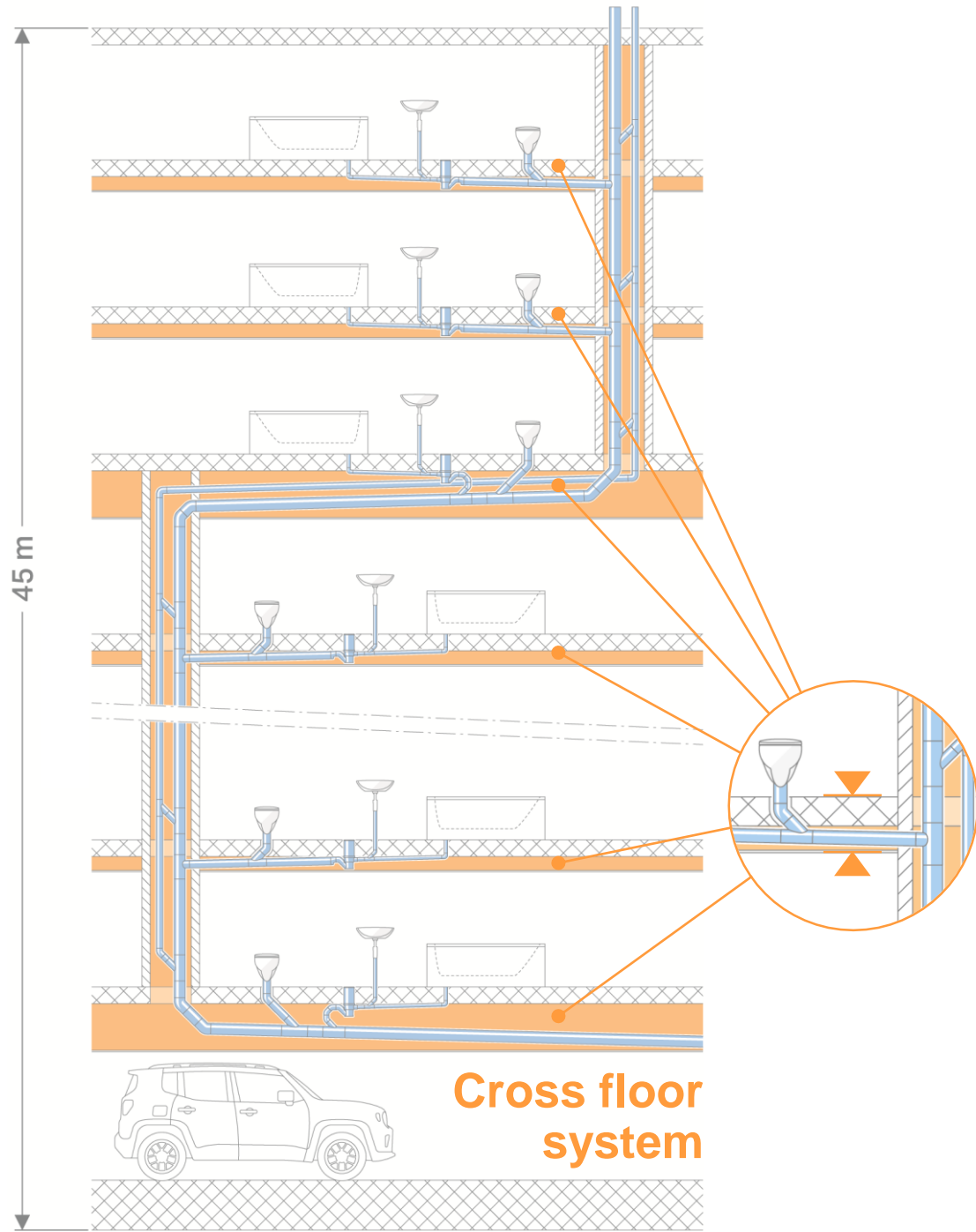


USABILITY

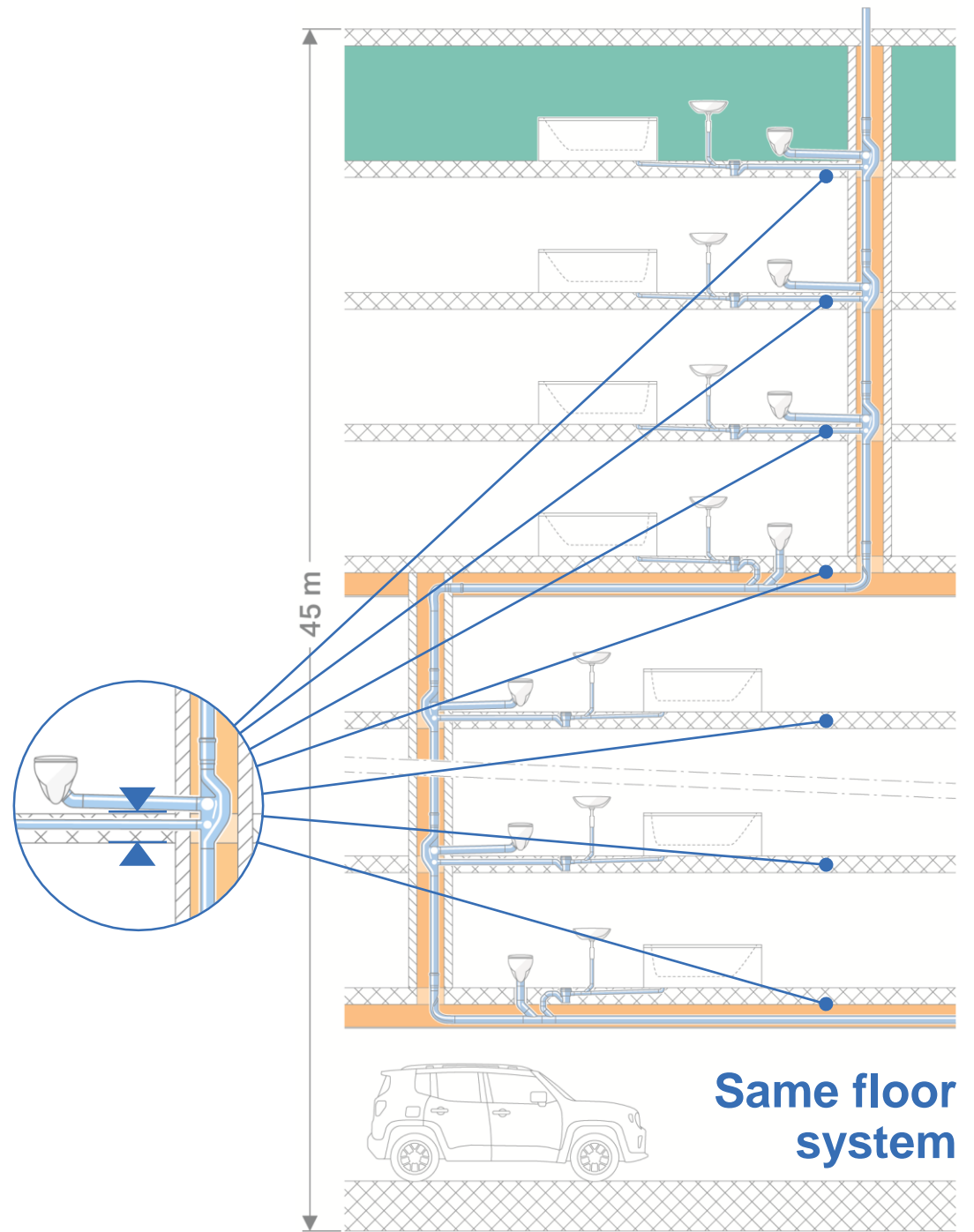
 **GEBERIT**



14 Floors

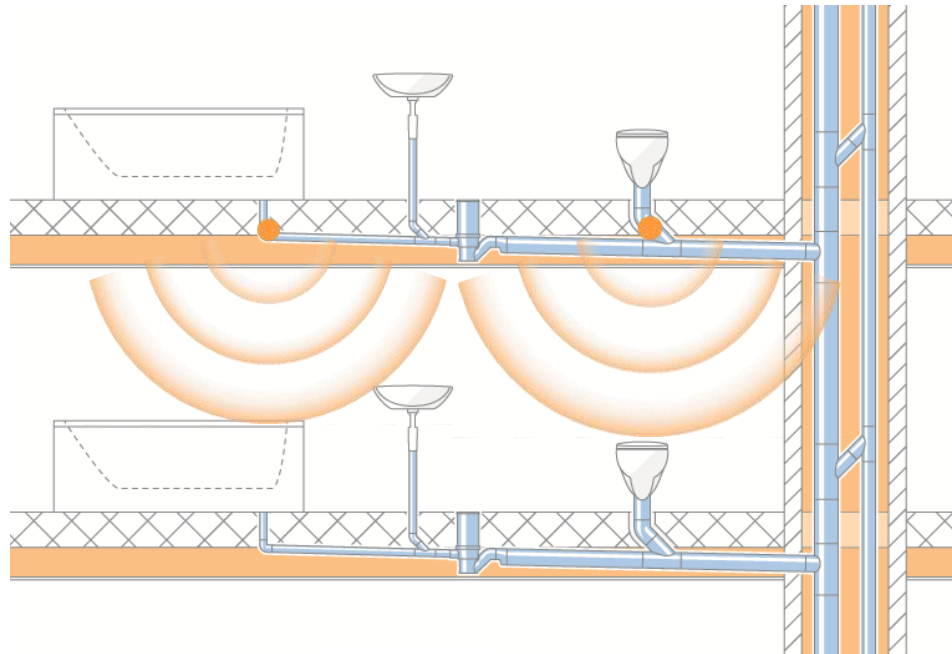


15 Floors



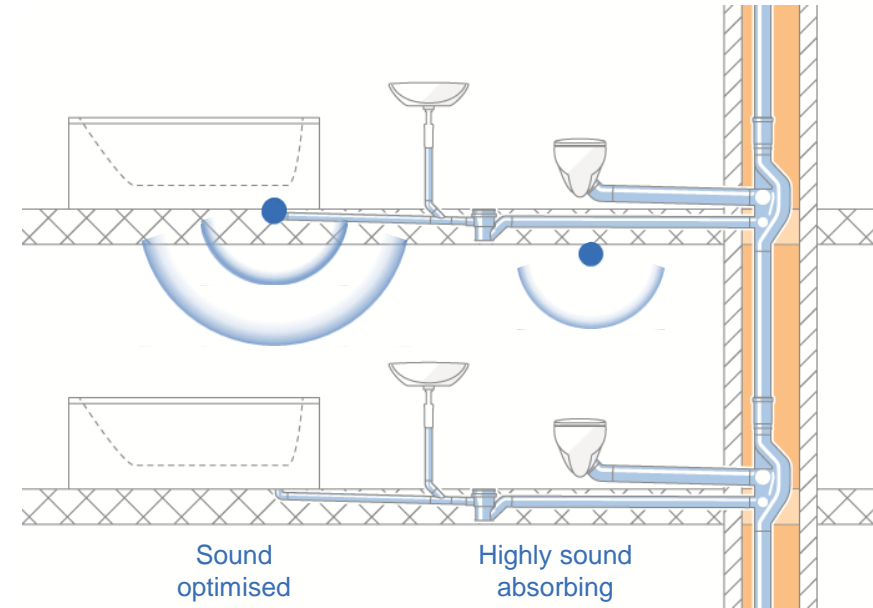
# SAME FLOOR DRAINAGE

# IMPROVED ACOUSTICS



No sound reduction

## Conventional system



Sound optimised

Highly sound absorbing

HDPE

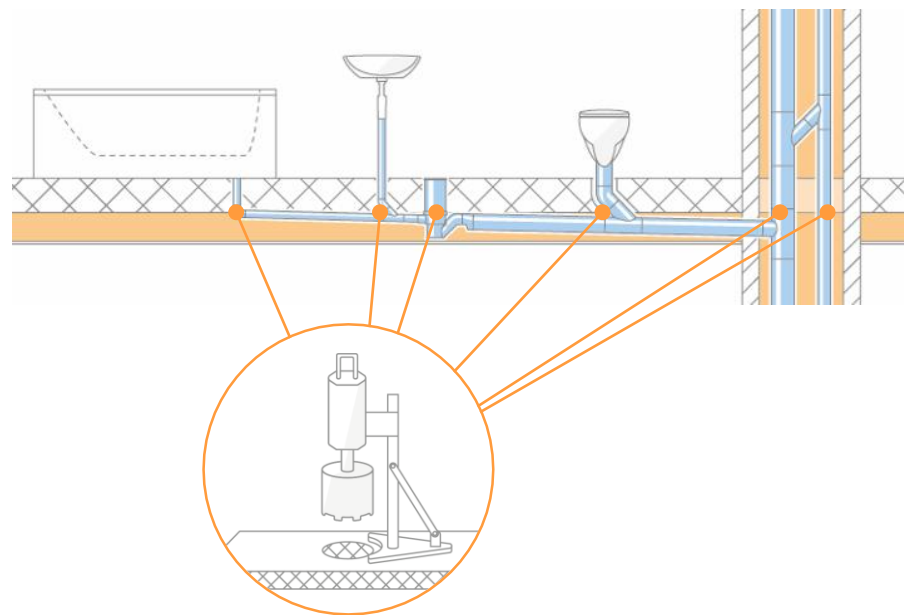
Silent-db20

-7 db

-12 db

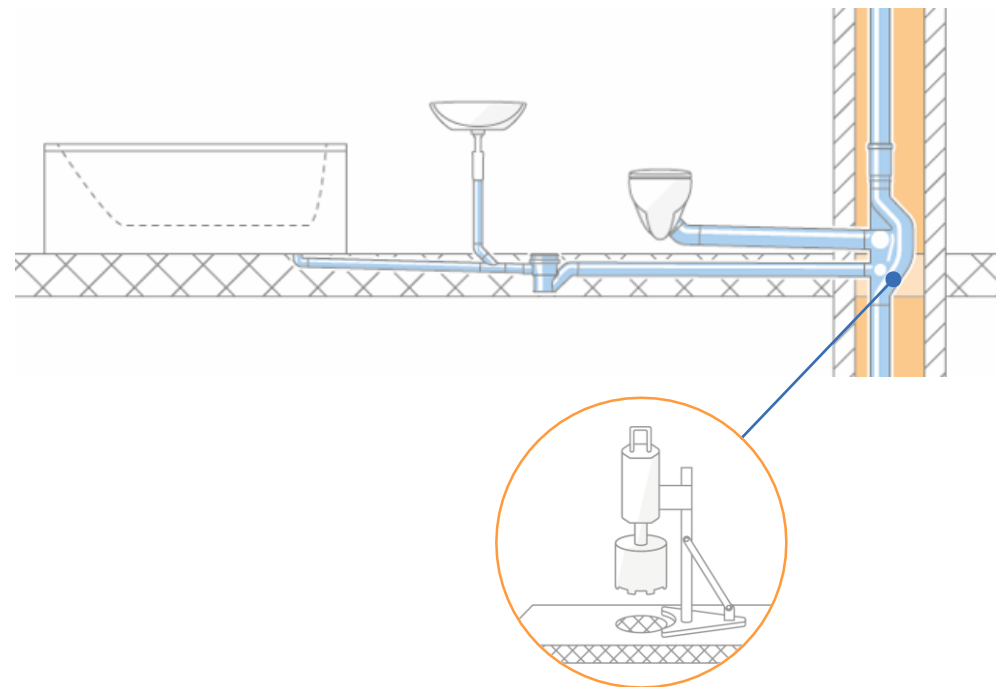
## Same floor system

# SAME FLOOR DRAINAGE



**Conventional system**

LESS  
CORE DRILLINGS/FIRE COLLARS



**Solvent system**



# FULFILLING NEEDS: SPACE

DESIGN

SPACE

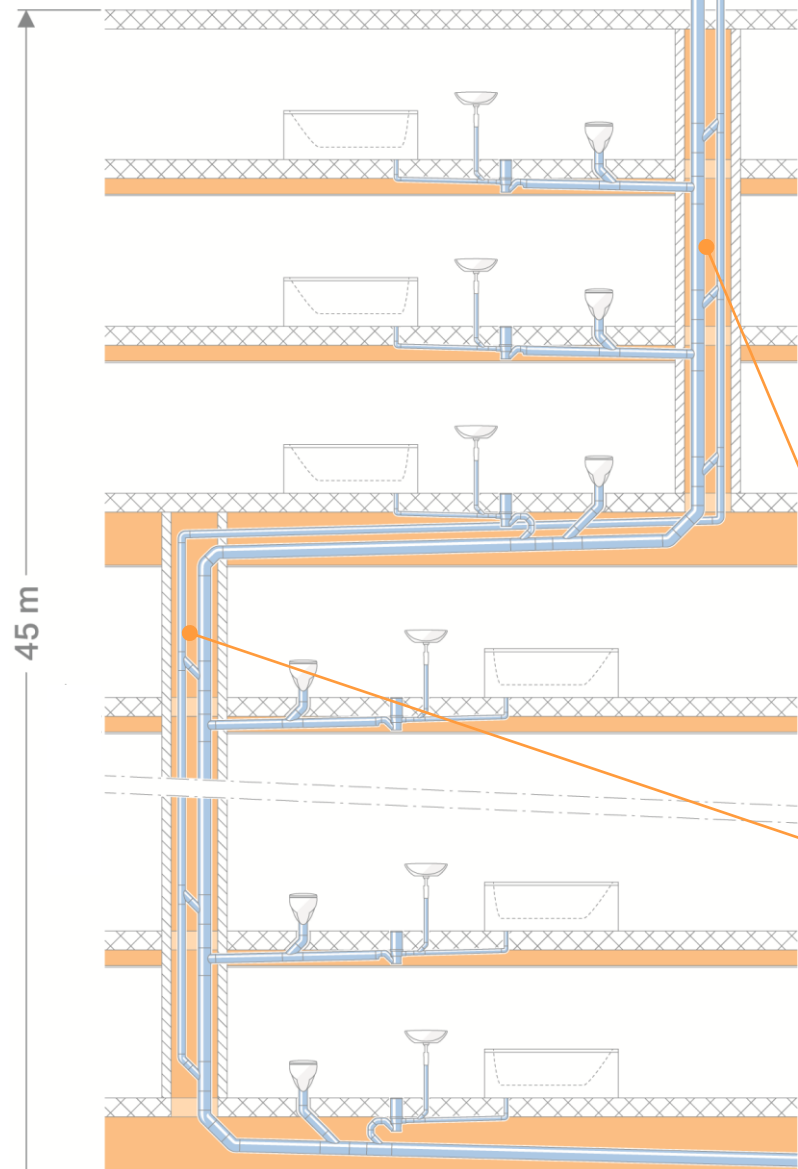
CLEANLINESS

COMFORT

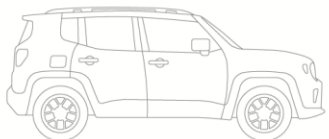
ACCESSIBILITY

USABILITY

14 Floors



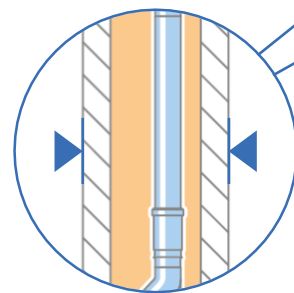
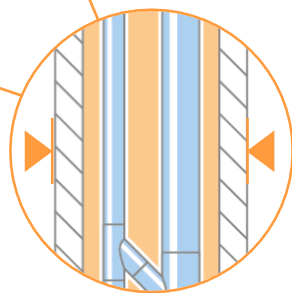
45 m



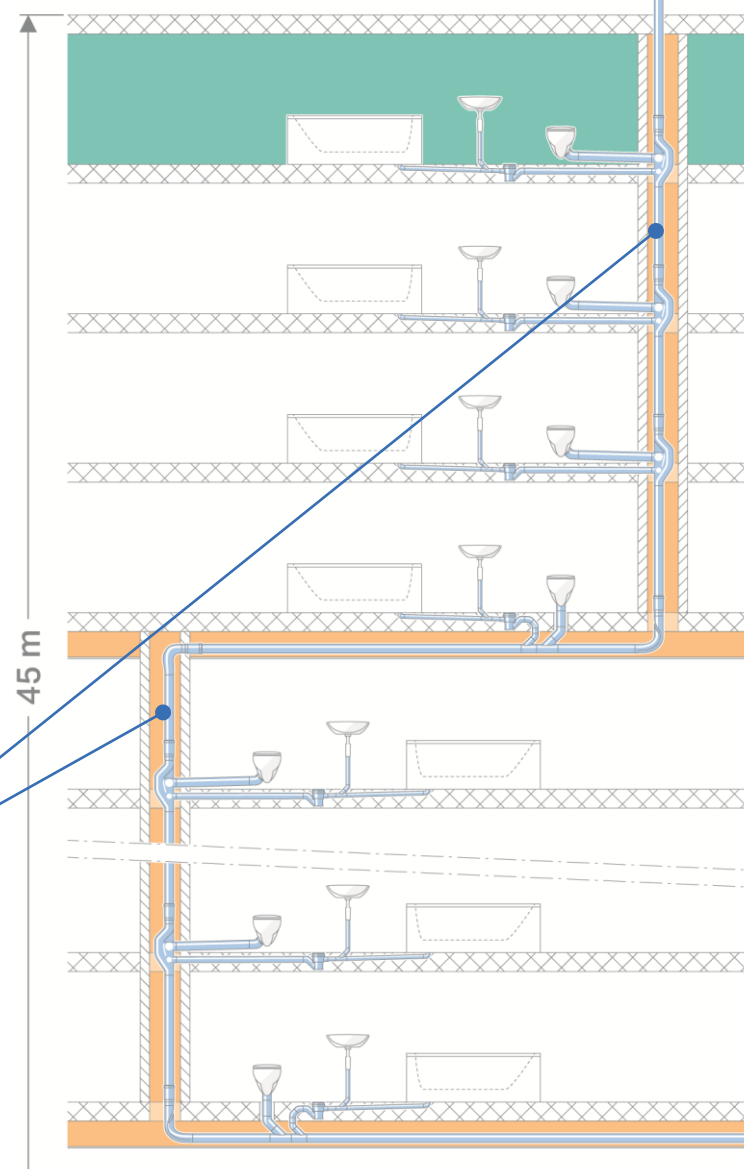
**Conventional system**



**NO ADDITIONAL VENTILATION PIPES**



15 Floors



45 m

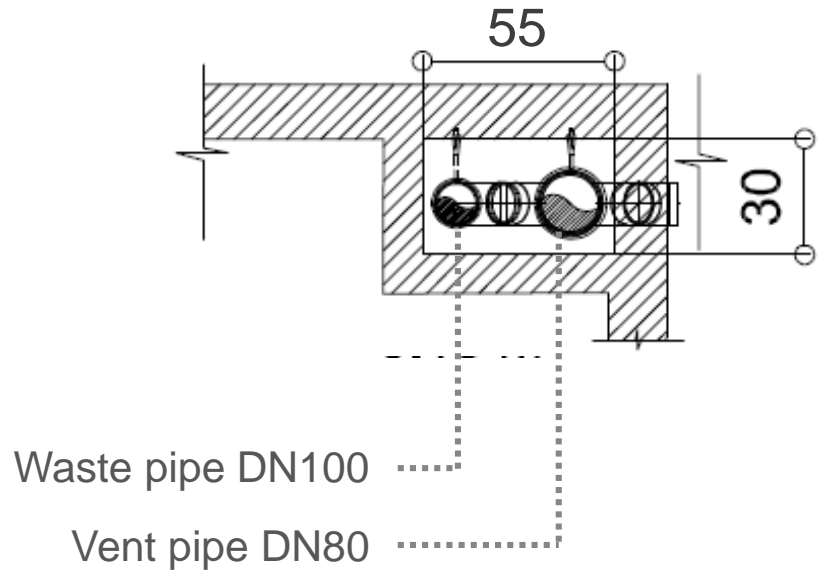


**Solvent system**



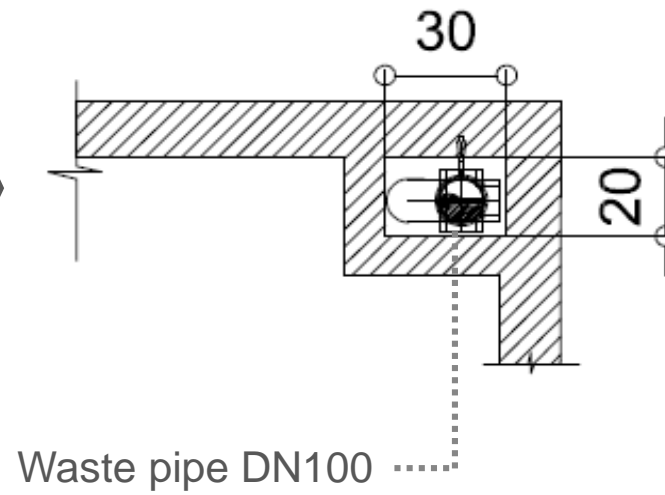
# SINGLE STACK SYSTEM – VENTILATED SYSTEM

Ventilated system  
(current)

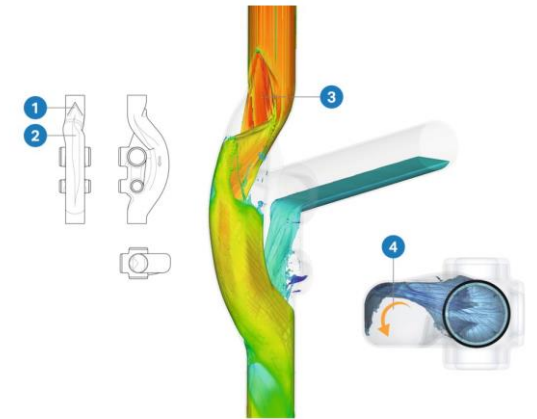



0.16 m<sup>2</sup>

Single stack system



0.06 m<sup>2</sup>





# FULFILLING NEEDS: CLEANLINESS

DESIGN

SPACE

CLEANLINESS

COMFORT

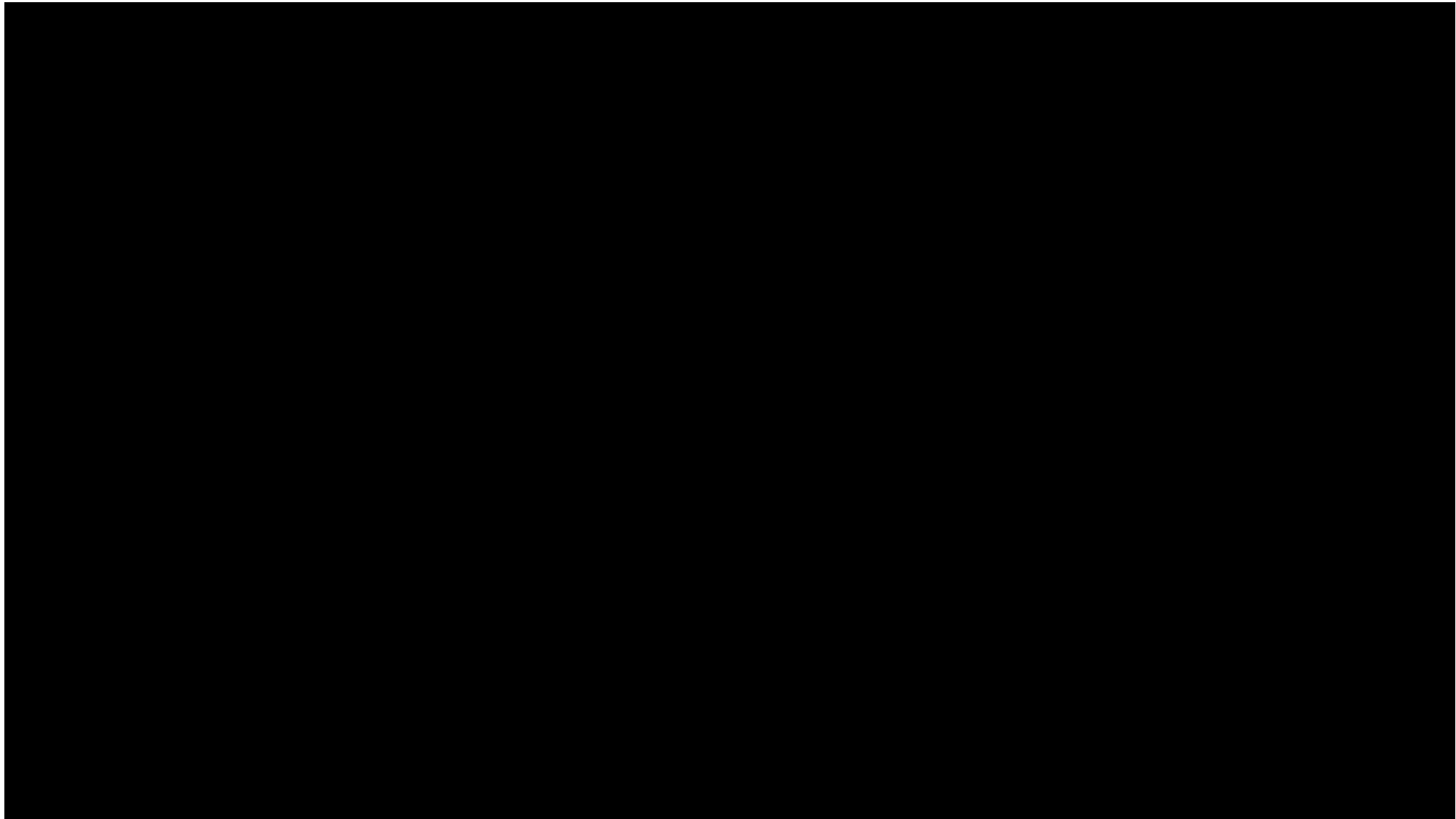
ACCESSIBILITY

USABILITY

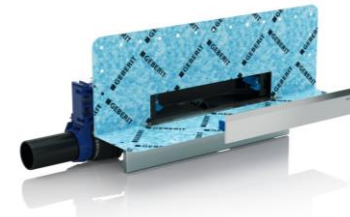
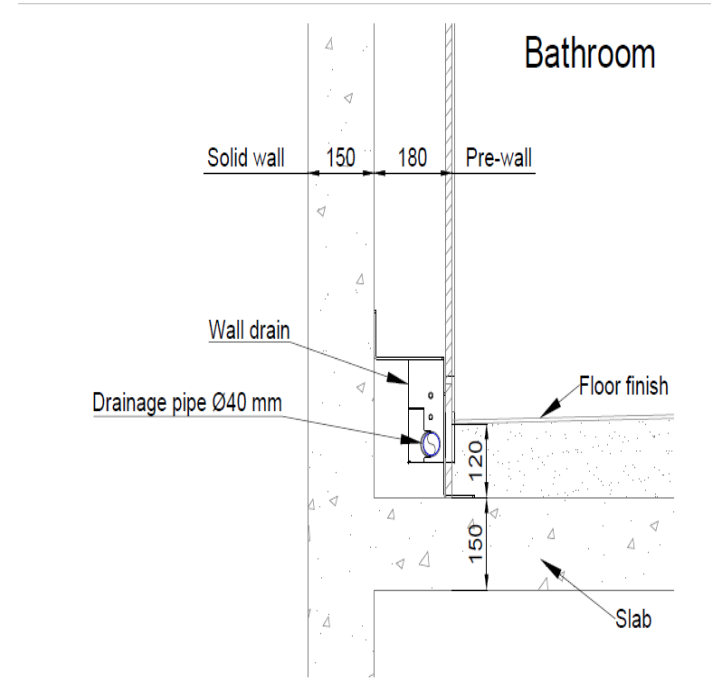
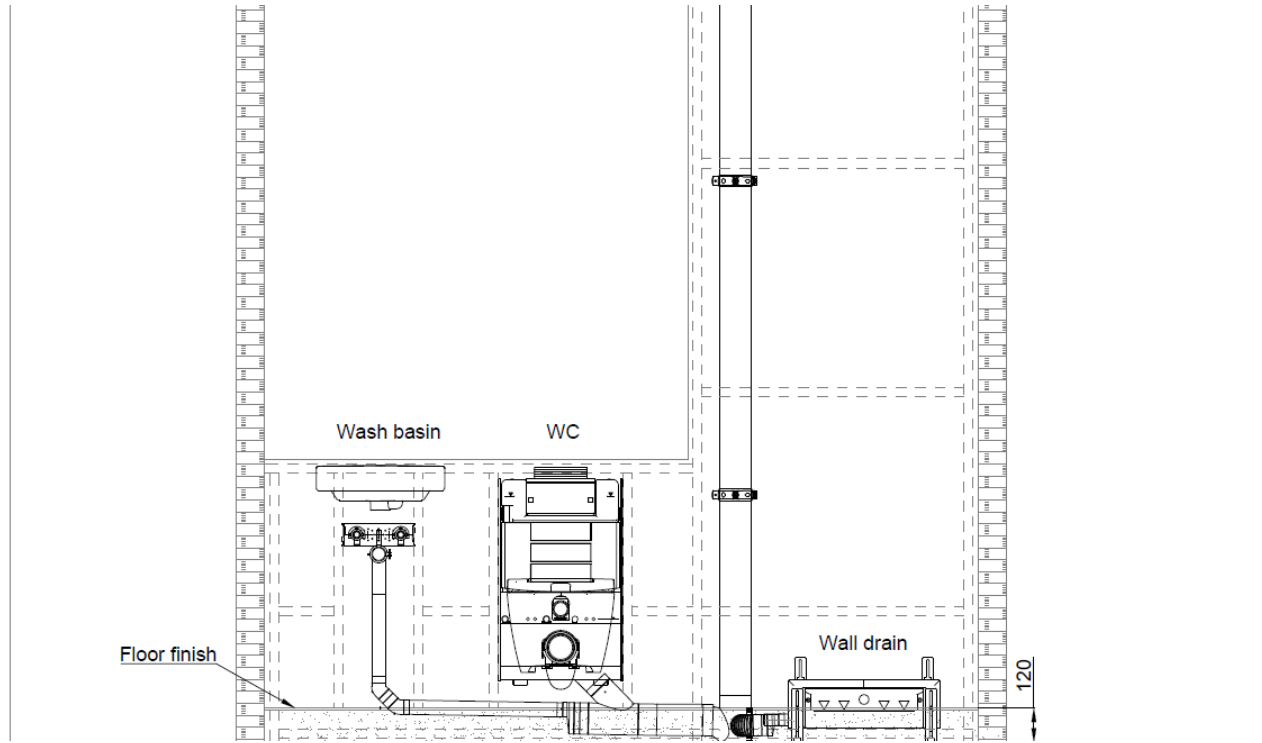


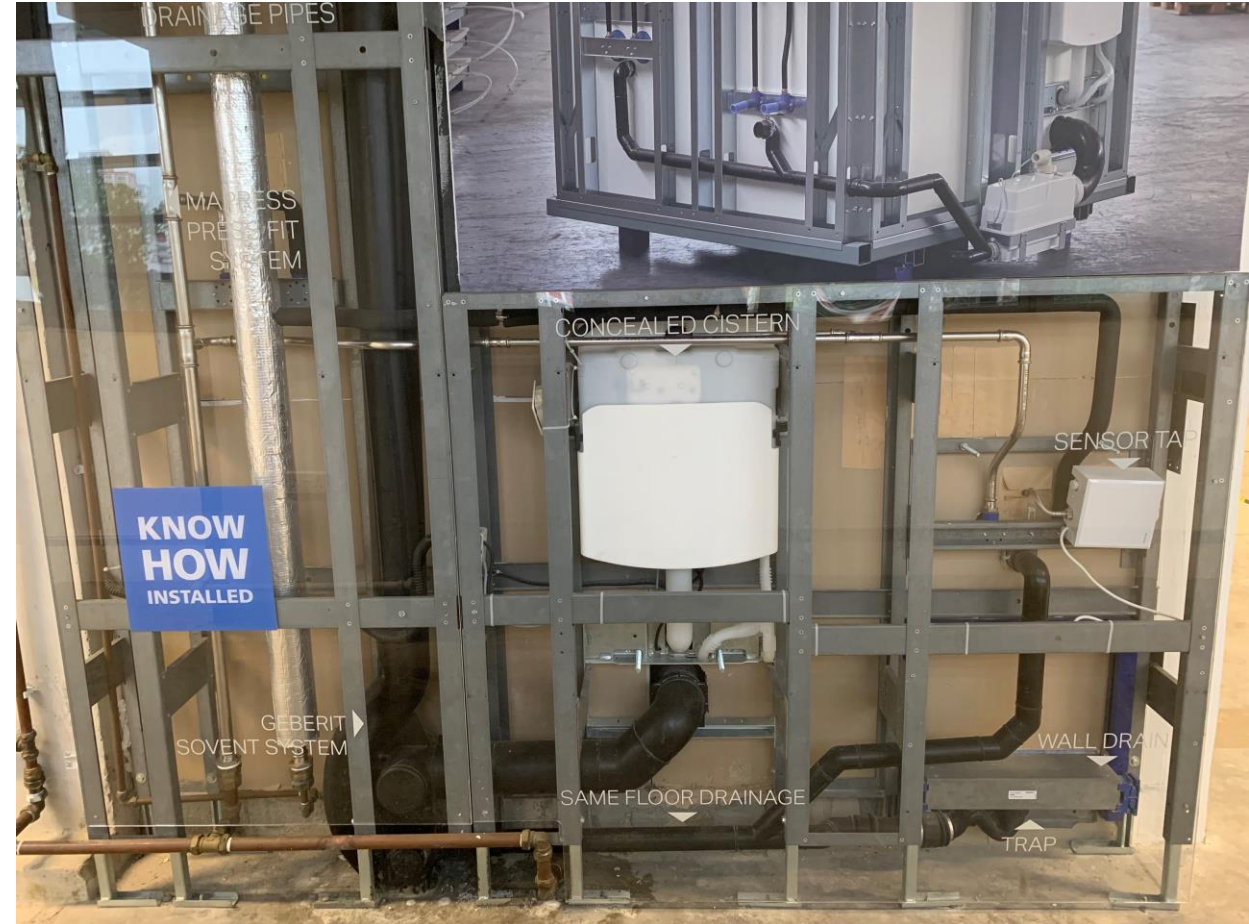


# Installation



# Wall Drain







# FULFILLING NEEDS: COMFORT

DESIGN

SPACE

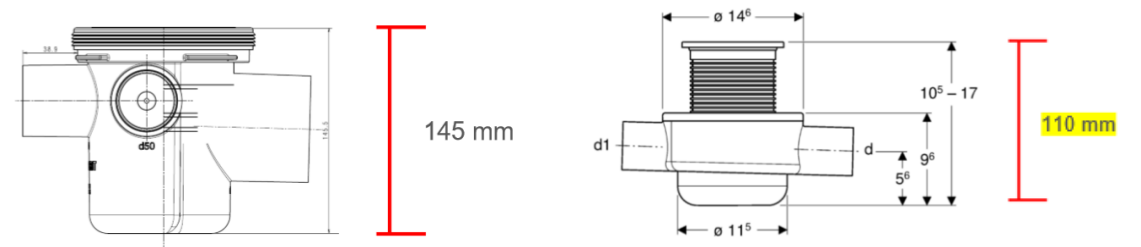
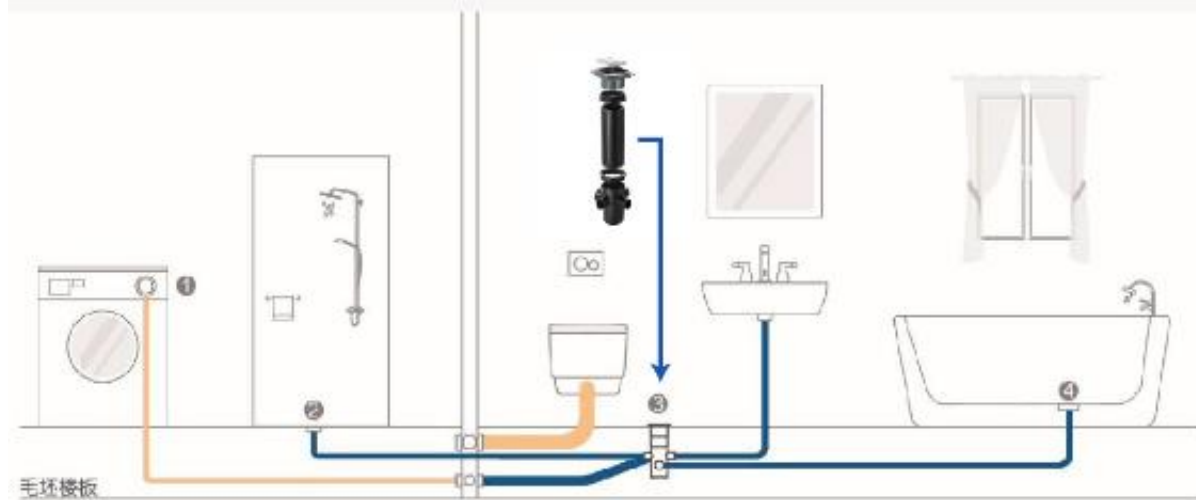
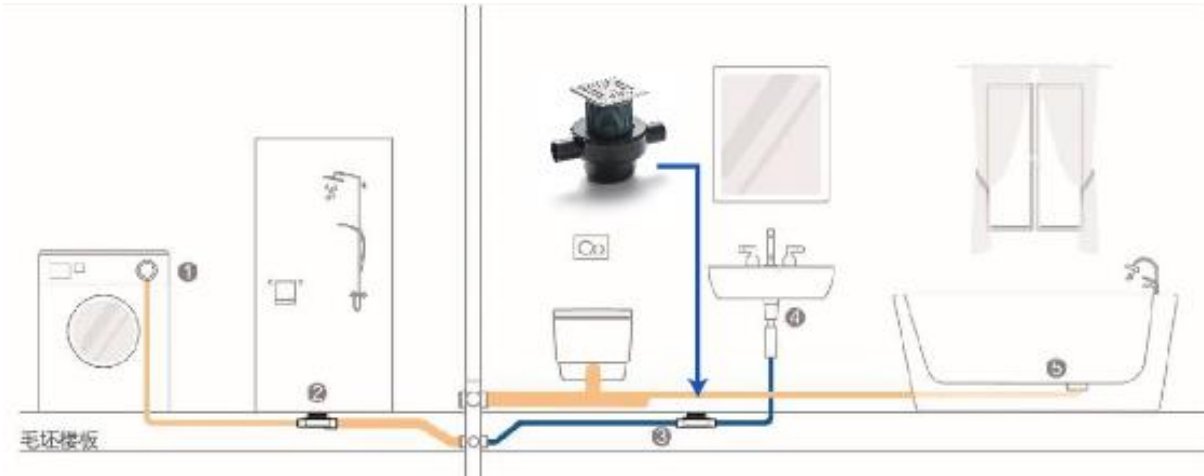
CLEANLINESS

COMFORT

ACCESSIBILITY

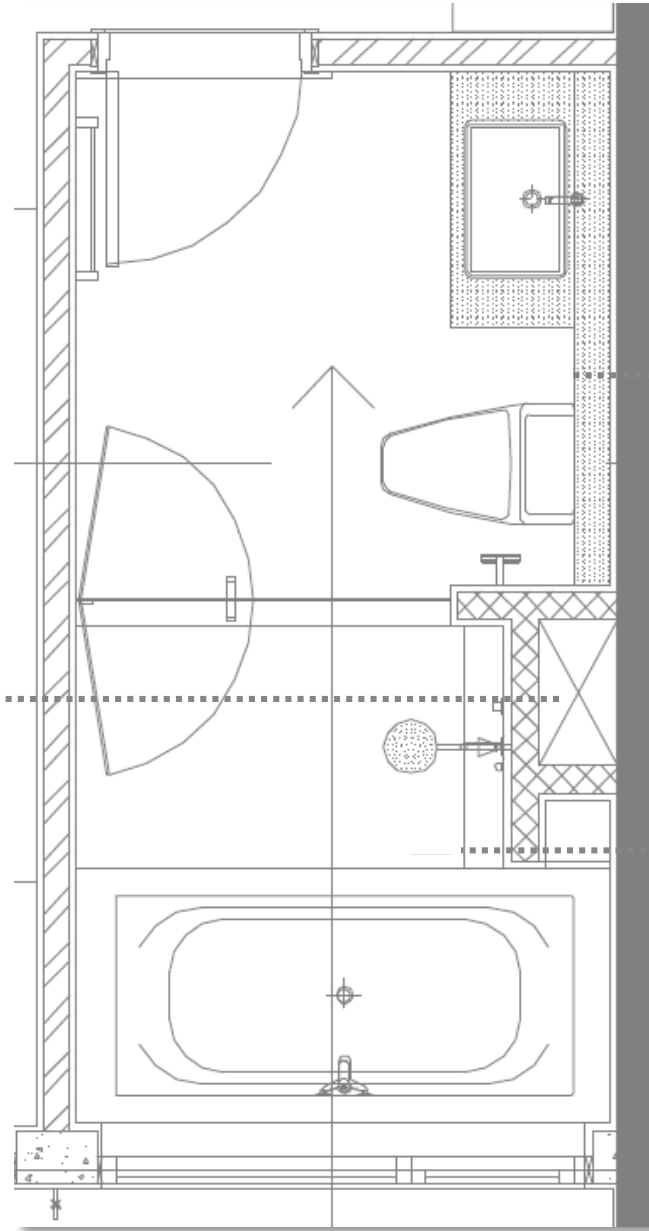
USABILITY

# Cast in concrete



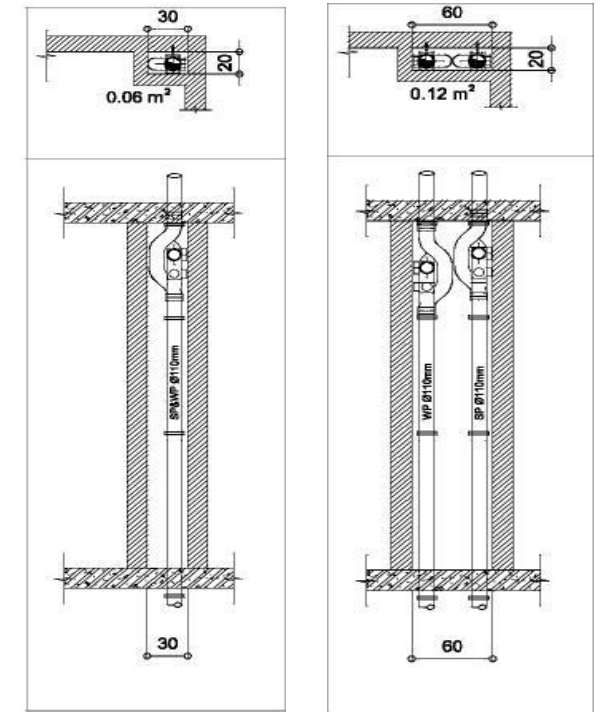
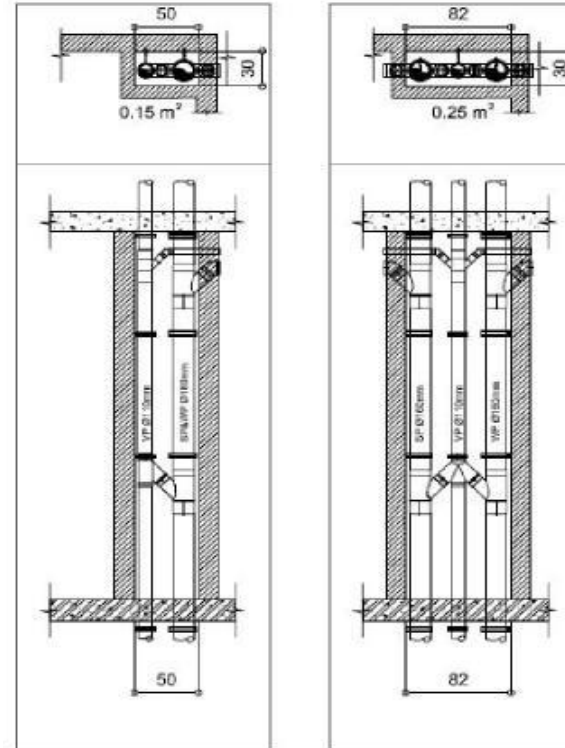
# GEBERIT SOLUTION FOR YOUR BATHROOM

Reduction shaft size  
from 55 x 30 cm  
to **30 x 20 cm**





# TECHNICAL BACKGROUND



1. Cutting down the BOQ more than 35%
2. Reducing the diameter of the stacks from 160mm to 110mm
3. Pipe embedded in concrete (optimal space usage)
4. 50% space saving per stack
5. 200m<sup>2</sup> space saving for the entire project

# TECHNICAL BACKGROUND

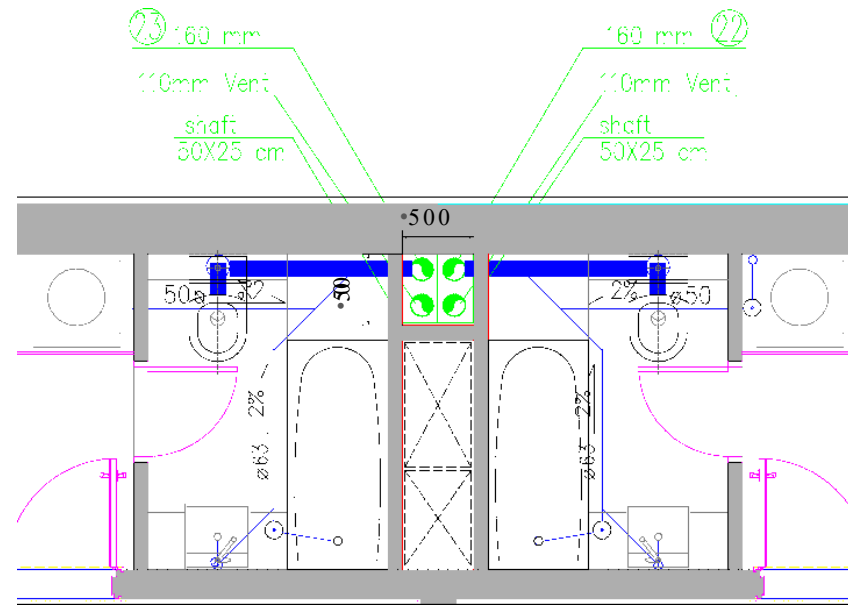
## PROJECT SUMMARY

Original plan 160 mm pipe with 110 mm parallel pipe- solved with one main stack 110 mm  
 Geberit designed - 3D pre-fab ready plans incl. cutting lists  
 The main stack was pre-fabricated in the importer warehouse (time-saving)  
 Almost 40% of the costs could be reduced by using Geberit Sovent instead of the original conventional dual stack system  
 Number of downpipes could be reduced from 71 to 36



|                             | Vented system | Geberit Sovent system |
|-----------------------------|---------------|-----------------------|
|                             |               |                       |
| •Stack dimension DN         | •150          | •100                  |
| •Secondary vent DN          | •80           | •N O                  |
| •Max. discharge DU<br>K=0,5 | •615          | •576                  |
| •Max. discharge rate l/s    | •12,4         | •12,0                 |

## ORIGINAL PLANS WITH THE VENTED SYSTEM



## FINAL PLANS WITH THE GEBERIT SOVENT SOLUTION

