“Rollout of 3DEXPERIENCE CATIA within the GEBERIT Design Studio”

Thilo Cramer
The product range: a practical case
### The company: key figures

| 2.9 billion | ~50 | ~12000 | 30 |
| CHF in net sales | countries with sales organisations | employees | specialised production sites |
The product range: three product areas

Installation & Flushing Systems
- Installation Systems
- Cisterns & Mechanisms

Piping Systems
- Building Drainage Systems
- Supply Systems

Bathroom Systems
- Bathroom Ceramics & Furniture
- Showers & Bathtubs
- Shower Toilets
- Taps & Control
Four strategic pillars

1. Focus on sanitary products
2. Commitment to innovation and design
3. Selective geographic expansion
4. Continuous business process optimisation
The project:

3DExperience platform for Geberit

- Replacement of Catia V5
- Implementation of a new PLM platform
- Harmonization of CAD processes
- Integration of new disciplines
The project:

Disciplines
3D Plant Layout
3D Plant Layout
Custom pre-installations
Custom pre-installed bathrooms
Tooling departments
Mapress metal fittings
Development Piping Systems
Development Installation & Flushing Systems
Development Ceramics
Development Shower toilets
How we work

• Team of 7 CAX / PLM experts
• Efficient 1\textsuperscript{st} & 2\textsuperscript{nd} level support
• Process definition & development
• CAD functionality & methodology
• License management
The project: 3DExperience schedule

- **Customizing**
  - CAD/CAM - Enovia V6 - SAP interfaces
  - 160 users at 30 locations

- **Data migration**
  - other CAD-Systems - Catia V5 - SAP metadata

- **Operations**
  - Plant Layout - Tooling - Process Engineering
  - 160 users at 30 locations

- **Product & Innovation**
  - Design Studio - Ceramic development - Product development
  - 180 users at 18 locations

Timeline:
- 2016
- 2017
- 2018
- 2019
- 2020
The challenges & learnings

Challenges
• Software quality
• Lack of knowledge & resources
• Missing functionality
• Customizing difficulties
• Data migration
• Missing commitment
• Support quality

Learnings
• Involve Dassault Systemes in your Project
• Ensure dedicated resources
• Be aware of functionalities V5 vs. V6
• You should plan sufficient time
• Data migration is subject of data quality
• Management support needed
• User support is essential
Geberit Design Studio
A real life example of implementing 3DEXPERIENCE within the GEBERIT Group

- Welcome to the Geberit world
- Integration into the Development process
- Collaboration with other disciplines
- Reduction of interfaces
- Replacement of Siemens NX & Rhino
The key: CATIA DESIGN Center of Excellence

• Design experts by Dassault Systemes
• Design functionalities in Catia
• Natural Sketch, Imagine & Shape
• Human Design, Live Rendering
• Freestyle Shape Design
Dassault Systèmes **Recommendations**

- Improve Industrial design process performance and remove digital discontinuities
- Manage data and information: “Right data at the right time”
- Improve collaboration and communication within Design Studio and with others organizations

“The Value Assessment objective for GEBERIT and DASSAULT SYSTEMES is to identify new methods, ways of working and digital solutions, applicable to GEBERIT Industrial design organization, to increase its capability of innovation while improving its operational efficiency.”

Pierre Villa
Catia Design Technical Sales Director
Overview CAD departments and processes within Geberit

We are able to implement the Design functionalities in UK, DE, CH and CN.

**Types of Challenge**

- **Communication & Collaboration**
  - Design Studio needs to change its role, visibility, influence, and perception within Geberit.
  - Need to improve communication with product line management and engineering.
  - Product line managers are not familiar with considering the Design Studio - need to sell Design Studio values.
  - Geberit is a centralized Swiss organization where decisions are taken.
  - Lack of Design Studio visibility on Geberit strategy and development plan to prepare studio workload.
  - Improve Design Studio information sharing with Geberit organizations, especially Product line managers.
  - Improve synergies with other Geberit organizations.
  - Need a better way to exchange and share data/information.
  - Communication is difficult and time-consuming.
  - Different languages between countries is another communication issue.
  - Same file with collaboration and annotation.

- **Creativity**
  - Look at the market, trends, and competition with reports.
  - Need to go to design exhibitions to get inspiration from other industries.
  - Need to map competition with Geberit portfolio (style & price).
  - Geberit is not structured for open innovation as Sanitec was.
  - Get back time to innovate inside the Design Studio, not necessarily inside a project.
  - Need more freedom for innovation and the opportunity to fail.
  - Should consider more human for ergonomics. Consider human earlier in the process.

- **Data Management**
  - Sharing the same information should help.
  - Need an environment to share data and make the right things right the first time.
  - No capitalization of ideas - better to capitalize and share.
  - Data management is done badly, everything on designer laptops, back-up on servers - hard to find data.
  - Not secured, easy to lose data, difficult to share.
  - Share data easily with R&D.
  - Retrieve other people's data as a starting point for new projects.
  - Need to share 2D/3D in the same team workspace.
  - Create a common library of experience elements.

- **Decision Process**
  - Design Studio is more important for Geberit as business on visible products increases.
  - Design Studio needs to better control external Design Studio activities and work.
  - Design Studio's challenge is to be part of the centralized decision process and extend its decision role.
  - Need to involve final customers/consumers for innovation and design.
  - Would need simulation to predict the manufacturing process.
  - 2D rendering makes communication difficult because of the 2D static view.
  - Best things may not be accepted due to inefficient communication.
  - Section-based may lead to misunderstanding and new iterations.
  - Physical prototypes do not represent ceramic effects - need an additional step.
  - Need to improve the design and reduce risks during the decision process.
  - Holographic/VR/AR display during internal and project team reviews to speed the process and give confidence.

- **Digital Continuity**
  - Lack of process continuity with the product line.
  - Current workflow between 2D & 3D is not smooth as expected. It interrupts the idea flow.

- **Performance**
  - Rendering takes too much time to get the quality expected.
  - Every product range cannot be physically prototyped as it is too long.
  - Takes time to switch from one project to another - difficult to remember where you stopped.
  - Get a smoother way and accelerate the transition between 2D and 3D.

- **Project Management**
  - Have a clear process defined and shared in the next 18 months.

- **Skills & Change Management**
  - Lack of local appropriate skills didn't make successful 3DEXP deployment.
  - Standardize methods & tools in the Design Studio.
  - Lack of understanding of the global way of working at Geberit.
  - CATIA is very difficult because of lack of training.

---

**Training & Workshops**

- **UK Basic Trainings**
- **UK Workshop #1**
- **Switzerland Expert Workshop #2**
- **Vélizy GEBERIT Exec Meeting**
- **UK Workshop #4**
- **Hanau DS - User Conference**
- **Shanghai Workshop #3**
- **Shanghai Workshop #5**
- **BVA/UK Interviews**
- **Basic Trainings**
- **Workshop #1**
- **Workshop #2**
- **Workshop #3**
- **Workshop #4**
- **Workshop #5**
- **DS - User Conference**
Learnings

- Speak the right language
- Don’t use the Mechanical Engineering approach
- Invest enough time for trainings
- Find a suitable methodology
- Provide the right hardware
Feedback

“Improved visual communication of design concepts and ideas to those who we need to communicate with outside the Design team, mainly Heads of Product Line and PMI”

Simon Hopps
Head of Design & Innovation

“I think this is very exciting, has huge potential and could be a major step forward in the way we work in future.”

Ian Randle
Group Industrial Designer

“The last workshop has been the best we’ve had so far. It looks like a huge improvement to the way I worked before.”

Sarah Seidel
Group Industrial Designer

“In terms of Natural Shape and Sketch, I think it is quite an improvement on getting good shapes into the model quickly. Editability is great so the possibility of getting refined concepts could be much quicker.”

Scott Derbyshire
Group Industrial Designer
Thank you for your attention!