

### Digital Transformation & Sustainability Symetri BIM Forum 2022

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## **Transformation to Digital**

#### A brief walk-through history

- Becoming digital
  - Paper to Bytes
- Focusing on objects
  Lines & Arc's to Objects
- Adding a dimension
  2D to 3D
- Information at the center
  CAD to BIM
- Becoming collaborative



## What is sustainability

Collaboration will be key to achieving the sustainable development goals

> Collaboration is essential to produce the distinctive forms of science and technology knowledge and know-how - required to meet sustainability challenges.

## **Sustainability Development Goals**

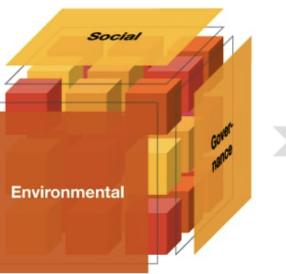


UN Sustainable Development Goals: Autodesk customer commitments

| SDG   | UN Sustainable Development Goal        | %   |
|---|--|-----|
| 13 CLIMATE                                      | Climate Action                         | 69% |
| 12 RESPONSIBLE<br>CONSUMPTION<br>AND PRODUCTION | Responsible Consumption and Production | 65% |
| 7 AFFORDABLE AND<br>CLEAN ENERGY                | Affordable and Clean Energy            | 64% |
| 9 AGUSTIF, INDIVIDIA<br>AND INFASTRUCTURE       | Industry Innovation and Infrastructure | 64% |
| 11 SUSTANABLE CITIES<br>AND COMMUNITIES         | Sustainable Cities and Communities     | 50% |
| 8 DECENT WORK AND<br>ECONDILIC GROWTH           | Decent Work and Economic Growth        | 46% |

### **From SDGs to Initiatives**





#### Environmental

- Net Zero initiatives
- E-mobility
- Responsible resource management

#### Social

- Social security systems
- Research, education, innovation
- Security, public order and open society

#### Governance

- Good governance
- Digitization strategies
- Location development

## **Becoming Collaborative**

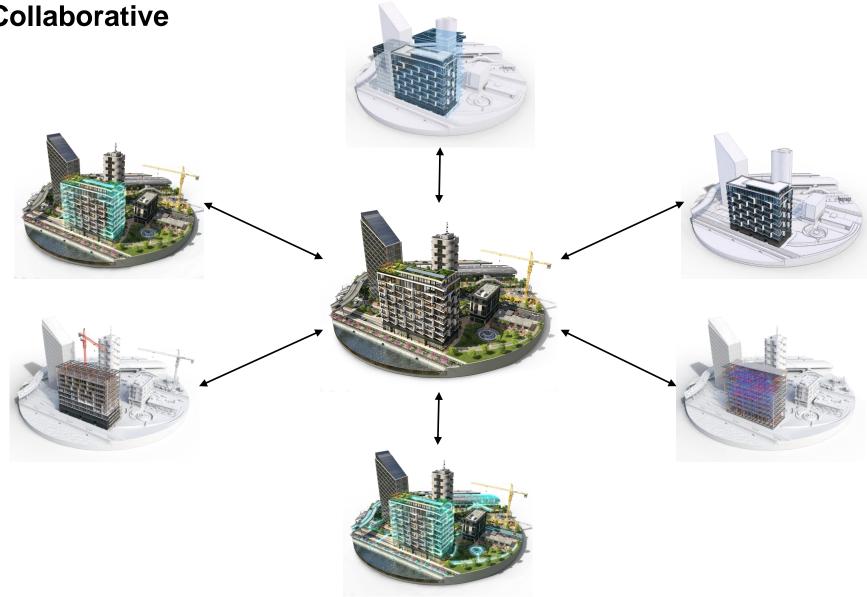
#### Why digital collaboration is changing the game

- Data sharing
  - Multiple Stakeholders
    - Basic file storage & sharing
    - Version control
  - Anytime, anywhere collaboration
  - Common data environment
  - Design Review on-the-go
  - Automated clash detection
- Digital Governance
  - Manage design data exchange & submittals
  - Centralized Issue Management



#### **Data Sharing**

#### **Becoming Collaborative**



## Anytime, anywhere collaboration

#### **Data Sharing**

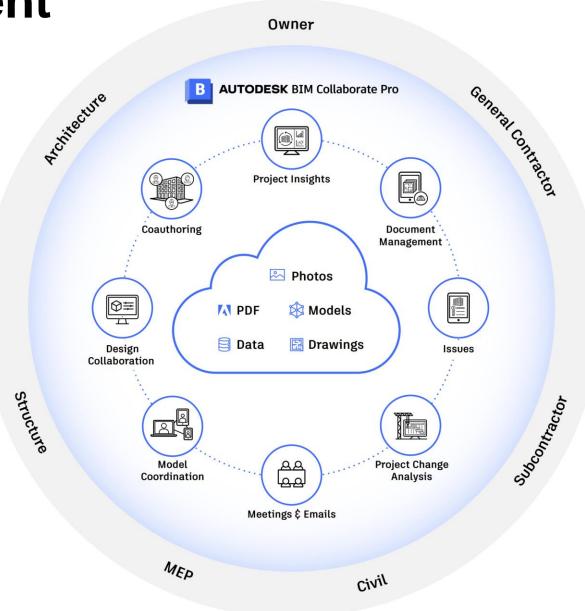
- [Revit Cloud Worksharing] Co-author Revit models in the cloud at the same time, with anyone from anywhere, outside company firewall
- [Collaboration for Civil 3D] Collaborate on Civil 3D design files, data shortcuts, and XRefs with automated file locking with anyone, from anywhere outside company firewall
- [Collaboration for Plant 3D] Securely share Plant 3D files and references across teams or company firewalls. Manage permissions, maintain compliance requirements, and keep teams aligned in a common data environment



## **Common data environment**

#### **Data Sharing**

• Store and manage all project data, in one location to improve efficiency during handover



**The Single Source of Truth** 

## **Design Review on-the-go**

#### **Data Sharing**

- View and compare iterations of sheet layouts side-by-side or combined views of the project model in 3D view. No exports, translations, or uploads required.
- Share & markup over 50 2D & 3D design file formats including Revit (RVT), Navisworks (NWD, NWF), AutoCAD (DWG, XREF, DREF), industry formats like IFC, and office file types.



## Automated clash detection

#### **Digital Governance**

- Upload models to automatically detect clashes. View results in an intuitive matrix, identifying clashes and grouping them to prioritize work.
- Explore design options by running clash analysis against shared models in sandboxed folders called "coordination spaces", separating design trials from live ongoing work



# Quality

#### **Digital Governance**

MIL

**Becoming Collaborative** 

## Manage design data exchange & submittals

#### **Digital Governance**

- Track and share design packages against deadlines on a project timeline.
- Facilitate simultaneous design work among multidiscipline teams with advanced permissions in folder settings, keeping other teams out of work-inprogress files



## **Centralized Issue Management**

#### **Digital Governance**

 Create and track issues on design data, assigning due date, responsible party, and root cause to ensure closure. View and resolve issues assigned to you from the cloud directly in Revit or Navisworks for closed-loop workflows (currently available for BIM 360 only)



# Traceability Transparency Accountability

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