Digitalization or just Digitization?

The Wikipedia definition for **digitization** is distinct: "...the representation of an object, image, sound, document or signal (usually an analog signal) by generating a series of numbers that describe a discrete set of its points or samples...strictly speaking, digitizing simply means the conversion of analog source material into a numerical format." The Wikipedia definition for **digitalization** however, redirects to digitization. It’s a good beginning, but in the end it only reinforces the ambiguity.

The Gartner glossary goes a good step further in assigning meaning. It defines **digitalization** as “the use of digital technologies to change a business model and provide new revenue and value-producing opportunities. It is the process of moving to a digital business.” Similar to Wikipedia, Gartner also says, “**Digitization** is the process of changing from analog to digital form.”

From the SAP homepage:

**Change a business model and provide new revenue and value-producing opportunities**
Disruption

Digitalization as a threat

- Effort for data generation & manual uploads
- Time critical & time consuming efforts
- Redundancies and out-of-date data
- Loss of control, data ownership & liability risks
- Costs for data generation & fees

new digital market places
numerous databases & tools
PRODUCT PLACEMENT 4.0
EXAMPLES FOR DIGITAL MARKET PLACES
Digital Market Place - Product Databases
Digital Design Tools - BIM

Autodesk Revit
ABOUT BIM

Some facts

• BIM is not mainstream yet but mandatory in some states

• BIM is not sufficiently standardized

• BIM projects are presently not keeping what they promised, mostly

• BIM is more than 3D geometrical information with huge potential

• BIM product data is partly missing but required for effective BIM use

• BIM files can contain numerous kinds of information on products

• BIM files can be used as universal data format for multiple purposes

• BIM files for all relevant BIM tools can be automatically generated

Source: www.iac.com.co
Digital Market Place - BIM Databases - Plugins

BIMobject Autodesk Revit plugin
Digital Design Tools - LCA Tool as Plugin

Tally Autodesk Revit plugin
Digital Market Place - Solution Finders

ROCKWOOL Web Tools

- **U-Value Calculator**: Calculates U-values accurately for over 2,500 construction build-ups. This unique U-values calculator also incorporates BIM objects.
  - Start calculating

- **Acoustic Calculator**: Use the acoustic calculator to generate calculations for your construction project and download useful BIM data simultaneously.
  - Start calculating

- **BIM Solution Finder**: ROCKWOOL BIM solution finder allows professionals to create comprehensive 3D prototyped building projects to construction.
  - Access tool

- **FIREPRO® Solution Finder**: The FirePro® solution finder allows users to quickly and easily find the appropriate solution to common firestopping applications in the UK construction sector.
  - Access tool

- **HVAC Calculator**: Installing heating, ventilation and air conditioning (HVAC) systems with ROCKWOOL® HVAC insulation can improve the energy efficiency, fire safety and acoustic performance of a building. Use our HVAC calculation tool to calculate the desired HVAC solutions.
  - Access tool

- **ROCKWOOL Load Calculator**: Load Calculator to assist contractors, builders and installers in working on the best method of loading their purchased ROCKWOOL® products into one vehicle.
  - Access tool
Digital Market Place - Solution Finders & Download Centres

ROCKWOOL U-Value Look-up tool

Rainscreen on Reinforced Concrete

Change U-value [W/m²K]

U-value 0.30

Change thickness [mm]

Insulation thickness 165 mm

Construction build-up:
1. Gypsum plastering (13 mm)
2. Concrete, Reinforced (with 1% of steel) (120 mm)
3. RAINSCREEN DUO SLAB™ (145 mm)
4. Wall ventilated air layer (50 mm)
5. ROCK PANEL® (8 mm)

Download Result Document and BIM File:
- U-value report 05-0001
- Acoustic calculations report AC20-0001
- Revit file for calculated construction
- IFD BIM Object for Calculated Construction

U-values should be checked carefully to ensure they are in accordance with your specification.

These calculations are theoretical and therefore rely on the insulation and the construction having been built in accordance with good building practice.
Digital Market Place - Virtual Showrooms

Virtual Showroom Agrob Buchtal
Digital Market Place - AR or VR Visualization

VR Rendering – Enscape Revit Plugin
Disruption

Digitalization as an opportunity – The „Single Source of data principle”

1. One-time effort for “universal” data preparation
2. Optimization of data for all digital purposes
3. Data ownership and control remains with manufacturer
4. Direct internal & external access to data via own homepage
5. Effective and comprehensive solution finders for users
6. Data requests with file generation “on demand” for download
7. Automatic uploads / direct links to relevant platforms
8. No redundancies and out-of-date data
Our Services

We follow some principles:

- Simple & effective start
- Extendable structure
- Universal solutions
- Single source of data
- All data & solutions remain in your ownership
About us

Some of our clients

With twenty years of experience from building design and software development we created a unique package answering today’s and tomorrow’s digitalization challenges for product manufacturers.

Our team based in Germany, the Netherlands and Poland consists of 20 skilled developers, architects and engineers.
Our Experience

Where our solutions are implemented

Austria, Australia, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Malaysia, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovakia, Slovenia, Spain, Sweden, Turkey, Ukraine, United Arab Emirates, United Kingdom, USA/Canada
Thank You
Digitalization for Product Manufacturers
Attract young employees...

About “Digital Natives”

Younger generation grew up with digital devices and in 3D gaming worlds. They can be attracted by digital work environments.
Product BIM database with BIM file generator

Data preparation, optimization and import

Access Tool on homepage as interface for internal and external users
Solution Finders & Search Tools on own homepage optimized for specific user group

Direct interface to relevant platforms & tools via API, web-service or plug-in

Training of manufacturers Staff on management and development of solutions

Extended Data Optimization e.g. for Green Building or professional visualization
Advanced Solution Finders and Search Engines including own calculation or design tools

Interactive interfaces to platforms or tools

System Partnership on the level of buildings or building elements

Advanced Data Optimization e.g. on ingredients, LCA data or circular economy
Added Value

Savings and indirect values:

- Generation of files automatic and on demand
- No double work
- No data redundancies
- No out-of-date data
- Co-ordinated and streamlined processes
- Immediate response
- Better quality of data
- Less risks
- Attractive jobs for “digital natives”

New income:

- Access to all relevant digital market-places
- Product placement via smart digital data
- Direct sales communication to decision-makers
- Clients easily find their specific solutions and have immediate access to digital data
- Architects & planners have access to product data via their own work environment
- Provide additional services to clients that save effort and mean extra quality for their clients