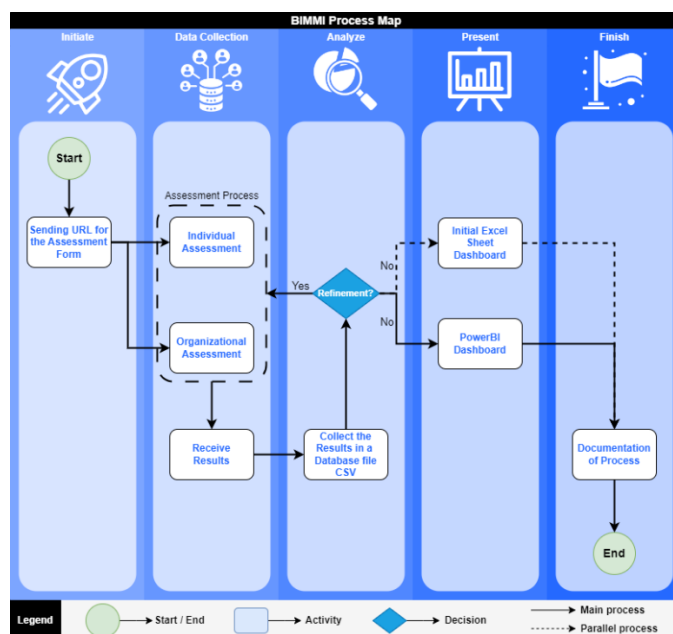# Case Study: Leverage PowerApps in Process Reengineering at Kevee Consulting GmbH

We managed to re-engineer a traditional process of BIM assessment in a digital form by building a PowerApp application to manage employee and organizational data from a single location.

Our team recently had the opportunity to investigate the daunting task of measuring an organization's level of maturity for adopting BIM processes across its many branches around the globe. That included managing employees and organizational data across multiple branches, which can result in a measurement of the level of competency of the personnel, and the level of maturity in general for the organization. This assessment can aid a data-driven decision about future BIM plans for the organization, and also it sets a benchmark for the company among the market competitors. The company has been manually updating master data across several disparate systems, a time-consuming and error-prone process. To address this challenge, we suggested using Microsoft PowerApps, a low-code platform that enables businesses to build custom apps quickly and easily.
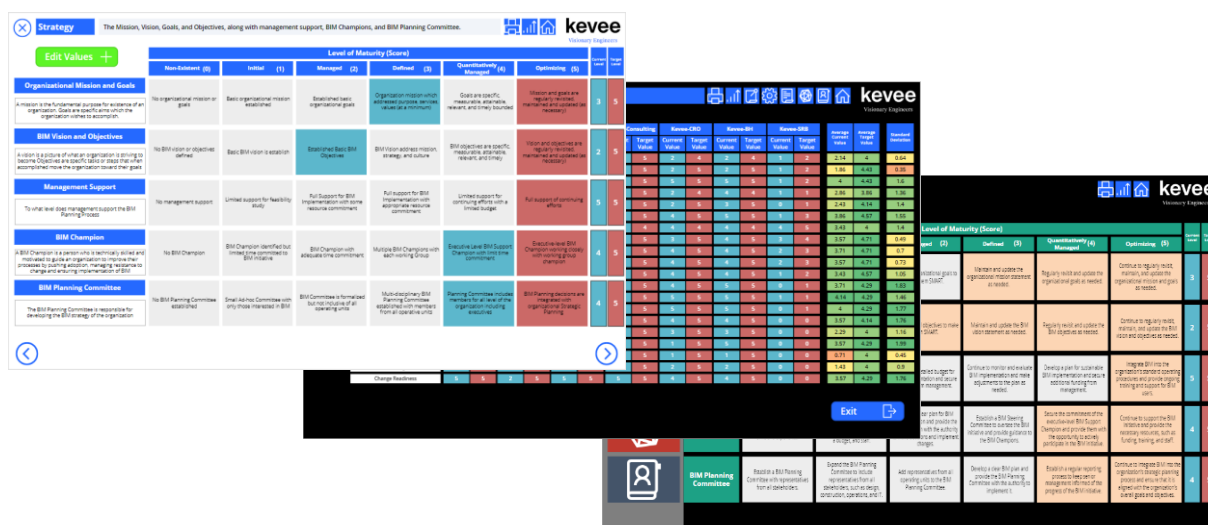

Using a simple workflow that collects data from the appointed personnel, then processes these data in one database reservoir to localize the data source, and finally presents it to make informed decisions about BIM development plans in the future of the organization.

PowerApps for Organizational BIM Maturity Assessment

Based on the pioneering work of Dr. Bilal Succar in the BIM excellence initiative (Succar, n.d.), the BIM development team at Kevee Consulting investigated the use of PoweApps as a low-code solution to manage the BIM maturity assessment and digitally re-engineer the process. Using PowerApps was a game changer, any BIM manager can effortlessly collect subjective data, gaining insights into organizational maturity levels based on data usage and project nuances. With six branches of assessment, a BIM manager can assess the BIM strategy used in the organization, BIM uses and processes adopted to ensure a proper BIM deliverable, The level of Information needed in the acquired projects, the infrastructure required to ensure a seamless process among different

branches in different geographical locations, and finally the BIM personnel who are responsible about the adoption of the BIM process.

With customized admin permissions, cloud versatility within PowerApps, and seamless integration with PowerBI, this application can be turned into a BIM insights command center for managers, top managers, and BIM managers. With three levels of data analytics, only the concerned data can be shared with the concerned personnel, with the level of maturity of each level of the six levels, a standard deviation table to allow an informed decision about the coverage of certain areas than others, and a gap analysis to implement for the BIM manager to address.

Data can be analyzed in a user-friendly interface through the PowerBI dashboard as part of the integration between the two platforms, the dashboard can give more visual insights about the area of the gap that needs to be bridged.
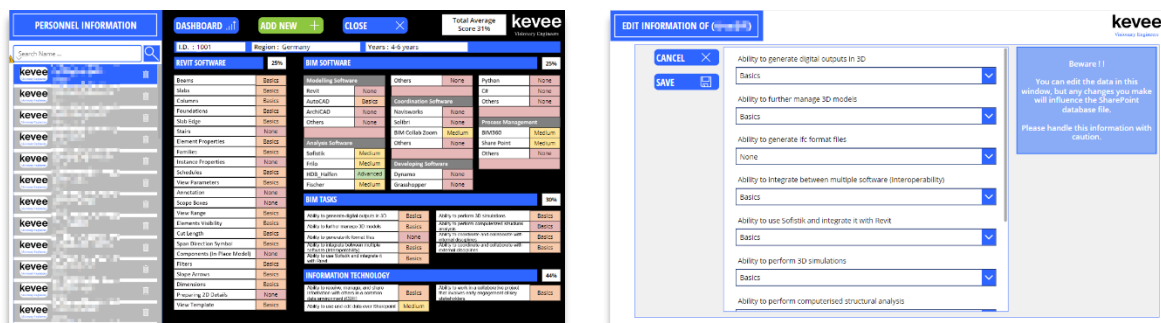

Not only this but also accessibility takes center stage with a companion mobile app. As PowerApps canvas adapts to any screen, making data manipulation on the go.
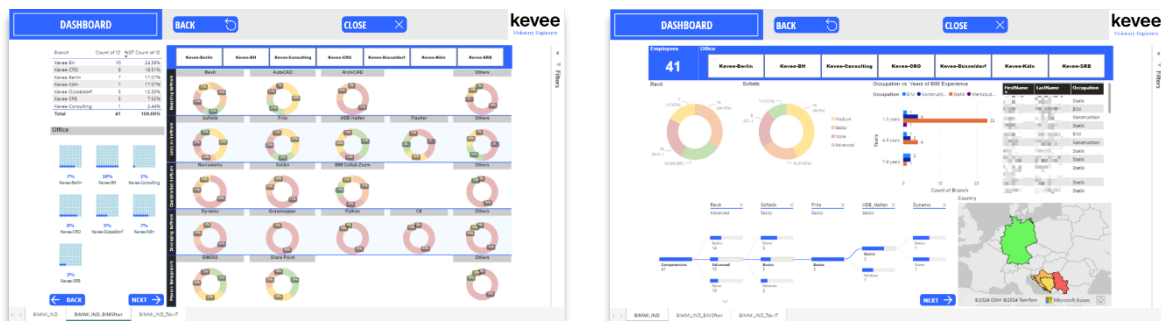
PowerApps for Individual BIM Maturity Assessment

For individual assessments, we designed a user-friendly application that measures BIM expertise based on a four-part assessment guiding employees through BIM expertise. The assessment is based on measuring the level of knowledge of the proprietary tools, the level of knowledge of BIM software, BIM tasks, and the information technology needed to be acquired to achieve a BIM project. A unique URL and a multiple-choice question form open the gateway to self-assessment, seamlessly captured in a SharePoint database.

The database collaborates also with a dynamic PowerBI dashboard, offering a live pulse on the team's BIM competency. For managers, it's a resource allocation means. This app becomes a strategic tool, allowing them to distribute resources based on qualifications, knowledge levels, and discipline. Additionally, managers effortlessly edit or add new entries, and PowerBI updates them in real time. The dashboard becomes a dynamic canvas, redefining KPIs and aligning incentives with individual development levels.

Benefits of Using PowerApps

In Kevee Consulting, PowerApps has streamlined BIM processes, especially the BIM maturity assessment, bringing several benefits:

1. Simplified Data Collection: by automating, saving time and effort.
2. Improved Data Management: The initial time investment pays off as PowerApps managed centralized information storage in SharePoint lists. It not only makes data easily accessible but turns it into an available output that can be analyzed and shared effortlessly.
3. Enhanced Visibility: providing clear insights into the organization's BIM maturity levels. It helps identify areas for improvement and informs decisions about BIM implementation.
4. Mobile Accessibility: In a dynamic world, PowerApps offers the power of BIM assessments in the palm of your hand—accessible from smartphones and tablets.
5. Continuous Improvement: by opening the way to more processes in the future to re-engineer.

References

Succar, B. (n.d.). *301in BIM Maturity Matrix*. BIMe Initiative.
https://bimexcellence.org/resources/300series/301in/