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Promotion of energy awareness in buildings

Setting the scene: Additional indicators, from design to implementation

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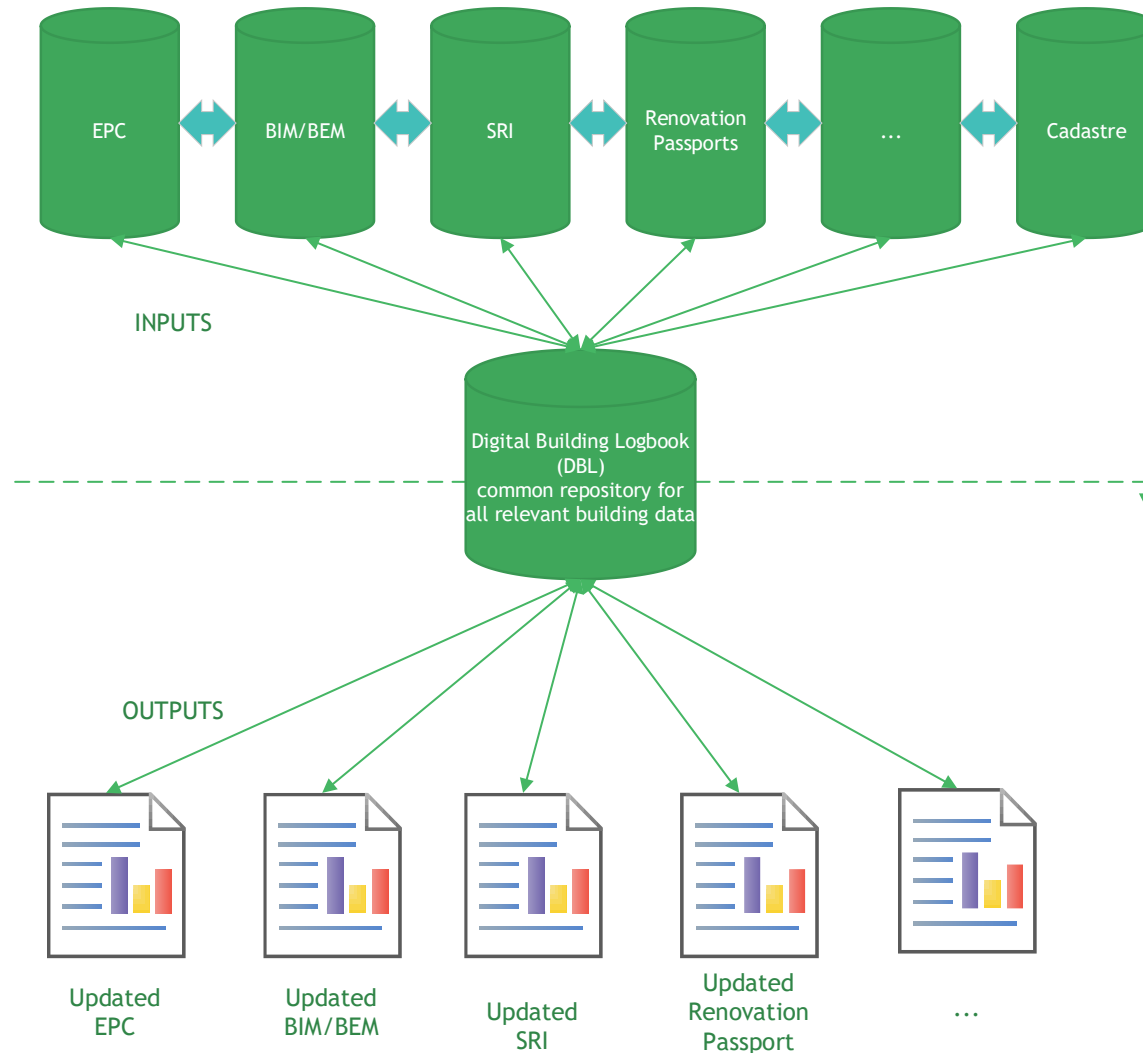
- What do we want?
- TIMEPAC vision and motivation
- Indicators - why do we need them?
- Smart Readiness Indicator and its purpose
- Data collection process and limitations
- Guidelines for effective SRI and sustainability auditing - Code of Conduct
- Extraction of energy and flexibility measures
- Conclusion



**Implementation of
advanced projects!**


- Data integration from various sources for more effective EPCs, by considering the **building as a whole**
- EPC enhancement with a Smart Readiness Indicator and other indicators to accelerate the **creation of reliable smart and sustainable renovation plans**

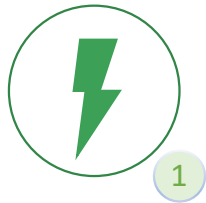
TIMEPAC vision and motivation (2/2)



- The role of any indicator is **to make complex systems understandable** or easily comprehensible
- An effective indicator or a set of indicators helps in **determining the current position against established objectives**
- Indicators should be **SMART** - Specific, Measurable, Achievable, Relevant, Time-bound

Smart Readiness Indicator and its purpose

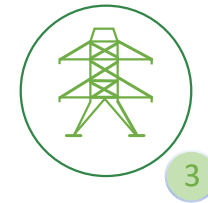
 One overall score express how close the building is to the maximum smart readiness




Optimise energy efficiency and overall in-use performance




Adapt their operation to the needs of the occupant(s)



Adapt to signals from the grid (energy flexibility)



Energy efficiency



Maintenance and fault prediction



Comfort




Convenience



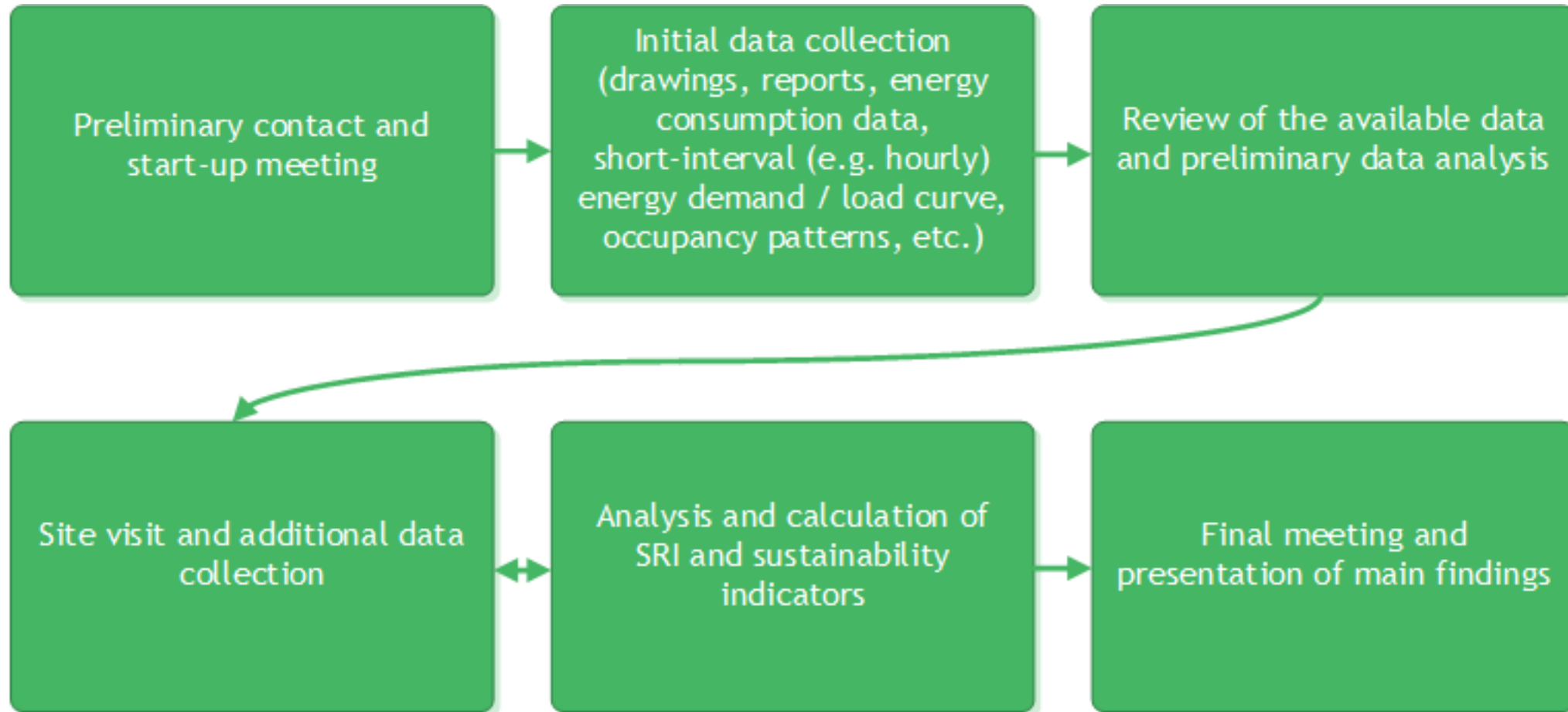
Health, well-being and accessibility



Information to occupants

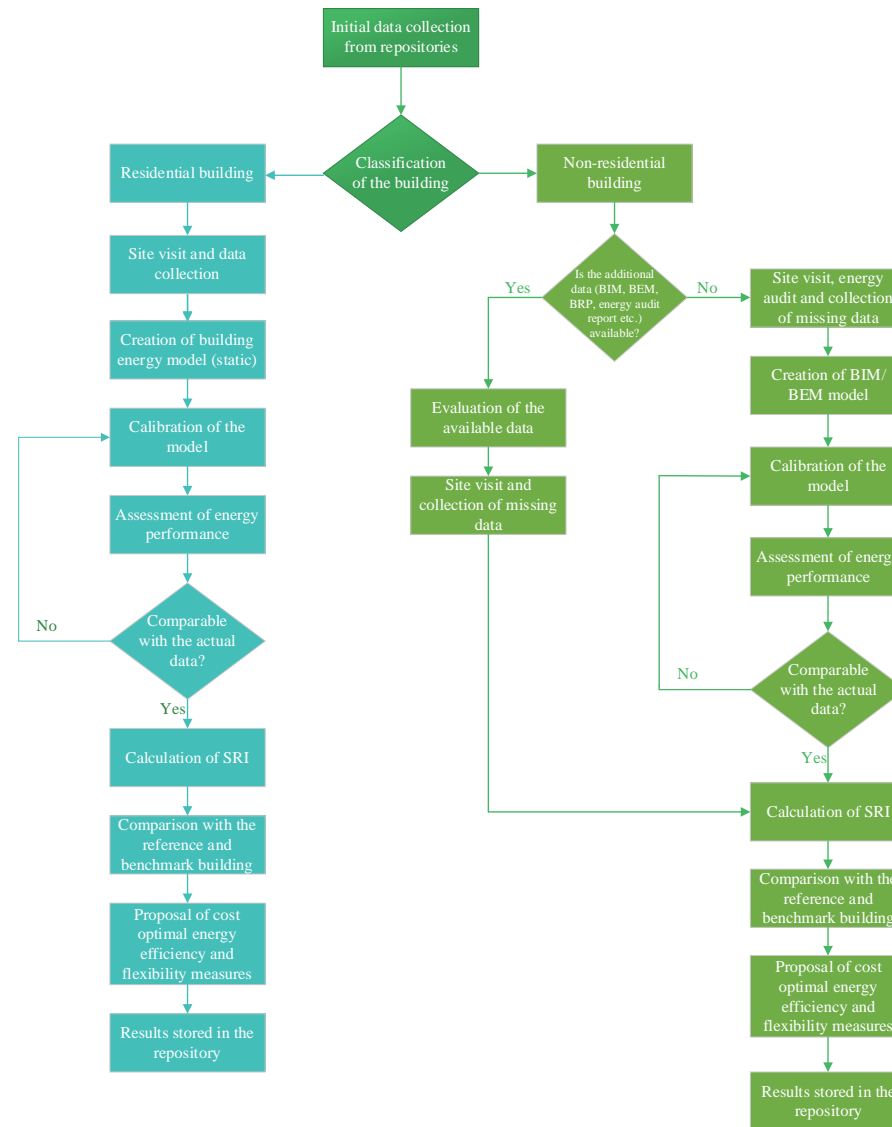


Energy flexibility and storage

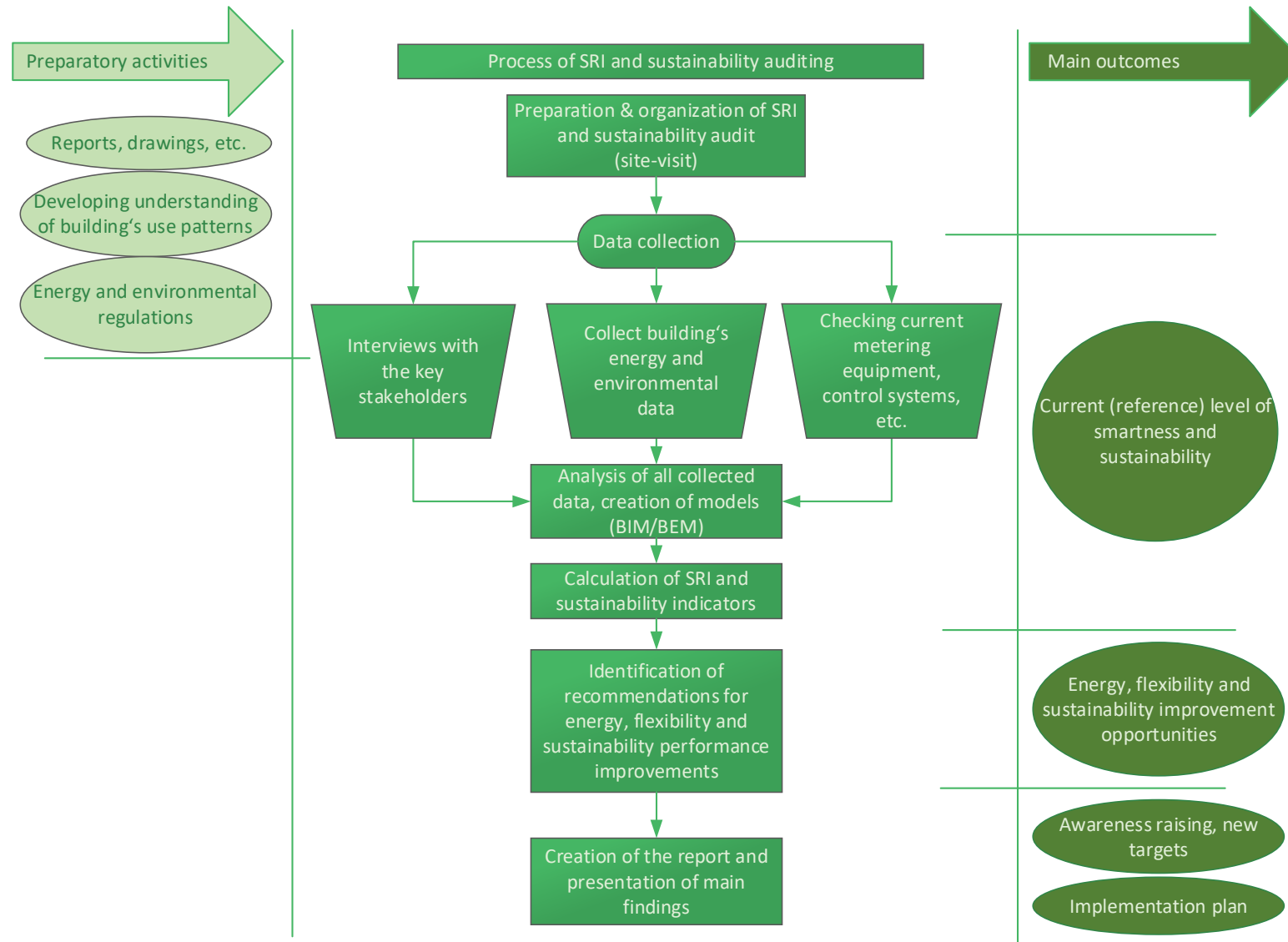


- Energy audit is a **dynamic category** (new EED)
- Relevant standards: Auditor must estimate **future energy use and consumption**
- Identify, prioritize and record **opportunities for improving energy performance**
- **Combining activities** is the key of future success!

Combining methods and Guidelines for effective SRI auditing (2/3)



Combining methods and Guidelines for effective SRI auditing (3/3)

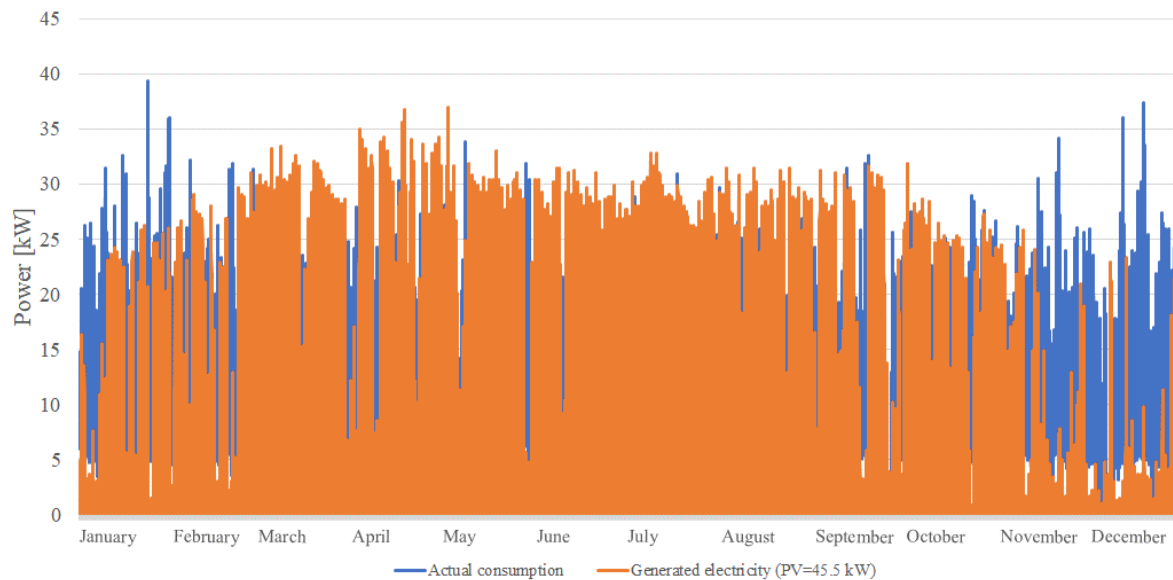


- Site visit is essential for the effective and transparent SRI and sustainability rating
- Avoid conflicts of interest and never try to sell products or services
- Respect the privacy and confidentiality of the client's information
- The SRI and sustainability auditor supports the application of innovative tools such as Building Energy Models (BEMs) and Building Information Modelling (BIM)

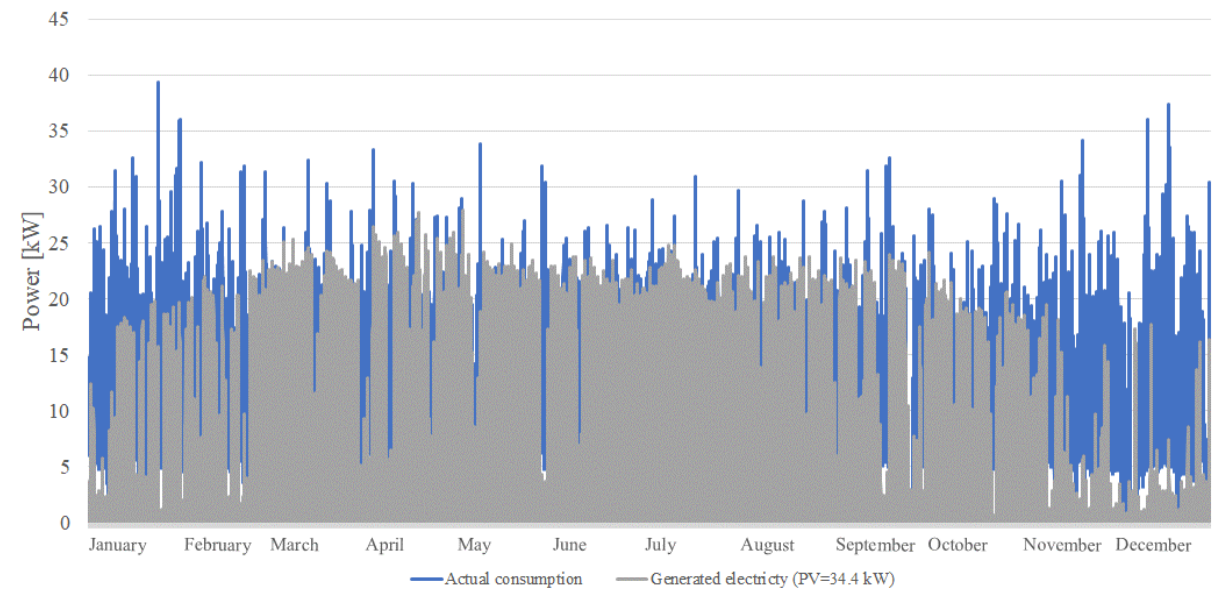
- The SRI and sustainability auditor supports long-term use of energy-management systems
- A key element of efficient demand-side management (DSM) is the proper identification of controllable and uncontrollable loads
- Recommendations should be tailored to the specific building and its unique characteristics and needs
- Always be transparent about the methods and assumptions used during the SRI and sustainability rating

- The SRI and sustainability rating should be unbiased and objective, **focused on providing accurate and reliable information**
- Always try to **understand operational practices** about how the building is used and operated, including occupancy, operating hours, and behavior of occupants
- The SRI and sustainability auditor must ensure that **all collected data are accurate, reliable and relevant**
- Before submitting an official report **always discuss your findings with the client**

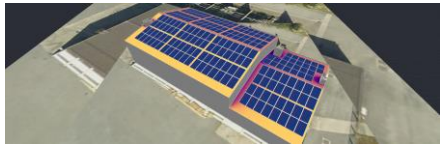
- SRI assessors will need to provide **comments** that are **necessary for the extraction** of energy efficiency and flexibility improvement measures
- **Comments and notes** from assessors are crucial for **properly understanding the SRI rating**
- SRI can facilitate the **alignment of common interests between ESCOs and building owners** in exploiting urban areas for energy production from RES and supporting e-mobility



SSR = 45% and SCR = 72%.



SSR = 34% and SCR = 84%.



- Our experiences clearly confirmed that in order to make SRI rating useful, **specific and tailored recommendations for performance improvements** must be provided to the final user
- Special attention must be given to the proper **explanation of the SRI score**
- Implementation approach - **team work, honest communication with the key stakeholders** (owner, energy manager, facility manager, maintenance personnel, etc.) and **a focus on effective measures and follow-up indicators**

**If you would like more information,
please contact us at**

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Thanks for your attention!