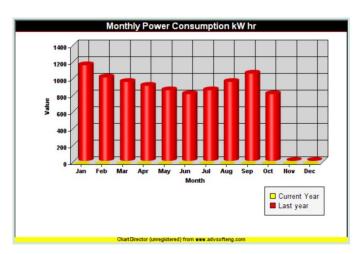
Smart City IoT integration **BMS** integration **KNX** integration Big data A.I. operation

The FaMe Smart Building solution is designed for the integrated operation of assets units like office building, hotels, schools, residential and other typical buildings of a city.

Building Automation System (BMS) operates online the technical assets of a building like air condition, heating distribution, water distribution or electricity consumption units with a central operation station. The FaMe® solution goes one step further. The FaMe® Smart Building Solution (iBMS) links this central operation



stations with the FaMe® Building Operation database to synchronize the user requirements with the Building operation system. One seamless integration.

The FaMe database in combination with the BMS reduce e.g. the Energy consumption and pollution and runs the Building more sustainable.

The FaMe® System integration with the BMS System is

based on the common BACnet® automation protocol and related protocols. The major BMS systems support this standard BACnet® interface. The FaMe® System can read and write values from every information point at the field via the BMS System on-time. That upgrades your building to a smart building.

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Example: Energy Management

For the energy control FaMe® reads the meters (MDB, SMDB) for short and long term consumption control. The system reads via BACnet®, KNX®, IoT (MQTT) or COSEM/DLMS® the values of the meters.

With this information the readings can be linked via FaMe® Database to a cost center or tenant account for billing management by the FaMe® Financial Modules. Also an automatically long term analysis to optimize the operation of single installation, is possible. E. g. compare the actual consumption with pervious yearly or monthly consumption to check the performance of Energy reduction.

Example: Maintenance

BMS operation points are linked to the maintenance operations at the FaMe Maintenance Module. The BMS system e.g. sends a message if a filter is dirty and has to replace or doesn't work properly.





FaMe Integration with Compounds

FaMe Smart City Solution



Energy Management Waste Management Comfort Management Predictive Maintenance Security / Alarm

GREEN OK RED major issue YELLOW warning **BLUE Intrusion**

The FaMe® Maintenance Module generates immediately automatically a corrective work order request for a technician to change the filter. Option: with a spare part recommendation. A preventive Maintenance work request will be automatically triggered if a predefined value of operation hours is reached or if sensors notes abnormally conditions like vibrations or high

operation temperature. The FaMe Solution link the online operation information to the operation workflows seamless and automatically. Smart Buildings operation.

Next step: **Smart City operation**

If many buildings or all buildings are linked together, FaMe® offers the possibility to manage the energy consumption between the buildings to share the energy, and if possible to break operation

peaks to reduce e.g. the energy power. This kind of operation is cost efficient and protects the environment. In combination with the FaMe® Smart Home Solution it's possible to build-up an integrated resource management for a whole City or Compound. Complete with the integration e.g. of public street lights operations, public garden irrigation systems or global waste collection. The FaMe® System is designed to handle huge data traffic and real time data analysis.

FaMe Integration with High Rise Buildings





Smart City

Big data

IoT integration

BMS integration

KNX integration

A.I. operation