



b.data

Energy Management

Energy data management system
for AUDI at the Ingolstadt plant / Germany



At the Ingolstadt plant, the models Audi A3, A3 Sportback, Audi A4 and Audi A4 Avant (including the S-line derivatives) as well as the A5 roll off the line. The car body construction and the coating for the TT Coupé and the TT Roadster are also located here. Siemens know-how is in every one of these models.

Auto manufacturing of the highest level – trend-setting when it comes to safety, comfort, design, performance and environmental protection. State-of-the-art production lines harmonize with an ingenious environmental technology.

At the location Ingolstadt, AUDI AG systematically records and analyzes energy and utility consumption values in the course of continuous energy data management for inter-

nal cost allocation purposes and for plant optimization.

In order to achieve this objective, AUDI AG awarded Siemens with the contract for the planning and implementation (supply – installation – basic customizing) of a central energy data management system (b.data).

b.data serves as a transparent source of information on consumption and operating values for the employees in the area of power and utilities supply, and it supports the following processes:

- Generation of a central energy database for recording, scheduling and budgeting of media supply and disposal (electricity, natural gas, water, waste water, etc.)

Energy Management

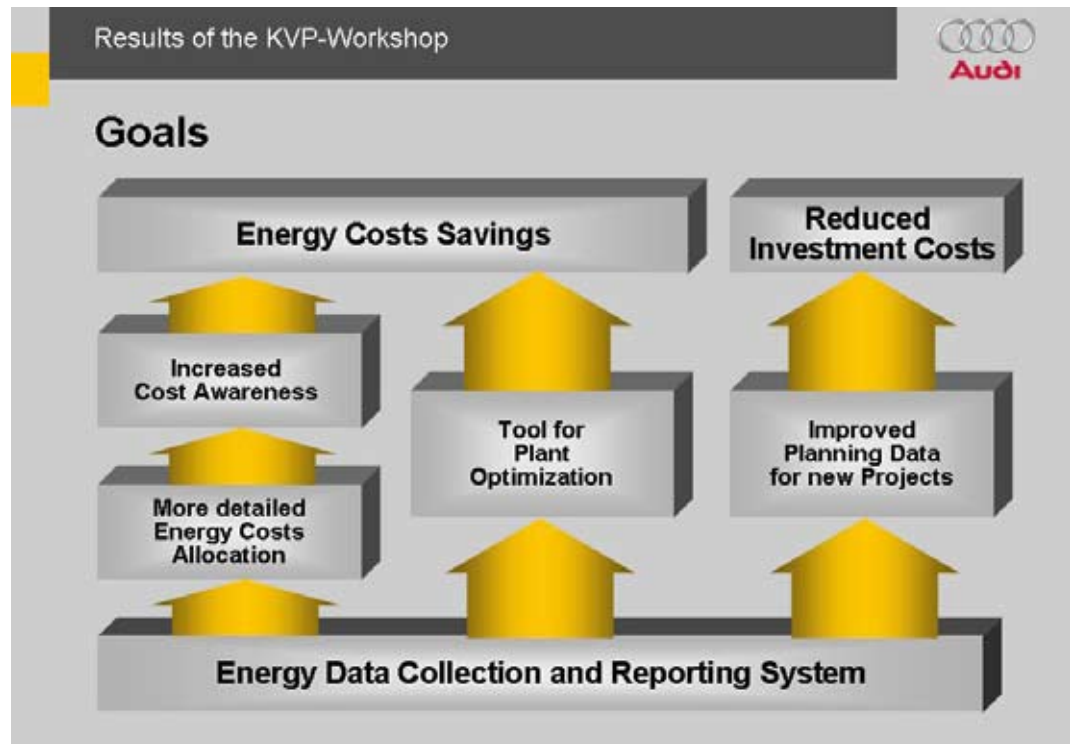
Answers for industry.

SIEMENS

- Energy balancing of consumption of the power production and distributing units and allocation to the cost units (technologies)
- Calculation of energy taxes and reimbursements as well as the concerns of the CO₂ emission monitoring
- Energy planning and controlling in order to derive saving potentials
- Automatic reporting for the distribution of reports and characteristic data

The main focus in this project lay both in the continuous data transfer from the existing building management system with subsequent plausibility check and correction possibility of the measurement and counter data, and in the balancing and allocation of the consumption data to the individual cost units.

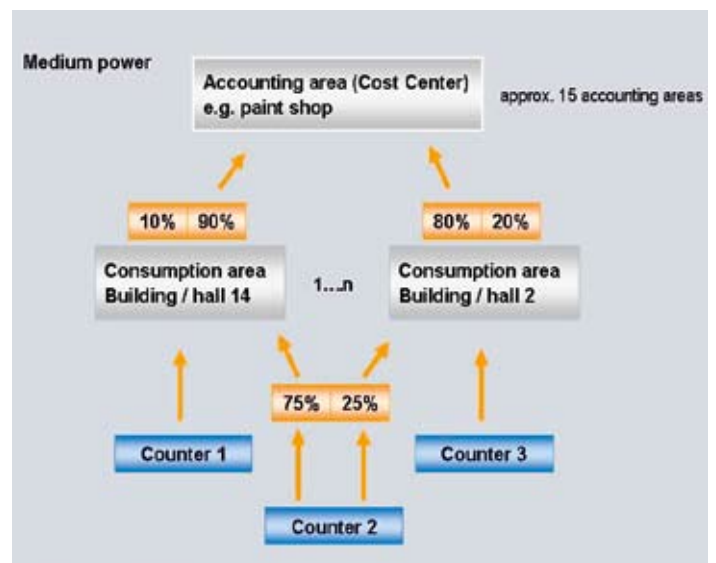
Due to the large plant structure, direct allocation to the cost units was not possible. At first the measured values had to be allocated to the respective bays (consumption areas) using allocation rates. In a further step, using additional allocation rates which arise from the area data and employee data, the over



Results from the CIP Workshop

100 consumption areas were allocated to the cost units (billing areas) relevant for the billing.

With the energy data management system b.data, the complex structures were mapped using standard functions. As a result of the clear representation of the billing logic, billing is made easy for users and is therefore easy to administrate.



Billing Logic

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