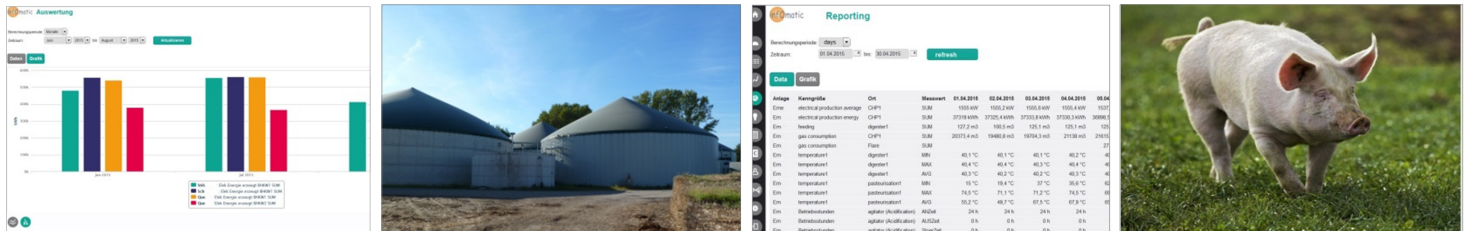
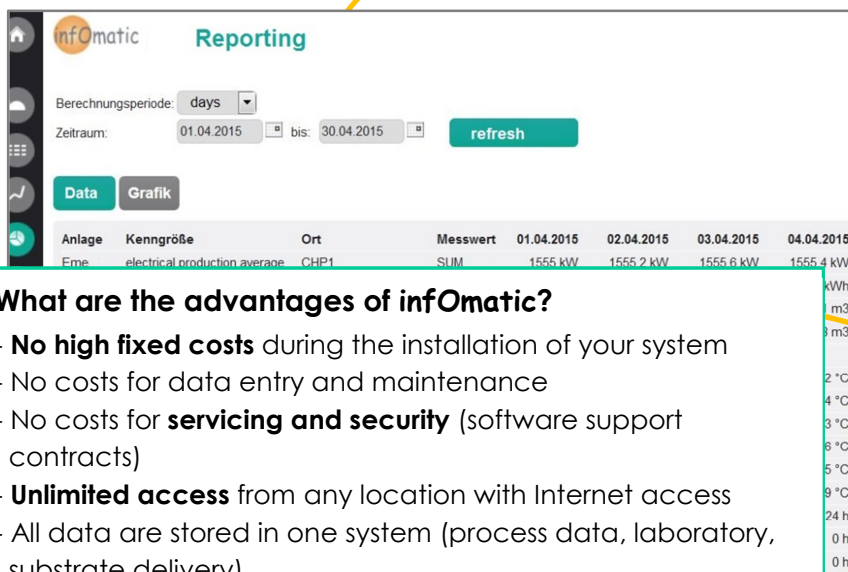


infOmatic offers you the full capabilities of a database system with an added information portal for a monthly flat rate of only a few pounds



How does infOmatic work?

All information sources, such as the biogas plant control room, analytical labs, etc., are in permanent contact with the control center. Therefore, all information needed for the operation of the biogas plant is stored in a central database structure. The databases receive all plant-specific information through modern lines of communication, based on classic connection media such as ISDN, analog, UMTS or DSL. **Authorized users receive the generated reports via e-mail or fax service** from the information portal. infOmatic generates **reports** that display the processed information from the databases in the form of **tables or diagrams**. A prerequisite for this is the archiving of data in a database. Besides tables and diagrams the reports also include suggestions **for an improved operating style** of the biogas plant.



What are the advantages of infOmatic?

- **No high fixed costs** during the installation of your system
- No costs for data entry and maintenance
- No costs for **servicing and security** (software support contracts)
- **Unlimited access** from any location with Internet access
- All data are stored in one system (process data, laboratory, substrate delivery)
- Biological consultation in **real time**
- **Lower costs** for biological consultation
- Retrieval of reports in real time
- **Automated generation of daily reports**
- Data analysis down to the ms level
- **No data loss** due to highest security level in data backup
- Comparison of biogas plants if an operator owns more than one
- Simple integration of **additional biogas plants**
- Lowered transportation costs
- Planning of maintenance intervals

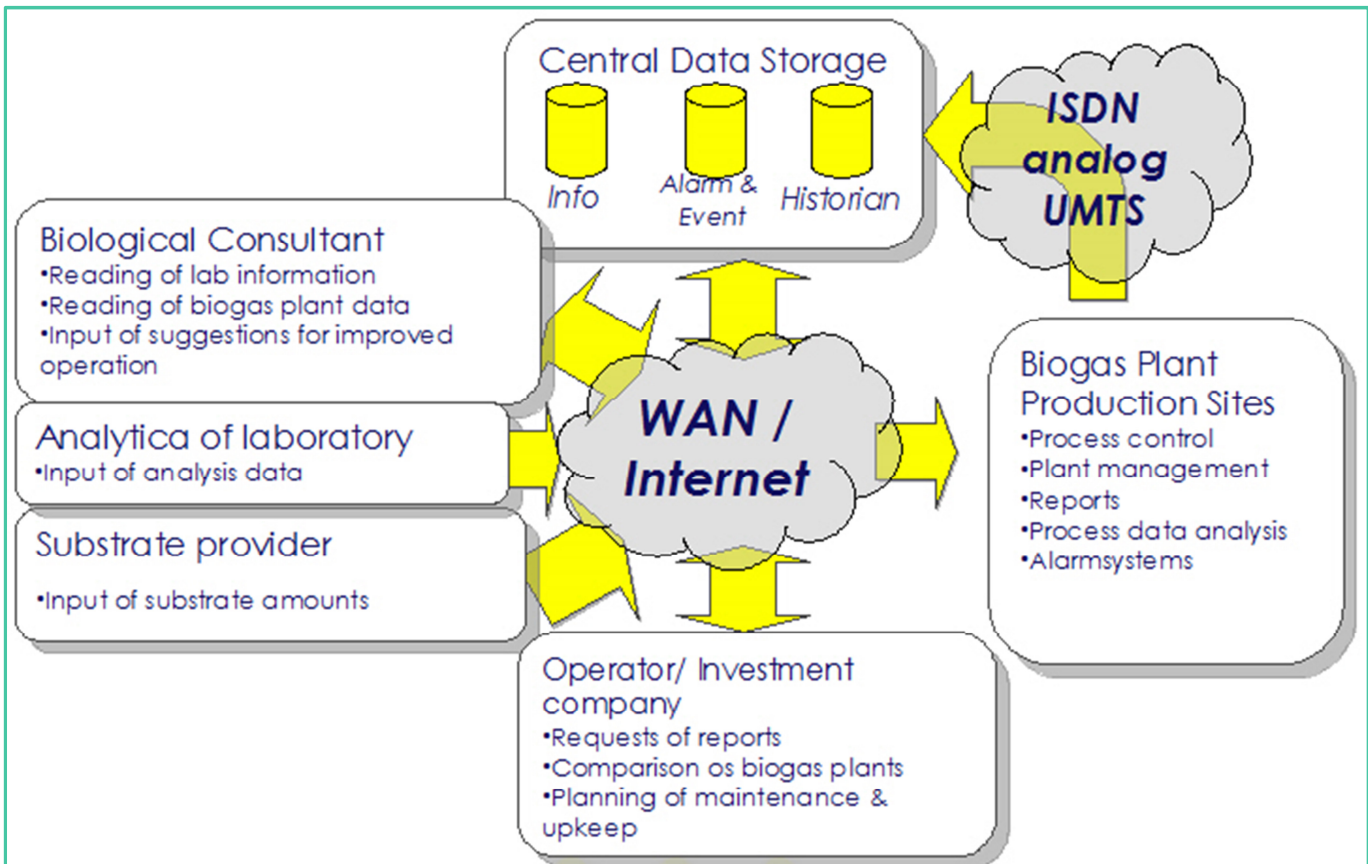
infOmatic keeps you posted about the state of your plant at all times:

- What is the consumption of energy in your facilities ?
- How much **electricity** did you generate?
- What is the **efficiency** level of your plant?
- How long are the **idle times** of your plant?
- What are the **operating hours** of your agitators? Are they due for maintenance?
- How did the **parameters** of my processes behave?
- How can I adjust the **operating style** of my plant?
- ...

Who can also participate in infOmatic?

Consultants and **analytical laboratories** may participate in infOmatic free of charge.

If the operator of a biogas plant employs a biological consultant, he may be given access to the system. This lowers your costs while at the same time increasing the reaction speed. The consultant can access plant data and lab analyses at all times without the use of tools such as PCAnywhere and can make timely suggestions for the adjustment of the operating style of your biogas plant. If the consultant wishes to integrate a biogas plant, we will make a timely offer for the setup expenses.



infOmatic offers the following functions:

- Information portal
- Generation of **customer-specific reports**
- Presentation of results in **tables**
- Graphic presentation of data (up to ms resolution)
- **Daily** and/or **weekly analyses**
- **Comparison of plants**
- Request of ad hoc reports in free configuration
- Accepts **manual input** (lab, substrate amounts)
- Current state of the installation
- Customer-specific surface
- Supports the implementation of **Energy Management**



technologie

The central building block of infOmatic is the threepart database structure.

Historical Database - file-based

- Storage of process data
- Smallest storage interval 100 ms
- High level of **data compression** Alarm & Event Database – SQL-based
- **Storage of alarms and events** Informational Database - SQL-based
- **Storage of anticyclic process data** (manual entries, lab data, consultation information...)
- **Storage of cyclic report data**

The information portal gives authorized users access to the reports. **The user can request pregenerated reports or generate individual reports.** He can also request **temporal trends and x-y-charts** on the basis of the historical database. The analytical values and consultant suggestions are entered directly into the system by the laboratories and consultants. **Every day** after midnight an E-mail server will send you an **automatically generated, customer-specific report.**

The screenshot shows the 'infOmatic Energiemanagement Report' interface. At the top, there are filters for 'Anlage: NEIS', 'Berechnungsperiode: Jahre', and 'Zeitraum: 2015'. Below these are buttons for 'Uebersicht', 'Strom', and 'Einsatzstoffe'. A pie chart titled 'Anteil Gesamtverbrauch' shows the distribution of energy carriers: Strom (6.72%), Maissilage, Luzerne, Schweinemist, and Grassilage. Below the chart is a table with the following data:

Jahr	Energieträger	Verbrauch	Anteil Gesamtverbrauch	Kostenanteil	Menge	Messsystem	Genauigkeit/Kalibrierung	Kosten	Gesamtkosten
2015	Strom	529,57 MWh	6,7 %	19.16 %	-	-	-	0.26 €/kWh	137690 €
2015	Grassilage	1001,02 MWh	12,7 %	14.22 %	1081 t	-	-	40 €/t	43240 €
2015	Luzerne	1564,96 MWh	19,8 %	16.68 %	1690 t	-	-	30 €/t	50700 €
2015	Maissilage	3595,21 MWh	45,6 %	22.59 %	3433 t	-	-	20 €/t	68660 €
2015	Schweinemist	1193,77 MWh	15,1 %	27.35 %	3326 t	-	-	25 €/t	83150 €
2015	Summe Rohstoffe	7354,96 MWh	93,3 %	80.84 %	9530 t	-	-	-	245750 €

At the bottom of the table, there are buttons for 'Als CSV exportieren', 'Kosten speichern', and 'Torten Diagramm'.

How secure is infOmatic?

The control center is located in a computer center with the **highest security requirements**, maintained **by specialists**. Our network and telephone connections as well meet standards that cannot be guaranteed by small individual companies. **Secure SSL encoding** protects your data from unauthorized use. You as the authorized user will receive a password that provides access to your personal biogas plant data.

The **communications manager** is a software unit that manages the temporary data connections with the biogas plants. A fixed time schedule insures the regular (at least once a day) setup of a connection to all biogas plants to synchronize the databases with the control center. At the same time, a limited number of **users can access the biogas plants in real time.**

What services does ORmatic offer you with infOmatic ?

- **Setup, maintenance and backup** of databases (including all updates and upgrades of the required software tools)
- Setup, maintenance and **extension** of the information portal (required license extensions)
- Adaptation of system performance to **number of users** (extension of the hardware platform)
- Adaptation of standard reports to **individual customer requirements** (optimized reports benefit all customers)
- **Daily delivery of reports** via e-mail (daily, weekly, monthly and annual reports)
- Installation of the **coupling inside the biogas plant** via the control system including the router
- **Optional services** (also available as a user flat fee)
- Installation of an **alarm system**
- Remote maintenance

What setup expenditures are needed?

The expenditures for your biogas plant depend on the **state of your plant's technology**. While the first biogas plants did not even have a control panel, in recent years all installations have been outfitted with **modern automatization** according to the latest industrial standard. We assume that, as a rule, process data can be exchanged via OPC (Open Control Process) between the existing visualization system and the databank collectors. For the initial setup of **infOmatic** it is necessary for a staff member of ORmatic or one of their trained partners to visit your biogas plant and to install the collectors and the LAN modem that are required for the integration into **infOmatic**. For biogas plants without visualization the customer might consider having ORmatic install a PC-based standard visualization as part of the **infOmatic** setup in his plant.

What does infOmatic cost?

You will pay a **one-time setup fee and a small monthly flat fee** for our **infOmatic** software. The financial advantage of our On Demand solution: our customers have a lower investment risk - you save on purchase and update costs and receive a custom-made package and the use of always up-to-date software versions. This allows a fast reaction to any changes within your plant's parameters. Moreover you can **reduce your costs for operation, maintenance, personnel and data backup**.

infOmatic quickly pays for itself, since you will not only **save** money, but **time as well**.

Contact us for an individual offer!