

# COMS

Commercial Operations Management System



# gasLUX

## gasLUX Framework

**GLS** Framework & GUI

Dashboards

Workflows

Doc Repo

Organizer

### Commercial processes [COMS]

**SMS** Management

**GCC** Communication

**BRS** Invoicing

### Technical processes [TIMS]

**EDS, TAMI, NF, PDMS** Information

**COS, PSOS, AGFS** Simulation

**SOE, CEP** Optimization

### vSMS Management & Optimization

The gasLUX product family is designed for customers active on gas market as gas storage operators (SSO) and/or as transmission system operators (TSO). The product family supports transparency, flexibility and availability along all commercial and technical processes with state of the art management, information, simulation and optimization features. Modular and usable gasLUX products cover wide range of areas from marketing, via commercial and technical operations with maintenance, up to invoicing of gas products.

gasLUX products are being developed in accordance with the major Green Deal trends. Flexible architecture of the solutions allows considering ongoing changes, including dynamic implementation of hydrogen-based technologies. The solutions developed within the gasLUX product family become a firm foundation for further development of IT-systems in the gas sector, such as the Logistics Management System (LMS) for supporting the LNG business.

### gasLUX main qualities



#### User-friendly

Modular structure providing flexible configuration. Access for every user to all functionalities via WWW interface. User configurable dashboards for data presentation.



#### Safe

Safety provided by system's architecture, advanced management solutions for users' authorisation.



#### Auditable

System records all important system's activities and users' actions in one Log.



#### Scalable

System's architecture allows the extension of system effectivity range (new users, data input, etc.).



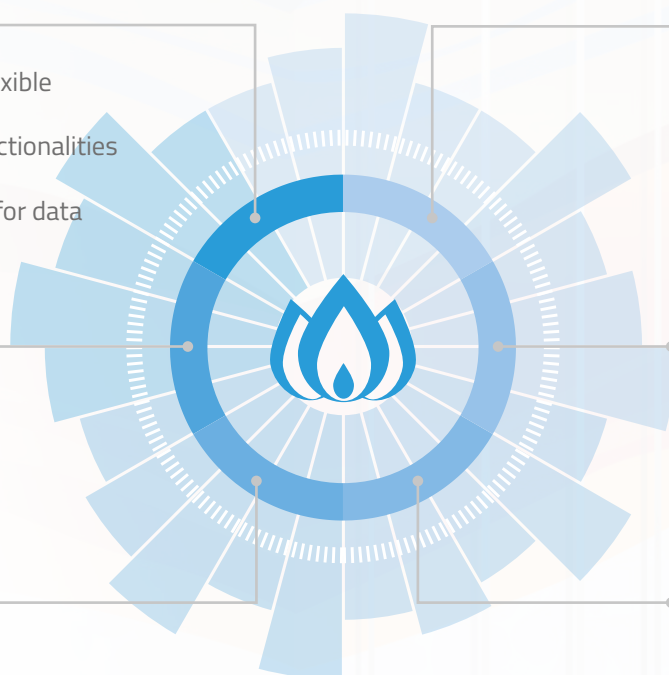
#### Flexible

Possible implementation of further functional enhancements in case of new needs from the users.



#### Always ready to use

Reliability of system results from utilized proven technologies.



## gasLUX framework functions



### Common and consistent web-based GUI for all gasLUX products

The gasLUX framework provides access to all functional modules within one web-based graphical user interface, accessible from the corporate network.

### Coherent user management

The gasLUX framework offers a unified mechanism of authorisation and management of users' access, with possibility to create and manage groups of users.

### User-configurable dashboards

Special module for visualizing results with fast access for all current and archival data, with visual comparison analysis of key performance indicators (KPIs). Easy individual set up for every user.

### Automatic workflows execution

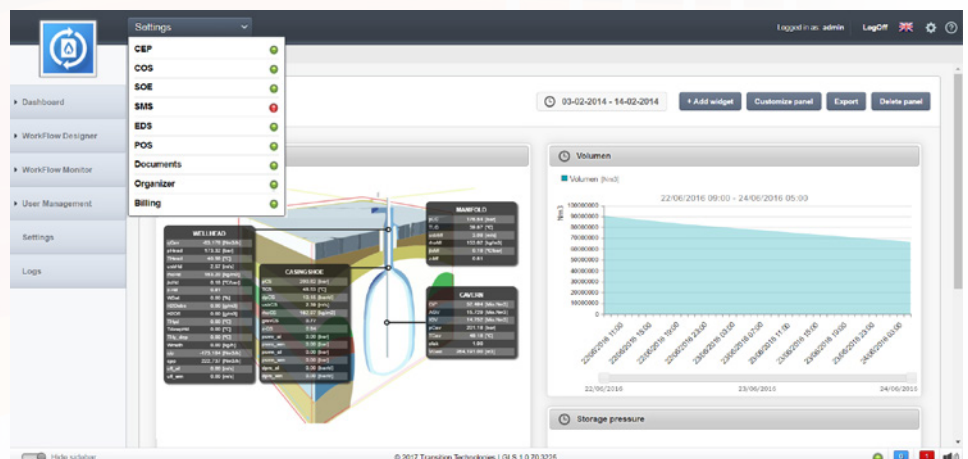
System allows to configure and execute automatically workflows between gasLUX modules, integrating their individual functionalities.

### Common documents repository

All important documents related to gas storage management e.g. system reports, contracts data as well as invoices are stored in a common documents repository accessible via GUI.

### Audit logs related to all modules

Fast audit of the operations performed by the system and its users.

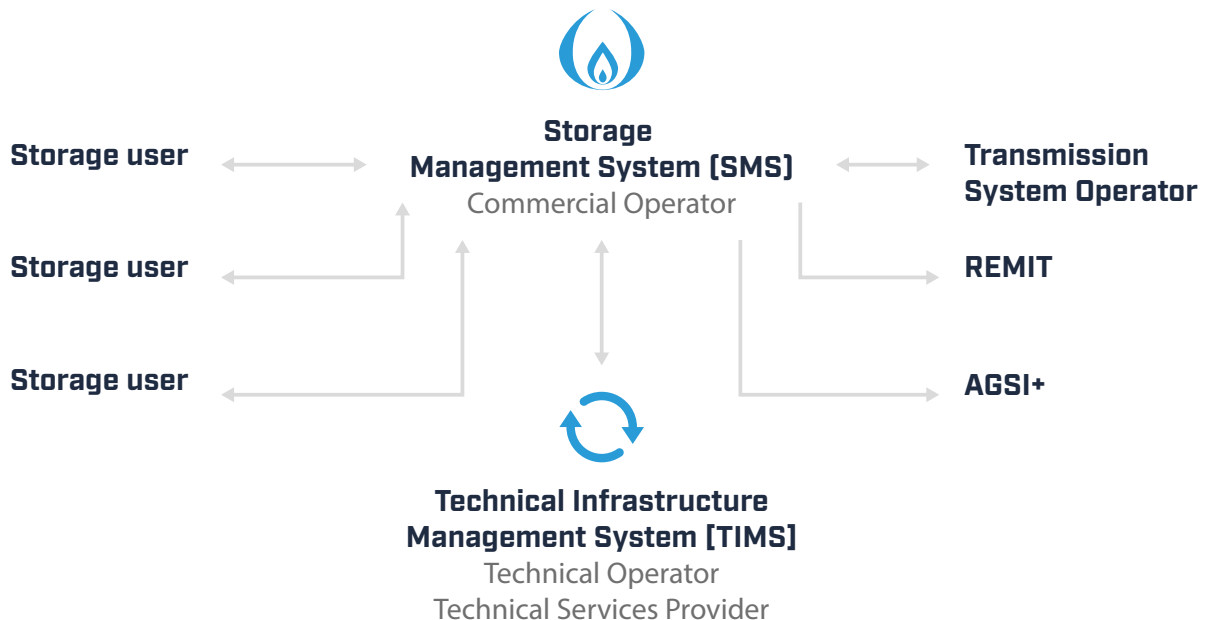


gasLUX screenshot

# Storage Management System (SMS)

SMS is a coherent multi-module system, dedicated for underground gas storage facilities operators. The system is a complex storage management centre, supporting key commercial management processes. Depending on number and type of gas storages, diversity of storage users, existing IT-environment, governmental and customer's requirements and standards, those processes can be adapted individually. The mainly supported processes include contract management, nominations execution, dispatching and stored gas balancing. According to customer's requirements anyhow, all communication channels between gas

storage market participants and the invoicing processes with storage users can be established. Processes are handled fully automatically, by using the workflows automation mechanisms available on the gasLUX platform. SMS has been developed for underground gas storage operators, but its functionalities support all key processes between all gas storage market participants, e.g. commercial operation, technical operation, gas storage shareholders, customers and all operators of gas transmission systems, the gas storage is connected to.



## Legal regulations compliance

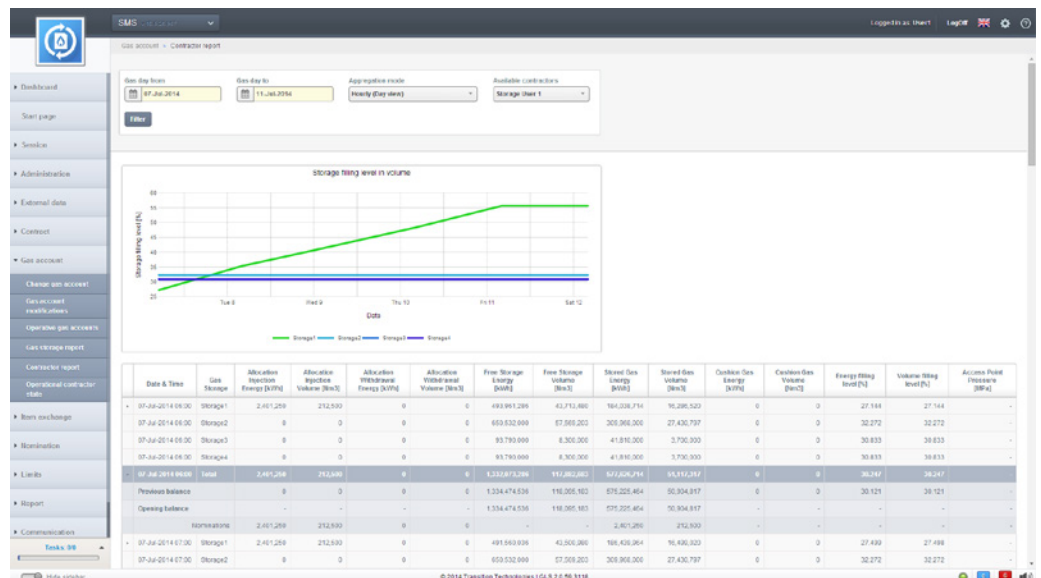
Storage Management System has been designed taking into account the regulations for the liberalized gas market contained in GGPSSO (Guidelines for Good TPA Practice for Storage System Operators) and Directive 2009/73/EU being part of the so-called Third Energy Package.

- **Transparency:** Provision of non-confidential data, including commercial terms and conditions, available services, tariffs, operational data (available and contracted storage capacity, aggregated flows, etc.) to all users on a non-discriminatory basis.
- **Confidentiality:** Highly protected, secure access to the storage users data. The flexible and reliable authorization model in gasLUX platform allows to meet the confidentiality requirements.
- **Cooperation with TSOs:** Support of data exchange processes between SSO and TSO within implemented procedures (nominations and renominations execution, matching with TSO, OBA account management) with utilization of Edig@s.
- **Non-discriminatory TPA:** Equal rights for all storage users to access the storage capacity and efficient fulfilment of their needs for long- and short-term contracts, bundled and unbundled products, firm and interruptible capacities.
- **Secondary market:** Support of storage capacity internal trading and associated transfer of storage capacity rights between storage users.

# SMS main modules



SMS  
screenshot

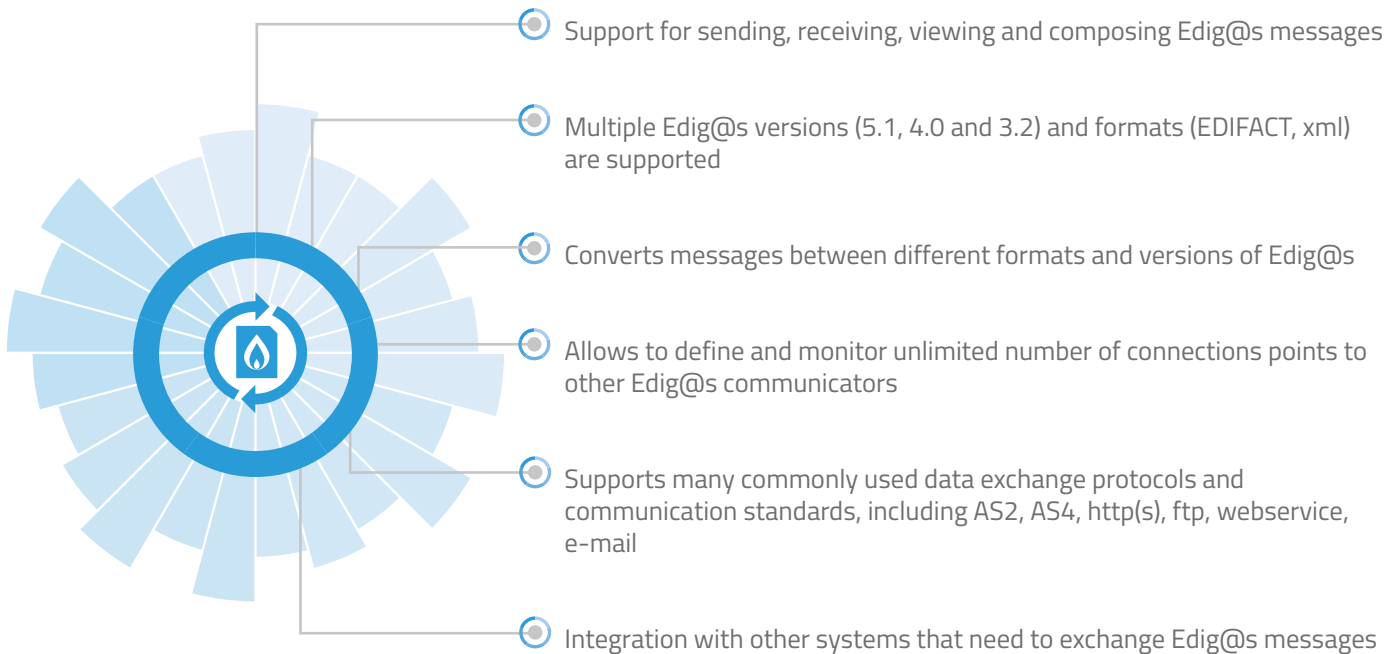


# Gas Communication Control (GCC)

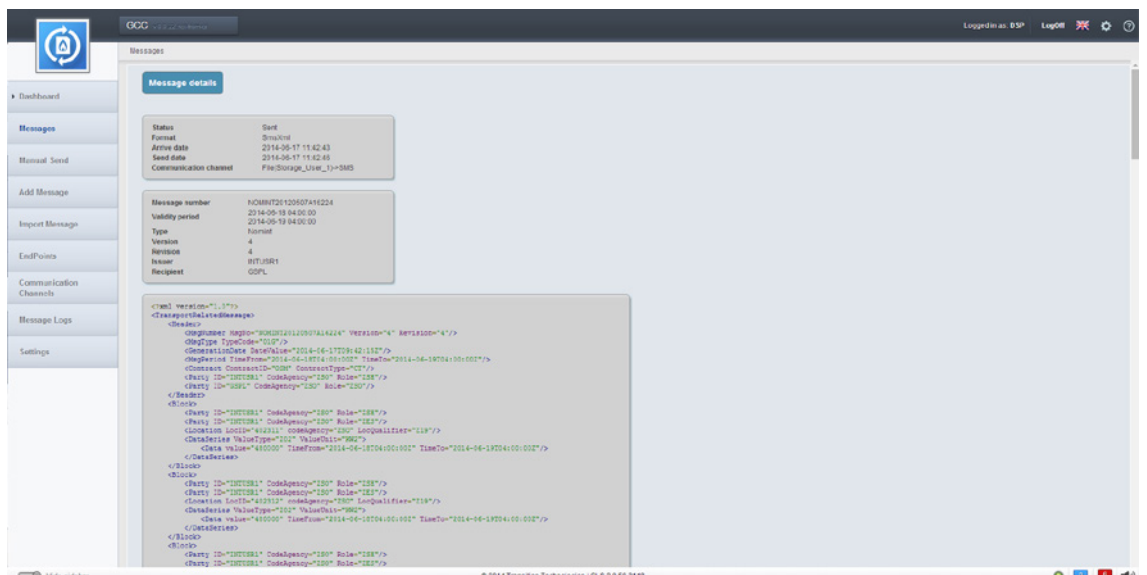
GCC is a user-friendly communication module, allowing easily to exchange Edig@s messages between all gas market participants. The module can be utilized separately or in a coexistence with other gasLUX modules, supporting management of gas storage and transmission processes.

Utilization of GCC allows to automate communication processes between parties – all participants in the gas market. Mechanisms of monitoring and archiving performed operations allow to trace and fully audit the communication processes.

## GCC features



GCC  
screenshot



The screenshot displays the GCC web interface. On the left is a navigation menu with options like Dashboard, Messages, Manual Send, Add Message, Import Message, EndPoints, Communication Channels, Message Logs, and Settings. The main area shows 'Message details' for a specific message. It includes a table with fields like Status, Format, Arive date, Send date, and Communication channel. Below this is another table with fields like Message number, Validity period, Type, Version, Revision, Issue, and Recipient. The bottom section shows the raw XML message content.

Field	Value
Status	Sent
Format	Simple
Arive date	2014-06-17 11:42:43
Send date	2014-06-17 11:42:43
Communication channel	FileStorage_User_1-5MS

Field	Value
Message number	NOBENT212050749224
Validity period	2014-06-19 04:00:00 2014-06-19 04:00:00
Type	Normal
Version	4
Revision	4
Issue	REVISION
Recipient	GOPL

```

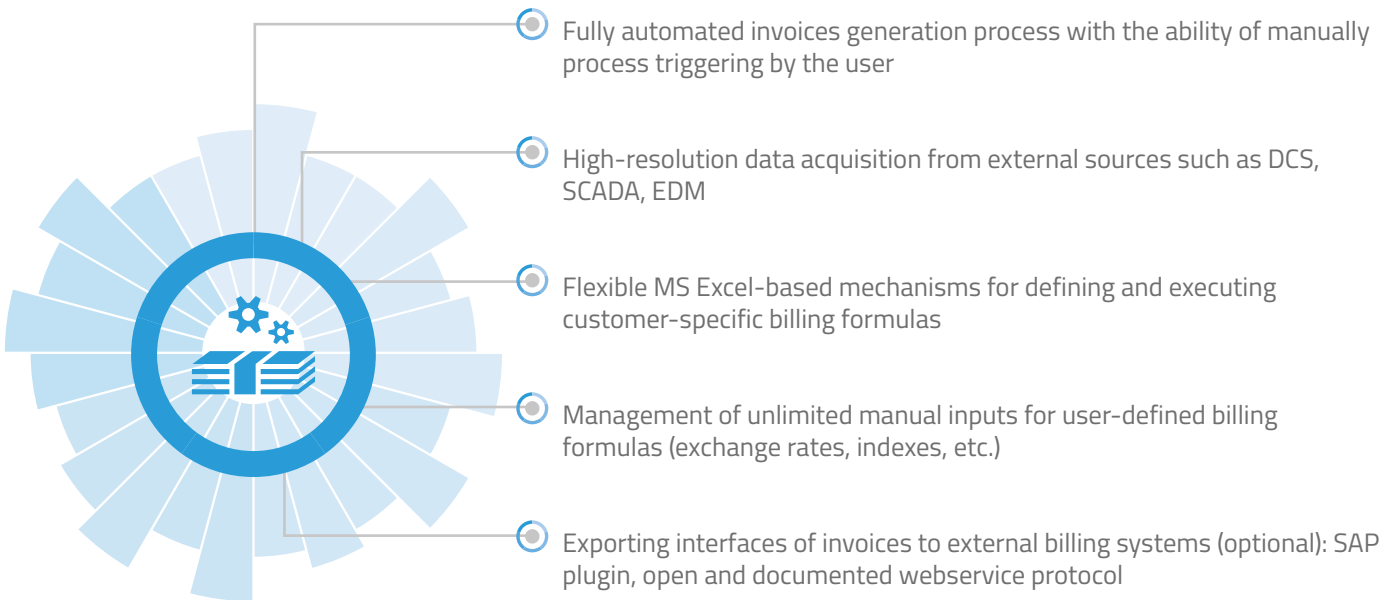
<?xml version="1.0"?>
<ExchangeEdig@sMessage>
  <Header>
    <MsgID> NOBENT212050749224 </MsgID>
    <MsgType TypeId="101"/>
    <GeneralData DateOfIssue="2014-06-17T09:42:13Z"/>
    <MsgVersion TimeFrom="2014-06-18T14:05:00Z" TimeTo="2014-06-18T04:05:00Z"/>
    <Contract ContractId="7000" ContractType="C1"/>
    <Party ID="1010881" CodeAgency="100" Role="ISS"/>
    <Party ID="1000" CodeAgency="100" Role="ISS"/>
  </Header>
  <Body>
    <Party ID="1010881" CodeAgency="100" Role="ISS"/>
    <Party ID="1010881" CodeAgency="100" Role="ISS"/>
    <Contract LocId="40231" ContractType="200" LocQualifier="119"/>
    <Contract ValueType="102" ValueOfIssue="900"/>
    <Data Value="401000" TimeFrom="2014-06-18T04:05:00Z" TimeTo="2014-06-18T04:05:00Z"/>
  </Body>
  <Footer>
    <Party ID="1010881" CodeAgency="100" Role="ISS"/>
    <Party ID="1010881" CodeAgency="100" Role="ISS"/>
    <Contract LocId="40231" ContractType="200" LocQualifier="119"/>
    <Contract ValueType="102" ValueOfIssue="900"/>
    <Data Value="401000" TimeFrom="2014-06-18T04:05:00Z" TimeTo="2014-06-18T04:05:00Z"/>
  </Footer>
  <Party ID="1010881" CodeAgency="100" Role="ISS"/>
  <Party ID="1010881" CodeAgency="100" Role="ISS"/>
</ExchangeEdig@sMessage>
  
```

# Billing Reporting System (BRS)

BRS is a flexible application that supports invoicing processes. The main task of the system is generation of invoices between contractors, based on contractual data, data from metering systems, automation systems, data entered manually or acquired from any other external system.

BRS is a proven solution implemented in various configurations and IT architectures for customers in the gas and power sector in Europe, Middle East and Latin America. The high degree of available customization of products, invoice templates and compositions makes this product easy to implement and to adapt in various industries.

## BRS features



**Billing** | Logged in as: admin | Log Off

Invoicing - Invoices

Generated from: [ ] Generated to: [ ] Period from: [ ] Period to: [ ]  
 Invoice template filter: [Select] Invoice Status: [Select] Contract filter: [Select] Filter

Display: 10

No.	Contractor	Invoice template	Generated on	Generated for	Invoice number	Sign date	Status	Details	Delete	Cancel	Export	Sign	Accept
1	Storage User 3	Gas Invoice	28-Aug-2014 09:03:50	01-Aug-2014 - 31-Aug-2014	5	03-Sep-2014 12:40:14	Signed						
2	Storage User 1	Gas Invoice	03-Sep-2014 12:32:12	01-Sep-2014 - 30-Sep-2014			Rejected						
3	Storage User 2	Gas Invoice	03-Sep-2014 12:32:28	01-Sep-2014 - 30-Sep-2014			Accepted						
4	Storage User 3	Gas Invoice	03-Sep-2014 12:32:45	01-Sep-2014 - 30-Sep-2014			Exported						
5	Storage User 4	Gas Invoice	03-Sep-2014 12:33:02	01-Sep-2014 - 30-Sep-2014			Accepted						
		Gas Invoice	03-Sep-2014 12:33:32	01-Sep-2014 - 30-Sep-2014			Accepted						
		Gas Invoice	03-Sep-2014 12:33:49	01-Sep-2014 - 30-Sep-2014	6	03-Sep-2014 12:41:03	Signed						
		Gas Invoice	03-Sep-2014 12:34:05	01-Sep-2014 - 30-Sep-2014			New						
9	Storage User 4	Gas Invoice	03-Sep-2014 12:34:22	01-Sep-2014 - 30-Sep-2014			Exported						

Application name: billing  
 Description:  
 Status: Finished-Success  
 Message:

Tasks: 2/2

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Since over 25 years we have been providing our customers with the highest world's level IT solutions based on the latest technologies.

Our services and products cover the following fields:

- Development and distribution of software for utility sectors
- Optimization of technological processes
- Electrical energy and gas trading
- Risk management
- Programming
- Engineering services
- Solutions to mobile technologies
- Research and development projects
- Software service outsourcing
- Software consulting

Our established technological leadership is an outcome of a long-term experience in advanced projects implementation and application of the most innovative solutions, which together have resulted in a number of competitive realizations adjusted to the customers' needs.

We believe that our employees are the key to our success. Our team consists of exceptionally educated young people – graduates of major Polish technical universities. Their knowledge and professional consultancy in application of delivered solutions determine the quality and innovation of our products. With offices located in ten Polish cities, in Germany and in United States our company maintains rapid and dynamic growth.

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