WE IMPROVE THE WORLD THROUGH ENGINEERING!
Assystem Technologies worldwide – At a glance.

- **Portofolio:**
  - Product Engineering
  - Consulting
  - In-Service Offerings

- **Turnover in 2017:** €700m
- **Employees:** >9,000
- **Countries:** 15

- **Our Value:**
  - Industry Expertise
  - Technical Expertise
  - Global Assystem Engineering Network

Industries: Automotive, Aerospace, Industry, Transportation
A strategic business expansion!

Assystem Technologies & SQS

€700m
TURNOVER IN 2017

>9,000
EMPLOYEES

15 COUNTRIES

PORTFOLIO:
• Product Engineering
• Consulting
• In-Service Offerings

Automotive
Aerospace
Industry
Transportation

€327m
TURNOVER IN 2016

>4,500
EMPLOYEES

20 COUNTRIES

• Management Consulting – Digitization
• Software Quality Management
• Software Test
• Training

Financial Services
Energy & Utilities
Automotive & Manufacturing
Telecom & Media

Retail & Logistics
Online Gaming
Public Sector
Healthcare & Pharma
The Assystem Group in Germany:

We are the competent partner for comprehensive engineering and consulting projects with global delivery capability.

We offer solutions as a development and production partner for power and safety-related electronics.

We offer high-quality lighting technology for application areas in the automotive industry.

ASSYSTEM in Germany: A LARGE PORTFOLIO WITH CUSTOMER FOCUS

€100m TURNOVER IN 2017

13 SITES

> 1.100 EMPLOYEES IN GERMANY
Expertise in the top trends of the target industries

- E-Mobility
- Service Centres (Diagnostics, Testing ...)
- Advanced Driver Assistance Systems
- Infotainment, Connectivity & Instrumentation
- ECU Development
- Industry 4.0 / Factory of the Future

ASSYSTEM GERMANY
Our history

- 1979: Foundation of Assystem in Germany
- 1997: Foundation of Berner & Mattner
- 1998: MTU Aero Engines founders ATENA Engineering
- 2004: Assystem takes over ATENA Engineering
- 2005: Berner & Mattner becomes a subsidiary of the Assystem Group
- 2008: ATENA Engineering merges with Silver Software
  - Establishment of Silver Atena
- 2011: Silver Atena becomes 100% part of the Assystem Group
- 2012: Merger of Assystem and Berner & Mattner to Assystem Germany GmbH
- 2015: Acquisition of SQS
- 2017: Opening of the test house for HiL test benches in Stuttgart
- 2018: Acquisition of Automotive Solutions Germany (ASG)
ASSYSTEM GERMANY

The profile of Assystem Germany

Assystem Germany

>800 EMPLOYEES

13 SITES

• System- & Software Development
• Mechanical Engineering & Manufacturing Support
• Test Tools & Test Facilities
• Bestshoring-Solutions

ASSYSTEM GERMANY
We develop systems and software for the leading OEMs and Tier1s - from idea to series production. In addition, we offer optimization solutions for manufacturing processes, mechanical engineering and project engineering.

As an outsourcing partner, we realize projects efficiently and on our own responsibility and drive innovations forward. We are your reliable partner worldwide in your area.
Assystem System- & Software development

Assystem is an expert for the development and the test of Embedded Systems & Software.

Our services:

• Software solutions from requirement analysis to release
• Consulting to turn key solutions
• Software test
• Quality management

What makes us different:

• Many years of domain experience
• Innovative software development
• Agile and classic development processes
• Comprehensive tool chain
Assystem has many years of experience in the area of mechanical engineering and consulting for the optimization of production processes.

**Our services:**
- Conception, development and detailing of primary and secondary structural assemblies
- Safety- and reliability analysis
- MTM / Time Calculation
- Industrial Process Design
- Quality Management
- Supply Chain Management

**What makes us different:**
- Design, planning and optimization of processes throughout the whole supply chain
- Experience in the processes of Aero customers
- E2S Certification at Airbus (A-Level Supplier)
- ME3S certification at Airbus (strategic service partnership)
**Assystem project examples**

### Technical Know-How and industry expertise

<table>
<thead>
<tr>
<th>Infotainment-Receiver-Audio-Module of the next generation</th>
<th>Module management for the complete interior &amp; connectivity</th>
<th>Functional Safety for highly automatic driving</th>
<th>Connectivity &amp; Entertainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deployment and coaching of the MES (Manufacturing Execution System) for Airbus (digitization of the Airbus Operating System for production)</td>
<td></td>
<td>LR ESI: Integration of new electrical systems in A330-Long Range</td>
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<tr>
<td>OPC/UA Smart Data-Management for material processing systems</td>
<td></td>
<td>HMI development for leading manufacturers of printing machines</td>
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<td>EULYNX: Harmonization of signal infrastructure in Europe</td>
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Assystem competence in quality assurance and testing

Products and services for quality assurance of Embedded Systems

- **Products:**
  - Variant management and traceability
  - Modelling and simulation
  - Test design
  - Virtual protection, MiL, SiL and HiL
- **Process evaluation and improvement, software-quality assurance**

The Assystem test house as an interesting outsourcing concept

- **Tests of all electronic systems from the airbag to the exhaust**
- **Complete service provider for completely outsourced hardware-in-the-loop testing**
- **Provision of test infrastructure and services**
- **Synchronization with the development lifecycle of the customer**
- **Billing by service catalog - "Pay-per-Function“**
- **Best-cost approach through back-office support from the Engineering Center Romania**
Assystem Best-Shoring

Engineering optimally balanced

Best-Shoring with the Assystem Network means combining international skills intelligently to balance the flexibility, capacity and costs of large projects. Our nearshore platform in Romania and the offshore platform in India offer the best conditions for this.

YOUR ADVANTAGES:
- High scalability & flexibility
- Global expertise & resources
- Targeted ramp-up & systematic training
- Local project management and interface
- Certification (EN ISO 9001, EN 9100, ISO 27001, ISO 14001, etc.)
The profile of Silver Atena

<table>
<thead>
<tr>
<th>SILVER ATENA</th>
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<tbody>
<tr>
<td>&gt;300 EMPLOYEES</td>
<td>• ECU- &amp; component development</td>
<td></td>
</tr>
<tr>
<td>4 SITES</td>
<td>• Independent and efficient development of safety-related devices and power electronics</td>
<td></td>
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<td></td>
<td>• Delivery of prototypes and small series</td>
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</table>

Silver Atena offers comprehensive solutions as a development partner and supplier for prototypes and small series in the area of safety-relevant systems and power electronics.
Silver Atena: a modular portfolio for all industry areas

- Development partner for complete ECUs & components
- Delivery of prototypes and small series
- Complete and efficient development of safety-related electronics and power electronics

We offer both synergies and know-how transfer.

<table>
<thead>
<tr>
<th>Engineering &amp; Consulting</th>
<th>ECU-development &amp; series delivery</th>
<th>Test systems &amp; Tools</th>
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</thead>
<tbody>
<tr>
<td>In-house &amp; On-site</td>
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</table>

Complete product and device development as well as all corresponding development services.
## Silver Atena product examples

### Examples of product development

<table>
<thead>
<tr>
<th>Chassis</th>
<th>Body</th>
<th>Power Train</th>
<th>Aero</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear axle steering</td>
<td>Roll stabilizer</td>
<td>Steering pump</td>
<td>Slat /A350</td>
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<tr>
<td></td>
<td>Motorbike damper</td>
<td>Active suspension control</td>
<td>V 12 Diesel ECU</td>
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<tr>
<td></td>
<td></td>
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<td>Slew ring drive</td>
</tr>
</tbody>
</table>

**Power Train** examples:
- DC/DC
- KERS
- Starter/Generator
- Driveline Disconnect
- High speed motor

**Aero** examples:
- Flight Control Computer
- Jet Engine Control
The profile of the Automotive Solutions Germany

<table>
<thead>
<tr>
<th>Automotive Solutions Germany</th>
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</thead>
<tbody>
<tr>
<td>40 EMPLOYEES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 SITE</td>
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</tbody>
</table>

- Engineering and project management
- Prototyping, from single production to series production
- Design / CAS-Modeling

The Assystem subsidiary ASG is an expert in the development of modern vehicle lighting systems.

Whether expressive LED spotlights or ambient lighting in the interior, we support customers in the design of brand-specific lighting solutions with high design competence.
Automotive Solutions Germany: The lighting competence

STYLING & MODELING

• Common concept definition
• Integration of technology
• Styling & Design of Models

DESIGN & ENGINEERING

• Design
• Light simulation
• Thermic simulation
• Electronic development
• Tier1-Management

TESTING & VALIDATION

• Test
• Analyse
• Validation

PROTOTYPING & SMALL SERIES

• Prototyping
• Small series production

TURNING CONCEPT INTO REALITY!
SITES AND CERTIFICATIONS
Sites in Germany

Examples for customer proximity

- Hamburg
- Bremen
- München
- Berlin
- Stuttgart
- Donauwörth
- Köln
- Frankfurt a.M.
- Nürnberg
- Regensburg
- Ingolstadt
- München
- Stade
- Stade
- Wolfsburg
- Wolfsburg
- Stade
- Stade
Awards in Recruiting

Awards as TOP and OPEN Company for Silver Atena and Assystem

kununu is currently the largest employer rating platform in Europe with approximately 2 million reviews of 500,000 companies.

Only 3.8% of kununu rated companies qualified for the "TOP COMPANY" seal!

The seal of quality stands for the fact that companies are well rated and also recommended.

Only 1% of kununu rated companies have qualified for the "OPEN COMPANY" seal!

The seal of quality stands for critical discussion and communication on equal terms with employees and applicants.
Certifications

Excerpt of certifications:

- EN ISO 9001  →  Automotive
- EN 9100    →  Aviation, Space and Defence
- EN ISO 27001 →  Information Security
- ISO 14001  →  Environment Management
LET'S DESIGN THE FUTURE TOGETHER!