

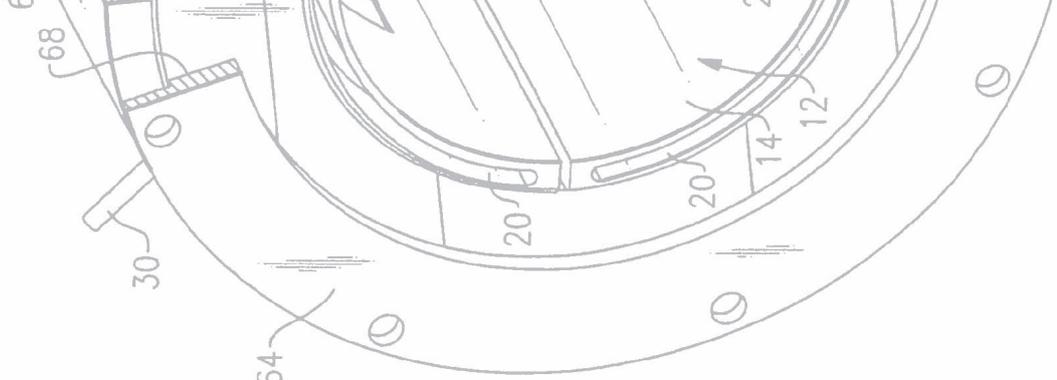
# Development and Testing of Embedded Systems



**Reduce time-to-market with embedded systems expertise across the development and testing cycle**

Creative application of embedded systems has enabled manufacturers to unlock the true potential of their product portfolios. But, customers and governments want more. To stay relevant, you must address their insatiable appetite for value (and compliance) by launching innovative, feature-rich products – fast and at a reduced total cost.

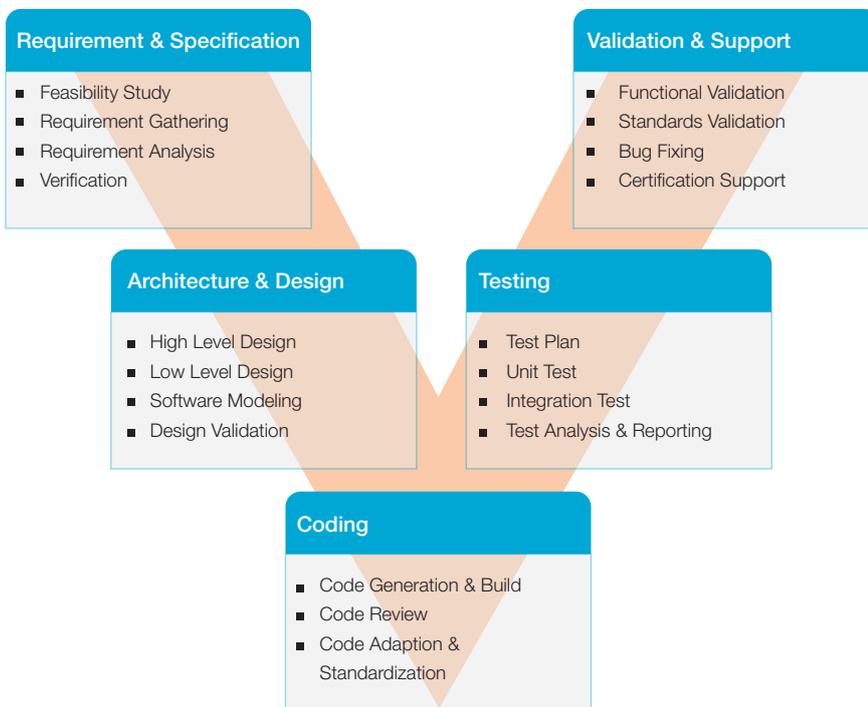
By improving the efficiency of development and testing cycles of embedded systems, the Capgemini Group can help you reduce time-to-market, rationalize resource allocation and reduce total costs.



## Development and Testing of Embedded Systems (DTES)

DTES is an industrialized approach to development and testing of embedded systems, covering the entire cycle from requirements gathering to validation and support. It is one part of Capgemini Group's Global Engineering Services portfolio – a strategic offer bringing together a range of services from design to PLM, including testing, to help firms reduce time-to-market, improve quality and increase competitiveness of their products.

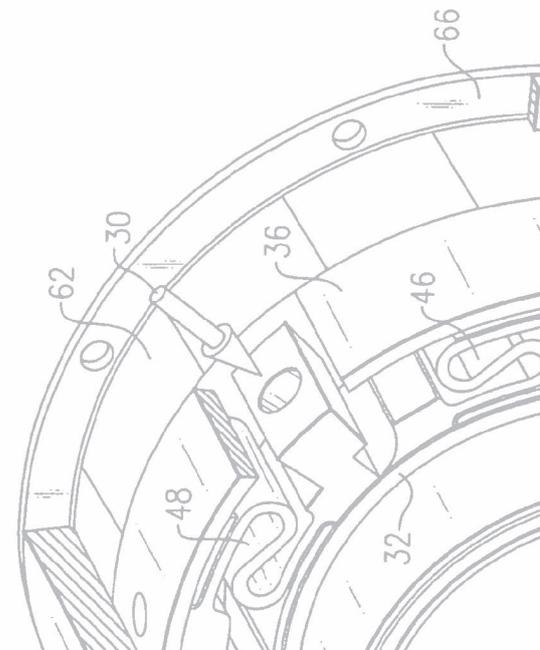
Figure 1.



With more than 12,000 testing experts, Capgemini Group is a global leader in Testing services. We use a proprietary methodology called TMap® to ensure comprehensible, manageable and adaptive test processes. Your engagement also benefits from Test Automation and Knowledge Tools (TAKT) Engine, our proprietary automation solution for customizable, non-intrusive testing.

### TMap® Highlights

- Comprehensible, manageable and adaptive test processes
- 'No-Risk-No-Test' as a leading principle
- Determination of (product) risks and their classification based on related goals
- Involvement of principal stakeholders in decision making throughout the testing lifecycle
- Prevent and find defects at an early stage
- Reusable test products



## TAKT Engine: Highlights

- Nonintrusive and fully customizable testing solution
- Heterogeneous system compliant (OS agnostic)
- Interface with existing test setup or environment
- Doubles test productivity, reduces the time-to-market



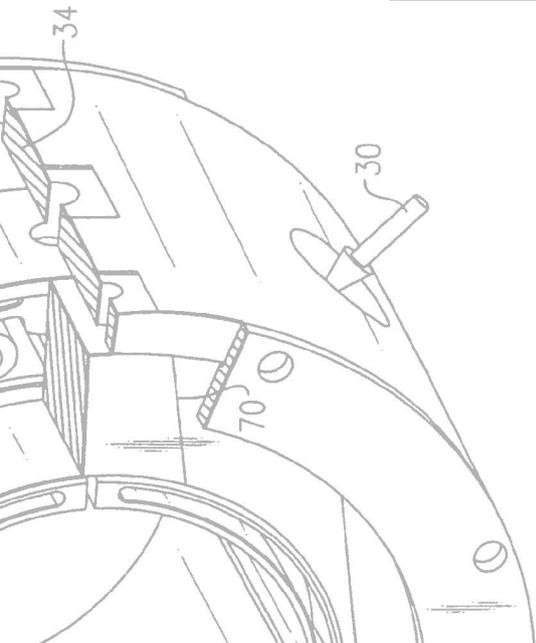
### Differentiators:

- End-to-end solution for the complete 'V-Cycle' (Figure 1)
- Embedded systems expertise in several sectors: Transportation, Industrial Products and Energy
- TAKT® automation of the non-regression tests, recordings analysis, and reporting
- Industrialized development and testing processes delivered through Rightshore® – a proven global delivery mechanism that ensures right people at the right place at a competitive cost
- Flexibility: Ramp up and scale down resource allocations to meet your development and testing priorities



### Value Proposition:

- Rationalizing talent bandwidth across the V-Cycle
- Speed to market: TAKT engine allows a templated approach to testing, dramatically reducing time-to-market

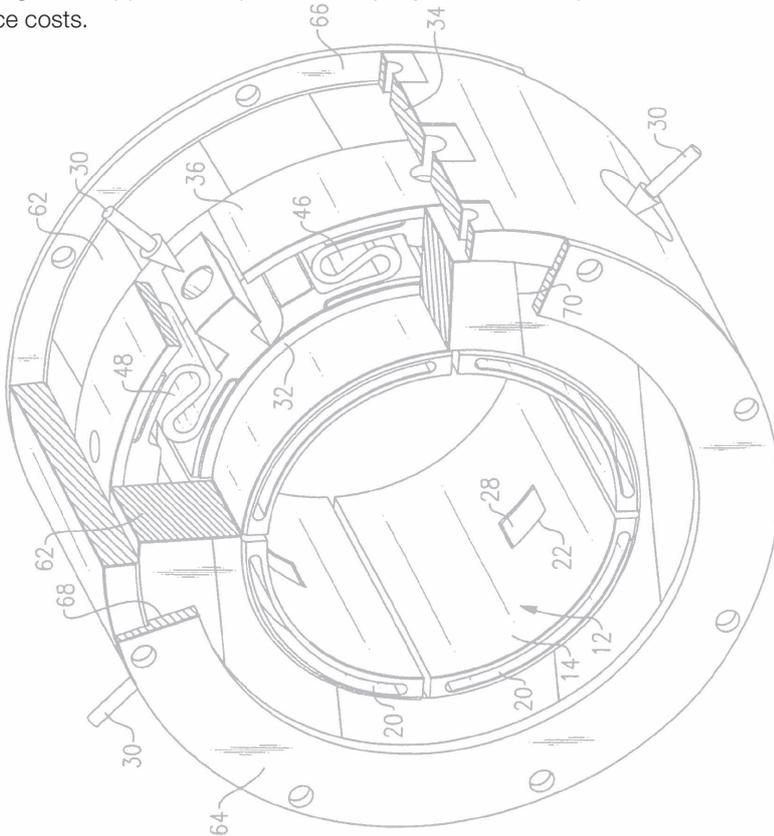


## Proven Capability: Global leader in Energy and Transportation sector reduces time-to-market with shorter embedded testing cycles

A manufacturer with global presence in power generation, transmission and transportation sectors was seeking a solution to combat:

- Long embedded systems testing cycles
- Varying and intermittent workload

Capgemini Group's Embedded Testing Factory helped the company achieve quicker turnaround times by deploying a robust planning, implementation, execution and reporting framework. The framework also enabled business test cases automation, component reuse and establishment of recovery procedures. With proprietary and templated methodologies and tools such as TMap, TPI and TAKT, we helped the manufacturer schedule automated tests and identify new tests for increased coverage. The approach helped the company accelerate its products to market and reduce costs.



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### About Capgemini and Sogeti

With more than 130,000 people in 44 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2012 global revenues of EUR 10.3 billion. Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™ and draws on Rightshore®, its worldwide delivery model.

Sogeti is a leading provider of technology and software testing, specializing in Application, Infrastructure and Engineering Services. Sogeti offers cutting-edge solutions around Testing, Business Intelligence & Analytics, Mobile, Cloud and Cyber Security. Sogeti brings together more than 20,000 professionals in 15 countries and has a strong local presence in over 100 locations in Europe, USA and India. Sogeti is a wholly-owned subsidiary of Cap Gemini S.A., listed on the Paris Stock Exchange.

Global Engineering Services is a strategic offer from the Group, bringing together a range of services from Design to Product Lifecycle Management, including Testing, to help firms to reduce their time to market, improve the quality of their products, and increase their competitiveness.

For more information, please visit:

[www.capgemini.com/ges](http://www.capgemini.com/ges)

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