

Experience report: software quality assurance for vehicle programming

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automotive
testing expo 2010
europe Hall 1 Stand 1145



Agenda

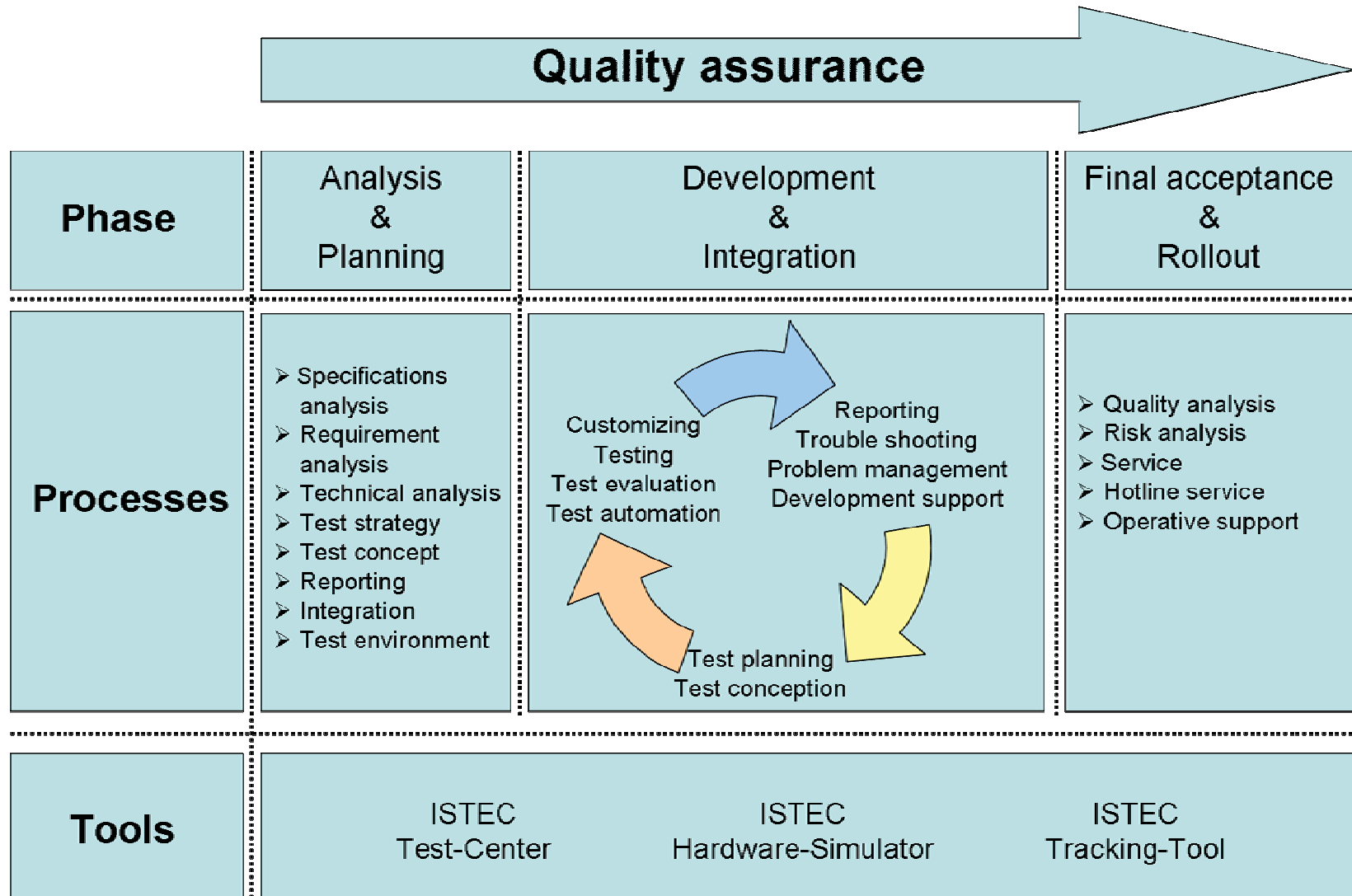
1. ISTEK company profile
2. Software Quality Assurance – Our services
3. Customer scenario
4. Customer requirements
5. Customer solution - Test strategy
6. Customer solution - Test automation
7. Customer solution - Vehicle simulation
8. Conclusion
9. Questions

1. ISTEK Company Profile

- Independent software and system house
- Since 1982 successful on market
- 60 regular employees
- Development of customer specific solutions
from the identification of problems up to the system installation
- Offices at Ettlingen (Karlsruhe) and Leinfelden (Stuttgart)

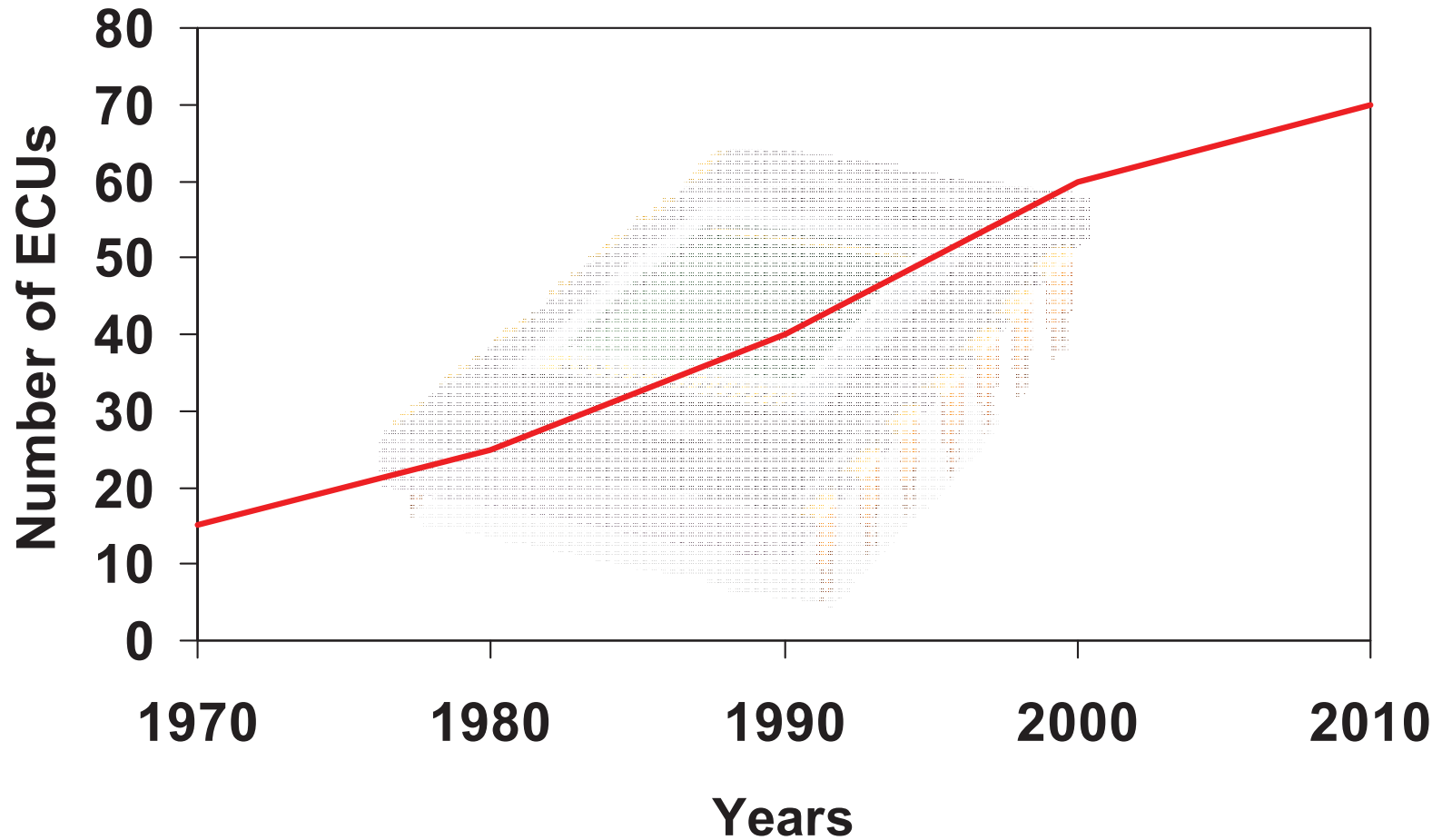


2. Software Quality Assurance – Our services



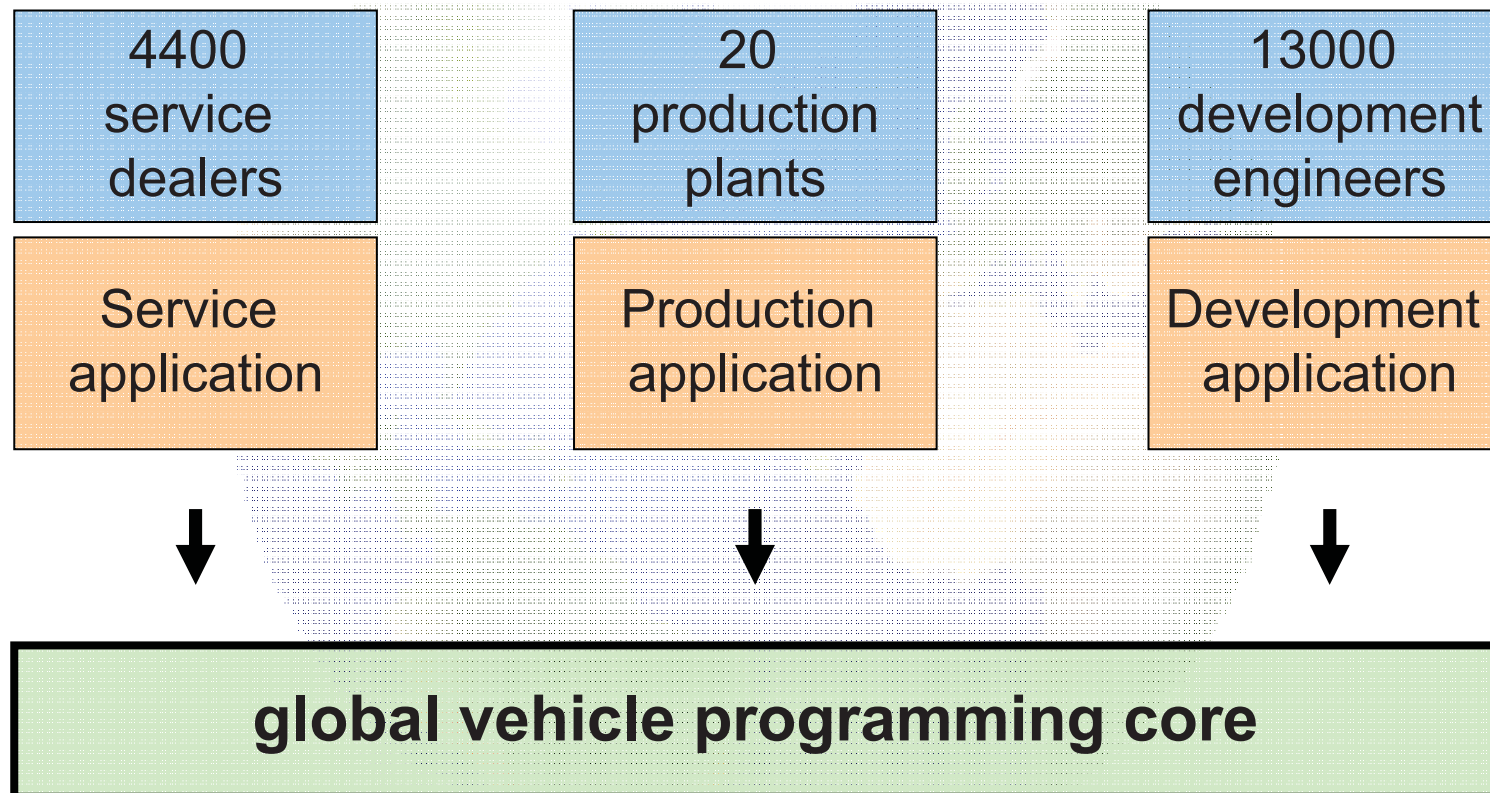
3. Customer scenario

Raising number of electronic devices in passenger cars



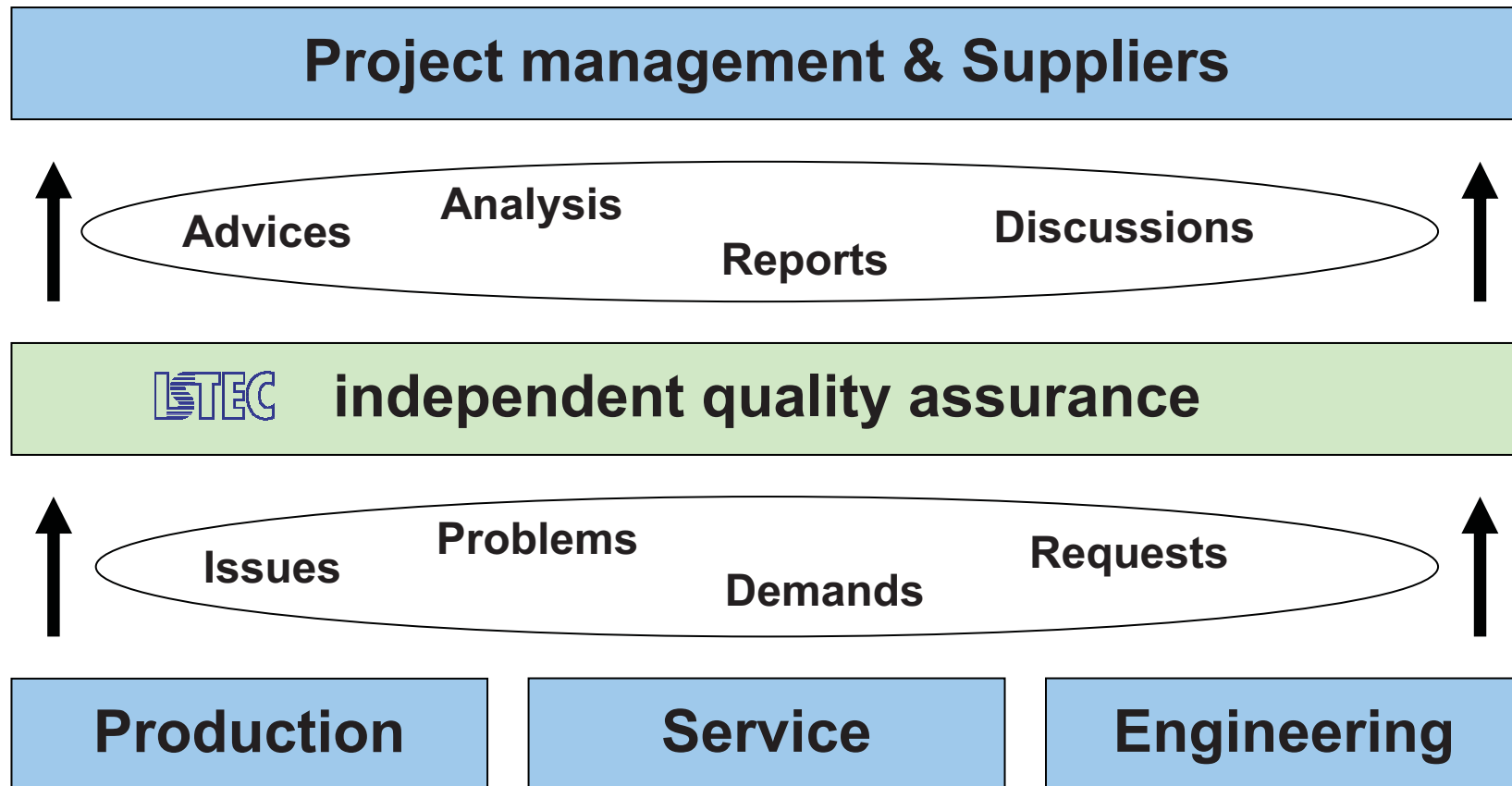
3. Customer scenario

Vehicle programming becomes a global dimension



4. Customer requirements

Central quality assurance over the whole development process



5. Customer solution – Test strategy

Reasons for using test automation & regression testing (Using ISTEC Test-Center)

- Frequent scheduled releases
- Highly complex use cases
- High demands on software quality
- Huge failure costs
- Short response time on issues

5. Customer solution – Test strategy

Reasons for using hardware simulation (Using ISTECH Hardware-Simulator)

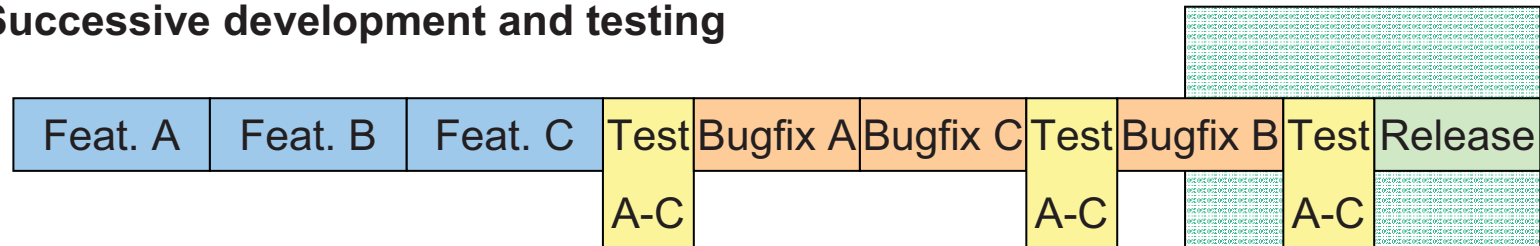
- Highly hardware dependend test scenarios
- Lack of test hardware
- Incomplete ECU test networks
- Issue analysis requires the reconstruction of specific error scenarios

6. Customer solution – Test automation

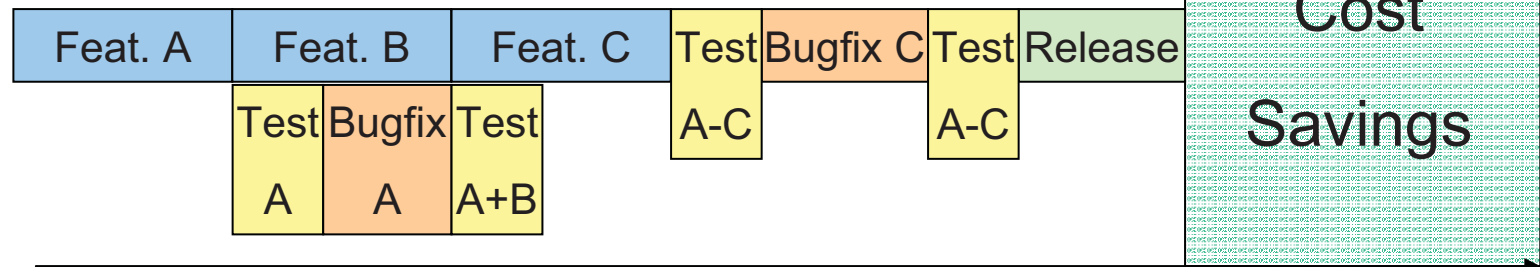


Building and running automated tests at an early state

Successive development and testing



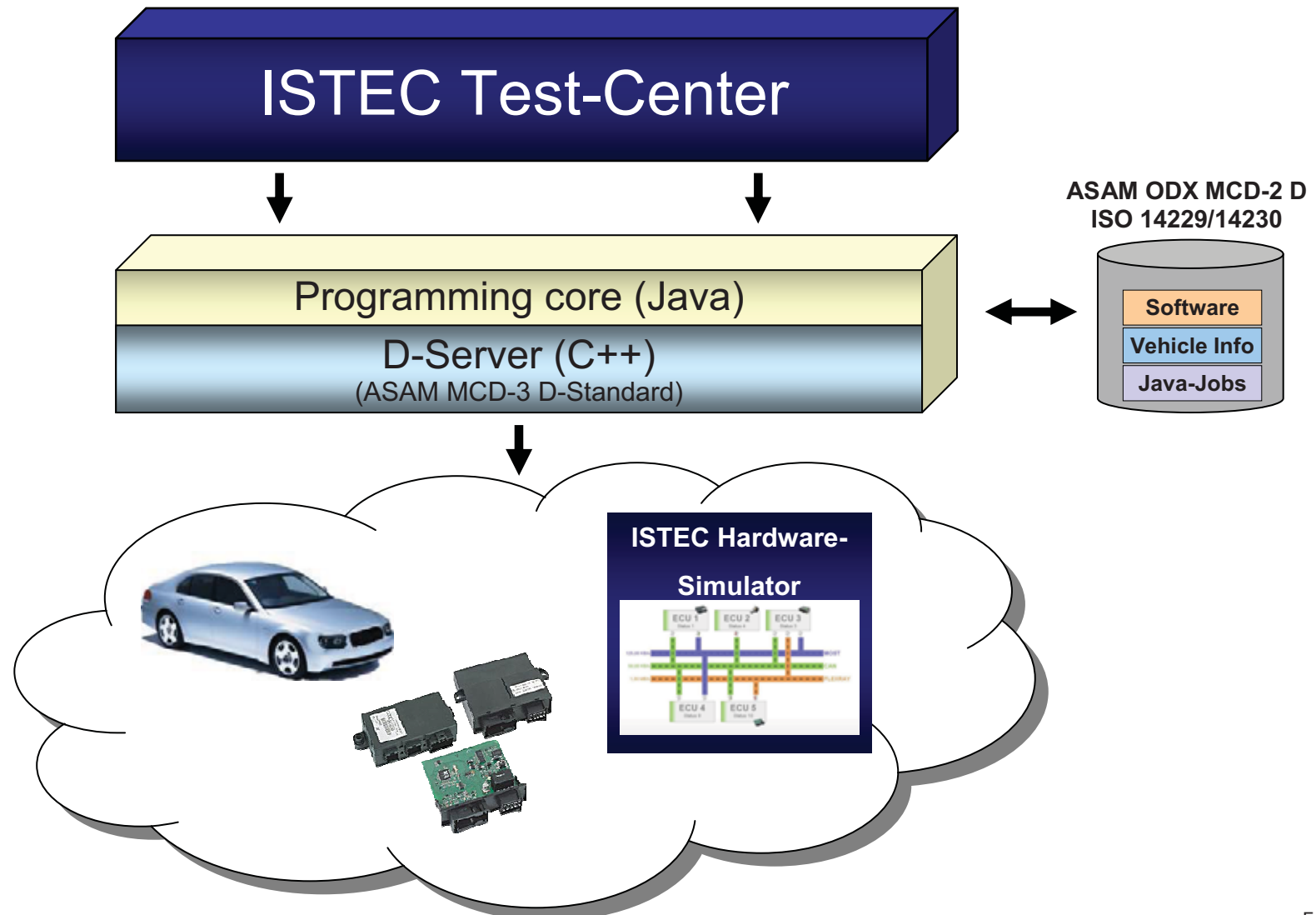
Parallel development and testing



Time
+
Cost Savings

7. Customer solution – Vehicle simulation

Technology and test environment



8. Conclusion

Savings & benefits we experienced with this project

Test hardware

- Up to 60% savings on hardware costs

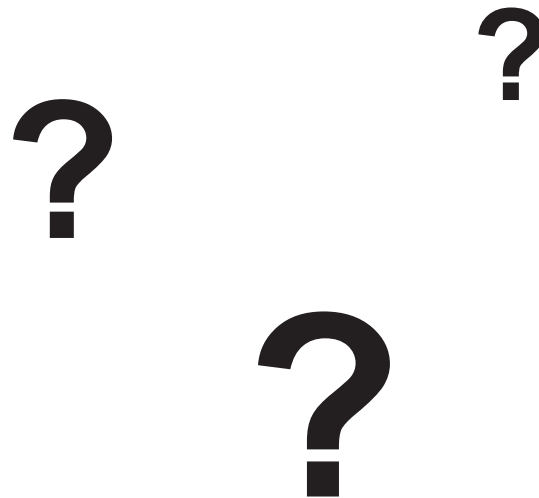
Testing effort

- Up to 40% savings on test capacity

Development time

- Up to 20% shorter release cycles

9. Questions



Contact

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