



# Why Automotive SPICE?

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# + 12 years after ASPICE beginning



- ASPICE first publication August 2005
- First presentation in Munich June 2006
- Second in Goteborg September 2006

Sponsor car makers: FIAT, VW, BMW, Porsche, Audi, Mercedes

«No SPICE No BUSINESS!»



#### **Basic Questions**



- Why ASPICE should be adopted?
- Is ASPICE reducing defects?
- Is ASPICE reducing development time and costs?
- Is ASPICE reducing maintanance costs?



## **Intecs Survey**



- Intecs has conducted a survey on Italian Automotive companies and experts to reply objectively to the previous questions.
- 10 Automotive Companies and 7 experts responded
- Informal and anonymous interviews



## Why ASPICE?



- Required by an OEM
- Internal improvement action (best practices)
- Gain in commercial reputation
- Reduce project risks
- Improve software maintainability
- Speak the same language in the automotive world



### **Defects**





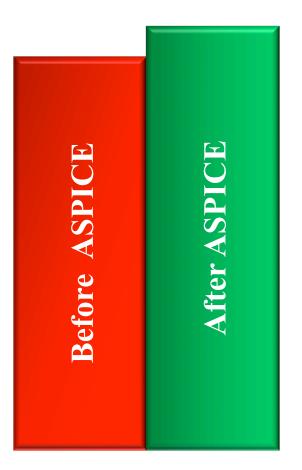
- ASPICE improves test phases and document/code reviews
- Systematic traceability
- Independent quality assurance
- Extremes -5% ... -50%



# **Development time and costs**



+9%

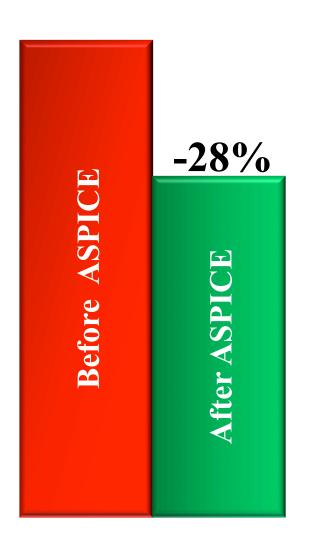


- ASPICE adds activities but early detection of bugs accelerate testing phases
- Extremes -25% ... +40%



### **Maintanance costs**





- ASPICE improves corrective maintanance (bug fixing)
- ASPICE improves evolutive maintanance (new features)
- Extremes. -15%...-50%



# New ISO/TS 16949 (now IATF)



#### 8.3.2.3 Development of products with embedded software

The organization shall use a process for quality assurance for their products with internally developed embedded software. A software development assessment methodology shall be utilized to assess the organization's software development process. Using prioritization based on risk and potential impact to the customer, the organization shall retain documented information of a software development capability self-assessment.

#### **Software Process Assessment**

Capability Maturity Model Integration (CMMI)

**VDA** 

Automotive SPICE® (Software Process Improvement and Capability Determination)



#### **Conclusions**



- ASPICE is here to stay, endorsed by all car makers
- The new ISO/TS (now IATF) refers to ASPICE
- ASPICE is a strong basis for ISO 26262 implementation
- ASPICE is aligned with best software engineering practices
- ASPICE is tailored to automotive software



### contatti



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