

Adding



to your process assessments with
ISO 15504

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- The SPICE project
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What does it mean?



Software Process **I**mprovement
& **C**apability d**E**termination

ISO 15504

Why conduct an assessment?

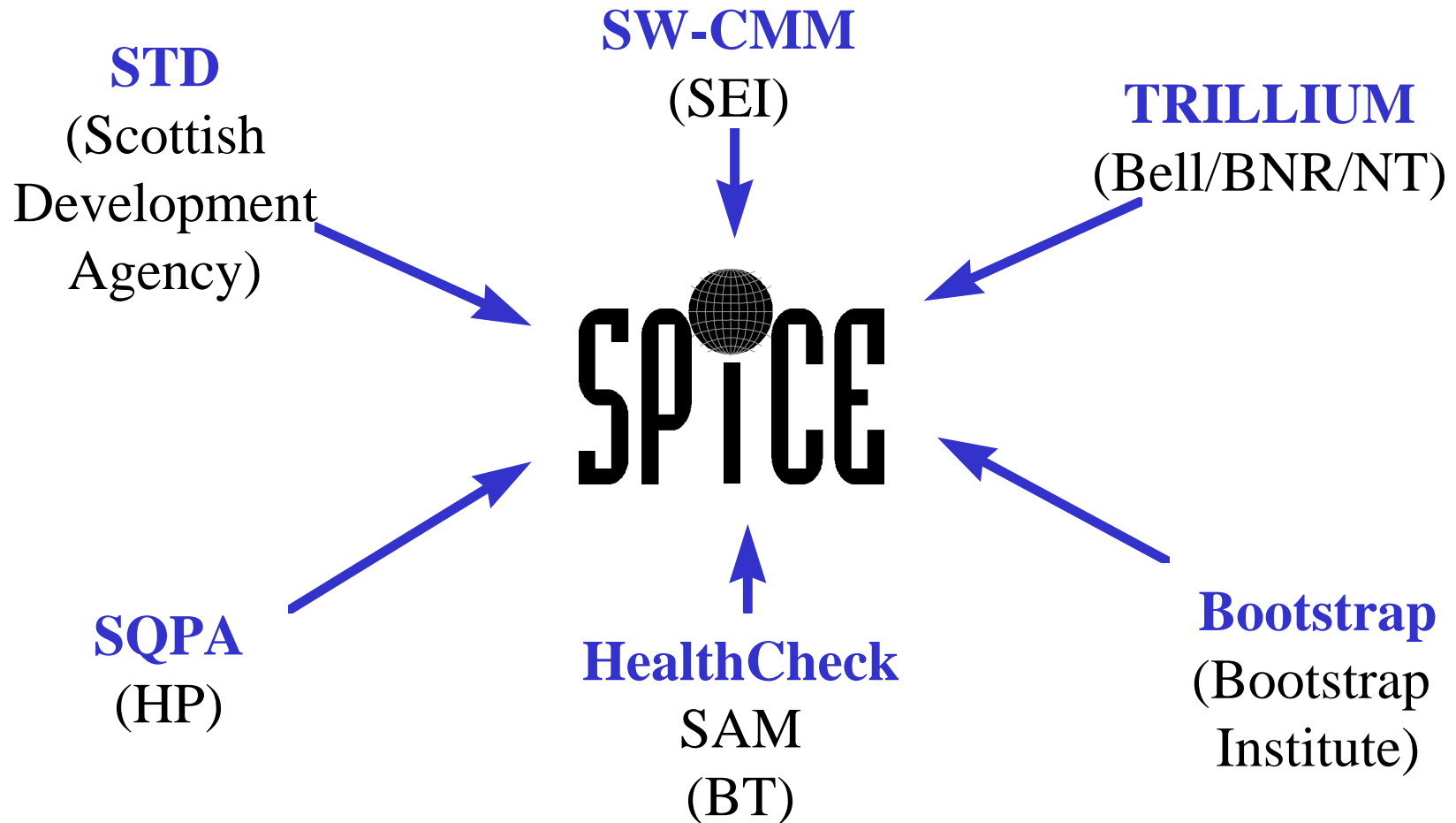
- An assessment of the current situation provides a baseline against which *process improvement* can be measured.

- An independent assessment of the current situation provides the basis for *capability determination* in a two-party contractual situation.

Some dates

- 1991 CMM ver. 1.0 released
ISO requests study on process assessment
- 1993 ISO accepts new work item
CMM ver. 1.1 released
- 1995 SPICE standard draft released
- 1998 TR 15504 published

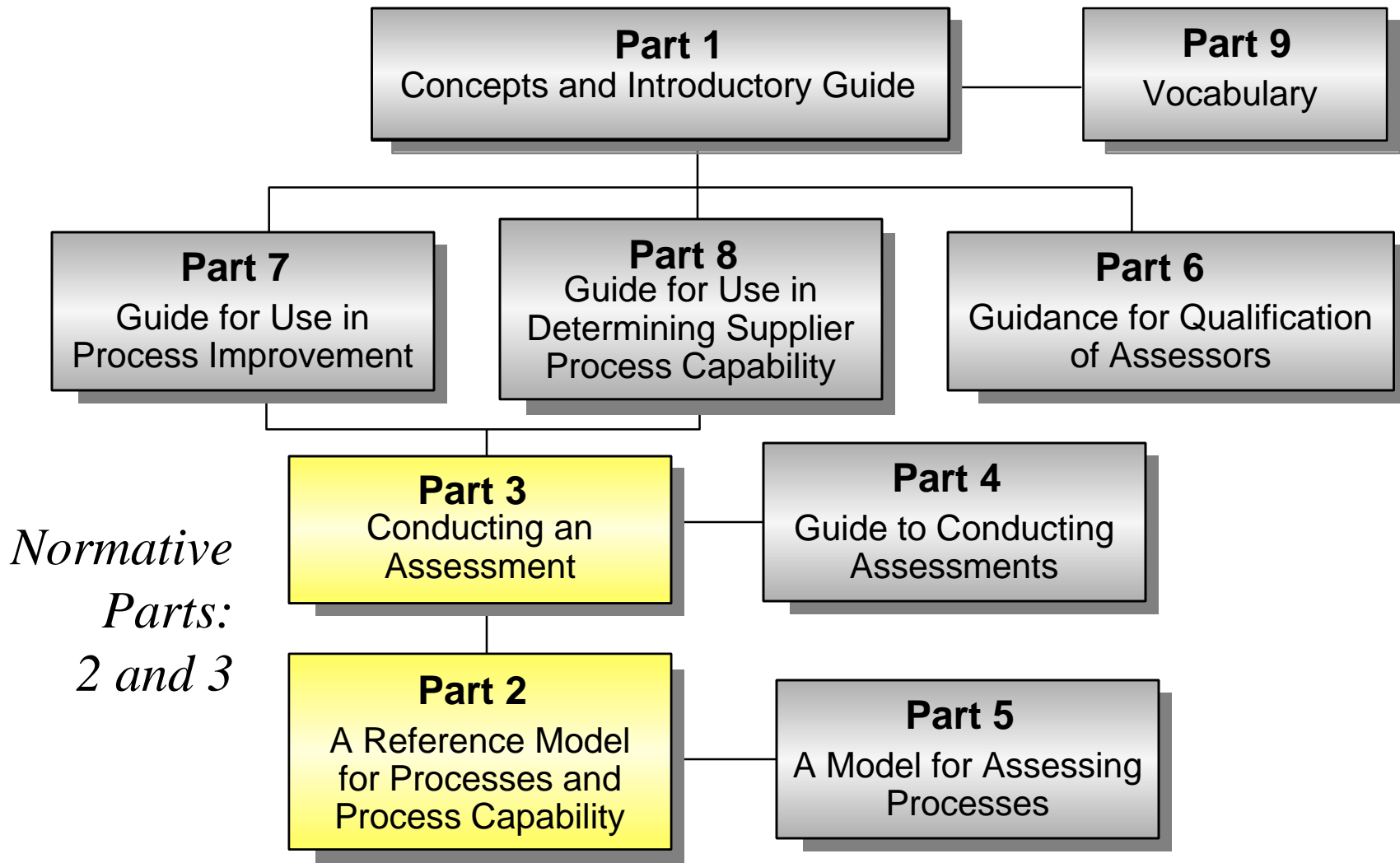
Origins of SPICE



What SPICE is *not*

- A certification scheme
- A how-to guide to process improvement
- A silver bullet

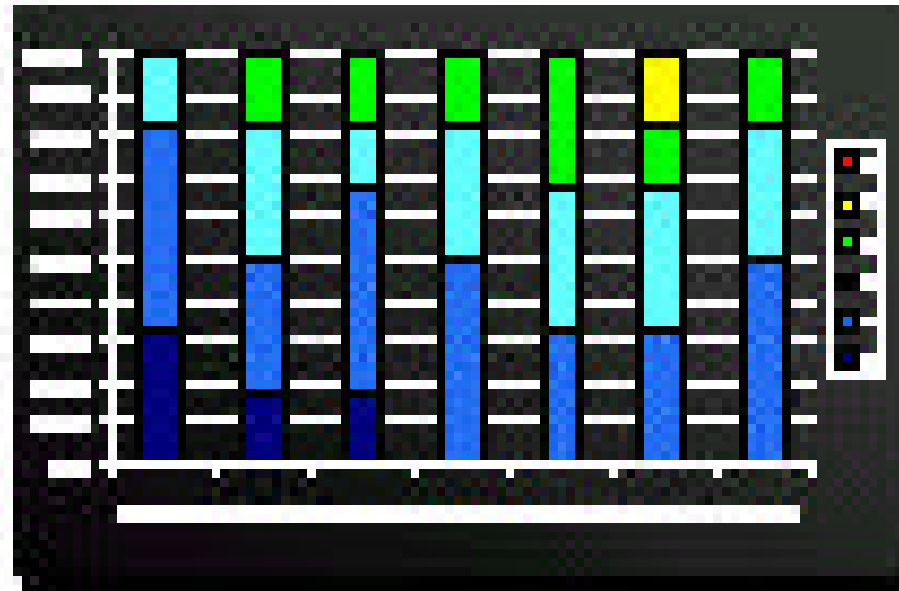
SPICE Document Set



The Reference Model

Part 2: The Reference Model

Capability Dimension:
Six capability levels, with nine attributes



Process Dimension:
Five process categories containing 40 processes

Part 2: The Reference Model

- Provide scale for rating process capability
- Results are expressed as a process profile

Part 2: The Reference Model

Five Process Categories

ENG	Software Engineering
SUP	Supporting Processes
MAN	Management Processes
ORG	Organizational Processes
CUS	Customer / Supplier Processes

. . . containing 40 processes

Part 2: The Reference Model

Six Capability Levels

Optimizing

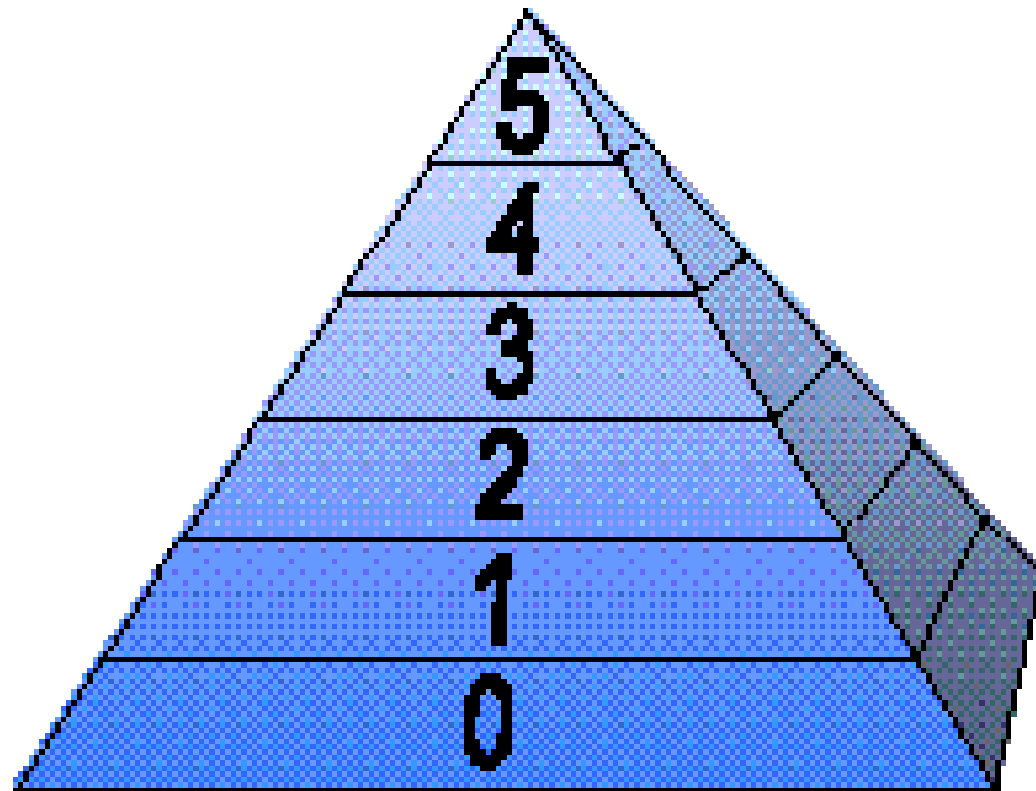
Predictable

Established

Managed

Performed

Incomplete



Part 2: The Reference Model

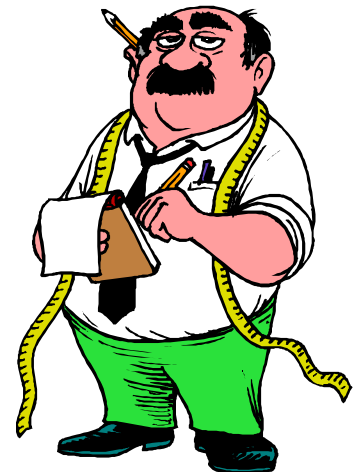
Six Capability Levels with Nine Process Attributes

<i>Level 5: Optimizing</i>	5.2 Continuous Improvement 5.1 Process Change
<i>Level 4: Predictable</i>	4.2 Process Control 4.1 Measurement
<i>Level 3: Established</i>	3.2 Process Resource 3.1 Process Definition
<i>Level 2: Managed</i>	2.2 Work Product Management 2.1 Performance Management
<i>Level 1: Performed</i>	1.1 Process Performance
<i>Level 0: Incomplete</i>	

Part 2: The Reference Model

Four Attribute Ratings

- N - Not Achieved in the Attribute 15%
- P - Partially Achieved in the Attribute 50%
- L - Largely Achieved in the Attribute 85%
- F - Fully Achieved in the Attribute 100%



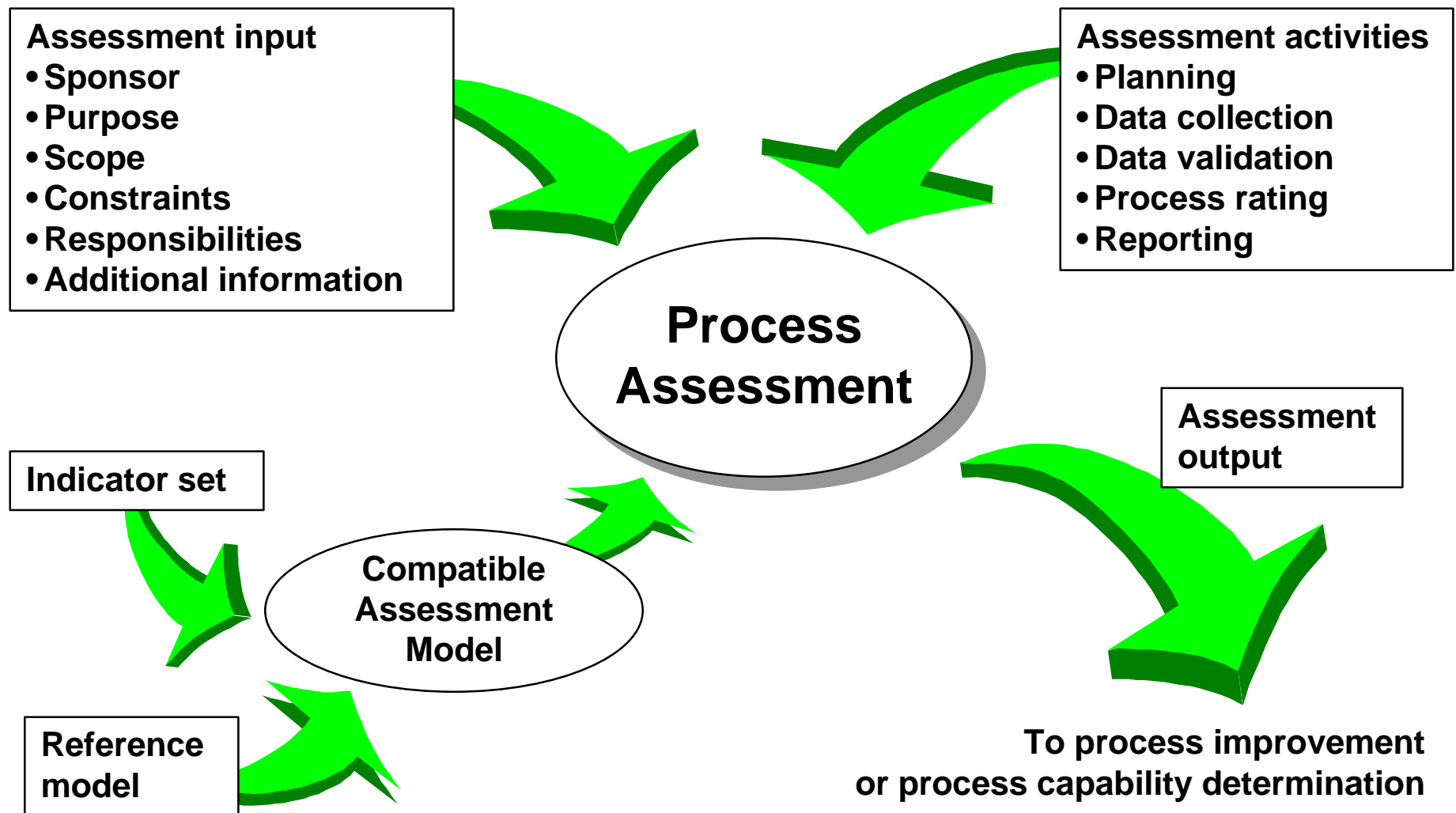
Conducting an Assessment

Part 3: Conducting an assessment

Requirements for a Conformant Assessment

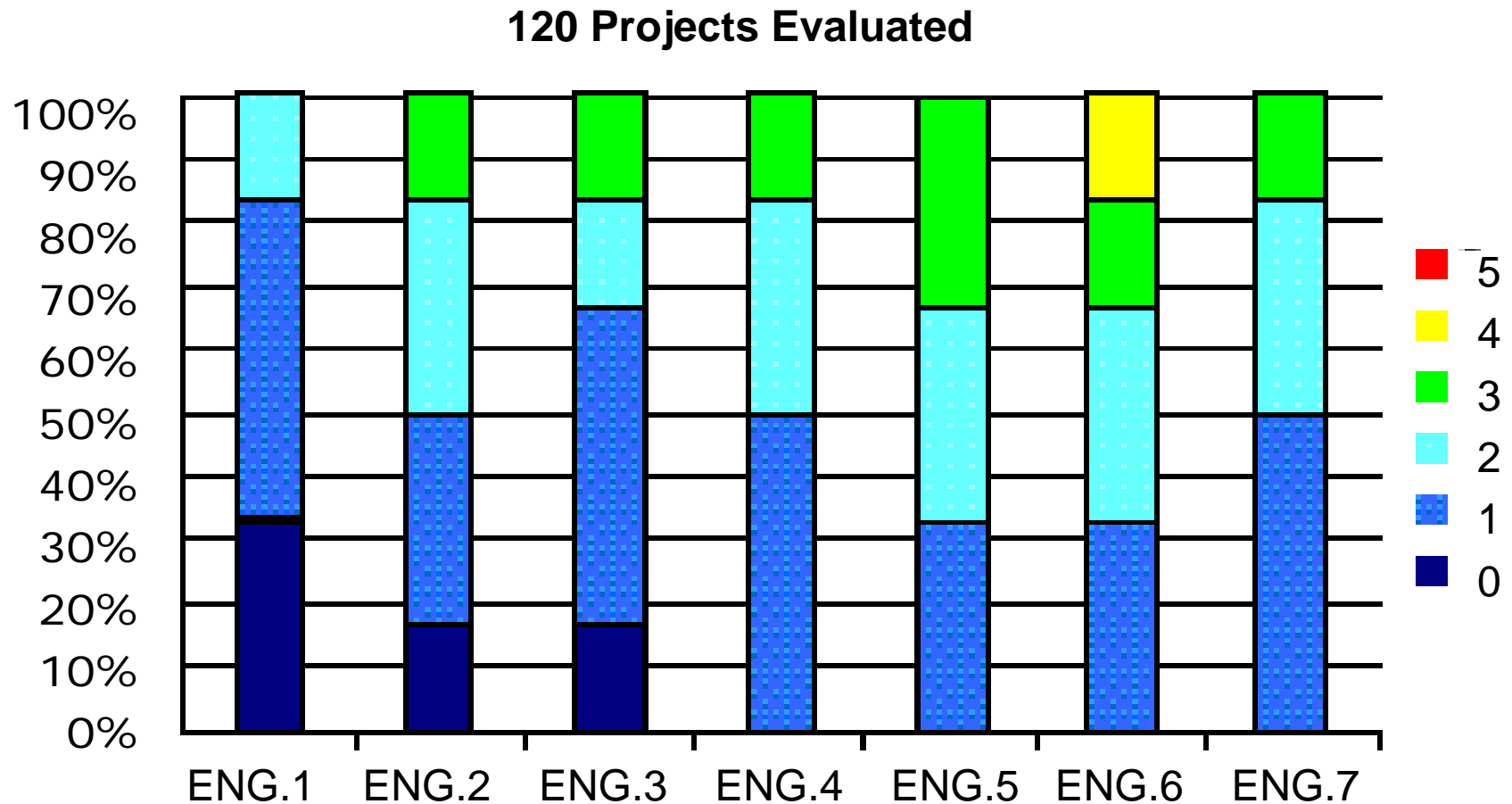
- Defined inputs must be identified
- A competent assessor must oversee the assessment
- Assessment model compatible with the reference model
- A documented assessment process must be followed
- The process must include specific required activities
- Justification for ratings must be documented
- Defined outputs must be produced

Part 3: Conducting an assessment



Part 3: Conducting an assessment

The output: a process profile



Review

- SPICE project
- The SPICE document set
- Part 2: The reference model
- Part 3: Conducting an assessment
- Process profile

What can I do with this information?

What can I do with this?

- Get a copy of the standard
 - ▲ <http://www.ansi.org/>
- Get assessor training
 - ▲ <http://www.qaiusa.org/>
- Use SPICE, *as is*, in your organization for self-assessment -- as a tool in your process improvement toolkit
 - ▲ No licensing fees, no consultants required
- Help your organization develop software better, faster, cheaper

For more information . . .



**Software Process Improvement
& Capability dEtermination**

International Symposium '98

**October 26, 1998
Renton, Washington**

For more information . . .

SPICE on the web

Official SPICE web site

<http://www-sqi.cit.gu.edu.au/spice/>

SPICE Users Group (SUGaR)

<http://www.iese.fhg.de/SPICE/>

International SPICE Symposium '98

<http://www.sasqag.org/spice.htm>

. . . with links to more

For more information . . .

SPICE bibliography and listserver
SPICE Users Group (SUGaR)

<http://www.iese.fhg.de/SPICE/>

SPICE assessor training
Quality Assurance Institute

<http://www.qaiusa.org/>

SPICE 1-2-1 Tool
H M & S

<http://hms.org/synprove/hms/default.htm>

For more information . . .

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Discussion

