




TPI® NEXT

10 February 2011
KVIV - Antwerp

Geert Vanhove



Agenda

- What is TPI® NEXT?
- The new model
- How to apply the new model
- TPI® NEXT Sogeti services
- Tool demo
- Q&A

Need for improvement




Testing is generally experienced as expensive and time-consuming, while the tested systems do not have the expected quality level

Model requirements


- Controlled improvement steps
- Practical
- As objective as possible
- Options and priorities
- Highly detailed
- Fast assessment
- Independent from other methods or models
 - TMap® Next used as reference
- Evaluation of business drivers
- Relationship with other development processes





Various improvement models


CMM(i)



TMM

V2M2

SPICE





History of TPI

1998	First TPI book published, authors Tim Koomen and Martin Pol
1999	English version published Also translated into German and Japanese, and a special English/Chinese version
2008	Start project for TPI® NEXT, international team

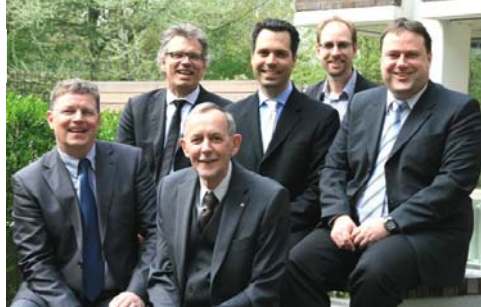
In this period >16.000 copies of the books were sold all around the world







Launch of TPI® NEXT



The team of authors that, using the experience and ideas of numerous people, created this business-driven approach to Test Process Improvement

From left to right: Gerrit de Vries, Ben Visser, Loek Wilhelmus, Alexander van Ewijk, Marcel van Oosterwijk and Bert Linker

This picture was taken by project leader Rik Marselis.



Why would clients want TPI® NEXT?

- ✦ Improve quality of information systems for new development and/or maintenance
- ✦ Improve the test process
- ✦ Align with business drivers
- ✦ More compliant to specific standards/guidelines
- ✦ Fit test process improvement to overall software development process improvement

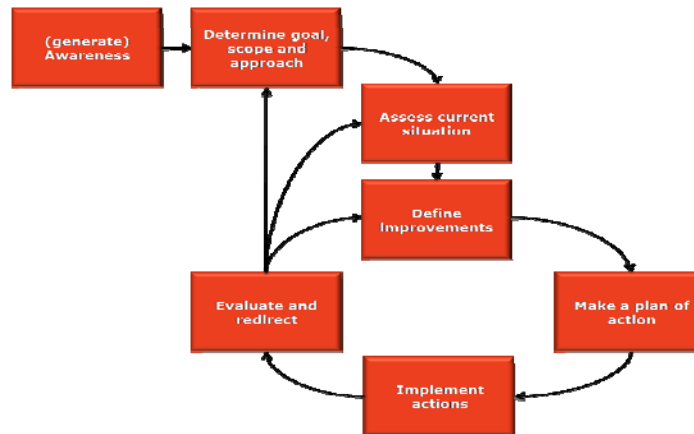
Better

Cheaper

Faster




TPI® NEXT: Model and change process





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- **The new model**
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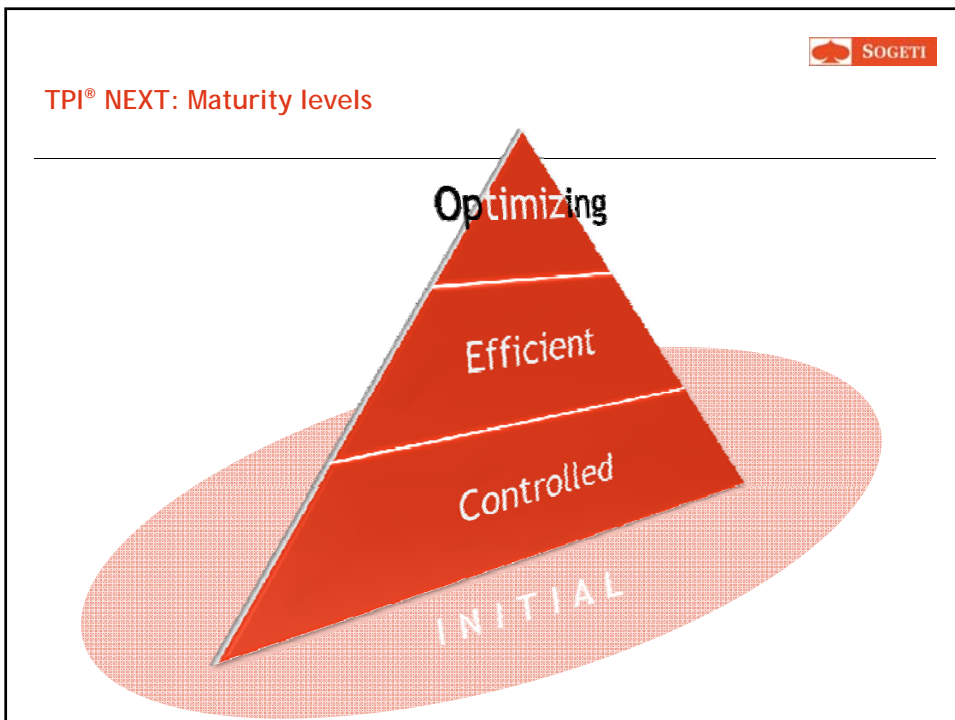
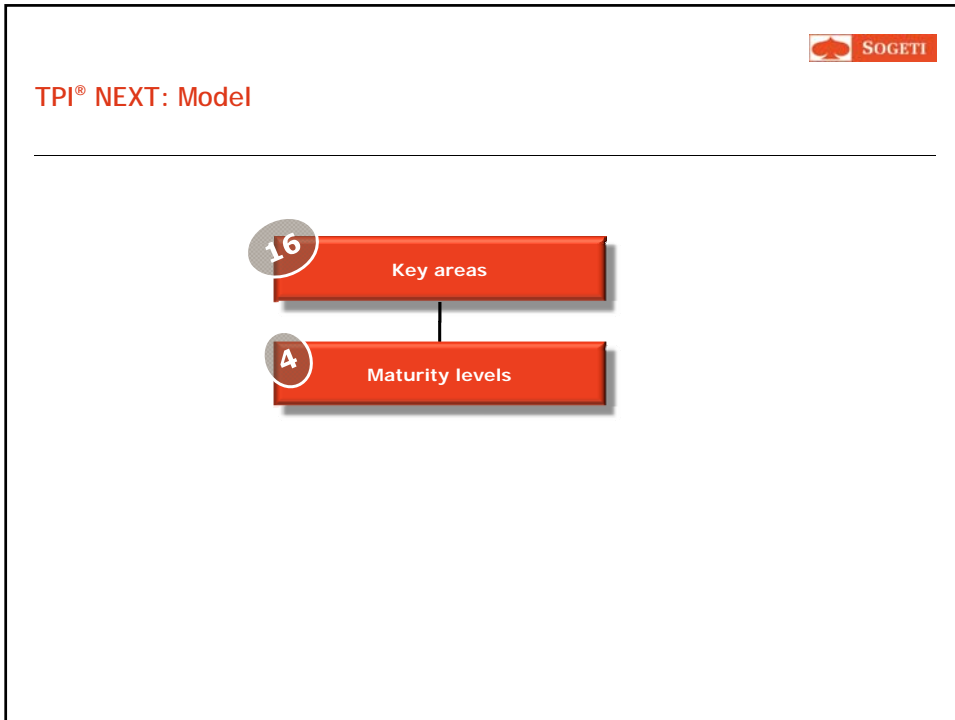
TPI® NEXT: Model





TPI® NEXT: Key areas

<i>Stakeholder Relations</i>	<ol style="list-style-type: none"> 1. Stakeholder commitment 2. Degree of involvement 3. Test strategy 4. Test organisation 5. Communication 6. Reporting
<i>Test Management</i>	<ol style="list-style-type: none"> 7. Test process management 8. Estimating & planning 9. Metrics 10. Defect management 11. Testware management
<i>Test Profession</i>	<ol style="list-style-type: none"> 12. Methodology practice 13. Tester professionalism 14. Test case design 15. Test tools 16. Test environment





TPI® NEXT: Maturity levels


	Initial	Controlled	Efficient	Optimizing
1 Stakeholder commitment				
2 Degree of involvement				
3 Test strategy				
4 Test organization				
5 Communication				
6 Reporting				
7 Test process management				
8 Estimating and planning				
9 Metrics				
10 Defect management				
11 Testware management				
12 Methodology practice				
13 Tester professionalism				
14 Test case design				
15 Test tools				
16 Test environment				

➔ Increasing maturity



TPI® NEXT: Model





TPI® NEXT: Checkpoints

Maturity levels

Key areas


- 1 Stakeholder commitment
- 2 Degree of involvement
- 3 Test strategy
- 4 Test organization
- 5 Communication
- 6 Reporting
- 7 Test process management
- 8 Estimating and planning
- 9 Metrics
- 10 Defect management
- 11 Testware management
- 12 Methodology practice
- 13 Tester professionalism
- 14 Test case design
- 15 Test tools
- 16 Test environment

The test cases are recorded on a logical level

The test cases consist of a description of: a) initial situation, b) change process = test actions to be performed, c) predicted result

The test cases provide insight into which part of the test basis, describing a specific system behavior, is subject to the test

Initial															
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
	1				1	2	3	4	1				1	2	3
	1				1	2	3	4	1	2	3	4	1	2	3
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
	1				1	2	3	4	1				1	2	3
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
	1				1	2	3	4	1				1	2	3
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
	1				1	2	3	4	1				1	2	3
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3



TPI® NEXT: Model

Test maturity matrix

16

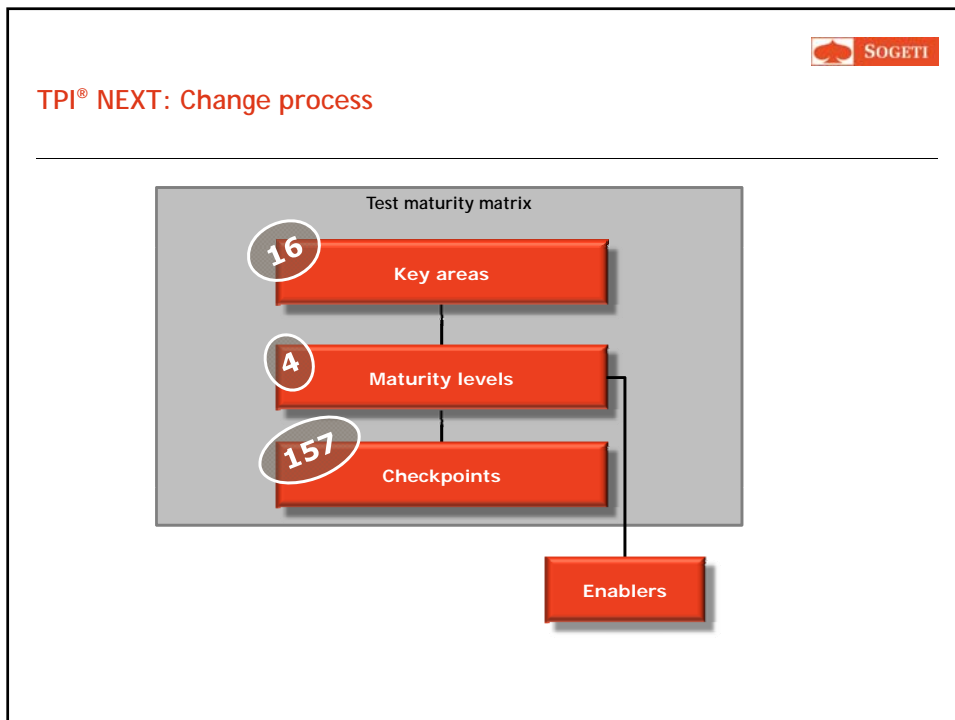
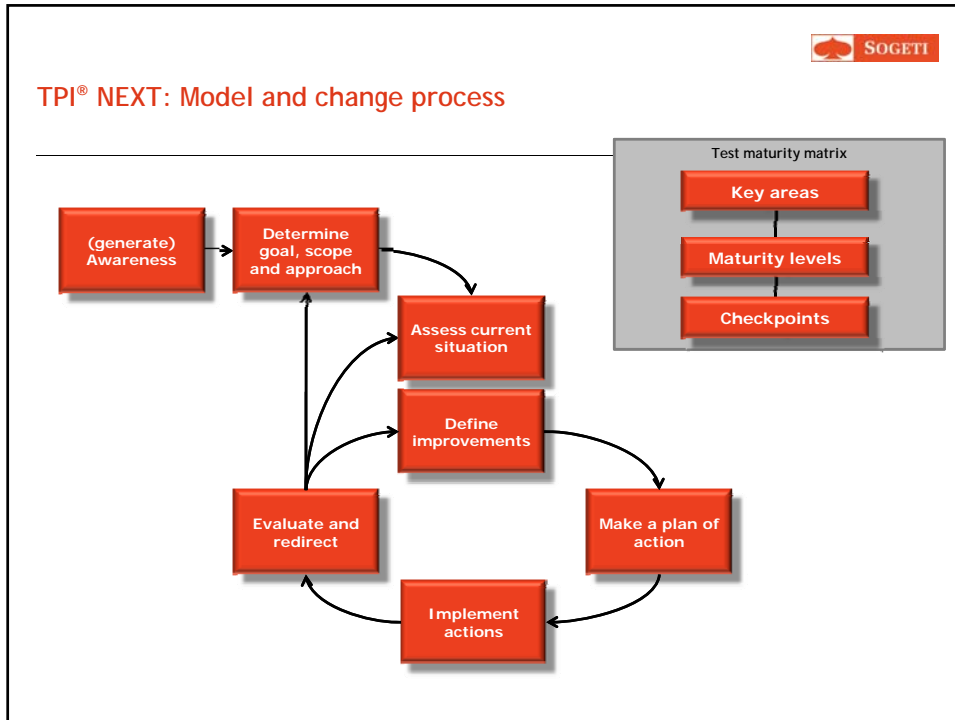
Key areas

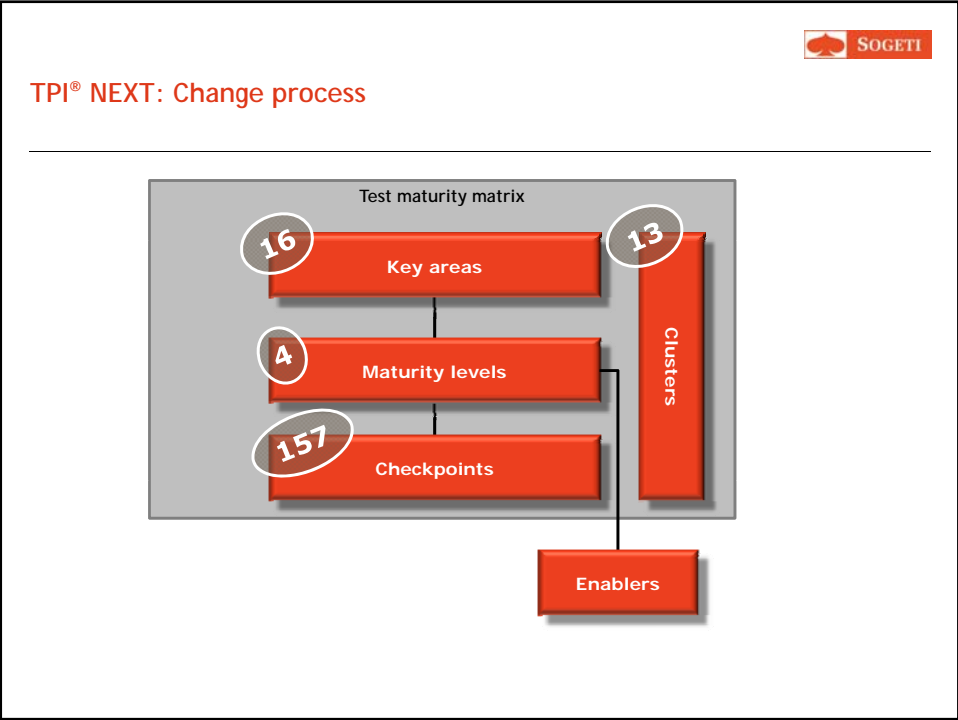
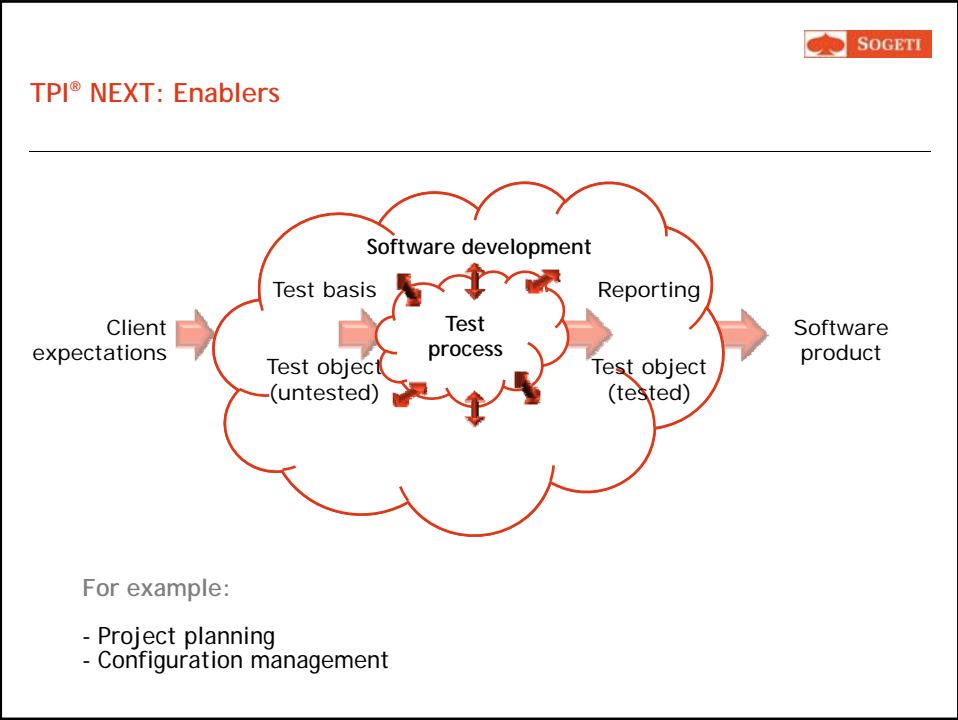
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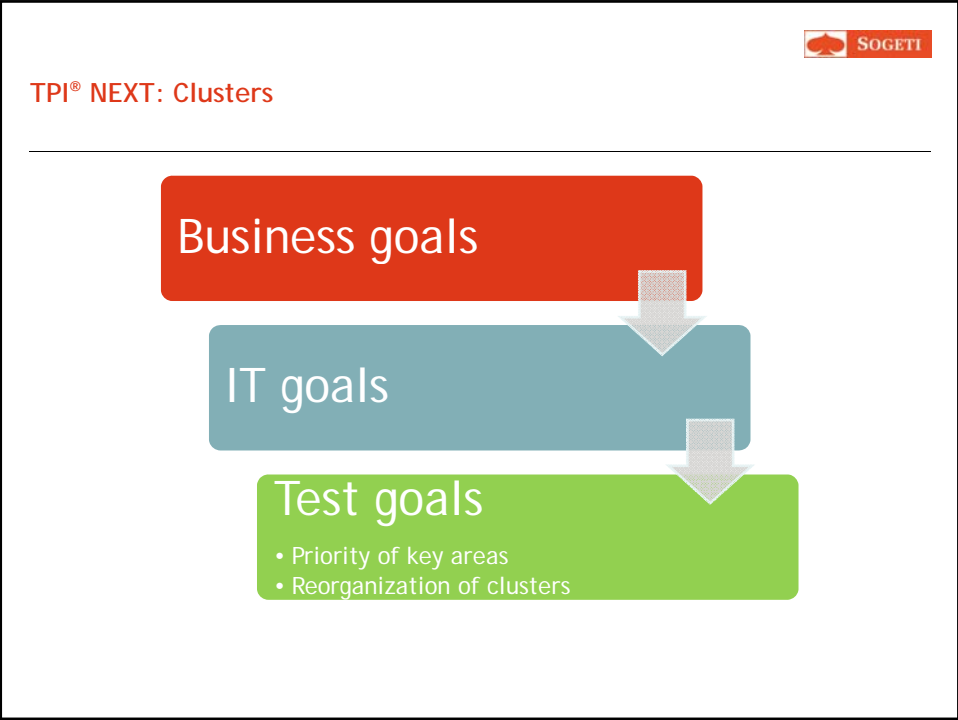
Maturity levels

157

Checkpoints



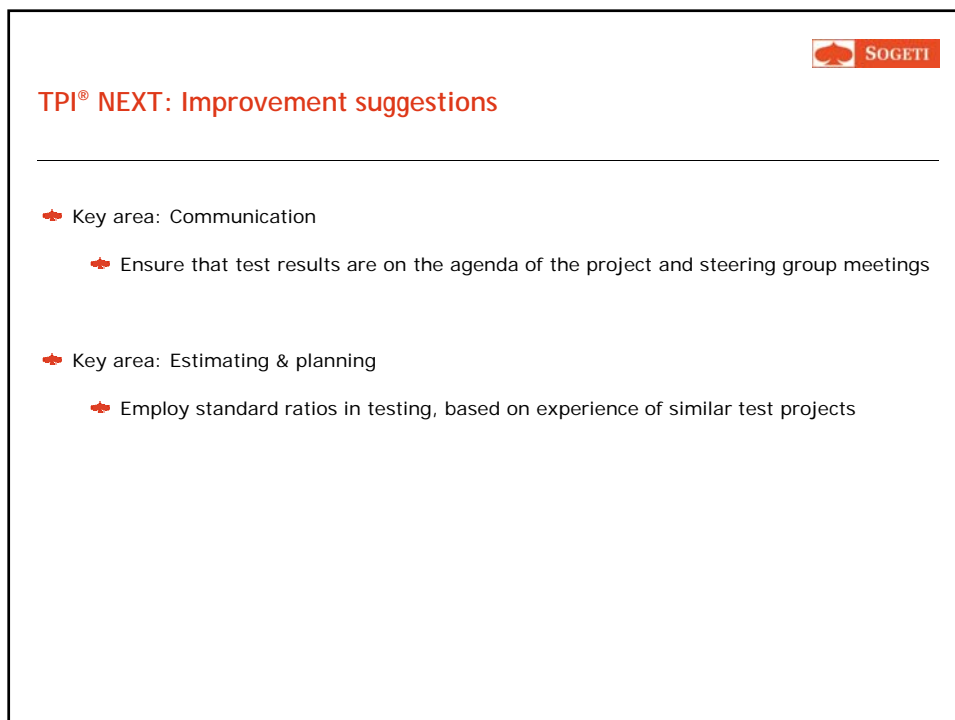
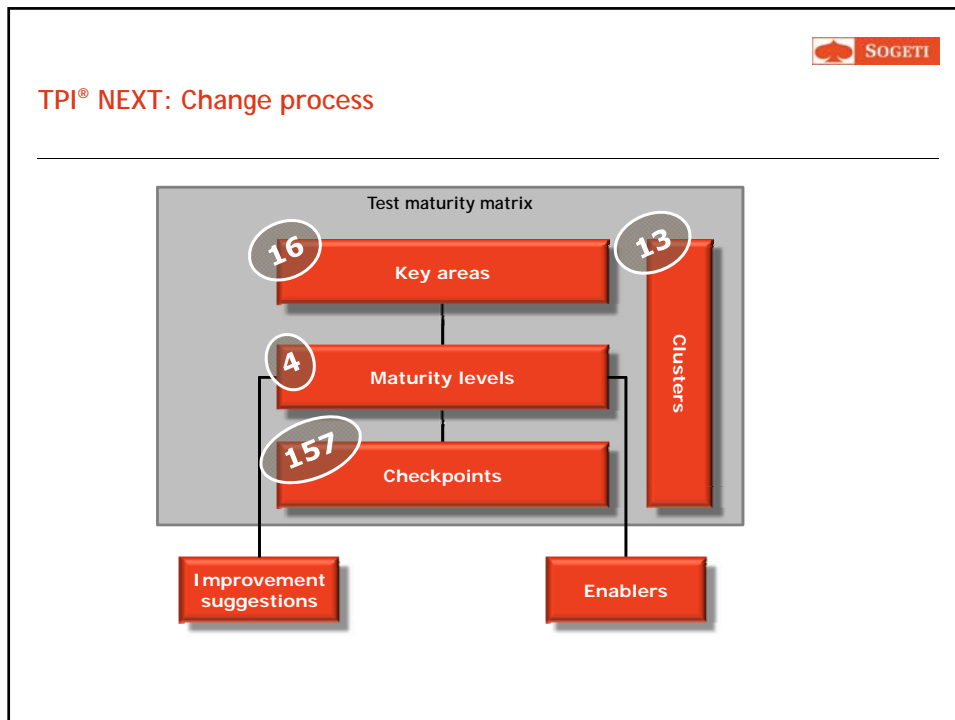


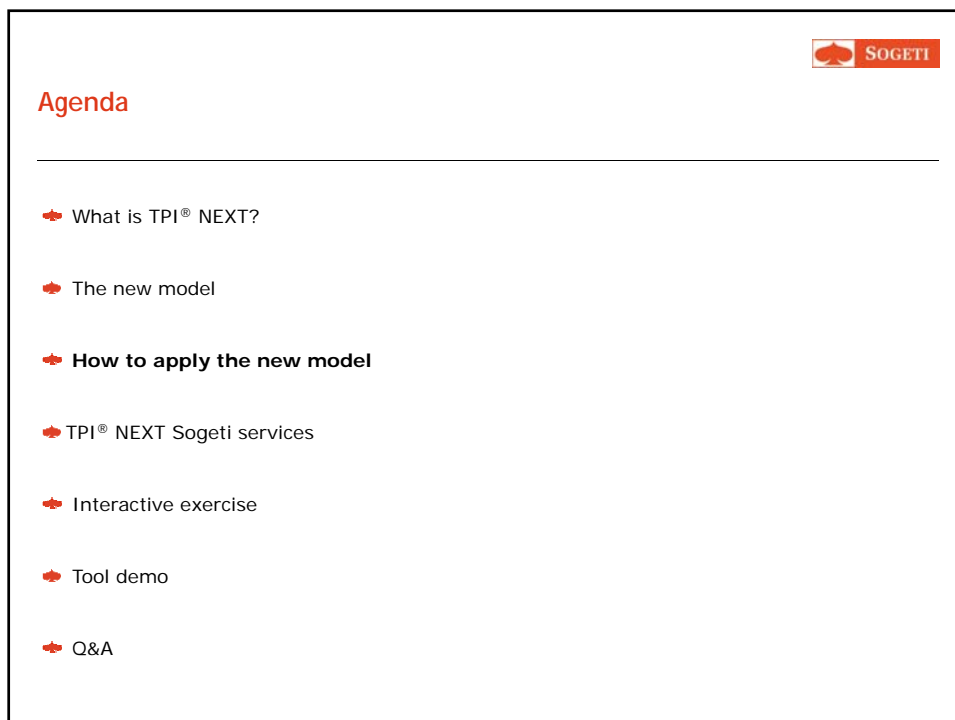
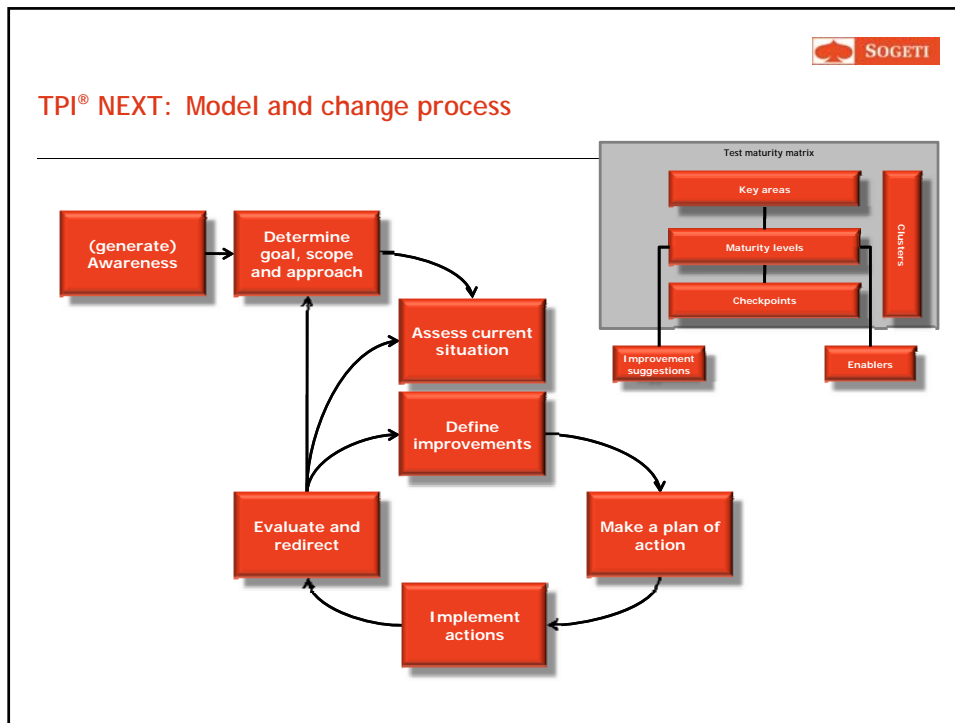



TPI® NEXT: Clusters

	Initial			Controlled			Efficient			Optimizing		
1 Stakeholder commitment	A	B	B	C	F	H	H	K	M	M		
2 Degree of involvement	A	B	C	E	H	H	J	L	L	L		
3 Test strategy	A	A	B	E	F	F	H	K	L	L		
4 Test organization	A	D	D	E	I	I	J	J	K	L	L	
5 Communication	B	C	C	D	F	F	J	M	M	M		
6 Reporting	A	C	C	C	F	G	G	K	K	K		
7 Test process management	A	A	B	B	G	H	J	K	M	M		
8 Estimating and planning	B	B	C	C	G	H	I	I	K	L	L	
9 Metrics	C	C	D	D	G	H	H	I	K	K	K	
10 Defect management	A	A	B	D	F	F	H	J	K	L	L	
11 Testware management	B	B	D	E	I	I	J	L	L	L		
12 Methodology practice	C	D	E	E	F	H	J	J	M	M	M	
13 Tester professionalism	D	D	E	E	G	G	I	I	K	K	M	
14 Test case design	A	A	E	E	F	I	I	J	K	K	M	
15 Test tools	E	E	E	E	F	G	G	I	L	M	M	
16 Test environment	C	D	D	E	G	H	J	J	L	M	M	

Test Maturity Matrix









TPI® NEXT: Approaches

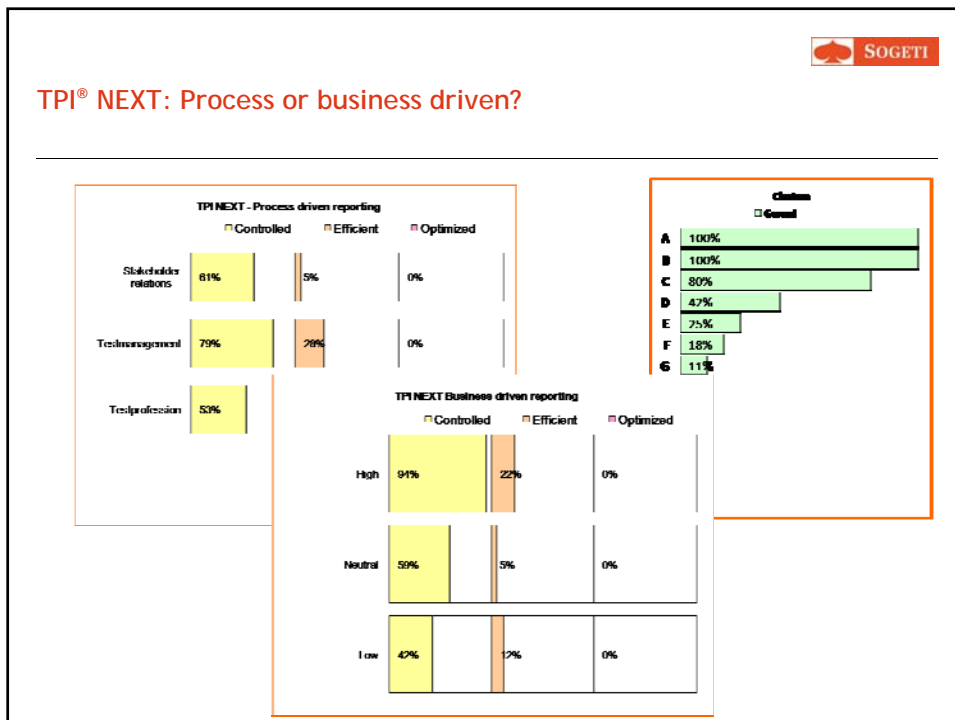
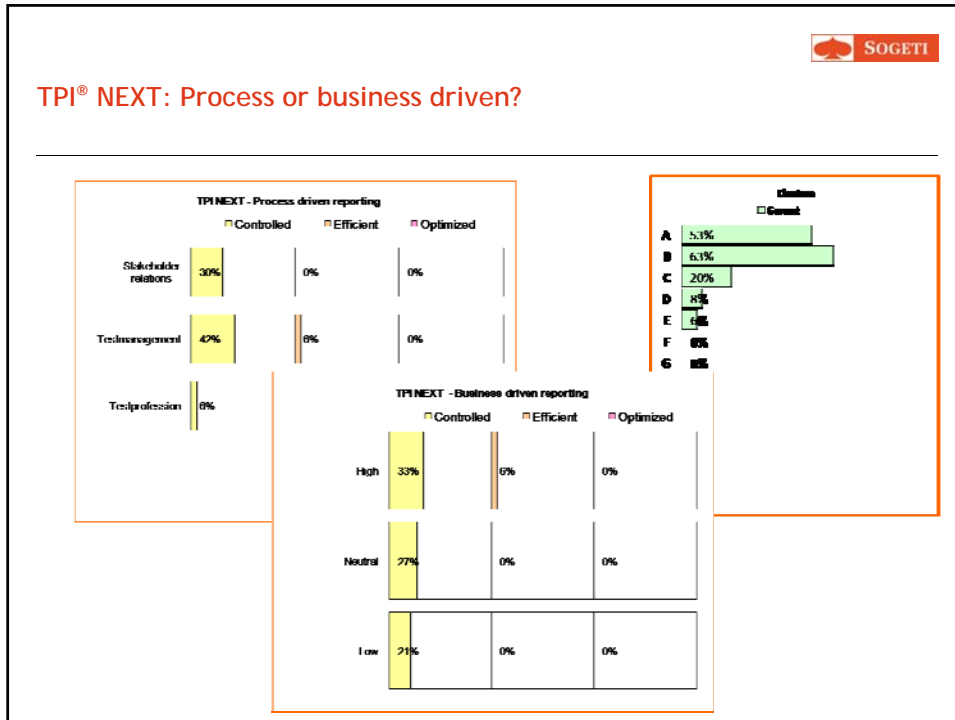
<p>Process driven</p> <p>Key Areas</p> <ul style="list-style-type: none"> — Standard weights <p>Checkpoints</p> <ul style="list-style-type: none"> — Assigned to specific clusters <p>Improvements</p> <ul style="list-style-type: none"> — All aspects improved 	<p>Business Driven</p> <p>Key Areas</p> <ul style="list-style-type: none"> — Different weights <p>Checkpoints</p> <ul style="list-style-type: none"> — Re-assigned to specific clusters <p>Improvements</p> <ul style="list-style-type: none"> — Improved by contribution to goals
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Example - Organization of clusters

<div style="background-color: red; color: white; padding: 5px; border-radius: 10px; display: inline-block;">Process driven</div>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="text-align: left;">Key Area</th> <th>H</th> <th>N</th> <th>L</th> <th>Initial</th> <th colspan="4">Controlled</th> </tr> </thead> <tbody> <tr> <td>Stakeholder commitment</td> <td></td> <td></td> <td></td> <td></td> <td>A</td> <td>B</td> <td>B</td> <td>C</td> <td></td> </tr> <tr> <td>Degree of involvement</td> <td></td> <td></td> <td></td> <td></td> <td>A</td> <td>B</td> <td>C</td> <td>E</td> <td></td> </tr> <tr> <td>Test strategy</td> <td></td> <td></td> <td></td> <td></td> <td>A</td> <td>A</td> <td>B</td> <td>E</td> <td></td> </tr> <tr> <td>Test organization</td> <td></td> <td></td> <td></td> <td></td> <td>A</td> <td>D</td> <td>D</td> <td>E</td> <td></td> </tr> <tr> <td>Communication</td> <td></td> <td></td> <td></td> <td></td> <td>B</td> <td>C</td> <td>C</td> <td>D</td> <td></td> </tr> <tr> <td>Reporting</td> <td></td> <td></td> <td></td> <td></td> <td>A</td> <td>C</td> <td>C</td> <td>C</td> <td></td> </tr> <tr> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Key Area	H	N	L	Initial	Controlled				Stakeholder commitment					A	B	B	C		Degree of involvement					A	B	C	E		Test strategy					A	A	B	E		Test organization					A	D	D	E		Communication					B	C	C	D		Reporting					A	C	C	C																					
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Activities TPI® NEXT assessment

- **Plan**
 - Scope assessment
 - Set objectives
- **Preparation**
 - Select participants
 - Prepare interviews
- **Gathering information**
 - Execute interviews
 - Study documentation
- **Analysis**
 - Create Test Maturity Matrix
 - Describe current situation
- **Reporting**
 - Describe improvement actions
 - Complete report




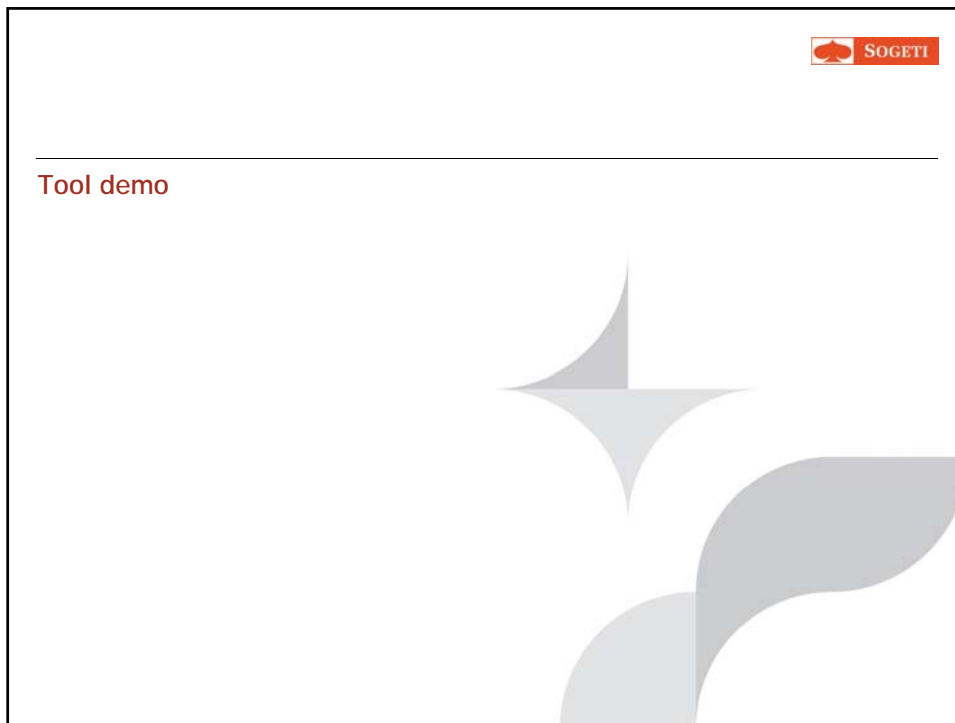
TPI® NEXT: Services Sogeti can deliver

- **Quick scan**
 - Rapid insight
- **Assessment**
 - In-depth analysis of strengths and weaknesses
- **Test process improvement implementation**
 - Management and execution of recommendations
- **Test process improvement consultancy**
 - On the best way to prioritize and implement improvement activities and development of an ongoing strategy
- **Training**
 - Open subscription / in house delivery



TPI® NEXT - Benefits

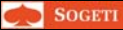
- Translate business goals into test goals with prioritisation
- Excellent facilitator
- Coach the change process
 - Skill
 - Will
 - Support
- Reporting and management of change
 - Additional dashboards
- Immediate access to solutions
 - Tool
 - TMap Next (better alignment)
- ...



TPI® NEXT: Test process improvement *improved*

- Model: maturity levels through checkpoints
 - Uniform maturity levels

- Improvement path: stepwise improvement via clusters
 - Process driven
 - Business driven



TPI® NEXT is not a model

It is an attitude



Documentation



www.tmap.net




www.tpinext.com





the tool



the book



Questions & Answers



Thanks for your attention

www.sogeti.com

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www.tmap.net

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