



“Quality for Future
of the World”

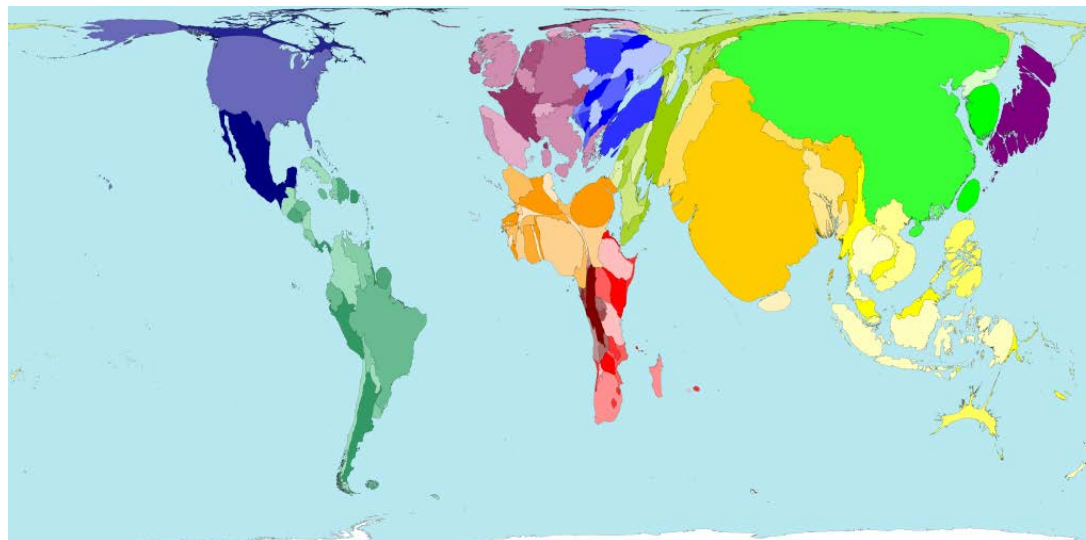


Multiscale Quality

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*“Quality for Future
of the World”*



World Quality of Life Distribution (according to People x UN Human Development Index)

Jumping to Conclusions...

- We live and will live in a difficult world !
- Quality future should not to be taken for granted !
- Quality can and should be addressed from a multiscale perspective !
- Yes, we will do it!

FROM THE PRESIDENT



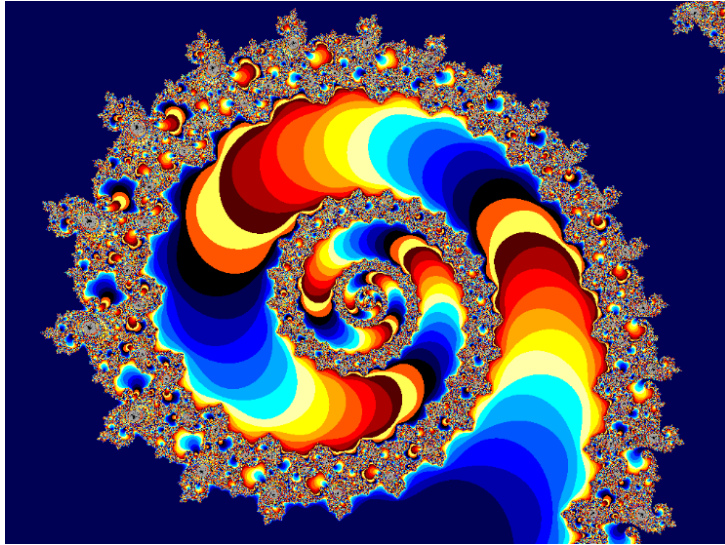
To the New
U.S. President:

FROM ROBERTO SACO, ASQ PRESIDENT; TO BE OPENED JAN. 20, 2009

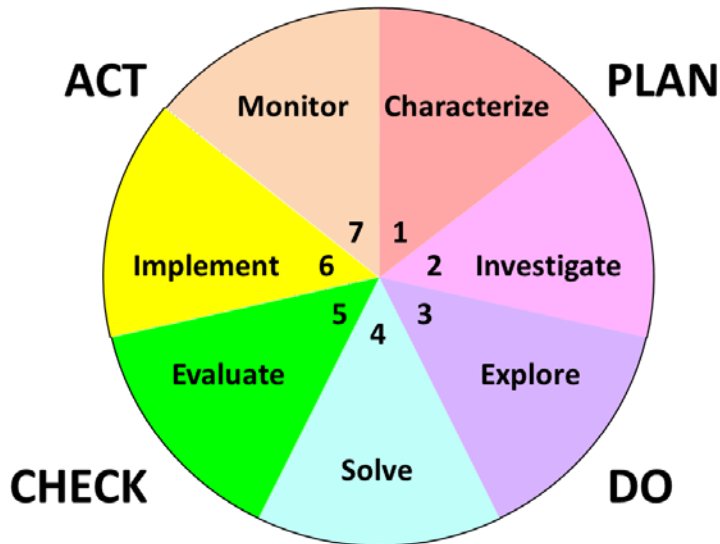
What is to be done? Mr. President, in brief we need a National Quality Agenda to broaden our thinking in terms of systemic and long-term issues and solutions. (...) Ignored, these matters will ensure the accelerated decline of the nation.

Quality Progress (October 2008)

Fractal Quality



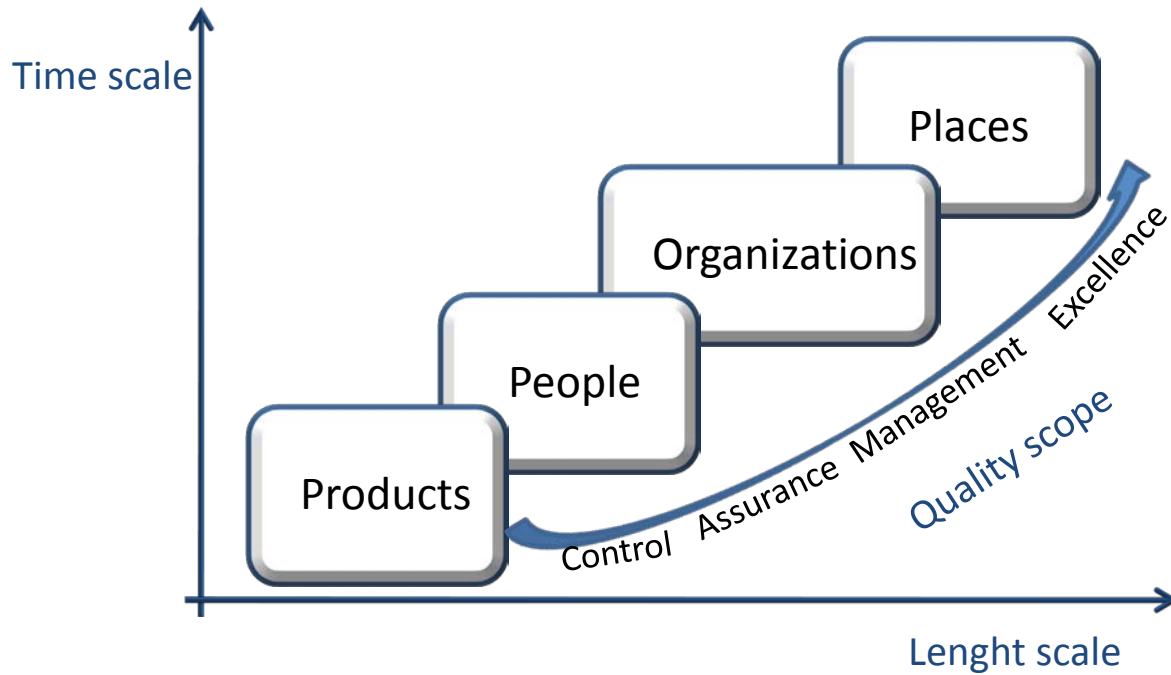
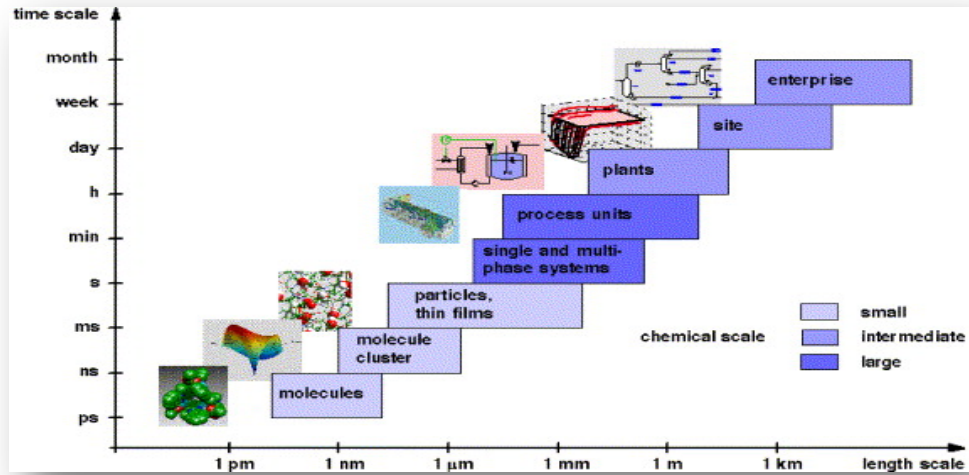
Common Set of Principles and Approaches



Glocal Quality



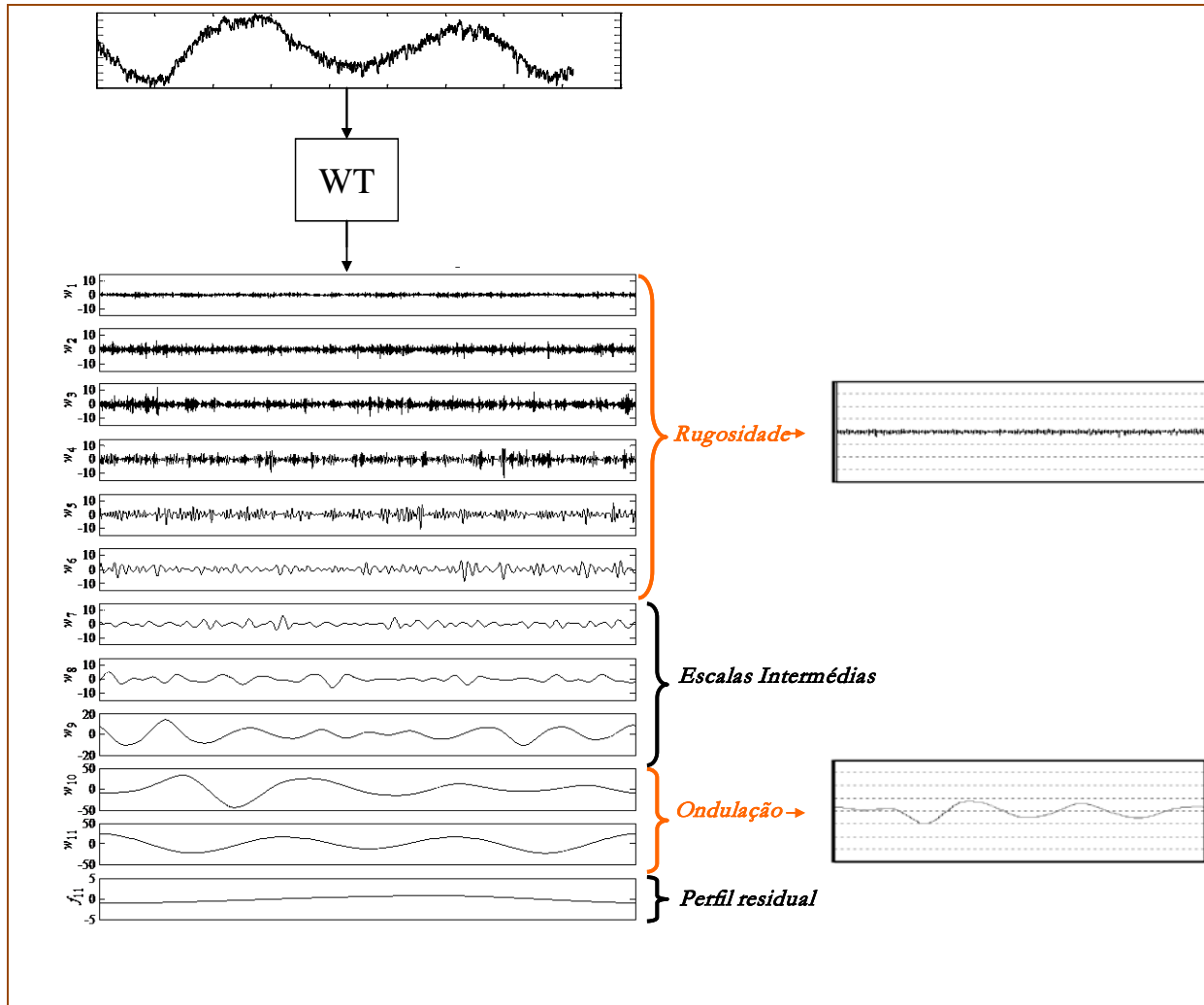
A Multiscale Overview of Quality



Some Examples of Multiscale Quality Applications

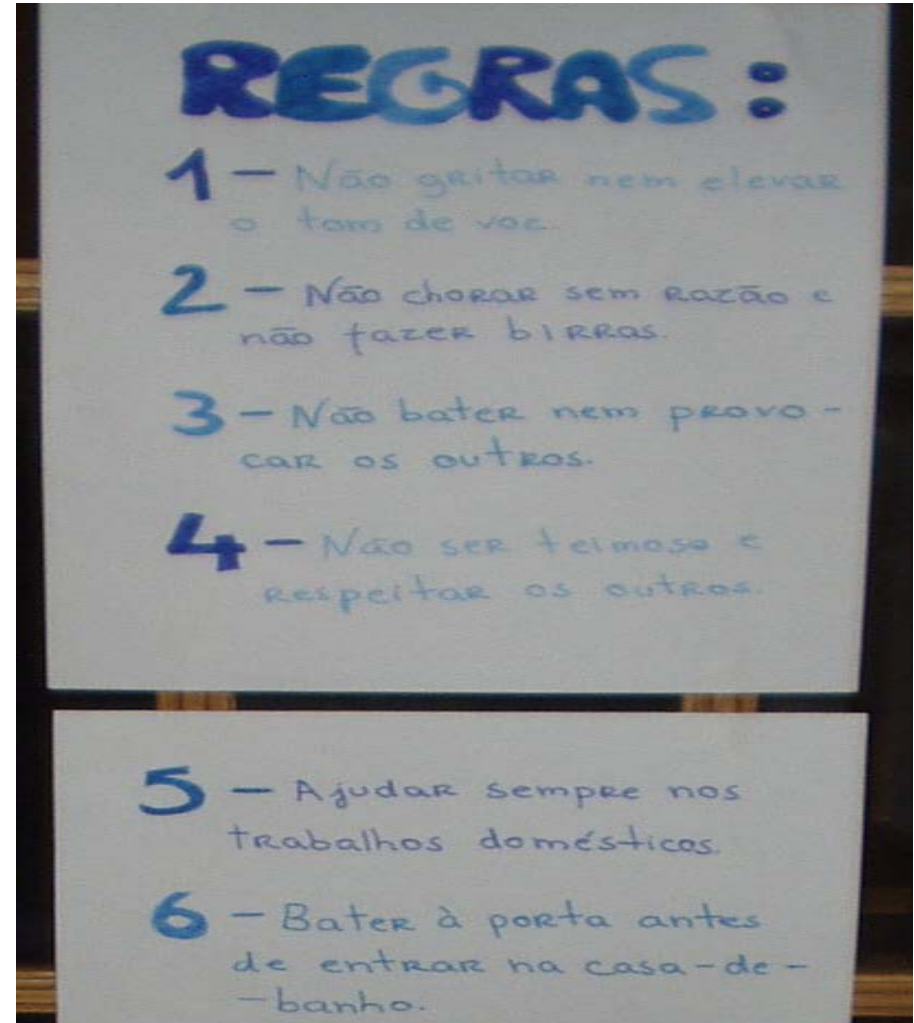
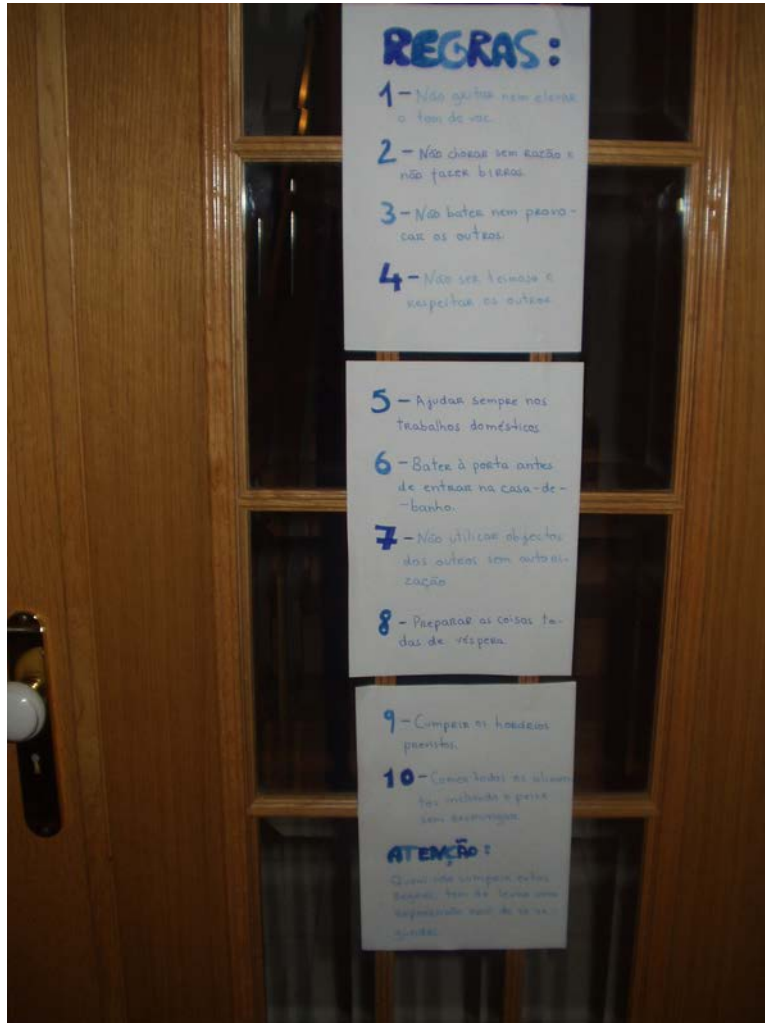
1 – Integrated Multiscale SPC for Paper Roughness and Waviness

(10^{-6}m to 10^{-2}m)



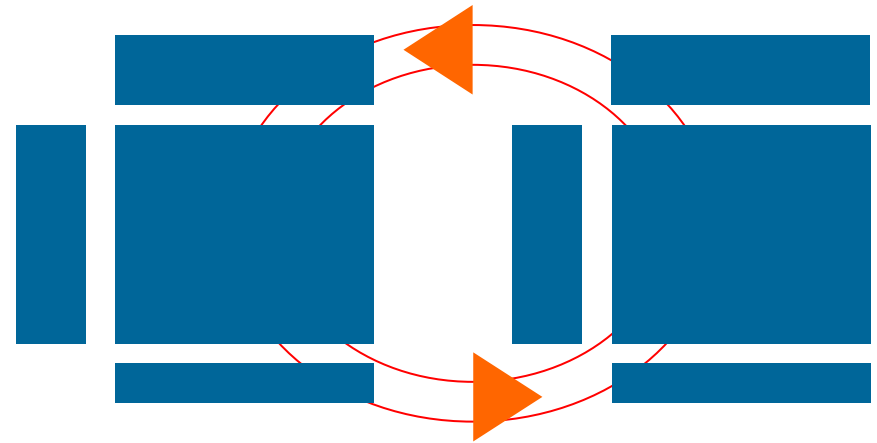
Some Examples of Multiscale Quality Applications

2 – Family Wide Quality Management System

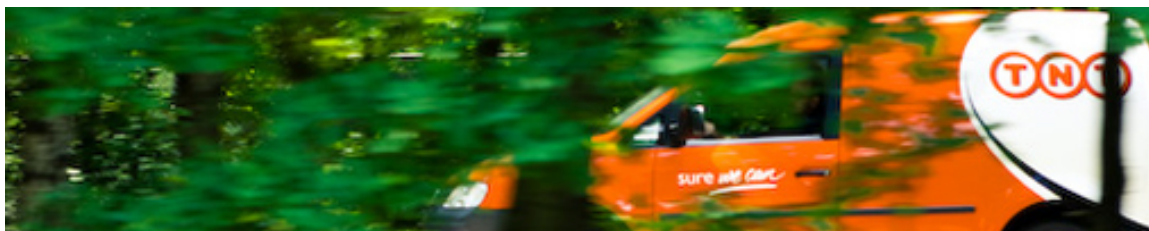


Some Examples of Multiscale Quality Applications

3 – Organizacional Excellence



Matrix Integration Method of Quality and Strategy (MIM-QS)



[Working Experience since 2001; PEX Silver Award in 2003; PEX Gold Award in 2004]

Some Examples of Multiscale Quality Applications

4 – Places (Local/Regional Level) – Regional Quality Strategic Plan



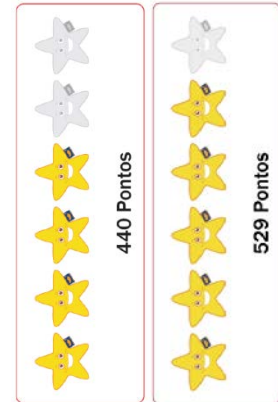
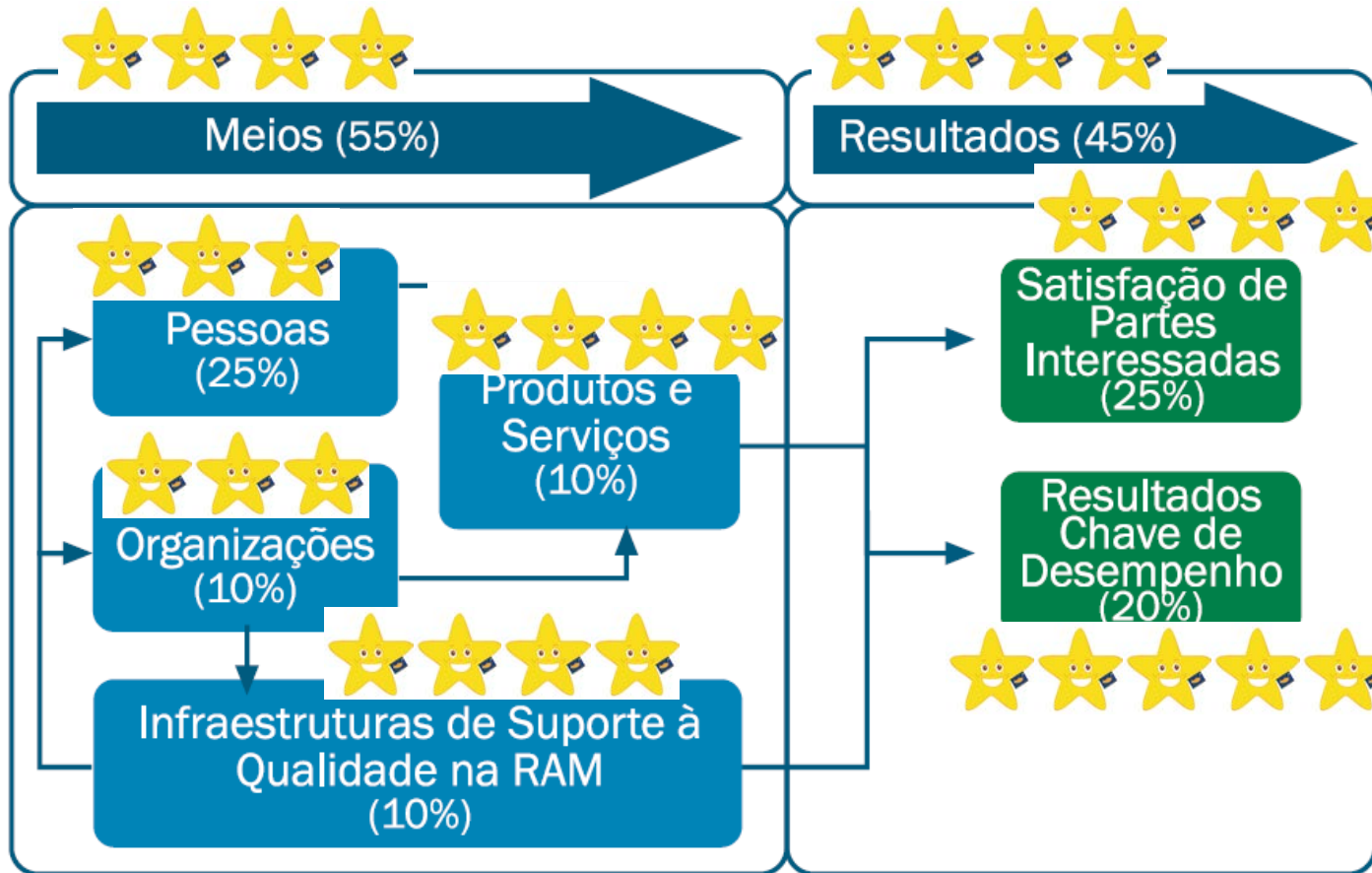
Esquema Global da Estratégia



Some Examples of Multiscale Quality Applications



5 – Places (Local/Regional Level) – Regional Excellence Barometer



2007 2009



2011 2014

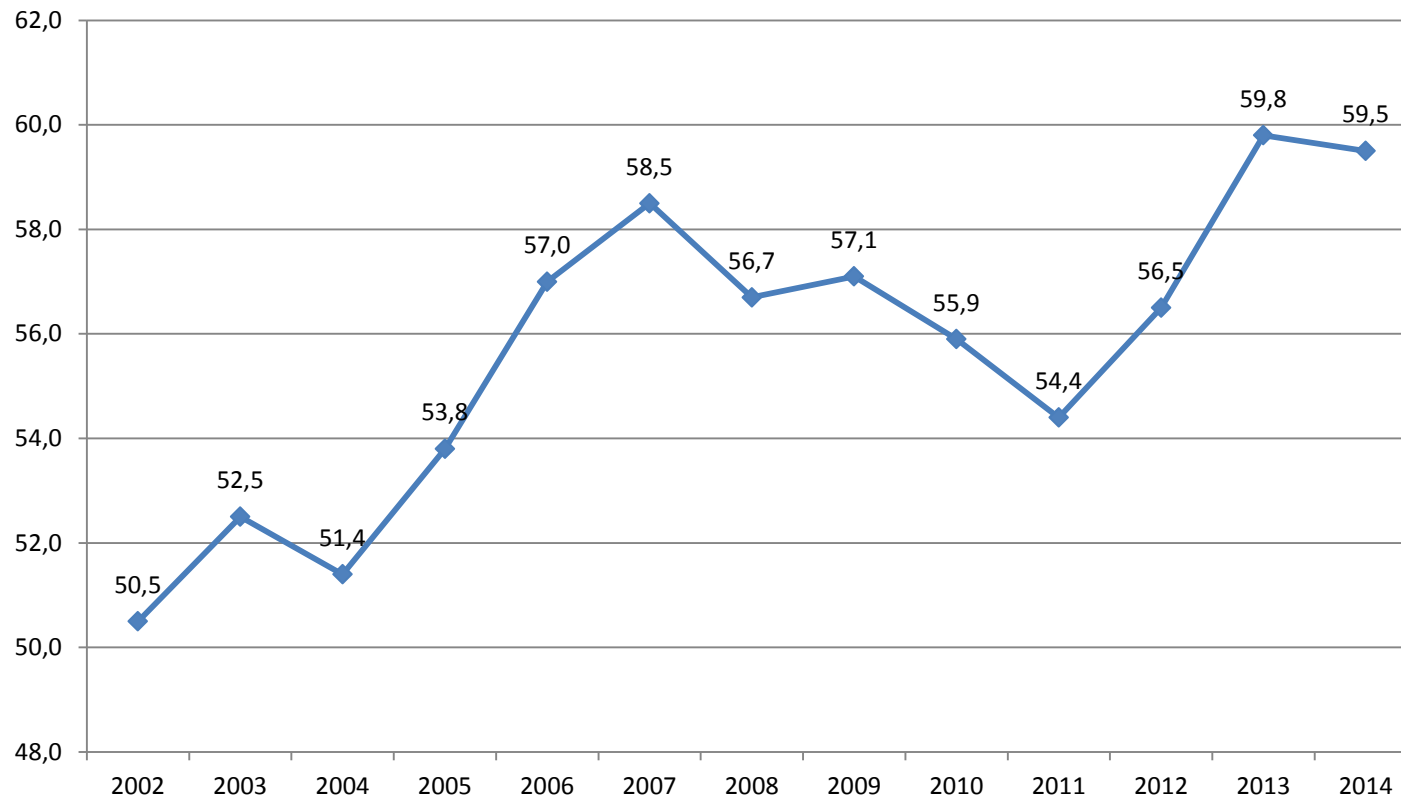
Some Examples of Multiscale Quality Applications

6 – Places (National Level) – National Employee Satisfaction Barometer (2002-)



Some Examples of Multiscale Quality Applications

6 – Places (National Level) – National Employee Satisfaction Barometer



Some Examples of Multiscale Quality Applications

7 – Places (National Level) – The Future of Quality in Portugal

[QFD + SEM Based Approaches to Address this Challenge]



				0,62
Políticas Públicas (4,4)		Entidades Promotoras (5,3)		
			0,56	
	0,31	Formação (4,7)	0,41	Pessoas (5,2)
	0,32			0,23
Conceito (5,7)		Referenciais (5,5)	0,15	
	0,46			Organizações (4,8)
	0,43	Abordagens (5,2)	0,45	0,24
				Qualidade em Portugal (5,3)

Some Examples of Multiscale Quality Applications

8 – Places (National Level) – Quality in the Portuguese Parliament

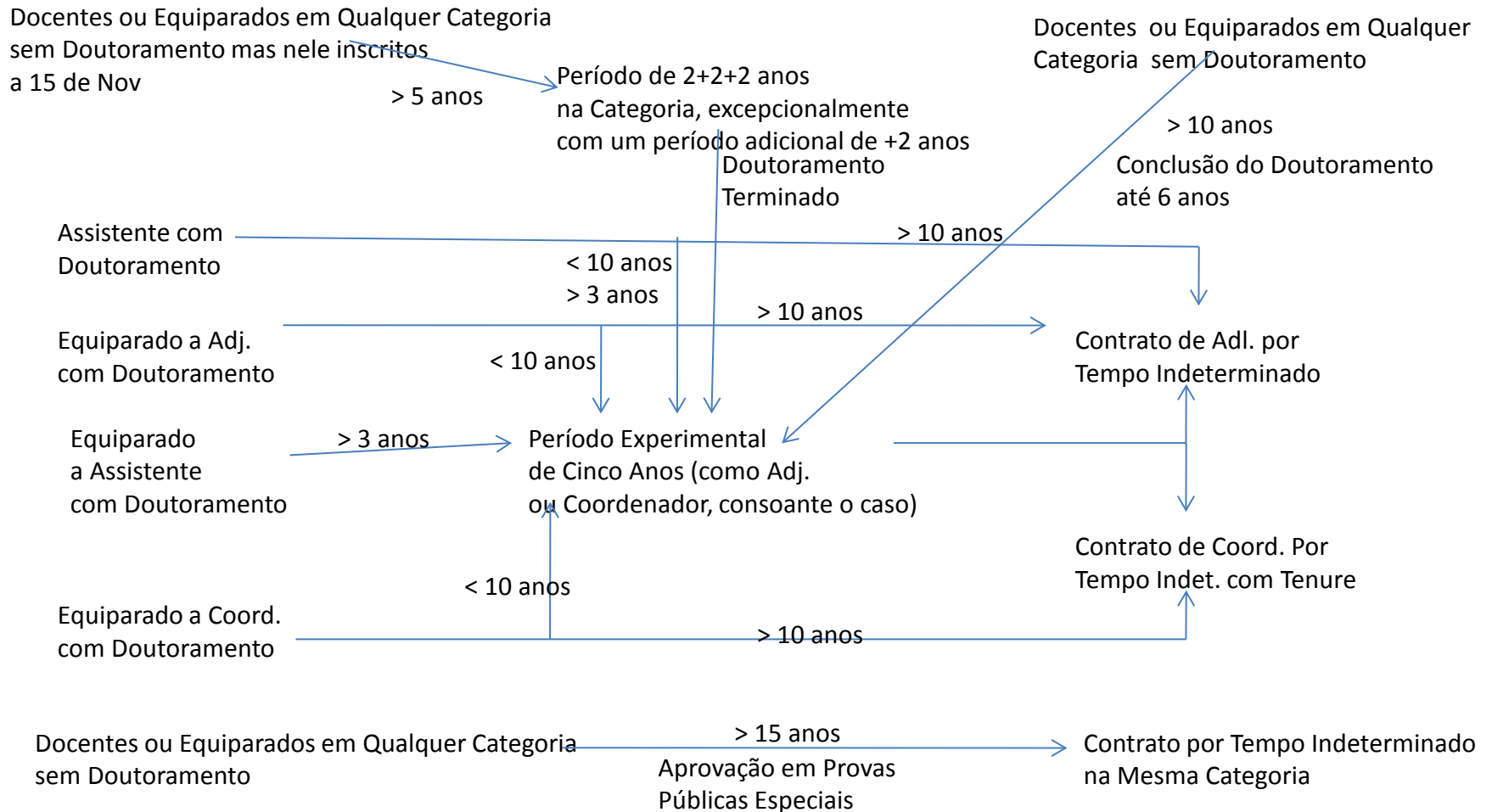


$$\text{CRER} = \int \int \int \text{Qualidade} \times \text{Inovação} \times \text{Empreendedorismo} dt d\omega dp$$

Some Examples of Multiscale Quality Applications

8 – Places (National Level) – Quality in the Portuguese Parliament

Simple Tools for Better Laws



Some Examples of Multiscale Quality Applications

9 – Places (World Level)

Enough Data for Defining Quality Metrics, Benchmarking, Modelling, Forecasting...



Change photo

PM Saraiva

university of coimbra or mit

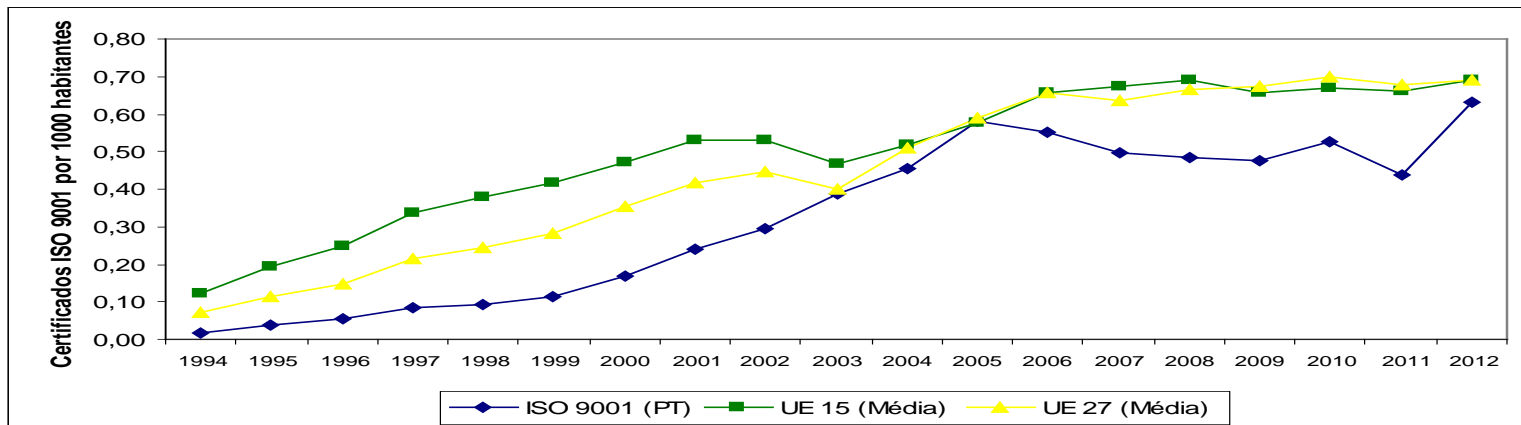
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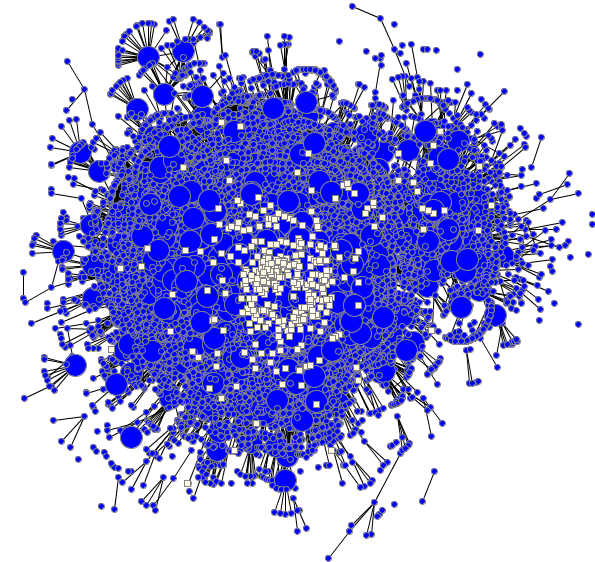


*“Quality for Future
of the World”*

Yes, we will do it!

From Process to Systems (“Big Q”), Remembering Deming

The future calls for the quality community to grow in its skills of systems thinking and systems problem solving. Quality at a process level must almost always consider the broader implications of change at the system level. Process thinking alone will not be sophisticated enough for issues of global scale.



Yes, we will do it!

[Reinvent Simplicity in our Approaches to Quality-Egg of Qolumbus]

In search of Simple and Clever Solutions to Cope with a Complex World !

Design-Inspired Innovation, by Jim Utterback et al.



[Pesquisa Avançada](#)
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{Technology x Design x Simplicity}^{Garage} = Success !

*“Quality for Future
of the World”*

LET'S JUST DO IT !

