



XXXIII Encontro Nacional de Engenharia de Produção

XXXIII National Meeting of Production Engineering

XXXIII Encuentro Nacional de Ingeniería de Producción



QUALIDADE: *DRIVER* PARA A SUSTENTABILIDADE

Paulo Sampaio

Universidade do Minho - Portugal

Escola de Engenharia

Departamento de Produção e Sistemas

Agradecimentos e Parabéns!



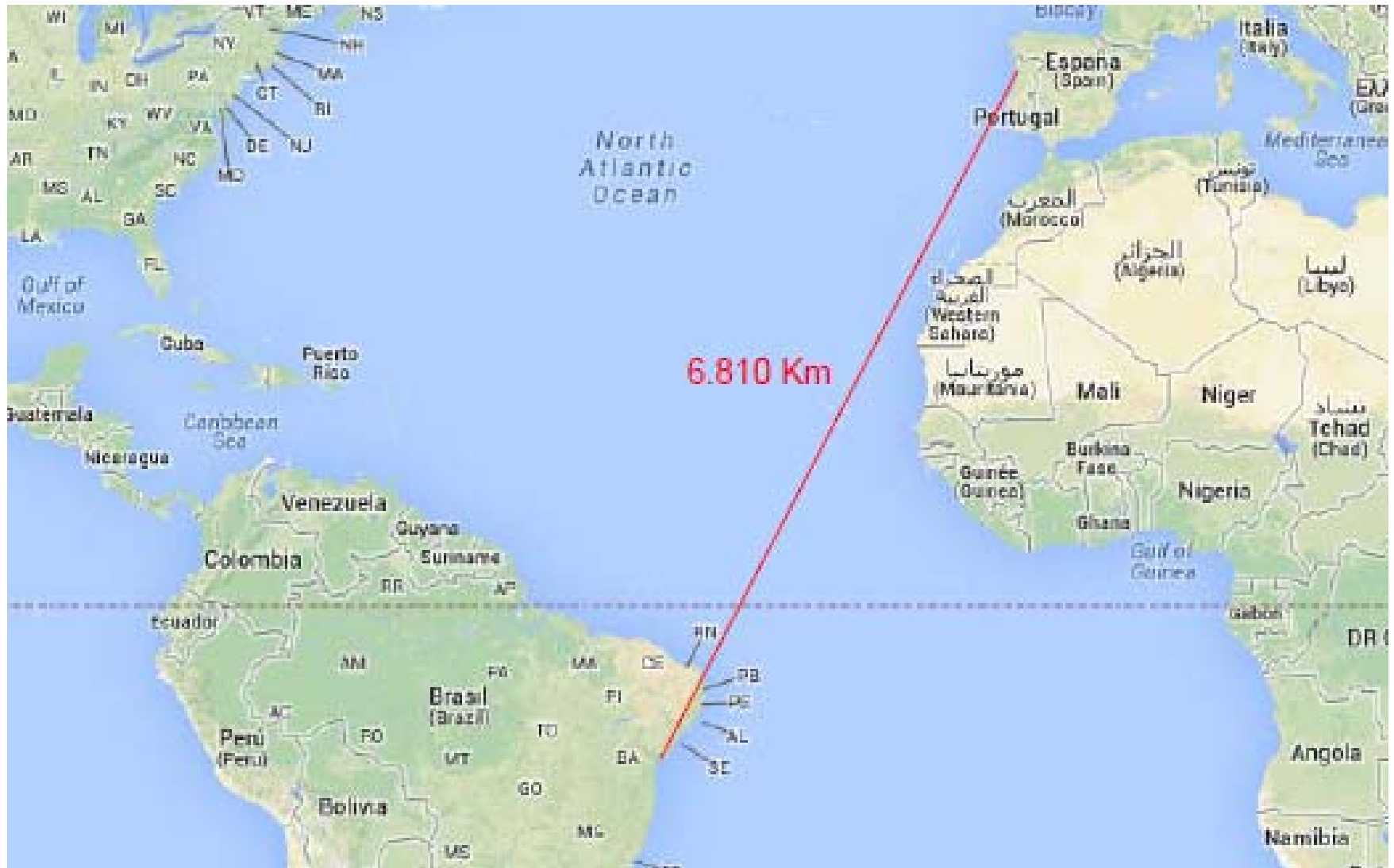
- Iniciativa de louvar!
- São precisas mais iniciativas destas para promover a Engenharia Industrial, e neste caso particular, a Qualidade, no Mundo!



Prémio por me aturarem!



BRAGA - SALVADOR





Paulo Alexandre da Costa Araújo Sampaio

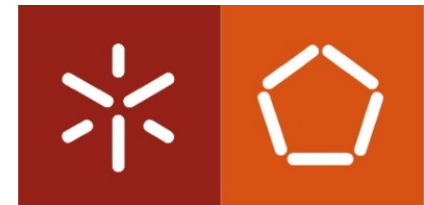
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Universidade do Minho

GRUPO DA EXCELÊNCIA E DA QUALIDADE (GEQ)



The screenshot shows a web browser window displaying the homepage of the 'Grupo da Excelência e da Qualidade' (Quality and Excellence Research Group) blog. The browser's address bar shows the URL 'http://grequ.blogspot.pt/'. The page features a blue header with the group's name in both Portuguese and English, accompanied by a logo. Below the header, there are several sections: a 'Paulo Sampaio' profile with a photo, a 'Mensagem de Boas Vindas' (Welcome Message) section, a 'Follow by Email' section with an input field and a 'Submit' button, and a 'Hiperligações' (Hyperlinks) section listing various quality-related organizations. The bottom of the browser window shows the Windows taskbar with the system clock set to 17:55 on 24-09-2013.

Paulo Sampaio

Mensagem de Boas Vindas

Olá!

Bem-vindos ao blog do "Grupo da Excelência e da Qualidade"!

O Grupo da Excelência e da Qualidade é um grupo de investigação que reúne um conjunto de Excelentes investigadores que desenvolvem projectos de investigação na área da qualidade sob a minha orientação / co-orientação (bem como todos aqueles adeptos da Qualidade que se queiram associar ao mesmo).

Este blog pretende ser um ponto de encontro desses profissionais da Qualidade espalhados pelo mundo, no qual possam discutir e partilhar as suas dificuldades e as suas dúvidas, mas também as suas vitórias e os seus sucessos.

Apareçam e ajudem a construir um futuro com Qualidade!

Paulo Sampaio

Follow by Email

Email address...

Hiperligações

- A view from the Q
- Associação Portuguesa para a Qualidade (APQ)
- American Society for Quality (ASQ)
- European Organization for

Followers

Aderir a este site.



Web: <http://grequ.blogspot.pt/>

Estrutura:

Coordenador: Paulo Sampaio

Pós-doutoramento: 2 investigadores

Doutoramento: 8 investigadores

Mestrado: 10 investigadores (21 concluídos)

Colaborações internacionais:



**Massachusetts
Institute of
Technology**



Colaborações nacionais:





How many CEO's are in the room?

“... it will be important in the future for top management and quality professionals to “use the same language” to fully integrate quality into the organization.” *(Paulo Sampaio, “40 New Voices of Quality”, Quality Progress, American Society for Quality, November 2011, www.qualityprogress.com)*



Porque é que a Qualidade é importante?

- O cliente está cada vez mais exigente e cada vez mais bem informado.
- A vida moderna depende cada vez mais do bom funcionamento dos produtos.
- O mundo é global.
- Em muitas áreas há excesso de capacidade produtiva, potencial ou mesmo instalada.



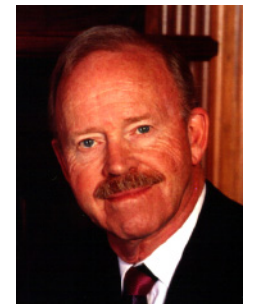
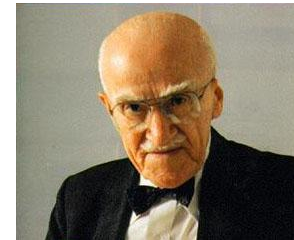
“A dificuldade em definir qualidade é a de traduzir as necessidades futuras do cliente em características mensuráveis, de forma a que o produto possa ser projectado e transformado para oferecer satisfação a um preço que o cliente esteja disposto a pagar. Isto não é fácil, e assim que se julga ter sido razoavelmente bem sucedido na tarefa, logo se descobre que as necessidades do cliente mudaram, que outros concorrente entraram no mercado, que surgiram novos materiais...”

Walter Shewart (1931)



Qualidade segundo os Gurus

- **Juran:** “aptidão para o uso”.
- **Crosby:** “conformidade com os requisitos”, “zero defeitos”.
- **Ishikawa:** “grau de satisfação dos requisitos dos utilizadores”.
- **Deming:** “a qualidade de um produto ou serviço apenas pode ser definida pelo cliente”.
- **Taguchi:** “qualidade é a perda gerada pelo produto na sociedade”, “centragem dos processos no valor nominal e redução da variabilidade”.
- **Feigenbaum:** “filosofia de gestão e um compromisso com a excelência”.





A Visão da Qualidade pelos Profissionais da Qualidade Portugueses



IS FOR QUALITY TIME

"Q de Qualidade"



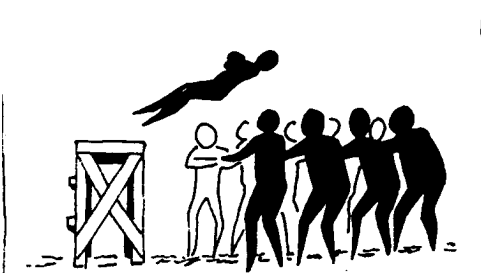
"Vinho de Qualidade"



"Mar azul num bonito dia de verão"



"Aperto de Mão"



"Confiança"



"Sucesso"



"Produtos de luxo"



The **ASQ** **Global** **State** of **Quality**



RESEARCH





ASQ Global State of Quality Research



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Advisory Panel

Steven Bailey—Steven is principal consultant with DuPont's corporate Applied Statistics Group. With more than 30 years at DuPont, Bailey also leads DuPont's corporate Master Black Belt Network. He received his BS, MS, and Ph.D. in statistics from the University of Wisconsin. He is a past president of ASQ.

Lloyd Barker—Lloyd joined Alcoa Inc. in October 2001 as director of Corporate Quality. He had been director of Corporate Quality for Howmet Castings before Alcoa acquired it in 2000. Currently he serves on the board of directors' Nomination Committee for ASQ and is a member of the Juran and Gyra Medal Selection Committees. He is a past judge for the Malcolm Baldrige National Quality Award, ASQ board of directors, and served on the Nadcap Executive Strategic Planning Board. In August 2007, he was the recipient of Nadcap's Mayben Platonoff Leadership Award. He is an ASQ Certified Quality Auditor, Quality Engineer, and Quality Manager.

Sister Mary Jean Ryan—Sister Mary Jean Ryan, Franciscan Sister of Mary, transitioned August 1, 2011, into her role as board chair. She had served as the system's CEO since its founding in 1986. Sister Mary Jean has received numerous honors, including the Distinguished Service Award (2010)—the highest honor given by the Missouri Hospital Association, the Juran Medal from ASQ, and the C. Jackson Grayson Distinguished Quality Pioneer Medal (2009) from APQC.

Roberto Saco—Roberto has been immersed in the disciplines of process and change management and service quality for more than 25 years. Saco served as ASQ's chair and as a senior examiner and judge for the Florida Sterling Award as well as a senior examiner for the Baldrige performance excellence programs. He is the owner and principal of a consulting firm, Aporia Advisors, and is an adjunct instructor in management at Miami-Dade College.

Paulo Sampaio—Paulo graduated with a five-year degree in industrial engineering in 2002 and received a Ph.D. in systems and production engineering from the University of Minho, in 2008. Sampaio is currently a researcher and assistant professor in the Systems and Production Department at the University of Minho in Portugal. In 2011, Sampaio was nominated as a *Quality Progress* "New Voices of Quality" (ASQ), and in 2012 he was awarded with the Feigenbaum Medal (ASQ).

Joal Teitelbaum—In 1961, Joal founded the engineering company that still carries his name. It was recognized on behalf of the high quality of the services and products delivered to its customers. In 2003, after receiving the National Quality Award (PNQ), from the National Quality Foundation, Teitelbaum achieved excellence levels never obtained by any company from the civil construction sector in Brazil, the WORLD CLASS Company Status.

Carl Thor—Carl is president of JarrettThor International of Colonial Beach, VA, a management consulting firm dealing with productivity and quality improvement. He was president of the American Productivity and Quality Center for several years and is still on its board of directors. Thor is the author of several books and hundreds of articles on productivity issues and was active with the World Confederation of Productivity Science and the Shingo Prize for Operational Excellence. He also operates an art gallery in Colonial Beach with his wife, Joyce.



ASQ Global State of Quality Research

Overview

22 Countries



5 Revenue Groups

- < \$100M
- \$100M to \$1B
- \$1B to \$5B
- \$5B to \$10B
- > \$10B

1,991
organizations

2 Industry Groups



- Manufacturing
- Services

1 Industry Highlight



- Healthcare



ASQ Global State of Quality Research

NUMBER OF RESPONDENTS BY ORGANIZATION SIZE AND REGION

	< \$100M	\$100M to \$1B	\$1B to \$5B	\$5B to \$10B	> \$10B	TOTAL
Australia	36	29	3	1	1	70
Brazil	46	31	4	12	21	114
Canada	68	11	51	10	13	153
China	52	34	29	10	20	145
Czech Republic	13	4	0	0	1	18
Finland	71	53	17	6	4	151
France	50	22	15	17	24	128
Germany	101	48	12	7	6	174
India	37	10	8	14	22	91
Mexico	50	20	11	3	5	89
Netherlands	57	25	34	16	17	149
Russian Federation	30	10	4	19	17	80
Spain	64	13	9	3	4	93
United Kingdom	40	32	57	14	21	164
United States	122	74	52	33	40	321
Other	34	7	3	4	3	51
TOTAL	871	423	309	169	219	1,991



Key Findings

- **Quality practices differ between manufacturing and service organizations.**
- **Industry matters more than size.**
- **Quality practices are the same, no matter the region.**



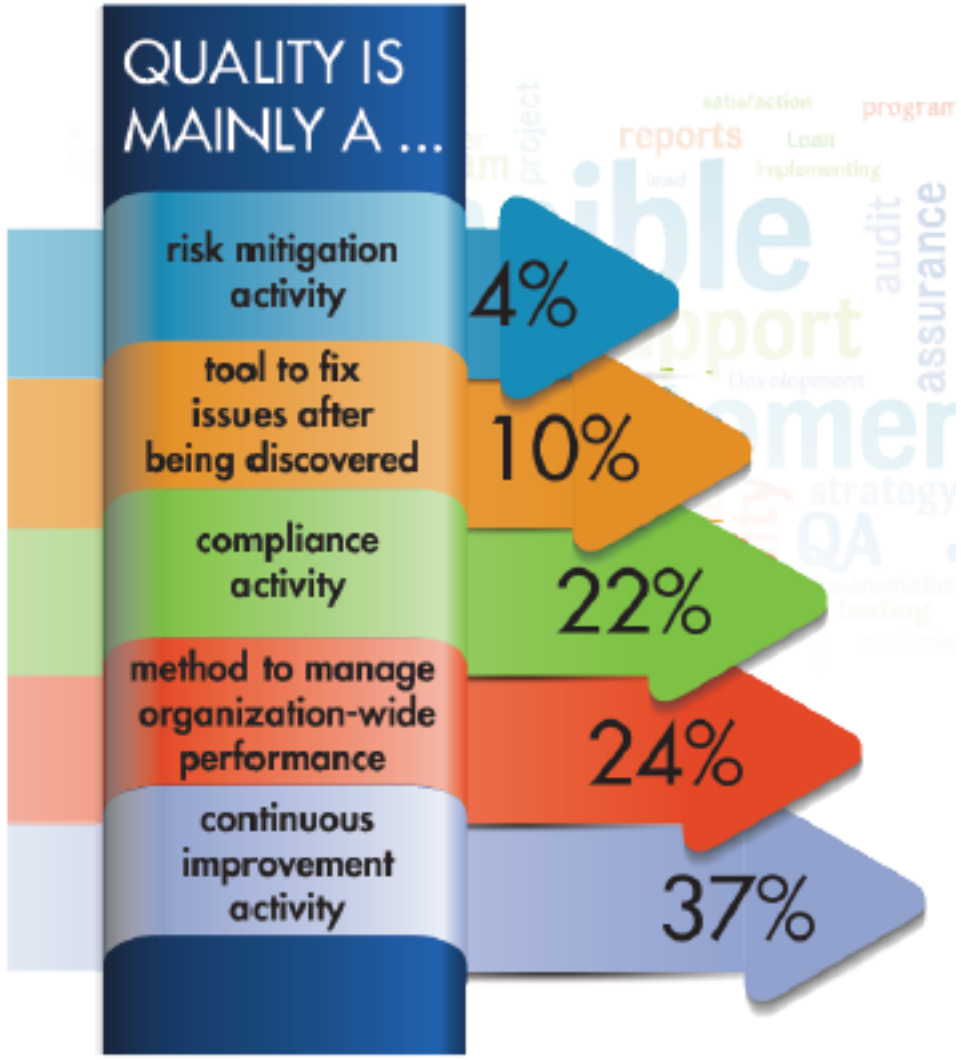
ASQ Global State of Quality Research





ASQ Global State of Quality Research

Theme 1
1 QUALITY GOVERNANCE AND MANAGEMENT



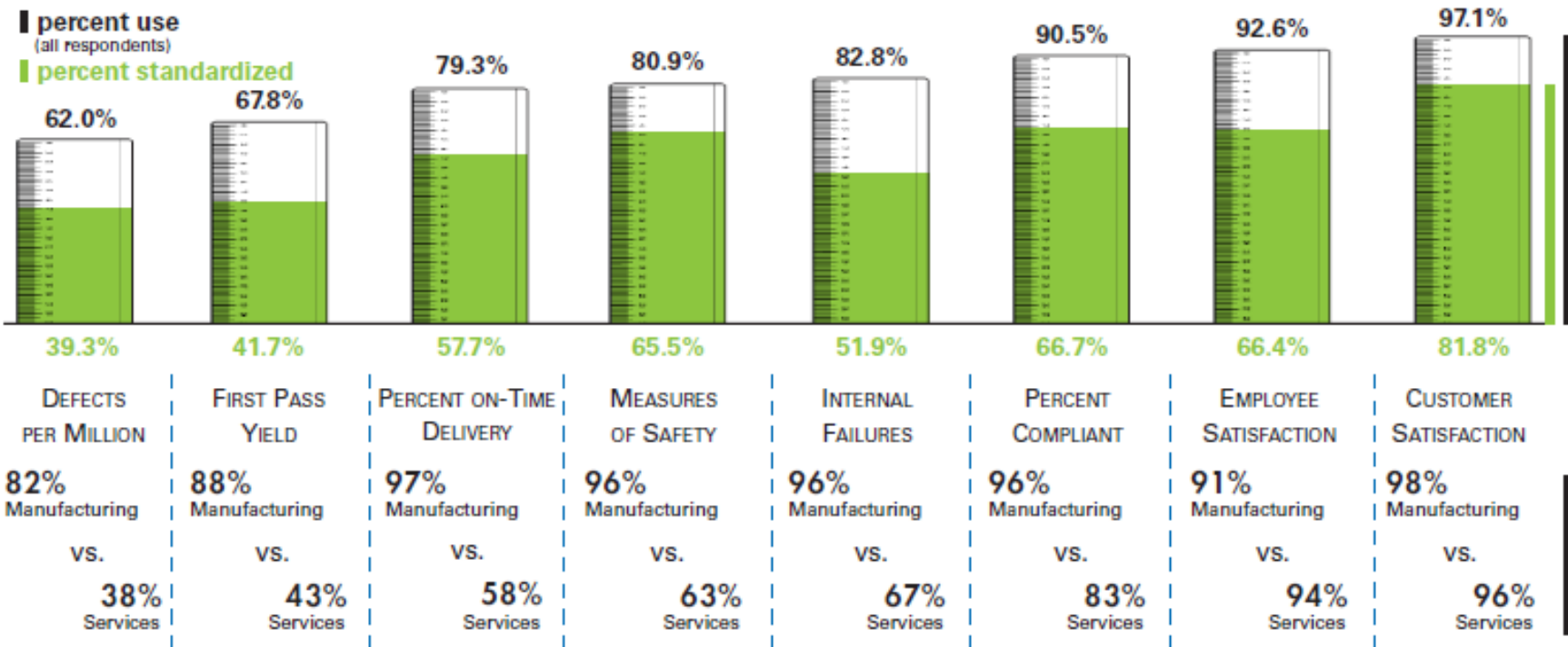
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Theme

2

OUTCOMES AND MEASURES





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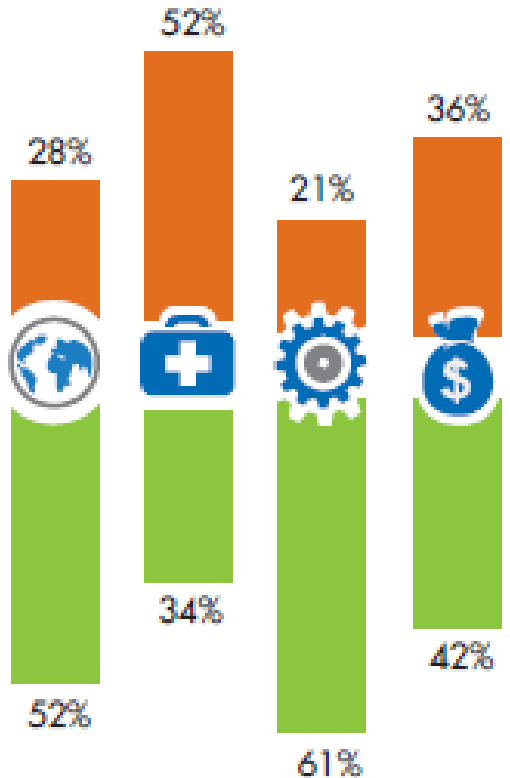
Theme **2** **OUTCOMES AND MEASURES**

Quality measures are used ...

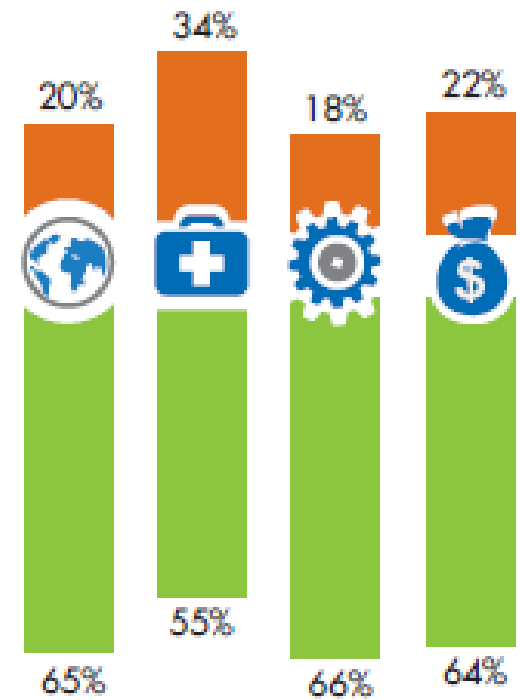
... to drive higher performance by promoting challenging goals.



... as part of variable performance compensation.



... for trending and/or predictive analytics.

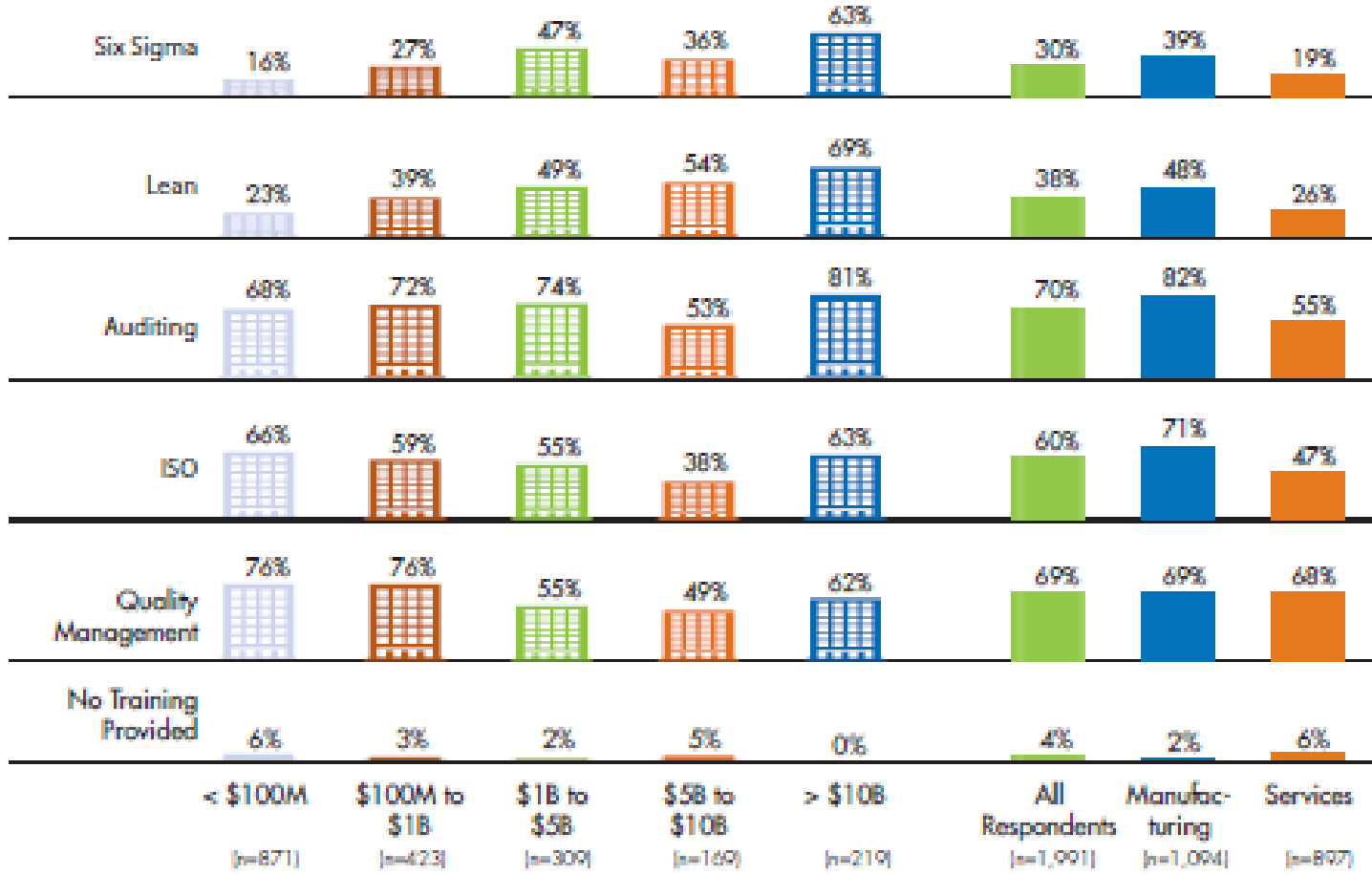




ASQ Global State of Quality Research

Theme **3** COMPETENCIES AND TRAINING

Does your organization provide training (either through direct training or compensate for external training) to staff working on quality-related activities?

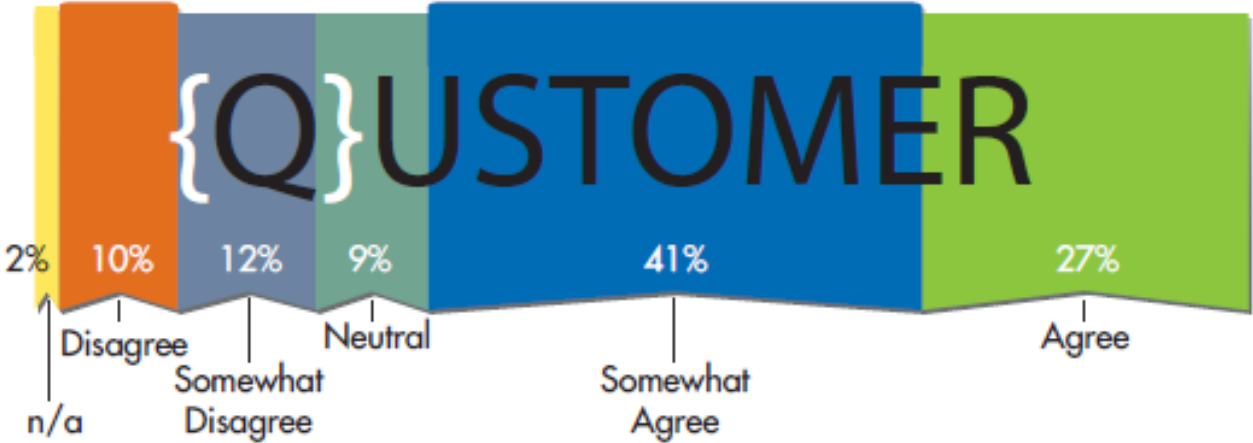




Theme 4 CLATURE

Quality + The Customer = Qustomer™

Information on our product or service quality performance is shared with customers.



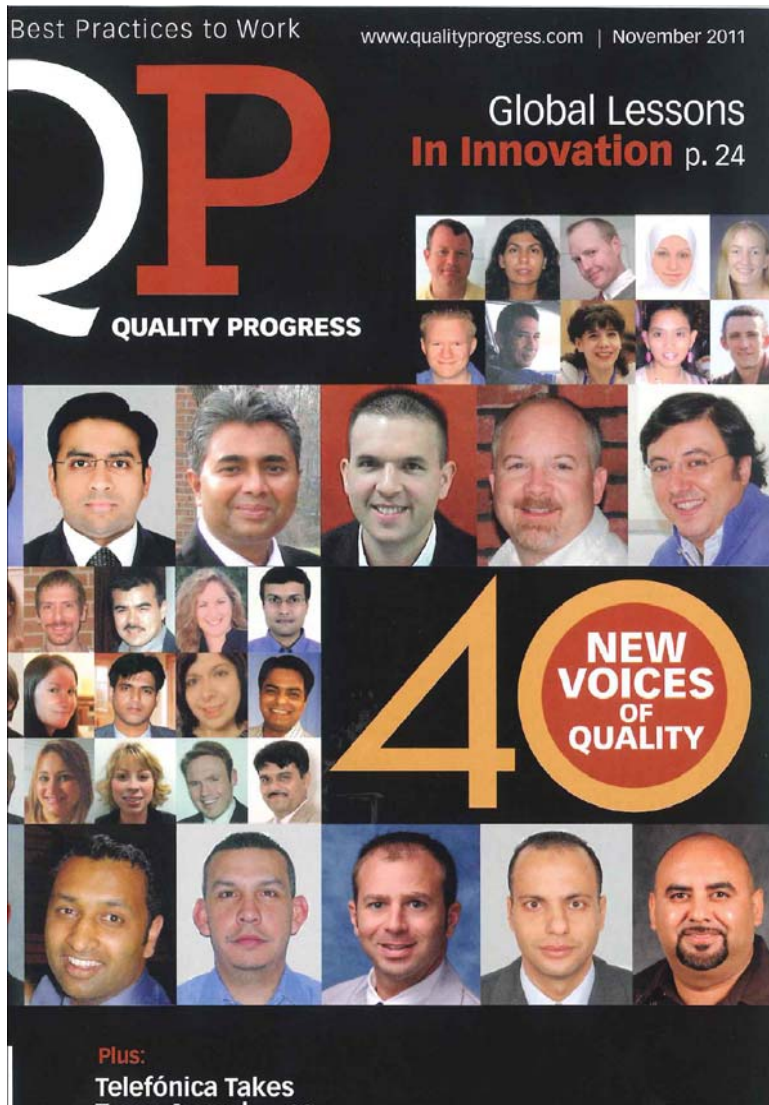
Prever o futuro não é fácil...



According to Mark Twain, “The art of prophecy is very difficult – especially with respect to the future.”



- Conceito mais alargado.
- Conceito mais credível.
- Conceito mais globalizado.
- Conceito alinhado com o movimento mundial da qualidade e com as tendências internacionais.
- As organizações vão desempenhar um papel vital na promoção do Futuro da Qualidade.
- O envolvimento do governo é fundamental!



“Quality should be continuously understood, assimilated and implemented, both in public and private organizations. However, each one of us is responsible to push and pull quality forward, always doing more and better.”
(Paulo Sampaio, “40 New Voices of Quality”, Quality Progress, American Society for Quality, November 2011, www.qualityprogress.com)

O Futuro da Qualidade



Futuro da Qualidade = Fazer Bem x Fazer Melhor x Fazer Diferente

A Qualidade tem Futuro!

O Futuro da Qualidade tem Presente!

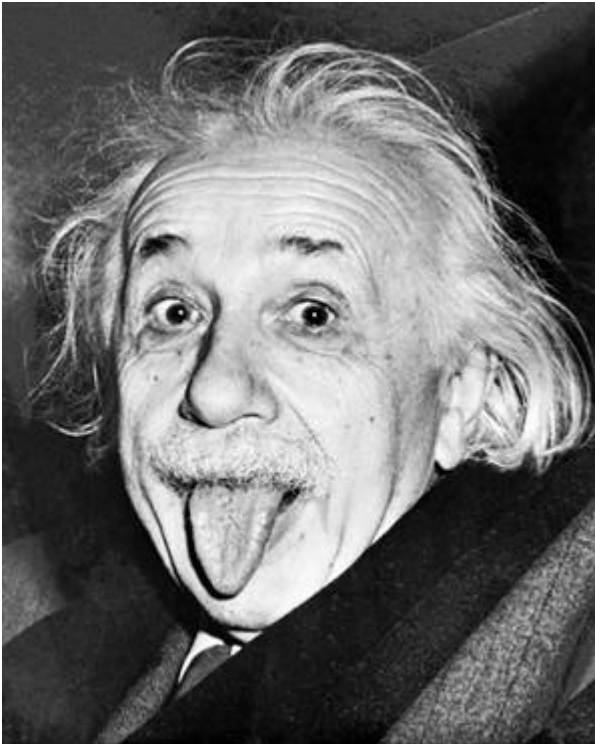
O Futuro da Qualidade pertence-nos e faz-se todos os dias!”

(in “O Futuro da Qualidade em Portugal”, 2010)





Vamos mais longe!



$$E = Q \times I$$

Sendo:

E = Excelência

Q = Qualidade

I = Inovação



MUITO OBRIGADO!