



ILMATIETEEN LAITOS
METEOROLOGISKA INSTITUTET
FINNISH METEOROLOGICAL INSTITUTE

Quality Management (QM) in Weather Services

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Content of presentation

- **What is Quality?**
- **Do we need a QMS in weather services?**
- **QMS at Finnish Meteorological Institute.**





What QUALITY means?

- **Meeting the requirements of customers**
- **Right people making right things**
- **Systematic way of doing things**
- **Duties and responsibilities are clearly defined in an organization**
- **Improving things, which could work better in your organization**



A Quality Management System, what's that?





How to get the wanted quality?

Quality doesn't occur by accident

- Identify customers needs
- Define your products/ services
- Plan process
- Plan resources
- Apply monitoring
- Apply control (auditing)

Establish Management System



Why ISO 9001:2008 ?



2.2.3 From **15 November 2012**, each Contracting State shall ensure that the designated meteorological authority referred to in 2.1.4 establishes and **implements a properly organized quality system** comprising procedures, processes and resources necessary to provide for the quality management of the meteorological information to be supplied to the users listed in 2.1.2.

2.2.4 Recommendation.— *The quality system established in accordance with 2.2.2 should be in **conformity with the International Organization for Standardization (ISO) 9000 series** of quality assurance standards and should be certified by an approved organization.*



The Basics of ISO

Say What You Do

This means **document** your systems so you will consistently do the job the same way every time. We must make sure we have appropriate documentation.

Do What You Say

This is what the auditors want to see. **Objective evidence** that what you say you are doing in your documentation is what you are doing in practice.

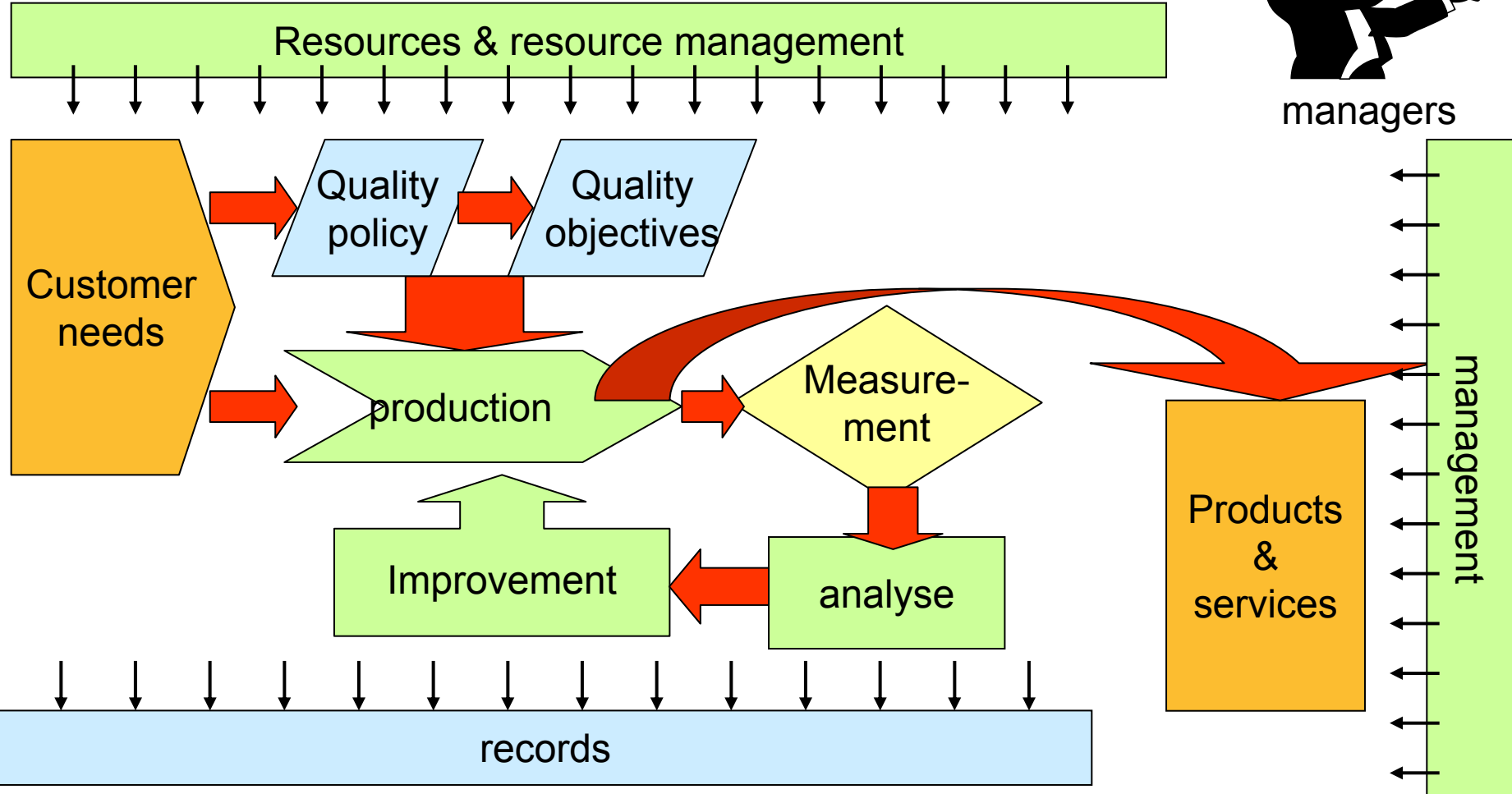
Helena Lamelas Oliveira,
Instituto de meteorologica, Portugal



Quality Management System



managers



QM is mastering a group of processes!



Principles of ISO 9001:2008 standard

- Managers are committed to use QM principles in management
- Quality Policy, Quality Objectives and Customer Requirements are defined
- Processes planned to produce the services needed. Resources and infrastructure to this services exists.
- Process for Control of nonconformities is in place
- Principle of Continuous improvement is practised overall in the organization
- Internal audits and management reviews are in use
- Control of documents is working



Quality Management Systems in FMI

Plans for
Implementing
ISO 9001:2008

ISO 9001:2008

**T097 (EN ISO/IEC 17025)
The Air Chemistry
Laboratories**

**T097 (EN ISO/IEC 17025)
Magnetic Calibration and
Testing Laboratory**





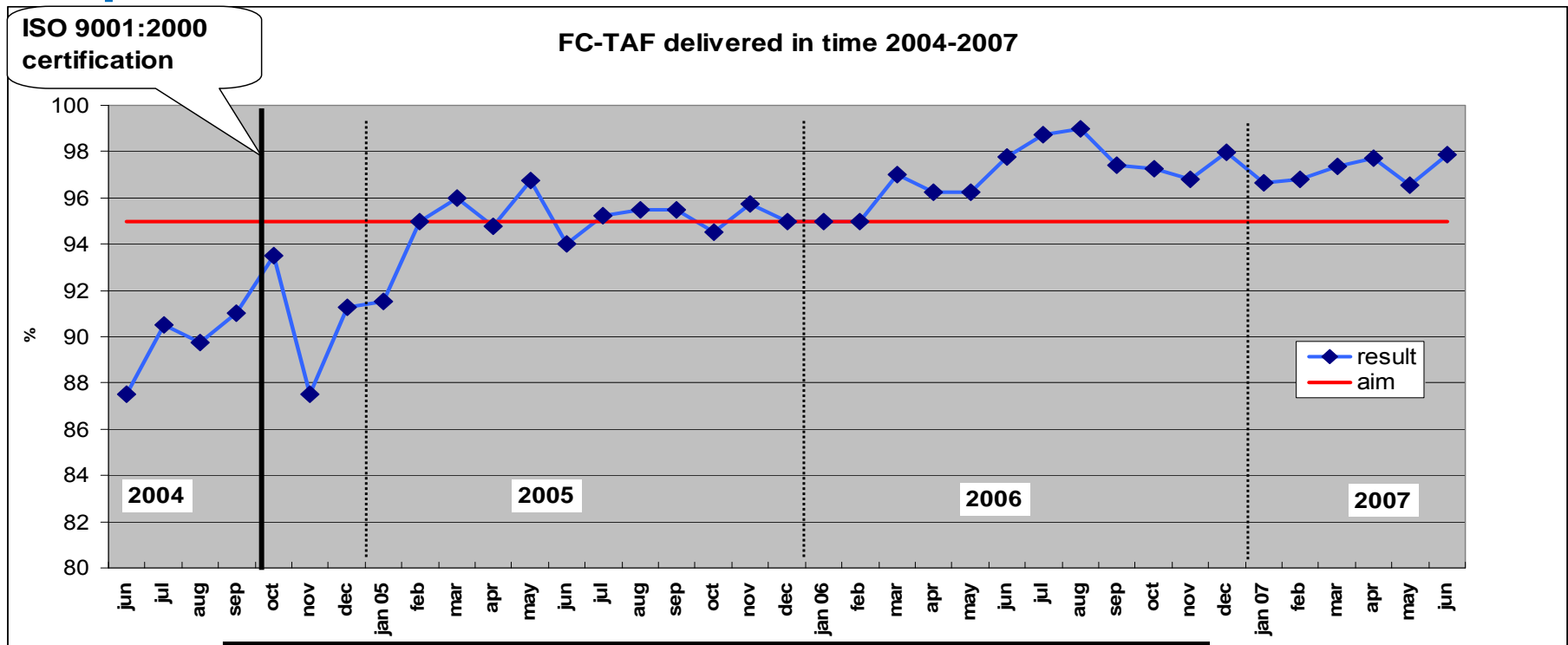
Benefits of QMS recognized in FMI

- **People know who is responsible for which issue -> work efficiency increases**
- **Common understanding about the processes -> work becomes more fluent**
- **Work instructions are updated all the time -> less nonconformities**
- **Things decided to do shall really be done -> real positive development of the quality of the services**



Quality of TAF delivery

- A real time product delivery was chosen as the first subject to be measured in the weather service process



What is measured can be improved



Consultancy & training co-operation projects for QMS implementation to NMSs 2010-2011



	<ul style="list-style-type: none">• Dominican Republic• Grenada• Guyana• Haiti• Jamaica• St. Kitts & Nevis• St. Lucia• St. Vincent & the Grenadines• Suriname• Trinidad & Tobago
<ul style="list-style-type: none">• Antigua & Barbuda• Bahamas• Barbados• Belize• Cuba• Dominica	

SHOCS – project 2010-2012

Under planning

	<ul style="list-style-type: none">• Mozambique• Namibia• Seychelles• South Africa• Angola• Swaziland• Tanzania• Zambia• Zimbabwe• Botswana• DRC• Lesotho• Malawi• Mauritius
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On-going

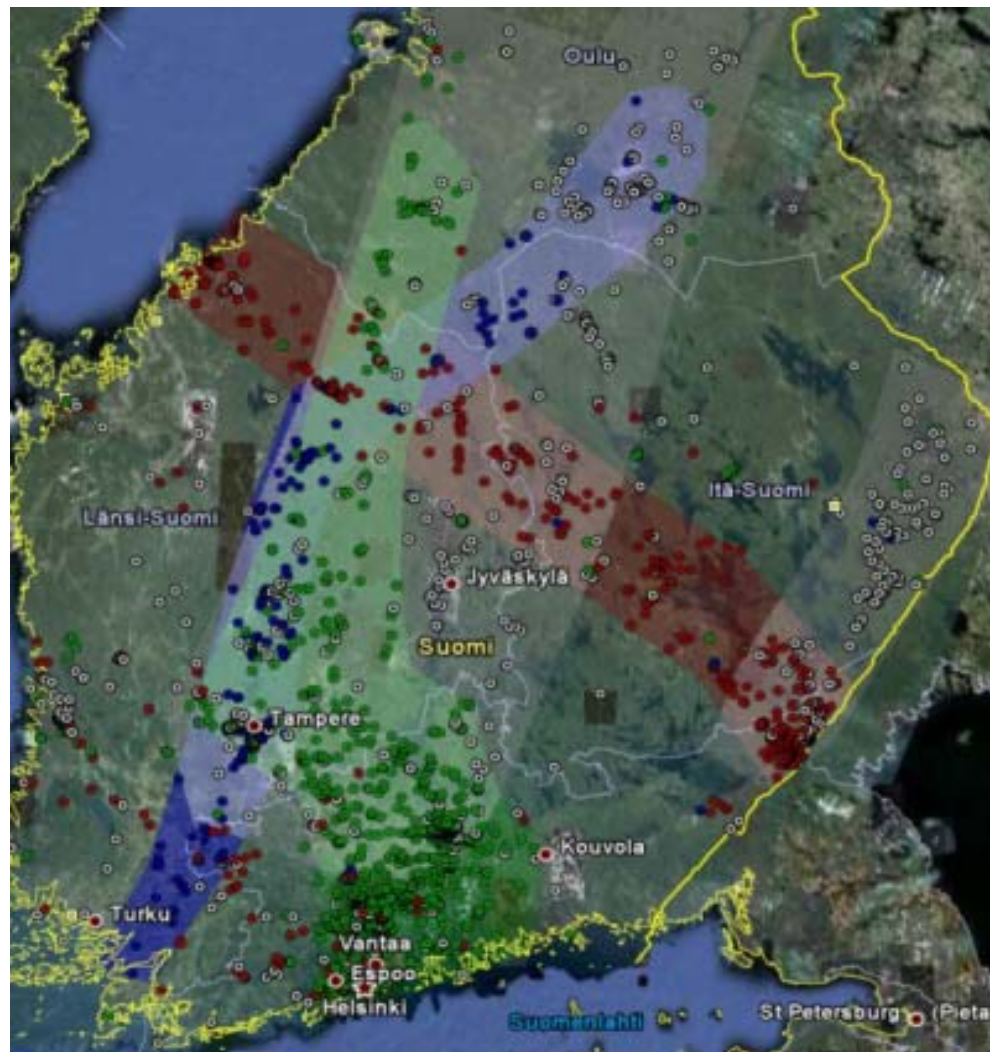
	<ul style="list-style-type: none">Islands• Palau• Papua New Guinea• Samoa• Solomon Islands• Tonga• Vanuatu• Niue• American Samoa• Cook Islands• Federated States of Micronesia• Fiji• Kiribati• Marshall
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Extending QMSs to EWS and DRR

- Close co-operation with agencies
- Need to obtain common understanding of QMS principles
- Define agency specific and Shared responsibilities
- Build EWS/WWS - DRR platforms
- The Caribbean Regional Coop Program offers an opportunity we should not miss!

Paths of meso-cyclones depicted using real time damage reports in Jul - Aug 2010



100 km



Thank you Questions?