



Université du Québec

École de technologie supérieure

Department of Software and IT Engineering

JTC 1 / SC7

Software and Systems Engineering Status and Directions

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ETS

le génie
pour l'industrie

SOA Symposium, Beijing
2010-05-11

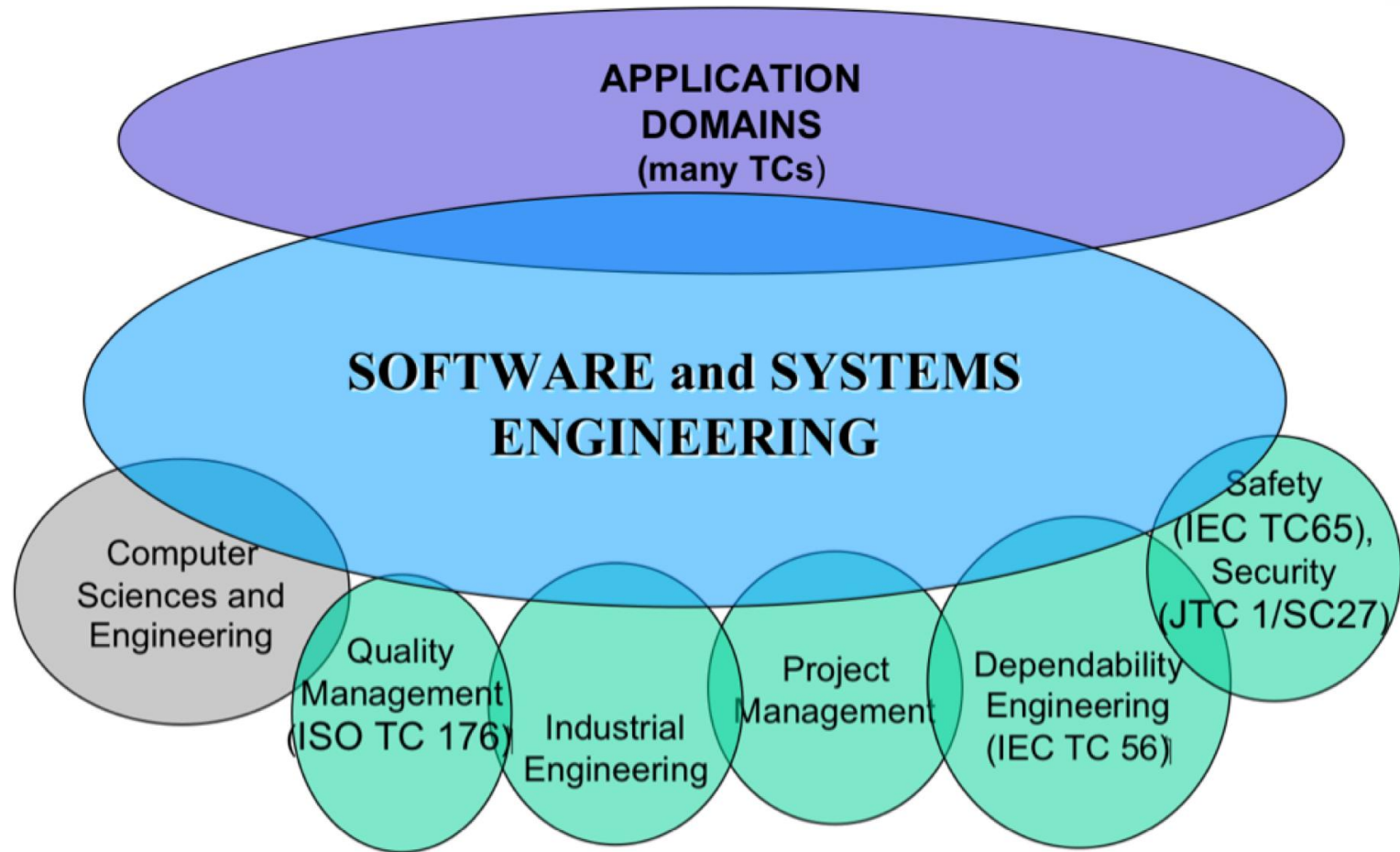


Introduction

SC7:

- Horizontal Committee (like ISO/TC176)
- Process/Method/Techniques focused
- Coverage of the total life-cycle of (software based) products
- Product: output of a process (ISO 9001):
 - Software Systems
 - Services related to software systems engineering and operations
 - Services provided by software systems (from a Horizontal perspective)

Horizontality of SC7



Why are standards important in IT?

One perspective – Global interoperability:

- Between machines/components
- Between people
- Between organizations

SC7 Contributions

- > Enable the creation of markets
- > Enable commercial activities
- > Enable functional products
- > Enable functional infrastructures
- > Enable the perinnity of digital information
- >

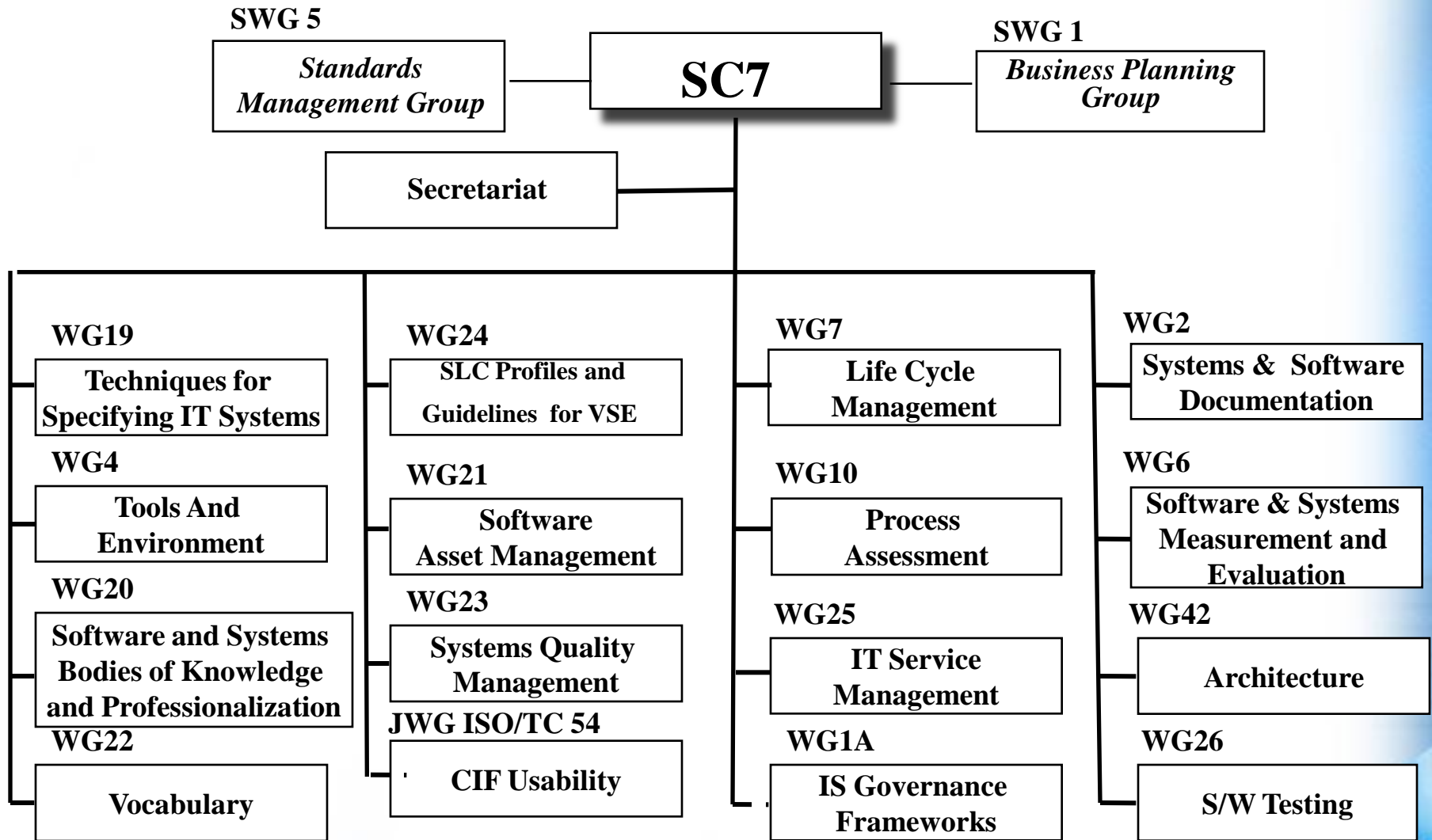
Status



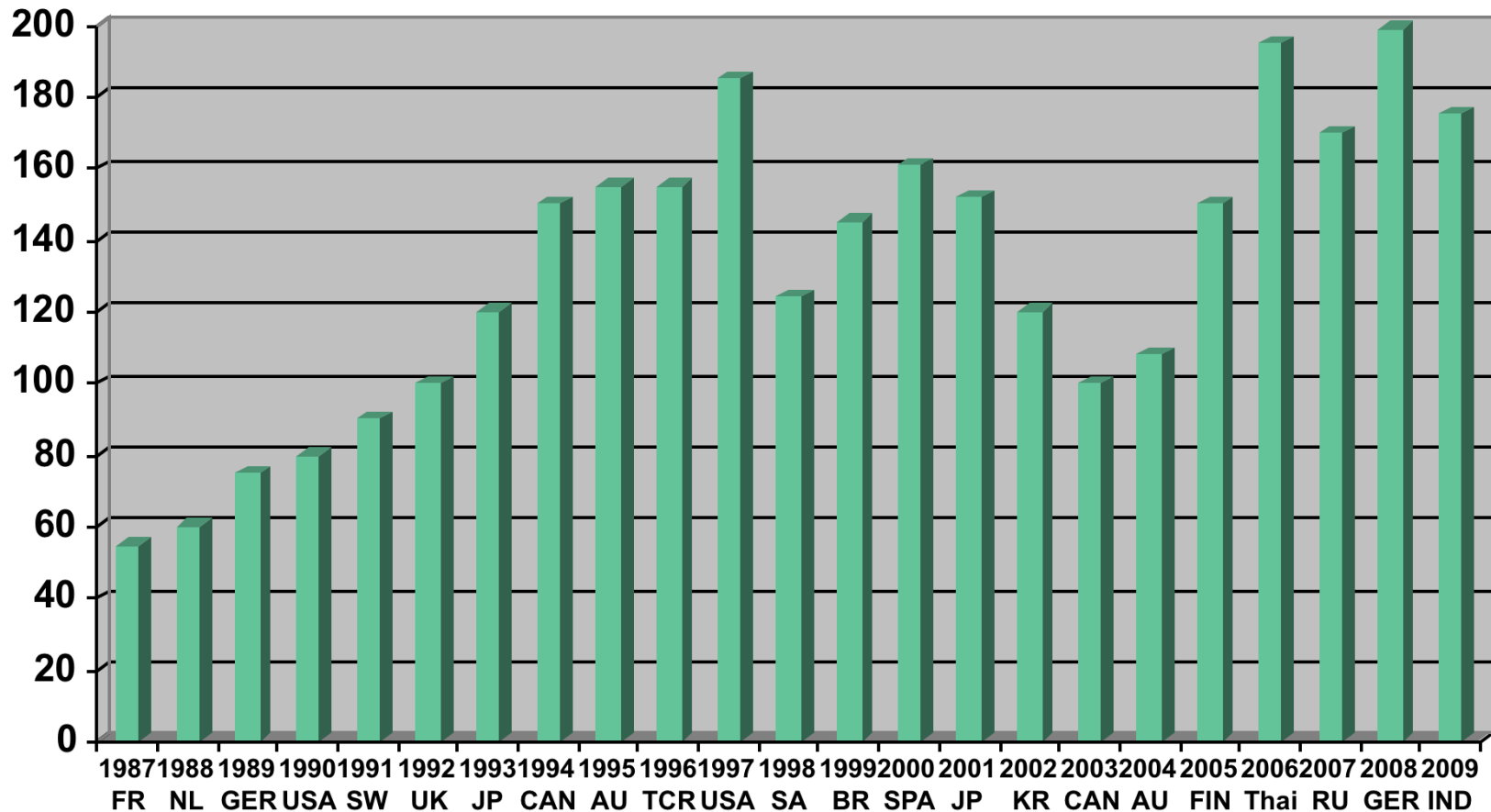
SC7 Today

- 37 participating countries (29 in 2003)
- 18 observing countries
- Key Liaisons:
 - IEEE-CS
 - INCOSE
 - itSMF
 - ISACA
 - OMG
 - PMI

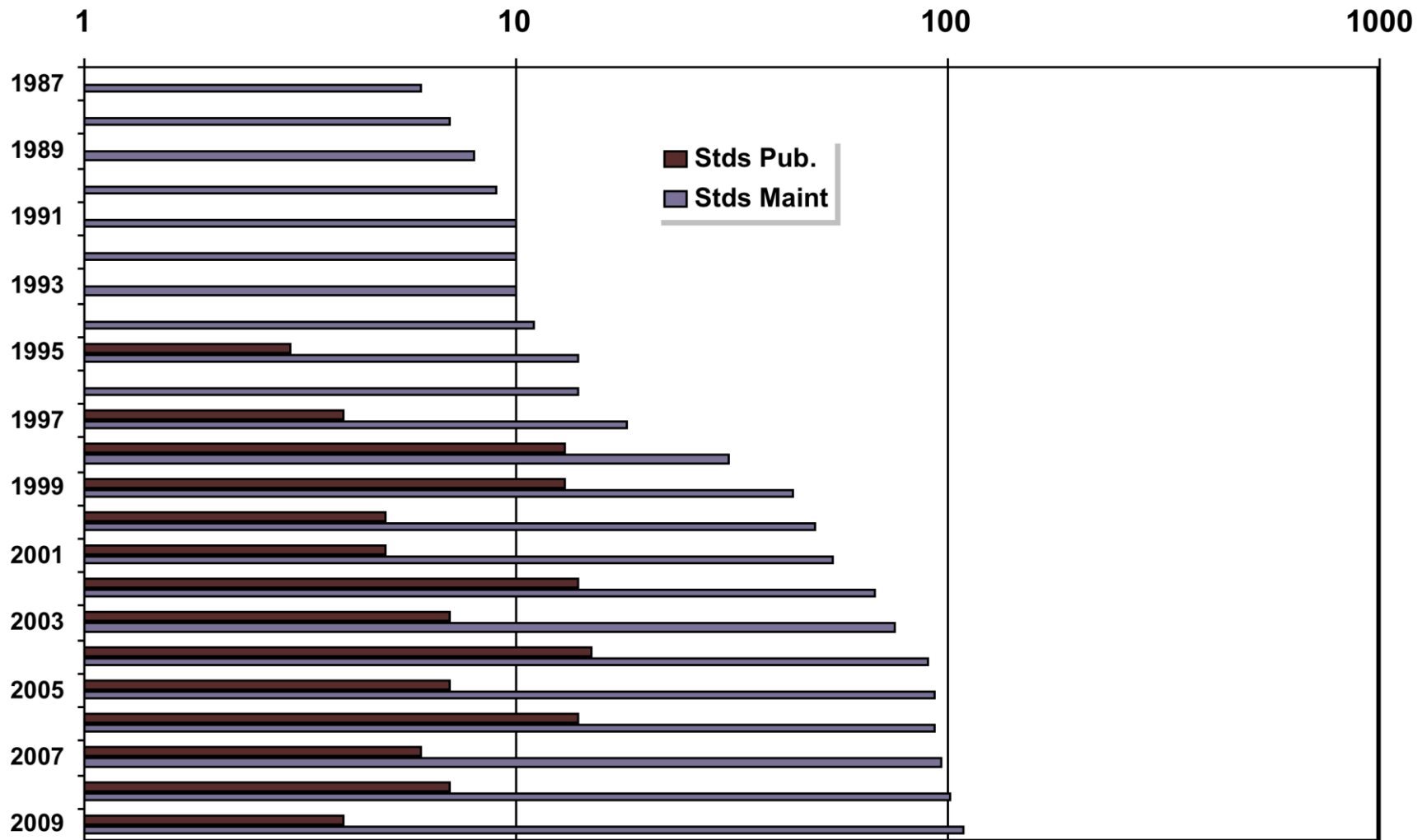
SC7 Structure



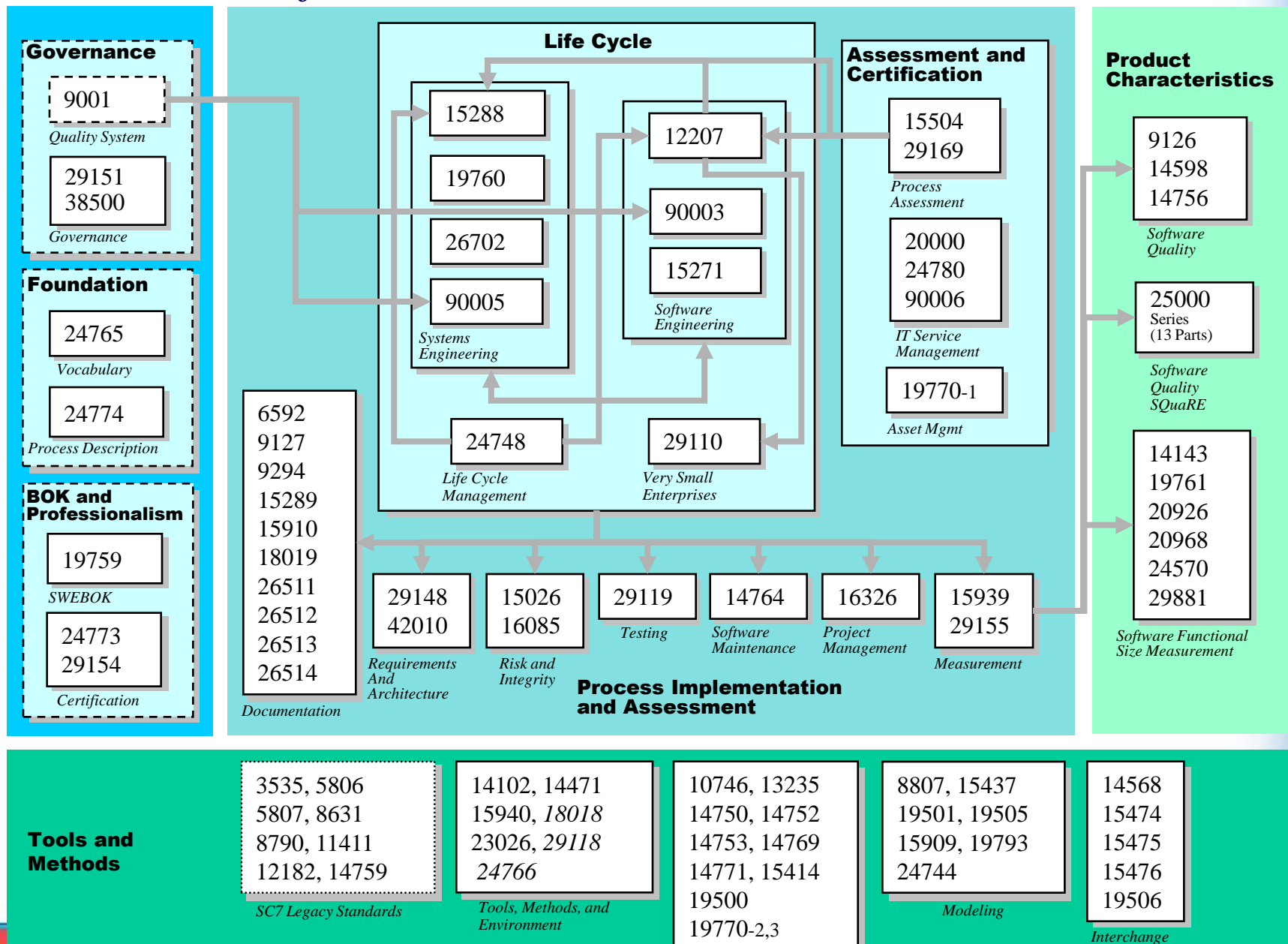
Plenary attendance



SC7 Production (est.)



Overview of the SC 7 Standards Collection



Directions



Key Strategic Directions

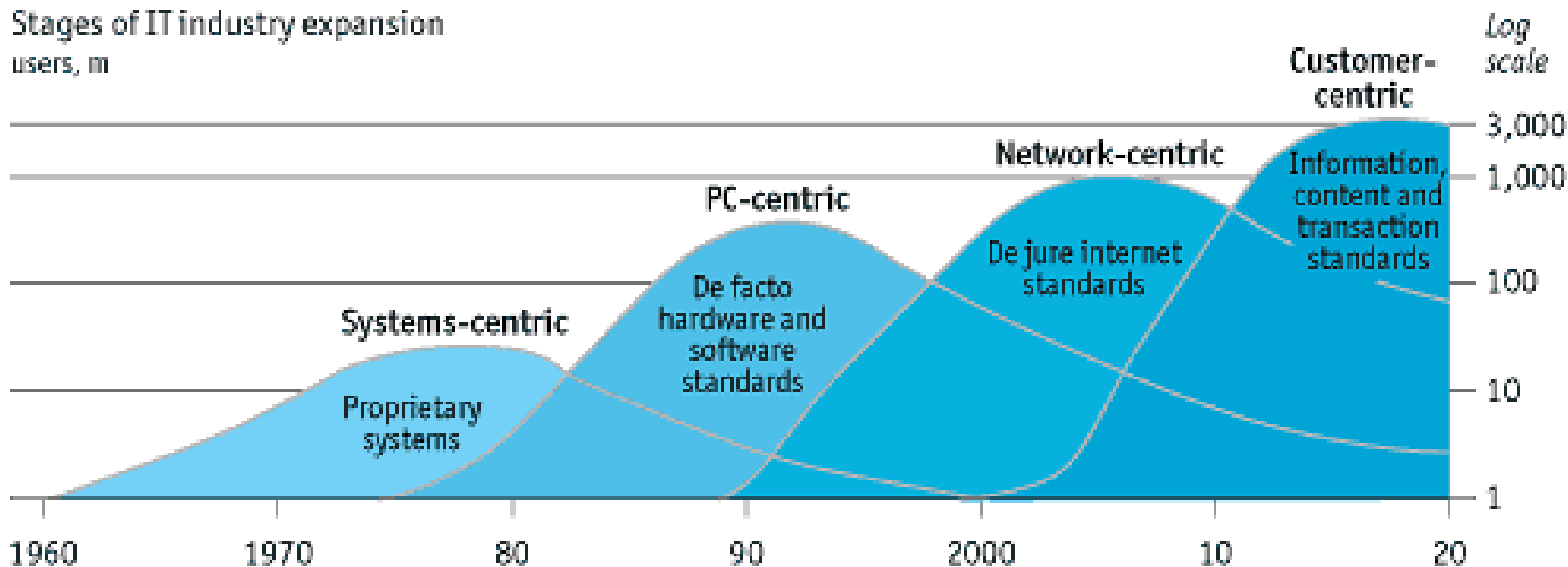
- Respond to the evolution of the global IT market and of IT technologies
 - Increase globalization of IT Services
 - Growing importance of IT operations services
 - Growing importance of Systems Integration
 - Continual increase in IT ubiquity
 - Continual increase in the importance of the global IT infrastructure to the global economy

IT Evolution

(technology waves and social impacts)

What next?

Stages of IT industry expansion
users, m



Source: David Moschella

From: *The fortune of the commons*. In *Coming of Age - A Survey of the IT Industry*.
The Economist, May 8th 2003



<http://www.net-security.org/secworld.php?id=8541>



Cloud Computing:

General concept were IT services
are provided through the Internet
(or an Intranet..)

<http://www.cio.co.uk/cmsdata/news/112604/cloud.jpg>

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Mashup

An application that uses or combines data or functionality from two or many more external sources to create a new service.

<http://www.mspmentor.net/wp-content/uploads/2009/07/zenith-infotech-virtualized-cloud-computing.jpg>
Modified from http://en.wikipedia.org/wiki/Mashup_%28web_application_hybrid%29

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Active Study Groups

- **Service Oriented Architecture (SOA)**
- IT Enabled Services (ITES)
- **System Integration**
- Framework for Software Processes Methodology
- Agility
- Embedded Systems
- Guidance for Process Description
- Tools and Methods of Software Testing
- **IS Governance for Cloud Computing**
- IS Governance for Service Providers
- IS Governance for IT Audit
- **IS Governance for Enterprise Architecture**
- Software Engineering Certification Schemes

SC7 and SOA

- SOA is an enterprise application architecture style based on the reuse and composition of loosely coupled services available through an intranet or the Internet.
- Many SC7 Standards are directly applicable to the development, deployment and operation of IS applications and IT services based on an SOA architecture.
- SC7 is currently developing a standard on IT product lines engineering (29118). SOA and product line engineering do share common elements – from a method and process perspective.

SC7 and SOA

Study Group created at the 2009 Hyderabad plenary, whose Convener was provided by China, with the mandate to assess, within the SC7 scope:

- Whether existing and upcoming SC7 standards exist and adequately address this area of interest.
- The availability and coverage of other standards from other relevant bodies.
- The perceived need for standards in this area.

SC7 SOA Study Group Membership

National Body
China
Thailand
India
France
Spain
Mexico
Korea
Canada
UK
Japan

Liaison
SC7/WG19
The Open Group
IEEE Computer Society
OMG
OASIS
COSMIC

SC7 and SOA

- The Study Group has produced a report that is currently being considered by SC7
- The report will be discussed at the coming SC7 Plenary in Niigata on May 23-28



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