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All SC7 Business Planning documents can be found at the SC7 web site <http://www.jtc1-sc7.org/> under the heading *Planning*.

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**MANAGEMENT REPORT AND BUSINESS PLAN FOR**

**ISO / IEC JTC 1/SC7**

**SOFTWARE ENGINEERING**

PERIOD COVERED: November 2004 - October 2005

SUBMITTED BY: François Coallier, Chairman  
Witold Suryn, Secretariat

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# 1.0 MANAGEMENT SUMMARY

## 1.1 CHAIRMAN'S REMARK

The last year saw JTC 1/SC7 completing 7 projects (May 2004-May 2005) and initiating 9 new ones.

Exploration of new areas as well as consolidation of existing ones was done by its SWG 5 on architecture and 22 study groups (14 till May 2005 and 8 active now).

## 1.2 JTC 1/SC7 STATEMENT OF SCOPE, VISION, PURPOSE AND CORE VALUES

### Scope

The following "Terms Of Reference" were approved by JTC1 at its Plenary in Paris and endorsed by SC7 at its 1997 Plenary in Walnut Creek:

*"Standardization of processes, supporting tools and supporting technologies for the engineering of software products and systems.*

*Note: The processes, tools and technologies are within the scope of JTC1 terms of references and exclude specific tools and technologies that have been assigned by JTC1 to other of its SC's."*

### Vision

The vision of SC7, as elaborated at its 1997 Walnut Creek business planning workshop and endorsed formally by member bodies, and updated to reflect the changes in Terms of Reference since then:

*A unified set of software and systems engineering standards widely accepted by the intended class of users.*

These standards will be organized in a framework, which establishes the relationships among SC 7 standards and between SC 7 standards and those of other disciplines, e.g. engineering, information technology, and quality management.

### Purpose

The purpose of SC7, as elaborated at its 1997 Walnut Creek business planning workshop and endorsed formally by member bodies and updated to reflect the changes in Terms of Reference since then, is to:

- Provide quality software and system engineering standards that meet user needs in broad markets.
- Manage the set of standards effectively through documented framework.
- Promote the use of standards by providing supporting materials.
- Provide leadership in software and system engineering standardisation through:
  - The development of a comprehensive set of integrated standards with broad international and professional consensus;
  - Initiating cooperative work with international professional and standards producing organizations;
  - A framework that:

- Facilitate the integration and sub-contracting of standards developed in other standards producing organization;
- Facilitate cooperative development of joint standards with other international standards producing organizations;
- Minimises the inconsistencies between major software and system related standards including those developed by other standard producing organizations.

## Area of work

We are meeting our mandate and achieving our objectives by addressing certain key areas in software and system engineering standardization:

- Software and system engineering processes: in partnership with the International Council of Systems Engineers (INCOSE) and other parties, we are developing and are improving on standards which describe good software and system engineering practices, as well as standards to consistently assess organisational software and system engineering practices against a given benchmark;
- Software system products: we are developing and are improving on standards which allow purchasers and buyers to size and document software products as well as to express, measure and evaluate the quality of the software that is produced and its contribution to the final product or application system;
- Enterprise architecture: in partnership with the Object Management Group ([OMG](#)), we are developing and are improving on Open Distributed Processing (ODP) standards to integrate IT and business system definition and provide the software and system engineering tools to implement enterprise information systems.
- Software engineering environment: we are developing and are improving on standards which make it easier to use software engineering environments and to re-use and re-deploy the data contained in them.
- Software engineering body of knowledge: we have worked with the Institute of Electrical and Electronics Engineers Computer Society ([IEEE-CS](#)) on their guide to the Software Engineering Body of Knowledge (SWEBOK) and we published it as a ISO/IEC Technical Report. We have now initiated a new project on the certification of software engineers.
- Management of software assets: we are working on the development of a standard that will describe the basic requirements of a software asset management environment.

## Core Values

SC7 core values are:

- Consensus
  - At an International level and with regards to software and system engineering best practice
- Full and open deliberation
  - Active involvement with related disciplines
- Informed participation
  - Awareness of the subject
  - Awareness of the market
  - Awareness of JTC1 procedures
  - Awareness of project background
- Equality and members/tolerance
  - At a minimum to follow JTC1 procedures
- Commitment to quality
  - Maintain awareness of best practice and user needs

Commitment of participants to the process

Recognition of the importance of continuity in standards development

- Professionalism

Maintaining awareness of software and system engineering practices

### **1.3 PROJECT REPORT**

As of 2003-09-27, there were 22 active projects / sub-projects in JTC 1/SC7 (see <http://www.jtc1-sc7.org/>).

These are handled by 12 active working groups (See annex A)

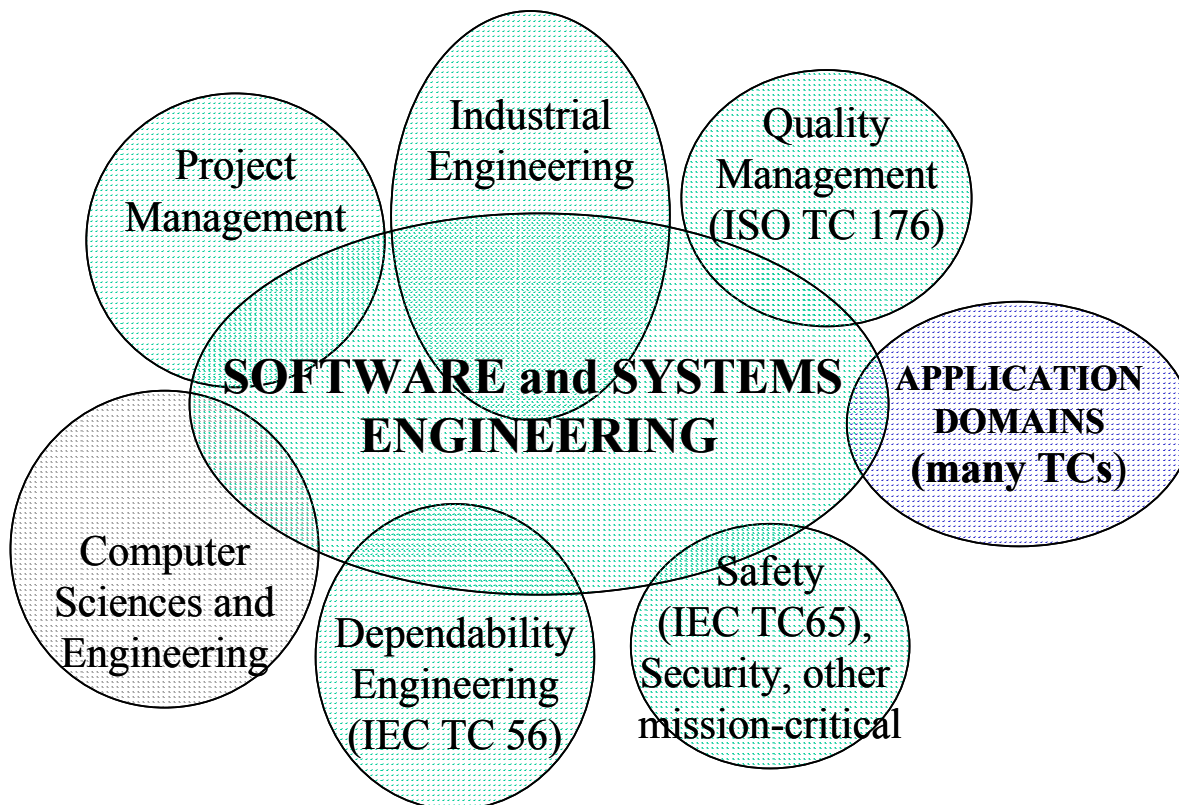
The following standards have been published between the last JTC 1 Plenary and 2005-10-16:

- ISO/IEC TR 9294:2005-Information technology - Guidelines for the management of software documentation
- ISO/IEC 15504-1:2004-Information technology - Process assessment -- Part 1: Concepts and vocabulary
- ISO/IEC 15504-4:2004-Information technology -- Process assessment -- Part 4: Guidance on use for process improvement and process capability determination
- ISO/IEC 15909-1:2004-Software and system engineering -- High-level Petri nets -- Part 1: Concepts, definitions and graphical notation
- ISO/IEC 16085:2004-Information technology -- Software life cycle processes -- Risk management
- ISO/IEC 19501:2005-Information technology -- Open Distributed Processing -- Unified Modeling Language (UML) Version 1.4.2
- ISO/IEC 24570:2005-Software engineering -- NESMA functional size measurement method version 2.1 -- Definitions and counting guidelines for the application of Function Point Analysis
- ISO/IEC TR19759L2005 - Software Engineering -- Guide to the Software Engineering Body of Knowledge (SWEBOK)

## 1.4 COOPERATION AND COMPETITION

### Internal

JTC 1 has recognized that its SC7 is a “process focused” SC. The diagram that follows illustrates how SC7 scope interacts with other SC’s and disciplines:



All those overlaps have the potential to generate liaison challenges.

There are at least two other process focused TC’s in ISO and IEC that also had overlap with the JTC1/SC7 program of work: ISO/TC176 and IEC/TC56.

The issues of overlap between SC7 and ISO/TC 176 programs of work have been resolved through liaison and the transfer of the responsibility for the maintenance of ISO 9000-3 to JTC 1/SC7.

### External

SC7 has A-liaisons with:

- QuEST Forum
- ITU-T
- INCOSE
- OMG
- IEEE Computer Society

The A-liaison request with itSMF is in the final stage of approval.

Documents from the IEEE Computer Society, the OMG and the ITU-T are currently moving through the standardization process either as PAS, Fast Track or through the normal process.

By regard to the IEEE Computer Society liaison, the current status of the liaison is:

- Approved vision for joint program of work: 07N2742.
- Approved procedures for common work: 07N2743.
- IEEE documents are submitted either as base documents or fast track through a National Body.
- Current joint projects:
  - Risk Management
  - Systems Engineering
  - Vocabulary
  - Software Engineering Certification



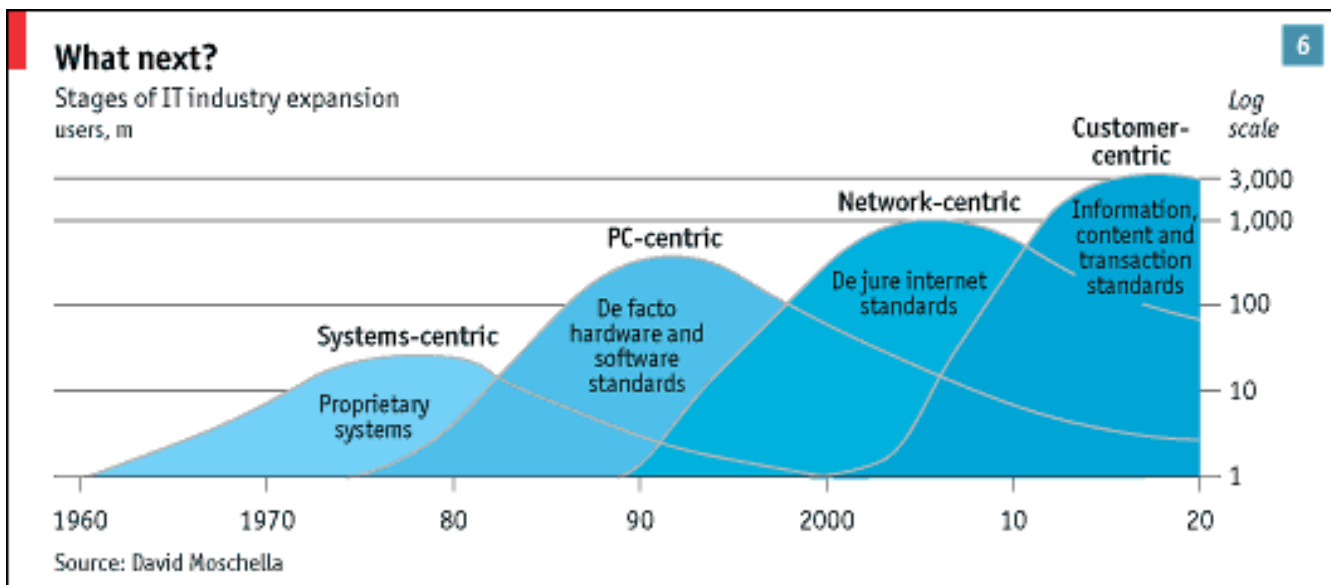
## 2.0 PERIOD REVIEW

### 2.1 MARKET REQUIREMENTS

#### Overall Trend

The Information and Communication Technology (ICT) sector has been going through phases of technological changes and expansions in the last 40 years. As illustrated on the next page, 3 of these phases occurred in the past and we are now entering a fourth one.

- The first phase was when the industry was dominated with large mainframe and minicomputers based systems located in centralized data centers and operated by elite groups of people. This was the time of proprietary hardware dominated systems.
- The second phase came with the microprocessor and the personal computer. Suddenly, computing moved from the small data center elite to end-users. It also started to become mass-market phenomena. A de-facto market set of standards quickly dominated this market: the so-called Wintel (Windows operating systems and Intel processor) standard.
- The third phase became visible when, in 1993, a group of students from the University of Illinois developed the first Internet browser, Mosaic [1]. Quite suddenly, the Internet moved from a network for small elite of researchers to a mass market phenomenon. At about the same time, Microsoft introduced direct support for networking in its operating systems. PCs, as well as the data centres computers, started to evolve from islands of automations to nodes of a network. This evidently had a significant impact on the design of computer applications.
- The fourth phase will be focused on an open transactional environment dominated by machine to machine (M2M) communications and supported by open middleware and other open standards.



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

The following summarize our perspective on Software and Systems Engineering trends:

- Technology
  - IT is getting more ubiquitous, especially with the spread of direct machine to machine (M2M) communications.
  - Software engineering is getting more mature, but still evolving.
  - Software is more than classical (procedural or OO) high level language programs.
  - In some cases, the difference between software and data is blurring.
- Markets
  - A lot of software is brought, as a product or a service – not developed
  - Open source software is taking hold in many markets
  - Some Software Systems development and maintenance services are becoming commodities, other remain high value add
  - The Internet is making geography less relevant for some Software Systems engineering and maintenance services
- Standards
  - A growing international consensus on software and systems engineering good practices is formalized.

## SC7 Marketplace

The over-riding requirement is that the software and system engineering standards are focused on the needs of the users of those standards. We are targeting in our work the following types of *standards user*:

### Software and Systems Houses

Those who supply the software and system needs of the consumer, commercial, industrial, defence, and public sectors, and who need to preserve their competitiveness in the face of ever changing world markets. To address international markets, they need to be able to offer services and products that will match the best available from anywhere in the world.

Software and system engineering standards from JTC 1/SC7 provide one of the means to judge what is meant by *best*.

### Corporate Information Systems Users

Software and system engineering standards can directly serve the needs of using organizations by reducing costs, encouraging fair competition, allowing re-use of existing software and generally reduce risks and uncertainty.

ODP and associated standards provide enterprise architects and system developer's tools to architect and design robust, modular enterprise applications and systems.

### Embedded software system suppliers

This category includes a wide variety of companies supplying software which is embedded within systems that are themselves embedded in a product. It might be a consumer product such as a cell phone or a car, a weapons control system, or a heart pace maker. In all these cases the software is just a component of the system or final product, but it is critical that it is well engineered in the context of the overall engineering effort involved.

### Methods and tools suppliers

Although this market is still formative there are already ad-hoc and proprietary standards for software and system engineering methods and tools. As the market matures it is important to remove barriers to more open use of CASE tools and methods.

### Software and System engineering educators

As mentioned earlier, JTC 1/SC7 standards define a *body of knowledge* of good practices. These standards, including the one specifically addressing this issue currently under development, provide a sound foundation for educators in software and system engineering.

### **Domain specific standards developers**

JTC 1/SC7 standards are, in ISO jargon, horizontal standards. This means that these standards are basically of a generic nature and can be applied in different domains such as for the development of transportation systems, space systems, security products, etc. Organisation developing those *domain* specific standards will find in JTC 1/SC7 standards a foundation they can use to build on.

## **2.2 ACHIEVEMENTS**

See sections 1.2 and 3.2

## **2.3 RESOURCES**

SC7 recognize that resources are an important factors for the successful the execution of the work program. At this point in time, there is sufficient support for all of the SC7 projects.

A strategy to address this is to bring in projects with documents that have been already developed by other standardizations organization. This is what was done with the OMG and the IEEE Computer Society.

## **2.4 ENVIRONMENTAL ISSUES**

N/A

## **2.5 PARTICIPATION METRICS**

The 50% participation to voting has been met in all ballots, although with difficulty in many cases.

The following P members have not send representatives to SC7 meetings nor participated to any ballots:

- Belgium
- Iran

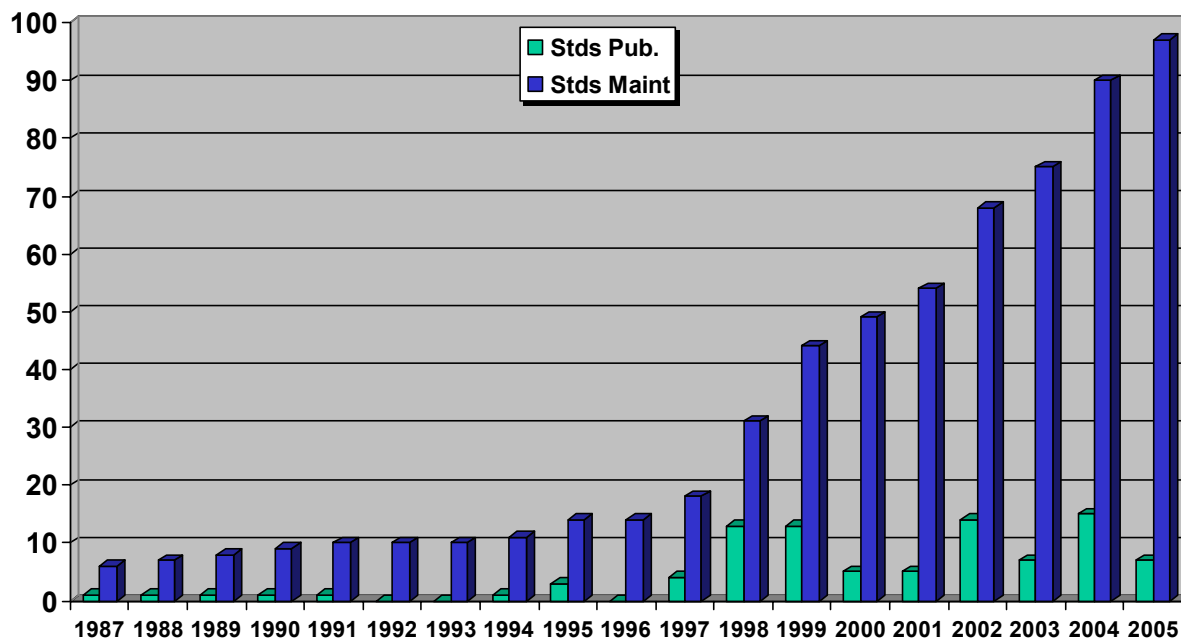
## 3.0 FOCUS NEXT WORK PERIOD

### 3.1 DELIVERABLES:

The following projects are near completion:

- ISO/IEC DIS 25051 (ex 12119) -Software Engineering -- Software product evaluation -- Requirements for quality of Commercial Off The Shelf software product (COTS) and instructions for testing
- ISO/IEC FCD 14143-6-Information technology -- Software measurement -- Functional size measurement -- Part 6: Guide for use of ISO/IEC 14143 series and related international standards
- ISO/IEC FDIS 14764-Software Engineering -- Software Life Cycle Processes -- Maintenance
- ISO/IEC 15414:2002/FPDAmd 1-
- ISO/IEC FCD 15476-4-Information Technology -- CDIF Semantic Metamodel -- Part 4: Data Models
- ISO/IEC FCD 15476-6-Information Technology -- CDIF Semantic Metamodel -- Part 6: State/Event Model
- ISO/IEC FCD 15504-5-Information technology -- Process Assessment -- Part 5: An exemplar Process Assessment Model
- ISO/IEC FCD 15940.2-Information Technology -- Software Engineering -- Environment Services
- ISO/IEC CD 19770-1 - Information technology -- Software Asset Management Process
- ISO/IEC DIS 20000-1-IT service management -- Part 1: Specification for service management
- ISO/IEC DIS 20000-2-IT service management -- Part 2: Code of practice for service management
- ISO/IEC DIS 23025-Common Industry Format for Usability Test Reports
- ISO/IEC DIS 23026-Software Engineering -- Recommended Practice for the Internet -- Web Site Engineering, Web Site Management, and Web Site Life Cycle
- ISO/IEC FCD 25020-Software and System Engineering -- Software quality requirements and evaluation (SQuaRE) -- Quality measurement -- Measurement reference model and guide
- ISO/IEC FCD 25030-Software engineering -- Software quality requirements and evaluation (SQuaRE) -- Quality requirements
- ISO/IEC FCD 15289 Information technology—Systems and software engineering—Content of systems and software life cycle process information products (Documentation)
- ISO/IEC FDIS 15909 Software Engineering - High Level Petri Net

Standard production by SC7 is presently looking as follows:



## 3.2 STRATEGIES

An SC7 Strategic Planning Workshop was held prior to the 1997 Walnut Creek Plenary and the results documented in SC7 07N1763, SC7 Direction Statement 1997. This document was accepted by SC7 member bodies after formal balloting. A revised and updated version of this document titled *SC7 Draft Direction Statement 2003-2008* (07N2898) has been balloted.

Business Planning activities have been going on in SC7 for the last 8 years. To ensure proper focus and continuity, SC7 has formalized at its 1997 Walnut Creek Plenary the SC7 Business Planning Group (BPG) as a “special working group” (SWG). Its current mandate is to:

1. Support the Chair in the elaboration of directions and policies.
2. Assist the chair in the prompt resolution of issues.
3. Propose update to the JTC1/SC7 business plans and procedures.
4. Propose updates to JTC1/SC7 communications function.
5. Prepare procedures and organization responsibilities to ensure an integrated strategy planning, business planning, and management systems for JTC1/SC7.

The BPG is under the direction of the JTC1/SC7 Chair and his currently composed of:

- Mr Doug Thiele (Australia)
- Mr Michael Gayle (USA)
- Mr Jean Bérubé (Canada)
- Dr. Y. Yamamoto (Japan)
- Dr. Dan Lee (Korea)
- Prof. Alastair Walker (South Africa)
- Mr. Risto Nevalainen (Finland)

Since the 1997, Walnut Creek Plenary, SC7 will has a one day management workshops prior to all Plenaries. This was carried out at the last Plenary in Montréal.

Full day business planning activities are now held by the SC7 Advisory Group in each plenary meeting.

All SC7 Business Planning documents can be found at the SC7 web site <http://www.jtc1-sc7.org/> under the heading *Planning*.

The key SC7 strategies documented in 07N2898 are:

- **S1** - Ensure that its standards are as consistent and coherent as possible.
- **S2** – Become more a systems integrator by focusing its development activities on integrations standards and adopting and integrating standards developed by other organizations.
- **S3** - Develop and manage key strategic partnerships with international professional and standardization organizations that operate in its mandated area. In 2002 these were the IEEE-CS, INCOSE and OMG.
- **S4** - Communicate efficiently to its intended customers about its program of work and market its accomplishments.
- **S5** - Proactively assess the relevance of its standards to the state of software and systems engineering technology and markets, and initiate maintenance or new development activities if required.
- **S6** - Increase its market share in the area of systems engineering
- **S7** - Ensure that its standards are as compatible and coherent as possible

A view of SC7 current products set strengths and opportunities as of its Brisbane may 2004 plenary meeting was summarised by the SC7 Chairman summarised in the following table:

STRENGTHS	OPPORTUNITIES
<ul style="list-style-type: none"> <li>• Life-Cycle Processes</li> <li>• Product Metrics</li> <li>• Process Metrics</li> <li>• Formalisms</li> <li>• Software Engineering Body of Knowledge</li> <li>• Tools environment</li> </ul>	<ul style="list-style-type: none"> <li>• Systems Engineering</li> <li>• Software and Systems Assurance</li> <li>• Systems Architecting</li> <li>• IT Operations and Services</li> <li>• Re-use</li> <li>• Agile Processes</li> <li>• Open Source Software (OSS)</li> <li>• Curricula and Certification</li> <li>• Application Domains Acceptance</li> <li>• Data</li> </ul>

As a result of this analysis, SC7 has initiated a series of study periods documented in its Brisbane (Document SC7 N3062) and Helsinki (SC7 N3274) plenary meeting resolutions. The current study groups are in annex A.

Since the Brisbane plenary, new work has been initiated in the following area:

- Certifications of software engineers
- Software Architecture (through an invited fast-track)
- Data quality
- IT Operations and Services (through an invited fast-track)

### **3.2.1 RISKS**

SC7 is presently in a mode where its focus is to produce new standards. As documented in section 3.0, a significant number of deliverables will be produced in the next 15 months.

Risks are managed through:

- Proactive business planning
- Continuous management

SC7 has currently two Special Working Groups (SWG) in place to contribute to the above:

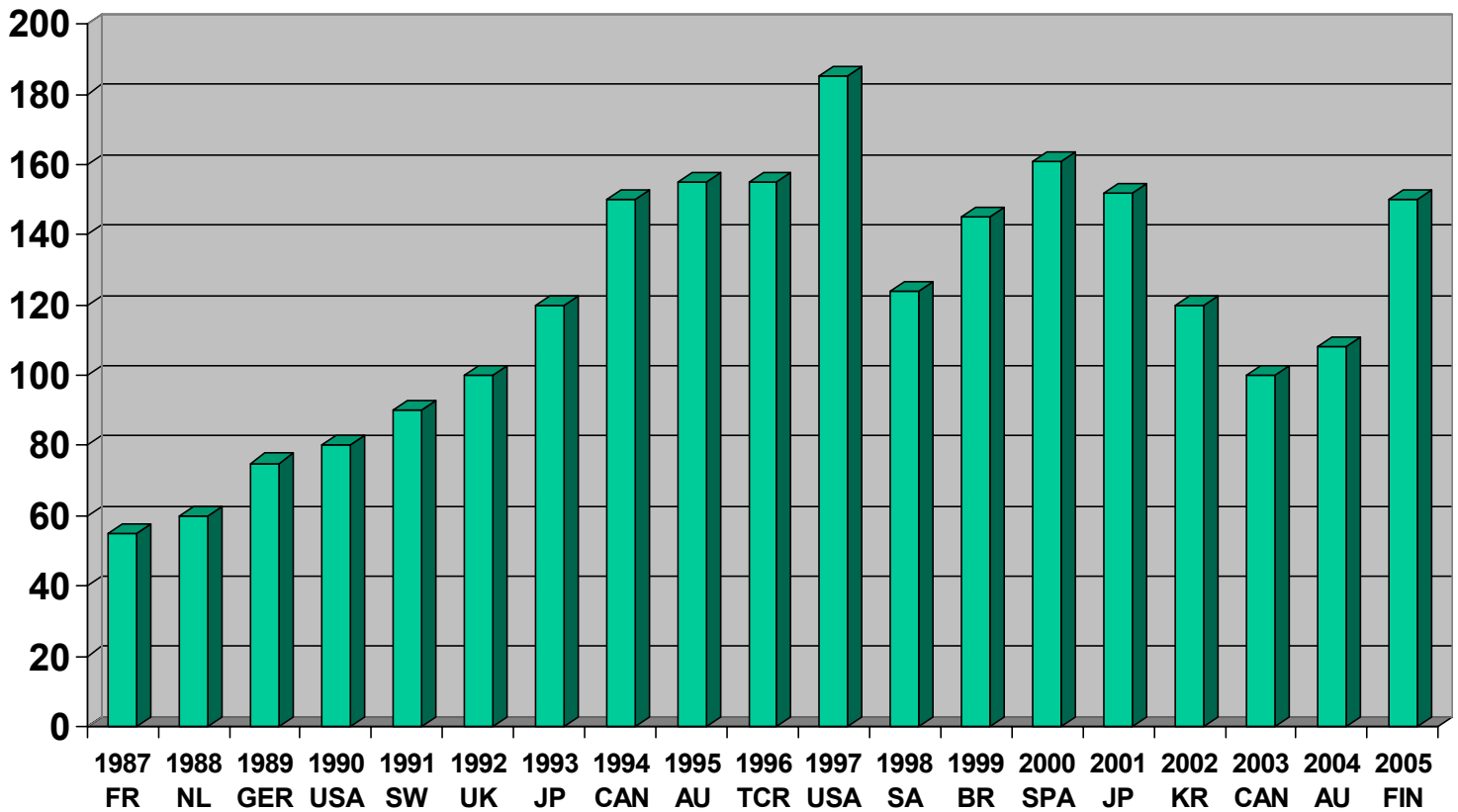
- SWG1 on business planning
- SWG5 on architecture management

See Annex A for further details.

### 3.2.2 OPPORTUNITIES

#### Plenary Attendance

SC7 has seen in the last few years its attendance at Plenary meetings has grown continuously to reach a plateau of between 120 and 140 (see figure). Attendance at the Montréal plenary was over 100 even if many experts could not attend because of company policy due to the presence of SARS in Toronto. Host for future plenary meetings have been identify for the next 3 years. The growing importance of software based product and services in our post-industrial society should ensure that interest in SC7 should remains high in the foreseeable future as long as proper market relevance is maintained.





## **New projects**

The following projects have been initiated in the period:

- Software and Systems Engineering – Software Engineering – Certification of Software Engineers
- Software Architecture (through an invited fast-track)
- Data quality
- IT Operations and Services (through an invited fast-track)
- Assessment of Organizational Maturity
- System and Software Engineering - Life Cycle Management - Guidelines for Process Definition
- Software Life Cycles for Very Small Enterprises
- Software and Systems Engineering – User documentation requirements for documentation designers and developers
- Software and Systems Engineering – User documentation requirements for managers

## **3.3 WORK PROGRAM PRIORITIES**

SC7 work program strategy is to suspend or cancel any project that does not have sufficient resource. Consequently, SC7 priorities are to ensure that its present work program is executed in a timely fashion while producing quality documents. Another element of the SC7 strategies is to adopt suitable documents produced by external organizations.

## ANNEX A: SC7 ORGANIZATION

The following WG are presently active:

WG	SCOPE	CONVENER	WEB SITE
2	<i>Development of standards for the <u>documentation of software systems</u>.</i>	<a href="#">Richard Hodgkinson</a> UK (2004 - N3062)	<a href="#">YES</a>
4	<i>Development of standards and technical reports for <u>tools and Computer Aided Software/System Engineering (CASE) environments</u></i>	<a href="#">D. Lee</a> - Korea (1999 - N2178)	
6	<i>Development of standards and technical reports for <u>software products evaluation</u> and <u>metrics</u> for software products &amp; processes.</i>	<a href="#">Motoei Azuma</a> - Japan (2000 - N2335)	
7	<i>Development of standards and technical reports on <u>Life Cycle Management</u>.</i>	<a href="#">Doug Thiele</a> - Australia (2002 - N2xxx)	<a href="#">YES</a>
9	<i>Preparation of standards, technical reports, and guidance documents related to <u>systems integrity</u> at the system and system interface level. In this context, system integrity is defined as ensuring the containment of risk or confining the risk exposure.</i>	<a href="#">Paul Croll</a> - US (2004 - N)	
10	<i>Development of standards and guidelines covering methods, practices and application of <u>process assessment</u> in software product procurement, development, delivery, operation, evolution and related service support.</i>	<a href="#">Alec Dorling</a> - UK (2000 - N2335)	<a href="#">YES</a>
12	<i>To establish a set of practical standards for <u>functional size measurement</u>. Functional size measurement is a general term for methods of sizing software from an external viewpoint and encompasses methods such as Function Point Analysis.</i>	<a href="#">Marie O'Neill</a> - Ireland (2004 - N3062)	
19	<i>Includes <u>modelling languages, metadata, ODP framework and ODP components</u> related standards and project, as well as provide the focal point to facilitate collaborative work with OMG and ITU-T, and other organizations if required (IEEE).</i>	<a href="#">Bryan Wood</a> - UK	<a href="#">YES</a>
20	<i>Standardization of the <u>Software Engineering Body of Knowledge</u></i>	<a href="#">Juan Garbajosa</a> - Spain	<a href="#">SWEBOK</a>
21	<i><u>Software Asset Management Process</u> standards development.</i>	<a href="#">Roger Wittlock</a> - Sweden (2004 - N3062)	<a href="#">YES</a>
22	<i>Software and Systems Engineering Consolidated Vocabulary.</i>	<a href="#">David Kitson</a> - USA (2004 - N3062)	

23	<i>Systems Quality Management.</i>	<b>Shigenobu Katoh - Japan</b>	
24	<i>Software Life Cycles for Very Small Enterprises.</i>	<b>Tanin Uthayanaka Thailand</b>	

Two Specials Working Groups (SWG) have been created to handle Business Planning and Architecture:

<b>SWG1</b>	<b><i>Business Planning Group (Resolution 683)</i></b>
<b>Convener</b>	<b><i>François Coallier - SC7 Chairman</i></b>
<b>Scope:</b>	<ol style="list-style-type: none"> <li>1. Support the Chair in the elaboration of directions and policies.</li> <li>2. Assist the chair in the prompt resolution of issues.</li> <li>3. Propose update to the JTC1/SC7 business plans and procedures.</li> <li>4. Propose updates to JTC1/SC7 communications function.</li> <li>5. Prepare procedures and organization responsibilities to ensure an integrated strategy planning, business planning, and management systems for JTC1/SC7.</li> </ol>
<b>Members:</b>	<ul style="list-style-type: none"> <li>• Mr Doug Thiele (Australia)</li> <li>• Mr Michael Gayle (USA)</li> <li>• Mr Jean Bérubé (Canada)</li> <li>• Dr. Y. Yamamoto (Japan)</li> <li>• Dr. Dan Lee (Korea)</li> <li>• Prof. Alastair Walker (South Africa)</li> <li>• Mr. Risto Nevalainen (Finland)</li> </ul>

<b>SWG5</b>	<b><i>Architecture Management</i></b>
<b>Chairman Convener</b>	<b><i>François Coallier - SC7 Chairman Cheryl Jones - USA</i></b>
<b>Scope:</b>	<ol style="list-style-type: none"> <li>1. Elaborate and Maintain JTC1/SC7 Architecture standing documents</li> <li>2. Provide counsel to JTC1/SC7 Conveners and editors on standards architecture and vocabulary consistency issues</li> <li>3. Recommend to JTC1/SC7 standard maintenance strategies</li> <li>4. Report on its activities to the JTC1/SC7 BPG and AG</li> <li>5. Include in its scope the IEEE systems and software engineering standards collection</li> </ol>
<b>Members:</b>	<ul style="list-style-type: none"> <li>• Kiyoshi Ogawa (Japan)</li> <li>• David Kitson (USA)</li> <li>• Bud Lawson (Sweden, INCOSE)</li> <li>• Terry Rout (Australia)</li> <li>• James Moore (IEEE-CS)</li> <li>• Peter Fagg (UK)</li> </ul>

The following Study Groups are currently active:

<b>Study Group on Interoperability</b>	
<b>Chair</b>	<b>Ovidiu Noran (Australia)</b>
<b>Co-Chair</b>	<b>Mikael Gullberg (Sweden)</b>
<b>Terms of Reference:</b>	<p>JTC 1/SC7 instructs its Secretariat to establish a study group to:</p> <ul style="list-style-type: none"> <li>• Investigate the possibility of additional standards or guidance in the area of Interoperability.</li> <li>• Assess how SC7 standards address interoperability issues and come with recommendations.</li> </ul> <p>The Study Group shall take into consideration:</p> <ul style="list-style-type: none"> <li>• Interoperability standards from other ISO groups (e.g. TC 184 – Interoperability)</li> <li>• The recommendations from the study group on non-developed components</li> <li>• SC7 standards and processes that relate to this area</li> </ul> <p>The study group shall make recommendations on changes to existing standards/guidance and/or the creation of new standards or TR.</p> <p>The study group meetings will be co-located with WG7 and will submit a report by 2006-04-15.</p>
<b>Members:</b>	<ul style="list-style-type: none"> <li>• Mikael Gullberg, Sweden</li> <li>• Ian Hirst, Australia</li> <li>• Alison Holt, New Zealand</li> <li>• Cheryl Jones, US</li> <li>• Anatol Kark, Canada</li> <li>• Tom Kuriharit, US</li> <li>• Bud Lawson, Sweden</li> <li>• Ovidiu Noran, Australia</li> </ul> <p>Additional members can be added until 2005-09-15. Nominations must be sent to the SC7 secretariat.</p>

<b>Study Group on Requirements Process</b>
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<p><b>Chair</b> <b>Co-Chair</b></p>	<p><b><i>Timo Käkölä (Finland)</i></b> <b><i>Dan Lee (Korea)</i></b></p>
<p><b>Terms of Reference:</b></p>	<p>JTC 1/SC7 instructs its Secretariat to establish a study group to:</p> <ul style="list-style-type: none"> <li>• Investigate the possibility of additional standards or guidance in the area of Requirements.</li> <li>• Assess how SC7 standards address requirement issues and come with recommendations.</li> </ul> <p>The Study Group shall take into consideration:</p> <ul style="list-style-type: none"> <li>• WG4 Requirement Engineering Tool Requirements (NWI)</li> <li>• SWEBOK Chapter on Requirements</li> <li>• IEEE 830 and 1233</li> <li>• INCOSE activities</li> <li>• TC184 documents</li> </ul> <p>The study group shall make recommendations on changes to existing standards/guidance and/or the creation of new standards or TR.</p> <p>The study group meetings will be co-located with WG7 and will submit a report by 2006-04-15.</p>
<p><b>Members:</b></p>	<ul style="list-style-type: none"> <li>• Jean Bérubé, Canada</li> <li>• Juan Garbajosa, Spain</li> <li>• Mikael Gullberg, Sweden</li> <li>• Ian Hirst, Australia</li> <li>• Alison Holt, New Zealand</li> <li>• Cheryl Jones, US</li> <li>• Timo Käkölä, Finland</li> <li>• Byong Lee, Korea</li> <li>• Dan Lee, Korea</li> <li>• Ovidiu Noran, Australia</li> </ul> <p>Additional members can be added until 2005-09-15. Nominations must be sent to the SC7 secretariat.</p>

<p><b>Chair</b></p> <p><b>Co-Chair</b></p>	<p><b>Alison Holt (New Zealand)</b></p> <p><b>Jenny Dugmore (UK)</b></p>
<p><b>Terms of Reference:</b></p>	<p>JTC 1/SC7 instructs its Secretariat to establish a study group to:</p> <ul style="list-style-type: none"> <li>• Investigate the possibility of additional standards or guidance in the area of: <ul style="list-style-type: none"> <li>- Service Delivery and Management</li> <li>- IT Governance</li> <li>- Process and Maturity Assessment for IT Operations</li> </ul> </li> <li>• Assess how SC7 standards address issues in these areas and up come with recommendations.</li> </ul> <p>As part of the scope of this study group, the direction of future activities will be determined. This scope is contained in the area of software and software engineering.</p> <p>The Study Group shall take into consideration:</p> <ul style="list-style-type: none"> <li>• Consistency with existing SC7 standards that cover the areas of Process Definition, Service Delivery and Management, Process and Maturity Assessment and IT Governance</li> <li>• BSI 15000</li> <li>• ISO 20000</li> <li>• ITSMCMM</li> <li>• COBIT</li> <li>• CMMI notes for Operations</li> <li>• Current state of Service Delivery and Management, IT Governance and Process and Maturity Assessment in represented countries</li> </ul> <p>There are several organizations that are working in this area that should be investigated for possible liaisons:</p> <ul style="list-style-type: none"> <li>• ITSMF (<a href="http://www.ITSMF.com">www.ITSMF.com</a>)</li> <li>• OGC</li> <li>• BSI</li> </ul> <p>The study group shall make recommendations on changes to existing standards/guidance and/or the creation of new standards or TR.</p> <p>The study group meetings will be co-located with WG7and will submit a report by 2006-04-15.</p>
<p><b>Members:</b></p>	<ul style="list-style-type: none"> <li>• Cheryl Jones, US</li> <li>• David Bicket, UK</li> <li>• David Dery, Canada</li> <li>• Jenny Dugmore, UK</li> <li>• Mikael Gullberg, Sweden</li> <li>• Ian Hirst, Australia</li> <li>• Alison Holt, New Zealand</li> <li>• David Keech, UK</li> <li>• Risto Nevalarnum, Finland</li> <li>• Melanie Cheong, South Africa</li> <li>• Ogawa Kiyoshi, Japan</li> <li>• Robert Kormanak, Slovakia</li> <li>• Juan Carlos Grangia-Alvarez, Spain</li> <li>• Ota Novotny, Czech Republic</li> <li>• David Kitson, US</li> </ul>

	<ul style="list-style-type: none"> <li>• Alec Dorling, UK</li> <li>• Juan Garbojosa, Spain</li> <li>• Ovidiu Noran, Australia</li> <li>• Hiroshi Koizumi, Japan</li> <li>• Marion Lepmets, Estonia</li> <li>• Antonio Coletta, Italy</li> </ul> <p>Additional members can be added until 2005-09-15. Nominations must be sent to the SC7 secretariat. Liaison groups (current and potential) will be invited to participate on this study group.</p>
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<b>Study Group on Non-Developed Components.</b>	
<b>Chair</b>	<b>Mark Maier (IEEE)</b>
<b>Co-Chair</b>	<b>Cheryl Jones (USA)</b>
<b>Terms of Reference:</b>	<p>The terms of reference of this study group shall be to Investigate the possibility of additional standards or guidance in the area of Non-Developed Code, including COTS and Open Source Software (OSS).</p> <p>The study group shall coordinate with WG21, Asset Management. At a minimum, the study group should consider a technical report providing some guidance.</p> <p>The Study Group shall take into consideration:</p> <ul style="list-style-type: none"> <li>• COTS, open source software (OSS), and reuse, with issues related to interoperability, evolution, how non-developed code was developed, integration, liability, obsolescence</li> <li>• The current standard 12119 on COTS product, along with IEEE standards regarding reuse.</li> <li>• IEEE Std 1571, Software Reuse Processes</li> </ul> <p>This study group will be chaired by Cheryl Jones (USA) and will submit a report by 2005-04-15.</p> <p>The IEEE-CS is requested to contribute IEEE Std 1571 for study purposes.</p> <p>The study group will submit a report by 2005-06-30.</p>
<b>Members:</b>	<ul style="list-style-type: none"> <li>• ,Susan Burgess (USA)</li> <li>• Gilbert Le Gall (France)</li> <li>• Jonathan Earthy (UK)</li> </ul>

<b>Study Group on Architecture Description</b>	
<b>Chair</b>	<b>Mark Maier (IEEE)</b>
<b>Co-Chair</b>	<b>Cheryl Jones (USA)</b>
<b>Terms of Reference:</b>	<p>JTC 1/SC7 instructs its Secretariat to extend the study group on Architectures (resolution #789) for an additional year.</p> <p>The terms of reference of this Study Group are to:</p> <ul style="list-style-type: none"> <li>• Investigate the possibility of additional standards or guidance in the area of Architectures.</li> <li>• Assess how SC7 standards address architecture and architecture management issues and come with recommendations.</li> </ul> <p>The Study Group shall take into consideration:</p> <ul style="list-style-type: none"> <li>• IEEE Std 1471 - IEEE Recommended Practice for Architectural Description of Software Intensive Systems</li> <li>• The ODP standards</li> <li>• Other relevant ISO standards</li> </ul> <p>The study group shall make recommendations on changes to existing standards/guidance and/or the creation of new standards or TR.</p> <p>IEEE-CS has already contributed IEEE 1471 standard for study purposes. TC184 SC5 will be asked to contribute the ISO 15704: 2000 standard for study purposes. TC184 SC5 will also be asked to participate in this study group.</p> <p>The study group meetings will be co-located with WG7 and will submit a report by 2006-04-15.</p>
<b>Members:</b>	<ul style="list-style-type: none"> <li>• Bud Lawson (Sweden)</li> <li>• Stuart Arnold (UK)</li> <li>• Motoei Azuma (Japan)</li> <li>• Ovidiu Noran (Australia) – liaison with TC 184 SC5 WG1</li> <li>• Mikael Gullberg (Sweden)</li> <li>• Timo Kakola (Finland)</li> <li>• Mark Maier (IEEE)</li> <li>• Bryan Wood (UK)</li> <li>• Juan Garbajosa (Spain)</li> </ul> <p>Additional members can be added until 2005-09-15. Nominations must be sent to the SC7 secretariat.</p>

<b>Study Group on Review of TR 14143-3 – Functional Size Measurement – Validation and Verification</b>
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<b>Chair</b>	<b>Martin D'Souza(Australia)</b>
<b>Terms of Reference:</b>	<p>JTC1/SC7 instructs its Secretariat to establish a study group to review TR 14143-3:2002 Information Technology – Software Measurement - Functional size measurement – Validation and Verification of Functional Size Measurement Methods.</p> <p>The terms of reference of this Study Group are to:</p> <ul style="list-style-type: none"> <li>• Determine whether TR 14143-3:2002 should be converted to IS</li> <li>• establish whether TR 14143-3:2002 needs to be changed</li> <li>• establish justifications for any recommendations</li> </ul> <p>This study group will submit a report by 2006-01-31 to SC7.</p>
<b>Members:</b>	<ul style="list-style-type: none"> <li>• Pam Morris(Australia),</li> <li>• Martin D'Souza(Australia),</li> <li>• Serge Oigny(Canada),</li> <li>• Pekka Forselius(Finland),</li> <li>• Eberhard Rudolph(Germany),</li> <li>• Debbie Dickson(South Africa), Insoo Hwang(Korea),</li> <li>• Shigeru Nishiyama (Japan)</li> <li>• Mitsuhiro Takahashi(Japan),</li> <li>• Peter Fagg(UK),</li> <li>• Marie O'Neill(Ireland),</li> <li>• Carol Dekkers(IFPUG and USA),</li> <li>• Tony Rollo(COSMIC).</li> </ul> <p>Additional members can be added until 2005-09-15. Nominations must be sent to the SC7 secretariat</p>

<b>Chair</b>	<b>Eberhard Rudolph (Germany),</b>
<b>Terms of Reference:</b>	<p>JTC1/SC7 instructs its Secretariat to establish a study group to review TR 14143-4:2002 Information Technology – Software Measurement - Functional size measurement – Reference Model.</p> <p>The terms of reference of this Study Group are to:</p> <ul style="list-style-type: none"> <li>• Determine whether TR 14143-4:2002 should be converted to IS</li> <li>• establish whether TR 14143-4:2002 needs to be changed</li> <li>• establish justifications for any recommendations to change the TR.</li> </ul> <p>This study group will submit a report by 2006-01-31 to SC7.</p>
<b>Members:</b>	<ul style="list-style-type: none"> <li>• Pam Morris (Australia),</li> <li>• Martin D'Souza (Australia),</li> <li>• Serge Oigny (Canada),</li> <li>• Pekka Forselius (Finland),</li> <li>• Eberhard Rudolph(Germany),</li> <li>• Debbie Dickson(South Africa),</li> <li>• Insoo Hwang(Korea),</li> <li>• Shigeru Nishiyama (Japan)</li> <li>• Mitsuhiro Takahashi(Japan),</li> <li>• Peter Fagg(UK),</li> <li>• Marie O'Neill(Ireland),</li> <li>• Carol Dekkers(IFPUG and USA),</li> <li>• Tony Rollo(COSMIC).</li> </ul> <p>Additional members can be added until 2005-09-15. Nominations must be sent to the SC7 secretariat.</p>