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Software and Systems Engineering
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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*.

MANAGEMENT REPORT AND BUSINESS PLAN FOR

ISO / IEC JTC 1/SC7

SOFTWARE ENGINEERING

PERIOD COVERED: November 2005 - October 2006

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 14 projects (May 2005-May 2006) and initiating 9 new ones. 4 additional new projects have been initiated since the SC7 May 2006 plenary in Bangkok, Thailand. Exploration of new areas as well as consolidation of existing ones was done by its SWG 5 on architecture and 11 study groups (7 till May 2006 and 4 currently active).

The last 18 months saw also the creation of three new working groups, WG25 (IT Operations), WG42 (Systems Architecture) and a JWG with ISO/TC54 (CIF). One working was closed, WG9 (Systems Assurance) and its work transferred to WG7.

The last SC7 plenary in Bangkok, Thailand, was a success with 190 delegates from 23 countries.

While SC7 is continuing to develop and consolidate its work in software and systems engineering development standards, work to address management and operation of IT systems is intensifying. IT systems management and operations was already touched at in different degrees by SC7 in its software and systems life-cycle standards as well as its software maintenance, risk management, software systems assurance and products related standards. The last 12 months saw the publications of three major standards in this area: ISO/IEC 20000 parts 1 and 2 (Information technology -- Service management) and ISO/IEC 19770-1 (Information technology -- Software asset management -- Part 1: Processes).

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 1997 Plenary in Paris:

> *"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 systems 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 systems 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 systems engineering standardization:

- Software and systems engineering processes: in partnership with the International Council of Systems Engineers (INCOSE), the Institute of Electrical and Electronics Engineers Computer Society (IEEE-CS) 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. Additional work in software and system assurance is being considered.

- 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 are now working on a project on the certification of software engineers.

- Management of software assets: we are we are developing and are improving on standards that will describe the basic requirements of a software asset management environment.

- IT Operations: in partnership with the IT Service Management Forum (itSMF) and other parties, we are developing and are improving on standards which describe good IT service management practices.

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 2006-10-13, there were 22 active projects / sub-projects in JTC 1/SC7 (see http://www.jtc1-sc7.org/).

These are handled by 14 active working groups and one joint working group with ISO/TC54 (See annex A)

The following standards have been published between the last JTC 1 Plenary and 2006-10-16:

- ISO/IEC 14764:2006 Software Engineering -- Software Life Cycle Processes – Maintenance
- ISO/IEC 15289:2006 Systems and software engineering -- Content of systems and software life cycle process information products (Documentation)
- ISO/IEC 15476-6:2006 Information technology -- CDIF semantic metamodel -- Part 6: State/event models
- ISO/IEC 15476-6:2006 Information technology -- CDIF semantic metamodel -- Part 6: State/event models
- ISO/IEC 15504-5:2006 Information technology -- Process Assessment -- Part 5: An exemplar Process Assessment Model
- ISO/IEC 19770-1:2006 Information technology -- Software asset management -- Part 1: Processes
- ISO/IEC 20000-1:2005 Information technology -- Service management -- Part 1: Specification
- ISO/IEC 20000-2:2005 Information technology -- Service management -- Part 2: Code of practice
- ISO/IEC 23026:2006 Software Engineering -- Recommended Practice for the Internet -- Web Site Engineering, Web Site Management, and Web Site Life Cycle
- ISO/IEC 25051:2006 Software engineering -- Software product Quality Requirements and Evaluation (SQuaRE) -- Requirements for quality of Commercial Off-The-Shelf (COTS) software product and instructions for testing
- ISO/IEC 25062:2006 Software engineering -- Software product Quality Requirements and Evaluation (SQuaRE) -- Common Industry Format (CIF) for usability test reports

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:
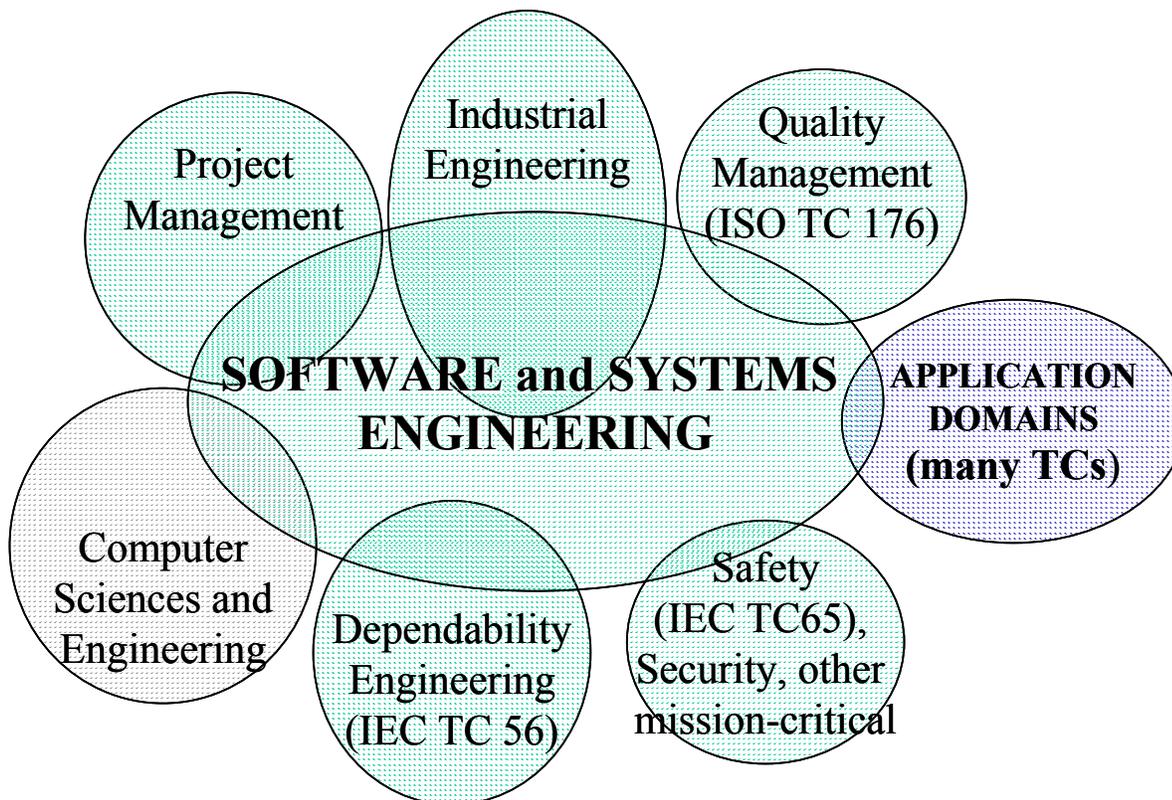
All those overlaps have the potential to generate liaison challenges.

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:

- IEEE Computer Society
- INCOSE
- itSMF
- QuEST Forum
- ITU-T
- PMI

Documents from the IEEE Computer Society, the OMG and the ITU-T were or are 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 include:
  - 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.
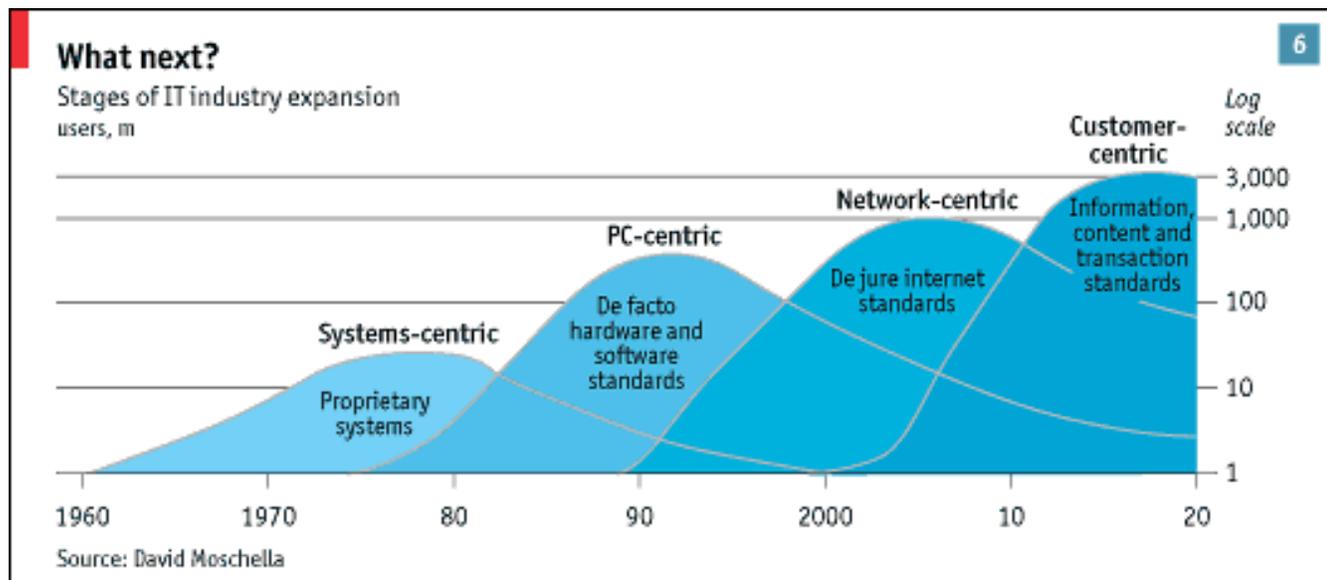
From: *The fortune of the commons*. In *Coming of Age - A Survey of the IT Industry*.
The Economist, May 8th 2003

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, maintenance and operation services
    - IT Services are now a significant part of global commerce

- 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

Up to the May 2006 Plenary in Bangkok, the 50% participation to voting has been met in all ballots, although with difficulty in many cases.

At its last plenary in Bangkok, JTC 1/SC7 adopted the following resolution:

SC7 internal balloting

880.	JTC1/SC7 instructs its Secretariat to take whatever action necessary to convert to the ISO electronic balloting system as of the 1st of June 2006. The NBs of P members should use their Livelink accounts to cast ballots. The instruction document on electronic balloting will be available on SC7 Web site.	

Implementation of this resolution has resulted up to now in a ballot participation rate of 63 to 90%

3.0 FOCUS NEXT WORK PERIOD

3.1 DELIVERABLES:

As of 2006-10-13, the following projects are near completion:

- ISO/IEC FCD 14102Information technology -- Guideline for the evaluation and selection of CASE tools
- ISO/IEC FCD 14143-1Information technology -- Software measurement -- Functional size measurement -- Part 1: Definition of concepts
- ISO/IEC FCD 14471Information technology -- Software engineering -- Guidelines for the adoption of CASE tools
- ISO/IEC DTR 15476-5Information Technology -- CDIF semantic metamodels -- Part 5: Data flow models
- ISO/IEC FDIS 16085Systems and software engineering -- Life cycle processes -- Risk management
- ISO/IEC FCD 19793Information technology -- Open Distributed Processing -- Use of UML for ODP system specifications
- ISO/IEC FDIS 24744Software Engineering -- Metamodel for Development Methodologies
- ISO/IEC FDIS 25001Software engineering -- Software product Quality Requirements and Evaluation (SQuaRE) -- Planning and management
- ISO/IEC FCD 25020Software and System Engineering -- Software quality requirements and evaluation (SQuaRE) -- Quality measurement -- Measurement reference model and guide
- ISO/IEC DTR 25021 Software engineering -- Software product Quality Requirements and Evaluation (SQuaRE) -- Quality measure elements
- ISO/IEC FCD 25030.2Software engineering -- Software quality requirements and evaluation (SQuaRE) -- Quality requirements
- ISO/IEC DIS 25961Recommended Practice for Architectural Description of Software-Intensive Systems
- ISO/IEC DIS 26702IEEE Standard for Application and Management of the Systems Engineering Process

Standard production by SC7 is, as of 2006-10-13, looking as follows:
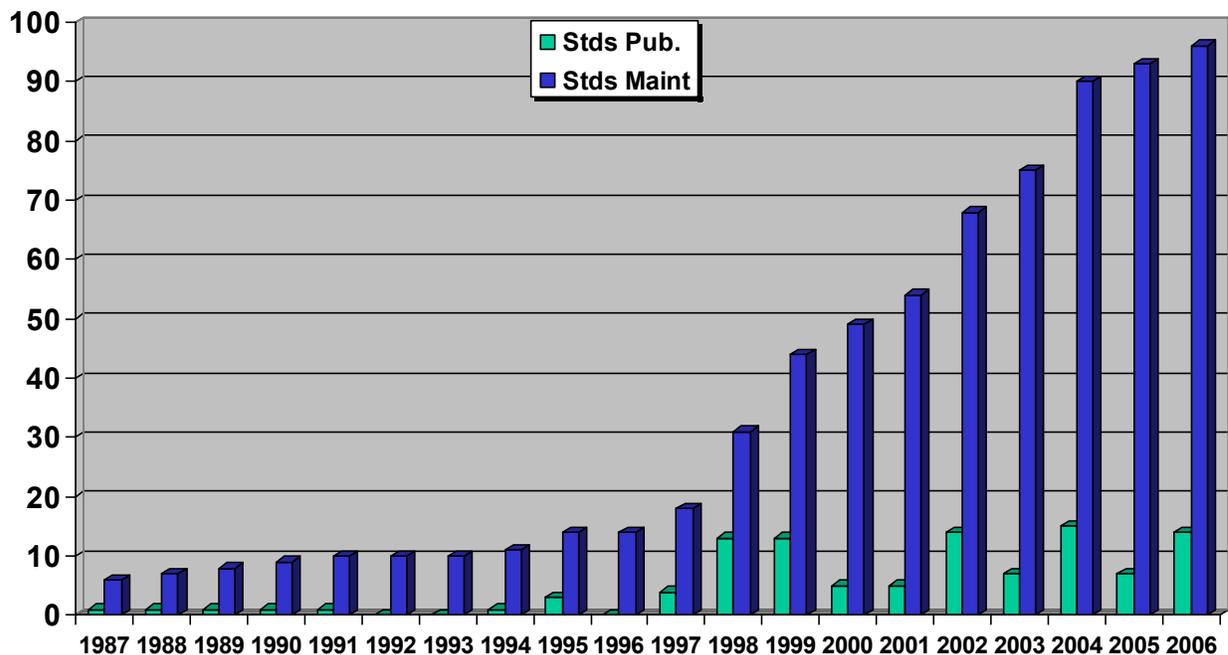
3.2 STRATEGIES

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)
- Mr. Antonio Coletta (Italy)

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 thus held since 1998 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
• Life-Cycle Processes • Product Metrics • Process Metrics • Formalisms • Software Engineering Body of Knowledge • Tools environment	• Systems Engineering • Software and Systems Assurance • Systems Architecting • IT Operations and Services • Re-use • Agile Processes • Open Source Software (OSS) • Curricula and Certification • Application Domains Acceptance • Data

As a result of this analysis, SC7 has initiated a series of study periods documented in its Brisbane (Document SC7 N3062) , Helsinki (SC7 N3274) and Bangkok (SC7 N3535) plenary meeting resolutions. The current study groups are listed in annex A.

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

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

3.2.1 RISKS

SC7 is presently in a mode were 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:

- o   Proactive business planning
- o   Continuous management

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

- o   SWG1 on business planning
- o   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.

Participation to the last plenary was 190 delegates from 23 countries.

Host for future plenary meetings have been identify for the next four years.   These are:

- 2007 - Russia (confirmed)
- 2008 - Germany (confirmed)
- 2009 - India (tentative)
- 2010 – Japan (tentative)

The growing importance of software based product and services in post-industrial society and developing economies should ensure that interest in SC7 should remains high in the foreseeable future as long as proper market relevance is maintained.
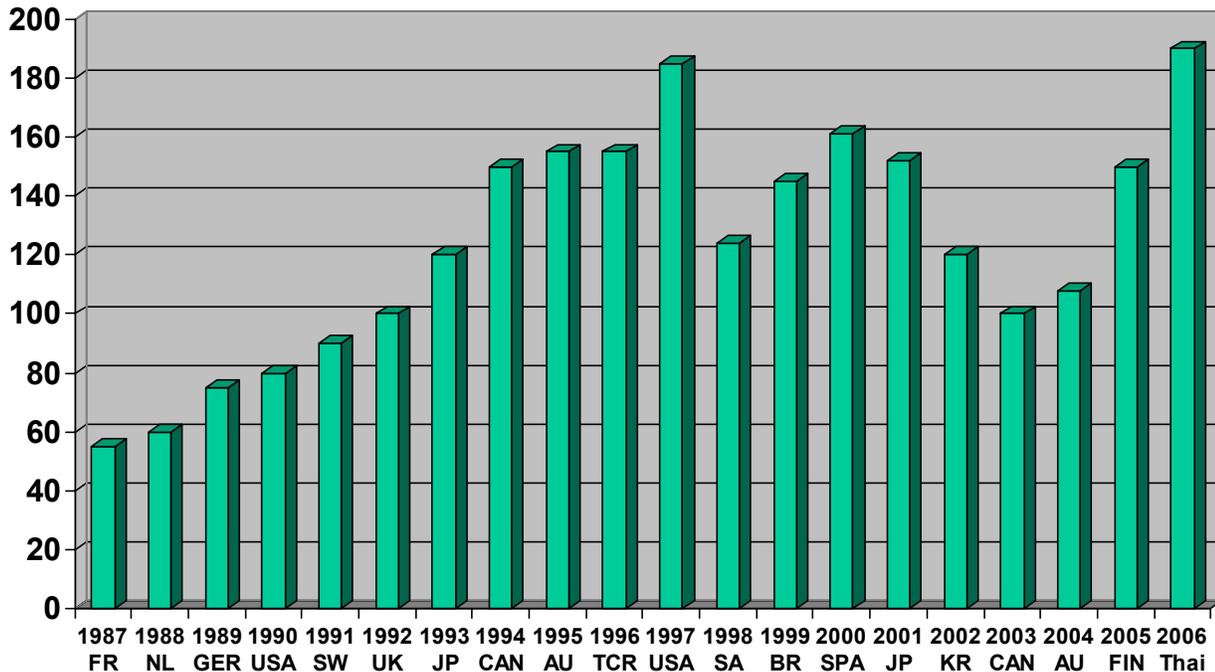
New projects

The following projects have been initiated in the last 18 months:

- [ISO/IEC NP 10746-2](#) Information technology -- Open Distributed Processing -- Reference Model: Foundations
- [ISO/IEC NP 10746-3](#) Information technology -- Open Distributed Processing -- Reference Model: Architecture
- [ISO/IEC NP 12207](#) Systems and Software Engineering -- Software Life Cycle Processes
- [ISO/IEC NP 15288](#) Systems engineering -- System life cycle processes
- [ISO/IEC NP TR 15504-6](#) Information technology -- Process assessment -- Part 6: An exemplar system life cycle process assessment mod
- [ISO/IEC NP 15939](#) Software engineering -- Software measurement process
- [ISO/IEC NP TR 24774](#) System and Software Engineering -- Life Cycle Management -- Guidelines for Process Definition
- [ISO/IEC NP 25062](#) Software engineering -- Software product Quality Requirements and Evaluation (SQuaRE) -- Common Industry Format (CIF) for usability test reports
- ISO/IEC NP 20000-1 Information technology -- Service management -- Part 1: Specification
- ISO/IEC NP 20000-2 Information technology -- Service management -- Part 2: Code of practice
- ISO/IEC NP 25961 Recommended Practice for Architectural Description of Software-Intensive Systems
- ISO/IEC NP xxxxx Information Technology — Tools and Methods of requirements engineering and management for product lines
- ISO/IEC NP 19761 Software engineering -- COSMIC-FFP -- A functional size measurement method
- ISO/IEC NP xxxxx Software and Systems Engineering - Life Cycle Processes - Requirements Engineering

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	*Development of standards for the documentation of software systems.*	Richard Hodgkinson UK **(2004 - N3062)**	YES
4	*Development of standards and technical reports for tools and Computer Aided Software/System Engineering (CASE) environments*	D. Lee **- Korea (1999 - N2178)**	
6	*Development of standards and technical reports for software products evaluation and metrics for software products & processes.*	*Motoei Azuma - Japan (2000 - N2335)*	
7	*Development of standards and technical reports on Life Cycle Management.*	*Doug Thiele - Australia (2002 - N2xxx)*	YES
10	*Development of standards and guidelines covering methods, practices and application of process assessment in software product procurement, development, delivery, operation, evolution and related service support.*	*Alec Dorling - UK (2000 - N2335)*	YES
12	*To establish a set of practical standards for functional size measurement. Functional size measurement is a general term for methods of sizing software from an external viewpoint and encompasses methods such as Function Point Analysis.*	*Marie O'Neill - Ireland (2004 - N3062))*	
19	*Includes modelling languages, metadata, ODP framework and ODP components 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).*	*Bryan Wood - UK*	YES
20	*Standardization of the Software Engineering Body of Knowledge*	Juan Garbajosa **- Spain**	SWEBOK
21	*Software Asset Management Process standards development.*	Roger Wittlock **- Sweden** *(2004 - N3062)*	YES
22	Software and Systems Engineering Consolidated Vocabulary.	**David Kitson - USA** *(2004 - N3062)*	
23	*Systems Quality Management.*	**Shigenobu Katoh - Japan**	
24	*Software Life Cycles for Very Small Enterprises.*	**Tanin Uthayanaka Thailand**	
25	*IT Operations.*	**Jenny Dugmore - UK**	
42	*Architecture*	**Johan H Bendz - Sweden**	
JWG with ISO/TC54	*Common Industry Format for Usability*	**M.F. Theofanos - USA**	

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

SWG1	Business Planning Group (Resolution 683)
Convener	François Coallier - SC7 Chairman
Scope:	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.
Members:	• 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) • Mr. Antonio Coletta (Italy)

SWG5	Architecture Management
Chairman Conveners	François Coallier - SC7 Chairman Cheryl Jones – USA Mike Gayle - USA
Scope:	1. Elaborate and Maintain JTC1/SC7 Architecture standing documents 2. Provide counsel to JTC1/SC7 Conveners and editors on standards architecture and vocabulary consistency issues 3. Recommend to JTC1/SC7 standard maintenance strategies 4. Report on its activities to the JTC1/SC7 BPG and AG 5. Include in its scope the IEEE systems and software engineering standards collection
Members:	• Kiyoshi Ogawa (Japan) • David Kitson (USA) • Bud Lawson (Sweden, INCOSE) • Terry Rout (Australia) • James Moore (IEEE-CS) • Peter Fagg (UK) • Serge Oligny (Canada)

The following Study Groups are currently active:

	Study Group on ITC Governance
Chair	Alison Holt (New Zeland)
Co-Chair	Ed Lewis (Australia)
Terms of Reference:	JTC 1/SC7 instructs its Secretariat to establish a study group to investigate the possibility of additional standards or guidance in the area of ICT Governance. 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 systems engineering. The Study Group shall take into consideration: Consistency with existing SC7 standards that cover the area of, or have a relationship with, ICT Governance • ISO/IEC 16085 • ISO/IEC 20000 And: • ISO 9000 • ISO 27000 • ISO 14000 And: • AS 8015 (N3463) • AS/NZ 4360 • COBIT There are several organizations that are working in this area that should be investigated for possible liaisons: • ISACA and ITGI • TC 207 • itSMFi • Other interested SCs within JTC1 The study group shall make recommendations on changes to existing standards/guidance and/or the creation of new

<table>
<tr><td></td><td>standards or TR

The study group meetings will be co-located with WG25 and will submit a report by 2007-04-15 to SC7.</td></tr>
<tr><td>*Members:*</td><td>
- Alwyn Smit, South Africa
- Alec Dorling, UK
- Ian Hirst, Australia
- Alison Holt, New Zealand
- David Keech, UK
- Jenny Dugmore, UK
- Melanie Cheong, South Africa
- Beatrix Barafort, Luxembourg
- Jyrki Lahnalahti, Finland
- Marc Taillefer, Canada
- Fred Hoberg, South Africa
- Ed Lewis, Australia
- Craig Pattison, itSMFi
- Darcie Destito, US
- Gargi Keeni, India
- Hiroshi Koizumi, Japan

Additional members can be added until 2006-09-15. Nominations must be sent to the SC7 secretariat.</td></tr>
</table>

	Study Group on Software and Systems Benchmarking and Measurement.
Chair **Co-Chair**	**Pekka Forselius (Finland)** **Eberhard Rudolph (Germany)**
Terms of Reference:	JTC 1/SC7 instructs its Secretariat to establish a study group to: • Investigate the possibility of adopting or developing standards or guidance in the area of Software and Systems

	Benchmarking and Measurement.
	• Assess how SC7 standards address benchmarking and software and systems measurement issues
	• Look at harmonizing current industry standards such as the draft ISBGS Benchmarking standard into ISO standards
	The Study Group shall take into consideration work already completed or in progress by the following types of groups:
	• ISBSG - International Software Benchmarking Standards Group (www.ISBSG.org)
	• APQC – American Productivity and Quality Centre (www.apqc.org)
	• SPEC Standards Performance Estimation Corporation (www.spec.org)
	• SEI Benchmarking Study (www.sei.cmu.edu)
	• UKSMA – UK Software measurement association (www.uksma.co.uk)
	• MeLLow -- Meta-Level Learning for sOftWare effort (http://dec.bournemouth.ac.uk/ESERG/MeLLow/metalevel_mellow_home.html)
	• IFPUG – International Function Point Users Group (www.ifpug.org)
	• FiSMA – Finnish Software Measurement Association (www.fisma.fi)
	The study group shall make recommendations on changes to existing standards / guidance and/or the creation of new standards or TR.
	The study group will meet in Seoul, Korea the week of September 15, 2006 co-located with the annual workshop of the International Software Benchmark Standards Group.
	The study group will submit a report by 2007-04-15 to SC7.
Members:	• Gargi Keeni (India) • David Zubrow (USA) • Jean-Marc Deharnais (Canada) • Tony Rollo (COSMIC) • Carol Dekkers(USA) • Mitsuhiro Takahashi (Japan) • Eberhard Rudolph (Germany)

	• Serge Oligny (Canada)
	• Insoo Hwang (Korea)
	• Pam Morris (Australia)
	• Marie O'Neill (Ireland)
	• Peter Fagg (UK)
	• Pekka Forselius (Finland)
	• Terry Rout (Australia)
	• Yuan Yu Yu (China)
	• Jonathan Earthy (UK)
	Additional members can be added until 2006-09-15 to SC7. Nominations must be sent to the SC7 secretariat. The study group encourages the participation of large industry benchmarking organizations.

	Study Group on Software Product Quality Evaluation Module
Chair	**Vipula Godamunne (Australia)**
Terms of Reference:	JTC1/SC7 instructs its Secretariat to establish a study group to document Software Product Quality Evaluation Module. The terms of reference of this Study Group is to investigate the possibility of documenting an Evaluation Module under ISO/IEC 25041 (currently published as 14598-6) in the area of the reliability characteristic and the recoverability sub-characteristic The study group will submit a report by 2006-10-15 to SC7.
Members:	o Jogen Boegh, Denmark o Ota Novotny, Czech Republic o Keum-Suk Lee, Korea o Peter Shum, Canada o Kenichi Sakamoto, Japan o Vipula Godamunne, Australia Additional members can be added until 2006-06-30. Nominations must be sent to the SC7 secretariat.

	Study Group on Review of TR 14143-5 – Functional Size Measurement
Chair	**Carol Dekkers (US)**
Terms of Reference:	JTC1/SC7 instructs its Secretariat to establish a study group to review TR 14143-5:2002 Information Technology – Software Measurement - Functional size measurement. The terms of reference of this Study Group are to: ▪ To what extent is the applicability of this standard broader than its use for Functional Size Measurement ▪ To what extent have Functional Domain concepts matured to allow this TR to be transformed into an IS This study group will submit a report by 2007-01-31 to SC7.
Members:	• Eberhard Rudolph(Germany), • Marie O'Neill(Ireland), • Alison Holt (New Zealand), • Pekka Forselius(Finland), • Mitsuhiro Takahashi(Japan), • Serge Oligny(Canada), • Insoo Hwang(Korea), • Tony Rollo(COSMIC), • Pam Morris(Australia) Additional members can be added until 2006-09-30. Nominations must be sent to the SC7 secretariat