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Software and System Engineering
Secretariat: CANADA (SCC)

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ISO/IEC JTC 1

PLENARY

Sophia Antipolis, 2002-10-21

SC7 Chairman Presentation

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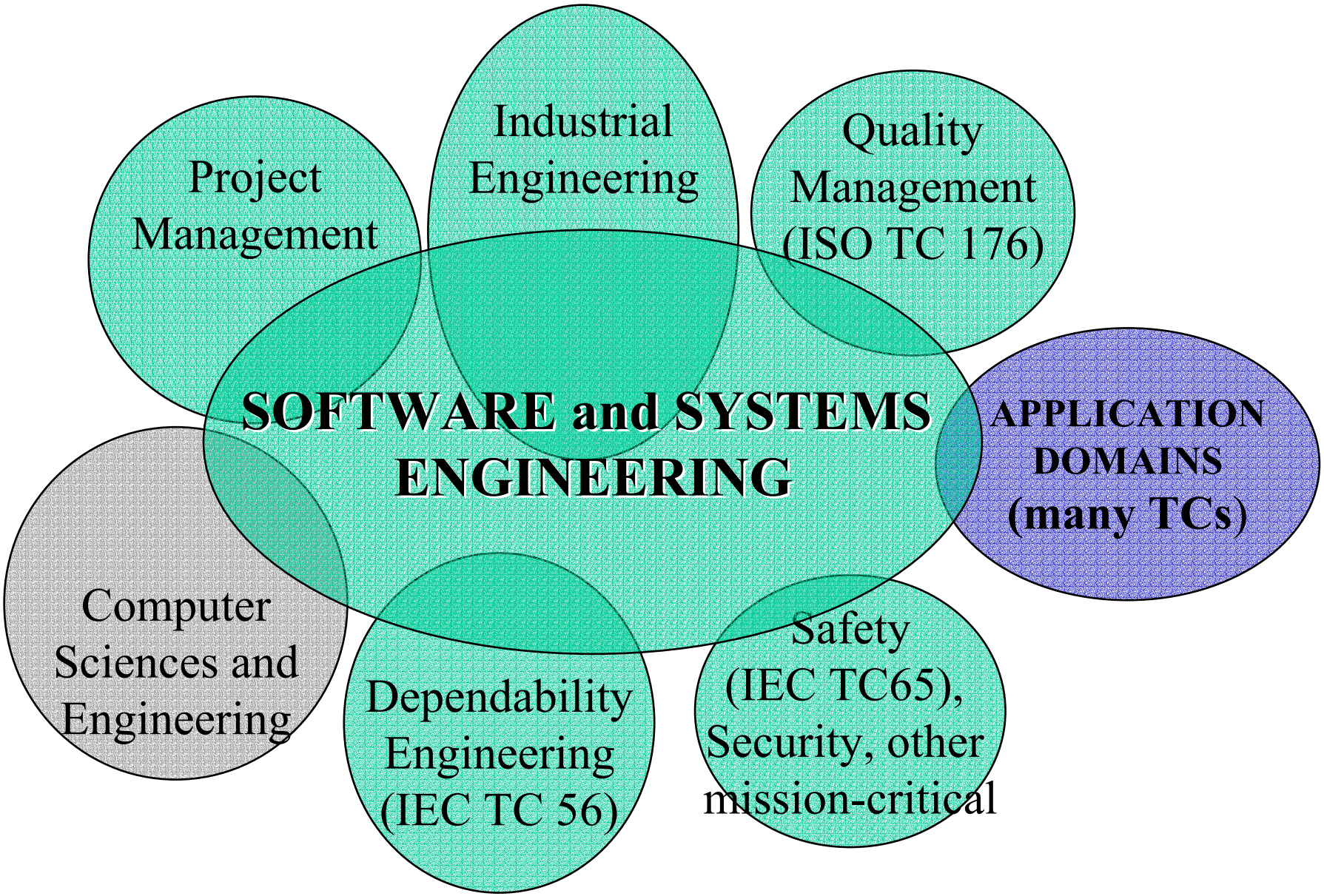
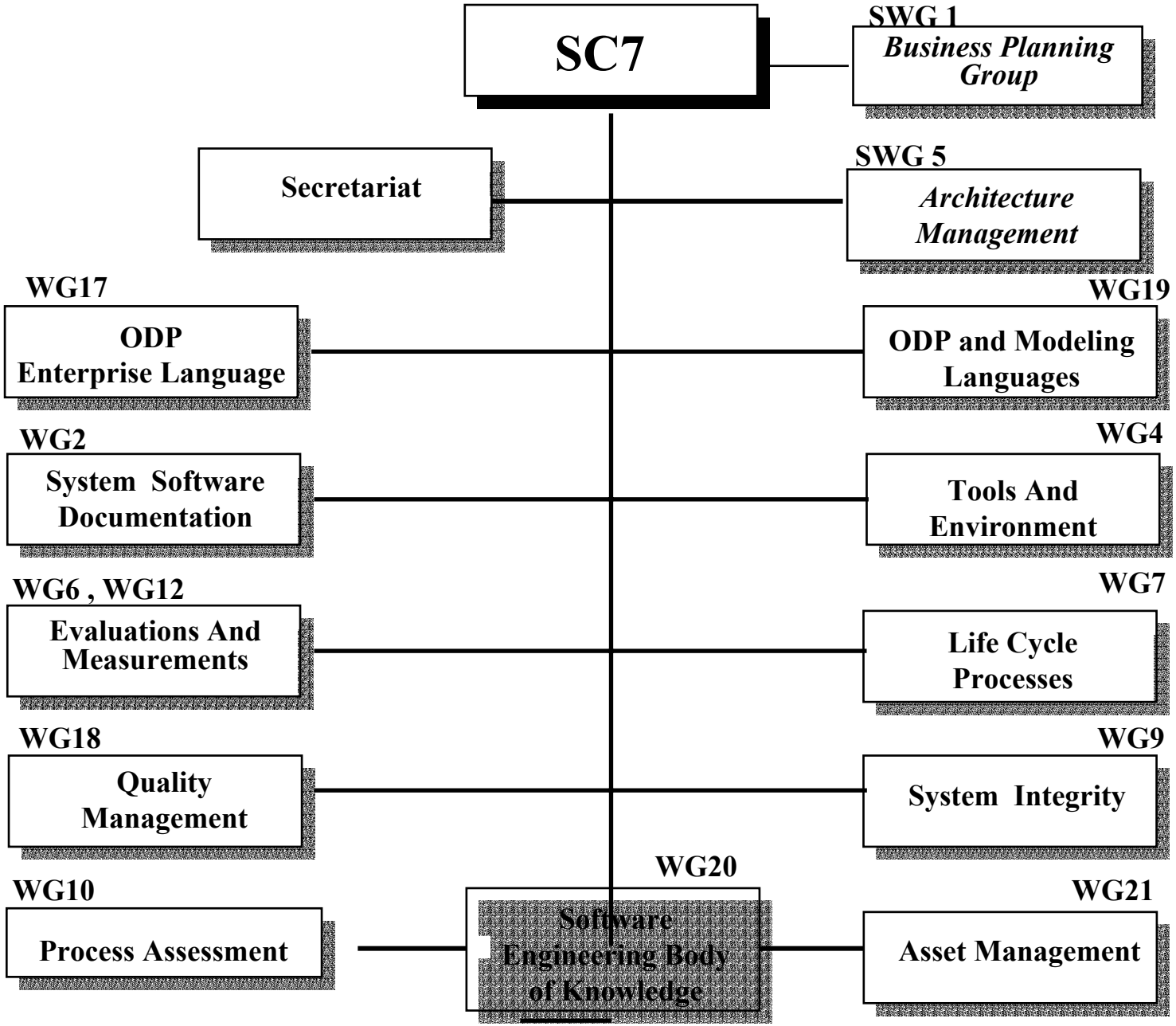
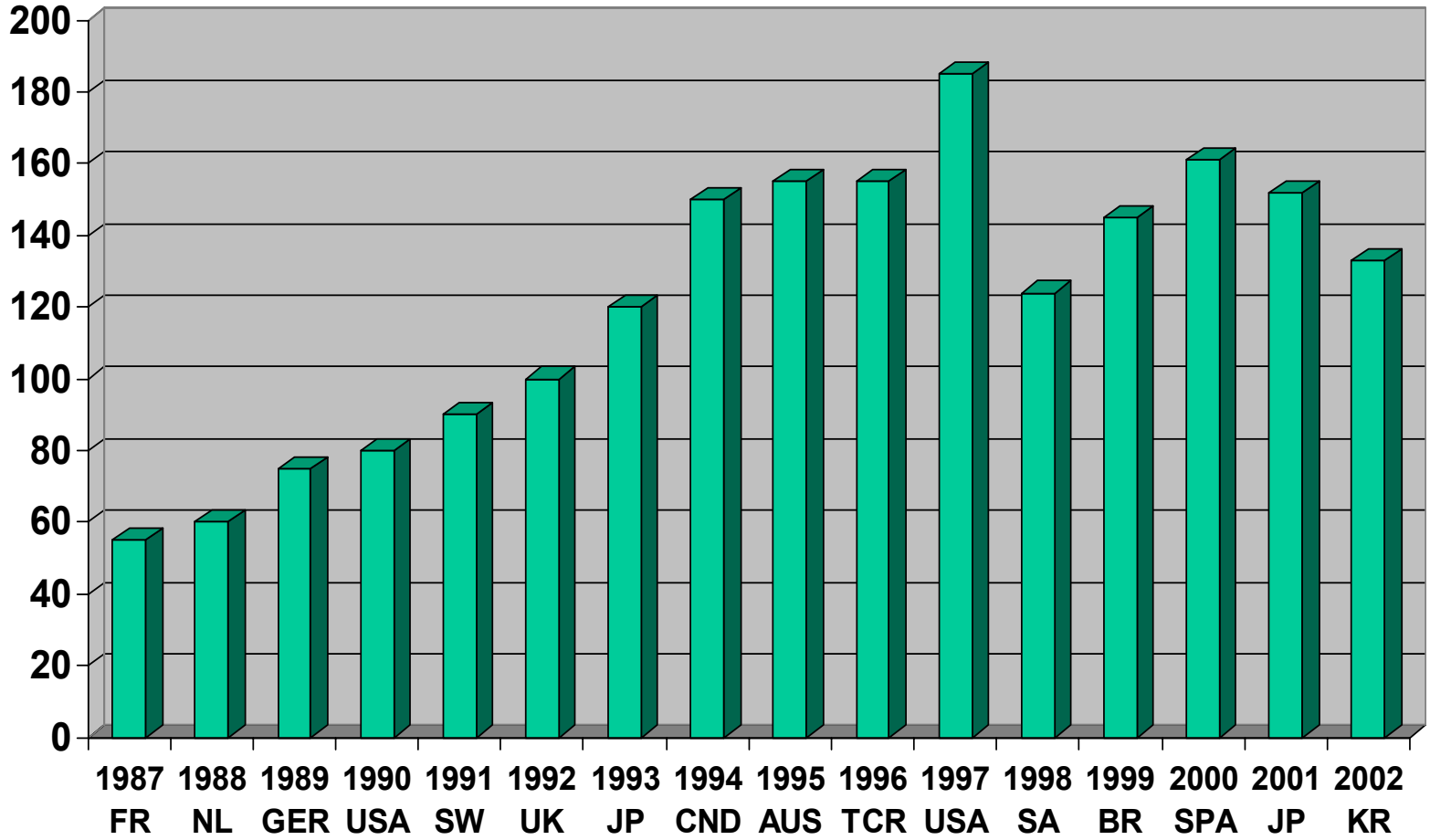
SC7 TERMS OF REFERENCE

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


Project Management
Industrial Engineering
Quality Management (ISO TC 176)
SOFTWARE and SYSTEMS ENGINEERING
APPLICATION DOMAINS (many TCs)
Computer Sciences and Engineering
Dependability Engineering (IEC TC 56)
Safety (IEC TC65), Security, other mission-critical


SC7
SWG 1
Business Planning Group
Secretariat
SWG 5
Architecture Management
WG17
ODP Enterprise Language
WG19
ODP and Modeling Languages
WG2
System Software Documentation
WG4
Tools And Environment
WG6 , WG12
Evaluations And Measurements
WG7
Life Cycle Processes
WG18
Quality Management
WG9
System Integrity
WG20
WG10
Process Assessment
Software Engineering Body of Knowledge
WG21
Asset Management

Plenary Attendance



STANDARDS PUBLISHED 2001

Overall: 58 published standards

2001 additions:

- ISO/IEC 9126-1:2001 Software engineering -- Product quality -- Part 1: Quality model
- ISO/IEC 10746-4:1998/Amd 1:2001 Computational formalization
- ISO/IEC 14598-6:2001 Software engineering -- Product evaluation -- Part 6: Documentation of evaluation modules
- ISO/IEC 14769:2001 Information technology -- Open Distributed Processing -- Type Repository Function
- ISO/IEC 15437:2001 Information technology -- Enhancements to LOTOS (E-LOTOS)

2002 View

From the 2000 View:

- 9126-4: Software Engineering - Product quality - Part 4: Quality In Use Metrics
- 15474: Software Engineering - CDIF Framework - Parts 1 and 2
- 15475 Software Engineering - CDIF Transfer Format - Parts 1, 2 and 3
- 15476: Software Engineering - CDIF Semantic Metamodel - Parts 1,2

From the 2001 View:

- 9126-2: Software Engineering Software Product Quality - Part 2: External Quality
- 12207/FPDAM-1: Software Engineering - Life Cycle Processes
- 14143-2: Definition of Functional Size Measurement - Part 2: Conformance Assessment of Software Sizing Model
- 14143-3: Definition of Functional Size Measurement - Part 3: Verification of a Functional Size Model
- 14143-4: Definition of Functional Size Measurement - Part 4: Functional Size Measurement Reference Model
- 14143-5: Definition of Functional Size Measurement - Part 5: Determination of Functional Domains for use with Functional Size
- 15414: Open Distribution Processing - Enterprise Language
- 15504-2/FPDAM-1: Amendment To ISO/IEC TR15504-2 - Information Technology - Software Process Assessment - Reference Model Extensions For Acquirer Processes.
- 15939: Software Measurement Process

Blue = IS Processing
Red = Published

2002 View

Additional projects near completion:

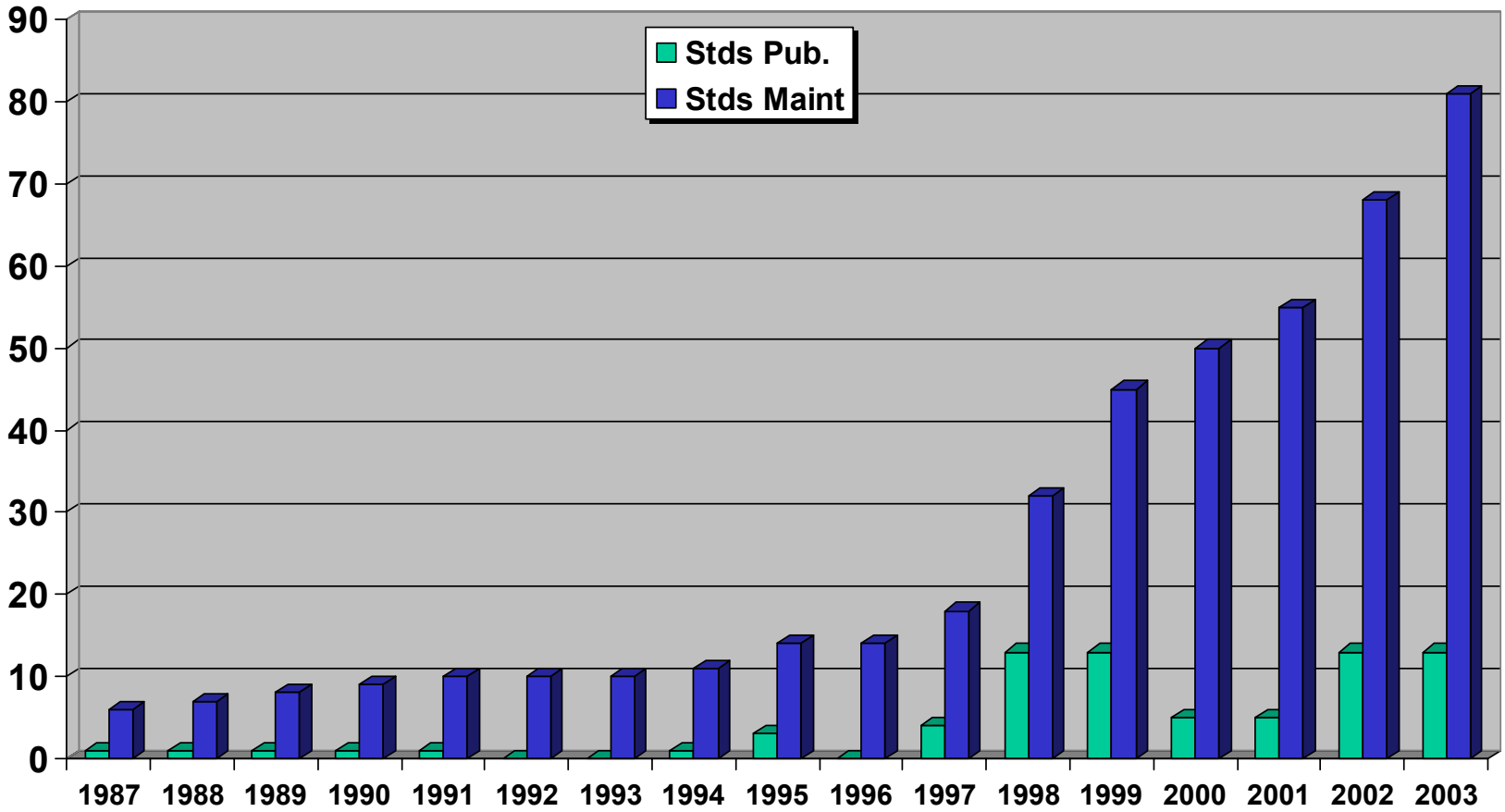
- 15288 – System Life Cycle Processes
- 19501-1 – UML PAS
- 19500-2 – ODP – GIOP/IIOP PAS
- 19762 - IFPUG PAS
- 20926 – Function Point Practices
- 20928 - MKII PAS
- 19761 – COSMIC FFP
- 19759 – SWEBOK
- 9000-3 – Guidelines for the app. Of 9001:2000 to Software

New Projects

- Software Risk Management (Fast Track)
- System and Software Integrity Levels (NWI - accepted)
- Software Engineering - High-level Petri Nets - Concepts, Definitions and Graphical Notation (NWI - accepted)
- Revision of 12207 and 15288 for harmonization (Resolution 629)
- Systems Engineering Standards harmonization
- Consolidated Vocabulary (in cooperation with IEEE-CS) NWI pending

SC7 Production (est.)

(No new NWI assumed - exclude dependability, include PAS)



System Integrator

A *System Integrator* is an organization delivering value by architecting and implementing solutions from components and systems.

- High value added work
  - Architecture
  - Program Management
  - System Implementation
- Reuse of components and sub-systems
- Subcontracting or outsourcing components and sub-systems

System Integrator – what it is meaning for SC7

Focusing on high value added work:

- Developing integrator standards (e.g. 12207, 15288, etc…)
- Developing new standards when existing national or professionals positions need to be reconciled
- Sub-contracting development and maintenance of component or specialized standards to other parties, ensuring that they integrate in the SC7 standard architecture

Cooperative Work

- OMG
  - ODP and UML standards
- IEEE Computer Society
  - More than 50 software and systems engineering standards
  - IEEE-CS has adopted key SC7 standards
  - Some IEEE-CS standards are fast-tracked in SC7
  - Closing on a vision for more systematic cooperative work

Marketing

- Redesigned SC7 Web site from a primarily document exchange site to a marketing 'window' – still work in progress
- Publications on SC7 standards
- Conferences contributions
- Cooperative Work with professionals associations (INCOSE and IEEE-CS)

SC7 Web Site

http://www.jtc1-sc7.org/

Added and/or overhauled the following sections:

- Introduction and Mandate
- Organization
- Planning
- Projects (pointing to ISO web site)
- Published Standards (pointing to ISO web site)
- Publications

Conferences

- Publications on SC7 work in Software Engineering Conferences
- Software Engineering Standards Conference – South Africa – 2003-10-31 and 11-01
- Joint ESA and 3rd SPICE Conference – 2003-03-17 21 – ISO/IEC 15504 community

Publications

Non exhaustive listing:

- 10 books listed published between 1997 and 2002
- 5 papers published on the Web between 1999 and 2001
- Article from SC7 Chair accepted by US DoD Software Engineering periodical CrossTalk for possible publication IQ03
- ISO Journal article planned for IQ03