



P e r f o r m a n c e 1999

International Electrotechnical Commission

Second Edition



The IEC

Founded in 1906, the International Electrotechnical Commission prepares and publishes International Standards for all electrical, electronic and related technologies. This mandate embraces all electrotechnologies, including electronics, magnetics and electromagnetics, electroacoustics, telecommunication, and energy production and distribution. It also addresses associated general disciplines such as terminology and symbols, measurement and

performance, dependability, design and development, and safety and the environment.

The Commission's objectives are to:

- meet the requirements of the global market efficiently;
- ensure primacy and maximum world-wide use of its standards and conformity assessment schemes;
- assess and improve the quality of products and services covered by its standards;
- establish the conditions for the interoperability of complex systems;
- increase the efficiency of industrial processes;
- contribute to the improvement of human health and safety;
- contribute to the protection of the environment.

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www.iec.ch



President

Message

Welcome to the IEC's new publication which replaces our traditional annual report. Performance 1999 is the IEC's first attempt to offer a different measure of the entire IEC community's performance. For the measure of an organization is not found merely in its financials or production figures, although these can be helpful indicators. **The real measure for the IEC lies in how well we serve our community of stakeholders, our National Committees, industry, governments and end-users, and this is the key to long-term success.**

For a number of years the IEC has been working on speeding up the standardization process through a variety of initiatives. Foremost among these has been a focus on using electronic tools and

employing the advantages provided by the internet to our benefit. In 1999 we truly began to see the results of this effort as we started to give our community better service and new products.

By providing our experts with the right tools at the right time so they can do their job in the most efficient way, and by providing industry with what it has been asking for, we serve global trade in the manner that is to be expected by an international organization entering the 21st century. We worked hard in 1999 and just as the results of that effort will show on the pages that follow, so also will it show in the days, the months and the years to come.

Mathias R. Fünfschilling

General Secretary

Introduction

To analyze our performance in 1999, we have separated our reporting into two principal categories: investments and achievements. Investments concerns what we put into the whole IEC effort while achievements focuses on concrete results. These categories are then viewed from three perspectives or measures.

The first measure investigates whether our efforts really gave to the market what it wants from us. For a number of years now industry has been telling us in clear terms what it wants us to deliver. We have been concentrating our efforts in that direction and are now delivering good results. The second measure refers to helping those experts who prepare our International Standards to do this work: offering them the resources, infrastructure and the training to do the work in the most efficient

manner possible. **After all, it is the market that supplies most of those experts, so it is important to let the market know that we are working hard to make sure it gets its money's worth.** The third perspective or measure – conformity assessment – refers to a part of our work that is becoming increasingly important for global trade because it helps lower trade barriers and thereby reduces manufacturing costs.

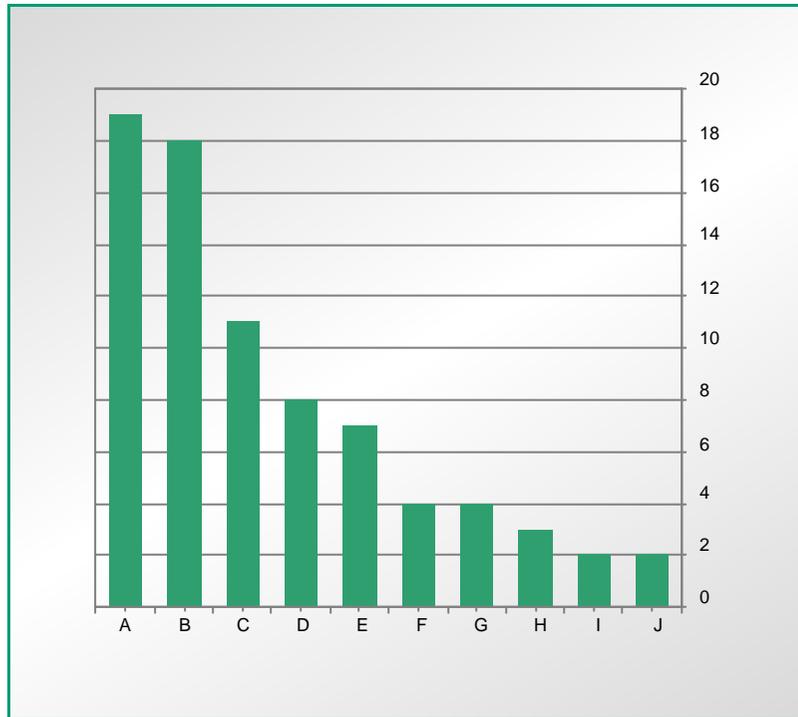
By taking a close look from all of these perspectives, we can give a more accurate assessment of how well we performed our job in 1999. We also think that less text and more graphics is a better way to provide the information since we are, after all, giving an overall picture of the IEC.

Aharon Amit

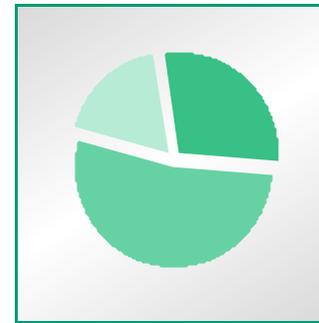


Investments

New work



- A. USA
 - B. Japan
 - C. Germany
 - D. UK
 - E. Netherlands
 - F. Denmark
 - G. France
 - H. Italy
 - I. Canada
 - J. Sweden
- Austria, Norway, Poland, Spain and Switzerland each provided one NWI. Horizontal axis: IEC National Committees (NCs). Vertical axis: number of New work items.



- Electrical industry: 29%
- Electronic industry: 53%
- Safety, measurement and consumer goods: 18%

NWI sent in by NCs

The sources of new work in the IEC are truly global and the chart at left very closely reflects the world's leading economies. The contribution and distribution of countries emphasizes the role of the IEC as THE international organization for electrotechnical standardization.

NWI Circulated

New work items are the work we are about to begin (above left). We have predicted for a number of years that the number would fall in 1999 (it fell from 258 in 1998 to 148 in 1999). This comes from a much tighter focus on work that is directly relevant to market needs and what the market will support. All efforts have been made to instill market relevance as soon as we take up a new project.

Investments

Sales

Sales

The Central Office's Customer Service Centre in Geneva is a core facility for members and customers alike. The Centre provides products and information – increasingly more specific requests for information are coming in via electronic mail.

The Commission is fully committed to maximizing the benefits of distributing documents electronically and continues to develop products and services in this direction.

Noteworthy developments in 1999 in this area were distribution of revisable files for the purpose of national adoption and water-marked non-revisable publications for internal library use by IEC National Committees.

We developed reproduction and licensing agreements to increase

print-on-demand and web sales, as well as hard copy reproduction of our International Standards.

Of greatest significance, the IEC's Web Store opened for business and we began to sell our electronic and paper publications online.

A variety of tools for promoting sales continued to be developed, including appearance of a new email service called Just Published. The twice monthly service goes out to a specific list of customers with news on new publications.

As in past years, we continued to produce our paper Catalogue of Publications. However, we saw an increasing use of the online version of the catalogue which is a database facility updated in real time.

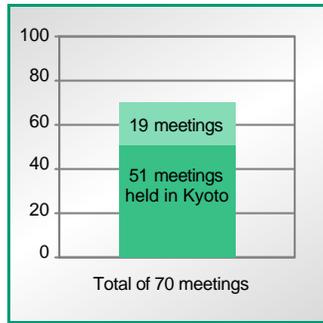
On average every month the Customer Service Centre:

- processed 1 000 orders from National Committees, sales outlets and private customers;
- handled 1 300 emails;
- processed 350 faxes;
- answered 200 telephone calls.



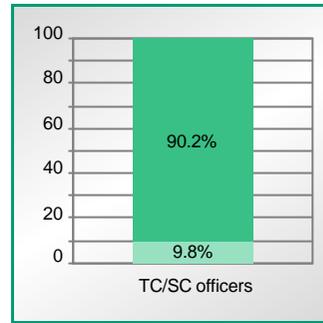
Investments

Industry issues and efficiency



Number of TC and SC meetings

A total of 70 meetings were held in 1999.



TC/SC officers affiliation

The great majority of technical committee and subcommittee officers come from industry, not from national standards bodies. Vertical axis: percent.

- Industry
- National Committees

Conformity assessment

Providing global, cost-effective systems for conformity assessment is an essential part of IEC work. In 1999 the IEC began work on a new guide to peer assessment which may, in the future, lead to an international standard.

Peer assessment is a critical, in-depth, on-site examination of a service provider, such as a certification body or testing laboratory. The sector experts who scrutinize the candidate will subsequently have to recognize and accept the quality of the candidate's service under some form of reciprocal recognition scenario.

The WTO represents a key organization where the IEC can demonstrate its true value to trade and industry. Activities in 1999 included a presentation on the role

and relevance of the IEC's conformity assessment programmes which are truly global in their reach.

New IT tools

Throughout 1999 we put at the disposal of the experts who do the work of preparing International Standards a variety of IT tools to help them. Electronic voting, FTP sites and email distribution lists make the standardization process operate more quickly, templates help make it more efficient, and the permission system gives NCs greater control. At the same time, training and information services provided by Central Office helped to bring NCs and experts up to speed on how the IEC goes about doing its work in an increasingly electronic world.



Investments

Growing global influence

A variety of initiatives designed to broaden the IEC's reach throughout the world took place in 1999. Worth noting was our **developing relationship with the World Trade Organization**, particularly within the context of its Agreement on Technical Barriers to Trade (TBT). We put our emphasis on workshops, a forum dedicated to information technology and on conformity assessment.

We also had the chance to ask industry how they used our International Standards to their benefit, and received some very satisfying responses – from small, medium and large industry users – which demonstrated that IEC International Standards do play a very important role in global export markets.

We continued to promote our **programme for pre-associate affiliation**, supplying training and helping with adoption of International Standards at the national level. This effort resulted in Eritrea becoming part of the IEC family.

The IEC was very active in promoting itself throughout the world in 1999, holding three fora in three different regions.

In the **Asia-Pacific region**, we developed our information network, which has resulted in a dedicated internet facility for the Asia-Pacific region and held a forum for local industry.

The IEC deepened its ties with CANENA, which looks after harmonizing standards in the

Americas, and expects to sign a co-operation agreement with that organization shortly. Additionally, a forum in **Sao Paulo** attracted the interest of regional industry. Aiming ourselves to address the Spanish-speaking market with greater attention, we have now begun to make available on the IEC's Web Store Spanish-language versions of IEC International Standards and other publications.

Late 1999 saw a forum held in **Bahrain** to introduce the IEC to the Gulf States. The forum was given valued support by the Egyptian and Saudi Arabian National Committees of the IEC.



Achievements

International Standards

Meeting market needs

Production of International Standards continued at the same level as in 1998 and the standards library is that much richer for it. In 1999 we published **384** International Standards, bringing the total number in the IEC library to **4 431** at 31 December 1999. Fourteen TCs in particular should be congratulated for having produced complete International Standards in fewer than 36 months. Among these were:

IEC/TR 61998: Model and framework for standardization in multimedia equipment and systems. (Produced by TC 100: Audio, video and multimedia systems and equipment.)

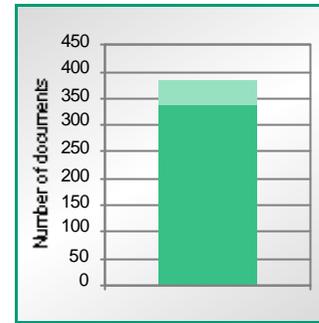
IEC 62005-4: Reliability of fibre optic interconnecting devices and passive optical components – Part 4: Product screening. (Produced by SC86B: Fibre optic interconnecting devices and passive components.)

IEC 61811-1: Electromechanical non-specified time all-or-nothing relays of assessed quality – Part 1: Generic specification. (Produced by TC 94: All-or-nothing electrical relays.)

IEC 61964: Integrated circuits – Memory devices pin configurations. (Produced by SC47A: Integrated circuits.)

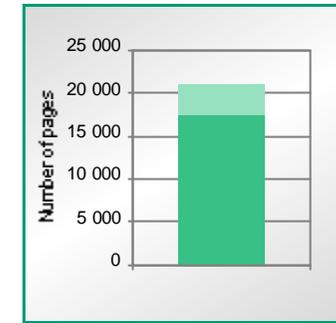
IEC 62035: Discharge lamps (excluding fluorescent lamps) – Safety specifications. (Produced by SC34A: Lamps.)

IEC/TR 61926-1-1: Design automation – Part 1-1: Harmonization of ATLAS test languages. (Produced by TC93: Design automation.)



Documents and pages

While production of the number of International Standards remained stable in 1999, the number of pages and of overall documents is significantly higher than the average for the previous three years. The latter indicates that the IEC is putting extra



emphasis on publications other than International Standards, including new fast-track products such as Industry Technical Agreements (ITAs) and Publicly Available Specifications (IEC-PAS).

- International Standard
- Other (TS, TR, Guide, PAS)



Achievements

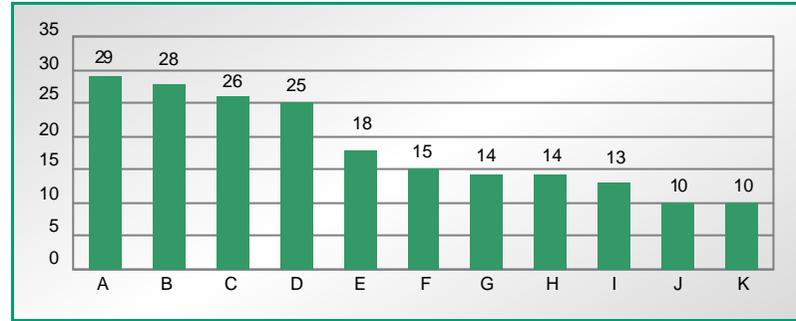
International Standards



Standards produced by TC/SC

Half of all technical committees and subcommittees produced only two International Standards or fewer in 1999. At the same time, half produced more than two, and the graph shows that the top seven percent were exceptionally productive.

- 2 or less: 51%
- 3 to 6: 28%
- 7 to 15: 14%
- 16 to 30: 7%



TCs producing 10 or more standards

The TCs that produced the greatest number of International Standards in 1999 did so for a broad range of electrotechnology, from traditional areas like winding wires and switchgear and controlgear, to consumer goods, to more recent technology like fibre optics.

The TCs in question are:

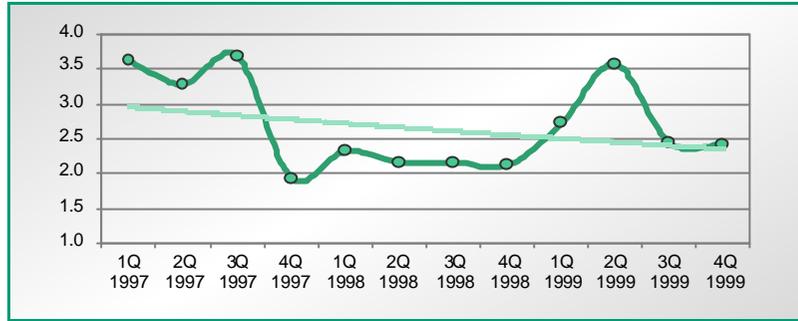
- A: TC 86 (Fibre optics)
- B: TC 61 (Safety of household and similar electrical appliances)
- C: TC 55 (Winding Wires)
- D: TC 34 (Lamps and related equipment)
- E: TC 100 (Audio, video and multimedia systems and equipment)
- F: TC 17 (Switchgear and controlgear)

- G: TC 46 (Cables, wires, waveguides, etc., for communication and signalling)
- H: TC 62 (Electrical equipment in medical practice)
- I: TC 65 (Industrial-process measurement and control)
- J: TC 47 (Semiconductor devices)
- K: TC 52 (Printed circuits)



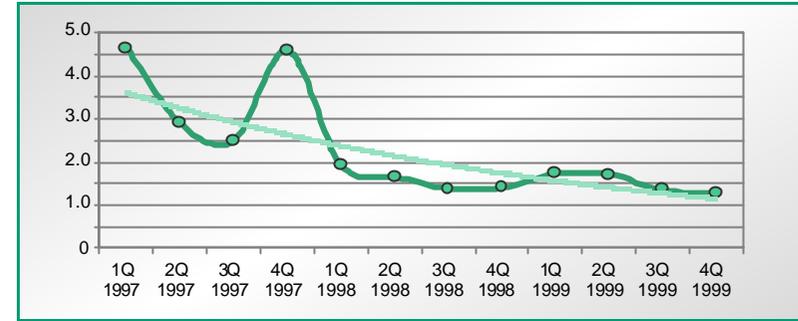
Achievements

Average production time



Draft International Standard production

Over the past three years, we reduced by one month out of the time it takes the average IEC standard to pass through the Draft International Standard phase of preparation.
 Vertical axis: time in months.
 Horizontal axis: time in quarters.



Publishing phase

From the beginning of 1997 to the end of 1999 we reduced by more than two months the time it takes for the average standard to go through the publishing phase.
 Vertical axis: time in months.
 Horizontal axis: time in quarters.



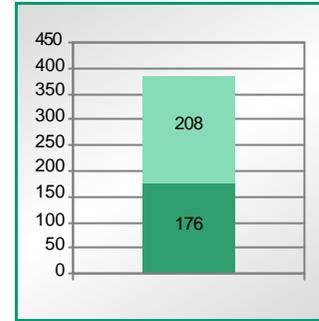
Achievements

Production, maintenance and development



Production

A flattening trend line for production of International Standards reveals that the IEC is stabilizing its efforts to produce only what the market wants. Vertical axis: number of International Standards. Horizontal axis: time in years.



Breakdown by type of publications

The market requested that we maintain 208 documents.

- Maintenance
- New projects

Development time	No.
< 24 months	22
24 to 36 months	60
Total in < 36 months	82

Development time

More than 20 percent of all IEC International Standards are now being prepared in less than 36 months. This is in direct response to industry requests that we speed up the standardization process. Processes and management techniques now in place should make it more possible in the future.



Achievements

New products

IEC-PAS and ITAs

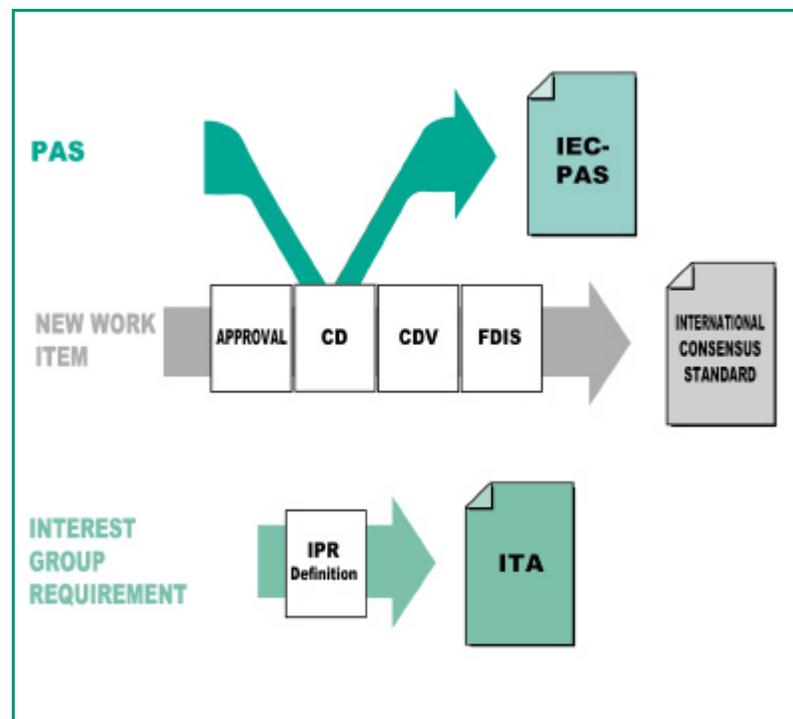
Established as a new product in 1998, 1999 saw IEC Publicly Available Specifications really begin to take hold. While six were published in 1999, there remain 32 in progress: evidence that this new fast-track product can serve the needs of the end-user - including industry - effectively.

We saw the publication of the first Industry Technical Agreement, or ITA, in 1999. It was no coincidence that it **dealt with the world of multimedia and that it was published in months, not years.** Comments from industry indicate that this new type of product will continue to gain acceptance as a valid means of using the IEC's expertise and experience in bringing a neutral platform for "standardizing" fast-track industries and technologies.

ITAs are intended for use by industry where business and trade in high-technology products and services do not need consensus-based International Standards at market launch.

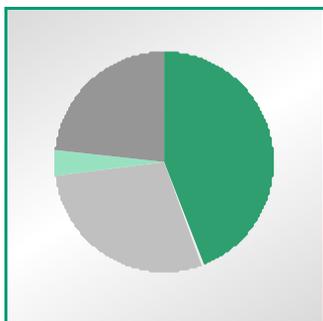
IEC-PAS, International Standards and ITAs each have a different route in the IEC. The IEC-PAS does enter the traditional standardization process very briefly, while ITAs are completely separate. In both cases, this allows the IEC to produce these new products with much greater speed than a consensus-based International Standard.

However, both the IEC-PAS and the IEC-ITA could be developed into International Standards through the normal processes if there is a market need.



Achievements

Sales and Promotion



Total sales

Royalties from reproduction and distribution contracts with NCs, their appointed sales outlets, and commercial resellers continued to bring in the largest proportion of total IEC revenues for 1999.

- Gross royalties: 44%
- Sales to private customers: 23%
- Sales to sales outlets: 4%
- Sales to National Committees: 29%

Promotion

The Information Services Department continued to produce news releases for the world's press, signaling important events at the IEC, while it focused on targeting specific specialist media for news on key new International Standards.

The IEC's principal vehicle for public information – the Bulletin – continued to report to the global community on news and events concerning the Commission.

Key interviews focused on industry leaders as well as smaller enterprises and pointed to the **value that IEC International Standards bring to the global marketplace**. Companies featured in the Bulletin included Schneider Electric of France, Harting KGaA of Germany, and Beko Elektronik of Turkey.

In addition to this, the IEC continued with its ongoing public information campaign aimed at the world's media.

Web Store sales

The IEC Web Store opened for business on 1 February 1999 and by the end of the year nearly the entire IEC library of 4 500 International Standards was available online.

Online sales of IEC International Standards amounted to CHF 606 618.



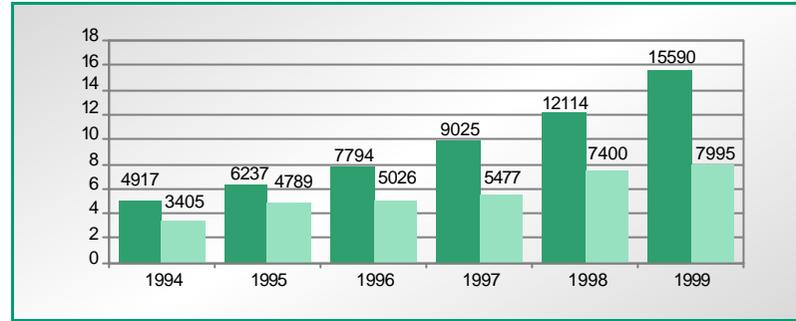
Achievements

Conformity Assessment

IEC conformity assessment continued to develop in 1999. The IECEx Scheme, which handles electrical equipment destined to be used in explosive atmospheres, began operations, as did the extension to the IECEE CB Scheme, called Full Certification Scheme.

IECEx offers manufacturers a test and assessment report produced by one country for acceptance in all other participating countries. Eventually, an international certificate is envisaged. In the meantime, certification bodies in the receiving countries use the test and assessment report when issuing their own national or regional certification.

IECEE CB-FCS is based on mutual recognition of conformity assessment tests. **With minimal paperwork, manufacturers**

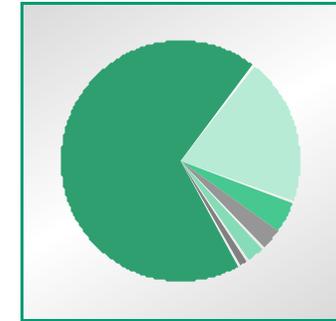


can get their safety marks or approvals without having to submit samples for retesting and without having to entertain duplicate audits of the quality management systems in their factories.

CB test certificates issued

Test certificates used in the CB Scheme continued their explosive growth, rising to 16 000. This provides evidence that the Scheme is seen by manufacturers around the world as a useful means of lowering production costs and enhancing international trade. Vertical axis: thousands of certificates. Horizontal axis: time in years.

- Issued
- Recognized



IECQ approvals

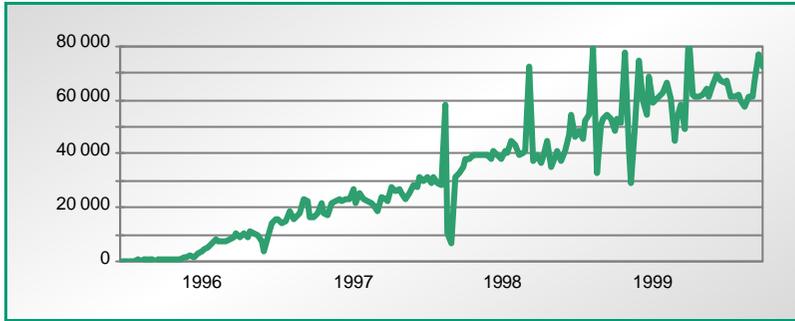
Like the IECEE, the IEC's quality assessment system for electronic components (IECQ) helps manufacturers to demonstrate that their products adhere to International Standards, which gives users confidence, as well as making exporting that much easier and keeping production costs down.

- Manufacturers: 69%
- Qualification approvals: 20%
- Testing laboratories: 4%
- Distributors: 3%
- Capability approvals: 3%
- Specialist contractors: 1%



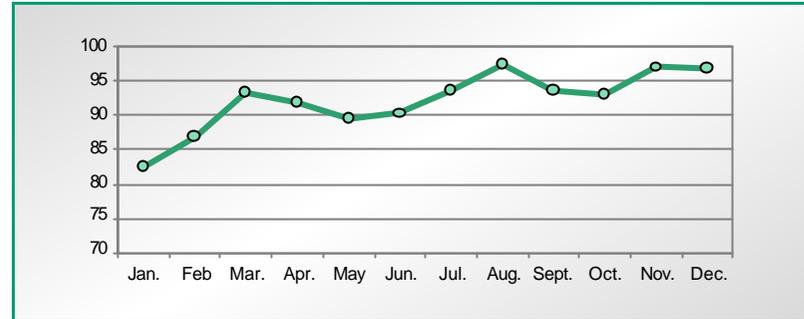
Achievements

Website and electronic delivery



IEC Web server hits per week

The IEC website continues to be the backbone of the Commission's technical work. Vertical axis: number of 'hits'. Horizontal axis: time in years.



Documents available electronically

In 1999 the IEC decided to move toward electronic-only distribution of all its documents, and set a target date for this of 1 January 2001. Throughout 1999 the Commission worked hard to prepare itself for meeting this goal, and now more than 95% of all its documents are available electronically. Vertical axis: percent. Horizontal axis: time in months.



Future directions

Serving the market

The achievements of 1999 did not happen in a vacuum. They are the result of careful planning in response to demands from industry for the right products at the right time. Much of this planning comes from a document that is essential to the IEC: the Masterplan, which provides us with direction and focus. Originally written in 1993, we began work on the second revision in 1999.

In the future, as in the recent past, the IEC will continue to pay close attention to what the market wants from us.

We will continue to provide the world with products and services that benefit global trade by:

- promoting the use and implementation of IEC International Standards.
- increasing the market relevance of the IEC work.
- shortening the lead time.
- offering additional services and products as per market demands.
- promoting the IEC Schemes as true international Conformity Assessment services.
- improving efficiency by using the IEC IT infrastructure.
- offering the IEC products to all ranges of users.



IEC members

As at 31 December 1999

AUSTRALIA	EGYPT	KOREA, REPUBLIC OF	SINGAPORE
AUSTRIA	ERITREA (PM)	LATVIA (AM)	SLOVAKIA
BELARUS	ESTONIA (AM)	LITHUANIA (AM)	SLOVENIA
BELGIUM	FINLAND	LUXEMBURG	SOUTH AFRICA
BOSNIA-HERZO. (AM)	FRANCE	MALAYSIA	SPAIN
BRAZIL	GERMANY	MEXICO	SWEDEN
BULGARIA	GREECE	NETHERLANDS	SWITZERLAND
CANADA	HUNGARY	NEW ZEALAND	THAILAND
CHINA	ICELAND (AM)	NORWAY	TURKEY
COLOMBIA (PM)	INDIA	PAKISTAN	UKRAINE
COSTA RICA (PM)	INDONESIA	PHILIPPINES	UNITED KINGDOM
CROATIA	IRELAND	POLAND	UNITED STATES OF AMERICA
CUBA (PM)	ISRAEL	PORTUGAL	URUGUAY (PM)
CYPRUS (AM)	ITALY	ROMANIA	YUGOSLAVIA
CZECH REP.	JAPAN	RUSSIAN FEDERATION	
DENMARK	KENYA (PM)	SAUDI ARABIA	

AM = ASSOCIATE MEMBER

PM = PRE-ASSOCIATE MEMBER



For further information



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