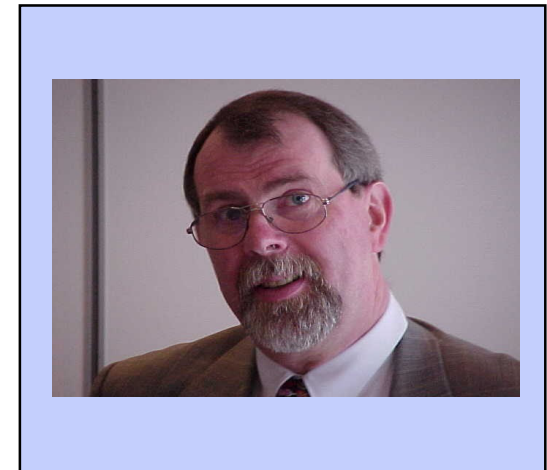


CB Scheme

Aims, Members, Added Value

**2007 IEEE Symposium on
Product Safety & Compliance Engineering
Longmont, CO - October 22-23, 2007**

Dr. Wolfgang Kreinberg
TÜV SÜD Product Service GmbH, München



Special Thanks to Pierre de Ruvo, Executive Secretary of the IECEE CB Scheme



The IECEE CB Scheme, the Global System for Facilitation of Trade

The IECEE CB Scheme, the Global System for Facilitation of Trade



by
Pierre de RUVO
Executive Secretary IECEE



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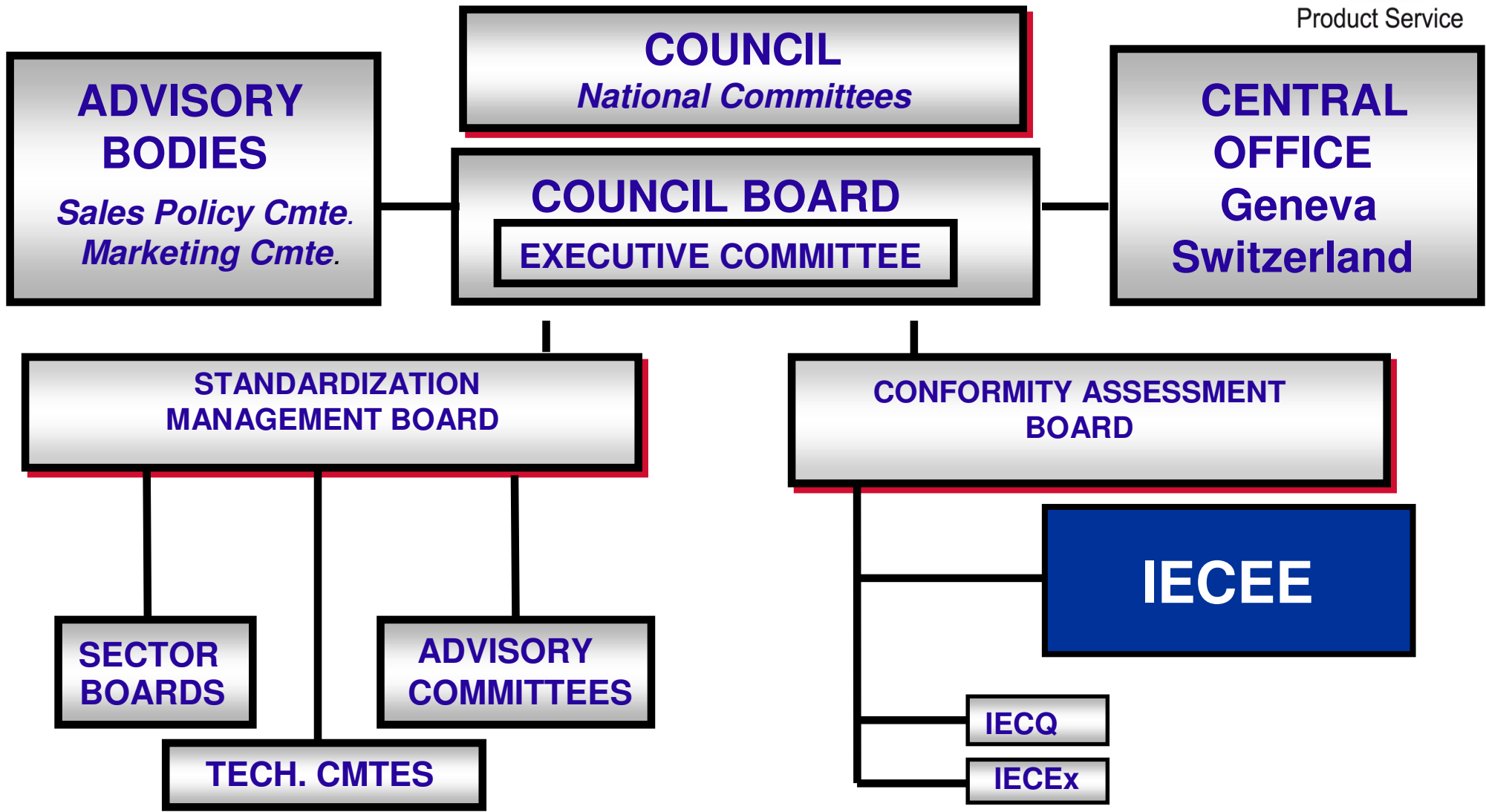
IECEE DEVELOPMENTS AND OUTLOOK

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CB Scheme IEC Organization Chart



Product Service





CONFORMITY ASSESSMENT BOARD

IECEE

System for conformity testing and certification of electrical equipment and components

IECEX

Scheme for explosive environments

IECQ

Quality assessment system for electronic components

CB Scheme

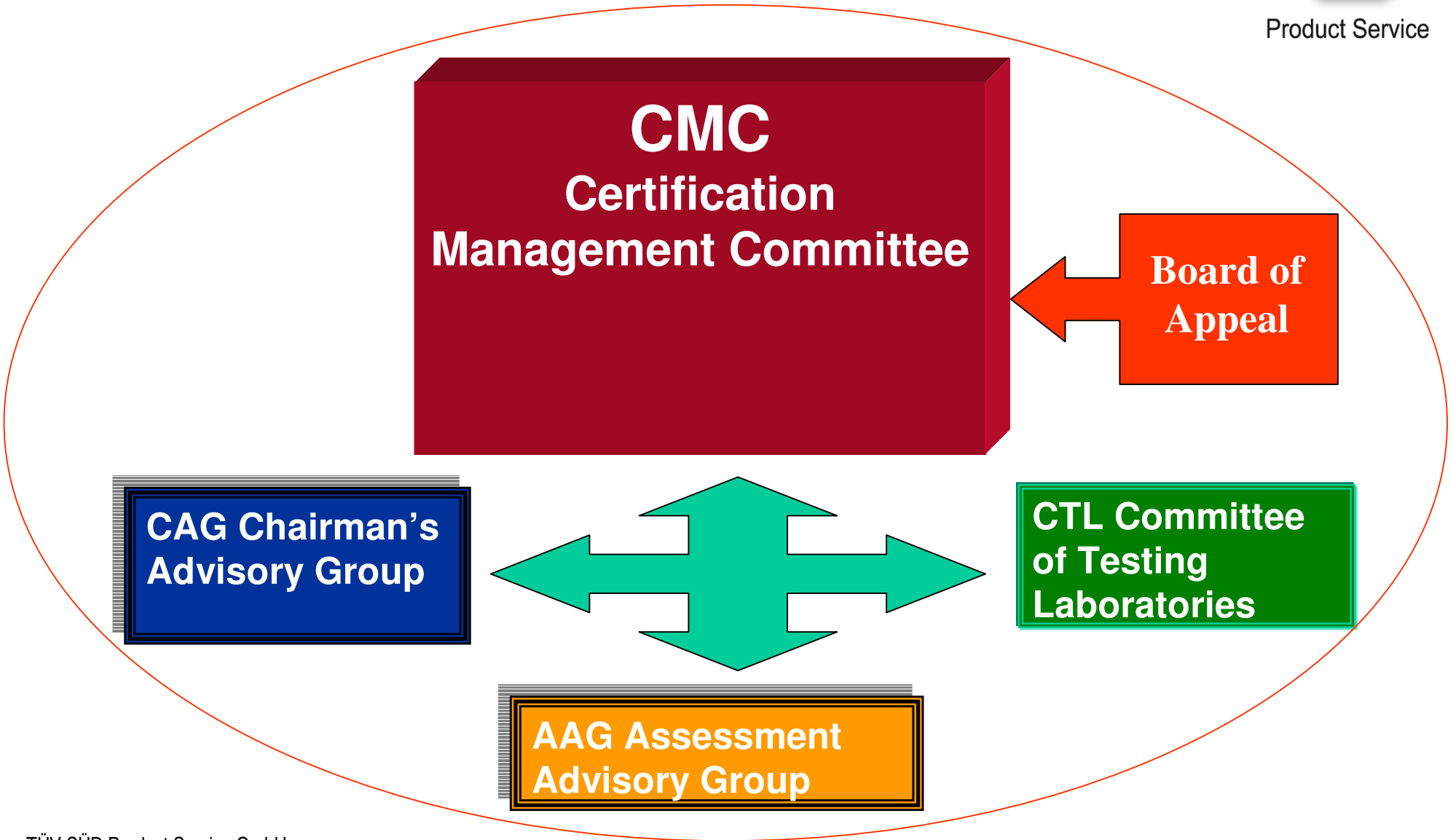
Mutual recognition of test data between certification bodies

CB FCS (full certification, including assessing QMS & Factory Audit/Inspection)

CB Scheme IECEE Organisational Structure



Product Service





CERTIFICATION MANAGEMENT COMMITTEE

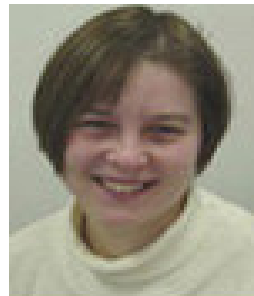
- **IECEE Officers**
- **CTL Chairman**
- **General Secretary and CEO of the IEC**
- **Member Body delegation (one per country) composed by 1 Head of Delegation and two Delegates**



Executive Secretary IECEE



Ms Katharine Pearson
Assistant
Peer Assessment Program



Ms Tara Mitchell
Assistant and Web-publisher



Ms Cecilie Finstad
Assistant
Adherence to Standards

CB Scheme IECEE Officers



Product Service



Gösta FREDRIKSSON
Chairman



Pierre de RUVO
Executive Secretary



Jun XIE
Vice-Chairman



Fritz BEGLINGER
Treasurer

CB Scheme BOARD OF APPEAL



Product Service



Chairman: Don MADER (UL)

Members



Bo YUMIN (CNCA)



Yoji ONO (JQA)



Joe GRYN (CSA)



Trond SOLLIE (NEMKO)

Deputies



Ted Gaertner (KEMA)



Jukka VUORINEN(SGS FIMKO)



Paul TAN (PSB)



Gerhard DREGER (VDE)



The Chairman's Advisory Group is essentially composed by the Officers, the CTL Chairman and CMC delegates that are requested to advise on topics of interest for the overall IECEE Community



ACAG Members are formally appointed by the Management Committee

TERMS OF REFERENCE

- ▶ To monitor the Peer Assessment and Re-assessment
- ▶ To determine common understanding and approach on ISO/IEC Guide 65 and ISO/IEC 17025
- ▶ To evaluate the Assessment Reports of candidate NCBs and CBTLs and make recommendations to the IECEE-CMC



Product Service





Well-founded “Mutual Confidence” is needed for NCBs to grant their Certification Mark on the basis of the review of Test Results without repeat testing; this is what Peer Assessments achieve.

Administered Globally by the IECEE Secretariat in Geneva using a registered pool of International Lead Assessors and Technical Assessors located in 43 different countries.



The evaluations made by QMS and Technical Experts, employed by the Organisations' Members of the IECEE, ensure that the Members' Certification Bodies and Testing Laboratories are competent in the processing of Conformity Assessment activities against essentially ISO/IEC Guide 65 and ISO/IEC 17025.

CB Scheme FIC - Factory Inspection Committee



Product Service



Dr. Wolfgang Kreinberg
FIC Chairman



Dieter Fietz
FIC Secretary

The FIC is the Factory Inspection Committee tasked to develop Procedures and Audit/Inspection Forms to be used as either a stand alone service or as part of the CB Full Certification Scheme.

The FIC is composed by experts in Factory Audits, Inspections, Follow up services



To provide services related to Factory Audit/Inspection as a stand alone element of the Conformity Assessment Programme.

This Service can be used either as an element of the Supplier Declaration of Conformity SDoC or to upgrade a Certification System 1



into a

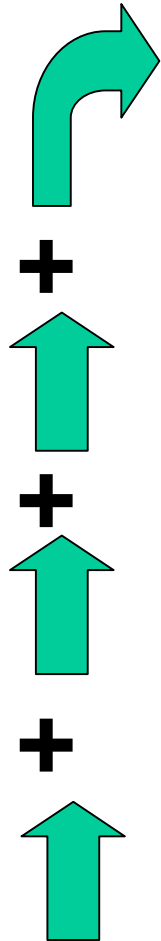
Certification System 5



CB Scheme FACTORY AUDIT/INSPECTION



Product Service

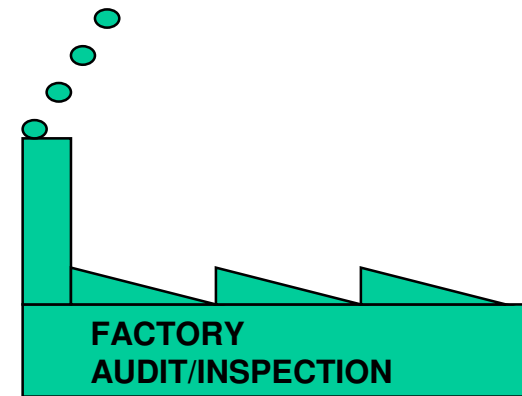


**System 5 Testing,
Initial and FuS,
certification mark**

**Upgrades into
CB-FCS**

**Factory
Audit/Inspection**

**System 1 Type
Test Certificate**



CB Scheme

CB-FCS

CB Scheme

“just report”



Entry 1

Entry 2

CB-FIR

CB-TR

CB-TC

CB-FIR
one time

CB-FIC

CB-FSR
multiple times

CB-FSC

Exit

Exit

Exit

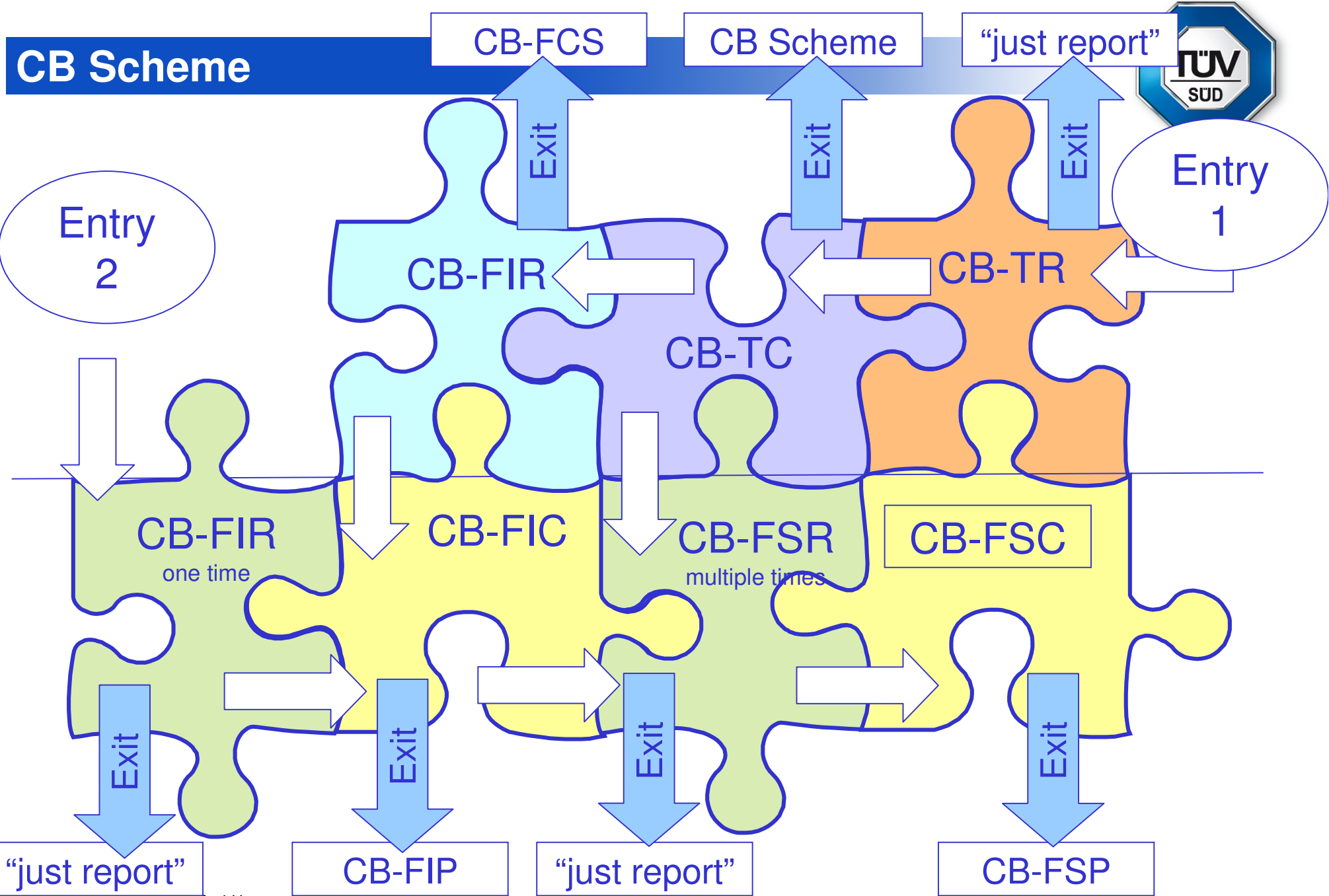
Exit

“just report”

CB-FIP

“just report”

CB-FSP



CB Scheme CTL - Committee of Testing Laboratories



Product Service



Joe GRYN
CTL Chairman



Gianni CAMICIOTTI
CTL Secretary

The CTL is the Technical branch of the IECEE and plays an essential role to build confidence.

Composed by experts from 200 Testing Laboratories and 60 Certification Bodies



The main tasks of the CTL are to:

- detail the way in which the tests related to the IEC 60335 have to be carried out so as to achieve the necessary reproducibility of test results,
- harmonize the design and use of the test equipment referred to in standards and to make recommendations to the relevant technical committee or subcommittee of the IEC for improvements of those standards,
- provide testing laboratories with a forum in which practical testing problems can be demonstrated and discussed



The task of the CTL is to:

- **Organize Proficiency Testing Programmes under the auspices of the IECEE CMC**
- **Organize Workshops to analyze the results of PT programmes and subsequent test methodology to achieve consistent test results**
- **Carry out other technical work as directed by the CMC.**



Manufacturer Testing Laboratories can also be accepted to operate within the IECEE under the responsible Certification Body NCB under strict rules and conditions.

CB Scheme MTL - Manufacturers Testing Laboratories



Product Service

NCB

SMT

Supervised Manufacturer Testing

TMP

Testing at Manufacturer Premises

WMT

Witness Manufacturer Testing

RMT

Recognized Manufacturer Testing



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- **46** participating countries
- **61** National Certification Bodies - NCBs
- **225** Testing Laboratories – CBTLs
- **50.000** certificates issued in 2006
- Over **400.000** current certificates
- More than **15.000** manufacturers using the CB Scheme

CB Scheme: 19 Categories of Products



Product Service

Short Designation	Category	IEC Standards
BATT	Batteries	60086, 60099, 60254, 61809, 61960, 61982, 62133, 62259, 62281
CABL	Cables and Cords	60227, 60245, 60702, 60799
CAP	Capacitors as components	60252, 60384, 60939, 61048, 61049
CONT	Switches for appliances and automatic controls for electrical household appliances	60691, 60730, 60934, 61058, 61095, 61508, 61810
EMC	Electromagnetic Compatibility	CISPR 11, CISPR 12, CISPR 13, CISPR 14, CISPR 15, CISPR 16, CISPR 20, CISPR22, CISPR 24, 60118, 60204, 60255, 60478, 60533, 60601, 60728, 60870, 60945, 60947, 60974, 61000, 61131, 61204, 61326, 61543, 61547, 61800, 61812, 62040, 62041, 62052, 62053, 62054, 62153, 62236
HOUS	Household and similar equipment	60312, 60335, 60342, 60436, 60456, 60530, 60704, 60705, 60967, 61121, 61770, 61817
INST	Installation accessories and connection devices	60083, 60309, 60320, 60423, 60439, 60614, 60669, 60670, 60684, 60807, 60884, 60974, 60998, 60999, 61011, 61076, 61084, 61210, 61238, 61242, 61316, 61386, 61800, 61984, 62094, 62208

Short Designation	Category	IEC Standards
LITE	Lighting	60064, 60155, 60238, 60360, 60400, 60432, 60570, 60598, 60838, 60901, 60920, 60921, 60922, 60924, 60926, 60927, 60928, 60929, 60968, 60969, 61046, 61047, 61050, 61184, 61195, 61199, 61231, 61347, 62035
MEAS	Measuring instruments	60414, 61010, 61557
MED	Electrical equipment for medical use	60580, 60601, 60976, 61676
MISC	Miscellaneous	60747, 60900, 60938
OFF	IT and office equipment	60825, 60950, 62040
POW	Low voltage, high power switching equipment	(60158), 60947, 62026, 62271
PROT	Installation protective equipment	60127, (60257), 60269, 60282, 60529, 60755, 60898, 61008, 61009, 61643
PV	Photovoltaics	60891, 60904 -1 to 10 , 61194, 61215, 61345, 61646, 61702, 61721, 61829, 62093, PVRS11, PVRS11A
SAFE	Safety transformers and similar equipment	60044, 60742, 61558
TOOL	Portable tools	60745, 61029, 61939
TOYS	Electric Toys	62115
TRON	Electronics, entertainment	60065, 60491, 61965

CB Scheme Participating Countries



Product Service

	Argentina		India		Romania
	Australia		Indonesia		Russia
	Austria		Ireland		Singapore
	Belgium		Israel		Slovakia
	Brazil		Italy		Slovenia
	Canada		Japan		South Africa
	China		Kenya		Spain
	Czech Rep.		Korea Rep. of		Sweden
	Denmark		Malaysia		Switzerland
	Finland		Mexico		Thailand
	France		Netherlands		Turkey
	Germany		New Zealand		Ukraine
	Greece		Norway		United Kingdom
	Hungary		Poland		United States
			Portugal		Serbia and Montenegro

CB Scheme NCB – National Certification Bodies



Product Service

Americas	Europe			Asia/Africa/Far East/Oceania
CSA	OVE	LCIE	IMQ	SAI Global
ITSC	CEBEC	ASTAB	PCBC	CQC
ULC	Electrosuisse	EAB	GOST Re	BIS
UL Inc.	EZU	BSI	EVPU	STQC
MET	VDE	ELOT	UkrTEST	JET
ITS, N.A.	TUV Rh DE	NSAI	MEEI	JQA
TUV Rheinland, NA.	TUV P.S. DE	SII	BBJ-SEP	TUV Rheinland, JP
FMRC	SLG	KEMA	PREDOM	UL APEX
IRAM	LGA	AENOR	CERTIF	KTL
UCIEE	ETS	NEMKO	TSE	KETI
	DEMKO	SEMKO	VINCA	SABS
	FIMKO	SIQ	KVALITET	PSB
				SIRIM



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CB Scheme Objectives



Product Service

- A global solution for a global market
- Provision of a framework for global conformity assessment
- Partners with standards in facilitating international trade
- Elimination of multiple testing, except for national differences
- Elimination of multiple quality audits
- Increased access to market
- Reduced time to market
- Increased confidence
- Reduced costs – increased trade
- Acceptance by the Regulators



- CB Test Certificates and associated Test Reports issued by NCB in one country accepted by NCBs in other member countries for purposes of national certification
- CB Test Certificates and associated Test Reports accepted by several Regulatory Authorities
- CB Test Certificates and associated Test Reports directly accepted by Retailers, Buyers, Vendors worldwide
- Reduced testing and certification costs
- Capacity to eliminate multiple unnecessary national certifications
- Portable conformity assessment

The ideal target

One test

One certification

One mark



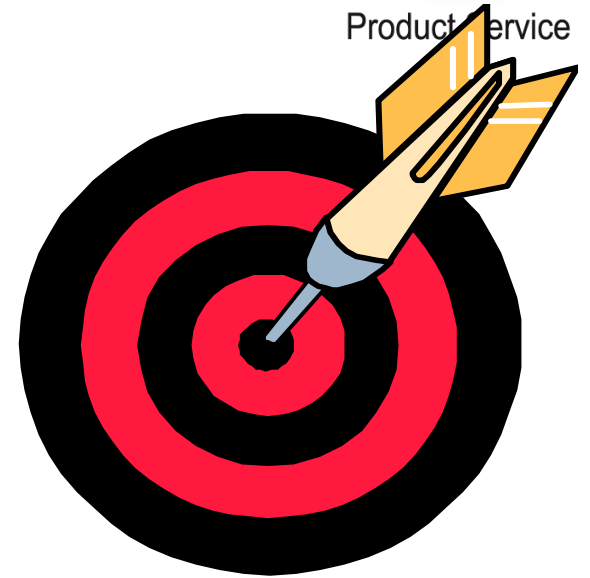


Today's IECEE achieved **target**

One test

One international certificate

One or more marks as needed





STRUCTURE OF THE IECEE

IECEE FACTS

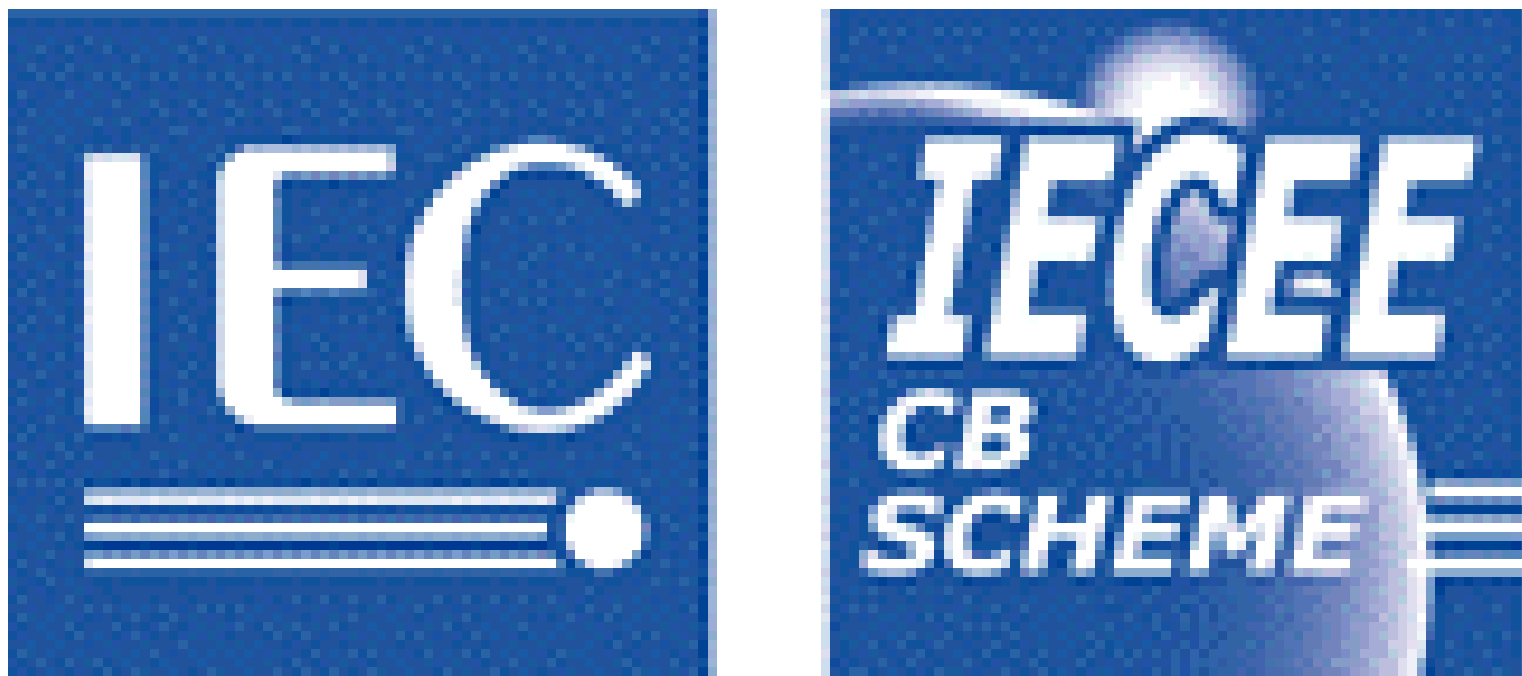
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The aim of the CB Scheme is to provide Manufacturers seeking worldwide third party certification marks, the most economic and cost effective procedures within the best certification time frame.

CB Scheme Highlights



Product Service

- Reciprocal recognition of test results among all participating Certification Bodies, to simplify granting of certification or approval at national levels.
- CB Test Certificates and associated Test Reports facilitates obtaining secondary certifications.
- The CB Scheme is the only internationally recognized scheme for the safety of electrical equipment used in homes, offices, workshops and similar locations.
- Products are tested to IEC standards with provision for supplementary testing for national differences.

CB Scheme Advantages



Product Service

- More rapid testing and certification
- More universal product recognition
- Acceleration of Product Acceptance
- Direct acceptance by the Authorities in many countries
- Direct acceptance by the Retailers and Buyers
- Expanded markets
- Faster product movement from plants to markets

CB Scheme Operations



Product Service

- **19** product categories ranging from Information Technology and electronic equipment, household, medical equipment, lighting to EMC, and Photovoltaics but 60% of activity is concentrated in these three areas:
 - Household appliances
 - Office & IT equipment
 - Electronics / entertainment



Time to Market is essential



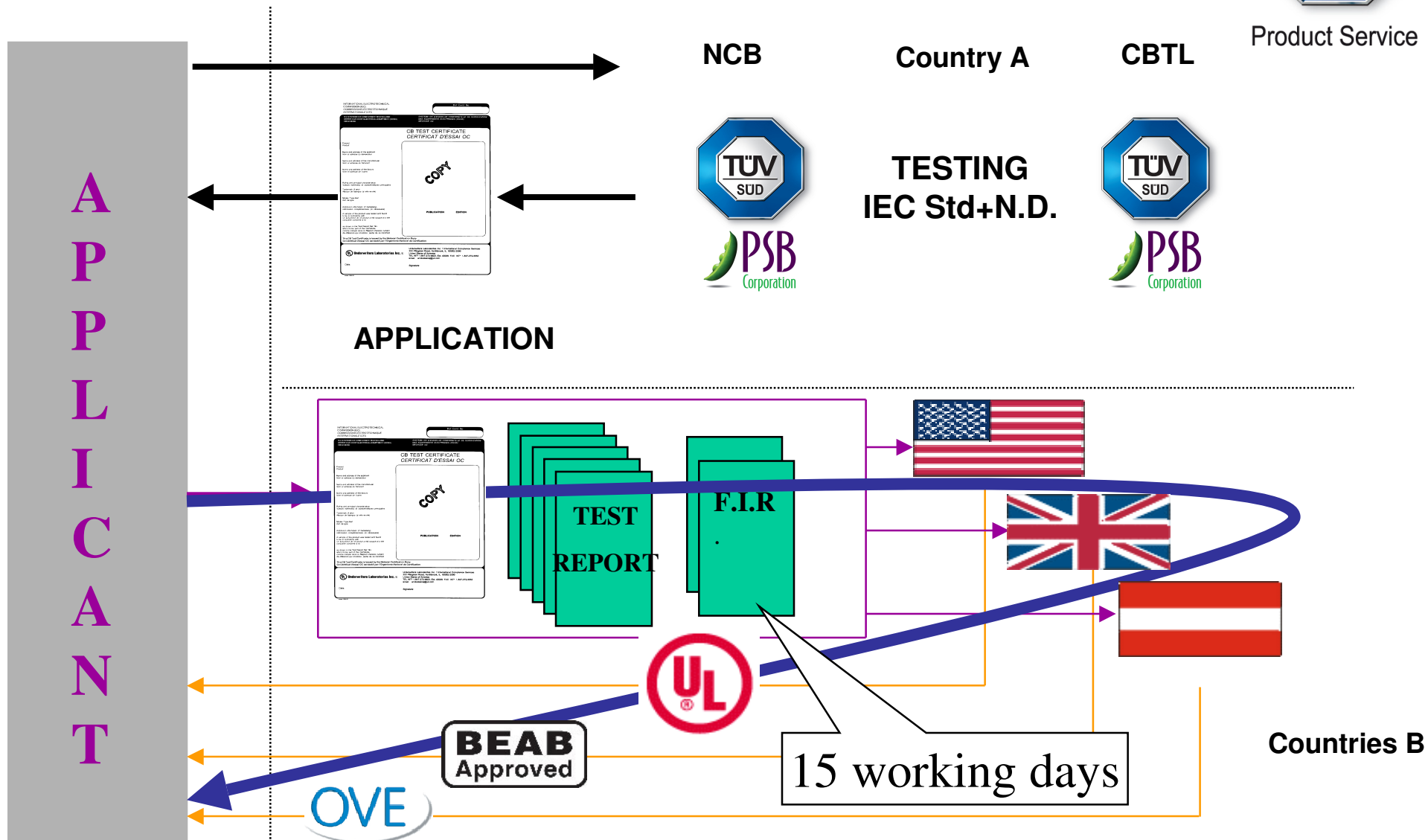
- In Manufacturing and Trade every day counts
- Buyers, Users and Governments need assurance of compliance



CB Scheme Process



Product Service



CB Scheme Benefits



Product Service

- Leads to safer products on domestic market
- Needs to become even more efficient to provide fast time-to-market to suppliers

and will make the world's products available to your domestic professional buyer and consumer





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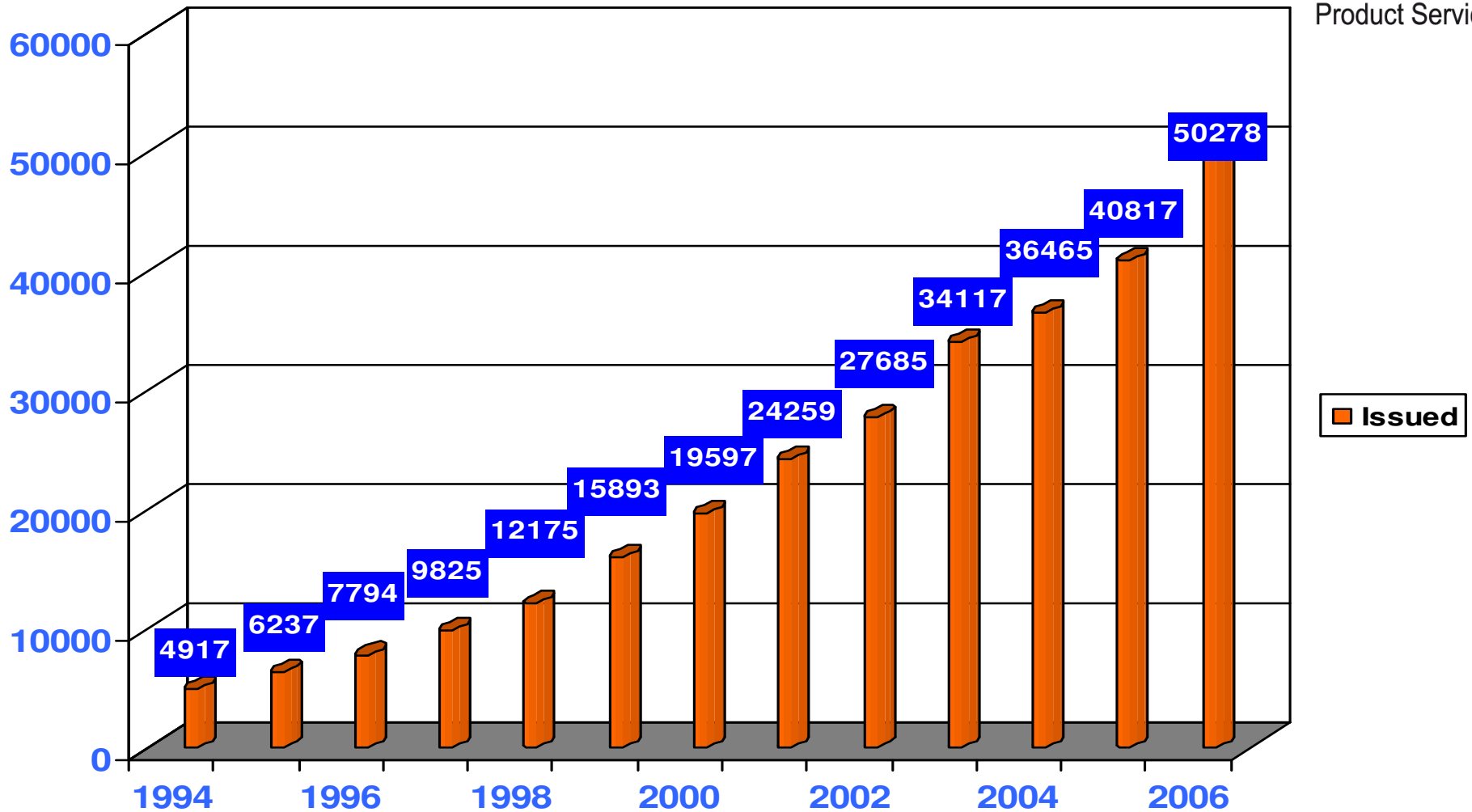


2006 has resulted in another great year with a significant growth of the Issued CB Test Certificates. It has to be noted that a significant number of CB Test Certificates are **directly recognized by Buyers, Retailers and Regulatory Authorities** to provide direct access to the global markets.

CB Scheme Yearly issued CB Certificates



Product Service

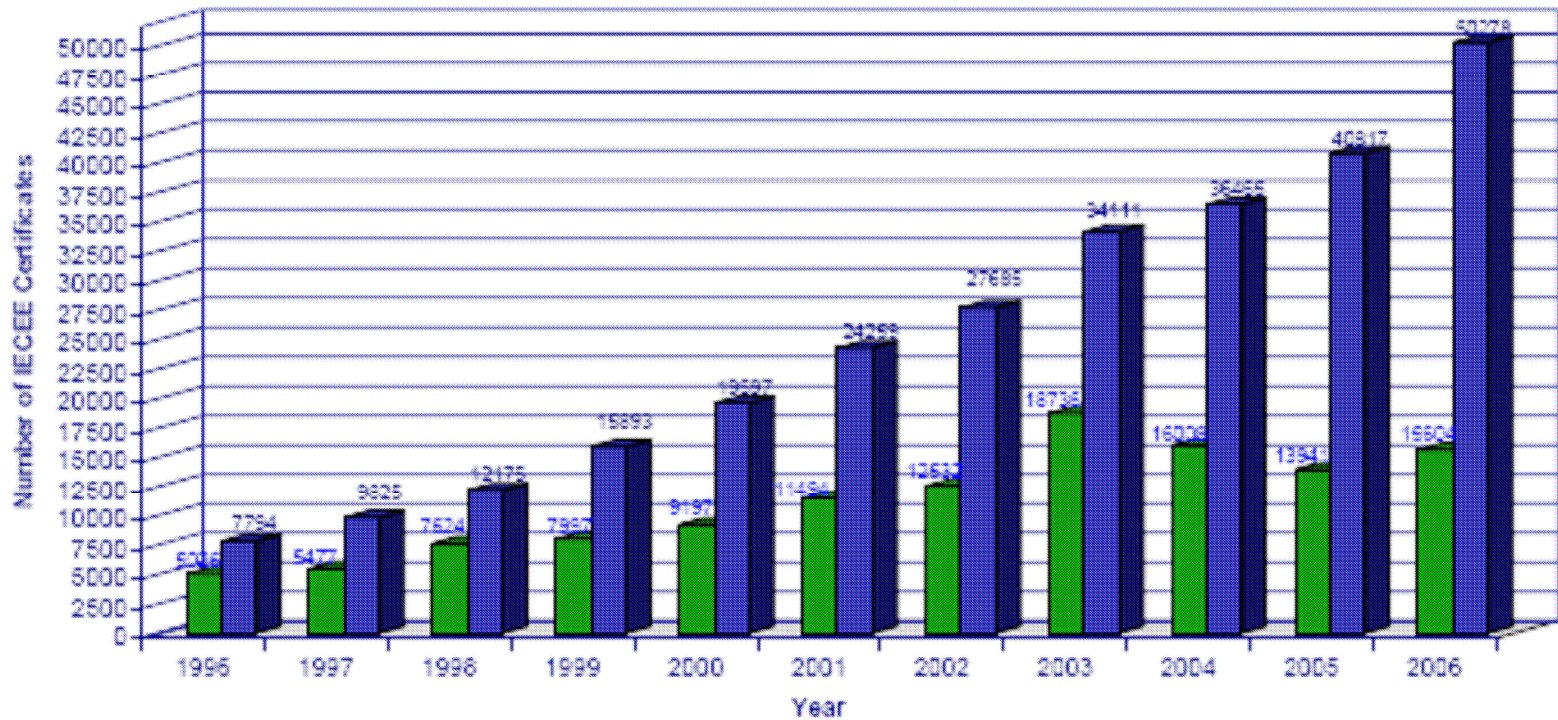


CB Scheme Statistics



Service

Number of IECEE Certificates Issued and Recognized from 1996 to 2006



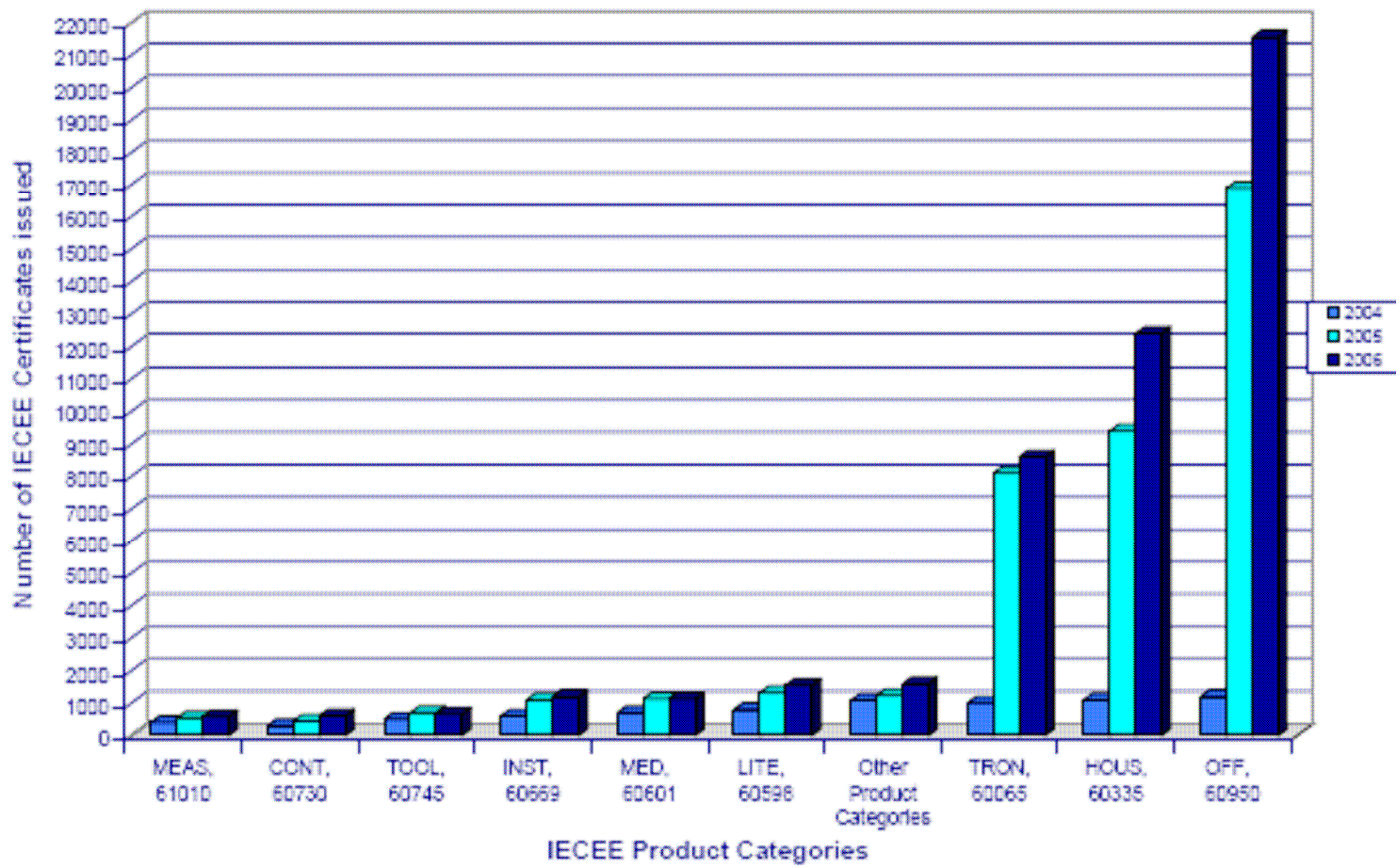
■ Recognized ■ Issued

CB Scheme Statistics

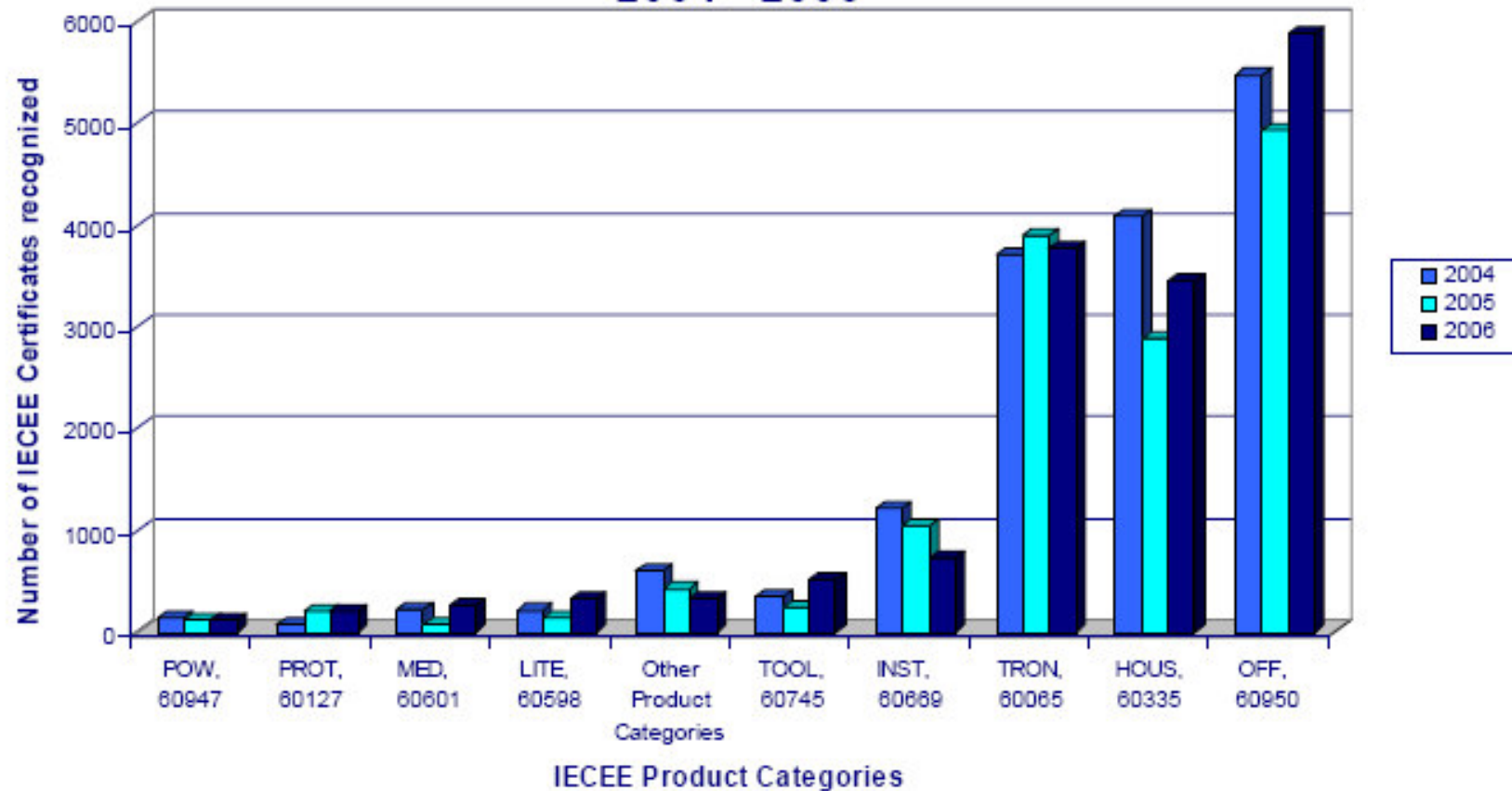


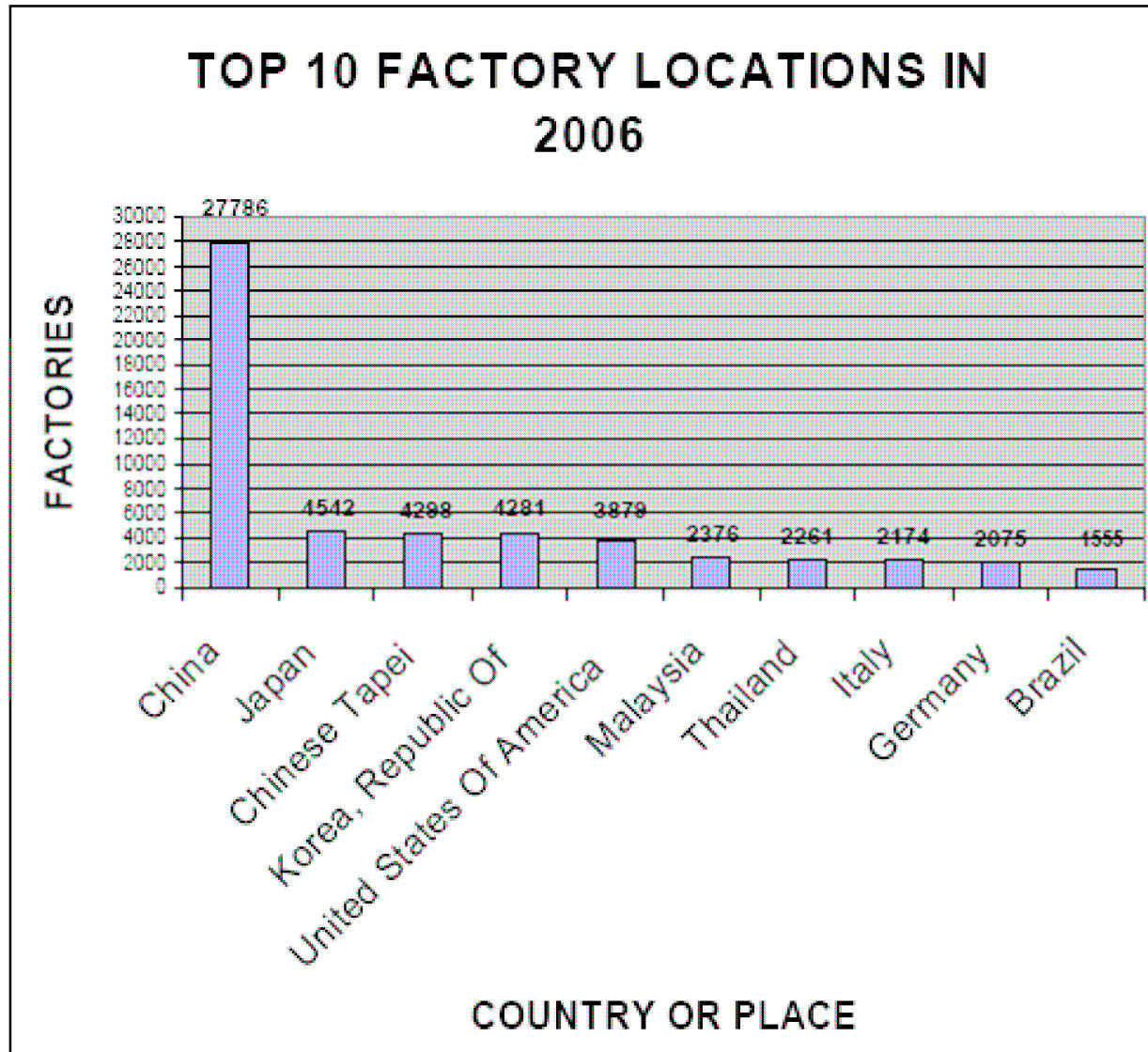
Product Service

Top 10 Product Categories in the CB-Scheme 2004 - 2006



Top 10 Recognized Product Categories in the CB-Scheme 2004 - 2006

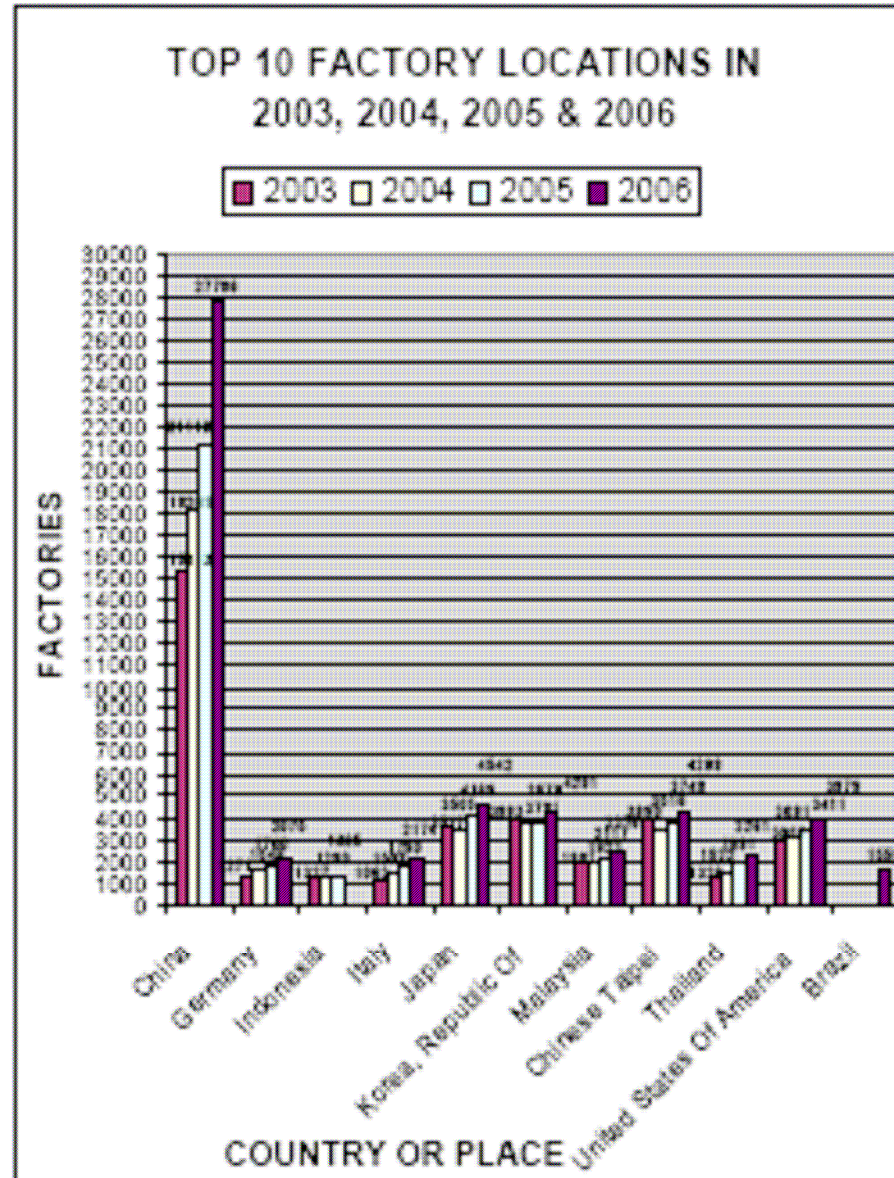




CB Scheme Statistics



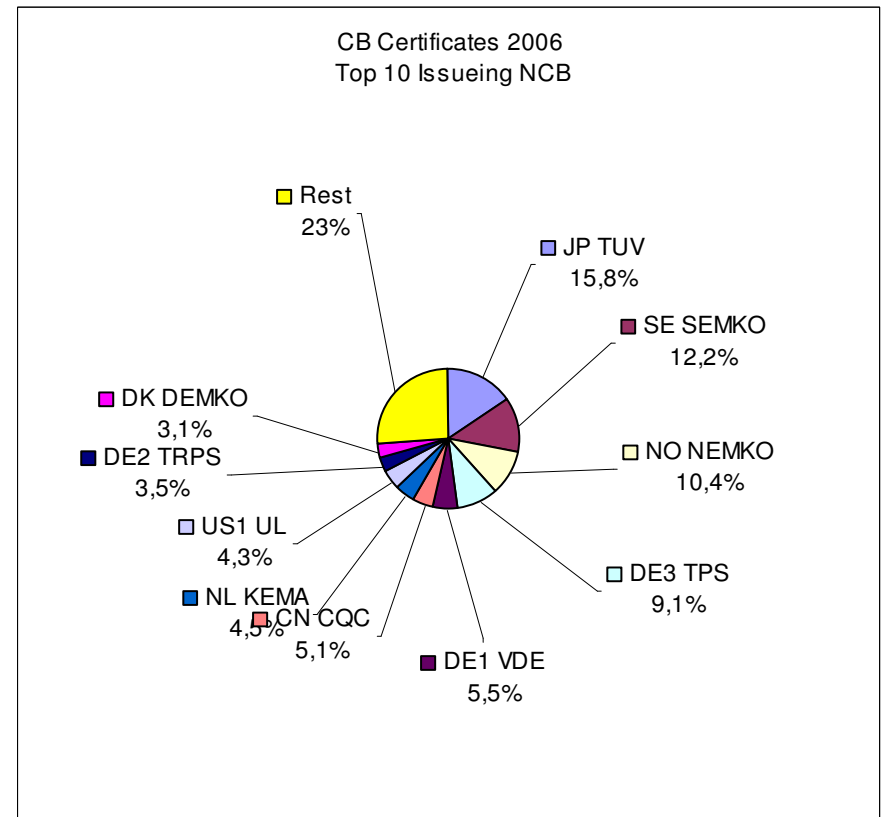
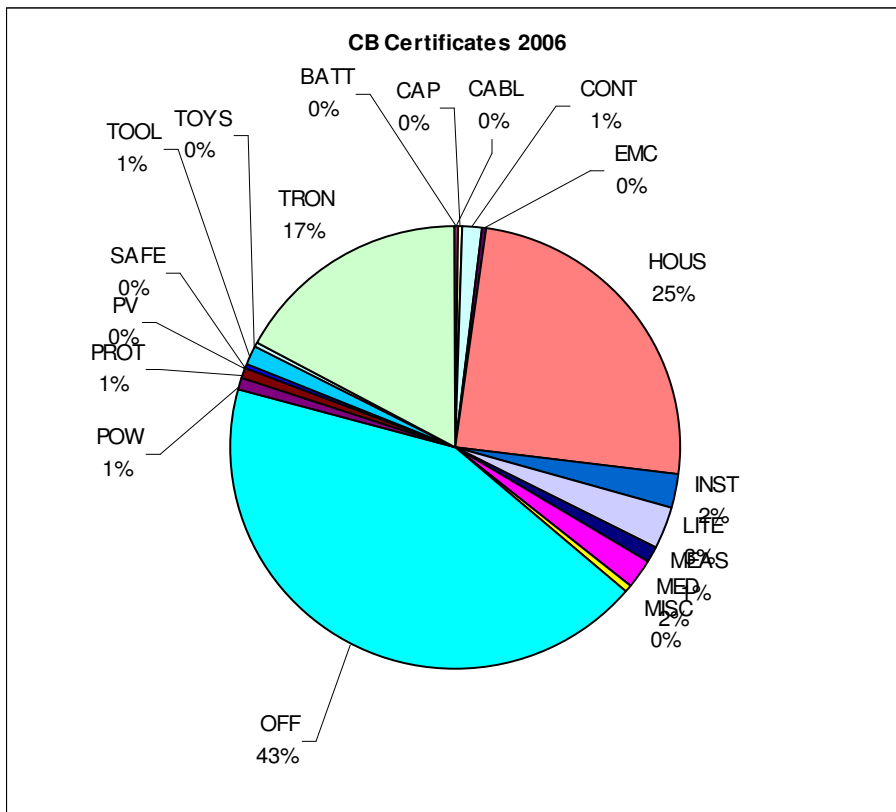
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CB Scheme Statistics



Product Service





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- **Factory Audit Procedures and Forms**
- **Electromagnetic Compatibility**
- **Hazardous Substances**
- **Component Recognition Program**
- **Photovoltaic and Renewable Energies**
- **Collaboration with ILAC and IAF Accreditation Bodies**



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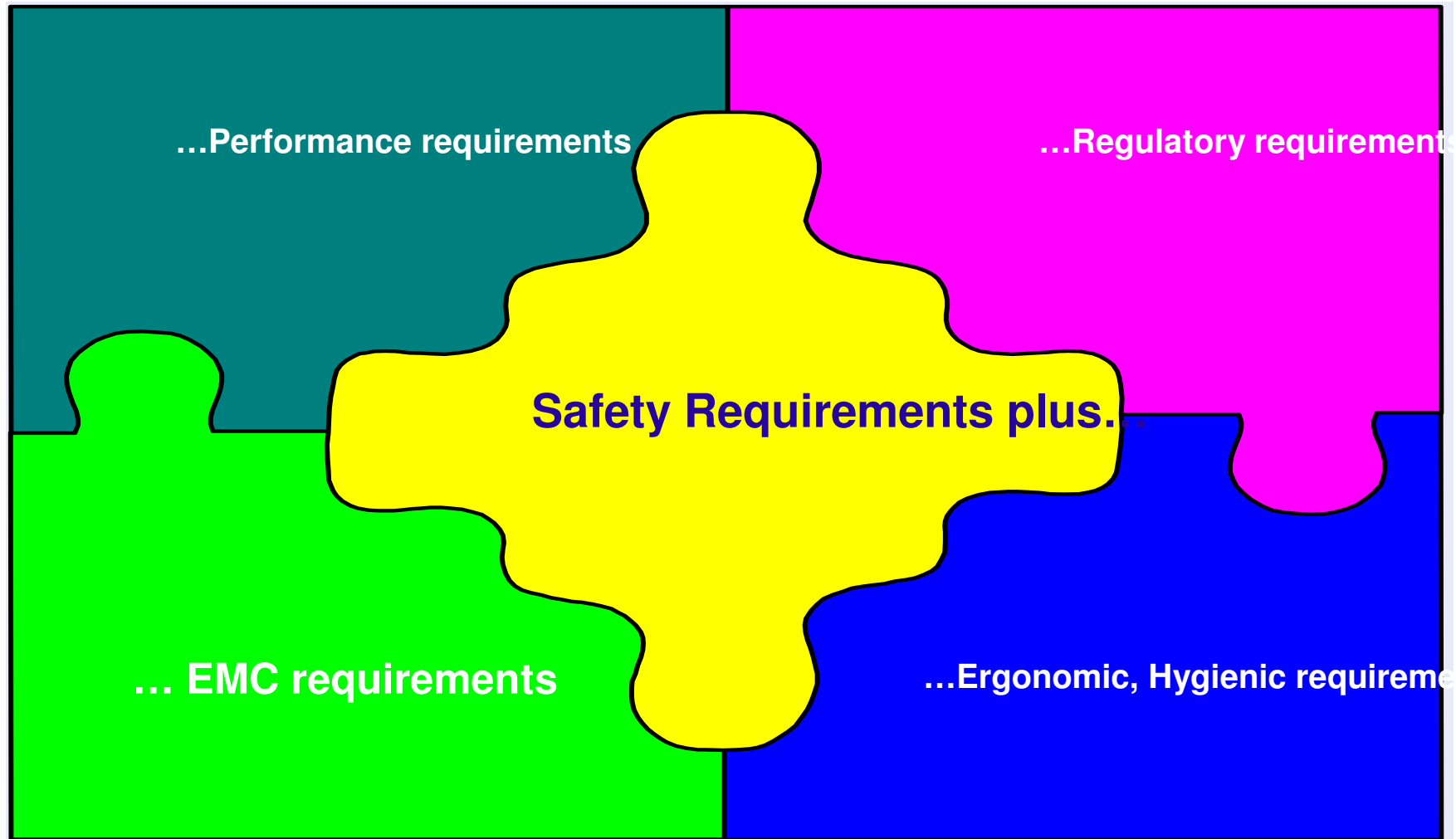
IECEE DEVELOPMENTS AND OUTLOOK

CB SCHEME – THE PASSPORT TO ACCESSSS WORLDWIDE MARKET

CB Scheme Tailor Made for the Customer



Product Service



CB Scheme Tailor Made for the Customer



Product Service

- ▶ Because Globalization and competition are leading to rapid changes, technical barriers to trade remain a serious problem and the industry is anxious about time to market, the shortening life cycle of products and the need to reduce costs...
- ▶ The CB Scheme offers de facto the true “passport” for the needs of different countries.
- ▶ The CB Scheme answers de facto the market needs to have a Test Certificate tailored to be recognized worldwide.
- ▶ The CB Scheme, in its fullest extent, proves de facto that certification and testing costs can be reduced through the use of... one stop testing.

CB Scheme Further Information



Product Service



IECEE Website: www.iecee.org

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