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OVERVIEW OF THE INFORMATION SECURITY STANDARDIZATION

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Abstract: There are different kinds of standards, treated by different organizations. In the article below they are presented to the standardisation bodies, which European and the Hungarian economy has big a impact. We do all this in order to find your way to the right so that the client can compare a multitude of information security.

Keywords: standardization; organizations of standardization; information security, information security standards

THE NEED FOR INFORMATION SECURITY STANDARDS

The information is an important value in the economic and social world. The information is the resource of the organizations. This is the basis for the efficient operation of the Organization's assets, and often also the status of your product.

The successful economic, social behaviour is now not only the high quality of carried out activity, a well-functioning organization, should be subject to competitive products and services, but also related to data and information management and protection, as well.

Basically, the reliability and safety of the information affects the body's functioning, as well as the operational, logistic, financial and other processes. And this is in addition to the productivity and legal compliance and profit-making capability, and the market image, and much more.

So, therefore it is essential that a sufficient level of protection of the information. The information security processes and activities of standardization could be applied by a single form. Compliance with the standards and certification audits, offer guarantees of the economic operators and public organizations as well. A number of government standards or recommendations developed along its own information security strategy, as the Government of Hungary did this, too.

THE STANDARDIZATION

A. The standard

A standard is a document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose. [1]

B. Short history of the standardisation

The standardization is an activity that can be used again and gives solutions to general existing or anticipated problems, with a view to the effect that organizes the most favourable conditions possible. The standardization is nothing more than the pursuit of harmonisation. The history of standardization – if not in the today's form–, the instinctive

standardization began when the languages and number systems, ensuring consistent communication within groups. The development of a system of units of measurement was a conscious tool of standardization, trade, manufacture, levy made this necessary.



Figure 1. The main factors of the information security standards (by the authors)

The unification demands raised earlier but only in the 1790's made on a proposal French Bishop Talleyrand, the definition of the meter and prefixes. Organized by the national standardization bodies delegated to standardization began in the 20th century, when the Engineering Standards Committee was formed for the first time in London in 1901. In Hungary, two decades later, in 1921, has been converted into the corresponding Hungarian Institute for Industrial Standards. The standardization is the latest generation of the international standardisation, which was followed by the level of national standardization only a slight delay. The IEC¹ has been founded in 1906, and ISA² has been founded in 1928.

There are several levels of standardization, which are among the highest of international standardization, in this is participate the competent bodies of the countries. There are standards bodies on international level, as well as the ISO³ since 1947, our country has been the member of it. And there is the IEC⁴ and the ITU⁵, which are the UN specialized agencies.

¹ The International Electrotechnical Commission

² National Standards Bodies International Association

³ International Organization for Standardization

⁴ International Electrotechnical Commission

⁵ International Telecommunication Union

The regional standardization is such a standardization, which is the world's only in a specific geographical, political, or economic area countries can participate in the relevant bodies. There are regional standards bodies, such as the European Committee for Standardization (CEN⁶), and the European Committee for Electrotechnical Standardization (CENELEC⁷) and the European Telecommunications Standards Institute ETSI⁸.

The national standardization is a specific country level current standardization. For example, our national standardization bodies are the Hungarian Standardization Institution (MSZT⁹), the BSI¹⁰, the German Standards Institution (DIN¹¹) and the ANSI¹².

We can talk about the enterprise standardization when the company is valid within its organisation, usually mandatory, mostly related to prepare and apply technical specifications, ensures enterprise-wide implementation of the national standard. The supplier is also demanding the corporate standards. [2]

ORGANIZATIONS OF INTERNATIONAL STANDARDIZATION

A. The International Organization for Standardization - ISO

The ISO story began in 1946 when delegates from 25 countries met at the Institute of Civil Engineers in London and decided to create a new international organization 'to facilitate the international coordination and unification of industrial standards'. In February 1947 the new organization, ISO, officially began operations.

Since then, they have published over 19 500 International Standards covering almost all aspects of technology and manufacturing.

Today they have members from 163 countries and 3 368 technical bodies to take care of standard development. More than 150 people work full time for ISO's Central Secretariat in Geneva, Switzerland.

Their name is ISO, because 'International Organization for Standardization' would have different acronyms in different languages (IOS in English, OIN in French for Organisation Internationale de Normalisation), their founders decided to give it the short form ISO. ISO is derived from the Greek isos, meaning equal. Whatever the country, whatever the language, they are always ISO.

ISO is an independent, non-governmental organization made up of members from the national standards bodies of 163 countries. Their members play a vital role in how they operate, meeting once a year for a General Assembly that decides on their strategic objectives.

They have a Central Secretariat in Geneva, Switzerland, that coordinates the system. Operations at the Central Secretariat are directed by the Secretary General. The ISO Council takes care of most governance issues. It meets twice a year and is made up of 20 member bodies, the ISO Officers and the Chairs of Policy Development Committees (CASCO, COPOLCO, DEVCO). Membership to the Council is open to all member bodies and rotates to make sure it is representative of the member community.

Under the Council there are a number of bodies that provide guidance and management on specific issues.

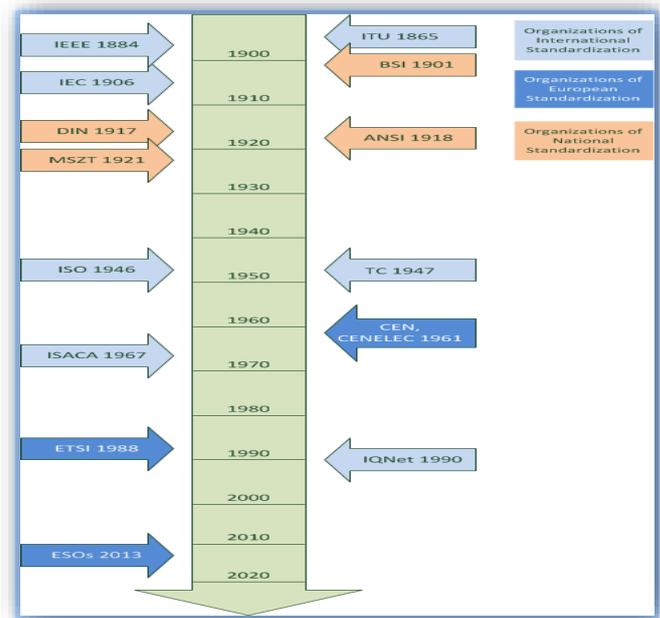


Figure 2. Formation of the organizations of standardization (by the authors)

The President's advise the Committee Council and oversee the implementation of the decisions taken by the Council and the General Assembly.

- ≡ CASCO¹³ - provides a guidance on conformity assessments
- ≡ COPOLCO¹⁴ - provides a guidance on consumer issues
- ≡ DEVCO¹⁵ - provides a guidance on matters related to developing countries
- ≡ Council Standing Committees - advise on financial and strategic matters
- ≡ Ad hoc Advisory Committees - can be established to advance the goals and strategic objectives of the organization

The management of the technical work is taken care of by the Technical Management Board. This body is also responsible for the technical committees that lead standard development and any strategic advisory boards created on technical matters.

They work closely with two other international standards development organizations, the International Electrotechnical Commission (IEC) and International Telecommunication Union (ITU). In 2001, ISO, IEC and ITU formed the WSC¹⁶ in order to strengthen the standards systems of the three organisations. The WSC also promotes the adoption and implementation of international consensus-based standards worldwide. In addition, they also have a close relationship with the WTO¹⁷ which particularly appreciates the contribution of International Standards to

⁶ Comité Européen de Normalisation

⁷ Comité Européen de Normalisation Electrotechnique

⁸ European Telecommunications Standards Institute

⁹ Magyar Szabványügyi Testület

¹⁰ British Standards Institution

¹¹ Deutsches Institut für Normung e.V.

¹² American National Standards Institute

¹³ Committee on conformity assessment

¹⁴ Committee on Consumer Policy

¹⁵ Committee on developing country matters

¹⁶ World Standards Cooperation

¹⁷ World Trade Organization

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reducing technical barriers to trade. ISO also works with the United Nations partners. For example, they liaise with UN specialized agencies that do technical harmonization or technical assistance, including the ECOSOC¹⁸. In total, ISO collaborates with over 700 international, regional and national organisations. These organisations take part in the standard development process as well as sharing expertise and best practices. [3] They have been developed by the family of chief information security standard, ISO/IEC 27000, which we use today.

B. The Technical Committee - TC

The list of ISO technical committees provides basic information for each technical committee (TC). The TCs are listed in numerical order, following the order in which they were established. For example, TC 1 focusing on screw threads was created in 1947 and TC 269 on railway applications was created in 2012. JTC1¹⁹ is the Joint ISO/IEC TC that was created in 1987.

Project Committees are established when there is a need for an International Standard on a specific topic that does not fall into the scope of an existing TC. Project Committees are disbanded once the standard has been published. [4]

C. The International Electrotechnical Commission - IEC

Millions of devices that contain electronics, and use or produce electricity, rely on IEC International Standards and Conformity Assessment Systems to perform, fit and work safely together. Founded in 1906, the IEC (International Electrotechnical Commission) is the world's leading organization for the preparation and publication of International Standards for all electrical, electronic and related technologies. These are known collectively as "electrotechnology".

IEC provides a platform to companies, industries and governments for meeting, discussing and developing the International Standards they require. All IEC International Standards are fully consensus-based and represent the needs of key stakeholders of every nation participating in IEC work. Each member country, no matter how large or small, has one vote and a say in what goes into an IEC International Standard. [5]

The International Electrotechnical Commission is the leading global organization that publishes consensus-based International Standards and manages conformity assessment systems for electric and electronic products, systems and services, collectively known as electrotechnology.

IEC publications serve as a basis for national standardization and as references when drafting international tenders and contracts.

The IEC Statutes and Rules of Procedure is the governing document of the IEC. It details the rights and obligations of the member National Committees, the IEC Officers and the different IEC management boards. The Directives outline the procedures of the IEC's technical work, including the rules for the structure and drafting of International Standards. [6]

D. The International Telecommunication Union - ITU

ITU (International Telecommunication Union) is the United Nations specialized agency for information and communication technologies – ICTs. For a century and a half since 1865, the International Telecommunication Union (ITU) has been at the center of advances in

communications – from telegraphy through to the modern world of satellites, mobile phones and the Internet.

The story of ITU is one of international cooperation, among governments, private companies and other stakeholders. The continuing mission is to achieve the best practical solutions for integrating new technologies as they develop, and to spread their benefits to all. [7]

They allocate global radio spectrum and satellite orbits, develop the technical standards that ensure networks and technologies seamlessly interconnect, and strive to improve access to ICTs to underserved communities worldwide.

ITU is committed to connecting the entire world's people – wherever they live and whatever their means. Through their work, they protect and support everyone's fundamental right to communicate.

Today, ICTs underpin everything they do. They help manage and control emergency services, water supplies, power networks and food distribution chains. They support health care, education, government services, financial markets, transportation systems and environmental management. And they allow people to communicate with colleagues, friends and family anytime, and almost anywhere.

With the help of their membership, ITU brings the benefits of modern communication technologies to people everywhere in an efficient, safe, easy and affordable manner.

ITU membership reads like a Who's Who of the ICT sector. They are unique among UN agencies in having both public and private sector membership. So in addition to their 193 Member States, ITU membership includes ICT regulators, leading academic institutions and some 700 private companies.

In an increasingly interconnected world, ITU is the single global organization embracing all players in this dynamic and fast-growing sector. ITU is headquartered in Geneva, Switzerland, and has twelve regional and area offices around the world.

ITU membership represents a cross-section of the global ICT sector, from the world's largest manufacturers and carriers to small, innovative players working with new and emerging technologies, along with leading R&D²⁰ institutions and academia. [8]

E. The Institute of Electrical and Electronics Engineers - IEEE

IEEE²¹, an association dedicated to advancing innovation and technological excellence for the benefit of humanity, is the world's largest technical professional society. It is designed to serve professionals involved in all aspects of the electrical, electronic, and computing fields and related areas of science and technology that underlie modern civilization.

IEEE's roots go back to 1884 when electricity began to become a major influence in society. There was one major established electrical industry, the telegraph, which since the 1840s had come to connect the world with a data communications system faster than the speed of transportation. The telephone and electric power and light industries had just gotten underway. IEEE, pronounced "Eye-triple-E," stands for the Institute of

¹⁸ UN Economic and Social Council

¹⁹ Joint Technical Committee 1

²⁰ Research and development

²¹ Institute of Electrical and Electronics Engineers

Electrical and Electronics Engineers. The association is chartered under this name and it is the full legal name.

However, as the world's largest technical professional association, IEEE's membership has long been composed of engineers, scientists, and allied professionals. These include computer scientists, software developers, information technology professionals, physicists, medical doctors, and many others in addition to IEEE's electrical and electronics engineering core. For this reason the organization no longer goes by the full name, except on legal business documents, and is referred to simply as IEEE. [9] IEEE is a leading developer of international standards that underpin many of today's telecommunications, information technology, and power generation products and services.

Often the central source for standardization in a broad range of emerging technologies, the IEEE Standards Association has a portfolio of more than 1,671 standards and projects under development. This includes the prominent IEEE 802® standards for wireless networking. [10]

The IEEE-SA²² is a leading consensus building organization that nurtures, develops and advances global technologies, through IEEE external link. They bring together a broad range of individuals and organizations from a wide range of technical and geographic points of origin to facilitate standards development and standards related collaboration. With collaborative thought leaders in more than 160 countries, they promote innovation, enable the creation and expansion of international markets and help protect health and public safety. Collectively, their work drives the functionality, capabilities and interoperability of a wide range of products and services that transform the way people live, work and communicate.

The IEEE-SA is governed by the BOG²³ who are elected by IEEE-SA Members. The Board of Governors oversees number of committees that are dedicated to manage key operational aspects of the IEEE-SA. The IEEE-SA Standards Board reports directly to the BOG, and oversees the IEEE standards development process. Standards Board members are elected by IEEE-SA members as a privilege of membership, and all Board Members and Committee members must be IEEE-SA members in good standing.

The IEEE-SA standards development process is open to IEEE-SA Members and non-members, alike. However, IEEE-SA Membership enables standards development participants to engage in the standards development process at a deeper and more meaningful level, by providing additional balloting and participation opportunities. IEEE-SA members are the driving force behind the development of standards, providing technical expertise and innovation, driving global participation, and pursuing the ongoing advancement and promotion of new concepts. [11]

F. The Information Systems Audit & Control Association - ISACA

As an independent, non-profit, global association, ISACA²⁴ engages in the development, adoption and use of globally accepted, industry-leading knowledge and practices for information systems. Previously known as the Information Systems Audit and Control Association, ISACA now goes by its

acronym only, to reflect the broad range of IT governance professionals it serves.

ISACA was incorporated by individuals who recognized a need for a centralized source of information and guidance in the growing field of auditing controls for computer systems. Today, ISACA has more than 115,000 constituents worldwide. [12]

ISACA got its start in 1967, when a small group of individuals with similar jobs—auditing controls in the computer systems that were becoming increasingly critical to the operations of their organizations—sat down to discuss the need for a centralized source of information and guidance in the field. In 1976 the association formed an education foundation to undertake large-scale research efforts to expand the knowledge and value of the IT governance and control field. Previously known as the Information Systems Audit and Control Association, ISACA now goes by its acronym only, to reflect the broad range of IT governance professionals it serves.

Today, ISACA's constituency is characterized by its diversity. Constituents live and work in more than 180 countries and cover a variety of professional IT-related positions—to name just a few, IS auditor, consultant, educator, IS security professional, regulator, chief information officer and internal auditor. Some are new to the field, others are at middle management levels and still others are in the most senior ranks. They work in nearly all industry categories, including financial and banking, public accounting, government and the public sector, utilities and manufacturing. This diversity enables members to learn from each other, and exchange widely divergent viewpoints on a variety of professional topics. It has long been considered one of ISACA's strengths.

Since its inception, ISACA has become a pace-setting global organization for information governance, control, security and audit professionals. Its IS auditing and IS control standards are followed by practitioners worldwide. Its research pinpoints professional issues challenging its constituents. Its CISA²⁵ certification is recognized globally and has been earned by more than 109,000 professionals since inception. The CISM²⁶ certification uniquely targets the information security management audience and has been earned by more than 25,000 professionals.

The CGEIT²⁷ designation promotes the advancement of professionals who wish to be recognized for their IT governance-related experience and knowledge and has been earned by more than 6,000 professionals. The CRISC²⁸ designation for those who identify and manage risks through the development, implementation and maintenance of information systems controls have been earned by more than 17,000 professionals. [13]

G. The International Certification Network – IQNet

IQNet - The International Certification Network has been active since 1990, and has almost 40 Partner certification bodies with more than 200 subsidiaries worldwide. Each of them IQNet Partners is a leader in their region; and collectively through IQNet, this represents the most extensive and reputable network of certification bodies worldwide. IQNet

²² IEEE Standards Association

²³ Board of Governors

²⁴ Information Systems Audit and Control Association

²⁵ Certified Information Systems Auditor

²⁶ Certified Information Security Manager

²⁷ Certified in the Governance of Enterprise IT

²⁸ Certified in Risk and Information Systems Control

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headquarters are based in Bern, Switzerland. IQNet supports the work of international organizations by its membership and involvement in for example IAF²⁹, and EA³⁰.

A common database of certified/registered companies has been established since 2005. Certificates/registrations contained in this database are issued by IQNet partners. Certificates are mainly third-party certification/registration of management systems in accordance with international standards such as ISO 9001, ISO 14001, sector specific standards, or national standards.

The objectives of this database are to promote valid certificates issued by IQNet partners, and to act as a point of verification for all conformity assessment stakeholders; including procurement bodies. IQNet partners are regularly updating and entering their data. With more than 250.000 entries, the IQNet database is one of the largest public listings on certified/registered companies worldwide. [14]

ORGANIZATIONS OF EUROPEAN STANDARDIZATION**A. The European Standardization Organizations – ESOs**

The three European Standardization Organizations, CEN, CENELEC and ETSI are officially recognized as competent in the area of voluntary technical standardization. The European Union (EU) Regulation (1025/2012) which settles the legal framework for standardization, has been adopted by the European Parliament and by the Council of the EU³¹, and entered into force on 1 January 2013.

Although they deal with different fields of activity, CEN, CENELEC, and ETSI cooperate in a number of areas of common interest, such as the machinery sector or information and communication technologies (ICTs). They also share common policies on issues where there is a mutual agreement.

An EN (European Standard) "carries with it the obligation to be implemented at national level by being given the status of a national standard and by withdrawal of any conflicting national standard". Therefore, a European Standard (EN) automatically becomes a national standard in each of the 33 CEN-CENELEC member countries.

Standards are voluntary which means that there is no automatic legal obligation to apply them. However, laws and regulations may refer to standards and even make compliance with them compulsory. [15]

B. The European Committee for Standardization – CEN

CEN, the European Committee for Standardization, is an association that brings together the National Standardization Bodies of 33 European countries. The core business of CEN is to develop and publish European Standards and technical specifications that meet the evolving needs of European businesses and other organizations. This important work brings concrete benefits, such as: improving safety, quality and reliability of products, services, processes; reinforcing the Single Market and supporting the economic growth and the spread of new technologies and innovation. In order to prepare and produce state-of-the-art standards, CEN relies on the knowledge of some 50.000 experts, who participate in various technical activities through a network of 50 National Standards Bodies (33

Members plus 17 Affiliates) and continuous cooperation with organizations representing different stakeholders, including consumers, workers, environmental interests and SMEs³².

The CEN/BT³³ is responsible for co-ordinating and managing the standards development work that is being carried out in more than 320 Technical Committees. In addition to overseeing these activities, as well as their related processes, the CEN Technical Board is also responsible for evaluating and addressing requests for standardization on new subjects. The Vienna Agreement provides a framework for technical cooperation between CEN and the International Organization for Standardization (ISO). It provides provisions relating to the exchange of information between ISO and CEN, mutual representation at meetings, and parallel approval of standards.

CEN provides a European platform for the standardization of products, services, processes and systems across a wide range of sectors.

A growing number of sectors are being addressed by both CEN and the European Committee for Electrotechnical Standardization (CENELEC) in the framework of their joint activities. These include among others: Accessibility, Defence and Security, Energy Efficiency, Energy Labelling, Ecodesign and Energy Management, Health and Safety. [16]

C. The European Committee for Electrotechnical Standardization – CENELEC

CENELEC is the European Committee for Electrotechnical Standardization and is responsible for standardization in the electrotechnical engineering field. CENELEC prepares voluntary standards, which help facilitate trade between countries, create new markets, cut compliance costs and support the development of a Single European Market.

CENELEC creates market access at European level but also at international level, adopting international standards wherever possible, through its close collaboration with the International Electrotechnical Commission (IEC), under the Dresden Agreement.

In an ever more global economy, CENELEC fosters innovation and competitiveness, making technology available industry-wide through the production of voluntary standards.

Through the work of its members together with it's the experts, the industry federations and consumers, European Standards are created in order to encourage technological development, to ensure interoperability and to guarantee the safety and health of consumers and provide environmental protection. Designated as a European Standards Organization by the European Commission, CENELEC is a non-profit technical organization set up under Belgian law. It was created in 1973 as a result of the merger of two previous European organizations: CENELCOM and CENEL. [17]

D. The European Telecommunications Standards Institute - ETSI

ETSI³⁴ produces globally-applicable standards for ICT³⁵, including fixed, mobile, radio, converged, broadcast and internet technologies. They are officially recognized by the European Union as a European Standards

²⁹ International Accreditation Forum

³⁰ European cooperation for Accreditation

³¹ European Union

³² Small and Medium-sized Enterprises

³³ CEN Technical Board

³⁴ European Telecommunications Standards Institute

³⁵ Information and Communications Technologies

Organization. The high quality of their work and their open approach to standardization has helped us evolve into a European roots - global branches operation with a solid reputation for technical excellence.

ETSI is a not-for-profit organization with over 750 ETSI member organizations drawn from 64 countries across 5 continents world-wide. More information concerning ETSI member organizations is available in the membership section. [18]

'Openness' goes much further than simple access to a standard once it has been published. At ETSI, 'openness' is a question of culture.

They pride ourselves on being 'open', not only in creating their standards via consensus but via the direct input of their members. It is they who ultimately make and set ETSI standards.

'Openness', in ETSI terms, also means that almost any organization or person, from any part of the world, can become a member.

But having a truly 'open approach to business' does not stop there. They believe one of the best ways to encourage market growth and innovation is to allow 'open' access to standards, which is why anyone in the world can download ETSI standards free-of-charge, via their web site.

Standardization is high on the strategic agenda of any company with international ambitions. The 'openness' and knowledge accessibility within standardization is also a key driver in adding value to expensive research and development programmes.

Indeed, at the very core of standardization is the 'mutualisation' of technical development with the aim of enabling markets to grow, and industry to compete, with a minimum of interoperability and inter-working required.

For such a system to work most efficiently, it must be 'open' to all who wish to contribute and remain 'open' all along the standards production process, including delivery. [19]

ORGANISATIONS OF NATIONAL STANDARDIZATION

A. The American National Standards Institute - ANSI

The American National Standards Institute (ANSI) has served in its capacity as administrator and coordinator of the United States private sector voluntary standardization system for more than 90 years. Founded in 1918 by five engineering societies and three government agencies, the Institute remains a private, nonprofit membership organization supported by a diverse constituency of private and public sector organizations.

Throughout its history, ANSI has maintained as its primary goal the enhancement of global competitiveness of U.S. business and the American quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems and promoting their integrity. The Institute represents the interests of its nearly 1,000 companies, organization, government agency, institutional and international members through its office in New York City, and its headquarters in Washington, D.C.

ANSI facilitates the development of American National Standards (ANS) by accrediting the procedures of SDOs³⁶. These groups work cooperatively to develop voluntary national consensus standards. Accreditation by ANSI

signifies that the procedures used by the standards body in connection with the development of American National Standards meet the Institute's essential requirements for openness, balance, consensus and due process.

ANSI is often asked about the total number of standards (and standards setting bodies) in the United States. It is estimated that in the U.S. today there are hundreds of "traditional" standards developing organizations - with the 20 largest SDOs producing 90% of the standards - and hundreds more "non-traditional" standards development bodies, such as consortia. This means that the level of U.S. participation is quite expansive as the groups themselves are comprised of individual committees made up of experts addressing the technical requirements of standards within their specific area of expertise. [20]

B. The British Standards Institution - BSI

Sir John Wolfe Barry – the man who designed London's Tower Bridge - instigated the Council of the Institution of Civil Engineers to form a committee to consider standardizing iron and steel sections on 22 January 1901.

In World War 1, British Standards were used by the Admiralty, the War Office, the Board of Trade, Lloyd's Register, the Home Office, the Road Board, the London County Council and a lot of colonial governments.

During the 1920s standardization spread to Canada, Australia, South Africa and New Zealand. Interest was also developing in the USA and Germany.

On 22 April 1929, the Engineering Standards Committee, (since 1918 the British Engineering Standards Association) was granted a Royal Charter. A supplemental Charter was granted in 1931 changing the name, finally, to The British Standards Institution.

Between 1939 and 1945 over 400 war emergency standards were produced. 1946 saw the first ever Commonwealth Standards Conference, held in London and organized by BSI, which led to the establishment of the International Organization for Standardization (ISO).

The UK's³⁷ first management systems quality standard, BS 5750, was published by BSI in 1979. In 1987, it was superseded by the ISO 9000 series of international standards which BS 5750 inspired.

Revised in 1994, 2000 and then in 2008, the international quality management systems standard has proved a global success with more than 1 million ISO 9001 certificates (2000 and 2008 combined) issued in 178 countries and economies by the end of 2009. [21]

They are the UK's National Standards Body (NSB) and were the first national standards body. They represent UK economic and social interests across all European and international standards organizations and in the development of business information solutions for British organizations of all sizes and sectors. [22]

BSI is recognized as the UK NSB³⁸ by the UK Government. This status is formally codified in the MoU³⁹ between the United Kingdom Government and the British Standards Institution in respect of its activities as the United Kingdom's National Standards Body.

³⁶ Standards Developing Organizations

³⁷ United Kingdom

³⁸ National Standards Body

³⁹ Memorandum of Understanding

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The MoU recognizes BSI's status as the UK member of the international standards organizations, ISO and IEC; the European standards organizations, CEN and CENELEC; and as the NSO⁴⁰ participating on behalf of the UK in ETSI.

The MoU defines a number of key responsibilities for BSI as the NSB. Its membership of the international and European standards bodies also entails a number of specific responsibilities. In addition, there are certain aspects of BSI's work that are further defined through the World Trade Organization's TBT⁴¹, to which the UK Government is a signatory.

Most of BSI's responsibilities are undertaken on a day-to-day basis by BSI Standards Ltd., a wholly owned subsidiary company of BSI Group. A Supply of Services Agreement sets the framework by which this can be systematically monitored.

The NSB has the responsibility of the Director of Standards and is administered within the External Policy team. It receives some funding from the UK Government in recognition of work undertaken in the public interest.

The exact scope of the activities regarded as belonging to the NSB is listed in the BSI Code of Conduct. [23]

C. The German Institute for Standardization - DIN

The remit of DIN German Institute for Standardization is to encourage, organize, steer and moderate standardization and specification activities in systematic and transparent procedures for the benefit of society as a whole, while safeguarding the public interest. The results of DIN's work serve to advance innovation, safety and communication among industry, research organizations, the public sector and society as a whole, and to support quality assurance, rationalization, occupational health and safety, and environmental and consumer protection. DIN publishes its work results and promotes the implementation of these results. Some 30,000 experts contribute their skills and experience to the standardization process which is managed and coordinated by the DIN staff of around 400. By agreement with the German Federal Government, DIN is the acknowledged national standards body that represents German interests in European and international standards organizations. Ninety percent of the standards work now carried out by DIN are international in nature. A registered non-profit association, DIN has been based in Berlin since 1917. [24]

D. The Hungarian Standards Institution - MSZT

The Hungarian Standards Institution was founded in 1921. This legal status is non-profit body of public interest, according to Law XXVIII of 1995 on national standardization and its amendment by Law CXII of 2001; self-governed and registered in accordance with the provision of the Civil Code.

By virtue of the Law, the Hungarian Standards Institution (MSZT) is the national standards body of the Republic of Hungary.

Hungary is represented by MSZT, via its membership, in the following international and European standards organizations:

- ≡ International Organization for Standardization (ISO) membership of MSZT: since the foundation of ISO - 1947

- ≡ International Electrotechnical Commission (IEC) membership of MSZT: since the foundation of IEC - 1906
- ≡ European Committee for Standardization (CEN) national membership of MSZT: from 1st of January 2003
- ≡ European Committee for Electrotechnical Standardization (CENELEC) national membership of MSZT: from 1st of June 2002
- ≡ European Telecommunication Standards Institute (ETSI) full membership of MSZT: from 1996

The Officials of MSZT	Activity
President	<ul style="list-style-type: none"> ▪ simultaneously the Chairman of the Standards Council ▪ elected by the General Assembly ▪ responsible for his activities to the General Assembly ▪ performs activities as defined in the Statutes
Vice-President	<ul style="list-style-type: none"> ▪ elected by the General Assembly ▪ also a member of the Standards Council
Members of the Standards Council	<ul style="list-style-type: none"> ▪ elected by the General Assembly and delegated by central administrative bodies ▪ gives guidance for the activities of MSZT
Members of the Financial Control Committee	<ul style="list-style-type: none"> ▪ elected by the General Assembly
Chairmen of the national technical committees for standardization	<ul style="list-style-type: none"> ▪ elected by the relevant committee from its own members
Managing Director	<ul style="list-style-type: none"> ▪ Manages the Executive Organization

Officials of MSZT (by the authors)

The Bodies of MSZT	Activity
The General Assembly	<ul style="list-style-type: none"> ▪ chaired by the President ▪ approves the Statutes ▪ decides about the acceptance of the yearly report ▪ elects and discharges the President and vice-president of MSZT ▪ elects and discharges the eligible members of the Standards Council and the Financial Control Committee ▪ approves the accounts of the Standards Council and the Financial Control Committee ▪ approves the yearly budget ▪ responsible for any action referred to it by legislation or by the Statutes
The Standards Council	<ul style="list-style-type: none"> ▪ chaired by the President ▪ determines the membership fees ▪ defines the basic policy for the functioning of MSZT ▪ approves the long-term and yearly programmes of national standardization
The Financial Control Committee	<ul style="list-style-type: none"> ▪ inspects the conformity of the economic activities of MSZT to the rules
The Technical Committees for National Standardization	<ul style="list-style-type: none"> ▪ carry out the professional work in each particular sector in an operative way
The Executive Organization	<ul style="list-style-type: none"> ▪ provides continuous activities necessary for the functioning of MSZT

Bodies of MSZT (by the authors)

⁴⁰ National Standards Organization

⁴¹ Technical Barriers to Trade Agreement

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- 1) Members of MSZT
 - ≡ Any legal entity as well as economic organization other than legal entity can become member of MSZT members of MSZT are registered;
 - ≡ current number of MSZT members: 320 (this membership covers more than 85% of the Hungarian economy)
 - ≡ MSZT members have delegated more than 3500 experts (representatives) to the 184 national technical committees for standardization;
- 2) Conditions of membership in MSZT:
 - ≡ acceptance of the Statutes;
 - ≡ applying for membership;
 - ≡ payment of membership fee.
- 3) The main responsibilities of MSZT, in accordance with the Law, are:
 - ≡ development of national standards or provision for their development, their approval and publication, withdrawal and amendment as well as the preparation of the respective methodology and rules of procedure;
 - ≡ participation in the work of the international and European standards organizations and the coordination of the participation by stakeholders;
 - ≡ preparation of guidance and advice in national standardization issues;
 - ≡ preparation and publication of studies related to standardization;
 - ≡ determination of the use of the national standards mark as well as implementation and management of the rules for the application of international and European marks related to standardization;
 - ≡ development and management of a certification system to assess conformity of products and services to national standards;
 - ≡ participation in the development of rules for the certification of conformity with legal rules or other specifications;
 - ≡ establishment of a system for the certification of quality assurance systems against standards;
 - ≡ participation, on request, in the preparation of Hungarian legislation based on directives of the European Union;
 - ≡ provisioning of information and dissemination of knowledge related to standardization and certification;
 - ≡ management and development of trainings related to national standardization and certification of personnel;
 - ≡ technical documentation and other services.
- 4) Sources for the functioning of MSZT:
 - ≡ membership fees;
 - ≡ sale of standards and publications;
 - ≡ certification;
 - ≡ training;
 - ≡ information services;
 - ≡ other services;
 - ≡ mandates from Government;
 - ≡ support from interested parties. [25]

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This article has been summarized in the structured organizations of standardization of information security, which International, European and national have been collected for the purposes of grouping. The organizations of

standardization discussed in this article are all great impact in Europe and the Hungarian economy's life. [26, 27,28]

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