



Multiple Framework Contract FWC FPI PSF 2015
Lot 4 "Market Access and Trade & Investment Agreement Negotiation & Implementation"

Mapping of applicable technical regulations, conformity assessment procedures and supporting standards in support of EU-Brazil business development

DELIVERABLE 2
BRAZIL – INFORMATION TECHNOLOGY SECTOR



A project implemented by Eurosupport Consortium - AESA

Delegation of the European Union to Brazil

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BRAZIL – INFORMATION TECHNOLOGY SECTOR

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TABLE OF CONTENTS

LIST OF TABLES AND FIGURES	3
LIST OF ABBREVIATIONS	4
1. PROFILE OF THE SECTOR.....	5
2. MAIN AUTHORITIES AND TECHNICAL REGULATION	6
3. STANDARDS AND SUPPORTING STANDARDS	7
4. CONFORMITY ASSESSMENT PROCEDURES AND CERTIFICATION.....	11
5. MERCOSUR REGULATION	12
6. MAIN GOVERNMENTAL AND PRIVATE ACTORS IN THE SECTOR	14

LIST OF TABLES AND FIGURES

FIGURE 1 - MANDATORY STANDARDS (13) ENACTED BY INMETRO.....	8
FIGURE 2 - STANDARDS (50) ON THE ABNT IT COMMITTEE	10
FIGURE 3 - STANDARDS ON IT (24) IN OTHER ABNT COMMITTEES	11
Table 1 - Exports and imports of each IT subsector from 2014 to 2016 (1).....	5
Table 2 - Exports and imports of each IT subsector from 2014 to 2016 (2).....	5
Table 3 - Exports and imports of each IT subsector from 2014 to 2016 (3).....	5
Table 4 - Exports and imports of each IT subsector from 2014 to 2016 (4).....	6
Table 5 - Mandatory Standards enacted by INMETRO	7
Table 6 - Standards on the ABNT Committee on IT	8
Table 7 - Technical Regulation related to IT Sector in other ABNT Committees	10
Table 8 - Bodies responsible for certification.....	11
Table 11 - Standards approved by the Committees	13
Table 12 - Standards under study in Mercosur Association for Standardization.....	13
Table 13 - International Agreements on Information Technology	14

This is a working document, and hence it represents research in progress. The opinions expressed in this paper are those of the research team and coordinator. They are not intended to represent the positions or opinions of the European Union or its members and are without prejudice to members' rights and obligations under the European Union. Any errors are attributable to the research team and coordinator.

LIST OF ABBREVIATIONS

ABNT Brazilian Association of Technical Standards
ABINEE Brazilian Electric and Electronic Industry Association
ACE Economic Complementation Agreement
ALADI Latin American Integration Association
ANATEL National Agency of Telecommunication
ART Technical liability annotation
ASTM American Society for Testing and Materials
BNDES National Bank of Economic and Social Development
CAMEX Foreign Trade Chamber
CAP Mercosur Common Automotive Policy
CGIEE Energy Efficiency Indicators Management Committee
CGEL General-Coordination of Electronic Complexes
CIPA Internal Commission for Accident Prevention
CLT Consolidation of Labor Laws
CMC Common Market Council
CNTT National Thematic Tripartite Commission
CONAMA National Environmental Council
CSM Mercosur Sectorial Committees
DECEX Department of Foreign Trade Operations
DIN German institute for standardization
EFTA European Free Trade Association
FDI Foreign Direct Investment
FNDCT National Fund of Scientific and Technological Development
GMC Common Market Group
HS Harmonized System
IAF International Accreditation Forum
IEC International Electrotechnical Commission
IEEE Institute of Electrical and Electronics Engineers
IBDF Brazilian Institute for Forest Development
ILAC International Laboratory Accreditation Cooperation
ILO International Labor Organization
INMETRO National Institute of Metrology, Quality and Technology
IPI Manufactured Products Tax
ISO International Standardization Organization
MCR Adjusts the General Norms
MCTI Ministry of Science, Technology and Innovation
MDIC Ministry of Industry, Foreign Trade and Services
MRA Mutual Recognition Agreement
MTE Ministry of Labor and Employment
NM Mercosur Standard
NR Regulatory Standard
SBAC System of Conformity Assessment
SESMT Service in Safety Engineering and Occupational Medicine
SIEMA National Environmental Emergency System
SISCOMEX Integrated System of Foreign Trade
TBT Technical Barriers to Trade
WTO World Trade Organization

Project Brazil – EU:

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BRAZIL – INFORMATION TECHNOLOGY SECTOR

1. PROFILE OF THE SECTOR

The information technology (IT) sector of relevance for the Brazilian economy and its GDP. In 2016, exports in the sector were of US\$ 274 million and imports were of US\$ 1.9 billion, which resulted in a deficit of US\$ 1.6 billion. The volume of trade has increased due to the intensive use of IT in many areas of the economy. The tables below show the exports and imports of each IT subsector from 2014 to 2016.

Table 1 - Exports and imports of each IT subsector from 2014 to 2016 (1)

YEAR	PRINTING MACHINERY USED FOR PRINTING BY MEANS OF PLATES, CYLINDERS AND OTHER PRINTING COMPONENTS OF HEADINGS 84.42; OTHER PRINTERS, COPYING MACHINES AND FACSIMILE MACHINES, WHETHER OR NOT COMBINED; PARTS AND ACCESSORIES THEREOF		
	Brazil – World		
	Export	Import	Result
2014	91.029.658	1.332.968.039	-1.241.938.381
2015	89.794.681	1.020.755.039	-930.960.358
2016	134.495.913	767.765.882	-633.269.969

Source: AliceWeb. Prepared by CCGI-EESP/FGV.

Table 2 - Exports and imports of each IT subsector from 2014 to 2016 (2)

YEAR	AUTOMATIC DATA PROCESSING MACHINES AND UNITS THEREOF; MAGNETIC OR OPTICAL READERS, MACHINES FOR TRANSCRIBING DATA ONTO DATA MEDIA IN CODED FORM AND MACHINES FOR PROCESSING SUCH DATA, NOT ELSEWHERE SPECIFIED OR INCLUDED		
	Brazil – World		
	Export	Import	Result
2014	111.156.297	1.650.770.531	-1.539.614.234
2015	86.443.037	1.128.269.200	-1.041.826.163
2016	115.021.993	975.434.547	-860.412.554

Source: AliceWeb. Prepared by CCGI-EESP/FGV.

Table 3 - Exports and imports of each IT subsector from 2014 to 2016 (3)

YEAR	OTHER OFFICE MACHINES		
	Brazil – World		
	Export	Import	Result
2014	15.262.580	28.385.028	-13.122.448
2015	16.364.777	39.857.594	-23.492.817
2016	12.282.513	29.247.715	-16.965.202

Source: AliceWeb. Prepared by CCGI-EESP/FGV.

Table 4 - Exports and imports of each IT subsector from 2014 to 2016 (4)

YEAR	MONITORS AND PROJECTORS, NOT INCORPORATING TELEVISION RECEPTION APPARATUS; RECEPTION APPARATUS FOR TELEVISION, WHETHER OR NOT INCORPORATING RADIO-BROADCAST RECEIVERS OR SOUND OR VIDEO RECORDING OR REPRODUCING APPARATUS		
	Brazil – World		
	Export	Import	Result
2014	52.626.950	226.780.161	-174.153.211
2015	29.246.729	166.687.617	-137.440.888
2016	12.234.157	117.757.293	-105.523.136

Source: AliceWeb. Prepared by CCGI-EESP/FGV.

2. MAIN AUTHORITIES AND TECHNICAL REGULATION

Main authorities and regulation of the IT sector includes:

(i) The Ministry of Science, Technology and Innovation (MCTI)¹: MCTI accredits and registers entities promoting research in IT and innovation (Federal Laws n°10,973/04, n°13,243/16, and n°8,958/94) in institutions of higher education and scientific and technological research. There are many Ordinances from MCTI or Inter-Ministerial Ordinances between MCTI and MDIC (Ministry of Industry, Trade and Service) regulating IT Sector.

(ii) The National Institute of Metrology, Quality and Technology (INMETRO): INMETRO is a Brazilian regulatory agency that controls the national measurement standards in the country, evaluates compliance requirements for products manufactured in or imported into Brazil and implements the national policies on metrology and quality. It is responsible for regulating and accrediting technology products. INMETRO notifies the WTO on technical regulations concerning security and technical standards matters. Regarding IT sector, the only TBT notification sent was to release a public consultation under the Ordinance n° 511/2016. It intended to ensure transparency to requirements for conformity assessment regarding the Evaluation Program for the Computer Accessories and Peripherals Asset Compliance. This public consultation resulted in the INMETRO Ordinance n° 170/2012, which regulated the Decree n° 7.174/2010.

(iii) Constitution: The Federal Constitution of Brazil establishes competences to regulate IT Sector and provides general guidelines to rule science, technology and innovation and promote its progressive development in Brazil. Brazilian Federal Government is exclusively competent to legislate on informatics and promote and encourage scientific development and research (Art. 22, IV)².

(iv) Informatics Law: Federal Laws n. 8,248/1991, n. 10,176/2001, n. 11,077/2004, n. 13,023/2014 and Decree n. 5,906/06 state basic rules for the informatics field in Brazil. Decree n. 7,174/2010 on the Procurement of Goods and Computer Services regulates the contracting of IT goods and services by the federal government. Certification processes are accredited by

¹ The Ministry of Science, Technology, Innovation, and Communications (MCTI) provides a search tool in which one can search regulations by subject or type of act. It is available [here](#).

² BRASIL. Constituição (1988). Constituição da República Federativa do Brasil. Brasília: Senado, 1988. Available at: <http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm>

INMETRO³. The INMETRO Ordinance n. 170/2012 (amended by Ordinance n. 407/2013) established requirements for the Evaluation Program for the Computer Accessories and Peripherals Asset Compliance. It is a voluntary certification related to safety, electromagnetic compatibility and energy efficiency aiming at reducing accidents, increasing quality and energy consumption.

(v) **Software Regulation:** Federal Law n. 9,609/1998 establishes treatment between software and literary work, reason why its regime is complemented by the legislation of copyright (Federal Law n. 9,610/1998).

3. STANDARDS AND SUPPORTING STANDARDS

INMETRO⁴ is the regulatory agency mainly responsible for adopting standards for the IT sector, usually following international standards as a basis. According to Ordinance (Technical Regulation) n. 170/2012, there are 13 standards based on the International Electro-technical Commission (IEC) or CISPR (adopted in the original text in English) or ABNT standards (turned into mandatory standards afterwards) (Appendix, table 2). The regulation follows the IEC (77 percent), CISPR (15 percent) and standards developed by ABNT⁵ (8 percent). The table below shows the standards enacted by INMETRO.

Table 5 - Mandatory Standards enacted by INMETRO

INMETRO Ordinance in force	General Requirements for Certification – RGCP
ABNT NBR 5426	Plano de Amostragem e procedimentos na inspeção por atributos
IEC 60950-1	Information Technology Equipment – Safety
IEC 61000-4-2	Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test
IEC 61000-4-3	Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test
IEC 61000-4-4	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test
IEC 61000-4-5	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test
IEC 61000-4-6	Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields
IEC 61000-4-8	Electromagnetic compatibility (EMC) - Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test
IEC 61000-4-11	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests
IEC 61000-3-2	Electromagnetic compatibility (EMC) - Part 3-2: Limits – Limits for harmonic current emissions

³ The Public Consultation that originated the Approved Requirements was disclosed by the INMETRO Ordinance n° 368, of September 19th, 2011, published in September 21st, 2011, section 01, page 135.

⁴ INMETRO has made available to the general public a searching tool in which it is possible to search by keywords, date and number of the technical regulation [here](#).

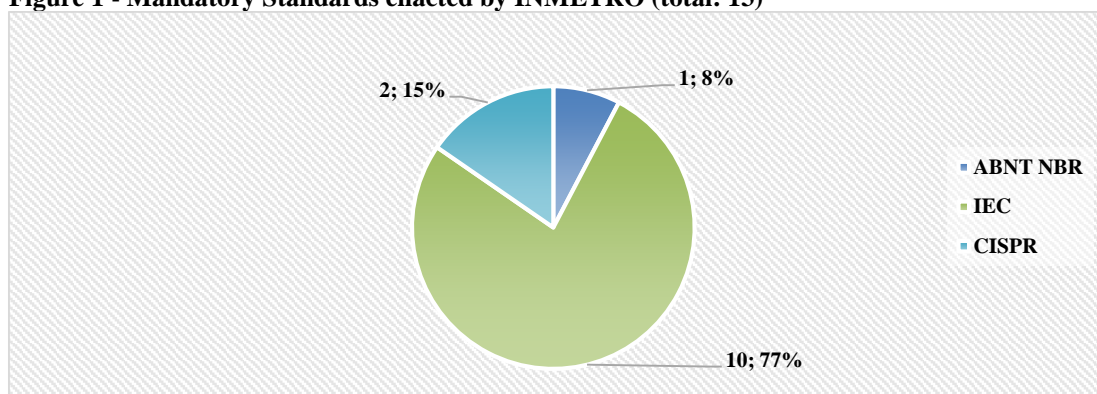
⁵ A relevant number of technical regulations (especially those on conformity assessment procedures) refers to supporting standards, usually issued by ABNT, a private body. There are different kind of supporting standards issued by ABNT that goes from a fully original standard developed under its Standardizing Committees (CB) to those based on international standards, mainly ISO and IEC. Usually, (i) If it is a standard identical to an international standard, it will appear, for example, as *ABNT NBR ISO n° XXX*; (ii) If it is based on an international standard, a reference to this international standard will be in the preamble of the standard; and (iii) If it is an original standard, it will appear as *ABNT NBR n° XXX*. ABNT does not provide a list of all international standards adopted in full or modified by any of its committees. The search tool available requires a keyword search that goes from product to product at ABNT's website. ABNT Catalog with all searching tools is available [here](#). In the same way as CEN, CENELEC, ASTM and other standardizing bodies, the interested party have to pay a fee in order to have granted full access to the content of standards issued by ABNT. The costs vary depending on the standard.

	(equipment input current ≤ 16 A per phase)
IEC 61000-3-3	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
CISPR22	Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement
CISPR24	Information technology equipment - Immunity characteristics - Limits and methods of measurement

Source: Ordinance INMETRO n° 170/2012. Prepared by CCGI-EESP/FGV.

The graphic below illustrates the percentage of each type of standard.

Figure 1 - Mandatory Standards enacted by INMETRO (total: 13)



Source: INMETRO. Prepared by CCGI-EESP/FGV.

The Brazilian Association of Technical Norms (ABNT), a private entity liable for the creation of Brazilian Standards, also incorporates these international standards. Prepared by its Committees (ABNT/CB), Sectorial Standardization Organizations (ABNT/ONS) and Special Study Commissions (ABNT/CEE), the IT regulations are developed by the IT Committee. Among ABNT standards, there are four types of standards: (i) ABNT NBR ISO/IEC/ (ii) ABNT NBR ISO/IEC/IEEE; (iii) ABNT ISO IEC TR and (iv) ABNT NBR (the own ABNT standard), the only type that does not follow international standards. The following table shows the standards on the ABNT Committee on IT.

Table 6 - Standards on the ABNT Committee on IT

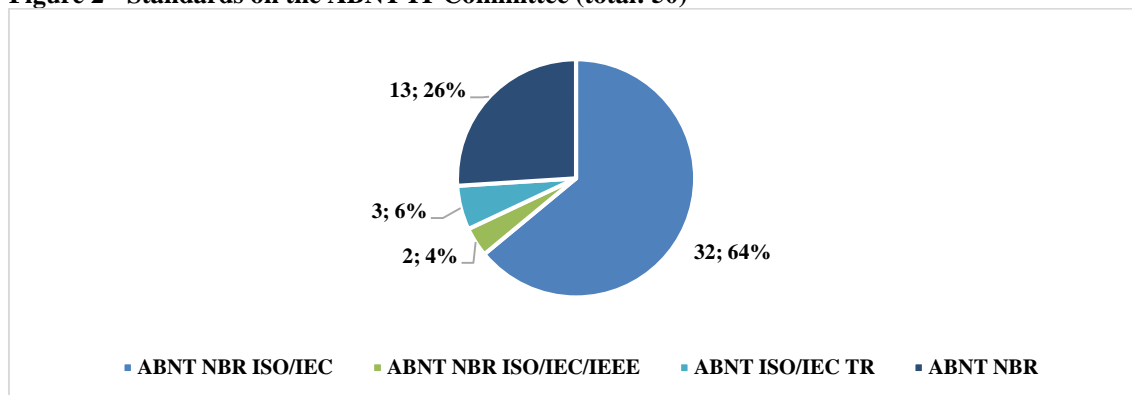
ABNT NBR ISO/IEC 27017:2016	Information technology-Security techniques-Code of practice for information security controls based on ABNT NBR ISO/IEC 27002 for cloud services
ABNT NBR ISO/IEC 17788:2015	Information technology-Cloud computing-Overview and vocabulary
ABNT NBR ISO/IEC 27003:2011 Errata 1:2015	Information technology-Security techniques-Guidelines for the implementation of an information security management system
ABNT NBR 16386:2015	Information technology-Guidelines for the processing of telematic legal interception
ABNT NBR ISO/IEC 27032:2015	Information technology-Guidelines for the processing of telematic legal interception
ABNT NBR ISO/IEC 27031:2015	Information technology-Security techniques-Guidelines for readiness for business continuity in information and communication technology
ABNT NBR ISO/IEC 27038:2014	Information technology-security techniques-specification for digital Newsroom
ISO/IEC ABNTNBR/IEEE 29119-1:2014	Systems and software engineering — software testing Part 1: concepts and definitions
ABNT NBR ISO/IEC 27037:2013	Information technology — security techniques — guidelines for identification, collection, acquisition and preservation of digital evidence
ABNT NBR ISO/IEC 27001:2013	Information technology — security techniques — information security management — requirements
ABNT NBR ISO/IEC 27002:2013	Information technology — security techniques — Code of practice for information security controls
ABNT NBR ISO/IEC 20000-2:2013	Information technology — service management Part 2: application guide service management system
ABNT NBR ISO/IEC 27014:2013	Information technology — security techniques — Information Security Governance
ABNT NBR 16167:2013	Information security — guidelines for classification, labeling and information processing

ISO/IEC ABNTNBR/IEEE 16326:2012	Systems and software engineering — life cycle processes — project management
ABNT NBR ISO/IEC 27007:2012	Guidelines for auditing management systems of information security
ABNT ISO/IEC TR 29110-5-1- 2:2012	Software Engineering — life cycle profiles for micro-organizations (VSEs) Part 5-1-2: engineering and Management Guide: generic profile Group: basic profile
ABNT NBR ISO/IEC 29110-4- 1:2012	Software Engineering — life cycle profiles for micro-organizations (VSEs) Part 4-1: profile Specifications: Generic Profile Group
ABNT NBR ISO/IEC 29110-2:2012	Software Engineering — life cycle profiles for micro-organizations (VSEs) Part 2: structure and taxonomy
ABNT NBR ISO/IEC 27005:2011	Information technology — security techniques — management of information security risks
ABNT NBR ISO/IEC 27003:2011	Corrected version: 2015 Information technology – security techniques – guidelines for implementation of a management system of information security
ABNT NBR ISO/IEC 20000-1:2011	Information technology — service management Part 1: System requirements-management services
ABNT ISO/IEC TR 20000-5:2011	Information technology — service management Part 5: Example of a plan for implementation of ABNT NBR ISO/IEC 20000-1
ABNT NBR ISO/IEC 25062:2011	Software engineering-requirements and quality evaluation of software product (SQuaRE) — common industry Format (FCI) for usability test reports
ABNT NBR ISO/IEC 27004:2010	Information technology — security techniques — information security management — measurement
ABNT ISO/IEC TR 24774:2010	Software and systems engineering — life cycle management — guidelines for processes description
ABNT NBR ISO/IEC 27011:2009	Information technology-security techniques-guidelines for the management of information security for telecommunications organizations based in ABNT NBR ISO/IEC 27002
ABNT NBR ISO/IEC 15288:2009	Systems and software engineering — processes system lifecycle
ABNT NBR ISO/IEC 38500:2009	Corporate governance of information technology
ABNT NBR ISO/IEC 25001:2009	Software engineering-requirements and quality evaluation of software product (SQuaRE)- planning and management
ABNT NBR ISO/IEC 25020:2009	Software engineering-requirements and quality evaluation of software product (SQuaRE)- Guide and reference model for measurement
ABNT NBR ISO/IEC 12207:2009	Systems and software engineering-life cycle processes software
ABNT NBR ISO/IEC 15939:2009	Systems and software engineering-measurement process
ABNT NBR ISO/IEC 25030:2008	Software engineering-requirements and quality evaluation of Software product (SQuaRE)- quality requirements
ABNT NBR ISO/IEC 26300:2008	Information technology--Open Document Format for Office applications (Open Document) v 1.0
ABNT NBR ISO/IEC 15504-1:2008	Information technology-process assessment Part 1: concepts and vocabulary
ABNT NBR ISO/IEC 15504-3:2008	Information technology-process assessment Part 3: guidelines for conducting an assessment
ABNT NBR ISO/IEC 15504-4:2008	Information technology-process assessment Part 4: Guidance on use for process improvement and process capability determination
ABNT NBR 11515:2007	Practical guide to physical security relating to data storage
ABNT NBR ISO/IEC 14598-6:2004	Software engineering-product Evaluation Part 6: evaluation modules documentation
ABNT NBR ISO/IEC 14598-5:2001	Information technology-software product review Part 5: process for assessors
ABNT NBR 12896:1993	Information technology-password management-Procedure
ABNT NBR 12964:1993	Information technology-Cryptographic Techniques for data-operating modes of an Encipherment Algorithm standard blocks-Standardization
ABNT NBR 10346:1991	Information technology-Keyboards on data-processing equipment Set alphanumeric- Standardization
ABNT NBR 10347:1991	Information technology-Keyboards on data-processing equipment numerical Set- Standardization
ABNT NBR 9611:1991	Information technology-Code for information interchange-Standardization
ABNT NBR 10173:1987	National standard product code EAN-specification
ABNT NBR 10175:1987	National standard product code EAN-determination of characteristics of colors, contrasts, reflectivity and quality control
ABNT NBR 10172:1987	National standard product code EAN-coding, logical structure and dimensions- Standardization
ABNT NBR 10174:1987	Identification, location, print and markup of the National Standard Product Code EAN- Procedure
ABNT NBR 9943:1987	Code extension techniques for use with the Brazilian code for information interchange- specification
ABNT NBR ISO/IEC 25020:2009	Software engineering-requirements and quality evaluation of software product (SQuaRE)- Guide and reference model for measurement

Source: ABNT. Prepared by CCGI-EESP/FGV.

The following graphic shows the percentage of the respective standards.

Figure 2 - Standards on the ABNT IT Committee (total: 50)



Source: ABNT. Prepared by CCGI-EESP/FGV.

Brazilian regulation on IT follows ISO, IEC and the Institute of Electrical and Electronics Engineers (IEEE), but the predominant is the ISO/IEC. There are other technical norms related to IT Sector in other ABNT Committees, especially intertwining of health and IT regulations, divided into four types of standards, even though the majority follows ISO standards. The standards related to IT sector in other ABNT Committees are on the table below.

Table 7 - Technical Regulation related to IT Sector in other ABNT Committees

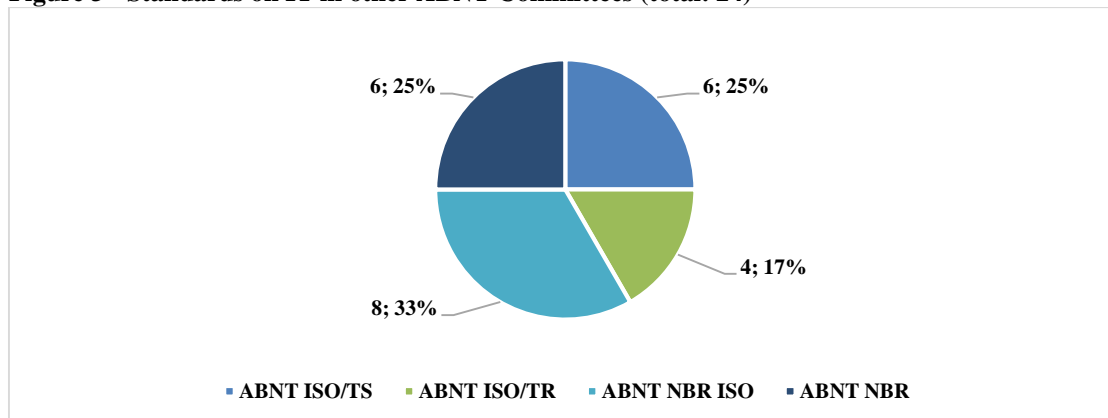
ABNT ISO/TS 13131:2016	<i>Informática em saúde - Serviços de tele saúde - Diretrizes para o planejamento de qualidade</i>
ABNT ISO/TR 12300:2016	<i>Informática em saúde — Princípios de mapeamento entre sistemas terminológicos</i>
ABNT ISO/TS 21547:2016	<i>Informática em saúde - Requisitos de segurança para arquivamento de registros eletrônicos de saúde - Princípios</i>
ABNT ISO/TS 22789:2016	<i>Informática em saúde - Framework conceitual para achados e problemas do paciente nas terminologias</i>
ABNT NBR ISO 1828:2016	<i>Informática em saúde — Estrutura de categorias para sistemas terminológicos de procedimentos cirúrgicos</i>
ABNT ISO/TS 14265:2016	<i>Informática em saúde - Classificação dos propósitos para o processamento das informações pessoais de saúde</i>
ABNT ISO/TS 17439:2016	<i>Informática em saúde — Desenvolvimento de termos e definições para glossários de informática em saúde</i>
ABNT NBR ISO 18104:2016	<i>Informática em saúde — Estruturas de categorias para a representação de diagnósticos de enfermagem e ações de enfermagem em sistemas de terminologia</i>
ABNT NBR ISO 22600-1:2016	<i>Informática em saúde — Gerenciamento de privilégios e controle de acesso - Parte 1: Visão geral e gerenciamento da política</i>
ABNT NBR ISO 22600-2:2016	<i>Informática em saúde — Gerenciamento de privilégios e controle de acesso - Parte 2: Modelos formais</i>
ABNT NBR ISO 22600-3:2016	<i>Informática em saúde — Gerenciamento de privilégios e controle de acesso - Parte 3: Implementações</i>
ABNT ISO/TS 21298:2016	<i>Informática em saúde - Papéis funcionais e estruturais</i>
ABNT NBR ISO 21091:2016	<i>Informática em saúde - Serviços de diretório para prestadores de serviços de saúde, sujeitos do cuidado e outras entidades</i>
ABNT NBR 16472-1:2016	<i>Informática em saúde — Sumário de alta para continuidade do cuidado - Parte 1: Modelo de informação</i>
ABNT NBR ISO 18308:2013	<i>Informática em Saúde — Requisitos para uma arquitetura de registro eletrônico de saúde</i>
ABNT NBR ISO 21549-2:2012	<i>Informática em saúde — Dados do cartão-saúde do paciente - Parte 2: Objetos comuns</i>
ABNT NBR 15985:2011	<i>Informática em saúde — Identificação dos indivíduos em saúde</i>
ABNT ISO/TR 12309:2011	<i>Informática em saúde — Diretrizes para o desenvolvimento organizacional de terminologias</i>
ABNT NBR 20301:2010	<i>Informática em saúde — Cartões de saúde — Características gerais</i>
ABNT ISO/TR 17119:2008	<i>Informática na saúde — Framework para estabelecimento de perfis em informática em saúde</i>
ABNT ISO/TR 20514:2008	<i>Informática em saúde — Registro eletrônico de saúde - Definição, escopo e contexto</i>
ABNT NBR 14373:2006	<i>Versão Corrigida:2010 - Estabilizadores de tensão corrente alternada - Potência até 3 kVA/3 kW</i>
ABNT NBR 15204:2005	<i>Conversor a semicondutor - Sistema de alimentação de potência ininterrupta com saída em corrente alternada (nobreak) - Segurança e desempenho</i>

ABNT NBR 15247:2004	<i>Unidades de armazenagem segura - Salas cofre e cofres para hardware - Classificação e método de ensaio de resistência ao fogo</i>
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Source: ABNT. Prepared by CCGI-EESP/FGV.

The graphic below shows the percentage of the respective standards.

Figure 3 - Standards on IT in other ABNT Committees (total: 24)



Source: ABNT. Prepared by CCGI-EESP/FGV.

Thus, technical regulation related to IT Sector developed under ABNT follows standards internationally recognized such as ISO, IEC and IEE, but mostly ISO.

4. CONFORMITY ASSESSMENT PROCEDURES AND CERTIFICATION

The Brazilian Conformity Assessment System offers either a voluntary certification or a compulsory certification. The voluntary certification consists of certification in which the companies define whether to certify the product, in accordance with a technical standard. The compulsory certification determines which products the company may produce or trade after the certification. On the certification process, the first step is to find out if there is a certification for the product, and whether it is compulsory or voluntary. The list of products covered by the Conformity Assessment Program developed by INMETRO is available on INMETRO's website⁶. After confirming that there is a certification program and if it is compulsory or voluntary, the requirements for certification focus on verifying the standard or regulation in force. The company should look for a Product Certification Body (OCP) accredited by INMETRO. The complete list with accredited OCPs is available on INMETRO's website. Certification processes consist of a document analysis and a product testing. Then, the OCP issues a certificate for the product in INMETRO. The company will choose the one that best suits their needs. The cost and time of certification varies from product to product. The table below contains the certification bodies.

Table 8 - Bodies responsible for certification

TYPE	Nº	BODY	COUNTRY	STATE	CITY
OCP	0004	TÜV RHEINLAND DO BRASIL LTDA.	BRASIL	SP	São Paulo
OCP	0005	ABNT - Associação Brasileira de Normas Técnicas	BRASIL	RJ	Rio de Janeiro

⁶It is available at: Products with Voluntary Certification:

<<http://www.inmetro.gov.br/qualidade/rtepac/voluntarios.asp>>; **Products with Compulsory**

Certification: <<http://www.inmetro.gov.br/qualidade/rtepac/compulsorios.asp>>.

OCP	0029	UL DO BRASIL CERTIFICAÇÕES	BRASIL	SP	São Paulo
OCP	0034	NCC CERTIFICAÇÕES DO BRASIL LTDA.	BRASIL	SP	São Paulo
OCP	0040	SGS ICS CERTIFICADORA LTDA	BRASIL	SP	Barueri
OCP	0052	INSTITUTO DE CERTIFICAÇÕES BRASILEIRO S/A - ICBR	BRASIL	SP	Campinas
OCP	0064	ASSOCIAÇÃO IEX CERTIFICAÇÕES	BRASIL	SP	Barueri
OCP	0089	DEKRA Certification B.V / DEKRA Vistorias e Serviços Ltda	BRASIL	SP	Atibaia
OCP	0090	Intertek do Brasil Inspeções Ltda	BRASIL	SP	São Caetano do Sul

Source: INMETRO. Prepared by CCGI-EESP/FGV.

According to INMETRO's website and INMETRO Ordinance n. 170/2012, the IT Sector's certification is voluntary⁷. Thus, it is not mandatory a certification for commercializing an IT product within the Brazilian territory⁸. There are several requirements for the Computer Conformity Assessment Program focused on safety, electromagnetic compatibility and energy efficiency, through the voluntary certification mechanism aiming at reducing accidents, increasing quality and energy consumption of products. Moreover, the General Product Certification Requirements (RGCP) (provided in Ordinance INMETRO n. 118/2015) complements such requirements. Each stage will follow procedures according to the Certification Models. The voluntary certification model used for the IT products are models 5 or 7, according to RGCP. The steps for certification by model 5 are: (i) initial assessment (item 6.2 of the RGCP); (ii) maintenance evaluation (item 6.3 of the RGCP); (iii) recertification evaluation (item 6.4 of RGCP). For the model 7: (i) initial assessment (items 6.2.1, 6.2.2, 6.2.4, 6.2.5 and 6.2.6 of the RGCP).

The tests previously performed will only be accepted if the report holder is able to demonstrate that the product to be certified is the same as the one tested⁹. The Certificate of Conformity must contain: (a) identification of the certification model (model 5 or 7); (b) IEC 60950-1 standard and applicable standards for electromagnetic compatibility, with their respective years of publication and the reference to the Ordinance n°170; (c) all commercial identification and import numbers, if any, of the models of the certified family; (d) list of all accessories and critical items (manufacturer and model) that define the equipment configuration¹⁰. IECCEB SCHEME (ABNT IEC Guide 115 or IEC Guide 115) adopted procedures and criteria for measuring uncertainties¹¹. According to INMETRO there is a list of some bodies responsible for the certification in Brazil. There is also a mutual recognition forecast when accepting the tests of the laboratories abroad, and this is automatic.

5. MERCOSUR REGULATION

There is no specific agreement for the IT Sector in Mercosur.

Non-governmental entities have also a relevant role in the adoption of standards followed by manufacturers. For instance, the Mercosur Association for Standardization (AMN) develops regional standards (generally based on ISO and IEC) through Mercosur Sectorial Committees (CSM). Committees relevant to the IT sector are CSM 03-Mercosur Sectorial Committee on

⁷ See <<http://www.infoconsumo.gov.br/qualidade/rtac/compulsorios.asp>>.

⁸ To be granted with a Voluntary Certification companies have to decide to voluntarily apply for a certification made by a regulatory agency previously acknowledged by INMETRO. Importers have to submit Import License to INMETRO together with the conformity certificate to one of the entities accredited by INMETRO in Brazil.

⁹ INMETRO. Available at: <<http://www.inmetro.gov.br/legislacao/rtac/pdf/RTAC002298.pdf>>.

¹⁰ INMETRO. Available at: <<http://www.inmetro.gov.br/legislacao/rtac/pdf/RTAC001808.pdf>>.

¹¹ INMETRO. Available at: <<http://www.abinee.org.br/informac/arquivos/po48.pdf>>.

Electronic and Telecommunication; CSM 27 - Mercosur Sectorial Committee on Quality of Software; and CSM 28 – Mercosur Sectorial Committee on Information Security. Those committees have adopted some standards on IT goods, usually based on ISO/IEC standards. The table below illustrates standards approved by CSM 27 and CSM 28.

Table 9 - Standards approved by the Committees

CSM 27 - Mercosur Sectorial Committee on Quality of Software	
Standard	Content
NM ISO/IEC 14598-4:2009	Software engineering - Product evaluation - Part 4: Process for acquirers
NM ISO/IEC 14598-5:2010	Information technology - Software product evaluation - Part 5: Process for evaluators
NM ISO/IEC 14598-6:2010	Software engineering - Product evaluation - Part 6: Documentation of evaluation modules
NM ISO/IEC 20000-2:2009	Information technology - Service management - Part 2: Code of practice
NM ISO/IEC 09126-1:2008	Software engineering - Product quality - Part 1: Quality model
NM ISO/IEC 14598-1:2008	Information technology - Software product evaluation - Part 1: General overview
NM ISO/IEC 14598-2:2008	Software engineering - Product evaluation - Part 2: Planning and management
NM ISO/IEC 14598-3:2008	Software engineering - Product evaluation - Part 3: Process for developers
NM ISO IEC 12207:2013	Systems and software engineering - Software life cycle processes
NM ISO/IEC 20000-1:2014 2Ed	Information technology - Service management - Part 1: Service management system requirements
CSM 28 – Mercosur Sectorial Committee on Information Security	
Standard	Content
NM ISO/IEC 27005:2009	Information technology - Security techniques - Information security risk management
NM ISO/IEC 27002:2008	Information technology - Security techniques - Code of practice for information security management
NM ISO/IEC 27001:2008	Information technology - Security techniques - Information security management systems – Requirements

Source: Mercosur. Prepared by CCGI-EESP/FGV.

AMN also analyzes standards that can be incorporated and applied in Mercosur. The following table presents standards under study in AMN.

Table 10 - Standards under study in Mercosur Association for Standardization¹²

Mercosur Sectorial Committee on Electronic and Telecommunication
Basic interface between data communication equipment (ECD) and the public telephone network, for speeds up to 2000 bit/.
Security of household electronic products.
Sealed and unsealed air sealing set. Requirements specification.
Unbalanced interconnection circuit for signal transmission speed of up to 100 kbit / s.
Balanced interconnection circuit for data signal transmission speed up to 10 mbit / s.
Unbalanced interconnection circuit for data signal transmission speed of up to 20000 bit / s.
Interconnection circuit between data terminal equipment (DTE) and data communication equipment
External network terminal block. Requirements specification.
Internal subscriber network terminal block. Requirements specification.
Terminal block for general distributor. Requirements specification.
Mercosur Sectorial Committee on Quality of Software
Product quality - External measures
Product quality - Internal measures
Quality of the product - Quality measures in use
Software Engineering - Life cycle profiles for micro-organizations (VSEs) - Part 2: Structure and taxonomy
Mercosur Sectorial Committee on Information Security
Information technology - Security techniques - Information Security Management Systems (ISMS) - Overview and vocabulary

Source: AMN. Prepared by CCGI-EESP/FGV.

Brazil has also signed agreements (understandings) on IT with third parties that lay the foundation for further cooperation¹³. These agreements are on the table below.

¹² For more details see: <<https://www.amn.org.br/Paginas/Paginas/3?url=Comites-Setoriais>>. Accessed on: Mar 9th, 2017.

¹³ For more details: <<http://dai-mre.serpro.gov.br/>>.

Table 11 - International Agreements on Information Technology

Title of the agreement	Subject	Status
Complementary Adjustment to the Basic Agreement for Technical and Scientific Cooperation between the Government of the Federative Republic of Brazil and the Government of the United Mexican States for the Implementation of the Project "Training in Tourism, Hospitality, Health and Informatics Areas"	Technical and Scientific Cooperation	In force
Complementary Adjustment to the Agreement of Scientific, Technical and Technological Cooperation between Brazil and Morocco for the Implementation of the Training Project in the Basic Computer Science for the Blind People	Informatics	In force
Complementary Adjustment of Scientific and Technological Cooperation, in the Field of Informatics and Computers.	Cooperation	Pending
Complementary Adjustment to the Agreement on Scientific and Technological Cooperation, dated 05/17/80, on Informatics.	Communication	In force
Franco-Brazilian Cooperation Agreement in the Field of Informatics	Cooperation	In force

Source: MRE. Prepared by CCGI-EESP/FGV.

6. MAIN GOVERNMENTAL AND PRIVATE ACTORS IN THE SECTOR

Main government actors involved with the IT sector are: (1) Ministry of Industry, Trade and Services - SECEX (Trade) and SDCI (Sector Policies); (2) MCTI - Ministry of Science, Innovation and Technology; and (3) INMETRO - Coordination of International Negotiation (WTO/TBT Focal Point).

Main private actors involved with the IT sector are: (1) Brazilian Association of Standardization (ABNT); (2) National Confederation of Industry (CNI); (3) São Paulo Federation of the Industries (FIESP); (4) Brazilian Association of Electric-Electronic Industry (ABINEE); and (5) BRASSCOM – Brazilian Association of the Information Technology and Communication Industry.