

# Sécurité de l'information dans les TICs

## Travaux normatifs en cours

ILNAS / ANEC  
Etat des lieux normatif national des TIC - Focus sur la sécurité de l'information  
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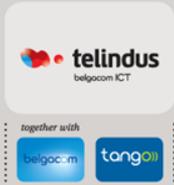
belgacom

tango



# Etat des lieux normatif national des TIC

## *Focus sur la sécurité de l'information*



- La gestion de l'information est un enjeu stratégique pour toute entreprise
  - Permet d'assurer la pérennité des entreprises dans un environnement de plus en plus dématérialisé
- La maîtrise des risques en sécurité de l'information peut être supporté par des normes et codes de bonnes pratiques
  - Conçues et développées par des experts répartis à travers le monde par consensus
  - Approuvées par des organismes de normalisation indépendants
  - Documents de références dans le secteur des Technologies de l'Information et de la Communication
- ISO a mis en œuvre un comité dédié aux techniques de sécurité des technologies de l'information
  - Créer des normes pour faciliter et accompagner les entreprises dans la gestion de la sécurité de leur patrimoine informationnel

De ISO  
À ISO/IEC JTC1 SC27 *IT Security Techniques*

Des travaux normatifs pour la sécurité de  
l'information

Le SC27 en une planche

# La sécurité de l'information selon l'ISO

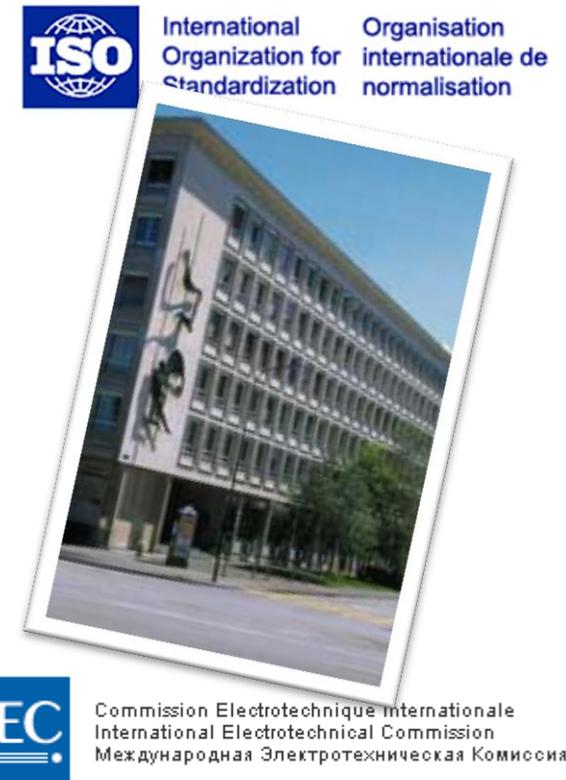
*De ISO à ISO/IEC JTC1 SC27*

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# La sécurité de l'information au sein de l'ISO

## De ISO à ISO/IEC JTC1 SC27

- **ISO/IEC**
  - ISO : International Standardisation Organisation
  - IEC : International Electrotechnical Commission
- **JTC1**
  - Joint Technical Committee #1
    - *Information Technology*
- **SC27**
  - Subcommittee #27
    - *IT Security Techniques*
  - 22 ans



# La sécurité de l'information au sein de l'ISO

## De ISO à ISO/IEC JTC1 SC27

# ISO

TC1

TC2

...

(ISO/IEC)  
JTC1

JTC2

SWGs

AHGs

WGs

SCs

SC2

...

SC27

...

SC39

# La sécurité de l'information au sein de l'ISO

## De ISO à ISO/IEC JTC1 SC27

JTC 1/SC 2	Coded character sets
JTC 1/SC 6	Telecommunications and information exchange between systems
JTC 1/SC 7	Software and systems engineering
JTC 1/SC 17	Cards and personal identification
JTC 1/SC 22	Programming languages, their environments and system software interfaces
JTC 1/SC 23	Digitally Recorded Media for Information Interchange and Storage
JTC 1/SC 24	Computer graphics, image processing and environmental data representation
JTC 1/SC 25	Interconnection of information technology equipment
JTC 1/SC 27	IT Security techniques
JTC 1/SC 28	Office equipment
JTC 1/SC 29	Coding of audio, picture, multimedia and hypermedia information
JTC 1/SC 31	Automatic identification and data capture techniques
JTC 1/SC 32	Data management and interchange
JTC 1/SC 34	Document description and processing languages
JTC 1/SC 35	User interfaces
JTC 1/SC 36	Information technology for learning, education and training
JTC 1/SC 37	Biometrics
JTC 1/SC 38	Distributed application platforms and services (DAPS)
JTC 1/SC 39	Sustainability for and by Information Technology

(ISO/IEC)  
JTC1

JTC2

SCs

SC2

...

SC27

...

SC39

# ISO/IEC JTC1 SC27

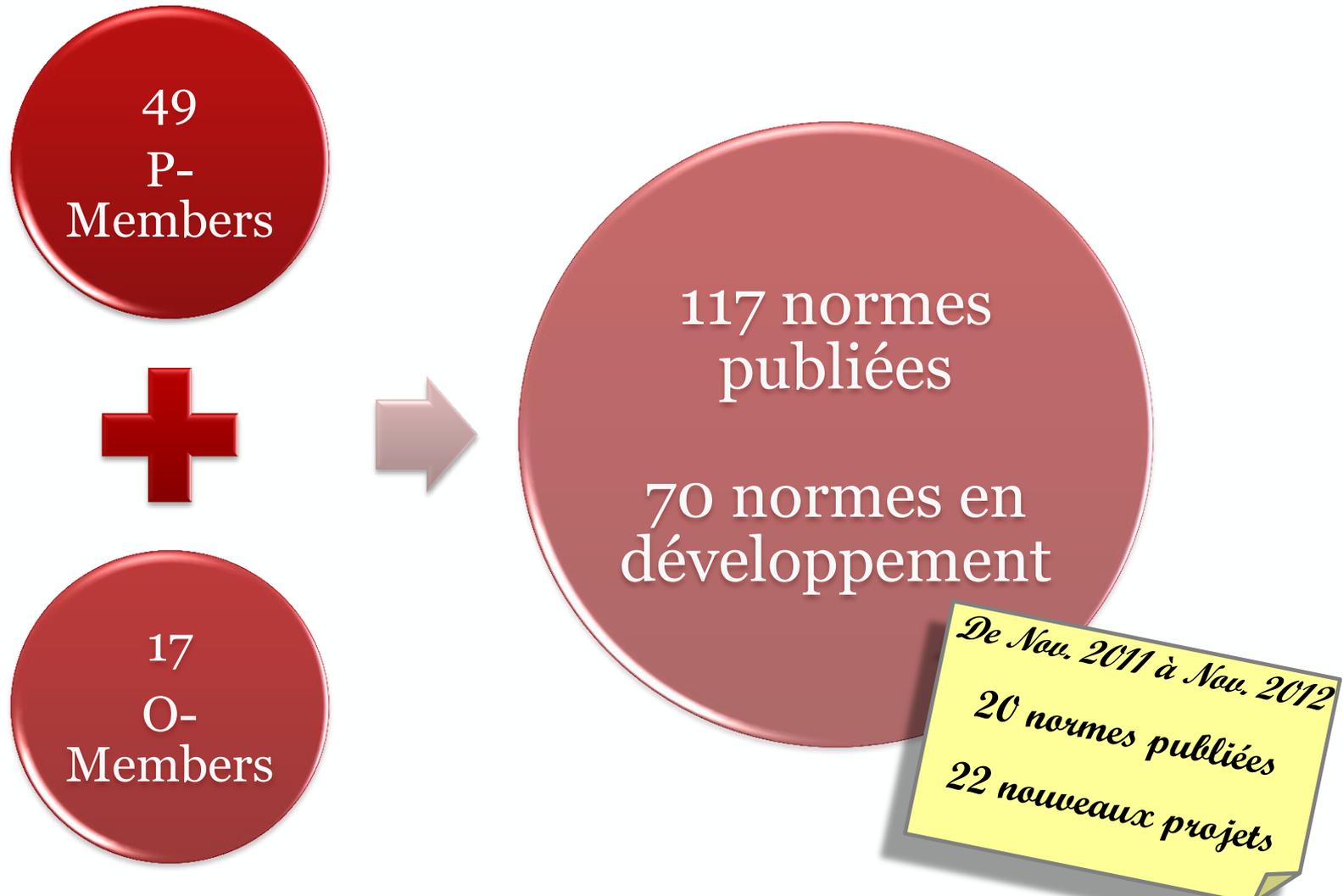
## IT Security Techniques

- Reconnu comme **pôle d'information et d'expertise en normalisation** de la **sécurité IT / information**
- Sert les besoins des **secteurs privés et publics**
- Couvre le développement de normes pour la protection de l'information et des TICs
  - **Méthodes génériques, techniques et lignes directrices**
  - Considère les aspects **security** et **privacy**



# La sécurité de l'information au sein de l'ISO

## ISO/IEC JTC1 SC27 – IT Security Techniques



# SC27

WG1

WG2

WG3

WG4

WG5

Information  
security  
management  
systems

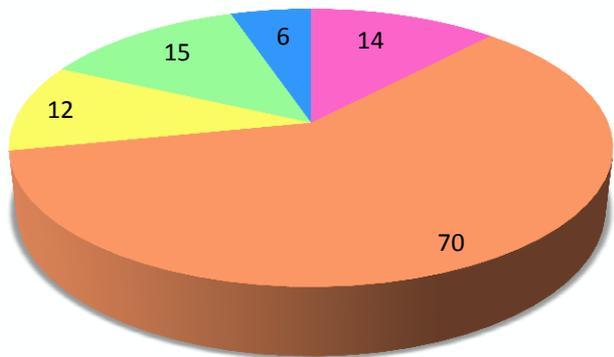
Cryptography  
and security  
mechanisms

Security  
evaluation,  
testing and  
specification

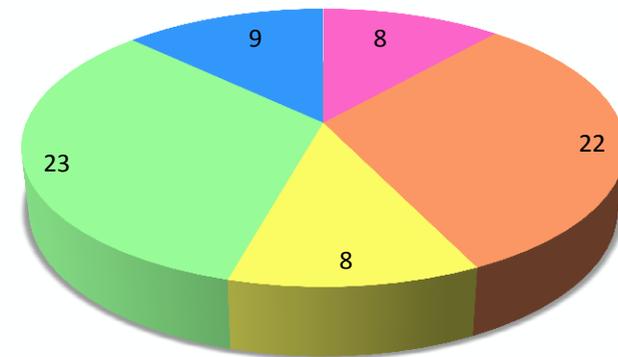
Security  
controls and  
services

Identity  
management  
and privacy  
technologies

### 117 normes publiées



### 70 normes en développement



- WG1
- WG2
- WG3
- WG4
- WG5

# ISO/IEC JTC1 SC27

## IT Security Techniques

- 2 sessions annuelles
  - Avril / Mai
    - Session plénière
  - Octobre / Novembre
- 5 jours / session  
+ 2 jours pour la plénière
- Sessions à travers le monde
  - 2012
    - Mai : Stockholm (SU)
    - Octobre : Rome (IT)
  - 2013
    - Avril : Sophia Antipolis (FR)
    - Octobre : Songdo (KO)
  - 2014
    - Avril : Hong Kong (CN)
    - Octobre : *tba*



# ISO/IEC JTC1 SC27

## *IT Security Techniques*

- Les documents normatifs sont habituellement payants...
  - SD6 *Glossary of IT Security terminology*
    - <http://www.jtc1sc27.din.de/sbe/SD6>
  - SD7 *Catalogue of SC 27 Projects and Standards*
    - <http://www.jtc1sc27.din.de/sbe/SD7>
  - SD11 *Overview of SC 27*
    - <http://www.jtc1sc27.din.de/sbe/SD11>
  - SD12 *Assessment of cryptographic algorithms and key lengths*
    - <http://www.jtc1sc27.din.de/sbe/SD12>
  - WG5 SD2 *Part 1: Privacy References List*
    - <http://www.jtc1sc27.din.de/sbe/wg5SD2-1>
  - ISO/IEC 27000:2009 *ISMS Overview and Vocabulary*
    - <http://standards.iso.org/ittf/PubliclyAvailableStandards/>



# Des travaux normatifs pour la sécurité de l'information

*Information security management systems*

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# SC27

WG1

WG2

WG3

WG4

WG5

Information  
security  
management  
systems

Cryptography  
and security  
mechanisms

Security  
evaluation,  
testing and  
specification

Security  
controls and  
services

Identity  
management  
and privacy  
technologies

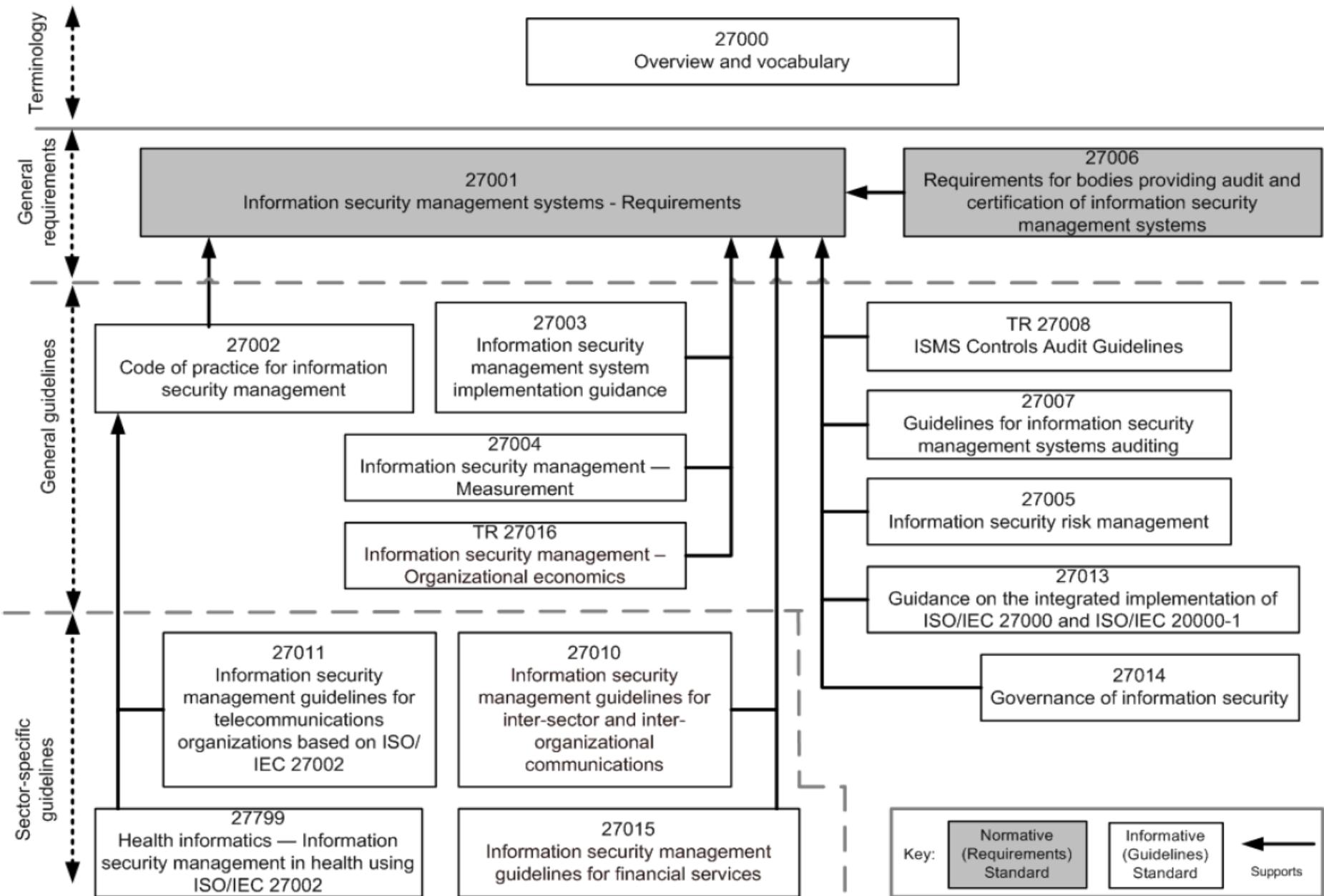
# Information Security Management Systems are everywhere!



# WG1 : Information security management systems



- Couvrir tous les aspects de normalisation en lien avec les **systemes de management de la sécurité de l'information** (SMSI)
  - *Requirements*
  - *Methods and processes*
  - *Security controls*
  - *Sector and application specific use of ISMS*
  - *Accreditation, certification, auditing of ISMS*
  - *Governance*
  - *Information security economics*



# WG1 : Information security management systems

Current version	2	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
Under revision?	✓	✓	✓	✓	✓		✓													
IS / TR																				
FDIS / DTR																				
DIS / PDTR																				
CD																				
WD																				
PD																				
NWIP																				
SP																				
	27000	27001	27002	27003	27004	27005	27006	27007	27008	27009	27010	27011	27012	27013	27014	27015	27016	27017	27018	27019

*Statut en sortie de la réunion SC27 de Rome (2012-10)*

# WG1 : Information security management systems

## *Projets publiés*

### • ISMS

- 2005
  - Requirements [27001]
  - Code of practice for information security management [27002]
- 2009
  - Overview and vocabulary [27000]
  - Measurement [27004]
- 2010
  - ISMS implementation guidance [27003]
- 2011
  - Information security risk management [27005]
  - Requirements for bodies providing audit and certification of information security management systems [27006]
  - Guidelines for information security management systems auditing [27007]
  - Guidelines for auditors on information security controls [27008]



### • Secteur spécifique

- 2008
  - Information security management guidelines for telecommunications organizations based on 27002 [27011]
- 2012
  - Information security management for inter-sector and inter-organizational communications [27010]
  - Guidance on the integrated implementation of 27001 and 20000-1 [27013]

### • Hors scope ISMS

- 2002
  - Guidelines for the use and management of Trusted Third Party services [14516]
  - Security information objects for access control [15816]

# WG1 : Information security management systems

## *Principaux projets en développement*



### • Résolution de publication

- Overview and Vocabulary (2<sup>ème</sup> édition) [27000]
- Information security management guidelines for financial services (1<sup>ère</sup> édition) [TR 27015]



### • Promotion en DIS

- Requirements [27001]
- Code of practice for information security controls [27002]

### • Promotion en DTR / PTDR

- Organizational economics [27016]
- Smart Grid / Information security management guidelines based on ISO/IEC 27002 for process control systems specific to the energy industry [27019]

# WG1 : Information security management systems

## *Principaux projets en développement (suite)*



### • Début de révision

- Information security measurements [27004]
- Information security management system implementation guidance [27003]
- Overview and Vocabulary [27000]



### • En élaboration

- Guidelines on information security controls for the use of cloud computing services based on ISO/IEC 27002 (security) [27017]
- Code of practice for data protection controls for public cloud computing services (privacy) [27018]

### • SP

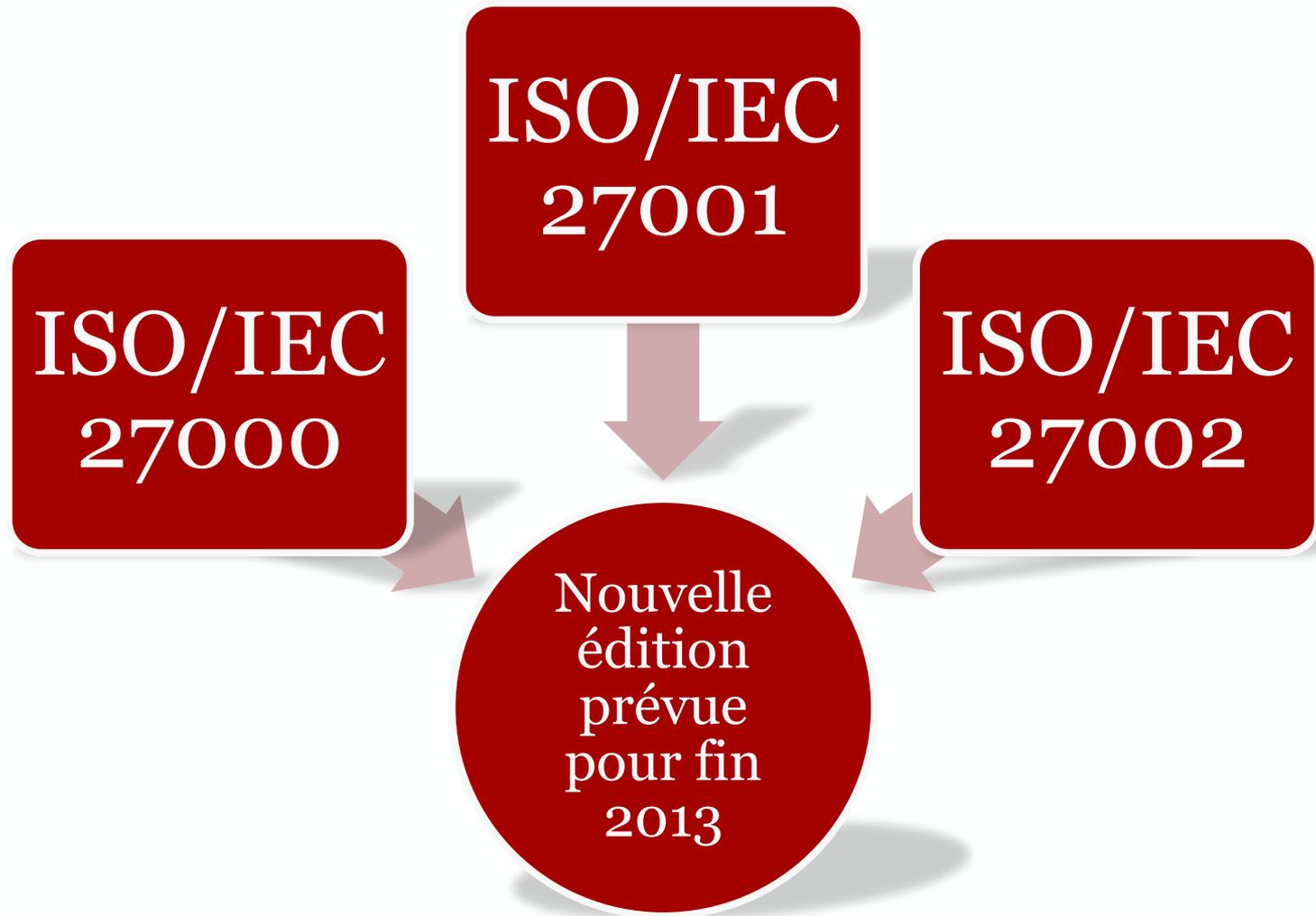
- Capability Maturity Framework for Information Security Management
- Privacy / Personal Information Management Systems (PIMS)
- Cloud computing security and privacy
- Information Security within Smart Grid Environments
- Adjustment of 27000 Vocabulary to align with 27001/2 Revision
- International Certification of Information Security Management Specialists
- Vocabulary Editing Document 2012-11-21

### • NWIP

- Use of ISO/IEC 27001 for Sector-Service Specific Third Party Accredited Certifications

# WG1 : Information security management systems

## *Principaux projets en développement (suite)*



# ISO/IEC 27000

## *Information Security Management Systems - Overview and Vocabulary*

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# ISO/IEC 27000

## Overview and Vocabulary



- **2005** : publication de la 27001 et 27002
- **Très rapidement** : Nécessité de développer un vocabulaire commun et harmonisé autour de l'ISMS
- **2009** : 1<sup>ère</sup> édition ISO/IEC 27000
- **2010** : décision de révision pour s'aligner avec les travaux de révision de 27001 et 27002
  - Centraliser les termes et définitions dans la seule 27000
- **Octobre 2012** : Promotion en FDIS
  - SU seul pays opposé (16 commentaires transmis)

# ISO/IEC 27000

## 2009 vs 2012



- Définitions inchangées
  - *Information Security*
  - *Information Security Management System*
  - *Asset*
  - *Confidentiality / Integrity / Availability*
  - *Threat*
  - *Vulnerability (exploitation of one or more threats)*
- Suppression de définitions
  - *Information Security Risk*
  - *Information Asset*
- Ajout de définitions en lien avec la qualité / ISO 9000:2005
  - *Management*
  - *Validation*
  - *Verification*
- Modification de définitions
  - *Guideline (description that clarifies what should be done and how)*
  - *Non-repidation (simplification)*
- Suppression de l'Annex B (*Categorized Terms*),
- Mise à jour de la description et relations des normes de la famille 27000
- Approche plus globale de la gestion du risque
  - *Alignement sur le Guide 73:2009 Risk management – Vocabulary*

# ISO/IEC 27000

## 2009 vs 2012

- Définition du **risque**
  - Guide 73:2002 *vs* Guide 73:2009

### ISO/IEC 27000:2009

Combination of the probability of an event and its consequence

### ISO/IEC 27000:2012

Effect of uncertainty on objectives

NOTE 1 An effect is a deviation from the expected — positive and/or negative.

NOTE 2 Objectives can have different aspects (such as financial, health and safety, information security, and environmental goals) and can apply at different levels (such as strategic, organisation-wide, project, product and process).

NOTE 3 Risk is often characterized by reference to potential events (2.24) and consequences (2.15), or a combination of these.

NOTE 4 Information security risk is often expressed in terms of a combination of the consequences of an information security event and the associated likelihood (2.40) of occurrence.

NOTE 5 Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence, or likelihood.

NOTE 6 Information security risk is associated with the potential that threats will exploit vulnerabilities of an information asset or group of information assets and thereby cause harm to an organisation

# ISO/IEC 27001

## *Information Security Management Systems - Requirements*

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# ISO/IEC 27001

## Information Security Management Systems - Requirements

- 1999 : BS7799-2
- Octobre 2005 : 1<sup>ère</sup> édition ISO/IEC 27001

- Octobre 2008 : Décision de révision

- Octobre 2012 : Promotion en DIS

- Oppositions

- Approche (trop) globale du risque

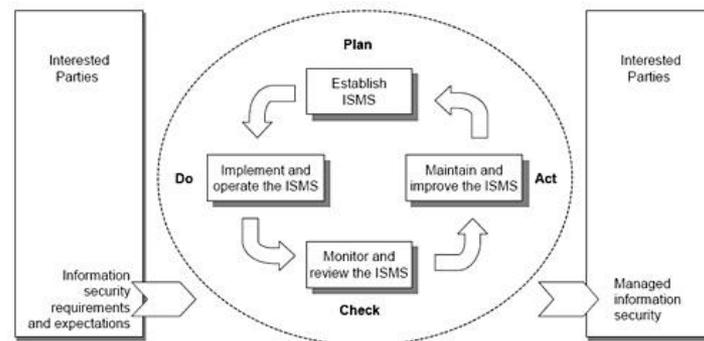
- Allocation des éléments en lien avec le risque pas suffisamment bien gérée (sections 6 et 8) [FI]
- Perte d'exigences sur l'identification des risques, assets, menaces, vulnérabilités (report à une approche globale) [JP]

- Amélioration (non) continue / Risque de confusion

- Risque de confusion pour les 8000+ organisations certifiées dans le monde... [JP]
- Non amélioration de la version en vigueur [AU, PL, NZ]
- Ne va pas dans l'intérêt des utilisateurs actuels et futurs [AU, PL, NZ]

- Mise en œuvre

- Texte générique perdant les clarifications et spécificités du domaine de la sécurité de l'information (perte de la présentation par processus) [JP]
- Assignation de responsabilités fortes au top-management [AU, PL]
- Comparaison avec les contrôles de l'annexe A alourdissant la démarche [FI]



# ISO/IEC 27001

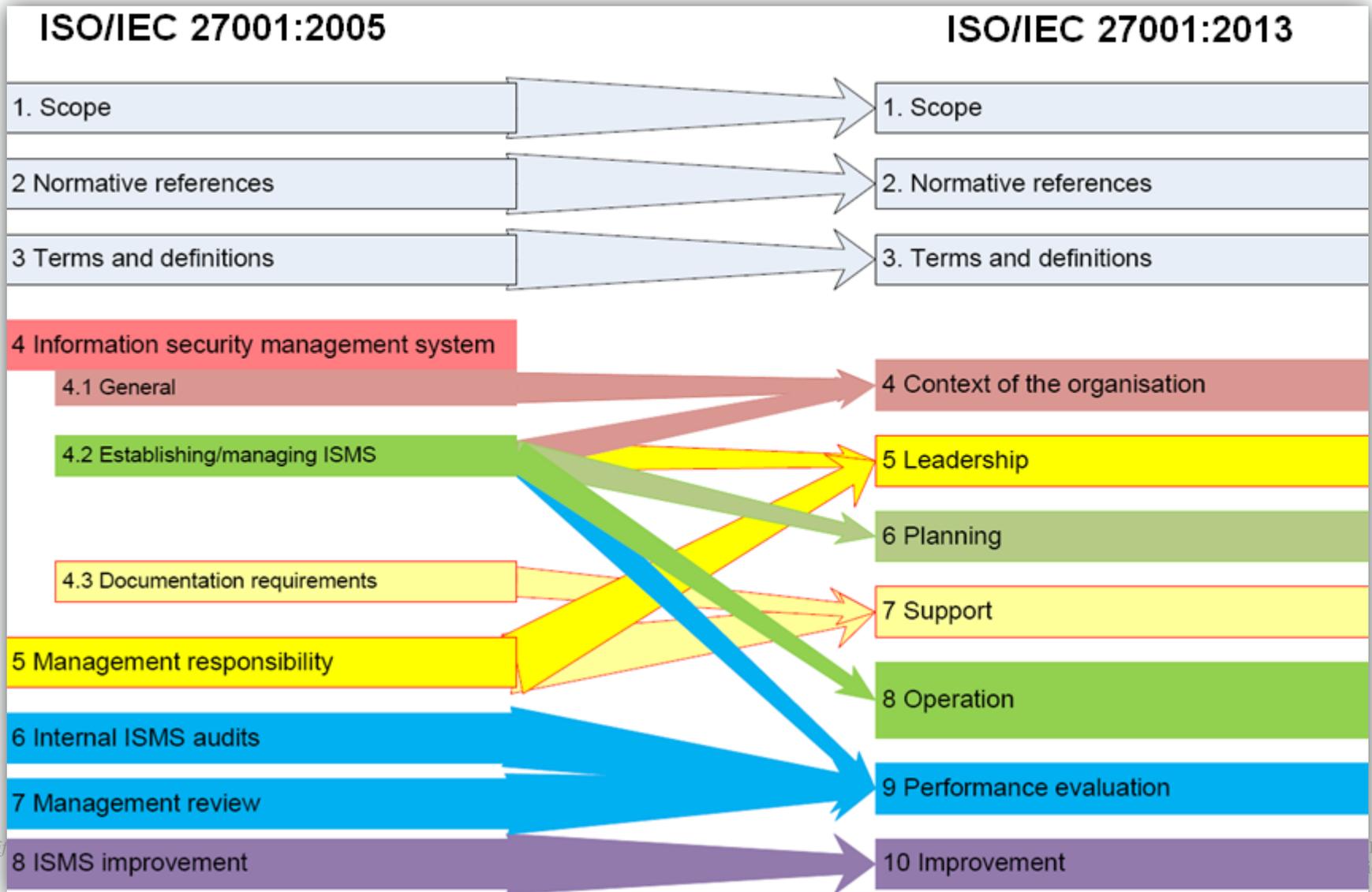
## 2005 vs 2013



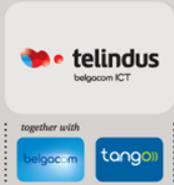
- **Approche du risque plus globale**
  - Prédominance marquée
    - ISO 31000:2009 *Risk management -- Principles and guidelines*
    - ISO Guide 73:2009 *Risk management – Vocabulary*
    - Adaptation de la ISO/IEC 27005 en conséquence
  - + norme plus globale
  - perte des spécificités de la sécurité de l'information
- **Changement de structure**
  - Décision ISO d'avoir une structure commune à tous les systèmes de management
- **Annexe A**
  - Sera ré-intégrée une fois ISO/IEC 27002 finalisée
  - Utilisation similaire en combinaison du SoA mais nécessité d'effectuer une comparaison des contrôles choisis avec Annex A
- **Termes et définitions**
  - Suppression des définitions
  - Alignement du contenu sur celles de ISO/IEC 27000
- **Positionnement de ISO/IEC 27001**
  - Norme d'exigences
    - Ne doit contenir que des exigences
    - Pas de lignes directrices / guidances ou explications sur la manière de mettre en œuvre les exigences
  - Retrait de tous les éléments non spécifiques à des exigences pour déplacer les guidances / lignes directrices vers les autres normes de la famille (27003, 27005)
  - Alignement des guidances / lignes directrices sur la 27001 et non l'inverse

# ISO/IEC 27001

## 2005 vs 2013



# Modèles de certification selon ISO/IEC 27001



Domaines	Processus ISMS	Mesures de sécurité	Mesures de sécurité sectorielles
Information Security	ISO/IEC 27001	ISO/IEC 27001 Annex A	<i>none</i>
Privacy / Personal information	ISO/IEC 27001	ISO/IEC 27001 Annex A	PIMS
Telecommunication	ISO/IEC 27001	ISO/IEC 27001 Annex A	ISO/IEC 27011
Finance	ISO/IEC 27001	ISO/IEC 27001 Annex A	ISO/IEC 27015
Smart Grid	ISO/IEC 27001	ISO/IEC 27001 Annex A	ISO/IEC 27019
Information Security for Cloud Computing consumers	ISO/IEC 27001	ISO/IEC 27001 Annex A	ISO/IEC 27017
Privacy for Cloud Computing providers	ISO/IEC 27001	ISO/IEC 27001 Annex A	ISO/IEC 27018 (& PIMS)

# ISO/IEC 27002

## *Code of practice for information security controls*

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# ISO/IEC 27002

## Code of practice for information security controls

- 1995 – 1998 : BS7799-1
- Décembre 2000 : 1<sup>ère</sup> édition ISO/IEC 17799
- Juillet 2005 : 2<sup>ème</sup> édition ISO/IEC 17799
- Juillet 2007 : nouvelle numérotation pour ISO/IEC 27002
- Octobre 2008 : Décision de révision
- Octobre 2012 : Promotion en DIS
  - JP opposée à la promotion en DIS
    - *De très nombreux commentaires sur la norme, dont de nombreux au cours de la session de Rome mériteraient plus de réflexion quant à leur adoption*
    - *Souhait d'un 2<sup>nd</sup> CD au lieu d'une promotion directe en DIS*



# ISO/IEC 27002

## 2005 vs 2013

<i>Security clauses</i>	<i>ISO/IEC 27002:2005</i>		<i>3rd revision of 27002 (DIS)</i>	
	<i>Security Categories</i>	<i>Security Controls</i>	<i>Security Categories</i>	<i>Security Controls</i>
<b>Security policy</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>
<b>Organization of information security</b>	<b>2</b>	<b>11</b>	<b>1</b>	<b>7</b>
<b>Asset management</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>6</b>
<b>Human resources security</b>	<b>3</b>	<b>9</b>	<b>3</b>	<b>10</b>
<b>Physical and environmental security</b>	<b>2</b>	<b>13</b>	<b>2</b>	<b>13</b>
<b>Supplier relationship management</b>	<b>none</b>	<b>none</b>	<b>3</b>	<b>5</b>
<b>Communications and operations management</b>	<b>10</b>	<b>32</b>	<b>10</b>	<b>25</b>
<b>Management of application services on networks</b>	<b>none</b>	<b>none</b>	<b>1</b>	<b>2</b>
<b>Access control</b>	<b>7</b>	<b>25</b>	<b>4</b>	<b>13</b>
<b>Information systems, acquisition, development and maintenance</b>	<b>6</b>	<b>16</b>	<b>4</b>	<b>14</b>
<b>Information security incident management</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>7</b>
<b>Business continuity management</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>5</b>
<b>Compliance</b>	<b>3</b>	<b>10</b>	<b>3</b>	<b>9</b>
<b>TOTAL</b>	<b>39</b>	<b>133</b>	<b>36</b>	<b>118</b>
<b>TOTAL Security Clauses</b>	<b>11</b>		<b>13</b>	

# Des travaux normatifs pour la sécurité de l'information

*Cryptography and security*

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# SC27

WG1

WG2

WG3

WG4

WG5

Information  
security  
management  
systems

**Cryptography  
and security  
mechanisms**

Security  
evaluation,  
testing and  
specification

Security  
controls and  
services

Identity  
management  
and privacy  
technologies

# WG2 : Cryptography and security mechanisms



- Identification des **besoins** et **exigences** pour les **techniques et mécanismes de cryptographie** dans les systèmes et applications
- Développement de la **terminologie, les modèles généraux** et normes pour leur **utilisation dans des services de sécurité**
- Techniques et mécanismes cryptographiques / non-cryptographiques pour
  - Confidentialité
  - Intégrité
    - Authentification des messages
    - Fonctions de hash
    - Signature numérique
  - Authentification des parties
  - Non-répudiation
  - Gestion des clés

# WG2 : Cryptography and security mechanisms

- **Domaine (très) technique**
  - *CD 11770-3 : Key management — Part 3: Mechanisms using asymmetric techniques*

**Key token construction (A1)** Entity  $A$  randomly and secretly generates  $r_A$  in  $H$ , computes  $F(r_A, g)$ , constructs the key token  $KT_{A1} = F(r_A, g)$ , and sends it to entity  $B$ .

**Key construction (B1)** Entity  $B$  randomly and secretly generates  $r_B$  in  $H$ , computes  $F(r_B, g)$ , and constructs the key token  $KT_{B1} = F(r_B, g)$ .

Entity  $B$  computes the shared secret key as

$$K_{AB} = ((r_B + \pi(KT_{B1})h_B) \cdot I)(j \cdot (KT_{A1} + \pi(KT_{A1})p_A)).$$

Entity  $B$  then computes the key  $K = \text{kdf}(K_{AB})$ . Entity  $B$  further constructs  $\text{MAC}_K(2 || KT_{A1} || KT_{B1})$ ,

where 0x02 is the message number, and sends  $KT_{B1}$  and  $\text{MAC}_K(2 || KT_{A1} || KT_{B1})$  to entity  $A$ .

**Key construction (A2)** Entity  $A$  computes the shared secret key as

$$K_{AB} = ((r_A + \pi(KT_{A1})h_A) \cdot I)(j \cdot (KT_{B1} + \pi(KT_{B1})p_B)).$$

Entity  $A$  computes the key  $K = \text{kdf}(K_{AB})$ . Entity  $A$  computes  $\text{MAC}_K(2 || KT_{A1} || KT_{B1})$  and verifies what was sent by entity  $B$ . Entity  $A$  then computes  $\text{MAC}_K(3 || KT_{A1} || KT_{B1})$ ,

where 0x03 is the message number, and sends it to entity  $B$ .

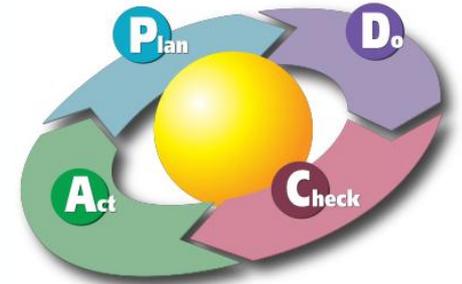
**Verification (B2)** Entity  $B$  computes  $\text{MAC}_K(3 || KT_{A1} || KT_{B1})$  and verifies entity  $A$ .

# WG2 : Cryptography and security mechanisms

## Statut

- **Domaine (très) technique**

- Key management [11770]
- Time-stamping services [18014]
- Encryption algorithms [18033]
- Anonymous digital signatures [20008]
- Anonymous entity authentication [20009]
- ...



- **Amélioration continue** (*Systematic Review et Technical Corrigendum*)

- Entity authentication - Part 2: Mechanisms using asymmetric encipherment algorithms [IS 9798-2:2008]
- Non-répudiation -- Partie 2: Mechanisms using symmetric techniques [IS 13888-2:2010]
- Cryptographic techniques based on elliptic curves - Part 5: Elliptic curve generation [IS 15946-5:2009]
- ...

- **Nouveaux projets**

- Cryptographic algorithms and security mechanisms conformance testing [NP 18367]
- Blind digital signatures [NP 18370]
- Password-based anonymous entity authentication [NWIP]
- Lightweight hash-functions [NWIP]
- Criteria for the standardization of encryption algorithms [NWIP]

- **Volonté d'harmonisation du vocabulaire**

- Harmonized vocabulary (2nd edition) [SD3]

# Des travaux normatifs pour la sécurité de l'information

*Security evaluation, testing and specification*

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# SC27

WG1

WG2

WG3

WG4

WG5

Information  
security  
management  
systems

Cryptography  
and security  
mechanisms

Security  
evaluation,  
testing and  
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Security  
controls and  
services

Identity  
management  
and privacy  
technologies

# WG3 : Security evaluation, testing and specification



- Ingénierie de la sécurité, normalisation des **spécifications** en sécurité, **évaluation**, **test** et **certification** des systèmes, composants et produits
  - Critères d'évaluation de la sécurité
  - Méthodologie d'application de ces critères
  - Sécurité fonctionnelle et assurance de la spécification des systèmes, composants et produits
  - Méthodologie de test pour la détermination de la sécurité fonctionnelle, conformité et assurance
  - Procédures et schémas pour tests, évaluations, certifications et accréditations

# WG3 : Security evaluation, testing and specification

## Statut

- Principaux projets publiés
  - Evaluation criteria for IT security [15408] [Common Criteria]
    - Part 1: Introduction and general model
    - Part 2: Security functional components
    - Part 3: Security assurance components
  - Trusted Platform Module [11889]
    - Part 1: Overview
    - Part 2: Design principles
    - Part 3: Structures
    - Part 4: Commands
  - A framework for IT security assurance [15443]
    - Part 1: Overview and framework
    - Part 2: Assurance methods
    - Part 3: Analysis of assurance methods (under revision)
  - Guide for the production of Protection Profiles and Security Targets [15446]
  - Methodology for IT security evaluation [18045]
  - Systems Security Engineering -- Capability Maturity Model® (SSE-CMM®) [21827]
  - Refining software vulnerability analysis under 15408 and 18045 [20004]
    - **Seul projet publié en 2012**



# WG3 : Security evaluation, testing and specification

## Statut (suite)



- Promotion en DIS
  - Vulnerability disclosure [29147]
  - Vulnerability handling processes [30111]
- Principaux projets en développement
  - Detailing software penetration testing under 15408 and 18045 vulnerability analysis [30127]
  - Physical Security Attacks, Mitigation Techniques and Security Requirements [30104]
  - Secure system engineering principles and techniques [29193]
  - Security assurance framework [15443] (révision)
    - Part 1: Introduction and concepts
    - Part 2: Analysis



# Des travaux normatifs pour la sécurité de l'information

*Security controls and services*

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# SC27

WG1

WG2

WG3

WG4

WG5

Information  
security  
management  
systems

Cryptography  
and security  
mechanisms

Security  
evaluation,  
testing and  
specification

Security  
controls and  
services

Identity  
management  
and privacy  
technologies

- **Accompagnement dans la mise en œuvre de la série ISO/IEC 27000**
- **Considération des problèmes de sécurité existants / émergents qui pourraient résulter de l'augmentation de l'usage des TICs et les technologies en lien avec Internet**

# WG4 : Security controls and services

## *Nombreuses liaisons avec l'industrie*

- Cloud Computing Security & Information security for supplier relationships
  - Cloud Security Alliance (CSA)
  - ISACA
  - EuroCloud
  - ISF
  - JTC1 SC38
- Governance & Information security for supplier relationships
  - ISACA
- IT Security management
  - (ISC)<sup>2</sup>
- Smart Grid Security
  - ENISA
- Information security incident management & Digital evidence
  - FIRST
  - INTERPOL
- Governance of digital forensic risk framework
  - JTC1 SC7
- Storage Security





# 27033 Network Security

Overview and  
concepts  
(2009)

Guidelines for  
the design and  
implementation  
of network  
security  
(2012)

Reference  
networking  
scenarios --  
Threats, design  
techniques and  
control issues  
(2010)

Securing  
communications  
between  
networks using  
security  
gateways

Securing  
communications  
across networks  
using Virtual  
Private Network  
(VPNs)

Securing  
wireless IP  
network access

# 27034

# Application security

Overview  
and concepts

(2011)  
(Technical  
Corrigenda en  
2012)

Organization  
normative  
framework

Application  
security  
management  
process

Application  
security  
validation

Protocols  
and  
application  
security  
controls data  
structure

Security  
guidance for  
specific  
applications

# 27035 Information security incident management (2011)

Principles of  
incident  
management

Guidelines to  
plan and  
prepare for  
incident  
response

Guidelines  
for CSIRT  
operations

# Gérer les incidents de sécurité

telindus  
belgacom ICT

together with  
belgacom tangoo



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère d'Etat - Cyber Security Board

The screenshot shows a Microsoft Internet Explorer browser window displaying the Luxembourg CERT/CSIRT portal. The browser's address bar shows the URL <http://www.cert.lu/>. The page header features the Luxembourg coat of arms and the text "THE Luxembourg CERT/CSIRT PORTAL". Below the header, there are three main sections, each with a logo and a "CONTACT" button:

- Governmental CERT/CSIRT:** LE GOUVERNEMENT DU GRAND-DUCHÉ DE LUXEMBOURG, Ministère d'État - CERT Gouvernemental.
- National CERT/CSIRT:** CIRCL Computer Incident Response Center Luxembourg.
- Education/NREN CERT/CSIRT:** RESTENA - CSIRT Computer Security Incident Response Team.

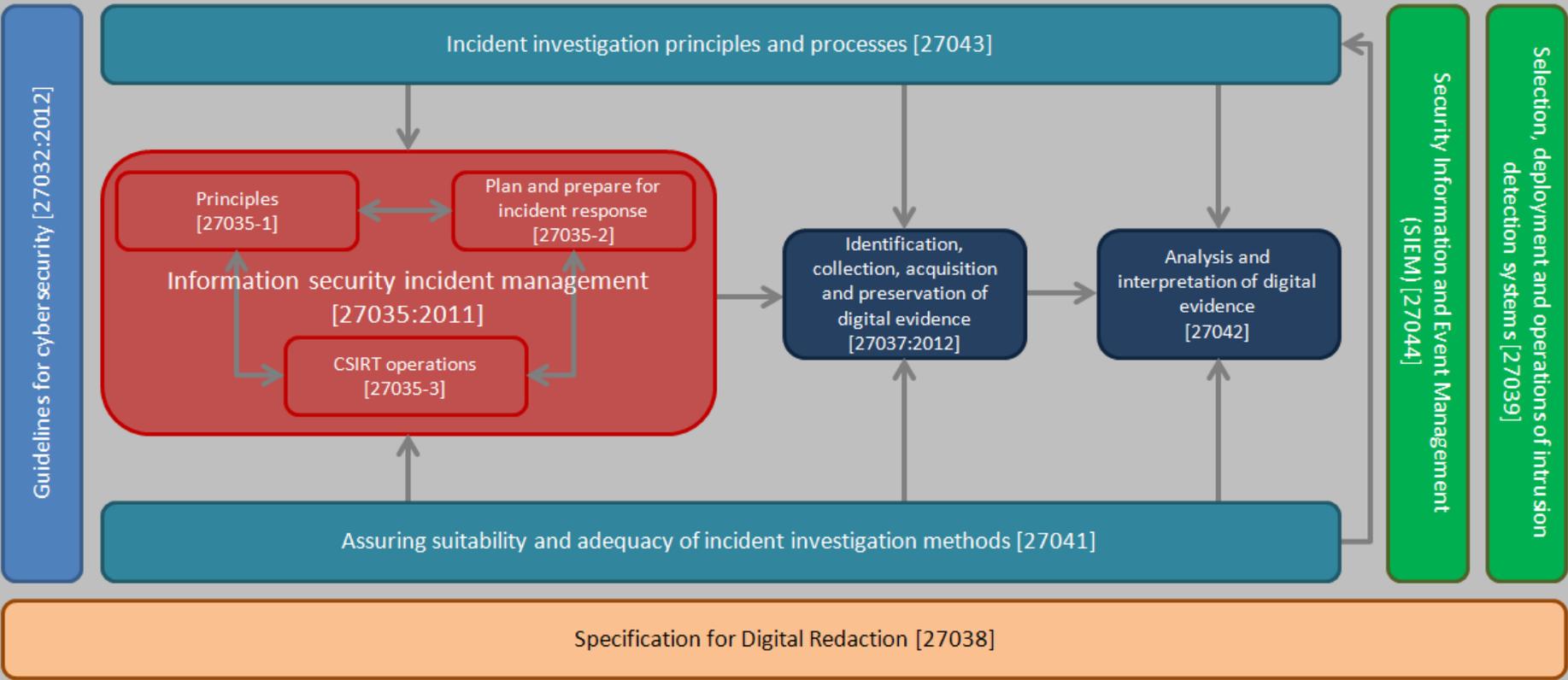
At the bottom of the page, it says "© Luxembourg government". The browser's status bar at the bottom shows "Done" and "Internet".

# Gérer les incidents de sécurité

## Les normes ISO du SC27 sur la question

Software Engineering – Governance of Digital Forensic Risk Framework [30121] {SC 7/WG 40 - IT Governance}

- Vulnerability disclosure [29147] •
- Vulnerability handling processes [30111] •



# 27036

## Information security for supplier relationships

Overview and  
concepts  
(vouée à gratuité ?)

Requirements

Guidelines for  
ICT supply  
chain security

Guidelines for  
security of  
cloud services

# WG4 : Security controls and services

## *Autres projets déjà publiés*



- **Business continuity**
  - Guidelines for information and communications technology disaster recovery services [24762:2008]
  - Guidelines for information and communication technology readiness for business continuity [27031:2011]
  
- **Autres normes publiées**
  - Best practices for the provision and use of time-stamping services [29149:2012]
  - Specification of TTP services to support the application of digital signatures [15945:2002]
  - Selection, deployment and operations of intrusion detection systems [18043:2006]



# Des travaux normatifs pour la sécurité de l'information

*Identity management and privacy technologies*

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# SC27

WG1

WG2

WG3

WG4

WG5

Information  
security  
management  
systems

Cryptography  
and security  
mechanisms

Security  
evaluation,  
testing and  
specification

Security  
controls and  
services

Identity  
management  
and privacy  
technologies

# WG5 : Identity management and privacy technologies



- Développement et maintenance de normes et lignes directrices considérant les aspects de sécurité en lien avec
  - Identity management
  - Biométrie
  - Privacy

- **Principaux projet publiés**

- Identity management

- A framework for identity management [24760]
      - Part 1: Terminology and concepts

- Biométrie

- Biometric information protection [24745]

- Privacy

- Privacy framework [29100]
      - Projet de lier un *Privacy / Personal Information Management Systems* (SP PIMS)
    - Privacy references list [SD2]



- **Promotion en FDIS**

- Requirements for partially anonymous, partially unlinkable authentication [29191]

- **Promotion en norme internationale**

- Entity authentication assurance framework [29115]

# WG5 : Identity management and privacy technologies

## *Principaux projets en développement*



### Identity Management

- A framework for identity management [24760]
- Part 2: Reference architecture and requirements [WD]
- Part 3: Practice [WD]

Work in progress!

### Access Management

- A framework for access management [WD 29146]

Work in progress!

### Privacy

- Code of practice for data protection controls for public cloud computing services [WD 27018]
- Privacy / Personal Information Management Systems (PIMS)
- Privacy capability assessment model [WD 29190]
- Privacy architecture framework [CD 29101]
- Privacy impact assessment [NP 29134]

Work in progress!

### Authentication

- Entity authentication assurance framework [FDIS 29115]
- Requirements for partially anonymous, partially unlinkable authentication [DIS 29191]
- Telebiometric authentication framework using biometric hardware security module [WD 17922]
- Identity proofing [NP 29003]

Work in progress!



# Le SC27 en une planche

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# ISO/IEC JTC1/SC27

<b>TITLE</b>	<b>IT Security techniques</b>	<b>DATE OF CREATION</b>	1990
<b>SECRETARIAT</b>	Deutsches Institut für Normung (DIN)	<b>P-MEMBERS</b> <b>O-MEMBERS</b>	49 17
<b>SECRETARY</b>	Mrs Krystyna Passia	<b>PUBLISHED STANDARDS</b>	117
<b>CHAIRPERSON</b>	Dr. Walter Fumy (Germany) (until end 2013)	<b>STANDARDS UNDER DEVELOPMENT</b>	70
<b>SCOPE</b>	<p>Development of standards for the protection of information and ICT. This includes generic methods, techniques and guidelines to address both security and privacy aspects</p> <ul style="list-style-type: none"> <li>✓ Management of information and ICT security, information security management systems (ISMS)</li> <li>✓ Cryptographic and other security mechanisms</li> <li>✓ Security evaluation criteria and methodology</li> <li>✓ Security aspects of identity management, biometrics and privacy</li> </ul>		
<b>MAIN STANDARDS</b>	<p>ISO/IEC 27001:2005 - Information security management systems – Requirements            ISO/IEC 27002:2005 - Code of practice for information security management</p>		

## NATIONAL STUDY COMMITTEE

<b>MEMBERSHIP</b>	P-Member
<b>DATE OF CREATION</b>	August 2002
<b>NATIONAL EXPERTS</b>	13

## NATIONAL CHAIRPERSON

**Cédric MAUNY**

Telindus Luxembourg

Technology Leader  
 CISM, CISSP, ISO27001, ITIL



Merci pour votre attention

# Questions & Réponses

# Pour me contacter

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together with

belgacom

tango

