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European and International Workshop Agreements: A Brief Example in Security Research Areas

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Abstract
This paper summarizes the process for development Workshop Agreements in the European and in the International Standardisation framework that are relative to European Security Research initiatives for standardization. A brief analysis for the necessary implementation steps is presented and the involvement of the authorized technical committees as well. Moreover, a few indicative tables of the most representative current standards are listed and in the end the general advantages are highlighting.

Keywords
standardisation, standards, security, International Organization for Standardization (ISO), European Standardisation Organisations (ESOs), Common Workshop Agreement (CWA), International Workshop Agreement (IWA), CEN, CENELEC, ETSI)

1. Introduction

Standardisation takes place on three different levels. Worldwide standards are developed by ISO (International Organization for Standardisation), IEC (International Electrotechnical Committee) and ITU (International Telecommunication Union). European standards are developed by CEN (European Committee for Standardisation), CENELEC (European Committee for Electrotechnical Standardisation) and ETSI (European Telecommunications Standards Institute), also called the three "European Standardisation Organisations" (ESOs). The third level of standardisation is the national level. Most countries in the world and all European countries have one National Standardisation Body (NSB). Differences in standards and technical regulations between countries, "even when justified, may sometimes create technical barriers to trade". On the other hand, a number of empirical studies highlight the positive effect of harmonized national standards on trade. Members of CEN and CENELEC are the NSBs from every EU Member State, the Former Yugoslav Republic of Macedonia, Turkey and the three countries of the European Free Trade Association (EFTA) – Iceland, Norway and Switzerland. The case of ETSI is different however. In ETSI Committees individuals, user groups and especially corporate organizations are members and not national representatives.

2. Standards

2.1. General for Standards

The way European EN standards and International ISO and IEC standards are drafted allows for participating parties to influence the choice of new work items, development of draft standards and their adoption. The European and international standardization bodies use different stages in developing a standard. European standardization bodies require their members to implement all European Standards at national level without modifications, and all conflicting standards on the same subject shall be withdrawn. It is therefore important to be acquainted with the different development stages of European Standards, as national comments may have an effect on the contents of European draft standards, i.e. future national standards. National implementation of International Standards is not required. However, many International standards are given the status of a European Standard without modifications or after common modifications have been applied, and such EN ISO standards have to be implemented as national standards.

The technical basis of a new standard is usually established through a programme of research termed Pre-Normative Research (PNR), i.e. research undertaken prior to standardization (normalization). such research would be used to demonstrate the feasibility and reliability of the technique or process to be standardized and to investigate its limitations. Once the technique or process has been developed and its boundaries have been explored, then, for new and emerging areas of technology, it would be normal to prepare a 'pre-standard', such as a Publicly Available Specification (PAS) or Technical Specification (TS), so as to provide a document in a relatively short time frame for evaluation by potential users. The availability of a pre-standard provides a basis for further research, usually termed Co-Normative Research.

2.2. Standards used for Conformity Assessment

Standards are developed and defined through a process of sharing knowledge and building consensus among technical experts nominated by interested parties and other stakeholders - including businesses, consumers and environmental groups, among others. A standard is not written by one expert, but reflects the input and knowledge of all parties concerned. Certification bodies use standards as the basis for their processes. It is the job of these bodies to confirm that a product, system, process or service meets the requirements that are set by standards. They have to meet certain requirements that are documented in conformity assessment standards like ISO 17025 and ISO 17065. The standardisation process can lead to different types of deliverables where the usability for certification differs. Below are the most used European deliverables. Besides general descriptions, further descriptions of their usability for certification are provided.

A. Standard (EN, ISO)

- Is the most commonly known deliverable in the standards context
- Is a normative document, which means that if parties decide to use the standard, they have to follow all the requirements set out in the standard
- Usually sets requirements to a product, system, process or service
- Can also provide terminology
- Is made available in at least the three official CEN languages (English, French, German)
- Does not conflict with the content of any other EN standard
- Its value derives from the main characteristics of its development: full consensus among the member countries, standstill (no national standards being developed in the same field), and obligatory implementation by member countries
- May form the basis for certification if it sets requirements

B. Technical Specification (TS)

- Like an EN a normative document
- Main differences in its development process: no public consultation is needed, can be approved by the committee developing it
- Is usually established for specifications in evolving technologies and experimental markets
- May also be developed when there is insufficient support for public enquiry or no consensus before the formal voting procedure among the Member States exists

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C. Technical Report (TR)

- Is an informal document which is developed to inform on the technical content of standardisation work
- Does not set requirements
- Can therefore not be used as a basis for certification

D. Workshop Agreement (CWA, IWA)

- Is developed through a different process than the deliverables mentioned above (which are developed in TCs consisting of representatives of NSBs)

- Is developed by workshops consisting of stakeholders (both individuals and organisations)
- Stakeholders only give their own input (not a national point of view)

European Standards are developed by the European Standardization Organizations. 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 EU, and entered into force on 1 January 2013. ISO develops six main categories of deliverables the ISO Standards, the ISO/PAS Publicly Available Specifications, the ISO/TS Technical Specifications, the ISO/TR Technical Reports, the International Workshop Agreements/ IWA and the ISO Guides as it shown in the following Figure 1.

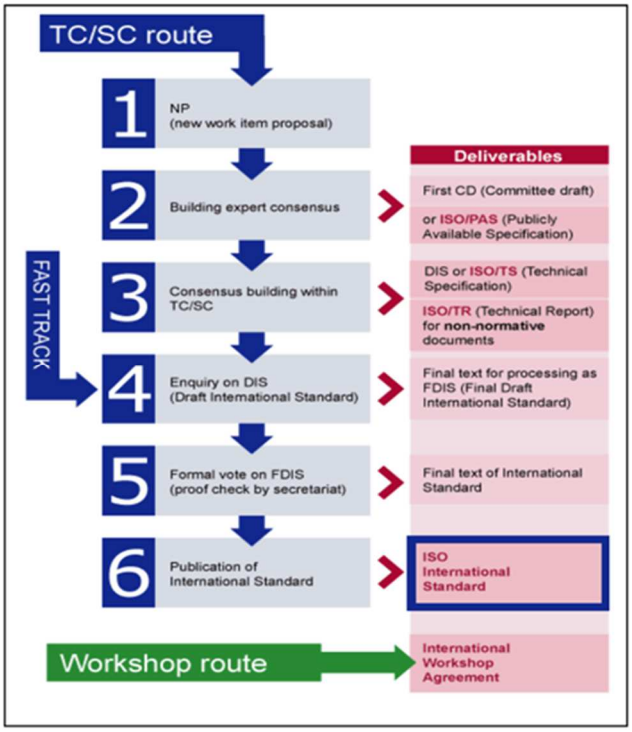

Fig. 1. ISO process for developing Standards (http://www.iso.org/)

2.3. ISO's International Workshop Agreements (IWAs)

An IWA is an ISO document produced through a workshop meeting rather than through the full ISO technical committee process. Market players and other stakeholders directly participate in developing an IWA and do not have to go through a national delegation. An IWA can be produced on any subject and it will:

- Involve the main players from your target sector (public or private) and allow a sector to develop clear rules on an issue.
- Give visibility to your professional practices or reference documents (ISO is a highly recognized international body).
- Help you shape the future direction of the subject and influence any future ISO standard.
- Allow you to develop relationships within a profession or sector.
- Create understanding and co-ordination amongst your various stakeholders.
- Share best practice in a sector.
- Improve quality and interoperability.
- Lead to worldwide visibility due to ISO members' distribution networks.
- Help you to develop a members-only forum to communicate using, for example, a dedicated Web site.

The IWA process is open. An ISO member body will be assigned to help you organize and run the workshop. This gives the project credibility by ensuring that the basic principles of international standardization (transparency, fairness and consensus) are applied. Regarding the cost, there are different ways of financing the costs of the IWA – in particular the workshop meeting(s). In some cases, the participants are charged a fee to attend; in others, a charge is made for the resulting document. You can also cover the costs yourself as an organization. Whatever the mechanism, the costs can be decided by you and the ISO member body that acts as your secretariat. The process of developing an IWA is detailed on the preceding page in five-steps. In order to start, any organization can approach the ISO/CS or an ISO member body for an informal discussion of its proposal. In the following Table 1 are described the five-steps which should not take longer than 12 months – aim for less.

Table 1. Steps of IWA implementation (http://www.iso.org/)

Step 1	Step 2	Step 3	Step 4	Step 5
Make the proposal	**Get ISO/TMB approval**	**ISO/CS circulates the details of the workshop**	**Hold the workshop and agree the document**	**Publish the IWA**
Approach ISO Central Secretariat or any ISO member with the proposal. The proposal should include: • Purpose and justification • Relevant documents • Lists of organizations that may be interested • Indications of any ISO member body willing to act as Secretariat • An estimate of the number of meetings if more than one is envisaged • Details of any proposed special arrangements for distribution of the IWA.	ISO/CS then circulates the proposal to the ISO/TMB for approval (checking any proposed distribution arrangements with the ISO/Sec-Gen). The TMB will also formally assign / confirm the ISO member body who will be your secretariat for the project. The ISO member body works with the proposer to decide full details of the Workshop: • Price (if any fee) • Time/Date/Venue • Format • Background • Doc supply • Process • Chair	A notification – with the full details agreed at Step 2 – is circulated to all ISO members (by ISO/CS) ISO member bodies can then circulate the proposal as widely as possible in order to publicize it to potentially interested parties. Note: Any organization, company, or individual is allowed to attend.	At the meeting the Chair (nominated in advance) will be confirmed. During the whole IWA process, the Chair must be impartial and seek to ensure the maximum amount of consensus possible has been achieved. Document is drafted and circulated to the workshop participants. This can be repeated until the Chair believes that the best possible consensus has been obtained. **Note:** One possible mechanism is that the workshop participants work online on a dedicated Web site. **Note:** Multiple meetings can take place if necessary.	The final draft of the IWA is sent by the secretariat to ISO/CS. ISO/CS formats the document – giving it the relevant ISO cover page / logo. ISO/CS then supplies the document to all its member bodies who can supply it as they see fit. Any special arrangements for the distribution of the IWA should be put in place here.
Start - ISO/CS will normally take less than one month to process the proposal	**Maximum of three months**	**Three months (90 days) advance notice is require before holding the workshop**	**This stage depends on the scope of the IWA. How aim to finish in three more or less**	**One month**

2.4. ESO's Workshop Agreements (CWAs)

European Standardisation Organisations (ESOs means CEN, CENELEC and ETSI) are concentrated most of their efforts on one major deliverable: the European Standard (EN). This document shall be given the status of national standard in all CEN member countries, who must therefore withdraw any conflicting national standards. Besides European Standards, they produce – similar to ISO - other deliverables with specific characteristics and objectives as described in chapter 1.1 Technical Specifications (TS), Technical Reports (TR), Guides and CEN and/or CENELEC Workshop Agreements (CWA). These various products differ in their methods of development, approval processes and implementation, offering flexible means to meet different market needs for requirements and

information. The Joint ISO-CEN Coordinating Group of the Technical (Management) Boards is a body that established in order to supervise the application of the Vienna Agreement and having the task of proposing and monitoring the appropriate operating methods and systems, on the understanding that the day-to-day processing is handled by both ISO Central Secretariat and the CEN-CENELEC Management Centre.

A CEN Workshop Agreement (CWA) is a document published by CEN in at least one of the CEN three official languages. A CWA is an agreement developed and approved in a CEN Workshop; the latter is open to the direct participation of anyone with an interest in the development of the agreement. There is no geographical limit on participation; hence, participants may be from outside Europe. The development of a CWA is fast and flexible, on average between 10-12 months. A CWA does not have the status of a European Standard. It involves no obligation at national level. A CWA may not conflict with a European Standard; if a conflicting EN is subsequently published, the CWA shall be withdrawn. Till today 412 CWAs have been published and 140 CWAS are under drafting status. In accordance to the ESOs procedures, the timeline of realization a type of European standard ranges from one to almost three years as it shown in the following Figure 2.

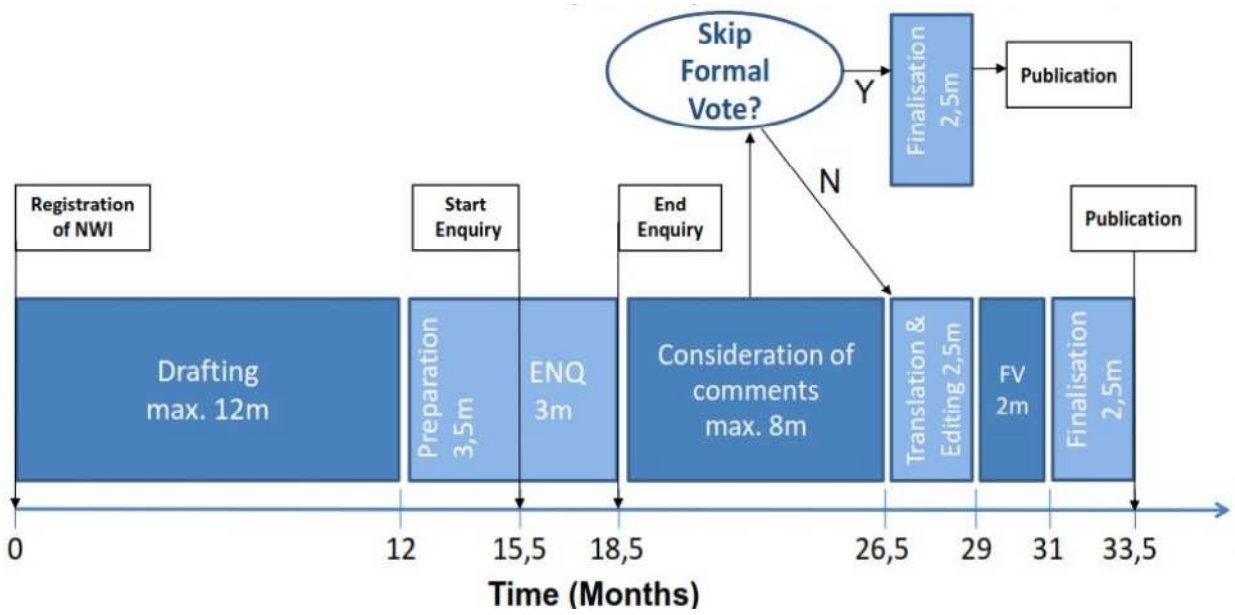

Fig. 2. ESOs (CEN CENELEC) process for developing Standards (www.cencenelec.eu)

Furthermore, within 11 steps as described below can develop a CWA from CEN CENELEC:

2.4.1 A party interested in developing a CWA submits a request to a CEN Member or to CEN-CENELEC Management Centre (CCMC).

2.4.2 With the assistance of the CEN-CENELEC (national) Member or the CEN-CENELEC Management Centre (CCMC), the proposer of a CWA shall prepare:

- a draft Project Plan;
- a self-assessment (Guide 29_Annex A);
- an analysis of the degree of interest in the subject in different European countries and amongst different stakeholders.

These documents are then transmitted by the CEN-CENELEC (national) member to CCMC for further handling. The Project Plan must clearly identify how many CWAs the Workshop (WS) intends to develop.

2.4.3 The draft Project Plan and the self-assessment are submitted to the CEN Technical Board for:

2.4.3.1 Decision if the CWA:

- defines requirements related to safety matters;

- defines requirements related to management system aspects;
- falls within the scope of one or more CEN Technical Committee (TC) which are opposed to the WS being launched. Technical Committees shall be consulted prior to the submission of the draft Project Proposal to the Technical Board (TB).

2.4.3.2 Information: In all other cases.

2.4.4 CCMC announces the proposal for a new CEN/WS on the CEN Website (or on the CEN-CENELEC Portal in case of joint CEN-CENELEC WS) for at least 30 days. The information posted on the website will include:

- the WS draft Project Plan;
- initial information on the kick-off meeting (including agenda, venue, participation);
- the WS Secretariat and the proposed WS Chair;
- how to submit comments to the draft Project Plan.

If a CEN National Member expresses any opposition to the proposal at this stage of the process, CCMC deals with the situation through management by exception. Any comments submitted during this period shall be considered with the WS Secretariat and WS Proposer and in any case during the kick-off meeting at the latest.

2.4.5 The kick-off meeting:

- approves the proposed Project Plan by common agreement;
- appoints the Chairperson of the CEN/WS.

2.4.6 The formal launch of the Workshop happens at the kick-off meeting subject to sufficient support for the Workshop Project Plan. Should no agreement be reached, the organization of a new meeting will be considered with the proposers. Participation to the kick-off meeting does not automatically ensure registration to the WS. After the kick-off meeting the participants wishing to continue contributing to the development of the draft CWAs will be requested to officially register to the WS by mean of signing a specific registration form.

2.4.7 The WS participants draft the CWA(s) according to the specifications laid down in the Project Plan. The draft CWA is made available for comments to the registered CEN/WS participants.

To ensure transparency the documents of the WS should be uploaded on an electronic platform.

If the CWA is in the same domain as an existing CEN/CENELEC technical body, the draft CWA shall be sent to that technical body for comments at the same time as it is sent to the Workshop participants. If foreseen in the Project Plan, and in any case if the draft CWA covers safety aspects, an open commenting phase (minimum 60 days) is launched. CCMC will make the draft CWA available for external comments on the CEN (CENELEC) website. CCMC will also notify the CEN/CENELEC (national) Members. In case of an open commenting phase, the WS Secretariat ensures the creation of a comments resolution report that compiles all the received comments. The comments are considered by the WS participants.

2.4.8 The Chairperson decides when agreement is reached amongst the registered WS participants on the final text of the CWA.

2.4.9 The WS Secretariat submits the approved CWA to CCMC. CCMC ensures that:

- the cover page and foreword are available and in line with clause 4.8 of the CEN/CENELEC Guide 29,
- a reference number is allocated to the CWA and added before circulating the published CWA to the CEN National Members for announcement.

2.4.10 A CWA is valid for 3 years, after which the former Workshop Secretariat shall consult the former Workshop participants and the relevant CEN/CENELEC technical bodies to determine whether the CWA shall be:

- confirmed for another 3 years,
- revised,

- transformed into another deliverable, or
- withdrawn.

The former Workshop Secretariat shall inform CCMC of the decision. CWAs maximum lifetime is 6 years. After 6 years from initial publication, the CWA shall be submitted to the CEN/CENELEC Technical Board (BTs) for decision regarding its transformation into another deliverable or its withdrawal.

2.4.11 The CEN WS either:

- continues with the rest of its programme as specified in the accepted Project Plan, or
- reconsiders its Project Plan and may decide to start additional work (in this case a new/revised Project Plan and self-assessment need to be developed as described in 1.3) or
- disbands itself.

Despite the bureaucracy to implement a CWA, it is still one of the fastest option for an interesting party to produce a type of standard. In the following Table 2 are described the main differences between the European Standards (EN) and the CWAs.

Table 2. Different characteristics of ENs and CWAs (*www.cencenelec.eu*)

Characteristic	EN	CWA
Standstill	Yes	No
Language	3 official languages	1 official language
Public Enquiry	Mandatory	Optional
Approval	NSBs/ NCs	Registered Participants
Withdrawal of national standards	Mandatory	None
Availability	Mandatory Publication	Announcement
Support EU legislation	Yes	No

3. Security Standards

The field of standardisation organisations in Europe is rather extensive, not only due to the large number of national standardisation organisations – since there exists often more than one standardisation organisation per country responsible for different technological fields – but also as a result of the several regional (European) and international standardisation organisations. The most of the standardisation activities in the Member States are influenced by European and international standards as a part of the European standardization and harmonization. Only a few successful projects as the CRISP project (Evaluation and Certification Schemes for Security Products) are managed to facilitate the "harmonised playing field for the European security industry by developing a robust methodology for security product certification.

3.1. ESO's Security TCs, Standards and Workshop Agreements (CWAs)

Security is a vital element for the society with high impact on the social, political and economic consolidation of the Europe. The EU security market value accounts for €30 billion – €36.5 billion and represents an important element to stability, economic growth, job creation in Europe. No common framework that applies to products for security systems as a whole, which makes divergent national standards pose a major hurdles for the creation of a fully-fledged internal market for security, thus hindering the competitiveness of EU industry. I the following Table 3 we see the security technical committees of CEN CENELEC and the number of standards they produced till today.

Table 3. CEN CENELEC Security TCs and standards (Source: websites of CEN, CENELEC, own analysis http://standards.cen.eu/dyn/www/f?p=204:105:0, 06-03-2016)

Committee	Title	Year of Estabi.	Published Standards
CEN/TC 164	Water supply	1990	229
CEN/TC 162	Protective clothing including hand and arm protection and lifejackets	2005	152
CEN/TC 278	Intelligent transport systems	1993	144
CEN/TC 250	Structural Eurocodes	1989	127
CLC TC 72	Alarm Systems	1980	104
CEN/TC 251	Health informatics	2010	94
CEN/TC 264	Air quality	2013	91
CEN/TC 127	Fire safety in buildings	2005	75
CEN/TC 189	Geosynthetics	1989	69
CEN/TC 79	Respiratory protective devices	2004	66
CEN/TC 224	Personal identification, electronic signature and cards and their related systems and operations	1989	49
CEN/TC 287	Geographic Information	2003	48
CEN/TC 234	Gas infrastructure	2007	26
CEN/TC 346	Conservation of Cultural Heritage	2012	18
CEN/TC 325	Crime prevention through building, facility and area design	2012	7 1
CEN/TC 352	Nanotechnologies	2006	6 3
CEN/TC 379	Project Committee - Supply Chain security	2007	2
CEN/TC 384	PC Airport and aviation security services	2008	1
CEN/TC 388	Perimeter Protection	2010	1
CEN/TC 391	Societal and Citizen Security	2010	1 5
CEN/CLC/TC 4	PC - Services for fire safety and security systems	2011	1
CEN/TC 417	PC - Maritime and port security services	2011	1

CEN are running two activities relating to the interface between research and standardisation. One is CEN/STAR (Standardisation & Research). Having recognised that standardization and R&D are interdependent, STAR aims to identify R&D work necessary to support standardisation, through both co-normative and pre-normative research (CNR and PNR, respectively). They collect and register from all CEN/ TCs specific needs for research that would assist the standard-setting process; these needs are subsequently prioritised. This prioritised list is communicated to the EC for potential future funding. The process of needs elicitation is supported through 'Trends Analysis Workshops', which aim to identify needs for new standards and for pre-normative or co-normative research. The focus here is on projects that are co-sponsored by the European Commission. In addition, CEN/STAR is working towards a higher level of recognition of the importance of standards, and of the role research is playing in this context. CEN workshops are a more generic tool to bring R&D closer to standard-setting. For medium-length projects (about 2–3 years), they offer the opportunity of developing standards (in the form of CEN Workshop Agreements, CWAs) within the lifetime of the project (which may be very helpful, given the EU's current funding policies for R&D projects). In the Figure 3 are described the prerequisites for normative documents and their orientation of the pre-normative or co-normative research documents inputs to the standardization world.

3.2 ISO's Security TCs, Standards and Workshop Agreements (IWAs)

The main ISO TC for the Security topics is ISO/TC 292 Security and Resilience which is active in standardisation in the field of security in order to enhance the safety and resilience of society.
The total number of published ISO standards related to the TC and it's Sub Committees (number includes updates) is 24. Moreover, the following international workshop agreements are relative to security topics:

- IWA 6 :2008, Guidelines for the management of drinking water utilities under crisis conditions

- IWA 14-1:2013, Vehicle security barriers -- Part 1: Performance requirement, vehicle impact test method and performance rating
- IWA 14-2:2013, Vehicle security barriers -- Part 2: Application
- ISO/IWA 17:2014(en), Information and operations security and integrity requirements for lottery and gaming organizations.

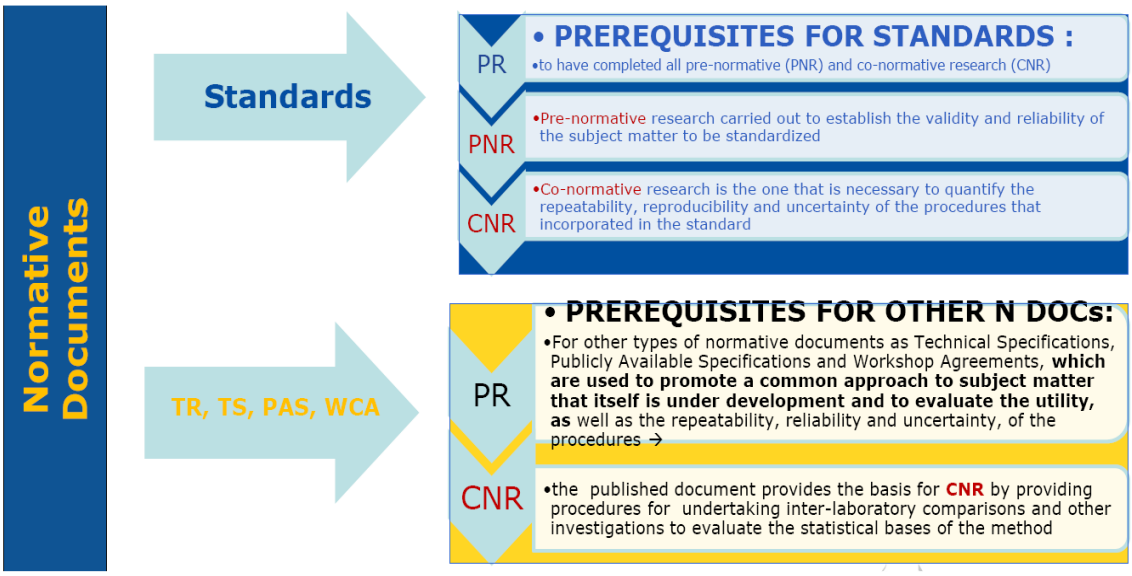

Fig. 3. Prerequisites for normative documents (Aik. Poustourli, November 2015)

3.3. The case study of ERNCIP (European Reference Network for Critical Infrastructure Protection) Project

In support of the European Union efforts to protect critical infrastructures, the European Commission and in particular the Joint Research Centre coordinates the European Reference Network for Critical Infrastructure Protection (ERNCIP) project. ERNCIP aims at providing a framework within which experimental facilities and laboratories will share knowledge and expertise in order to harmonise test protocols throughout Europe, leading to better protection of critical infrastructures against all types of threats and hazards and to the creation of a single market for security solutions. ERNCIP fosters the emergence of innovative, qualified, efficient and competitive security solutions, through the networking of European experimental capabilities. This is a direct response to the lack of harmonised EU-wide testing or certification for CIP products and services, which is a barrier to future development and market acceptance of security solutions. The JRC, in the context of the European Programme for Critical Infrastructure Protection (EPCIP), and with the agreement of Member States, set up the ERNCIP project in 2009. The project started its implementation phase in 2011. Since then more than 200 experts from 140 different organisations have been involved in the network and they contribute in more than eight different Thematic Areas of CIP and relevant Thematic Groups like: Applied Biometrics, Video and Surveillance, Aviation Security Equipment, Explosives Detection Equipment_Non-Aviation, CBRNE (Chemical & Biological Risks in the Water Sector, Detection of Explosives & Weapons at Secure Locations, Detection of Indoor Airborne Chemical-Biological Agents, Radiological and Nuclear Threats, Resistance of Structures to Explosion Effects), Case Studies for Industrial Automation and Control Systems, Industrial Automated Control Systems and Smart Grids, IACS components, cyber-sec compliance and Cert Scheme. From 2012 until today the thematic groups of ERNCIP project are produced about 29 reports, some of which could be the input for relevant thematic areas of responsibility of the ESOs TCs. The steps can be followed in order to assess their ability to be converted to CWAs is the one that pictured in the following flow chart (Figure 4).

The relevant CEN-CENELEC sector to ERNCIP Thematic areas topics are the one of Defence, Security and Privacy/Defence and security/Defence/Security & cyber security. In additional the relevant CEN CENELEC Technical Committees to ERNCIP thematic groups are:

- CENELEC/TC 79 - Alarm systems
- CEN/CLC/TC 4- Services for Fire Safety and Security Systems
- CEN/TC 321 -Explosives for civil uses
- CEN/TC 325 -Crime prevention by urban planning & building design
- CEN/TC 379 -Supply Chain Security
- CEN/TC 384 –Aviation security services
- CEN/TC 388- Perimeter Protection Products and Systems
- CEN/TC 391 - Societal and citizen security
- CEN/TC 417- Port and maritime security services
- CEN/TC 419- Forensic science processes.

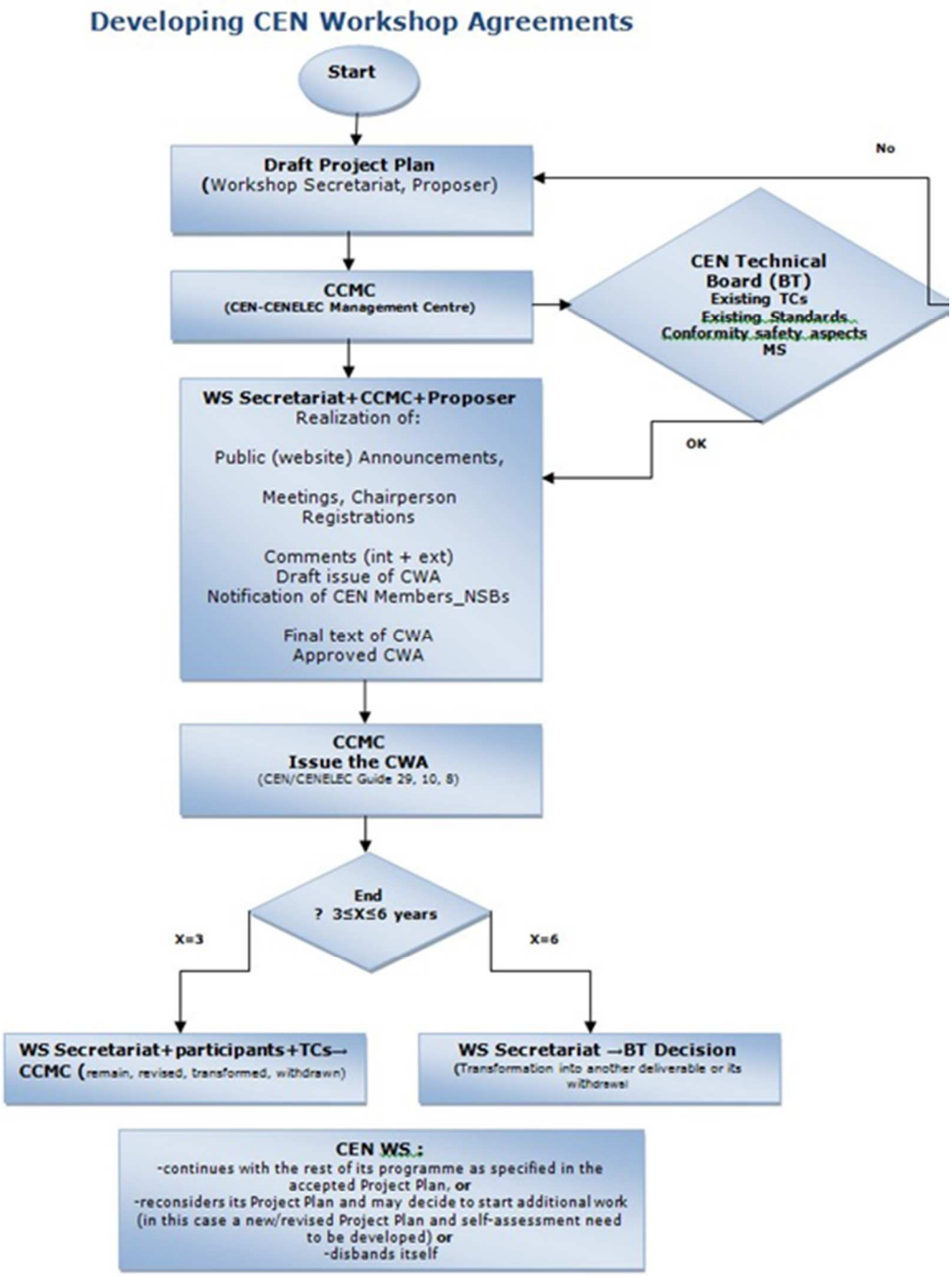

Fig. 4. Steps for developing CEN Workshop Agreements (Aik. Poustourli, November 2015)

Many European projects like ERNCIP are run in different EC DGs under the H2020 or to FP7 funding frameworks and their role is to produce and to share knowledge and expertise in order to harmonise test protocols throughout Europe. It is important to underline that the outcomes of the above projects usually are output of pre-normative or co-normative research.

Regarding the prerequisites for normative documents like Standards, it is needed to have completed all the pre-normative (PNR) and the co-normative research (CNR). The pre-normative research carried out to establish the validity and reliability of the subject matter to be standardized and the co-normative research is the one that is necessary to quantify the repeatability, reproducibility and uncertainty of the procedures that incorporated in the standard. Respectively the prerequisites for other normative documents as Technical Specifications, Publicly Available Specifications and Workshop Agreements, which are used to promote a common approach to subject matter that itself is under development and to evaluate the utility, as well as the repeatability, reliability and uncertainty, of the procedures, the published document provides the basis for CNR by providing procedures for undertaking inter-laboratory comparisons and other investigations to evaluate the statistical bases of the method. With this way, an important knowledge and competence are disseminated between the European Union in order to be beneficial for all the involved stakeholders and market key players. In the following Table 4 is shown the most relevant ISO and CEN committees to the scope of the ERNCIP CBRNE Thematic Groups.

Table 4. Relative CEN CENELEC Security TCs to ERNCIP CBRNE TGs (Aik. Poustourli 2015)

ERNCIP CBRNE TGs	Published ERNCIP TGs' Reports	Relevant ISO TCs	Relevant CEN TCs
RSExEf (Resistance of Structures to Explosion Effects)	5	ISO TC 292 SECURITY ISO/TC 160 Glass in buildings ISO/TC 162 Doors and windows	CEN/TC 391 Societal and citizen security CEN/TC 33 Windows, doors and shutters CEN/TC 129 Glass in buildings
RN (Radiological and Nuclear Threats)	9	ISO TC 292 SECURITY ISO/TC 85 Nuclear energy, nuclear technologies, and radiological protection ISO/TC 184 Sc 2 IEC/TC 45 Nuclear instrumentation	CEN/TC 391 Societal and citizen security CEN/TC 430 Nuclear energy, nuclear technologies, and radiological protection MANDATE 487
CB Water (Chemical & Biological Risks in the Water Sector)	13	ISO TC 292 SECURITY ISO/TC 147 Water quality ISO/TC 224 Service activities relating to drinking water supply systems and wastewater systems - Quality criteria of the service and performance indicators ISO/TC 282 Water re-use	CEN/TC 391 Societal and citizen security CEN/TC 164 Water supply CEN/TC 165 Waste water engineering CEN/TC 230 Water analysis CEN/TC 254 Flexible sheets for waterproofing CEN/TC 361 PC- Polymer modified bituminous thick coatings for waterproofing - Definitions/requirements and test methods CEN/TC 426 PC - Domestic appliances used for water treatment not connected to water supply MANDATE 487

4. Summarising Advantages – Future Challenges

The CWA was originally devised primarily to counter the threat of Fora/Consortia but this somewhat defensive justification for the workshop concept has been evolving into something more positive. Today, there is a shift towards CWAs being viewed as the preferred means by which FP7 and Horizon 2020 projects can enter into the CEN-CENELEC standardization system. Looking at the broader picture, CWAs can operate as pre-standards that test the applicability and value of standardization to rapidly changing and highly innovative sectors. These sectors have traditionally

seen standardization as a hindrance to innovation and the topics that come under consideration are often ones in which it is unlikely that full consensus could be achieved in an acceptable timeframe. It is generally accepted those CWAs:

- Can be normative and prescriptive
- Produced in an open workshop-environment
- Lowest on the hierarchy – not the same status as an EN standard or EN/TS
- Can be produced rapidly – 1 to 2 years
- Ideal for specific projects
- Can serve as a future standard
- Can be set up within two months after description of the project (Business Plan)
- No formal procedure to set up a CEN workshop
- Structure decided by the members of the workshop to reach maximum efficiency
- Bottom-up approach
- All companies are allowed to participate
- Non-European countries may be full members
- Direct participation: everyone may participate directly in the elaboration of the CWA and the consensus.

The CWA-process can also be seen as a way of engaging with new stakeholder communities by offering them a simple entry point to the CEN and CENELEC system. The CWA process can therefore be seen as an investment in the future of the CENCENELEC system, both in terms of pre-standardization and building relationships with new stakeholder groups. The Workshop process is well understood by sponsors of research projects and the timeframe for developing a CWA accords best with their often limited timeframes. This trend is expected to continue and the number of new Workshops of this kind is expected to greatly exceed that of other kinds, such as those sponsored by industry groups. It is also recognized that the outcome of research projects into standardization is not limited to CWAs only. The outcome of a research project may also lead to a TS or an EN, where a TC considers that this is the most suitable deliverable.

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