



TECHNICAL BOARD

CEN/BT by correspondence

For information

Issue date:

2021-10-27

SUBJECT

CEN/WS 'CURSOR' - Announcement

BACKGROUND

On 10 September 2021, CCMC received a proposal from DIN for a CEN Workshop, entitled 'Urban search and rescue – Guideline for the application of a test method for innovative technologies to detect victims in debris'.

In the face of natural or man-made disasters, urban search and rescue (SaR) teams and other first responders like police, medical units, civil protection or volunteers, race against the clock to locate survivors within the critical 72-hour timeframe (Golden Hours), facing challenges such as instable structures or hazardous environments but also insufficient situational awareness – all resulting in lengthy SaR processes.

The objective of the standardization initiative is to develop a guiding document that answers questions like: How to set up a test field for a SaR kit? What should be tested? How should the tests be done? Who should conduct the test? What is the minimum set of specifications for the technological tools? The reader of the CWA would have the benefit of using the same procedure for different tests, so that a baseline is in place and the test results can be comparable. An important aspect is also to identify the limitations of different components of a SAR kit – depending on the context of the search and rescue, the user can choose the correct components for the task.

The Workshop kick-off meeting will be held on Tuesday, 30 November 2021 as a web meeting. The workshop and kick-off meeting are announced on the CEN-CENELEC website:

<https://www.cencenelec.eu/news-and-events/news/2021/workshop/2021-10-18-cen-ws-cursor/>

The draft Project Plan of the proposed CEN Workshop is in Annex 1 and the self-assessment in Annex 2 to this document.

Should you have any comments on the launching of this CEN Workshop or its proposed Project Plan, you are invited to contact the Workshop Secretary, Ms Saskia Maresch (Saskia.Maresch@din.de).

SELF-ASSESSMENT

As indicated in the self-assessment form (Annex 2), also checked by CCMC, with regard to the four conditions under which there is a need for the agreement of BT members before proceeding with the process to launch a Workshop:

- The proposed CWA does not intend to define requirements related to safety matters
- The proposed CWA does not fall within the scope of an existing CEN/TC
- The proposed CWA does not intend to define requirements related to management system aspects

- The proposed CWA does not intend to define requirements related to conformity assessment aspects

Therefore, there is **no need for a CEN BT decision**.

SECRETARIAT

DIN will provide the Workshop secretariat, subject to formal approval of the Project Plan during the kick-off meeting.

Should you need further information or have any comments on this proposed Workshop, you are invited to contact Christina Thorngreen, CCMC Project Manager (cthorgreen@cencenelec.eu).

2021-10-20 – CHT – CV

**Draft Project plan for the CEN
Workshop on "Urban search
and rescue – Guideline for the
application of a test method for
innovative technologies to
detect victims in debris"**

**Requests to participate in the Workshop
and/or comments on the project plan are
to be submitted by**

29.11.2021 to saskia.maresch@din.de¹

Recipients of this project plan are kindly requested to name all patent rights known to them to be relevant to the Workshop and to make available all supporting documents.

Berlin, 12.10.2021 (Version 1)

¹ Applications for participating in the Workshop and comments on the project plan that are not received by the deadline do not need to be taken into consideration. Once constituted, the Workshop will decide whether or not to consider the comments received in good time.

Contents

	Page
1	Status of the project plan 4
2	Workshop proposer and Workshop participants 4
2.1	Workshop proposer 4
2.2	Other potential participants 4
3	Workshop objectives and scope 4
3.1	Background 4
3.2	Scope 5
3.3	Related activities 5
4	Workshop programme 5
4.1	General 5
4.2	Workshop schedule 6
5	Resource planning 7
6	Workshop structure and rules of cooperation 7
6.1	Participation in the Workshop 7
6.2	Workshop responsibilities 7
6.3	Decision making process 8
7	Dissemination and participation strategy 8
8	Contacts 8
	Annex - Registered Workshop participants 10

1 Status of the project plan

Draft project plan for public commenting (Version 1.0)

This draft project plan is intended to inform the public of a new Workshop. Any interested party can take part in this Workshop and/or comment on this draft project plan. Please send any requests to participate or comments by e-mail to saskia.maresch@din.de.

All those who have applied for participation or have commented on the project plan by the deadline will be invited to the kick-off meeting of the Workshop on 2021-11-30.

2 Workshop proposer and Workshop participants

2.1 Workshop proposer

Name: Evangelos Sdongos

Organization: ASTRIAL GmbH

Postal address: Rudower Chaussee 29, 12489 Berlin, Germany

Email: e.sdongos@astrial.de

Phone: +49-(0)30-555786780

Webpage: <https://astrial.de>

2.2 Other potential participants

- Institute of Communication and Computer Systems (ICCS), Dimitra Dionysiou
- The University of Manchester (UNIMAN), Krishna Persaud
- Tohoku University, Satoshi Tadokoro
- Commissariat a L'Energie Atomique et aux Energies Alternatives (CEA), Emmanuel Scorsone
- German Federal Agency for Technical Relief (THW), Tiina Ristmäe
- Entente pour la Forêt Méditerranéenne (Valabre), Nathalie Bozabalian
- Service Départemental d'Incendie et de Secours de la Savoie (SDIS73), Josseline Le Fevre
- International Security Competence Centre GmbH (ISCC), Friedrich Steinhäuser
- SINTEF, Giancarlo Marafioti

3 Workshop objectives and scope

3.1 Background

In the face of natural or man-made disasters, urban search and rescue (SaR) teams and other first responders like police, medical units, civil protection or volunteers, race against the clock to locate survivors within the critical 72-hour timeframe (Golden Hours), facing challenges such as instable structures or hazardous environments but also insufficient situational awareness – all resulting in lengthy SaR processes. In order to speed up the detection of survivors trapped in collapsed buildings and to improve working conditions for the first responders, the EU-funded research project CURSOR designed an innovative Search and Rescue Kit (CURSOR SaR Kit) based on drones, miniaturized robotic equipment, advanced sensors and incident management applications. The overarching aim of CURSOR is to develop a SaR kit that will be easy and fast to deploy leading to a reduced time in detecting and locating trapped victims in disaster areas. To make sure that these solutions are meeting the needs of the first responders on the field, the system was tested by first responders of the CURSOR consortium as well as by

external practitioners (e.g. INSARAG secretariat, Regione Liguria, USaR NL, Bavarian Red Cross, Japan NRIFD) throughout the whole development process. Several lab and small scale field trials were conducted. Against this background the consortium identified the standardization potential for a guide that describes a field test and the associated methodology for assessing the use of innovative technologies such as the SaR kit.

The objective of the standardization initiative is to develop a guiding document that answers questions like: How to set up a test field for a SaR kit? What should be tested? How should be tested? Who should conduct the test? What is the minimum set of specifications for the technological tools? The reader of the CWA would have the benefit of using the same procedure for different tests, so that a baseline is in place and the test results can be comparable. An important aspect is also to identify the limitations of different components of a SAR kit – depending of the context of the search and rescue, the user is able to choose the correct components for the task.

The CURSOR Consortium represents a major effort to enhance the collaboration between first responders and technological solution providers. The overall project coordinator is the German Federal Agency for Technical Relief (THW) and the scientific coordinator is the Institute of Communication and Computer Systems (ICCS). The consortium consists in total of 18 project partner from all over Europe and different background (SMEs, research institutes, practitioners). The consortium agreed to proceed with the initiation of this CWA due to their own experience with conducting field trials and the limited amount of guiding material that is currently available.

More information can be found here <https://www.cursor-project.eu/>.

3.2 Scope

Title: Urban search and rescue – Guideline for the application of a test method for innovative technologies to detect victims in debris

Scope: The planned CEN Workshop Agreement specifies requirements and recommendation on the set-up of a field test and a test methodology for Urban Search and Rescue (USaR) equipment for the detection of victims under debris. A realistic field test is described to gather information to test for example a Soft Miniaturized Underground Robot (SMURF) or drones equipped with specialized sensors, e.g. preparation of debris cones made of different materials. Furthermore, a performance test method for each component and the complete USaR system is described. The purpose of the test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively measure a search and rescue kit's abilities. The planned CEN Workshop is intended to be used by Urban Search and Rescue (USaR) equipment manufacturers and developers. The planned CEN Workshop is not primary intended to be used by first responders, although the user community is benefitted by the relevant guidelines to be put in place.

3.3 Related activities

The subject of the planned CWA is not at present the subject of a standard. However, there are committees, standards and/or other technical specifications that deal with related subjects and thus need to be taken into account - and involved, where necessary - during this Workshop:

- [ASTM E54 on Homeland Security Applications](#),
- [ISO/TC 292 Security and resilience](#), and
- [CEN/TC 391 Societal and Citizen Security](#).

4 Workshop programme

4.1 General

The kick-off meeting is planned to take place on November 30 via WebEx (Online). A draft for public commenting will not be published. A total of seven Workshop meetings (kick-off meeting and Workshop meetings) and web conferences will be held, during which the content of the CWA(s) will be presented, discussed and approved. The CWA will be drawn up in English (language of meetings, minutes, etc.). The CWA will be written in English.

4.2 Workshop schedule

Table 1: Workshop schedule (preliminary)

CEN Workshop	10	11/21	12/21	01/22	02/22	03/22	04/22	05/22	06/22	07/22	08/22	09/22	10/22	11/22	12/22
Initiation															
1. Open commenting period on draft project plan															
Operation															
2. Kick-off meeting															
3. CWA development															
4. Finalization and approval through CEN Workshop															
5. CWA publication															
Milestones			K		V		V		V		V			V	

K Kick-off
V Virtual Workshop meeting

5 Resource planning

The CEN Workshop is financed by the European research project CURSOR (Coordinated Use of miniaturized Robotic equipment and advanced Sensors for search and rescue OpeRations). This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 832790 and from the Japan Science and Technology Agency.

All costs related to the participation of interested parties in the Workshop's activities have to be borne by themselves. The copyright of the final CEN Workshop Agreement will be at CEN. The final document will include the following paragraph: "Results incorporated in this CEN Workshop Agreement received funding from the European Union's HORIZON 2020 research and innovation programme under grant agreement number 832790 (CURSOR)".

6 Workshop structure and rules of cooperation

6.1 Participation in the Workshop

The Workshop will be constituted during the course of the kick-off meeting. By approving this project plan, the interested parties declare their willingness to participate in the Workshop and will be formally named as Workshop participants, with the associated rights and duties. Participants at the kick-off meeting who do not approve the project plan are not given the status of a Workshop participant and are thus excluded from further decisions made during the kick-off meeting and from any other decisions regarding the Workshop.

As a rule, the request to participate in the Workshop is closed once it is constituted. The current Workshop participants shall decide whether any additional members will be accepted or not.

Any new participant in the Workshop at a later date is decided on by the participants making up the Workshop at that time. It is particularly important to consider these aspects:

- a. expansion would be conducive to shortening the duration of the Workshop or to avoiding or averting an impending delay in the planned duration of the Workshop;
- b. the expansion would not result in the Workshop taking longer to complete;
- c. the new Workshop participant would not address any new or complementary issues beyond the scope defined and approved in the project plan;
- d. the new Workshop participant would bring complementary expertise into the Workshop in order to incorporate the latest scientific findings and state-of-the-art knowledge;
- e. the new Workshop participant would actively participate in the drafting of the manuscript by submitting concrete, not abstract, proposals and contributions;
- f. the new Workshop participant would ensure wider application of the CWA.

All Workshop participants who voted for the publication of the CWA or its draft will be named as authors in the European Foreword, including the organisations which they represent. All Workshop participants who voted against the publication of the CWA, or who have abstained, will not be named in the European Foreword.

6.2 Workshop responsibilities

The Workshop Chair is responsible for content management and any decision-making and voting procedures. The Workshop Chair is supported by the Workshop Vice-Chair and the responsible Workshop secretariat, whereby the Workshop secretariat will always remain neutral regarding the content of the CWA(s). Furthermore, the Workshop secretariat shall ensure that CEN-CENELEC's rules of procedure, rules of presentation, and the principles governing the publication of CWA(s) have been observed. Should a Workshop Chair no longer be able to carry out her/his duties, the Workshop secretariat shall initiate the election of a new Workshop Chair. The list below covers the main tasks of the Workshop Chair. It is not intended to be exhaustive.

- Content related contact point for the Workshop
- Presides at Workshop meetings
- Ensures that the development of the CWA respects the principles and content of the adopted project plan
- Manages the consensus building process, decides when the Workshop participants have reached agreement on the final CWA, on the basis of the comments received
- Ensures due information exchange with the Workshop secretariat
- Represents the Workshop and its results to exterior

The Workshop secretariat, provided by a CEN/CENELEC national member, is responsible for organising and leading the kick-off meeting, in consultation with the Workshop proposer. Further Workshop meetings and/or web conferences shall be organised by the Workshop secretariat in consultation with the Workshop Chair. The list below covers the main tasks of the Workshop secretariat. It is not intended to be exhaustive.

- Administrative and organisational contact point for the Workshop
- Ensures that the development of the CWA respects the principles and content of the adopted project plan and of the requirements of the CEN-CENELEC Guide 29
- Formally registers Workshop participants and maintains record of participating organisations and individuals
- Offers infrastructure and manage documents and their distribution through an electronic platform
- Prepares agenda and distribute information on meetings and meeting minutes as well as follow-up actions of the Workshop
- Initiates and manage CWA approval process upon decision by the Workshop Chair
- Interface with CEN-CENELEC Management Centre (CCMC) and Workshop Chair regarding strategic directions, problems arising, and external relationships
- Advises on CEN-CENELEC rules and bring any major problems encountered (if any) in the development of the CWA to the attention of CEN-CENELEC Management Centre (CCMC)
- Administrates the connection with relevant CEN or CENELEC/TCs

6.3 Decision making process

Each Workshop participant is entitled to vote and has one vote. If an organisation sends several experts to the Workshop, that organisation has only one vote, regardless of how many Workshop participants it sends. Transferring voting rights to other Workshop participants is not permitted. During voting procedures, decisions are passed by simple majority; abstentions do not count.

If Workshop participants cannot be present in the meetings when the CWA or its draft is adopted, an alternative means of including them in the voting procedure shall be used.

7 Dissemination and participation strategy

The final CWA will be disseminated to the following relevant stakeholders and bodies:

- INSARAG Network
- ISO/TC 292 Security and resilience
- CEN/TC 391 Societal and Citizen Security

In addition to the CCMC website, the final CWA will be advertised on:

- social media, such as
 - LinkedIn
 - Twitter
- [CURSOR Website](#)

8 Contacts

- Workshop Secretariat:

Saskia Maresch
German Institute for Standardization (DIN)
Burggrafenstraße 6, 10787 Berlin, Germany
+49 30 2601-2907
saskia.maresch@din.de
www.din.de

- CEN-CENELEC Management Centre

Christina Thorngreen
CEN/CENELEC Management Centre (CCMC)
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B - 1040 Brussels, Belgium

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<https://www.cencenelec.eu/>

- Workshop proposer

Evangelos Sdongos
ASTRIAL GmbH
Rudower Chaussee 29, 12489 Berlin, Germany
+49-(0)30-555786780
e.sdongos@astrial.de
<https://astrial.de>

Annex - Registered Workshop participants²

The following persons or organisations have registered as Workshop participants at the kick-off meeting and will actively participate in the development of the CWA.

Person	Organisation
Workshop Chair	Workshop Chair
Workshop Vice-Chair	Workshop Vice-Chair
Workshop secretariat	Workshop secretariat

² To be added after Kick-Off Meeting.

Templates for CEN Workshop Proposal Form

1 Proposal Form for CEN Workshop proposer

Details of the CEN Workshop proposer:

Name: Evangelos Sdongos

Organization: ASTRIAL GmbH

Postal address: Rudower Chaussee 29, 12489 Berlin, Germany

Email: e.sdongos@astrial.de

Phone: +49-(0)30-555786780

Webpage: <https://astrial.de>

Already known partners:

- [ASTRIAL GmbH](#), Initiator: Evangelos Sdongos
- [Institute of Communication and Computer Systems \(ICCS\)](#), Dimitra Dionysiou
- [The University of Manchester \(UNIMAN\)](#), Krishna Persaud
- [Tohoku University](#), Satoshi Tadokoro
- [Commissariat a L'Energie Atomique et aux Energies Alternatives \(CEA\)](#), Emmanuel Scorsone
- [German Federal Agency for Technical Relief \(THW\)](#), Tiina Ristmäe
- [Entente pour la Forêt Méditerranéenne \(Valabre\)](#), Nathalie Bozabalian
- [Service Départemental d'Incendie et de Secours de la Savoie \(SDIS73\)](#), Josseline Le Fevre
- [International Security Competence Centre GmbH \(ISCC\)](#), Friedrich Steinhäuser
- [SINTEF](#), Giancarlo Marafioti

Title of proposed CEN Workshop:

Urban search and rescue – Guideline for the application of a test method for innovative technologies to detect victims in debris

Background/Objectives:

In the face of natural or man-made disasters, urban search and rescue (SaR) teams and other first responders like police, medical units, civil protection or volunteers, race against the clock to locate survivors within the critical 72-hour timeframe (Golden Hours), facing challenges such as instable structures or hazardous environments but also insufficient situational awareness – all resulting in lengthy SaR processes. In order to speed up the detection of survivors trapped in collapsed buildings and to improve working conditions for the first responders, the EU-funded research project CURSOR designed an innovative Search and Rescue Kit (CURSOR SaR Kit) based on drones, miniaturized robotic equipment, advanced sensors and incident management applications. The overarching aim of CURSOR is to develop a SaR kit that will be easy and fast to deploy leading to a reduced time in detecting and locating trapped victims in disaster areas. To make sure that these solutions are meeting the needs of the first responders on the field, the system was tested by first responders of the CURSOR consortium as well as by external practitioners (e.g. INSARAG secretariat, Regione Liguria, USaR NL, Japan NRIFD) throughout the whole development process. Several lab and small

scale field trials were conducted. Against this background the consortium identified the standardization potential for a guide that describes a field test and the associated methodology for assessing the use of innovative technologies such as the SaR kit.

The objective of the standardization initiative is to develop a guiding document that answers questions like: How to set up a test field for a SaR kit? What should be tested? How should be tested? Who should conduct the test? What is the minimum set of specifications for the technological tools? The reader of the CWA would have the benefit of using the same procedure for different tests, so that a baseline is in place and the test results can be comparable. An important aspect is also to identify the limitations of different components of a SAR kit – depending of the context of the search and rescue, the user is able to choose the correct components for the task.

The CURSOR Consortium represents a major effort to enhance the collaboration between first responders and technological solution providers. The overall project coordinator is the German Federal Agency for Technical Relief (THW) and the scientific coordinator is the Institute of Communication and Computer Systems (ICCS). The consortium consists in total of 15 project partner from all over Europe and different background (SMEs, research institutes, practitioners). The consortium agreed to proceed with the initiation of this CWA due to their own experience with conducting field trials and the limited amount of guiding material that is currently available.

Scope of the CEN Workshop (planned area of application):

The planned CEN Workshop Agreement specifies requirements and recommendation on the set-up of a field test and a test methodology for Urban Search and Rescue (USaR) equipment for the detection of victims under debris. A realistic field test is described to gather information to test for example a Soft Miniaturized Underground Robot (SMURF) or drones equipped with specialized sensors, e.g. preparation of debris cones made of different materials. Furthermore, a performance test method for each component and the complete USaR system is described. The purpose of the test method is to specify the apparatuses, procedures, and performance metrics necessary to quantitatively measure a search and rescue kit’s abilities. The planned CEN Workshop is intended to be used by Urban Search and Rescue (USaR) equipment manufacturers and developers. The planned CEN Workshop is not primary intended to be used by first responders, although the user community is benefitted by the relevant guidelines to be put in place.

Are the following aspects potentially affected?

	YES	NO
Safety matters	<input type="checkbox"/> ¹	<input checked="" type="checkbox"/>
Management system aspects	<input type="checkbox"/> ²	<input checked="" type="checkbox"/>
Conformity assessment aspects	<input type="checkbox"/> ³	<input checked="" type="checkbox"/>
Security matters	<input type="checkbox"/> ⁴	<input checked="" type="checkbox"/>

Theme related standardization Technical Bodies, standards or regulations, if applicable:

- ISO/TC 292 Security and resilience and CEN/TC 391 Societal and Citizen Security
- [ISO 22398:2013](#) Societal security — Guidelines for exercises
- [CWA 17514:2020](#) Systematic assessment of innovative solutions for crisis management — Trial guidance methodology: The standard defines a systematic assessment of technical solutions within a realistic crisis scenario.

¹ For CEN: The CEN/CENELEC Workshop proposal shall be submitted to CEN/BT for decision. For CENELEC: Work on the proposed CEN/CENELEC Workshop shall not be initiated.

² The CEN/CENELEC Workshop proposal shall be submitted to the CEN/CENELEC BT(s) for decision.

³ CEN/CENELEC Internal Regulations - Part 3, 33 applies.

⁴ For projects dealing with security matters the security risk analysis provided below (item 3) shall be carried out

2 Proposal Form for CEN Workshop secretariat

CEN Workshop CURSOR (CEN/WS CURSOR)

Details of the secretary for the proposed CEN Workshop

Secretary: German Institute for Standardization (DIN)

Name: Saskia Maresch

Organization: German Institute for Standardization (DIN)

Postal address: Burggrafenstraße 6, 10787 Berlin, Germany

Email: saskia.maresch@din.de

Phone: +49 30 2601-2907

Webpage: www.din.de

Finance:

The CEN Workshop is financed by the European research project CURSOR (Coordinated Use of miniaturized Robotic equipment and advanced Sensors for search and rescue Operations). This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 832790 and from the Japan Science and Technology Agency.

Drafting and Dissemination:

	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G
1. Publication of draft Project Plan	█										
2. Kick-off Meeting		█									
3. Elaboration of draft CWA		█	█	█	█	█	█				
5. Finalization and approval through CEN Workshop								█	█		
6. Publication of CWA by CEN										█	█

Dissemination of final CWA:

- CURSOR Final Conference

Does the proposed CWA conflict with an EN or an HD?

	YES	NO
EN	<input type="checkbox"/> ⁵	<input checked="" type="checkbox"/>
HD (CENELEC)	<input type="checkbox"/> ⁵	<input checked="" type="checkbox"/>

Is the proposed CWA within the domain of an existing CEN and/or CENELEC Technical Body?

- CEN/TC 391 Societal and Citizen Security

CEN/CENELEC Management Centre (to be completed by CCMC):

Name of the CCMC Project Manager: Christina Thorngreen

Organization: CCMC

Postal address: Rue de la Science 23, 1040 Brussels

Email: CThorngreen@cencenelec.eu

Phone: +32 2 550 09 10

Webpage: www.cencenelec.eu/aboutus/MgtCentre/Pages/default.aspx

Response of CEN/TC 391 Societal and Citizen Security

	YES	NO
Is there an active work item covering the scope of the planned CWA?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there arguments against the topic of the planned CWA?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<Add information/explanations to the points marked „yes“>

⁵ Work on the proposed CWA shall not be initiated

3 Security risk analysis

3.1 General

Security risk analysis is a process of identifying and analyzing the main negative factors that may affect a standardization project's objectives. The following is targeted at secretariats of CEN/CENELEC Workshop Agreements (CWA) dealing with security issues. Its purpose is to help them identify and mitigate the risks associated with their project. It is structured around two main security threats that can affect the success of the work: major diverging interests among stakeholders and sensitive information.

3.2 Risk analysis on major diverging interest among stakeholders

Diverging interests among stakeholders can impede the process in reaching agreement on the CWA and even lead to failure to deliver the planned CWA. In order to identify and possibly mitigate the risks, the following questions should be reviewed:

- Is the planned CWA expected to have a major impact on the security policy/strategy of the core stakeholders?
- Does the scope of the CWA cover products or services with a clear dual-use purpose (i.e. which can be used for military purposes)?

3.3 Risk analysis on sensitive information

- In light of the scope of the CWA, is it likely that it may deal with sensitive information? If so, what is the information sensitivity level?
- Is there a need for a (non-)disclosure agreement?
- Is there any conflict of interest for stakeholders involved in the CEN/CENELEC Workshop, regarding especially the use they may make of any information they receive during the development of the CWA?
- What steps should be taken to manage information dissemination and storage (e.g. memory stick, emailing, storage) during the development process of the CWA?