

Market

Early validation & end-users' club feedback report



Early validation & end-users' club feedback report refers to the two key outputs of the cyberwatching.eu that are designed for the end-users: cyberwatching.eu Marketplace and SME end-user club. The purpose of this document is to report on the main developments regarding services provided for the end-users, analyse the feedback received from the SMEs, and to provide recommendations and planning of the further actions.

Disclaimer

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Executive Summary

SME end-user club and the Marketplace are among the key assets of cyberwatching.eu. Both of them aim at providing services to the end-users of the project, namely European small and medium enterprises (SMEs). Therefore, it is important to ensure that these services match the needs and requirements of the end-user, and have a high potential of the uptake.

For this reason, the purpose of the given document is to report on the main developments regarding services provided for the end-users, analyse their needs and feedback and provide recommendations, as well as planning of the further actions.

Recommendations given at the end of the document will be taken into consideration by the consortium partners while further developing their services for SMEs, and updating the Marketplace and the SME end-user club.

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1 Introduction

Cybersecurity has, undoubtedly, become one of the leading priorities for the European Union (EU): from security of the small business throughout the EU, to the fight of international cyber-crime, cybersecurity topics dominate the EU agenda. Research and innovation isn't an exception. Since 2013, when the European Cybersecurity Strategy has been released, the European Commission (EC) has committed to use Horizon 2020 programme in order 'to address a range of areas in ICT privacy and security, from research and development to innovation and deployment'. In addition, the further commitment has been made to better coordinate the research agendas between the EU-funded projects and the Member States. Later in 2017, an adoption of the so-called 'Cybersecurity package' confirmed the EU's engagement into cybersecurity research and development by announcing a creation of the cybersecurity competence network and the coordinating European Cybersecurity Research and Competence Centre.

In this context, the cyberwatching.eu was launched in 2017 to take up the challenge of monitoring EU and member states' research agendas and project results, creating a platform (the cyberwatching.eu Marketplace) that would bring together cybersecurity demand and supply players, as well as supporting the uptake of cybersecurity and privacy products created by the EU-funded projects. To achieve the latter, cyberwatching.eu has created an SME end-user club which facilitates the dialogue between the EU research and development (R&D) community and the end-users – small and medium enterprises (SMEs) throughout the EU. It not only brings together the EU projects and SMEs, but also helps to gather and understand SMEs' needs in cybersecurity, facilitates the validation and testing of cybersecurity and privacy project results.

This early validation & end-users' club feedback report, therefore, refers to two key outputs of the cyberwatching.eu: the cyberwatching.eu Marketplace and SME end-user club. The document aims to report on the main developments and achievements facilitating services for the end-users, analyse the feedback received from the SMEs, and to provide some insights on further activities, including channels of promotion, upcoming events, recommendations of improvement, etc.

This document is comprised of the five sections. The first one overviews the needs of SMEs regarding the services provided by the cyberwatching.eu Marketplace and end-user club. The second section provides details on the development of the SME end-user club and the Marketplace, as well as its value proposition. The third section reports on the promotion and SME consultation activities taken up by the partners involved, while the fourth part evaluates the feedback coming from the SME users. Finally, the last section of this documents provides recommendations and plan of the future activities.

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¹ https://eeas.europa.eu/archives/docs/policies/eu-cyber-security/cybsec_comm_en.pdf

2 SME needs

Around 99% of the European companies are small and medium enterprises, which are still particularly vulnerable in case of cybersecurity incidents. 60% of all cyber-attacks or breaches are aimed at SMEs, while 68% of them do not have any systematic approach for ensuring cybersecurity in their company². Therefore, European SMEs are the main targeted stakeholders of the cyberwatching.eu

It is important to distinguish the two very different types of SMEs that exist in cybersecurity environment:

- 1. **SME providers** (also called vendors or suppliers) SMEs that are developing cybersecurity solutions (products or services) themselves. They are mostly highly specialised in one area and do not offer the whole range of cybersecurity solutions. These SMEs often operate in specific niches in domestic markets, with low levels of internationalisation³.
- 2. SME users ICT-intensive SMEs that use (or could potentially use) cybersecurity solutions. These can be any SMEs, in any sector, typically having low in-house capacities and possibly lower understanding and skills in the field of cybersecurity. They need to buy 'ready-to-use' cyber security products and services. Such services do not include only off-the-shelf software but also many tailored services, such as bishop software and consultancy.

These users can be further broken down into two categories:

- a. SMEs that already operate in ICT or another highly digitised sector, and are rather
 mature users of cybersecurity solutions (e.g. SMEs offering cloud services they do
 not produce cybersecurity solutions by themselves, but use already made services
 in their daily work),
- b. **SMEs** that normally do not use any cybersecurity solutions, or use only very primitive ones (e.g. hairdresser salon which uses malware software in her/his computer).

While creating services for the SMEs, such as the Marketplace and SME end-user club, it is important to analyse their needs that greatly vary from those of large companies. Therefore, led by European DIGITAL SME Alliance (DSME) as part of T5.3, partners took the initiative to engage with SMEs and SMEs' associations in order to understand SMEs' needs and requests regarding the proposed services. It is important to note that SMEs were not asked about their needs in cybersecurity in general, but rather about the specific services that could potentially be provided by the cyberwatching.eu consortium:

- 1. how the Marketplace and SME end-user club should be designed
- 2. what and information and additional services it should provide
- 3. what added value for business it should create in order to be attractive for the end-user, etc.

² https://www.smesec.eu/

³ http://ecs-org.eu/documents/ecs-cppp-industry-proposal.pdf

This broad consultation exercise was carried out through informal talks and face-to-face discussions with its members, as well as during various public events and networking sessions. Such discussions mainly targetted entrepreneurs and developers representing their SMEs, as well as SME organisations and clusters (e.g. European DIGITAL SME Alliance member organisations, cluster partners of AEI). Opportunities for such informal discussions have been events where cyberwatching.eu services have been presented, e.g. ECSO Working Group 4 (Support to SMEs, coordination with countries and regions) meetings, European DIGITAL SME Alliance's Board meetings, INCIBE's International Meeting on Information Security 2017, etc. (extended list of the events is provided in the chapter 4), and webinars.

The main SME needs identified and the repetitive comments received from the SMEs are summarized in the table below.

SME needs	SME providers	SME users
Information on cybersecurity landscape	Would like to know more about innovative solutions developed by research community; about potential of participating in EUfunded cybersecurity activities	Would like to know more about cybersecurity and privacy in general; is interested in existing free solutions or consultations; lacks all types of information on cybersecurity tools, cyber insurance, etc.; prefers information to be easily presented, not very technical
Registration	Fast and simple, respecting GDPR principles	Fast, simple, not very technical questions
Cybersecurity services to be offered in the Marketplace/ end-user club	Chance to get innovative, new solutions that are not yet widely used elsewhere; possibility to incorporate offered solutions in its own products/services	Simple and easy-to-use solutions that do not require much of <i>a priori</i> knowledge
Level of engagement with cyberwatching.eu	Depends on services offered by the cyberwatching.eu – if these are beneficial for their business, SME providers are ready to engage (participate in the events, webinars, etc.)	Interested in engaging but cannot fully commit to participate very actively – cybersecurity is not the core interest of business
Visibility	Would benefit from additional visibility, would like to be presented as cybersecurity solution providers, offering innovative solutions, leading the European cybersecurity market, and as providers complying with the European privacy requirements and consumers'	Would benefit from the additional visibility: would like to be presented as company ensuring at least minimal cybersecurity and privacy standards related to its services.

	needs.	
Networking	Would benefit from networking with other providers or even research community; is interested in getting involved to EU cybersecurity R&D&I activities; interested in events targeting the end-user, promotion of their products	Is interested in meeting providers of cybersecurity solutions, including consultants who could give some advice specific for their own business,
Pricing	Is ready to consider paying registration fee amounts (e.g. up to EUR 2.000 per year) in exchange of networking and visibility services that can contribute to their marketing strategies. Is ready to pay small registration fee (e.g. up to EUR 2.000 per year) to receive information that can help them become recipients of EU funding for R&D initiatives. Having information about R&D projects results that could be used to develop their own products is not perceived as a need and there is little readiness to pay for such service.	Is not always eager to pay: depends on the quality and need of products/services provided; some companies tend to prefer free downloadable solutions, or even tend to believe there is no need to pay for cybersecurity

Table 1 SME needs

cyberwatching.eu Marketplace and SME end-user club have been developed keeping in mind this early analysis of the SME needs, and taking into consideration different needs, coming from different types of SMEs.

3 Cyberwatching.eu Marketplace and SME end-user club: state-of-art and value proposition

As explained above, cyberwatching.eu Marketplace and SME end-user club have been developed to address the needs of the end users, whether they are cybersecurity users or providers. Therefore, in developing the concepts of both services, the value proposition for small and medium sized businesses has been taken in consideration. The main benefits of these services are described in the sections below, as well as the state-of-art in which currently both of the services are.

3.1 Marketplace: value proposition

As most of the cybersecurity and privacy (CS&P) solutions, developed by European R&D projects, are technology-intensive and very innovative, the marketplace targets cybersecurity service providers.

The Marketplace can mostly be used by the SME providers in two ways: 1) as a platform to display their own products, developed by company's internal research and innovation activities, or 2) as a platform to find and purchase from other producers pre-commercial cybersecurity solutions that can later be integrated into their own products or services.

The value proposition of the Marketplace concentrates on the SME providers, and suggests them the following benefits:

- Access the most innovative pre-commercial cybersecurity solutions easy to find and filter, cheaper than the market price, easy direct contact the provider.
- Get discounts on selected marketplace offers.
- Register their own cybersecurity solution and get a promotional space for your product/service.
- Improved cybersecurity and privacy for their business and organisation.
- Create their own provider profile and benefit from extra visibility.
- Receive requests from actual end-users actively looking for new cybersecurity and privacy services.
- Visibility on their product/service through cyberwatching.eu social media.
- Be invited to speak and participate at cyberwatching.eu and related events and webinars with EU-wide audience (see for example: <u>Panda Security presentation at our workshop with INCIBE</u>).

The marketplace also provides services for SME users, or ICT-intensive SMEs, to help them better understand how such technologies can be used, such as webinars on cyber risk management, management control of identities and rights, guidelines on the implementation of ISO/IEC 27001 on information security management, etc.

3.2 Marketplace: state-of-art

Version 1.3 of the Cyberatching.eu Marketplace was launched in the beginning of October 2018 and can be found under the following URL: https://cyberwatching.eu/marketplace

Currently, it contains around 30 entries, displaying products or services developed by the EU R&D projects, or through the R&D activities of the European SMEs.

The Marketplace landing page offers a possibility to register products or services to the Marketplace (for the SME providers and R&D projects), or to register as buyers and browse through the Marketplace looking for the relevant solutions.

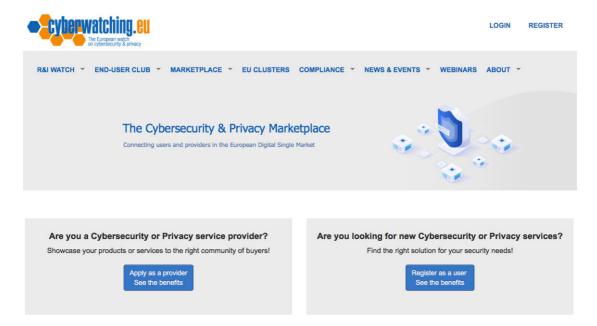


Figure 1 cyberwatching.eu Marketplace landing page: Registration entry points

3.2.1 Marketplace providers

In order to register the product/service, SME or R&D projects have to register as a provider, and then it can add one or more cybersecurity services that it has developed.

Above the registration page, companies can also see the benefits of the Marketplace for them (be they users or providers). Registration is easy and quick — asking few main questions about the registrant (name of the company, contact details, etc.), and few short questions (mostly multiple choice options) about the field of cybersecurity it is engaged in, etc. All the data collected through the registration process is handled complying with the requirements specified in the European General Data Protection Regulation (GDPR).

The registration steps are shown in figure 2.

- 1. Register organisation as a provider
- 2. Register products and services.
 - a. Indicate if these require testing or validation These are promoted to SME enduser club
 - b. Indicate if service/product is final Posted in Marketplace.

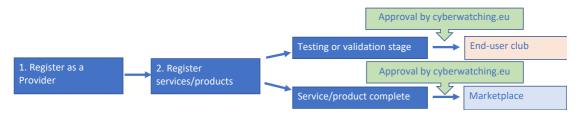


Figure 2 Marketplace provider registration process

Once the authenticity and relevance of the Service Provider is checked by cyberwatching.eu, they are approved and given access to a dedicated private area in which they can:

- Manage (upload/modify/delete) their organisation profile and marketplace entries.
- Track the requests made by Buyers on specific marketplace entries.
- Contact registered Buyers which have sent them a RFI or RFQ.

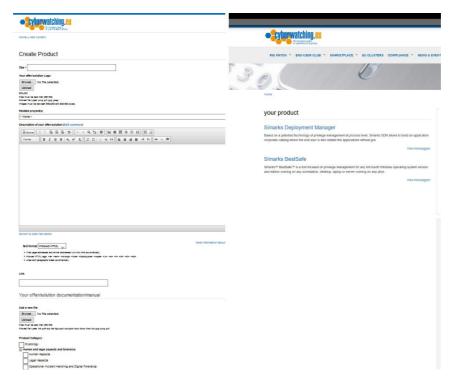


Figure 3 Marketplace service provider private area

3.2.2 Marketplace buyers

Registration quick and very simple. Buyers are able to post their cybersecurity needs and contact marketplace providers directly via the marketplace.

Registration also offers the possibility for users to join the SME end-user club with related information, expected engagement and benefits highlighted.

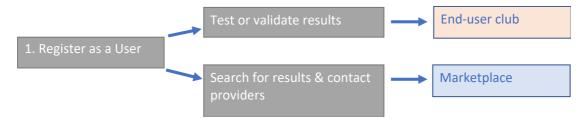


Figure 4 Marketplace buyer registration process

The Marketplace buyers can directly contact Service Providers through a simple webform placed at the bottom of each Product or send a general request to all Service Providers for specific needs which could not be covered in the Products at the moment.

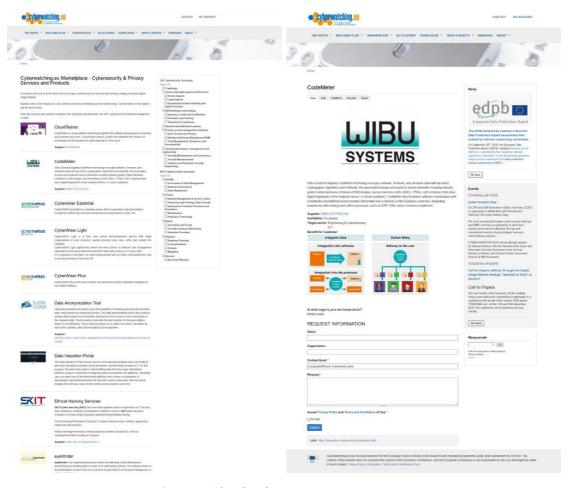


Figure 5 Marketplace buyer pages

3.2.3 The marketplace for non-registered users

Marketplace products and services can be viewed without registration. Therefore, interested buyers may first see what are the potential solutions on the marketplace, and register after having found the necessary product.

3.2.4 Categorisation and filtering of marketplace entries

The end-user experience in finding for products and services is facilitated through two main filters:

- 1. <u>cybersecurity taxonomy</u>, developed by the European Commission's Joint Research Center.
- 2. NIST Cybersecurity framework. This is used also by ECSO WG4 as the basis for their SME- Hub

Users can immediately choose the relevant category in the landing page, or proceed to filtering after entering Marketplace's offers list (see the pictures below).

The EC's JRC definitions have been used to reflect a European taxonomy. In order to make these categories more user friendly and relevant to a marketplace, the 14 categories have been repackaged into 6 sub-groups to facilitate the user experience:

Privacy, access management and trust

- Data Security and Privacy
- Identity and Access Management (IAM)
- o Trust Management, Assurance, and Accountability

Security governance, management and engineering

- Security Management and Governance
- Security Measurements
- Software and Hardware Security Engineering
- Network and distributed systems
- Cryptology
- Human and legal aspects and forensics
 - o Human Aspects
 - o Legal Aspects
 - o Operational Incident Handling and Digital Forensics

Methodologies and training

- o Assurance, Audit and Certification
- o Education and Training
- Theoretical Foundations

JRC CybersecurityTaxonomy

NIST Cybersecurity Framework



Privacy, access management and trust

Trusted services can give you the competitive edge. Access new data security and privacy services, Identity and Management solutions and give your users greater assurance and accountability



Security governance, management and engineering

The right security governance and measurements can faciliate decision making, improve performance and accountability



Network and distributed systems

Protecting your network and distributed systems will enure customers and employees are safe from attack. By doing this and you can also protect proprietary information and ultimately your reputation



Cryptology

Services providing robust techniques to prevent cyber attackers while letting legitimate users have access to information



Human & legal aspects and forensics

From legal and ethical aspects in cybersecurity to how to protect from unintentional and malicious threats from inside your organization



Methodologies & training

The right skills and expertise is vital in cybersecurity and using the right methodologies and frameworks builds confidence and trust in your services

Figure 6 Marketplace categories: JRC view

The NIST definition has been used in order to align the cyberwatching.eu marketplace with ECSO WG4 and their categorisation of SME services and products which is based on the NIST definitions (level 2):

Identify

- Asset Management
- o Business Environment
- o Governance & Risk Management

Protect

- o Identity Management & Access Control
- Awareness and Training, Data Security
- o Information Protection Processes and Procedures
- Maintenance
- Protective Technology

Detect

- Anomalies and Events
- Security Continous Monitoring
- Detection Processes

Respond

- o Response Planning
- Communications
- Analysis
- Mitigation

Recover

o Recovery Planning

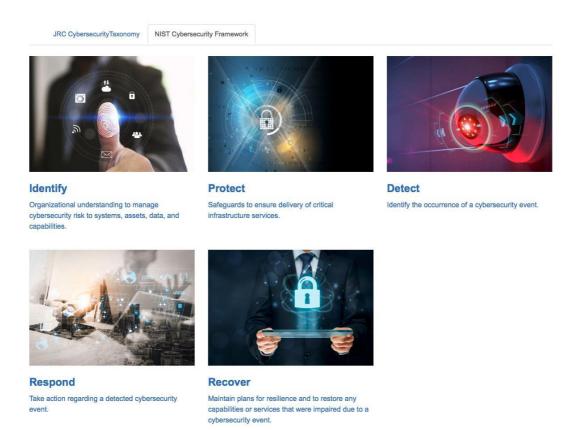


Figure 7 Marketplace categories in the landing page: NIST view

Synergies with ECSO WG4 and their proposed SMEHub are under discussion and a key element of this was this alignment and classification of services in the cyberwatching.eu marketplace. This is discussed further in section 4.1.1.

In addition, as mentioned in D2.2 1st Technology Radar Report, the 11 projects in the radar that have been categorised under "Adopt" will be contacted and invited to publish their results on the marketplace where cyberwatching.eu can facilitate them in reaching potential adopters.

3.3 SME end-user club: value proposition

SME end-user club has been developed with the main goal in mind: to engage SME end-users as early validators, and let them test selected R&D results that are part of the cyberatching.eu catalogue. Such services are developed by the EU-funded projects (mainly Horizon 2020), are collected and promoted in the cyberwatching.eu service offer catalogue⁴. In order to be displayed in the SME end-user club they shall be in quite mature stages, where they need validation and feedback from the end-users.

SME end-user club targets both: SME providers who are interested in trying new cybersecurity solutions, testing whether some of the offered components could fit to their services or products; and SME users who are interested in free solutions which can even be updated to match the end-users' needs!

In addition, additional end-user club services have been identified by the cyberwatching.eu consortium in order to attract more SMEs to the Club and ensure their active engagement.

Thus, the further value proposition for SMEs has evolved:

• For the SME users:

- Access to cutting-edge cybersecurity and privacy solutions and services (only the 'end-solutions' that do not require cybersecurity proficiency from the user).
- Chance to validate and test cybersecurity solutions, in some instances also get trained about their usage, and possibility to get updated products matching their needs (based on the input provided).

For the SME providers:

- o access to cutting-edge cybersecurity and privacy solutions and services.
- Chance to validate/test new services for free and contribute to their development research projects, offering to validate their products, might even adjust their products based on user's feedback.
- Networking with the relevant cybersecurity actors (e.g., in SME workshops, project's final conference, other international cybersecurity events, etc.).

In addition, all the SMEs, be they cybersecurity solutions' providers or users, could find the following services of the cyberwatching.eu, particularly, of the SME end-user club, beneficial:

- Possibility to contact the supply side directly and get support in implementing solutions
- Reduced premium on insurance services.
- Visibility to the company, e.g., through the "user profile" published in the website, through the social media, etc.
- Free access to tools and guidance from cyberwatching.eu experts on legal aspects of privacy, cyber insurance and certification.
- Visibility opportunities through publishing their own blog post, also promoting their approach to cybersecurity, or even identifying specific products or services.
- Invitation cyberwatching.eu events and webinars
- Opportunity to become one of the cyberwatching.eu best practice cases.

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⁴ https://www.cyberwatching.eu/services/catalogue-of-services

SME end-user club: state-of-art

SME end-user club was launched in the early October, 2018 and can be found under the following URL: https://cyberwatching.eu/end-user-club

Registration to the club is aligned with that of the marketplace so that it is easier to match needs to services. User preferences related to JRC taxonomy and NIST cybersecurity framework are collected at registration so that marketplace services can be proposed to users. All the data collected from the registered companies is handled complying with the GDPR requirements.

SME end user-club landing page offers a list of SMEs registered to the Club (thereof giving some visibility to the registered companies). On the right side, it also displays blog posts that any SME can write after it has registered (this gives them a chance to further promote their work, describe what are their cybersecurity needs, approaches, etc.)

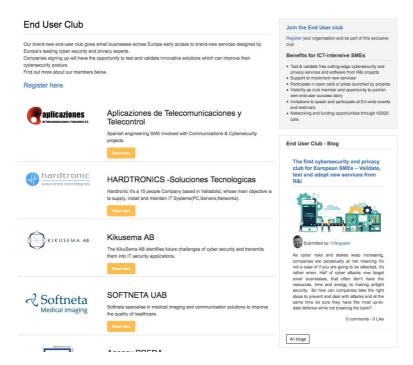


Figure 8 SME end-user club landing page

In addition, as it has been mentioned before, additional information is provided for the SME end-users to encourage their interest in the Club. While invitations to the events, webinars, etc. are currently sent out by e-mail, provided in the registration,

In addition, members can also log in and access their own personalied page. This proposes content matching their profile, created at registration:

- Services ready for validation/testing
- Marketplace services
- Awareness raising content related to cybersecurity
- tools and guidance from cyberwatching.eu experts and external sources has already been created in a form of repository (see the image below).

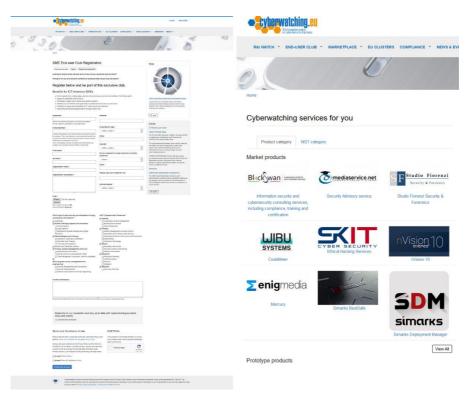


Figure 9 SME end-user club registration & personalised user page (Beta version)

In addition, a single repository of related content has also been created. Content is ordered following the NIST cybersecurity framework allowing it to also be proposed to the end-user's own personal page.

Content comes both from cyberwatching.eu outputs and deliverables but also in terms of contributions from other projects with a focus on SMEs such as SMESEC.



Figure 10 Repository of cybersecurity information and guidance for SMEs

In addition, numerous projects have been identified and are being contacted in order to promote their results to the SME end-user club for testing and validation.

Indeed, D2.2 1st Technology Radar Report, identifies projects that can currently be categorised as being at the "Trial" stage of maturity. These will be considered and contacted to provide results to the SME end-user club for potential validating and testing of results.

Identified project examples include (list is not exhaustive and is continuously updated):

- TOREADOR
- OCGN
- SAFEcrypto
- SHIELD
- ARIES

SME-friendly format to present project result that need testing has also been created. It is short, and aims at easily explaining the suggested solution:

- 1. One sentence explanation: what is the product? (E.g., Directory-as-a-Service tool, platform to monitor managed networks for threats, etc.)
- 2. Classification of the product/servies (JRC taxonomy & NIST cybersecurity framework).
- 3. One to three sentences describing what does the product do/what is it made for. Explanation shall be written in a way that would allow it to pass a 'Granny test': while reading it to the grandma, would she understand why her fruits seller needs to use the suggested product in his business?
- 4. One sentence describing why the product is unique and innovative (e.g. It is the only such solution in the market! It is the first cloud-based solution of this kind! It is the fastest solution of its kind, etc...).
- 5. Pictures, screenshots or a short demo video.

SME end-user club is under development. Further updates are explained in Chapter 6.

4 Promotion activities of the Marketplace and the SME end-user club

Numerous activities to promote the cyberwatching.eu Marketplace and SME end-user club have taken place during the project. Although the actual services have been officially launched recently, some promotion of the upcoming outputs has been done in advance.

In addition, presentations of the upcoming services have also been carried out with the intention to collect SME needs and feedback on the proposed idea. Therefore, this section further explains what channels have been used to target the end-users, and lists the events where information was disseminated.

4.1 Channels

As there are many channels identified to promote the Marketplace and SME end-user club, some of them have yet been used to a limited extent, with the purpose of offering fully functioning services at the latter stage. This approach has been chosen because SMEs normally have very limited time and human resources, therefore, if they do not find the expected functionality in the services provided, they refuse to attribute additional time of checking the same services later again.

The table below summarises the most important channels that have been used to target end users, explains what it has been used for. This list is not exhaustive and will be update throughout the entire duration of the project.

Channel	How has it been used?
European DIGITAL SME Alliance membership	Members were informed about the Marketplace and invited to join it (via e-mails, during the Board meetings and common events); only selected SMEs have been informed about the end-user club
ECSO	Members were informed about both: Marketplace and SME end-user club during the Working Group 4 meetings
SecUnity Network	Coordinators have been informed about the Marketplace and SME end-user club, further steps established. Cross-dissemination of information between SecUnity and cyberwatching.eu will take place
European (ICT) clusters	Project consortium (with a lead of AEI) has analysed potentially interested European clusters and has grouped them into two categories: specific clusters in ICT and Cybersecurity and clusters of other categories (energy, health, food) which may be in need of cybersecurity solutions. In total around 300 clusters have been identified,

Online resources	and half of them have already been contacted. Cyberwatching.eu will further deepen collaboration with the identified clusters via their participation in cyberwatching.eu webinars and events (such as the Annual Event, concertation meetings, etc.). New clusters from the list of identified clusters will be continuously contacted and added to the Catalogue of Clusters. Various social media channels (firstly those of cyberwatching.eu itself, and the consortium partners, but		
	not only) have been used for promotion, identification of more online resources will follow.		
Events, workshops, etc.	Most of the promotion and dissemination has been done during numerous events organized or attended by the project partners. List is included in the sub-section 4.1.2 below.		

Table 2 List of channels used to promote cyberwatching.eu Marketplace and SME end-user club

4.1.1 Collaboration with ECSO WG4

ECSO (European Cybersecurity Organisation) is a non-for-profit organisation which operates as a contractual Public-Private Partnership in the field of cyber security. ECSO members include a wide variety of stakeholders which are of the interest for the cyberwatching.eu: large companies, SMEs and Start-ups, research centres, universities, end-users of cyber security products and services, operators, clusters and association as well as European Member State's local, regional and national administrations, etc. The main objective of ECSO is to support all types of initiatives or projects that aim to develop, promote, encourage European cybersecurity, including cyberwatching.eu

ECSO's internal Working Group 4 *Support to SMEs, coordination with countries and regions* is particularly important for cyberwatching.eu consortium due to its outreach to SME community (mostly, to the providers of cyber security solutions). It also serves as a perfect platform to promote the Marketplace and SME end-user club.

Continuous collaboration with ECSO, and especially with WG4, has been established through the joint efforts of DIGITAL SME, CONCEPTIVITY and TRUST-IT. Cyberwatching.eu marketplace and SME end-user club have been presented and discussed in numerous WG4 meetings, as well as other ECSO events (e.g. WG4 meeting in Helsinki, September 2017, cyber security scaleups and industry leaders matchmaking event in Milan in September 2018, etc.).

In addition, cyberwatching.eu participated in WG4 e-meetings, where the idea of ECSO SME Cyber Hub (Hub) has been presented. The SME Cyber Hub is a key strategic initiative supporting the goal to strengthen cybersecurity market development in Europe and its transparency. Such a Hub should provide European cybersecurity technology and capability map which would: 1) help to bridge cybersecurity supply and demand sides; 2) foster

investment into smaller companies and 3) supply the European cyber companies with the urgently required human resources. Both ECSO SME Cyber Hub and cyberwatching.eu Marketplace have some the similarities, especially when it comes to mapping the existing services, and connecting supply and demand sides in the European cybersecurity ecosystem. However, the cyberwatching.eu Marketplace is much more mature and is already practically developed, while Hub currently remains in the planning phase.

Therefore, cyberwatching.eu and ECSO WG4 have decided to continue their cooperation, and develop both concepts in parallel, keeping in mind the possibility to merge the two in a future as one of the potential sustainability scenarios for cyberwatching.eu Such cooperation results in a possibility to apply Marketplace filtering based on both JRC and NIST level 2, invitation for cyberwatching.eu representatives to attend WG4 meetings, possibility to promote cyberwatching.eu Marketplace and SME end-user club among ECSO members, using direct channels of WG4.

As a result, further collaboration with ECSO WG4 will be built on the periodic participation in ECSO WG4 meetings and other events (such as matchmaking and investment events for SMEs and scaleups), and promotion of the Marketplace to ECSO members (during the meetings, through members' mailing, by disseminating printed material in ECSO events, etc).

4.1.2 Events

The following list demonstrates variety of events where the cyberwatching.eu Marketplace and SME end-user club have been promoted (M1-18), and where SMEs were targeted in order to receive their feedback, and later, to encourage their registration.

- Digital Assembly 2017 (July 2017, Valetta, Malta) Participation of DSME at conference panel on cyber-security – informal networking talks with SMEs, clusters and SME associations.
- ECSO Working Group 4 meeting (September 2017, Helsinki, Finland) presentation of cyberwatching.eu, collection of the feedback.
- cyberwatching.eu SME workshop in INCIBE's International Meeting on Information Security 2017 (October 2017, Leon, Spain) – workshop with cyberwatching.eu community, presentation of the Marketplace and SME end-user club, collection of the feedback.
- Eastern Partnership Business Forum (October, 2017, Leon, Spain) distribution of flyers, informal talks with SMEs and business associations.
- ISSE conference (November 2017, Zaventem, Belgium) presentation of cyberwatching.eu Marketplace and SME end-user club, discussion with the participants
- Investing day for European Cyber security companies (February 2018, Paris, France) informal discussions and cyberwatching.eu presentation to the companies.
- Cyberwatching.eu concertation meeting (April 2018, Brussels, Belgium) –
 cyberwatching.eu presentations, discussions, dissemination of materials.
- Meeting with CAN (April, 2018, Milan, Italy) presentation of cyberwatching.eu and its Marketplace and SME end-user club to Italy's biggest SME association CNA.
- European DIGITAL SME Alliance Board meeting (May 2018, Brussels, Belgium) –
 presentation of cyberwatching.eu upcoming Marketplace and SME end-user club,
 distribution of flyers.
- CEBIT (June 2018, Hannover, Germany) distribution of flyers, discussion with SMEs.

- #INVESTCYBER ECSO event (September 2018, Milan, Italy) presentation of cyberwatching.eu, informal discussions with SMEs.
- ENISA and cyberwatching.eu workshop (October 2018, Athens, Greece) presentations by cyberwatching.eu community, presentation of the Marketplace and SME end-user club, informal talks with SMEs.
- Annual event workshops and presentation at innovation park at CyberSec event, Krakow,
 Polandi October 2018
- cyberwatching.eu webinars (June, July, September, October 2018) presentations of cyberwatching.eu Marketplace and SME end-user club.
- ECSO Working Group 4 conference calls discussions mostly regarding the Marketplace, SME end-user club briefly presented.
- ENISE Event, an International Meeting on Information Security (October 2018, León, Spain) is a meeting to promote the cybersecurity industry in Spain. Participation of AEI Ciberseguridad in a stand and presentation of the Marketplace and SME End-User-Club to more than 50 interested companies
- II Cybersecurity Forum Castilla and León, (October 2018, Valladolid, Spain), a business
 meeting organized to raise awareness about the importance of cybersecurity in SMEs.
 AEI Ciberseguridad, among several initiatives, spoke about the Cyberwatching eu project

5 Evaluation of early SME feedback on the cyberwatching.eu Marketplace and SME end-user club

Although Marketplace and SME end-user club services have been launched recently, the first feedback from the SMEs has been collected, especially through ECSO Working Group 4 and members of the European DIGITAL SME Alliance. The insights obtained from talking to the SME community have been summarised, and the main points are presented below.

The below-results reflect only the experience of SMEs that have been introduced to the cyberwatching.eu Marketplace and SME end-user club without an a-priori knowledge on other alternative services, etc. Therefore, some of the insights differ from the conclusions made after market positioning analysis carried out by the consortium for the Sustainability strategy (D5.1).

5.1 Cyberwatching.eu Marketplace

- 1. SMEs see **the potential of the Marketplace**, and express their interest to register. Suggestions for further development and even **potential ideas of post-project exploitation** have been raised by the SME community, and communicated to the project consortium.
- 2. However, the services are **not perceived as mature / complete enough to justify a subscription fee**. The services currently offered are perceived as a pilot phase, rather than as the final fully-fledged product.
- 3. **Easy and quick registration** has been appreciated.
- 4. Some questions have been raised regarding the **registration for buyers** what are the benefits for registered buyers compared to the non-registered ones?
- 5. Some buyers expressed a need to see the **prices** of offered solutions, while providers agree with the adopted approach.
- 6. Some of the offers are **not clearly described** or **presented in an unattractive way** (long descriptions, unclear benefits of the product/service, advantages over other competing solutions not described, etc.) which lowers an overall interest in product or service due to lack of market skills from providers (R&I projects).
- 7. Some SMEs noticed that it was not easy to **find the Marketplace in Google search** (without knowing the exact name of cyberwatching.eu).

5.2 Cyberwatching.eu SME end-user club

- 1. **SME users have shown interest in additional services of the SME end-user club**, such as information repository, potential discounts on cybersecurity insurance, webinars, etc.
- 2. SME users express **little interest in testing and validating projects' results.** Moreover, some SMEs were uncertain about having the necessary **competences** and knowledge on how to use them and the availability of support from the organisations that developed those projects' results. Provision of additional **trainings, demos** or other explanations is suggested to the projects consortia.
- 3. Many SMEs see testing and validation of the project results as a **burden rather than a service**. As long as many R&D projects are keen to upgrade their products based on the input received, the **aspect of tailor-made solutions should be stressed** more strongly.

- 4. Some uncertainty has been raised regarding **information repository and webinars being also available for non-registered users**. Some SMEs expect all the services proposed under Club's value proposition to be exclusive only for them.
- 5. Much interest has been shown regarding **cyber insurance** guidance and the upcoming discounts.

6 Recommendations and future actions

Based on the analysis of actions already implemented, SME needs and feedback related to the cyberwatching.eu Marketplace and SME end-user club, as well as market analysis carried out in D5.1 the below-explained recommendations have been identified.

First of all, the **further development of services provided in the SME end-user club** is needed. It includes an **upload of the first project results** to be validated or tested, intensified population of the Marketplace (registration of new providers and their products/services) as well as the **further development of the content** provided for the Club. Moreover, additional **services which could be provided for registered-only members** should be identified among the partners (e.g. discounted cyber insurance by AON), and promoted through the SME end-user club.

Second, benefits of joining the Marketplace and/or SME end-user club will be communicated even better and in a more structured manner: stressing differences among the both tools, highlighting the benefits of registration vs. use as a non-registered user, focusing attention on the fact that tailor-made solutions can be requested based on specific needs.

Third, **search engine optimization** is being implemented in order to boost the online visibility of a website, Marketplace and SME end-user club web search engine's unpaid results. This would attract some of the new stakeholders that have not heard of cyberwatching.eu yet but are searching for cybersecurity solutions. The more visitors the website will get from the search engine's users, the more of tham can then be converted into customers.

Fourth, further **collaboration** with the main identified stakeholders is **strongly encouraged** and **should be deepened**. Particular attention shall be given to: ECSO, especially its Working Group 4, European clusters (ICT intensive clusters as well as other clusters-users of cybersecurity technologies), European R&I projects.

Fifth, intensified communication and promotion of cyberwatching.eu events, webinars and workshops is crucial to attract new interested parties. It should leverage on cybersecurity and privacy experts' network (experts coming from the identified projects, clusters, etc.) which can provide a very meaningful and interesting content for such events.

Finally, with strongly matured services being launched, additional dissemination and outreach channels should be used (as demonstrated below), and dissemination through existing channels should be intensified.

6.1 Recommended communication and outreach channels

In order to strengthen dissemination and outreach, some new channels of communication and outreach are identified. In addition, further actions suggested to the channels already used.

Channel	How this channel will be used?	
European DIGITAL SME Alliance membership	After the update of the SME end-user club, special dedicated Newsletter to be sent out to the Members, possible dissemination material (Press release, flyer, banner) to be offered for them to use.	
	Special website page to be dedicated for the promotion of the Marketplace and SME end-user Club.	
	SME targeting during the events, workshops, etc.	
ECSO	Implementation of NIST level 2 classification, and its presentation in WG4 meetings, as well as other ECSO events; possibility to have more cyberwatching.eu representatives during the WG4 meetings, continuous updates and information on the developments of the Marketplace (and SME end-user club to a lesser extent).	
SecUnity Network	Cross-dissemination activities; exploring the possibilities to directly contact companies registered in SecUnit.	
European (ICT) clusters	Targeting professional networks of the partner AEI Ciberseguridad, and the SEREN3 network and informing them about the cyberwatching.eu; direct communication with the identified ICT clusters, clusters' involvement to the project activities (events, webinars).	
	Scouting of both providers and users of services based on marketplace categories.	
Project consortia that include SMEs	Existing projects which have been registered to the cyberwatching.eu catalogue (or those that are registered as Marketplace providers) contain many SME partners that could be targeted and contacted.	
Online resources	After the recommended updates, blog posts or news articles could be sent to various SME and startup communities or online magazines. In exampled, through Startup Europe channels, www.entrepreneur.com , www.sme-news.co.uk , http://www.smeinsider.com , etc. In addition, activities targeting active social media accounts, influencers and other relevant profiles to be implemented	
EU-wide events, webinars etc.	Continuous monitoring of the events shall continue, and cyverwatching.eu could benefit from the initiatives such as SME week, cybersecurity week, etc. In addition, it shall continue cooperation and exploit the possibilities of the joint events with ECSO, ENISA and other relevant organisations with high visibility.	

	Monthly webinars will be used to promote the marketplace with topics relating to the various cybersecurity taxonomies used. The webinar format lends itself well to this in terms of R&I project, SME and cluster always being present at webinars.
SME workshops	SME workshops will mostly concentrate on the identified cybersecurity taxonomy categories. Some SME providers (and, potentially, some of R&I projects) will be invited to present their best practices and explain how do they address cybersecurity issues of the certain category. Cyberwatching.eu Marketplace and SME end-user club will be presented in each of such workshops, explaining how it contributes to the understanding of CS&P problems, and to finding easy solutions.
Partner networks	Cyberwatching.eu will leverage on the consortium partners' networks. In particular, the Marketplace and end-user club could be further promoted through AON's network which provides risk management services for the clients from over 120 countries worldwide; as well as ICT Legal's network that covers 19 offices throughout Europe. To begin with, printed dissemination material will be placed in the partners' offices to grasp the attention of clients.

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Table 3 Suggested channels of communication and outreach

6.2 Planning

Based on provided insights stemming from the SME feedback, and on the recommendations given in this chapter, the cyberwatching.eu consortium will implement the following actions (list is not extensive, and additional improvements will continue throughout entire duration of the project):

Short-term:

- o Take part in ECSO WG4 meetings and seek alignment with the ECSO SME Hub
- Updates to the information repository (see below).
- o First project results to be tested/validated to be posted on the platform.
- Continuous communication activities of the benefits, specifying the difference between registered and non-registered users.
- o Continuous updates regarding various events of potential interest.
- Identification of the first 5 best practices SMEs using cybersecurity R&I solutions (to be contacted leveraging on DIGITAL SME network, R&I projects identified).

Mid-term:

- o Introduction of the new services to the SME end-user club (GDPR exposure measurement tool, discounted cyber insurance services, etc.)
- Further collaboration with European ICT clusters to attract more service providers for the Marketplace, and further involvement of non-ICT clusters using ICT technologies to engage their members as Marketplace SME end-user club users.
- Exploitation of the new proposed communication and outreach channels.
- o Continuous alignment with ECSO SME Hub and consider convergence of services

Long-term:

- o Continuous updates of the information repository until the end of the project.
- o Continuous updates of the products or services published in the platform.
- Consider merging the services with the ECSO SME Hub

6.2.1 SME end-user club content

Populating SME end-user club, offering more content, and being able to practically demonstrate benefits of the club are among the highest priorities in further development of the Club. This has been identified as a weaker part that needs some improvement also by the SMEs. Therefore, the following table demonstrates the further actions to be taken in this regard.

Action	Timing	Partner responsible
Cybersecurity or privacy related content to be uploaded to the relevant category	Once a month (first week of the month)	DSME
Relevant content in the field of partners' expertise to be identified and uploaded	Once a month	All partners (every month a different partner)
expertise to be identified und aproduce		To be coordinated by DSME
Best practices identification and showcase in the end-user club	First few practices – by the end of Y2 Later – a new example every 3-4 months	DSME
Identification and provision of additional benefits to be provided to the end-users registered to the Club	Identification of additional benefits – by the end of Y2 Provision of the benefits – M30 (could deviate based on partners' possibilities)	Project partners (in particular, AON and ICTL). To be coordinated by DSME

Table 4 Content planning for the SME end-user club



- www.cyberwatching.eu
 - @cyberwatchingeu
 - in /in/cyber-watching/



