



D3.3. Report on the Open Market Consultation





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Abbreviations and acronyms

CA	Consortium Agreement
CMS	Crisis management system
DPO	Data Protection Officer
EU	European Union
GA	General Assembly
GDPR	General Data Protection Regulation
GPU	Graphics Processing unit
H2020	Horizon 2020
IPRs	Intellectual Property Rights
LEAs	Law Enforcement Agencies
OMC(s)	Open Market Consultation(s)
PCP	Pre-Commercial Procurement
PEC	Procurement Evaluation Committee
PIN	Prior Information Notice
PMC	Project Management Committee
PTO	Public Transport Operator
R&D	Research and Development
RFI	Request For Information
SOTA	State of the Art
TMC	Technical Management Committee
TRL	Technology Readiness Levels
UCM	User Community Manager
UOG	User Observatory Group
VC	Venture Capital
VMS	Video Management System
WP	Work Package

Executive summary

According to the Grant Agreement N°101020374, the Prevent PCP Consortium had to openly prepare the project activities, those activities being a prerequisite for launching a PCP. This preparation shall concern the main aspects of the project (technical issues, procedure, etc). The 24 partners committed themselves to “*make an ‘Open Market Consultation’ which:*

- *Is published – two months in advance – in the Official Journal of the European Union (via a ‘prior information notice (PIN)’, drawn up in English and any additional language(s) chosen by the buyers group);*
- *Is promoted and advertised widely,*
- *Is summarised on the project website and other web-sites requested by the Agency, together with a list of Q&A raised during the Open Market Consultation”*

This document contributes to the third objective of the previous list.

The events of the Open Market Consultation (also referred to as “OMC”) will be described below, together with the input from external parties. The resulting analysis and decisions will also be outlined, including the recommendations for further activities from the Prevent PCP Group.

As a public document, this “Report on the Open Market Consultation” will be made publicly accessible on the project website (www.prevent-pcp.eu). Any question regarding its content should be addressed to the Prevent PCP Group by email: contact@prevent-pcp.eu.

This document provides:

- an overview of the important role played by the Open Market Consultation in the procurement process,
- a presentation of the Open Market Consultation event and its expected impact,
- an analysis of the feedback gathered by the Prevent PCP Group through the activities organised during the Open Market Consultation,
- and, based on the above-mentioned analysis, recommendations for the resulting procurement.

Section presents a summary and analysis of the input provided by the market during the OMC activities and suggestions for the upcoming procurement based on the Market contributions.



This document is not a presentation of the project carried by the Prevent PCP Group, nor the summary of the Commercial Off-The-Shelf and State Of The Art analysis. Readers seeking such information should consult the project website, where documents such as the [Open Market Consultation Document](#) can be downloaded.





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Introduction

The activities of the project “PRocurEments of innoVativE, advaNced systems to support security in public Transport – Pre-Commercial Procurement” (also referred to as ‘Prevent PCP’) began in September 2021.

The project has the ambition to conclude a Pre-Commercial Procurement procedure (PCP) in the field of security of public transport infrastructure. To do so, the 24 partners from the project (later on referred to as “the Prevent PCP Consortium”) organised an “Open Market Consultation”. It constitutes a preliminary step for a PCP, in order to:

- Confirm the prior State-of-The- Art Analysis (SOTA) performed by partners.
- Make the relevant market players aware of the upcoming PCP.
- Gather input from technology vendors on the project.
- Validate the ascertainment of the existence of room for innovation.
- Justify the PCP approach.

This document presents the activities undertaken by the Prevent PCP Group during this preparatory phase of “Open Market Consultation”. It is a public document, as its purpose is to openly share the analysis resulting from the OMC activities.

The OMC has organised several activities described later in this document. These activities allowed the Prevent PCP Group to enter in an open and constructive dialogue with external parties (“the market”). Those external parties are mainly interested in the project as potential supplier, holder of relevant patent(s) and technology(ies) or potential beneficiaries or end-users of the solution resulting from the project.

The constructive dialogue organised during the OMC has taken three main forms: (a) a workshop organised during the main OMC event in Marseille; (b) eight informative webinars conducted in eight different languages; and (c) an online questionnaire. The purpose of this document is to describe the different activities conducted during the OMC and to analyse the exchanges and inputs resulting from them (see section 3 of this document). The analysis has been performed by the members of the Prevent PCP Consortium.

Based on this analysis, this document finally provides suggestions for the future developments of the Prevent PCP project (see section 4 of this document). For instance, it will serve as a base for the preparation of strategic documents, such as the business case and costs analysis or the procurement strategy. It will also provide input for the tendering documents, constituting an essential step in the path for a PCP and for the Prevent PCP project as a whole.

This document is divided in three sections:

1. Section 1 provides a presentation of the Prevent PCP OMC, with a focus on the methodology adopted by the Prevent PCP Consortium and the activities undertaken to promote the activities.



2. Section 2 is dedicated to the OMC hybrid event. It notably includes the level of presentation and the main characteristics of the organisations who took part to the activities.
3. **Section 3 presents a summary and analysis of the input provided by the market during the OMC activities and suggestions for the upcoming procurement based on the Market contributions.**



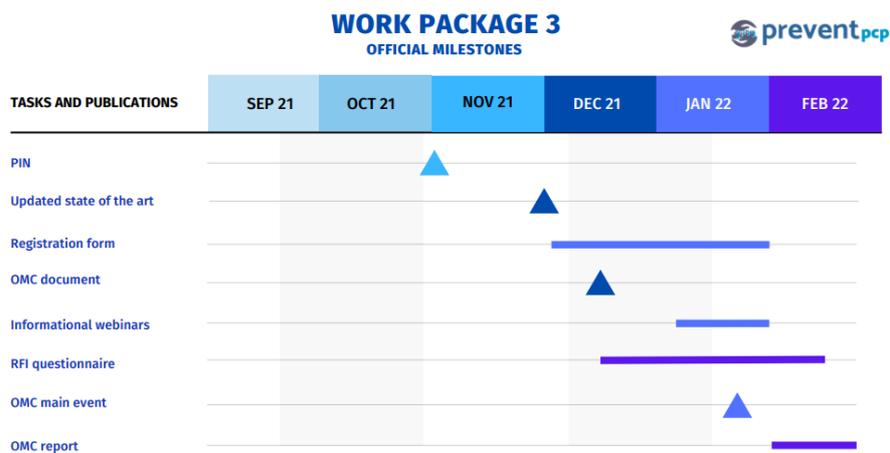
1 PREVENT PCP Open Market Consultation

1.1 Overview of the PREVENT PCP project

The PREVENT PCP project started on September 2021. The project is structured in eight work packages (WP). The Open Market Consultation phase is part of the WP3 entitled “Finalization of PCP documentation”. Region SUD is the WP3 leader having all the consortium partners as contributors. For each task of the WP, one partner has been nominated as task leader and the rest of the consortium as contributors. The responsibility of the tasks has been distributed between the different partners. This work package started on month 1 (September 2021) of PREVENT PCP project and will last until month 8 (April 2022).

In terms of the PCP process, the Open Market Consultation is part of the phase 0 which corresponds to the curiosity driven research step. In terms of organization, as the WP3 marks the start of PREVENT PCP project, the consortium directly worked on the preparation of the first deliverables.

The GANTT diagram below presents the official publications and milestones of the WP3 from the start of the project until month 6 (February 2022).



1.2 Open Market Consultation Methodology

The OMC started with the publication of a [Prior Information Notice](#) on TED (Tenders Electronic Daily -Supplement to the Official Journal of the EU) on 11th November 2021 and ends with the publication of this document on 28th February 2022. It was performed under the law of the lead procurer – KENTRO MELETON ASFALIAS (KEMEA) - which is Greek law.

Through this OMC, the Prevent PCP Consortium aimed to inform technology vendors regarding the upcoming Pre-Commercial Procurement (PCP) of research and development (R&D) services for the development of solutions for the automatic



detection of unattended items in public transport infrastructures. It also had the purpose of understating the economic operators' capabilities to satisfy the public buyers' needs and obtaining market parties' input on the viability of the procurement plans and conditions, as described in this document and annexes.

The objectives of the Open Market Consultation (OMC) of PREVENT-PCP were to:

1. Validate the findings of the COTS (Commercial-Off-The-Shelf) analysis, the SOTA (State-Of-The-Art) analysis and the viability of the set of technical and financial provisions.
2. Raise awareness of the industry regarding the upcoming Pre-Commercial Procurement (PCP).
3. Collect insights from the industry which can be used to finetune the tender specifications (*see section 3 and 4 of this document*).

All interested economic operators were invited to take part in the OMC. Participation in the OMC was voluntary and non-binding and was done for the suppliers' own account and risk. Interested parties were requested to register through the [EU Survey platform](#), in order to participate in the events and receive additional information of the project. The PREVENT PCP Consortium has been engaged in supporting interested parties throughout the whole OMC period during the webinars and presential events, and by answering questions which will formulate a Q&A document to be published in the project's website.

The contracting authorities involved in the PREVENT PCP project are not legally bound in any way by the outcome of the OMC. The OMC is also not part of any pre-qualification or selection process. No advantage or disadvantage have been given to any supplier/group of suppliers to the detriment of others during the market consultation and the sub-sequent competitive procedure for the award of contracts procurement.

Additional written contributions in the form of a Request For Information (RFI) questionnaire aiming to collect market information on innovative and commercial solutions have been requested.

It also aimed to understand the operators' capabilities to satisfy the public buyers' needs and to obtain market parties' input on the viability of the procurement plans and conditions, as described in this document and annexes.

1.3 Activities of the Open Market Consultation

The market consultation was organised in the form of:

One main event which took place in Marseille (FRANCE) on the 19th and 20th of January 2022. This event was conducted in English and broadcasted online. The





results from the workshop organised during the OMC event are presented and analysed further in this document.

A series of informative webinars in eight different EU languages were celebrated from the 10th to the 28th of January 2022.

Two questionnaires were created and published for the purpose of the OMC, as deemed necessary within the scope of the project: the Registration and Profile form (participation to the OMC and Informative webinars), and the Request For Information questionnaire.

The analysis of the input gathered through those activities are presented below (*see section 3 and 4 of this document*).

The OMC also explored the possibility to engage Venture Capital funds in the PCP in order to increase the chances of commercialization of the developed solutions.

The timetable of activities and required actions of the PREVENT-PCP OMC was set as follows:

DATE & TIME	ACTIVITIES & REQUIRED ACTIONS
8 November 2021	Open registration to the Open Market Consultation required to participate in the activities/events. Complete and submit the EU Survey questionnaire: https://ec.europa.eu/eusurvey/runner/PREVENT-PCP
11 November 2021	Publication of the Prior Information Notice on TED Services - 580937-2021 - TED Tenders Electronic Daily (europa.eu)
10 January 2022 9:30 – 12:00	Informative webinar in English
12 January 2022 9:30 – 12:00	Informative webinar in French
13 January 2022 9:30 – 12:00	Informative webinar in Polish
14 January 2022 9:30 – 12:00	Informative webinar in Portuguese
17 January 2022 12:00	Deadline to register to the Open Market Consultation required to participate in activities/events (onsite event).
19 January 2022 08:00	Deadline to register to the Open Market Consultation required to participate in activities/events (online event).





19 January 2022 13:30 – 17:30	Main event in Marseille (FRANCE)
20 January 2022 09/00 – 13:30	Main event in Marseille (FRANCE)
25 January 2022 9:30 – 12:00	Informative webinar in Spanish
26 January 2022 9:30 – 12:00	Informative webinar in Dutch
27 January 2022 9:30 – 12:00	Informative webinar in Greek
28 January 2022 9:30 – 12:00	Informative webinar in Italian
03 February 2022 19:00 (CEST)	Deadline for submission of required questionnaires
28 February 2022	Publication of the OMC Report on the project website and EU Survey link.
28 February 2022	Closure of the market consultation

1.4 Dissemination activities

1.4.1 Communication activities undertaken

Several reports on dissemination activities will be issued by the Prevent PCP Consortium (deliverable D7.2, D7.3 and D7.4). This section's purpose is to illustrate the way partners have promoted the OMC activities, and not to provide an extensive presentation of the dissemination activities undertaken. Those actions are listed below and show their diversity.

The main explanation of this heterogeneity can be attributed to the diversity of the Prevent PCP Consortium itself: public and private organisations from several EU member states, with multiple core competences and a wide range of specialisations. Such heterogeneity has turned to be an advantage, as it implies that the partners are in contact with organisations (suppliers or not) which are diverse as well.

A detailed listing of communication activities undertaken by each partner does not seem necessary. Still, it is interesting to consider the main orientations:

- In terms of external communication, many partners have used their newsletters, websites and social media pages to share information on the ongoing OMC. Communication on social media was organised either on the

pages of the organisation or on personal accounts of the Prevent PCP core team members.

- Information about the project was also shared with the networks in which partners participate and also directly with interest groups.
- The communication has also been oriented directly towards technology suppliers and industrial companies with which partners might already have been in contact for analogous purposes. Here can also be mentioned the communication towards universities and research centres.
- Other external actors have also been targeted due to their position as industry leaders. To that extend, National Contact Points for the Horizon Europe Programme have been contacted (especially those in charge of the following themes: “Civil Security for Society”, “Digital, Industry and Space” and “Climate, Energy and Mobility”), as well as the European Enterprises Network.
- In the case of large organisations, the communication on the project activities was also internal, towards appropriate departments such as innovation, security, infrastructure, or IT.
- Partners whose object is to host and represent other organisations have shared the information on the project’s activities towards their members, both in formal and informal ways.
- The Open Market Consultation activities have also been promoted by partners towards institutions, either at a national or local level. In that perspective, transport infrastructure managers and Law Enforcement Authorities have been identified as appropriate administrations.
- In addition, organisations such as clusters, local development agencies or commerce chambers were contacted (members of the European Cluster Collaboration platform in particular).
- Finally, the Open Market Consultation was promoted during specific events¹, meetings, professional fairs² which have allowed the consortium to meet potential suppliers which may have not been reached by the previous actions.

The technicality of Prevent PCP appeared as a limitation to the delegation of those communication activities. Thus, they have been performed by the Prevent PCP core team in most organisation. In some cases, the communication officers or services have taken over reins, especially in order to communicate towards external organisations, that approach being a minority.

1.4.2 Informative webinars

While the Open Market Consultation event was promoting exchange of views in a participative approach, the webinar is more a top-down format. Still, the objective for the Prevent PCP partners was to move towards interested companies. Therefore, not only one but eight informative webinars were organised in January 2022. In line with

¹ On September 17th 2021, at the meeting of European project managers organised by the Association française des Pôles de compétitivité (French Culsters association)

² Online participation to the AI and Big Data Expo Europe (November 30th and December 1st 2021)



this idea of heading to potential technology suppliers, each webinar was organised in a different language:

- In English, on January 10th,
- In French, on January 12th,
- In Polish, on January 13th,
- In Portuguese, on January 14th,
- In Spanish, on January 25th,
- In Dutch, on January 26th,
- In Greek, on January 27th,
- And in Italian, on January 28th.

To guarantee equal treatment and ensure a consistent approach, partners agreed on the necessity of preparing a common agenda for all the webinars. The objective was double, i.e. to cover the main aspects of the project and to deliver, as much as possible, the same information to all viewers, notwithstanding the language of the webinar they would join.

The materials for the webinar were prepared in English. Once all the partners agreed on the agenda, a preparatory meeting for partners only took place via Microsoft Teams. This led to some minor changes or improvements. Once PowerPoint presentation support (i.e. slides and notes) was validated, each presentation was translated in other languages by the speaker in charge of the section. This process aimed to ensure that the same information on the project would be provided during each webinar.

The webinars started with the presentation of the project main aspects, followed by a description of the PCP procedure, as economic operators are usually not familiar with innovation procurements. The third part aimed to describe the goals of Prevent PCP in open terms. By using open formulations, the objective was to introduce the use cases identified and how would the solution be integrated in the surveillance operations. This was followed by a presentation of the Users Observatory Group. A longer section gave an overview of the use cases, based on a series of short videos presenting several concrete situations where innovation is expected to deliver improvements. Finally, viewers were encouraged to contribute to the RFI questionnaire which was briefly presented. The webinar ended with an “open mic” session where participants could briefly present their company.

Duration	Section
<i>5 mins</i>	Opening Welcoming words, disclaimer, agenda
<i>10 mins</i>	Quick project presentation Consortium, need expression, Prevent CSA Questions and answers
<i>20 mins</i>	What is a PCP?



	Presentation of innovation procurement – difference between PCP and PPI Questions and answers
15 mins	What are the goals of PREVENT PCP? Expectation from the Prevent PCP Group Questions and answers
10 mins	Presentation of the Users Observatory Group Questions and answers
25 mins	Concrete examples of the project’s interest & Main challenges Concrete situations where Prevent PCP is needed – main challenges and gaps for a successful project Question and answers
10 mins	Introduction of the RFI questionnaire Questions and answers
Up to 30 mins	“Open mic” Viewers may present their company and express a need for cooperation in 3-4 minutes
<i>Total duration: approx. 2 hours</i>	

1.4.3 Q&As Sessions

During the informative webinars, participants were invited to ask their questions to the speakers. The objective of the series of eight webinars was to present the project in a comprehensive way. Therefore, allowing participants to ask questions and/or make comments appeared essential. This is why speakers had to ask the audience if there was any question after each section. This participative approach had to balance the top-down dimension inherent to a webinar.

Participants were informed that the webinars would be recorded by email (sent after the registration) and at the beginning of the webinar, right before starting recording. They were therefore encouraged to ask their question either by taking the floor or by posting it on the chat if they did not want to be recorded. One speaker was in charge of managing the chat in order to make sure questions would be addressed after the appropriate section.

By organising a series of eight webinars, in eight different languages, the risk of providing different answers to similar questions had to be taken into account. Several actions were set up in order to mitigate such risk:

- Reminding participants that answers given in English was to prevail in case of discrepancies.
- Keeping a record of each question and the answer provided.
- Publishing the questions asked on the project website.

The possibility of a discrepancy is inherent to translation. Therefore, by organising 8 informative webinars, the Prevent PCP Consortium was exposing itself to such risk.



As the tender documentation will be drafted in English, it was decided that information provided in this language should prevail. This information was given to viewers at the beginning of each webinar. This action was the first step taken to mitigate the risk of providing diverging information.

In addition, the Prevent PCP Consortium decided to keep record of all the questions asked, together with the answers provided. In that respect, during the first webinar, one speaker was in charge of gathering the questions asked. After the webinar, this speaker had to put those Q&As in a file which was to be sent to the team organising the following webinar. By doing so, the following team was better prepared and knew the sections or information which had to be presented more specifically.

Again, this team had to choose a speaker in charge of recording each additional question and the corresponding answer asked. That way, the questions could enrich the original document, which was sent to the team in charge of the following webinar and so on. Combined to the first one, this action was a way to ensure equal treatment among the viewers.

Finally, the questions gathered during the entire series of webinars shall be published in a questions and answers section of the project website. This task requires editing and proofreading from partners of the Prevent PCP Consortium. It is also a way to ensure full transparency.

This section will also be expanded by the questions received by email (at the contact email address: contact@prevent-pcp.eu) or if it appears to the Prevent PCP Consortium that some point needs to be clarified.

1.4.4 OMC online and social media impact

In addition to the website creation and the social media presence (presented below), the next steps for the online presence of the project are to create a newsletter and factsheets. Those activities will be later presented in dissemination reports.

In October 2021, the domain address www.prevent-pcp.eu was purchased. For the first weeks, the homepage was informing visitors that the website was under construction. The first version of the website was published in December 2021. The news section was used to promote the OMC activities, providing a link to the Registration and Profile form.

Among the improvements to mention, the publishing of a matchmaking form is probably the most relevant. By filling a short form, suppliers or consortium willing to partner up in order to compete for the PCP may present their skills and express their needs. Once the contribution is received, it is added to a list accessible right under the form. This tool was added to the website after the OMC main event.

So far, 22 companies from 6 different countries expressed their interest in the project and submitted a description of their skills and potential input for a consortium. *It is here explicitly stated that the Prevent PCP Consortium shall not take any further actions in the formation of a consortium.*





Even if the Prevent PCP Consortium encourages companies to form consortia to enhance the project outcome, it may not be involved in their creation. This would constitute an infringement of the principles of equal treatment and transparency.

The social media presence of Prevent PCP is based on the pages created on Twitter (for Prevent CSA) and LinkedIn. During the OMC activities, all the emails sent to participants included a link to those pages. Those accounts have been used to spread the word on the OMC activities.

Furthermore, the recording from the eight informative webinars and the Open Market Consultation's plenary session have been uploaded on the project's YouTube page ([PREVENT PCP – YouTube](#)). So far, these nine videos reached more than 300 views.

1.4.5 UOG participation

The User Observatory Group Members were included in all the communication on the OMC activities from the beginning through dedicated email exchanges and the PREVENT PCP channels (website, LinkedIn group). The UOG Members took active part in the process, participating in the OMC survey and Request For Information, webinars and event in Marseille. All the UOG Members were asked to circulate the information received with their providers and linked parties, adding their networks to the number of organisations reached by the OMC campaign.

Especially during the UOG and OMC event held on the 19th-20th of January 2022, the UOG Members showed interest and active participation, fostering the debate with their questions and observations. The following Members have attended the OMC event:

- Frank Reitsma, NS (in Marseille)
- Aleksandra Puzyńska, ZTM (in Marseille)
- Piotr Kosieradzki, ABW (in Marseille)
- Jan Politiek, ARRIVA (online)
- Umberto de Gregorio, EAV (online)
- Marie-Hélène Bonneau, UIC (online)

Thanks to the dissemination during the webinars and through the PREVENT PCP Consortium and UOG, three new organisations have reached out to become member of the User Observatory Group. They have been accepted and will join the future activities of the group.

Further participation from the UOG is expected as a follow up from the OMC, with a meeting that will be scheduled at month 9 (June 2022) to collect their feedback on the final tender documentation and information.

1.5 Comments and further activities

1.5.1 Further contacts with and among participants

Several participants asked to receive updates from the Prevent PCP Consortium. Therefore, in addition to the social media pages, contact details from volunteer



companies were collected. This contact list will lead to the creation of a mailing list. In order to respect the right to privacy, an email was sent to all the participants asking them to explicitly give their consent to be added on the mailing list. The interest is also to allow each organisation to get the contact details of the staff member in charge of the project.

Public deliverable, such as the current document, can also be communicated through that channel. The goal is not to set up a newsletter per se but rather to communicate key information about the main steps of the project.

In addition, as many topics could not be covered during the OMC workshop (due to time limitation), the possibility of an additional workshop has been considered. At the moment, this issue is still open. The conclusions of this document have to be processed and the generated workload has to be evaluated. In addition, the Request For Information questionnaires shed light on all the aspects of the project.

As indicated above, a matchmaking form has been published on the project's website. The Prevent PCP Consortium encourages potential bidders to fill in this form if they want to partner up but may not intervene any further in the formation of a consortium.

1.5.2 Bilateral meetings

Prior the OMC phase, technology providers pointed out that when it comes to Artificial Intelligence, by sharing your approach to a challenge you may provide your competitors with an indication of the solution that you may explore. Therefore, providing the opportunity of having a bilateral meeting could be relevant.

This opinion was discussed by the Prevent PCP Consortium while preparing the OMC activities. It was decided to allow interested suppliers to ask for a bilateral meeting with Consortium partners under certain conditions. The important thing to consider was the risk of disclosing information advantaging some suppliers.

Since the technical requirements could not be drafted by the end of the OMC, it could not be guaranteed that no such information will be disclosed. A framework was necessary to mitigate such risk. Equal treatment needed to be ensured, avoiding any dispute to jeopardize the Project or the PCP procedure. Therefore, Prevent PCP partners agreed on the following cumulative conditions:

- The opportunity of organising a bilateral meeting would only be opened for organisations who would have answered the RFI questionnaire.
- A bilateral meeting will only be offered to the organisations asking for it.
- A bilateral meeting with an external organisation would require at least two staff members for different partners of the Prevent PCP group.
- A record of the meeting should be saved by the Prevent PCP Group.
- Any information provided during a bilateral meeting should be either published already and accessible to any potential supplier or made accessible with no delay on the project website (on the questions and answers section for instance).



- The duration would be strictly limited to the necessary time for the supplier to expose the elements which couldn't be shared in public.

Three respondents to the RFI questionnaire asked the Prevent PCP group for a bilateral meeting. The Prevent PCP Group decided to organise the bilateral meetings in March 2022, after reminding the interested companies the previously mentioned rules.

The outcome from the bilateral meeting confirms the conclusions presented in section 3 of this document. Without disclosing the content, the following point may be publicly shared:

- The Companies reaffirmed their interest in Prevent PCP and validated the methodology adopted by the Consortium,
- Each company strongly highlighted the importance of accessing to a large video dataset, reminding the Consortium that developing an effective algorithm and enhancing its efficiency requires important and continuous testing,
- They also pointed out that working without such dataset would be equivalent to develop the solution in a lab environment, therefore leading to an insufficiently efficient technology such as those previously commercialised.

Questions were asked on the pilot sites and their technologies. The Prevent PCP Consortium indicated that those issues will be addressed by the Tender documentation. Finally, the companies wanted to know the position adopted by the Consortium regarding the use of biometric technologies during the PCP phases. Again, it was pointed out that the Consortium had adopted a strategy taking into account the feedback from the market on the matter. To ensure the equal treatment of all operators, Companies were asked to wait for the publication of the Tender documentation.



2 Open Market Consultation Event

2.1 Overall description

The PREVENT PCP OMC main event took place in Marseille on 19th and 20th of January 2022.

In preparation of the event, the PREVENT PCP Consortium benchmarked Open Market Consultations from other PCPs. At that time, the sanitary context obliged these other projects to organize their OMC completely online. The goal of this benchmark was to take note of the online set up, especially with regard to the workshop organisation.

The city of Marseille was chosen by the consortium during the last step of the project PREVENT CSA. Marseille is one of the cities selected to participate in the prototype testing. Indeed, one of the selected pilots will be tested in Marseille Saint-Charles, the city's main train station, which is also the most central hub. Furthermore, it provided the opportunity to use Région Sud's premises where important events can easily be hosted while respecting social distancing. Benefiting from free of charge facilities allowed the Prevent PCP Consortium to save money by avoiding costly expenses for hall rental. In addition, the city is easily accessible thanks to international transport infrastructures.

The pandemic context was also to be considered. The interest of an OMC event lies in the networking opportunities it provides to participants. It then seemed important to hold a physical event. Still, the covid situation imposed the Prevent PCP Consortium to anticipate potential travers restrictions. Therefore, it seemed appropriate to give the possibility to follow and participate to the OMC either on-site or online. A hybrid event appeared as both the most realistic and optimal formula.

Day 1 – 19 th January 2022 Open Market Consultation – Plenary session	
Hours	Topic
13:45 – 14:00	Participants' registration
14:00 – 14:10	Official opening of the OMC event <ul style="list-style-type: none">▪ D. Broggi (Région SUD)▪ Y. Bouali (Prevent PCP project coordinator - Engineering)
14:10 – 15:10	Plenary session - Opening panel discussion <i>"Videosurveillance and security innovations"</i> <ul style="list-style-type: none">▪ X. Roche (SNCF)▪ M. Leoutre (European Commission, DG HOME) Questions and open discussion with the audience
15:10 – 15:40	Feedback from Previous PCP

	<ul style="list-style-type: none"> ▪ Live interview from a public buyer and a selected company L. Verhaegen & K. Van Aert (WBL) and M. Schenk (RHDHV) (interview by C. Lecot - Région SUD) <p>Questions and open discussion with the audience</p>
15:40 - 15:50	Break
15:50 - 16:50	<p>Prevent PCP - project presentation, Prototype & Pilot sites</p> <ul style="list-style-type: none"> ▪ Project presentation and prototype phase by Y. Bouali (Engineering) ▪ French pilot presentation by A. Raudin (SNCF) and E. Laurens Fonseca (RATP) ▪ Portuguese pilot presentation, by A. Valente (Metro Lisboa) ▪ Italian pilot presentation, by G. Gianquinto (AMT Genova) ▪ Spanish pilot presentation, by R. Ortega (TMB Barcelona) <p>Questions and open discussion with the audience</p>
16:50 - 17:20	<p>RFI questionnaire -</p> <ul style="list-style-type: none"> ▪ Presentation of the State-of-the-art analysis & the Commercial off the shelf study by B. Kozuch (Polish Platform for Homeland Security) and P. Kubiak (Moratex) <p>Questions and open discussion with the audience</p>

Day 2 - 20th January 2022 Open Market Consultation - Workshop and networking session	
Hours	Topic
09:00 - 09:15	Participants' registration Formation of groups and presentation of the workshops
09:15 - 12:00	Workshops - Planning poker technique
12:00 - 12:30	Open debate and networking

2.2 Participation Summary

2.2.1 Registration forms presentation

The PREVENT PCP Consortium published a common registration form for the different OMC activities, i.e., the information webinars and the OMC event in Marseille. The registration form has been published on the EU survey platform on 1st December 2021, one month prior to the first informative webinar.

The registration form represented the first step for organizations to demonstrate their wish to participate in the different webinars and main OMC event in Marseille. It was also drafted in order for the Prevent PCP Consortium to gather information on the interested organisations and potential bidders. After filling information about their organisation, participants could select the informative webinar(s) they wanted to participate in, as well as register for the OMC event (in Marseille or online).

Although filling the Registration and Profile form was not mandatory, the Prevent PCP partners agreed to prioritise the diffusion of the connexion links to organisations which filled the questionnaire. The objective was to get a better understanding of the audience through the form. However, once the connexion links were sent, the Prevent PCP Consortium had no control on how participants would share it among their network. This explains the difference between the number of individual registration and the actual level of participation to the online events (the later being higher).

The Open Market Consultation Registration and Profile Form was structured in two parts. After an introduction providing the context of the questionnaire, the first part collected basic information about the organisation (type of organisation, country of origin, etc.). It provided information to the Prevent PCP Consortium on the profiles of potentially interested organisations in the project. The second part focused on the organisations' activity and experience on relevant aspects for the Prevent PCP project.

Over the course of this form, questions went deeper into matters related to Prevent PCP challenges. The topics covered were related to the respondent's experience on issues such as research and development, transport security, anti-terrorist security and crisis management in transport infrastructures. Finally, after asking consent to use organization's information in the context of the PREVENT PCP project, participants were given the possibility to upload documentation related to their organisation or relevant project references.

The Open Market Consultation Registration and Profile Form^[1] is available as an Annex to this document.

2.2.2 Level of registration

The Open Market Consultation registration and profile form was common for the informative webinars and the OMC main event. Therefore, data presented below concern both activities.

The Open Market Consultation Registration and Profile Form allowed the PREVENT PCP Consortium to evaluate the number of enrolments of the informative webinars and the main event in Marseille. On January 2022, thanks to communication and dissemination activities, the PREVENT PCP Consortium reached 135 organizations. The key point indicator of 100 participants to the Open Market Consultation set by the European Commission has then been reached.

The two figures below present the registrations for the OMC main event (91) and the different webinars (145 in total).

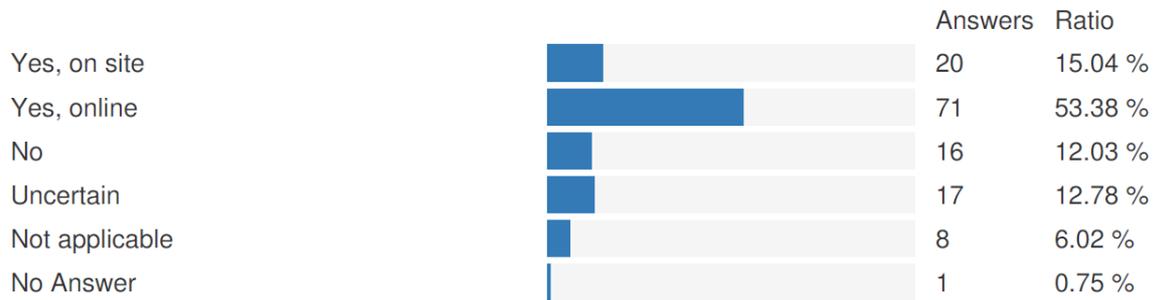


Figure 1: OMC main event registrations

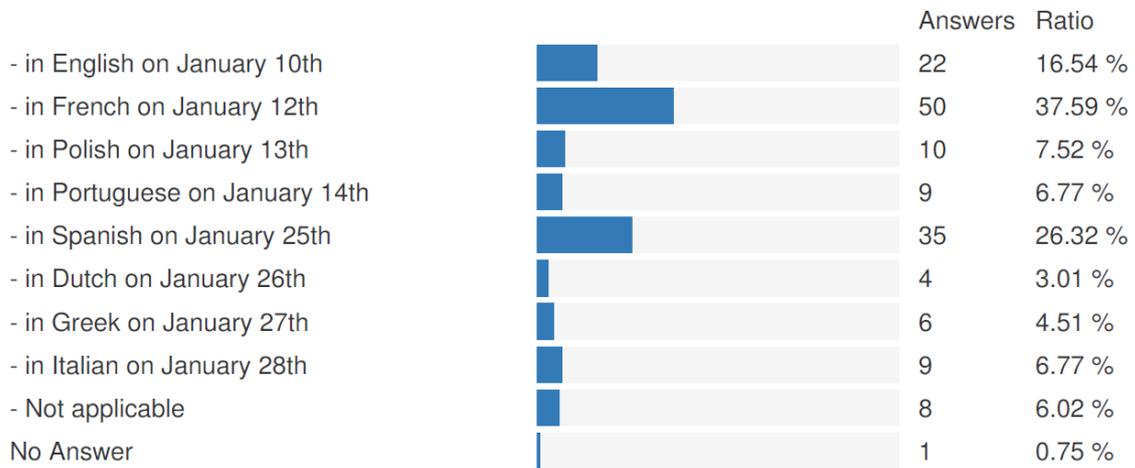


Figure 2: Informative webinars registrations

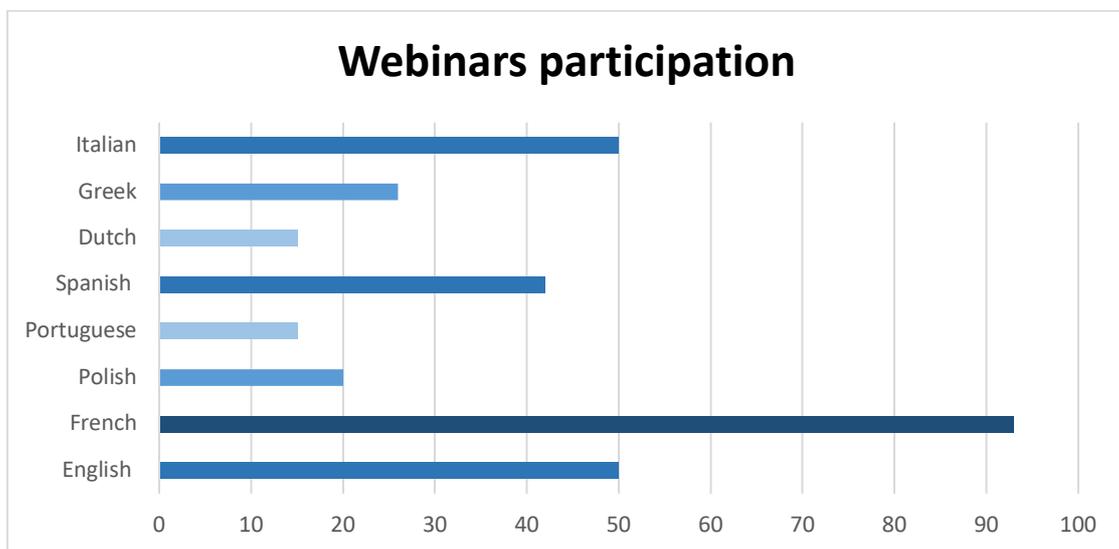


Figure 3: Informative webinars participations

Figure 3 shows the actual participation of each informative webinar. As the registrations show, the French, English, Italian and Spanish webinars gathered a significant number of organisations. In general, the number of participations was higher than the number of registrations. This gap can be explained by the circulation of the connexion links within registered organisations, but also from registered organisation towards others.

It is to be underlined that some organizations registered to several webinars or events. In addition, Figure 3 only describes the online participations (including from consortium members).

2.2.3 Analysis of the registration forms

As showed in Figure 4, most of the respondents are based in Europe, especially in France, Spain, Poland, Italy and Portugal. We also noticed participations from other continents, particularly from Brazil, Japan, Israel and Africa.

This geographic diversity is a first sign that the PREVENT PCP Consortium succeeded in reaching diverse organisations and raising interest in the project.

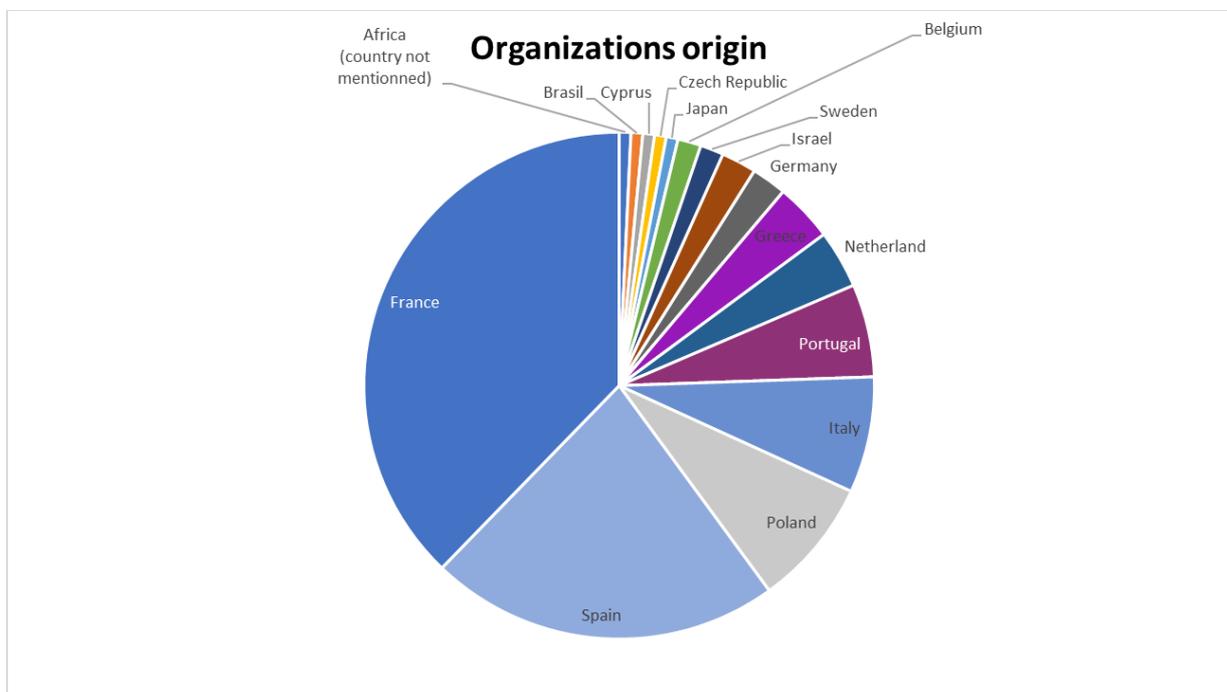


Figure 4: Country repartition of the organizations

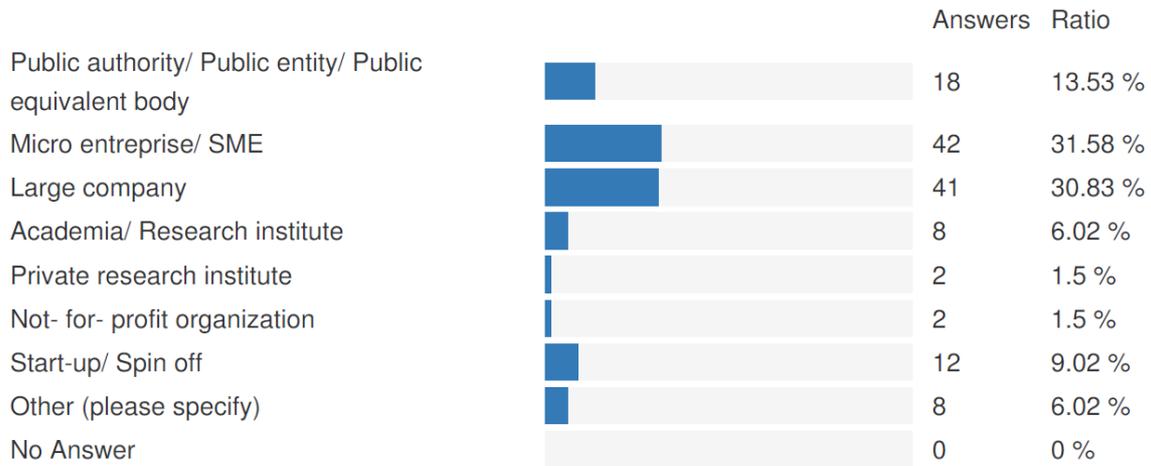


Figure 5: Types of organizations repartition

Concerning the type of organisations, SMEs and large companies constituted the main groups of participants. The second group gathered start-ups. Combined, those groups represented more than 7 out of 10 participants. It is a clear sign that the communication put in place for the OMC activities was successful, as those types of companies are considered as those fostering innovation. Still, we can underline a balanced distribution of participants within the different categories.

Those organisations tend to have a broad presence on the market, as illustrated below. Three quarters are present in more than two national markets. This trend appears reassuring about aspects of the project as interoperability of the solution or the ability to respect different national legislations.

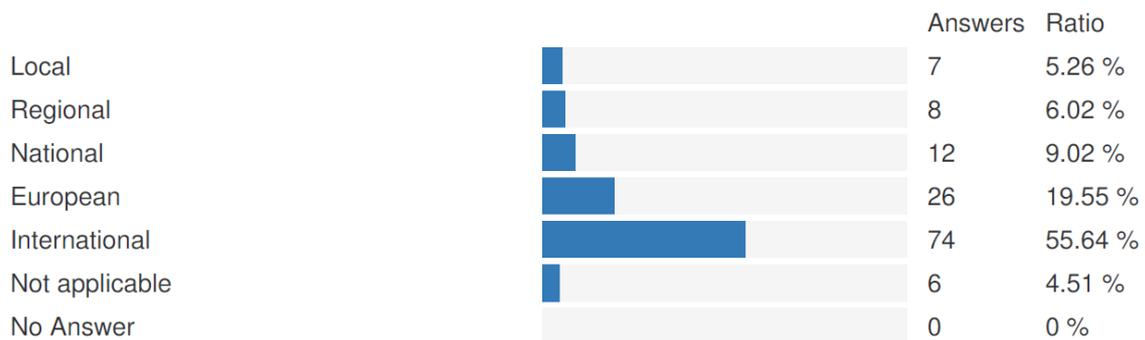


Figure 6: Market presence repartition

Another important characteristic to mention about the respondents is the fact that they have experience in the relevant field for the PREVENT PCP project. Most respondents described security technologies as a core part of their work (83.5 %). On the other hand, results showed that crisis management systems are less developed (55 %).

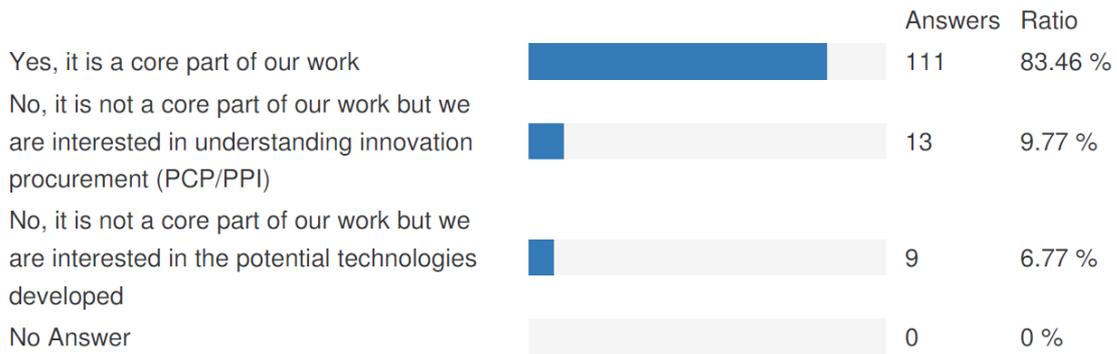


Figure 7: Repartition of security and related technologies actors

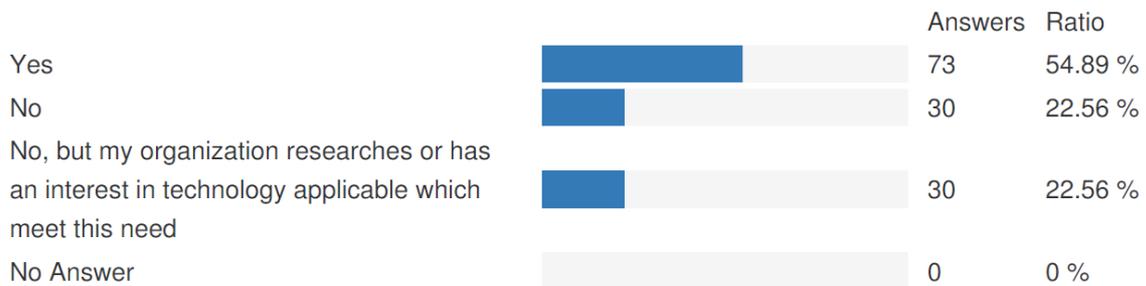


Figure 8: Repartition of crisis management actors

So far, it is reasonable to conclude that an appropriate target was reached during the OMC phase by the communication actions put in place by the Prevent PCP Consortium.

3 Input from the market

The OMC provided two opportunities to gather feedback from the Market: a workshop organised during the OMC main event in Marseille and a comprehensive “Resquest For Information Questionnaire”. Those are presented in section 3.1 while the input gathered is summarised and analysed in section 3.2.

3.1 Exchange opportunities

3.1.1 The OMC main event’s Workshop

✕ Workshop presentation

The activity organised during the workshop session of the Open Market Consultation event was an exercise called “Planning Poker” or “Scrum Poker”. The Planning Poker stems from Agile Software development. It is defined as a consensus-based, gamified technique for estimating challenges or difficulties ahead in a project planning.

Participants were gathered in groups of 10 to 15, together with a minimum of 2 moderators. Each “player” received a deck of cards (in our case: 1, 3, 5, 8, 10, 13 and 20). Those cards were used to assess the level of difficulty of a series of tasks or situations told by the moderators. Once the situation was presented, each player individually evaluated how challenging the situation appeared.

After a moment to reflect, the players revealed their choice at the same time. This simultaneity was a way to avoid bias. Firstly, because it prevented the establishment of a precedent (by the first participant to reveal his/her choice). Secondly, because it allowed to balance the most extreme point of views, which may seem more attractive to someone who’s mind is not really made, thanks to the variety of votes.

Once the opinions were revealed, moderators had to initiate a conversation among players, based on the difference between their respective choices. The idea was to first ask the players with the most extreme point of view, those who separated from the crowd, before trying to temper those opinions with the choices that seemed more balanced.

As the intensity of the conversation declined, moderators asked the participants to vote again. At this point, participants might have changed their vote, based on the arguments expressed during the discussion. In this way the conversation could start again.

The same process was repeated several times, as long as the conversation was flowing and new arguments expressed. Repeating the process several times is important as it allowed participants to change their mind. Thus, the exercise, whose point was mainly to allow a collective reflection on the project’s main aspects, could reflect the evolution of the participants’ perception.

The objective of the Scrum poker was to reach one of the two following situations:

- Either the participants reach a consensus,
- Either they agree on a disagreement but acknowledge that the others have heard their opinion.

During the entire process, moderators had to take notes, so as to keep record of the conversation and the points risen by the participants. The inputs of participants were more relevant than the actual votes expressed during the successive rounds, even if those can provide some information.

On the Prevent PCP workshop, 5 groups were created, one on site and four online. A set of 12 situations were drafted and presented to the participants in two alternative orders, so that all situations would be covered by at least one group. The conversation flowed smoothly, which was a clear sign of the enthusiasm of the participants.

The results - as described below (*see section 3.2*) - is full of very diverse considerations to be taken into account in the upcoming steps of Prevent PCP.

Following the workshops, a discussion was open with two objectives:

- Sum up the main points expressed in the different groups (by the moderators),
- Gather the feeling from the participants on the exercise and allow them to express other point of views.

During the collective time of restitution, moderators have summed up the main points discussed during the workshops (which will be described in the next section). It is interesting to observe that, for each group, moderators expressed the same conclusions: the conversation were rich and intense, very diverse points had been shared by the participants, but all groups have expressed similar concerns and observations.

✕ *Situations presented to the participants*

A total of twelve situations were discussed. Each situation refers to either a challenge or a use case to be addressed by the expected solution.

Two alternative orders were prepared, so as to make sure all aspects would be covered in the limited duration of the workshop (approx. 2 hours). Still, some situations could not be covered as participants discussed intensively each of the options. We managed to cover seven out of the twelve questions.

All the situations are listed below.

- The solution expected by Prevent PCP is based on 3 main innovations: The detection of unattended items, The association between items (luggage, bags...) and an owner, The tracking of the owner once the item is left unattended. Several products, already on the shelf, appears to address those challenges (although, not together). *To what extend do those existing solution are already addressing Prevent PCP's challenges? Do you consider those solutions satisfying enough?*
- Even though solution may partially address Prevent PCP challenges, there is still a gap to overcome. *How difficult do you consider this gap (with the objective of fully addressing Prevent PCP challenge)?*



- iii. Let's figure the following situation: a man carrying a luggage is walking in a train station. He stops and talks to a woman for about a minute and then leave her with the luggage. Even though the woman doesn't take the luggage, she doesn't seem surprised. The train station is endowed with a surveillance system addressing the Prevent PCP challenges. The entire scene has been shot. *To what extend would this situation be detected as an alert by the surveillance system? From a technical point of view, how difficult would it be to analyse correctly this situation? (we will consider this alert as a false positive for this exercise)*

- iv. Throughout Europe, Privacy issues as well as GDPR meet various interpretations in national law. For instance, in some countries, experiments using video technologies and algorithms in public spaces is strictly framed whereas in other countries the regulations offer much more flexibility. *To what extend does it seem possible to commercialise the same product throughout Europe to address Prevent PCP challenges while overcoming those legal discrepancies? Would you need a support from the consortium to tackle this complexity? (then ask for concrete examples)*

- v. Let's figure the following situation: A woman is waiting in subway platform with a bag laid next to her feet. She suddenly walks to the vending machine located 4 meters away from her bag (which she left) to get a snack. The order process takes the woman more than 45 seconds. The train station is endowed with a surveillance system addressing the Prevent PCP challenges. The entire scene has been shot. *To what extend would this situation be analysed as a critical alert by the surveillance system? From a technical point of view, how difficult would it be to analyse correctly this situation?*

- vi. [not discussed due to time limit] Let's figure the following situation: A woman is waiting in subway platform with a bag laid next to her feet. She suddenly walks to the vending machine located 12 meters away from her bag (which she left) to get a snack. The order process takes the woman no more than 30 seconds. The train station is endowed with a surveillance system addressing the Prevent PCP challenges. The entire scene has been shot. *To what extend would this situation be analysed as a critical alert by the surveillance system? From a technical point of view, how difficult would it be to analyse correctly this situation?*

- vii. [not discussed due to time limit] Having in mind the two previous situations: *From a technical point of view, how difficult would it be analysed those situations differently? How much do you think those situations should be*



analysed differently? Would those situations be treated differently if a metro were to arrive while the woman is still ordering her snack? To what extent is it feasible to take into account such parameters?

- viii. [not discussed due to time limit] Let's figure one last situation: a man enters a station directly connected to a mall carrying in a bag the menu he just ordered from a nearby fast food. He eats his meal on a bench and puts the packaging back in the bag. He walks towards a waste bin equipped with a transparent plastic bag and put in it his large bag. He then leaves the station. The train station is endowed with a surveillance system addressing the Prevent PCP challenges. The entire scene has been shot. *To what extent would this situation be analysed as a critical alert by the surveillance system? From a technical point of view, how difficult would it be to analyse correctly this situation? Would this situation be treated differently from the first situation, where a man run out of the station after leaving a shoe box in a waste bin? Should it?*
- ix. Once the tender procedure is completed and the bidders are selected, the solution shall be developed under a fixed calendar (announced in advance). Currently, this calendar is as follows (duration indicated include time for evaluation by the Prevent PCP Group): Solution design: 5 months; Prototype: 9 months ; Pilot tests: 6 months. *Considering the challenges to take, to what extent do you consider this calendar as realistic?*
- x. Once the tender procedure is completed and the bidders are selected, the Prevent PCP group will provide a financial support, compensating the R&D expenses incurred. The financial support will be announce in advance and differ from on phase to another. Currently, this financial support is as follows (duration indicated include time for evaluation by the Prevent PCP Group): Solution design: 150k€ x6 candidates ; Prototype: 1M€ x4 candidates; Pilot tests: 2M€ x2 candidates. *Considering the challenges to take, to what extent do you consider this financial support as realistic? (don't forget that results obtained during the R&D process shall remain the property of the companies – therefore creating value for the competing companies)*
- xi. According to Prevent PCP Public buyers group, a solution effectively addressing the challenges of Prevent PCP would meet an important demand from across Europe. Meanwhile, competing companies would have important costs to incur. *To what extent a project such as Prevent PCP would allow you to attract venture capital from private investors? Does a backing from the Prevent PCP Group appears necessary to you on this matter?*

- xii. [not discussed due to time limit] Let's figure the following situation: A man sits on a bench next to a woman. He lays his bag next to his foot, closed to his neighbour. At some point, the man gets up and walks within the train station, his bag being left next to his neighbour. The two characters never spoke to each other. The train station is endowed with security cameras equipped with a surveillance system addressing the Prevent PCP challenges. The entire scene has been shot. *To what extent would this situation go unnoticed? From a technical point of view, how difficult would it be to analyse correctly this situation? How challenging would it be for the surveillance system to detect the situation and raise the alarm?*

3.1.2 The Request For Information Questionnaire

A first draft of the Request For Information Questionnaire was prepared in October 2021. The first part of this questionnaire being identical to Registration and Profile form, the evolution of the later was included in the RFI questionnaire. Several rounds of reviews were organised. All partners contributed to the reviewing process. A final version was finally validated in December 2022.

✦ *RFI Questionnaire presentation*

Respondents needed the key information given during the webinars and in [the Open Market Consultation document](#) published on the PREVENT PCP website. Therefore, the RFI questionnaire was published on the EU survey platform on 10th January 2022, the day in which the first informative webinar took place.

The RFI questionnaire was part of the OMC of Prevent PCP. The goal of the survey was to provide the Prevent PCP Consortium feedback from the market about the main challenges of the project. The results (analysed in section 3.2.2) will be considered when drafting the PREVENT PCP call for tender. Return of experience from technology developers is of key interest for the Prevent PCP Consortium, especially regarding the frame to set up on the PCP's phase (solution design, prototype testing and experimentation in operational environment) and on how to evaluate a security solution.

The form consisted of 46 questions structured in 8 different parts covering the main aspects of the project:

- The first part was about the general information of the answering organisation. The questions were the same as in the registration form, in case a respondent did not take part in the prior OMC activities. The goal was to have an idea of the respondent's characteristics. Those who already answered the registration and profile form were redirected straight to the second part of the RFI questionnaire.
- The second part of the form referred to ethics and privacy issues. Its purpose was to get a better view on the respondents' understanding of privacy issues and GDPR legislations.

- The third part focused on the state-of-the-art analysis made by the PREVENT PCP Consortium. The idea was to make sure that the market validated the analysis performed and the conclusions it has led to.
- The section four was about the project set up and conditions. It included questions concerning issues such as human resources, finance investment and funding support, as well as the duration of the project and of its phases. The answers supported the Prevent PCP Consortium in deciding some calendar or financial evolutions for the PCP.
- Part 5 included questions about the future of the project and the technologies and R&D needed but also questions to respondents on the concerns they may have on the project. Responding organisations were also asked to make recommendations on the evaluation criteria.
- The sixth part covered the possibility of cooperation and creation of consortium between organisations to answer the PREVENT PCP challenge.
- Part 7 targeted the specific issue of venture capital and the possibility of involving venture capital funds during the PCP. The main point here was to get a better understanding of the support expected (or not) by potential bidders on the matter.
- Finally, the last section of the RFI form was about modalities of participation in the main OMC event.

The Request For Information questionnaire is available as an Annex to this document^[1]. The 21 answers received will be analysed below, in section 3.2.2 (except for parts 1 and 8 which correspond to the registration form which has been analysed in section 2.3.2).

α Level of registration

The Description of the Action set a key point indicator of at least 15 answers for the RFI questionnaire which has been achieved with 21 answered by the beginning of February 2022. Figure 9 demonstrates that half of the respondents are based in France. The other participants are mainly European organizations (with the exception of the European branch from a large Japanese company). Figure 10 shows the creation dates of the responding organisation to the RFI questionnaire. It indicates that half of the responding companies were created less than 20 years ago, while the other half has been long established on the market.

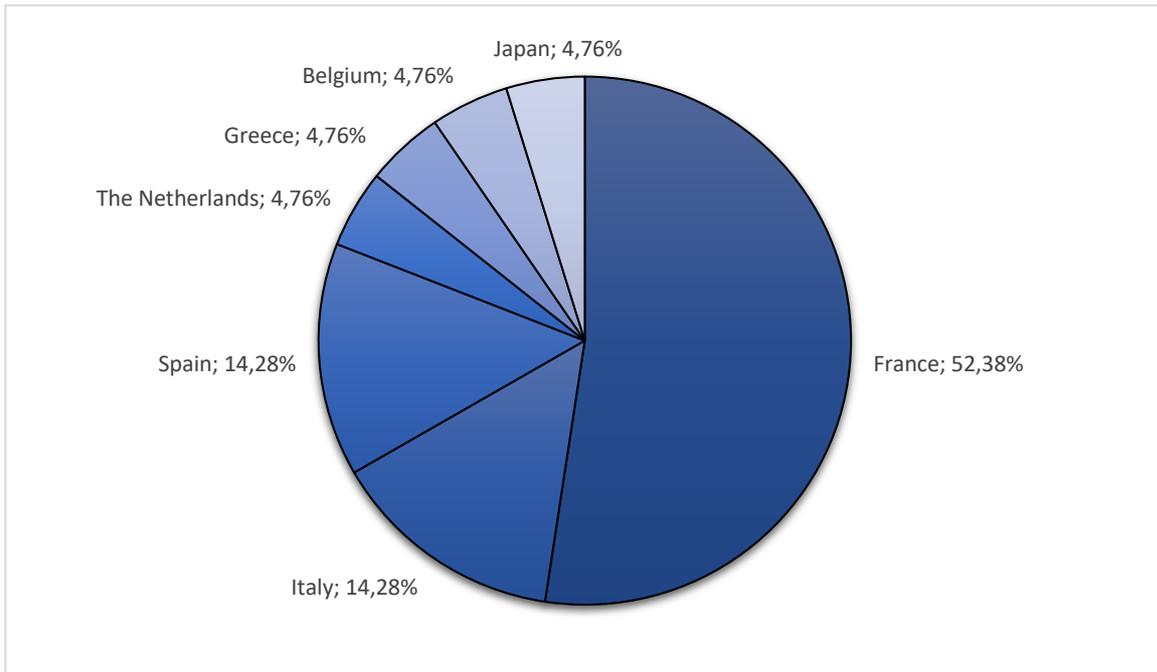


Figure 9: Country repartition of the RFI respondents

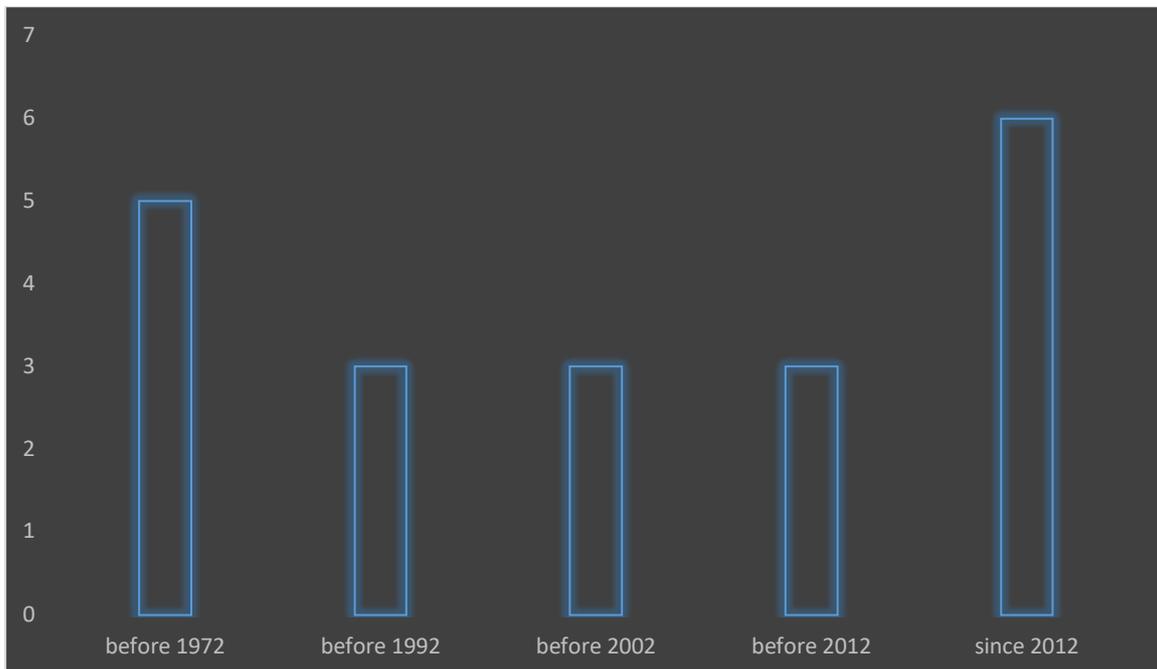


Figure 10: Organization's creation date

3.2 Input analysis

3.2.1 Feedback from the workshops

This section presents a synthesis of the opinions expressed by participants during the workshops. These do not necessarily reflect the position of the Prevent PCP

Consortium and do not bind it for the upcoming stages of the project. Contributions are presented in pooled in section to provide more clarity.

In the conclusion, the main issues rose are listed in a table which also integrate the action taken or the changes decided by the Prevent PCP Consortium.

✕ The availability on the market of solutions addressing Prevent PCP need

Some solutions are available on the market, but most participants agreed that item detection and association of an item to an owner are not properly working in operational environments. There is room for improvement, especially considering the use case of Prevent PCP (large spaces with an important crowd density). Participants acknowledged that the technology may exist but fails to meet the requirements. The content of the exchanges confirmed that participants had properly understood the use cases addressed by Prevent PCP.

Most participants underlined that the tracking of individuals remains very challenging, especially considering GDPR and privacy regulations. Existing technologies not using biometric data are promising, even though they are not as efficient as those based on biometrics.

Participants also pointed out how relative and subjective it is to consider that existing solutions could or could not address the Prevent PCP needs, as addressing a situation is rather contextual. Even though some item detection solutions are currently available on the market, it does not mean that they would be efficient in the context of transport infrastructures.

Thus, what is to be considered is the use case for which a solution has been developed. For instance, a solution developed for areas with a low density of people (such as shopping malls or museums) would probably fail at addressing the Prevent PCP needs in a train station at peak hour. Beyond the density of a crowd, participants indicated that a solution which might have proven to be effective in a large room may still fail to deliver equivalent results in smaller spaces such as an underground subway corridor. The cameras' field of view is an important parameter to consider from the first development steps.

✕ The efficiency of existing solutions

Participants mostly agreed upon the fact that, regarding the Prevent PCP challenges, item detection is the most advanced field (although the definition of an “unattended” item has to be clearly defined). On the opposite, tracking of individuals still appears as very challenging in an operational environment. The association of an item to a person would be in a middle position, but is not fully mature yet.

Currently, no existing solution combines all the features expected by the Prevent PCP Consortium. Individually considered, the available solutions are not as effective as the Prevent PCP Consortium expects them to be. Some of them, described as “powerful” or “still in progress”, may reach a TRL level of 7 for some aspects of Prevent PCP. However, participants stressed that even solutions delivering interesting results have a very high level of false positive alerts.

Participants insisted on the fact that the results achieved will mainly depend on the evaluation process: scenarios are expected to be detailed and precise. They will also rest on parameters such as the number and quality of cameras and the density of people.

Some participants indicated that a solution developed while taking into account the optical chain of sensors would achieve better results. Providing this information on the equipment of the pilot site would lead to a better solution design.

When it comes to tracking individuals, especially in crowded areas, existing solutions are not really satisfying. In such context, participants pointed out that reaching an efficiency of 100% would not be realistic, especially considering the PCP's limited duration. To avoid bias caused by peak hours, some participants advocated for a flexible evaluation methodology where the requirement levels take into account the density of the crowd.

Some participants stated that a solution solely based on CCTV systems might be of a limited efficiency. The Lidar technology is not specifically mentioned by the Prevent PCP Consortium as a potential solution while it may prove itself very useful (even though it still needs some improvement).

The possibility of using biometrics (with existing solutions or not) remained throughout all of the topics addressed, as some mentioned it would likely deliver better results.

✕ The difficulty of overcoming the technological gap

Reaching a TRL 8 within a 2-year period of time appeared very ambitious to the participants, especially considering the restrictions inherent to the GDPR. The nature of transport environment makes the Prevent PCP goals even more challenging, due to the crowd density.

While mentioning the pilot sites, participants pointed out that the overlapping of cameras' field of view would have a direct impact on the calculation capabilities required. Among the underlying challenges mentioned is the optimisation of calculation power.

Some participants underlined that addressing Prevent PCP's needs would require many different skills. They would consequently need to partner up with other companies to deliver such innovations. In addition, consortia would have to dedicate a lot of resources (staff resource in particular) to address such major challenges in a rather short period of time. This consideration led the Prevent PCP Consortium to edit the matchmaking form previously presented.

Providing access to the pilot sites' video feeds from the first step of the PCP would enhance the quality of the proposed solutions, almost all participants agreed. The use of footage can be an option to develop the solution at an early stage (with the proof of concept recently provided).

In order to meet the project's expectations, the definition of scenarios appeared very important. To that extent, participants urged the consortium to provide very detailed information on elements such as: which elements can be used to identify an individual, CCTV systems technical characteristics, the need to re-identify individuals once an alert is considered as closed or not, etc. Most participants also expressed the need of a concrete list of objects to be detected by the solution, prior to the solution design. The main argument is that recognition through AI software requires training before prototyping.

Similarly, the societal acceptance of the solution is a non-technological gap to overcome in the Prevent PCP use case.

✕ The system's ability to correctly analyse a situation

In their vast majority, participants stressed out the importance of a human intervention to qualify the situation as an actual alert or a "false positive". The system should not decide by itself if a situation is worrisome. Some participants pointed out that the frequency of alert resulting in false positive may tend security operators to reject the system. This corresponds to the use case foreseen by the Prevent PCP Consortium: the intervention of a security operator was included in all the scenarios presented to the participants.

In addition, the evaluation by security operators would help training the models: cooperation with PTOs will be expected. To that extent, it would be necessary for the solution to include automatic and regular retraining systems. Updating the system is of critical importance. Participants agreed that real training implies working on real data. Thus, they would need to access PTOs' staff and operational centres at an early stage.

Participant did not foresee the emergence of a solution able to classify situations by itself in a near future. Such evolution would require the system to embed learning technologies. It would raise a legitimate question on whether or not it constitutes a desirable development. However, it is possible to design a configurable solution with different level of alerts (based on parameters such as distance, time, gap, etc.). Participants therefore asked for a clear description of the crisis management system.

A consequence is that suppliers would need to exchange with experienced "labelling teams" among PTOs: an efficient solution would need to incorporate their knowledge to feature a system of "pre-classification", prior to the operators' intervention. If such exchange between suppliers and PTOs were not possible, the labelling would only be done by the suppliers. It would then not perfectly meet the users' needs.

The analysis of a scene history (i.e. what happened in the seconds before an alert) would be difficult to process for a software. A technology may fail to recognise which bags belong to two separate groups standing near each other. Factors such as distance, time, speed of people leaving were mentioned as easier parameters to feature in a software. This particular step appears as one of the main challenges for which R&D is needed in the project.

✘ The various interpretation of GDPR in national law

According to the participants, designing a specific solution for each national legislation is not economically sustainable, especially considering that regulation evolves. Therefore, they renewed their call for specific technical requirement defining common objectives for each phase, including on GDPR issues. Otherwise, the financial resources required to deliver a solution fitting each legislation would be beyond the capacities of Prevent PCP.

Some participants suggested that a way of bypassing the discrepancies would be to require a flexible solution design. Other contributions pointed out that flexible solutions would entail an extensive use of AI, while AI is still a technology field in its infancy. Such operational use of AI technology may not be ready in the duration of Prevent PCP.

Still, some participants pointed out that in the field of innovation, alike supply creates demand, the advent of a new technology sets the need for legal framework evolutions. The success of Prevent PCP could be paradigm shifting. Accessing video flows from PTOs for experimentation purpose could be justified by public interest. To that extend, the restrictive regulation in some Member States concerned many participants.

Regarding the need for support from the Prevent PCP Consortium, participants indicated that they are used to deal with GDPR issues. Therefore, an automatic legal support is not particularly required. Instead, those participants would better appreciate to have legal expenses considered as development costs and/or an “on demand” legal support. Still, participants expected the Prevent PCP Consortium to make sure they will be allowed to test their solution at the pilot stage.

✘ The timescale realism

Most participants saw the proposed calendar as tight, considering all the intermediate checks suppliers would have to go through. The project being extremely ambitious, many participants ask for a longer PCP. Fewer express a more optimistic approach while considering the exponential rate of innovation. Many participants indicated that a scalable calendar would allow to combine ambition and uncertainty.

In regard to the three proposed phases, some participants considered that pilot tests are projected to last for a very short amount of time. Several opinions agreed upon the interest of having phases 2 and 3 of an equal length. They advocated for a shorter prototype phase and a subsequently longer pilot phase. By contrast, other participants expressed concerns about how short was the solution design phase (allowing to take into account the scenarios, the KPIs and the specific needs).

Again, a clear definition of the expected achievement for each phase is expected from participants to provide a better opinion. In that way, some comments were made on the potential need for a fourth phase, dedicated to the deployment of the solution on

the pilot sites (between phase 2 and phase 3). A clear description of the main steps is required.

A common point of view on the third phase was to warn the Prevent PCP Consortium about the delay to receive a permit. This procedure should be anticipated as much as possible. A support from the Prevent PCP Consortium is expected on that matter.

Finally, some participants clearly linked the access to video flow at an early stage, on the one hand, and the realism of the calendar, on the other hand.

✕ The financial support

Many participants considered the financial support provided by the PCP as realistic, although the opinion was not unanimous. Based on their remarks on the calendar (which, considering the objectives, appears too short to many), some participants recommended to provide more funding to the awarded suppliers.

That being said, remarks were made on the splitting of funding among the three phases. Participants acknowledged that solution design is critical. Therefore, providing additional funding prior the pilots appeared essential to foster the emergence of better solutions. With Phase 2 currently expected to last relatively long, a corresponding funding should be made available. Those remarks underlined that the first two phases will require a lot of time worked while results remain uncertain. Participants ask for a rebalancing of credits.

On the other hand, many participants felt that too much funding was kept for Phase 3. Furthermore, participants pointed out that once suppliers will be working on a solution they trust, it will be easier for them to find and dedicate resources to the pilots. Reversely, the first phases are expected to receive less funding while the outcome would appear more uncertain at the time.

In addition, participants agreed that, if a calendar evolution was to be decided, it should be reflected by an evolution of the financial support scheme.

✕ Attracting venture capital

Participants stressed out that attracting venture capital can only be done with prior results: an interesting project is not enough. Therefore, asking the selection companies and consortia to work on venture capital from the beginning of the project may not be the best option and should rather be considered during Phase 3. Still, if promising solutions can stem from Prevent PCP, investors may be interested as many companies have tried to deliver the expected solution.

Some participants mentioned that venture capital investors are usually more interested by IPRs and legal obligations on the technology use, instead of the entire solution. In contrast, the uncertainty of the legal framework across Europe may limit the interest of investors.

On that matter, support from the Prevent PCP Consortium could provide some help. Considering the opinions previously mentioned, prior research should be managed by the Prevent PCP Consortium before the implication of selection companies and consortia.

⌘ Other considerations

Participants stated that there is a distinction between full integration, partial integration and dedicated tools. The full interoperability is expected by the Prevent PCP Consortium, but the terms of this interoperability must be clearly expressed, as the level of integration to deliver will shape the R&D activities. It is to be stressed that the architecture of the expected solutions is up to the selected tenderers. Therefore, it was decided not to present it during the OMC. Still, a comprehensive description of the pilot sites will be provided with the tender documentation. It will include the information regarding the interoperability requirement the developed solution shall meet.

Even if PTOs will be the end users of the solution, participants wished that LEAs would receive enough information on the solutions.

3.2.2 Feedback from the RFI Questionnaire

Part 2 - Ethics and Privacy

The PREVENT PCP goal is to develop an innovative solution in security technology which will be able to answer to the common needs of a large economic market. Such an innovative solution has to be fully compatible with the different GDPR legislations, depending on the country. To do so, the interoperability of the technological solution with European legislations should be guaranteed.

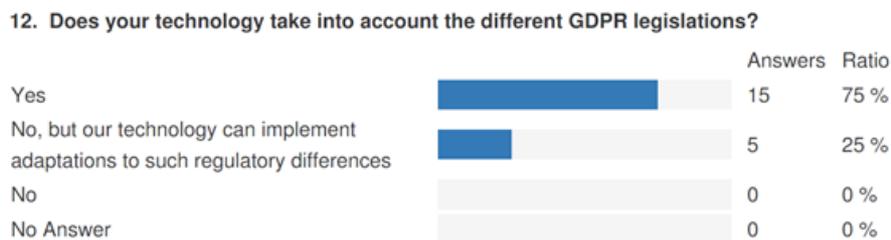


Figure 11: GDPR legislations

Results presented in figure 11 show that the respondents are aware of the GDPR legislations differences and ready to adapt their solutions.

14. Does your technology use biometric data processing?

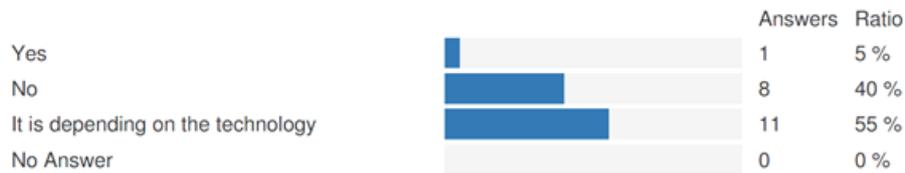


Figure 12: Use of biometric data processing

Most organizations are not using biometric data processing on their technologies but some of them indicated that it depends on the technology.

Respondents were asked how to overcome the national differences regarding GDPR legislation considering PREVENT PCP's main objectives. Their answers mainly mentioned to study and keep updating the current and future GDPR legislations applicable in each phase of the product design. They expected the PREVENT PCP Consortium to give clear specifications on the needs and interoperability requirement.

Respondents also recommended organizing workshops in order to alert and work on the different GDPR legislations. Interventions from external parties such as auditors on developments could also be relevant as well as a permanent communication with the involved national/local regulators.

Finally, with the consent of the public, the design flexibility appeared as a priority. Indeed, the developed solution has to be adaptable for non-biometric and biometric features. The use of a system with authentication mechanisms to access confidential data or a restricted time access could also be a potential solution.

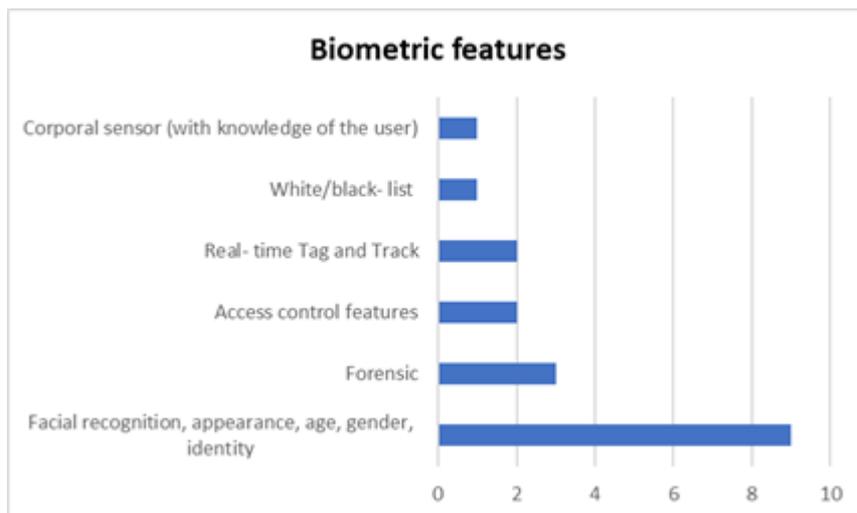


Figure 13: Features that need data processing

Figure 13 presents the different features already used by the respondents that need data processing. We clearly identify that the facial recognition is the most used to identify individuals.

Part 3 – State of the art

The project’s ambition is to deliver an operational system able to enhance and ease security operators’ intervention in terms of abandoned items and individuals tracking. The solution’s effectiveness shall be based on its interoperability with existing surveillance means and command systems. The aimed technology should be able to:

- Detect and classify items in a video stream
- Associate items to its owner(s)
- Detect when an item is separated from its owner(s)
- Automatically search the owner on all the CCTV cameras of a specified perimeter

In order to guaranty the level of innovation of the PREVENT PCP project, the State-Of-The-Art analysis identified the available technologies which could answer to its needs at three main levels, i.e. abandoned luggage identification, individuals tracking system and crisis management system.

When asked about the gaps and/or weaknesses to be outreached in order to address PREVENT PCP’s needs, most respondents agreed that the available technologies are not functioning in a real-life situation, especially considering crowd density. Indeed, they highlighted the lack of data sets of context and situation where solution should work. The cameras’ field of view also interferes in the information treatment. The main difficulty mentioned is the complexity of association between person and luggage.

Participants also pointed out the importance of the integration between those technologies and the interoperability between different transport operators active in the same area.

Some point of vigilance has been evocated such as the interest to define precisely the objects to detect and the scenes potentially dangerous to avoid false negative and positive alerts.

16. Is your company already able to provide solutions answering to one or several of the 4 main features described above?

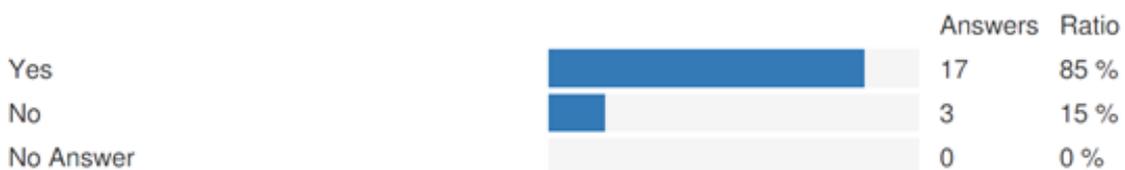


Figure 14: Solutions answering to one or several of the main features needed for the project

85% of respondents consider their technologies as able to provide solutions addressing to one or several of the PREVENT PCP challenge. In general, technologies developed by the respondents' answers to the interoperability need with partial and full integration. Most of them are compatible with Genetec security centre, Milestone and equivalents systems.

18. Given the needs of PREVENT-PCP on augmenting the security in public transport through the development of innovative solutions, the novel technologies should endow Public Transport Operators (PTOs) with solutions enhancing security situational awareness through: - Timely automatic detection of potentially dangerous unattended items in Public Transport Infrastructure and in public areas in the vicinity; - Identification and tracking of perpetrators; and - Advanced crisis management system. Do you think that there is enough room for R&D (TRL 3-7) in this field?

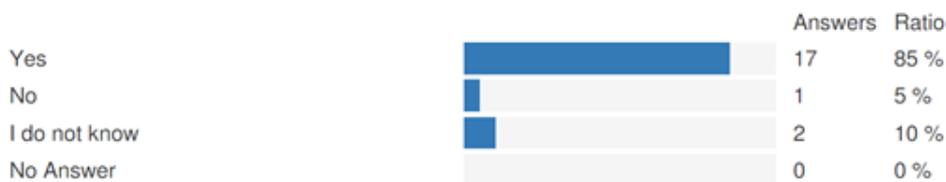


Figure 15: R&D (TRL 3-7) needed for the 3 mains PREVENT PCP challenges

As indicated in figure 15, most of respondents (85%) acknowledged that there is enough room for R&D in the field of PREVENT PCP challenge. Moreover, 70% of respondents agreed on the conclusions of the state-of-the-art analysis performed by PREVENT PCP.

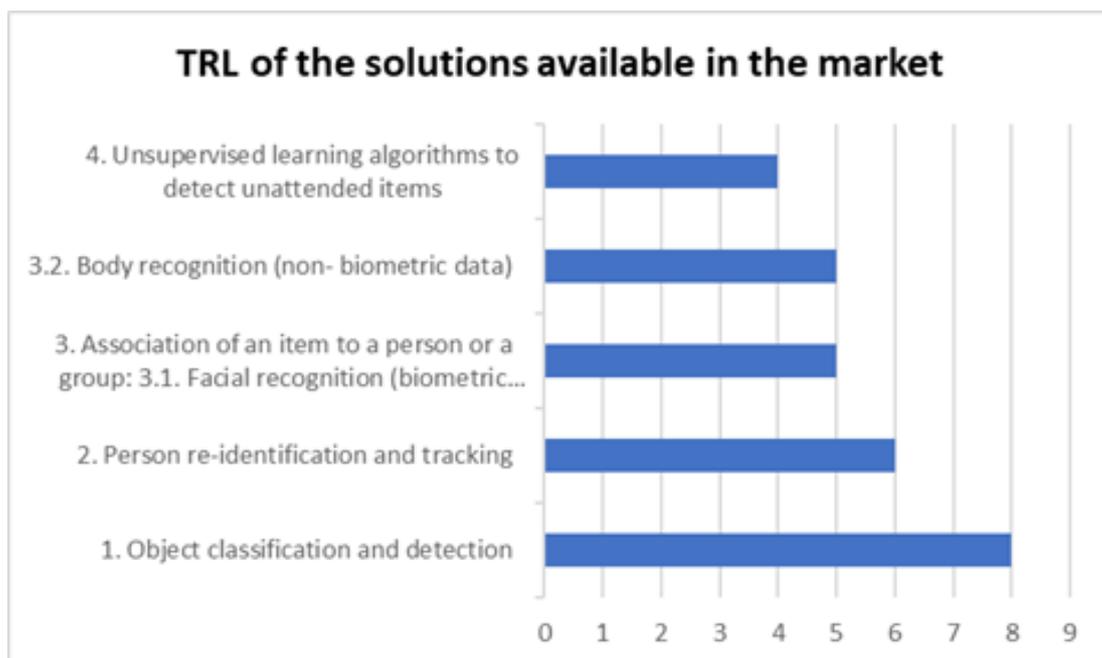


Figure 16: TRL of the solutions available in the market

Figure 16 presents the TRL average identified by each participant about the 4 main challenges of the project. We can note that the TRL associated with challenge 1 and 2 are relatively high. However, respondents clearly indicated the proper functioning of those technologies in laboratory environment and not in the operational environment of transport infrastructures, identifying an additional issue where the PCP is expected to deliver some improvement thanks to R&D efforts.

Part 4- Set-up and conditions of the PREVENT- PCP

PREVENT PCP will cover 3 phases of R&D for selected companies/consortia:

- Phase 1/Solution design (expected duration: 5 months)
- Phase 2/Prototype development (expected duration: 9 months)
- Phase 3/Operational validation (expected duration: 6 months)

According to the results in figure 17, 70% of respondents agreed on the duration and phases organization of the project.

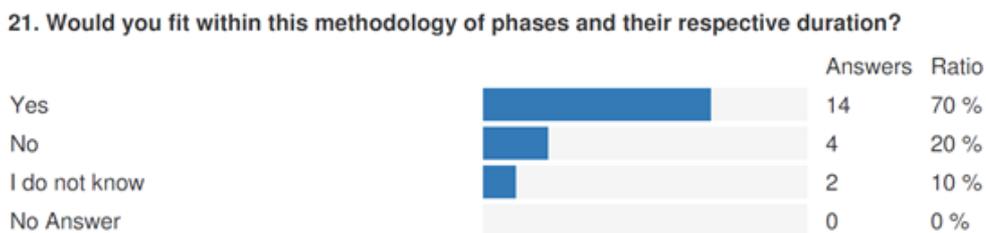


Figure 17: methodology of phases and duration

After informing about the organization of the project, respondents were asked to estimate the financial and human resources investment needed for PREVENT PCP project. The answers advanced R&D activities as well as human resources as the main expenditure item. Investments linked to the test and pilot were then mentioned. Finally, project management and material expenses received fewer votes.

However, some respondents warned the Prevent PCP Consortium about the fact that it appeared too early to give an estimation at this stage.

24. Do you agree with the PREVENT-PCP setup that requests that 100% of R&D services should be performed 100% in the EU Member States or associated countries?

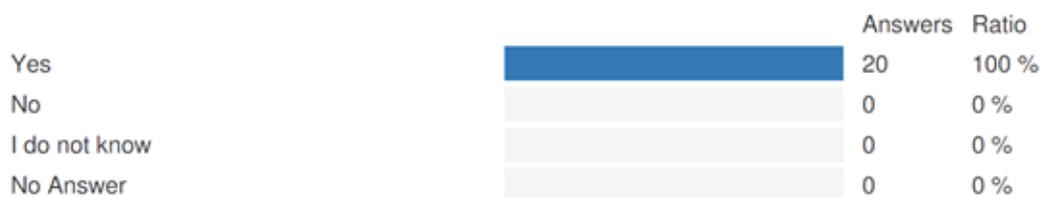


Figure 18: Performance of R&D services in EU Member States

All participants pointed out the importance to perform 100% of the R&D in EU Member States. They mentioned the fact that PREVENT PCP is a European project which should promote European R&D services. In their opinion, this could also contribute to the social acceptance of the project.

Part 5 – The future of the project

Respondents were asked about the factors of success for a solution. The Prevent PCP Consortium had already identified criteria such as the level of detection, the proportion of false alarms, the cost avoided for the final user, the value for money and the user interface.

Respondents have also mentioned the possibility to add other use cases (among others: behaviour detection, predictive analysis, possibility to interact with the unattended item's owner, etc.). An evolutive solution corresponds to the market's expectation.

The solution's updates are described as extremely relevant. Suppliers stipulated that they should be able to control the processed data, which implies to have access to analytical servers. Accessing to video flows from Day 1 would also enhance the quality of the final solution. They recommend an open data system providing updates based on the integration of feedbacks (including from other deployment sites) and self-learning algorithms (learning from real events in a supervised manner)

Respondents pointed out that the Prevent PCP Consortium insists on item detection and tracking of individual, but usually lack of focus on the functionalities of the crisis management system. For instance, the level of automation or the requirement of an advanced rule editor for alarm generation leave the market with questions.

In terms of additional features for the solution, respondents have many suggestions. Among them, it can be mentioned the precise localisation of objects for field operators, the installation of detection doors (to improve the items identification), the compatibility with GPU based solution, and the alert sent to first responder in case of an accident. Additional features may also be services. In that vein, a cooperation with PTOs prospective teams would allow the solution to evolve and stick to their activity, as well as the training of security operators.

For individual recognition, biometrics are usually favoured. Infrared technologies are also remarked. Anonymization and homomorphic encryption can be key technologies to address this need without using biometric data, even though it does not seem mature enough.

Contributions also stated that the solution effectiveness depends on the complexity of the problem to solve. It also depends on the robustness of the network infrastructure and the agility of the VMS.

On the other hand, respondents were asked about the risks which could jeopardy the project. Some answers approached the project's level of ambition: having too much

ambition could be a risk for the project. An AI solution cannot be as efficient as a human eye, but it may reach a high performance for simple tasks.

Respondents then suggested the project to prioritize its expectations: is the item detection more important than the tracking of individuals? The project’s ambition also relates to the variety of contexts, which is extremely challenging. To some extent, this concern sums up issues such as IPRs, business model, timing and available funding resumed in the chart below.

Yet again, providing a clear description of the scenarios to explore appears as the best way get the project’s ambitious to be shared by the Prevent PCP Consortium and the Market.

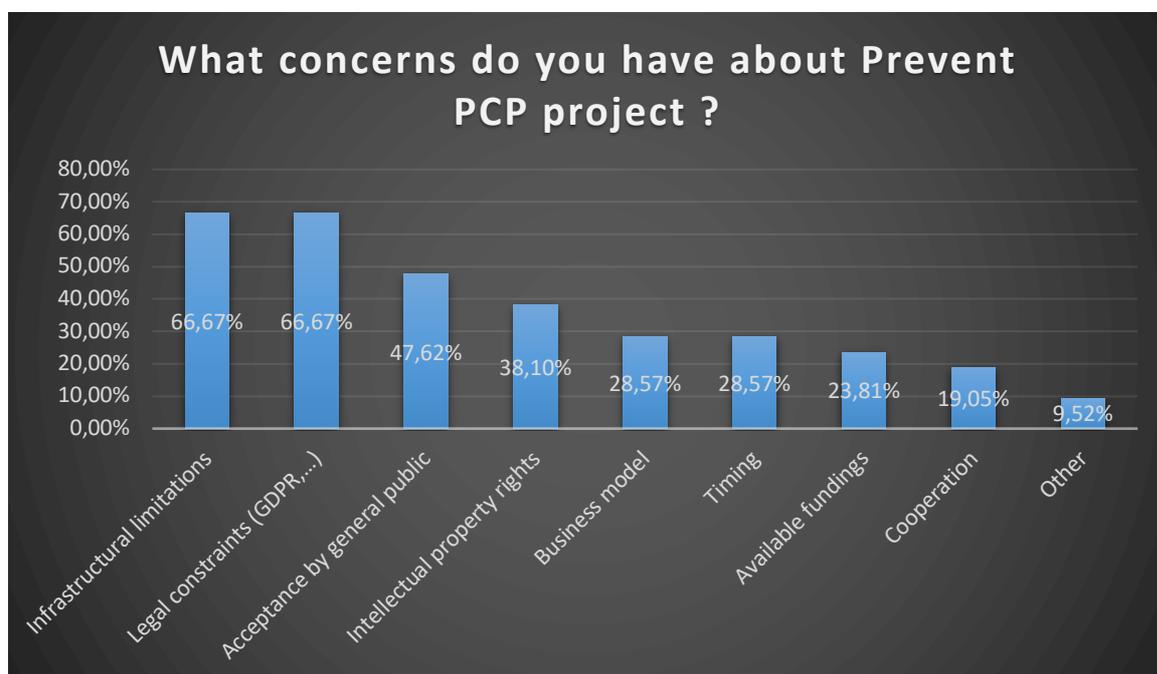


Figure 19: Concerns about the project

Many concerns related to the technical infrastructure in which the solution shall operate. The image quality and the level of bandwidth were mentioned. Answers stressed that AI is of no use with poor quality data. For instance, tracking of individuals is easier with vertical cameras, but also require homogeneity of camera.

Respondents also asked for detailed description of the interoperability between PTOs’ and LEAs’ operating systems. Having too diverse scenarios may also threaten the suppliers’ ability to address the tender, especially if they need to work on centralized, decentralized and onboarded systems at the same time.

Although GDPR is seen as an external factor, respondents expressed their expectation of having the Prevent PCP Consortium to provide them with a clear framework for the Phases 2 and 3 of the project.

The acceptance of the solution also appeared as a potential threat. Legal pushback may occur if the Prevent PCP Consortium does not figure out how to collect

passengers' consent, especially considering that biometrics offers better results for tracking. The acceptance also affects security operators (important workload) and people who work within the infrastructure.

A study should be performed on the equilibrium between the GDPR and the [AI act](#) (COM(2021) 206 final), currently discussed by European institutions. Finally, respondents were asking for accelerated certifications by authorities (and support from the Prevent PCP Consortium on that matter).

Respondents were asked to suggest evaluation criteria. Few answers advocated for some evaluation criteria to remain secret for suppliers (still, in order to guarantee transparency, this should not be done). Finally, several respondents warned the Prevent PCP Consortium about criteria lacking scalability.

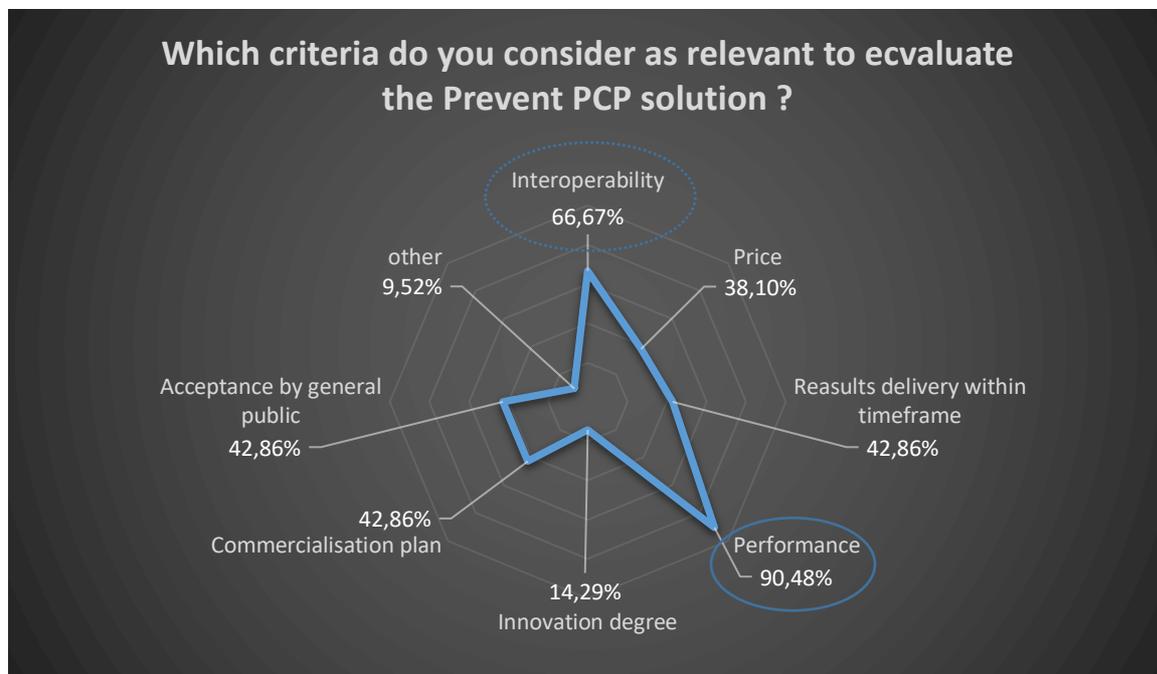


Figure 20: Relevant evaluation criteria

An evaluation process suggested by several respondents, for phase 2 and 3, would consist in providing the same video to be processed simultaneously by each solution. An on-site testing with actors could allow a series of exercises. Parameters such as crowd density or quality of image could potentially be used as way for scaling up difficulty.

Respondents also recommended that KPIs would reflect the security improvement provided by each solution, as the project's ambition is to improve security situational awareness. The submission of a detailed schedule assessment simultaneously illustrating the accomplished verifications procedures done and the upcoming workload or a justified financial plan were also mentioned.

When asked about other research areas the PREVENT PCP project should also focus on, most respondent recommend sticking to the project, as it is already very complex.

Part 6 – Cooperation

All respondents already collaborated with other organisations to carry out research and development activities. Out of the 21 answers received, only one respondent is considering the possibility of bidding on its own (without excluding cooperation).

All respondents underlined that drafting a consortium agreement at the proposal stage is the most adequate way to mitigate the risks regarding issues such as intellectual property rights, secrecy, and legal or commercial threats. Consortium agreement should cover the protection of individual prior knowledge, the further exploitation of knowledge developed during the PCP or topics such as the right of sublicensing to third parties.

Some contributions also addressed legal issues, such as:

- the responsibility of developers in the event of a mistake made by the solution,
- the inappropriateness of research and development contracts for the development of mature technologies³ (especially during phase 3).

Finally, respondents expect a clear definition of the Public Buyers' royalty-free access right to data gathered during the project (as pointed out in other documents).

Part 7 – Venture capital

Respondents were questioned about the relevance of receiving support from the Prevent PCP Consortium in order to access venture capital funds. Most answers recognise that such support would be of higher interest at the development stage rather than when commercialising the solution, as indicated below (Figure 21).

³ Directive 2009/81/EC states that R&D does not include the making and qualification of pre-production prototype, tools and industrial engineering, industrial design or manufacture.

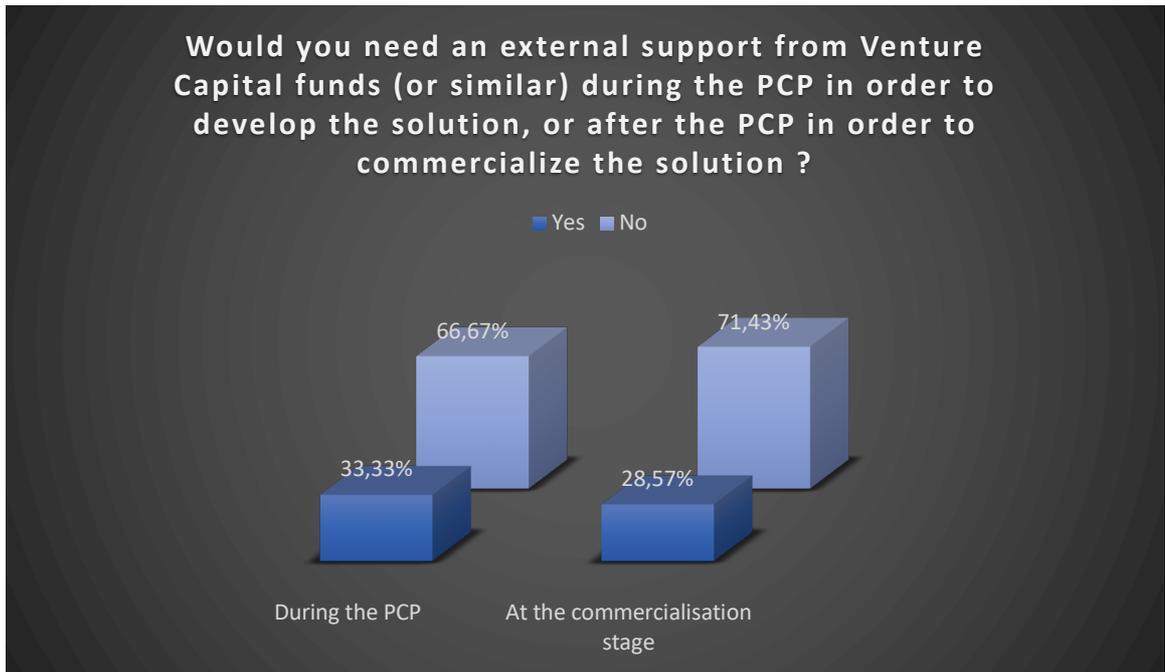


Figure 21: Interest in Venture Capital support

10% of the answers are not applicable, due to a confusion between VC funding an EU funding or because respondent indicated “do not know”. This tends to revalue upwards the level of respondents interested in receiving support from the Prevent PCP Consortium on that matter.

When asked more precisely about the type of support they would expect, many respondents indicated that VC would be at the development stage than at the commercialisation stage. All combined, those answers represent more than 35% of the received questionnaires. It is interesting to note that organisations expecting some support by VC are all SMEs (micro-enterprises: 25%, small enterprises: 60%, medium enterprises: 15%).

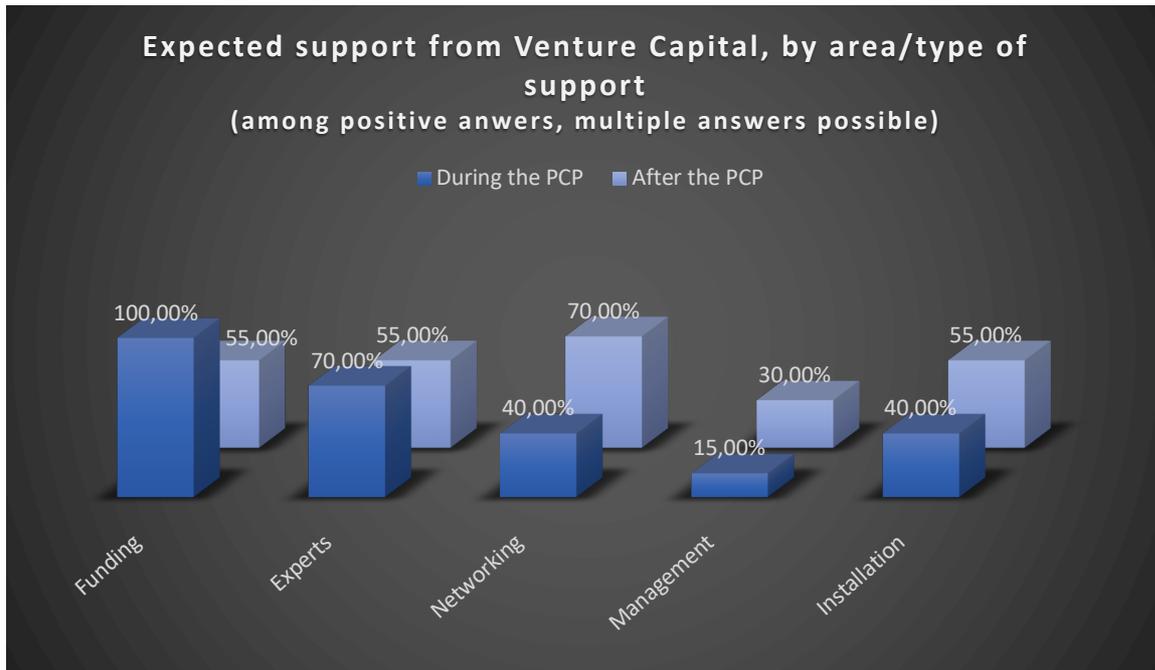


Figure 22: Type of support expected from respondents interested by venture capital

A respondent remarked that Prevent PCP may lead to the creation of a spin-off company: if so, VC could be an option to consider. In addition, Large companies have been easier to reach: it can reasonably be expected that, due to dissemination activities, more SMEs will hear about the project and consider their participation to the tender procedure. Those results and additional arguments illustrate the relevance of exploring this type of funding.

Two factors appear as relevant of explain the results, lack of knowledge on VC not being one of them.

1. A common denominator for the respondents' willingness or reluctance to access venture capital might be their current ability to easily access financial resources. Companies which already have R&D funding do not need additional ones at the moment, while those looking for external investors tend to be keener on the matter.
2. Another key driver appears to be the level of demand addressed by the project: VC suits better niche applications. The results tend to show different perceptions of Prevent PCP among respondents.

One out of four respondents already received external investments from venture capital funds: this group was not inclined to be either more or less open to VC than the other. Others stated that they would not need VC funding for this project, either because they are an established research ecosystem run as a private organisation but under public stakeholders or SMEs backed by business angels.

Finally, respondents did not consider the possibility of receiving VC as they have to compete in Prevent PCP, even though a third of them felt the option it could be an additional incentive to participate (this figure goes up to 60% among respondents interested in receiving a support on VC by the Prevent PCP Consortium). Exploring the

possibility of providing support on that matter to selected companies and consortia during had been identified by the Prevent PCP Consortium as an action fostering the project's chances of success. Those results validate this approach.

3.3 Market suggestions for the procurement

The OMC allowed the Prevent PCP Consortium to enter into a constructive dialogue with diverse organisations by presenting the State-of-the-art analysis, the identified use cases and challenges and the foreseen pilot tests. Due to their experience and background, those organisations are to be considered as privileged interlocutors.

The exchanges and discussions with those stakeholders led to several suggestions which are detailed further in this document. Those suggestions can take different forms: precise suggestions, general remarks or open questions. Those suggestions are included below in three different sections: general feedback and observations, input from the OMC activities and input from the RFI questionnaire.

3.3.1 General feedback and observations

There is consensus among the contributors on the fact that currently there is no solution available in the market that meets the need identified by the Prevent PCP Consortium. Neither is such solution expected to be available in the near future. Even though some solutions partially address Prevent PCP's challenges, the results achieved are not yet satisfactory. In addition, many contributors have underlined that the results expected by the end of the PCP are extremely ambitious.

In a nutshell, it is a common consideration that there is room for innovation when it comes to address the Prevent PCP challenge, in order to improve the association object-to-person, the tracking of individual and, most importantly, the combination of those features with the item detections within a single system. With an estimated TRL level between 4 and 8 (depending on the considered challenge), it is considered by the stakeholders that any improvement implied by Prevent PCP would have a positive impact on other existing solutions in the field of AI in general and video analytics in particular.

Therefore, a Pre-Commercial Procurement procedure does fit the Prevent PCP challenge and appears justified to both the Prevent PCP Consortium and the market. In particular, the OMC participants validated the relevance of R&D in order to develop a solution able to combine the features required (item detection, association item to person and tracking of individual).

In other terms, they acknowledged that even if three different solutions were available on the market to tackle the identified challenges individually (which is not fully the case, as previously indicated), using those three solutions simultaneously would not allow to reach the expected results. Therefore, a R&D effort is needed not only to improve existing technology and their efficiency, but also to ensure that those different features a properly functioning altogether. This common position between

the market and the Prevent PCP Consortium remain the principal step forward allowed by the OMC.

Contributions received during the OMC agreed with the conclusion of the State-Of-The-Art analysis and sympathise with the principal of the PCP's 3 phases. Indeed, the 3 phases constitutes a proper acknowledgment of the TRL level identified by both the SOTA analysis and the RFI respondents for the challenges of individual tracking and association of an item to a person.

So far, five general suggestions can be outlined regarding the evaluation process, the contributors' need for clarity during the PCP, the access to real video flows from PTOs, the level of financial support within the limited amount of time and privacy issues.

✕ The evaluation process

Prevent PCP has three main goals. A question left unanswered for the moment is the evaluation of the solution regarding those three goals. Two options are possible:

- Either the solution is evaluated based on the results delivered for each goal separately, the three ratings being then balanced in order to get a global score (which leads to the question of establishing the mixing ratios for the item detection, the association of an item to an owner and the tracking of individual), or
- Either the solution is evaluated globally, the three goals being considered as an indivisible assembly (based on several criteria having been weighted compared to each other).

The choice between these two options will influence the way R&D shall be conducted and, eventually, on the awarded solutions. It is also important to underline that the evaluation process will have a clear impact on the strategy adopted by the selected companies.

✕ A clear description of the PCP framework and process

Technology vendors expressed a clear interest for the project and its numerous challenges, which is in line with the recent development (although the commercialised solutions do not manage to reach a satisfactory level of efficiency). Still, they underlined their unambiguous expectation of clarity on the main aspects of the project: ambition commands clarity. This demand concerns all the PCP phases: selection criteria, description of the evaluation scenario, position on the use of biometric data, objectives to be reached by the end of each phase, etc.

It is important to underline that the success of the PCP relies on the ability of the Prevent PCP Consortium to issue a clear tender documentation. In other words, to achieve the ambitious goals of the PCP, the Prevent PCP Consortium has to provide a clear description of the project on all its aspects (technical, legal and ethical), but also a relevant list of KPIs and evaluation criteria corresponding to each projected scenario.

An interesting point is the suggestions made by many participants on the hardware installations, which remain the responsibility of the PTOs and falls outside the scope of Prevent PCP. This is an incentive for the Prevent PCP Consortium to avoid any form of confusion of such matter and provide a clear description of the suppliers' role in the tender documentation.

Another example regards the three project goals. The communications from the Prevent PCP Consortium have been consistent on their presentation. Still, some participants underlined that the challenge of associating an item to an owner cannot be dissolved in the tracking of individuals. Providing a comprehensive description of the crisis management system in the tender documentation should ensure a better understanding of the project goals' linkage.

✕ Accessing real video flows from PTOs

Technology vendors indicated in several occasions that the efficiency of the solution will depend on the ability of suppliers to train their models on real video streams from PTOs as early as possible. Tests operated in a controlled environment cannot replace the operational context. Therefore, they urged the Prevent PCP Consortium to provide them with those data from the beginning of the PCP.

✕ A broader financial support and a longer timeframe

As indicated above, the project has been considered as ambitious. Contributors generally agreed on asking for more time and a broader financial support to reach Prevent PCP's objectives and deliver a fully operational solution.

Contributions usually advocated for a rebalanced funding scheme: R&D and human resources expenses will be required at the beginning of the PCP while most funding is dedicated to the third phase. It was stressed that fewer expenditures are expected during the pilot phase, in a context where selected companies and consortia will easier dedicate resources to a near conclusion project. In other terms, providing more funding to the first and second phase may increase Prevent PCP's impact.

Only few OMC participants pointed out that the PCP may not succeed in delivering the results expected by the Prevent PCP Consortium due to time constraint. This contributes to the recommendation to introduce scalability in the evaluation process expressed by several stakeholders while reflecting their confidence in the possibility of reaching the objectives.

✕ Privacy issues

Finally, the OMC confirmed that data protection and privacy issues are key factors for the success of Prevent PCP. Stakeholders advised the Prevent PCP Consortium to provide suppliers with a clear framework regarding the GDPR issues. Support may also be needed to overcome some challenges and allow technology vendors to develop a

solution which is in line with the national interpretation of GDPR: constant exchanges on this matter should take place between the Prevent PCP Consortium and the selected companies or consortia all along the PCP to ensure the full compliance of the developed solutions.

To that extent, the tender documents should adopt a clear position of the use of biometrics data, which was broadly seen as a way to provide more effective solutions. Providing a clear position on that matter will impact the answers provided to the tender and the stakeholders' strategy regarding the formation of a consortium (some potential partners being preferred to others).

Without predicting the position adopted, it is widely recommended to the Prevent PCP Consortium to at least allow the developed solution to possibly integrate solution based on biometric technologies, in case they were to be allowed in the future.

The Prevent PCP Consortium should provide important support to suppliers in the prototype and pilot phases, as four different legislations shall be respected. By offering a supporting environment on the legal compliance of the solution, the Prevent PCP Consortium would allow R&D suppliers to concentrate on the innovation aspects of the project. It was also suggested that the Prevent PCP Consortium would be in charge of asking the installation permits for the prototypes and pilots.

Those elements were taken into account by the legal analysis performed by the Prevent PCP Consortium on ethics and legal constraints.

3.3.2 Input from the OMC activities

OMC participants expressed their need to receive as much technical information as possible on the pilot sites. The following elements are expected: technical description of the cameras in place, their field of view on the pilot site, technical description of the CCTV and VMS systems, level of interoperability expected.

The evaluation scenarios also raised significant interest. Participants asked for the parameters to take into account in their definition of an unattended item (limitative list of objects, delay of neglect by the owner...). They also wondered about the objectives to be reached (level of false positive alerts, part of case avoided...). They also recommended the Prevent PCP Consortium to take into account the challenging aspect of crowd density. To do so, they formulated two recommendations:

- Either the evaluation could be based on mixing ratios depending on the crowd density,
- Either the expected scenario could be tested in different crowd condition (during and outside peak hours for instance) in order to avoid bias.

Stakeholders asked for a clear position on other technologies than CCTV (Lidar have been mentioned for example). The issue of using biometrics data remains unclear, as expressed in the previous section.

Technology suppliers also ask the Prevent PCP Consortium to consider their need to update and retrain their solution, which implies to access to the PTOs command

centres (or the premisses where the pilots will be installed). The implication of security operators in the PCP should also be clarified, as some technology providers indicated that it would allow the solutions to provide better results.

OMC participants advocated for a more balanced calendar, reflected by the funding scheme:

- Phase 1 is extremely important and should last longer,
- Phase 2 appears too long,
- Phase 3 should last approximately as long as Phase 2.

Based on those remarks, the Prevent PCP Consortium will reconsider the option of a Phase 1 lasting for six months and Phases 2 and 3 lasting seven months each.

Stakeholders also encouraged the Prevent PCP Consortium to provide additional funding, which justifies to explore the possible support by venture capital investors. Though, within the current situation, a more balanced allotment is suggested, as many participants point out that Phase 3 receives a lot of funding, compared to the amount of work required for Phase 1 and Phase 2.

Finally, two evaluation criteria have been suggested:

- By the end of phase 2: a training plan for security operators.
- By the end of phase 2 and 3: a communication plan for the general public and workers within the transport infrastructures in order to foster societal acceptance of the solution.

3.3.3 Input from the RFI questionnaire

✕ Ethics and Privacy

Respondents expected PREVENT PCP consortium to give clear specifications on the needs and interoperability requirement. Suggestions have been made about organisation of a workshop to facilitate the transmission of information. The external opinion from auditors and local regulators may help in the application of data protection regulations.

✕ The evaluation process

The respondents expect the Prevent PCP Consortium to be guided by scalability when setting KPIs and evaluation criteria. For example, the evaluation should take into account the robustness of the network infrastructure and the agility of the VMS. The image quality, the level of bandwidth or the variety of cameras deployed across a pilot site are to be considered as unbiased mixing ratios.

The evaluation criteria should not only reflect the results obtained, but also the security improvements compared to the current situation. Answers suggested that tests would be run simultaneously on the same video streams. Using actors by the

end of Phase 2 may seem more appropriate. At each stage, the submission of a justified financial plan is also mentioned.

RFI questionnaires stressed that AI solutions have a better performance while performing simple tasks. It raises the above-mentioned question of a ranking among Prevent PCP's goals. Should the evaluation process promote solutions with a high-performance level in some goals only (while accepting some weak-points) or favour solutions which reach the average best score on all goals combined?

The answers gathered with the RFI questionnaire warn the Prevent PCP Consortium on the proliferation of too diverse scenarios. It should be clear if the solution to develop shall be centralised, decentralised or onboarded. In other terms, Prevent PCP shouldn't be overrun by its ambition. Expecting too much from suppliers may jeopardise their ability to develop an effective solution. Limiting the scenarios to more homogeneous hypothesis appears as a factor of success for the PCP.

✕ Acknowledging the suppliers' business model

Video analytics solutions are usually not commercialised as independent features: they constitute pieces of a broader package and are marketed as such by developers. Security cameras and software solution are part of a product range in which buyers tend to select a pack of services.

Thus, the market insisted on the possibility of adding new use cases and additional features to the solution as it corresponds to their business model. This is not a factor of success for Prevent PCP per se (and should then not be evaluated during the PCP), but it certainly is a factor of economic success for the solution.

Therefore, the tender documentation shall not forbid such conception, as it corresponds to the sector's way of proceeding. The Prevent PCP should nevertheless keep on requiring full interoperability between the solution and the main VMS system.

Respondents also suggested that a cooperation with PTOs may better address the end users' needs.

In order to constantly improve the solution's efficiency, a flexible procedure shall be set to ease the updating process. This is especially relevant for solution based on self-learning technologies. The Prevent PCP Consortium has to decide whether updates can integrate feedbacks from other deployment site or not (especially considering privacy issues).

✕ The solution's features

Given that Prevent PCP is already complex and ambitious, RFI questionnaires recommended the project to remain focused on its objectives and avoid exploring too diverse scenarios. It was notably mentioned that the crisis management system should be more precisely described (functionalities, interface, parameters for alarm generation, etc.).

Still, technologies such as anonymization and homomorphic encryption does not seem mature enough to address Prevent PCP's need while they may tend to a broader societal acceptance. On that matter, answers collected emphasised the issue of collecting the infrastructure users' consent (passengers, security operators and workers from the infrastructure).

It was suggested that the Prevent PCP Consortium should also take into account the current discussion on the AI act. This aspect has been already considered and it will be integrated in the tender documents.

α Cooperation

In the field of innovation, organisations are used to cooperate. It seems legitimate for the Prevent PCP Consortium to take into account the consortium agreements in the selection process. Attention must be paid to IPRs, the protection prior knowledge and the further exploitation of knowledge developed during the PCP.

α Venture capital

Even though the expectation of support from venture capital investors doesn't concern all the respondents to the RFI questionnaire, it seems relevant to provide support to those who expressed their interest, even though establishing a mandatory procedure on that matter is not expected. In addition, it has been pointed out that providing such support can be an incentive for other stakeholders to consider their participation to the PCP.

With most participants to the workshop indicating that the financial support provided by the PCP is relatively low, exploring the issue seems relevant. Prior studies would be carried out by the Prevent PCP Consortium before any demand from the suppliers. This preliminary research will be guided by the expectations expressed by the market: support from venture capital funds would be more appreciated in terms of funding and expertise at the development stage, and as a networking opportunity at the commercialisation stage.

4 Follow-up on OMC outcomes

4.1 Prevent PCP adaptations to the Market feedbacks

The following table sums up the main recommendations addressed to the Prevent PCP Consortium during the OMC and how those feedbacks have enriched the project. The remarks have been integrated in the project objectives. It tends to illustrate the fruitful dialogue allowed by the OMC, which has been further transposed in the other deliverables drafted during the Preparatory Phase of the PCP.

Some of the remarks have been directly included in the further actions. Other were rejected in an adequately justified manner. Finally were taken into account but needed to be adapted in order to fit the strategy of the Prevent PCP Consortium.

Remarks or recommendations	Subsequent adaptation decided
Expectation of a clear description of scenarios and the corresponding evaluation framework	Scenarios were presented during the OMC (their description will be available at the Tender publication) as well as the means to evaluate the solution for each criteria
Communicate a relevant list of KPIs	KPIs and their corresponding mixing ratios will be fully described in the Tender documentation
Provide a comprehensive list of items to be detected	Detailed list of items to be detected to be published in the Tender documentation
Provide a clear description of the expected CMS, including the alert parameters	Expected functionalities of the CMS, including the alert parameters to be described in the Tender documentation
Ensure the respect of the tight calendar by providing access to video streams (preferably) or to a large video data set at an early stage	The access and content of the video streams and data set will be fully described in the Tender documentation to ensure the quality of testing under conditions compatible with privacy law
Provide a comprehensive technical description of the pilot sites (infrastructure robustness, available calculation power, bandwidth quality...)	A description shall be provided with the Tender documents, although the comprehensive description will only be transmitted to the selected tenderers for security reasons
Describe the expected interoperability level	The solution shall be compatible with the main VMS systems used by the security teams in the pilots sites (Phase 2 of the PCP intends to validate a sufficient interoperability with the cooperation of PTOs)

Support from the consortium to legally ensure the feasibility of the testing	GDPR analysis conducted led to the design of an coherent evaluation process fully compatible with the applicable GDPR legislations for the pilot sites (to be described in details in the Tender documentation)
Include biometric data in the testings	Tests will include the use of biometric data under the strict respect of the applicable legislations regarding privacy law
Allow the solutions to be further developed with technologies based on biometric data	Further development of the solution with technologies based on biometric data will be accepted
Ensure a cooperation with the PTOs' "labelling teams"	All along the PCP phases, PTOs' security teams will fully cooperate with the awarded tenderers under the terms and conditions described in the Tender documents
Provide an adequate support for the installation of prototypes and pilots	Infrastructure managers of the pilot sites shall take all the measures to ensure that providers will get all the administrative authorizations and permits prior to the beginning of testings
Ensure the access to control room along the testing to monitor the solution's updates	Access will be permitted during the testing, the calendar of installation on the pilot sites take it into account
Offer a longer period of testing and experimentation	The PCP has a fixed term - the improvements may be further developed during a subsequent PPI or with the support of VC
Provide a broader financial support	The project has a fixed budget, still the Prevent PCP Consortium is working on a



	VC strategy in order to ensure the sufficient availability of resources
Offer a more adequate calendar for the PCP phases	Phase 1 will remain as planned while Phase 2 has been reduced and Phase 3 extended
Balance the financial support provided among the PCP phases	The support provided for Phase 1 will remain unchanged while part of the support initially dedicated to Phase 3 will be dedicated to Phase 2





4.2 Updated Risk Assessment and Management

#	Risk and Likelihood/Impact Level	Involved PCP Phase	Likelihood	Impact	Proposed risk-mitigation measures	Status
1	A partner leaves the consortium either by its own decision or by a decision from the GA	All Phases	Low	Marginal	<p>Preventive actions: Continuous and Effective Monitoring of Partner's progress.</p> <p>Corrective actions: (1) Inform the EC of partner's withdrawal and reallocation (2) Communication with all partners, redistribution of tasks. Re-allocation of the partner's effort to the remaining partners. (3) If critical competencies lack in existing partners, find new ones. (4) if the leaving party concerns a pilot case, the consortium will identify new ones with the same profile, within partners' network.</p>	Open
2	Reluctance from partners to provide datasets due to confidentiality and security issues.	All Phases	Low	Critical	<p>Preventive actions: (1) Transport Operators involved in Pilot sites already been informed about the need and modality to access to data and existing knowledge; (2) Confidentiality agreements between PTOs and Technology providers will be put in place; (3) PTOs have already agreed and plans to record test data in respect with GDPR and security measures.</p> <p>Corrective actions: (1) Recall to signed agreements (2) Finding other data sources and providers from extensive partner networks (PTOs from the consortium and from the UOG).</p>	Open





3	Solution providers underperforming	All Phases	Low	Critical	<p>Preventive actions: (1) Each contractor will be assigned a main contact person in order to be the main contact for the contract implementation. (2) Moreover, the Consortium has defined several monitoring activities in order to ensure contractors' compliance with their contractual obligations.</p> <p>Corrective actions: (1) More intense communication channels and monitoring activities will be established. (2) Enforcement of PCP contract terms</p>	Open
4	Low cooperation between Technology providers and public buyers	All Phases	Low	Critical	<p>Preventive actions: (1) Actions fostering early cooperation and interactions between solution providers and public buyers; (2) User partners have joined with a strong commitment and interest in the project (co-funding); (3) most of technical requirements have been identified and provided under the PCP contract agreement.</p> <p>Corrective actions: (1) More intense internal communication and ad-hoc training sessions for both teams under the responsibility of the Coordinator; (2) Full engagement of users from the beginning of the project, through creative workshops.</p>	Open





5	Delay in project execution due to further escalation of COVID-19	All Phases	Medium	Critical	<p>Preventive actions: (1) partners have planned their activities taking into consideration their current measures and plans with regards ongoing COVID-19 situation; (2) only partners who could ensure sufficient resources for project activities have been admitted to the consortium.</p> <p>Corrective actions: (1) based on the evolution of the pandemic situation, continuous adjustment to planning will be put in place. (2) Selection of technology providers is scheduled in three phases will allow also to select providers with proven capability to deliver solutions regardless of COVID-19 evolution.</p>	Open
6	No consensus at TCM/EC level	All Phases	Low	Critical	<p>Preventive actions: (1) JPA signed - article 9 [The outcome of this session shall be a unique and joint proposal evaluation report, based on consensus. If a consensus is not reached, a second session shall be held in order to have a joint proposal evaluation based on the $\frac{3}{4}$ majority];</p>	Open
7	Complaints from tenderers related to PCP process	All Phases	Low	Critical	<p>Preventive actions: (1) On TD1, clear evaluation criteria have been defined;</p>	Open





8	Societal acceptance of the solutions	All Phases	Low	Critical	Preventive actions: (1) Direct communication and dissemination campaign to include a large base of citizens in order to inform them on the low impact of the proposed solutions on their lives, freedom and privacy; (2) Strongly communicate to all target audience and in all communication channels that PREVENT PCP respects FULLY all laws and regulations in terms of ethics and data protection both at EU and Member State level; (3) Clearly communicate that PREVENT PCP scope is to early detect Unattended items rather than identifying people in transport infrastructure;	Open
9	Technology providers fail to meet deadlines due to the tight timing of phases	All Phases	Low	Critical	Preventive actions: (1) the duration of each phase has been adapted based on the recommendations received from technology providers during the OMC as follows: Phase 1 remain 5 months, Phase 2 from 9 to 7 months and phase 3 from 6 to 8 months	Open
10	Initial commitment of the partners involved in the pilot to define and confirm the global roadmap of the trials	Preparatory Phase	Low	Critical	Preventive actions: (1) Pilot partners in PREVENT PCP have joined with a strong commitment and interest in the project; (2) Transport Operators involved in Pilot sites already been informed about the need and modality to access to data and existing knowledge; Corrective actions: (1) Online preparation meetings to organize the pilot sites visits (2) Physical pilot site visits to understand the technical architecture of the existing cameras and solutions used by the video operators (3)	Resolved





					Multiple meetings to confirm the technical environment which will be used for the pilots and define the global roadmap of the trials	
11	Failure to provide comprehensive use cases and requirements that will drive the project	Preparatory Phase	Medium	Critical	Preventive actions: (1) Commitment of the Consortium partners (2) Strong methodology to collect user requirements Corrective actions: (1) To use the pilot sites visits to collect user requirements directly from end users, (2) To use scenarios-based methodologies to define the common needs and build the requirements, (3) Multiple surveys/questionnaire and workshops conducted	Resolved





12	Failure to reach sufficient amount of companies during the OMC	Preparatory Phase	Medium	Critical	<p>Preventive actions: (1) large communication campaign organised at the level of each partner, using their usual communication networks ; (2) promotion of the OMC towards targeted institutions (clusters, commerce chambers, sectoral organisations...) and networks (Horizon Europe Nation contact points, European Enterprise Network...); (3) Participation to professional events and fairs (Milipol in Paris, AI & Big data expo in Amsterdam...)</p> <p>Corrective action: (1) Upload the recording from the Informative webinars to ensure a wide spread of the information</p>	Resolved
13	Proposals/Bids are not presented correctly in the envelopes	Tender & Evaluation	Medium	Critical	<p>Preventive actions: (1) clear indications in the tender documents; (2) communication activities to explain the rules and conditions of the tender process. Corrective actions: Provide possibilities to amend.</p>	Open
14	Suppliers have difficulties to sign the NDA or EURI	Tender & Evaluation	Medium	Critical	<p>Preventive actions: (1) clear indications in the tender documents; (2) communication activities to explain the rules and conditions of the tender process. Corrective actions: Provide possibilities to amend.</p>	Open





15	Low number of offers received by economic operators	Phase 1	Medium	Critical	Preventive actions: (1) during OMC, a large base of technology providers were contacted and involved in PCP activities, many of them showed high interest and expressed willingness to participate to the tender; (2) a strong communication campaign will be put in place during the tender process to cover large audience of potential Technology Providers, at least in all EU countries involved in PREVENT PCP; (3) Selection criteria and barriers to participate are very low in order to allow a large number of companies (including startups and research centers) to participate. (4) Transport Operators to contact/attract their historical technology providers.	Open
16	Delays are estimated to occur in a particular phase which are due for next phase	Phase 2 Phase 3	Medium	Critical	Preventive actions: (1) Continuous monitoring of activities progress, Communication with technology providers; (2) Effective allocation and planning of work among companies (in case of consortia). Corrective actions: (1) Assigning activities to other companies; (2) Tighter schedule to monitor progress in greater detail.	Open





17	Failure to deliver core PREVENT PCP tools and services	Phase 2 Phase 3	Low	Critical	<p>Preventive actions: (1) Consortium brings together strong players in the Pre-Commercial Procurement instrument with necessary know-how and expertise; (2) PCP phased approach reduces the risk of failure to deliver core tools; (3) Technology providers are bounded by a public procurement contract.</p> <p>Corrective actions: (1) The phased nature of the project enables the application of corrective actions for any emerging issue; (2) at the end of each phase the consortium will select successful technology providers to continue with next phase; (3) necessary refinements to requirements and specifications can be made at the beginning of each new phase.</p>	Open
18	Processing of data in video analytics may cause breaches	Phase 2 Phase 3	Medium	Critical	<p>Preventive actions: (1) Tender documents require a data protection impact assessment as outcome of phase 1 and update in phase 2 and phase 3. Corrective actions: (1) identify the potential breach, report it apply measures to encrypt, delete data according to the DPIA. (2) Terminate Framework Agreement.</p>	Open
19	Difficulties during the pilot implementation due to different regulatory frameworks regarding CCTV and data processing aspects.	Phase 2 Phase 3	Medium	Critical	<p>Preventive actions: (1) Tender documents require a data protection impact assessment as outcome of phase 1 and update in phase 2 and phase 3. (2) Regulatory analysis and previous preparation with PTOs conducted in an early stage. Corrective actions: (1) identify the regulatory barrier and work of solutions with PTOs and contractors.</p>	Open





20	Acceptability of the solutions by the end users	Phase 2 Phase 3	Low	Critical	Preventive actions: (1) Training planned for end users, (2) Early involvement in all phases, (3) Communication	Open
21	Low commitment or unavailability of PTOs involved in Pilot activities jeopardizing Validation results	Phase 3	Low	Critical	Preventive actions: (1) User partners in PREVENT PCP have joined with a strong commitment and interest in the project; (2) Involvement of additional users from the Public Buyers' Group. Corrective actions: (1) Strong and structured control of the Validation process; (2) Evaluation of alternative pilot site location; (3) elimination of one pilot site does not affect the validation of results.	Open
22	Technical and organizational issues for pilot activities may affect negatively the proper execution of phase 3	Phase 3	Medium	Critical	Preventive actions: (1) preliminary analysis on feasibility of pilots in the considered Pilot sites and scenarios has been performed in cooperation with users. Corrective actions: Specific activities for proper and detailed definition, preparation, planning of each pilot, including technical and organizational aspects will be conducted in a later stage in order to fine-tune and set-up corrective actions if required	Open





23	Deployment of PREVENT PCP technologies is not allowed in real operator's environment	Phase 3	Low	Critical	<p>Preventive actions: (1) User partners in PREVENT PCP have joined with a strong commitment and interest in the project and willing to deploy project results in real environments; (2) preliminary GDPR analysis has been conducted in order to determine the feasibility of real environment deployment from a data protection point of view.</p> <p>Corrective actions: (1) define alternative configuration in order to conduct the operational validation; (2) define alternative test/pilot site.</p>	Open
24	Partners capacities and availabilities for on-site technical environment installation	Phase 3	Medium	Critical	<p>Preventive actions: (1) Pilot partners in PREVENT PCP have joined with a strong commitment and interest in the project;</p> <p>Corrective actions: (1) Definition of the global roadmap of the trials (2) Planning of the installation is made subsequently to adapt and correct if needed (3) Installation will be done in SNCF premises in phase 2 which will allow feedbacks and expertise for the following installations in the other pilot sites in phase 3</p>	Open
25	Contractors capacities and availabilities to achieve all pilot sites installation (7 sites, 4 countries)	Phase 3	Medium	Critical	<p>Preventive actions: (1) Global roadmap of the trials to confirm during phase 1</p> <p>Corrective actions: (1) To adapt the roadmap (2) To split the installation of the solutions, with at least the installation of all solutions in one site</p>	Open





5 Conclusion

The Open Market Consultation constitutes a milestone for every PCP. By summing up the activities undertaken by the Prevent PCP Consortium, this document demonstrated the involvement of the entire Prevent PCP Consortium and notably the engagement of the Buyers Group. Most importantly, it emphasised the exchange opportunities provided to the Market. Through different channels, the OMC enriched Prevent PCP with a renewed perspective thanks to the input from technology suppliers.

In addition to the description of the activities organised by the Prevent PCP Consortium and the methodology used at these occasions, this report is a restitution of the inputs and feedback gathered during the OMC. The arguments exposed in this document allow to develop a deeper understanding of the main issues and shall enhance the success of the PCP. The analysis of the answers provides valuable material which should be reflected by all the upcoming deliverables and, most importantly, by the tender documentation.

Prevent PCP's OMC can be qualified as a success in many aspects. The informative webinars, the OMC main event and the questionnaires were organised in an open way to avoid any distortion of competition, and reached numerous organisations from different geographic locations (both inside and outside Europe), which are relevant stakeholders considering the challenges to address. Furthermore, it demonstrated the interest of technology vendor in the initiative and encourages the Prevent PCP Consortium to pursue its approach.

The valuable input analysed in this document led the Prevent PCP Consortium to draw some conclusions for the project's next steps. They can be summed up in four points, which should be combined with those previously formulated.

1. The market agreed that no solution is currently able to address the Prevent PCP needs. On the one hand, the TRL level of the relevant technologies is considered as insufficiently high, on the other hand, no solution currently combines all the expected features. Stakeholders and Prevent PCP Consortium agree that there is both room for innovation and an existing demand for the expected solution. Therefore, as suggested by the State-of-the-Art analysis, a Pre-Commercial Procurement is the most appropriate procedure. Results being uncertain in such procedure, the Prevent PCP Consortium shall adopt a resolutely ambitious approach while providing support to the selected companies and consortia in all the project's steps.
2. If the Prevent PCP Consortium wants the Market to share this level of ambition, it is key that the tender documentation shall provide to all potential bidders the clarity they need to measure the level of involvement required. Among all





the input gathered during the OMC, the demand for clear terms and provisions was the most notable.

Technology suppliers asked for a clear definition of the objectives to reach at each PCP steps, from the tender procedure preparation to the end of phase 3. The demand for clarity concerns all the aspects of the PCP: the Prevent PCP goals, the technical description of each task to perform, the scenarios to explore and the evaluation methodology (from the selection of bidder to the third phase).

The exchanges with the Market suggested the Prevent PCP Consortium to focus on the project goals: exploring a coherent set of scenarios appears as the best way to offer clear project conditions. The number of offers submitted to the tender is at stake. Offering a lucid and explicit description of each project steps is an unconditional condition for Prevent PCP's success and credibility.

3. The OMC also revealed the importance of a constant interaction between the Prevent PCP Consortium and the selected companies on privacy law and GDPR issue. It is expected that the partners shall support technology developer to ensure the GDPR compliance of solutions developed under Prevent PCP.

Most contributions reminded that, when it comes to video analytics, technology development in controlled conditions does not lead to successful innovations in an operational environment. Therefore, providing access to real video flows was presented as an essential condition for the development of efficient solutions.

Contributions urged the Prevent PCP Consortium to create the conditions where R&D providers can use such data. In the same vein, it appeared to the market as a responsibility for the Prevent PCP Consortium to ensure the authorisation to deploy the solutions and the possibility of testing them on actual video streams in the four pilot sites.

4. Finally, the OMC contributors suggested the Prevent PCP Consortium to provide a flexible and scalable framework, reflecting the progress achieved all along the PCP. This is particularly important for an innovation project based on AI technologies, which is a field where developments and innovations do not follow a linear fashion. It is therefore highly relevant for the Prevent PCP Consortium to introduce flexibility in the procedure when designing the tender documents.





6 ANNEXES

List of annexes

Annex 1 – Registration and Profile form

Annex 2 – Request For Information questionnaire

Annex 3 – Matchmaking form





Annex 1 – Registration and Profile Form

This survey is part of the Open Market Consultation of PREVENT PCP. It should provide Prevent Group feedback from the market about the main challenges of the project. The market consultation document related to this questionnaire, can be found on the project's website (<https://prevent-pcp.eu/wp-content/uploads/Market-Consultation-Document-PREVENT-PCP-OMC.pdf>).

This survey consists of several questions and should take around 30 to 45 minutes to complete. Respondents are invited to answer all the questions in this survey (one survey per company). The results will be considered when drafting the PREVENT PCP call for tender to design, prototype test and evaluate a security solution.

All information provided during the Open Market Consultation and other background information will be anonymized, summarized and published online in English on the project website.

Please note that taking part in this survey is not a prerequisite for the participation in PREVENT PCP call for tenders and does not give any advantage to any supplier. Although, the Open Market Consultation shall provide PREVENT PCP Group key information in order to shape the call for tenders adequately. Therefore, expressing your views on the project can only be useful, including for your organization. Only answers in English will be considered.

Respondents will be able to book a bilateral meeting, once their questionnaire is completed. Meeting will be held in English only. Booking of available spots will take place on a first come first served basis and will be organised from January 20th to February 10th, for a duration à 30 minutes. If needed, bilateral meetings will be organised in a harmonized way in order to ensure transparency and equal treatment: no additional information would be disclosed. The sole purpose of those meetings is to allow respondents to ask questions while protecting business confidentiality.

Your personal data will be collected, processed, stored and used by PREVENT PCP Group only for the implementation of the PREVENT PCP project. Personal data will be treated as strictly confidential according to the General Data Protection Regulation (Regulation 2016/679 of the European Parliament and of the Council). You may exercise your right to access to personal data and the right to rectify such data by applying to (contact@prevent-pcp.eu).

Part 1. General information about your organization

1. Please provide the following information about your organization

Company name

Creation date





Country

Number of employees

Annual income

Contact name and email address

Website

Have you already answered to the first questionnaire "Open Market Coconsultation Registration and Profile Form"?

Yes

No

2. Please select the type of company that describes your organization:

Public authority/ Public entity/ Public equivalent body

Micro enterprise/ SME

Large Company

Academia/ Research institute

Private research institute

Not- for- profit organization

Start-up/ Spin off

Other (please specify)

If you selected "Other" in the previous question:

3. Please specify your organization's main activity (Developer, manufacturer, supplier, designer, other please specify):

4. Describe the purpose of your company and, if applicable, the field(s) of R&D you are involved in:

5. Your presence on the market is:

Local

Regional

National





European

International

Not applicable

6. Do you or your organization consider security and the related technologies as a core part of your work?

Yes, it is a core part of our work

No, it is not a core part of our work but we are interested in understanding innovation procurement (PCP/PPI)

No, it is not a core part of our work but we are interested in the potential technologies developed

7. Do you have relevant experience in researching, developing, buying or selling technologies related to transport security or anti-terrorist security? Please respond to the question by mentioning the average years of experience your company has in the corresponding.

In addition, do you have relevant experience in any of those relevant fields. Please respond to the question by mentioning the average years of experience your company has in the corresponding boxes.

8. Are you qualified in relevant research and development areas which are not listed in question 7?

If so, please list them and mention the years of experience your company has:

9. Do you have any background in crisis management in transport infrastructure (e.g., panic movement, suspect tracking, weapon detection, unattended items detection, etc.)?

Yes

No

No, but my organization researches or has an interest in technology applicable which meet this need

If you answered "No, but my organization researches or has an interest in technology applicable which meet this need" in the previous question, please give examples and mention the average years of experience:





10. Do you intend to attend the Open Market Consultation event to be held in Marseille on January 19th and 20th?

Yes, on site

Yes, online

No

Uncertain

Not applicable

11. Do you intend to attend the informational webinars to be held in January?

In English on January 10th

In French on January 12th

In Polish on January 13th

In Portuguese on January 14th

In Spanish on January 25th

In Dutch on January 26th

In Greek on January 27th

In Italian on January 28th

Not applicable





Annex 2 – Request For Information questionnaire

Part 2. Ethics and Privacy

The PREVENT PCP goal is to develop an innovative solution in security technology which will be able to answer to the common needs of a large economic market. Such innovative solution has to be fully compatible with the different GDPR legislations (General Data Protection Regulation), depending on the country. To do so, we must guaranty the interoperability of the technological solution by respecting European and international legislations in one hand and image rights and the right to privacy in each country on the other hand.

12. Does your technology take into account the different GDPR legislations?

Yes

No, but our technology can implement adaptations to such regulatory differences

No

13. How will you overcome the national differences regarding GDPR legislation considering PREVENT PCP's main objectives?

14. Does your technology use biometric data processing?

Yes

No

It is depending on the technology

Part 3. State of the art

The project's ambition is to deliver an operational system able to enhance and ease security operators' intervention in terms of abandoned items and individuals tracking. The solution's effectiveness shall be based on its interoperability with existing surveillance means and command systems.

The aimed technology should be able to:

- Detect and classify items in a video stream
- Associate items to its owner(s)
- Detect when an item is separated from its owner(s)
- Automatically search the owner on all the CCTV cameras of a specified perimeter





In order to guaranty the level of innovation of the PREVENT PCP project, we need to identify the technologies available on the market which could answer to our needs at three main levels, i.e. abandoned luggage identification, individuals tracking system and crisis management system.

15. What are the gaps and/or weaknesses to be outreached in order to address PREVENT PCP's needs, i.e. to address the aforementioned 4 features altogether?

16. Is your company already able to provide solutions answering to one or several of the 4 main features described above?

Yes

No

17. Does the technology you develop and provide usually answers to the interoperability need with existing and standard VMS or supervision tools? Please, if possible, provide some instances of implementation (especially which VMS and what type of integration - full or partial)?

18. Given the needs of PREVENT-PCP on augmenting the security in public transport through the development of innovative solutions, the novel technologies should endow Public Transport Operators (PTOs) with solutions enhancing security situational awareness through:

- Timely automatic detection of potentially dangerous unattended items in Public Transport Infrastructure and in public areas in the vicinity;
- Identification and tracking of perpetrators; and
- Advanced crisis management system.

Do you think that there is enough room for R&D (TRL 3-7) in this field?

Yes

No

I do not know

Please elaborate:

19. According to you, at which TRL are the solutions available in the market to target the functionalities required:





20. Do you agree with the conclusions of the state-of-the-art (SOTA) analysis performed by PREVENT-PCP?

Yes

No

I do not know

Please elaborate:

Part 4. Set-up and conditions of the PREVENT- PCP

PREVENT PCP will cover 3 phases of R&D for selected companies/consortia:

- Phase 1/Solution design (expected duration: 5 months)
- Phase 2/Prototype development (expected duration: 9 months)
- Phase 3/Operational validation (expected duration: 6 months)

21. Would you fit within this methodology of phases and their respective duration?

Yes

No

I do not know

Please elaborate:

22. From a financial perspective, how would you evaluate the investment required to deliver the expected innovation? (in €)

23. From a human resources perspective, how would the number of hours required to deliver the expected innovation? (in hours)

24. Do you agree with the PREVENT-PCP setup that requests that 100% of R&D services should be performed 100% in the EU Member States or associated countries?

Yes

No

I do not know

Please elaborate:





Part 5. The future of the project

25. What features/technologies do you think should be included in the PREVENT PCP solution? If you think some components are more essential than others, we kindly ask you to specify it. (Please list a maximum of 5 solutions in decreasing order of importance)

26. According to you, what are the essential conditions for the PREVENT PCP technology to be economically successful on the market? (Please list a maximum of 3 conditions in decreasing order of importance)

27. What concerns do you have about PREVENT PCP project?

Infrastructural limitations

Business model

Cooperation

Timing

Legal constraints (GDPR legislation and data protection)

Available funding

Intellectual Property Rights

Acceptance by the general public

Other

Please elaborate:

28. Based on your experience, what are the potential market risks that could jeopardize the return on investment and business goals of suppliers?

29. Which criteria do you consider will be relevant to evaluate the PREVENT PCP solutions?

Interoperability

Price

Feasibility to deliver requested results under foreseen duration

Performance

Innovation degree

Commercialisation plan





Acceptance by the general public

Other

30. Which are the most suitable validation procedures for the procurement, in order to be checked whether the objectives of the call are achieved by market/industry?

31. According to you, does the PREVENT PCP challenge foster breakthrough innovation?

Yes

No

32. Are there other research areas should we invest in and other technical solution we should integrate in order to address PREVENT PCP's needs? (priority order)

Part 6. Cooperation

33. Have you ever collaborated with other companies to carry out a R&D project?

Yes

No

34. If you were to join a consortium in order to answer PREVENT PCP 's call for tenders, which concerns would you have regarding Intellectual Property Rights and protection of industrial and commercial secrets?

35. If you were to join a consortium in order to answer PREVENT PCP 's call for tenders, which concerns would have regarding potential legal and commercial threats or risks your solution could face?

36. Are you willing to collaborate with other organization(s)/ company(ies)/consortium(a) in order to submit a tender?

Yes

No





37. If so, does the PREVENT PCP Group have your permission to share the data of your organization and your contact details (name, last name and e-mail) with other organizations in a match-making perspective only?

Yes

No

38. At this stage, is your organization/ company/ consortium interested in taking part in the PREVENT PCP innovation challenge?

Yes

No

Uncertain

Not applicable

Part 7. Venture Capital

The PREVENT PCP Group is currently assessing the possibility of involving Venture Capital funds (and similar investors) in order to support the companies that will be competing in the Pre-Commercial Procurement.

In this regard, the following questions aim to identify the potential needs of support by the companies interested in competing in the PCP. The result of this part of the questionnaire will be used to improve the current networking and communication activities of the PREVENT PCP Group with Venture Capital funds and similar investors.

39. Would you need any external support from Venture Capital funds (or similar) during the PCP in order to develop the solution, or after the PCP in order to commercialize the solutions?

40. If you need support during the PCP, in which areas would you need support from these investors for the development of the solution? (multiple answers are possible)

41. If you need support after the PCP, in which areas would you need support from these investors for the deployment of the solution? (multiple answers are possible)





42. Has your company ever received external investments by Venture Capital funds or similar investors?

Yes

No

Please elaborate:

43. Are you already backed up by Venture Capital funds?

Yes

No

Please elaborate:

44. Would the possibility of receiving funds/support from Venture Capital funds give you an additional incentive to participate in PREVENT-PCP?

Yes

No

Please elaborate:

Part 8. Open Market Consultation events

The Open Market Consultation (OMC) is series of events organized by the PREVENT PCP Public Buyers' Group to obtain an in-depth knowledge of the market structure, its players as well as of the technical and feasibility aspects of the procurement to design and implement an efficient procurement procedure.

The activities organized within the OMC also constitute a unique opportunity for networking and cross-disciplinary collaboration between companies and research institutions.

45. If you attend the Open Market Consultation event, are you interested in:

Participating a focus group or workshop

Joining the networking opportunities during this event

Attending as a spectator

Following the workshops online

Not applicable





46. Are there any other thoughts or questions you would like to share with the PREVENT PCP Group?



The following matchmaking form is available on [the Prevent PCP website](#).

Matchmaking Form

Please select the option that corresponds to your needs.

I am a consortium and I am looking for a specific partner.
 I have competencies and I am looking for a consortium.

Enter Company Name	Representative Person
Enter contact e-mail	Phone Number
Technology Branch	

What kind of support or expertise are you looking for in the other partners?

What kind of support or expertise are you offering for the other partners?

Additional information (please describe the competencies you are looking for or bringing to the project)

Do you want to share further information under a Non-Disclosure Agreement?

Yes
 No

Additional checkboxes

I confirm I have read, understood and agree to the [Privacy Policy](#).
 I consent to have my data collected in the "List of companies" to allow other companies contact me and create a consortium for the PREVENT PCP tender.

SEND REQUEST