



SHIELD
4CROWD



Open Market Consultation webinár v slovenskom jazyku

SHIELD4CROWD project

2 April 2024

Agenda



Hours	Topic	Presenter
12:00 - 12:20	Predstavenie projektu S4C a PCP	MVSR
12:20 - 12:40	Prezentácia 3 prípadových štúdií	ISEMI
12:40 - 12:50	Prezentácia výsledkov trhovej analýzy	MVSR
12:50 - 13:05	Ciele OMC	MVSR
13:05 - 13:20	Diskusia	účastníci
13:20 - 13:30	Záver	MVSR



Predstavenie projektu S4C



SHIELD
4CROWD

SHIELD4CROWD

Stanovenie východiskového stavu pre obstarávanie pred komerčným využitím (PCP)

Zintenzívnenie obstarávania inovácií v európskom bezpečnostnom ekosystéme a využívanie synergií prostredníctvom činností šírenia informácií v oblasti riadenia davu.

SHIELD4CROWD spája odborníkov z oblasti bezpečnosti v celej Európe s cieľom identifikovať spoločné zraniteľné miesta, ktoré predstavujú riziko pre ochranu verejných priestorov. Prostredníctvom opakujúceho sa procesu projekt určí priority relevantných výziev a hrozieb, stanoví technologické medzery a posúdi trhový ekosystém v každej oblasti.

Výsledkom bude identifikácia kritickej hrozby a príprava podmienok pre budúce obstarávanie pred komerčným využitím.



Predstavenie projektu

Shield4Crowd partneri a členovia UOG



UOGs

FRANCE

SERVICES DÉPARTEMENTAL SPÉCIALISÉ
DE LA PROTECTION CIVILE ET DES SAUVETAGES

KATP

BELGIUM

SPAIN

Generalitat de Catalunya
ALSE ASSOCIATION

PORTUGAL

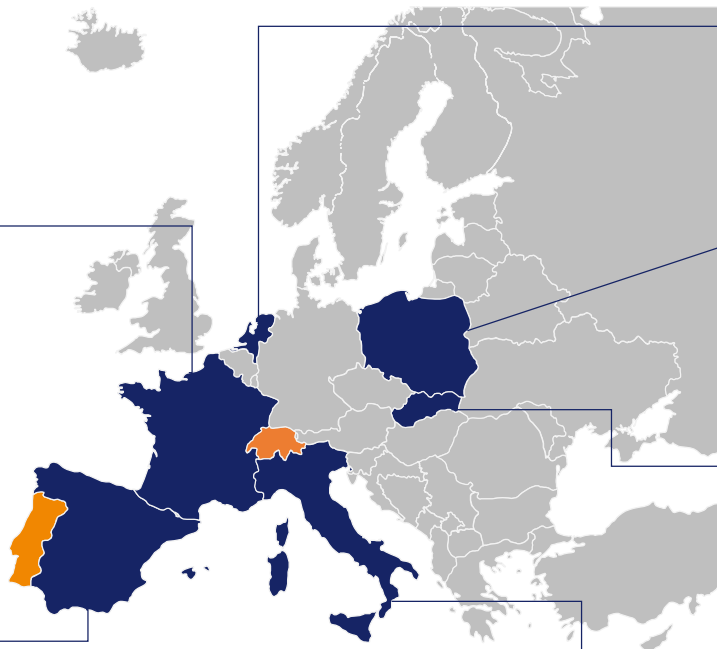
Project members

FRANCE

MUXLEY
SAFE CLUSTER
MINISTÈRE DE L'INTÉRIEUR ET DES OUTRE-MER
DÉPARTEMENT DE LA SEINE-SAINT-DENIS

SPAIN

GOBIERNO DE ESPAÑA
MINISTERIO DEL INTERIOR



Project members

NETHERLANDS

COMMERCIAL & LEGAL AFFAIRS

POLAND

Polish Platform
For Homeland Security

SLOVAKIA

MINISTERSTVO VNÚTRA SLOVENSKEJ REPUBLIKY
ISEM INSTITUTE

ITALY

UOGs

POLAND

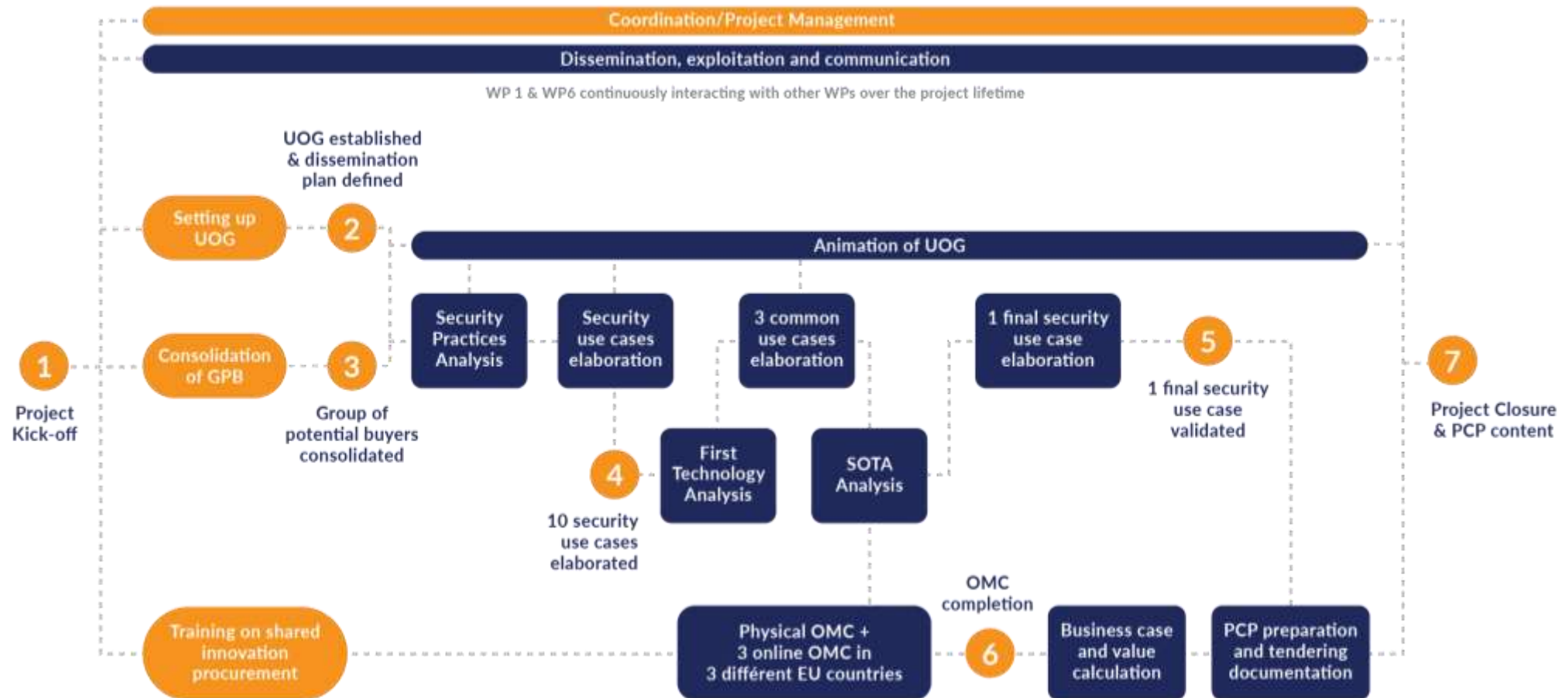
POLICIA
OLSZTYN
POLICJA
SECURITY OBSERVATORY

SWITZERLAND



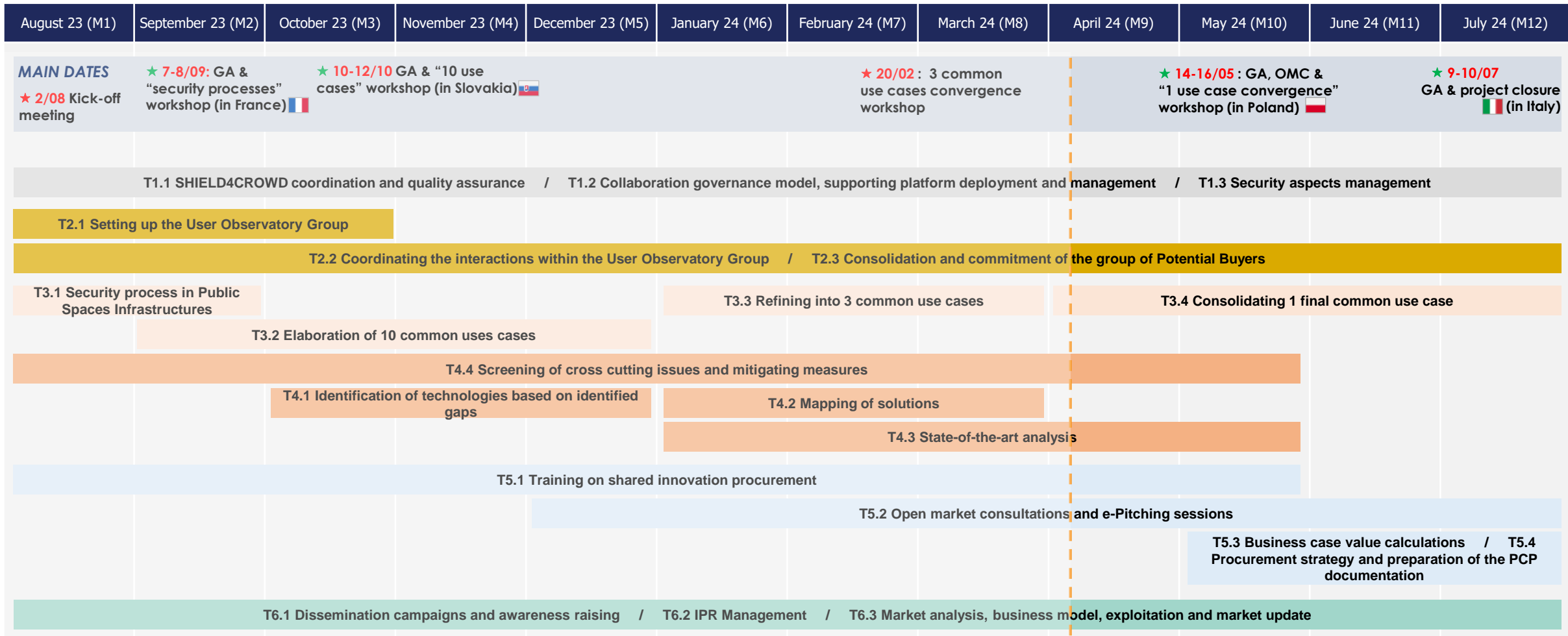
Predstavenie projektu

Plán činností



Predstavenie projektu

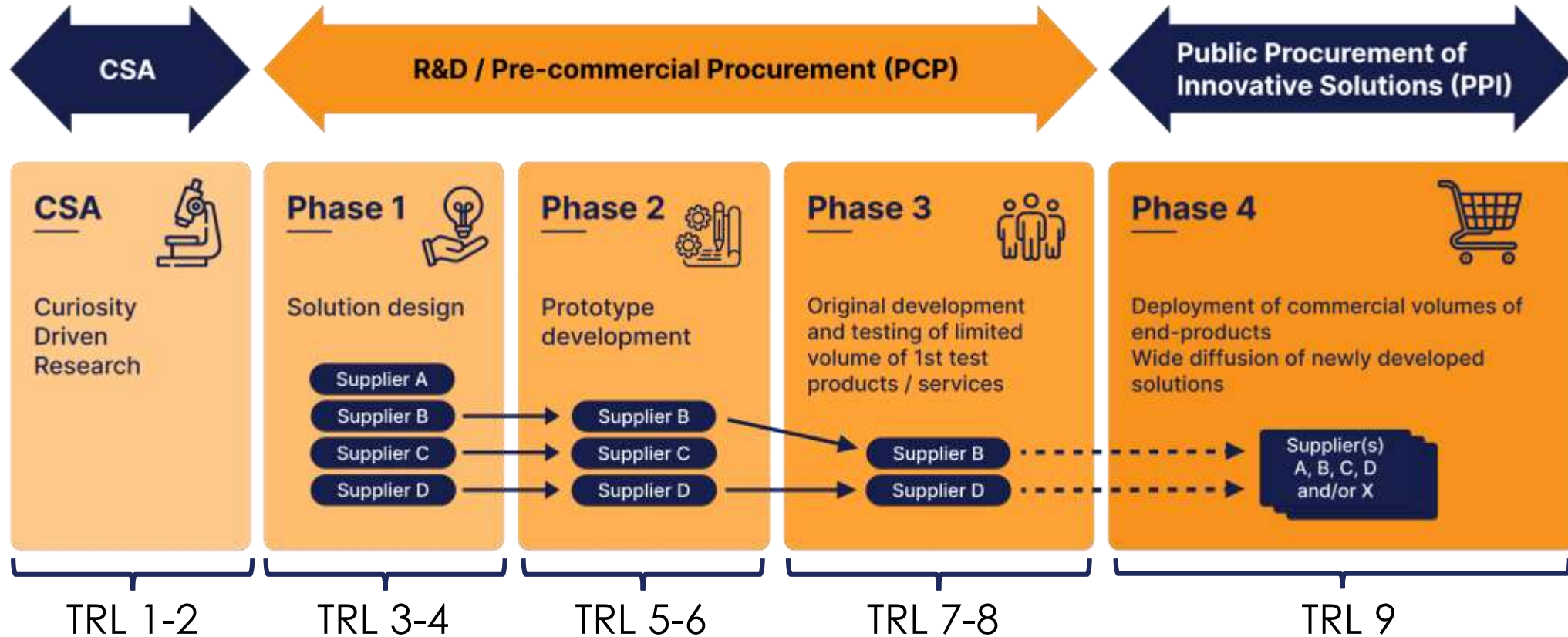
Plánovanie fáz projektu



CAPTION	★ Online meeting	WP1 : Coordination / Project Management	WP4 : Technology analysis (legal, societal, ethical and environmental considerations)
	★ Physical meeting	WP2 : End users group set up and outreach	WP5 : Pre-commercial procurement preparation
		WP3 : Common security threats and needs mapping	WP6 : Dissemination, exploitation and communication



Pre-Commercial Procurement (PCP)





Pre verejných obstarávateľov

Zlepšuje kvalitu a efektívnosť verejných služieb.

Pomáha dosiahnuť požadovaný stupeň interoperability od začiatku a **znížiť riziko uzamknutia dodávateľa. (vendor lock-in)**

Umožňuje získať kvalitnejšie produkty za nižšie ceny.

Znižuje riziko neúspechu pri následných obstarávaníach

Bezlicenčné využitie pre verejných obstarávateľov



Pre dodávateľov

Urýchľuje proces uvádzania vedeckých výsledkov na trh.

Skracuje čas uvedenia inováčných produktov a služieb na trh.

Uľahčuje prístup nových inováčných subjektov (napr. začínajúcich podnikov, MSP) na trh verejného obstarávania

Stimuluje rast spoločností a priťahuje súkromné investície.



Pre spoločnosť

Lepšie využitie peňazí daňových poplatníkov na nákup inováčných produktov, ktoré zlepšujú kvalitu a účinnosť ochrany verejných priestorov.

Pomáha riešiť environmentálne a sociálne výzvy prostredníctvom nových a inováčných postupov.

Vytvára pracovné miesta s vysokou pridanou hodnotou v Európe a prispieva k udržateľnému hospodárskemu rastu.



SHIELD
4CROWD



Prezentácia 3 prípadových štúdií

ISEMI

Scenario (#1)

Coordinated bomb and CBRN attacks



Saturday, 1/10, 13:00

1 This is the day of the commencement of a significant sporting event, **drawing 80 000 persons**. The event involves a **high-profile soccer match** that starts to welcome supporters at 16:00 for a start of the match at 19:00. However, during lunch hours, terrorists have placed two suitcases in advance at two different train stations : the **central station (1)** and the **one closest to the stadium (2)**.



Saturday, 1/10, 15:00

2 People gradually start to accumulate in the transportation network **to arrive early at the stadium**, and a **suspicious suitcase similar in apparencey to an explosive engine** is identified by security staff **at station 1, leading to panic**. The evacuation of station 1 is declared, but handling it proves difficult, resulting in numerous injuries. Emergency medical services are arriving. A suitcase containing explosives is confirmed, and simultaneously, there is an **explosion at the nearby stadium station (2)**. Some of the **security personnel and police forces**, strategically positioned to welcome the supporters, **are mobilized to take preventive actions within the stadium**, checking for any suspicious packages and providing assistance to injured individuals at the station near the stadium.



Saturday, 1/10, 15:02

3 As supporters from both teams gather at the stadium entrance, **they hear the explosion, which intrigues the fans and creates a sense of panic**. While access to the stadium is **still not permitted**, security personnel detect a **suspicious drone releasing unidentified liquid droplets over the crowd**. Tensions escalate between supporters, **each blaming the other for the situation, resulting in clashes**. Reports of spectators suffering from skin irritation and respiratory distress are received, sparking concerns of a **chemical attack**. Panic ensues, with attendees fleeing in confusion. **The drone leaves the stadium area.**

6 Despite efforts to mitigate the threats, tensions persist, leading to **arrests and detainment of troublemakers**. The coordination of security forces and emergency services remains crucial in ensuring the safety of all affected individuals. **Public transportation services are temporarily suspended** as authorities conduct thorough investigations and implement enhanced security measures to prevent future incidents. The suspects who planted the bombs **are not instantly found**.

5 Upon **confirmation of a chemical threat related to the drone's droplets**, decontamination protocols are implemented at the entrance of the stadium, ensuring the safety of evacuated individuals before allowing their departure. Investigations are launched to find the drone and its pilot. Meanwhile, **anti-riot units intervene to disperse violent clashes** and restore calm to the street. At the transportation hubs, authorities work continue to provide **medical assistance to the injured**, and initiate investigations into the coordinated bomb attacks.

4 Reinforcements and efforts are **focused on establishing perimeters and cordons to contain the situation around the exploded station**. Meanwhile, **emergency medical services** are mobilized to assist the injured, and **police strive to maintain order** and prevent further violence despite **limited manpower** in the clashes. Measures are taken to secure areas affected by the bomb blasts, evacuate civilians, and assess the damage. The arrival of **bomb disposal teams** on-site relieves pressure, secures the stadium and its surroundings to ensure no additional CBRN threats are present.



Saturday, 1/10, 18:00



Saturday, 1/10, 16:00



Saturday, 1/10, 15:15



Security process – UC1 – Coordinated bomb and CBRN attacks

Analýza potrieb a príkladov technológií



Anticipate Crowd Management

Real-time Event Mapping

Detect the threat: CBRN; drone; bomb

Operational Command Centre: identify perpetrators; suspicious groups...

Clear communication between security forces

Clear communication with the crowd

Monitoring the crowd movements

Communication with SS, crowd and SM

Handling and evacuate people in complete safety

Neutralize the threat rapidly

Data collection

Facilitate the access back following chemicals usage

Learn and enhance

NEEDS



3D modelization tool of crowd movement in relation to different events

CBRN Sensors for air and ground scans

Thermal imaging technology for a real-time image of the crowd

Hypervision tool that will enable different stakeholders to easily connect and communicate with each other

AI tool that could map the current threats, their location, severity, etc. and propose intervention plans with the number of human forces required, etc.

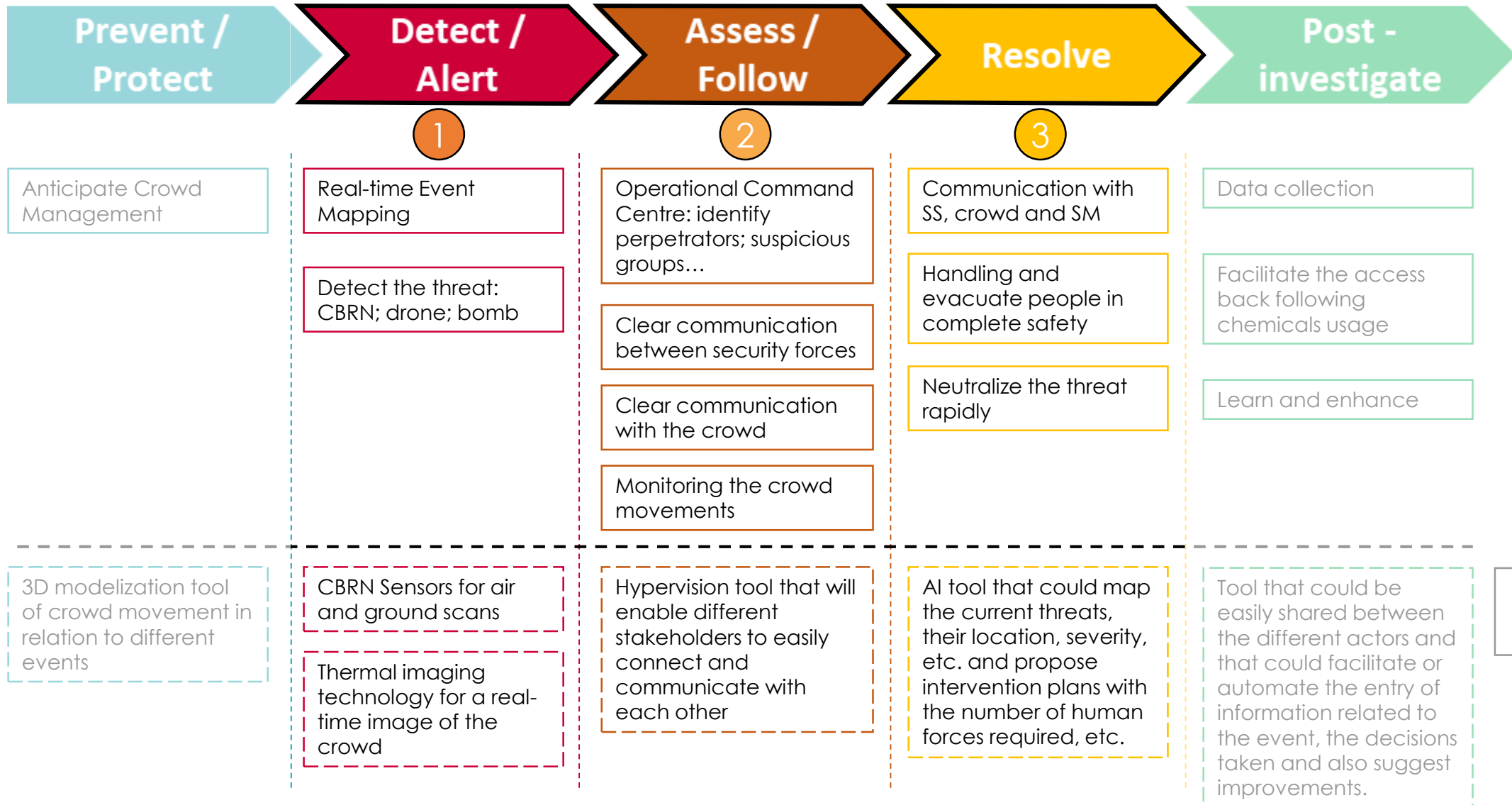
Tool that could be easily shared between the different actors and that could facilitate or automate the entry of information related to the event, the decisions taken and also suggest improvements.

Examples of technologies



Security process – UC1 – Coordinated bomb and CBRN attacks

Analysis of needs and technologies examples



NEEDS



Examples of technologies



Scenario (#2)

Concert venue chaos: disinformation-induced panic



Friday, 5/7; 12:00

1 A **highly anticipated concert** featuring a renowned rock band is **scheduled to begin at 17:00**, with official entry **starting at 14:00** and will take place at a large stadium in the heart of the city and is gathering **80 000 persons**. However, rumors begin circulating on **social media about a potential bomb threat**, sparked by a report of suspicious discussions overheard on public transportation earlier in the day. Despite efforts to verify the credibility of the threat, panic spreads among concertgoers as uncertainty mounts. **Meanwhile, the Pride Walk, a tolerance march** organized by the LGBTQ+ community, is set to traverse the city, with approximately **6,000 participants** anticipated to join.

6 Following the concert's **uneventful continuation**, a sense of **relief gain the crowd**, though tempered by the recognition of disinformation's potential consequences. The crisis fosters a renewed commitment to vigilance and cooperation, highlighting community resilience in adversity. Stakeholders reaffirm their dedication to ongoing vigilance against disinformation, emphasizing the necessity of collaboration to ensure public safety and security.



Friday, 5/7; 17:40



Friday, 5/7; 13:30

2 Outside the stadium, **tensions rise as misinformation spreads**, resulting in confrontations **between security personnel and anxious attendees fuelled by the fact that no official information is shared**. Opportunistic **troublemakers** take advantage of the chaos to **harass and provoke concertgoers**, sparking fights and attempting unauthorized entry. Meanwhile, **counter-protesters**, including right-wing extremists **near the concert venue**, try to obstruct the Pride Walk route. The situation **escalates into confrontation**, leading to clashes between the two groups.

5 After another escalation of tension upon the arrival of the Special Anti-Riot Units, **the situation quickly returns to normal**. Regarding the bomb threat, following a thorough investigation, **authorities confirm that the reports were unfounded**, dispelling rumors throughout the venue. **Accurate information is disseminated to reassure attendees and address concerns**. Lessons from the incident are documented, leading to improved security protocols and communication strategies for future events.



Friday, 5/7; 16:20



Friday, 5/7; 13:40

3 As **tensions escalate, detonations occur**, triggering panic among both concertgoers and attendees of the march. People **shout about gunfire sounds**, causing the **crowd to panic** and scatter in all directions. In the chaos, individuals are trampled and injured as they attempt to flee. The **escalating tension leads to further violence**, with counter protesters throwing rocks and Molotov cocktails.

4 Security and police forces work diligently to **restore calm and ensure safety**. Special anti-riot units are deployed to separate the conflicting groups. **At the same time Specialized units conduct thorough stadium scans** for potential threats while medical personnel tend to the injured. Outside, **panicked individuals seek refuge in nearby establishments, leading to chaotic scenes as crowds sprint through streets**, overturning tables, and trampling others. Amidst the turmoil, **security forces** remain focused on mitigating the crisis's impact.



Friday, 5/7; 14:00

Security process – UC2 – Concert venue chaos: disinformation-induced panic

Analýza potrieb a príkladov technológií



Anticipate Crowd Management
Threat detection on social network

Real-time Event Mapping
Detect the threat: start of riots

Operational Command Centre: identify perpetrators; suspicious groups...
Clear communication between security forces
Clear communication with the crowd
Monitoring the crowd movements

Communication with SS, crowd and SM
Reassure the public and restore a sense of security post-incident
Track and neutralize the threat rapidly

Data collection
Analyze panic causes and identify potential gaps in prevention and response measures
Learn and enhance

NEEDS



3D modelization tool of crowd movement in relation to different events
Social media management tool

Crowd analysis (gathering, counting...)
Video analytics

Hypervision tool - enable different stakeholders to easily communicate with each other
Monitoring of possible crowd movements / density of people using LIDAR sensors

Communication tool to calm the public
Social media management tool

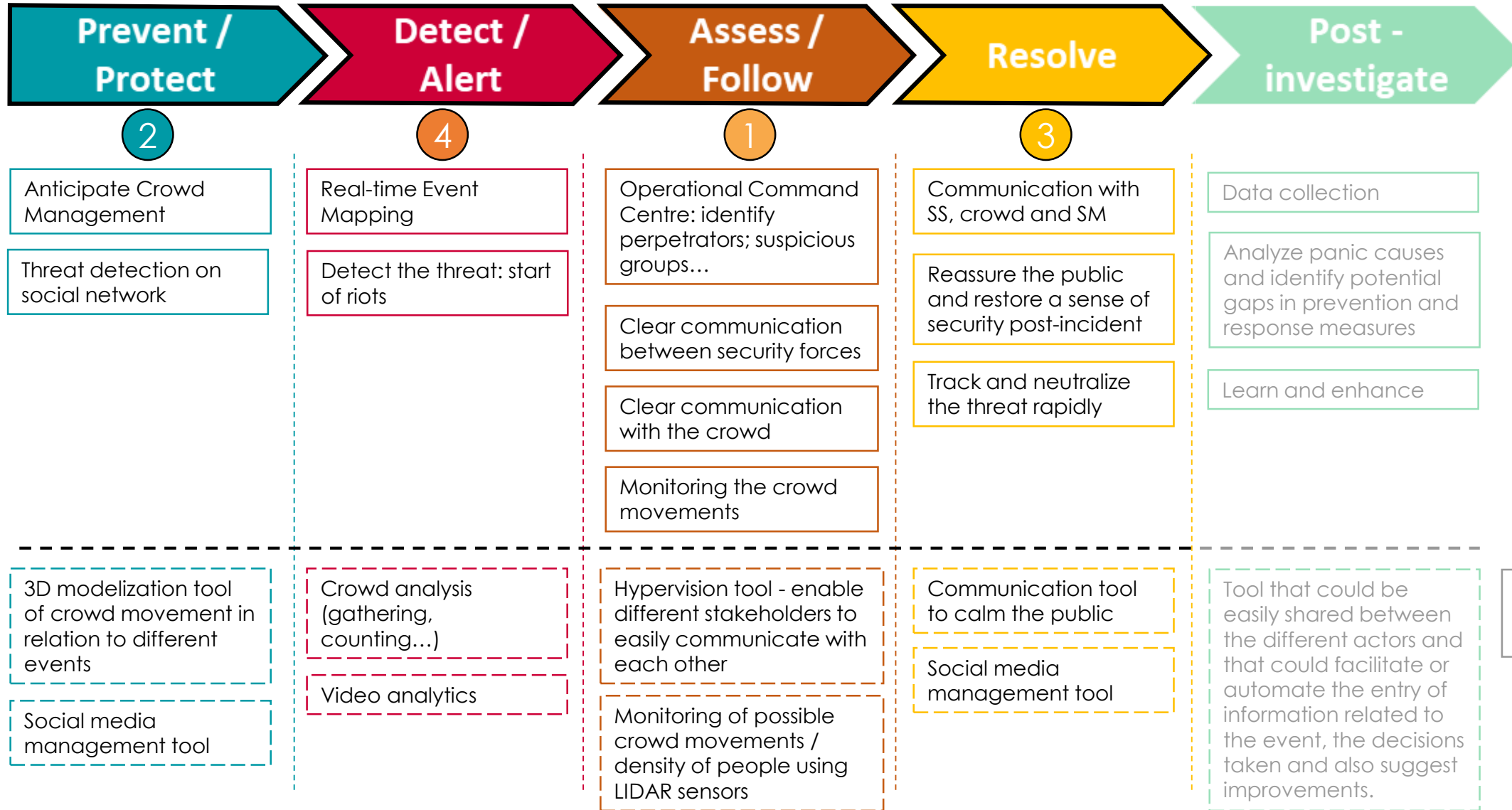
Tool that could be easily shared between the different actors and that could facilitate or automate the entry of information related to the event, the decisions taken and also suggest improvements.

Examples of technologies



Security process – UC2 – Concert venue chaos: disinformation-induced panic

Analysis of needs and technologies examples



NEEDS



Examples of technologies



Scenario (#3)

Terrorist attack at train station and surrounding area



Friday 3/11; 08:20

1

A group of **3 terrorists**, armed with both **knives and firearms**, converge upon the **main entrance of a busy train station** during peak hours. Their intent is to sow chaos and inflict maximum harm on innocent civilians.



Friday 3/11; 08:55

2

Upon arrival, the terrorists conduct a **reconnaissance of the area**, they **strategically position themselves, blending into the crowd** while **wielding their weapons discreetly**. Meanwhile, security personnel remain vigilant, monitoring surveillance footage but they **are not able to detect any suspicious behavior**.



Friday 3/11; 09:07

3

As a train arrives at the platform, disgorging a **huge crowd of passengers**, the terrorists spring into action. They unleash a **volley of gunfire**, indiscriminately targeting commuters as they disembark. Simultaneously, others in the group **brandish knives**, injuring individuals within reach.

6

The terrorist is **spotted by a police officer** and immediately starts running towards people, stabbing them and trying to escape. He is instantly shot dead by the police, ensuring the safety of passers-by. Meanwhile, **medical staff attended to the wounded**, giving them vital care and transporting them to nearby hospitals for further treatment. **Investigators are searching the scene for evidence**, while efforts are being made to **restore normality to the affected area and provide support to traumatised survivors**.

5

After a tense stand-off, **2 of the 3 terrorists are neutralised** by the security forces. However, **one terrorist managed to blend in with the fleeing crowd and to escape outside** the station through the security perimeter.

4

Passengers seek shelter in the **general disorder**, some fleeing the station while others take refuge inside trains or behind obstacles. Security staff are trying to regain control of the situation, **engaging in a fierce firefight with the terrorists**. Emergency protocols are activated, the **authorities seal off access points and coordinate with the police to neutralise the threat**. Passengers are asked to remain calm while the **emergency services evacuate the injured and the police secure the area**.



Friday 3/11; 09:25



Friday 3/11; 9:15



Friday 3/11; 09:10



Security process – UC3 – Terrorist attack at train station and surrounding area

Analýza potrieb a príkladov technológií



Anticipate Crowd Management

Training to detect suspicious behaviours

Threat detection on social network and dark web

Real-time Event Mapping

Detect the threat: suspicious behaviours detection

Detect the threat: weapons detection

Operational Command Centre: identify perpetrators; tracking; suspicious groups...

Clear communication between security forces

Clear communication with the crowd

Monitoring the crowd movements

Communication with SS, crowd and SM

Handling and evacuate people in complete safety

Track and neutralize the threat rapidly

Data collection

Learn and enhance

NEEDS



3D modelization tool of crowd movement in relation to different events

Social network and dark web screening tools

Millimetric waves sensors

Video analytics to detect suspicious behaviours and weapons

Hypervision tool that will enable different stakeholders to easily connect and communicate with each other

Tracking tools (facial recognition, etc..)

AI tool that could map the current threats, their location, severity, etc. and propose intervention plans with the number of human forces required, etc.

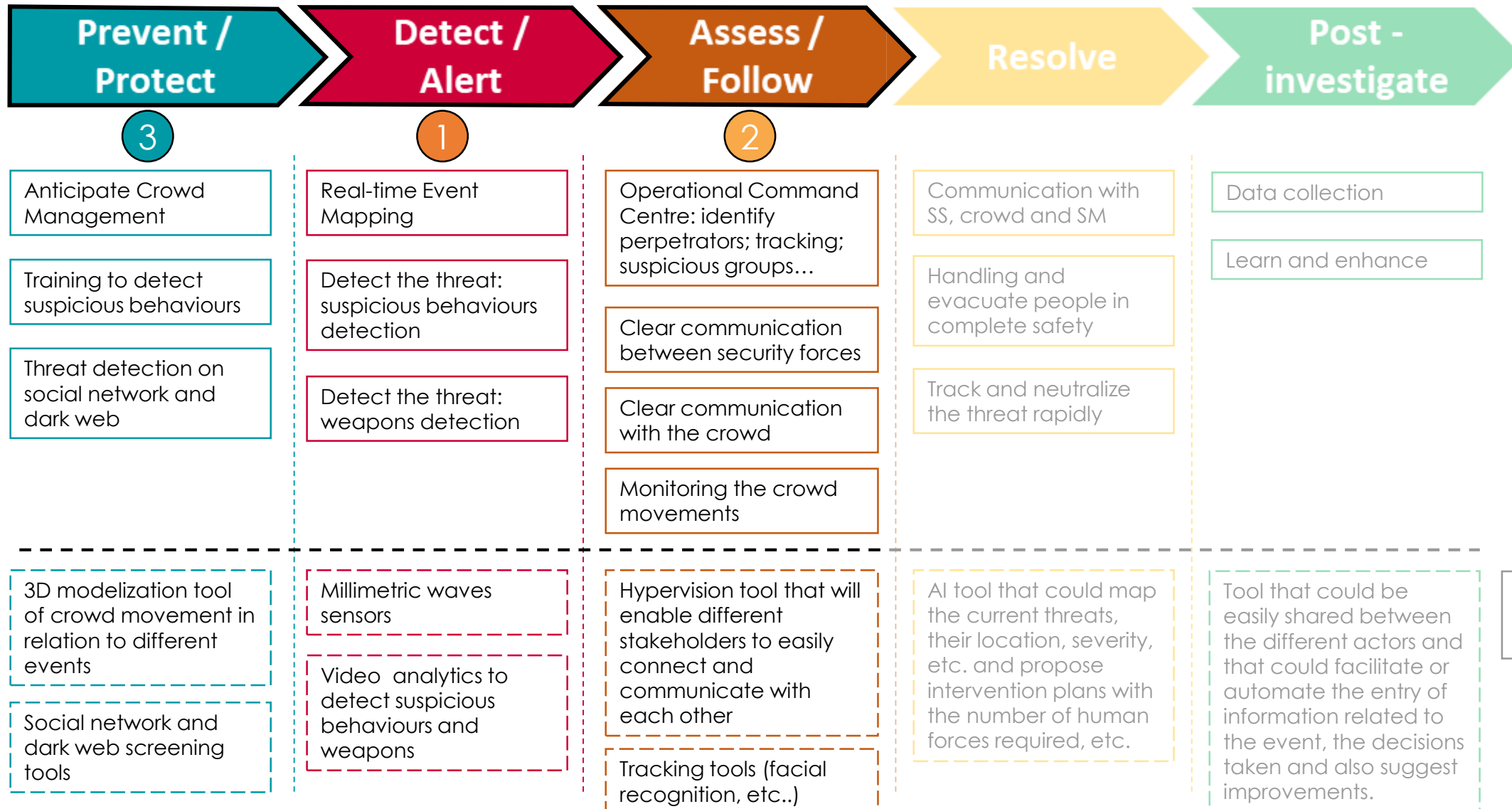
Tool that could be easily shared between the different actors and that could facilitate or automate the entry of information related to the event, the decisions taken and also suggest improvements.

Examples of technologies



Security process – UC3 – Terrorist attack at train station and surrounding area

Analysis of needs and technologies examples



NEEDS



Examples of technologies





SHIELD
4CROWD



Prezentácia výsledkov analýzy trhu

MVSR

Výsledok analýzy trhu - SOTA



S cieľom reagovať na požiadavky PCP:

- konzorcium hľadá riešenia, ktoré by riešili potreby a bezpečnostné scenáre
- Bola vyhlásená výzva na prejavenie záujmu s cieľom zmapovať dostupné alebo vyvíjané riešenia



Katalóg riešení



SHIELD4CROWD



CATALOGUE OF SOLUTIONS

PROTECTION OF EU PUBLIC SPACES

SHIELD4CROWD is an EU-funded project that focuses on enhancing the protection of public spaces in EU cities against security threats related to crowd management. The project is led by SNCF, French railway operator and 9 other partners, among which 3 ministries of Interior from 3 EU Member States (France, Slovakia and Spain), 2 security practitioners, and several end-users involved as User Observatory Group (UOG).

contact@shield4crowd.eu | https://shield4crowd.eu/

SHIELD4CROWD 10 scenarios

To enhance the protection of public spaces in EU cities against security threats related to crowd management.

- 1 Coordinated Attacks
- 2 Drone & CBRN Threats
- 3 Public Panic Situations in planned major event
- 4 Overcrowded Area threats
- 5 Unplanned incidents threats



HOLOGARDE

Paris-Val-de-Paris, France

About Hologarde
Hologarde, a subsidiary company of Groupe ADP, is a leading french company in counter-drone and management of collaborative drone, multi-domain and multi-environment offering scalable, agile and adaptable systems.

Description
Hologarde's expertise is applied to the most sensitive sites. It is the only proved and operational device used by the French Forces. The software is sensor agnostic and scalable, as it constantly adapts to new technologies. It is disruptive because it is the only system to combine anti-drone and collaborative drone management at the same time. HOLOSAFE can be multi-redirected several applications: for example, the use of sensors for drone control can also be used for perimeter protection.

Solution
HoloSafe
Hologarde offers a software solution for detecting, identifying, classifying and neutralizing unwanted drones, while facilitating the planning, deconflicting and real-time tracking of foot-occurred drone flights.

TEL of the technology
TEL 9

Commercial strategy
Hologarde develops airspace protection, drone management, anti-drone solutions, and perimeter control & design, separate Command & Control software, providing real-time situational awareness and precise drone positioning.

Scenarios
Scenario 1: Multi-site hypervisor capability: the C3 can be stepped and can broadcast tactical information in real time.

Innovation
1-1: The only system that has been operational and proven in the French Armed Forces since 2019.
2-Hologarde ensures IAD security at France's most sensitive sites.
3-Hologarde manages collaborative drones in Paris airspace.
4-Hologarde is the only system to combine IAD and UTM.
5-Multi-environment.



IANUS CONSULTING

Larnaca, Cyprus

About Ianus Consulting
IANUS conducts research, develops innovative solutions and provides consultancy and management services to its clients in both the public and the private sector.

Description
IANUS has developed the solution MAESTRO - Incident Management Platform, to address fireteam threat. MAESTRO stands at the forefront of innovation in incident management and public safety, revolutionizing the landscape with its comprehensive and adaptive approach. One of its key innovations lies in seamlessly integrating real-time data from diverse sources, including IoT devices, sensors, and social media feeds, creating a dynamic and holistic understanding of incidents. The advanced geospatial visualization tools further elevate MAESTRO, providing a live map interface for enhanced situational awareness.

Solution 2
MAESTRO
IANUS, an in-house developed incident management platform, designed to address diverse and dynamic scenarios in real-time.

TEL of the technology
TEL 1

Commercial strategy
Features like real-time data integration, geospatial visualization MAESTRO excels in facilitating seamless coordination, communication, and response across various scenarios. Its geospatial visualization tools provide IEMs to have a global view of the field while supporting peer-to-peer information exchange in all steps of a mission.

Scenarios
Scenario 1: ILS&R In-house developed incident management platform, designed to address diverse and dynamic scenarios in real-time.

Innovation
The platform enables swift incident reporting for fast responses, coordinating response by security personnel. Intelligent categorization results efficient resource allocation. MAESTRO's app enhances on-the-go communication, optimizing response times.



- Od poskytovateľov technológií so sídlom v Európe bolo doručených 94 potvrdení o záujme.
- 94 riešení zostavených do katalógu




Typy riešení

Catalogue of the solutions




SHIELD4CROWD



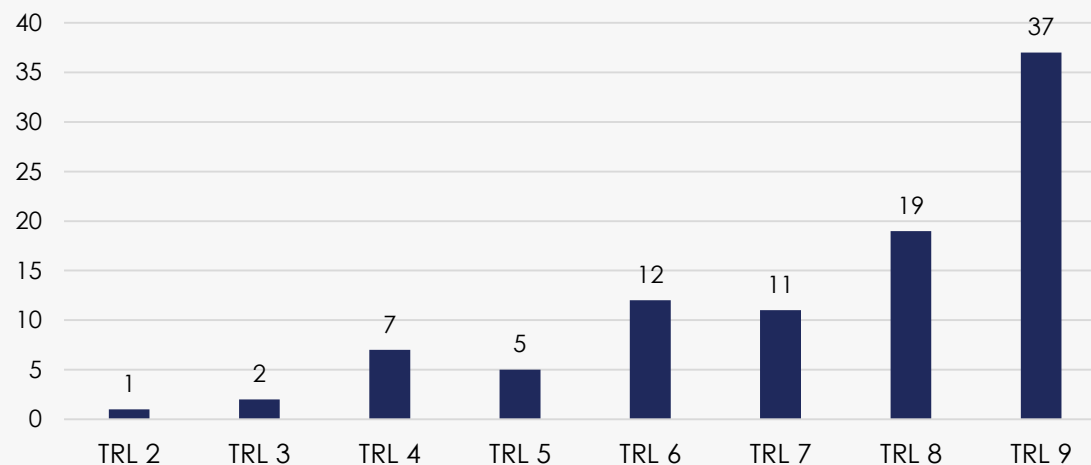
**CATALOGUE
OF SOLUTIONS**

PROTECTION OF EU PUBLIC SPACES

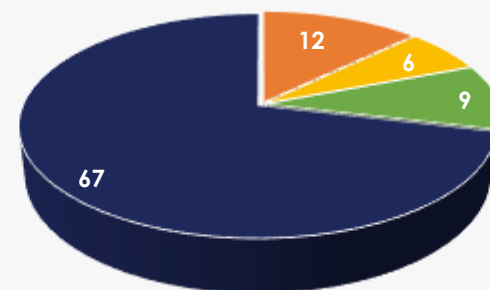
SHIELD4CROWD is an EU-funded project that focuses on enhancing the protection of public spaces in EU cities against security threats related to crowd management. The project is led by SNCF, French railway operator and 9 other partners, among which 3 ministries of Interior from 3 EU Member States (France, Slovakia and Spain), 2 security practitioners, and several end-users involved as User Observatory Group (UOG).

 contact@shield4crowd.eu <https://shield4crowd.eu/>

Numbers of solutions received ordered by TRL



Types of applicants



■ Large company ■ Mid-cap ■ RTO ■ SME



Mapa poskytovateľov



Cyprus
Denmark
Spain
France
Germany
Greece
Italy
Poland
Portugal
Lithuania
Sweden
Netherlands

1sr country	2nd country
3	
1	
10	
59	3
3	
5	
5	
5	1
1	
1	
1	
	1



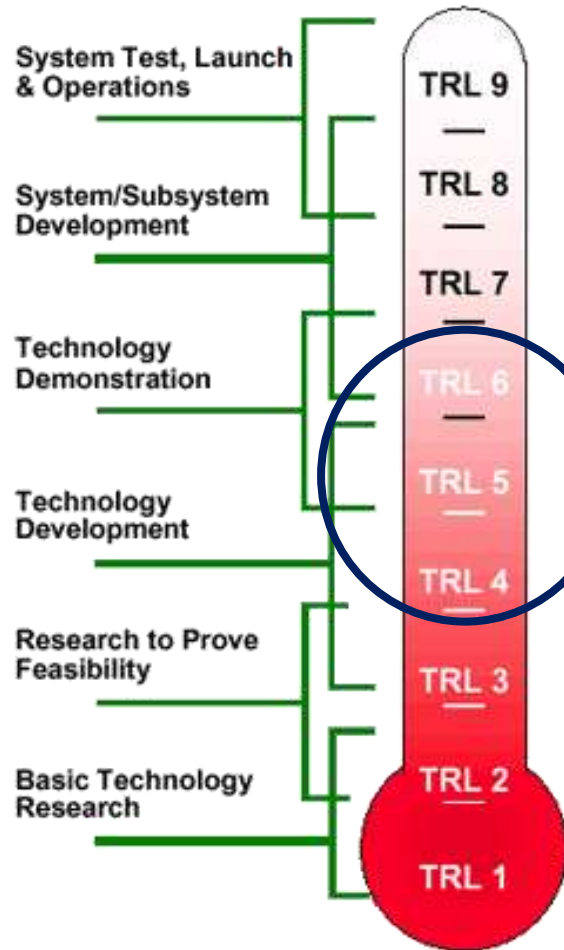
Technologické komponenty



Video and Software solutions	Autonomous systems	Physical security	CBRN Technologies	Miscellenaous	CYBER
Video analytics	Drone	Physical barriers	CBRN imaging technology	Electronic devices tracking	Cybersecurity
Crowd analysis (gathering, counting...)	C-UAS	Body scans	RN detection	Weapon detection/Tracking	
Tracking	Balloon	Biometric solution	Biological & Chemical Detection	Modules platform on vehicles	
Detection of abandoned objects	Robotics	Umbrella (protection)		Communication + share	
Fire or smoke detection		Protective Suit			
Human & objects identification		Ballistic protection			
Hypervision platform		Metal detector			
Thermal imaging technology					
Simulation Software					
Sound analysis					
Cartography					

Všetky riešenia boli rozdelené podľa zložiek technológií.

Čo S4C projekt hľadá?



PCP ako prvý krok pri obstarávaní inovácií začína na relatívne nízkych úrovniach technologickej pripravenosti (TRL)

Verejný obstarávateľ nakupuje služby výskumu a vývoja pre výrobok alebo službu, ktorá nie je komerčne dostupná na trhu.

PCP sa delí na tri fázy: návrh riešenia (TRL 3-4), vývoj prototypu (TRL 5-6) a pôvodný vývoj obmedzeného objemu prvých výrobkov/služieb (TRL 7-8).

zameranie na TRL 4-6

Čo očakávame od poskytovateľov technológií?



SHIELD4CROWD hľadá:

Riešenie, ktoré rieši jednu z potrieb na zlepšenie ochrany verejného priestoru a riadenia davu

Riešenie s nízkym TRL, ktoré si ešte vyžaduje ďalší vývoj

Riešenie od európskeho poskytovateľa technológií

Odprezentujte svoje riešenie na zasadnutiach naplánovaných na 15., 16., 17. apríla 2024 !

→ registrácia tu : [Link](#)





SHIELD
4CROWD



OMC ciele

MVSR

Ciele OMC



Overenie zistení analýzy súčasného stavu (SOTA) a diskusia o realizovateľnosti možných technických a finančných ustanoveniach/funkcií.



Zvyšovať informovanosť odvetvia a príslušných zainteresovaných strán (vrátane ostatných používateľov) o nadchádzajúcom PCP.



Zhromažďovanie poznatkov z odvetvia a od príslušných zainteresovaných strán (vrátane používateľov) s cieľom spresniť špecifikácie pripravovaného PCP.

OMC activity



Date	Event
20 December 2023	Publication of the Prior Information Notice (PIN) on TED
22 March 2024	Publication of the OMC documents on the project's website: www.shield4crowd.eu Publication of the EU Survey questionnaire
2 April 2024	OMC Event in English (online) (10:00 – 11:30 CET)
3 April 2024	OMC Event in French (online) (10:00 – 11:30 CET)
4 April 2024	OMC Event in Italian (online) (10:00 – 11:30 CET)
4 April 2024	OMC Event in Slovakian (online) (12:00 – 13:30 CET)
5 April 2024	OMC Event in Spanish (online) (10:00 – 11:30 CET)
15 May 2024	OMC Event in Warsaw, Poland (hybrid) (9:00 – 16:00 CET)
30 May 2024	Deadline for the submission of questions via the OMC questionnaire (17:00 CET)
10 June 2024	Publication of the OMC findings, including all questions and answers to the OMC questionnaire.
11 June 2024	Closure of the OMC

Pomôžte nám overiť naše zistenia vyplnením tohto krátkeho dotazníka!

<https://ec.europa.eu/eusurvey/runner/shield4crowd>





Otázky alebo podnety?



SHIELD
4CROWD



Ďakujeme za pozornosť



contact@shield4crowd.eu



www.shield4crowd.eu



www.twitter.com/shield4crowd



www.linkedin.com/company/shield4crowd

