**EARTO Working Group
Security & Defence Research**

EARTO Inputs on RD&I for Civil Security for Society (Cluster 3) for Horizon Europe next Strategic Plan 2025-2027

21 February 2023

This position paper puts forward a series of recommendations established by the EARTO WG Security and Defence Research (WGSD) in the framework of the European Commission's (EC) public consultation on the past, present and future of the Framework Programme (FP). Aiming at further impact of EU RD&I activities, we invite the EC and Member States to implement them in Cluster 3 Civil Security for Society research within the next period 2025-2027 as this Strategic Plan is also one of the fundaments of the 10th Framework Programme.

The challenges at hand

The EARTO WGSD acknowledges the efforts made by the EC so far in the field of Security Research and Innovation, notably the strengthened involvement of practitioners in RD&I activities. These efforts have already resulted in several success stories which have contributed to a more secure European Union as well as, with commercially competitive products based on results of EC funded projects. To further maximize this, it is of utmost importance to consider the particularities of the security research and innovation process at the European level, and to continue implementing appropriate supportive elements using lessons learned in this sector.

The security context has rarely been so critical in Europe as it is today. The last three years have seen a permanent state of crisis due to, among other things, COVID-19, extreme summer wildfires Europe, severe floods in Germany, the Netherlands Luxembourg and Belgium, continuous cyber-attacks on citizens, organisations and governments, ongoing migration and influx of refugees, and the return of a major war at the doorstep of Europe in Ukraine. In such a difficult context, Horizon Europe (HE) Cluster 3 has been a beacon of advancement of solutions for security practitioners and a key well acknowledged programme for industry.

The EARTO WGSD formulated the following six recommendations to further increase the viability and impact of the Civil Security for Society Work Programme (WP):

- Keep focusing HE Cluster 3 on RD&I for Civil Security for Society
- Alter entry barriers to calls under Cluster 3
- Increase citizens' involvement in RD&I security activities
- Expand Cluster 3 to capacity development topics
- Better balance TRLs
- Ensure the stability of HE Cluster 3 budget

Recommendation 1 – Keep focusing HE Cluster 3 on RD&I for Civil Security for Society

At the beginning of the new millennium, a series of hard-hitting terrorist attacks brought about the realization that the increasing density and complexity of threats requires an overarching, coordinated, and concerted approach to address the multifaceted aspects and interdependencies of the sectors involved in creating a resilient society. The state of permanent crisis abovementioned reinforced even more this realisation. Cluster 3 has great value as a dedicated program bringing together in one place civil security topics and a shared culture that civil security practitioners acknowledge and appreciate.

Europe needs a long-term standalone civil security research and innovation programme to guarantee a continued impact of and investment in security focused topics and which contributes to a safer Europe. FP7, Horizon 2020 and Horizon Europe have sustained an extensive track-record bringing civil security practitioners together, developing RD&I projects resulting in new products and services, brought into the market by industry. In addition to being the focal point for RD&I activities for practitioners, the programmes for civil security have been the only entry point for citizens and NGOs to be involved in research related to societal security. This constant effort, to be continued and strengthened, is best implemented in a standalone security research programme. The standalone Cluster 3 guarantees the capacity to 1) continue the integration of security practitioners and citizens within the FP and 2) to build efficient synergies with other programmes relevant for these stakeholders, i.e., with the Defence and the Space sectors.

Quite some of the new technological applications for defence were originally developed in the civil domain (e.g., energy, digitalisation, quantum), proving that these transversal links offered by the FP

are key. Such innovations are however more rapidly being integrated into defence while the opposite, the uptake from defence to civil domain, is far more limited, mainly due to the fragmented civil market which hampers a structured uptake in the security sector (see also Recommendation 4). In addition, RD&I for Civil Security for Society supports the objectives of the new EU industrial strategy by analysing and mapping critical infrastructure dependencies in the industrial ecosystems and ensuring their resilience by developing stress tests for critical infrastructures and measures to increase the resilience of supply chains. While related synergies across sectors are crucial for an efficient and effective use of public funds and for maximising the impact on societal resilience, an independent, dedicated civil security programme hence remains essential. Such programme ensures that topics and underlying capabilities, otherwise not tackled anywhere else in Horizon Europe, are well addressed in pan-EU research including security practitioners from the civil realm. Societal aspects (and coherently the strong involvement of SSH) play a key role in all branches of civil security research. The current Cluster 3 as a dedicated cluster acts as a key entry point for the involvement of citizens and NGOs, which is not possible under other programmes such as the EDF. **We strongly recommend further developing an ambitious single-entry programme for civil security under Horizon Europe Cluster 3.**

Recommendation 2 – Alter entry barriers to calls under Cluster 3

The EARTO WGSD supports the ongoing EC target to have security practitioners directly involved in EU RD&I projects. The operationalization of this target led to a series of topics, mainly in Fighting Crime and Terrorism (FCT), Border Management (BM) and Disaster Resilient Societies (DRS), having an extra eligibility criterion with a mandatory minimum of practitioners in the consortium. This condition is only applied in the Cluster 3 WP. In some topics (especially FCT and BM), the minimum eligibility criterion is even higher than usual, requiring consortia to secure the participation of at least 5 practitioners. Though implemented with the right purposes in mind, experiences from recent years have shown that quite some practitioners (public bodies) are not always able to participate as a beneficiary, or to free resources during the proposal process. This has led to the unforeseen situation of a rather limited number of practitioners becoming "kingmakers" in the innovation ecosystem and where fruitful competition under these topics has actually been reduced.

The number of practitioners in a consortium could be better used as a quality criterion during the evaluation process rather than an eligibility criterion. There may also be alternative ways to meaningfully engage practitioner organisations in projects: for instance, by allocating a mandatory subcontracting budget for a minimum number of end-user organisations in proposals to allow their participation once a proposal is accepted. We understand some may argue that it could lead to an increase of submitted proposals bringing lower success rates. However, and more importantly, it will bring a much-welcomed increased and more diverse participation of practitioner organisations and better competition. **We recommend changing the mandatory number of practitioners in each project from an eligibility criterion to a quality criterion and thus stimulating the participation of end-users in projects after their approval.**

Recommendation 3 – Increase citizens involvement in RD&I security activities

In the end, security research aims at citizens. Citizens are the ultimate beneficiaries and at the same time full actors of their security. In Cluster 3 Work Programme, citizens are rightly mentioned in destinations and titles of topics, if mainly in the context of the overall objective to increase societal resilience. Being the main beneficiaries of Cluster 3 outcomes, citizens should play a much more active part, recognizing them as equal stakeholders in setting up and conducting related national and European RD&I activities. Their participation is key to ensure society adhesion: societal acceptance and the exploitation of RD&I results go hand in hand in security. Increased participation of NGOs representing citizens as well as the enhanced involvement of citizens in validation processes, would support reducing potential political risks and societal concerns related to the development and market uptake of innovative security solutions (e.g., related to border management). **We recommend including citizens and citizen NGOs in the Cluster 3 Security WP and to use, when relevant, a quality criterion for involving citizen-oriented organizations or NGOs.**

Recommendation 4 – Expand Cluster 3 with capacity development topics

Over the last three Framework Programmes, security research and innovation has dwelt upon the project results' uptake by security practitioners and exploitation opportunities for industry. This uptake is still an item to address and could be improved. In line with Action 1 of the Action Plan on Synergies

between Security, Defence and Space[1], we believe that encouraging a Capability-Driven Approach in civil security would enhance innovation uptake in Cluster 3. It would also stimulate synergies in technology development of 1) different destinations within Cluster 3, 2) of security actors with other sectors, and 3) with other EU programmes, especially EDF. The security concerns in Europe have risen, as illustrated before. Therefore, adding dedicated capacity building topics with extra budget for those would be logic and additionally stimulate bringing (joint) research results from TRL6 to higher levels. A Capability-Driven Approach would generally improve the involvement of the various stakeholders in civil security, including larger companies/industry, as the clustering around capabilities would result in a less fragmented (security) market. **We recommend considering the expansion of Cluster 3 with capacity development topics, similar to the EDF and DEP.**

Recommendation 5 – Better balance TRLs
From the overall perspective of HE, the need for economic recovery in Europe, after recent years' multiple crises, combined with 1) the new structure of the FP with an all-inclusive Pillar 2 with no separate KETs programme, 2) the capping of partnerships' budget in each Cluster, 3) the fact that all topics related to a partnership (incl. low TRL research) must be included within said partnership, have led to too low a coverage of the collaborative excellence of basic research in lower TRLs in all Clusters. There is a need to rebalance the TRLs' coverage to allow the planning of future RD&I portfolios for the next FPs as well as a need to analyse the impact of the new capping of budgets on partnerships on said TRLs' balance in order to better programme for upcoming periods. This is a key issue for the next Strategic Plan 2025-2027.

In the current FP's implementation, EARTO members noted discrepancies between the type of action (RA, IA, CSA) called for in the work programme versus the TRL level called for in the call text of said action, demonstrating a poor use of the TRLs as programming tool[2] (i.e., this is a recurrent concern reflected in an [EARTO paper explaining the TRL ladder](#)). **We recommend to better balance (T)RLs to allow proper portfolio management and better use (T)RLs as a programming tool.**

Recommendation 6 – Ensure the stability of HE Cluster 3 budget
The EARTO WGSD has followed very closely the evolution of the Cluster 3 WP 2023-2024 throughout the year 2022. We understand the strategic importance of the Chips Act and we support it. However, we have continued concerns regarding the HE budget contribution to the Chips Act. We understand that Cluster 3 will be contributing at least 100M€ from WP 2023-2024 in its current version (February 2023). We want to stress the risk of reduced investment in security research, even temporary. The mechanism of a potential future compensation is far too unclear coming up in a period of EU elections in 2024 with an upcoming new Commission, and a new European Parliament. This is not a baseline for trust building that such compensation will find its way to security topics.

In addition, only a single proposal per topic is funded in most calls of Cluster 3. Civil Security has diverse perspectives and a wide scope. In order to acknowledge this diversity, there should be sufficient budget to fund more than only one proposal per topic. There needs to be a balance in the WP between bigger projects with larger budgets on the one hand and smaller projects with smaller budgets on the other. One project funded per topic unfortunately creates an additional entry barrier to new players, thus reducing competition and diversity, and doesn't allow for the exploration of several approaches to address the complex challenges described in the destinations and topics as would be expected in a research and innovation funding programme.

We recommend 1) increasing the transparency of programming in terms of financial management, and 2) funding new initiatives of strategic importance with a dedicated budget rather than implementing complex transfers of financial contributions over different multi-annual WPs. In addition, we invite the EC to support the exploration of different technologies and approaches for a resilience-driven impact of the programme by funding several projects per topic.

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[1] https://commission.europa.eu/system/files/2021-03/action_plan_on_synergies_en_1.pdf
[2] The EU-funded MultiRATE project aims to develop a holistic scaling framework that relies on current readiness level (RL) approaches. It will ultimately integrate these approaches into one framework that takes into consideration several RL scales, from technology to security, privacy and ethics.

We invite the Commission to perceive our proposals as first stepping stones for an updated and upgraded Security Research and Innovation programme in the next Framework Programme.

The EARTO WG Security and Defence Members stay at the disposal to the EC services to provide any further inputs as seen fit.

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EARTO - European Association of Research and Technology Organisations
Founded in 1999, EARTO promotes RTOs and represents their interest in Europe. EARTO network counts over 350 RTOs in more than 31 countries. EARTO members represent 150,000 highly-skilled researchers and engineers managing a wide range of innovation infrastructures.

RTOs - Research and Technology Organisations
From the lab to your everyday life. RTOs innovate to improve your health and well-being, your safety and security, your mobility and connectivity. RTOs' technologies cover all scientific fields. Their work ranges from basic research to new products and services' development. RTOs are non-profit organisations whose core mission is to produce, combine and bridge various types of knowledge, skills and infrastructures to deliver a range of research and development activities in collaboration with public and industrial partners of all sizes. These activities aim to result in technological and social innovations and system solutions that contribute to and mutually reinforce their economic, societal and policy impacts.

EARTO Working Group Security and Defence Research *is composed of 76 EU Affairs Specialists working within our membership to elaborate and to voice consolidated positions of RTOs and address them to the EC and other bodies.*

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