

**Πρόσκληση συμμετοχής σε εκδήλωση διαβούλευσης
στο πλαίσιο του ευρωπαϊκού έργου “POWERBASE”**

Το Εμπορικό και Βιομηχανικό Επιμελητήριο Αθηνών (Ε.Β.Ε.Α.), μετά από σχετική πληροφόρηση του Κέντρου Μελετών και Ασφάλειας του Υπουργείου Προστασίας του Πολίτη, γνωρίζει στις επιχειρήσεις – μέλη του και σε κάθε ενδιαφερόμενο ότι θα πραγματοποιηθεί ένα ανοιχτό [event Διαβούλευσης](#), στο πλαίσιο του [ευρωπαϊκού έργου POWERBASE](#), το οποίο αναζητά καινοτόμες λύσεις που θα βοηθήσουν στη διαμόρφωση μιας μελλοντικής Προ-εμπορικής Δημόσιας Σύμβασης έργου για ενεργειακές λύσεις χαμηλών εκπομπών προσαρμοσμένων στις ανάγκες των οργανισμών αντιμετώπισης καταστάσεων έκτακτης ανάγκης.

Το εν λόγω event θα πραγματοποιηθεί την **12^η Ιουνίου 2025 και ώρες 12.00-18.00, στις Βρυξέλλες** (NH Brussels EU Berlaymont hotel) με τη δυνατότητα συμμετοχής είτε δια ζώσης είτε διαδικτυακά, χωρίς κόστος συμμετοχής.

Συγκεκριμένα, στο εν λόγω event αναμένεται να συμμετάσχουν εταιρείες και ερευνητικά ιδρύματα που αναπτύσσουν τεχνολογικές λύσεις για παραγωγή ενέργειας με ανανεώσιμες πηγές/χαμηλούς ρύπους και καινοτόμες λύσεις αποθήκευσης ενέργειας προκειμένου να παρουσιάσουν τα προϊόντα τους, διαθέσιμα στην αγορά ή υπό ανάπτυξη, αλλά και να συμμετάσχουν στην "matchmaking session" με σκοπό πιθανές συνεργασίες στα πλαίσια του μελλοντικού έργου Προ-εμπορικής δημόσιας σύμβασης καινοτομίας (pre-commercial public procurement), κατά την οποία εταιρείες χρηματοδοτούνται για την ανάπτυξη καινοτόμων λύσεων.

Στην περίπτωση που επιθυμείτε να συμμετάσχετε, μπορείτε να εγγραφείτε [εδώ](#).

Περισσότερες πληροφορίες παρέχονται από το Κέντρο Μελετών και Ασφάλειας του Υπουργείου Προστασίας του Πολίτη (Τηλ. 2107710805, e-mail: d.kazantzidou@kemea-research.gr)

Επισυνάπτεται σχετικό ενημερωτικό υλικό.

AGENDA

12.06.2025

01 INTRODUCTION	13:00
02 OMC OBJECTIVES	13.10
03 PRE-COMMERCIAL PROCUREMENT	13.20
04 STATE-OF-THE-ART	13.30
05 SCENARIOS AND NEEDS	14.00
06 QUESTIONS & ANSWERS	14.30
07 SUPPLIER PRESENTATION & MATCHMAKING SESSION	15.15
08 MEETING END	18.00



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POWERBASE Open Market Consultation

Scope document

Date

09.04.2025

Table of contents

1. The POWERBASE Coordination and Support Actions (CSA)	3
1.1. Context and objectives	3
1.2. POWERBASE challenge.....	3
1.3. Public buyers/ end users involved	4
2. Purpose and Scope of the Open Market Consultation	6
2.1. Scope and expected benefits.....	6
2.2. Who Can Participate	6
2.3. Activities and Timetable.....	6
3. The three POWERBASE scenarios	8
4. IV. Functional requirements and needs that the POWERBASE solution should fulfil	9
5. State of the Art Analysis	9
5.1. Possible approaches and solutions.....	9
6. Annex I Requirements.....	10

1. The POWERBASE Coordination and Support Actions (CSA)

1.1. Context and objectives

Recent floodings, earthquakes and wildfires have led to large-scale emergency rescue operations. As critical infrastructure is often damaged, emergency responders rely on diesel generators for energy supply. The use of diesel leads to greenhouse gas emissions, poor air quality, and generators produce heat, vibrations and noise, and pose safety threats to emergency responders and sheltered people. Additionally, diesel generators necessitate a consistent supply of diesel fuel along with the associated logistics.

The EU-funded POWERBASE project is a Coordination and Support Action (CSA) which aims to provide the basis for future procurement of green, mobile power supply that meets the needs of emergency responders.

Working from an end-user perspective, POWERBASE will analyse the needs of emergency operations for different disaster situations. The project will map the available technologies and potential new innovations that can meet the needs in future. This will help Emergency Response Organisations (EROs) to bridge the gap and facilitate the investment in low-emission, reliable, self-sufficient, mobile power supply.

1.2. POWERBASE challenge

The POWERBASE challenge is to develop Renewable Energy-based / low-emission solutions for power supply for Emergency Shelters (ESs) and Bases of Operation (BoO). Therefore, POWERBASE CSA will prepare for a future innovation procurement ensuring that emergency response organizations are equipped with highly innovative low-emission energy solutions for Emergency Shelters (ES) and Bases of Operation (BoO) that meet their real operational needs (reliable, self-sufficient, mobile, economical, improved working conditions etc.) in the decades to come.

1.3. Public buyers/ end users involved

POWERBASE consortium comprises a unique mix of 8 Emergency Response Organisations (EROs) across Europe with expertise in humanitarian aid, civil protection and a variety of response activities relevant for this project i.e. German Federal Agency for Technical Relief (THW) Austrian Red Cross (AuTRC), Swedish Civil Contingencies Agency (MSB), Ministry of Interior-France (MolF), Corpo Nazionale dei Vigili del Fuoco (CNVVF), Hungarian Charity Service of the Order of Malta (HCSOM), Asociácia Samaritánov Slovenskej Republiky (ASSR), Openbaar Lichaam Gezamenlijke Brandweer (GB). Out of these, 7 entities are also public procurers.

They are complimented by leading research institute – Fraunhofer Gesellschaft (FhG), the lead procurer organization – Center for Security Studies (KEMEA), legal experts in public procurement – VIEIRA LEGAL and management consulting and dissemination partner ARTTIC. Specifically, **THW** stands out for its commitment to civil protection, disaster response, and technical assistance with 98 % of its workforce consisting of volunteers showcasing a widespread and dedicated network. **AuTRC** is a non-profit organization based on the Red Cross law in Austria bringing expertise in provision of emergency shelters from previous disasters and in developing end user requirements and community engagement.

MSB is a government agency focusing on safety, emergency preparedness, civil protection, and international humanitarian operations. MSB is adept at deploying personnel, equipment, and resources within 6 to 72 hours notice. MSB is actively developing temporary RescEU shelter capacities, one specifically for Ukraine's war-affected population and another as an EU emergency shelter reserve, enhancing the EU Civil Protection Mechanism responsiveness in emergencies.

Mol-F is one the largest contributors to the EUCPM in terms of the number of deployed teams. It has extensive experience in managing bases of operation and emergency shelters for first responders and civilian populations.

The Department of firefighters, public rescue, and civil defense in Italy (**CNVVF**), operates under the Ministry of the Interior. With 35,000 professional and volunteer units, it ensures urgent technical rescue and fire prevention services nationwide.

HCSOM, specializes in setting up and operating emergency shelters, with a notable history of providing assistance globally. Committed to innovations and sustainability, it brings extensive experience in these areas to its operations, aligning with its core mandate on disaster resilience.

ASSR, is part of the Ministry of the Interior of the Slovakian Republic and also brings expertise in the area of setting up of shelters, Euracare Flight and Shelter module, Emergency Temporary Camp module and is also a Sphere Standards Focal Point.

GB, Joint Fire Department is a partnership between approximately sixty companies in the port and industrial area of Rotterdam and the Municipality of Rotterdam. The organization provides firefighting and emergency services.

Fraunhofer-Gesellschaft (**FhG**) is a leading German applied research organization. The FhG Institute for Technological Trend Analysis (INT) is a trusted institution that offers comprehensive assessments and guidance on a wide range of technological developments. The institute specializes in Technology Forecasting, enabling long-term strategic research planning serving defense and international clients from both public bodies (especially related to civil security) and various industries. Its research portfolio includes RE topics since 2011, and currently, it is involved in the INDY and NOMAD projects with the aim of reducing emissions for European remote military camps.

KEMEA, with expertise in Emergency Management and Civil Protection, has served as Contracting Authority in FP7 and Lead Procurer in H2020 projects. KEMEA has conducted studies on civil protection and emergency sheltering and has provided valuable insights into standards, the market, and expert networks.

VIEIRA Legal Procurement Services offers public procurement advisory expertise, specializing in R&D covering the entire procurement process, from defining procedures

to auditing oversight, including Court of Auditors and European Commission audits. With a deep understanding of public budgetary matters, VIEIRA has contributed to legislative proposals.

ARTTIC is the leading European management services provider for collaborative Research Development & Innovation (RDI) undertakings and has a long track record in EU research project management and Dissemination and Communication support.

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2. Purpose and Scope of the Open Market Consultation

2.1. Scope and expected benefits

As part of the Open Market Consultation (OMC), this document describes the scope and initial requirements of the POWERBASE CSA project. The OMC represents a specific phase during the overall innovation procurement methodology, aiming to actively approach the market (solution providers) when the identified needs by the procurers must be communicated openly and clearly to all potentially interested bidders.

Based on Europe-wide needs assessment and analysis of the State-of-the Art (SOTA), or so-called –Prior-Art analysis, market feedback will be collected to understand if suppliers are able to satisfy the unmet needs and market players get the unique opportunity to give feedback on the requirements of the foreseen pre-commercial tender.

The Open Market Consultation will optimise the requirements catalogue, will complement the SOTA analysis, and will allow POWERBASE to decide on participation in future Pre-Commercial Procurement (PCP)¹ or Public procurement of innovative solutions (PPI)² processes.

2.2. Who Can Participate

All potentially interested economic operators on the market are invited to participate in the open market consultation, to fill in the request of information (RFI) and attend the OMC events.

2.3. Activities and Timetable

The OMC is taking place through:

- The [Prior Information Notice](#) on the TED website
- Four technology showcases to provide suppliers the opportunity to interact with end-users/potential buyers. The first technology showcase took place in Brussels on March 27, 2025, during the [CERIS](#) event “[Solutions for First Responders](#)”. An online Showcase is scheduled for May 2025. Another showcase will take place during the OMC event (June 12, 2025) in Brussels, and a final showcase is scheduled for 28 August in Athens, Greece

¹ Pre-commercial procurement (PCP) is an approach to public procurement of research and development services (R&D), enabling the public sector to steer the development of new solutions directly towards its needs. For more information <https://www.powerbaseproject.eu/procurement/>

² Public procurement of innovative solutions (PPI) facilitates wide diffusion of innovative solutions on the market and happens when the public sector uses its purchasing power to act as early adopter of innovative solutions which are not yet available on large scale commercial basis. For more information <https://www.powerbaseproject.eu/procurement/>

- A central (hybrid) ‘OMC event’ in Brussels, on June 12, 2025, with in-depth discussion and match-making session. The POWERBASE **Open Market Consultation event** takes place on **June 12, 2025** in **Brussels, Belgium!** [Register here](#);
- A [Request for Information Questionnaire](#) available to all interested solution providers and research institutions;
- A follow-up **OMC workshop in Athens, on 28 August, 2025**;
- A Q&As document. Questions may be submitted by email to communication@powerbaseproject.eu

3. The three POWERBASE scenarios

The following disaster scenarios depict common emergency response operations of European EROs under diverse challenging conditions.

1. Wildfire on a Mediterranean Island (Corsica, France)

A severe wildfire breaks out in the Asco Valley (Corsica, France), a rugged, remote, mountainous and forested area in the Haute-Corse department, fueled by a combination of extreme drought, high temperatures, and strong winds as it is in the middle of the summer season. It overwhelms local resources, which forces international support and creates challenges in establishing effective bases of operations and shelters.

2. Winter Floods in Ostrava, Czech Republic

Extreme winter conditions, marked by heavy snowfall followed by rapid snowmelt, trigger widespread flooding in an industrial and urban region, leading to infrastructure damage, hazardous contaminant spills, and complex logistical challenges for emergency response.

3. Earthquake in a Rural Himalayan Region (Nepal)

A powerful earthquake in Nepal causes extensive destruction and landslides in mountainous terrain, isolating communities and complicating search & rescue. The establishment of temporary shelters and bases of operational that can withstand the approaching monsoon season is necessary.

These three scenarios serve as a framework for identifying shared requirements and potential technical solutions or performance gaps that are applicable not only to these specific situations but also to broader emergency response missions.

4. IV. Functional requirements and needs that the POWERBASE solution should fulfil

The requirements for a suitable low-emission power supply solution for emergency response organizations identified in POWERBASE, focus on delivering a reliable, efficient, and easy-to-use system. POWERBASE functional requirements are still under validation therefore we would like to encourage also solutions providers with smaller or larger energy solutions to participate in the POWERBASE Open Market Consultation. Moreover, we would like to get in contact with solution providers that partially fulfil our requirements e.g. only energy storage or energy generation. A summary of requirements can be found next. The annex provides a more detailed list.

- It must provide renewable energy on-site and shall generate renewable energy as well as store sufficient power for continuous operation of a Base of Operation or Emergency Shelter unit for a small group of responders or beneficiaries. The system should be able to generate at least 120 kWh per day and store 20 kWh renewable energy. A power output of at least 10 kW is needed.
- Moreover, it has to be quickly deployable without special training, support smart monitoring and fault detection, and manage energy intelligently to ensure continuous operation.
- The design should be modular, scalable (at least up to 5 times the minimum energy output/storage/generation), and compatible with standard equipment, allowing both standalone use and integration into larger setups.
- To ensure field readiness, the system must be compact, low-noise, and resilient to harsh environments. For transportation, individual components should be transportable by four persons and the system should be also capable to be transported by an airplane.
- Safety, sustainability, and cost-efficiency are essential, with long operational life, minimal emissions, and compliance with key international standards.

5. State of the Art Analysis

5.1. Possible approaches and solutions

Several commercial systems already address mobile, low-emissions energy supply. They typically combine an energy harnessing component (often photovoltaic panels, though not limited to them) with a storage unit (including, but not limited to, lithium-ion batteries). Many also include a diesel generator as a backup, along with software to optimize energy flow based on demand. However, most of these solutions are housed in large containers (for instance, 20-foot units) on set trailers, creating significant logistical and transportation challenges for rapid deployment in emergency response where space and mobility are critical. Conversely, small portable devices, such as power banks or smaller foldable energy harnessing technologies (smaller PV panels or wind turbines), are easy to transport but cannot meet the higher energy demands of a base of operations or an emergency shelter. The unmet challenge is to develop a compact, easily deployable and robust mobile low-emission energy system that delivers sufficient power for emergency operations without the logistical burdens of heavy bulky containerized solutions or the limited capacity of small portable devices.

6. Annex I Requirements

The following categories for functional requirements were identified

Functionality

- Ready-to-use with minimal setup.
- Advanced performance monitoring (SMART/AI).
- Continuous operation with fault detection.
- Loud and flashing critical alerts.
- Easy management of energy carriers.

Applicability / Staff Handling

- Usable by first responders without special training.
- Deployable inside and outside Europe.
- Plug-and-play design for simple setup, repair, and maintenance.
- Design prevents incorrect connections.

Safety / Security

- Must follow “Safety First” principle.
- Fire and explosion protection required.
- Includes de-energizing measures and overvoltage protection.
- Low noise levels for health and operational comfort.

Logistics / Transportation

- System Components are transportable by max. 4 people (~100 kg)
- Air transport-ready without restrictions.
- Adaptable to road, rail, and sea transport.
- Compatible with standardized pallets/containers; ideally with foldable parts.

Sustainability / Multi-Use

- Modular and usable beyond disaster response (e.g. daily operations).
- Recyclable components.
- Minimized transport emissions.
- Long operational periods without support.

Standards / Procedures

- Must align with relevant standards
- Support standardization and regulatory awareness.
- Compatible with standard battery solutions and equipment.

Financial Aspects

- Cost-efficient purchase, transport, service, and storage.
- Long lifespan to reduce replacement needs.
- No monthly operational fees for practitioners.

Efficiency

- Smart energy optimization
- Operates independently for first deployment days.
- Capable of reusing waste heat.
- Supports multiple (including renewable) energy sources.

Performance

- Durable with long lifespan.
- “(Energy) Service Island” mode (e.g. tent-level operation ca. 15 people).
- Supports energy storage (e.g. night use).
- Cascading system for load reduction or shutdown.

Scalability / Modularity

- Modular storage and application design.
- Expandable with optional add-ons (Lego-like concept).

Interoperability

- Compatible with global battery connectors and common systems.
- Supports power exchange and camp-level distribution.
- Uses standardized plugs for input/output.

Resistance

- Water/dust-resistant.
- Designed for harsh environmental resilience (climate, terrain, urban, remote).

Availability / Maintenance

- Globally available without major restrictions.
- Swappable storage parts for extended use.
- 4-week maintenance-free operational capability.