TABLE OF CONTENTS

[**Executive summary** 3](#_Toc473729924)

[**1.** **Introduction** 4](#_Toc473729925)

[**2.** **Resources available for EU missions** 5](#_Toc473729926)

[**3.** **Potentially significant gaps in the EU's capacity to respond to disasters** 5](#_Toc473729927)

[**3.1** **Forest fire fighting planes** 5](#_Toc473729928)

[**3.2** **Shelter and related assistance** 6](#_Toc473729929)

[**4.** **Types of resources requiring further assessment** 6](#_Toc473729930)

[**4.1** **Resources needed in chemical, biological, radiological and nuclear disasters** 7](#_Toc473729931)

[**4.2** **European Medical Corps** 7](#_Toc473729932)

[**4.3** **Remotely piloted aircraft systems** 7](#_Toc473729933)

[**4.4** **Communication teams** 8](#_Toc473729934)

[**5.** **Conclusion** 8](#_Toc473729935)

[**Annex – Overview of resources and gaps in the EERC** 10](#_Toc473729936)

**Executive summary**

The European Emergency Response Capacity (EERC) was created to prepare the EU for a multitude of potential disasters. It consists of various civil protection resources, which Participating States in the Union Civil Protection Mechanism make available for EU emergency response operations.

Since the establishment of the EERC, 16 Participating States have committed 77 resources (e.g. search and rescue teams, medical teams, water purification systems, etc.) which are now available for EU operations worldwide. Many of the EERC's targets, or “capacity goals”, which are enshrined in EU legislation, have therefore been met.

Gaps, or shortcomings, in terms of available resources still exist with regard to (1) forest fire fighting planes and (2) shelter. Whether some other types of resources are sufficiently available, they would require further assessment. This would be the case for (a) resources needed in chemical, biological, radiological and nuclear disasters, (b) big field hospitals and medical evacuation capacities as part of the European Medical Corps, (c) remotely piloted aircraft systems, and (d) communication teams. Some of the current capacity goals may also need to be revised in order to take account of changing risk assessments and operational experience.

The Commission invites Participating States to address the remaining gaps in the EERC and to actively support the process of reviewing and possibly adapting and/or complementing the current EERC capacity goals in 2017.

1. **Introduction**

In a world of increasing risks, the EU needs to be prepared to respond to a multitude of potential disasters. The European Emergency Response Capacity (EERC) was established under the framework of the Union Civil Protection Mechanism (UCPM) in 2013 in order to improve the level of preparedness of civil protection systems within the Union.[[1]](#footnote-1) For the first time, Participating States of the UCPM can make a range of emergency response assets available for immediate deployment as part of EU operations. By registering national assets in the EERC, Participating States commit that they will be available for EU response operations following a request for assistance through the Commission's Emergency Response Coordination Centre.

The EERC is one of the main innovations of the last revision of EU civil protection legislation. It has resulted in a shift from a rather reactive and ad hoc coordination system to a more predictable, pre-planned, and coherent organization of EU disaster response. In this context, it is worth noting that the general effectiveness of the UCPM, particularly when it comes to coordinating the response to disasters, was recently praised by the European Court of Auditors.[[2]](#footnote-2)

The EERC has been well received and has grown rapidly since its launch in October 2014. As of October 2016, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, the Netherlands, Poland, Romania, Slovakia, Slovenia, Spain and Sweden (i.e. 16 Participating States in the UCPM) have all committed civil protection resources to the EERC.[[3]](#footnote-3) To ensure that these resources are of a high quality, the Commission manages a dedicated certification process.[[4]](#footnote-4) The types and numbers of key response capacities which are, at a minimum, required for the EERC to be able to function effectively, are referred to as EERC "capacity goals". They have been determined based on identified disaster risks and their suitability is periodically assessed by the Commission and Participating States.[[5]](#footnote-5) Given that capacity goals are to be considered minima, a higher number of resources may be registered in the EERC.

In order for the EU to be prepared to face disasters, it needs to critically evaluate its capacity to respond. The report at hand takes stock of progress made towards the achievement of the EERC capacity goals and assesses the significance of remaining response capacity gaps. Besides performing a mere numerical comparison of goals and achievements, this report also draws on experience gained within the UCPM during the past two years. The latter suggests that revising or adapting capacity goals in the medium term is necessary.

1. **Resources available for EU missions**

Between the launch of the EERC in October 2014 and the cut-off date agreed for the purposes of this report (1 October 2016), 16 Participating States committed a total of 77 response capacities to the EERC.[[6]](#footnote-6) These include civil protection modules, technical assistance and support teams, as well as other response capacities. With the commitment of these resources, many of the EERC's capacity goals have been met. A detailed overview is provided in the annex (columns 2-3).

To determine the existence of any gaps in the EU's capacity to respond to disasters in the areas in which the EERC's capacity goals have not (yet) been met, the Commission asked Participating States to identify any additional resources outside the EERC that may be readily available for EU missions. 27 countries provided information[[7]](#footnote-7) and a detailed overview is provided in the annex (column 4).

Whenever resources outside the EERC are available to fill gaps inside the EERC, this report concludes that there is no gap in the EU's overall capacity to respond. It is to be noted, however, that resources outside the EERC provide fewer guarantees as to their availability and quality than resources registered in the EERC. Modules registered in the EERC must be available for departure/operations in the affected country within a determined number of hours, and need to undergo a certification process that includes document reviews, training, and exercises. The same cannot be guaranteed for resources outside the EERC.

1. **Potentially significant gaps in the EU's capacity to respond to disasters**

During its first two years of existence, the EERC has successfully been used to respond to the Ebola crisis in West Africa (2014), forest fires in Greece (2015), forest fires in Cyprus, France and Portugal (2016), the Ecuador earthquake (2016), the Yellow Fever outbreak in the Democratic Republic of the Congo (2016) and Hurricane Matthew in Haiti (2016). Nonetheless, certain shortcomings have become apparent. The Commission has identified two potentially significant gaps: forest fire fighting planes, as well as shelter and related assistance.

**3.1 Forest fire fighting planes**

The risk of forest fires depends on many factors, such as climatic conditions, vegetation, forest management practices etc. Within the EU, south and southeast Europe are generally most at risk, although other regions have also been affected in the last years (e.g. Västmanland, Sweden, 2014), and the number and extent of forest fires can vary considerably from one year to the next, depending on seasonal meteorological conditions.

The initial capacity goal in the EERC for forest fire fighting modules using planes was set at two. France subsequently registered one module. In addition, the Commission co-financed one fire-fighting aircraft operated by Italy as a “buffer capacity” during the 2016 forest fire season. This meant that the aircraft was part of the EERC during the summer of 2016 and the Commission financed its standby costs in order to ensure its availability in case of major disasters. Both assets proved highly useful.

Nevertheless, events during the summer of 2016 – and in particular the forest fires in Portugal – showed the operational necessity and political significance of having more forest fire fighting planes available in the EERC. Portugal requested assistance through the UCPM at a time when the entire French fleet of forest fire fighting planes (including the one module registered in the EERC) was out of service for technical reasons and the EERC buffer aircraft was deployed in Corsica. Although the EERC buffer aircraft was redirected from Corsica to Portugal, the general shortage of fire-fighting planes via the UCPM pushed Portugal to accept assistance from Morocco (two Canadairs) and Russia (two Berievs).

Therefore forest fire fighting modules using planes is identified as a potential significant gap and the Commission encourages Participating States to take steps to cover it.

**3.2 Shelter and related assistance**

The EERC capacity goal for shelter is two emergency temporary camps and 100 units of additional shelter capacity, as well as 6 additional shelter-kits. Yet there is currently no emergency temporary camp and only one unit of additional shelter capacity registered in the EERC. Outside the EERC, there also seems to be little shelter-related assistance available (see annex).

Moreover, during the refugee/migration crisis in Europe it quickly became apparent that shelter is difficult to provide when all Participating States are under pressure at the same time. Governmental stocks were quickly exhausted and at the peak of the crisis, the European commercial market went under severe pressure, resulting in significant delays in the delivery of containers and an increase in prices. Cooperation with the military only brought partial relief.

The capacity to rapidly mobilise massive shelter assistance is critical in a variety of scenarios that feature in Participating States' risk profiles. Voluntary mutual assistance on an ad hoc basis may not be the most effective and cost-efficient way to ensure access to these capacities, particularly when these are required by several Participating States at the same time.

The Commission has therefore identified shelter and related assistance as being a potential significant gap and Participating States are invited to initiate discussions on the best way to address it.

1. **Types of resources requiring further assessment**

In certain cases, whether some types of resources are sufficiently available would require further assessment. This is the case for resources needed in chemical, biological, radiological and nuclear (CBRN) disasters; big field hospitals and medical evacuation capacities as part of the European Medical Corps; remotely piloted aircraft systems; and communication teams.

**4.1 Resources needed in chemical, biological, radiological and nuclear disasters**

The EU needs to be sufficiently equipped to deal with chemical, biological, radiological and nuclear disasters. The recent escalation of terrorist activities in and around Europe may justify a future review of the capacity goals in the field of CBRN disasters.

There is presently not enough capacity registered within the EERC to sustain a search and rescue operation in a contaminated environment, nor to respond to incidents requiring the decontamination of patients exposed to CBRN agents. However, Participating States have informed the Commission that sufficient resources are available outside the EERC.

The Commission invites Participating States to further register these types of assets in the EERC and to engage in discussions on the adequacy of the current capacity goals.

**4.2 European Medical Corps**

The Ebola crisis has been a reminder of the need to further develop European capacities to address disease outbreaks and the health consequences of disasters. Work in this regard is ongoing in the context of the European Medical Corps, which brings together all the medical and public health teams and modules within the EERC.

Capacity goals for the European Medical Corps have not yet been sufficiently defined. For instance, there are still no clear targets for emergency medical teams as the EU is in the process of transiting towards the World Health Organization's classification of emergency medical teams in types 1, 2 and 3. Nonetheless, there are indications that Participating States could face capacity gaps with respect to big field hospitals (i.e. emergency medical teams, type 3).

In addition to the above, it is worth noting that substantial operational costs can be incurred during long-term deployments of heavy response capacities such as emergency medical teams (types 2 and 3), mobile laboratory facilities, and the engineering capacities required to support field hospitals. These costs are currently not eligible for EU co-financing under the UCPM, and some Participating States have consequently been hesitant to register their assets in the EERC.

As regards resources for medical evacuation, a number of planes and helicopters are available inside and outside the EERC. However, the risk of mass casualty events advocates for an increased number of available assets. The diversity of situations where medical evacuation assets may be needed also calls for a revision of the types of medical evacuation capacities defined under the UCPM. The medical evacuation system for Ebola patients, for example, was only developed at the peak of the emergency.

The Commission therefore invites Participating States to support the revision of the requirements and capacity goals for MEVAC[[8]](#footnote-8) modules and medical evacuation assets.

**4.3 Remotely piloted aircraft systems**

Technological innovation can increase the effectiveness and efficiency of civil protection operations, including under the UCPM. One such innovation is drones, also known as Remotely Piloted Aircraft Systems (RPAS). Some Participating States already use RPAS in domestic and international civil protection operations, yet there have only been few instances of RPAS being used in UCPM missions so far, and no RPAS units have been registered in the EERC. RPAS units can, among other things, support assessment missions, search and rescue operations, as well as forest fire fighting.[[9]](#footnote-9) Each of these mission types requires the RPAS units to have specific capabilities and to fulfil distinct sets of quality criteria.

The Commission therefore invites Participating States to support the revision of the entry "Teams with unmanned aerial vehicles" and to reflect on the appropriateness of developing it into a number of different RPAS modules with distinct capacity goals.

**4.4 Communication teams**

The EERC presents a numerical gap (-2) concerning communication teams or platforms to quickly re-establish communications in remote areas. The Commission, however, has information that some Participating States possess such resources without having explicitly indicated so for the purpose of this report. As a consequence, further information would be needed regarding the availability of this type of resource.

The Commission invites Participating States to either register additional assets in the EERC or to reflect on the adequacy of this capacity goal.

1. **Conclusion**

Good progress has been made towards achieving the EERC's initial capacity goals, but this report highlights that the EU’s capacity to respond to disasters may still be insufficient with regard to (1) forest fire fighting planes and (2) shelter and related assistance.

In addition, a more in-depth analysis is needed in certain areas to assess whether there are potentially significant gaps in the EU's capacity to respond, or whether certain capacity goals as defined in the current legislation need to be reviewed. This would be the case for the following types of resources: (a) teams for urban search and rescue in CBRN conditions as well as CBRN decontamination teams, (b) field hospitals and medical evacuation capacities (c) remotely piloted aircraft systems, and (d) communication teams.

To help ensure the sufficient availability of key resources, the Commission has issued another call for proposals for buffer capacities in 2017. It covers response capacities in the fields of forest fire fighting using planes, shelter capacities, unmanned ground vehicles for CBRN disasters, emergency medical services, remotely piloted aerial systems, as well as flood containment[[10]](#footnote-10).

The Commission proposes that Participating States address the remaining gaps for which no capacity is available at national level in several ways, for example by:

* forming consortia and developing joint modules,
* exploring contractual arrangements that give access to such resources,
* stimulating further research on the topic,
* filling the gaps through existing national and EU capacity building programmes[[11]](#footnote-11), e.g. under the umbrella of the EU structural funds.

Finally, the assessment of progress made and gaps remaining in the EERC is a dynamic and continuous process. The EERC capacity goals need to be reviewed at least every second year[[12]](#footnote-12) and the first review will already start in 2017. It may result in new capacity goals being defined, based on national risk assessments, experience from recent disasters, general trends, and other appropriate sources of information.

**Annex – Overview of resources and gaps in the EERC**

The first two columns of the table list the 'modules', 'technical assistance and support teams', and 'other response capacities', and report the capacity goals for the EERC's start-up configuration as defined in Annex III of the Commission Implementing Decision. The table also lists the components of the European Medical Corps, which are not officially part of the EERC and for which capacity goals have not been set yet. The third and fourth columns report, respectively, the resources currently registered in the EERC and those that are not registered in the EERC but that Participating States can readily make available in the required quantities, at the required location, within the required timeframe, and for the required duration. The last column presents the difference between the goals and the overall capacity at the level of Participating States and summarises the relevance of the identified gaps. It provides the basis for a colour-coding of green (goal achieved), orange (see specific comments) and red (potentially significant capacity gap).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | = Goal achieved |  | = See specific comments |  | = Potentially significant capacity gap |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 |
|  | *Type of resource* | *EERC initial target[[13]](#footnote-13)* | *Resources registered (or in the process of being registered) in the EERC* | *Resources that can be made available outside the EERC[[14]](#footnote-14)* | *Assessment of potentially significant response capacity gaps* |
|  | Modules |
| 1 | High Capacity Pumping module | 6 | BE x1; DE x3; DK x1; FR x2; IT x1; PL x2; SE x1; SK x1; RO x2 | AT x2; Baltic x1; BE x1; BG x1; CZ x1; DE x5; FR x2; HU x1; IT x1; SI x1 | No gap (+24) |
| 2 | Medium Urban Search And Rescue (MUSAR) module – 1 for cold conditions | 6 | FI x1; GR x2; IT x1; RO x1 | AT x2; BE x1; BG x1; EE x1; ES x2; FR x5; HR x1; HU x2; IS x1; LI x1; SI x1. | No gap (+17) |
| 3 | Heavy Urban Search And Rescue (HUSAR) module | 2 | CZ x 1; DE x1; DK x1; FR x2; NL x1; PL x1 | AT x1; ES x1; FR x2; HU x1; IT x1; NL x1 | No gap (+8) |
| 4 | Water Purification module | 2 | DE x1; DK x1; FR x2 | AT x1; BE x1; DE x2 | No gap (+6) |
| 5 | Aerial Forest Fire Fighting module using Planes | 2 | FR x1 | FR x1; IT x1 | No numerical gap (+1), however there were critical shortages experienced during the forest fire season of 2016 – see comments in section 3.1 above. |
| 6 | Advanced Medical Post | 2 | CZ x1; RO x1 | AT x1; BE x1; ES x1; FR x8 | No gap (+11) |
| 7 | Emergency Temporary Camp | 2 |  | ES x1 | Gap of 1, critical in a number of scenarios – see section 3.2 above. |
| 8 | CBRN detection and sampling module | 2 | DK x1; FR x2; IT x1 | BE x1; CZ x1; ES x1; FR x8; LU x1; PL x2 | No gap (+16) |
| 9 | Ground Forest Fire Fighting module | 2 | FR x3; GR x1 | BG x1; DK x1; ES x1; FR x3 | No gap (+8) |
| 10 | Ground Forest Fire Fighting using Vehicles | 2 | FR x3 | AT x3; DK x1; ES x1; FR x13; PL x3 | No gap (+22) |
| 11 | Urban Search And Rescue in CBRN conditions (CBRNUSAR) | 1 |  | AT x2; BG x1; DK x1; ES x1; FR x2[[15]](#footnote-15) | No gap (+6) |
| 12 | Advanced Medical Post with Surgery | 1 | IT x1; RO x1 | EE x1; IT x 3 | No gap (+5) |
| 13 | Flood Containment module | 2 | DK x1; FR x2; SE x1 | AT x2; ES x1; FR x2 | No gap (+7) |
| 14 | Flood Rescue using Boats | 2 | CZ x1; FR x2 | AT x3; ES x1; FR x2; LU x1; SI x1 | No gap (+8) |
| 15 | Medical aerial evacuation of disaster victims (MEVAC) | 1 |  | DE x1; ES x1; FR x1; GR x1 | No numerical gap (+4), yet Implementing Decision 2014/762/EU, Annex II, point 10, needs to be reviewed – see section 4.2 above. |
| 16 | Field hospital | 2 |  | DK x1[[16]](#footnote-16) | Gap of 1. Developments in the context of the European Medical Corps to be considered – see section 4.2 above, as well as line 43. |
| 17 | Aerial Forest Fire Fighting using Helicopters (FFFH) | 2 |  |  | Numerical gap of 2, yet low strategic relevance: FFFH are mostly mobilized for cross-border deployments at short distance, upon bilateral requests. They are generally not used to provide international assistance in far-away disasters. |
|  | Technical Assistance and Support Teams |
| 18 | Technical Assistance and Support Team (TAST) | 2 | DK x1; DE x1; FI x1; NL x1; SE x1 | AT x1; DE x1; EE x1; IS x1; IT x1; LT/LV x1; LU x1; NO x1 | No gap (+11) |
|  | Other response capacities (listed in Annex III of the Commission Implementing Decision) |
| 19 | Teams for mountain search and rescue | 2 |  | AT x1; ES x1; ME x1; SI x1 | No gap (+2) |
| 20 | Teams for water search and rescue | 2 |  | AT x1; DK x1; ME x1; SI x1 | No gap (+2) |
| 21 | Teams for cave search and rescue | 2 | SI x1 | AT x1; ME x1; SI x1 | No gap (+2) |
| 22 | Teams with specialized search and rescue equipment, e.g. search robots | 2 |  | DK x1[[17]](#footnote-17) | Gap of 1, yet see footnote 12. Potentially significant for complex search and rescue operations, including in CBRN conditions – see section 4.1 above, as well as line 11. |
| 23 | Teams with unmanned aerial vehicles/ Remotely Piloted Aircraft Systems | 2 |  | DK x1[[18]](#footnote-18) | Gap of 1, requires further assessment – see section 4.3 above. |
| 24 | Teams for maritime incident response | 2 | NL x1 | BE x1; FR x2 | No gap (+2) |
| 25 | Structural engineering teams, to carry out damage and safety assessments, appraisal of buildings to be demolished/ repaired, assessment of infrastructure, short-term shoring | 2 | IT x1 | AT x1; ES x1; SI x1 | No gap (+2) |
| 26 | Evacuation support: including teams for information management and logistics | 2 |  | DE x1; DK x1, GR x1 | No gap (+1) |
| 27 | Fire-fighting: advisory/ assessment teams | 2 |  | AT x1; DK x1; GR x1 | No gap (+1) |
| 28 | CBRN decontamination teams | 2 | DK x 1 | AT x1; FR x1 | No gap (+1) |
| 29 | Mobile laboratories for environmental emergencies | 2 | NL x1 | BE x1; DE x1; FR x2 | No gap (+3) |
| 30 | Communication teams or platforms to quickly re-establish communications in remote areas | 2 |  |  | Gap of 2. Significance of gap to be assessed – see section 4.4 above. |
| 31 | Medical Evacuation Jets Air Ambulance and Medical Evacuation Helicopter separately for inside Europe or worldwide | 2 | LU x1; NL x1; SE x1 | Helicopters inside Europe: AT x1; ME x1Helicopters and jets for both inside and outside Europe: LU x1 | No numerical gap (+4), yet potentially significant shortage for mass casualty events in specific situations. General requirements to be reviewed in light of the ones for MEVAC modules – see section 4.2 above, as well as line 15. |
| 32 | Additional Shelter Capacity: units for 250 persons (50 tents); incl. self-sufficiency unit for the handling staff | 100 | SE x1 | AT x5; BE x1 | Potentially significant gap as no sufficient capacity available at Participating States' level – see section 3.2 above, as well as line 7. |
| 33 | Additional Capacity Shelter-kit: units for 2 500 persons (500 tarpaulins); with toolkit possibly to be procured locally | 6 |  | AT x1 |
| 34 | Water pumps with minimum capacity to pump 800 l/min | 100 |  | DK x20; ME x5; NL[[19]](#footnote-19) | Numerical gap of 75, yet the high number of high-capacity pumping modules and existence of two extreme high capacity pumping teams in the EERC is considered to compensate for the lack of assets registered under this category.  |
| 35 | Power generators of 5-150 kW  | 100 |  | AT x20; DK x10; ME x5; SE x15; NL[[20]](#footnote-20) | Numerical gap, yet there is information that Participating States have more resources available than indicated for the purpose of this report. |
| 36 | Power generators above 150 kW  | 10 |  | AT x5; DK x1 |
| 37 | Marine Pollution Capacities | as necessary | SE x1[[21]](#footnote-21) | DK x1 |  |
|  | Other response capacities necessary to address identified risks |
| 38 | Extreme HCP (≥ 50.000 l/m) | N/A | BE x1; NL x1 |  |  |
| 39 | ICT Help Desk | N/A | SE x 1  | DK x1 |  |
| 40 | Standing Engineering Capacity | N/A | DE x 1  |  |  |
| 41 | Emergency Medical Team (EMT) Type 1 | N/A |  |  |  |
| 42 | Emergency Medical Team (EMT) Type 2 | N/A | ES x1; FR x1; BE x1 |  |  |
| 43 | Emergency Medical Team (EMT) Type 3 | N/A |  |  | Goal non-set yet – see section 4.2 above. |
| 44 | Isolation hospital for infectious diseases | N/A | DE x1 |  |  |
| 45 | Mobile bio-safety laboratories | N/A | BE x1; DE x1 |  |  |

1. Decision No 1313/2013/EU of the European Parliament and of the Council on a Union Civil Protection Mechanism, Article 11. [↑](#footnote-ref-1)
2. See Special Report 33/2016 on "Union Civil Protection Mechanism" published on 18 January 2017. [↑](#footnote-ref-2)
3. See the annex for details. [↑](#footnote-ref-3)
4. Commission Implementing Decision 2014/762/EU, Article 16. [↑](#footnote-ref-4)
5. Commission Implementing Decision 2014/762/EU, Article 14. [↑](#footnote-ref-5)
6. To take account of delays in finalising the registration of resources, this report also considers as 'registered' those resources for which an application for registration was received by the Commission within the deadline, but for which the registration process has not yet been finalised. The underlying assumption is that all resources will eventually be registered, though some might need adaptation grants to comply with the quality criteria of Annex II of the Commission Implementing Decision 2014/762/EU. Formally registered resources currently account for only 20% of the 77 resources listed in the annex. The remaining 80% are resources for which the registration process has been initiated. Resources that have been politically committed by Participating States but for which no application form was submitted by 1 October 2016 are not considered in the current gap identification process, as there is no information available on their technical aspects, conditions, timing and adequacy. [↑](#footnote-ref-6)
7. Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Montenegro, the Netherlands, Norway, Poland, Slovenia, Spain, Sweden, and the United Kingdom. [↑](#footnote-ref-7)
8. Mevac: Medical aerial evacuation of disaster victims. [↑](#footnote-ref-8)
9. The Commission organized an expert workshop on the use of RPAS in civil protection operations in January 2016. This workshop concluded that RPAS technology could prove useful to support various disaster management missions. In June 2016, the expert group on civil protection modules (set up by the Civil Protection Committee) concluded that three mission-types would be a priority for the UCPM: RPAS in support of assessment missions, RPAS in support of search and rescue operations, and RPAS in support of forest fire fighting. The group also agreed on a list of quality requirements for RPAS units to be registered in the EERC. [↑](#footnote-ref-9)
10. The response capacity available to address the flood risk in Europe is generally good. However, flood risk must also be considered through the lens of geographical location and risk category. Despite general availability, capacity to respond to floods may actually be unavailable in certain areas. Moreover, there is no information on the availability of more sophisticated or innovative flood containment equipment, such as tube-based systems and component-based systems, which could improve the EERC's response capacity. In terms of risk category, it should be noted that flash floods usually have shorter response times than river floods. This makes it more difficult to predict them and to provide residents and first responders with advanced warnings. [↑](#footnote-ref-10)
11. It is to be noted that funding through the UCPM to address capacity gaps will remain limited to seed funding of a maximum of 20% of the eligible costs and is only possible in a very restricted number of cases, see Decision 1313/2013/EU, Article 21(1)(j) and Commission Implementing Decision 2014/762/EU, Article 22. [↑](#footnote-ref-11)
12. Commission Implementing Decision 2014/762/EU, Article 14(2). [↑](#footnote-ref-12)
13. As defined in Annex III of Commission Implementing Decision 2014/762/EU. [↑](#footnote-ref-13)
14. Note that the UK can make a range of resources available for which it has not been possible to estimate the national capacity. Therefore, for the purposes of this analysis, the resources are not considered. This includes fire-fighting expertise, heavy urban search and rescue capacities, as well as specialized search and rescue equipment available through the UK Fire and Rescue Service and its operational partners, MEVAC capacities available through the UK Armed Forces, a range of maritime response capacities available through the UK Maritime and Coastguard Agency and its operational partners, a wide range of engineering expertise available both through public sector agencies (such as the Health and Safety Executive, and the Environment Agency) and the private sector. The UK also has a large stockpile of shelter capacity held by the Department for International Development. [↑](#footnote-ref-14)
15. The two French HUSAR modules can be deployed as CBRNUSAR as well. However, the HUSAR modules have not been registered as CBRNUSAR modules and their compliance with the respective quality criteria can therefore not be guaranteed at this stage. [↑](#footnote-ref-15)
16. The Danish capacity consists of one modular/scalable mobile hospital, which can function as an Advanced Medical Post, an Advanced Medical Post with Surgery, and as a Field Hospital. For the purpose of this analysis it has been counted only once as a Field Hospital. [↑](#footnote-ref-16)
17. Teams equipped with search cameras, thermal cameras, acoustic search equipment and rescue dogs. [↑](#footnote-ref-17)
18. The Danish team is equipped with an unmanned aerial vehicle that can take motion pictures in daylight and in low-wind. [↑](#footnote-ref-18)
19. The Netherlands can make water pumps with a minimum capacity to pump 800 l/min available on a case-by-case basis. However, it is not possible to estimate the national capacity, so for the purpose of this analysis it is not considered. [↑](#footnote-ref-19)
20. The Netherlands can make power generators of 5-150 kW available on a case-by-case basis. However, it is not possible to estimate the national capacity, so for the purpose of this analysis it is not considered. [↑](#footnote-ref-20)
21. Shoreline response. [↑](#footnote-ref-21)