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The European Union’s capacities for managing crises

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This article draws on a comprehensive new data set of crisis management capacities at the European Union level to highlight key patterns in their development and use. Organised within the categories of detection, sense-making, decision-making, coordination, meaning-making, communication, and accountability, the data show considerable accumulation of capacities in detection and sense-making, while decision-making capacities lag behind. We find that most capacities are sector-oriented rather than cross-sectoral, and reside primarily within the European Commission rather than other EU institutions. Comparing the data to previous studies, we note that capacities overall are increasing and some are undergoing evolution; for example, horizon-scanning tools once limited to collecting information have increasingly been given an analytical, “information enrichment” function akin to sense-making.

1  INTRODUCTION

In recent years, much research attention has shifted to the nature and implications of “transboundary” crises (Ansell, Boin, & Keller, 2010; Boin, Ekengren, & Rhinard, 2014b). A crisis is traditionally defined as a shared perception of threat to a fundamental part or value of a society, which requires urgent action by authorities under conditions of deep uncertainty (Rosenthal, Charles, & ’t Hart, 1989; Rosenthal, Charles, et al., 1989). A transboundary crisis compounds the previous crisis definition in that its origin, spread, and implications unfold across borders. The transboundary crisis can, in effect, cut through multiple types of borders: geographic, policy, political, cultural, language, and legal (Boin, Rhinard, and Ekengren, 2014). This is clearly an expansive view of crises, although the scholarly focus tends to fall on urgent, unfolding events in which a fast response is perceived as necessary. The prototypical transboundary crises are intertwined with increasingly complex critical infrastructures and free-flowing forces linked to globalisation, and would include cyber breakdowns, the spread of pandemics, and massive migration flows.

Considering the compounded nature of transboundary crises, attention is needed on the politico-administrative requirements of managing them. However, most studies in that regard focus only on the national level (Ansell et al., 2010; Boin et al., 2016), whereas the transboundary nature of modern crises clearly calls into question the sufficiency of national, “unilateral” responses (Boin, Ekengren, & Rhinard, 2013). More attention is needed on how well-equipped and well-suited international organisations, for instance, are in helping to coordinate responses to transboundary crises. This article focuses on one such international organisation—the European Union—to assess this very question. While the EU has received some scholarly crisis management attention (e.g., Attinà, Boin, & Ekengren, 2014; Boin, Ekengren, et al., 2013; Hollis, 2012; Morsut, 2014; Olsson & Hammargård, 2016), two developments of late require a reassessment of our understanding of supranational crisis management. First, how scholars assess the politico-administrative requirements of modern transboundary crisis management has changed. In recent years, the traditional focus on prevention, preparation, response, and recovery capacities has given way to more nuanced analytical frameworks with a stronger emphasis on the politico-social aspects of crisis management—such as sense-making and meaning-making (Boin, Kuipers, & Overdijk, 2013; Boin et al., 2016). This article makes an original contribution by applying these new understandings of crisis management to studying the EU. Second, the EU itself has changed. A complex, supranational policymaking system, the EU continuously develops its cooperative policies, instruments, and objectives (Princen & Rhinard, 2006) and evolves as an actor in European governance. For instance, new empirical developments such as the onset of the migration crisis (2015), the Paris and Brussels terrorist attacks (2015, 2016), and a reframing of the European Union as one of a “Security Union,” demand new analysis. Our study here allows us to compare recent trends with those recorded and presented several years ago (Boin, Ekengren, et al., 2013).

This article helps to fill these research gaps by presenting a new data set of the crisis management capacities found in the EU. We
Recent studies have explored a new species of crisis: the transboundary crises (Ansell et al., 2010; Boin & Rhinard, 2008). Transboundary crises are those with characteristics from the previous definition, but which generate new problems in that they originate, travel, and become manifest across multiple kinds of boundaries: geographic, policy, political, cultural, language, and legal. This focus illuminates the challenges of crisis management in a technologically interconnected, globalised world, and directs attention towards the supra- or inter-national levels that may have to be involved in crisis management.

A second development in the crisis management literature is a refinement in the analytical categories in which “crisis management capacities” are often discussed and measured. Recently, the prevention, preparation, response, and recovery continuum have been nuanced. In 2005, based on policymakers’ perceptions of crisis management practice, five critical tasks for crisis leadership were defined: sense-making, decision-making, meaning-making, terminating, and learning (Boin et al. 2005: 10). Since then, these tasks have been further refined into seven key, strategic activities critical for the effective and legitimate management of crises (Boin, Kuipers, et al., 2013; Boin et al., 2016: 147–148).

These seven activities, namely detection, sense-making, decision-making, coordination, meaning-making, communication, and accountability, aim to capture both the process as well as the challenging tasks involved in effective transboundary crisis management. The assumption here is that performing these tasks will support public trust in the functioning of institutions, and that a successful collective response and mitigation of a common threat may even increase legitimacy of involved institutions (Boin et al., 2016:13).

2.1 Detection

The detection task is about recognising emerging and actual risks and threats through, for example, mechanism, procedures, software, or systems put in place for horizon scanning and/or threat identification (Boin, Kuipers, et al., 2013; Meyer & de France, 2011). Timely crisis recognition is quite challenging, given that a crisis often starts with only vague indications that something out of the ordinary may be taking place. This puts decision-makers in a tough situation where they must grasp the situation and respond based on information that is likely to be confusing, inconsistent, and over-abundant (Boin et al. 2005:38). Timely detection is further complicated by complex organisational environments with many actors and intransient institutional constraints.

2.2 Sense-making

Sense-making regards the task of collecting, systematically analysing, and distributing critical information which helps to generate a shared situational picture (Boin, Kuipers, et al., 2013: 82–83). After detecting a threat, decision-makers have to understand what is going on, how critical the detected threat is, and what/who could be affected, in order to take appropriate countermeasures—a task easier said...
than done given the often massive stream of information surrounding an emerging crisis (Weick & Sutcliffe, 2007). In cases of transboundary crises, the sense-making task becomes even harder with extensive numbers of involved actors and stakeholders who have to reconcile conflicting perspectives in attempting to form a common situational picture.

2.3 | Decision-making

The decision-making task entails making (joint) critical strategic decisions in relation to the identified threat or crisis, acting based on the information available, and formulating an effective strategy to implement decisions (Boin et al., 2016: 16–17). Moreover, the decision-making task is shaped by institutional context and is not only about agency and leadership—as it often requires adaption of public bureaucracies. Indeed, decision-making is less straightforward than sometimes assumed and more about managing a complex process in which leader-driven adaptation to stressful circumstances is the key challenge (Boin, Kuipers, et al., 2013: 83).

2.4 | Coordination

There are usually an extensive number of actors, agencies, and organisations involved in transboundary crisis management (Rhinard & Sundelius, 2010). Failing to coordinate can lead to gaps or overlaps in measures taken, as well as to conflicts between involved parties (Comfort & Kapucu, 2006). The coordination task, therefore, entails challenges such as identifying key actors and partners and facilitating collaboration between them in relation to risk, threat, or crisis (Boin et al., 2016:17).

2.5 | Meaning-making/communication

The meaning-making task, in turn, involves challenges such as formulating a message of what has happened in relation to the crisis, providing advice, and explaining measures taken in order to achieve a sense that leaders are in control of the situation. This task is important for decision-makers’ credibility and, if done effectively, can help garner support and public understanding for their decisions during the crisis (Coombs & Holladay, 2009). Closely linked to meaning-making is the communication task, which is about effective broadcasting of a message regarding the risk, threat, or crisis to selected audiences such as the public, the media, victims, etc. (Boin et al., 2016:18).

2.6 | Accountability

Finally, the task of rendering accountability concerns explaining decisions, strategies, and actions initiated before, during, and after the crisis. This includes processes of feedback, stakeholder dialogue, and learning (Boin et al., 2016:19). The challenge to effective accountability is the prevalence of “blame games” during and after crisis moments (Brändström, Kuipers, & Daléus, 2008; Hood, 2002). Capacities for rendering accountability include transparent processes for assessing how, why, and with what affect crisis managers took action during crises (Boin, Kuipers, et al., 2013; Kuipers & ’t Hart, 2014). Another literature implicated by this study is that on the institutional politics of the European Union, EU scholars have been slow to recognise the EU’s role in crisis management (but see Wendling 2010, Tercovich 2014, Morsut, 2014; Boin, Rhinard, and Ekengren, 2013). Scholars tend to focus on traditional areas of EU cooperation: normally those boxed within easy to define policy sector areas. Transboundary crisis management crosses policy areas and boundaries, however, which means it does not fit easily into existing scholarly agendas (Rhinard, 2015). And yet transboundary crisis management generates a number of critical questions relevant to those interested in Europe’s highly complicated multilevel governance system. One is the way in which crisis policy responsibilities are divided amongst local, national, and supranational authorities (Hollis 2015). Another is how crisis management responsibilities at the EU level are shared amongst different institutions in Brussels. Scholars of the EU have long studied the relative balance of power amongst the European Commission, for instance, as a quasi-independent body with a constitutional duty to represent the European collective rather than individual states (Nugent, 2010). The Council of the EU and the European Council, as intergovernmental bodies, tend to focus more on national concerns and, on average, protect national interests over European ones and prioritise perceived erosions of national sovereignty (Hayes-Renshaw & Wallace, 1997). Thus, interinstitutional politics (which includes the European Parliament) in the EU has been a fruitful context in which to understand balance of power questions in European integration more broadly. Which institutions drive, and control, policy developments are relevant for what kinds of forces shape cooperation—a major theoretical and empirical concern in EU studies and international relations regarding which issues enter supranational agendas (Pollack, 1999; Princen & Rhinard, 2006).

3 | DATA COLLECTION AND METHODS

The conceptual discussion regarding crisis management capacities only takes us so far. To examine them empirically, clearer definitions and specific operationalisation are needed. First, we must define and clarify what we mean by “EU crisis management capacities”. To capture the full range of phenomenon under analysis here we use a broad definition, namely: the politico-administrative features within the EU institutions relevant to one or more of the seven tasks of effective crisis management discussed above. This requires careful operationalisation (below) and may include, for example, crisis early warning systems, horizon-scanning programs, platforms for crisis-related information sharing, protocols for communicating in crisis situations, databases and tools for deploying crisis management-related resources, crisis rooms and “emergency response” centres, risk assessment units, and decision-making procedures for crisis situations.
Operationalisation of the seven crisis management tasks took place as follows. We returned to the literature to ensure a detailed understanding of what these generic tasks meant in practice and how they could be identified empirically.

Detection capacities, for instance, were operationalised as capacities focused on the timely recognition of an emerging threat, including activities on threat monitoring, horizon scanning, and early warning. Sense-making was operationalised as capacities involving the creation of situational awareness, common situation pictures, risk assessment, analysis of information from detection or distribution of information, as well as information-sharing practices for creating a common situational picture or to create a basis for decision-making. Decision-making capacities are those involving selection of or support for member state strategic decisions and formulation of strategy during a crisis, such as crisis rooms or decision-making protocols for use during a crisis. Coordination was operationalised as actions or mechanisms focused on synchronising and integrating crisis-related responses amongst EU institutions, national governments, or other international organisations. Meaning-making and communication capacities were operationalised as resources to assist in the formulation of crisis messages and crisis communication between crisis management actors as well as crisis communication to the public. (We combined these categories for practical reasons; namely, they are hard to distinguish in practice). Accountability was operationalised as procedures and forums for explanations of crisis measures and rendering accounts of action during crises. We included the presence of crisis exercises (if on a regular basis) and procedures in place for lesson-learning (measured as stakeholder dialogues and event reports).

The categories were applied to seven sectors (policy areas) in which the EU actively governs and which are most relevant to the phenomenon of transboundary crises, namely: transport, health, cyber security energy, counter-terrorism, civil protection, and migration. Additionally, we assessed if the capacities were concerned with precrisis or actual-crisis activity. Pre-crisis capacities are those focused on “getting ready” for crises (such as horizon-scanning, assessing risks, and conducting exercises). Actual-crisis capacities are those activated when a potential or actual crisis emerges (such as decision protocols, aid deployment, or communication strategies). To capture trends over time, we recorded adoption dates (to the extent possible) and, in the database accessible elsewhere (see endnote ii), noted whether capacities were created before or after 2013 (the last scholarly record of developments). As noted above, research was limited to capacities focused mainly on crisis management in the European region, and excluded crisis management focused only on the EU institutions themselves, such as business continuity planning.

Regarding data collection, we applied open source scanning which proceeded in three steps within each sector. We started by examining Commission sector-specific websites (largely found in individual Directorates-General websites). This was complemented by in-site Google searches for lexicon such as “crises,” “threats,” “emergencies,” “disasters,” “preparedness,” “early warning,” and “urgent” to widen the search. Then, we turned to EU legislative databases such as Eur-Lex, generating search results in different sectors that enabled us to see if we missed any significant capacities. Eur-Lex allows for some formal search terms (such as “civil protection”) but to further widen the search we included key word searches using the terms above. Finally, secondary sources—scholarly and other analytical studies—were consulted to see if any data escaped our earlier searches. All sources are dated and documented in the above-mentioned database. We should note that our assessment of capacities was based on their presence (or existence) rather than their quality; in other words, discussion of the operational effectiveness of these capacities is outside the scope of this study—but certainly of great interest for future research (see conclusions). Moreover, as our findings are based mainly on open source scanning, we map the capacities whose existence is communicated publicly in some way.

4 | Empirical Findings

We now turn to the substance of the article: the presentation of the data set. We organise the presentation of EU crisis management capacities in terms of the seven key tasks associated with modern crisis management.

4.1 | Detection

Our study mapped a total of 57 EU capacities devoted to the timely recognition of an emerging risk or threat. We found that EU detection capacities tend to be quite specific, often focusing on a particular kind of threat or risk. Therefore, it was no surprise that we found not just one but several detection capacities within each of the sectors studied. Each subsector, we discovered, has its own systems for horizon scanning, monitoring, and early warning devoted to specific threats. For example, the transport sector has specific detection systems for sea, rail, and air, respectively. The European Maritime Security Agency has several vessel monitoring capacities such as SafeSeaNet and the EU Long Range Identification and Tracking system. Related to railway security, the EU has developed railway electromagnetic attack detection sensors through the ‘SECRET’ project and the air subsector has a monitoring system called the Network Operations Portal (NOP), which allows users to react to events faster, monitor performance, and report functionality (or more accurately, non-functionality).

Another example is the health sector, in which few diseases are without a specific detection system. The European Centre for Disease Prevention and Control (ECDC) through the Epidemic Intelligence Information System (EPIS) has no less than five detection platforms for different types of disease. For instance, working with officials in EU civil protection cooperation, health officials help to run a system to detect CBRN (Chemical, Biological, Radiological, and Nuclear) threats from an intentional source (RAS-BICHAT), which is separate from CBRN threats from accidental sources (RAS-CHEM). Moreover, the migration sector has capacities regarding detection of third country nationals crossing EU borders through the use of three
systems: EURODAC, the Visa Information System (VIS), and the recently proposed Entry-Exit System (part of the Smart Borders package of proposals). Within civil protection, we see detection systems for different kinds of natural disasters, such as European Forest Fire Information System (EFFIS) and the European Flood Awareness System (EFAS). More recently, in the fast growing sectors of cybersecurity and counter-terrorism—the detection focus de jour—we spotted two new monitoring capacities, each established in 2015.

Unsurprisingly, perhaps, detection capacities are particularly pronounced in areas that experienced recent attacks or emergencies. Following the Icelandic ash cloud eruption in 2010, Eurocontrol's Pilot In-Flight Reports system collects real-time information about ash cloud positions and concentrations. The European Maritime Pilot In-Flight Reports system collects real-time information about emerging disaster, via technological tools housed in the ERCC. Indeed, even the terminology of “sense-making” is used by officials to describe their efforts.

We found that several new sense-making capacities have emerged during the last years. For example, a new unit to spot terrorist financing has been placed in Europol, built around a FIU.net network of information-sharing and situation assessment. Following the 2010 Ash Cloud crisis, Eurocontrol's EACCC (European Aviation Crisis Coordination Cell) seeks to get “ahead of the game” when major aviation failures occur by providing early crisis analysis, Europe-wide. European Border Guard Teams engage in a form of sense-making when they assess “pressure points” and report to central authorities. Also, a new EU-level cybersecurity network has been set-up recently to improve analysis and information sharing on possible cross-border cyber incidents, namely the CSIRT-network.

Our results regarding sense-making fall into two broad categories. The first concerns capacities related to making sense of risks, threats, and vulnerabilities before they turn in to actual crises. The financial intelligence network fits into this category, in that it seeks to assess which emerging problems might be “actionable”. Another example is the EU Internet Forum, a private-public cooperation framework that brings together representatives from the Internet industry, Europol, the EU Counter-Terrorism Coordinator, the European Parliament, and EU interior ministers. It encourages discussions on how to combat online radicalisation and protect citizens from terrorism exploitation. The EU Internet Forum is a central initiative of the European Agenda on Security, which introduced the “Security Union” concept, from early 2015. In December 2015, the Commission held the first EU Internet Forum meeting, discussing and agreeing on the importance of effective mechanisms for private-public cooperation to efficiently and swiftly remove terrorist content online, and to counter terrorist narratives. The participants also agreed on using the umbrella of the EU IT Forum to enhance coordination in counter-terrorism work.

The second category contains sense-making procedures and bodies for actual unfolding crises. They often involve marshalling expert group input for use in crisis. Examples include the Council’s stakeholder advisory group on maritime security, which is expected to be ready when a maritime-related event takes place, and the counter-terrorism first response network, which convenes during an attack. Another is the CSIRT-network, which can, after a report on a cyber incident with potential cross-border effect, discuss and assess the...
cyber incident. As mentioned, we have very little information on whether these tools actually work in practice, and how well. Some sectors with many new capacities, such as the cybersecurity sector or the counter-terrorism sectors, have several untested tools, instruments, and networks.

It is worth noting a key trend here, which becomes apparent when compared with previous analyses on EU sense-making (Boin, Ekengren, and Rhinard, 2014a): systems originally designed for information collection (e.g., largely about detection) have been “enriched” with an analytical function (e.g., sense-making). In critical infrastructure protection, the CIWIN system (Critical Infrastructure Warning and Information Network) not only collects information (about problems in different infrastructures) but also enriches the data through analysis. The same goes for the EPIS-systems of the health sector, as well as with RAS-BICHAT and RAS-CHEM (the detection/early warning systems for chemical accidents and CBRN attacks). Another example is EFFIS (detection/early warning system focusing on forest fires) and EFAS (detection/early warning system focusing on floods), which detects but also analyses and distributes information on emerging threats. That is, many systems or networks which fall into the category of detection also fall within the category of sense-making due to the fact that they—in addition to detection—also perform analysis of the collected data and distribute that assessment to stakeholders in order to create a common situational picture.

4.3 Decision-making

Direct decision-making capacities for crisis management exist in only a few sectors. Those sectors correspond with issue areas in which the EU has a clear legal competence. Thus, during an animal disease outbreak, key decisions must be made in the European institutions related to quarantine, for instance. Some aspects of air transport security involve Eurocontrol (not formally an EU body but closely related) issuing guidelines when a crisis hits, via its EACCC and Network Manager. In a major financial crisis, the European Council will mobilise to (try to) coordinate a common response amongst member states and institutions like the European Central Bank.

But in most areas the EU’s decision-making role is, at best, arms-length from the actual crisis. The EU’s competences rarely allow it to intervene directly in a crisis. Thus, the ERCC has a variety of rapid decision-making protocols and an impressive information support system to match. Its three crisis rooms operate on a 24 hr/7 days a week basis. Decisions made here, however, relate mainly to the mobilisation of the EU’s own assets—which are proportionally a small contribution to crisis response. The same applies to DG Sante’s Health Emergency Operations Facility (HEOF). The Facility operates mainly to gain a situation awareness of an intentional health threat outbreak and to understand what EU member states are doing individually or bilaterally to manage the event. One official interviewed for this project described HEOF’s attempts as “managing chaos” as DG Sante’s role is not always self-evident (Interview 4). In the area of cyber crises, the “EU Standard Operating Procedures for Cyber Events” involve a degree of decision-making but largely in terms of what EU capacities should be mobilised—whether demanded by outside crisis managers or not.

4.4 Coordination

We found a plethora of coordination capacities, arguably because coordination is the very essence of the EU’s role in crises (Boin, Ekengren, et al., 2013). As argued above, the EU has few direct decision-making functions during crises. Rather, it is heavily concerned with coordinating itself (services, institutions) and attempts to coordinate national actors. We find that many of the capacities listed in this report are, in fact, coordinating in nature (even decision-making, which involves making decisions regarding when and how to coordinate). For example, one of the main tasks of the newly established European Counter-Terrorism Centre (ECTC) is to contribute to a coordinated reaction to a terrorist attack. Its focus lies in sharing expertise and intelligence on terrorism, especially on terrorism financing (supported by TFTP and FIU.net), counter foreign fighters, online radicalisation, and enhancing efficiency of international cooperation on counter-terrorism. Member States also have the possibility to second experts to the centre in order to support investigations, of which the Task Force “Fraternité” is an example. In connection to the ECTC, tools like SIENA and EIS are used for sensitive information exchange of counter-terrorism intelligence. But by and large, the ECTC would stand at arms-length from an actual attack response.

Similar to the sense-making findings above, we find that coordination capacities of the EU fall into two categories, related to coordination before and during a crisis, respectively. Capacities used before a crisis are aimed at trying to assemble key actors, to educate others about available resources, and to practice using relevant tools in advance of a crisis. Not all sectors engage in exercises, but they seem to be growing. The Council’s IPCR (Integrated Political Crisis Response) is practiced once per year, under the leadership of the Council Presidency. Pandemic response plans are exercised on a fairly regular basis. And Cyber Europe is a bi-annual Pan-European cyber exercise that aims, amongst other goals, to practice crisis response collaboration with various actors—both vertically and horizontal.

 Capacities for use during a crisis blend somewhat with the “partial” decision-making capacities described above. What the EU considers decision-making capacities are actually coordination capacities according to our framework. Thus, the European Response Coordination Centre (ERCC), the IPCR, the Health Emergency Operations Facility (HEOF, in Luxembourg), and the European Aviation Crisis Coordination Cell (EACCC) are all sometimes considered “decision platforms,” but are more accurately described as coordination centres.

Moving beyond the decision-making vs. coordination issue, another reason that coordination efforts have grown in Brussels is the increasing number of actors involved in various crisis issue areas. As mentioned earlier, the rise of new agencies, new member state officials, increased public-private relations, and new staff focused on crisis issues makes coordination more complicated than...
in previous years. Besides creating a need for more sense-making capacities, this also increases the need for supranational coordination. As described by Boin, Ekengren, et al. (2013), the EU is in a unique— but not easy— position to provide supranational coordination when Member States face increasingly complex and transboundary threats or crises.

### 4.5 Meaning-making/communication

Both meaning-making and communication capacities tend to be centrally organised in media relations departments. For the Commission, this is the Spokespersons’ Service located under the Commission President. An example of a generic meaning-making/communication capacity is the “Vademecum” website. The website contains information on disaster management measures taken by Member States and at the EU level. Its crisis communication service is especially aimed towards civil protection professionals at various levels of the EU as well as NGOs and volunteers.\(^{14}\)

However, we found some sector-specific meaning-making/communication capacities as well. Often these involve the use of social media, such as Twitter procedures or the use of specialised mobile apps. During the migration crisis in 2015/2016, Twitter was frequently used by several EU institutions.\(^{15}\) The European Commission set-up a webpage to communicate measures being taken to handle the situation, including a timeline and encouragement to sign up to set-up a webpage to communicate measures being taken to handle the situation. Another example is the “Fire News” by EFFIS (European Forest Fire Information System), which provides a selection of timely and relevant news on wildland fires in Europe to the public. Users may choose to focus on news from specific countries and can access the information through the EFFIS app.\(^{17}\)

Recognising that confusing messages to the public during a crisis can undermine effectiveness of emergency or crisis response, the “Communicators Network” of the Health Security Committee (HSC) was set-up in order to provide reliable and coherent messages to citizens during a public health crisis. The network discusses communication strategies and holds exchange of views meetings to better understand the developing situation during a crisis, reviewing media concerns, and discussing public approaches.\(^{18}\)

The HSC Communicators’ Network supports Member State efforts on risk and crisis communication with the general public during a public health crisis. The HSC also provides a platform for exchange of information between the Member States and the Commission.\(^{19}\) Continuous contact between officials within the network supports rapid information exchange during a crisis situation. Information within the network may be shared through the HEDIS (Health Emergency and Disease Information System), and the network has a “Red Book” which provides information on national communication structures.\(^{18}\) Globally, the network enables the EU to spread information rapidly worldwide, by connecting with existing communicators’ networks under the Global Health Security Initiative and the WHO network under the International Health Regulations (IHR).\(^{20}\)

### 4.6 Accountability

Like meaning-making/communication, accountability is a task that does not differ greatly amongst issue areas. So here we provide a cross-sectoral assessment of accountability for the EU institutions under examination. As mentioned, accountability involves the rendering of an explanation, in a public forum, the relevant decisions and strategies that were initiated before, during and after the crisis. It is largely about the mechanisms by which officials can be held to account for their actions. It includes processes of and mechanisms for “lesson-learning” after crises.

In general, we can focus on three versions of accountability in the EU (Scharpf, 1999). Input-forms of accountability concern the relationship between citizens and those democratically chosen to represent them. National leaders taking decisions in the Council of the EU and European Council are accountable to their respective national publics, for instance. Collectively, however, national leaders are not accountable to a European public since each represents only his/her respective citizens. Through-put versions of accountability concern how citizens can understand and hold to account the procedures and ways crises are handled. The EU machinery for acting on crises is not particularly transparent or easily comprehensible. Worse still, crisis-specific procedures do not always follow the familiar Community Method of decision-making. Output forms of accountability concern holding leaders to account for their performance during crises. What decisions were taken, why and did they work? Here, accountability mechanisms are somewhat strong. First, the EU’s institutional checks-and-balances encourage oversight and investigations into one another. The European Parliament takes seriously its role as “watchdog” over other institutions, launching countless investigations. Second, the Brussels Press Corps is active and large—by some counts, the largest in the world—and can shine light and ask tough questions regarding crisis management performance. That said, the “blame game” that is so prevalent in post-crisis situations at the national level (Hood, 2002) is likely to be intense in a multi-level governance system like the EU. With its intentionally unclear division of competences (Nugent, 2010), the EU’s national and supranational officials may very well point fingers at one another for crisis-management failures.

In terms of lesson-learning, we uncovered evidence of a moderate amount of processes and mechanisms. Lesson-learning is most prevalent in the aftermath of crisis exercises, when “hot wash” discussions and analysis outline problems that need fixing. Other lesson-learning takes place following actual events. For example, investigations into transport sector accidents and incidents, and the recommendations and conclusions drawn from them, are fairly frequent and are said to play an important role in prevention. By way of another example, as part of its crisis management procedure, the EACCC (European Aviation Crisis Coordination Cell) is tasked to identify lessons learned during a debriefing after deactivation. Another example is in the Counter-Terrorism sector, where the EU Bomb Data System (EBDS) provides a platform for information sharing between experts on lessons learned from incidents.\(^{21}\)
By way of an overview, the distribution of crisis management capacities across the seven sectors studied is presented in Figure 1. It is worth noting that the capacities collected in this research are diverse (e.g., some are bureaucratic protocols, others are technical mapping software), inter-related (e.g., some cyber-related crisis activities apply to energy-grid resilience programs), and are ultimately subjectively categorised (e.g., whether medical aid response teams are part of coordination or decision-making, for instance, is not crystal clear). Care must thus be taken if or when drawing statistical inferences. Such challenges, however, do not deter our goal of sketching the contours and assessing developments of a poorly understood and little-researched empirical area of crisis management.

5 DISCUSSION

With the content of the data collection reviewed above, we now turn to a discussion of general findings.

As expected, most capacities relevant for managing crises reside in the largest organisation in the EU institutional landscape: the European Commission. There are some major exceptions, including the Integrated Political Crisis Response (IPCR), which sits in the General Secretariat of the Council and endeavours to draw in all EU institutions directly. The European Council has a very small secretariat—relying on the Council General Secretariat and European Commission for most of its heavy lifting—but has a potentially powerful role in crisis decision-making. Worth further exploring is the modest but noticeable accumulation of capacities outside of the Commission in both the Council’s General Secretariat and the European Council.

We found that most capacities are sector-oriented. Very few operate across sectoral boundaries. Exceptions include the Council’s IPCR and the Commission’s ARGUS (a system linking together early warning systems). Compared to previous findings in 2013 (Boin, Ekengren & Rhinard) and 2015 (Boin, Ekengren & Rhinard), cross-sectoral capacity building seems to have stalled. The Commission Secretariat-General unit for cross-sectoral crisis coordination has changed name (from crisis coordination to business continuity) and emphasis. That said, in speaking to practitioners the importance of “acting across sectors” repeatedly came up—suggesting that ambitions remain, even if practical efforts seem to have slowed in comparison with previous findings. It may be possible to argue that as the number of capacities increases in each sector, and therefore the number of involved actors, coordinating crisis management efforts within and especially across sectors becomes a greater challenge.

There is a difference in scope regarding the EU detection/sense-making activities and EU decision-making/coordination activities. The former tend to focus on very specific threats, while the latter tends to cover a wide range. Examples of detection activities include the RAS-BICHAT and RAS-CHEM rapid alert systems (which differ mainly based on whether terrorism is involved), as well as the various early warning and information-sharing systems for different diseases (nominally aggregated in the EPIS) and for different modes of cross-border transport. Yet for decision-making and coordination, systems tend to be more generic. Thus, the ERCC claims a role as an “all hazards” decision/coordination centre, and the IPCR has no specific threat orientation. Some of this can be explained by institutional affiliation and bureaucratic politics: the ERCC has manoeuvred to become the main crisis hub for the Commission, while the IPCR’s Council location explains its broad approach. Nevertheless, more exploration of this phenomenon is warranted.

Our more curious finding is the high number of capacities found in detection and sense-making. Regarding detection, we surmise that building detection capacities requires very little political authorisation from member states. Creating better detection and early warning capacities is something the Commission does largely as an administrative act and seems like a “good idea” to everyone. Contrast this with decision-making or coordination, which impacts upon national sovereignty and autonomy to a greater extent—and are thus less well-developed. These impressions drawn from limited interviews, however, require further research (see conclusion below).

Our research revealed consolidation efforts of various detection systems. We saw several examples of specific detection systems re-organised under a larger umbrella system or network, such as when the European Forest Fire Information System (EFFIS) and the European Flood Awareness System (EFAS) became a part of Copernicus Emergency Management Service in 2012 and 2015, respectively. Consolidation may be linked to the initial proliferation trend, in that

![FIGURE 1](image-url)
too many systems emerged and administration becomes difficult. It might also be a result of the need (a) to get sufficient data into the detection system and make sure the system is being used, or (b) to link these systems to information-sharing capacities and political coordination structures. A recent ENISA (European Agency for Network and Information Security) study of crisis management practices at the EU-level states echoes the point:

[Rapid alert tools are useful only insofar as good quality and current information is shared with them. As such, there is a clear need, for any tool to be deployed at the EU or Member State level, to be supported by a cooperation framework and a culture of information exchange amongst the Member States and Agencies. For instance, the Early Warning Response System, a web-based system linking the Commission, Member State public health authorities and the European Centre for Disease Prevention and Control (ECDC), is reported to suffer from slow updates and inadequate exchanges.]

The rise of sense-making capacities, when compared to previous research (Boin, Ekengren, et al., 2013; Boin, Ekengren, and Rhinard, 2014a, 2014b), is worth further exploring. Many of the tools and systems previously focused only on detection and early warning now contain an “information enrichment” and analysis component. Systems that started as detection, threat mapping, and early warning—and then grew into sense-making systems—include the “Network Manager” function in the NOP for Eurocontrol, Copernicus Emergency Management Service for environmental threats, and ENSEMBLE, which monitors atmospheric problems. Why have such evolutions taken place? One hypothesis is cognitive: detection systems produce large quantities of data but not quality data. Policymakers saw the need for improvement, along the lines of crisis management theory’s message that information does not equate to understanding. Another hypothesis is functional-bureaucratic: the overproduction of detection systems led to consolidation, which in turn demanded a functionalist response to organise the data more efficiently. The result was filtering, analysis and reporting functions needed to justify the continued existence of the system.

The empirics also show a clear division between efforts in the seven tasks of crisis management that relate to anticipating crises and efforts related to these tasks during an actual crisis. For instance, sense-making activities can be found directed towards horizon-scanning (precrisis), but also in terms of situation assessment (mid-crisis). The same goes for coordination. Some coordination activities are focused on “getting ready” for a crisis and some are engineered for use during a crisis. Another interesting finding in this regard is the fact that relatively new areas of crisis cooperation—cyber security, for instance—show the same patterns of development as established areas. The cyber security and health sectors both display tendencies to focus on detection rather than decision-making, suggesting more fundamental dynamics at play worth further exploring. The next section continues the discussion on what implications this study has for broader, future research agendas.

6 CONCLUSION

This article presented the results of a major study of the EU’s capacities to engage in the seven key tasks facing politico-administrative crisis management in Europe. The full findings of the study are publicly available through a novel new database allowing for custom searches and graphing. This article provided an outline of the main findings of the study, in hopes of spurring additional research from scholars in the crisis management community.

To conclude, we draw out the main implications of our study for future research. One implication concerns the utility and feasibility of the analytical framework. The seven-part framework used here—detection, sense-making, decision-making, coordination, sense-making, communication, accountability—proved useful in revealing capacities that might have remained hidden if crude categories like “preparation” or broadly-defined “decision-making” had been used. For instance, the analytical distinction made between decision-making and coordination does not hold in the case of the EU, revealing that much of what the EU considers—and publicly advertises as—decision-making is actual coordination of others’ crisis management decisions. “Others” may include the EU institutions themselves, national governments, or national agencies during crises. This clearly complicates public and practitioners’ expectations of what role the EU plays in managing transboundary crises, and the legitimacy it can claim in so doing. The framework deserves further development, however, in the light of our findings. The strict distinction between detection and sense-making works analytically but in practice obscures the fact that sense-making is a process that begins early—even at the stage of designing detection systems. Systems are designed to uncover some threats and risk by unintentionally ignoring others—clearly a situation that affects how we make sense of impending crises.

Another implication is the apparently inexorable march of crisis capacity accumulation. What explains, even in an era of ostensibly growing Euroskepticism, that EU member states continue to authorize the growth of crisis management capacities at the European level? This question is surely worth further exploration in future studies. Some initial thoughts on growth relate to three well-known explanations in the field of European integration studies. The first is crisis-driven integration. The role of crises in shaping the European project is well-established in neofunctionalist theory (Niemann & Schmitter, 2009): the key determinate of how crises matter is whether national governments respond to events by seeing cooperation itself as a source of crises (leading to ‘spill-back’ and fewer joint initiatives) or a way to address the causes of external crises (leading to ‘spill-over’ and increased cooperation). Future research could usefully test the relevance of this explanation, and explore the significance of the EU’s growing focus on prevention rather than response in crisis management.
A second classical explanation of capacity growth in the EU is policy entrepreneurship by supranational institutions. The Commission is a well-known advocate of European solutions to any and all problems, driven by bureaucratic as well as normative incentives (Pollack, 2003). Our evidence offers strong indications of Commission entrepreneurship, using crises as windows of opportunity to advance previously stalled initiatives, assembling networks of national officials interested in crisis-related tasks, and promoting analysis of European vulnerability in the face of increasingly complex threats. Finally, one explanation of growth in European level capacities is the cycle of institutionalisation, by which new, broad goals are set out, experimental policies are devised, subsequent problems are ironed out through policy revision, supporting instruments and resources accumulate, vested interests form, and finally, legitimacy grows. This cycle was used in previous accounts of European crisis management developments (Boin, Ekengren, et al., 2013) and seems to be validated by the results here.

More generally, and in conclusion, the empirics and analysis presented in this article add to growing evidence that studying modern crisis management demands considering multi-level governance frameworks in which it takes place (Christensen, Laegreid, & Rykkja, 2014; Hollis, 2012; Kuipers et al., 2015). European and international levels appear to be ramping up their role in, and capacities related to, crisis management, especially considering the transboundary nature of modern crises. Whether we speak of pandemics or ash clouds, or terrorist attacks or cyber breakdowns, national crisis management now takes place within a supranational framework—with important implications for practitioners and academics alike.

ENDNOTES

1 This article has been produced as part of the research agenda of the TRANS-CRISIS project funded by the Horizon 2020 Programme of the European Union (H2020-REFLECTIVE-7: 649484-TransCrisis). For more information, see www.transcisis.eu. We have benefited from the advice and assistance of the consortium members. We are especially grateful for the research team that helped to put parts of the data set together, including Markus Lyckman (who helped with research on energy crisis capacities) and the expert contributions from Kajsa Hamilton (on migration crisis capacities) and Louise Bengtsson (who helped with parts of the health crisis capacities).

2 See www.societalsecurity.eu for the full database on which this article draws.

3 Considering the breadth of the empirical data collection project, interviews were used only sporadically. At three points in the research project, well-placed practitioners were asked to review, critique, and comment on the data.

4 It is interesting to note that the Commission itself rarely seems to evaluate effectiveness on a regular or systematic basis. A full evaluation of this claim, however, requires more data collection and, as mentioned in the text, is outside of the scope of this particular study.


6 https://www.eurocontrol.int/articles/tools-available.


8 https://www.europol.europa.eu/content/ect.


10 European Council, Report from the EU counter terrorism coordinator to the council, p. 13.


13 It should be noted that EU coordination capacity potentially extends beyond the EU institutions and agencies to include non-EU bodies, such as other international organisations (e.g., the WHO, UN), non-governmental actors (e.g., the Red Cross), and private companies (e.g., Telenor). We are grateful to an anonymous reviewer for reminding us of this point.


15 https://twitter.com/Avramopoulos.


22 ENISA, 2016, Common practices of EU-level crisis management and applicability to the cyber crises, p. 21.

REFERENCES


