

C3 Covid-19 Response *Lessons Learned Review and Future Roadmap*

June 2020

Foreword

In May 2020 I was asked by the NI Hub Chief of Staff, Anthony Harbinson, to sponsor an important piece of work to review the lessons learned from the deployment of the C3 structures to manage the Northern Ireland response to the Covid-19 pandemic and how these lessons learned could shape the future roadmap for our civil contingency capability.

Through the Civil Contingency Group (CCG) I have seen many of the outputs from the C3 structures such as the Situation Report and was keen to support this request from the Chief of Staff. I also recognised the value of this work with an eye on the potential challenges of a difficult EU exit at the end of the year.

We reached out to the entire C3 network from the Departmental Operations Centres through the Hub and into CCG. In addition and with the support of external professional services, I selected a number of senior stakeholders for more detailed one to one interviews which included Permanent Secretaries, PSNI, Executive Ministers and senior civil servants.

This work has highlighted the hugely positive contribution that the C3 structures played in our response to the unprecedented health, social and economic crisis that Covid-19 created. It has also presented an opportunity to address any areas that can be improved upon and put Northern Ireland on a sound footing for the likely concurrent events that will emerge later this year.

There are a number of issues in particular that I believe are worth calling out at this point.

- ▶ We need to build a strategic civil contingency capability that is not reactive and event focused (EU Exit, Covid-19, flooding, etc.) but instead, is an agile professional function that can support the C3 network across NI Government;
- ▶ In the short term we need to develop and refine the tools that will help us deliver a professional service such as risk registers, contingency plans, horizon scanning and Situation Reports;
- ▶ We should start preparing for the inevitability of needing to activate these structures again and build on the momentum that has been created from the current deployment. As such we cannot delay in implementing the recommendations included in this report.

A huge collective effort has went into our response to this crisis and I want to personally thank those who stepped up to fill the many critical roles. These varied from the volunteers in the DOCs and the Hub, the Ministers and Permanent Secretaries and the cleaners who worked tirelessly to keep us safe. Without them, the C3 structure would not have operated, and it is because of this period of operation that we have identified opportunities to make the structure even stronger in the future.

Personal Data

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Acronyms

Acronym	Meaning
C3	Command, Control and Coordination
CCG	Civil Contingencies Group
COS	Chief of Staff
CCPB	Civil Contingencies Policy Branch
CONOP	Concept of Operations
DCOS	Deputy Chief of Staff
DOC	Departmental Operations Centre
EIS	Executive Information Service
EPC	Emergency Planning College
FL	Functional Lead
LO	Liaison Officer
NICS HR	Northern Ireland Civil Service Human Resources
NISRA	Northern Ireland Statistics and Research Agency
SME	Subject Matter Expert
SOP	Standard Operating Procedure
TEO	The Executive Office

Abbreviations

Abbreviation	Meaning	Definition
Sit Rep	Situation Report	A method of status reporting to provide a clear understanding of current situation for key decision makers. In the NI C3 response to Covid-19, it was produced daily at DOC-level and sent to Hub to feed into daily Hub Sit Rep, which is then distributed to CCG.
Down Rep	Downward reporting	A form of downward transmission of information. In the NI C3 environment, it was intended to be a daily update down to DOCs following CCG.
YH	Yellowhammer	Operation Yellowhammer was the code name given to the UK Governments contingency planning for a 'no deal' Brexit.

Glossary - C3-related terms

As outlined in C3 Covid-19 CONOPs V2

Term	Definition
C3	<p>The structure used when multiple teams and/or organisations are working together under a different team/organisation:</p> <p>Command. Command is exercised by the higher formation of a team. However, the team may not be under their command's direct control when working on projects or grouped as part of a functional team working on specific issues.</p> <p>Control. When a team is working under control of another organisation, command is still held by the higher formation but routine management is handed over. In practice this means that the team may be given tasks but not reassigned to new roles by the controlling organisation.</p> <p>Coordination. Coordination is the requirement to work across teams to meet a defined purpose or shared goal. Neither missions nor tasks may be assigned by the coordinating formation, which is responsible for pulling together a joint and coordinated approach to solving a problem. This is the core principle of multi-agency civil contingency management.</p>
Civil Contingencies Group	<p>Head of NI Civil Service (HOCS) chaired principal strategic EU emergency preparedness body for the public sector in Northern Ireland. It will oversee strategic support to EU exit impacts and civil contingencies.</p> <p>NB - CCG (NI) will escalate decisions to SMG through the NI Hub and via the Local Impact Group.</p>
Civil Contingencies Policy Branch	<p>CCPB works across the public sector in Northern Ireland to promote and encourage the development of effective emergency preparedness to mitigate the effects of a civil emergency on the public and the environment. CCPB supports the effective functioning of the Civil Contingencies Group (Northern Ireland) - CCG (NI) - in both preparedness and emergency response mode.</p>
Departmental Operations Centres	<p>Operations centre from which the management and coordination of the response by each Department is carried out.</p>

Glossary - C3-related terms

As outlined in C3 Covid-19 CONOPs V2

Term	Definition
NI Hub	<p>NI Operations Room to collate and disseminate information, coordinate multi-departmental/agency activities and planning, and filter/escalate decisions to the Local Impact Group or CCG (NI) as appropriate. It will also manage NI cumulative impacts and coordinate strategic support to civil contingencies as required.</p> <p>NB - It is the NI Hub that will produce the NI-wide Sit Rep. Eight NI Departments and FSA, each with their own DOC, will report to CCG (NI) via the NI Hub, coordinating with UKG departments as required.</p>

Executive Summary

Background:

The Northern Ireland Command, Control and Coordination (C3) structure has been activated to respond to the issues and impacts arising from Covid-19 and to protect the security and prosperity of NI and the wider UK. The structure follows similar operations to the Yellowhammer Hard EU Exit Hub and as such, roles and responsibilities that were set up as part of this have been continued where possible.

The Covid-19 response was the first live operation of the C3 structure, excluding exercising. The structure and approach was adjusted throughout operation to suit the live requirements and unique circumstances presented by the Covid-19 pandemic. In order to capture the lessons learned throughout the period of C3 operation, EY were engaged to provide a detailed review of the C3 structure and operations from March to June 2020.

Objective of this review:

The purpose of this independent review is to provide a clear understanding of the effectiveness of the C3 structures in its first phase of deployment in response to the Covid-19 pandemic. This has been done by documenting the key lessons learned from a range of C3 stakeholders, including Hub teams, Functional Leads, the Chief of Staff and members of the Civil Contingencies Group (the Head of Civil Service, all Permanent Secretaries excluding Department of Finance and the PSNI). The lessons learned have been presented in the following sections of the report.

Through a thorough review of the lessons learned, gaps in the current state of operations across C3 have been identified and recommendations made to close these gaps. A future roadmap for the desired state of the C3 structures outlining the associated activities required to reach this state against a defined timeline has been included in this report.

Executive Summary

Key insights:

In a Lessons Learned review there is an opportunity to build on what worked well while making adjustments to what did not. Over a very intensive three-month period, the C3 structure provided an invaluable resource to respond to a global pandemic. Interviews were carried out across the C3 structure and findings were analysed to identify four key themes; People and Resourcing, Operations and Outputs, Communications and C3 Lifecycle. Below are some of the key findings:

- ✓ *Four full hub teams were resourced by NICS volunteers and self-nominated SIB resources*
- ✓ *Staff enjoyed the opportunity to learn new skills and work across Departments*
- ✓ *DOCs working remotely quickly adapted to the work from home environment*
- ✓ *CCG was an effective forum for information sharing and valued by Executive Ministers who attended*
- ✓ *Introduction of Google Suite (online collaboration and communication tool) was positively received and drove efficiency*
- ✓ *The Sit Rep evolved quickly to become a fit for purpose document with valuable data insights delivered daily*
- ✓ *The Hub was scaled up quickly once the activation decision was made*
- ✓ *DOCs stood up quickly, utilising Yellowhammer experience*
- ✗ *There was no clear process or plan for resourcing in place and staff skills, grade and experience were not aligned to roles appointed*
- ✗ *Lines of communications between the Hub and the DOCs were poor*
- ✗ *The absence of SOPS and CONOPS made roles and responsibilities unclear*
- ✗ *The role of the FL was not clearly defined and absorbed responsibilities of the DCOS*
- ✗ *CCG meeting was not described as an appropriate forum for debate and decision making*
- ✗ *Absence of experienced and trained Civil Contingencies Policy Branch (CCPB) leadership in establishment and running the Hub*

Key Recommendations for Future Roadmap:

- Create an agile and suitably resourced Hub that can quickly flex to meet differing emergency requirements
- Build a robust civil contingency capability through a redesign and appropriately resourced CCPB - these staff will play key roles in all future C3 deployments
- Reconstitute CCG to provide both a forum for discussion and decision making at NICS leadership level yet still ensures Ministerial awareness and understanding during an emergency response
- Develop process for operational civil contingency to support the political machinery in a devolved Government
- Run an NI-wide annual exercise which includes the Executive to test C3 preparedness
- Build a blended resourcing model with a core team of experts (based in both CCPB and in the Departmental C3 structures), supplemented by volunteers and SMEs from HR, NISRA, etc.

Introduction

Introduction

The Northern Ireland Executive has set out its strategy for dealing with the COVID-19 crisis which is a national emergency requiring a collective and cross-departmental response. This response is based around three key themes:

- ▶ *Health and well-being of our citizens*
- ▶ *Our economic well being*
- ▶ *Societal and community well being*


The response was co-ordinated at the strategic level by the Civil Contingencies Group (CCG), chaired by the Head of the Civil Service (HOCS). The Executive met regularly during this period, reviewing progress against the strategic intent, and taking decisions escalated to it by CCG. Within this C3 structure, the NI Hub was intended to act as *"an enhanced CCG (NI) operations room to collate and disseminate information, coordinate multi-departmental/agency activities and planning, and filter/escalate decisions"* (C3-C19 NIHUB - SOP - V2).

This was the first time that NI C3 had been activated in response to a live event, therefore the lessons learned from this experience are invaluable for future events. Beginning in early March 2020 and accelerating at a rapid pace, the scale of disruption caused by Covid-19 was truly unprecedented and posed unique challenges in all aspects of work and life - the requirement for social distancing, strict government guidance for non-essential workers to stay at home, the rapid distribution of technology to enable remote working, the closing of all schools and nurseries and about 80,000 people required to shield at home in Northern Ireland. This consequently placed significant constraints on the availability of staff with the necessary skills and experience to perform the required C3 roles. C3 leadership worked quickly to identify and resolve these gaps, e.g. engaging external professional support to support in areas such as redesign, data analytics, training and reviewing components of C3, ensuring the C3 response worked successfully.

The role of NI C3 in the response to Covid-19 was invaluable and all volunteers in the DOCs, the Hub and across the C3 network who were involved in the effort must be commended for their important work in a highly volatile and ambiguous context. The purpose of this review is to build upon what has already been achieved in the stand-up of the NI C3 structure, identifying the lessons learned and recommended areas for improvement, to ensure C3 is prepared to address the medium and longer-term impacts of Covid-19, as well as other concurrent issues going forward.

Covid-19 C3 Outputs

In the four months of operation the C3 structures have produced significant outputs to support the NI response to the Covid-19 pandemic and some of these are highlighted below:



3 hub teams established across 3 sites

Nine DOCS established and feeding into the NI Hub Situation Report



62 Situation Reports

as of the 5th June




OFFICIAL SENSITIVE - DO NOT SHARE WITHOUT PERMISSION


DAILY NORTHERN IRELAND SITUATION REPORT 022

Wednesday 15th April 2020
Information correct as of 19:00

OFFICIAL - SENSITIVE Executive Office



Trained 100 Volunteers

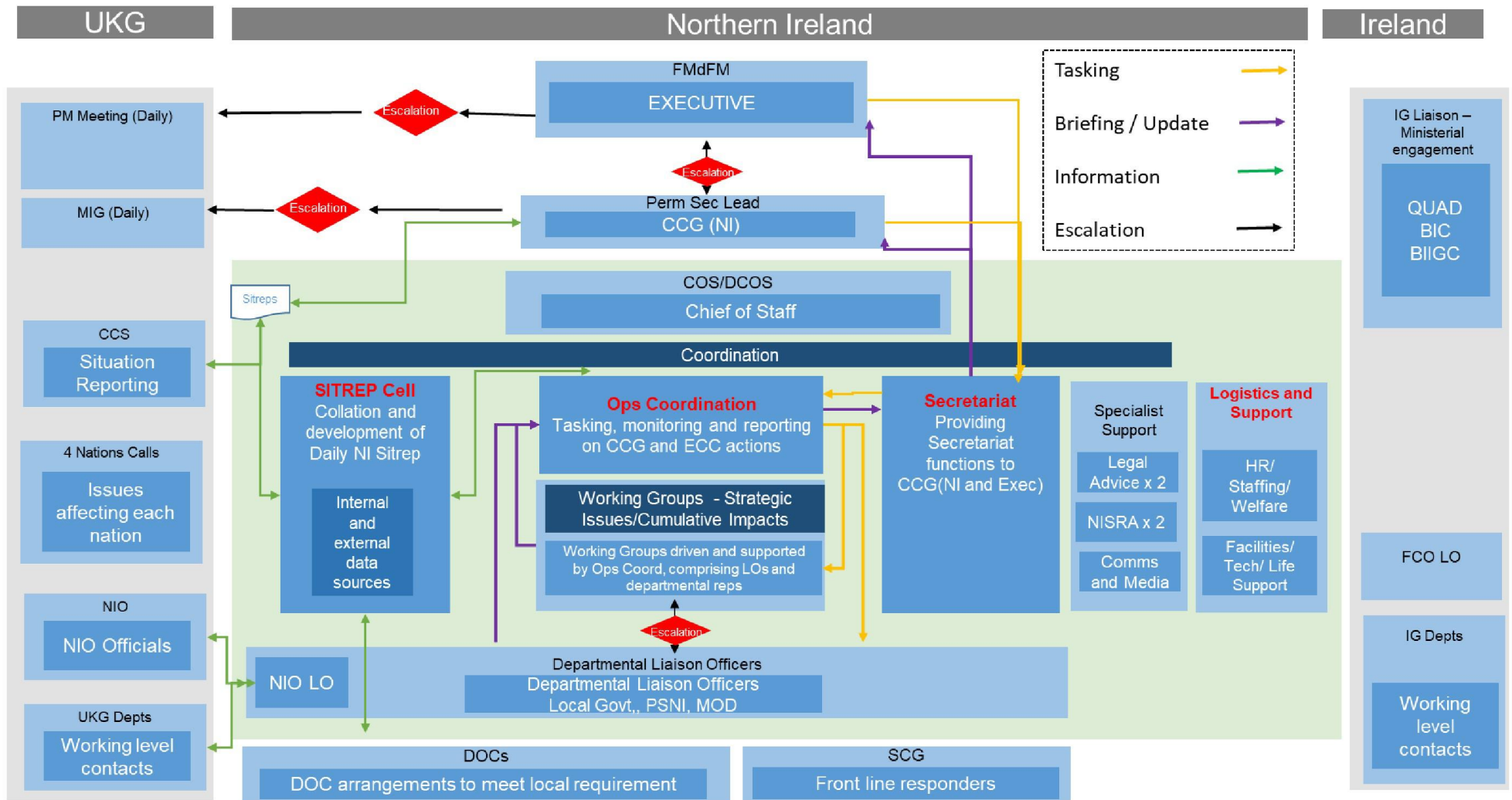


37 CCG Meetings



The Intended C3 Structure for Covid-19 Response

As a result of the COVID-19 pandemic, a fully operational C3 structure had to be implemented immediately. A bespoke model was required to meet the response needs of the Covid-19 crisis - this can be seen below:



Scope of Work

As this was the first time that any C3 structure had been deployed in Northern Ireland it was important that every effort was made to understand how the system performed in what were truly unprecedented times.

To help facilitate this, external support was requested to lead the lessons learned review. EY were engaged to provide the following:

- ▶ **A detailed review of lessons learned from the C3 Covid-19 response**, engaging with all the components of the C3 structure that was involved in the NI response to understand fully what worked well and where could improvements be made across the C3 network. A review of training was marked out of scope for the purpose of this report in order for the review team to maintain independence.
- ▶ **A roadmap to the target state**, providing a pathway to the required future capability of the C3 structures and their readiness to meet the likely concurrent challenges throughout 2020 and into 2021

This work will build upon earlier reviews carried out on both the NI Hub and DOC effectiveness. The Hub Capability Review carried out in April 2020 stated "identifying the lessons from this response period will be a key part of this work (maintaining readiness; Legacy NIC3) and should start to be captured now".

Report Approach

Understand current state and document lessons learned

- Information was gathered through a series of interviews and surveys across a number of C3 stakeholders. Representatives from the entire C3 network were engaged, including Junior Ministers, Head of Civil Service, Department Permanent Secretaries, PSNI Assistant Chief Constable, Hub and DOC teams. A full interview log can be seen in Appendix 3.

Identify gaps and prioritise improvement opportunities

- Conducted a thorough review of the documented reviews and key Hub documentation in order to understand how the deployment for Covid-19 delivered against what the Hub was originally constituted to do.
- Recommendations were made against issues and gaps identified in the lessons learned process and prioritise these for future implementation.

Define the roadmap to the target future state

- Outlined a clear path to achieving the desired target state for the C3 structures to be in a position to meet both current and anticipated civil contingencies.
- Signposted required future work to build a robust and sustainable C3 structure through a series of clear recommendations.

Sources of Information

Below is an overview of the interviews and surveys completed to inform the lessons learned, each interview was approximately 90 minutes in duration:

Capturing of insights from three hub teams:



56 Surveys

18 Feedback interviews

- ▶ Ops Coord
- ▶ Secretariat
- ▶ Sit Rep
- ▶ Liaison Officer
- ▶ Support Services
- ▶ Deputy Chief of staff
- ▶ Logistics support
- ▶ IT support

Functional Lead Interviews:

Chief of Staff Support	FL Sit Rep	FL Support Services	
FL Secretariat	FL Comms	FL Ops Coord & LO	FL DCOS

Leadership Interviews

- Hub Chief of Staff
- Head of Civil Service
- Department Permanent Secretaries
- Junior Ministers
- PSNI Assistant Chief Constable

DOC interviews:

High Level Findings

Overview of themes and sub-themes

As research findings were processed, four overarching themes emerged, each with a number of sub-themes:



**Due to EY's involvement in training delivery, this report does not include a review of training carried out with the Hub and the DOCs*

People, Resourcing and Support Services

People, Resourcing and Support Services

Background and emerging themes

Background

The C3 structure was activated and rapidly resourced in March in response to the Covid-19 emergency, supported by a call for volunteers by NICS HR and the Head of Civil Service. Nearly all DOCs were stood up rapidly throughout early to mid-March, with the exception of Health who stood up in January. DOCs were resourced first with selected volunteers then being assigned to the Hub. The Hub was established across multiple locations to reduce the risk of cross-contamination of the Covid-19 disease, with 3 full teams and 1 in reserve. Volunteers worked 12 hour shifts on a 3-week revolving rota at their team's dedicated location. The majority of DOCs mirrored the Hub working hours and shift patterns.

The NI Hub's volunteer pool was made up of a range of Yellowhammer-trained and non-trained staff whereas the DOCs were predominantly resourced by Yellowhammer-trained staff. The speed at which staff were mobilised meant there was limited opportunity for a comprehensive onboarding programme to bring volunteers into their new roles.

Emerging themes

Onboarding

It is unsurprising, given the context in which the Hub was stood up, that over 70% of the Hub team (Red, Blue and Yellow shifts) reported a negative to neutral response to the quality of their onboarding. Similarly, over half of the team felt the communications they received in the run up to joining the Hub were ineffective, with many Hub staff receiving 24 hours' notice or less to start work at the Hub. Once working in the Hub, there were a number of technical issues for teams working in a non-NICS building, however, these were quickly resolved once moving back into a NICS building with NICS wi-fi and printer access, with support from NICS estates.

Volunteers for the DOCs also experienced a speedy (and often virtual) onboarding process, with many being trained on-the-job in their roles. Remote DOCs also faced the challenge of establishing new processes for onboarding and working together without any physical co-location, however, they adapted quickly and were able to successfully establish effective remote ways of working early on in the response.

Resourcing

Regarding the skills and expertise of those recruited, it is notable that a small number of Yellowhammer-trained volunteers were staffed in the Hub for Covid-19, whilst many of the DOCs were staffed almost entirely by Yellowhammer-trained staff. The resourcing process was carried out rapidly to support the emergency response and this resulted in some issues in the Hub. Many Hub staff highlighted they had been assigned a different role to that which they had been trained for during Yellowhammer. There was also a misalignment between staff's skills and the subsequent role they were assigned - the Hub was made up of staff of varying departmental backgrounds and skillsets, such as economists and statisticians, and it was felt amongst staff that there was a missed opportunity to profile the competencies of existing volunteers and make an effort to align them to more suitable roles. As a result, staff began to feel underutilised and dissatisfied with their roles over time.

People, Resourcing and Support Services

Background and emerging themes - continued

Emerging themes continued

HR Support

HR issues around grade structures, temporary promotions, allowances and timecards/working hours caused some frustration, as staff felt it was at times unclear how standard NICS HR policy applied to the unique working situation of the Hub. The HR policies and procedures available on HR Connect remain applicable for C3 volunteers and a set of HR FAQs were made available in the Hub Welcome Pack, however, stronger HR presence would be a welcome addition in future iterations in the Hub to resolve specific staff queries which arise due to the fast-changing nature of working during an emergency crisis. This should also include a regularly updated set of tailored FAQs for C3 volunteers.

People, Resourcing and Support Services

Summary of key points and recommendations

Group	Key points raised by each group	Priority Recommendations
Hub Teams	<ul style="list-style-type: none"> Volunteers were quick to attend training and assume roles There was a lack of skills and experience matching in the Hub team resourcing The Hub is better suited to NICS premises HR was not part of the Hub structure Teams enjoyed cross-departmental working and knowledge sharing 	<p>Current State:</p> <ul style="list-style-type: none"> Develop detailed remote working protocols and triggers <p>Maintenance:</p> <ul style="list-style-type: none"> Develop a resourcing approach for the Hub and DOCs that is maintained, exercised and ready to be utilised Develop a maintained volunteer list that is regularly updated with staff availability and experience for various Hub scenarios Civil contingency experience should be incorporated, or considered as a requirement, in professional development Update role profiles so the skills, capabilities and grade required are clearly outlined and understood <p>Future C3 Stand-up:</p> <ul style="list-style-type: none"> Align skills, experience and background of staff with roles within the Hub and DOCs as part of the resourcing process Embed a dedicated NICS HR staff member within the Hub structure to resolve HR queries which emerged during operations Utilise the defined resourcing approach with support from NICS HR
Hub Leadership (COS, DCOS and FL)	<ul style="list-style-type: none"> Leadership were quick to assume roles and begin operating within the Hub No clear process/plan for resourcing in place The soft skills requirements of the Hub team roles were overlooked Lack of resilience or cover for the COS role 	
Departmental Operations Centres	<ul style="list-style-type: none"> Mostly resourced by Yellowhammer-trained staff, though some initially faced resourcing difficulties Remote DOCs worked quickly to put effective, remote ways of working in place Lack of recognition and reward for Hub and DOC staff 	
Civil Contingencies Group	<ul style="list-style-type: none"> The unique experience gained by Hub and DOC staff during Covid-19 is important and efforts must be made to ensure it is not lost 	

Please refer to [People, Resourcing and Support Services detailed findings](#) for all findings and recommendations

C3 Operations and Outputs

C3 Operations and Outputs

Background and emerging themes

Background

The C3 response to Covid-19 has largely followed the same structure as used in the Yellowhammer exercise scenarios, however, both the Hub and the DOCs have made various adaptations in order to flex to the unique situation of Covid-19. Within the Hub, this meant Deputy Chief(s) of Staff, Sit Rep, Ops Coord, Secretariat, Liaison Officers and Support Services were in place, overseen by Functional Leads and Chief of Staff at leadership level. The structure varied slightly across DOCs, however, all had a Chief of Staff in place and a Sit Rep lead, and many also had an Op Cell and/or a Policy cell.

The daily products in the Hub were the Hub Sit Rep, the CCG Meeting Actions, Minutes and Summary, the Action Log and the Knowledge Wall. Production of these products was moved to G Suite within the first few weeks of the Hub's operations, meaning Google Docs, Google Sheets and Google Slides could be used collaboratively to produce, edit and review Hub documents in real-time. The DOCs delivered a daily Sit Rep as well as a dashboard data return.

Initially, CCG met daily with the frequency of these meetings decreasing over time in response to the changing context of Covid-19, with the last meeting taking place on 21 May.

Emerging themes

Hub & DOC Operations

Staff interviewed expressed a sense of pride and achievement in being part of the C3 Covid-19 response, and the success of producing over 60 daily Hub Sit Reps can largely be attributed to the effective team-working displayed by all Hub and DOC staff, leadership and external support. All groups interviewed, including CCG attendees, noted that previous Yellowhammer experience was critical to the rapid and successful establishment and operation of the C3 response for Covid-19.

A common theme across all interviews, with Hub staff in particular, was the lack of clarity around roles and responsibilities, due to the absence of up-to-date SOPs and CONOPs. Most staff felt comfortable within the roles after carrying them out for 6-8 weeks despite initial difficulties, however, staff were less confident in their understanding of other roles within the Hub when asked: 55% of staff rated '1', '2' or '3' in response, with '1' meaning "Very weak understanding" and '5' meaning "Very strong understanding". Based on the interviews carried out, this lack of understanding typically applied to Ops Coord and Secretariat, who had a strong overlap in function in the initial weeks of the Hub's operations. Over time their responsibilities were refined, however, this consequently reduced the workload of each cell (over 55% of Secretariat and Ops Coord staff rated '1' or '2' when asked how they felt about their workload, with '1' meaning "Not enough" and '5' meaning "Too much").

C3 Operations and Outputs

Background and emerging themes - continued

Emerging themes

Hub & DOC Operations (continued)

The issues caused by the absence of SOPs extended to leadership, with the introduction of Functional Leads diluting the responsibilities of the DCOS role. Those fulfilling DCOS roles felt decision-making authority was unclear following the introduction of Functional Leads, and that the potential value of the DCOS role was lost as a result of this.

The absence of SOPs was equally felt by DOCs, whose staff were required to establish new procedures and frequently refresh their Yellowhammer SOPs whilst simultaneously responding to the sharp increase in workload brought on by the Covid-19 pandemic. However, many DOCs noted the value in having pre-established structure and procedures they could implement quickly in the initial weeks, and that they now hold detailed and relevant SOPs which are tailored for the Covid-19 environment.

Technology

The introduction of G Suite (Google Docs, Google Slides, Google Sheets) for Hub outputs was very positively received. When asked to rate the usefulness of G Suite in supporting team collaboration, 76% of Hub staff rated it as useful or very useful with 66% assigning the same rating to its role in supporting the efficient production of high quality outputs. The use of G Suite was particularly welcomed for its ability to support live, collaborative working on the Sit Rep document, regardless of location. The DOCs did not extract this value from G Suite due to limited licenses and access issues, and noted the benefit of Resilience Direct during Yellowhammer which allowed all C3 staff to have sight of DOC and Hub Sit Reps being produced.

Outputs

The Hub and DOCs successfully produced over 60 daily Sit Reps during their operation. The Hub Sit Rep was described by CCG attendees as an informative document that provided an overarching view of Department issues however, it wasn't considered central in informing decision-making. The data analytics and communications roles inputting into the Hub Sit Rep were recognised as having added great value.

It was acknowledged that the Knowledge Wall did not serve its purpose as a tool to support shared situational awareness. This was due to a range of factors, including the frequency of its updates, accuracy and relevance of content, as well as a lack of accessibility due to DOC staff not having access to G Suite.

The Hub Action Log went through several revisions before being deemed fit for purpose - it was effectively and collaboratively maintained by Secretariat and Ops Coord and shared with the DOCs via the Liaison Officers, and later using G Suite.

CCG Meeting

CCG was recognised by attendees as an informative session which facilitated a shared understanding of the key issues across Departments, particularly for Ministers, however, it was not described as an effective forum for debate and decision making.

C3 Operations and Outputs

Summary of key points and recommendations

Group	Key points raised by each group	Priority Recommendations
Hub Teams	<ul style="list-style-type: none"> Staff expressed a sense of pride in being a part of the Hub and a strong sense of team spirit The absence of SOPs and CONOPs made roles and responsibilities unclear There was an overlap between the roles of Secretariat and Ops Coord Introduction of G Suite was positively received Knowledge Wall content was not deemed informative 	<p>Current State:</p> <ul style="list-style-type: none"> Ensure ongoing maintenance and updates of the SOPs and CONOPs are carried out as required <p>Maintenance:</p> <ul style="list-style-type: none"> Reflective of current responsibilities in the Covid-19 Crisis Response Hub, Secretariat and Ops Coord role descriptions should be combined to create a single team DOCs should update existing SOPs with any learnings from the Covid-19 response period and revisit on a regular basis to ensure they are adjusted to suit changing situations A decision is required on the future role of working groups and whether they continue to operate inside or outside of the Hub C3 Reps in each department should be trained and supported to provide ongoing departmental awareness of C3 and associated processes and protocols for standing up in a civil emergency <p>Future C3 Stand-up:</p> <ul style="list-style-type: none"> Review the requirement for the role of Ops Coord depending on Hub structure - if working groups are coordinated by the Hub the role serves a purpose DOCs should have access to G Suite to use in collaboration with the Hub Reconstitute CCG for future deployment into a two-strand process, with a forum for briefing of Ministers
Hub Leadership (COS, DCOS and FL)	<ul style="list-style-type: none"> Having a Yellowhammer structure in place was hugely beneficial for a quick scale up The role of the Functional Lead layer not clearly defined, which partly diluted autonomy and authority of the initial role of DCOS 	
Departmental Operations Centres	<ul style="list-style-type: none"> Yellowhammer SOPs and CONOPs were informative and were adapted to suit the current crisis Could not access G Suite, but used other communication tools effectively to support remote working Varying confidence levels in the LO role Issues with DOC Sit Rep being accurately represented in NI Hub Sit Rep 	
Civil Contingencies Group	<ul style="list-style-type: none"> CCG meeting was seen as useful and informative, particularly for Ministers however it was not described as an effective forum for debate and decision making Sit Rep was not used for decision-making at CCG 	

Please refer to [Operations and Outputs Detailed Findings](#) for all findings and recommendations

Communications

Communications

Background and emerging themes

Background

The unprecedented circumstances brought about by the Covid-19 pandemic posed new challenges to the assumption from Yellowhammer exercising that various strands of the C3 structure would be co-located and/or meeting face-to-face, e.g. the NI Hub, DOCs, working groups, etc. The need for staff to be separated to work in different locations or from home posed some challenges to communications within the C3 structure, particularly communications within the Hub and communications between the Hub and the DOCs.

The Hub operates based on a daily rhythm which includes stand-ups at the start of a shift, mid-morning and mid-afternoon, typically to provide down reps from CCG and the Executive when meetings are taking place. Each DOC operated its own daily rhythm with similarities to the Hub, including morning stand-ups. A C3 Leads group also met once a week, led by the Functional Lead - Deputy Chiefs of Staff.

Emerging themes

In-hub communications

Staff noted the value of the 9.30am stand-up each day in communicating key messages to the team, as well as the use of mobile communication apps to keep the team updated on changes to shifts while off duty. The use of online communication tools such as Jabber soft phone and Google Meets video conferencing were positively rated, particularly for facilitating cross-site communication. Co-location was cited as being a positive facilitator of relationship development and communication, with staff regularly noting this as a very positive aspect of the Hub's operation. However, overall, communications emerged as a common pain point across all Hub teams, with 25% of Hub staff rating the communications during their time in the Hub as ineffective and a further 30% feeling neutral on the topic. In interviews across all 3 shifts, teams expressed frustration at changes being made to the Hub processes or their own cell-specific processes whilst off shift and without prior engagement with those affected by the changes. Examples included the shift to G Suite for producing Hub outputs like the Sit Rep, or changes to the responsibilities of the Secretariat and the Ops Coord. All staff members from all three shifts also noted a lack of communications surrounding the introduction of the Functional Lead layer and external consultants, which made it difficult for staff to understand the role and responsibilities of all individuals working in the Hub. This also put staff in potentially difficult positions when asked to share official sensitive information.

Hub-DOC communications

The Hub Liaison Officer role was critical in communicating to the DOCs from the Hub on a daily basis regarding information related to their own Department, however, the high-level communications between the Hub and the DOCs was limited and did not effectively facilitate shared situational awareness. DOCs noted there was minimal feedback from the Hub regarding their Sit Reps, as well as a lack of guidance around the requirements and expectations of the content to be included. Post-CCG, DOCs did not initially receive a down rep, hindering their ability to action points that were discussed related to their Department. C3 Leads felt their weekly calls progressively improved but that the forum could be more effectively utilised for knowledge transfer and the sharing of best practice moving forward.

Communications

Summary of key points and recommendations

Group	Key points raised by each group	Priority Recommendations
Hub Teams	<ul style="list-style-type: none"> 9.30am stand-ups and more informal communications, e.g. Whatsapp, were very useful Co-location was effective in facilitating relationship development and communications amongst the team New individuals joining the Hub were not formally introduced to Hub staff Changes to Hub processes which impacted staff roles were not always effectively communicated across all three shifts 	<p>Current state:</p> <ul style="list-style-type: none"> Continue to communicate with Hub and DOC staff around potential changes to the Hub as the C3 operations continue to scale down further <p>Maintenance:</p> <ul style="list-style-type: none"> Review the potential of the C3 bulletin as a useful channel for ongoing communications with C3 volunteers throughout the year Communicate planned vision and expectations for the future operations of the C3 structure to the DOCs to allow them establish aligned maintenance procedures <p>Future C3 Stand-up:</p> <ul style="list-style-type: none"> Continue to utilise daily calls while on shift and group messaging platforms while not on shift to maintain communication and information sharing with the teams Implement a down rep from CCG to the DOCs at the outset, facilitated by Hub Secretariat/Ops Coord A C3 contact list should be collated and shared with the C3 network Establish a weekly call between the Hub COS and all DOC COS Develop a terms of reference and agenda for the C3 meeting with suggestions for content and topics of conversation requested from the C3 leads and DOC COS
Hub Leadership (COS, DCOS and FL)	<ul style="list-style-type: none"> Google Meets and Jabber softphone were beneficial in facilitating cross-site communication COS led on the daily morning stand-ups and afternoon stand-ups when required Functional Leads and external support were not formally introduced to the Hub, causing confusion amongst staff 	
Departmental Operations Centres	<ul style="list-style-type: none"> The Liaison Officer role was crucial in establishing a line of communication from the Hub to the DOC There was limited communication between the Hub and the DOCs to communicate expectations of the DOC submissions and operational changes C3 Lead calls could have been better utilised to facilitate sharing of best practice across the network 	
Civil Contingencies Group	<ul style="list-style-type: none"> Initially, there were insufficient down reps of information from CCG meetings to DOCs - further findings related to CCG can be found in the detailed findings for C3 Operations and Outputs 	

Please refer to [Communications Detailed Findings](#) for all findings and recommendations

The C3 Lifecycle

The C3 Lifecycle

Background and emerging themes

Background

The C3 response was activated in March, with the Hub being stood up week commencing March 16th in response to the Covid-19 pandemic and almost all Hub staff being physically co-located across 3 locations. All DOCs were established either in advance of, or at the same time as the NI Hub at the request of their Permanent Secretary, with 6 out of 9 DOCs working remotely.

In response to the reduction in frequency of CCG meetings, with the last meeting on 21 May, the Hub's operations were scaled down from three teams to two in the week commencing 25 May, with a reduction in working hours. It will scale down again to a single team in the week commencing 8 June with the last Sit Rep issued on 12 June.

Emerging themes

Activation

The C3 structure was activated quickly upon realisation of the severity of the situation - CCG meetings were called daily, the Hub was stood up and rapidly resourced with volunteers and DOCs stood-up quickly with many activated in advance of the Hub. Though there was an existing activation plan for the C3 structure, it did not meet the needs of the unique circumstances presented by the Covid-19 crisis. This resulted in an absence of central C3 activation and coordination. The Civil Contingencies Policy Branch (CCPB), the lead branch for civil contingencies response in Northern Ireland, did not play a central role in stand-up and subsequent operations of the Hub due to the stay at home order issued by the Government.

Scaling

Although the trigger for standing up was not clearly defined, nor was there defined criteria for the escalation (or de-escalation) of the Hub, the C3 structure was able to scale up quickly and begin operating once the decision to do so was made. Similarly, it scaled down in response to the changing needs of the Covid-19 environment and the frequency of CCG meetings reduced quickly, however, there was a delay in changing the structure and resourcing of the Hub teams. When stood down, staff were adequately informed upon departure to remain alert to be called to return to the Hub in the instance of a relapse of Covid-19 and another potential scale-up of the Hub. There was an absence of communication with the DOCs with regards future plans, making it difficult for them to forward plan their scaling of resource.

Maintenance

As discussed throughout, the Hub and the DOCs benefitted from the prior experience gained during the Yellowhammer exercising scenarios to somewhat prepare them for working in a C3 environment, yet a vast number of Yellowhammer-trained staff did not return for the Covid-19 response. As the Covid-19 response is the first time the C3 structure has been stood up and operated in a live environment, the unique experience and insight gained from the various volunteers who staffed the Hub and the DOCs is crucial to maintaining corporate knowledge.

The C3 Lifecycle

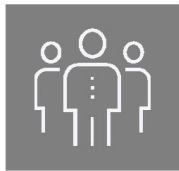
Overview of key points and recommendations

Group	Key points raised by each group	Priority Recommendations
Hub Teams	<ul style="list-style-type: none"> • Hub did not scale down quick enough in response to feedback or changes to CCG resulting in staff not being utilised to their full capacity • Staff received adequate communications when released from their roles during scale-down to remain alert for potential Hub reactivation 	<p>Current state:</p> <ul style="list-style-type: none"> • Develop and refine existing criteria for triggering of C3 activation as well as clear activation process guidelines that are maintained in a ready state • Carry out a CCPB preparedness review and subsequently, develop a deployment plan • Ensure alignment between the Hub and DOCs in their activation plans. Develop and refine existing plans. <p>Maintenance:</p> <ul style="list-style-type: none"> • Develop a plan to retain and maintain staff, which will include testing scenarios and communications • Establish a maintained volunteer list, regularly updated with staff availability and experience for various Hub scenarios • Further build the CCPB capability to support civil contingency and emergency planning across all departments in partnership with the C3 reps • Ensure there are additional staff trained in the leadership roles and that responsibilities are well documented in SOPs and CONOPs <p>Future C3 Stand-up:</p> <ul style="list-style-type: none"> • Build agility into the Hub so it can reflect the demands as they emerge • Connect with the Cabinet Office to understand the activation criteria
Hub Leadership (COS, DCOS and FL)	<ul style="list-style-type: none"> • Lack of defined criteria to trigger stand-up, however, Hub scaled up quickly when decision was made • Risk of losing corporate knowledge if Hub leadership do not return for future iterations • An absence of experienced CCPB leadership in establishment and running of the Hub due to stay-at-home order 	
Departmental Operations Centres	<ul style="list-style-type: none"> • DOCs initiated stand-up quickly, sometimes in advance of the Hub • Activation plans were not aligned with the Hub or with other DOCs, meaning DOCs stood up at different times with no central coordination 	
Civil Contingencies Group	<ul style="list-style-type: none"> • CCG occurrence was scaled back quickly to suit demand and requirement • There is no existing plan or structure for the operating of C3 response in potential concurrent issues of EU Exit, C-19 and economic recession • Important to retain the corporate knowledge and experience gained by C3 volunteers 	

Please refer to [The C3 Lifecycle Detailed Findings](#) for all findings and recommendations

Lessons Learned Conclusion

The detailed findings and recommendations provided in this report are a result of extensive engagement across the C3 structure, starting from CCG level (Permanent Secretaries and PSNI), through the Hub and into the DOCs. The themes which emerged from this review process not only reinforced the findings documented by other reviews regarding the effectiveness of the DOCs, the Hub and CCG, but also provided for the first time a complete overview of recurring systemic issues which flowed through several, if not all, aspects of the C3 structure. The key conclusions that can be drawn are as follows:



People, Resourcing and Support Services

Volunteers were required at all levels in order to activate and maintain the C3 response, many of which required an upfront investment in training and did not have civil contingencies experience. This investment has since created the benefit of a pool of experienced civil servants, and the skills of this group should now be maintained by CCPB in order to support the rapid resourcing of future C3 responses with appropriately skilled staff.



C3 Operations and Outputs

The processes, information flows and outputs associated with the C3 structure were not always fully understood or utilised correctly. This is because the unique situation presented by Covid-19, requiring social distancing, remote working and using multiple locations presented a challenge that had not been considered during Yellowhammer. This highlights the lack of agility when relying on a pre-defined structure for a planned event (i.e. EU Exit) and needs to be addressed in order to be better prepared for future planned and unplanned situations.



Communications

Poor communication flows contributed to the operation of the Hub and the DOCs as separate 'entities' and fed into a common lack of understanding around the role of the Hub. This ultimately impacted the quality and timeliness of information being fed into the centre, and at times reduced the value of the Sit Rep and CCG as a result. This in part reflected again the unique circumstances brought on Covid-19, as well as the loss of corporate knowledge from Yellowhammer, highlighting the critical need for a professional and agile civil contingencies function that provides leadership, expertise and consistency in the face of concurrent events.



The C3 Lifecycle

The protocols and criteria associated with the activation, scaling (up or down) and ongoing maintenance of the C3 network were not clearly established and remain unclear, posing a risk to NICS' preparedness for future events.

Lessons Learned Conclusion

Whilst many issues raised and recommendations made relate to the operational procedures of the live C3 environment (which should be applied in the next C3 response), the findings also point to a wider strategic gap regarding the civil contingency capability within NICS. When examined more closely, many of the C3 operational issues which arose during the Covid-19 pandemic can be attributed to a lack of sufficient preparedness, capability and retention of corporate memory at the core.

Almost all of those interviewed, from volunteers on the 'ground' up to Permanent Secretary level, noted the critical role that prior Yellowhammer exercising had played in the rapid C3 response to Covid-19, and questioned what might have happened had Yellowhammer not already taken place. Yet, even with the advantage of pre-defined structure, roles and processes to implement, C3 stakeholders were faced with the challenge of flexing the Yellowhammer approach quickly to suit the Covid-19 situation, whilst simultaneously co-ordinating their own response to the pandemic. As evidenced by this report, in some instances this worked very successfully, but less so in others. Based on what has been learned from the Covid-19 response, the fundamental importance of putting in place a professional, strategic civil contingency capability that is agile in the face of concurrent events, planned or unplanned, is clear. The recommended timeline and activities to achieve this objective are outlined in the future roadmap which follows.

Future Roadmap

Future State of the C3 Structure

C3 Performance during Covid-19

The C3 structures fulfilled a key requirement during the Covid-19 pandemic. The Hub and DOCs provided a vital role in ensuring the NI Departments and their respective Ministers had the shared situational awareness required to support effective decision making. The C3 approach in Northern Ireland will continue to play a part in any future civil emergencies, whether that be Covid-19, extreme weather, a hard EU exit or several issues running concurrently. Feedback from the DOCs all the way up to the Permanent Secretaries, the Head of the Civil Service and Executive Ministers have recognised the immense value in having a tested C3 structure in place, ready to deploy at short notice.

The C3 structure, as it was constituted for Covid-19, will also need to reflect on the feedback during this period and the lessons learned so it can meet the future needs of the Volunteers, the Departments and the Executive. The current structure will provide the foundation for the future with adjustments across the areas of people, processes, operations and structure to achieve its purpose of command, control and coordination of the NI response to the various emergencies that are both current and expected.

Elements of the C3 structure, such as the Hub, have an opportunity to become more agile in response to a crisis; it needs to be able to rapidly flex its structure to reflect the demands. For example, it was clear for the Covid-19 response that there was no longer a requirement for a fully staffed Ops Coord team and this role could have been combined with the Secretariat but this structure was not adapted and instead, responsibilities were split across the two cells.

Testing of capacity and capability of the C3 structures should be an annual activity, facilitated through CCPB, where they can exercise different scenarios. Whilst reflecting on past emergencies, this should be forward looking and challenge Departments to address their reasonable worst-case scenario in areas such as pandemics, extreme weather, winter health pressures and a hard EU exit. This should include Ministers so they understand their role in civil contingency which will in turn build the bridge from operational emergency planning into the political decision-making environment.

The future shape of C3 should be driven through the strategic, operational and people requirements. These will be coordinated through the Civil Contingency team as the subject matter resources.

Future State of the C3 Structure



Strategic requirements include...

- Civil Contingency strategy in place and understood by all key stakeholders
- Agile structure - not incident specific (EU Exit, Covid-19) but established to flex to the emergency, both rapid and long term
- Cross-departmental collaboration and resourcing

Operational requirements include...

- Tested tools and templates in place
- SOPs and CONOPs developed and adaptable to emergency requirements
- NICS estate in constant state of readiness to deploy

People requirements include...

- Trained and tested group of volunteers in place and ready for future deployment
- Professionalization of civil contingency capability both from the centre and across the C3 network
- Civil Contingency training curriculum in place

Future State of the C3 Structure

There now exists a need to learn from the experiences during the Covid-19 Pandemic and to build on the consolidated feedback not only from this period but from the various reports produced to address civil contingency capability across Government. Widespread consultation with Departments, Permanent Secretaries, PSNI, the Executive and all other key stakeholders as we reshape the C3 structures will build confidence in future deployments and when paired with a professional civil contingencies capability will put Northern Ireland in a much stronger position to deal with the likely concurrent challenges ahead.

Given the present great uncertainty relating to duration and impact of the pandemic, as well as the risks of a second wave, both nationally and locally, the C3 operation and the assumptions on team requirements will be kept under review. This will be scalable depending on the response required. There are greater risks in under-resourcing the teams than providing for additional contingencies and resilience.

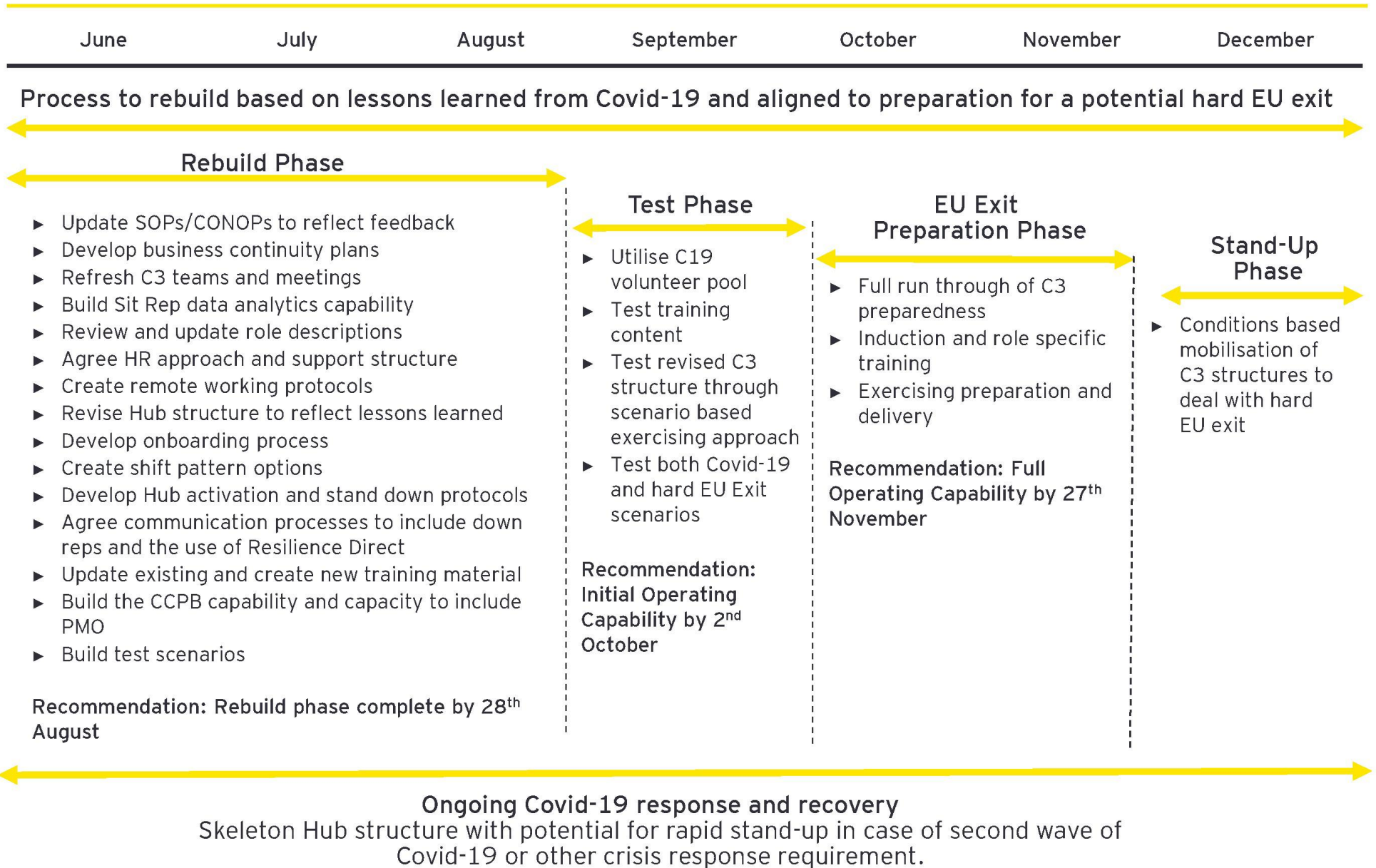
The Hub will put in place an interim team that will be responsible for the implementation of the findings from this lessons learned report as well as the previous documents that had looked at civil contingency capability. These are listed below:



The following have been outline in the next section:

1. Timeline and activities to rebuild and refine the C3 structures
2. Ownership of activities and any barriers to success
3. Suggested C3 structures under differing scenarios
4. Key decisions
5. Key Recommendations
6. Next steps

Timeline for Rebuild and Renewal of C3 Structure



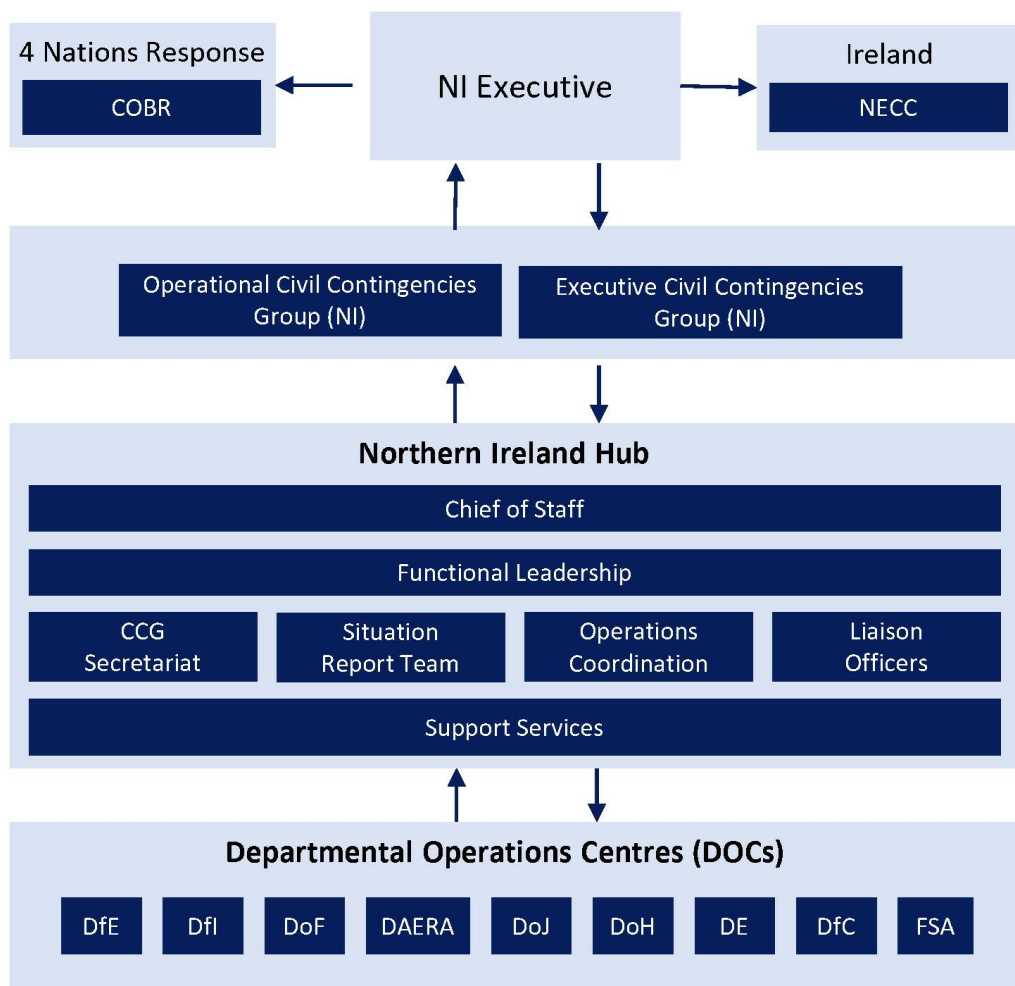
Future State Roadmap - Rebuild Phase

Activities	Ownership	Barriers to success
<ul style="list-style-type: none"> ▶ Update SOPs/CONOPs to reflect feedback ▶ Develop business continuity plans ▶ Refresh C3 teams and meetings ▶ Review and update role descriptions ▶ Agree HR approach and support structure ▶ Create remote working protocols ▶ Revise Hub structure to reflect lessons learned ▶ Develop on boarding process ▶ Create shift pattern options ▶ Develop Hub activation and stand down protocols ▶ Agree communication processes to include down reps and the use of Resilience Direct ▶ Update existing and create new training material ▶ Build the CCPB capability to include PMO ▶ Build test scenarios ▶ Develop approach and capability to build Sit Reps using data analytics 	<p>Hub Structure:</p> <ul style="list-style-type: none"> ▶ Owned by CCPB. They will maintain the SOPs and CONOPs and ensure it reflects the revised structure. CCPB will lead on all preparedness activities for any future C3 activation. They will also own the development of Sit Rep capability. <p>HR and Support:</p> <ul style="list-style-type: none"> ▶ NICS HR should provide a dedicated Hub resource to support CCPB with resourcing and onboarding volunteers. They will also develop a complete set of FAQs to deal with the range of issues that emerged during the Covid-19 response. <p>Capability & Training:</p> <ul style="list-style-type: none"> ▶ The Centre for Applied Learning (CAL) will support the development of new training material and the updating of existing material. They should do this in partnership with the Emergency Planning College (EPC). <p>Communication:</p> <ul style="list-style-type: none"> ▶ The CCPB will develop and manage the communication channels across the C3 network to include C3 leads engagement, DOC and volunteer awareness. They will work in partnership with Executive Information Service (EIS) to coordinate the approach. <p>Scenario Building:</p> <ul style="list-style-type: none"> ▶ Managed and coordinated by CCPB in partnership with EU Exit Preparedness team. Building on previous work for Yellowhammer. 	<ul style="list-style-type: none"> ▶ CCPB are not currently resourced to meet the requirements for owning the C3 structures. Significant investment in resource is required so CCPB can lead on building emergency planning capability across the NI estate. ▶ Lack of data analytics capability. There is a gap in capability across NICS to produce Sit Reps to the same standard as produced during Covid-19. ▶ NICS HR have been engaging from a distance. Welfare permitting, they need to provide a resource that will be physically present in the Hub for agreed periods. ▶ CAL need to get closer to the material and become recognised SMEs in this area. This will require working with EPC to build their capability and confidence in this area. ▶ Ongoing lack of Communications expertise in the Hub to focus on change communications, not EIS. ▶ Lack of engagement with C3 network when building scenarios will remove buy in from key stakeholders.

Future State Roadmap - Test and EU Preparation Phase

Activities	Ownership	Barriers to success
<ul style="list-style-type: none"> ▶ Utilise C19 volunteer pool ▶ Test training content ▶ Test revised C3 structure through scenario based exercising approach ▶ Test both Covid-19 and hard EU Exit scenarios ▶ Full run through of C3 preparedness ▶ Induction and role specific training ▶ Exercising preparation and delivery 	<p>Volunteers:</p> <ul style="list-style-type: none"> ▶ CCPB will coordinate the logistics for identification of volunteers in partnership with the C3 reps and NICS HR to cover both Covid-19 volunteers for testing Hub capability and then volunteers for EU exit. ▶ Preference will be to use volunteers who had been part of the Covid-19 deployment. <p>Training:</p> <ul style="list-style-type: none"> ▶ CAL will test the training content with the Volunteers both virtual and face to face to cover Covid-19 and EU Exit. CAL will then in partnership with EPC roll out induction and face to face training for EU Exit. <p>Exercising:</p> <ul style="list-style-type: none"> ▶ Managed and coordinated by CCPB in partnership with EU Exit Preparedness team. Build on previous work for Yellowhammer and delivered in conjunction with Cabinet Office requirements. ▶ Will also include Covid-19 type scenarios to build a more resilient and agile civil contingency capability. 	<ul style="list-style-type: none"> ▶ Covid-19 Volunteers are not released by their departments. This will impact the validity of changes made. ▶ Lack of Volunteers for EU exit. An ongoing problem that will require skilful messaging and a well-supported recruitment drive. ▶ C3 engagement and departmental support needs to be in place so that the scenarios are relevant, realistic and challenging. The C3 reps need to be present and engaged throughout the process. ▶ Lack of CAL capacity and capability. CAL are unable to resource the C3 demands due to volume of other work that had been on hold due to Covid-19 pandemic.

Revised C3 Structure



The C3 structure has been fully deployed during Covid-19 and delivered regular and frequent information updates throughout the period whether that be at CCG or through the Sit Rep documents.

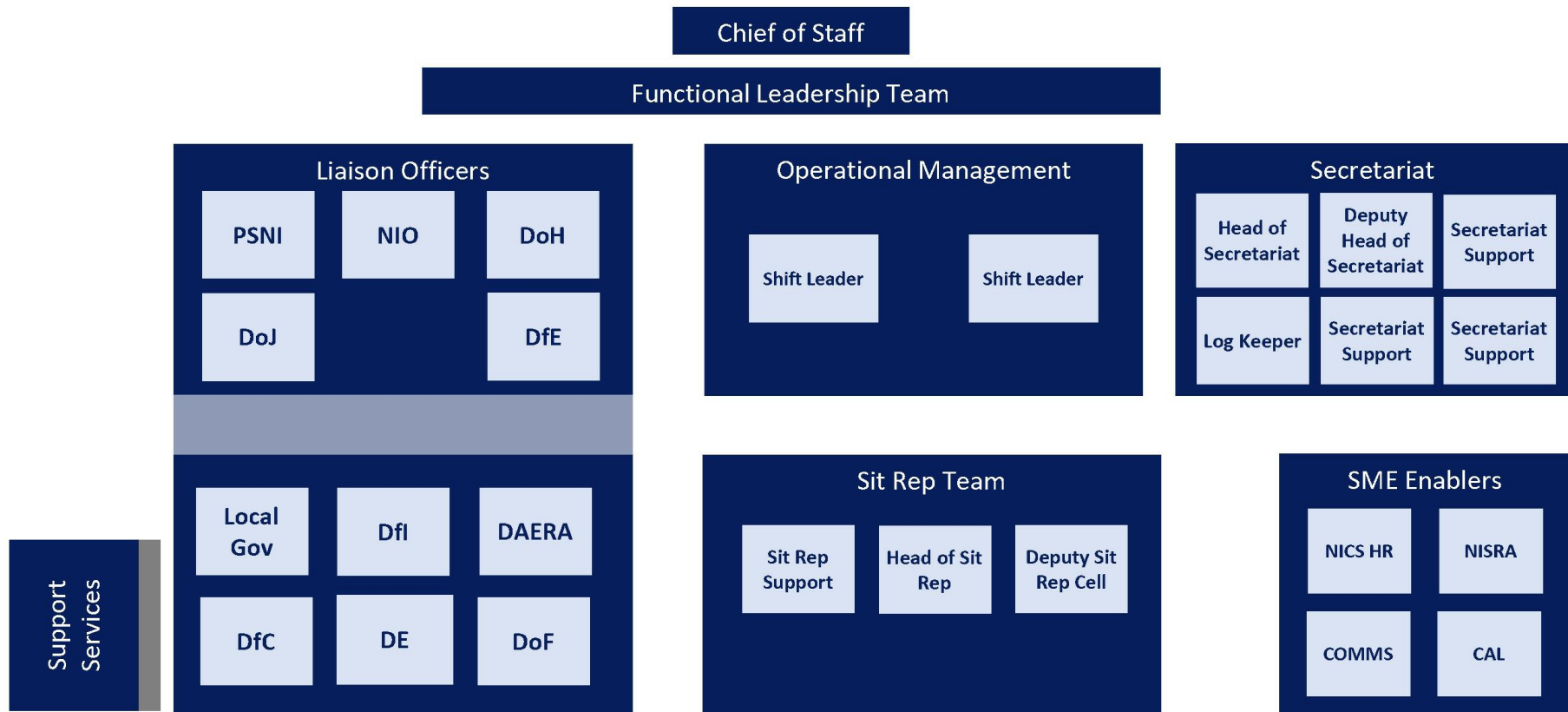
There are a number of adjustments to the structure that would improve future deployments:

1. CCG is broken into an operational and executive CCG. Operational is attended by senior civil servants and is focused on day to day operational challenges whilst the Executive is about ensuring the Ministers are informed and aware of all the key issues impacting NI that require their attention. Frequency will be dictated by the severity of the emergency. The Executive will remain as a further escalation point.
2. The Functional Leadership roles will remain as a support to the Chief of Staff and as owners of key Hub deliverables.
3. The Hub teams will flex to meet the specific requirements of the deployment and are discussed in more detail in the following slides.

Suggested Hub Structure for Covid-19 response

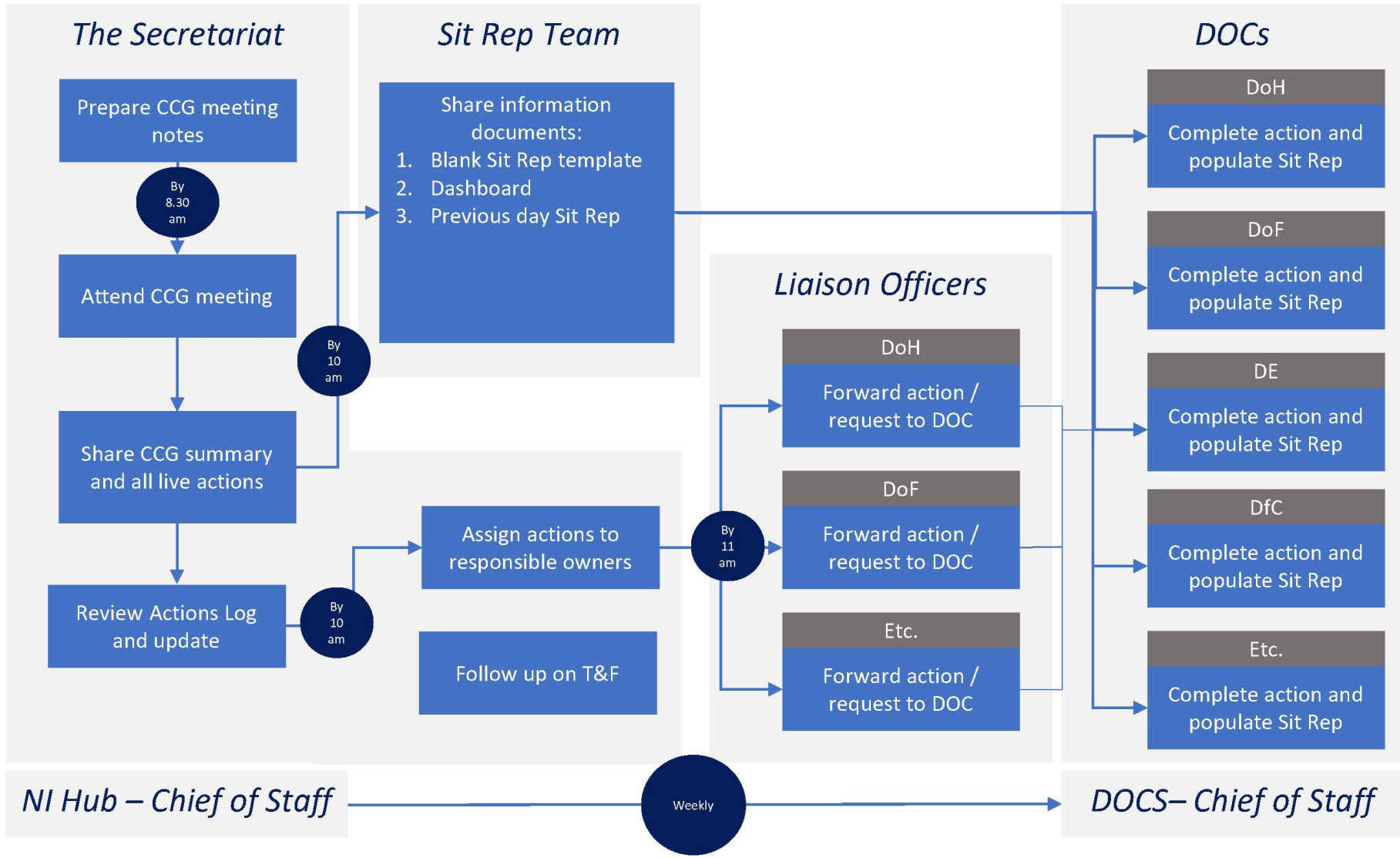
If standing up the Hub for a similar emergency in type or scale as Covid-19, the following structure is recommended. There is no longer a need for the Ops Coord team with the responsibility now resting with the Secretariat team. There are assigned desks in the Hub for the SME enablers which can be filled on either a part-time or full-time capacity.

The original DCOS role will become a Shift Leader. The Chief of Staff will be supported by a Functional Leadership Team.



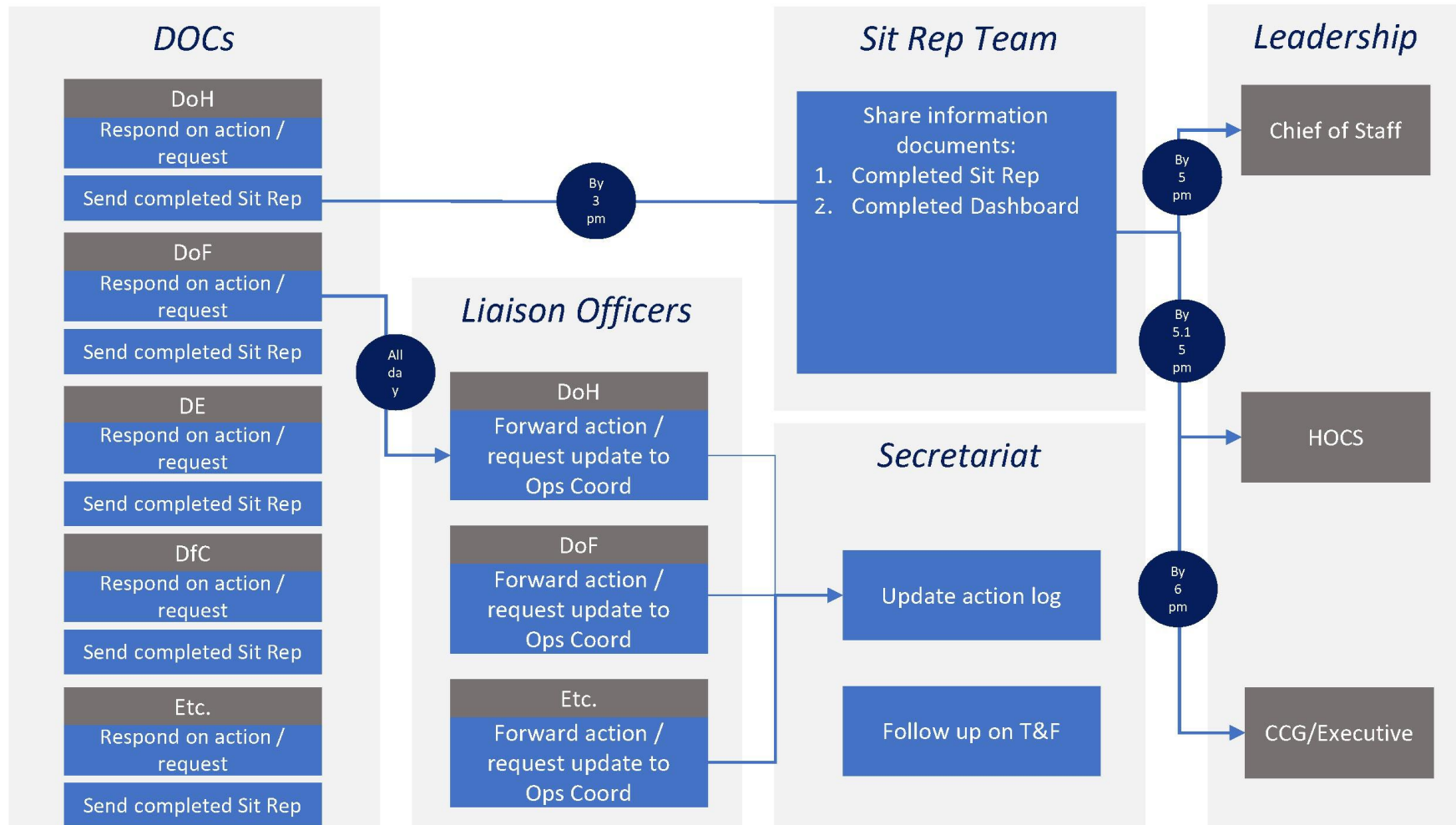
Suggested Outbound Information Flow

The below process flow details the recommended outbound information flow in the C3 structure:



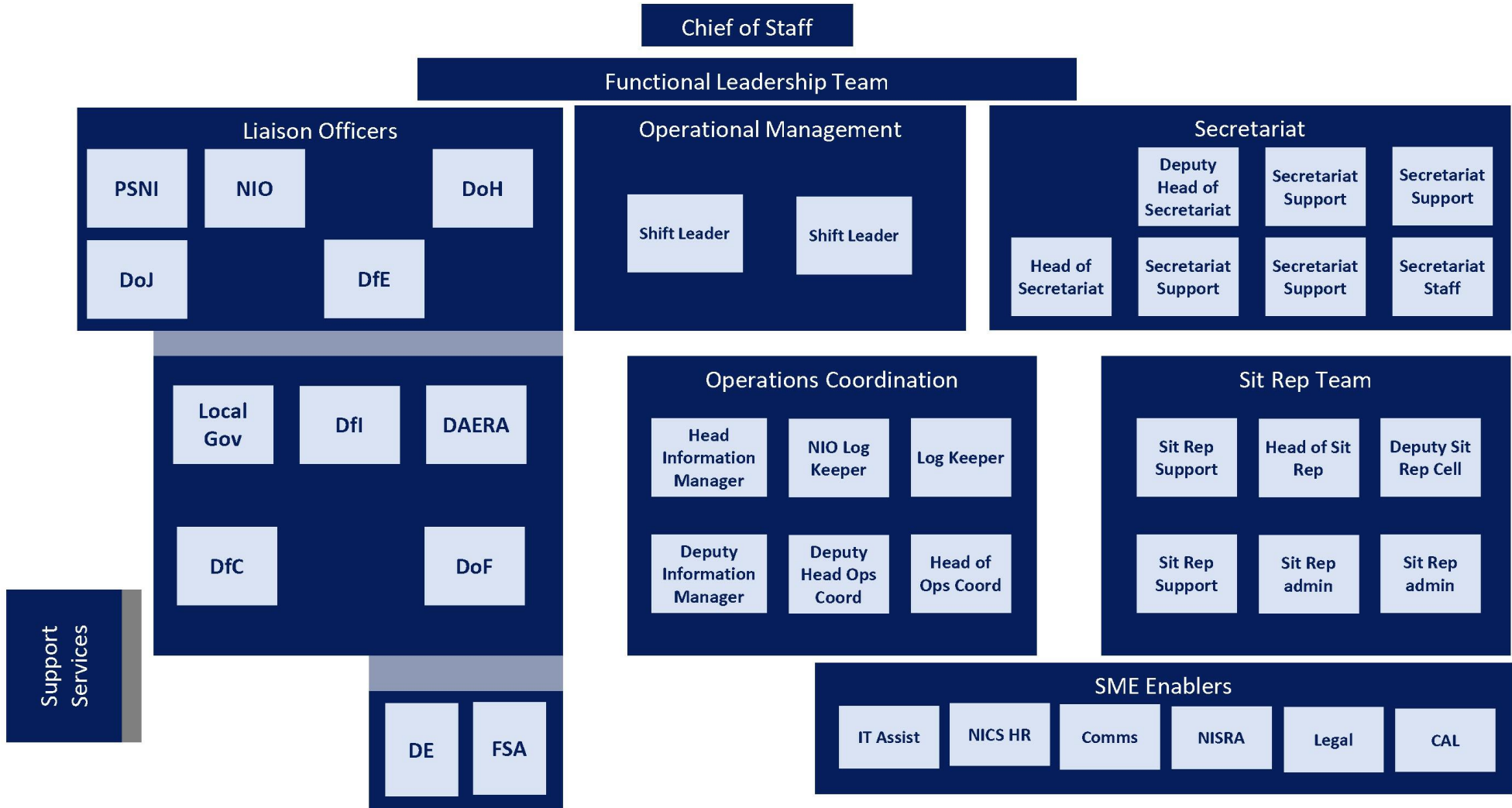
Suggested Inbound Information Flow

The below process flow details the recommended inbound information flow in the C3 structure:



Suggested Hub Structure for a Hard EU Exit

The structure below was recommended for the Yellowhammer no-deal Brexit and has been supplemented by some of the lessons learned from the Covid-19 response. It is more labour intensive and is predicated on working groups being driven from the Hub and not the Departments as per Covid-19 response.



Key Decisions to Drive Rebuild Phase

The Role of CCPB

- ▶ Are CCPB best placed to lead on the running of the Hub as part of their wider civil contingency role?
- ▶ If they are, how can they quickly be resourced to deliver this functionality?
- ▶ What levels of authority and decision making will they hold?
- ▶ How do they align with EU exit preparedness?
- ▶ Can we build the data analytics capability?

Hub Structure

- ▶ Is the existing structure fit for purpose or do we need a more flexible model?
- ▶ Do we require SOPs that reflect differing scenarios?
- ▶ Do we maintain capability to run up to three Hubs as per Covid-19?
- ▶ What role will the Functional Leads play in future deployments?
- ▶ What role will working groups play in future activation of C3?

Hub Resource Model

- ▶ Do we continue with a volunteer model or explore secondments/permanent roles?
- ▶ Could an expanded CCPB have permanent Hub roles?
- ▶ How should line management responsibility be managed in long term deployments?
- ▶ Should SME enablers be attached to the Hub - IT Assist, HR, CAL, EIS?
- ▶ How do we maintain the capability of trained volunteers?

Hub Activation

- ▶ What is the mechanism and criteria for activating the Hub?
- ▶ Who is responsible for activating the Hub?
- ▶ What is the criteria for standing down the Hub?
- ▶ Do we maintain the Castle Building Hub structure when not in use?
- ▶ Will triggers vary depending on the type of activation - e.g. Cabinet Office criteria for EU exit

The Future Role of CCG

- ▶ Should CCG run as constructed during Covid-19?
- ▶ Is there an alternative forum for Perm Secs to challenge and discuss outside of CCG?
- ▶ How do we ensure Ministers are briefed and informed if not via CCG?
- ▶ What triggers the activation of CCG and the subsequent scaling down?
- ▶ Does the Sit Rep need to change to meet CCG and Executive requirements?

Key Recommendations for Future State

Strategic

- Rebuild and reconstitute the C3 network across Departments to drive continuous improvement
- Put in place dedicated support mechanisms to support future rapid deployments - NICS HR, CAL, NISRA, SOSNI/NIO
- Reconstitute CCG so it provides both a forum for discussion and decision making at NICS leadership level yet still ensures Ministerial awareness and understanding during an emergency response
- Develop process for operational civil contingency mechanisms to support the political machinery in a devolved Government
- Develop a communication and engagement strategy and plan for any future deployment of the C3 structures - owned by CCPB and supported by EIS
- Develop an agreed cross departmental approach for use of volunteers in future activation - a reservist model.

Operational

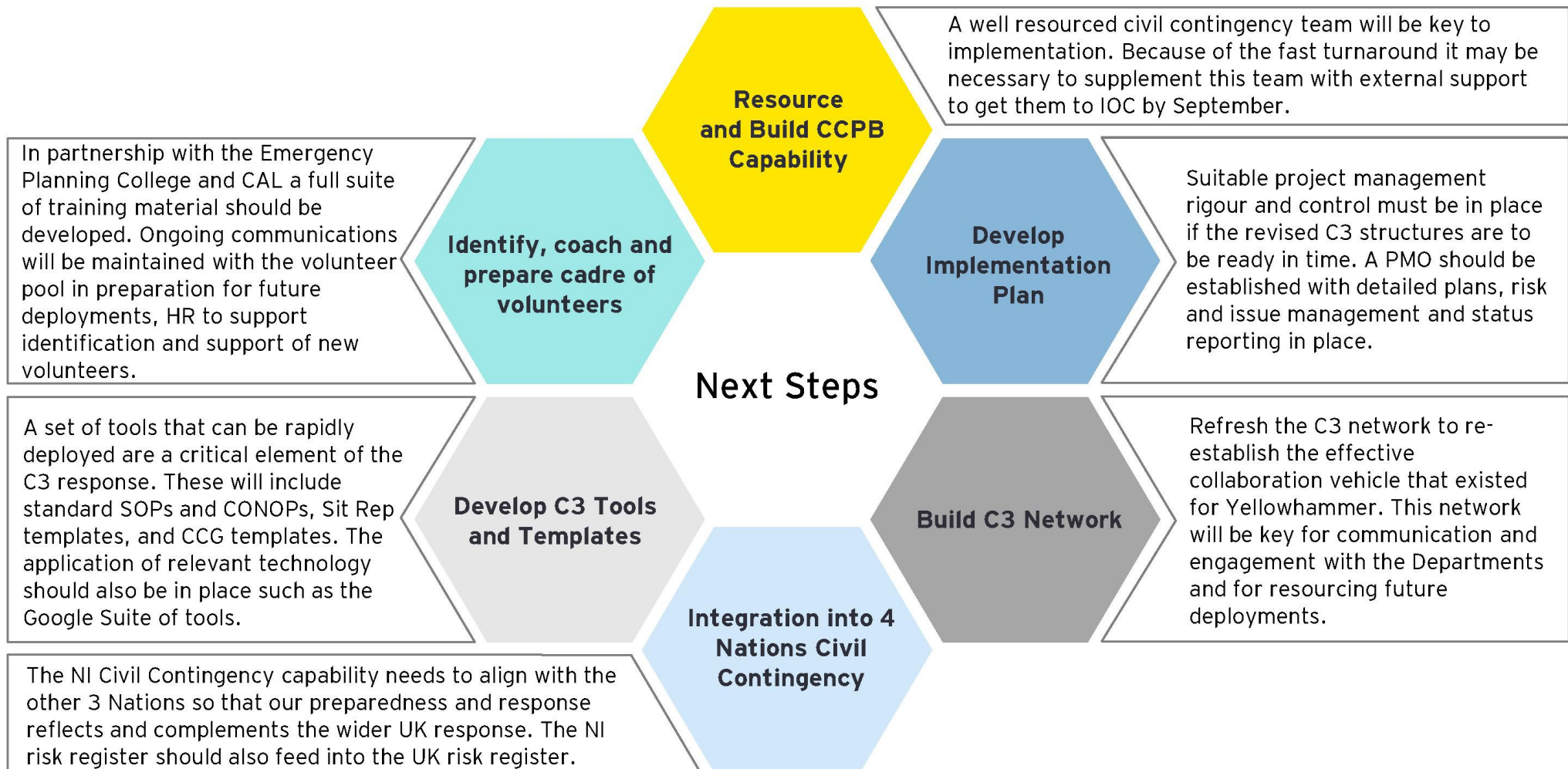
- Create an agile and suitably resourced NI Hub that can quickly flex to meet differing emergency requirements
- Build capability to effectively produce Sit Reps (both recovery and respond), utilising the data analytics developed during the Covid-19 response
- Update SOPs and CONOPs to reflect the differing civil contingency emergencies and the required response for each
- Run an NI wide annual exercise which includes the Executive to test C3 preparedness
- Develop effective horizon scanning capability to pre-empt emergencies where possible and allow early and appropriate activation of the C3 capability
- Build and maintain effective working relationships between CCPB and their counterparts in Wales, Scotland and England

People

- Build a robust civil contingency capability through a well-resourced CCPB - these staff will play key roles in all future C3 deployments
- Develop, in partnership with the Emergency Planning College and the Centre for Applied Learning (CAL), a cross departmental training curriculum with mandatory annual training requirements
- Embed effective project management rigour through CCPB - this should include a regularly maintained Northern Ireland Risk Register which feeds into the National Risk Register
- Build a blended resourcing model with a core team of experts (based in both CCPB and in the Departmental C3 structures) and supplemented by volunteers and SMEs from HR, NISRA, etc.
- Continue to invest training and communications with Covid-19 volunteers to maintain their willingness and readiness to deploy

Next Steps

To maintain momentum there are several recommendations that must be put into place quickly so that when we start to encounter the likely concurrent issues from September the C3 structures are in place, tested and suitably resourced.



Appendix

Appendix 1

Detailed Findings

Detailed Findings Introduction

This section outlines the detailed findings, the four themes are broken down into sub-themes as follows:



Each issues or observation has an impact and recommendation outlined against it:

Ref.	Issue / Observation	Impact	Recommendation	Priority
Unique ID	Outlines the issue raised or observation made	Provides detail on the impact that the issue or observation had on the operation of the C3 structure	Recommendation to build upon or make amendments based on the issue or observation	Priority ranking

Detailed Findings

Prioritisation approach

The recommendations in this report have been ranked according to **two criteria**:

1



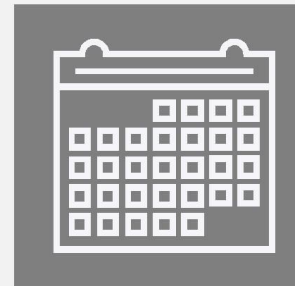
Level of importance:

- i. Must do
- ii. Should do
- iii. Could do

Colour:

	Must do
	Should do
	Could do

2



Appropriate timeframe for implementation:

- i. Current state
- ii. Maintenance period
- iii. Potential EU Exit Hub

Letter indicator:



Current state



Maintenance period



Future C3 Stand Up

Example:



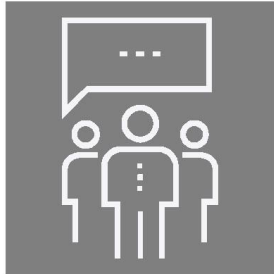
Importance: Should do

Timeframe: Maintenance period

People, Resourcing and Support Services

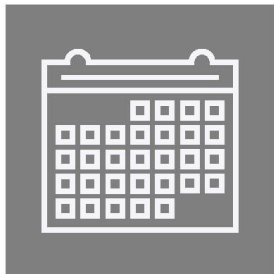
Detailed Findings Overview

The theme of People, Resourcing and Support Services has been broken down into detailed findings and recommendations covering three key areas:



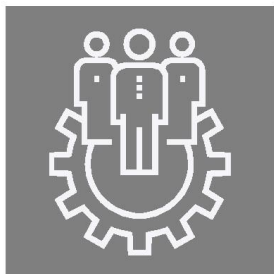
Recruitment and onboarding (excluding training)

- ▶ This section addresses issues and recommendations regarding the onboarding process of volunteers at the Hub in particular. (*Onboarding refers to the first contact made with a volunteer by the Hub up to their first day arriving at the Hub, excluding training.*)
- ▶ It also addresses the resourcing of staff into Hub and DOC role



Working environment and shifts

- ▶ This section addresses issues and recommendations regarding the physical locations of the Hub (Castle Buildings, Danske Bank, 9 Lanyon Place and Goodwood House), as well as the remote working simulations ran within the Hub.
- ▶ It also addresses the shifts, working patterns and daily rhythm of the Hub and the DOCs.



HR Support

- ▶ This section addresses issues and recommendations around HR Support which emerged for Hub staff. This includes the role of HR in the C3 structure, as well as issues around line management, grade structures and allowances for Hub staff.

Recruitment and onboarding (excl. training)

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
PR1	A C3 resourcing approach has not been defined or assigned ownership.	This resulted in a staff being dissatisfied with the resourcing process and created a misalignment of staff to roles. Many staff noted they felt their skills were not being utilised effectively. This can reduce likelihood of experienced staff returning to support future deployments.	<p>Ensure there is a clear process in place for resourcing that encompasses the Hub and the DOCs, which is maintained, exercised and ready to be put into action.</p> <p>A greater focus on the alignment of skills, experience and background with roles within the Hub as part of the resourcing process. CCPB should lead on a full refresh of role profiles so the skills and capabilities required are clearly outlined and understood.</p>	M
PR2	There was a lack of communication with volunteers during the onboarding process in the Hub. Ownership of onboarding was not clear and changed several times during the initial weeks.	The lack of coordination created a negative first impression for new joiners, resulting in frustrations amongst staff and mistakes being made in role assignments. This likely affected the Hub's efficiency and effectiveness in establishing its operations.	CCPB should work in partnership with NICS HR to establish an onboarding process. There should be an onboarding critical path that outlines the timeline for onboarding and the key dependencies and responsibilities. The Welcome Pack should be updated to address all staff queries about joining the Hub. Steady state onboarding when the Hub is stood up will be jointly owned between CCPB and Support Services.	M
PR3	Enough staff volunteered to create 4 Hub and 9 DOC teams including leadership, which were established, trained and operating quickly.	Given the uncertainty and risks to health created by the pandemic, it is commendable that such a large number of staff stepped forward and began working quickly.	There should also be a maintained volunteer list that is regularly updated with staff availability and experience for various C3 scenarios.	M

Recruitment and onboarding (excl. training)

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
PR4	There was a low return rate amongst Yellowhammer-trained volunteers.	An additional call for volunteers had to be sent to all NICS staff, resulting in a delay in resourcing for the Hub and the DOCs. Many staff joining the Hub were therefore inexperienced in civil contingencies. This made the onboarding and activation process more challenging as a result of the loss of corporate knowledge and experienced members of staff.	There should be a maintained volunteer list that is regularly updated with staff availability and experience Staff should be kept warm between periods of the Hub being stood up through exercising and regular communication. Civil contingency experience should be incorporated, or considered as a requirement, in professional development.	M
PR5	Hub Leadership used specialised external support to reinforce resource pool.	Quick deployment of specialist expertise supported the Hub's operations.	Use specialist support to develop Hub effectiveness as appropriate to the nature of the response.	F
PR6	The soft skills required to deliver Hub roles were underestimated, e.g. decision-making, problem solving, resilience and analysis.	This drove inefficiency in the process, particularly those that are time-pressured such as Sit Rep production.	Build on existing material to create a comprehensive training programme led by CCPB and supported by CAL, which should include a role specific curriculum covering process, behaviours and include an overview of how the Executive functions.	M
PR7	Most DOCs hand-picked or encouraged Yellowhammer-trained staff to work in the DOC.	Yellowhammer-trained staff were better equipped to work in the C-19 DOC which allowed for quicker mobilisation to IOC and FOC.	Retain Hub and DOC capability as the DOCs have shown that coming through Yellowhammer was hugely beneficial in delivering a quick mobilisation with trained and capable staff.	M
PR8	There is a lack of resilience and cover for the COS role.	Increases the risk of losing corporate memory and key decision making if that person is not available for any reason.	Delegate responsibilities to FLs where appropriate and ensure there are additional staff trained in the COS role.	F

Working environment and shifts

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
PW1	Significant technical issues with printing and access to the NICS network were caused by moving off the NICS estate.	It slowed down activities such as printing during key activities, e.g. Sit Rep production which created an additional issue when already working under time pressure. Some staff had to relocate due to ongoing network issues.	It is recommended that where possible, all Hub sites remain in NICS buildings. Appropriate contingency planning should be put in place to identify and equip estate to mobilise quickly as required.	F
PW2	The decision to move to Goodwood House and Lanyon Place was made quickly and executed without disruption to the Hub's operations.	Hub staff were able to work more productively in NICS location as they were not faced with technical issues.	Per Recommendation PW1, it is recommended that where possible, all Hub sites remain in NICS buildings. Appropriate contingency planning should be put in place to identify and equip estate to mobilise quickly as required.	M
PW3	The 3-week revolving shift pattern in the Hub created a large gap (9 days) between shifts every 2 weeks. Some DOCs adopted an alternate pattern that facilitated consecutive days.	The extended break reduced situational awareness and made it more challenging for Hub staff to get back up to speed upon return.	Review shift patterns as appropriate to number of teams, including consecutive days where possible. Establish a requirement for staff to be available on non-shift day(s) to monitor handover notes and inbox.	F
PW4	The remote working test lacked structure and commitment to approach.	Staff did not operate in a true work from home simulation, face to face conversations still took place, technology was not properly tested and so it did not test the work from home capability.	Implement a more structured approach and assign a team to command, control and coordinate the exercise. Heads of cells should be briefed in advance of the exercise to prepare their cells and ensure a commitment to the exercise. Complete a trial work from home day on a non-shift day to flow through the daily rhythm.	F

Working environment and shifts

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
PW5	There was a variance across DOCs in working location with 3 of the 9 DOCs physically co-located and the remainder working remotely.	There are positives and negatives to colocation and remote working under the current circumstances. Co-location facilitated good situational awareness and knowledge sharing however posed a greater health risk than remote working. Remote working also provided a larger available pool of resources as it did not eliminate those unable to work from an office due to health or personal restrictions.	<p>The preference when not dealing with a global pandemic is always to have staff co-located in a physical site as this greatly improves cross departmental collaboration and shared situational awareness.</p> <p>Future operating models should have the ability to flex to reflect the emergency environment. The remote DOCs should be commended on the speed at which they successfully established effective remote ways of working.</p>	F

HR Support

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
PH1	The unique working situation of the Hub presented specific HR queries.	These issues included questions around grade structures and temporary promotions, as well as who was responsible to authorise allowances for Hub staff (home department versus Hub). This caused frustrations across teams and would potentially deter volunteers from remaining in, or returning to, the Hub in the future.	<p>There is a need to set expectations of staff that daily roles and responsibilities will vary during an emergency response.</p> <p>The presence of HR in future stand-ups of the C3 structure is critical. The following options should be considered:</p> <ol style="list-style-type: none"> 1) Embed a dedicated NICS HR staff member within the Hub structure 2) Have regular HR workshops for staff to answer C3-specific queries 3) Create and maintain a set of HR FAQs tailored to the experiences of C3 volunteers 	F
PH2	The distinction between Logistics Support and the role of Support Services is unclear.	The introduction of logistics roles within the Hub reduced the workload of the Support Services team.	As per the Yellowhammer SOPs, it is recommended that Support Services retain ownership over logistics as part of their role responsibilities. They should be supported in this by NICS HR and receive role specific training for this aspect of the job.	C
PH3	The line management authority within the Hub was unclear.	Head of Cells approached by their teams on line management issues. A lack of clarity in responsibility and defined process resulted in issues not being addressed immediately or efficiently.	Line management responsibilities should fall within the DCOS remit of responsibility as the Shift Leader; therefore the SOPs must be updated accordingly to reflect this.	M
PH4	C3 volunteers appreciated leadership recognition of their efforts.	This had positive impact on morale and can encourage staff to volunteer again in the future, improving retention.	Recommend that there is a discussion had amongst leadership on rewarding and recognising volunteers for both current and future deployments.	C

C3 Operations and Outputs

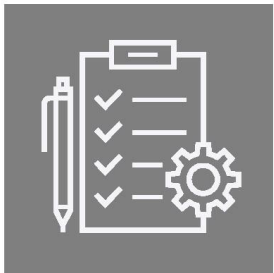
Detailed Findings Overview

The theme of C3 Operations and Outputs has been broken down into detailed findings and recommendations covering three key areas:



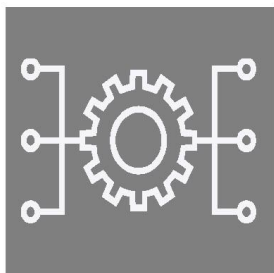
General Operations

- ▶ This section addresses issues and recommendations regarding the general operations of the C3 structure. This includes the role of SOPs/CONOPs in the Hub and the DOCs, as well as the use of technology (namely G Suite) in the production of outputs and for communications.



Hub Operations and Outputs (Hub Leadership, Sit Rep, Ops Coord & Secretariat)

- ▶ This section addresses issues and recommendations regarding the operations and outputs of the Hub's cells, including the production of the Sit Rep, the roles and responsibilities of Ops Coord and Secretariat and of Hub leadership.



Liaison Officers & DOCs, and CCG

- ▶ This section addresses issues and recommendations around the operations of the DOCs as well as the activities of LOs.
- ▶ It also addresses issues and recommendations regarding the effectiveness of CCG meetings.

General operations

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OG1	Previous Yellowhammer experience in NICS was critical to the successful stand-up and operation of C3 response to Covid-19.	Previous Yellowhammer exercising meant NICS had a structure to put in place immediately, as well as a pool of trained volunteers to draw from.	Develop a plan to retain and maintain staff which includes: > Exercising > Newsletter/Briefings There should also be a maintained volunteer list that is regularly updated with staff availability and experience for various Hub scenarios	M
OG2	Reviews of C3 components were carried out throughout live operations.	This helped to drive continuous improvement to the C3 structure and its operations.	Continue to look at ways to improve how Hub operates as part of the C3 structure.	C
OG3	Hub SOPs and CONOPs were not updated prior to the activation of the Hub and when completed they were not reflective of the full operating procedures in a Covid-19 response.	This resulted in a lack of clarity of cell roles and responsibilities causing duplication of effort and inconsistencies across teams. There was also lack of defined detail on Covid-19 specific protocol, for example what to do in the instance that a member of staff showed symptoms, or working from home protocols.	It is recommended that ownership of the CONOPs and SOPs is established early, to ensure ongoing maintenance and updates are carried out as required. The Hub should have an updated and agreed set of SOPs within two weeks of taking the decision to activate the Hub and ideally before any staff are deployed. Distribute the CONOPs/SOPs to Hub staff, and ensure updated versions are made available as required.	F
OG4	Throughout the day, work required across the C3 structure varied.	Staff working capacity varied from high to low intensity. Staff expressed feeling disengaged during longer periods of low intensity work. This was more common during the scale down of the C3 response.	There is a need to set expectations of staff that daily roles and responsibilities will vary during an emergency response. Review the Hub's schedule and structure on a weekly basis and adapt in an agile manner as needed, reduce team size in line with volume of responsibilities.	F

General operations

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OG5	Staff enjoyed the experience of working in the C3 structure, particularly cross-departmental relationship development, taking on a new challenge and feeling a sense of purpose during the crisis response.	This created positive morale and increased collaboration. This was reflected in conversations with both Hub and DOC teams, and the internal survey carried out which indicated majority of Hub staff would return to volunteer again.	As per Recommendation OG1, develop a plan to retain and maintain staff which includes: > Exercising > Newsletter/Briefings There should also be a maintained volunteer list that is regularly updated with staff availability and experience for various Hub scenarios	M
OG6	The introduction of G Suite was viewed as an extremely positive addition to the Hub.	Google facilitated collaborative working and the efficient production of Hub outputs, allowing multiple staff viewing or edit access to documents, most notably the Sit Rep and Action Log. Google Meets also proved more reliable and user friendly for meetings.	Collaboration and communication tools such as G Suite should continue to be used within the Hub. This must also be extended to the DOCs, to ensure the full value of collaborative technology is realised in the C3 network.	C
OG7	There was no designated governance and control roles within the Hub to define records management guidelines.	Initially, there was a lack of guidance on records management resulting in a delayed start on archiving and a backlog. There was also no records management policy outlined for G Suite edited documents.	Consider re-introducing TRIM team as per Yellowhammer Hub structure. In the absence of this, ensure records management guidance is clearly defined and communicated to all members of staff and responsibilities assigned.	F
OG8	Initially, there was no PMO function present within the Hub to develop and maintain a risk log, project plans, critical paths, governance and issue management.	A lack of reporting on key metrics around risk and delivery to plan resulting in leadership having limited sight of performance and risk mitigation.	PMO function should be embedded into the C3 structure with a defined role profile. They will own the plans, risk and issue management and will report on Hub delivery to the plan. They should begin operating when the Assessment Group is mobilised.	F

General operations

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OG9	The C3 ways of working was designed without provision for Ministerial presence.	Functions and processes were affected by this. The COS role required significant engagement to address Ministerial requirements and CCG was not designed for Ministers to be present.	Adapt C3 structure and function to suit Ministerial presence. Maintain FL layer with reduced number of roles in order to support COS. All staff in the C3 process should be briefed on the functions of the Executive and how they operate.	F
OG 10	There was a variance in value derived from handover notes across teams.	This causes a lack of shared situational awareness and makes it harder for the incoming shift team to respond quickly to requests when they do not have the context of the issue from the previous shift.	It is recommended that the following best practice is implemented for the handovers in the Hub: <ul style="list-style-type: none"> > Establishing a handover template for each cell to use, including Liaison Officers > Handovers set up as a running Excel document to allow staff to have visibility of all previous shifts > Populate the handover document throughout the day as issues arise, not at the end of the shift 	F
OG 11	The link between the NIO and the Hub was unclear to staff.	Reduced effectiveness in the link to Secretary of State.	It should be made clear to staff that NIO are the link to secretary of state. The Hub staff feeds into the reporting mechanism via NIO.	F
OG 12	The same shared passwords were used across multiple Hub accounts.	This creates a security risk, especially due to the official sensitive information being shared within the Hub.	It is recommended that more robust password management policies are introduced.	M

General operations

Detailed findings - DOC-specific

Ref.	Issue / Observation	Impact	Recommendation	Priority
DOC OG1	Prior Yellowhammer experience, existing structures and operations proved extremely beneficial in the establishing of the DOCs however these were not entirely fit for purpose in the Covid-19 context. Pre-existing SOPs were used as a basis and updated to reflect the context of the situation.	Pre-existing and established processes (SOPs) allowed DOCs to quickly react and establish their DOCs. DOCs without existing detailed SOPs struggled and had to rely on experienced staff which reduced resilience.	DOCs should maintain existing SOPs with any learnings from the Covid-19 response period and revisit on a regular basis to ensure they are adjusted to suit changing situations. Scenario planning should be used and incorporated into the SOPs. Experienced members of staff should be on hand to support when required and resilience needs to be developed around this through knowledge sharing and exercising.	M
DOC OG2	Communication and collaborative tools were found extremely useful across the DOCs, e.g. MS Teams and Jabber's chat functionality	Remote working was made more efficient as these facilitated the DOCs' ability to work from home and keep in contact with the Hub LOs.	DOCs should, at a minimum, have access to Jabber to facilitate chat and call functionality. If Google licenses were held by all, Google Meet could be used to facilitate sessions.	F
DOC OG3	None of the DOCs, due to varying technology and equipment issues, were able to utilise Google Suite to its full capacity.	The C3 network did not get full value of the Google Suite of tools and there was a technical disconnect between DOCs and the Hub	To get full value from Google Suite, DOCs should have Google licenses. At a minimum, the Head of Sit Rep and COS should have Google licenses to facilitate sharing of the DOC Sit Rep with the LO and also access to a live view of the Actions Log and Knowledge Wall.	F

General operations

Detailed findings - DOC-specific

Ref.	Issue / Observation	Impact	Recommendation	Priority
DOC OG4	Initially, laptops were not available for all staff in the DOCs.	Some, such as DfC and DoH, already had laptops ready to use. Others, like DoJ, had to invest in additional devices to support home working.	Ensure those who are likely to be called up to work in a DOC are assigned a work laptop. Laptops were predominantly required to facilitate home working but also allowed those sharing roles stay in touch during days off. CCPB should engage via the C3 meetings to identify which DOCs require IT kit and support the acquisition.	M

Secretariat and Ops Coord

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OOS1	Unique identifiers are not used to identify and link actions across the Action Log, DOC Sit Reps, the NI Hub Sit Rep and the CCG Agenda and minutes.	It is difficult to track the recurrence of the same action or issue across multiple documents.	Introduce unique identifiers into the templates of all relevant C3 documentation. Share this system with the DOCs to ensure consistency in approach.	F
OOS2	Initially, there was an overlap in the roles and responsibilities around Secretariat and Ops Coord. This has since been resolved, however, both cells lack sufficient workload to require 4 resources per team.	Staff working capacity varied from high to low intensity. Staff expressed feeling disengaged during longer periods of low intensity work.	<p>There is a need to set expectations of staff that daily roles and responsibilities will vary during an emergency response, however, the role of the Secretariat and Ops Coord will need to reflect the Hub operating model.</p> <p>For a Covid-19 type Hub we recommend the removal of Ops Coord from the org structure and increase the size of the Secretariat by one; this will provide capacity for the ongoing maintenance of the Knowledge Wall and managing the Hub mailbox. The Secretariat will then manage the CCG process and the Action Log. For a Yellowhammer operating model the Ops Coord will continue and will lead on the working groups requirement and ownership of the SOPs and CONOPs.</p>	F
OOS3	The Knowledge Wall has not lived up to its purpose in the Hub as a shared situational awareness tool.	The Knowledge Wall is not considered valuable by staff and was rarely used/read as it did not include any information that was not already communicated or circulated.	It is recommended that the content included in the Knowledge Wall is reviewed. This may include the addition of more live information such as health dashboards, press updates, social media feeds and/or a Common Recognised Information Picture (CRIP). It may also be useful to include a virtual noticeboard containing notices for staff.	F

Secretariat and Ops Coord

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OOS4	Initially, there was confusion over the role of Secretariat in MIG meetings.	There was an overlap in the responsibilities of the Hub Secretariat and TEO Secretariat resulting in the Hub Secretariat having less responsibility.	Ensure Hub Secretariat are sufficiently trained in the functions and expectations of the Executive so they can provide additional support to the broader Secretariat functions as required.	F
OOS5	Initially, Ops Coord were not on the attendance list for CCG meetings.	This made action management by the Ops Coord team more challenging, as they did not have the context of the being in the CCG meetings. As a result, some actions lacked detail.	If the responsibilities of Ops Coord and Secretariat were to be combined, they would then have this visibility. If Ops Coord continue with action management responsibilities, they should continue to attend CCG.	F
OOS6	The structure of Action Log evolved in response to feedback.	Action Log remains a fit-for-purpose and relevant document.	Maintain agile approach to Action Log structure and content, adapted based on audience feedback.	F
OOS7	Working groups were not established within or managed by the Hub.	This resulted in the Hub losing oversight of working groups and were unable to update on progress back into CCG.	A decision is required on the future role of working groups. If they continue to operate outside of the Hub then Ops Coord need to be represented on these working groups to ensure Hub understanding of progress. If returning back into the Hub then need to ensure Secretariat and Ops Coord are resourced to manage this.	M
OOS8	The daily meeting schedule displayed in the Hub each day was often inaccurate due to a lack of transparency in diaries.	The document lost its overall value because it could not be relied on for accuracy.	Move the daily meeting schedule to Google Docs, allowing relevant members of staff to edit directly and in real-time as meetings change.	F

Sit Rep

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OSR1	There were variances in the approach taken to complete the Sit Rep across teams (red, blue, yellow) and daily operations of the cell.	There was a variance in time taken to complete the Sit Rep and the level of detail included. Each cell also sent different documents to the DOC each morning.	<p>SOPs should be updated to reflect best practice. The Head of the Sit Rep should act as the decision maker and takes ownership of key development and main issues. The forward look and themes should be assigned to other members of staff and Communications be developed by the Communications role within the cell.</p> <p>Documentation to be issued to the DOC each day:</p> <ul style="list-style-type: none"> • Hub Sit Rep from the previous day • Blank DOC Sit Rep template • Dashboard return template 	F
OSR2	The Sit Rep evolved in the initial weeks in response to feedback.	Sit Rep remains a fit-for-purpose and relevant document.	Maintain agile approach to Sit Rep structure and content, adapted based on audience feedback.	F
OSR3	The data analytics included within the Sit Rep was seen as valuable.	Data analytics included in the Sit Rep added value to the document by providing insights across Departments and put Northern Ireland into a wider global context.	It is recommended that data analytics plays a key role in the production of Sit Rep and/or other key Hub outputs in future iterations, with the addition of trend analysis across metrics where appropriate.	F
OSR4	Initially, there was no Communications expertise within the hub, the Comms role was seen as a positive addition.	This role resulted in consistency, higher accuracy and correct language in communications aspect of Sit Rep.	Continue comms role in future teams / structures. The role will require incorporating data and insights from various online sources, working closely with EIS.	F
OSR5	Some DOCs felt their Sit Reps were not always accurately represented. They felt this was because the Hub lacked the wider context.	DOCs felt their information was not accurately depicted within the document.	Include executive summary of issues in DOC Sit Rep for the Hub Sit Rep Team to lift. The LO should have sufficient understanding of the DOC Sit Rep to ensure content has been accurately portrayed during the 5pm review period.	F

Sit Rep

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OSR6	Initially, Liaison Officers did not see the Hub Sit Rep until it was final and issued.	Liaison Officers did not have an opportunity to review the Sit Rep before being issued resulting in errors in interpretation.	Liaison Officers now receive sight of the Sit Rep at 5pm, which allows time for feedback. This step should remain as part of the Sit Rep review process, with a strict window of feedback time allowed.	F
OSR7	Multiple members of staff had edit access to the Sit Rep and participated in the review process.	Changes were made without engagement with the Sit Rep team causing confusion and the review process was extended.	<p>There is a need to define who must access the Hub Sit Rep, at what stage and what input they must provide.</p> <p>It is recommended that opportunities for input earlier in the day are identified, allowing the Sit Rep team to make further changes prior to the Sit Rep review with COS.</p> <p>It is recommended that any proposed changes to content is included in a comment on the document.</p>	F

DOCs and Liaison Officers

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OD1	Initially, there was not a joined-up approach to cross-cutting issues across DOCs.	Various DOCs submitted cross-departmental information without using shared language, which posed a challenge to the Hub Sit Rep team when consolidating the information.	<p>Improved cross-Liaison Officer communication later in the process resulted in improved identification of cross-cutting issues and sharing of Sit Rep extracts to ensure alignment.</p> <p>To facilitate this in a more structured way, Liaison Officers should have a daily meeting where they provide an issues overview/update to other Liaison Officers. All Sit Reps should also be shared across Departments for shared situational awareness. The use of a shared or collaborative platform would make this process easier, e.g. Resilience Direct which was used as part of the Yellowhammer response, or G Suite which was used during the Covid-19 response.</p>	F
OD2	Initially, both Hub staff and the DOCs shared a lack of clear understanding of the role of the LOs, and the skills and technical knowledge they require.	There was a reduced level of shared situational awareness. Knowledge, confidence, capacity and capability varied across LOs resulting in differing levels of effectiveness.	Review role profiles for the LO and ensure this is part of both the Hub and DOC SOPs. This should include grade requirements and role-specific training.	M
OD3	Not all DOCs shared draft Sit Rep with LO throughout the day due to a concern around sensitivity of the information pre-sign off by senior leadership.	Some LOs had no upfront view of the Sit Rep before it was submitted to the Sit Rep Team.	DOCs should have running communications with their LOs throughout the day to ensure they are well informed on the content to be included in the Sit Rep. If possible, draft versions of the Sit Rep should be shared for information purposes only. Following submittal of the Sit Rep, the DOC should make contact with the LO to ensure they have an understanding of any new information included.	F

DOCs and Liaison Officers

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OD4	The Hub did not always follow the correct lines of communication/process for contacting DOCs.	This caused confusion for the DOCs, resulting in a gap in information for the LO.	Requests to DOCs should always go through their LO. Any issues related to DOCs being contacted directly should be raised to the LO for them to feedback to the Hub the correct line of communication.	F
OD5	The line management of LOs within the Hub was unclear, due to their close working proximity to their department as well as the Hub.	This can cause confusion and leave Liaison Officers without appropriate line management.	Update the CONOPs and SOPs to reflect where Liaison Officers report to whilst working in the Hub, providing clarity on their relationships with the DOC, their Department and the Hub and under whose remit their records management falls.	M
OD6	Initially, Liaison Officers working remotely missed information being discussed in the Hub's daily stand-ups, prior to the introduction of Google Meets.	Liaison Officers working remotely were reliant on other LOs to relay updates from the Hub to them. There is a risk that remote liaison officers missed information which may have been critical to them carrying out their role effectively.	The introduction of Google Meets for daily stand-ups and other important meetings has helped to ensure those working remotely are kept up to date with updates from the Hub. It is recommended that a collaborative tool such as this continues to play a central role in the Hub's communications going forward.	F
OD7	DOC Sit Reps did not always receive adequate quality assurance before being sent to the Hub, as the Sit Rep team often had to respond to requests to remove, add or amend certain information.	This can cause a number of last-minute edits to the Sit Rep content, sometimes with requests coming after the document had already been approved by COS - therefore impacting the Sit Rep's approval process.	It is recommended that to mitigate this that the LO gets early sight of the DOC Sit Rep so they can sense check the content and provide clarification where required to the Sit Rep cell in the Hub.	F

DOCs and Liaison Officers

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OD8	There were various approaches to Sit Rep sign off across DOCs with multiple levels of sign off.	Multiple levels of sign off extends the drafting process in a time constrained task.	DOCs should establish a clear and simplified sign off process.	F

Hub Leadership (COS, DCOS and FL)

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OL1	The COS had strong oversight of Hub outputs.	This helped to ensure the high quality of Hub outputs.	COS input and oversight of key Hub outputs should be maintained.	F
OL2	The roles and responsibilities of the Functional Leads have not been clearly defined, documented or articulated.	The role of the Functional Leads did not always add the intended value and shared situational awareness across teams as their roles and responsibilities were unclear. Confusion around the function of the role was particularly evident in teams not on the same site as FLs.	The Functional Lead layer should remain, but with a reduced number of roles, as part of the C3 response. This is to provide support to COS and ensure consistency across multiple teams when required. The role should clearly defined and well communicated to members of staff with clear lines of communication established between FLs and the teams.	M
OL3	Leadership visibility on the floor was well received though staff felt there should be an increased amount.	Leadership visibility and interaction was a boost for team morale, feedback on performance and recognition of their work was positively received and instilled motivation and a sense of purpose in the staff.	Leadership visibility on the Hub floor should be continued and increased where possible.	F
OL4	The Functional Leads provided strong support to the COS.	This allowed the COS to delegate responsibilities.	The Functional Lead role(s) should continue in future iterations of the Hub in order to provide support to the COS, with the DCOS role being repurposed as a Shift Leader position. The role should be clearly defined and well communicated to member of staff with clear lines of communication established between FLs and the teams.	M

Hub Leadership (COS, DCOS and FL)

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OL5	The introduction of the Functional Leads partly diluted autonomy and authority of the initial role of DCOS	The DCOS role within the Hub became unclear, with lines of delegation and decision-making increasingly lead by the Functional Leads.	It is recommended that the DCOS role is repurposed as a Shift Leader position in future stand-ups of the Hub, with the Functional Leads providing support to COS. The SOPs/CONOPs should there be updated accordingly to reflect the operational role within the Hub.	M

CCG Meetings and Attendees

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
OC1	The audience at CCG was large with little visibility of attendees.	Prior to changes in technology, the large attendance at CCG meant important stakeholders were unable to attend due to capacity issues. This also creates a security risk as there could be unnamed individuals on the call. Attendees could not see who else was on the line and joining tones caused interruptions stifling conversation.	CCG meeting attendance should be monitored closely and technology such as Google Meets should be used so all attendees can be seen on screen and join without interruption to the conversation.	M
OC2	CCG meeting was seen as useful and informative, particularly for Ministers however it was not described as an effective forum for debate and decision making.	CCG meetings facilitated cross-Departmental information sharing and discussion but did not always drive debate and decision making.	CCG needs to be reconstituted for future deployments into a two-strand process. The first allows debate amongst Departments on issues, risks, options and actions. The second is a forum to ensure Ministers are regularly updated and have the appropriate level of awareness and understanding.	F
OC3	Over time, the Sit Rep featured less prominently in the CCG meetings, and was often covered in a summary.	The Sit Rep was considered a valuable document for information purposes, however, it was considered less valuable as a decision-making tool later in the process due to a slower pace of change and reduced issues being raised.	Adjust the frequency and content included in the Sit Rep depending on need. This should be an agile process with upfront and regular input provided by CCG attendees to ensure the document is continually providing value and informing decision making.	F

Communications

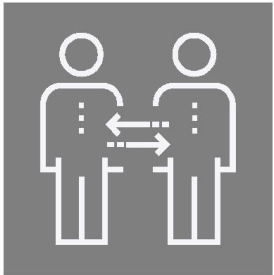
Detailed Findings Overview

The theme of Communications is broken down into detailed findings and recommendations covering three key areas:



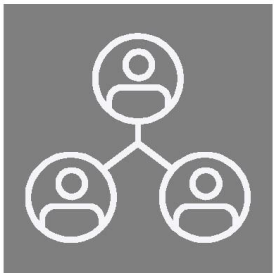
1. In-hub communications

- ▶ This section addresses issues and recommendations regarding the in-hub communications, including the communication of key process changes to Hub teams, notifying staff of changes to shifts and introducing new roles to the Hub (e.g. Functional Leads and external support).



2. Hub-DOC communications

- ▶ This section addresses issues and recommendations around the communication flows between the Hub and the DOCs, in particular relating to requirements and expectations around the quality and content the DOC Sit Reps.



3. Wider C3 communications

- ▶ This section addresses issues and recommendations around communications across the wider C3 network, namely the C3 Leads forum.

In-hub Communications

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
CH1	Teams were not always informed of changes made to Hub processes in advance of their shifts, including those affecting their own roles.	<p>Teams started shifts lacking sufficient overview of key changes which impacted their work, e.g. moving production of the Sit Rep to Google Slides, the handover of the Actions Log from Secretariat to Ops Coord.</p> <p>It impacts the morale of teams who feel they were not engaged prior to the introduction of changes that directly affect them.</p>	<p>C3 bulletin has since been launched. This has the potential to be a useful channel for key communications in the future.</p> <p>Where necessary, Functional Leads to update their cells with key developments from previous shifts.</p> <p>Intended major changes, e.g. to teams, processes or shifts, should be socialised by leadership, allowing for staff input and communicated to all staff members by Support Services.</p>	F
CH2	New staff, both NICS and Non-NICS, such as external consultants, were not introduced to the Hub teams.	Staff did not know what the role responsibilities were of new staff which lead to confusion and a lack of clarity in information access rights.	It is recommended that individuals joining the Hub be formally introduced to Hub by the COS/DCOS, including their name, organisation, role within the Hub and level of clearance if applicable. SOPs should be updated and circulated if this is a newly formed role.	F
CH4	Informal methods of communications, e.g. team group chats on mobile communication apps, were used effectively.	Teams were kept up-to-date with shift patterns and other important changes without needing to log onto their NICS laptops outside of work.	The use of mobile communication apps are encouraged as they are useful to share logistical updates with staff. A virtual noticeboard could be added to the Knowledge Wall to share these updates.	F
CH5	The 9.30am stand-up was considered valuable by Hub staff.	This ensured all staff were made aware of key development for the day, and important messages could be passed on when needed.	Ensure daily stand-ups continue to be a key part of the Hub's daily rhythm in the future.	F

Hub-DOC Communications

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
CHD1	There was a lack of initial and ongoing communication around the NI Hub Sit Rep and its requirements, and guidelines to completing the DOC Sit Reps to support this.	The quality and quantity of information required in the Sit Reps varied as DOCs were unsure if information being submitted was sufficient. Feedback to the DOCs was shared many weeks into the Hub's operations, however, DOCs interviewed felt this was too late.	The Hub should initiate early interaction with the DOC and provide guidance on Sit Rep completion as well as ongoing feedback on content included. This should be facilitated by the Sit Rep Cell in cooperation with the LOs with individual DOCs or grouped as appropriate.	F
CHD2	There was a lack of down repping of information from Hub to DOC around updates from CCG.	DOCs did not receive insights coming from the CCG meeting, contributing to a lack of situational awareness.	Down repping from CCG should be implemented at the outset, facilitated by Hub Secretariat/Ops Coord. Clear sensitivity guidelines for sharing of information with others within the Department should be provided.	F
CHD3	The Hub failed to inform the DOCs of changes to processes or of future plans for the Hub around team changes, working patterns, etc.	Forward planning was restricted and managing daily work patterns to mirror Hub changes was made difficult.	Communicate planned changes to the DOCs during C3 call. A call between the Hub COS and all DOC COS on a weekly basis is also recommended.	F

Hub-DOC Communications

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
CHD4	There was a lack of instruction and guidance from the Hub to the DOCs in regards to daily rhythm.	DOCs were stood up, in some instances in advance of the Hub, based on any existing Yellow Hammer knowledge, which varied across DOCs, resulting in inconsistencies. Lack of communication also resulted in misalignment in daily rhythms which impacted on developing a shared understanding across the Hub and DOC, for example, 3pm deadline was difficult to achieve for some DOCs due to other dependencies.	<p>The Hub should initiate early interaction with the DOC and provide guidance on any adaptations made to standard protocol. The Hub should also maintain regular communication flow with the DOCs regarding operations and expectations throughout the response period.</p> <p>There should be a call between the Hub COS and all DOC COS on a weekly basis, in order to understand the daily rhythm of DOCs and the associated dependencies.</p>	F
CHD5	DOCs felt there was a lack of clarity and consistency in request of the Cabinet Office Dashboard returns.	This made the data gathering process more difficult for the DOCs to complete.	<p>Ensure there are clear guidelines included with dashboard requests, followed up by training if required. There should also be a clearly outlined returns schedule that is well communicated with the DOCs.</p> <p>There should be a designated member of staff in the DOC with prior data experience responsible for answering data requests, particularly for the lead department. This may be a NISRA resource.</p>	F

Wider C3 Communications

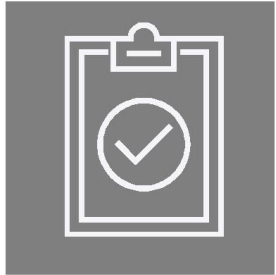
Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
CW1	There is an inconsistency across Departments in their understanding of the role of the Hub and the DOCs, and the relevant information that needs to be shared for C3 purposes.	Departments do not always understand the context of the requests being made of them for data and insights. Additionally, lack of understanding of the DOC requirements makes it more difficult for Departments to flag and/or escalate issues without being prompted.	Carry out awareness sessions with the wider Departments, providing them with an overview of the DOC and Hub's purpose and daily operations.	M
CW2	C3 meetings did not meet their intended objective during the Covid-19 response. They lacked challenge and had too many 'spectators'.	The value of the C3 network was lost, meaning the sharing of best practice and information across the DOCs was not facilitated.	A terms of reference and agenda should be developed for the C3 meeting. Suggestions for content and topics of conversation should be requested from the C3 leads and DOC COS. Forum needs to be more collaborative and sharing of experience and knowledge and with a smaller list of key attendees.	F
CW3	A comprehensive, up-to-date C3 contact list was not available.	DOCs did not have up-to-date contact details for each other, making DOC-to-DOC communication difficult.	A C3 contact list should be collated and shared with the C3 network.	M

The C3 Lifecycle

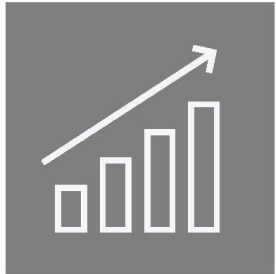
Detailed Findings Overview

The theme of the C3 Lifecycle has been broken down into detailed findings and recommendations covering three key areas:



Activation

- ▶ This section addresses issues and recommendations regarding the activation of the C3 response, including the criteria for standing up the Hub and the DOCs.



Scaling

- ▶ This section addresses issues and recommendations around the scaling up and down of the C3's operations, including team size and structure.



Maintenance

- ▶ This section addresses issues and recommendations regarding the ongoing maintenance of the C3 network whenever it is stepped down, including the continuity of corporate knowledge of volunteers and leadership, and preparation for future concurrent issues.

Activation

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
LA1	There was a delayed response in activating the Hub.	Many DOCs were stood up before the Hub resulting in a delay in direction and co-ordination from the centre, reducing time available for coordination of resourcing, onboarding and training of staff.	Develop and refine existing criteria for triggering of Hub activation as well as clear activation process guidelines that are maintained in a ready state.	M
LA2	There is a variance in how DOCs approached the standing up and daily operations of their Hubs.	Some DOCs had a more structured approach than others, daily rhythms and structures of teams varied which did not always reflect best practice established during Yellowhammer.	Ensure alignment between the Hub and DOCs in their activation plans. Develop and refine existing plans where necessary.	M
LA3	There was an absence of experienced CCPB leadership on the ground during the process of establishing and running of the Hub, due to the stay at home order issued by the Government.	There was a lack of clarity and direction at the beginning during activation of the C3 response as well as a loss of corporate knowledge from previous Yellowhammer experience. Hub reacting to the DOCs as opposed to setting the direction.	Carry out a CCPB preparedness review and subsequently, develop a deployment plan. There is a need to further build the CCPB capability to support civil contingency and emergency planning across all departments in partnership with the C3 reps.	M

Scaling

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
LS1	The C3 response reduced to reflect the changing requirements of the situation, e.g. CCG frequency of meetings was reduced.	This ensured the C3 processes remained efficient and fit for purpose.	The C3 response must be agile in changing circumstances and be prepared to scale up and down in response to the needs of the situation.	F
LS2	The C3 structure scaled up quickly once activated.	The structure became operational, with the Hub and DOCs quickly providing outputs to support CCG meetings.	Develop and refine existing criteria for triggering of C3 response activation as well as clear activation process guidelines that are maintained in a ready state.	M
LS3	There was a delay in reducing C3 outputs and staffing numbers in line with CCG occurrence.	Staff working capacity varied from high to low intensity. Staff expressed feeling disengaged during longer periods of low intensity work as CCG was reduced. Sit Rep continued to be produced daily, despite reduced occurrence of CCG.	The Hub did reduce its team sizes in the final few weeks of operation. However, it must be agile in its resourcing requirements and production of outputs in changing circumstances and be quicker to flex its size depending on need.	F

Maintenance

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
LM1	There is no existing plan for the operating of the C3 structure in potential concurrent issues of E.U. Exit, Covid-19 and economic recession.	Without clear definition of approach to dealing with concurrent issues, there is a risk that optimum value will not be obtained from the operation of the C3 structure.	Following on from lessons learned and previous reviews, a rebuild phase should create an agile C3 structure that is responsive to the current emergency.	F
LM2	There is no established maintenance plan for members of staff now experienced in the operations of the C3 structure.	Lack of maintained engagement with experienced staff would result in reduced situational awareness and increased requirement for re-training for future staffing needs.	Develop a plan to retain and maintain staff which includes: > Exercising > Newsletter/Briefings There should also be a maintained volunteer list that is regularly updated with staff availability and experience for various crisis scenarios.	M
LM3	Corporate knowledge risks fading if senior leadership do not return to their roles in the next activation of the C3 response.	Loss of corporate memory risks inefficiencies and lack of continuity next time the C3 response is activated.	Ensure there are additional staff trained in the leadership roles and that responsibilities are well documented in SOPs and CONOPs.	M
LM4	It is felt that there was a lack of buy-in to the C3 structure by the departments during the Covid-19 response.	This resulted in resistance to share information and a lack of visibility to cross-departmental collaboration.	C3 Leads in each department should be empowered, trained and supported to provide ongoing departmental awareness of C3 and the processes and protocols for standing up in a civil emergency in the future.	M

Maintenance

Detailed findings

Ref.	Issue / Observation	Impact	Recommendation	Priority
LM5	The operation of C3 in response to Covid-19 was the first opportunity to use the structure in a live environment.	This allowed a review of operations and identification of opportunities of improvement.	Carry out a CCPB preparedness review and subsequently, develop a deployment plan. There is a need to further build the CCPB capability to support civil contingency and emergency planning across all departments in partnership with the C3 reps.	M
LM6	There is a absence of professional qualification in civil contingency within the C3 structure.	NICS is lacking experienced staff with the right technical knowledge and experience in business continuity and emergency response planning.	Invest in professionalising the core civil contingency staff. This should be carried out by CAL in partnership with EPC.	M
LM7	Lack of visibility of Hub risk register as the Hub moves from crisis into recovery and then rebuild.	There is no clear process around how risks are added to the risk register - they are events-driven, which can be too late. No evidence of feeding into a national risk register.	A C3 risk register needs to be created and shared. It needs to be forward-looking, not purely events-driven and owned by CCPB as an ongoing living document. This will support localised risk and feed into national risks.	M

Appendix 2

Hub Roles and Responsibilities

Roles and Responsibilities

Role	Yellowhammer SOP Description	C19 SOP Description	Actual role during C19
Chief of Staff	<ul style="list-style-type: none"> Lead the Assessment Group and NI Hub Decide on NI issues and BRAG ratings Coordinate NI Hub staff branches in support of CCG(NI) intent Approve all Sit Reps, papers and plans prior to submission 	<ul style="list-style-type: none"> Leadership and management of NI Hub and reporting to CCG(NI), the Executive and Ministerial Impact Groups 	<ul style="list-style-type: none"> Attended CCG Led on the readouts from CCG to the Hub Approve final Sit Rep Ongoing liaison with Perm Secs and the Executive
Deputy Chief of Staff	<ul style="list-style-type: none"> Deputise for the Chief of Staff Liaise directly with the Impact Groups over issues Liaise directly with DOCs and the SCC over issues Produce briefings for officials and Ministers as required 	<ul style="list-style-type: none"> Deputise for the Chief of Staff, providing leadership and management of NI Hub, reporting to CCG(NI), the Executive and the Ministerial Impact Groups 	<ul style="list-style-type: none"> Day to day running of the Hub Support production of Sit Rep Escalate issues to COS
Functional Leads	<ul style="list-style-type: none"> Role did not exist in Yellowhammer 	<ul style="list-style-type: none"> No details provided on this role in the C19 SOPs 	<ul style="list-style-type: none"> Drive a consistent approach is taken by three teams across three shift patterns Manage delivery and outputs for their respective products' such as Sit Reps and Action Logs
Head Support Services	<ul style="list-style-type: none"> Responsible for the provision of all logistical support to the NI Hub Responsible for the provision of all personnel, follow-on training and welfare support to the NI Hub Maintenance of C3 staffing table and shift planning and informing C3 staff communications Deliver C3 design change control 	<ul style="list-style-type: none"> Management of NI Hub logistical and personnel support, security and business continuity. Provide fast brief training to staff who are working in the HUB but have not received training/ are now operating in a different role. 	<ul style="list-style-type: none"> Logistics team delivered much of this - organised lunch, managed rotas, supported staff with HR queries, dealt with IT requirements
Logistics Support - Technical Support, Infrastructure. Life Support	<ul style="list-style-type: none"> Provision and maintenance of all secure and non-secure voice and data comms in the NI Hub. Provision and maintenance of all real estate and infrastructure/furniture the NI Hub. Provision of all catering and life support 24/7 as required 	<ul style="list-style-type: none"> Provision and maintenance of all secure and non-secure voice and data comms in the NI Hub. Provision and maintenance of all real estate and infrastructure/furniture the NI Hub. Provision of all catering and life support 24/7 as required 	<ul style="list-style-type: none"> Technical support Google issues and support

Roles and Responsibilities

Role	Yellowhammer SOP Description	C19 SOP Description	Actual role during C19
Head of Secretariat	<ul style="list-style-type: none"> Deliver secretariat support to CCG(NI) and enhanced decision-making, including driving actions management Oversee the drafting and collation of CCG(NI) papers Drive critical information requirements management 	<ul style="list-style-type: none"> Management of secretariat to drive meeting minutes, actions and briefing papers to and for CCG(NI) 	<ul style="list-style-type: none"> Led team responsible for running CCG Collated all papers for CCG Collated minutes and actions from CCG Issued actions to Ops Coord for follow up
Deputy Head of Secretariat	<ul style="list-style-type: none"> Deputise for the Head of Secretariat, and support to Enhanced Decision-Making 	<ul style="list-style-type: none"> Deputise for the Head of Secretariat. 	<ul style="list-style-type: none"> Collated all papers for CCG Collated minutes and actions from CCG Issued actions to Ops Coord for follow up
Secretariat Staff (x2)	<ul style="list-style-type: none"> Drafting of meeting minutes and policy options papers 	<ul style="list-style-type: none"> Drafting of meeting minutes and policy options papers 	<ul style="list-style-type: none"> Collated all papers for CCG Collated minutes and actions from CCG
Head of Ops Coord	<ul style="list-style-type: none"> Deliver the smooth running of the NI Hub daily rhythm and key meetings Drive lessons management Drive joint working groups to develop plans and policy options Facilitate shared situational awareness and information management Maintain current operational picture and deliver records management Owner of the C3 design, SOPs and change control process Responsible for designing and delivering any C3 exercises as required 	<ul style="list-style-type: none"> Management of the Ops Coord Cell to enable the smooth running of the NI Hub 	<ul style="list-style-type: none"> Managed Ops Coord team Manged the action log and issued actions to LOs for follow up Trimming material
Deputy Ops Coord	<ul style="list-style-type: none"> No Role in Yellowhammer 	<ul style="list-style-type: none"> Drive the battle rhythm, action management and shared situational awareness across the NI Hub. Head of Working Groups 	<ul style="list-style-type: none"> Maintained Knowledge Wall Follow up on actions with the Los Managed Hub mailbox Trimming material

Roles and Responsibilities

Role	Yellowhammer SOP Description	C19 SOP Description	Actual role during C19
Log keeper 1	<ul style="list-style-type: none"> Record all operational events and actions on the NI Hub Knowledge Wall and act as a central point of external contact 	<ul style="list-style-type: none"> Act as the central point of contact in the NI Hub, and maintain the ops log and rolling brief 	<ul style="list-style-type: none"> Maintained Knowledge Wall Follow up on actions with the Los Managed Hub mailbox Trimming material
Head of Sit Rep Cell	<ul style="list-style-type: none"> Management of the Sit Rep cell, ensuring the timely and accurate collation, analysis and dissemination of Sit Reps, up, down and across the NI C3 structure 	<ul style="list-style-type: none"> Management of the Sit Rep cell, ensuring the timely and accurate collation, analysis and dissemination of Sit Reps, up, down and across the NI C3 structure 	<ul style="list-style-type: none"> Decision making Working with DCOS/COS on final version Issue materials to DOC Allocation of work across team to complete Sit Rep
Deputy Head of Sit Rep Cell	<ul style="list-style-type: none"> Collation, analysis and drafting of NI Sit Rep 	<ul style="list-style-type: none"> Collation, analysis and drafting of NI Sit Rep 	<ul style="list-style-type: none"> Complete agreed section of the Sit Rep as directed by Head of Sit Rep
Sit Rep Staff	<ul style="list-style-type: none"> Collation, analysis and drafting of NI Sit Rep 	<ul style="list-style-type: none"> Collation, analysis and drafting of NI Sit Rep 	<ul style="list-style-type: none"> Data input from Doc Sit Rep into NI Hub Sit Rep Logistics, printing TRIM, record keeping
Comms Support	<ul style="list-style-type: none"> New role - did not exist in Yellowhammer 	<ul style="list-style-type: none"> Not included in C19 SOPs 	<ul style="list-style-type: none"> Own the Comms sections of the Sit Rep.
Liaison Officers	<ul style="list-style-type: none"> Provision of dept advice to the Assessment/Working Groups, drafting dept Sit Rep submissions, and facilitating situational awareness and coordination between depts and the NI Hub 	<ul style="list-style-type: none"> Provision of dept advice to the Assessment/Working Groups, drafting dept Sit Rep submissions, and facilitating situational awareness and coordination between depts and the NI Hub 	<ul style="list-style-type: none"> Liaison point to address queries from Hub into the Doc Follow up on actions allocated to their respective departments from CCG Support Hub Sit Rep team to complete NI Hub Sit Rep

There were a large number of posts listed under Yellowhammer that were not replicated in the Covid-19 response. These are listed below:

- NISRA x2
- Head of Media Cell
- Press Officers x3
- Pers Sp - HR Planning, Welfare, Business Continuity and Security

Appendix 3

Interview Log

Interview Log

	Name	Role	Date
CCG Attendees	Karen Pearson	Director of EU Relations	27 May 2020
	Richard Pengelly	Permanent Secretary for DoH	28 May 2020
	Peter May	Permanent Secretary for DoJ	28 May 2020
	Derek Baker	Permanent Secretary for DE	28 May 2020
	David Sterling	Head of Civil Service	29 May 2020
	Katrina Godfrey	Permanent Secretary for DfI	29 May 2020
	Mike Brennan	Permanent Secretary for DfE	01 June 2020
	Tracy Meharg	Permanent Secretary for DfC	01 June 2020
	Brian Doherty	Dep. Permanent Secretary for DE	02 June 2020
	Alan Todd	Assistant Chief Constable	02 June 2020
	Declan Kearney	Junior Minister	02 June 2020
	Gordon Lyons	Junior Minister	02 June 2020
	Hub Leadership	Anthony Harbinson	Chief of Staff
Alison Clydesdale		FL Sit Rep	19 May 2020
Andy Cole		FL Ops Coord	20 May 2020
NR		FL DCOS	20 May 2020
Bernie Rooney		FL COS	20 May 2020
NR		FL Comms	22 May 2020
NR		FL Secretariat	22 May 2020
Support	NR	IT & Logistics	3 June 2020
	NR	Data Analytics	9 June 2020
	NR	NICS HR	10 June 2020

	Name	Role	Date
DOCs	Anthony Carleton, NR	DfC	18 May 2020
	NR	DfI	19 May 2020
	NR	DoF	20 May 2020
	NR	DoH	20 May 2020
	NR	DfE	21 May 2020
	Doreen McClintock, NR	DoJ	21 May 2020
	NR	DAERA & FSA	22 May 2020
	Mark Mawhinney, Andrew Welsh, NR	DE	02 June 2020
	NR		
	NR		

Interview Log

	Name	Role	Date
Red Team	NR	DCOS	3 June 2020
	NR	Sit Rep Team	19 May 2020
	NR		
	NR	Ops Coord Team	20 May 2020
	NR	Secretariat Team	20 May 2020
	Jane Holmes, NR		
	NR	Liaison Officers	20 May 2020
	NR		
NR			
Blue Team	Donal Moran	DCOS	18 May 2020
	NR	Sit Rep Team	14 May 2020
		Ops Coord Team	14 May 2020
		Secretariat Team	14 May 2020
		Liaison Officers	14 May 2020
		Support Services	14 May 2020

	Name	Role	Date
Yellow Team	NR	DCOS	3 June 2020
	Anne Tohill, NR	Sit Rep Team	19 May 2020
	NR	Ops Coord Team	20 May 2020
		Secretariat Team	20 May 2020
		Liaison Officers	20 May 2020
		Support Services	22 May 2020

Appendix 4

Documentation Review

Documentation Reviewed

Document Title

CCPB(NI) Futures Report - PWC, November 2019 (summary attached in Appendix B.1)

DOC Effectiveness Review - PWC, April 2020 (summary attached in Appendix B.2)

Hub Activation Plan

Hub Effectiveness Review - Mark Byers, NIO, April 2020 (summary attached in Appendix B.3)

Hub Teams Internal Lessons Learned Reports (Red, Blue, Yellow) - April/May 2020

Covid-19 SOPs and CONOPs, as of May 2020

Yellowhammer SOPs and CONOPs, as of May 2020

CCPB(NI) Future Reports: Summary

In November 2019, PWC issued a report making “initial recommendations for enhancing NI’s capability to plan for, respond to, and recover from civil contingencies at different scales in the future”. A summary of the key recommendations are below:

Recommendations

Organisational

- ▶ A scalable civil contingencies operating model should be formalised which allows a graduated response by departments, based on increasing scale, duration and complexity of the situation
- ▶ A review of CCG(NI) governance and attendance should be conducted to ensure that the right grade mix and decision makers attend
- ▶ Determine the role and functions of CCPB in the overall NI civil contingencies structures, and determine the staff roles, structures and skills required for those working in CCPB and align staffs to these roles
- ▶ Formal agreements with departments would ratify willingness to allow staff to move into their volunteer roles
- ▶ Formalise the current pool of C3 staff across all NI departments as a standing cadre of C3 volunteers, appropriately trained and held at readiness to support CCPB and departments in the event of an emergency

People

- ▶ Establish a vision for CCPB - this might see the branch become a NI centre of excellence, given the lack of NICS expertise in wider risk management and business continuity planning
- ▶ Create clear job descriptions for those working within CCPB and the associated departmental staff (i.e. C3 leads),
- ▶ Establish a defined set of skills for those working in civil contingencies, with clear metrics for progression and improvement
- ▶ Civil contingencies becomes a standard specialism pathway for permanent staff across all NICS Departments
- ▶ Establish a formal training programme for all NI civil contingencies staff
- ▶ Incident management training for those in senior positions within C3 response
- ▶ Maintenance of a training catalogue, regularly reviewed to meet the needs of the department
- ▶ CCPB articulates and embeds a working culture for the branch

Processes

- ▶ Establish planning assumptions around different scales, readiness and concurrency of NI’s civil contingency response against the most likely scenarios, with rigorous testing via a NI-wise exercise of all departmental contingency plans
- ▶ Produce clear planning guidance for civil contingency planning, for validating existing and new contingency plans across Departments

Technology and Infrastructure

- ▶ Utilise existing software, e.g. Google, to enhance knowledge sharing and connectivity between departments

DOCs Effectiveness Review: Summary

In April 2020, PWC conducted a health diagnostic of all 9 DOCs at the request of the NI Hub leadership team, in order to assess their effectiveness. The key conclusions and recommendations of this report are copied here for ease of reference:

Conclusions

- ▶ To date there has been no feedback from the NI Hub on the quality of the DOC Sit Reps; in addition, all DOCs have expressed concern about a lack of communication from the NI Hub more generally;
- ▶ The critical role and responsibilities of the LOs are not fully understood across the C3 structure;
- ▶ The majority of expected roles are filled in each DOC with the key exception of a functioning Media cell; as an alternative, most DOCs appear to rely on informal liaison with its Press Office;
- ▶ Currently there is a lack of DOC to DOC communication which appears to be hindered by a lack of access to an up-to-date corporate C3 contact list;
- ▶ For the majority of DOCs, they are resourced by a small number of experienced staff but a larger number of inexperienced staff who require, or would benefit from, training

Recommendations

- ▶ Feedback urgently needs to be given to the DOCs collectively (which has already happened), and individually, on the issues being identified with the quality of the information provided in the daily Sit Reps; we recommend an ongoing and regular process of feedback;
- ▶ The Sit Rep cell, as the key service user of the information provided by the DOCs, itself needs to be staffed by more senior and experienced individuals with the ability to think and assess information critically, and challenge appropriately;
- ▶ Review and approval processes for sign off of the daily Sit Reps by a sufficiently senior individual within each department should be applied consistently (and mandated if appropriate);
- ▶ Use of a regular C3 leads meeting (or other more appropriate forum) to 'horizon scan' for likely imminent issues, risks and impacts, which require urgent consideration/collaboration across NICS etc.
- ▶ It is likely that effective 'horizon scanning' will need a defined media input, either from press office information (via EIS) or from independent media analysis; in this regard there should be confirmation of the appropriate mechanism for media liaison in DOCs;
- ▶ Updated NI Hub CONOPS to be shared in due course

Hub Effectiveness Review: Summary

This review was carried out by Mark Byers, NIO, from 6 April to 10 April 2020. The key findings and recommendations from this review are copied here for ease of reference:

Key findings

- ▶ The NI C3 COVID-19 ConOps and SOPs need to be distributed across the C3 system and their importance highlighted, and where necessary explained;
- ▶ the C3 system will be further strengthened when the Hub starts to produce a Down Rep and instigates regular engagement with the DOCs. This might take the form of a regular FL and C3 leads type meeting;
- ▶ an up-to-date corporate C3 contact list would be a very useful tool and should be distributed and maintained across the C3 system;
- ▶ an additional way to strengthen C3 would be to explain the role and responsibilities of the LOs across the structure, emphasising (re-emphasising) the importance of the role needing to be filled by volunteers of a suitable grade and experience;
- ▶ training should be rolled out across the DOCs as soon as practicable;
- ▶ the processes associated with producing the Sit Rep must continue to be improved;
- ▶ Ops Coord should continue to focus on improving their knowledge and skills of the processes they are required to use and manage;
- ▶ the collaborative knowledge wall should start to be used in the Hub and across the wider C3 system;
- ▶ the Hub BCP should be circulated, explained and exercised at the earliest opportunity; and
- ▶ the Hub would be further strengthened by having a dedicated 'communication cell'.

Recommendations

It is recommended that the NI Hub COS and Functional Leads should **note** the conclusion and key findings of this review and **agree to:**

- ▶ action the key findings;
- ▶ the need to identify and train a suitable replacement to fill the COS role should that become necessary at any point throughout the response period;
- ▶ start the process of discussing how the Hub will interact with those officials responsible for recovery planning;
- ▶ start to plan how to maintain readiness of the C3 structure post this response period; legacy NI C3.
- ▶ and agree in principle that external surge support may still be required during this response period.

Hub Teams Internal Lessons Learned Reports: Summary

All 3 Hub teams (Red, Blue and Yellow) carried out their own internal lessons learned reports towards the end of their time in the Hub. These findings were grouped under “What worked well” and “What could be improved”. A summary for each team is included below:

Red Team

What worked well

- Good team atmosphere and team-working
- The Hub was up and running quickly
- Health and safety, cleanliness
- Morning stand-ups
- Post CCG & Executive read-outs
- Team WhatsApp group
- G Suite worked well
- Dedicated laptops

What could be improved

- Relationship between Hub and DOCs
- Pressures from day job
- Long break between shifts
- Lack of role clarity
- Cross-cutting issues
- New staff not introduced
- Did not initiate WFH when required
- No dissemination of SOPs

Blue Team

What worked well

- Strong DCOS leadership
- Good sense of team-work and camaraderie
- Morning and afternoon stand-ups
- Co-location of LOs supported cross-departmental working
- Moving to G Suite and the use of Google Meets for communications
- Opportunity to gain new skills and experience
- Provision of tea, coffee and lunch

What could be improved

- Long break between shifts, reducing ownership of problems
- Issues with grade structure
- Being based in non-NICS building at beginning
- Lack of communications around FL role
- Lack of clarity on where LOs sat (Hub vs DOCS)
- Knowledge Wall was not up to date
- Records management

Hub Teams Internal Lessons Learned Reports: Summary

Yellow Team

What worked well

- Good work/life balance achieved
- Strong sense of team work
- Goodwood House was considered good and fit for purpose
- Introduction of G Suite - should be considered for wider usage across NICS
- Team was established smoothly despite the speed of standing up
- FL roles worked well once settled in

What could be improved

- Flexible start/finish times per cell
- Working 2 days in a row would be better
- IT issues faced by working in a non-NICS building
- Security issues regarding password controls
- Sit Rep could've benefitted from another member of staff
- Arbitrary assignment of roles to staff
- Unclear what Hub information can and can't be shared with DOCs

Appendix 5

Hub Teams Survey Questions and Results

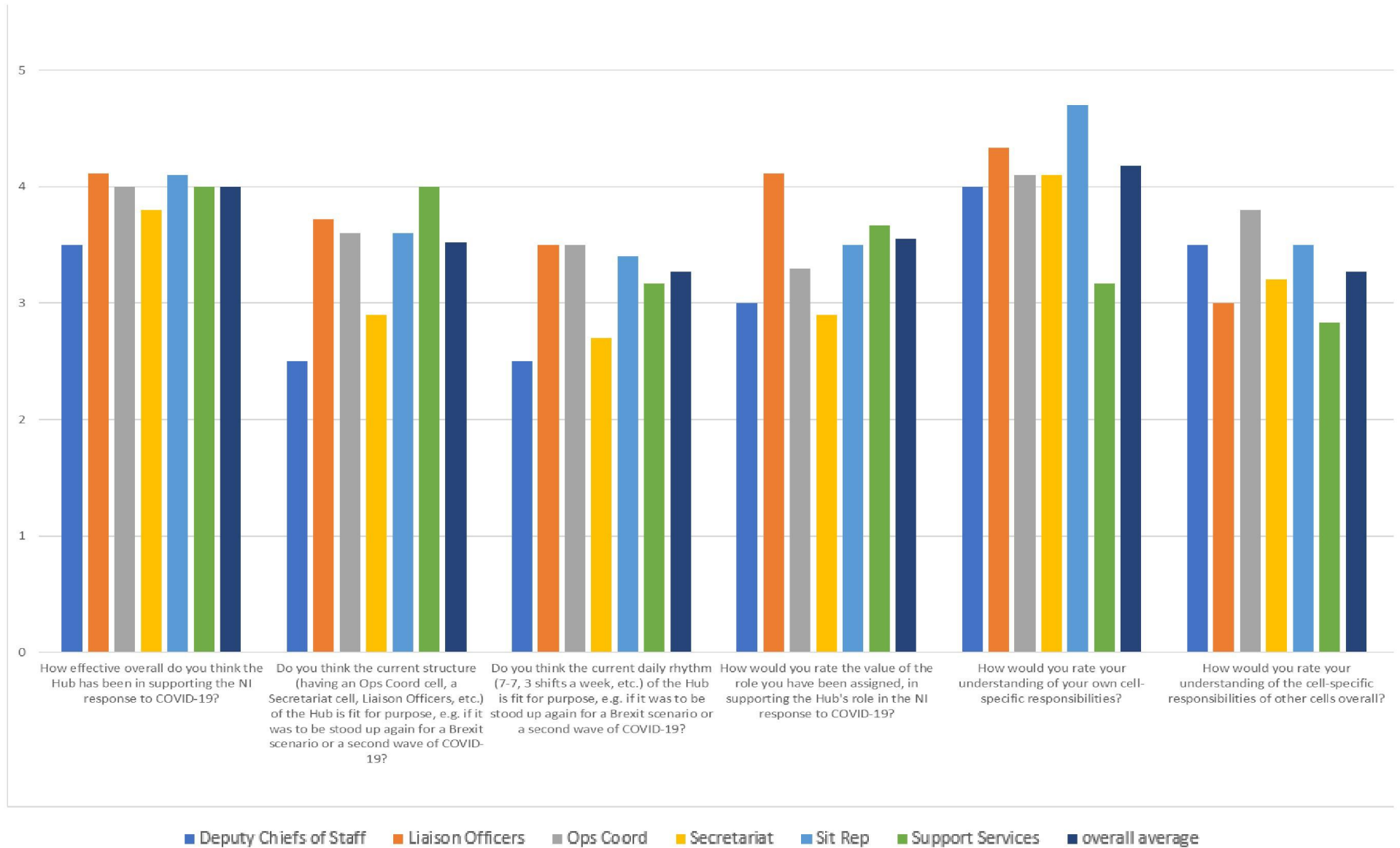
Hub Teams Survey Questions

Ahead of interviewing the Hub teams, a 17-question survey was issued to understand sentiment towards areas like roles and responsibilities, communications, welfare and shift patterns within the Hub. The results can be broken down by team colour and by role.

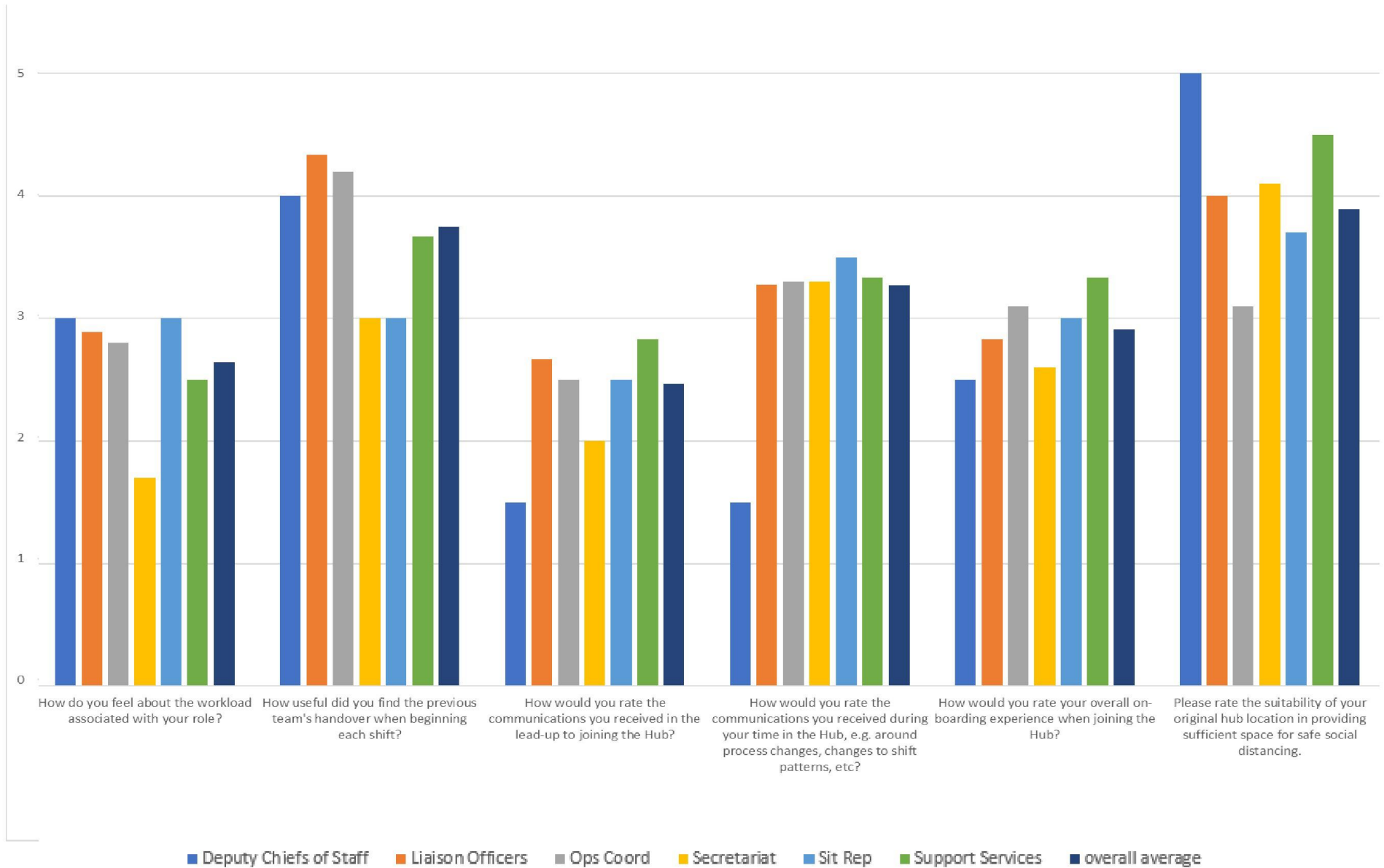
Staff were asked to rate their responses on a scale of 1 to 5 across all questions, with 1 being the most unfavourable response and 5 being the most favourable response within the context of the question asked - e.g. 1 meaning 'Not useful at all' and 5 meaning 'Extremely useful' when asked about the usefulness of the previous team's handovers. **The questions and associated answer scales can be found below, followed by the average response recorded by cell to each question**

- 1. How effective overall do you think the Hub has been in supporting the NI response to COVID-19?**
1 Not effective at all - 5 Extremely effective
- 2. Do you think the current structure (having an Ops Coord cell, a Secretariat cell, Liaison Officers, etc.) of the Hub is fit for purpose, e.g. if it was to be stood up again for a Brexit scenario or a second wave of COVID-19?**
1 Not fit for purpose - 5 Fit for purpose; no changes required
- 3. Do you think the current daily rhythm (7-7, 3 shifts a week, etc.) of the Hub is fit for purpose, e.g. if it was to be stood up again for a Brexit scenario or a second wave of COVID-19?**
1 Not fit for purpose - 5 Fit for purpose; no changes required
- 4. How would you rate the value of the role you have been assigned, in supporting the Hub's role in the NI response to COVID-19?**
1 Not valuable at all - 5 Extremely valuable
- 5. How would you rate your understanding of your own cell-specific responsibilities?**
1 Very weak - 5 Very strong
- 6. How would you rate your understanding of the cell-specific responsibilities of other cells overall?**
1 Very weak - 5 Very strong
- 7. How do you feel about the workload associated with your role?**
1 Not enough - 5 Too much
- 8. How useful did you find the previous team's handover when beginning each shift?**
1 Not useful at all - 5 Extremely useful
- 9. How would you rate the communications you received in the lead-up to joining the Hub?**
1 Not useful at all - 5 Extremely useful
- 10. How would you rate the communications you received during your time in the Hub, e.g. around process changes, changes to shift patterns, etc?**
1 Not useful at all - 5 Extremely useful
- 11. How would you rate your overall on-boarding experience when joining the Hub?**
1 Poor - 5 Excellent
- 12. Please rate the suitability of your original hub location in providing sufficient space for safe social distancing.**
1 Poor - 5 Excellent
- 13. Please rate the suitability of your new/current hub location in providing sufficient space for safe social distancing.**
1 Poor - 5 Excellent
- 14. Please rate the availability of hand wash, hand sanitiser, etc at your original hub location.**
1 Poor - 5 Excellent
- 15. Please rate the availability of hand wash, hand sanitiser, etc at your second/new hub location.**
1 Poor - 5 Excellent
- 16. How would you rate the usefulness of the Google Suite (e.g. Drive, Docs, Slides, Meets) in supporting team collaboration?**
1 Not useful at all - 5 Extremely useful
- 17. How would you rate the usefulness of the Google Suite (e.g. Drive, Docs, Slides, Meets) in supporting the production of high quality outputs, e.g. the Daily Sit Rep, the Action Log, CCG minutes, etc?**
1 Not useful at all - 5 Extremely useful

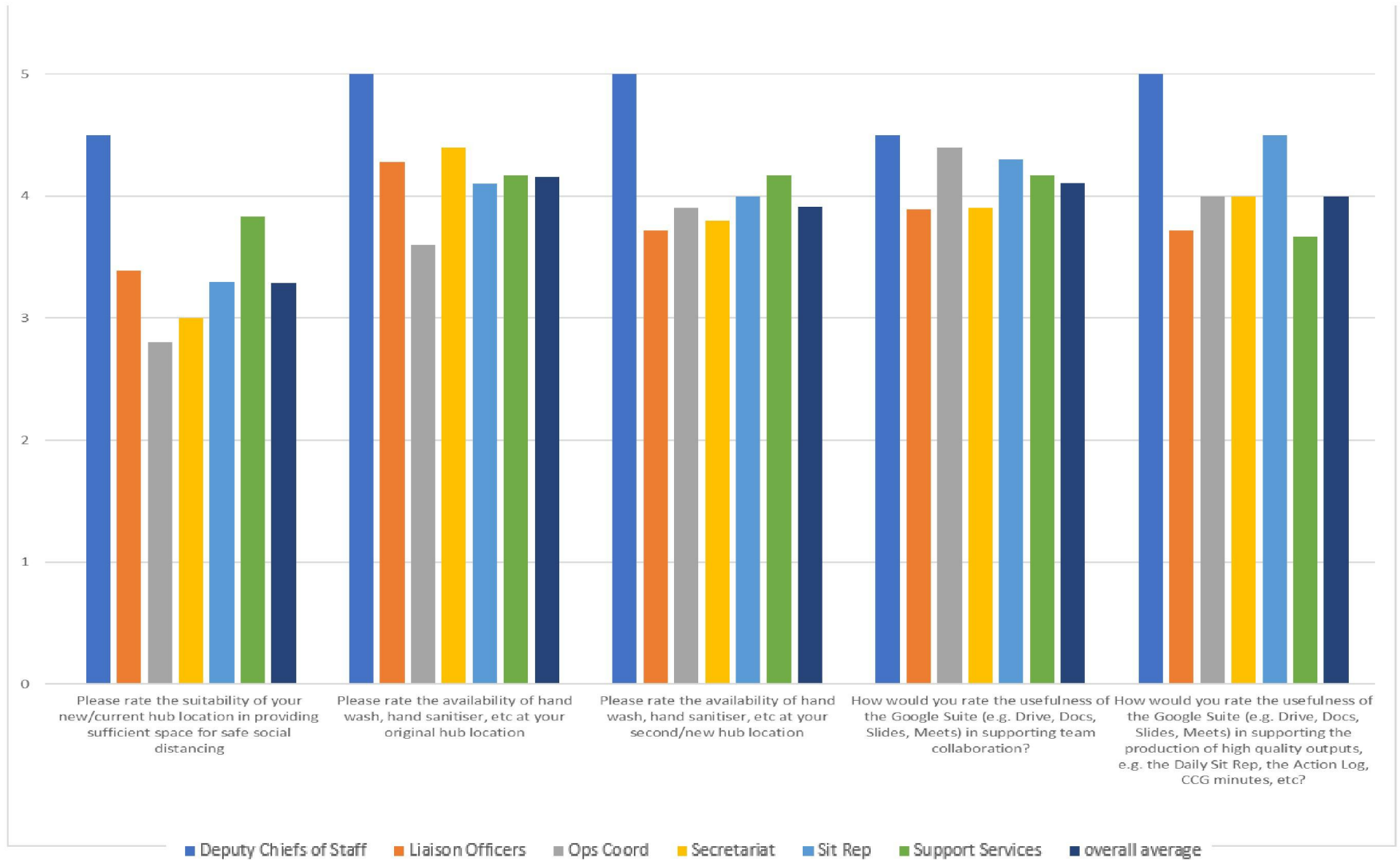
Hub Teams Survey Results



Hub Teams Survey Results - continued



Hub Teams Survey Results - continued



Appendix 6

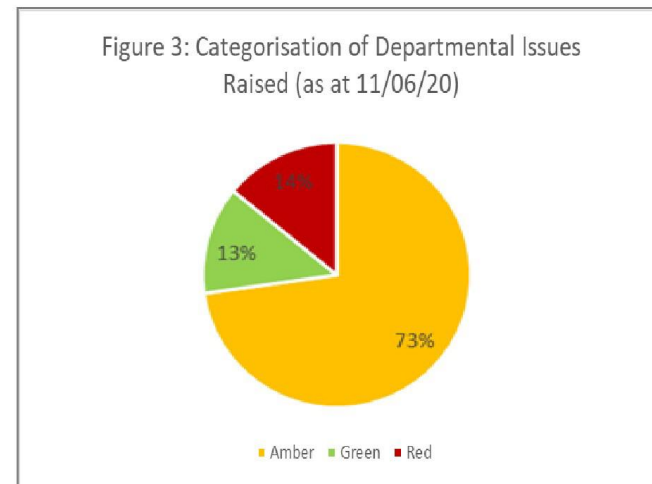
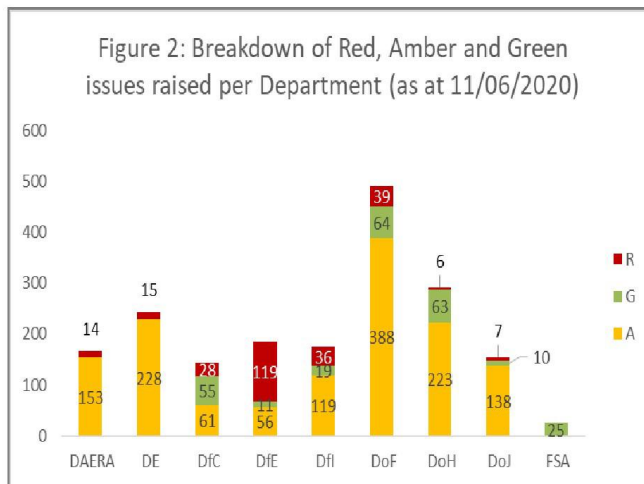
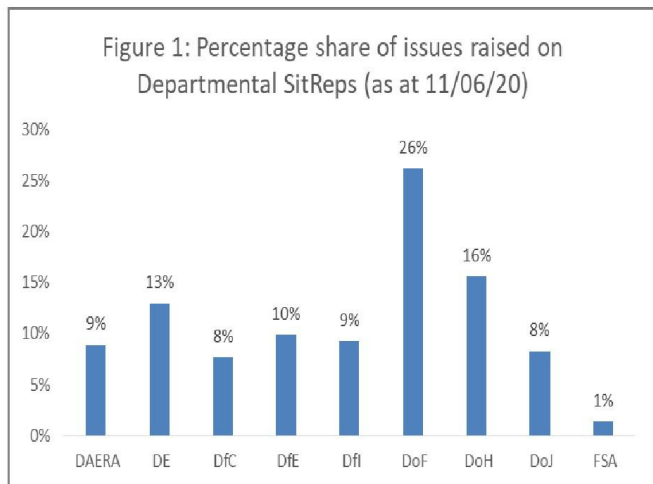
Insights from Sit Rep Bot

Breakdown of severity of issues raised by departments

As at Thursday 12th June 2020 - 1,877 issues had been raised in total across 8 departments and FSA. The percentage share of these issues per department is shown in Figure 1. Given the nature of the Covid-19 pandemic and the impact to the Health Service, surprisingly DoF had raised the highest number of issues on their Sit Rep (26%) compared to DoH at 16%.

However, when we look at the breakdown of issues raised by severity (figure 2) DfE have raised the highest amount of Red issues (119) signalling the economic impact of the pandemic in Northern Ireland. DoH have raised the highest number of green issues (63). When a green issue is reported, it is usually being dealt with by the Department themselves and does not require escalation or intervention from more senior channels, suggesting that the DoH has been able to cope with the pressures facing the health service.

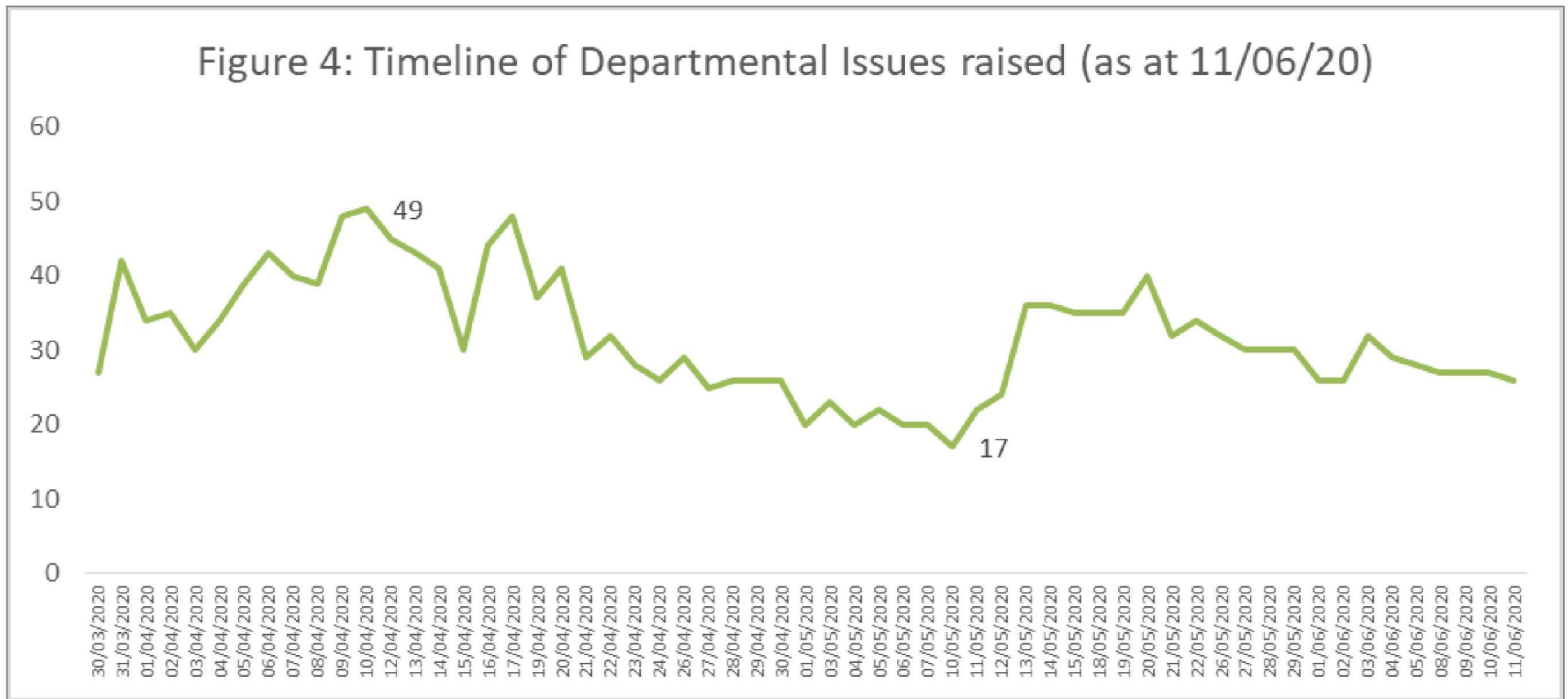
Figure 3 shows the categorisation of issues raised by department. One lesson learned would be to challenge back to the departments on the BRAG status of their issues. 73% of issues raised were amber and on reflection could maybe be categorised as green if the Hub was to take on a challenge function, either by the Departmental Liaison officers or the Sit Rep team.



How volumes of issues and actions varied over time

Figure 4 shows a timeline of when issues were raised covering the period 30 March 2020 through to 11 June 2020.

The highest number of departmental issues raised was on 10th April 2020 with 49 issues being raised compared to 17 issues raised on 10th May 2020.



General Observations

Referencing

Issues raised by Departments should have been uniquely referenced so they could be tracked through to their resolution rather than reported in isolation

Challenging BRAG Categorisation

As the Hub is the central point where all information is collated, Liaison Officers or Sit Rep team members should have challenged the BRAG categorisation of issues as they seen all Departmental issues rather than just one department. This should have formed part of a down rep back into Departments to continually improve the process

Justification for exclusion

Not every issue raised by the Department was included in the NI Sit Rep produced. There should have been justification provided for why an issue was not included and this also could be tracked. For example, green issues not included until tracking towards amber

Items for Escalation (for info)

The only department to use the escalation 'for information' was Department of Health suggesting this was not a value add feature of the departmental Sit Rep template

Items for Escalation (for action)

Any items that were flagged for action should be tied to the action log held by Ops Coord with the same reference held by departments and as such, form the agenda and flow for the daily CCG (NI) meeting

DOC Status Update

Regardless of the categorisation of DOC status update - there was no function in place to escalate a red / amber for assistance or to offer support via the Hub

Forward look

Should have been a mechanism in place to track items from >2weeks down to 1-2 days and to ensure they actually happened or there was a reason for them not happening