

Contract 22/00040

SSA-T Appendix 1 Attachment 2

Description of work processes in EMCC

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1 Overall guides for illustrated and described processes in this document

- The graphical presentation reflects sequences in workflow but does not show time spent for the single activities/functions (an activity box can vary in time spent depending of the situation).
- The graphical presentation reflects the main processes seen from a functional perspective in the EMCC - but is not exhaustive.
- The process as shown describes endpoint to endpoint, and does not consider that there in several points in the process must be consecutively re-evaluations of the situation. There will be loops that are not highlighted in the graphical presentation. These evaluations can lead to changed response and accompanied measures.
- The same operator can conditionally perform some processes. For larger events, several operators in parallel can perform the processes.
- The size of the activity boxes are not related to the proportion of the activities to each other.
- Process descriptions in this document starts with an incoming inquiry to EMCC. This means routing and other processes that the system will handle and what happens before the EMCC receives the inquiry are not covered in this document.
- Process descriptions in text are on a superior level, and details will be further specified in demands.

2 Notations used in the process charts

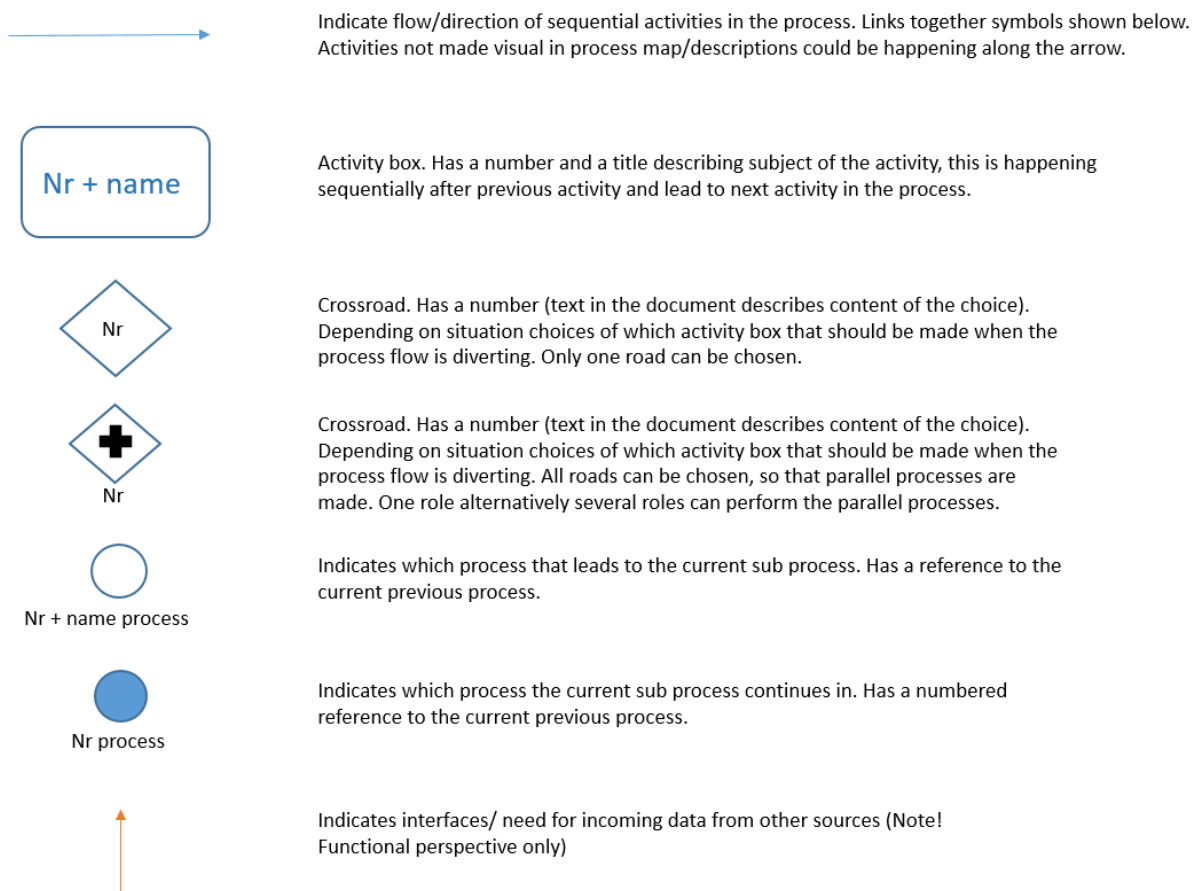


Figure 1 – Notation overview

3 Level 0 – Superior level

Level 0 – Superior level, functional description of main processes EMCC.



Figure 2 – Functional description of main processes EMCC

«Level 0 – Superior level» shows the functional main processes in EMCC. Main functions in activity boxes 1-5 in Figure 2 will be described and elaborated (box by box) in the chapters below. The boxes elaborated on level 1 are marked with blue background in the process maps.

3.1 Level 1 – Process 1: Receive inquiry

Below is activity box 1«Receive inquiry» (cf. Level 0) elaborated in three subordinate activity boxes.

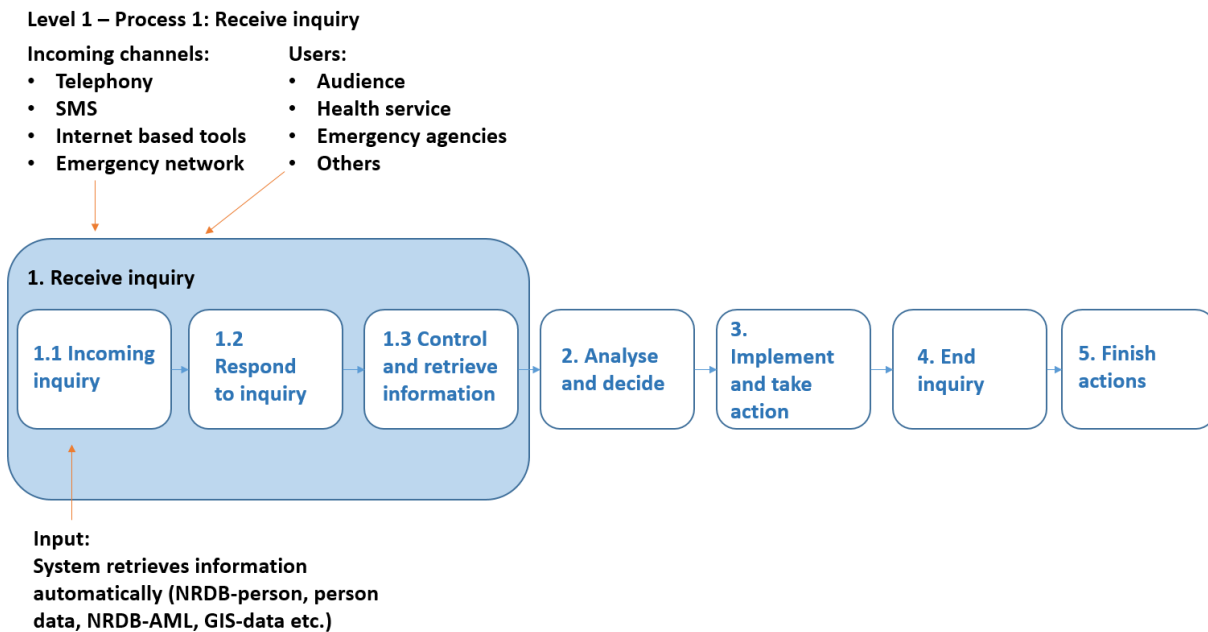


Figure 3 – Receive inquiry

➔ **Input:** Incoming inquiry to EMCC.

1.1. Incoming inquiry: The process starts with EMCC receives an inquiry. This inquiry can be received through telephony, SMS, internet based tools (for example video-based communication channels or web-based orders of transport) and emergency network. Users making inquiries to EMCC may be audience, health personnel other emergency agencies and more.

Thereafter the system automatically retrieves information from relevant sources (for example GISdata, NRDB-AML, patient-data etc.)

1.2. **Respond to inquiry:** The most appropriate operator (based on availability, competence (for instance language competence), role, etc.) initiates conversation with caller through manual or automatic pick-up.

1.3. **Control and retrieve information:** Operator controls information automatically retrieved from the system, and rejects/corrects/supplies information as needed.

➔ **Output:** Name, position and possible history on caller/patient/incident.

3.2 Level 1 – process 2: Analyse/decide

The activity box 2 below (cf. Level 0), shows activities elaborated in four subordinate activity boxes.

Decision support is a part of a CAD system, but the communication solution must support underlying need for information.

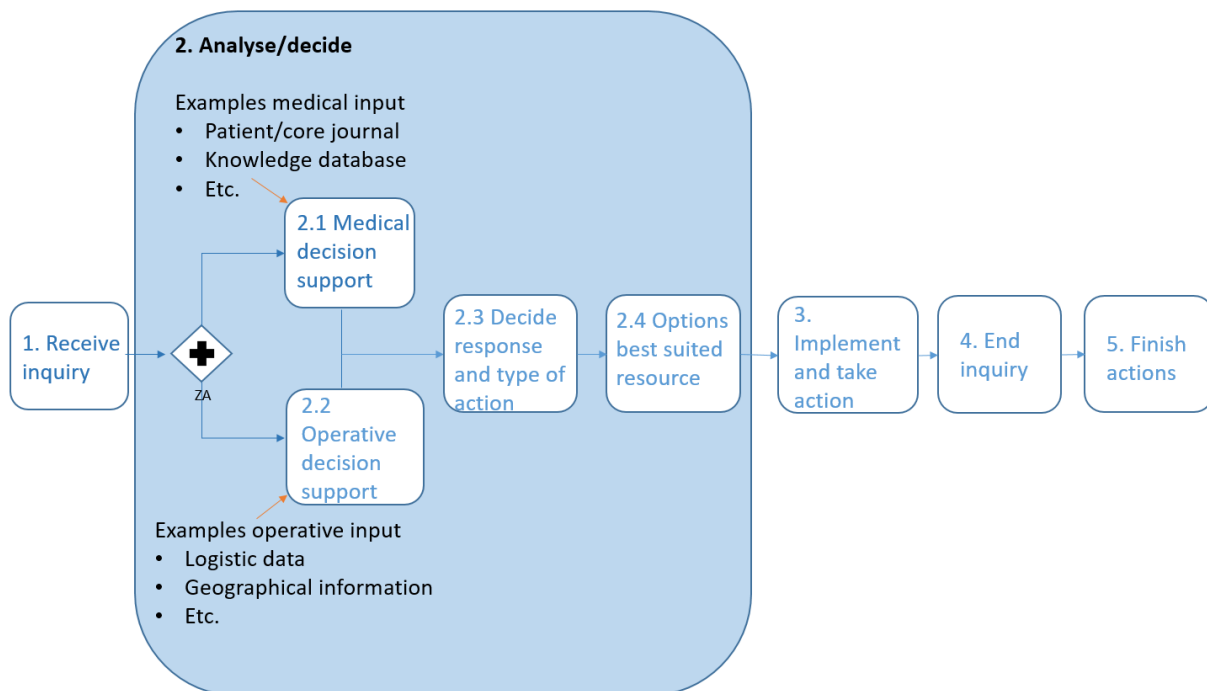


Figure 4 – Analyse/Decide

➔ **Input:** Name, position and historical calls for caller/patient

3.3 Level 1 – Process 3: Implement action

Below showing process 3 (cf. Level 0 activity box 3) which is elaborated into four subordinated activity boxes.

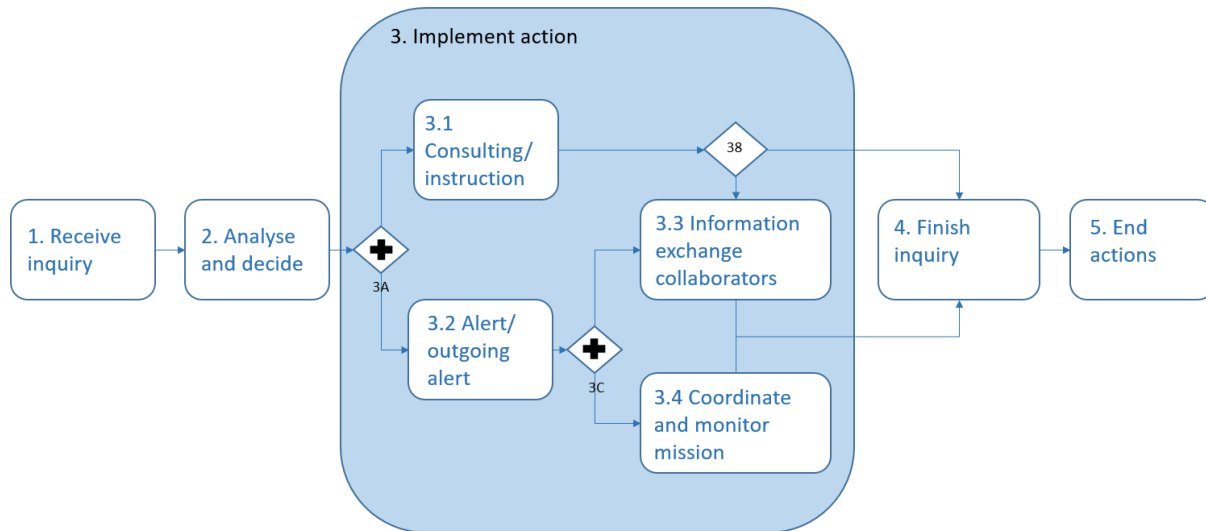


Figure 4 – Implement action

➔ **Input:** Measures and best suited resource(s) are decided

3A: If decided measure do not lead to transmission of resources, go to 3.1 «Consulting/ Instruction». If decided action causes outgoing alerts and transmission of resources both activity boxes 3.1 and 3.2 are carried out (can be performed by the same operator).

3.1. Consulting/instruction: Operator consults and instructs after medical needs, dynamically guided by medical decision support and operative information.

3B: Based on advice/instruction; if the inquiry are to be shared between collaborators (for instance emergency units, police, etc.), go to 3.3 «Information exchange collaborators». If there is not at need to exchange information, go to 4 «Finish inquiry».

3.2. Alert/outgoing alert: Relevant resources are alerted/dispatched. See Level 2 Process 3 and activity boxes 3.2.1 – 3.2.3 for more details.

3C: Based on if there is a decided resource that are alerted/dispatched, choose/confirm who is alerted/dispatched and go to 3.3 «Information exchange collaborators» and/or 3.4 «Coordinate and monitor mission». Often both processes are occurring parallel (and can be performed by one or several roles at EMCC).

3.3. Information exchange collaborators: Mutual information exchange with focus on generating relevant patient data that will accompany the patient in further process of implementation of the current mission. See Level 2 Process 3 activity box 3.3.1 – 3.3.3 for more details.

3.4. Coordinate and monitor mission: Operator coordinates and action monitors ongoing mission. See level 2 Process 3 activity box 3.4.1 – 3.4.4.

➔ **Output:** All measures are completed.

3.4 Level 2 – Process 3.2: Alert/ Outgoing alert

Below showing elaboration of activity box 3.2 «Alert/outgoing alert» (cf. Level 1 process 3) as shown in three subordinate activity boxes.

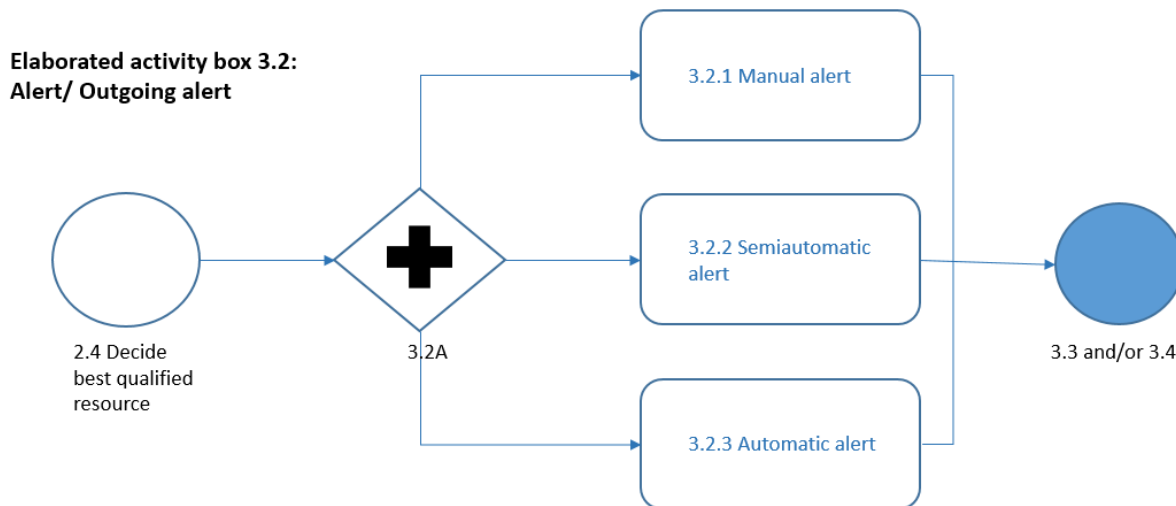


Figure 5 – Alert/ Outgoing alert

➔ **Input:** Best-qualified resource are decided and will be alerted/dispatched

3.2A: Decide type of alert/dispatch.

3.2.1: Manual alert: Operator alerts resources at inquiries that is not handled by automatic/semiautomatic alert.

3.2.2: Semiautomatic alert: The solution suggests resource after given set of rules. Operator confirms suggestion before alert are sent out from the system to resource.

3.2.3 Automatic alert: Resources are alerted automatically by the system after specific set of rules.

➔ **Output:** Resource alerted/dispatched.

3.5 Level 2 – Process 3.3: Information exchange collaborators

Below showing elaboration of activity box 3.3 «Information exchange with collaborators» (cf. Level 1 process 3) which is shown in two subordinate activity boxes.

Elaborated activity box 3.3:
Information exchange collaborators

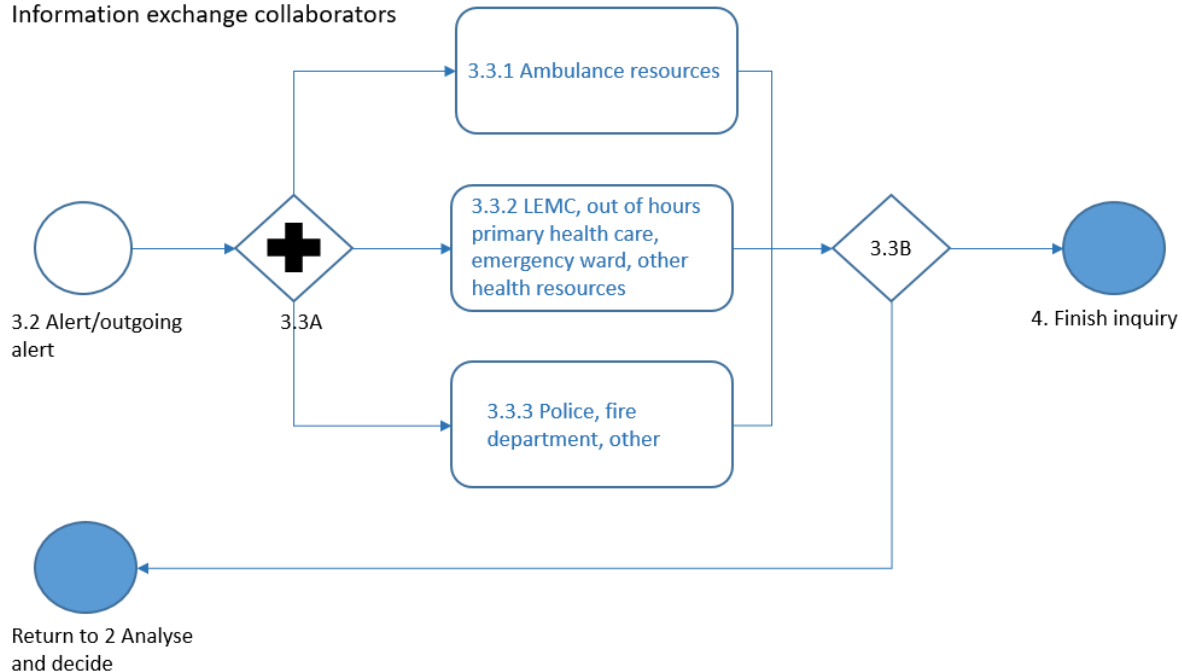


Figure 6 – Information exchange collaborators

➔ **Input:** Decided that collaborators shall be alerted

3.3A: The extent of information exchange are controlled by service needs and limited by confidentiality. If information exchange with partners of health services (LEMC(GPOC), primary health care, emergency ward and other health resources) must be made, go to 3.3.2. If information exchange with other partners (Police, fire department and others) must be made, go to 3.3.3.

3.3.1 Ambulance resources: Operator gives and receives relevant information concerning patient/mission.

3.3.2 LEMC (GPOC), Primary health care and other health resources: Operator gives and receives relevant information concerning patient/incident. The extent of information exchange are regulated by law (ref: health legislation).

3.3.3 Police, fire department and others: Operator gives and receives relevant information concerning patient/incident. The extent of information exchange are regulated by law (ref: health legislation).

3.3B: in practice, there is a dynamic assessment and re-evaluation based on the development of the incident. When re-evaluation is necessary, go back to process 2 «Analyse and decide». When process 3.3 is finished, move on to process 4 «Finish».

➔ **Output:** Collaborators alerted

3.6 Level 2 – Process 3.4: «Coordinate and monitor mission/incident»

Below showing elaboration of activity, box 3.4 «Coordinate and monitor incident» (cf. Level 1 process 3) as shown in six subordinate activity boxes.

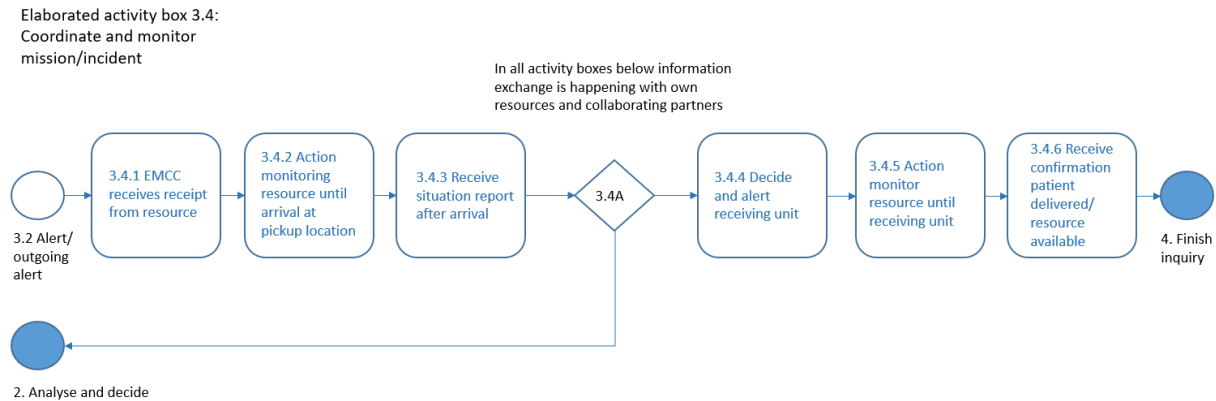


Figure 7 – Coordinate and monitor mission/incident

➔ **Input:** Resources are alerted/ outgoing alert

Generally it applies for *all* activity boxes above that there is a mutual information exchange with own resources and collaborating partners.

3.4.1 EMCC receives receipt from resource: EMCC receives receipt in form of a voicemail or electronic message from resource(s) that the mission is received. If resource(s) rejects the mission operator has to re-evaluate measures (start process 2 analyse/decide again). With air ambulance missions there is a own process named «Flight Following» at the current EMCC Air Ambulance Centre (not shown in this document).

3.4.2 Monitor/coordinate resource until incident location: Operator monitors resource(s) until arrival at incident location.

3.4.3 Receive situation-report after arrival: Resource(s) that arrives incident location does an evaluation/triage and gives a situation report to EMCC through various communication paths.

3.4A: Re-evaluate need for resource. If changed, go to process 2 «Analyse and decide». If status have not changed, go to 3.4.4 «Decide and alert receiving unit».

3.4.4 Decide and alert receiving unit: Based on decision support EMCC decides, ambulance or doctor which unit(s) the patient will be transported to. Receiving unit(s) are alerted.

3.4.5 Action monitoring of resource until receiving unit: EMCC action monitors resource(s) until resource(s) have delivered patient to receiving unit.

3.4.6 Receive confirmation patient delivered/resource available: EMCC receives confirmation from resource(s) that resource(s) has delivered patient to receiving unit(s). Furthermore receives EMCC an additional confirmation when resource(s) are available for other mission.

➔ **Output:** Patient delivered to receiving unit(s) and resource(s) are available for new mission.

3.7 Level 1 – process 4: End

This process includes adding additional information to the incident log and EPJ,

3.8 Level 1 – process 5: After work

This process includes reporting, handling deviations, retrospective learning and so on.