Wildlife Response: **Guidelines for Exercise Development**

EUROWA
EURopean Oiled Wildlife Assistance

Front cover:
Wildlife response field exercise (the Netherlands, 2021) · Picture by Will Leurs

Back cover:
Practical responders exercise (Finland) · Picture by Pinja Silvonen / WWF

Formatting and graphic design:
Elke Scheurich / basisrose,va

EUROWA
EURopean **O**iled **W**ildlife **A**ssistance

Preface

This manual was developed by the Sea Alarm Foundation, within the framework of the EUROWA-2 project, co-financed by the EU under the Civil Protection Mechanism.

This document covers activities implemented with the financial assistance of the European Union. The views expressed herein should not be taken, in any way, to reflect the official opinion of the European Union, and the European Commission is not responsible for any use that may be made of the information it contains.

Sea Alarm Foundation, March 2023

More information about EUROWA can be found at **www.eurowa.eu**

Table of Contents

1 Introduction

Marine emergencies such as oil spills can lead to marine animals getting affected by the pollution and washing ashore dead or alive over the course of days or weeks in a row. Dealing with these animals coming ashore, in potentially high numbers, can be challenging.

Not only is a professional response needed to deal effectively with the casualties, but these activities must sometimes be organised along tens of kilometres of shoreline, on islands, intertidal areas, vulnerable habitats such as salt marshes, or under challenging weather or sea conditions. Wildlife impact scenarios therefore must be included in a country's risk assessment and be included in planning and related preparedness activities, such as training and exercises.

The potential scale and complexity of these low frequency/high risk incidents are often badly understood and so underestimated. The fact that wildlife incidents do not regularly happen can make decision makers and planners ignorant to the fact that wildlife preparedness should be kept in place. The probability of a marine wildlife pollution incident may be low - but is not zero. The visible arrival of polluted animals on the shore for days or weeks has a significant impact on society.

In the absence of frequent incidents, exercises can bring these challenges alive and bring planners and decision makers to realise that preparedness must be in place. Moreover, exercises are an essential way in which experts (that the response depends upon) can develop their individual and group experiences, and learn about the potential but also the limitations of their capabilities.

This document shows how meaningful wildlife response exercises can be designed and developed. There are many ways in which an exercise can be designed and provided to key personnel. Each type of exercise aims at a different set of skills or insights that a participant should develop and can be designed to provide multiple benefits to managing and/or operational teams of responders to make them better prepared.

Exercises have the ability to open people's eyes, so that they discover the true nature of the big challenges and start seeing how in a collective effort these challenges can be overcome. Exercises also offer important opportunities discuss and test the operational effectiveness of a response system and enrich personal relationships between people who depend on each other. Many success stories of incident responses can be traced back to personal relationships between people with functional roles who share a strong mutual trust, often developed via exercises they did together. Exercises are therefore essential instruments for awareness raising, letting people discover the power of working together, while developing essential skills and experiences but also mutual trust and reliance. They also stimulate the creativity that is needed to work around the challenges posed by resources always being limited.

1.1 The role of exercises in preparedness development

The important role of exercises in the development of emergency response preparedness of governmental entities, emergency relief organisations and other professional responders is generally well understood. In every ministry, agency or organisation that has responsibilities in emergency response management, exercises are positioned at the core of their preparedness programmes. As such, they serve multiple functions (see Box 1). Exercises should always be made part of the functional training of those key individuals and teams that the success of a response depends on. That should not be any different for teams of wildlife responders who are to be mobilised in the case of pollution incidents or other environmental disasters.

Exercises should focus on practice, as well as identifying and eliminating problems before an actual disaster happens (Morgan and Fagel, 2012). They aim to provide key individuals with regular opportunities to gain important on-the-job experience as part of a simulated response environment and opportunities to work together in a functional setting. A good exercise programme will pay off in allowing responders to deal effectively with the challenges of a real-time incident. The most successful operations in any emergency response are often the elements that were most frequently or most recently exercised.

Box 1 Why exercises are important (Morgan and Fagel, 2012)

Private and public organisations (jurisdictions, agencies, departments and corporations) are expected or required to mitigate risks, prepare, respond and recover in a timely manner. In order to do so, organisations must have a comprehensive and integrated capability and capacity in place. The best way to validate the capability and capacity to meet any worst-case scenario is through exercises.

Exercises serve to

- Clarify roles and responsibilities
- Improve organisational and interagency coordination and communications
- Find resource gaps
- Develop and improve individual performance
- Identify opportunities for improvement
- Update procedures and response mechanisms

1.2 Exercises for wildlife response preparedness

The importance of exercises in planning and preparedness for marine pollution incidents such as oil spills and Hazardous and Noxious Substances (HNS) is widely recognised as good practice by industry and governmental entities. Dealing with wildlife impact prevention, animal rescue and animal welfare requires alertness in the early stages of a response as well as timely mobilisation of resources that can make the difference.

Exercising operational skills in wildlife response, from small scale to larger scenarios, should therefore be considered as an important and integrated part of an overall emergency response approach. This only works if wildlife response training and exercises are scheduled as annually recurring activities in a country's overall pollution preparedness programme.

1.3 Purpose and scope of this document

This document is a guideline for scheduling and designing exercises that will help to develop in-country oiled wildlife response preparedness. The document describes in Section 2 and Annexes I and II various exercise methods, from small events such as workshops or seminars, to larger functional exercises or full-scale exercises. For each method, it is described how it can be applied in the domain of wildlife response (Section 3) and concrete examples of exercises are presented (Annex III Exercise Examples). The possibility to combine various exercise modules in a single exercise event is explained in Section 5 and the importance of an exercise programme as part of the implementation of a wildlife response plan is explained in Section 4.

2 Exercise methodology for wildlife response preparedness

2.1 Categories and exercise types

This document uses an exercise methodology based on terminology that appears commonly in the literature on emergency response preparedness (e.g. Morgan and Fagel, 2012; IPIECA/IOGP, 2014). The methodology provides 7 exercise types that can be developed in two main categories:

- Discussion-based exercises
- Operation-based exercises.

The 7 different exercise types within these categories are presented in Fig 1.

This Section, as well as Annexes I and II, describes how wildlife exercises can be designed using this methodology.

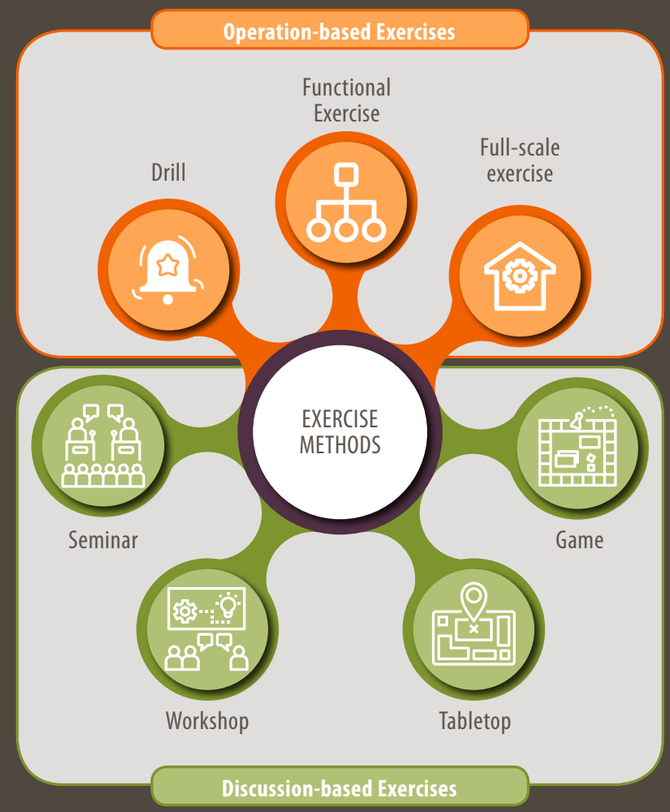


Fig 1. Seven types of exercises that can be developed in two main categories of exercises: operation-based or discussion-based exercises.

2.2 Discussion-based exercises

Discussion-based exercises are types of exercises where no operational teams or equipment are mobilised. Instead, groups of key individuals are brought together to discuss topics such as:

- Response concepts
- Draft response plans
- Response objectives
- Roles and role descriptions.

Via an attractive and engaging exercise design they are invited to explore the why's and how's of the arrangements they have to make, or to test or discuss how existing arrangements would work out and how they can be improved or extended. Such discussions are best informed by scenarios that demonstrate the risks at stake, or the challenges of a simulated incident. Scenarios are used to focus and motivate the discussions. The outcome of these scenario-driven and discussion-based exercises should be that parties develop more clarity about what they need to do, what they can expect from other parties, and/or which gaps need to be filled and by whom.
Discussion-based exercises could focus on personnel who have to execute a specific function described in the plan. However, they can also involve their day-to-day managers, or higher up decision makers, who need to ensure the full support and commitment of the organisation to agree to the responsibilities and ensure the provision functional officers to carry out the assigned roles.
Discussion-based exercises have great potential to engage organisations that do not necessarily have wildlife or wildlife response as a core day-to-day responsibility, to discover why their contribution is still important. The use of scenarios can help to visualise this. In exercises such as tabletops or games the use of scenarios is key, in order to let participants focus on some selected challenges or routines within a given context.
Discussion-based exercises are good tools to bring decision-makers or subject matter experts of key organisations on board with planning and preparedness, to build coherence around their collective motivation, interest and participation in the preparedness programme.

Discussion-based exercises, of the four types below, are described in Annex I:

2.3 Operation-based exercises

Operation-based exercises require the mobilisation of teams and equipment at some defined level. They aim to test and practice technical/management skills of individuals and the functional group in which they operate and to let them work with the equipment. In the larger full-scale exercises multiple operational parties are mobilised to participate. Operation-based exercises are designed around a simulated scenario, which is both realistic, specific to the target group(s) and scaled to the objectives of the specific exercise event.

Operations-based exercises, of the three types below, are described in Annex II:

3 Selecting the right exercise

Exercises can focus on various different aspects of wildlife response. Fig 2 provides six aspects that can be considered for that purpose. This section explores how these aspects could be turned into meaningful exercises.

Fig 2. Wildlife preparedness aspects an exercise could focus on.

3.1 Aspect 1: Wildlife planning

Examples to look at (Annex III)

Seminar

Pre-planning stage:
Informing multi-stakeholder discussions about topics of a wildlife response, challenges to deal with, case histories, lessons learnt, and alternative strategies for dealing with challenges and their related methodology and required level of preparedness. The seminar informs participants about the need for planning and preparedness and aims to generate support and consensus for the planning process.

If a (draft) plan has been written:
Seminar presents the different aspects of the developed plan and provides the context of choices made in terms of strategies, equipment investments, division of responsibilities, management objectives, etc.

- **G** EOW International conference (2022)
- **H** Seminars following the Tricolor oil spill (2004)
- **I** Online seminars Netherlands (2021-2022)
- **K** Montenegro Stakeholder workshop (2022)
- **L** Wildlife Response Management Event Estonia (2021)
- **M** Multi-stakeholder Seminar Aberdeen, UK (2014)
- **T** EUROWA-2 online authority workshop (2022)

Workshop

Pre-planning stage:
Scenario-driven presentations demonstrating the risk profile (small probability, high impact) in one or more parts of a given country, should highlight the social and operational challenges of a wildlife impact. Invited participants are invited (plenary or sub-groups) to discuss roles and responsibilities that can deal with the challenges, identify gaps, discuss how gaps can be filled, and by whom. This information provides valuable information for plan development where roles and responsibilities must be described.

If a (draft) plan has been written:
The same as above (see Seminar), but the group of targeted participants are aware of their roles and responsibilities. The workshop provides scenario settings, that can be used by participants to further explore their own role and that of other actors they have to work with. The workshop creates a safe environment for raising questions and finding answers or identifying gaps in information provided by the plan. It helps the plan to mature and be better understood.

- **G** EOW International conference (2022)
- **J** Authority Workshop Zeeland, the Netherlands (2019)
- **K** Montenegro Stakeholder workshop (2022)
- **N** Wadden Sea Workshop, the Netherlands (2023)
- **O** Management team exercise: creating a common operating picture
- **T** EUROWA-2 online authority workshop (2022)

Tabletop

A concrete scenario is used to sketch a pollution event with impacted wildlife. It allows a group of targeted participants (authorities, NGOs, contractors, described by the existing or envisaged plan) to "experience" the challenges of an incident through the visualisation of some selected challenges. Different stages of a response can be presented in different phases of the tabletop. By design the presented information should lead to the discussion the organisers want to have, so that the time available for the tabletop is maximised towards the focus and objectives of the event. The tabletop format will create a deeper understanding of issues and challenges that the plan aims to deal with, and is therefore also a great training tool.

- **I** Online seminars Netherlands (2021-2022)
- **J** Authority Workshop Zeeland, the Netherlands (2019)
- **K** Montenegro Stakeholder workshop (2022)
- **L** Wildlife Response Management Event Estonia (2021)
- **M** Multi-stakeholder Seminar Aberdeen, UK (2014)
- **N** Wadden Sea Workshop, the Netherlands (2023)
- **O** Management team exercise: creating a common operating picture
- **T** EUROWA-2 online authority workshop (2022)

Game

Similar to the tabletop, but with the difference that playful elements are integrated into the way that participants are exploring the information. Dice and/or card decks can be used, and maps are transformed to a board game design. A game format will bring all participants in a much more talkative and creative mood, and discussions will be remembered for much longer by participants.

- **N** Wadden Sea Workshop, the Netherlands (2023)

Drill

Drills should focus on procedures described in the written plan that stand or fall with the care/caution they are executed. For example, this applies to operational communication between two parties to exchange data, or for instance the standard meeting agenda of an operational team and the processing of information exchanged.

- **P** Notification exercise - Routine contacting actors, the Netherlands
- **Q** Field exercise Mallydams Wood, UK (2016)
- **R** Field exercise Zeeland, Netherlands (2021)

Functional Exercise

This concentrates on the described management procedures of the written plan in a selected phase of the response. Participants play a role (their own, or an assigned role), and interact functionally with roles played by other participants. These exercises should bring the described management of the response alive and give participants a meaningful realistic experience of what the plan is expecting from them. Functional exercises can also discover areas where the plan is not providing enough guidance for decision making, or where the guidance provided is misleading or not accurate enough.

- **C** Oil company Regional Response Team Wildlife Exercise Malaysia (2016)
- **Q** Field exercise Mallydams Wood, UK (2016)
- **R** Field exercise Zeeland, Netherlands (2021)
- **S** EUROWA Functional exercise Ostend, Belgium (2016)

Full-scale exercise

A full exercise should concentrate on aspects of the wildlife plan that have been theoretically designed but never really tested for their assumptions. Full field or facility exercises are useful in this respect and described elsewhere. In combination with organising such full exercises, a management aspect could be organised in support. This could be a wildlife response management team exercise, or a decision making exercise to determine the planning and logistic preparation for the field exercise, e.g. some weeks before that exercise is taking place.

A full exercise could also mean that the wildlife plan is executed as part of a full oil spill incident response exercise. In the latter case, the integrated wildlife exercise focuses on key processes by which wildlife response can be managed as part of the overall emergency response.

- **D** National field and facility exercise Netherlands (2013)
- **F** BALEX Delta Kotka, Finland (2021)

3.2 Aspect 2: Activation, mobilisation

Examples to look at (Annex III)

Drill

Activating the wildlife plan:
An announced or unannounced drill could test the wildlife plan activation procedure as part of a wider pollution incident response activation. One focus could be to drill duty officers to consider wildlife activation early on, via notification of the duty officer charged with activating the wildlife plan. The other focus of a drill could be to clarify at which stage the activation of the wildlife plan is considered, e.g. when impacted animals are arriving ashore, or in an earlier stage when the pollution is out at a critical location in a critical season.

Activating actors of the wildlife plan:
This type of drill would start with the duty officer in the agency that activates the plan and starts the procedure to mobilise actors. The drill follows the chain in which more and more key actors receive a notification and are expected to follow their written procedure.

Reminding wildlife plan actors of their role:
This could be an annual drill, in which the listed actors in the plan are approached (by email or telephone), to see if they are aware of their functional role in a wildlife response and if all contact details listed in the plan are still correct.

- **B** Global Oiled Wildlife Response System SOP notification drill (2021)
- **P** Notification exercise - Routine contacting actors, the Netherlands
- **Q** Field exercise Mallydams Wood, UK (2016)
- **R** Field exercise Zeeland, Netherlands (2021)

Functional Exercise (As part of a wider functional exercise)

In inviting participants to a functional exercise, their mobilisation procedure could be executed as part of the exercise design. This reminds actors of the procedures they need to follow and tests those procedures for inconsistencies.

- **Q** Field exercise Mallydams Wood, UK (2016)
- **R** Field exercise Zeeland, Netherlands (2021)

Full-scale exercise (As part of a wider full scale exercise)

In inviting participants to a full-scale exercise, their mobilisation procedure could be executed as part of the exercise design. This reminds actors of the procedures they need to follow, and tests those procedures for inconsistencies.

3.3 Aspect 3: Field operations

Examples to look at (Annex III)

Seminar (as part of wider seminar)

Following a scenario-based risk analysis, a certain vulnerable area could be selected to explore the exact vulnerabilities and strategy to deploy in case of a pollution incident. Participants could be selected from various stakeholder groups, including authority representatives, nature rangers, area managers, population biologists etc.
International conferences on oil spill response and preparedness often include and facilitate sessions on case histories, preparedness programmes etc. which feature field exercises.

- **G** EOW International conference (2022)
- **H** Seminars following the Tricolor oil spill (2004)
- **I** Online seminars Netherlands (2021-2022)
- **K** Montenegro Stakeholder workshop (2022)
- **M** Multi-stakeholder Seminar Aberdeen, UK (2014)
- **T** EUROWA-2 online authority workshop (2022)

Workshop

A scenario-driven discussion in a workshop can consider a pollution incident that threatens or affects a given coastal area (70-100 kms scale map) and discuss the administrative regions and the responsibilities of different entities to organise field operations, both for shoreline cleanup and wildlife response. How can principles such as health and safety, professionalism, minimising waste, transportation, site management, logistic management, animal welfare etc., be guaranteed if operations have to take place in parallel at 5-10 different sections of the coastline? Such questions can be posed to a mix of authorities, area managers and other stakeholders. Their discussions would inform planning and decision-making processes and outcomes can be used to further develop the plan, or create a more in-depth understanding of what the plan tries to achieve.

- **G** EOW International conference (2022)
- **K** Montenegro Stakeholder workshop (2022)
- **N** Wadden Sea Workshop, the Netherlands (2023)
- **T** EUROWA-2 online authority workshop (2022)

Tabletop

Can make the above description (see Workshop) more realistic by providing maps and other visualised data to a group of participants and letting them discuss the matter, by looking at one particular part of the coast and discussing the details of what a field-ops day would look like. They can make lists of equipment needed, and/or design the organisational structure and management setup of the physical operational activities that are considered (such as oil cleanup, collection of live and dead birds). A large group of participants can work in breakout groups and consider different coastal sections. Results of different groups can be compared and will lead to a further broadening of insight.

- **I** Online seminars Netherlands (2021-2022)
- **K** Montenegro Stakeholder workshop (2022)
- **M** Multi-stakeholder Seminar Aberdeen, UK (2014)
- **N** Wadden Sea Workshop, the Netherlands (2023)
- **T** EUROWA-2 online authority workshop (2022)

Game (As part of wider game)

The approach of the tabletop can be presented via game elements such as dice (throw the dice to determine which coastal section is to be considered). Card decks of operational considerations and impacts could further complete the game setting. By throwing dice a shoreline section can be combined with an impact card and participants use the consideration cards to discuss the case. The impact cards can also be used at random to populate the whole of the coastal area with impacts in many places at the same time. Consideration cards now have to be implemented by defining which authority/actor would be best placed to deal with the challenges. These actors can be placed on another map, to clarify from where and how they would be able to operate.

- **N** Wadden Sea Workshop, the Netherlands (2023)

Drill

As part of training events, participants can be exercised to capture e.g "roboduck", or to organise a beach collection/stabilisation point and staffing the collection and field stabilisation. Another drill could be to select equipment for carrying out a certain field operation (e.g. field monitoring, field capture and collection, protecting turtle nests etc.).

- **Q** Field exercise Mallydams Wood, UK (2016)
- **R** Field exercise Zeeland, Netherlands (2021)

Functional Exercise

Could simulate the management of field operations at a certain scale where all participants are given a role to play.
A functional exercise could simulate a command centre where the field operations must be organised via an analysis of the given scenario and managing the planning and logistic teams that have to ensure coastal operations within 24 hours.
Could simulate the operational cycle of a given day in the response where response teams in the field are reporting their results and observations to the command centre, and a managing team has to document this and ensure that all reported data are document and actioned, again via planning and logistics.
Functional exercises can be organised in the field in the form of a combined drill in which participants play functional roles in animal collection (using dummies) in combination with a group receiving these collected animals at the collection point where they must be stabilised, and another one or two roles who have to oversee all operations in terms of instruction, safety management and communications with the command centre.

- **C** Oil company Regional Response Team Wildlife Exercise Malaysia (2016)
- **Q** Field exercise Mallydams Wood, UK (2016)
- **R** Field exercise Zeeland, Netherlands (2021)
- **S** EUROWA Functional exercise Ostend, Belgium (2016)

Full-scale exercise (As part of a wider full scale exercise)

A full-scale exercise could mobilise equipment into a given coastal section on the basis of a given scenario that provides the context of the exercise. People and equipment are gathered in the coastal area and all participants have a role to execute an operational cycle on the shore including arrival, safety checks, team instruction, PPE distribution, deployment, operational activities (collecting animals), arrivals at coastal collection point, stabilisation, data sharing with command centre, loading for transport, round-up and debrief, clearing out. The planning and realisation of the full exercise can include the practical exercise described under functional exercise.

- **D** National field and facility exercise Netherlands (2013)
- **E** PREDICT Exercise Helsinki (2016)
- **F** BALEX Delta Kotka, Finland (2021)

3.4 Aspect 4: Facility operations

Examples to look at (Annex III)

Seminar (as part of wider seminar)

Following a scenario-based risk analysis, the operations of a given facility can be presented and explained. A seminar can explain the differences between the use (and transformation) of an existing multi-purpose facility and the temporary use of a building (to be transformed) or a tent-based conceptualised facility (to be designed and built).
International conferences on oil spill response and preparedness normally include and facilitate sessions on case histories, preparedness programmes etc. which feature facility exercises or consider facility use in real incidents.

- **G** EOW International conference (2022)
- **H** Seminars following the Tricolor oil spill (2004)
- **K** Montenegro Stakeholder workshop (2022)
- **M** Multi-stakeholder Seminar Aberdeen, UK (2014)
- **T** EUROWA-2 online authority workshop (2022)

Workshop

A workshop could take a scenario describing impacts on seabirds (or other species) for a number of sequential days in a row, and have a group of participants to identify, discuss and try to solve the planning and logistical challenges of a facility setup that can deal with the scale of animal admissions. Such a scenario can be designed as the total number of animals admitted to a facility on a single day, or to provide number per species as well (different species requiring different resources such as type or food or type of housing). The workshop can focus on subject matter experts (people that take staff positions in a facility), or on stakeholders such as authorities. In both cases, the workshop can create insights as to how the facility needs to be designed by letting participants do this in groups. Following the design of the facility, they could explore and discuss the relative limitations of the facility, by looking at the limiting factors that may appear (space, staffing, food, water, etc.).

- **G** EOW International conference (2022)
- **K** Montenegro Stakeholder workshop (2022)
- **N** Wadden Sea Workshop, the Netherlands (2023)
- **T** EUROWA-2 online authority workshop (2022)

Tabletop

The tabletop can do the same as what is described above (see Workshop) but visualise it by creating a simulated facility space represented by a white board. Participants draw a facility and a card deck can represent equipment and staff that are needed to make every facility department operationally feasible.

- **K** Montenegro Stakeholder workshop (2022)
- **M** Multi-stakeholder Seminar Aberdeen, UK (2014)
- **N** Wadden Sea Workshop, the Netherlands (2023)
- **T** EUROWA-2 online authority workshop (2022)

Game

A game can be created by defining animals as small objects with different colours (a colour represents a species) which have to be placed on a board (white board, or wood) on which housing elements can be placed. EUROWA has developed such games using magnets and a white board. Such games have proven their value by visualising the operational challenges within a facility and stimulating quantitative management discussions.

- **N** Wadden Sea Workshop, the Netherlands (2023)

Drill

Drills can include the techniques and routines that are elementary in the care for animals in a given department. They could include tube feeding drills, equipment selection drills, documentation drills, or drills to design and operationalise departments. This could be done in a tabletop format (card decks, white boards) or physically as a functional exercise, using dummies (or dead birds) and/or real equipment from a stockpile.

Functional Exercise

Functional facility exercises can be held as tabletops or as part of a full exercise, when a complete facility is built, or complete departments are set up in a room or warehouse setting. Functional exercises can target responders (EUROWA hands-on functions such as Basic, Advanced or Specialist responders), managing functions (Section Heads and Managers), or all. The aim should be to make a department or facility work, understand how different functions concentrate on different responsibilities and routines and how it all comes together on the work floor on any given day of a facility being in operation. For example the exercise could focus on the design phase (Managers and Specialists), the realisation phase (Managers, Specialists, contractors), or a full operational setting (many animals on the work floor). The objective of such an exercise is creating an in-depth understanding of an operational facility as a system of multiple management aspects, requiring skills of planning, logistics and operational oversight.

- **S** EUROWA Functional exercise Ostend, Belgium (2016)

Full-scale exercise

A full exercise should mean that a facility, or a set of departments are realised with an attempt to approach the actual functional setting of people and equipment, including the operational dynamics of animals moving through. Such exercises require a lot of resources - and for that reason are expensive to do. Therefore, it is advised that they should be scheduled to last several days, so that the setting can be used to accommodate different purposes, and different exercise settings, including functional exercises and drills. Even workshops or tabletops could proceed a scheduled full exercise, to involve all stakeholders in preparing the full exercise and explore what their roles and tactical approaches are going to be. Such events in turn will educate participants in skills that they will need when having to take decisions on planning and realising facilities within a few days in the direct aftermath of an incident.

- **D** National field and facility exercise Netherlands (2013)
- **E** PREDICT Exercise Helsinki (2016)
- **F** BALEX Delta Kotka, Finland (2021)

3.5 Aspect 5: Incident management

Examples to look at (Annex III)

Seminar

Responding to wildlife impacts as part of a marine pollution incident has many more aspects than just thinking that a group of volunteers can capture, wash and release a handful of animals. A seminar can inform incident managers and pollution response experts about the multiple management challenges of a wildlife response. This can include scale, public reactions and media, social media and self-mobilising citizens, health and safety in coastal areas and more generally, public order and safety. Many aspects go beyond the roles and responsibilities of wildlife authorities, dedicated NGOs and professionals (veterinarians, scientists, rangers) that could assist with dealing with the affected animals or measures to prevent that animals can be impacted in the first place.
Seminars can be organised for incident response decision makers to highlight the social complexity of a wildlife response and raise awareness.

- **G** EOW International conference (2022)
- **H** Seminars following the Tricolor oil spill (2004)
- **I** Online seminars Netherlands (2021-2022)
- **K** Montenegro Stakeholder workshop (2022)
- **L** Wildlife Response Management Event Estonia (2021)
- **M** Multi-stakeholder Seminar Aberdeen, UK (2014)
- **T** EUROWA-2 online authority workshop (2022)

Workshop

Workshops can invite decision makers from marine authorities, civil protection, police, fire and rescue services, wildlife authorities, and incident response managers. Via the presentation of a realistic scenario, the discussion should focus on public reactions, self-mobilising citizens, the need for professionalism and the need for strategies that will prevent an escalation of the problems. A workshop can make some introductions and subsequently zoom in on particular challenges that could develop in the coastal area (see Seminar). Subgroups can be created to discuss these challenges and identify contributions that can be made by their own organisation (police, rescue service, etc) via proactive tools (public communication, access control, volunteer infrastructure), or physical control by presence in the field. The workshop could aim for conclusions and recommendations that can be considered by parties that manage the wider incident preparedness and response. It is also important to answer the question of how preparedness and capacity building is a matter of wildlife response planning (see Aspect 3 Wildlife Planning), and how wildlife response is best fully integrated into the overall response system.

- **G** EOW International conference (2022)
- **J** Authority Workshop Zeeland, the Netherlands (2019)
- **K** Montenegro Stakeholder workshop (2022)
- **N** Wadden Sea Workshop, the Netherlands (2023)
- **O** Management team exercise: creating a common operating picture
- **T** EUROWA-2 online authority workshop (2022)

Tabletop

A tabletop can do the same as above (see Workshop) but visualises the scenario with maps and concrete settings that need to be explored by the participants. The discussion can be managed via concrete tasks that participants have to elaborate on in subgroups, and making sure that plenary feedback of findings are capturing the different insights from different groups into plenary supported conclusions and recommendations.

- **A** EUROWA network assessment tabletop exercise (2020)
- **I** Online seminars Netherlands (2021-2022)
- **J** Authority Workshop Zeeland, the Netherlands (2019)
- **K** Montenegro Stakeholder workshop (2022)
- **L** Wildlife Response Management Event Estonia (2021)
- **M** Multi-stakeholder Seminar Aberdeen, UK (2014)
- **N** Wadden Sea Workshop, the Netherlands (2023)
- **O** Management team exercise: creating a common operating picture
- **T** EUROWA-2 online authority workshop (2022)

Game

Tabletops as described above can be spiced up by providing game elements in the form of dice and card decks. This needs further design and thinking, but games have the advantage that participants are more creative and collaborative, and lessons learned are more deeply felt and longer remembered.

- **N** Wadden Sea Workshop, the Netherlands (2023)

Drill

Wildlife impact aspects should be considered in notification procedures, and once there, drills can make sure that this is routinely considered by duty officers and decision makers.

Functional Exercise

A greater awareness about the multiple challenges of a wildlife impact scenario should appear in functional exercises of duty officers, response actors and decision makers from various authorities. Wildlife scenarios should be provided that highlight the relevant aspects for non-wildlife authorities and non-wildlife responders.
If necessary, a functional exercise could be designed so that the professional wildlife response resources (scientists, veterinarians, wildlife authority representatives, wildlife hands-on experts) can explore, demonstrate and practice their ability to work as part of a wider incident command system.

- **C** Oil company Regional Response Team Wildlife Exercise Malaysia (2016)
- **Q** Field exercise Mallydams Wood, UK (2016)
- **R** Field exercise Zeeland, Netherlands (2021)
- **S** EUROWA Functional exercise Ostend, Belgium (2016)

Full-scale exercise

A full oil spill exercise that brings people and equipment into the coastal zone for example cleanup activities could invite and prepare for an integration of a full exercise on wildlife collection activities (see Aspect 3 Field Operations). In this way the integration of activities in a coastal section can be explored and practiced.

- **D** National field and facility exercise Netherlands (2013)
- **E** PREDICT Exercise Helsinki (2016)
- **F** BALEX Delta Kotka, Finland (2021)

3.6 Aspect 6: International

Examples to look at (Annex III)

Seminar

A seminar could highlight the relevant challenging wildlife scenarios and the available international resources that can be mobilised for mutual assistance. The procedure can be explained as well as the nature and the needs of the response teams that can be made available for the international response. In addition a variety of presentations can be made on in-country activities, the scaling of international response, the use of protocols and standards of good practice, leadership and collaboration with local response groups, volunteers etc.

- **G** EOW International conference (2022)
- **H** Seminars following the Tricolor oil spill (2004)
- **K** Montenegro Stakeholder workshop (2022)
- **M** Multi-stakeholder Seminar Aberdeen, UK (2014)
- **T** EUROWA-2 online authority workshop (2022)

Workshop

A workshop can be organised and held in a country that wants to explore the international aspects of a wildlife response and invite representatives of an international team (such as EUROWA) to explore the details. A workshop can also be held as an international gathering of interested authorities and expert responders, and concentrate on various aspects of a wildlife response supported by an international team.
A workshop could include (parts of the topics described for) a seminar, after which interactive time slots can explore the details of the international mobilisation and integration with mobilised wildlife response. The interactive discussions should look at e.g. procedures, contracting, host nation support. Discussions should identify potential hurdles or gaps so that the workshop can lead to recommendations for further development of international procedures and the integration of those procedures in national planning.

- **K** Montenegro Stakeholder workshop (2022)
- **N** Wadden Sea Workshop, the Netherlands (2023)
- **T** EUROWA-2 online authority workshop (2022)

Tabletop

A tabletop could describe one or more scenarios in order to visualise the topics for discussion and let participants go through different concrete phases of the international mobilisation process, e.g. notification, exchange of availabilities, terms of reference for international assistance, arrival and integration, etc. Such tabletops will highlight what is already available and what should be further developed.

- **K** Montenegro Stakeholder workshop (2022)
- **M** Multi-stakeholder Seminar Aberdeen, UK (2014)
- **N** Wadden Sea Workshop, the Netherlands (2023)
- **T** EUROWA-2 online authority workshop (2022)

Game

A tabletop such as described above could be further spiced up with attributes such as dice, card decks etc. This requires creative design and rules of play.

- **N** Wadden Sea Workshop, the Netherlands (2023)

Drill

The procedure to notify and mobilise international wildlife assistance needs to be embedded in national procedures to invite international assistance (via Regional Agreements or the EU Civil Protection Mechanism). Drills can be designed to make sure the procedure for wildlife assistance is routinely used as part of regular drills for duty managers .

- **B** Global Oiled Wildlife Response System SOP notification drill (2021)
- **Q** Field exercise Mallydams Wood, UK (2016)
- **R** Field exercise Zeeland, Netherlands (2021)

Functional Exercise

As part of functional exercises for marine pollution response (see Aspect 5 Incident Management), the mobilisation of international wildlife expertise can form a package that functional roles have to deal with. This should require them to go through the procedures of the national plan in relation to the scenario, and get in touch with international entities like the EU Emergency Response Coordination Centre (ERCC) and the teams available (e.g. the EUROWA secretariat). Via such an exercise setup the advantages of having a wildlife response fully integrated into a pollution response management system will become clear.
International experts could also be invited to attend the functional exercise and work with invited local wildlife experts to deal with the wildlife aspects of the scenario.

- **C** Oil company Regional Response Team Wildlife Exercise Malaysia (2016)
- **Q** Field exercise Mallydams Wood, UK (2016)
- **R** Field exercise Zeeland, Netherlands (2021)
- **S** EUROWA Functional exercise Ostend, Belgium (2016)

Full-scale exercise

A full exercise could consider mobilising an international team to provide support to a local wildlife response team. The mobilisation of the international team could follow the formal procedure, which could be tested and completed a few weeks before the actual arrival of the team for the exercise onsite. The international team could work with the national team to deal with the wildlife operations of the exercise and provide insight, skills and further information on the availability of international resources. Such a full exercise design would benefit all parties and help to deepen insights in the advantages of international mobilisation and allow all participants to test assumptions and provide recommendations for improvement.

- **F** BALEX Delta Kotka, Finland (2021)

4 Exercises as backbones of a multi-year preparedness programme

Exercises are important tools to explore, develop and improve multi-actor cooperation that is needed to deliver on the objectives of a wildlife response plan. A wildlife response plan that is not exercised, or only very infrequently, may quickly go out of date. What will be left is a paper plan on the shelf that few people may remember and which nobody will read when an incident happens. Described actors, ministries, or agencies may no longer be around or exist, and described responsibilities will not be recognised by entities that work under a new name or department.

Exercises ensure that the challenges connected to a wildlife response are regularly explored and dealt with by actors that can make a difference to overcome them. Many of these challenges (mobilisation, communication, logistics, deployment, decision making) are generic to any emergency response, and will make sense to personnel that may have responsibilities in other areas of incident preparedness and response.

The best way to ensure the progressive development of efficient response capabilities is a structural multi-year exercise programme that schedules a range of exercise types, in which the whole range of functional teams and officers can regularly participate, get to know each other and learn how to appreciate and build on each other's contributions.

4.1 Structural exercise programme

It is strongly recommended that a structural exercise programme for wildlife response is defined as part of a multi-year project that also provides regular opportunities for functional training. A structural exercise programme lists a range of smaller and larger exercises on a timeline (e.g. 5 years) and recognises the different roles of organisations and functional officers, the regional differences in jurisdictions, the varied levels of responsibilities, the implication of different response teams, etc. It ensures that key functions and the organisations behind the people that fill those functions are regularly performing their responsibilities in a realistic setting with a range of realistic scenarios. The exercises go hand in hand with training opportunities of staff members to increase knowledge and skills. The exercises provide opportunities to cooperate, create collegial bonds and develop important experiences.

The number of exercises and how often they are scheduled is dependent on various factors:

- Identified development needs.
- Available budget.
- The frequency that participating organisations are prepared to commit to.
- Regional differences in jurisdiction in the scope of the plan.
- Possibility to organise meetings either in-person or online. As detailed above, certain exercises can only be organised in-person but in difficult circumstances or force majeure (e.g. pandemic), this will not be possible.

An example of a multi-year exercise programme is illustrated in Fig 3. It demonstrates the target frequency of each type of exercise, and it also recognises that actors will differ in different regions and therefore need to be separately considered in defining frequencies of certain key exercises.

	Year	2022		2023				2024				2025				2026				2027	
	Quarter	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
Type of Exercise	**Region**																				
Notification Drill	All																				
Tabletop	Region 1																				
	Region 2																				
	Region 3																				
Full-scale Exercise (Field)	Region 1																				
	Region 2																				
	Region 3																				
Annual Seminar																					
Full-scale Exercise (Field & Facility)																					

Fig 3. Example of draft multi-year programme for a National Authority (Rijkswaterstaat in the Netherlands).

Fig 4. Field exercise (Zeeland, the Netherlands 2021) involving different stakeholders to practice the concept of the Beachhead Collection Point (BCP) as part of the multi-year programme of the Dutch National Oiled Wildlife Response Plan.

Fig 5. Technical meetings with tabletops (Ostend, Belgium 2022) organised regularly by SON Response as part of the multi-year programme of the Dutch National Oiled Wildlife Response Plan.

4.2 Exercising within Regional Agreement Frameworks

Within the framework of Regional Agreements and their regional exercises, regional exercise programs are used to identify and prioritise longer term exercise needs, identify gaps in regional preparedness exercises and define and propose joint exercise projects.
Exercises to explore, test and collaborate on the international aspects of wildlife response have been used only ad hoc over the years, but need to be organised more structurally. Such regionally organised exercises could focus on two main areas:

- Cross-border cooperation on scenarios where the assessment and exchange of wildlife resources and expertise between countries is needed.
- Exploring and practising the mutual assistance arrangements for wildlife response, which would mean exercising the mobilisation and integration of professional capacities such as EUROWA.

Planning and developing such exercises can be done via dedicated regional exercise plans, such as the HELCOM Response Exercise Plan (HREP), which is founded upon chapter 8 of the HELCOM Response Manual. The HREP aims to ensure a long-term perspective and continuity in the way exercises are developed via an exercise management cycle (see Fig 4). Wildlife exercises are to be prioritised as part of this standard approach.

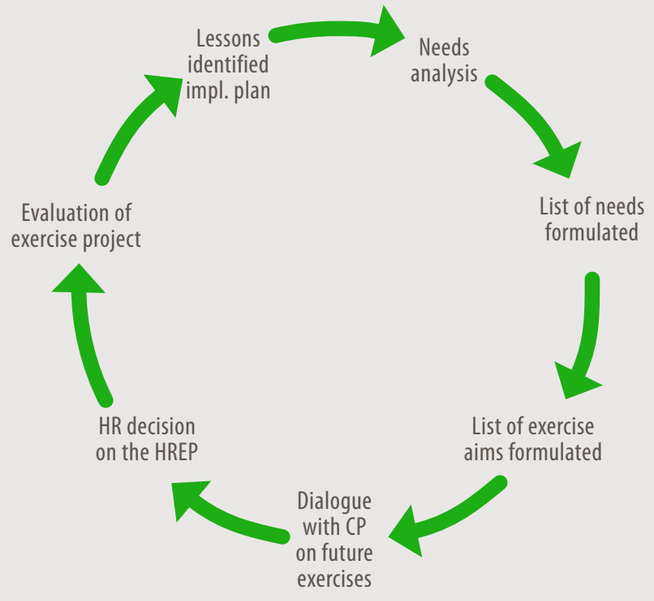


Fig 6. The cycle of exercise design and planning process. Adapted from the HELCOM Response Exercise Plan (CP – Contracting Party).

4.3 Recognition of tiered response in exercises

The tiered response concept recognises that response expertise and capabilities can be mobilised from a larger geographical area than the area where the effects of an incident happens. Table 1 provides examples of the tiered response concept for oil spill response and wildlife response.

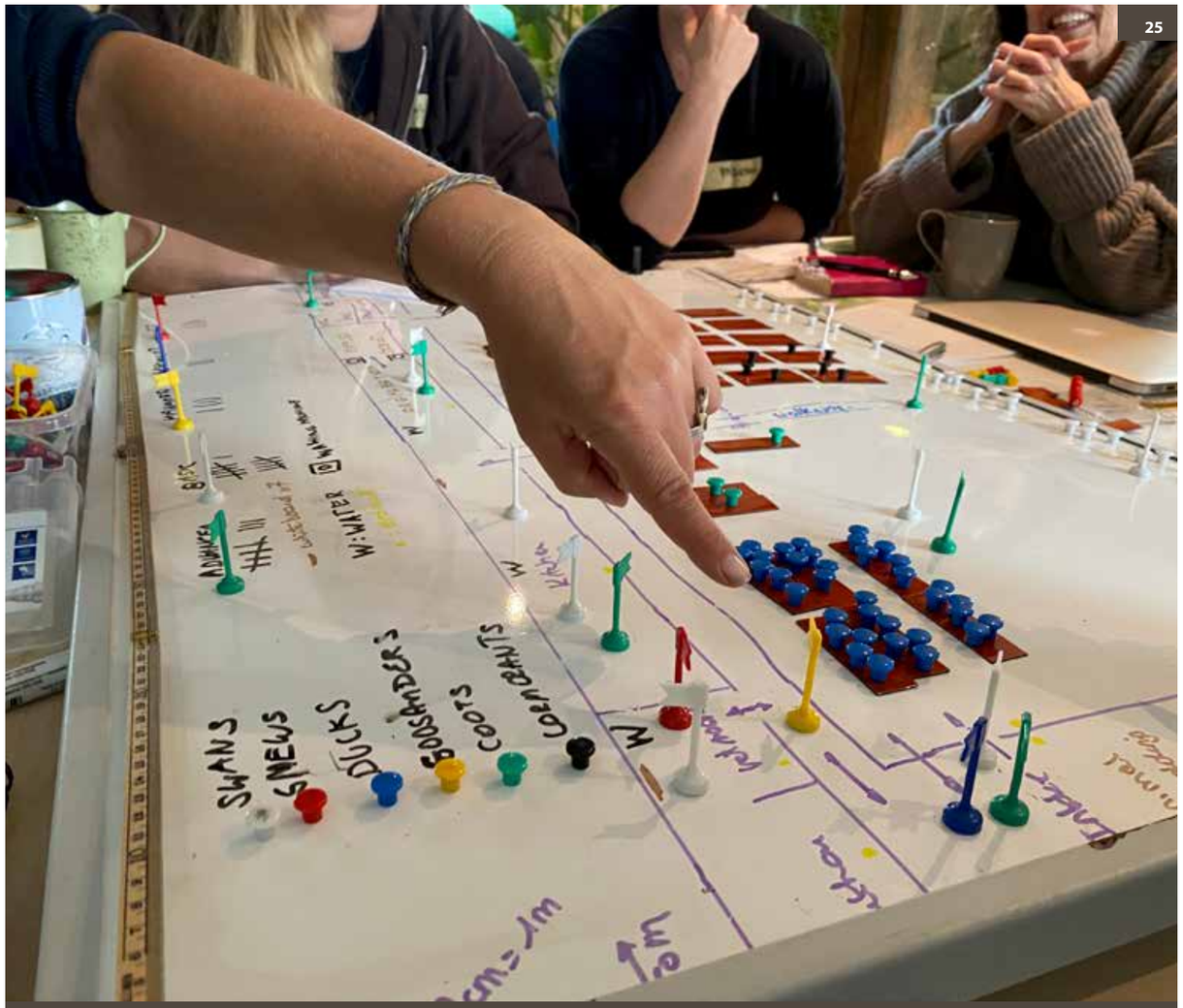
Defined tiers	Coastal clean-up (wildlife response coordination)	Oil industry response	Wildlife response
Tier-1 (small, simple scenario)	Local municipality, port authority	Vessel, refinery	Local wildlife responders, local rehabilitation centre
Tier-2 (wider region, complex jurisdiction, larger volumes)	Regional authority	National company response team	Assistance from national wildlife responders
Tier-3 (Geographically or technically complex, exceeding capabilities or regional or national resources)	(national resources)	Corporate response team, international resources	Assistance from International wildlife responders (e.g. EUROWA)

Table 1 Tiered response: expertise and capabilities.

It is recommended that a structural exercise plan recognises the tiered response concept and ensures that actors from all tiers are invited to participate, at least in certain dedicated exercises. Where national structural exercise plans have identified Tier-3 exercise needs, this should be recognised also in regional exercise plans. Contracting Parties of Regional Agreements for instance, may be highly dependent on the contribution of international resources to deal with the more complex wildlife incident scenarios. It is beneficial for the authorities and for the international resources in question (e.g. the EUROWA expert team or experts from neighbouring countries) to test their national procedures and to facilitate the integration of an international expert team into a local, regional or national wildlife response.

4.4 Exercise evaluation

Each exercise should be followed by an evaluation process, where participants are given the opportunity to assess the performance of the contributing actors, identify bottlenecks and failures which need to be addressed, as well as review the exercise methodology and its suitability for achieving the objectives of the exercise in question. Where development needs have been identified, such as the need for more training, for targeted research or exercises, or for the development of manuals or procedures, an implementation plan should be drawn up, adopted, and implemented, to ensure that lessons learned lead to development.



5 Strategic use of exercises

Section 2 indicates that an organised event that focuses on wildlife response could be built around a combination of different types of exercises (e.g. a seminar with a tabletop). But this is only one way of combining different exercises: another important way is to look at existing general emergency exercises and programmes in which elements of the at-sea response or onshore response are exercised, as they may allow for addition of wildlife-related aspects.

5.1 Discussion-based exercises to raise awareness

In countries where wildlife response is not yet recognised, or where a plan has not been developed, discussion-based exercises may help to raise awareness. These activities would be targeted at the authorities and other entities with responsibilities for at-sea and onshore operations in a pollution incident. A seminar or workshop, in combination with a tabletop, can be used to demonstrate the need for wildlife preparedness to invited participants who have a (partial) responsibility for this issue. See Table 2 for an overview of the different type of discussion-based methods that could be used and some guidance about their design. Further details on the setup and organisation of these can be found in Annex I.

Seminar	
A seminar (or awareness training) could be a series of presentations that provide an overview of wildlife response science, including case studies of incident responses. Ample time should be given to moderated discussions. Preparatory work should go into data collection to demonstrate that a wildlife incident, although known to happen infrequently, could be a realistic scenario in the country in question. Such a scenario could be presented, and discussions could focus on the possible consequences of polluted wildlife arriving on the shore. In-depth discussions can be achieved by inviting a mixed group to the seminar, including a range of authorities, wildlife rehabilitators, volunteer groups, population scientists, nature reserve managers, etc.	
Workshop	
Similarly, a workshop could be held with a mixed audience from different jurisdictions and expertise groups. The workshop should aim to create a follow-up action plan, with tasks that each of the participants should take to their home organisation. A workshop could also be scheduled as a follow-up of a successful seminar that has identified the need for preparedness and common ground for all participants to take a share in some concrete steps and actions.	
Tabletop	
A tabletop where a scenario is presented and participants are put into smaller teams to try solving or managing certain aspects of wildlife challenges, is a great instrument to be combined with a seminar or workshop. Tabletops aim to stimulate creativity and free-thinking, and participants will motivate each other to make useful contributions. Participants feel ownership over the outcome of a tabletop they participated in. Tabletops help to overcome reservations that anyone may have and can create new insights with participants who may not grasp all the challenges by listening to and talking with other participants.	

Table 2 Exercise methods used for discussion-based activities to raise awareness.

5.2 Wildlife exercise as part of an oil spill response exercise

Explicit integration of wildlife aspects in the more traditional oil spill response scenario design will help exercise actors to realise that the marine/coastal area is also an ecological system with response complexities.

5.2.1 Importance of wildlife aspects in a response exercise

In many countries the interpretation of a marine oil spill scenario is often narrowed to the engineering aspects of combating the oil or clean-up operations on the shoreline. This is understandable as the engineering aspects are very much representing "what can be done" about an oil spill, trying to limit its damage, taking the oil out of the environment. But this results in exercises that are only focusing on the engineering tools and making them work. They are about equipment (booms, skimmers, drones, dispersants), the experts who have to mobilise and/or operate the equipment and the location (beach) or facilities (vessels, aircraft) these experts have to work from. Exercises are planned, designed and built around these operational areas, but most countries have split up their exercise programmes between "at sea" exercises (practicing the combating of oil on the water) and "on the shore" exercises (practicing clean-up of coastal structures).

Events are very rarely organised in which both aspects are exercised in a coherent way. Much more investments are made into at sea operational systems (counter pollution vessels and their equipment), and this goes hand in hand with a higher frequency of exercises to test those systems, also in an international context. "On the shore" exercises are lagging behind, and in many countries the operational capabilities are outsourced to specialised contractors.

The potential wildlife impacts of an oil spill, and the complex "on the shore" aspects of dealing with large numbers of live and dead animals washing ashore is not included in any of these exercise programmes. It is often assumed that such a scenario can be dealt with by NGO's or self-mobilising citizens, which is a mistake. The complexity of dealing with such a scenario is high and neither NGO's nor citizens have the infrastructure and management capabilities that are needed for this. These scenarios need to be integrated into the exercise programmes of both at-sea and on the shore authorities. The next paragraphs provide suggestions to this end.

5.2.2 Integrating wildlife aspects in an at-sea response exercise

Integrating an explicit wildlife aspect in an at-sea response exercise scenario can emphasise a wider realistic response environment in three main ways:

- Prioritising the deployment of vessels or aircraft differently if wildlife objectives need to be included. Wildlife surveillance or impact assessment (from air or at sea) may be needed. Or performing hazing or animal collection at sea to prevent or minimise oiling of wildlife such as birds, mammals or sea turtles.
- Considering that certain methods of oil combat may affect wildlife (e.g. use of dispersants, use of fire boom).
- Considering the fact that at-sea response may not be as effective as you hoped, timely warning needs to be given to shore-based authorities and entities so that they can start mobilising and deploying resources to deal with oiled animals and protect ecologically sensitive areas before the oil reaches the shore.

For each of the above considerations, quality real-time information on vulnerable wildlife distributions is needed. Being conscious of the availability and format of this information, an expert (ecologist) may be needed who can provide experienced real-time advice as part of the incident management system. These aspects will lead to the appreciation and use of an integrated wildlife response plan.

5.2.3 Integrating wildlife aspects in an onshore response exercise

Integrating an explicit wildlife aspect in an onshore response exercise scenario can emphasise a wider realistic response environment in various ways:

- Awareness that polluted wildlife can come ashore alive and dead and need to be treated differently from the pollutant itself.
- Pollution-affected wildlife may arrive outside of the coastal area where the pollutant is expected to hit.
- Professional expertise needs to be mobilised and deployed to deal with the polluted wildlife. Their activities need operational integration into the wider clean-up activities.
- The pollution arriving ashore may cause effects on coastal wildlife. Various activities to prevent these effects (e.g. hazing/deterrence) may have to be considered, for which additional expertise needs to be mobilised and integrated.
- The pollution clean-up activities may be harmful to unoiled wildlife and their use of the habitat. Clean-up methods or planning of activities may have to be adjusted to minimise these effects in consultation with wildlife experts.
- Site Risk Assessments and Health and Safety measures apply to everybody – oil spill and wildlife responders equally and they need to be widely communicated and applied to ensure a safe working environment for all.
- Members of the public may self-mobilise to try and assist animals in distress. Authorities must anticipate these reactions and ensure that these efforts are managed and/or integrated.
- Considering media interactions during the response where wildlife questions can be directed to anybody involved in the field. Instructions on how to direct media to the right, informed people on wildlife are needed. Those who will communicate with the media also need to be trained .

Exercises that are designed based on these integrated scenarios will help parties to explore solutions and find ways to make a response more efficient and more cost effective.

5.3 Modular approach: exercise events with various components

When organising an exercise event, consider the possibility of combining different exercise components which might be using different exercise methods. There is no rule of thumb for this and multiple combinations are possible – and beneficial. For example, seminars and workshops could be easily combined with tabletops (and/or games). Also, functional exercises or full-scale exercises can be combined with drills, tabletops and even with seminars or workshops.

These combinations need to be considered. If more than one target group will be invited to the exercise, value can be gained by adding a few modular exercises to the programme for specific participants. These also let target groups become observers in a "next door" exercise, e.g. during a break in their own exercise.

In another example setup, different target groups could go through one or more discussion-based exercises before participating together in another, larger exercise. For example, seminars could be used as a lead into a larger exercise, to sketch the context, or provide the details of the underlaying response plan.

5.4 Hybrid approach: Exercises combined with functional training courses

It is hard to draw a line between exercises and training courses. Exercises are excellent opportunities to familiarise personnel with their functional roles, and therefore are implicit training events too. The other way round also is valuable. Training events for personnel can naturally go hand in hand with looking at, discussing and exploring scenarios. Building in a tabletop as part of a training course is guaranteed to deliver great insights and provides participants with an always much appreciated interactive element.

In a similar way, short training courses can be organised back-to-back to a large functional exercise or field exercise. A half-day or full day training course preceding the exercise could be provided as a refresher course, or even as a first introduction of targeted personnel to their functional role in the exercise. Such a training course can focus on specific background knowledge, train certain skills, or familiarise participants with forms or other procedural requirements which are the backbone of the exercise.

5.5 Breaking cultural barriers

Single organisations have their own way of dealing with their assigned (statutory or voluntary) role and responsibilities. Each organisation will organise its own exercise programme to prepare for these services. Regular joint exercises, bringing together participants from different organisations, are important to ensure that systems are not drifting apart, expectations of each other's capability are realistic and to check that working together is possible.

A wildlife response is heavily dependent on different response systems coming together. Preparing for complex wildlife scenarios requires exercises in which at-sea authorities and onshore authorities are brought together and familiar with the contribution they can make as part of a joint operation, to result in an orderly wildlife emergency response.

The same happens with larger scale exercises where more than one country can be involved. Wildlife does not respect borders or cultural differences – so organisations will need to work together, regardless of their internal systems, to be able to respond in an efficient manner. More details about international exercising are given in section 3.6.

5.6 Industry exercises

The oil industry undertakes exercises, and their larger exercises also aim to cooperate with authorities at different levels (national/regional/local). Industry exercises usually focus on ensuring that an internal response system can be quickly set up, conform with and be fully integrated if needed with the incident management system run by the authorities.

Wildlife response is increasingly recognised by the oil industry as an important area for preparedness. Integration of wildlife scenarios in industry exercises happens more often these days and also can be required by the authorities. There is a growing experience from oil industry exercises where wildlife response is simulated through tabletops, functional exercises or drills and in which wildlife response experts are invited to participate. Such multi-disciplinary exercises can reveal challenges or obvious solutions from which all parties (industry, authorities, NGOs) can learn lessons to be better prepared in a real scenario.

5.7 International exercises: Regional Agreements

The European Regional Agreements (HELCOM RESPONSE, Bonn Agreement, Barcelona Convention) have agreed mechanisms in place that facilitate mutual assistance between Contracting Parties (CPs), such as the Counter Pollution Manuals. The European Commission, which is party to all agreements, further supports and enables this collaboration via tools e.g. the CECIS platform, expertise networks, Civil Protection Mechanism, EMSA´s services etc. Much work is currently taking place to facilitate that these mechanisms can be used to facilitate mutual assistance also for wildlife response (e.g. updated Counter Pollution Manuals including wildlife aspects, EU-funded EUROWA-2 project, wildlife expertise in the Mediterranean Assistance Unit).

The European Regional Agreements have different categories of exercises in which their agreed Counter Pollution Manual can be tested and operated by CPs. These exercises are defined as follows (HELCOM, 2021; Bonn Agreement, 2021):

Name	Description
Synthetic/Tabletop exercise (BALEX ALPHA)	A “paper exercise” the aim of which is to create a base for discussion on matters relating to organisation, communication, logistics, etc. in combatting actions involving two or more Baltic Sea Countries. Thought to be held in connection to HELCOM RESPONSE meetings.
Alarm Exercise (BALEX BRAVO ; BONNEX BRAVO))	To test the agreed procedures and lines of communication for reporting, requesting and providing assistance, and to get a picture of the current response readiness of the CPs when called to assist. The exercise further aims to familiarise the personnel with the use and handling of the adopted POLREP form.
Equipment Exercise (BALEX CHARLIE; (BONNEX CHARLIE)	To test the cooperation between the combatting units of the Contracting Parties with respect to both communication and equipment. Very restricted involvement of personnel (only personnel needed for running the equipment). Carried out between two or more Contracting Parties with bordering Response Region. Other CPs and the Secretariat are informed and invited to send observers.
Operational Exercise (BALEX DELTA; BONNEX DELTA)	Test the alarm procedure, response capability and the response time of the Contracting Parties, partly to test and train the staff functions and the cooperation between combatting units of the Contracting Parties.
State-of-the-Art Exercise (BALEX ECHO)	Demonstration of type of equipment, response method, means of communication or scientific test. Relevant observers from the Contracting Parties should be invited.

Table 3 Exercise categories applied to exercises from Regional Agreements (Text provided according to the HELCOM Manual, Vol. I; Chapter 10 and Chapter 7 of the Bonn Agreement Counter Pollution Manual)

Fig 7. and Fig 8. Establishment of a wildlife rehab centre in a building of opportunity during the Full-scale exercise BALEX Delta 2021 (KOTKA, Finland).

HELCOM’s Expert Group on Oiled Wildlife Response (EG-WILDLIFE) has demonstrated that variants of these exercise categories can be designed for wildlife-specific exercises testing mutual assistance capabilities between different CPs, as follows:

Name	Description
BALEX ALPHA-W	A tabletop exercise in which a wildlife scenario is introduced to a group of participants who represent two or more CPs. The ALPHA-W can be integrated into another ALPHA tabletop or even a DELTA or DELTA-W exercise.
BALEX BRAVO-W	Currently the EUROWA Module could be tested as part of a BALEX BRAVO exercise, by sending a request via CECIS. In the future, when CPs would have their own internationally qualified response personnel, teams or equipment, BRAVO-W could include the request for these systems via bilateral or multilateral communications (for example, the Finnish Bird Cleaning Unit (BCU) could perhaps be requested for).
BALEX CHARLIE-W	On the short term not widely applicable for wildlife, except perhaps for the Finnish BCU which could be made available to Estonia, Russia or Sweden.
BALEX DELTA-W	A host country CP could design and plan for a wildlife exercise in which field activities or facility activities are simulated by (teams of) trained personnel. The interaction between personnel from different CPs will be useful to explore common standards for animal handling, management, documentation and communication.
BALEX ECHO-W	This could be a completely scripted tabletop for wildlife response decision making, a demonstration of a piece of wildlife equipment, or decision making support tool.

Table 4 Exercise categories applied by the EWG-OWR to wildlife-specific exercises based on the HELCOM Manual on Co-operation in Response to Marine Pollution, Chapter 7.

These wildlife-specific exercises could be implemented also as part of the Bonn Agreement exercise structure. In the future, it would be valuable to facilitate an exchange on exercise frameworks and programmes between the Regional Agreements. This could promote the development of wildlife-specific exercises and exercise planning in all regional seas, and lead to increased knowledge about resource, training and exercise gaps that need to be jointly developed on a European level to ensure adequate wildlife response preparedness.

Literature

Bonn Agreement (2021). Bonn Agreement Counter-pollution Manual. https://www.bonnagreement.org/site/assets/files/1081/bonn_agreement_counter_pollution_manual.pdf

HELCOM (2021). HELCOM Manual on Co-operation in Response to Marine Pollution. https://helcom.fi/wp-content/uploads/2021/03/HELCOM-Manual-on-Co-operation-in-Response-to-Marine-Pollution.pdf

IPIECA/OGP (2014). Oil Spill Exercises. Good practice guidelines for the development of an effective exercise programme. https://www.ipieca.org/resources/good-practice/oil-spill-exercises/

Morgan, K. and Fagel, M.J (2012). Planning and Exercise. In: Principles of emergency management. Hazard specific issues and mitigation strategies. Fagel, M.J.(Ed) . CRC Press. Pp 223-280.

Photo Credits

Markus Dernjatin (WWF) Fig 7, 8, 24, 25
Oiled Wildlife Care Network Fig 27
Pro Bird Photo in Chapter 5
Saara Tunturi (WWF) Fig 22, 23
SON Respons Fig 45
Sea Alarm Foundation (SAF) Photo in Chapter 1, 2, 4 and Fig 3, 5, 9, 10, 12, 14, 16, 18, 17, 19, 20, 21, 26, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 38, 40, 41, 42, 46, 47, 48
Will Leurs Photo in Chapter 3 and Fig 4, 13, 43, 44 and Chapter Photo of Annexes
WRCO Fig 11

Acronyms

BCP	Beachhead Collection Point
BCU	Bird Cleaning Unit (Finland)
CECIS	Common Emergency Communication and Information System
CP	Contracting Party
EG-WILDLIFE	HELCOM's Expert Group on Oiled Wildlife Response
ERCC	Emergency Response Coordination Centre
EUROWA	European Oiled Wildlife Assistance
HELCOM	Helsinki Commission
HNS	Hazardous and Noxious Substances
HREP	HELCOM Response Exercise Plan
IOGP	International Association of Oil & Gas Producers
REMPEC	Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea

Annexes

Annex I. Descriptions of discussion-based exercises

A. Seminar

What is it?
An informal orientation event aiming to familiarise participants with new or updated plans, policies or procedures. Attendees have the opportunity to discuss their individual roles and responsibilities. A facilitator may use simple scenarios to build understanding.

How long should it be?
Seminars can vary in length depending on how many topics should be presented. However, each topic should be presented in around 1-2 hours, up to a maximum of one full day.

How many people should participate?
There is less interaction in a seminar between presenters and attendees, therefore this type of event can be provided to a large number of people, from 10-50 people depending on the venue. The larger the group, the more varied the programme should be, making it worthwhile for so many people to attend. Having several tens of participants will reduce the relative input from individual participants into the overall results, but it will provide opportunities for networking, which could be an explicit objective. The number of participants may need to be reduced if the seminar is combined with other types of exercises (e.g. workshops or tabletops) where the number of attendees should be lower for their effectiveness.

Which format?
Seminars can be organised in-person or remotely (webinar) as long as participants are able to have interactive discussions and the organiser can moderate them.

Wildlife application
A seminar is a useful tool to provide the explanation to a stakeholder audience that improvisation is bound to fail in challenging scenarios, that parties can only make things work if they work together and if no-one fails to be prepared.

A good wildlife response plan is typically an integrated one. Complex scenarios will need the involvement of authorities and entities who may not have an explicit wildlife objective – but their jurisdiction, responsibility or service is crucially needed to deal with a range of associated challenges. A wildlife plan is also dependent on the services of hands-on wildlife actors and organisations, whose day-to-day activities are non-emergency related and typically take place at a much lower scale than that of a challenging pollution event. In other words, the implementation of a wildlife response plan is "unusual" for all stakeholders.


Fig 9. Wildlife preparedness lecture as part of an oil company seminar on oil spill response and preparedness (Marseille, 2022).

A well-written plan will present the coherence between the objectives, the levels of response, the strategy to follow and the roles and responsibilities that everyone has been assigned. In that coherence, every organisation can not only see its own role, but also see what everybody else contributes to make the plan work. Highlighting the logic, this coherence and mutual dependency should be the key contents of any seminar. Scenario examples should be used to make things concrete and invite participants to interact. There should be plenty time for discussions, so that participants can make comments, ask questions, further explore the expectations of their own contributions and investigate which complementary services other parties will provide. Discussions may highlight potential practical challenges at operational levels, for which parties may agree to develop further guidance documents that could be annexed to the plan.

Seminars can work to enlighten participants and it is important for seminar organisers to ensure that a follow-up trajectory is agreed, especially around tasks that were identified. For a wildlife plan, the follow-up is often related to the fact that most participants are expected post-seminar to explain and integrate "wildlife emergency thinking" into the commitment and activities of their own organisation or department. Providing the written/visualised outcome of the seminar to the participants will certainly assist them with forwarding that message.

B. Workshop

What is it?
Similar to seminars, but participants are invited to more actively provide their input into building or achieving a product, for example a new draft plan, policy or procedure. Workshops can be used to deepen the understanding of an individual's roles and responsibilities, if needed through breakout or walk-through sessions.

How long should it be?
Workshops require some preparatory work to develop a set of activities which will lead participants to actively discuss and contribute. This type of interaction between attendees needs to be given plenty of time so that inputs can be elaborated without any time pressure. Workshops are therefore recommended to be at least 2 hours long. Regarding maximum length, there are various possibilities as workshops could be organised on a 1-Day format (8h) or even 2 or 3 day format (8h each) depending on the number of topics that need to be discussed.

How many people should participate?
The number of participants to be invited to a Workshop should be relatively small. Too many participants reduces the relative contribution of each individual to the results, and will turn the event into a seminar rather than a workshop. For larger groups, organisers should consider breakout groups for maximising the value of the workshop results. A breakout group should not exceed a maximum of 6-8 people, and the time given to the breakout session should be related to the size of the groups and complexity of the tasks. For defining the number of breakout groups one should consider the number of workshop moderators that is available to assist each breakout group. Also the time one has to spend on plenary evaluations of the results from breakout groups will seriously increase with the number of such groups. Lastly, the accommodation of the event should be suitable (size, acoustics) to allow for comfortable working conditions for each breakout group and plenary sessions.

Which format?
Workshops can be organised both in-person or remotely, but it is strongly recommended to favour the in-person option as participants should be encouraged to constantly interact which each other (entire group and small groups), work on technical documents or with physical elements (dummies, model animals, magnets etc.). Organising a workshop online can be possible but is challenging as online platforms are not always fit for purpose for this type of exercise and it requires more technical challenges for the moderator(s) and participants.

Wildlife application
Depending on the target audience wildlife workshops can have a range of objectives and related outcomes. Since wildlife response is an integrated response, workshops are useful tools to explore with personnel from supporting domains (at-sea oil combat; onshore response and civil protection) what the concrete implementation of the wildlife plan would mean for their own routines and procedures. Via scenarios, these parties could explore what the existing package of activities include, and where specific wildlife additions can be made. Facilitated brainstorming will probably demonstrate that relatively simple additional routines, key to a successful wildlife response, can be easily integrated into existing procedures.

For the domain of wildlife response itself (e.g. the direct or indirect interaction with animals), workshops can explore the concrete details of working together (on the shore, inside facilities) and can identify which follow-up activity or activities (e.g. exercise method, developing a guideline or procedure) could help to materialise the insights revealed.


Fig 10. Wadden Sea Workshop (the Netherlands, 2023).

C. Tabletop

What is it?
Tabletops normally use scenarios and simulated response settings. They involve key decision-making personnel and aim to build competence and confidence in the implementation of response plans and procedures. Tabletops can highlight key aspects of the decision-making process, but in a simplified format, allowing participants to concentrate on problem solving without distraction and allowing time to discuss amongst themselves so that different alternative solutions can be considered. Tabletops can be designed from basic to complex. The complexity is often created by mixing functional groups, via a multi-disciplinary scenario in which the groups have to exchange data and insights with each other. Complexity can also be added by feeding new information (injects) into the process or giving twists to the scenario.

How long should it be?
Tabletops, like workshops, require a group of participants working around a given scenario where discussions and decisions need to take place. The pace needs to be reasonable in this type of exercise, giving participants enough time to deal with the scenario. A minimum of 2 hours and a maximum of 4 hours should be spent working on the same scenario. There is always the possibility to create another tabletop if you want to have your participants to carry on tabletopping on similar aspects but where it would help to start fresh with a new scenario.

How many people should participate?
Tabletops run similarly to workshops. The more participants, the less productive they become. Also, for tabletops it is recommended that each breakout group should not have more than 6- 8 people, depending on the working space available (e.g. table size), to make sure that everyone can have a useful contribution. Tabletops are more playful and complex than workshops and will require more interaction between individual groups and the moderators. It is recommended to have no more than 3-4 groups supervised by 2 moderators who can swap between groups. This means that tabletops should have between 18-24 participants. Also for tabletops, the accommodation of the event should be suitable (size, acoustics) to allow for comfortable working conditions for each breakout group and plenary sessions.

Which format?
As it is the case for workshops, tabletops can be organised both in-person or remotely, but it is strongly recommended to favour in-person tabletops. Indeed, this type of exercise requires a high degree of interaction between the working groups and the moderator(s). Opting for an online format might limit this interaction and reduce the outcomes of the tabletop.

Wildlife application
Wildlife incidents do not happen frequently and therefore actors do not have regular opportunities to develop their routines in a real-time situation. Tabletops are therefore useful and relatively cheap instruments to help shape the theoretical routines of personnel (do's and don'ts) for a range of scenarios. The key to bringing a tabletop alive is for the design team to have a good understanding of the physical and numerical reality of coastal operations and/or facility operations that are the subject of the exercise. The design team must find ways to visualise these aspects, so that participants can easily start role playing and delivering on the objectives. Tabletops allow groups of participants to familiarise themselves with the planning aspects of wildlife operations, their logistic requirements and their relationships with numbers of animals involved. A well-designed tabletop can bring teams and organisations up to speed with the kind of challenges that may appear in a real wildlife pollution event and the creative thinking that is needed to find the right solutions for these challenges.

Fig 11. Wildlife experts involved on a Tabletop exercise during a EUROWA Specialist training (Ostend, 2022).

D. Game

What is it?
Games can be very similar to tabletops, as they are scenario driven, but games typically make participants play another role than their formal one and are given some sort of 'fun' or 'competition' elements. Games allow participants to step out of their normal duty or context, so that their minds are freed of burden and able to pick up some new and unexpected insights. Games allow participants to look at a scenario from a more holistic viewpoint, considering the tasks and responsibilities of unexpected stakeholders and creating understanding of a range of other interests. Breaking the group up into smaller groups, each playing the same game (or with a small variation), will allow each group also to learn about insights and solutions that were found by their fellow groups.

Fig 12. Game played by workshop participants in the Wadden Sea Workshop (the Netherlands, 2023).

How long should it be?
Following the same principles as for tabletops, a minimum of 2 hours and a maximum of 4 hours should be spent working on the same game scenario.

How many people should participate?
As mentioned for tabletops, the number of Game participants should be limited to the number of working groups that need to be organised around a physical space (table, board, etc.) and the number of exercise controllers that can supervise or moderate the activities. It is recommended that each game group should contain between 6 and 8 people, depending on the working space available (e.g. table size). Multiple groups are possible but it is recommended to have no more than 3 groups supervised by 2 moderators that can swap between groups. This means that games should have between 18-24 participants.

Which format?
As it is the case for tabletops, games can be organised both in-person or remotely but it is strongly recommended to favour in-person games. Indeed, this type of exercise requires a high degree of interaction between the working groups and the moderator. Opting for an online format might limit this interaction and the engagement of the players as well as reduce the outcomes of the game. Technically speaking, running a game online might be difficult if the material cannot be easily digitalised and used from a computer.

Wildlife application
The subject of wildlife pollution is one that most people easily connect with, regardless of whether they professionally work with animals or not. This also goes for professional emergency responders working in at-sea or onshore response. Given that they are familiar with many concepts of emergency response and preparedness, they will have no difficulty applying these concepts to a wildlife challenge – if this is presented as a quantitative and logistic challenge. A game set-up allows them to make that connection and once the conceptual message is understood, they are better able to incorporate a wildlife challenge into the existing context they normally operate in. The fact that a life-death aspect is also involved when responding to wildlife, in the sense that response time can save lives, can be built into a game in the form of a competitive element. Simple problem-solving games can highlight some key elements that are unique to wildlife response and allow them to be better understood by all functional officers that the quality of a wildlife response depends on.

A game could also be built around planning and response preparedness in a fictitious country setting. Lessons can be learnt via such a game and then can be applied to the real country environments that participants are working in.

Annex II. Descriptions of operation-based exercises

E. Drill

What is it?
A drill is a coordinated, supervised activity that tests a single, specific, operation or function within a single entity. This is the only type of exercise where the word "test" is used.

How long should it be?
The time drills should take depends very much on the type of drill and its objectives.

Notification drills, e.g. to test the availability and alertness of 24/7 personnel, may take a few minutes (notification alert/reply) to several hours (e.g. scenario discussions).

Drills on more specific field operations (mobilising equipment), may take from a few hours to a full day (8 hours).

How many people should participate?
For notification drills the number of people involved can be quite large (if all parties involved in a plan need to be contacted).

Field drills will involve relatively small groups of people from single entities, in many cases less than 10. The number will be related to the number of people that would perform that task in a real event, and their alternates.

Which format?
Drill exercises are perfectly suited to be organised remotely as they generally require limited interaction between participants using devices to communicate through a dedicated communication system.

Wildlife application
For wildlife response various drills could be exercised:

- Annual checking of the contact list of the wildlife response plan: call all contacts, update for changes, to remind actors of their role and their organisational commitments to contribute to plan implementation.
- Notification drill: send a "this is an exercise" message to (a subset of) actors on the notification list, requiring them to send back a reply with "message received".
- Availability drill: notify the different actors identified in the wildlife plan and check their availability to be mobilised to a certain location at a certain time.
- Facility drill: transforming a given rehabilitation centre into an operational facility for receiving oiled wildlife, according to an internal plan
- Field drill: Set up of a wildlife hospital tent by a contractor
- Field drill: Test in what time span 100 animals can be captured from a 6 km stretch of shoreline

F. Functional exercise

What is it?
Functional exercises examine and/or validate capabilities, multiple functions and/or sub-functions, or interdependent groups of functions, including multiagency coordination centres. They focus on staff members involved in management, direction, command and control functions. (Field staff and field equipment are not utilised for real in this type of exercise; their activities will be represented in the form of simulations). A functional exercise is conducted in a realistic, real-time environment – movement of personnel and equipment is usually simulated. Exercise controllers ensure participant activity remains within predefined boundaries and exercise objectives are accomplished. Simulators (i.e. role players) can inject scenario updates and developments to mimic real events.

How long should it be?
Functional exercises tend to involve larger teams and need more time to get them organised and into an exercise mode, particularly to prepare scenarios and injects. It is recommended that this type of exercise takes at least 4 hours but can be organised in a 1-Day format (8 hour) or 2-Day (16 hour) format, always depending on the number of people involved and the volume of interactions expected from the participants.

How many people should participate?
The number of people involved in this type of exercise can be quite variable, depending on the number of exercise controllers you have available and the number of organisations and/or departments that need to be involved. As a rule of thumb, 10 people should participate with one moderator, which can be expanded to 25 participants if two moderators are available. Apart from exercise moderators, 1 or 2 individuals providing injects to the exercise may be needed.


Fig 13. Field functional exercise held in the Netherlands (2021).

Which format?
Functional exercises are performed at a suitable venue, which is (or is transformed into) a venue that supports the functional activities of a real incident response. Participants should experience that functional environment in all its aspects. They need to be presented with challenges that are realistic, and consistent with the scenario that is simulated. This requires careful preparation of anything that helps to create the "illusion" of being involved in something that could be real. This could include maps, electronic data, printed matter, but also equipment such as telephones, poster boards, data screens, projectors, whiteboard and stationary materials. Organisers have to prepare all in detail (from invitation to travel and accommodation, from description to concrete exercise programme, from scenario development to concrete timeline and injects). Participants should use the facilities (laptop, software, internet) that they also would be supposed to use when being deployed in their function. They could be asked to make their working environment functional and operational as part of the exercise set-up.

Wildlife application
For wildlife response, functional exercises can focus on various work fields:

- General Incident Management
  - At-sea response management exercise with a wildlife component
  - Onshore response management exercise with wildlife component
  - At-sea and onshore response management with wildlife component
  - At-sea and onshore response management with full wildlife branch
- Wildlife Branch management
  - Wildlife response simulation with functional leaders
- Wildlife Branch management areas
  - Risk assessment and scientific advice
  - Onshore wildlife response management
  - Wildlife rehabilitation facility management

G. Full-scale exercise

What is it?
A full-scale exercise is the most complex and resource-intensive of all exercise types. It may involve many stakeholders including multiple agencies, organisations and jurisdictions, and can validate many facets of preparedness. Full-scale exercises also involve the mobilisation of equipment and the use of resources such as facilities. These exercises may be held to test plans and procedures across the breadth of all contingency response arrangements in place. They can involve local, national and regional capability or even international support to test transboundary response issues. They often include many players operating under co-operative incident management systems, who would usually all sit under the same roof' in a pre-identified location and venue. Full-scale exercises provide the closest thing to reality by presenting complex and realistic problems that require critical thinking, rapid problem solving and effective responses by trained personnel.

How long should it be?
A full-scale exercise requires the mobilisation of multiple resources and stakeholders, so a reasonable amount of time needs to be spent on the exercise to make it worthwhile. It is recommended that full-scale exercises take at least 1 day (8 hours), but 2 to 3 days is preferable.

How many people should participate?
The number of participants involved in this type of exercise can be quite variable, depending on the objectives of the exercise and the number of stakeholders involved. For a shoreline or facility full-scale exercise the number might range between 25-50 people if not more, depending on how many elements are included.

Which format?
By nature, a full-scale exercise is an in-person event where all participants and equipment are mobilised and deployed to the specific functional working environment that is subject of the exercise. Exercises could involve different locations at the same time (e.g. command centre, field exercise from vessels, shoreline exercise on the beach). The mobilisation process could also be made part of the exercise, e.g. in the form of a drill.

Wildlife application
The wildlife application of a full-scale exercise in which equipment and personnel is mobilised could focus on two primary domains, which can be exercised separately or jointly:

- Shoreline search and collection operations
- Wildlife rehabilitation facility operations

For both domains, the management process of activation and mobilisation should be included in the exercise too, although in the framework of an exercise the target group will be aware of the exercise weeks or even months in advance. Nevertheless, it is worth trying to design the exercise in such way that parts of their mobilisation, travelling and arrival can be 'unknown' to some extent, being made part of the exercise objectives and part of an evaluation process.

Shoreline search and collection operations can focus on a single stretch of coastline with one coastal collection point or have multiple units across a larger stretch. Activities of first responders can be tested in combination with planning/logistica support from the leading authority actors who set up a collection point (staging area) with the appropriate resources (tools, PPE, transport methods, etc.).

A full exercise focusing on rehabilitation facility operations could be built up of various elements (which can also be exercised separately as e.g. drills or functional exercises):

- Building the facility (testing a contractor)
- Making the facility operational (creating departments with equipment, furniture and utilities (power, water etc.), staffing, making each department fit for purpose)
- Simulating the intake of animals (testing the combined operations of the departments Reception, Intake and Prewash).
- Simulating the facility processes from washing through to pools.

Fig 14. Tent-based rehabilitation facility (20 x 40m) put together during a full scale field and facility exercise in the Netherlands (2013).

Annex III. Exercise Examples

This Annex gives examples for some of the described exercise categories and types as well as wildlife aspects included, to provide some idea of how such exercises could be developed, and what the anticipated result could be.

Discussion-based Exercises		Operation Based Exercises		Exercise Aspects			
	Seminar		Drill		Wildlife planning		Facility operations
	Workshop		Functional Exercise		Activation, mobilisation		Incident Management
	Tabletop		Full-scale exercise		Field operations		International
	Game						

Fig 15. Legend of icons used in Annex III Exercise Examples.

A EUROWA network assessment tabletop exercise (2020)

Exercise Type	Tabletop		Wildlife Aspects		
Country	International	**Date**	Dec 2020	**Format**	online
Context	The EUROWA SOP describes how members will provide oiled wildlife response assistance at the request of a European authority, as a mutual assistance team.				
Participants	Members of the EUROWA Network, Sea Alarm				
Programme	▪ Online discussion on EUROWA SOP mobilisation roles and responsibilities, phases of response and formal notification process via Requesting authority. ▪ Working through the EUROWA SOP assessment process - minimum requirements for an assessment team to be effective, tasks in first days and transition from assessment to response. ▪ Above actions carried out remotely via use of online collaboration tools.				
Tasks	As above.				
Results	▪ Re-familiarise network members with the notification and assessment procedures in the SOP. ▪ Identify list of changes and improvements for the SOP.				

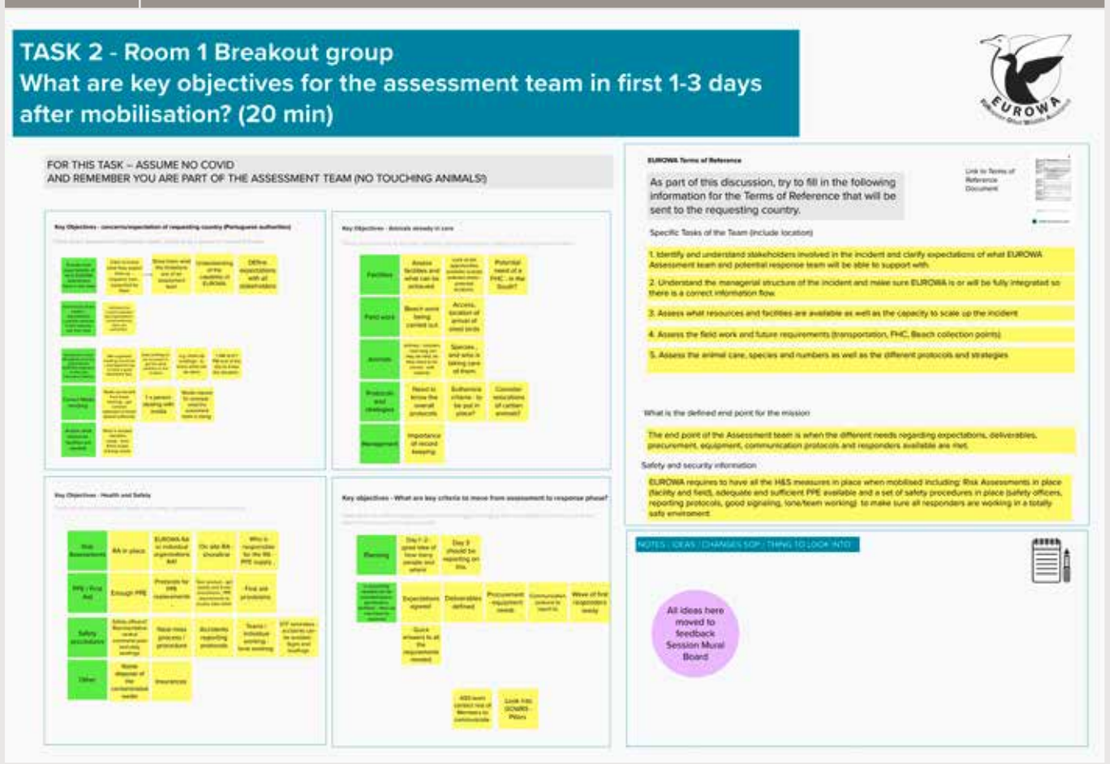


Fig 16. Tasks carried out during the online tabletop an interactive collaborative portal.

B Global Oiled Wildlife Response System SOP notification drill (2021)

Exercise Type	Drill		Wildlife Aspects		
Country	International	**Date**	May 2021	**Format**	online
Context	The Global Oiled Wildlife Response Network SOP describes how members will provide oiled wildlife response assistance at the request of the oil industry.				
Participants	Members of the GOWRS Network, Sea Alarm				
Programme	Check of GOWRS SOP contacts list via SendWordNow notification.				
Tasks	Notification includes sending "this is an exercise" message to GOWRS SOP contact points, who confirm receipt by reply. Sea Alarm checks on replies and any messages not received/transmitted or replied to correctly, follow-up with concerned people.				
Results	GOWRS contact points are re-familiarised with the notification procedure and any IT issues for receiving messages are addressed.				

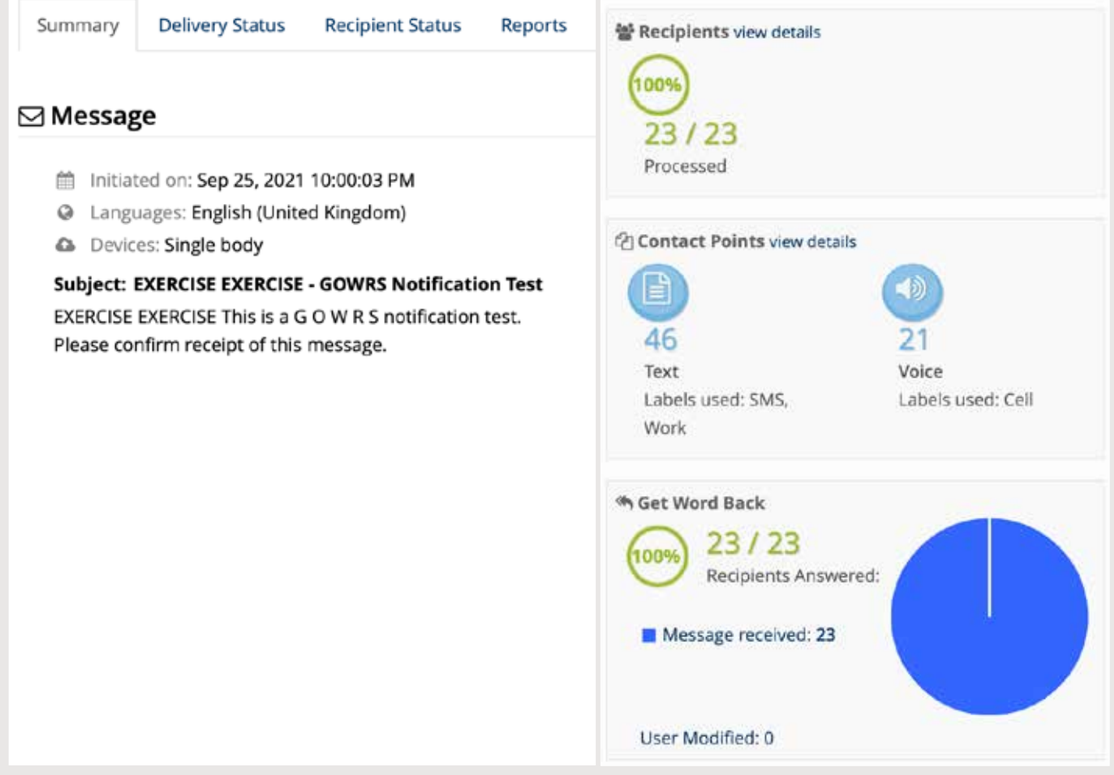


Fig 17. SendWordNow portal reflecting results of GOWRS notification exercise.

C Oil company Regional Response Team Wildlife Exercise Malaysia (2016)

Exercise Type	Functional	Wildlife Aspects

Country	Malaysia	Date	Sep 2016	Format	In-person

Context	Oil company project to address gaps in its oiled wildlife response preparedness, through developing training for Regional Response Teams (RRT) and holding two RRT exercises with integrated wildlife scenarios where staff were coached in planning and managing wildlife response operations.
Participants	Wildlife Rescue Centre Ostend, International Bird Rescue, Aiuka, Oiled Wildlife Care Network, Sea Alarm, an international oil company.
Programme	■ Monday – Wildlife Branch training, field assessment ■ Tuesday & Wednesday – field assessment, exercise with a pipeline oil spill scenario to set up, integrate and manage a Wildlife Branch as part of an incident management system. Dedicated wildlife injects. ■ Wednesday - Assessment team results and briefing. GOWRS assessment team interacts the Wildlife Branch to explore gaps in the preparedness of the oil company to deal effectively with such an external team of experts. ■ Thursday – submission of assessment results as part of the Incident Action Plan, exercise close.
Tasks	As above.
Results	■ Opportunity to exercise the GOWRS Assessment Procedure in real-time and in collaboration with the incident management system ■ Familiarising oil company staff with the role and contribution of a GOWRS Assessment and response team ■ Familiarising oil company staff with the role of the Wildlife Branch, key decision-making aspects and importance of knowledge and experience on oiled wildlife response issues.

Fig 18. Wildlife branch discussions with GOWRS Assessment team.

D National field and facility exercise Netherlands (2013)

Exercise Type	Full scale	Wildlife Aspects

Country	The Netherlands	Date	Oct 2013	Format	In-person

Context	As part of a multi-year oiled wildlife preparedness programme for Dutch authority Rijkswaterstaat, a two-day exercise event was held, including three field and two tabletop exercises. Held in the framework of the Dutch national oiled wildlife response plan (SBV)
Participants	SON-Respons, Rijkswaterstaat, Ecoloss, ITOPF, Wildlife Rescue Centre Ostend, Flemish Bird Protection League, Sea Alarm.
Programme	■ Temporary rehabilitation facility setup where a 20 x 40 m tent-based rehabilitation facility was put together by contractor Ecoloss (requirement to set up working facility at any given location within 48 hours following mobilisation). ■ Oiled bird triage and stabilisation (using dummies) within the facility for SON-Respons members to practice their collective practical rehab skills. ■ Search and collection on the beach of 's-Gravenzande using dummies to inspect stretch of beach, collect live and dead birds and transport to the facility. ■ Tabletop of 1st crisis meeting with all the key operators of the Wildlife Response Plan to review available incident, evaluate the situation, and decide upon priority actions for first days. ■ Tabletop of 2nd crisis meeting to practice issues of facility management, including record keeping and related resource management.
Tasks	As above.
Results	■ Better awareness of all parties regarding the complexity of designing a facility and making it operational, managing a facility and managing the early days and weeks of an incident. ■ Technical clarity regarding multiple equipment items and equipment solutions after discussions between contractors and technical experts. ■ Full realisation of all technical requirements and remaining gaps in the realisation of a facility. ■ Deeper insight with all personnel on their assumed roles and responsibilities. ■ Concrete input for improvements on the technical guidelines for the execution of the response plan. ■ Better insight in training and exercise needs.

Fig 19. Stabilisation exercise.

Fig 20. Field exercise preparation with picture dummies.

Fig 21. Functional exercise on wildlife branch decision making.

E PREDICT Exercise Helsinki (2016)

Exercise Type	Full scale	Wildlife Aspects	
Country	Finland	**Date**	Sep 2016	**Format**	In-person
Context	Predict 2016 oil spill response exercise was held in Helsinki, led by the Finnish Environment Institute, and it included an oiled wildlife response exercise which was organized by WWF Finland.				
Participants	Finnish Border Guard, The Finnish Navy, Helsinki Rescue Department, Finnish Environment Institute, the Forest Administration ("Metsähallitus"), Korkeasaari Zoo, Sealife Helsinki and WWF Finland. In total 16 volunteers and 10 staff members.				
Programme	The purpose of the exercise was to test the preparedness of Finnish OWR network in case of a small accident with less than 50 birds. A light bird cleaning unit was set up into Korkeasaari Zoo Wildlife Hospital. Birds (hunting decoys) were searched, collected and transported to the centre from island nearby.				
Tasks	■ To establish a light version of wildlife rehabilitation centre ■ To test oiled wildlife search and rescue in an archipelago setting. ■ To test transport of oiled birds from islands to the rehabilitation centre. ■ To assess how the Zoo's Wildlife Hospital could be used in a small-scale incident.				
Results	The exercise feedback from the staff of organisations and volunteers was positive. The exercise was seen as useful and cooperation between organisations worked better than in the previous exercise BALEX Delta 2012. The OWR command centre with representatives from every organisation was crucial link between volunteers and authorities. Metsähallitus participated for the first time and their field experience, knowledge and boats were found to be very valuable. Lesson learned: ■ As a part of national oiled wildlife response plan communication diagram is needed. ■ Training for communication via radiophones is needed, including VHS-radios in some circumstances. ■ Decision making was a bit unclear (e.g. assessing incident level and need for mobilizing the bird cleaning unit (three containers ready for use). ■ Use of the Wildlife Hospital must be planned in a more detailed level. The space might not be big enough to intake 50 birds. There were also some problems with wastewater management. Wildlife Hospital could be used as a stabilization zone when washing and post-wash care could be organised somewhere else. ■ The OWR command centre worked well but updating situation awareness is time consuming and more participants per organisation was suggested. ■ As a general point of view: We tried to train too many activities in just one day. Next time two-day exercise could be better option or some parts of the program must be left away.				

Fig 22. and Fig 23. Search and collection activities and small-scale rehab centre set up.

F BALEX Delta Kotka, Finland (2021)

Exercise Type	Full scale	Wildlife Aspects	
Country	International	**Date**	Aug 2021	**Format**	online
Context	BALEX Delta 2021 exercise, held in Kotka, Finland, tested the procedures documented in the HELCOM Response Manual and response capability of the CP in case of a major accident and an international response operation.				
Participants	Finnish Border Guard, The Finnish Navy, Kymenlaakso Rescue Department, Finnish Environment Institute, Voluntary Rescue Service (Vapepa), The National Defence Training Association of Finland (MPK), The Finnish Red Cross, Eastern-Uusimaa Rescue Department, Korkeasaari Zoo, Sealife Helsinki and WWF Fi.				
Programme	Finnish Voluntary Rescue Service network, including the WWF voluntary oil spill response troops and other volunteers, were used for shoreline assessment, search and collection of oiled wildlife, conducting an oil collection simulation, and for supporting functions like management and coordination, transport and healthcare. An oiled wildlife rehabilitation facility was set up around the Finnish mobile bird cleaning unit, transported to a warehouse in Kotka harbour.				
Tasks	Oiled wildlife response: ■ To establish a wildlife rehabilitation centre and make it ready to receive oiled birds from the field within the first day. ■ To test shoreline assessment and oiled wildlife search and rescue in an archipelago setting. ■ To test transport of oiled birds from islands to the rehabilitation centre. ■ To assess if and how the building of opportunity in Kotka harbour could be used in a real large-scale oil spill incident.				
Results	■ The exercise was seen as useful, and especially the positive spirit and constructive cooperation between volunteer organisations was seen as a highlight of the exercise. Co-operation between authorities and volunteers is on a good basis, with mutual trust and respect. Lesson learned: ■ The oiled wildlife response organisation needs to have continuous access to situation awareness tools. ■ The Finnish oiled wildlife response organisation depends on a few key people and the organisation need more experts trained for key positions within the oiled wildlife response organisation. ■ Rough weather conditions can quickly impede field work. ■ Communication between field teams and transport teams is essential. ■ Gap in identifying the authority responsible for oiled wildlife, and the lack of an officially adopted oiled wildlife response plan, are impairing decision-making and communications during a spill. In upcoming exercises EUROWA-network mobilization will be one aim as well as testing the alarming system through ERCC.				

Fig 24. and Fig 25. Wildlife rehabilitation centre set up with intake area and Finish mobile bird cleaning units in building of opportunity.

G Effects of Oil on Wildlife Conference 2022

Exercise Type	Workshop + Seminar	Wildlife Aspects	

Country	International	Date	Sep 2022	Format	In-person

Context	The International Effects of Oil on Wildlife (EOW) conference is the only global meeting focusing on the planning, response, rehabilitation, and research aspects of oil spills and th eir impacts to wildlife. This was the 14th edition.
Participants	More than 160 individuals within the international oiled wildlife response community, including oiled wildlife responders and rehabilitators, veterinarians, wildlife scientists and researchers, authorities and oil industry.
Programme	Three-day programme including plenary presentations, panel discussions and poster sessions on a range of topics related to wildlife emergency response.
Tasks	The event benefited from a large number of presentations with Q&A sessions on a range of topics in oiled wildlife preparedness and response, with an international flavour and bringing perspectives, recent initiatives and concepts from individual and their organisations within the wildlife response community. Topics included planning, lessons learned from recent spills, offshore response, inland/coastal wildlife response, responder management and integrated wildlife response into the larger oil spill response. The conference also included workshops and interactive discussion sessions on: ■ Building the next generation of oiled wildlife responders and keeping responders engaged between spill events. ■ Organising oiled wildlife response exercises ■ Data collection in oiled wildlife response ■ Basics of animal care ■ Infectious disease control during a spill response ■ Evolution in wildlife response since the first EOW in 1982.
Results	Being the biggest gathering of the international wildlife response community, EOW conferences provide a platform for sharing information on new tools and policies in oiled wildlife preparedness and response and to evaluate challenges from incidents and other developments in the oil spill and wildlife response world. This edition allowed a large group of stakeholders to further their knowledge about a range of topics in oiled wildlife preparedness and response, to share with their own respective institutions.

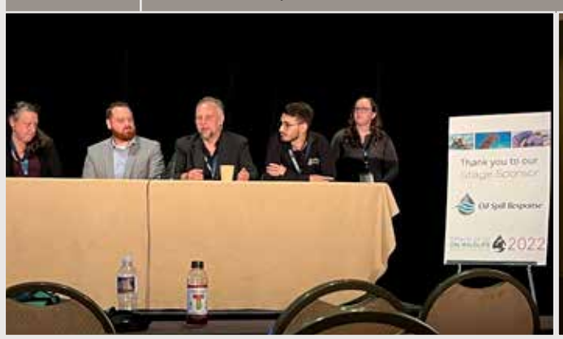


Fig 26. and Fig 27. Panel discussion and presentation during the 2022 EOW Conference.

H Seminars following the Tricolor oil spill (2004)

Exercise Type	Seminar	Wildlife Aspects	

Country	Belgium, the Netherlands	Date	2004	Format	in-person

Context	The Tricolor oil spill happened January 2003 in French territorial waters, but close to the Belgian border. It caused an oil pollution that affected ca. 20,000 seabirds which came ashore in France, Belgium and the Netherlands. In 2004 the Belgian authorities organised a 1 day seminar with speakers from all three countries, where there was an exchange of data and experiences. In the same year, the Dutch authorities organised a 1 day seminar to discuss the response to the Tricolor oil spill and the need for oiled wildlife response planning.
Participants	Both events involved stakeholders from various backgrounds, i.e. scientists, response organisations, NGOs, authorities.
Programme	A variety of speakers presented about their activities during the response. Scientists from three countries presented their quantitative analysis of the impact of the pollution on seabirds. Response organisation presented about the rescue and rehabilitation activities.
Tasks	N/A
Results	One result from the seminar was that scientists brought their data together and published an overall impact analysis of the effects of the oil spill on the breeding populations of seabird species. A delayed effect from both seminars was that the authorities started response planning, following the experiences from the Tricolor incident. The Belgian authorities developed their plan in the course of 2004/2005, with the formal plan approval in 2005. The Dutch authorities started the planning process in 2008, and this led to the formal plan approval in 2009.

I Online seminars Netherlands (2021-2022)

Exercise Type	Tabletop + Seminar	Wildlife Aspects	

Country	The Netherlands	Date	2021-2022	Format	online

Context	In 2021 the authorities decided to re-develop the national response plan for oiled bird incidents in the marine waters. The new plan developed a strategy for search and capture of impacted birds in the coastal area, which the former plan had overlooked. The coordination of such field operations would require the involvement of local (municipalities) and regional (safety region) authorities. Before the plan was authorised, it was decided to organise a series of online seminars for these authorities, to make them familiar with the newly developed plan, the new field operation strategy, and the envisaged roles and responsibilities.
Participants	Crisis and duty managers from local and regional authorities
Programme	The programme included presentations and an online discussion-based tabletop.
Tasks	N/A
Results	An increasing number of authority representatives were aware that wildlife can become affected by a marine pollution incident, and that authorities have to work together along strategies as described by the newly developed plan.

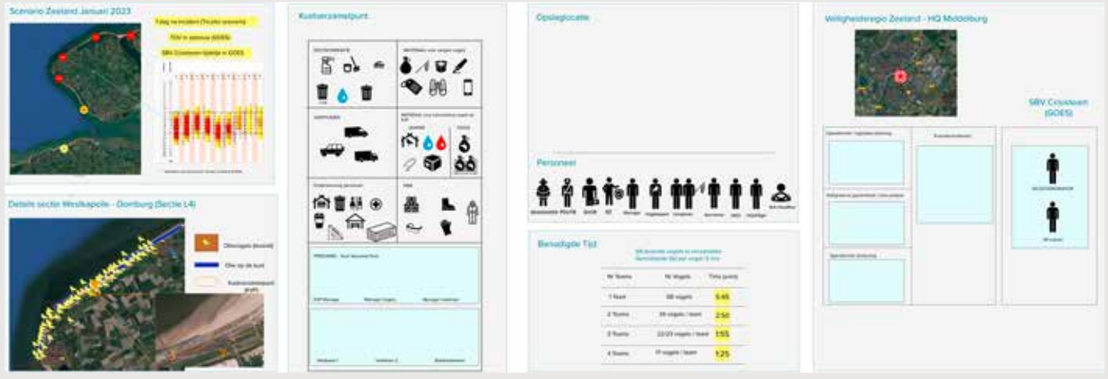


Fig 28. Online tabletop discussed by local and regional authorities during the seminars.

J Authority Workshop Zeeland, the Netherlands (2019)

Exercise Type	Tabletop + Workshop	Wildlife Aspects	

Country	The Netherlands	Date	Jan 2019	Format	In-person

Context	As part of the plan writing process various events were organised in collaboration with the safety region of Zeeland (South-West Netherlands). The safety region could explore how an oiled wildlife event would affect the region and which roles the safety region and municipalities could play to deal with these consequences. The plan-writing team could learn from these discussions and ensure that the envisaged plan would optimally describe and integrate the contribution from these authorities.
Participants	Plan-writing team; representatives from maritime and coastal authorities. Representatives from civil protection, rescue services, police, health services.
Programme	After a few short lectures to sketch the landscape of plan development, a scenario-based discussion was facilitated in which two break-out groups would work in parallel. The results would be discussed in a plenary.
Tasks	In each of the break-out groups the scenario was discussed, in order to deduct what the respective roles and responsibilities for civil protection, rescue services, police, health services would be. In the plenary the results from the two groups would be merged together.
Results	The regional discussions delivered a robust description of specific roles and responsibilities for each of the different emergency response partners. The results from this regional discussion were integrated in the new wildlife response plan. Later it appeared that the regional results were also representative for other coastal regions, which let to smooth acceptance of the plan at national level.

Fig 29. and Fig 30. Scenario-based exercise and discussions during the authority workshop.

K Montenegro Stakeholder workshop (2022)

Exercise Type	Tabletop + Workshop + Seminar	Wildlife Aspects	

Country	Montenegro	Date	Jul 2022	Format	in-person

Context	Montenegro redrafted its National Contingency Plan in 2022 with new Operational Procedures for response to oil and HNS pollution. Sea Alarm worked on the development of a national Oiled Wildlife Response (OWR) Plan for Montenegro including a fact finding mission (done by ProBird and WRCO), the delivery of a planning workshop for national stakeholders and a Managers training.
Participants	Stakeholders potentially involved in the National OWR plan for Montenegro: Authorities represented by the Ministry of ecology, spatial planning and urbanism, Maritime Safety Authority, Ministry of capital investments as well as the Environmental Protection Agency or Inspection Administration); Scientific institutions (IBM - Institute of Marine Biology of Montenegro), NGOs (CZIP - Center for the Study and Protection of Birds of Montenegro, Noe).
Programme	One day workshop with presentations, discussions and tabletops to cover different topics related to wildlife emergency response and how all those topics did apply to their country, their emergency management systems and potential stakeholders involved.
Tasks	■ Presentations and discussions with participants on different Wildlife topics: risks and wildlife planning, what is a wildlife plan, effects of oil on wildlife, rehabilitation in a facility, field operations, resources and international support. ■ Presentation of the results of the wildlife fact finding mission that had taken place prior to the Workshop to better understand wildlife risks in Montenegro. ■ Tabletop exercises to discuss roles and responsibilities during a wildlife incident.
Results	The presentations of the different wildlife aspects allowed participants to have fruitful discussions about the Montenegrin situation: response strategies for Sea turtles, monk seals and birds, waste management and strategies for handling dead oiled birds, financing of the wildlife response and necessary resources as well as the importance of training. The tabletop exercise made participants reflect about the organisation they represented and what their role and involvement could be during a wildlife response where a Wildlife Branch would be needed. The exercise used Post-it notes that had to be placed on a poster-size organigram where they thought they or other stakeholders not present in the workshop could support the response. Discussions and tabletop exercise allowed Sea Alarm to have a better picture on how to finalise the Wildlife Response Plan that was under development

Fig 31. and Fig 32. Presentations and tabletop exercises during the stakeholders workshop.

L Wildlife Response Management Event Estonia (2021)

Exercise Type	Tabletop + Seminar	Wildlife Aspects	

Country	Estonia	Date	Nov 2021	Format	In-person

Context	A recently developed oiled wildlife response plan had been developed and a training event was envisaged that would bring all stakeholders (authorities, scientists, NGOs) to the same level of understanding of wildlife pollution incidents and their challenges.
Participants	Authorities (marine, environment, border guard, civil protection), Scientists, NGOs
Programme	A two-day event was scheduled around various lectures and tabletop exercises. Lectures were introducing the international experience with wildlife pollution, lessons learned, main strategies and tactical approaches. Tabletops were exploring the risks and possible geographical challenges in different areas of the country. A main tabletop at the end of the event was a scenario-based exercise where the different participants played their own role as part of a management cell that would anticipate and oversee the wildlife response.
Tasks	The lectures created a common understanding of wildlife issues, which prepared the participants for the discussion-based tabletop exercises in which they had to envisage the tactics and organisation of a wildlife response. The last exercise was a scenario-based functional exercise in which the participants had to take decisions as a group about the course of action in the first 48-72 hours following a simulated pollution incident.
Results	The insights of the event brought participants individually to a better understanding of wildlife response issues, but also as a group. The functional exercise highlighted a number of gaps in the approach of the draft plan, and following the event, the plan was further improved.

Fig 33. and Fig 34. Tabletop exercise and plenary discussions with stakeholders in Estonia.

M Multi-stakeholder Seminar Aberdeen, UK (2014)

Exercise Type	Tabletop + Seminar	Wildlife Aspects	

Country	Scotland	Date	Oct 2014	Format	in-person

Context	At a 2014 oil industry meeting where oiled wildlife response services provided by Sea Alarm and Oil Spill Response Limited (OSRL) were presented, participants raised a lot of questions regarding oiled wildlife response in the UK and it was evident there was confusion about what an oiled wildlife response is and roles and responsibilities of key stakeholders. Therefore a seminar was organised (hosted by Oil and Gas UK, organised by Sea Alarm and OSRL) for all UK stakeholders to explore the issue in more detail.
Participants	40 individuals representing Government (national and local authorities), oil Industry, universities and wildlife response NGOs.
Programme	One day seminar with presentations to illustrate the roles of the key wildlife response NGOs in the UK and the national policy for oiled wildlife response through the UK National Oil spill Contingency Plan. A tabletop exercise was used to work through the response to a UK wildlife incident, focussing on roles and responsibilities, resourcing needs for the chosen response strategies and overall coordination and management of oiled wildlife response.
Tasks	■ To bring together key stakeholders to stimulate discussion, forge relationships and plan for future responses. ■ To familiarise participants with current arrangements for oiled wildlife response in the UK. ■ Explore implications of the new EU Offshore Safety Directive regarding oiled wildlife response. ■ To identify what a more robust oiled wildlife preparedness system for the UK could look like. ■ To assess need for oiled wildlife response guidance to be incorporated into OGUK toolkits. ■ To assess areas for improvement in existing UK national oiled wildlife response preparedness. ■ To develop recommendations for further action.
Results	The seminar allowed participants to delve into the situation regarding oiled wildlife response in the UK, clarifying the roles and capabilities of the different NGO stakeholders, as well as authorities and oil industry to support their response activities. The tabletop exercise was important for revealing gaps in the UK national system (National Oil Spill Contingency Plan and Scientific Technical and Operational (STOp) advice notes), in terms of having clarity about which entity would coordinate an oiled wildlife response and the heavy reliance on NGOs to provide response to any needed level. A way forward was discussed including creation of a specific STOp notice on oiled wildlife response and a list of recommendations for that STOp notice to provide a more robust framework for response.

Fig 35. and Fig 36. Presentations and tabletop exercises during the seminar.

N Wadden Sea Workshop, the Netherlands (2023)

Exercise Type	Tabletop + Workshop + Game	Wildlife Aspects	

Country	The Netherlands	Date	Jan 2023	Format	In-person

Context	In the process of making authorities and NGOs aware of the impact of a pollution event on marine seabirds and a local community, a discussion-based exercise event was designed for the Dutch Wadden Sea region. The scenario-based setup aimed at creating a realistic environment in which participants could explore the components of a response via active learning.
Participants	Over 40 participants mainly from national, regional and local authorities were invited for the workshop, as well as a few nature reserve managing NGOs.
Programme	The programme was designed around active learning of participants. The tabletop exercise was put in the format of a game (cards, dices, playing boards) that would stimulate collaboration, exchange of knowledge and creative problem solving. The participants were divided into four different break-out groups and each of which dealt with the same scenario albeit in a different part of the Wadden Sea. Plenary result exchange highlighted common and specific insights obtained by the group, and a plenary discussion led to some main conclusions.
Tasks	Participants were instructed to take a constructive attitude, to maximise the emergence of collective knowledge around the tables. The exercise design allowed participants in a playfull way to explore specific situations and the management conditions that would have to be created. In a second playing board they had to define which instruments the authorities had to their availability and how these would play out geographically, and which gaps may appear.
Results	The setup allowed participants to self-explore the challenges of an oiled wildlife response. Together participants discovered that animals arriving ashore could be replaced by rubbish coming ashore, and that a similar response strategy would probably apply. It was concluded that a main aspect of marine incidents would be the reaction of the public, and the potential of self-mobilising citizens, aiming to contribute. A management system should take these effects into account, and put in place a well designed strategy to accommodate these efforts, but at the same time deliver a safe and professional response.

Fig 37. and Fig 38. Tabletop and Games played by exercise participants during the workshop.

O Management team exercise: creating a common operating picture

Exercise Type	Tabletop + Workshop	**Wildlife Aspects**	

Country	The Netherlands, Belgium	**Date**	2007, 2013, 2014	**Format**	In-person

Context	A key quality of a formalised wildlife response plan is that it allows the setup of a multi-disciplinary group for the integrated management of wildlife-related challenges in a multi-stakeholder environment. Such a group should be convened in the early hours after an incident which is believed to lead to the offshore pollution of marine animals which could come ashore in large numbers. Together, the group should bring together and validate the available information, assess the situation, and make strategical and tactical decisions that should lead to a convincing level of control and successful management.
Participants	The different authorities and NGOs that have an agreed and described role the management of a wildlife response according to the plan, were invited to the events.
Programme	After the introduction of the participants, each functional role would be provided with role-specific information (injects) about the incident, that should be shared with the other participants. In the course of 2-3 hours, the participants discuss the information, simulating the first meeting of the wildlife response coordination team. After some scheduled time jumps with additional information and injects, the exercise was closed, after which an hot-wash evaluation was held.
Tasks	Each participant would play the role that is described for their organisation. Participants prepare themselves by studying the plan once more and reminding the various functions and responsibilities. As part of the scenario-based functional exercise, the objective of the discussions should be the creation of a common operating picture, and the prioritisation of actions for the first 48-72 hours.
Results	Via the tabletop exercise, the participants are reminded of their role and the complementary role of others. They realise that information is limited, and that some decisions cannot wait for further information to be found. Putting all the information that is shared in a structured common operating picture, literally on the wall of the meeting room, demonstrates that increasing control of the situation is related to such a shared and jointly created reality. In 2014, Belgium was confronted with a marine incident (Flinterstar) that had many characteristics of the Tricolor incident 11 years earlier. The crisis coordination team was notified and came together to discuss the situation. The incident this time did not lead to an oil affected wildlife, but the meeting and follow-up action in the end were a more than a realistic exercise.

Fig 39. Tabletop exercise with the Belgian Management team (2007).

Fig 40. Tabletop exercise in the Netherlands (2013).

P Notification exercise: Routine contacting actors Netherlands

Exercise Type	Drill	**Wildlife Aspects**	

Country	The Netherlands	**Date**	Annually (2023)	**Format**	online

Context	In a wildlife response plan, the functions, responsibilities and functional tasks are described, as well as the organisations who have agreed to adopt them. In the reality in which employees move on to other jobs and are replaced, and reorganisations will sometimes change organisations, their roles or responsibilities, it is important to ensure that the response plan keeps track of these changes. As part of the implementation of the plan, a yearly check of contact lists of all organisations and their key officers should take place. This is basically a "soft" drill, which follows the route of the notification plan.
Participants	A managing organisation contacts all organisations and functional officers via the contact details provided in the plan. All organisations and personnel listed in the plan participate in the exercise.
Programme	The drill normally takes several weeks, in which the contacting of the participants is scheduled as a few hours per day or week.
Tasks	All listed contacts are approached by phone or mail, and requested to report any changes to the contact details, listed officers, remit of the organisation. Respondents are also asked if the organisation is still aware of the response plan and the tasks it has adopted.
Results	Every year changes are reported and immediately modified accordingly in the plan. In this way the notification schedule is kept up to date. Respondents are always positively reacting to the drill, and testify that they continue to feel connected to the plan.

Q Field exercise Mallydams Wood, UK (2016)

Exercise Type	Drill + Functional	Wildlife Aspects

Country	United Kingdom	Date	Dec 2016	Format	in-person

Context	EUROWA is a network of oiled wildlife responders that can provide expertise and equipment to European authorities facing an oiled wildlife incident. Training the specific functions of an expert oiled wildlife response team that can be mobilised abroad, is an important aspect of the higher qualification levels in the EUROWA training portfolio. This exercise was part of a EUROWA Responder course where field operations at different qualification levels were exercised.
Participants	Oiled Wildlife Responders from the EUROWA Network, plus observers from the local network organisation (RSPCA) and other.
Programme	One day exercise to examine capabilities and functions of a team of wildlife responders having to undertake field search and rescue of oiled wildlife, including transportation to a rehabilitation facility.
Tasks	■ Based on a scenario, participants mobilised themselves as a specialist team for beach search and collection of oiled birds and for transport to a rehabilitation facility. ■ Appointment of key functions (Managers of field and facility operations). ■ Developing a plan for field search and collection activities. ■ Briefing and conducting field search and collection activities, setup of a Beachhead Collection Point, rehydration techniques, using 'dummies' to simulate live oiled birds and 'Roboduck' to practice live capture skills.
Results	The exercise was an opportunity to practice organisation of field search and collection of oiled wildlife, with experts from an international EUROWA team working alongside local responders from the local network member, as would be the case in a real incident. The fact that individuals from the local UK network organisation were invited to participate in the exercise as volunteers, gave the exercise a degree of realism as it meant that the EUROWA experts, as part of their training, would consider how they communicate, instruct and coordinate groups of volunteers. The whole team was able to experience the process of organising and carrying out field operations, including the health & safety and technical challenges and limitations.

Fig 41. and Fig 42. Field search and collection exercise during EUROWA Oiled Wildlife Responder training.

R Field exercise Zeeland, Netherlands (2021)

Exercise Type	Drill + Functional	Wildlife Aspects

Country	The Netherlands	Date	Nov 2021	Format	in-person

Context	Search and collection is the first important stage of an operation to actively mitigate the effects of oil on marine wildlife. This was the focus of the field exercise held in the Netherlands in 2021, to practice the concept of the Beachhead Collection Point (BCP). The exercise took place as part of the multi-annual Rijkswaterstaat preparedness programme based on the Dutch National Oiled Wildlife Response Plan.
Participants	30 participants from Netherlands national and local authorities, response contractors, EUROWA network member SON-Respons and other wildlife response NGOs.
Programme	One day exercise with a drill and functional exercise to test setup and functioning of a BCP, including briefing, field exercise and hotwash debrief.
Tasks	■ Setting up a BCP with all supporting units. ■ Coordination of field teams working at the BCP. ■ Collection of live and dead birds and transport to BCP on a defined stretch of coast and on different types of shoreline. ■ Stabilisation of live birds and preparation for transport to the Wildlife Rehabilitation Centre.
Results	Participants were involved in the process to design and setup a BCP fully and the logistical challenges to get it operational. During the exercise, the participants, involving multiple capture/stabilisation teams, multiple vehicles and operational units, learned effective ways of working together to deal with live and dead oiled birds coming ashore, including overall coordination. Different tactical approaches for capture of live oiled birds was evaluated.

Fig 43. (above), Fig 44. (left) and Fig 45. (right) Field search and collection exercise in the framework of the Dutch National Oiled Wildlife Response Plan and its preparedness programme.

S EUROWA Functional exercise Ostend, Belgium (2016)

Exercise Type	Functional	Wildlife Aspects	

Country	Belgium	Date	Oct 2016	Format	In-person

Context	EUROWA is a network of oiled wildlife responders that can provide expertise and equipment to European authorities facing an oiled wildlife incident. Training the specific functions of an expert oiled wildlife response team that can be mobilised abroad, is an important aspect of the higher qualification levels in the EUROWA training portfolio. This exercise was part of a EUROWA Responder course where field and facility operations at management level were exercised.
Participants	18 participants (wildlife responders and veterinarians), from the EUROWA network.
Programme	A functional exercise was ran over 1.5 days, to test design, setup and functioning of a field and facility operations for the given scenario.
Tasks	Based on a spill scenario at a location with several small islands with potential for oiling high numbers of seabirds, the exercise simulated that the authorities had mobilised the EUROWA team to assist in dealing with any oiled wildlife. This included: • Drawing up a plan for organising field operations (search and collection of oiled birds on the islands). • Planning the design and layout of the temporary rehabilitation facility on the mainland. • Assigning roles to key management positions within the field and facility response teams, determining staffing and equipment needs.
Results	The exercise allowed the participants to consider the operational requirements for field and facility operations in terms of equipment, teams and facilities. This included how to define tactics for effective search and collection and better understanding of how many animals can be processed by each department in a rehabilitation facility based on its size and capacity. Discussions around the optimum design and layout of a rehabilitation facility revealed that there is no perfect answer and the factors that managers should consider when planning this. Looking at staffing requirements, the results provided a model for organising an international mobilisation of EUROWA personnel for a European incident.

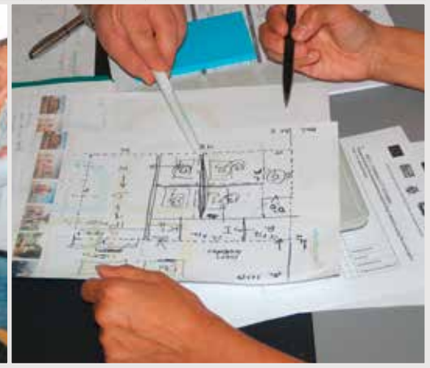


Fig 46. and Fig 47. Field functional exercise on field and facility operations as part of a EUROWA training course.

T EUROWA-2 online authority workshop (2022)

Exercise Type	Tabletop + Workshop + Seminar	Wildlife Aspects	

Country	Europe	Date	Feb + Mar 2022	Format	Online

Context	Two online workshops on "Integrated Management design for dealing effectively with wildlife challenges during pollution emergencies" were organised for European authorities in the framework of the EUROWA-2 project.
Participants	Authorities from 20 different EU countries working in various fields, with the majority having responsibilities for at sea pollution response and shoreline pollution response as well as representatives from the three main European Regional Agreements (HELCOM, Bonn and REMPEC).
Programme	Two workshops of two half day online sessions, with a combination of theory presentations and interactive tabletop exercises using an online collaboration and interactive platform.
Tasks	Presentations on Wildlife incidents in Europe (Prestige, Tricolor, Estonia, Russia), the EUROWA Network, the multidisciplinary and multi-authority approach or wildlife response, the PLOF concept, the latest EU wildlife response – Bow Jubail, field and facility design in a response, planning, EU case studies on Wildlife preparedness and the EUROWA-2 project and tools being developed for authorities. Three different Tabletop exercises on: 1) understanding the multi-disciplinary nature of oiled wildlife response, by assigning operational tasks to different authorities and other stakeholders, 2) understanding Planning, Logistics, Operations and Finance in the context of an oiled wildlife response, 3) planning and carrying out field response by organising a stretch of coastline into sections and placing Coastal Collection Points, the layout of different operational units and equipment needed.
Results	The workshops were a chance for authorities to start considering the challenges of responding to a wildlife incident without an integrated approach, and tools to help them start working towards gaining that integrated approach, including those being developed in the EUROWA-2 project. Most participants found that developing an oiled wildlife response plan was the biggest priority to improve preparedness, followed by getting lead authorities on board with the fact that integrated wildlife is response is something that needs attention. Most of the participants also gave a high importance to EUROWA.

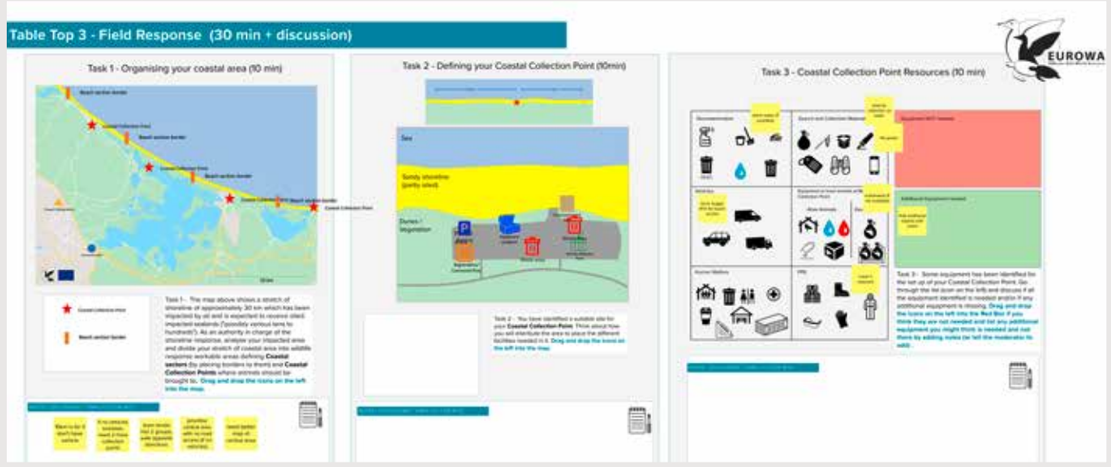


Fig 48. Online Tabletop exercise on Field Response.

Annex VI. Exercise Methods Summary Table

	Type	What	How long	How many people
DISCUSSION-BASED	Seminar 	An informal orientation event aiming to familiarise participants with new or updated plans, policies or procedures. Attendees have the opportunity to discuss their individual roles and responsibilities, can use simple scenarios to build understanding	1-2 hours per topic, max. 1 day	10-50
	Workshop 	As for seminars, but participants are invited to more actively provide their input into building or achieving a product (new draft plan, policy or procedure). Can be used to deepen the understanding of an individual's roles and responsibilities.	From 2 hours to 2-3 days maximum.	Maximum 24 (3 groups of 8 people + 2 moderators)
	Tabletop 	Normally use scenarios and simulated response settings, involve key decision-making personnel and aim to build competence and confidence in the implementation of response plans and procedures. Highlight key aspects of the decision-making process in a simplified format, allowing participants to concentrate on problem solving and discuss different alternative solutions.	2-4 hours max. for each scenario	18-24 (3 groups of 6-8 people + 2 moderators)
	Game 	Can be very similar to tabletops (scenario driven), but typically make participants play another role than their formal one and are given some sort of 'fun' or 'competition' element. Participants step out of their normal duty or context, so minds are freed of burden and able to pick up new insights.	2-4 hours max. for each game scenario	18-24 (3 groups of 6-8 people + 2 moderators)
OPERATIONS-BASED	Drill 	A drill is a coordinated, supervised activity that tests a single, specific, operation or function within a single entity. The only type of exercise where the word "test" is used.	Notification drills – 4-8 hours max.	Notification drills – multiple or 5-10 contacts for each split over different days.
			Field drills – 4-8 hours max.	Field drills – 5-10 max.
	Functional exercise 	Examine and validate capabilities, multiple functions. Focus on staff members involved in management, direction, command and control functions. Conducted in a realistic, real-time environment – movement of personnel and equipment is usually simulated.	1-2 days (4 hours minimum)	10 people + 1 controller 25 people + 2 controllers 1-2 scenario inject providers
	Full-scale exercise 	The most complex and resource-intensive of all exercise types. Can involve multiple agencies, organisations and jurisdictions (including international support), to validate many facets of preparedness and mobilise equipment and resources (facilities). Can be used to practice plans and procedures across the breadth of all contingency response arrangements in place. Provide the closest thing to reality by presenting complex and realistic problems that require critical thinking, rapid problem solving and effective responses by trained personnel.	2-3 days (1 day minimum)	Varies depending on number of elements included. Shoreline or facility exercises normally 25-50 people.

EUROWA

EUROpean Oiled Wildlife Assistance

www.eurowa.eu