

CIBBRiNA EU LIFE Bycatch Proposal Outline

COORDINATED DEVELOPMENT AND IMPLEMENTATION OF BEST
PRACTICE IN BYCATCH REDUCTION IN THE NORTH ATLANTIC
REGION

LIFE EU Bycatch project 'CIBBRiNA' – Project Work Packages outline

Coordinated Development and Implementation of Best Practice in Bycatch Reduction in the North Atlantic Region

Mission statement and guiding principles

CIBBRiNA will work jointly with fishers, scientists, fisheries and environment ministries and NGOs to minimize bycatch in fisheries which have a high risk of incidental catch of marine mammals, birds, turtles and sharks and rays and to work towards transparent and sustainable fisheries. A prerequisite for all participants is an open mind towards possible solutions. Existing and trialed monitoring and mitigation methods need to be assessed for suitability use by fishers and applicability to multiple gears, regions and species. Consistent with the principles of Responsible Research and Innovation (RRI), cooperation and co-creation with the fisheries industry from early on is a key principle of this project, in which mutual trust, respect and understanding of different perspectives are considered essential. Another fundamental principle for this project and its objectives is to avoid repetition and to build upon existing work, while remaining sensitive to possible limitations of earlier approaches, aiming for practical outcomes and measurable deliverables. In addition, it should be seen as acceptable and valuable to report on what does not work as much as what is successful.

Main objective

The main objective of this project is to minimise and, where possible, eliminate bycatch of sensitive species. This will be achieved through EU cross-border and cross-sectoral cooperation, involving industry, scientists, authorities and other relevant stakeholders, to establish regionally coordinated mitigation, monitoring and assessment programmes. For this, a toolbox will be developed, which builds on a review of current approaches and existing national programmes. This will involve:

- participatory approaches to finding solutions for bycatch which focus on the fishers practical constraints, combining results from previous work with targeted pilot schemes within the project;
- a focus on socio-economic aspects and long-term funding mechanisms, to address financial constraints and opportunities with regards to bycatch monitoring and mitigation;
- development, testing, and implementation of effective mitigation measures to reduce the incidental bycatch of marine mammals, birds, turtles and non-commercial fish in the gear types with a high bycatch risk including both static and towed gears;
- innovative approaches to monitoring (e.g. use of REM and apps to estimate bycatch and integration of information from strandings and interviews in data-poor situations), to obtain the best possible abundance estimates and to achieve a step change in the reliability of bycatch rate estimates;
- building on current practice (e.g. in OSPAR) to develop methods to assess the conservation implications of bycatch in data-rich and data-poor situations, taking a realistic approach to identifying baselines and setting ambitious targets for population recovery and applying the precautionary principle.

Objectives per Work Package (WP)

The main intention of this project work packages outline document is to clarify for all potential participants what the project, and specific work packages (WP) and tasks (T) should entail when further developing the full proposal and to make clear the underlying philosophy.

Project coordination

WP.1 Project management and coordination

- T.1.0 WP Coordination
- T.1.1 Management and project coordination

The project will have a concise and efficient management structure with a several decision-making bodies and advisory bodies, including a Project Coordinator (PC), Project Management Team (PMT), a general assembly (GA) which will be responsible for the long-term strategic direction and decision-making, a Steering Committee (SC) and a Stakeholder Advisory Board (SB, see T.1.4). Dedicated WP/Task leaders will be responsible for the implementation of work packages and tasks on a day-to-day basis.
- T.1.2 Monitoring progress and reporting to the EU

The Project Coordinator (PC) and financial officer will be responsible for coordinating the scientific and administrative management of the project, respectively and will ensure progress reports are timely provided to the EC.
- T.1.3 National processes

This task specifically aims to map the different national (decision-making) processes regarding fisheries measures & monitoring related to incidental bycatch and all who are involved. It is directly linked to task WP.10 to guide the upscaling and implementation of successful monitoring and mitigation methods on a national level.
- T.1.4 Stakeholder Advisory Board coordination

Specific task set out to coordinate the stakeholder board involvement.

Preparatory work packages, WP.2 – WP.3

WP.2 Development of an Assessment Framework for combining all available data in order to prioritise and optimise the implementation of bycatch mitigation strategies

- T.2.0 WP Coordination

Objective: to develop a framework to assess the conservation implications of bycatch, building on the work done by ICES, OSPAR, HELCOM, ASCOBANS and STECF. The work package will help Member States to meet the requirements under Habitats and Technical Measures Regulations with respect to bycatch of sensitive species, through identifying new approaches for collecting and analysing data. The framework will directly link assessment of bycatch with mitigation strategies such that monitoring and mitigation can be implemented concurrently and the effectiveness of any mitigation actions can be fully evaluated. Where accurate and precise abundance estimates are not available, simulation-based approaches based on plausible life history parameters may allow bycatch limits to be investigated.
- T.2.1 Data stream optimization/data needs of different users

Objective: to identify which data streams can be obtained, combined and optimised, to result in the most statistically reliable estimates of mortality rates due to bycatch.

This task feeds into T.2.3 and 2.4 and includes assessing and incorporating the data needs of different users, including ASCOBANS, HELCOM, OSPAR, RCG's.

- T.2.2 Define assessment/management units and set targets / thresholds
Objective: a pragmatic approach to defining assessment / management units and to setting targets / thresholds, building on not beholden to current practice, to meet the requirements under Habitats and Technical Measures Regulations with respect to bycatch of sensitive species.
- T.2.3 Alternative approaches for data poor regions/ species/ fisheries
Objective: to further develop and test alternative approaches to assess the conservation implications of bycatch, especially for data-poor regions, species and/ or fisheries.
For situations with very limited data, there is a need to assess the risks to conservation status from bycatch. A framework approach will be developed which combines data from strandings (including drift modelling and other methods to estimate carcass detection probability), interviews with fishers, self-reporting and other models such as the ByRa (BycatchRiskAssessment) tool.
- T.2.4 Statistically robust design and data checks for monitoring programmes
Objective: to develop a robust sampling design for all aspects of bycatch monitoring, including data checks for the structural monitoring of bycatch.
This task will set up an experimental design for bycatch monitoring combining data from distribution and abundance surveys, such as SCANS and SAMBAH to estimate spatial and temporal overlap with fisheries. This task relies on data from the whole chain of species abundance estimates, fisheries effort and bycatch numbers. The experimental design should encompass fishing effort per fleet, bycatch per unit effort in all fleets, abundance estimates, small-scale fishing vessels and different methods for monitoring and mitigation, ensuring improved collection of data for use in bycatch-estimation. It will build on and support work on automated data analysis of REM systems, as far as this up-to-date technology can be used for bycatch, considering potential privacy concerns. Agreements on data use have to be made with all parties involved beforehand. This task will result in WP.8 and T.10.3.

WP.3 Development of a Suitability Assessment Framework

- T.3.0 WP Coordination
Objective: to develop an assessment framework to assess the suitability of different innovative monitoring and mitigation methods, based on a number of selected criteria.
This framework will provide an inventory of options for both innovative monitoring and mitigation through technological and management innovations in order to assess their effectiveness, applicability, viability, ability to function in data-limited circumstances, precautionarity and feasibility, among others (factors of success). The assessment framework will be improved during the project. This WP links directly to Task 10.1.

Conservation work packages, WP.4 – WP.9

WP.4 Funding mechanisms (fisheries and monitoring)

- T.4.0 WP Coordination
Objective: set up funding mechanisms for (innovative) monitoring (e.g. REM) and mitigation (e.g. incentivizing alternative gear) across participating regions.
The result of this work package should be a financial mechanism or mechanisms to sustainably finance mitigation/ management and (long term) monitoring. Currently, acquiring the necessary funding for monitoring even basic obligations is challenging despite the legal requirements for that,

let alone funding of additional monitoring (e.g. of bycatch on small scale vessels). Different possibilities for EU funding (EMFF, LIFE IP or INTERREG) will be explored, as well as the creation of a separate fund and/or other mechanisms for countries to contribute (e.g. IGO's such as the IWC).

WP.5 Socio-economic aspects

- T.5.0 WP Coordination

This work package will investigate socio-economic aspects, such as cost/benefits of different measures, and market-based approaches to incentivise up-take and compliance with bycatch management measures, as well as a broader investigation of public perceptions of bycatch and investigation of ways to promote the acceptance of e.g. 'dolphin-safe' fish.

- T.5.1 Cost-benefit analysis of interactions with marine species

Objective: to develop a cost-benefit analysis of interactions with marine species (bycatch, depredation, gear damage etc) and of methods designed to limit such interactions; broader analysis in terms of ecosystem services (up to and including cultural and amenity value, etc).

- T.5.2 Mapping the supply chain

Objective: to develop a mechanism for mapping the supply chain in order to improve transparency and market value for sustainable fisheries.

Switching to lower risk gear ultimately could also result in higher quality and value of catch.

- T.5.3 Incentives for sustainable fisheries

Objective: to explore and jointly develop mechanisms for incentivizing fisheries cooperation and participation towards more sustainable fisheries.

This task specifically looks at (financial) incentives for sustainable fisheries, such as credit schemes or compensation for costs involved with switching to alternative gear. Investigate what is the potential in terms of transparency and sustainable fisheries of certification bodies.

- T.5.4 Public perception

Objective: Investigating and influencing public perceptions about the acceptability of bycatch of protected species by fisheries.

WP.6 Fisheries perspective: participation and engagement

- T.6.0 WP Coordination

Engagement of people and understanding the motivation and ability to participate or not in a project on bycatch reduction is an essential part of this project towards successful cooperation. This WP aims to understand the fisheries perspective and to work towards participation and cooperation in bycatch monitoring and reduction. Uptake of and compliance with monitoring and measures to reduce bycatch are often low and monetary incentives are not always effective. To bring about behavioural change, it is essential to involve the people who would need to change their behaviour, e.g. fishers, value chain stakeholders, authorities and consumers. An important dilemma is the tension between bycatch reporting or mitigation and the societal perceptions and judgements, which could potentially be changed. Another aspect, the practical use and implementation on board of monitoring and mitigation tools is often overlooked and is another hurdle for active and successful long-term participation.

- T.6.1 Successfully setting up a joint project with fishers

Objective: to develop guidance and best practices on how to best involve the fishers and set up a project together, to be directly implemented throughout the CIBBRiNA project.

To include the fisheries sector in the project from its earliest stages, stakeholder participation will be based on RRI principle and best practices from previous projects in the industry (e.g. the [Benthis project](#), [the Dutch REM project](#)). The main aim is to understand the sector's needs and concerns from their perspective whilst creating a support base for monitoring and mitigation measures.

- T.6.2 Peer to peer dialogue

Objective: to set up peer to peer dialogue between fishers, both at national and also cross border level, with the main intention to exchange knowledge and successful experiences on monitoring and reducing bycatch.

The issue of bycatch and possible solutions, such as (non-monetary) incentives should be discussed with and among fishers. An important aspect is organising peer to peer exchanges of knowledge, best practices and experiences with bycatch mitigation methods within the fisheries sector, at both national and cross border level. The project must be transparent about potential long-term consequences and at the same time make it interesting to fishers to help develop economically viable alternatives.

- T.6.3 Implement experiences and expertise gained by other initiatives

Objective: to obtain lessons learned from approaches – successes and failures - such as but not limited to the US MMPA Take Reduction Teams, [Shellcatch](#), and other initiatives.

These should be taken into account and built on using existing bodies such as the advisory councils (ACs).

WP.7 Mitigation toolkit

- T.7.0 WP Coordination

Investigating the development and testing of bycatch mitigation methods, such as alternative or modified gears, , but also (temporal) area closures in high-risk areas will result in a toolkit of mitigation measures that have been assessed to be successful. Furthermore, they have been assessed to be specifically suited to European fisheries and European marine mammal, birds, turtle and non-commercial fish species and are potentially fisheries, region, and/or species specific. The mitigation toolkit will be developed in close cooperation with fishers and build on current knowledge and expertise including the FAO Technical Guidelines on reducing and eliminating marine mammal bycatch.

A specific work package is dedicated to species ecology and behaviour in relation to different gears and mitigation methods:

- T.7.1 Species behaviour and ecology:

Objective: to develop and implement a mechanism to structurally investigate species behaviour when trialling mitigation methods, in order to assess their effectiveness on a multi-taxa level.

There still are many uncertainties as to the circumstances in which animals are bycaught, and why for some species younger animals seem especially vulnerable. This task will be holistically investigating behaviour of key PET species in relation to gear interactions and following from that, effects of different mitigation methods trialled. Depredation will also be taken into account, when feasible.

Mitigation methods trialled include:

- T.7.2 Alternative fishing gear:

Objective: investigate the practical and economic viability of alternative gears other than bottom-set gillnets or towed nets.

The use of alternative, more selective / less damaging gears (e.g. fish pots, large-scale fish traps, mini Danish-seine or line fisheries for cod) other than bottom-set gillnets or trawl nets will be investigated (in terms of practicability and economic viability), potentially also in areas currently closed for fisheries such as offshore wind farms or marine protected areas. Additionally, creating incentives for the use of alternative gear may also be explored. See also WP.5 and 6.

- T. 7.3 Net modifications:

Objective: trialling modified nets (both static and towed nets) to assess their effectivity in minimizing bycatch and their practical and economic viability.

Trialling of specific visual modification to nets designed to minimise bycatch, such as LED lights or looming-eye buoys, as well as acoustic gillnet modifications. These can be active acoustic modifications, such as newer, smaller and lighter pingers to establish if/how they affect catch rates, depredator attraction, work practice and possibly habituation effects are affected.

Alternatively, passive acoustic modification includes the investigation of highly acoustically visible gillnets regarding catch efficiency and bycatch reduction as well as handling issues and practicability in a commercial setting. For towed nets, an example is an escape panel, however, alternatives can be explored.

- T. 7.4 Time/area closures in high-risk areas:

Objective: mapping areas with a high risk of bycatch in space and time and assess the suitability of time/area closures to address area/season specific issues.

Investigating whether high-risk areas can be mapped in space and time, according to high-risk species and fisheries distribution and effort, and subsequently whether time area closures would be suitable to address species and area/season specific issues.

WP.8 Development of data collection and monitoring tools.

- T.8.0 WP Coordination

Objective: significantly increase the reliability of bycatch assessments at population level by implementing innovative tools for monitoring and improved data collection and setting up joint regional collaboration.

Methods that are currently in use will be continued and expanded, such as working with self-reporting, observers and Remote Electronic Monitoring (REM), requiring joint international collaboration and effort from all stakeholders involved. Reporting formats need to be further standardised, building on work within ICES, to be able to extrapolate data across fleets. This work package will involve:

- T.8.1 Monitoring Fisheries effort:

Developing a system (such as using AIS, an adapted REM system or real-time data logging system) to facilitate the collection of accurate and complete information on fishing effort, including fishing location, net use (single-walled gillnets or trammel nets), net specifications (net length, height and mesh size) and soak time for static gears. Improvements for active gears are also sought.

- T.8.2 Bycatch rates

Improving bycatch monitoring methods, such as observers, enhancing fisher engagement and willingness for self-reporting and making use of a cost-effective and mobile Remote Electronic

Monitoring (REM) system to allow a representative and effective coverage of the fleet. This includes trialling together with fishers what practical methods work optimally.

Monitoring and evaluation

WP.9 Monitoring of the impact of Work Packages

- T.9.0 WP Coordination

- T.9.1 Monitoring of progress towards achieving the project objectives.

Objective: monitor the progress during the project against project objectives.

Based on the data collection and monitoring tools developed in WP.8 and the assessment framework in WP.2, information will be gathered and analysed that will not only be used to measure the effectiveness of the mitigation measures but will also provide relevant input on the effectiveness of the monitoring tools and options to further refine these.

- T.9.2 Monitoring of socio-economic impacts.

Objective: long term monitoring of the results of WP.5, concerning socio-economic impacts, such as the costs/ benefits of different mitigation options.

- T.9.3 Reporting of LIFE overall programme KPIs

As foreseen in the call fiche, the monitoring and evaluation tasks of the project will include gathering the required information to enable reporting progress made with regard to the LIFE Key Performance Indicators, contributing to the evaluating the impact of the LIFE project on an environmental and socio-economic level (e.g. via actions impacting the local economy and population). While the actual monitoring of the impacts takes place as part of T.9.1 and T.9.2, this task ensures that the outcome can easily be reported within the framework of the LIFE KPI webtool.

Long term sustainability

WP.10 Sustainability, replication and exploitation

- T.10.0 WP Coordination

- T.10.1 Upscaling of monitoring and mitigation

Objective: use the suitability assessment within countries and their respective fisheries for upscaling methods for monitoring and mitigation.

Different methods will be tested in pilot studies and assessed for suitability in the assessment framework developed under WP.3. As the potential for upscaling in different countries depends on so many factors, all the countries are then assessed for the suitability (e.g. socio, economic, fishery specific issues) of the trialled mitigation measures which would provide a way forward to roll out the solutions in a systematic way. Furthermore, if some methods are only tested in a few places, groundwork needs to be done in more countries to see how the tools/approaches could be applied there. In the last phase of the project, this scaling up will form the basis for the monitoring programmes and Joint Recommendations to be implemented by countries, aided by task T.1.3.

- T.10.2 Embedding results in political frameworks, e.g joint recommendations

Objective: Ensure that appropriate measures are implemented and are in place for the longer term until population recovery is achieved.

The result of this task is the drafting of Joint Recommendations based on the information gathered in all previous work packages (or to assess whether JRs are the most suitable instrument to implement measures of whether there are other opportunities). It also aims to achieve improved cooperation between member states, saving financial resources, as well as achieve commitment from fisheries and environment departments within countries. It includes the synthesis of project results and formulating conclusions that can be generally applied into a roadmap for the (EU political) process for implementation.

- T.10.3 (International) harmonisation of monitoring activities

Objective: Establishing contact with relevant international organisations to embed the standardisation of monitoring activities and their (long term) funding in existing agreements. Ultimately the results of WP.8 and T.10.1 will be used to identify the most optimal monitoring methods suitable for the assessment of bycatch rates within different countries, which could subsequently be implemented in addition to (and where possible integrated with) existing ongoing monitoring programmes.

- T.10.4 Exploitation plan

Innovative technologies, monitoring methods / protocols and (software) tools are trialled during the project, in particular as part of WP7. In order to maximise the impact of the project it is crucial that a solid plan is available for the exploitation of this part of the outcome of the project, ensuring that new methods and technologies become available to all relevant stakeholders on reasonable conditions. Agreements on IPR will be included in the exploitation plan. Where possible, open source / freely accessible solutions will be sought to further promote dissemination, take-up and scale-up of the project results.

Communication and education

WP.11 Communication, education and dissemination of results

- T.11.1 Reporting and dissemination of results

Objective: to report on the project and disseminate the results to all relevant parties.

Throughout the project there will be activities to disseminate the (interim) results to all parties involved and other stakeholders. This includes activities related to the development of a project website, a layman's report, notice boards and other, additional forms of communication such as digital media or a video. It also includes activities focusing on outreach to fishers from peer-to-peer communication. Activities also entail reporting and dissemination and scaling up internationally through sharing experience and results, as well as submitting and implementing recommendations within IWC, ASCOBANS, OSPAR, HELCOM, Advisory Councils and other bodies.

- T.11.2 Networking with other projects (incl. LIFE)

Objective: obligatory work package aimed to ensure alignment and synergy with other projects, such as CetAMBICion, and avoid duplication of work.

- T.11.3 Scientific Output

Objective: scientific publication of results, which should all be open access.

- T.11.4 Engagement of stakeholders at large

Objective: to set up a broad stakeholder participation process aimed at jointly discussing and reaching solutions for bycatch of sensitive species from all perspectives.

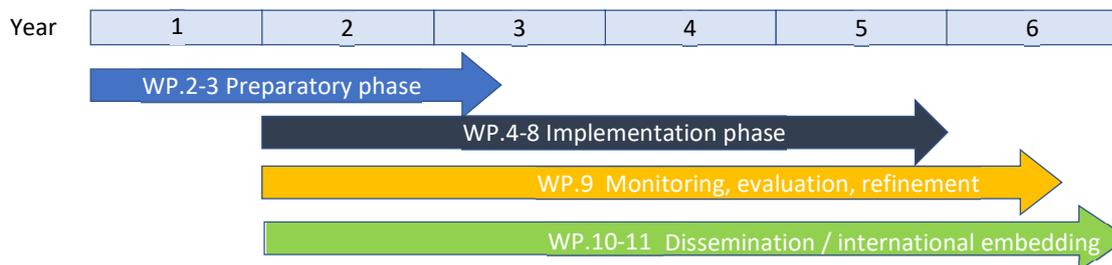
This task aims to engage all stakeholders at large, including environmental NGOs.

- T.11.5 Capacity-building and education

Objective: educational work to modify perceptions, to show a variety of examples of fishers reducing bycatch to stakeholders and the general public and promote reduction of bycatch.

Short project outline

In accordance with the requirements for LIFE-proposals, the project work packages are divided into a project management work package (WP.1), preparatory work packages (WP.2-3), conservation work packages (WP.4-8), a monitoring work package (WP.9), a sustainability work package (WP.10) and a communication and education work package (WP.11). A indicative structure is provided in the figure



WP.2-3 Preparatory phase: development of assessment framework and action plan;

WP.4-8 Implementation phase: conservation actions - field monitoring and demonstration of mitigation measures;

WP.9 Monitoring and evaluation: analysis of information, assessing effectiveness and feasibility of measures

WP.10-11 Dissemination of the results and efforts to structurally embed the methodology and measures in international agreements

Planning: the path forward to the start of CIBBRiNA

The Netherlands ministry of Agriculture, Nature and Food Quality has in the previous year already been in contact with a considerable number of stakeholders from European countries (including B, DE, DK, ES, F, IR, IS, NO, PL, PT, S, UK). These stakeholders are currently contacted to explore their interest in jointly submitting a LIFE Full Proposal.

The global planning to achieve this is as follows:

- 4 March: first plenary online meeting
- March - Aug: Further development of project outline on basis of meetings and input received, approaching potential work package leads, circulate draft version of full proposal for discussion
- 9 Sept: 2nd plenary online meeting
- Sept - Oct: fine tuning proposal, bilateral contacts for specific input on priority actions, arranging formal requirements
- End of September: confirmation of commitment
- Early November: final meeting - final comments and fine-tuning
- 23rd of November 2021: finalisation of LIFE Full Proposal
- 30th of November 2021: submission of LIFE Full Proposal

Further information:

For further information on the content, objectives and priorities of the project, please contact:

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For further information on the LIFE programme and its requirements and regulations, please contact:

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