



D1.1 Project Handbook



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 842009

DELIVERABLE NUMBER	D1.1
DELIVERABLE TITLE	Project Handbook
RESPONSIBLE AUTHOR	Rob Lokers, STICHTING WAGENINGEN RESEARCH

GRANT AGREEMENT N.	842009
PROJECT ACRONYM	NIVA
PROJECT FULL NAME	A New IACS Vision in Action
STARTING DATE (DUR.)	1/06/2019
ENDING DATE	30/05/2022
PROJECT WEBSITE	https://www.niva4cap.eu/
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WORKPACKAGE N. TITLE	WP1 Coordination and Management
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DELIVERABLE N. TITLE	D1.1 Project Handbook
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REPLY TO	rob.lokers@wur.nl
DOCUMENT URL	
DATE OF DELIVERY (CONTRACTUAL)	30 September 2019 (M4)
DATE OF DELIVERY (SUBMITTED)	
VERSION STATUS	V2.0
NATURE	Report
DISSEMINATION LEVEL	PUBLIC
AUTHORS (PARTNER)	Rob Lokers (WR), Laura Miguel Ayala, (WR), Sander Janssen (WR), Tomaso Ceccarelli (WR)

VERSION	MODIFICATION(S)	DATE	AUTHOR(S)
0.1	First draft	28 August 2019	Rob Lokers (WR)
0.9	Final draft	30 September 2019	Rob Lokers (WR), Laura Miguel Ayala, (WR), Sander Janssen (WR)
1.0	Submitted v1.0		Rob Lokers (WR), Laura Miguel Ayala, (WR), Sander Janssen (WR)
1.1	First draft for v2.0	21 Februari 2020	Rob Lokers (WR)
1.2			Rob Lokers (WR), Tomaso Ceccarelli (WR)
2.0	Final	15 May 2020	Rob Lokers (WR), Laura Miguel Ayala, (WR), Sander Janssen (WR), Tomaso Ceccarelli (WR)

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Introduction

Purpose of the document

The NIVA Project Handbook aims being the reference source of information for all consortium members of the NIVA project. It describes the project and its setup, the management of day-to-day project tasks and commitments, as well as deliverables, deadlines, internal and external communications, among others.

Templates for project reporting, presentations and other dissemination activities are provided, and additional ones will be further included if needed throughout the project.

Precedence

The work of NIVA is based on the different obligations, agreements and working procedures for NIVA project management and execution that have been defined and agreed upon and are established in the following documents:

1. Grant Agreement
2. Consortium Agreement
3. Project Handbook (present document)

It is important to note that this Project Handbook attempts to summarize and does not replace any of the established agreements or guidelines for the project implementation and documentation that appear in the Grant Agreement and Consortium Agreement. In any case, the "precedence of authority" corresponds with the ordering stated above, where the Grant Agreement precedes the Consortium Agreement and the Consortium Agreement precedes the Project Handbook.

General Project Information

Project Summary

The discussion on the modernisation of the Common Agricultural Policy (CAP) is in full progress and one element is how the CAP will benefit from and stimulate ongoing digitisation of the agricultural sector. Digitisation accelerates a cost-effective administration of CAP payments, the update of CAP instruments, stimulates data (re) use for monitoring the societal benefits of agriculture towards climate, environment and rural development and thus improves the sustainability and competitiveness of the sector. Administrative bodies from 9 EU Member States join forces to realise a new vision on the Integrated Administration and Control System (IACS) – the instrument for CAP governance – in this project called: “New IACS Vision in Action” (NIVA).

The project is built around an iterative work plan. This ensures fast results, built-in flexibility and greater involvement of stakeholders. NIVA strives for maximum impact by involving all EU paying agencies and other relevant actors in the stakeholder board, by reserving a substantial budget for supporting third parties and the set-up of an innovation ecosystem that will continue after the project. NIVA manages cross cutting digital innovations as well as standardization issues in dedicated work packages as defining, accepting and defending common standards is exemplifying the desire for collaboration.

The nine prime use cases are demonstrated in three waves, from national to multi-national to pan-European, hence underlining our ambition to make a significant contribution to improved digital competences, awareness and innovation at the European scale. The project’s results are a suite of digital innovations and a roadmap for IACS transformation. The project will speed up innovation, reduce administrative burden, sustain broader and deeper collaboration in an innovation ecosystem and provide methods to establish information flows to improve environmental performance.

Work plan

The work plan for this project is centred on sharing best practices from involved agencies, and testing and validating new technologies and tools for at least 12 months in real conditions across different Use Cases. This large-scale pilot (WP2) will elaborate nine Use Cases, each of which will implement and demonstrate CAP innovations through one or more of the identified Use Case. WP2 performs the core activities to define, design and implement (T2.2), deploy and test (T2.3) the Use Cases and its components over the implementation phases of the project. WP2 also defines the monitoring and evaluation framework and its Key Performance Indicators (KPIs) at Use Case level (T2.1) and performs the M&E to measure outputs and results of the same Use Cases (T2.4). KPIs defined for each use case are then aggregated and analysed together with other KPIs (from other WPs) at project level in the context of WP1.

The large-scale pilot is supported and informed by three WPs:

- WP3 will define and foster the conditions and requirements to secure that the piloting work is harmonized and interoperable;
- WP4 ensures that developed resources (data, services, components) are uniformly stored and easily accessible as reusable services and that it is embedded in a technical framework;
- WP5 develops the mechanisms for participative co-development with stakeholders, such as linkage for impact to adjacent domains (environment, climate etc.), and to make sure that uptake of NIVA innovations during and beyond the project, are in place.

The call for software components and pilot validations (WP6) will provide the mechanism to further increase the innovation impact and outreach of NIVA by involving external parties to build on NIVA developments, allowing integration of new developments and additional expertise, with also a specific attention for higher risk, breakthrough innovations. The higher-level coordination and reporting overall project activities, including data management, quality and risk management and establishment and management of the Policy Board will be done in WP 1.

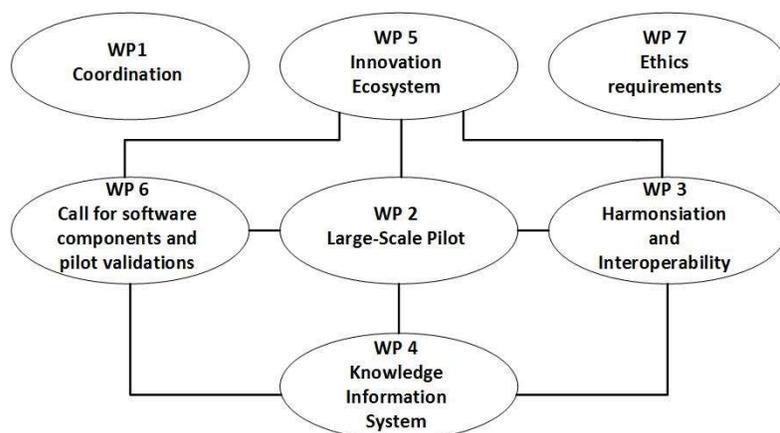


Figure 1 - WP Coherence (left) and Connection of WP2 tasks to other WPs. Each Use Case implements the tasks of WP2 and will make connection to the other WPs for European harmonisation and collaboration.

WP Number ⁹	WP Title	Lead beneficiary ¹⁰	Person-months ¹¹	Start month ¹²	End month ¹³
WP1	Coordination and Management	1 - WR	114.00	1	36
WP2	Large-Scale Pilot	18 - TRAGSA	610.00	1	36
WP3	Harmonisation and Interoperability	13 - IGN	158.00	1	36
WP4	Knowledge Information System	8 - AGEA	127.00	1	36
WP5	Innovation Ecosystem	2 - RVO	117.50	1	36
WP6	Call for software components and pilot validations	1 - WR	27.00	1	36
WP7	Ethics requirements	1 - WR	N/A	1	36
Total			1,153.50		

Table 1 – List of NIVA work packages

General Timeline

All NIVA work packages start immediately at the project kick-off. The project starts with an inception phase (M1-M4). In these first 4 months, the project will deliver a number of base deliverables from each WP as well as the inception report, where adjustments and refinements to this proposal are proposed to make the project more effective and yielding. In particular, as the project is operating in a dynamic multi-stakeholder environment, this inception phase is needed to align with the latest developments in CAP policy design and technological developments in the Earth Observation and other data aspects. After the inception phase, the project will pick up a fast pace with three rounds of demonstration. This results in the following project phases and milestones:

- Inception Phase (M1-M4)
 - o Milestone 1 – Inception (M4)
- Single Member State Pilot (M5-M18)
 - o Milestone 2 - Multi-MS Pilot Readiness Review (M12)
 - o Milestone 3 - Demonstration Readiness Review (M18)
- Multiple Member State Pilot (M19-M24)

- Milestone - Demonstration Review (M24)
- Robustness and Outscaling (M25-36)
 - Milestone - Roadmap and exploitation review (M30)
 - Milestone – Final Review (M36)

Table 2 provides the timeline of phases and milestones and the timing of all project deliverables connected to these phases and milestones

Nr	Deliverable	Month
D1.4	Minutes of the Policy Board Meetings	M1
D1.5	Minutes of Kick off and Consortium meeting	M1
D7.1	H - Requirement No. 1	M1
D3.1	Common glossary	M3
D1.1	Project Handbook	M4
D1.2	Risk & Innovation Management Plan	M4
D2.1	Methodology Framework	M4
D3.3	Common guidelines for software development	M4
D4.1	Source code and documentation repository	M4
D5.1	State-of-play and stakeholder mapping	M4
D5.5	Exploitation Plan: NIVA Road Map for IACS transformation	M4
D5.6	Dissemination and communication plan	M4
D6.1	Set up of call mechanism in NIVA	M4
MS1 - Inception		
D1.3	Data Management Plan	M6
D1.4	Minutes of the Policy Board Meetings	M6
D2.2	Stakeholders involvement strategy & executions	M6
D4.2	Basic software stack for running tests	M6
D4.3	Procedures and instructions related to common environments	M6
D5.2	Stakeholder Exchange Platform Report	M6
D7.2	POPD - Requirement No. 2	M6
D1.5	Minutes of Kick off and Consortium meeting	M7
D2.3	Co-Design of selected Components in the Use Cases	M8
D4.4	Bi-Monthly report on technology development	M8
D3.2	Common semantic model - core data	M9
D6.2	Call for subcontracting of software components	M9
D1.4	Minutes of the Policy Board Meetings	M12
D1.5	Minutes of Kick off and Consortium meeting	M12
D2.6	Monitoring and Benchmarking	M12
D3.1	Common glossary	M12
D3.2	Common semantic model - complementary data for monitoring	M12
D3.3	Common guidelines for software development	M12
D4.4	Annual report on technology development	M12
D5.2	Stakeholder Exchange Platform Report	M12
D5.3	Action Plan for the uptake of NIVA tools	M12
MS2 - Multi-MS Pilot Readiness Review		

D2.4	Use Case components development	M14
D5.4	IACS Open Data environmental monitoring	M16
D1.4	Minutes of the Policy Board Meetings	M18
D1.5	Minutes of Kick off and Consortium meeting	M18
D2.5	Test and validation of use case's components	M18
D3.4	Recommendations for IACS data flows	M18
D3.7	Guidelines to cope with legal issues	M18
D4.4	Annual report on technology development	M18
D4.5	Software of the common components	M18
D5.2	Stakeholder Exchange Platform Report	M18
D5.5	Exploitation Plan: NIVA Road Map for IACS transformation	M18
D5.6	Dissemination and communication plan	M18
D5.7	Practice Abstracts-1st Round	M18
D6.2	Call for subcontracting of software components	M18
D6.3	Call for Financial Support to Third Parties for Pilot Validations	M18
D6.4	Deliverables from Call: software components and external validations	M18
MS3 - Demonstration Readiness Review		
D4.4.9	Bi-Monthly report on technology development	M20
D1.4	Minutes of the Policy Board Meetings	M24
D1.5	Minutes of Kick off and Consortium meeting	M24
D2.2	Stakeholders involvement strategy & executions	M24
D2.3	Co-Design of selected Components in the Use Cases	M24
D2.4	Use Case components development	M24
D2.5	Test and validation of use case's components	M24
D2.6	Monitoring and Benchmarking	M24
D3.1	Common glossary	M24
D3.3	Common guidelines for software development	M24
D3.5	Recommendations for standardised connections between IACS project and other applications	M24
D3.6	Appraisal of interoperability trials	M24
D5.2	Stakeholder Exchange Platform Report	M24
D6.3	Call for Financial Support to Third Parties for Pilot Validations	M24
MS4 – Demonstration Review		
D1.4	Minutes of the Policy Board Meetings	M30
D1.5	Minutes of Kick off and Consortium meeting	M30
D3.8	Profile of priority data for external applications	M30
D5.2	Stakeholder Exchange Platform Report	M30
D5.4	IACS Open Data environmental monitoring	M30
D6.4	Deliverables from Call: software components and external validations	M30
MS5 - Roadmap and exploitation review		
D1.4	Minutes of the Policy Board Meetings	M36
D1.5	Minutes of Kick off and Consortium meeting	M36
D2.2	Stakeholders involvement strategy & executions	M36

D2.5	Test and validation of use case's components	M36
D2.6	Monitoring and Benchmarking	M36
D3.1	Common glossary	M36
D3.2	Common semantic model - data used in the project	M36
D3.6	Appraisal of interoperability trials	M36
D4.4	Annual report on technology development	M36
D4.5	Software of the common components	M36
D5.2	Stakeholder Exchange Platform Report	M36
D5.5	Exploitation Plan: NIVA Road Map for IACS transformation	M36
D5.6	Dissemination and communication plan	M36
D5.8	Practice Abstracts-2nd Round	M36
D6.4	Deliverables from Call: software components and external validations	M36
MS6 – Final Review		

Table 2 – NIVA Timeline of phases, milestones and deliverables

Legal Aspects

Grant Agreement

The Grant Agreement forms the legal basis for the implementation of the project. It consists of:

Terms and Conditions (this is the core contract);

- Annexes:
 - o Annex 1 - Description of the action (DoA);
 - o Annex 2 - Estimated budget for the action;
 - o Annex 3 - Accession Forms;
 - o Annex 4 - Model for the financial statements;
 - o Annex 5 - Model for the certificate on the financial statements;
 - o Annex 6 - Model for the certificate on the methodology.

Although the core contract is signed between the EU and the Coordinator of the project, all partners have become individual contract partners with the commission by signing the Accession Forms. The Grant Agreement must be kept by all partners and should be provided to the auditor in case of an audit.

Consortium Agreement

Whereas the Grant Agreement is signed between the EU and the partners, the Consortium Agreement is signed between all consortium partners. It arranges in more detail the provisions of the Grant Agreement, such as but not limited to: financial issues, payments, management, decision making, conflict resolution, intellectual property rights and liability. The Consortium Agreement must also be kept by the partners and must be shown in case of audits.

Amendments

During the project, circumstances may arise to call for a request to the EU for an amendment of the Grant Agreement. Reasons may vary, but could be:

- Change of partner(s);
- Change of legal entity;
- Changes in the Budget (EU GA: Annex 2);
- Changes in the DoA (EU GA: Annex 1).

In case an amendment is required, the coordinator shall submit such a request after an autonomous decision by all partners in the General Assembly. After approval the Coordinator shall distribute the revised Grant Agreement to the partners, replacing former versions. Budget changes that do not affect the content of DoA can be taken care by the consortium itself, through a decision by the General Assembly and informing the Project Officer. Amendments may be requested by any of the project partners.

Management Structure and Procedures

Project organisational structure

The organisation of the project is set up following the DESCA recommendations. A project coordinator and co-coordinator steer the project as a whole and the coordination and interaction between work packages, and work package leads manage the individual work packages. Following DESCA, a project management board (PMB) and a general assembly of partners (GA) are among the managerial bodies. However, to accommodate the specific nature of this project, in particular to ensure that innovations with IACS systems can be implemented and piloted and to create European support, a special position is given to the Paying Agencies (PA) and Governing Bodies that administer these IACS systems through a Policy Board (PB), acting as a steering board. This Policy Board will steer relevant decisions to IACS systems and related implementation and demonstration aspects of the project. To facilitate the open nature of the developments, a stakeholder forum is organised, consisting of a reference group (from Paying Agencies not part of the project) and a group of industrial and farming stakeholders, that will only be informed about NIVA outputs for dissemination and further adoption purposes.

The governance structure is graphically depicted in Figure 2.

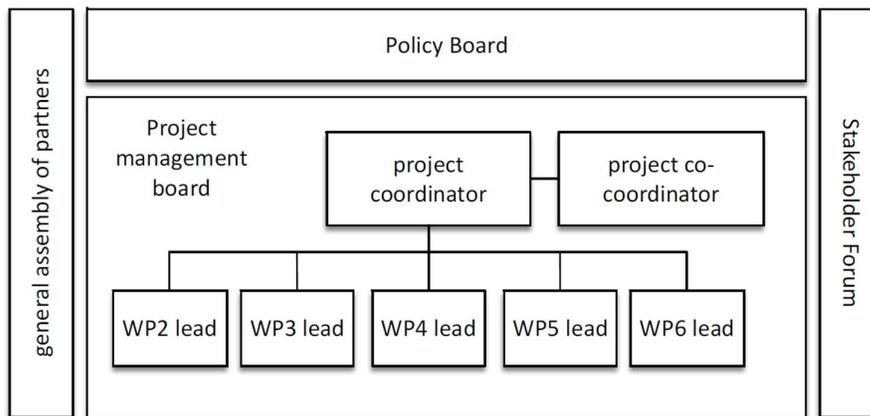


Figure 2 - Management Structure of NIVA

Roles and Responsibilities

Project Coordinator / Project Co-coordinator

The Project Coordinator has the overall responsibility for the achievement of the project objectives. He will act as the intermediary between the consortium, Policy Board and the European Commission. The coordinator chairs the General Assembly and Project Management Board and is responsible for organising its meetings and the management and communication concerned (announcements, agenda, and managing minutes). The Coordinator will monitor project progress, assure sound quality control of all project deliverables and is responsible for liaising with the EU project officer and negotiating any necessary changes to the project structure. Moreover, the fulfilment of reporting obligations and the timely completion of project deliverables to the EU Project Officer as well the implementation of the gender action plan will be the ultimate responsibility of the project Coordinator. The Coordinator ensures consent to the contract by the project partners and other contractors. Finally, the Coordinator will be responsible for financial management (including the call for contributions) and for keeping the accounts of the project.

The Project Coordinator (WR) and Project Co-Coordinator (DAFM) will act as secretary of the PB and assist in preparing meetings and taking up and processing requests for advice or approval from the PB, and in liaising with the GA.

The Co-coordinator supports the coordinator, particularly in establishing the links to policy makers, by organising meetings of the Policy Board. He will replace the coordinator in case of absence. Also, the Project Coordinator is supported by a Project Manager from the same institution who is heading a professional Project Office, experienced in supporting EU funded projects in all financial, administrative and legal aspects at the proposal stage and during the whole lifespan of the project. This Project Manager can replace the Project Coordinator if needed.

Project coordinator: Dr. Sander Janssen (WR)
Project Co-coordinator: Mrs. Deirde Fay (DAFM)

Policy Board

The NIVA Policy Board (PB) is composed of National Policy officers from strategic positions who are responsible for IACS in their respective Member States, and representatives from European Commission Directorate Generals are invited as observers. The National Policy Officers are representing the 9 'funding' Paying Agencies or coordinating bodies in their Member State that are part of the NIVA consortium. The PB will provide directions to ensure the maximization of impact of NIVA activities and will therefore concern itself with strategic directions and a medium-term perspective.

The Project Coordinator (WR) and Project Co-Coordinator (DAFM) will act as secretary of the PB and assist in preparing meetings and taking up and processing requests for advice or approval from the PB, and in liaising with the GA. On behalf of the PA's DAFM and NMA have jointly taken up the role of coordinating the Policy Board process, with DAFM in the lead.

The PB will be critical to NIVA's success with its drive to maximise impact of its activities and will thus provide direction on NIVA's activities and stimulate innovation and other activities within the framework of NIVA, also taking responsibilities for attracting additional resources for upscaling of innovations if required. The PB meets twice a year, and its meetings will be chaired on a rotating basis by the PAs part of the Policy Board, according to the schedule of the EU presidencies. The members of the PB will receive short briefings (4-5 pages) every 3 months, summarising the most important developments in NIVA, as prepared by the Project Management Board.

The Policy Board will:

- Monitor and guide the activities to be executed by NIVA and thus support ensuring that the project scope aligns with the requirements of Business Owners and key stakeholders.
- Decide on the strategic direction of the project, especially regarding the adoption of innovative concepts and the strategic definition and selection of the Pilot Use Cases implementing such concepts, which will be implemented by the Project Management Board and the Work Packages;
- Ensure appropriate communication with DG-AGRI counterparts, and with public administrations in other Member States (reference group);
- Provide direction on the development of the innovation ecosystem.

A complete formal description of the PB's roles and responsibilities and the decision-making procedure is described in the consortium agreement.

Policy Board Chair: rotating among the PB members
Policy Board Coordinator: Mrs. Deirdre Fay (DAFM), Mr. Tomas Orlickas, (NMA, deputy)
Policy Board Secretary: Sander Janssen (WR)

Project Management Board

The Project Management Board (PMB) consists of the coordinator (who will act as chair), the co-coordinator and the WP leaders. It is responsible for operational management of the project, ensuring coordination between the individual WPs and effective day-to-day coordination of the project as a whole. The PMB reports to both the General Assembly and the Policy Board. The PMB will evaluate project

progress, debate and direct developments, and review awareness-raising and training activities. The PMB will meet at least three times a year.

The PMB has the following tasks and responsibilities:

- Prepare proposals for the Policy Board on project's conceptual and technical directions and pilot selection and integration of PB directions into project activities;
- Prepare proposals and requests for change to the GA for matters related to the GA's responsibilities;
- Decide on or propose towards the PB and/or the GA (depending on the scope) mitigation measures to anticipate on emerging risks and quality issues evolving from NIVA's QA & QC and risk management;
- Set out the directions for using and disseminating the Knowledge generated through NIVA, in consultation with the PB;
- Implement measures for control and audit procedures to ensure effective day-to-day coordination and monitoring of the progress of the technical work affecting the project as a whole;
- Coordinate the work as described in the Grant Agreement for NIVA as captured in this proposal on a day-to-day basis;

A complete formal description of the PMB's roles and responsibilities and the decision-making procedure is described in the consortium agreement.

PMB Chair: Sander Janssen (WR)

General Assembly of Partners

The General Assembly (GA) of partners is composed of one authorised representative from each partner and decides on all elements of relevance to the consortium, as informed by the Project Coordinator and the Policy Board. Each member will have a named deputy representative that replaces the representative in case of her/his absence. The GA is chaired by the Coordinator. GA members are duly authorized to decide on all matters listed in the Consortium Agreement through a voting procedure, in alignment with the responsibilities of the Policy Board. The General Assembly may initiate proposals and take decisions based on proposals from the Policy Board and Project Management Board on all relevant issues related to:

1. Content, finances and intellectual property rights;
2. Approve the budgetary strategy, including the assessment of 3rd party financing options;
3. Evolution of the consortium (in adding or removing partners);
4. Appointments (of PMB members).

For GA meetings, the EU Project Officer will be invited. The definitive timing of meetings as well as its working procedures are established in the Consortium Agreement.

A complete formal description of the GA's roles and responsibilities and the decision-making procedure is described in the consortium agreement.

Work package management

NIVA implements its approach through a WP structure designed to maximize the overall impact of the project. WP leadership consists of a WP leader (WL). WP leadership is responsible for delivery of outputs of the WP. The WP leader decides, in consultation with representatives of involved partners, on technical and organisational issues arising from everyday work, and take care of current tasks and deliverables.

The WP partners will meet as often as required, and according to the planned milestones. The WL will be responsible for the day-to-day management of the WP work and will deliver periodic progress information Coordinator and GA. The WL will be responsible for collecting WP deliverables and for carrying out an

initial review of deliverables, prior to submission to the GA for final review and approval. The WLS are responsible for:

- Leading the technical development of the specific area of work;
- Communication within the whole project consortium;
- Ensuring that time schedules, resources, and costs are properly maintained on a WP level;
- Coordinating, monitoring and controlling the activities for their work package;
- Ensuring review of WP deliverables.

Work packages are broken down into Tasks. Tasks are delegated to appropriate project partners by the WP Leader. The partner will appoint a Task Leaders (TL), responsible for the task management. TLs will manage daily activities and provide periodic progress updates to the WLS.

Quality Assurance and Control

Quality Assurance and Control (QA&QC) is performed at different levels in the project. For QA&QC of NIVA project deliverables, a review procedure is in place that ensures that deliverables are reviewed by a reviewer not part of the team that has produced the deliverable. Reviewers report through a standardized review form and their recommendations are processed by the editor, before the project coordinator submits the deliverable to the EC.

Deliverable review process

This section describes the QA&QC process that will be implemented to assure the quality of NIVA deliverables. All deliverables to the EC will go through that process for the following aims:

- ensuring that content and quality of deliverables is checked by a representative of the consortium that was not directly involved in developing the deliverable.
- Safeguarding that possible shortcomings and gaps are identified and used to improve deliverables
- To assure that deliverables will be timely reviewed and delivered to the EC

The deliverable review process consists of the following steps:

Action	Timing
The responsible project members develop the deliverable, involving where required expertise from other project members or external experts. The result will be a draft version of the deliverable, suited for review	
The lead for the deliverable informs the reviewer, the work package leader and the project coordinator that the deliverable is ready for review	Delivery Date minus 4 weeks
The reviewer either accepts the deliverable for review, or assigns another project member to perform the review. In the latter case, he will do so in consultation with the responsible work package leader	Delivery Date minus 4 weeks
The reviewer performs the review. In the case of a document, he will use the sharepoint environment and the available options in Word to comment and suggest (tracked) changes. In any case, he will write a short review report that summarizes the main findings, gaps and additions. A review template is available at the NIVA Sharepoint site. When the review is finalized, the reviewer informs the lead for the deliverable and the responsible work package leader	
The deliverable lead ensures that the review is processed by the involved project members. He submits a final draft of the deliverable to the Sharepoint environment and informs the responsible work package lead and the project coordinator	Delivery Date minus 2 weeks

The work package lead performs a final check on the deliverable. He will then either submit the final version, as well as a PDF version to the Sharepoint portal, or request the deliverable lead to adapt the deliverable in case of any issues	Delivery Date minus 1 week
The project coordinator submits the deliverable to the EC, taking into account the relevant delivery dates and milestone deadlines	Delivery Date

Performance management

Performance management ensures that the performance indicators for NIVA and its targets are defined, that progress towards NIVA’s objectives is critically monitored and that timely and adequate mitigation is set up in case of deviations from the targets. Performance management is under the responsibility of WP2, where both the KPIs are being defined in detail and the monitoring process is performed. In this section we only present the underlying impact chains in a Theory of Change (ToC), and the process and templates that are being used to capture the NIVA KPIs.

In the NIVA project proposal a first version of the Theory of Change was presented. The Theory of Change serves as the reference framework for the definition and collection of the KPIs for each UC under WP2 and for the other WPs, and it shows visually how the project activities are logically connected to the short and longer-term objectives of NIVA. This is ultimately connected to the new CAP goals, although the measurement of impacts is outside the scope of NIVA. A ToC is not a static product, and developments and insights in the first year of the project have led to a revised version, that provides a better representation of the logic from activities via outputs to longer term objectives (results) and impact.

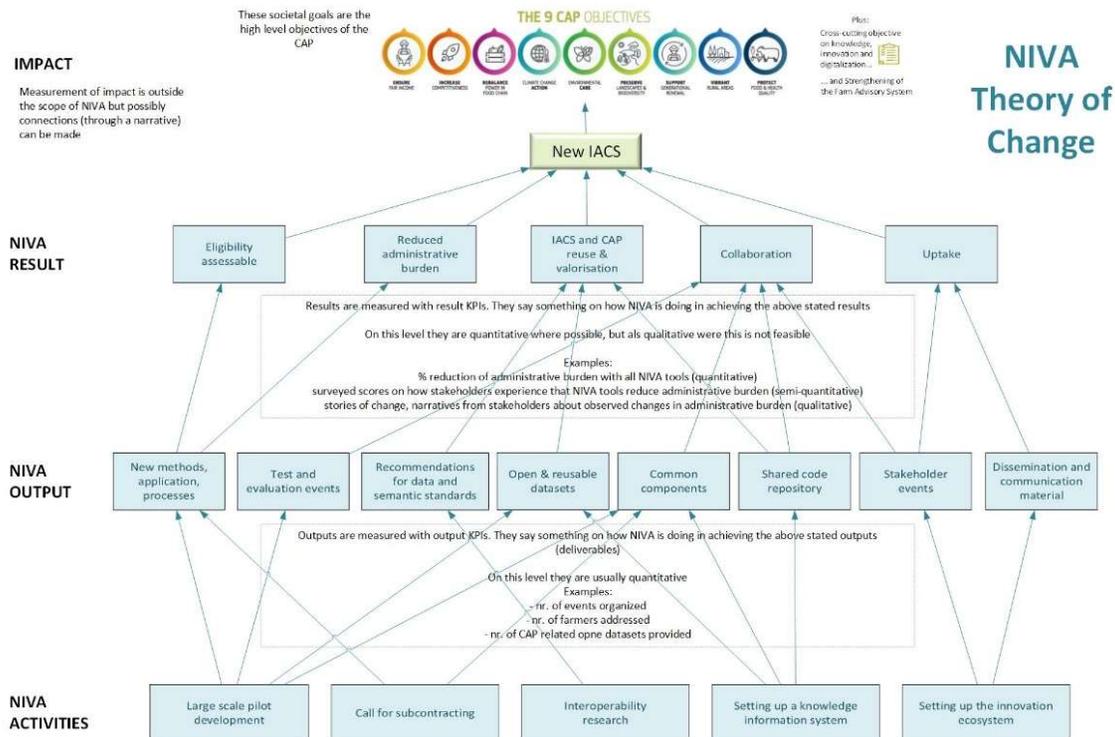


Figure 3: NIVA Theory of Change

The ToC shows (in Figure 3, from bottom to top, and on a global level) the following:

- The main activities of NIVA, where every activity NIVA represents the work of one NIVA work package.

- NIVA outputs, the direct, shorter-term achievements of NIVA, that are strongly connected to the deliverables and the activities of the project.
- NIVA results: the longer-term objectives of NIVA, which are partly dependent on the work of the project itself, but also depending on external drivers and barriers.
- NIVA impact, the effects that the work of NIVA, and its uptake and use by the stakeholder communities have on the (new) CAP objectives.

KPIs are collected and captured through a "KPI register" (see Figure 2), initially designed for the use cases in WP2 and now adopted for the other WPs as well. The register helps defining all elements related to a KPI: -

- The KPI definition
- Which output or result the KPI measures
- How it is measured (method, level of measurement, unit, etc.)
- How the data are collected and from which sources (transactions recorded from a specific device or platform, a dedicated survey, etc.)
- What the baseline value and the target values at the various NIVA milestones are

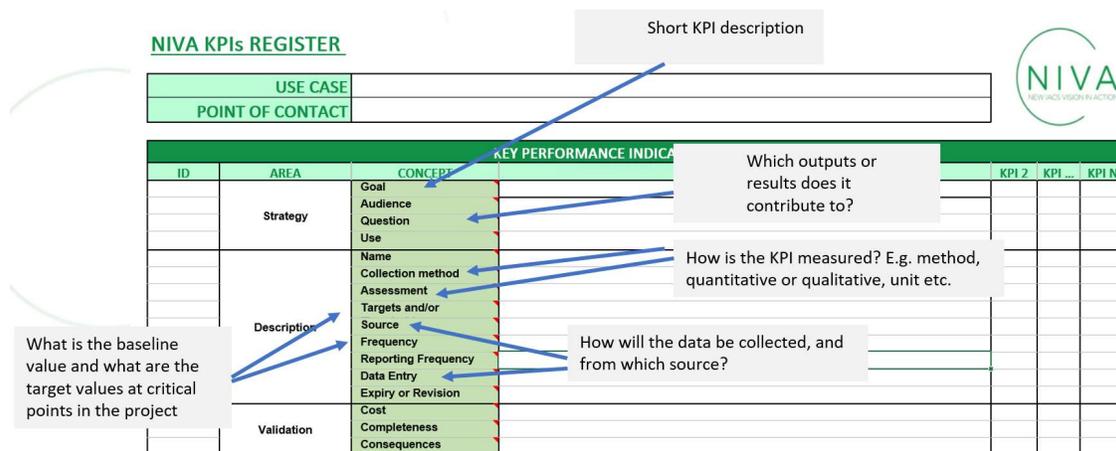


Figure 4: KPI register

As part of the KPI definition process, using the KPI register template, every use case and work package as a first step describes how its activities contribute to the outputs and results of NIVA as shown in the ToC, and defines realistic KPIs to measure the progress towards these objectives. These use case/WP specific representations is then the basis for an aggregation to the project level scheme, where issues of aggregating indicator measurements to outcomes and results will be addressed, looking for consistency and harmonization in the KPI definitions, the ways of measurements, avoiding double counting, etc.

The fully worked out definitions of the (aggregated) KPIs as well as the detailed process of how the measurement, monitoring and the formulation of necessary mitigation measures will take place will be described in the deliverable D2.6 "Monitoring and Benchmarking".

Risk Management

Risk management seeks to monitor and act upon evolving risks. To identify and register potential risks and to be able to monitor risks and pro-actively act on them, NIVA has developed a risk management procedure and captures and monitors risks in a risk registry.

Risk management is embedded in the project coordination and management work of WP1. The details of the NIVA risk management procedure can be found in dedicated deliverable Risk & Innovation Management Plan (D1.2). Part of the monitoring is the maintenance of an up-to-date risk registry, that

shows through traffic lights which risks are relevant to act upon and which solutions or mitigations are being implemented. Both the Risk & Innovation Management Plan and the NIVA risk registry with the actual status of project risks and mitigations can be found at the NIVA SharePoint site.

The following URLs link to the main risk management products:

D1.2 – [Risk and Innovation Management Plan](#) **** to be updated ****

Describes the procedure for risk management, explains the risk register and how it is maintained.

[NIVA Risk register](#)

The operational project level risk register, as maintained through the NIVA Project Management Board.

Innovation management

NIVA will manage innovation through a procedure that identifies, monitors and coordinates the project activities that promote innovation, exploitation and IPR management. This allows to pro-actively identify IPR generated as open with the project resources and design innovation management resources for these plans, on a per-partner and consortium level.

Innovation management is embedded in the project coordination and management work of WP1. The details of the NIVA innovation management procedure can be found in the Risk & Innovation Management Plan (D1.2). Besides, NIVA will document and maintain a registry of all its innovation activities, allowing to overview, coordinate and align them to optimize performance.

The following URLs link to the main risk management products:

D1.2 – [Risk and Innovation Management Plan](#) **** to be updated ****

Describes the procedure for innovation management, explains how NIVA stakeholders benefit from the different outputs of the project, which IPR and ownership conditions apply, which activities are deployed throughout the project to promote uptake and exploitation, and how they contribute to the NIVA KPIs.

NIVA Innovation activity register

Collects and documents the definition of NIVA’s activities that contribute to uptake and use and innovation.

Meetings

The following meeting schedule has been established for the different project bodies as part of the NIVA Consortium Agreement. Meetings will be convened by the chairperson of that Consortium Body.

Consortium Body	Ordinary meeting	Extraordinary meeting
General Assembly	At least once a year	At any time upon written request of the Project Management Board or 1/3 of the Members of the General Assembly
Project Management Board	At least two times a year face-to-face, and 8 times a year through conference calls	At any time upon written request of any Member of the Project Management Board
Policy Board	At least twice a year	At any time upon written request of any Member of the Policy Board
Stakeholders Forum	At least twice a year	--

Coordinator, EC project officer and policy officers	Every 3 months	--
Work package	On demand	--

Table 3 – NIVA Meeting schedule

Communication

Internal Communication

NIVA Contact list

To manage NIVA contacts and their associations with various work packages, use cases etc, a contact list has been established at the NIVA portal. The list is set up as a spreadsheet and contains the relevant information for every contact, including tags to assign links with work packages, roles etc. The filter functions can be used to select the required group of contacts, e.g. all work package leads, all work package members.

The contacts list can be found [here](#)

E-mail

E-mail is still one of the most frequently used means for internal communication. The NIVA contact list can be used to collect email addresses.

The following good practices for email are recommended:

- Address your e-mails wisely to prevent information overload
- Use NIVA and if applicable "WP<nr>" as part of the subject, so mails are easily traceable within the large amount of mail that many people receive. E.g. "NIVA WP1 minutes of the PMB meeting".

Important: Communication with the Commission: In all communication with the Commission on NIVA, the project officer at DG-RTD, the responsible policy officers at DG-AGRI and DG-CNECT and the NIVA coordinator must be included.

The following persons should be in cc:

- DG-RTD, Francisca Cuesta Sanchez - Francisca.CUESTA-SANCHEZ@ec.europa.eu
- DG-AGRI, Doris Marquardt - Doris.MARQUARDT@ec.europa.eu
- DC-CNECT, Gisele Roesems - Gisele.Roesems@ec.europa.eu
- NIVA, Sander Janssen – sander.janssen@wur.nl

NIVA Sharepoint portal

A NIVA SharePoint portal is available as repository for all working documents, minutes and reports. The address of the SharePoint is <https://wageningenur4.sharepoint.com/sites/NIVA/Gedeelde%20documenten/Forms/AllItems.aspx?viewid=a8e60594%2D0e68%2D4337%2Db6c0%2Db3568a43e835&id=%2Fsites%2FNIVA%2FGedeelde%20documenten%2FNIVA%5FforPartners>

A registry with links to the most relevant sections and documents for partners is available at the NIVA SharePoint site.

On-line meetings and conference calls

As a general guideline, the host of a meeting can determine the platform to be used, with the requirement that all participating partners must be able to (technically) access these sessions. An important requirement is that connecting to a meeting by phone should be possible.

External Communication

Project Website

For external communication, NIVA hosts a project website at: <https://www.niva4cap.eu/>

Templates & logo's

Templates (NIVA documents, presentations, brochures etc.), project logo's and reusable presentations are available and downloadable from the [dissemination folder](#) of the NIVA Sharepoint site.

Disclaimers

You are required to indicate that the NIVA project has received funding from the European Union, and additionally display the EU emblem, which can be downloaded from this URL:

https://europa.eu/european-union/about-eu/symbols/flag_en

For all communication and dissemination of results, display the EU emblem and include the following text:

'This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 842009'.

For infrastructure, equipment and major results, include the following text:

"This [infrastructure][equipment] [insert type of result] is part of a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 842009".

Additionally, a disclaimer excluding Agency and Commission responsibility must be included:

'The opinions expressed in [publication] reflects only the author's view. The Agency and the Commission are not responsible for any use that may be made of the information it contains'.

Dissemination of Results and Open Access

Open Research Data

Given the fact that data, data exchange and harmonisation is key to NIVA's objectives (e.g. an entire Work Package, WP3, is focusing on harmonisation and Interoperability) Data Management is also crucial. As NIVA will participate in the EC's Open Research Data Pilot, it will deposit the relevant data (as foreseen by the related Horizon 2020 documents) in a research data repository, and to the maximum extent possible implement provisions for third parties to access, mine, exploit, reproduce and disseminate this data. Accompanying these measures, it is intended that NIVA will provide the information necessary for validating the project's results. Moreover, the ambition of NIVA is to comply with and reuse the current developments regarding European e-services (e.g. as developed by CEF telecom programme). In the project and specific pilot actions the link with the CEF EU Public Open Data service infrastructure and the European Public Data Portal will therefore also be developed and fostered. NIVA will make its data findable, accessible, interoperable and reusable (FAIR).

Detailed instructions on how to cope with data and data publication are provided in the NIVA data management plan (D1.5).

Open Source Software

A central aim of this consortium is to provide benefit to the European community. NIVA will establish an open source strategy, meaning that all project partners are committed to delivering their software as Open Source or contributing their deliverables to the Open Source communities under EU PL license.

All details of the Open Source strategy of the NIVA project are provided in the NIVA Common Guidelines for Software Development (D3.3), which will be delivered in M4.

To manage the delivered software, a source code and documentation repository is set up (D4.1), which can be accessed through the NIVA SharePoint portal.

Guidelines for (Scientific) Publications

According to the NIVA Grant Agreement, each beneficiary must ensure open access (free of charge online access for any user) to all peer-reviewed scientific publications relating to its results.

The NIVA Consortium is fully committed to implement these principles with a preference of "Gold Open Access" that implies we will immediately provide a publication in OA mode by the scientific publisher. We will grant "Green Open Access" to all scientific publications resulting from the action by archiving them on an appropriate platform as available to the publishing institution with a link to the NIVA website.

Tracking Dissemination and Communication

To keep track of progress and publication of dissemination material and events, NIVA maintains a publication & dissemination list. Partners are requested to register their planned dissemination and communication and keep track of the status in this publication list. To keep the consortium informed, the status and progress of this list will be an agenda item in the project management board meetings.

The publication & dissemination list can be found on the NIVA SharePoint portal.

Reporting

This chapter provides instructions for reporting. Mind that details of the official reporting towards the EC are described in the NIVA Grant Agreement (GA) and the GA is at all times leading.

Throughout the lifetime of NIVA the following reporting needs to be performed:

1) Periodic report(s) and final report to the EC (financial & technical progress), see *Table 4*

Type	Period covered	Deadline to upload to ECAS	By whom?	Finalised & submitted to EC by project coordinator
Periodic report 1	June 2019 – Nov 2020 (M1-M18)	Dec 2020	WP leads	30 Nov 2020 + 60 days
Periodic report 2	Dec 2020 – May 2022 M19-M36	June 2021	WP leads	31 May 2021 + 60 days
Final report	June 2019 – May 2022 (M1-M36)	June 2021	Project coordinator + WP leads	31 May 2021 + 60 days

Table 4 – EC Reporting timeline

2) External reporting of meetings with the various project bodies. The minutes of these meetings are part of NIVA's deliverable list and are submitted to the Commission

- Minutes of the Policy Board meetings (half-yearly)
- Minutes of the Consortium meetings (half-yearly)
- Stakeholder Exchange Platform report (half-yearly)

3) Internal reporting of meetings and project progress

- Minutes of the Project Management Board (monthly)
- Minutes of Work Package meetings (on demand)

Periodic Report

The periodic report (EU GA: Article 20.3) must be submitted by the project coordinator **within 60 days** following the end of each reporting period. This report must include explanations for any deviations (budget and content!) from the DoA (EU GA: Annex 1). The periodic report consists of a technical report and a financial report.

The 'periodic technical report' consists of two parts; Part A and Part B:

A) Part A is generated by the IT system. It is based on the information entered by the participants through the periodic report and continuous reporting modules of the electronic exchange system in the Participant Portal. The participants can update the information in the continuous reporting module at any time during the life of the project. Part A contains:

- cover page,

- a summary which can be used for publications by the EC, and
- the answers to the questionnaire (covering issues related to the project implementation and the economic and social impact).

The project coordinator is responsible for part A.

B) Part B is the narrative part that includes explanations of the work carried out by the beneficiaries during the reporting period. Part B needs to be uploaded as a PDF document following the template of Part B Periodic Technical report.

WPL' s compile a report on their WP together with their TLs (Part B) and send it to the project coordinator one month before the deadline for uploading it in the participant portal. The project coordinator consolidates the provided information and sends the complete periodic technical report to the consortium for review. The final approved version will be uploaded in to the Participant Portal by the project coordinator.

The Periodic Report Template can be found on the EC website under H2020 reference documents:

http://ec.europa.eu/research/participants/data/ref/h2020/gm/reporting/h2020-tmpl-periodic-rep_en.pdf

The 'periodic financial report' consists of:

- Individual financial statement (EU GA: Annex 4) for each partner, for the reporting period concerned. This financial statement must detail the eligible costs for each budget category. Each partner and linked third parties must declare all eligible costs, even if costs exceed the amounts indicated in the estimated budget.
- An explanation of the use of resources and information on subcontracting and in-kind contributions provided by third parties from each partner for the reporting period concerned;
- A 'periodic summary financial statement' that will be created automatically by the electronic exchange system, consolidating the individual financial statements of the partners, including the request for interim payment.

The F-Sign of each partner will be able to complete online their own Financial Statement including the explanations on the use of resources, (also for their third parties). The project coordinator will have a final check on the statements and submit electronically to the EC.

Final Report

In addition to the periodic report for the last reporting period, the coordinator must submit the final report **within 60 calendar days** following the end of the last reporting period.

The Final Report Template should be soon available on the EC website under H2020 reference documents:

https://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html

The final report will most probably include the following:

A final technical report with a summary for publication containing:

- An overview of the results and their exploitation and dissemination;
- The conclusions on the action and
- The socio-economic impact of the action.

The project coordinator compiles this final technical report in consultation with the partners.

A final financial report containing:

- final summary financial statement will be created automatically by the electronic exchange system, consolidating the individual financial statements of the partners for all reporting periods;
- a certificate on the financial statements for each partner (and for each linked third party), if it requests a total contribution of EUR 325 000 (or more) reimbursement of actual costs and unit costs.

Financial Reporting in Detail¹

Budget

The budget contains the estimated eligible costs, broken down by Partner (and linked third party) and budget category (EU GA: Articles 5, 6, and 14).

The budget is based on estimated costs and person months. Frequent internal reporting assures that these budgets are monitored well and that under- and over spending is noticed at an early stage. Please note that in reporting, actual costs must be reported and not budgeted ones.

The budget categories are listed in the EU GA: Article 6.2:

Individual Financial Statement – Declaration of Eligible Costs

The individual financial statement needs to be submitted electronically by each partner to the EU through the Participant Portal (*EU GA: Annex 4*).

The procedure below needs to be updated once this process is available in the EU Participant Portal of the Project.

- 1) Login to the Participant Portal
 - a. To be able to login to the Participant Portal you need to have an ECAS (European Commission Authentication Service) password
 - b. Go to the sign-up page and create your ECAS account. Make sure you selected the right domain: External
- 2) Choose the tab 'my Projects'. If NIVA is not listed, contact the project coordinator.
- 3) Click in the column 'Actions' on 'PR' (=Periodic Reporting).
- 4) Click under your organisation on the 'Financial statement'. Fill in the requested information with explanations.
- 5) Once everything is filled in, press "save".
- 6) Then click on the button "inform F-sign", the F-sign will be asked by e-mail to sign the financial statement electronically. If an organisation has not yet added a F-sign to the project (the PF-

¹ All amounts must be specified in Euros. Beneficiaries and linked third parties with accounting established in a currency other than the euro must convert the costs recorded in their accounts into euro. Use the average of the daily exchange rates published in the Official Journal of the European Union, calculated over the corresponding reporting period. If no daily euro exchange rate is published, the costs must be converted at the average of the monthly accounting rates published on the Commission's website, calculated over the corresponding reporting period. Beneficiaries and linked third parties with accounting established in euro must convert costs incurred in another currency into euro according to their usual accounting practices

sign), the LEAR needs to be contacted. The LEAR needs to nominate a F-sign for the organisation and then the participant contact needs to add the F-sign to the project.

- 7) The PF-sign then needs to submit the financial statement to the coordinator.
- 8) The coordinator will make a final check and then submit the financial statements including all reports to the EU through the Participant Portal.

Keeping records- supporting documentation

Each partner must — for a period of five years after the payment of the balance keep records and other supporting documentation in order to prove the proper implementation of the action and the declared costs to be eligible. The documents need to be the original documents. Digital and digitalised documents are accepted if national law accepts these documents as originals.

The partners must keep the records and documentation according to their usual cost accounting practices and internal control procedures. There must be a track between the amounts declared, the amounts recorded in accounts and the amounts stated in the supporting documentation (audit trail).

For the different cost categories, consider the following documents:

Direct personnel costs:

- monthly signed time sheets (6.6.1 Time recording);
- calculation of hourly rate (EU GA: Article 6.2);
- proof of paid salary;
- labour contracts.

Other direct costs (travel costs and related subsistence allowances, equipment costs, costs of other goods and services):

- quotations (sub)contracts;
- all receipts of expenditure;
- meeting docs: signed presence lists, minutes, agenda;
- calculations of depreciation costs charged to the project.

Direct costs of subcontracting:

- quotations (sub)contracts;
- signed (sub)contracts.

Time recording

For personnel costs (declared as actual costs or on the basis of unit costs), the partners must keep time records for the number of hours declared. The time records must be in writing and approved by the persons working on the action and their supervisors, at least monthly (*EU GA article 18.1*).

The time recording can be done by using a timesheet on paper or in a computer-based system. A template for time-sheets is available on the Participant Portal:

http://ec.europa.eu/research/participants/data/ref/h2020/other/legal/templ/tmpl_time-records_en.pdf

This template is not mandatory; beneficiaries may use their own model, provided that it fulfils the minimum conditions and it contains at least the information detailed below.

Time records should include:

- the title and number of the project, as specified in the EU GA;
- the partners full name, as specified in the EU GA;
- the full name, date and signature of the person working for the project;
- the number of hours worked for the action in the period covered by the time record; for reasons of assurance and legal certainty it is highly recommended that the number of hours is detailed per day (hours worked for the action in each day);
- the supervisor's full name and signature;
- a reference to the work package described in the DoA (EU GA: Annex 1), to easily verify that the work carried out matches the work assigned and the person-months reported to the action.

Information included in timesheets must match records of annual and sick leave taken, and work-related travel.

Budget transfers

With the consent of the Project Management Board a re-distribution of person-months between partners may be considered. This re-distribution is allowed without requesting an amendment (*EU GA: Article 55*) provided that it does not imply a substantial change to the action as described in the EU GA. All other re-allocations of budget items need to be discussed in order to decide whether to apply for an amendment to the EU GA.

The maximum grant amount (EU GA: Article 5) can however NEVER be increased.

Payments

The following payments are part of the NIVA project:

1. Pre-financing at the start of the project:
The aim of the pre-financing is to provide the beneficiaries with a float. It remains the property of the EU until the payment of the balance.
2. Interim payment, following the approval of the periodic reports:
After approval of a formal periodic report during the project an interim payment will be issued.
- First Periodic Report: June 2019 (M01) – Nov 2020 (M18)
3. Final payment following the approval of the final report:
The final payment will be transferred after the approval of the final report and consists of the difference between the calculated EU contribution (on the basis of the eligible costs) minus the amounts already paid.