BCOMING

D1.2 Quality assurance plan

Project acronym: BCOMING

Project title: Biodiversity Conservation to Mitigate the risks of emerging infectious diseases

Call: HORIZON-CL6-2021-BIODIV-01

Project no.	101059483
Project acronym:	BCOMING
Project title:	Biodiversity Conservation to Mitigate the risks of emerging infectious diseases
Call:	HORIZON-CL6-2021-BIODIV-01
Start date of project:	01.08.2022
Duration:	48 months
Deliverable title:	D1.2 Quality assurance plan
Due date of deliverable:	31.10.2022
Actual date of submission:	31.10.2022
Deliverable Lead Partner:	**CIRAD**
Dissemination level:	Sensitive

Author list

Name	Organization
Julien Cappelle	CIRAD
Gabriella Lovasz	EM

Document History			
Version	**Date**	**Note**	**Revised by**
01	27.10.2022	First version	All WP leaders
02			

Disclaimer

The content of the publication herein is the sole responsibility of the publishers and it does not necessarily represent the views expressed by the European Commission or its services.

While BCOMING is funded by the European Union, views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency (REA). Neither the European Union nor the European Research Executive Agency (REA) can be held responsible for them.

While the information contained in the documents is believed to be accurate, the authors(s) or any other participant in the BCOMING consortium make no warranty of any kind with regard to this material including, but not limited to the implied warranties of merchantability and fitness for a particular purpose.

Neither the BCOMING Consortium nor any of its members, their officers, employees or agents shall be responsible or liable in negligence or otherwise howsoever in respect of any inaccuracy or omission herein.

Without derogating from the generality of the foregoing neither the BCOMING Consortium nor any of its members, their officers, employees or agents shall be liable for any direct or indirect or consequential loss or damage caused by or arising from any information advice or inaccuracy or omission herein.

Publication information

This work is confidential, available only for the consortium members and the European Commission.

Executive Summary

This deliverable describes the quality assurance plan that will ensure a good coordination of the activities between the different partners and control potential errors in the collection and sharing of data and results in the project. This will allow the development of measures and strategies to reduce/eliminate the potential of data errors that may impact the results quality and cause concerns on the utility of the tools developed in the project.

This deliverable is linked with the Deliverable D1.1 Project Handbook already submitted and D1.4 Data Management Plan for which a first plan will be available at M6.

Table of Contents

1. Project management quality

To ensure a high-quality management of the project, BCOMING is organised around several consortium bodies and communication protocols.

Consortium bodies

The organisational structure of the BCOMING consortium shall comprise the following Consortium Bodies: Project Coordination Group (PCG), General Assembly, Executive Board (EB), External Expert Advisory Board (EEAB) and an IPR and Exploitation Board (IPEB). The roles and responsibilities are discussed for most consortium bodies in the Consortium Agreement (Sharepoint Link to CA). Here we discuss additional information not covered by the GA or the CA.

CIRAD, the Coordinator as the legal entity is acting as the intermediary between the Parties and the Granting Authority. The coordinator shall, in addition to its responsibilities as a Party, perform the tasks assigned to it as described in the Grant Agreement and the Consortium Agreement.
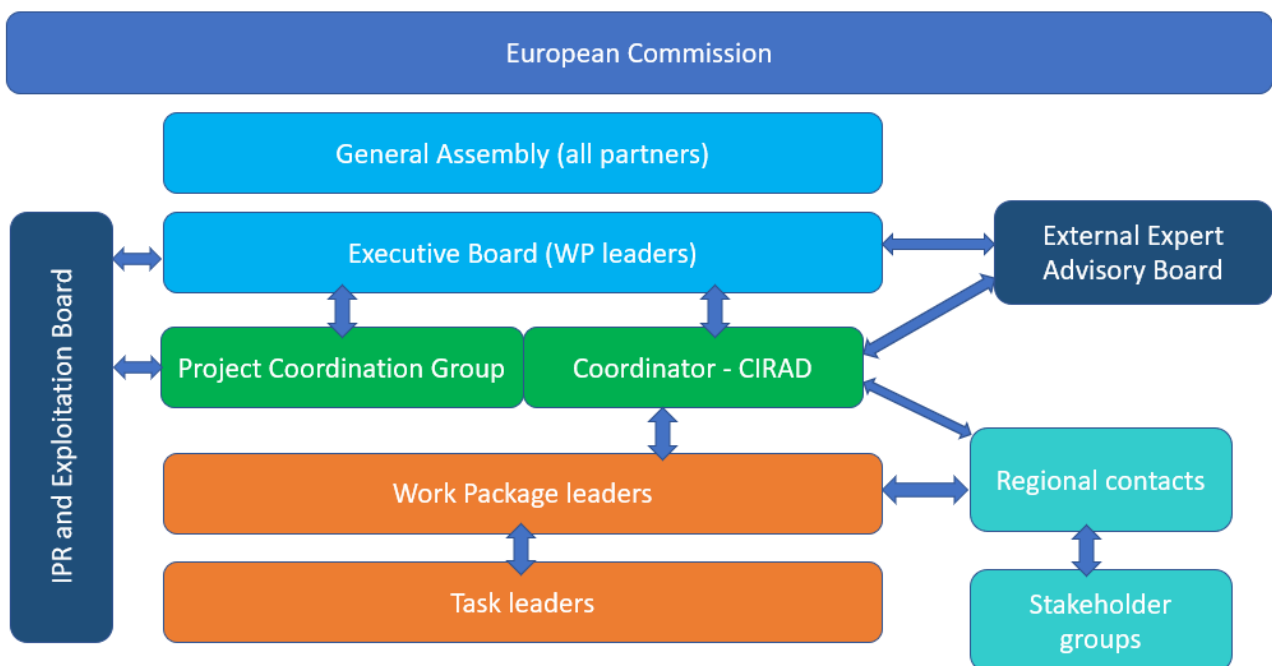
Project Coordination Group

The PCG consists of CIRAD and EM team members. EM and CIRAD will ensure continuous monitoring of progress in all parts of the project is essential to ensure timely project implementation and innovative excellence of the project deliverables. Key indicators will be proposed by CIRAD to evaluate the performance of the project and its impact. PCG has no decision-making rights but can be assigned by the Executive Board to implement specific EB/GA decisions or monitor the implementation of EB/GA decisions. PCG can initiate ad-hoc EB or GA meetings to be organised online or face-to-face and can organise online (or e-mail based) voting procedures for the EB or the

GA. PCG has to ensure that such voting procedures are well prepared, and all members of the Consortium Body asked to vote are able to make full-informed decisions.

The PCG will meet on a monthly basis (first Tuesday of each month) and organise coordination meetings between CIRAD and EM whenever needed. PCG meeting can be organised only if at least one staff member assigned for BCOMING project implementation from both CIRAD, and EM can attend the meeting. Additional partners and staff members from the consortium may be invited to attend PCG meetings when relevant to discuss management, ethics, legal, data management, gender equality etc related issues.

Within PCG, CIRAD will be

- Setting strategic directions for the EB/GA of the project activities;
- Carrying out overall scientific coordination actions;
- Carrying out overall management, communication and reporting activities;
- Handling main communications with the Commission;
- Monitoring the compliance by beneficiaries with their obligations under the grant agreement;
- Financial management (administer the community financial contribution, keep the record and financial accounts, and inform the Commission of the distribution of the Community financial contribution).

EM will be working in close contact with the Project Coordinator, in order to:

- Support the Project Coordinator in all project phases;
- Make appropriate internal arrangements to ensure the efficient implementation of the project;
- Ensure that the programme rules are correctly followed by the partners;
- Support the correct administrative management of the budget and EU funding;
- Coordinate the every-day administration actions;
- Collect all the detailed data requested by the European Commission for the continuous reporting including the submission of deliverables;
- Coordinate the preparation of periodic reports;
- Make sure all legal and ethical obligations and principles are followed.

General Assembly

The General Assembly as the ultimate decision-making body of the consortium. The General Assembly shall be free to act on its own initiative to formulate proposals and take decisions in accordance with the procedures set out in the CA.

Executive Board

The EB shall be responsible for the proper execution and implementation of the decisions of the General Assembly. The EB shall monitor the effective and efficient implementation of the Project. It is consisting of WP leaders, which shall report to and be accountable to the General Assembly. The EB shall collect information at least every 6 months on the progress of the Project and, if necessary, propose modifications of the Consortium Plan (Annex I Description of Action - DoA and Annex II Budget of the GA) to the General Assembly.

The EB shall:

- support the Coordinator in preparing meetings with the Granting Authority and in preparing related data and deliverables

- prepare the content and timing of press releases and joint publications by the consortium or proposed by the Granting Authority in respect of the procedures of the GA Article 17 and Annex 5 Section "Communication, Dissemination, Open Science and Visibility" and of Section 8 of the CA.

IPR and Exploitation Board

The IPEB will monitor and manage Foreground IPR and its dissemination and exploitation. Capturing results and managing their innovation potential is a key sub-task. This task also covers relationships to support innovation with relevant stakeholders beyond participant organisations (EC, projects or clusters, think tanks, industrial associations, standardisation bodies, etc.).

The list of key exploitable results will be validated through a series of internal online workshops organised for each of the Work Packages and in cooperation with the IPEB experts. Within the workshops, partners will clarify whether each result will be disseminated or exploited, how they plan to disseminate/exploit the result, and who the expected users are. Exploitation will include identifying additional communities, networks, NGOs, impact investors (VCs) etc. that would be interested in the key exploitable results and developing specific actions with these actors to promote the uptake of these results. The implementation of exploitation activities will be monitored by the IPEB.

IPEB members will be appointed by the Executive Board based on suggestions coming from all partners at the kick-off meeting. The primary scope is to have exploitation and IPR experts from the partner organisations that will be sole or joint owners of the key exploitable results of BCOMING. Establishment of the IPEB shall be finalised by M6.

External Expert Advisory Board

An External Expert Advisory Board (EEAB) will be appointed and steered by the Executive Board. The EEAB shall assist and facilitate the decisions made by the General Assembly.

- Meetings: The EEAB will convene at least yearly through on-line Meetings and optimally participate in all project meetings (4) during the course of the project.
- Decision-making: Advisory capacity only.
- The Coordinator will ensure that a non-disclosure agreement is executed between all Parties and each EEAB member.

The Parties mandate the Coordinator to execute, in their name and on their behalf, a non-disclosure agreement (hereafter "NDA") with each member of the EEAB, in order to protect Confidential Information disclosed by any of the Parties to any member of the EEAB, either directly or through the Coordinator in the case where the concerned Party gave to the Coordinator its prior written approval for such disclosure. For the avoidance of any doubt, the Coordinator shall have no liability whatsoever towards any Party as a result or in connection with the execution, performance, or breach of such NDA with any member of the EEAB.

Project organisation

Roles in the project

Each work package has nominated a leader who is responsible together with the work package members for the deliverables and milestones for that work package and all other tasks. The work package leaders manage the day-to-day technical planning and work and have the final responsibility

for the work package. Each work package leader is member of the Executive Board and will report on the progress of the work package every 6 months to the PCG and conform the formal reporting periods. Any circumstances which may require changes in the work package must be immediately reported to the PCG. The following tables contain the assigned members for the PCG and WP leadership.

Leading a work package is a role that is *both managerial and scientific*. **Work package leaders** are identified at the institutional level in the DoA, but the consortium allocates the role to a specified individual at the relevant institution. It includes the following responsibilities:

- Planning the workload
- Coordinating the division of labour among participants in the WP
- Monitoring the progress of activities
- Ensuring scientific quality in the tasks
- Overseeing the production of deliverables
- Quality-assuring the deliverables
- Ensuring the completion of deliverables according to the project schedule
- Informing the Coordinator of problems and delays

Task leaders

Each work package consists of a set of specific tasks, each of which has one leader. The task leader has the following responsibilities:

- Ensuring that tasks are completed on time and with the expected quality
- Coordinating, and working together with task contributors
- Reporting to work package leaders

Responsible partners for deliverables

All the person-months are allocated to tasks, but many of the tasks involve production of deliverables. One organisation is identified as the *deliverable leader* for each deliverable. Deliverable leaders take part in the task(s) producing the deliverables, but do not need to be task leaders. The deliverable leaders have the following responsibilities:
- Managing the division of tasks, contribution to deliverables
- Following the workflow towards submission of the deliverable

Communication protocols

To ensure effective coordination of the project activities in BCOMING, **regular and efficient communication** needs to be established and maintained between the partners. To this aim, PCG will facilitate communication between the consortium members and the European Commission concerning the technical and administrative issues. CIRAD will promptly inform the Project Officer(s) of any major problem encountered during the progress of the project.

PCG will use the communication protocols proactively and intensively with a view to monitoring the partners' activities and ensuring conformity with the DoA. Below are the communication protocols that will be used in the BCOMING project:

Day-to-day e-mail contact: for quick discussions, brainstorming, exchange of information and providing updates on project status and progress, we will use straightforward means of

communication. The partners will be in regular touch through e-mail. The internal deadline for responding to emails will be 5 business days.

When sending emails, it should be remembered that many people may be working on a number of different projects and are likely to receive numerous emails every day. This can make it difficult to quickly recognise the significance of an email. Therefore, project related emails should always include in the subject title 'BCOMING' followed by a more specific description of the subject.

[e.g. Subject: BCOMING: Sample strategy draft – Give Feedback by XY MM YYYY]

Furthermore, it is advised to copy the coordinator in all strategic email communication. There are specific e-mail lists created for all project partners bcoming@europamedia.org and specifically for work packages (wp1@bcoming.eu wp2@bcoming.eu etc.). There is a specific e-mail created in case all coordination group members need to be achieved: coord@bcoming.eu A specific e-mail has been created for the EM comm team to make sure all relevant receive any information related to communication, dissemination and exploitation. comm@bcoming.eu – this e-mail address will be used also by external interested parties. All the contact details of all partners and mailing list members can be found on the Projects' SharePoint site in the Master Excel (Link).

The wpleaders@bcoming.eu e-mail list involves all appointed WP leaders and their co-leaders. When Executive Board issues need to be discussed or meetings set up, this e-mail address can be used to easily inform all WP leaders.

The advisory board when finalised will also have a mailing address: eeab@bcoming.eu that will be used to keep all members updated on news in BCOMING.

During the proposal writing phase a specific Zoom account was used where meetings were held with CIRAD. The same account shall be used when joining meetings where CIRAD and Julien Cappelle sets up the meetings. Otherwise Zoom, Teams will be used as key channels for organising online meeting and calls. When WP leaders set their online meetings, the WP members will decide which platform will be the most suitable for them to be used. WP leaders will organise WP meetings whenever required useful or necessary. Cross-WP meetings will be organised when useful or necessary following the rules and procedures set for the Executive Board.

Regular online meetings

	Ordinary meeting	Extraordinary meeting
General Assembly	At least once a year	At any time upon request of the Executive Board or 1/3 of the Members of the General Assembly
Executive Board	At least quarterly	At any time upon request of any Member of the Executive Board
PCG	Monthly	At any time upon request of any Member of the PCG
IPEB	At least quarterly after M12	N/A

Work Package and Task meetings shall be initiated by the work package and task leaders on as-needed basis and organised in conjunction with the Coordinator. The objective of these meetings is to plan the implementation of the activities within the work packages, monitor progress and discuss critical issues. It is recommended that at the launch of each work package, the WP leader organises an online meeting with the participants of that work package in order to set the scene and plan for the work ahead. The minutes of the meetings shall be produced by the initiator of the meeting.

Task distribution and monitoring

To facilitate communication between the partners via the above protocols, as well as to support regular planning and monitoring, the following tools have been foreseen and are launched at the start of the project:

3-monthly task planning: WP leaders list here the major tasks to be implemented – these tasks will be assigned to partners with deadlines and linked with Trello. Decisions on these tasks will be made in the WP leader meetings.

SharePoint is established for all the persons from partner organizations included in the project. This is the main space for sharing of all the relevant documents and project files, from GAP and CA to everything that will be produced within various WPs in the project.

Trello is used to ensure good coordination and provide a vision of the progress of other partners to all dependent partners.

Revision of deliverables

Deliverables are tangible outputs of the project and constitute part of the outcomes that lead to the expected impacts. Deliverables can be of different **types** such as documents, reports or demonstrators, websites and prototypes, as well as have different **classification levels** such as public or confidential. These two features are specified for each deliverable in BCOMING's DoA.

The **deadline** for the delivery of each deliverable is also specified in the DoA. The deliverables must be submitted to the Commission electronically via the Funding and Tenders Portal and by the deadlines specified. These deadlines must always be respected, as they are an indicator that the project is progressing according to plan. If any delay is foreseen in the submission of a deliverable, the Project Coordinator must notify the European Commission promptly. In the project governance hierarchy, this implies that the partners responsible for the production and submission of deliverables must be aware of the timeline of deliverables and identify any potential delays and inform WP leaders and the Coordinator immediately. If one or more of the partners is late in submission of any deliverable, the Coordinator may nevertheless submit the other partners' deliverables and all other documents required by the Grant Agreement to the Commission in time.

BCOMING has defined **57 deliverables** (out of which 13 are ethical deliverables), which are to be produced throughout the entire project duration under the responsibility of different partners. While producing and submitting the deliverables on time is crucial, it is equally important to ensure that the deliverables are of **high quality**. To this aim, relevant **quality assurance protocols** have been conceived and will be employed during the production and submission of the deliverables in BCOMING. These are introduced below.

Each deliverable is assigned to a **Lead Beneficiary** as indicated in Annex 1 of the Grant Agreement. This Lead Beneficiary is responsible for ensuring that the deliverable is produced and submitted according to the below outlined process, which comprises **five stages** for the production and submission of deliverables.
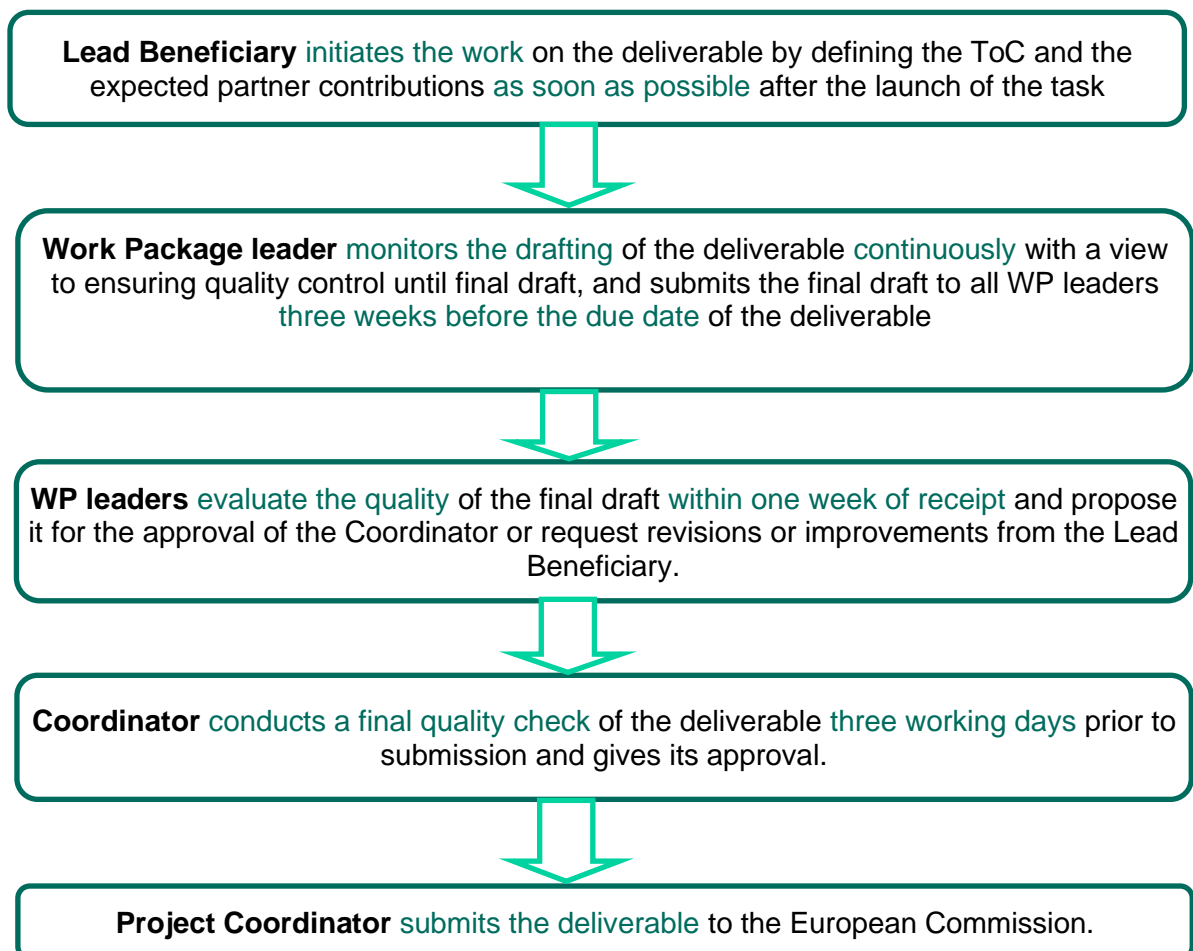
> **Five Stages of Producing and Submitting Deliverables in BCOMING**
>
> 1. **ToC:** Table of Contents (ToC) of the deliverable as well as the expected contributions of the partners involved in the production of that deliverable identified by the Lead Beneficiary.
> 2. **Working draft:** All versions during the drafting process of the deliverable.
> 3. **Final draft:** Content-wise a complete version of the deliverable.
> 4. **Final deliverable:** Final version of the deliverable as approved by the appointed reviewers and the Coordinator, and ready for submission to the EC.
> 5. **Approved by the Commission:** The deliverable is accepted and approved by the EC.

The quality assurance system with assigned responsibilities and specific timelines/deadlines throughout the above five-stage process are described below.

Quality Assurance System for Producing and Submitting Deliverables in BCOMING:

Lead Beneficiary initiates the work on the deliverable by defining the ToC and the expected partner contributions as soon as possible after the launch of the task

Work Package leader monitors the drafting of the deliverable continuously with a view to ensuring quality control until final draft, and submits the final draft to all WP leaders three weeks before the due date of the deliverable

WP leaders evaluate the quality of the final draft within one week of receipt and propose it for the approval of the Coordinator or request revisions or improvements from the Lead Beneficiary.

Coordinator conducts a final quality check of the deliverable three working days prior to submission and gives its approval.

Project Coordinator submits the deliverable to the European Commission.

All deliverables must be produced following the **deliverable template** provided by the Coordinator. In case WP leaders decide that EN proofreading is needed, the Lead Beneficiary will organise the proofreading check.

2. Project data quality

At the foundation of the BCOMING project is a standardized data collection that will feed all activities of the project (Figure 1). Ensuring the quality of the data collected during the project and their timely sharing to the relevant partners will thus be key to the project success. Additionally, to the measures taken to ensure a sound project management and make sure that data and results will be available on time to the partners relying on them, several measures specifically related to the data quality will be taken during the project.
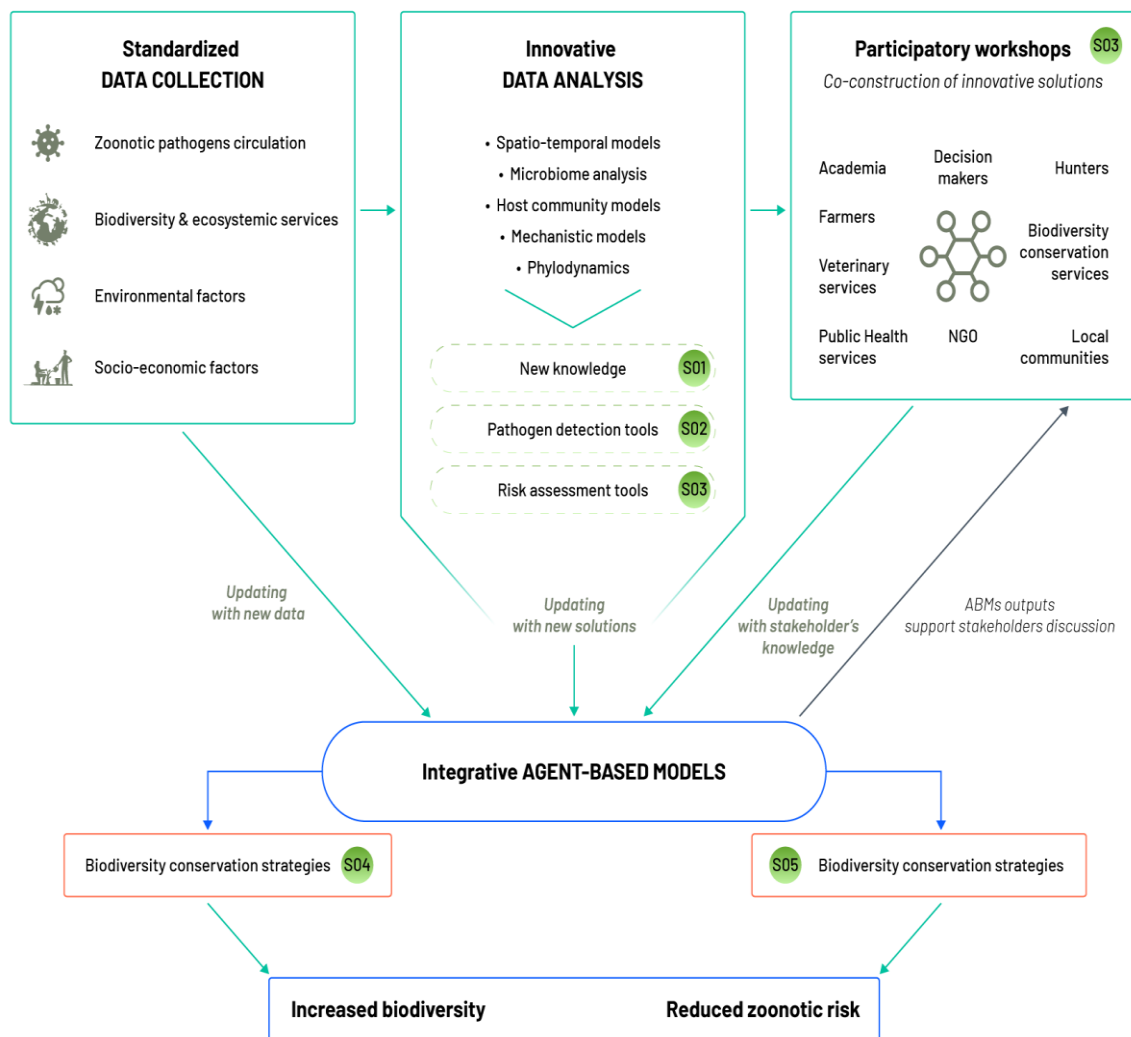

Figure 1: Overview of the BCOMING concept highlighting the importance of the data collection and the data flow to reach the project objectives.

Procedures for collecting data on the field will be standardized and will follow international guidelines of good practices to ensure both high quality and high ethical standards. Partners in charge of data collection in the project are all experienced with data collection and data analyses to the standards required by international funders and for publication in international scientific journals in their respective discipline and field of expertise. The details of the type of data collected by partners will be listed in the Data Management plan which will be submitted as deliverable 1.4 in January 2023. The details of the procedures involving humans and animals will be submitted in several ethics' deliverables in December 2022.

To ensure standardization of the data collected in different sites and countries, partners will share the same protocols for biological sampling, interviews and microbiological testing. They will include variables coded similarly in their datasets (in particular precise date and location variables) and will upload anonymised data in the project database, thus ensuring homogeneity for all project data while still being able to add other variables that may be required to reflect their local situation.

The project database will be developed by CIRAD and stored on secured servers. CIRAD will ensure data security and will implement measures to check data quality. The data security will be ensured as detailed in deliverable 9.3 about personal data management, submitted in August 2022. Hereafter is a summary of the main commitments related to the protection of personal data applicable to the partners participating in the BCOMING project. They are also based on the principles and obligations established under the General Data Protection Regulation (Regulation (EU) 2016/679 of 27 April 2016), which applies to the BCOMING activities as a European funded project:

- Collect, use, store, share data only as far as it is necessary to reach the goal of the activity
- Make sure that any data processed as part of the project has been collected in a fair, transparent and lawful manner
- Set appropriate technical and organisational measures to ensure the security and confidentiality of the data protecting it against unauthorised or unlawful access, accidental loss, destruction or damage, and unlawful transfer towards a non-adequate third country
- Collaborate to ensure an efficient protection of personal data at a project level

CIRAD will implement measures in the database to check data quality. Variables formats will be checked to ensure homogeneity between datasets and to avoid errors. Table 1 is providing some examples of data formats that will be used.

VARIABLE	N_identification	Date	Pays	Region_capture	Long_degre_dec	Proximity to village
Option	Coded identifier	Date Format	Drop-down menu	Free	Decimal Degree format	Fixed point
Example	Cirad: CIRADGUCS0001	YYYY-MM-DD	Cambodia	Stung Treng	hddd.ddddd°	5.34
			Ivory Coast	Taï		
			Guadeloupe	Basse-Terre		
			Guinea	Kindia		

Table 1: Examples of variables format in the future BCOMING database

Additionally, values entered in the database will be checked for all variables to detect aberrant data using thresholds or missing data. These measures will allow to produce dashboards of data quality as exemplified by Figure 2.

VarName	Cambodia	Vietnam	Laos
LPPerformed	0	0	6,7
IfNotLPPerformedWhy	0,8	1,4	1,1
BloodTestPerformed	0	0	10,1
IfNotBloodTestPerformed	0	1,4	16,9
All3SwabsPerformed	0	0	10,1
IfNotAll3SwabsPerformed	0	1,4	3,4
UrineTestPerformed	0	0	11,2
IfNotUrineTestPerformed	0	1,4	20,2
Hematocrit	0,8	0	5,6
Hemoglobin	0,8	0	10,1
RBCCount	0,8	1,4	10,1
Leukocytes	0,8	0	7,9
Neutrophils	0,8	0	6,7
Lymphocytes	0,8	0	6,7
Monocytes	0,8	0	9
Eosinophils	0,8	1,4	76,4
Platelets	1,6	0	6,7
MCV	0,8	8,2	11,2
Sodium	0,8	1,4	15,7
Potassium	0,8	1,4	15,7
Creatinine	0,8	6,8	31,5
Urea	1,6	6,8	34,8
SGOT_AST	0,8	6,8	48,3
SGPT_ALT	1,6	6,8	48,3
TotalProtein	3,2	30,1	92,1
Glucose	0,8	11	7,9
CReactiveProtein	13,5	6,8	100
MalariaThickSmear	31,7	97,3	77,5
MalariaThinSmear	38,1	97,3	78,7
HIVSerology	0,8	26	67,4
BloodCultureAerobicPathogen	0,8	47,9	28,1

Figure 2: Example of heatmap showing aberrant values in a dataset of another CIRAD project. Similar tools will be used in BCOMING to create a data quality dashboard.

Additional measures will be taken to ensure the data produced by BCOMING to be FAIR (Findable, Accessible, Interoperable and Reusable). These measures will be detailed in the data management plan that will be submitted as deliverable 1.4 in January 2023.

Figure X. Overview of the BCOMING concept highlighting the importance of the data collection and the data flow to reach the project objectives.