GOVERNANCE CHARTER

A public-private partnership for the estimation of brand-specific COVID-19 vaccine effectiveness in Europe

COVIDRIVE

Version 5.3

25/05/2021

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GLOSSARY

Applicants	are potential Study Contributors, who apply to participate in a specific study and are part of the study-specific selection process. Applicants are COVIDRIVE's pre-qualified Study Contributors or newly identified Study Contributors.
Consortium	(also refer to partnership/collaboration) means the group of Partners that are parties in the COVIDRIVE Consortium Agreement. For the avoidance of doubt, the Consortium has no separate legal identity.
Consortium Agreement	means the agreement and all of its appendices, together with amendments, signed by all the authorised representatives of the Partners
Collaborative Agreement	means the agreement and all of its appendices, signed by all the authorised representatives of the Core Platform Partners for the set-up of the Consortium (Phase 1 of the COVIDRIVE project). .
Collaboration Agreement	means the agreement and all of its appendices, signed between P95 and all the authorised representatives of the Vaccine Company Partners for the set-up of the Consortium (Phase 1 of the COVIDRIVE project).
Coordination Team (CT)	is a group responsible for the day-to-day operational, administrative and technical aspects of the project. The CT shall be made up of a representative of each of the Co-coordinators together with, on a rotating role, a representative of the Vaccine Company Partners.
Co-coordinators	FISABIO and P95, both COVIDRIVE Partners, are appointed as Co-coordinators to jointly coordinate and manage the project.
Core Platform Partners	is the group of Partners which are not Vaccine Company Partners.
Governance Charter	is the present document, which aims at providing an overview of the governance framework of the COVIDRIVE partnership: principles, functions, stakeholders, roles, responsibilities and expected tasks/deliverables that will guarantee an efficient execution of the COVIDRIVE partnership.

ICMJE authorship criteria	The International Committee of Medical Journal Editors (ICMJE) recommends that authorship be based on the following four criteria: • Substantial contribution to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND • Drafting the work or revising it critically for important intellectual content; AND • Final approval of the version to be published; AND • Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.
Independent Scientific Committee (ISC)	shall consist of a limited number of external experts with relevant experience/expertise in the field of COVID-19 vaccine effectiveness. Scientific experts representing each of the Co-coordinators act as observers to the ISC.
ISC Agreement	means the agreement and all of its appendices, together with amendments, signed between P95 and the ISC experts.
Partners	(also refer to participant/collaborator) means a legal entity signatory of the COVIDRIVE Consortium Agreement. COVIDRIVE partners are either Core Platform Partners or Vaccine Company Partners.
Partnership results	are scientific and technical master documents generated at the partnership level.
Quality Assurance and Audit Committee (QAAC)	is composed of a limited number of quality assurance experts from Vaccine Company Partners, responsible for quality management and auditing.
Steering Committee (SC)	is the decision-making body of the partnership, responsible for its strategic direction and allocation of budget and resources. The SC shall be established as a leadership team with a 50/50 parity between Vaccine Company Partner and Core Platform Partner representatives.
Study Contributor/site	is an institution who collects/owns data of interest for studies, and who signs a Study Contributor Agreement with P95 after being selected via a study-specific selection process. The Study Contributor is part of the Study Team for the specific study.

Study Contributor Agreement	means the agreement and all of its appendices, together with amendments, signed by P95 and a Study Contributor..
Study Sponsor	means the organisation which takes on the responsibility to initiate, manage and finance the studies, as well as ensuring the operational/administrative coordination of the network of Study Contributors.
Study Requestor	means the vaccine company or public health institute/research institution that requests to perform a specific study.
Study Results	means the conclusions and results of the study including the • anonymised, aggregated analytical dataset specific to a Study Requestor containing only the vaccine brand(s) of interest, • tables/figures and listings presenting the study outputs, and • any study reports (e.g. progress, interim and final reports).
Study Team (ST)	is created to design and conduct the CVE studies to be performed by COVIDRIVE upon study request. • The Restricted Study Team (Restricted ST) is made up of experts from the Co-coordinators and Study Contributors. • The Full Study Team (Full ST) is the Restricted ST plus the experts from the Study Requestor.
Third party	shall mean a legal entity which is not a party of COVIDRIVE's Consortium Agreement, which provides resources to a Partner.
Vaccine Company Partner	(also refer to private partners or vaccine manufacturers) means Partners which are pharmaceutical companies.

ABBREVIATIONS

AZ	AstraZeneca
CA	Consortium Agreement
COVID-19	COronaVIrus Disease 2019
CT	Coordination Team
CRS	COVIDRIVE Research Server
CVE	COVID-19 Vaccine Effectiveness
DRIVE	Development of Robust and Innovative Vaccine Effectiveness
ECDC	European Centre for Disease prevention and Control
EFPIA	European Federation of Pharmaceutical Industries and Associations
EMA	European Medicines Agency
EnCePP	European network of Centres for Pharmacoepidemiology and Pharmacovigilance
EQA	External Quality Assessment
EU	European Union
FISABIO	Fundación para el Fomento de la Investigación SAnitaria y BIOmédica de la comunidad valenciana
GDPR	General Data Protection Regulation
GSK	GlaxoSmithKline plc
HCP	Health Care Professionals
I-MOVE	Influenza – MOnitoring Vaccine effectiveness in Europe
ICMJE	International Committee of Medical Journal Editors
IMI	Innovative Medicines Initiative
ISC	Independent Scientific Committee
IT	Information Technologies
IVE	Influenza Vaccine Effectiveness
LCS	Lab-Confirmed SARS-CoV-2
MAH	Marketing Authorisation Holder
NITAG	National Immunisation Technical Advisory Group
PHI	Public Health Institute
PI	Principal Investigator
QAAC	Quality Assurance and Audit Committee
QCMD	Quality Control for Molecular Diagnostics
RDP	Remote Desktop Protocol

RMP	Risk Management Plan
RT-PCR	Reverse-Transcriptase Polymerase Chain Reaction
SAP	Statistical Analysis Plan
SARS-CoV-2	Severe Acute Respiratory Syndrome CoronaVirus 2
SC	Steering Committee
sFTP	secure File Transfer Protocol
SME	Small and Medium Enterprise
SP	Sanofi Pasteur
ST	Study Team
THL	Finnish institute for health and welfare (Terveyden ja Hyvinvoinnin Laitos)
VE	Vaccine Effectiveness
WG	Working Group

DOCUMENT HISTORY

Version	Date	Description
V1.0	15 Jan 2021	First draft
V2.0	05 Feb 2021	Second draft – implementing comments from LP, KB and IBS and agreements during the COVIDRIVE governance working group (WG) discussions
V3.0	12 Feb 2021	Third draft – implementing governance WG discussions and alignment with consortium agreement
V4.0	09 Mar 2021	Fourth draft – implementing comments from IBS, MSG and discussions on ownership, ISC compensation and study results publication
V5.0	30 Mar 2021	Last draft – implementing comments from partners' lawyers and working group members on competition law, governance bodies, data terminology and flow, and secondary use of data
V5.1	9 April 2021	Integrating latest comments from partners' lawyers and WG members
V5.2	18 May 2021	Text, typos and formatting revision.
V5.3	25 May 2021	Integrated comments from SP and GSK on Steering Committee and Coordination Team. KB added data retention clauses

1 BACKGROUND

1.1 COVID-19 pandemic and COVIDRIVE genesis

The COVID-19 pandemic has affected all aspects of our lives in an unprecedented way. A collaborative effort among all stakeholders is crucial to successfully tackle the current global public health crisis. While non-pharmaceutical interventions are used to slow down the spread of COVID-19, the development and swift global deployment of safe and effective vaccines against COVID-19 remain an essential element in the management of and the eventual solution to end this public health crisis[1]. Upon (conditional) marketing authorisation of the first COVID-19 vaccines, EU regulations require that the safety and effectiveness of these vaccines are being timely monitored[1, 2].

Because of the uncertainties related to the timing of the COVID-19 vaccines' market authorisations, the national decisions on which vaccines to purchase, the different timelines of vaccines distribution and the national vaccination prioritisations, it will be very challenging to predict the level of vaccine uptake and ensure sufficient sample size for VE studies. This necessitates the set-up of a large study network with a wide geographical coverage.

COVIDRIVE is a public-private partnership, launched in November 2020 and supported by the Vaccines Europe *Experts Task Force for COVID-19 vaccines, epidemiology and pharmacovigilance*, to address the joint need to monitor COVID-19 vaccination programs for public health institutes and assess brand-specific COVID-19 vaccine effectiveness for vaccine companies as part of their regulatory obligations. To tackle the COVID-19 public health crisis, the European Medicines Agency (EMA) has recommended to make use of existing/established EU efforts and encourages a common approach to assess COVID-19 vaccines in real-life settings[3]. In that context, COVIDRIVE plans to start performing brand-specific COVID-19 vaccine effectiveness studies by the end of May 2021 through a multi-stakeholder public-private European collaborative platform.

COVIDRIVE is leveraging an existing vaccine effectiveness platform (DRIVE) which provides yearly brand-specific influenza vaccine effectiveness (IVE) estimates to the EMA. The DRIVE project (https://www.drive-eu.org) is an on-going 5-year IMI (innovate medicines initiative) project, launched in July 2017 to respond to an EMA regulatory commitment requiring vaccine companies to provide yearly brand-specific IVE estimates. Despite a challenging feasibility, DRIVE has successfully set up a strong and efficient data collection platform through a network of independent study sites across the EU, and has established a quality-controlled information technology (IT) platform and pooled analysis infrastructure alongside appropriate governance (https://www.drive-eu.org/index.php/governance/).

COVID-19 and influenza are both respiratory infectious diseases with similar clinical symptoms, respiratory specimens and laboratory tests, making influenza study networks well suited to also study COVID-19. So, the DRIVE study platform, governance, tools and methods can be adapted to meet the specificities of COVID-19 vaccine effectiveness (CVE) studies and thus allow for fast start-up at reduced costs. This resource efficiency would be further enhanced through joint funding by several vaccine companies and through leveraging existing public health capacities. In addition, ensuring a good coordination between public health institutes and vaccine companies will optimise health care

practitioner (HCP) resources in data collection. COVIDRIVE aims to get reliable and timely data; in full compliance with the competition laws the platform will facilitate post-authorisation harmonisation on methods and regulatory pathways as well as sharing CVE results and liaising with other EU initiatives/EU institutions to enhance high-quality CVE monitoring.

Definitions and key terms are detailed in the glossary section at the beginning of the document.

1.2 COVIDRIVE partnership development plan

This section should be considered as background information.

The following action plan has been set up in November 2020 in order to onboard partners with the aim to be ready to initiate a first brand-specific CVE study by the end of May 2021. The action plan is graphically represented in Figure 1:

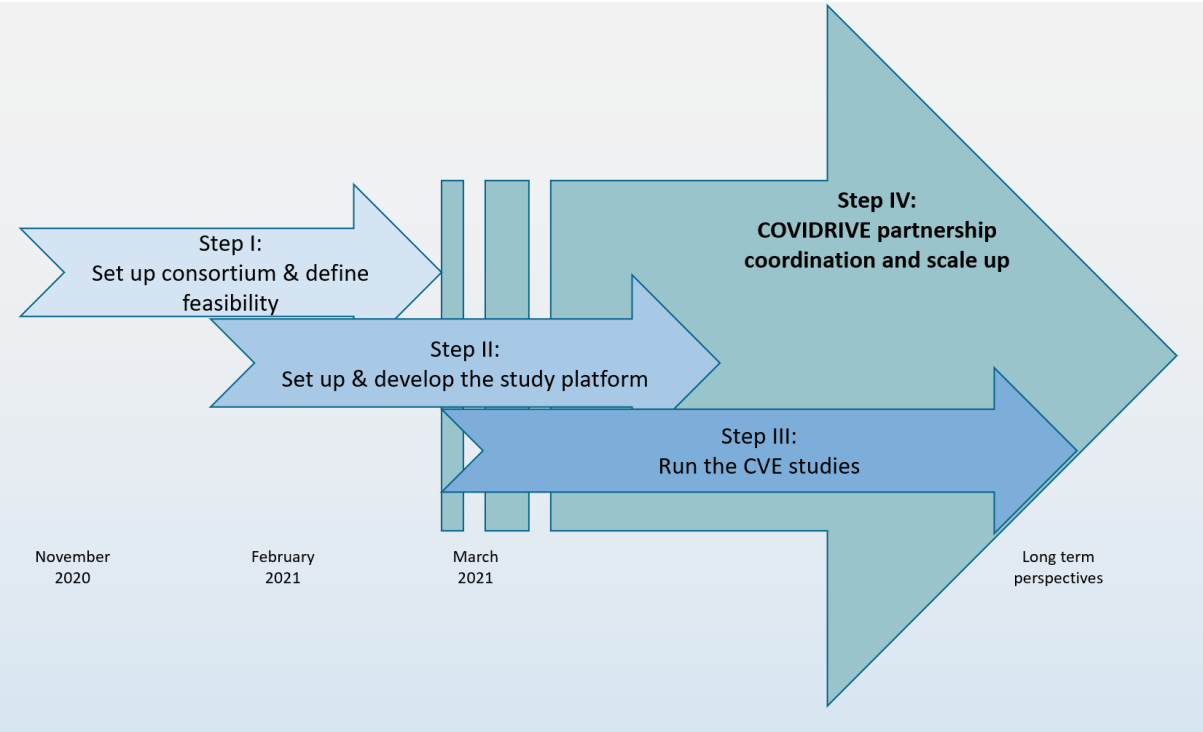


Figure 1. Action plan of the COVIDRIVE partnership

<u>Step I: Setting up the COVIDRIVE partnership</u>

Step I (November 2020 to February 2021) is the first level of engagement: confirmation by each Vaccine Company by signing a Collaboration Agreement with P95 (one of the two co-coordinators of COVIDRIVE), confirmation of Core Platform Partners by signing a Collaborative Agreement with P95 and confirmation of willingness to participate by potential Study Contributors (public health institutes or research institutes, Study Contributors network) by signing a letter of intent.

In step I, COVIDRIVE partners co-develop the following deliverables:

- Feasibility Report
- Consortium Agreement, and
- Governance Charter.

The funding of step I comes from vaccine companies who signed the Collaboration Agreement. The funding is allocated and distributed by P95 among the other Core Platform Partners engaged in the co-development of the platform.

Step II: Development of study platform and infrastructure

Step II (starting February 2021) is the second level of engagement, in which the foundation of the COVIDRIVE partnership is developed (incl. consortium set up with governance bodies, CVE master scientific documents, IT infrastructure) to be ready to start the CVE studies by the end of May 2021.

Legally, step II consolidates the COVIDRIVE partnership via the following agreements:

- Vaccine companies join the platform and become COVIDRIVE Partners (and members of the Steering Committee) by signing the Consortium Agreement.
- Public health institutes/other research institutes interested in joining the platform are asked to confirm their willingness to become (1) COVIDRIVE Core Platform Partners (members of the Steering Committee) by signing the Consortium Agreement and/or (2) COVIDRIVE Study Contributors (study-specific collaborators participating in studies on an ad hoc basis upon study request and a study-specific selection process, Study Contributors do not have to sign the Consortium Agreement).

The funding of step II comes from vaccine companies with vaccine candidates in phase II clinical development or beyond. P95 allocates and distributes the funding among the Core Platform Partners according to the arrangements set forth in the Consortium Agreement. This funding (budget) contributes to develop the master scientific documents (e.g. master protocol, master statistical analysis plan (SAP) and master mock report), the set-up and maintenance of the IT platform and the coordination of the partnership. All those components constitute the partnership development and activities.

During this phase, FISABIO and P95 co-coordinate the development of master scientific documents that are co-developed by Core Platform Partners and Vaccine Company Partners:

- master study protocol(s) to assess CVE at the brand level, adapted to up-to-date national vaccination programs,
- master SAP for pooled analysis across European sites, and
- master mock report to agree a-priori on the presentation of the CVE results (e.g. overview of SARS-CoV-2 virus circulation, COVID-19 vaccines' specificities and graphs/tables to present brand-specific CVE estimates).

However, depending on time and resource constraints, COVIDRIVE partners may decide and agree collectively to postpone the development of some master documents for the benefit of timely starting the first studies (see Step IV). This should be appropriately reflected in the budget engaged in step II.

Step III: Study conduct and reporting

The COVIDRIVE partnership aims to be ready to initiate CVE studies by end of May 2021. Upon a request from one or more COVIDRIVE partners, a Study Team is set up to develop study-specific scientific documents and to conduct the study in collaboration with the selected Study Contributor(s), to adapt the master scientific documents and the IT platform from the partnership.

The funding of a study comes from the Study Requestor(s) leveraging public health capacities of the COVIDRIVE sites network. The total study budget is allocated and distributed among the appropriate Core Platform Partners and the Study Contributors by P95 .

Step IV: Partnership coordination and scale-up

The COVIDRIVE partnership moves to a scale-up and coordination phase with continuous development of methods and on-boarding of new COVIDRIVE Partners and Study Contributors. The partnership aims to conduct various studies which may advance knowledge on COVID-19 and COVID-19 vaccines and pharmaceutical products.

This step IV is supported by the Consortium Agreement signed in Step II and which is planned to be renewed every two years upon COVIDRIVE Partners' agreement. The funding of Step IV includes the overall partnership coordination, IT maintenance, study network scale-up and the development of master scientific documents not previously developed in Step II. The funding of Step IV will come from participating COVIDRIVE Vaccine Company partners, under the Consortium Agreement.

The action plan as defined above in November 2020 is used to guide and ensure a good track of the key activities needed to be ready to start the first CVE study by the end of May 2021. Nevertheless, the action plan may be slightly adapted to fit the COVIDRIVE partners' needs, the changing and pressured COVID-19 pandemic situation and related changes to the implementation of the vaccination programs.

1.3 Governance charter content

The present document aims at providing an overview of the governance framework of the COVIDRIVE partnership: principles, functions, stakeholders, roles and responsibilities, and expected tasks/deliverables that will guarantee an efficient execution of the COVIDRIVE partnership and thus contribute to the production of high-quality project outputs. In particular, the COVIDRIVE Governance Charter aims to:

- define partnership vision, objectives and guiding principles,
- list partners' roles, responsibilities and tasks,
- describe governance bodies, their composition, roles, responsibilities and interactions,

- define expected project outputs (deliverables),
- describe decision-making processes at the partnership level,
- describe study workflow, and
- define communication strategy and plan.

This document aims to propose a trusted and transparent framework to guide multi-stakeholder public-private long-term collaborations to conduct vaccine studies in Europe. Ways of working and priorities may be adapted (upon agreement by the COVIDRIVE partners) to fit the COVIDRIVE partners' needs, the changing and pressured COVID-19 pandemic situation and related changes to the implementation of the vaccination programs.

2 COVIDRIVE PARTNERSHIP: VISION, OBJECTIVES, PARTNERS, ACTIVITIES/DELIVERABLES AND STRUCTURE

2.1 Vision and objectives

The COVIDRIVE partnership aims to conduct CVE studies in Europe through a public-private multi-stakeholder approach. The partnership's objectives are to:

- develop joint methodological and technical resources to undertake CVE studies in Europe,
- set up a network of Study Contributors across Europe, able to conduct multi-center observational CVE studies covering several countries and reaching sufficient/representative COVID-19 vaccination coverage and sample size,
- leverage already established public health capacities, optimise health care practitioner (HCP) resources in primary data collection and mutualise their contribution to several CVE studies when relevant,
- build a sustainable partnership supported by the following components: COVIDRIVE partners and scientific community, IT data sharing and analysis platform, study documents & processes, Study Contributors network and regulatory pathway, and
- welcome new partners and Study Contributors in the partnership (refer to section 2.11).

Those objectives will be pursued in full competition law compliance. The parties will only discuss issues that are strictly necessary to reach those objectives within the scope of the collaboration as defined in this Governance Charter and no competitively sensitive information will be exchanged among COVIDRIVE partners who are competitors. The parties will strictly adhere to the competition law guidelines.

2.2 Partners

As of May 28th, 2021, the COVIDRIVE partners are:

- **Core platform partners:**
    - P95: Co-coordinating (jointly with FISABIO) the COVIDRIVE partnership, executing the legal and financial tasks, setting-up and maintaining the IT and analytical infrastructure, developing master scientific documents, supporting the expansion and maintenance of the COVIDRIVE network and being the Study Sponsor of the CVE studies. Small and medium enterprise (SME) founded in 2011 as a consulting business in epidemiology and pharmacovigilance.
    - FISABIO: Co-coordinating (jointly with P95) the COVIDRIVE partnership, developing master scientific documents, leading the expansion and maintenance of the COVIDRIVE network. Not-for-profit entity affiliated to the regional government of Valencia (Spain), with its own legal status. Oversees vaccine research and public health activities in the Valencia region.

- THL: Creating synergies with public health institutes, developing master scientific documents. Finnish expert agency that provides reliable information on health and welfare for decision-making and activities in the field.

- **Vaccine Company Partners:**
  - AstraZeneca holds a conditional marketing authorisation for a COVID-19 vaccine in Europe. AstraZeneca is participating in the development of the partnership, contributing to the master scientific documents and Governance Charter, and planning a CVE study using the COVIDRIVE platform.
  - Janssen holds a conditional marketing authorisation for a COVID-19 vaccine in Europe. Janssen is participating in the development of the partnership, contributing to the master scientific documents and Governance Charter, and planning a CVE study using the COVIDRIVE platform.
  - CureVac is developing a mRNA COVID-19 vaccine for which conditional marketing authorisation is being sought in Europe. CureVac (represented by Bayer) is participating in the development of the partnership, contributing to the master scientific documents and Governance Charter, and planning a CVE study using the COVIDRIVE platform.
  - Sanofi Pasteur: pharmaceutical company jointly developing a COVID-19 vaccine candidate with GSK (S-protein subunit/ adjuvanted (AF03 or AS03 currently in Phase II)). Sanofi Pasteur will be the marketing authorisation holder of this candidate vaccine. Sanofi Pasteur is participating in the development of the partnership, leading the Governance Charter development, contributing to the master scientific documents, and planning a CVE study using the COVIDRIVE platform.
  - GSK (GlaxoSmith Kline): pharmaceutical company developing COVID-19 vaccine candidates and a monoclonal antibody for early treatment of COVID-19 (GSK-VIR sotrovimab). GSK is participating in the development of the partnership, contributing to the Governance Charter development, the master scientific documents, and planning a study using the COVIDRIVE platform.

Refer to section 2.11 for new partners and Study Contributors' details.

2.3 Key activities and deliverables

Several key activities are planned at the **partnership level:**

1. **Set-up and maintenance of the IT platform** (data sharing platform): these are milestones.
2. **Study Contributors network coordination and expansion:** activities are reported in two deliverables; (1) feasibility report and (2) set of pre-qualified Study Contributors (documented assessment). Those two deliverables may be regularly updated.
3. **Master scientific documents:** activities are reported in four types of deliverables: (1) Master protocols, (2) master SAPs, (3) master mock reports and (4) web annex specification documents.

4. **Master technical documents:** activities are reported in two deliverables: (1) master data management plan, (2) master monitoring plan.
5. **Analytical and statistical scripts** for fast analysis: these are milestones.
6. **Communication tools** (website, Microsoft SharePoint, mailing list): these are milestones
7. **Set-up and coordination of the ISC and Quality Assurance and Audit Committee (QAAC):** these are milestones.
8. **Regulatory pathway and screening of regulatory activities** focusing on EU and relevant for CVE: these are ongoing activities.
9. **Partnership coordination and management:** these are ongoing activities.
10. **Partnership public relation management** (incl. funding opportunities, attending conferences): this is an ongoing activity.

Several key activities are planned at the **study level**:

- **Study scientific documents:** activities are reported in three types of deliverables: (1) protocol, (2) SAP, (3) reports (progress, interim and final).
- **Study technical documents**: activities are reported in two deliverables: (1) data management plan and (2) monitoring plan.
- **Selection of the Study Contributors**: this is a milestone.
- **Study Contributors coordination and management** (contract, payment, supporting ethics committee approval, data collection/transfer): these are ongoing activities prior to and during study conduct.
- **IT platform system administration** (data protection officer, user access management, file transfer): this is an ongoing activity.
- **ISC and QAAC coordination:** this is an ongoing activity.
- **Study-specific analysis:** this is a milestone.
- **Study publication** (publication of Study Results): activities are reported in one deliverable: peer-reviewed scientific primary publication.

2.4 CVE Studies

The partnership intends to conduct multiple COVID-19 vaccine effectiveness (CVE) studies which fall under the following scope:

- overall and/or vaccine type and/or brand-specific,
- severe, mild and/or asymptomatic COVID-19 disease outcomes,
- hospital and/or primary care setting(s),
- population(s) targeted by the vaccination and/or population(s) of special interest,

- mid-term and/or long-term CVE,
- CVE by genetic variants,
- CVE by time since vaccination and/or by calendar time, and
- CVE by disease level of severity.

2.5 Partnership structure

The overall structure of the COVIDRIVE partnership is presented in Figure 2, displaying the governance bodies and key functions. It is based on the governance framework of the IMI DRIVE EU study platform and adjusted to the COVID-19 situation. It follows key guiding principles for public-private collaboration aiming to:

- promote scientific exchanges between several stakeholders with various expertise and experience,
- optimally steer joint efforts towards the desired outcome within the time and resource constraints,
- allow efficient decision-making,
- guarantee scientific integrity of the CVE results, and
- guarantee good quality standards.

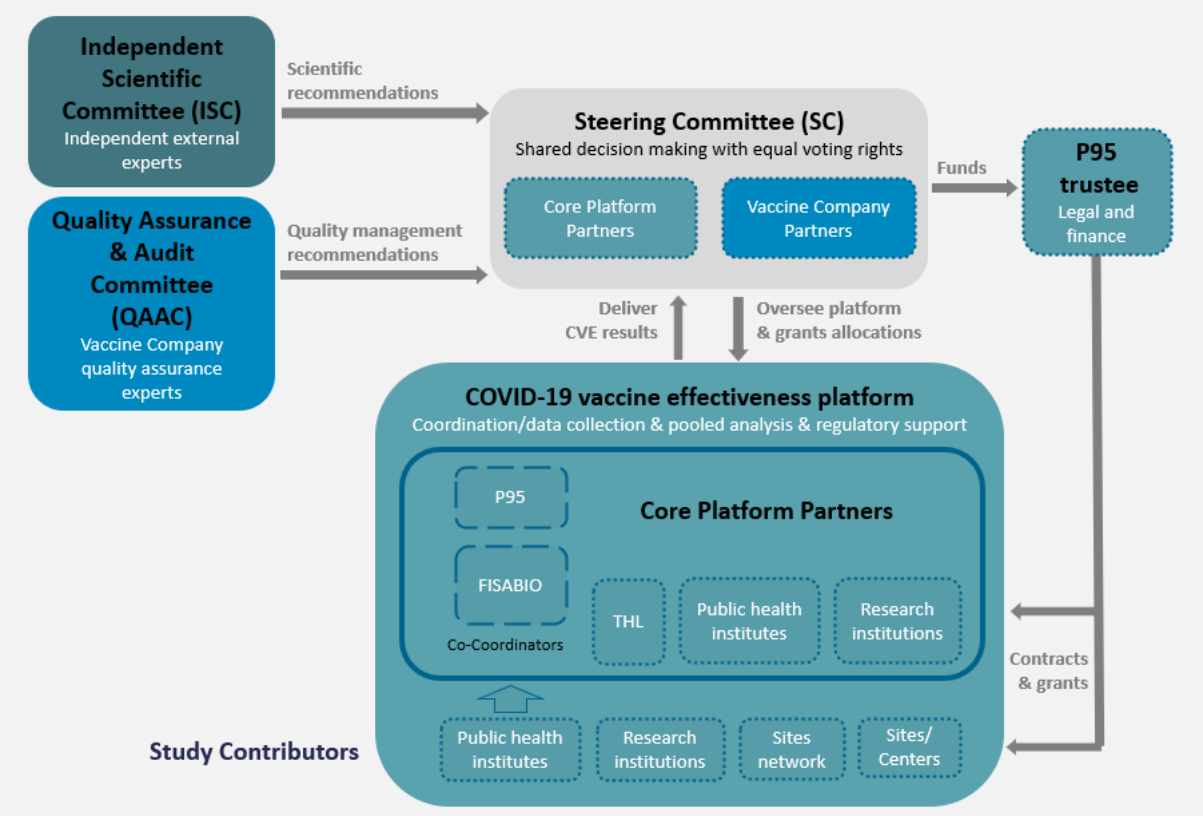


Figure 2. COVIDRIVE governance structure

COVIDRIVE way of working is based on the following principles (Figure 3):

- At the partnership level, **decision-making** is carried out by the *Steering Committee (SC).*
- The **implementation and management** of the COVIDRIVE partnership is performed by the *Coordination Team (CT)*.
- Master scientific and technical **documents** are generated by the *Technical Working Group*.
- **Scientific review and recommendation** of the master and study-specific scientific documents is overseen by the *Independent Scientific Committee (ISC).*
- **Quality management and audit** of the partnership and studies is overseen by the *Quality Assurance and Audit committee (QAAC)*.
- **Financial management,** which includes the role of managing the partnership and CVE studies' budgets, and distributing funds among the Core Platform Partners and Study Contributors is performed by *P95*.
- At the study level, **decision-making** is performed by the corresponding *Study Team (ST)*.
- The development of **study-specific scientific documents** is the responsibility of the corresponding *Study Team (ST)*.

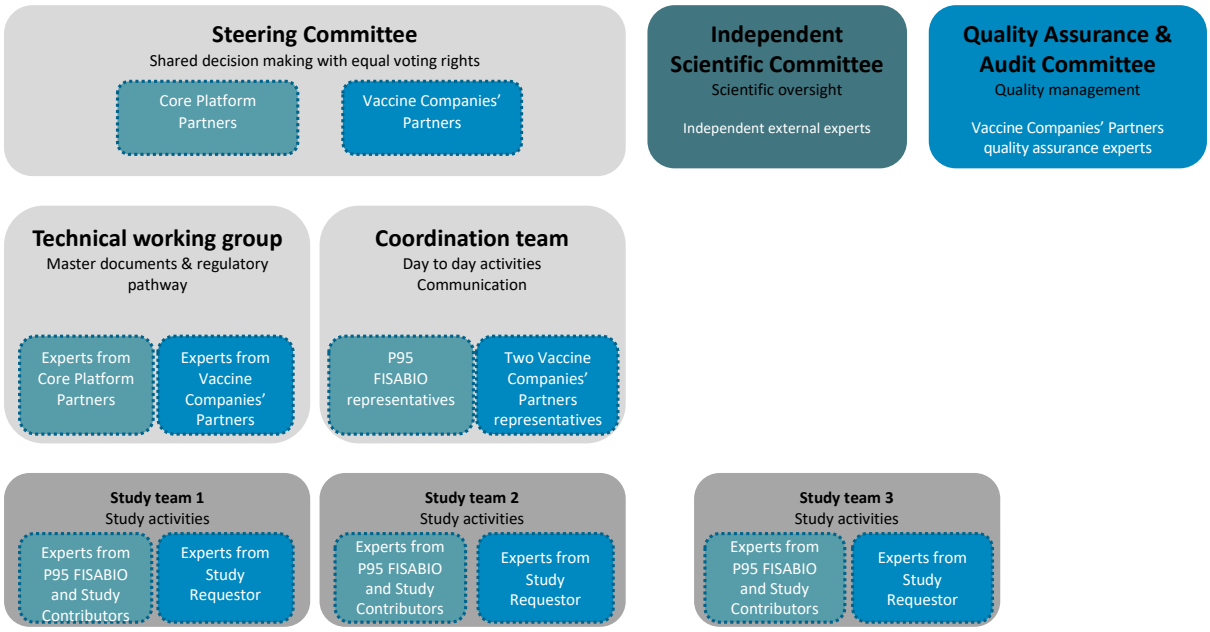


Figure 3. COVIDRIVE partnership: way of working

2.6 Steering Committee

Roles and responsibilities

The Steering Committee (SC) is responsible for the partnership leadership including the following roles and responsibilities:

- ensures strategic direction of the partnership and alignment between activities,
- ensures alignment across all COVIDRIVE Partners and solving input-output relationships among them,
- endorses the allocation of funds and resources for the partnership (the management of the funds is ensured by P95),
- agrees on study relevance for the partnership, in alignment with the scope of CVE studies within this partnership as described in section 2.4, when a study request is made,
- agrees on new partners' involvement in the partnership (for new Study Contributors, endorses their involvement in the partnership), in alignment with objective, non-discriminatory criteria as described in section 2.11,
- ensures external communication and advocacy for the partnership, and
- selects the ISC and QAAC members using a transparent and documented process justified by the member's expertise relevant to the partnership.

Composition

Each COVIDRIVE partner shall be represented in the SC; however, decision authority will be split equally between the two groups of the Core Platform Partners and the Vaccine Company Partners.

As of May 28th, 2021, the members of the SC are those listed in Table 1.

Table 1. Composition of COVIDRIVE Steering Committee (as of 28th May 2021).

	Name	Institution	Entity, Role
Core Platform Partners	Kaatje Bollaerts and/or Thomas Verstraeten *	P95	SME, Co-coordinators (co-chair)
	Antonio Carmona and/or Javier Díez-Domingo*	FISABIO	Public health institute, Co-coordinators (co-chair)
	Hanna Nohynek*	THL	Public health institute
Vaccine Company Partners	Sylvia Taylor*	Astra Zeneca	Vaccine Company
	Nicolas Praet and/or Emily Yost*	Janssen	Pharmaceutical company
	Montserrat Soriano-Gabarro and/or Robert Tensen*	CureVac (Bayer)	Vaccine Company
	Laurence Torcel-Pagnon and/or Cédric Mahé*	Sanofi Pasteur	Vaccine Company
	Vincent Bauchau*	GSK	Pharmaceutical company

* or delegate

The SC meets regularly, through teleconferences and face-to-face when possible. The frequency of the meetings is adapted to the partnership needs.

Decision-making process and voting rights

The SC will strive to make decision by consensus. However voting can be requested by any member for any decision related to COVIDRIVE strategic direction, governance framework, allocation of funds and resources, partnership key activities, study requests, new partners and Study Contributors' involvements, ISC and QAAC composition and external communication.

Voting occurs as described below:

- Voting rights are distributed equally between the two groups (Core Platform Partners and Vaccine Company Partners)
- A decision is approved if two-thirds or more of the entire membership of each of the two groups agree.

Any decision related to a new partner will be based on the criteria mentioned in Section 2.11 and the SC partners will pro forma vote in favour of a new partner request if those criteria are fulfilled. Assessment of potential new partners shall be timely. Decision on new partners joining the partnership may not be unnecessarily delayed.

Bearing in mind that the SC is the governance body to endorse the strategic direction of the project, it is worth noting that the SC should not be the place to go into detailed discussions but only a place to get endorsement (or refusal) of concrete and strategic proposals. In this line, some specific measures to improve the efficiency of the SC meetings and dynamics are proposed:

Way of working

- The Coordination team (CT) filters and identifies key issues and common needs to be escalated to the SC for endorsement or alignment if they fall under the responsibilities of the SC. The SC is the ultimate level of escalation in case of disagreements between partners (except when it concerns study scientific documents for which escalation should go to the ISC).
- An agenda is circulated in advance of the SC meeting presenting the different items, their duration/speaker and expected outputs (discussion, endorsement…). The supporting materials are circulated by email as pre-reads or even to collect SC feedback before the meeting. This allows focusing the meeting discussion on the critical comments. The minutes of the SC meetings are circulated before the next meeting.

2.7 Coordination Team

Roles and responsibilities

The Coordination Team (CT) is responsible for the implementation and execution of the partnership activities. The CT has the following roles and responsibilities:

- manages the day-to-day operational aspects, administrative tasks and ensures coordination between partners,
- prepares, supports, recommends decisions and points of discussion to the SC,

- manages internal and external communication, and
- coordinates ISC and QAAC recommendations and activities/workflow at the partnership level. The scientific secretariat of the ISC is under the responsibility of P95 and FISABIO as Co-coordinators.

P95 is responsible for developing and maintaining the IT infrastructure (telecommunication tools, document sharing platforms, data sharing platform).

In addition, P95, in its role of Study Sponsor of all studies, should ensure the monitoring and oversight of studies (including mutualisation of study contributors to several CVE studies when relevant) and coordination of the network of Study Contributors.

Composition

The CT is composed of P95 and FISABIO representatives as Co-Coordinators of the COVIDRIVE partnership and, with a rotating role, two representatives from the Vaccine Company Partners.

Way of working

The CT meets frequently by teleconference, and face-to-face when possible, to monitor the partnership progress, to address any issues that may arise and to identify what should be escalated to the SC level.

2.8 Study Team

Roles and responsibilities

The Study Team(s) (ST) is (are) created to design and conduct the CVE studies to be performed by COVIDRIVE upon study request (**Figure 4**). The ST has the following roles and responsibilities:

- develops the study-specific documents (protocols, SAP, mock report),
- evaluates and selects Study Contributors for participation in the study,
- coordinates with participating Study Contributors, and
- writes the report following the process detailed in Section 5.2.

The Study Contributors should ensure good execution of the studies.

Composition and set-up

The ST is progressively set up following endorsement of the study request by the SC (refer to Figure 4).

The *Full Study Team* (Full ST) is composed of experts from P95 and FISABIO as Co-Coordinators, experts from the Study Requestor and experts from participating Study Contributors.

The *Restricted Study Team* (Restricted ST) is composed of experts from P95, FISABIO and Study Contributors, i.e. not including participants from the Study Requestor(s).

It is expected that the ST will comprise several profiles, coming from the different stakeholders:

- From P95: Principal Investigator (PI), statistics lead, statistical programmers and data managers, study manager, medical writer;
- From FISABIO: investigator, study manager;
- From Study Contributors: investigators;
- From Study Requestor: (pharmaco)-epidemiologist and statistician.

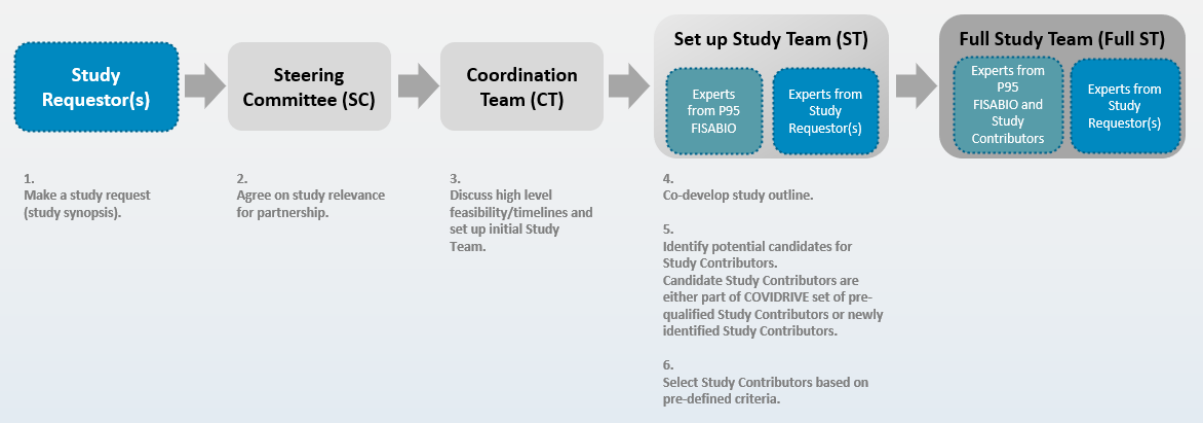


Figure 4. COVIDRIVE Study Team set-up

The following steps take place when an ST is set up:

1. The Study Requestor(s) make(s) a study request by submitting a study synopsis (or specifications to adapt the master protocol(s) to the Study Requestor needs) to the SC. Study Requestors can be any of the COVIDRIVE partners (either Vaccine Company Partners or Core Platform Partners).
2. The study synopsis is reviewed by the SC who agrees on the relevance of the requested study for the partnership based on the pre-defined scope described in section 2.4.
3. The request is discussed by the CT, which determines the high-level feasibility and timelines of the requested study and who sets-up the ST.
4. The ST is progressively set up and starts its work by co-developing the study outline from the synopsis.
5. The ST identifies potential candidates for the role as Study Contributor(s). Candidate Study Contributors are either selected from COVIDRIVE's list of pre-qualified Study Contributors or are newly identified Study Contributors (upon SC endorsement).
6. The ST selects the Study Contributors based on pre-defined criteria (refer to section 4).
7. In the end, the Full ST is composed of experts from P95, FISABIO, participating Study Contributors and Study Requestor(s).

The PI is responsible for the oversight of the CVE studies.

P95 and FISABIO ST members are responsible for coordinating the Study Contributor(s) selection process and for overseeing the ethics committee approval process, the contracting and the study budget consolidation.

Data collection, statistical analysis and preparation of the study report are under the responsibility of the Restricted ST members. That means that those study-specific activities are firewalled from Vaccine Company Partners to avoid perception of undue influence on the Study Results.

2.9 Independent Scientific Committee (ISC)

Roles and responsibilities

To increase the robustness and transparency of the scientific results produced by the partnership, the scientific leadership of COVIDRIVE is supported by an Independent Scientific Committee (ISC).

The ISC's mandate is to, based on its members' extensive expertise in the field, review and provide recommendations on the master and study-specific scientific documents. In exercising this role, the ISC shall consider the particular importance of scientific integrity of the CVE results interpretation and study report.

The roles and responsibilities of the ISC are the following:

- reviews and makes recommendations for CVE study documents (protocols and SAPs), and
- reviews and makes recommendations for CVE study reports. In this particular case, the ISC receives written comments from COVIDRIVE's stakeholders (any scientific expert outside the Restricted ST, including scientific experts from the Vaccine Company Study Requestor) and formulates recommendations for integration of their comments to the ST experts from P95 and FISABIO.
- reviews and formulates recommendations for the master scientific documents, which are co-developed by COVIDRIVE partners to harmonise CVE methodology (e.g. protocols and analyses to assess severe COVID-19 disease, long-term effectiveness, SARS-CoV-2 infection or transmission).

Composition

As a start, the ISC is composed of up to five independent external experts with good expertise/experience relevant for CVE studies. The ISC's composition can be extended depending on COVIDRIVE partnership and study needs.

It is important to stress that ISC members act on their own and do not represent their respective institutions when providing scientific recommendations to COVIDRIVE.

The Co-coordinators (experts from FISABIO and P95) have an observer role in the ISC.

Selection

The selection of potential ISC members is managed by the SC using a transparent and documented

process. The COVIDRIVE partnership generates a list of potential candidates based on the following criteria:

- expertise in vaccine effectiveness surveillance (influenza/COVID-19 specific) and related vaccination implementation programs (observational research) or COVID-19 vaccine development or influenza/COVID-19 clinical or virological expertise, and
- no recent employment by any of the current COVIDRIVE partners or Study Contributors (recent is defined as 2 years prior to date of ISC member invitation by COVIDRIVE).

Preferably, the ISC is a mix of international experts coming from various stakeholder groups (public health institutes, regulatory authorities, research institutes and organisations).

The ISC is expected to be active from March 2021, starting with an introduction meeting between ISC members and COVIDRIVE SC members, organised by FISABIO and P95.

Way of working

The secretariat of the ISC is placed at P95 and FISABIO as Co-Coordinators of the COVIDRIVE partnership.

The ISC meets as needed, through teleconference (or face-to-face occasionally when possible), to discuss their comments on the scientific documents, and provides recommendations to P95 and FISABIO experts.

Compensation

The ISC members sign an ISC Agreement with P95. The contract is established between P95 and either the expert's organisation or the expert directly. The contract is a one-year agreement with automatic renewal unless terminated by the member in writing with two months prior notice before the end of the term.

COVIDRIVE proposes compensations for experts/organisations. Payments are made by P95. The reviews, recommendations and comments given by ISC members will benefit all partners and future CVE studies. Consequently, all payments to ISC members will come from the consortium budget and will be earmarked as being provided by all Vaccine Company Partners that are all explicitly listed. Compensations follow fair market value rates[1] at national level and include:

- for all ISC members: reimbursement of expenses for travel and accommodation to attend COVIDRIVE meetings, and
- optional (up to each ISC member's consideration): compensation for time spent on scientific review and recommendations (time expenditure in hours to be estimated).

The COVIDRIVE ISC secretariat ensures the full transparency of payments to the ISC, including HCP payment reporting when applicable and according to EFPIA obligations.

[1] ECDC reference rates

2.10 Quality Assurance and Audit Committee

Roles and Responsibilities

Since vaccine companies use COVIDRIVE to fulfil their regulatory obligations in conducting CVE stud(y)(ies), a **Quality Assurance and Audit Committee** (QAAC) is set up with quality assurance experts from the Vaccine Company Partners. Its mission is to provide, at the partnership level, guidance on implementation, conduct, monitoring and quality assurance of the CVE studies, as well as to ensure that data quality is in line with the study request and to, when necessary and to the extent possible, identify areas for improvement. The QAAC seeks to develop and sustain a reasonable and feasible mechanism to support quality management together with P95 as the Study Sponsor of the studies.

The QAAC has the following roles and responsibilities:

- develops a quality management questionnaire for Study Contributors which can be used upon Study Requestor needs,
- reviews the monitoring documentation and activities of the CVE studies and gives recommendations for both,
- provides quality management recommendations for Study Contributors, and oversees any audit at the partnership level.

At the study level, study monitoring and quality control is ensured by P95 as part of its responsibilities as a Study Sponsor.

Composition

The QAAC is composed of vaccine companies' quality assurance experts (one representative from each Vaccine Company Partner). If needed, specific audit can be subcontracted to an external qualified consultant auditor.

Compensation

Only external consultant auditors will be reimbursed (with fees for services & travel accommodations).

2.11 New partners and Study Contributors

The partnership considers that new partners and Study Contributors are welcome to join COVIDRIVE if they fulfil the following criteria:

- For Core Platform Partners: Any public institution, research institution or private party (incl. SME) considered by the partnership to be able to provide valuable and sustainable long-term expertise and workforce to the partnership development over time, can join. Note: When there is a need for ad hoc specific activities/expertise, subcontracting to a third party shall be considered rather than such a service provider becoming a partner in COVIDRIVE. The subcontracting of a third party requires SC endorsement.

- For Vaccine Company Partners: Any vaccine company having a COVID-19 vaccine candidate under development in phase 2 or later, and for which the company is targeting a marketing authorisation in the EU, can join.

- For Study Contributors: Any organisation, institution or network with interest and expertise/capacity to perform CVE studies in Europe, and which fulfils the evaluation criteria (refer to section 4.3), can join.

The new partner or Study Contributor shall agree to join the partnership following the pre-established terms and conditions.

3 COVIDRIVE LEGAL AND REGULATORY FRAMEWORK

3.1 The Consortium Agreement

The Consortium Agreement (CA) is concluded between the COVIDRIVE partners. The CA includes provisions on governance, intellectual property, dissemination, and liability among others. Amendments to the CA, when needed, are handled separately by agreement of all partners, under the coordination of P95 and FISABIO.

The COVIDRIVE CA corresponds to a 2 year engagement with renewal or possibly early termination.

3.2 Study Requestors

Study Requestors should be COVIDRIVE partners. New potential partners who are willing to request a study are encouraged to join COVIDRIVE (refer to section 2.11).

By principle, Study Requestors can be either vaccine companies or public entities such as public health institutes (PHIs) or research institutions.

COVIDRIVE is also supporting requests by external stakeholders for secondary use of data (refer to section 6.2).

3.3 The agreement with Study Contributors

It is planned to leverage the DRIVE study network to identify Study Contributors/sites with good capacity and experience to conduct CVE studies and to expand this network progressively, based on study needs. Once selected, the Study Contributor/site signs a Study Contributor Agreement with P95.

3.4 Sponsorship of COVIDRIVE studies

In COVIDRIVE, P95 is the Study Sponsor for all CVE studies**.** This means that the Study Requestor will not be the Study Sponsor. Instead, P95 signs a contractual agreement with the Study Requestor and takes responsibility for study planning, conduct and delivery, in line with regulatory requirements, when applicable. P95 also signs contractual agreements with Study Contributors for study conduct and data sharing.

For a Vaccine Company Study Requestor, the CVE study is conducted within a framework which is usually called a *Collaboration Study*.

3.5 Ownership considerations

3.5.1 Data terminology and related study flow in COVIDRIVE

In order to better define ownership within COVIDRIVE, the following categories of data are considered:

For a given study:

- **Level 1 data - raw site subject-level data** are data remaining at Study Contributor/site level. Pseudonymisation of the raw site subject level data is done at the Study Contributor/site level.
- **Level 2 data - cleaned pseudonymised site subject-level data** (called *"Contributor Dataset")* are data at Study Contributor/site level which correspond to all subjects' data. A copy is transferred to P95.
- **Level 3a data - cleaned pseudonymised subject-level data across sites** (called "*COVIDRIVE database*") are data from all Study Contributors, being centralised at P95 level. The COVIDRIVE database is based on the Level 2 data from all Study Contributors transferred to P95 under the study agreement(s) and contains all subjects' pseudonymised data of a given study. The COVIDRIVE database may contain data from multiple vaccine brands depending on the study design used.
- **Level 3b data - pseudonymised subject-level analytical dataset(s)** are one or multiple subset(s) of the COVIDRIVE database related to specific Study Requestor(s) objectives. This dataset is used for Study Requestor-specific analysis at P95 central level. These analytical dataset(s) are specific to a Study Requestor and contain only data on subjects exposed to the vaccine brand(s) of interest and data on unvaccinated subjects.
- **Level 4 data - Anonymised aggregated analytical dataset** is an aggregated dataset(s) which can be shared with the Study Requestor(s). This aggregated dataset is specific to a Study Requestor and contains only data on subjects exposed to the vaccine brand(s) of interest and data on unvaccinated subjects.
- **Level 5 data - Tables/figures and listings presenting the study´s/studies' outputs** are presented in an annex to the study report(s).

All personal data (Level 1 Data, Level 2 Data and Level 3 Data) is subject to General Data Protection Regulation (GDPR) data protection considerations as defined in the Study Protocol and Informed Consent Form.

The COVIDRIVE database corresponds to Level 3a data, combining all CVE studies and potentially multiple vaccine brands, depending on the design used for the CVE studies. This database is proposed for secondary use of data (refer to section 6.2).

Access to all data (levels 1, 2, 3, 4 and 5) will be restricted for any party other than parties owning or having a right to use those data under the terms of this Governance Charter. The restricted access will ensure, amongst others, that Vaccine Company Partners will not have access to any data related to studies of which they are not the Study Requestor. The only exception to that principle is that Vaccine

Company Partners may request access to Level 3a data for secondary use by P95, subject to the conditions set out in section 6.2.

3.5.2 Ownership of the raw site subject-level data

- Study Contributors (institutions which collect data for CVE) remain the owners of their respective raw sitesubject-level data (Level 1 data) and cleaned pseudonymised site subject-level data (Level 2 data) .

  Study Contributors provide an automatic cost-free perpetual license of their respective cleaned pseudonymised site subject-level data (Level 2 data) to P95 for study analysis and for subsequent secondary use of data with the right to sub-license for secondary use of data to any third party under the conditions set forth in this Governance charter (refer to section 6.2).

3.5.3 Ownership of the Study Results

The term 'Study Results' means the conclusions and results of the study including the:

- anonymised aggregated analytical dataset (Level 4 data),
- tables/figures and listings presenting the study outputs (annex of the study report) (Level 5 data), and
- any study report (e.g. interim, progress and final) (Level 5 data).

P95 is the owner of the COVIDRIVE Study Results(Level 4 data and Level 5 data). P95 provides:

i) an automatic, cost-free, perpetual, non-exclusive license for any purpose for the Study Requestor of the specific CVE study to the anonymised aggregated analytical dataset (Level 4 Ddata) – this means that the Study Requestor is explicitly allowed to generate derivative data on the basis of Level 4 data.

ii) an automatic, cost-free, perpetual, exclusive license for any purpose for the Study Requestor of the specific CVE study to the tables/figures/listing and the study report (Level 5 data).

3.5.4 Retention

All data will be retained for a duration as stipulated in the study protocol. Level 1 data will be retained by the Study Contributor. Level 2, 3, 4 and 5 data will be retained by P95 in its capacity as Study Sponsor.

3.5.5 Consortium termination

Upon termination of the consortium:

- The Consortium enters into an obligation of best endeavours to make the COVIDRIVE database (Level 3a data) available to the scientific community for future research by finding the most appropriate governance framework for secondary use of data (including data hosting). The governance framework for secondary use of data shall be, prior to any secondary use, defined between Partners and endorsed by the SC through an amendment of the Governance Charter. The exact terms and conditions for secondary data use for both Consortium Partners and Third Parties will be further discussed and agreed upon with all consortium partners. However, the scope and key principles are described in the GC.
- The Study Requestors will receive a copy of the data to which they have an automatic, cost-free, perpetual, license for any purpose (Level 4 non-exclusive and Level 5 data exclusive).

3.6 Study conduct and data collection

Within the COVIDRIVE partnership, several CVE studies may be conducted in parallel to respond to various Study Requestors' needs. Some studies may even be conducted with the same design, being issued from one master protocol. Indeed, master protocols are set up to harmonise CVE study methods and to ensure potential mutualisation of HCP/site resources in primary data collection.

P95 and FISABIO should ensure a good coordination between Study Requestors and Study Contributors to enhance mutualisation/pooling of HCP/site resources when relevant. This means ensuring that research methods (e.g. study objectives, subject inclusion/exclusion criteria; case definitions, exposures/outcomes and collected data/variables) are aligned between CVE study protocols issued from one master protocol and that the budget requested by a Study Contributor is fairly shared between the Study Requestors when data can feed several CVE studies.

3.7 Adverse events reporting

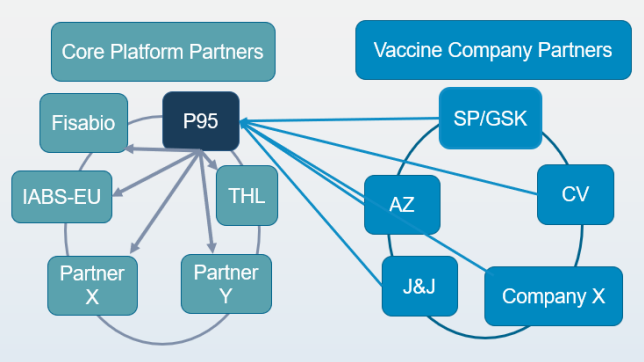
The COVIDRIVE partnership conducts COVID-19 vaccine effectiveness studies which may mix several sources of information provided by the various Study Contributors (primary data collection and/or secondary use of data).

All the COVIDRIVE studies are non-interventional epidemiological studies for assessing the effectiveness of routine COVID-19 vaccination. The Study Contributors who conduct the studies should follow their local requirements in regard to the reporting of cases of suspected adverse reactions after vaccination to the competent authority in the country.

3.8 Financial flow

P95 is responsible for managing the financial activities of the COVIDRIVE partnership. Thus, P95 receives the financial contributions from the COVIDRIVE Vaccine Company Partners and distributes the funds among the Core Platform Partners and Study Contributors following the agreed-upon budget for the partnership and agreed-upon budget for the study (Figure 5).

a)



b)

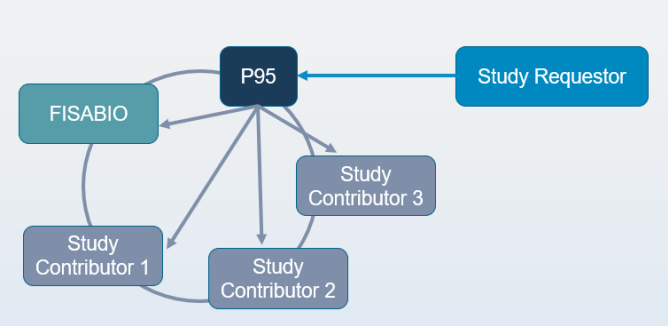


Figure 5. COVIDRIVE financial flow.
a) Financial flow at the partnership level and b) for a specific study.

3.9 Regulatory pathway

Each COVIDRIVE Vaccine Company Partner engages in direct discussions with EMA or any other relevant competent authority regarding its Risk Management Plan (RMP) even if it includes a CVE study conducted by COVIDRIVE.

COVIDRIVE engages in discussions with EMA to seek advice on the master scientific documents. However, the regulatory obligation to include the study protocol in the EMA RMP remains for each Vaccine Company, as does the obligation to submit the interim and/or final study report to EMA.

The regulatory pathway may be adjusted based on discussions with EMA and national regulatory authorities.

4 STUDY CONTRIBUTORS SELECTION PROCESS

4.1 Selection process

- Upon study request and set-up of the ST, relevant Study Contributors/sites are identified from COVIDRIVE's set of pre-qualified Study Contributors/sites by the ST. According to specific study needs, new sites can be added (any new site will have to be endorsed by the SC).

- The ST agrees on the Study Contributor candidates; P95 and FISABIO ST representatives organise the formal application (application form template to be adapted to the specific study). The applying Study Contributors are called 'Applicants'.

- The ST finally selects Applicants based on pre-defined criteria (section 4.3) and decides on the allocation of the study budget.

The Study Contributor/site selection process is summarised in Figure 6.

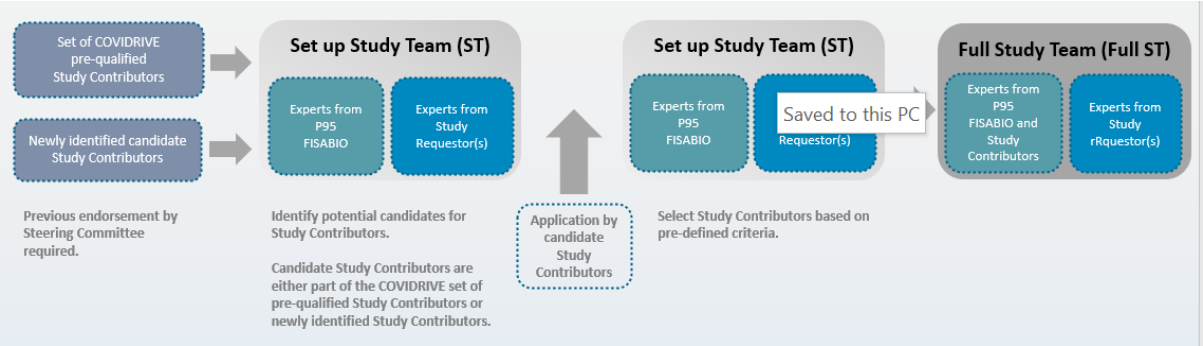


Figure 6. Workflow of the Study Contributors selection process for CVE studies.

The set of COVIDRIVE pre-qualified Study Contributors is composed of several former and non-former DRIVE sites, whose CVE capacity is assessed in COVIDRIVE's Feasibility Report (through sites survey and individual feasibility assessment meetings) and endorsed by the SC. The Feasibility Report provides an overview of sites' capacity to conduct CVE studies. This network of capable Study Contributors/sites is planned to increase progressively, based on study needs. The newly identified candidate Study Contributors should be assessed and their involvement in the partnership endorsed by the SC.

4.2 Eligibility and exclusion criteria

Eligibility criteria

Any organisation, institution or network with interest and expertise/capacity to perform brand-specific CVE studies in Europe, as defined per master protocol and/or study outline (study objectives,

setting, targeted population and countries), can potentially be selected for COVIDRIVE CVE studies as a Study Contributor.

To fulfill the eligibility requirements, the Applicant should:

- pass the feasibility assessment performed by P95/FISABIO, and
- fill in the application form with site information and study proposal with a requested budget.

Exclusion criteria

Any application meeting any of the following criteria is excluded from the Study Contributor/site selection process:

- a Study Contributor located outside of the EU/EEA, or
- no brand-specific vaccine information can be captured.

4.3 Applicant evaluation criteria

The ST assesses the relevance of the application forms in the following way:

- The Applicant should propose to conduct the study according to the COVIDRIVE study protocol (ensuring maximum possible adherence to the protocol).
- The Applicant should detail in the proposal the study setting, the catchment population, the anticipated sample size, including age distribution, COVID-19 vaccine coverage, and laboratory methods used to detect SARS-CoV-2.

The qualitative evaluation of the proposals is done by the ST based on the key criteria:

- previous experience in studies relevant for CVE,
- scientific relevance (adherence to study protocol, reliable brand-specific information laboratory testing),
- estimated sample size and vaccine coverage of targeted populations in the country/region, and
- cost-effectiveness of the proposal and the level of co-funding.

5 SCIENTIFIC DOCUMENTS DEVELOPMENT AND REVIEW PROCESS

One of the COVIDRIVE partnership objectives is to leverage scientific discussions and exchanges between the different stakeholders (COVIDRIVE Core Platform Partners and Vaccine Company Partners) and with the external scientific community (through the ISC). However, some activities are considered more sensitive such as the data collection/analysis and writing of the study report (which includes interpretation of the CVE results). Those activities are therefore firewalled from Vaccine Company Partners.

The ISC's mandate is to review and provide recommendations on the scientific documents based on its members' extensive expertise in the field. In exercising its role, the ISC shall consider the particular importance of scientific integrity of the study report and of the CVE results interpretation.

5.1 Master scientific documents

Master scientific documents are co-developed by the Technical Working Group (WG) which includes scientific experts from COVIDRIVE Core Platform Partners and Vaccine Company Partners with the objective to harmonise CVE methodology (e.g. protocols and analyses to assess severe COVID-19 disease, long-term vaccine effectiveness and SARS-CoV-2 infection or transmission, and the mock report). The ISC is consulted to review and provide recommendations to the Technical WG.

The final version of the master scientific documents are posted on the COVIDRIVE website upon agreement by the COVIDRIVE SC.

5.2 Study scientific documents (protocols, statistical analysis plans, study reports)

The most restrictive case, when the Study Requestor is a COVIDRIVE Vaccine Company Partner, is presented in Figures 7 and 8:

a) Upon study request, the Full ST co-develops the **study-specific protocol and SAP,** based on the master scientific documents when available. Next, the ISC reviews and provides recommendations to the Full ST. Then, if considered necessary, a collaborative session (teleconference) is organised by the Full ST to consolidate the final version of the protocol and the SAP.

Figure 7. Development and review process of the study protocol and SAP.

b) The Restricted ST prepares the **study reports** (whether it is a progress report, interim report or final study report), based on the master mock report when available.
The draft study report presenting the CVE results is shared in parallel with the ISC and with the ST experts from the vaccine company Study Requestor. The ST experts and any other scientific experts from the vaccine company Study Requestor review and provide written comments. A reasonable review period is defined (e.g. 7-14 days).
The ISC reviews the report and the comments provided by the reviewers. The ISC provides comments on the study report and recommendations for the integration of other reviewers' comments (including the ones from the vaccine company Study Requestor).
The Restricted ST develops and provides a point-by-point response to all the comments within a reasonable time period (e.g. 7-14 days).
The Restricted ST prepares the final version of the study report or organises a discussion point or another round of reviews if needed.

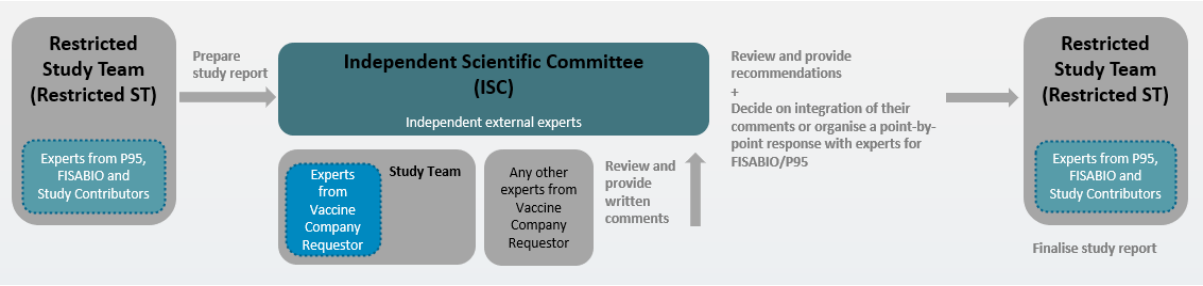


Figure 8. Development and review process of the study report

Final versions of the study-specific scientific documents are posted on the COVIDRIVE website upon agreement of the corresponding Full ST.

5.3 COVIDRIVE scientific publications and communication plan

Definition of Study Results scientific primary publication

- The definition is only applicable to Study Results scientific primary publications, which are agreed to include:
    - presentations at scientific fora, and
    - scientific primary publications (articles and reviews).
- *Out of scope* are:
    - reports to or communication with health authorities or other governmental bodies relevant in the regulatory process or medical evaluation of a vaccine (e.g. National Immunisation Technical Advisory Groups (NITAG's)),
    - scientific methodological publications,
    - patient-focused communications,
    - publication on websites (e.g. uploading study documents to ENCePP, COVIDRIVE website or the respective vaccine company website), and
    - scientific publications based on secondary use of data called "secondary" publications which should however acknowledge primary publications when relevant.

Principles of Study Results scientific primary publication and communication plan

- The Study Results scientific primary publications should be based on the study report content. Potentially other scientific publications could be prepared based on the study report content.
- Every ST must disseminate its Study Results (main study objectives) as soon as possible and no later than EMA or internal Study Requestor requirements but after submission of the study report to EMA when applicable. A disclaimer could be added in the publication to explain the review process of the study report (CVE results) and ISC role.
- The ST should work collectively to define the publication plan related to the study report which includes primary main publication and other publications.
- Sources of study funding should always be disclosed whether in oral or written presentation of results and partnership funding added (pre-defined statement).
- The ST should ensure open access (free of charge, online access for any user) to its peer-reviewed scientific publication (as part of the study budget).

Authorship of Study Results scientific primary publications

- Authorship on COVIDRIVE scientific publications must comply with the guidelines established by the International Committee of Medical Journal Editors (ICMJE) 'Recommendations for the

Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals' (http://www.icmje.org/recommendations/). The ICMJE recommends that authorship is based on the following four criteria:

1. substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND

2. drafting the work or revising it critically for important intellectual content; AND

3. final approval of the version to be published; AND

4. agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

The criteria are not intended for use as a means to disqualify colleagues from authorship who otherwise meet authorship criteria by denying them the opportunity to meet criterion 2 or 3. Therefore, all individuals who meet the first criterion (being part of the respective ST) should have the opportunity to participate in the review, drafting, and final approval of the manuscript.

Thus, all ST members (including scientific experts from the Study Requestor, potentially a Vaccine Company) should be identified as co-authors if they meet the ICMJE criteria.

Review process of Study Results scientific primary publications

The review process of the Study Results scientific primary publications is the following:

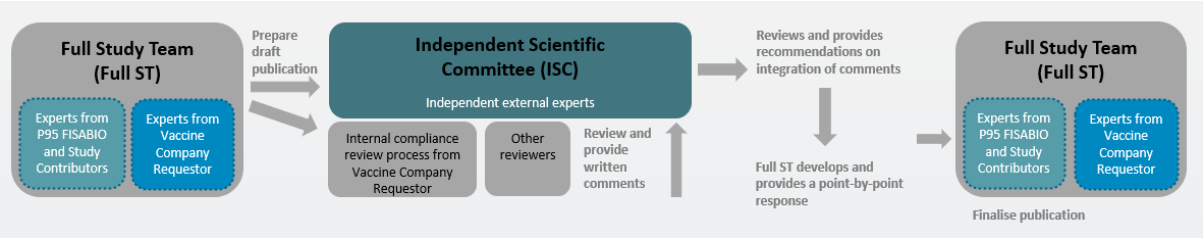


Figure 9. Development and review process of the Study Results' scientific primary publications

If a scientific abstract is to be submitted, with short timelines of submission, a fast process with optional ISC review can be implemented. However, this is still developed within the ST at the time of writing this Governance Charter.

6 COVIDRIVE DATA MANAGEMENT AND SHARING

6.1 COVIDRIVE data flow

The data flow from the Study Contributor to the central COVIDRIVE research server (CRS) and extraction of results from the CRS is as follows (Figure 10);

1. Each Study Contributor creates a selection of the database as per the protocol and SAP for the study (moving from Level 1 data to Level 2 data).
2. The Study Contributor performs quality checks and processes any findings accordingly, with sufficient documentation to ensure reproducibility.
3. When the performed quality checks are satisfactory, the Study Contributor can upload the data (Level 2 data) into the data import compartment of the CRS using a secure file transfer protocol (sFTP).
4. The CRS system administrator checks whether the Level 2 data are compliant to the protocol, SAP and privacy regulations.
    a. If the check is satisfactory, the system administrator releases the uploaded Level 2 data to the study folder accessible to the data analysts (using a Remote Desktop Protocol (RDP)) and performs a data lock (the Level 2 data are only readable by the data analysts and cannot be changed).
    b. If the check is not satisfactory, the system administrator reports this to the Study Contributor responsible for the Level 2 data.
5. The data analysts perform the required data transformations on the data released into the study folder as per the SAP (moving from Level 2 data to Level 5 data (aggregated tables and figures)).
6. When the data transformations are finalised, the data analysts flag the resulting output files (Level 4 or Level 5 data) to the system administrator for extraction out of the CRS. These output files (Level 4 or Level 5 data) only contain aggregated data or figures and summary tables.
7. The system administrator checks the resulting output files (Level 4 or Level 5 data) flagged for extraction for compliance with the SAP.
    a. If the check is satisfactory, the resulting files (Level 4 or 5 data) are extracted out of the CRS by the system administrator using sFTP.
    b. If the check is not satisfactory, the system administrator reports this to the data analyst and requests changes to get the Level 4 or 5 data into compliance with the SAP.
8. After the Level 4 or Level 5 data files are extracted from the CRS, they can be used as the basis for reports, web applications and publications as per the SAP.

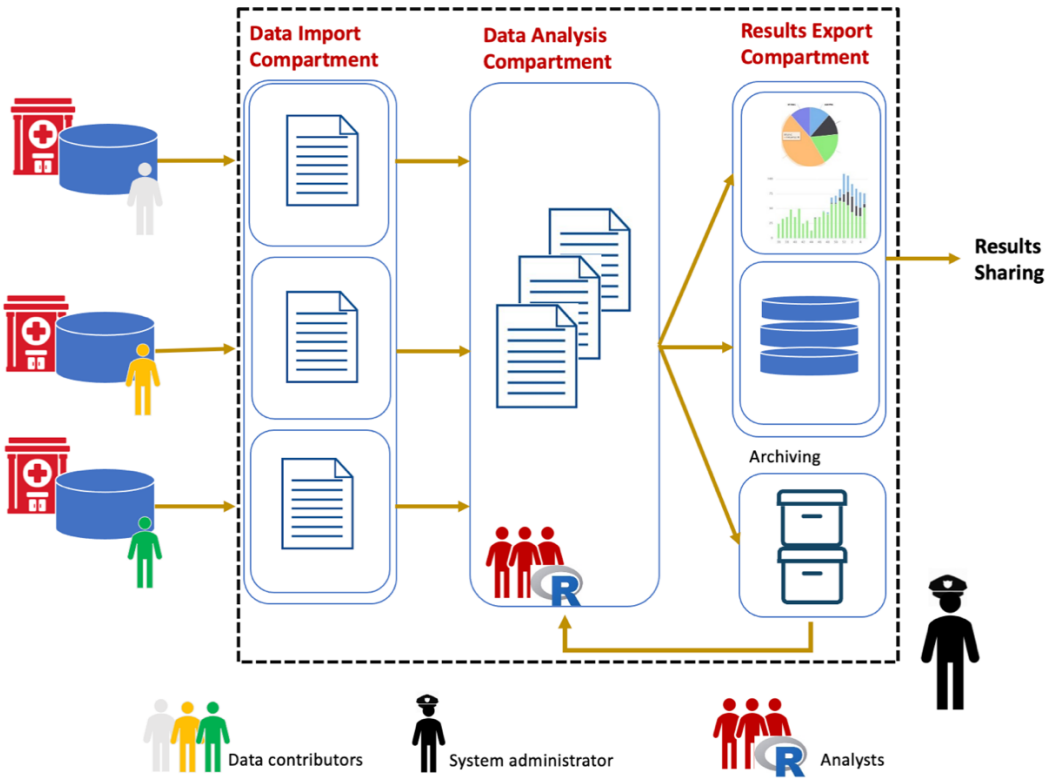


Figure 10. COVIDRIVE Research Server architecture

6.2 Secondary use of the COVIDRIVE database: scope and key principles

The governance framework for secondary use of data shall be, prior to any secondary use, defined between partners and endorsed by the SC through an amendment of the Governance Charter. The exact terms and conditions for secondary data use for both consortium partners and third parties will be further discussed and agreed upon with all consortium partners. However, the scope and key principles are described below.

- The COVIDRIVE database corresponds to Level 3a data combining all CVE studies and potentially multiple vaccine brands depending on the design used for the studies. When CVE studies were not launched to perform head-to-head comparisons between vaccine brands (referred to as relative vaccine effectiveness), direct comparison between vaccine performances should not be foreseen.
- The COVIDRIVE database is intended to be used to answer research questions which aim to improve knowledge on COVID-19 disease and related vaccines.
- Informed Consent at Study Contributor level includes usage of data for secondary use (to leverage knowledge on COVID-19 disease and related vaccines) – a minimum core dataset is ensured among studies for secondary analysis and described in the master protocols.
- To ensure transparency towards study subjects, a synopsis of all approved applications for secondary use is made available on the COVIDRIVE website. The website address is provided to the study subjects in the Informed Consent Form.

7 INTERNAL AND EXTERNAL COMMUNICATION

7.1 How should participants communicate internally?

To ensure a compliant and effective communication flow within COVIDRIVE, the partnership will adopt the following approach in that respect:

- All communication will be in line with the competition law guidelines.
- Electronic mail is used as the main tool for communication within the partnership.
- Documentation of discussions, agreements and decisions made by phone is mandatory. Specifically, phone conferences should always have an agenda and minutes, which should be made available to COVIDRIVE partners through the COVIDRIVE Microsoft SharePoint.
- Several email distribution lists are created which can be used by any participant depending on the subject of the message. Additional lists may be created if necessary. P95 is responsible for updating the above-mentioned lists with the information received from the partners. Table 2 shows the main distribution lists created:

Table 2. COVIDRIVE main mailing lists (as of February 2021).

Distribution list	Recipients
covidrive_all@P95.com	All COVIDRIVE partners
covidrive_sc@P95.com	COVIDRIVE Steering Committee
covidrive_ct@P95.com	COVIDRIVE Coordination Team
covidrive_wg@P95.com	Technical Working Group

- A Microsoft SharePoint space is created for COVIDRIVE to be used as a repository of relevant information and files. It facilitates the exchange of documents within the partnership (i.e. meeting minutes, documents in progress, final versions and other relevant reports or announcements). The SharePoint platform also provides the possibility of discussion between participants through messages, maintenance of a calendar of meetings and events, upload of files, and tracking of important milestones and events at both the partnership and study level.
- The use of *de facto* standards based on Microsoft Office-compatible files for electronic document exchange among participants is required when possible. PDF format can alternatively be used to avoid excessive size of files when no editing is required.
- Good practice when using email is essential. Participants must respond promptly to any email received. When that is not possible, at least acknowledgement of receipt of all messages is strongly recommended, especially when answering an explicit request. Carefully consider

whether “reply to all” is required. All emails sent to any of the mailing lists created so far are labelled by default with “COVIDRIVE” in the subject section and senders add the subject of the message.

7.2 How are internal conflicts resolved?

In the event that an internal conflict arises at a given time, the following process applies:

Conflicts amongst partners in any given activity are discussed at the WG or ST level.

- If unresolved, the issue is escalated to the CT, which uses mediation to objectively aim to solve the issue.
- The SC mediates conflicts which cannot be handled at the CT level.
- Scientific issues are escalated to the ISC if needed.
- Compliance quality assurance issues are escalated to the QAAC if needed.

7.3 COVIDRIVE dissemination tools for external communication

7.3.1 COVIDRIVE logo

The logo of the COVIDRIVE partnership is depicted below.

Horisontal version

Square version

7.3.2 COVIDRIVE website

A website is created to display public information about the partnership and ensure full transparency of its CVE results and governance.

http://covidrive.eu

The website will allow subjects included in CVE studies to be informed about secondary use of data.

7.4 Bibliography

1. COUNCIL CFTCTTEPAT. Preparedness for COVID-19 vaccination strategies and vaccine deployment. Brussels, 15.10.2020, Communication EC, 680 final2020. https://ec.europa.eu/transparency/regdoc/rep/1/2020/EN/COM-2020-680-F1-EN-MAIN-PART-1.PDF

2. Communication E. Key aspects regarding the introduction and prioritisation of COVID-19 vaccination in the EU/EEA and the UK. ECDC website https://www.ecdc.europa.eu/en/publications-data/key-aspects-regarding-introduction-and-prioritisation-covid-19-vaccination

3. European Medicines Agency (2020). EMA/544966/2020, Consideration on core requirements for RMPs of COVID-19vaccinescore, RMP19guidance

https://www.ema.europa.eu/en/documents/other/consideration-core-requirements-rmps-covid-19-vaccines_en.pdf