On 19th September 2018, the founding members of the association named RECON (R Epidemics Consortium) met for a constitutive assembly and, after discussion and exchange of views adopted the following statutes.

STATUTES

Title 1: Structure, aims and objectives, terminology, base, duration

Article 1

The undersigned, founding members and other persons adhering to the present statutes and fulfilling the conditions below, have founded an association named The R Epidemics Consortium (hereafter referred to as RECON) that will be ruled according to the French law of 1st July 1901 and the decree of 16th August 1901.

Article 2

Objectives

2.1 Objectives

RECON aims to create, promote, and deploy free, open-source data analytics resources to inform the response to the following 'areas of interest', which include: disease outbreaks, health emergencies, and humanitarian crises. Its activities include:

- Software development: The development and dissemination of free, open-source software
- Training and capacity building: RECON supports partners in its areas of interest with ad-hoc training and longer-term capacity building; the creation and dissemination of training resources, including material for lectures, practicals, and online videos, the development of platforms to host these resources, and strengthening data analyses for health systems
- *Events*: the organisation of events such as workshops, hackathons, short courses, retreats, and conferences
- *Deployment and support*: the deployment of members to the field to support the response to disease outbreaks, health emergencies, and humanitarian crises

These aspects are detailed in sections 2.2-2.5 below. For all these activities, RECON will be able to receive money from funders, organise events, rent or purchase equipment and goods, and issue contracts to employ third parties in accordance with the defined objectives of the association.

2.2 Software development

RECON aims to create a new generation of free, open-source tools for data analytics to inform the response to the areas of interest detailed in section 2.1. 'Data analytics tools' include tools for data collection, data handling and visualisation, data confidentiality and security, statistical analyses, modelling, analysis infrastructure, and deployable analysis pipelines, including hardware and software components.

Most software produced by RECON will rely on the free R software / language, but are not limited to this language and platform and can include any non-proprietary languages. Upon release on official distribution networks (e.g. CRAN for R packages), RECON packages must adhere to good practices and guidelines provided on the RECON website for software development (www.repidemicsconsortium.org). It must also use a licence which guarantees that the software and its code are accessible online free of charge, such as GPL or MIT. Whenever the concept of copyright applies, the copyright of RECON software should in principle remain with its original author.

2.3 Capacity building and Training

RECON aims to create high-quality training material relating to the response to the area of interests detailed in section 2.1. 'Training material' includes any pedagogical resources such as: slides of lectures, practicals, case studies, tutorials, videos and podcasts. All RECON training materials adhere to contribution guidelines available from the the RECON learn website (www.reconlearn.org), where they must be freely accessible, and distributed under one of the following licenses: CC0, CC-BY, CC-BY-NC, or CC-BY-NC-ND, as described by Creative Commons (creativecommons.org). Whenever the concept of copyright applies, the copyright of training material should usually remain with its original author.

Training also includes the personal development of members of RECON through short courses and workshops. Such events should focus on acquiring skills relevant to the rest of the activities covered by RECON (e.g. computer programming, epidemiology, modelling), but also extend to soft skills (e.g. first aid, personal security training, team management, communication) relevant for the response to outbreaks, health emergencies, and humanitarian crises. Such events may be open to non-members of RECON, and may require a registration fee from participants (see section 2.4). RECON can also provide support to academic institutions, governmental bodies, non-governmental organisations, and privately owned companies to the extent of technical consultancy, curriculum development of training programmes in the aforementioned areas specified in section 2.1.

2.4 Events

The remit of RECON extends to the organisation and hosting of events in line with its other activities. This includes workshops, short courses, hackathons, conferences, and similar events. This also includes retreats focussing on the personal development of members of RECON.

Any event organised by RECON may be for members only, admit a limited number of non-members, or be fully open to the public. Events may be free to attend, or require a registration fee, in which case RECON members will typically benefit from a discount over non-members.

2.5 Deployment and support to partner institutions in the field

The proposed RECON organisation structure as outlined in Section 2.1 will include members that can provide support on the ground as deployed field epidemiologists with expertise in data analytics, with the aim to inform the operational aspects of the response to outbreaks, health emergencies, or humanitarian crises. This support may cover all data needs, including data acquisition, analyses, presentation and advocacy based on data as well as regular field-epidemiology related activities complementary to the specific background of the respective RECON member(s). Examples of members who went on deployment using RECON tools will be showcased on the RECON website portfolio. Members are encouraged to provide feedback on the use of RECON tools (and training materials) used in the field for continued evaluation and enhancement of tools for data analytics.

2.5.1 Conditions of deployment

RECON members who go on field deployment will do so in accordance to the Terms of Reference (TOR) between their own employing institute and the institutions requesting deployment. Partner institutions requesting deployment will carry responsibility for all aspects concerning the deployment, including staff security or as set in the agreements between deploying institutes, deployee and employing institute of the deployee. RECON does not have any formal responsibility in this process. RECON may support deployments by providing resources, financial or else, to the deployed RECON members.

2.6 Publishing and data dissemination practices

RECON activities leading to academic peer-reviewed publications or data-related products and/or activities should, where possible, comply with the following guidelines:

- publish in open-access journals; open-review (i.e. published reviews, disclosed referee identities) journals (e.g. F1000 research) should be used wherever possible
- ensure that all people involved in the work are acknowledged as such; in particular, staff involved in data collection should always be co-authors of the first publication of said data, either through direct authorship, or as a group authorship (for instance, in the case of community health workers engaging in contact tracing)
- ensure clearance of publications with relevant governmental bodies and partner organisations
- ensure that local partners are always sufficiently accredited and benefiting from projects that are founded on their data and efforts
- in software publications, core developers of the software should be first, joint first, or last authors, unless agreed differently prior to the development of the software
- ensure reproducibility of any published material using free, open-source tools and open-access data; exceptions are allowed when data cannot be shared publicly

Article 3

The fixed address of the RECON is located in Paris, France. It can be changed to any other location in France by decision of the executive board (utilising the default voting system of the board).

Article 4

The duration of the association is unlimited.

Title 2: The members, conditions of membership, and entitlements

Article 5

Membership

Any individual can become a RECON member through a registration process detailed in sections 5.1 and 5.2. In exceptional cases, this process can be bypassed through the honorary membership detailed in section 5.3. Membership has no fixed expiration date, but members will need to reply to yearly membership confirmation emails to retain their membership.

5.1. Registration process

Application to become a RECON member will be done from the RECON website (www.repidemicsconsortium.org), filing the online form provided and sending any additional items required such as a cover letter, a CV, or a recent photo to be uploaded onto the RECON website. The registration process is free of charge and open to all. To become a member, applicants need also to have made a substantial contribution in terms of software development, training, or field deployment (detailed in section 5.2).

5.2. Contribution criteria

5.2.1. Software development

Any person can apply to become a RECON member through our registration process, after making a substantial contribution to RECON's software development initiative. Such contributions include:

- Submitting a minor change to existing code that either fixes a bug or improves performance. These members will be added to the author list of the existing code as a contributor [ctb].
- Clarifying or improving code documentation beyond that of minor spelling corrections. These members will be added to the author list of the existing code as a contributor [ctb].
- Adding tests to the existing codebase. These members will be added to the author list of the existing code as a contributor [ctb].
- Submitting well-documented data sets for use in software examples or testing. Note that all data must be licensed as CC0. These members will be added to the author list of the existing code as a data contributor [dtc].
- Adding new features or functionality, refactoring, or other major significant improvements to the existing codebase. These members will be added to the author list of the existing code as an author [aut].
- Adding or rewriting significant portions of documentation. These members will be added to the author list of the existing code as an author [aut].

• Submitting a new software package to RECON's software development initiative and/or assuming full responsibility to maintain the code and manage submissions to external archive networks such as CRAN. These members will be added to the author list of the existing code as an author and maintainer [aut, cre].

In addition, all contributions to existing packages should be done via Pull Request, pass all existing tests and quality checks, conform with the contribution code of conduct, and should not lead to lower test coverage unless no test can be developed for the contributed code.

5.2.2 Training and capacity building

Any person can apply to become a RECON member through our registration process, after making a substantial contribution to RECON's training initiative. Such contributions include:

- training resources hosted on RECON learn (www.reconlearn.org); this includes slides for lectures, practicals, case studies, and podcasts, either as entirely new material, or through major additions to existing material such as a whole new section in a lecture or a practical; minor isolated editions such as fixing typos do not generally qualify as sufficient contribution
- the hosting of RECON training workshops and short courses
- handling logistics for a RECON training workshop or short course, including: making reservations for travel and accommodation of participants, booking venues, arranging catering and organising social events; ad hoc help with logistics such as fixing a reservation do not generally qualify as sufficient contribution
- participating as a teacher or a facilitator during RECON training workshops and short courses; ad hoc help with catering or logistics during such events do not generally qualify as sufficient contribution

5.2.3. Field deployment

Any person can apply to become a RECON member through our registration process, after making a substantial contribution to field deployment for the response to disease outbreaks, health emergencies, and humanitarian crisis. Such contributions typically involve the use of RECON tools to deploy analytics pipelines, and / or produce situation reports for relevant stakeholders. This includes:

- deployment to the field as an epidemiologist, data manager, data analyst, data scientist, or similar in direct support of the response on site
- remote support of the response based in country (e.g. from national headquarters of the affected country), typically resulting in the production of situation reports and analysis for relevant stakeholders, using or testing RECON software; support to the response outside the affected countries, e.g. from the international headquarters of a partner organisation, or from an academic institution analysing the data remotely, do not generally qualify as sufficient contributions

5.3. Honorary members

Individuals having made outstanding contributions in outbreak analytics, field epidemiology, disease outbreak management, health emergencies and humanitarian crises may also become members of RECON on an *ad hoc* basis. Such membership is free of charge, and does not require the registration process detailed in article 5.1 or to meet the contribution criteria detailed in article 5.2. Honorary members must be proposed by at least one executive board member, and be elected by the executive board by a majority decision. In case of ties, the president has a decisive vote.

5.4 Advantages for members

There are a number of benefits for RECON members. Members of RECON can:

- attend and vote at general assemblies to shape the activities of RECON
- be candidates at any post of the executive board during its election
- have free access to the RECON mailing lists and forums
- advertise their work, when in line with the remit of RECON, on the association media, including newsletters, mailing lists, discussion forums, blogs and websites
- possess a confidential list of other RECON members to facilitate networking within the association
- attend meetings not otherwise open to the public, such as internal training workshops, hackathons and retreats organised by the association
- typically get a discount on RECON events where a registration fee applies
- apply for, and benefit from resources of RECON

Article 6

Membership Termination

Membership can be terminated by:

- Resignation in writing addressed to the RECON president.
- Failure to reply to the yearly membership confirmation message via email, one calendar month after the third reminder, except where the concerned members can justify their inability to reply (e.g. sick leave, field deployment)
- For gross misconduct, as judged by the members of the executive board. Gross misconduct includes criminal acts, fraud, theft, physical assault, threatening behaviour or harassment, malicious damage, gross negligence, improper receipt of money, goods, excessive favours or hospitality, scientific misconduct (e.g. data theft, plagiarism), repeated failure to comply with codes of conduct applied within RECON, including guidelines provided in this document, as well as other codes of conduct available from the RECON websites. In all

- these situations, the concerned will be given a chance to explain their acts to the executive board within 15 days of notification from the board.
- Death

Title 3: Resources

Article 7

Resources

The resources of RECON comprise:

- Donations made by external individuals or members.
- Registration fees for events organised by RECON such as workshops, short courses and conferences.
- Contributions from public bodies, governmental agencies, international organisations, private companies, associations, charities, academic institutions, and all other legally established sources. These contributions should be accompanied by a statement clearly indicating the designated use, or that the executive board is free to choose what the money is to be used for. This statement will be available on the RECON website for the duration that RECON is using the money in order to ensure that no conflict of interest will arise. The executive board retains the right to refuse a contribution, e.g. if a conflict of interest could arise from the received money.
- RECON is a non-profit association: all money received will be spent on the activities of the association, as defined in these statutes

Title 4: Management: executive board, and General Assembly

Article 8

Definition of the executive board

An executive board will manage RECON. The executive board is responsible for organising subscriptions, meetings, communication with members and an annual General Assembly (GA).

At the creation of RECON, the president appoints the executive board members for a duration of two years. Members of the board can have two types of role: *administrative roles,* and *coordinator roles*.

Administrative roles include:

- a president
- a vice-president

- a treasurer
- one or more deputy treasurer
- a secretary
- one or more deputy secretary

Coordinators act as a focal point and a manager for specific activities. Coordinator roles include:

- software development: development of new packages, maintenance of existing ones, definition of best practices and codes of conducts for contributors, organisation of hackathons
- *training and capacity building*: networking with partner institutions, organisation of workshops, short courses, retreats, and similar events
- *field deployment*: deployment of staff to the field in response to outbreaks, health emergencies or humanitarian crises, and remote support of deployed staff
- *methodology*: development of statistical methods, mathematical models, and other quantitative approaches; also entails recommendations of best practices in these areas

The term of office is two years. New administrative and coordinator roles can be created by decision of the executive board, who can appoint provisional members before the next annual GA. Coordinator roles can be dissolved by vote of the GA, or by decision of the executive board if the role has been vacant for at least 6 months.

The members of the executive board shall be chosen from amongst and by the active RECON members during the annual GA by election through a secret ballot (simple majority of votes). Leaving members are re-electable, without limits on the number of mandates. If a post is vacant, the remaining executive board members can appoint a provisional replacement from the members pending the next elections. The term of office of these substitute members ends with this next election.

Article 9

Functioning of the executive board

The president must call a meeting of the executive board at least every six months, or on the request of the majority of the executive board members plus one. The executive board should meet as often as the needs of RECON require. These meetings could be held through face-to-face meetings, teleconferences, or a combination.

The attendance of at least 4 members of the executive board is necessary for the decisions to be valid. Unless otherwise specified in these statutes, decisions are carried by a two-third majority vote, i.e. two-thirds or more members need to approve decisions. For instance, an assembly of 4

members will approve resolutions by 3 votes or more (at least $\frac{2}{3} * 4 = 2.666$.. votes needed, thus 3 of 4); an assembly of 5 members will approve resolutions by 4 votes or more (at least $\frac{2}{3} * 5 = 3.333$.. votes needed, thus 4 of 5).

Any member of the executive board who, without explanation, fails to attend three consecutive meetings of the executive board, can be voted out of the committee by the other executive board members. Members of the executive board can resign at any time by written letter to the President, in which case the remaining members of board will select a replacement until the next GA.

The work of the executive board will be recorded in minutes kept by the Secretary.

Article 10

Role of the executive board

The executive board is invested with the broadest powers to act in the name of RECON and to carry out or authorise all permissible activities of RECON except those that are reserved for the annual GA. It can propose changes to the statutes which will need to be adopted by vote by the broader membership.

The executive board can in the course of carrying out its work create sub-committees of RECON members and other experts, if needed, to support its activities. The executive board will define the composition of, remit of, and resources available to such sub-committees.

The executive board must always keep an up to date record of the decisions made, and the state of technical, material and financial resources of RECON available to the GA.

Article 11

Duties of the executive board

The President has the duty to act as chairperson at the annual GA, and to ensure that the posts on the executive board are filled. The President ensures the decisions made by the executive board are executed. The President runs and controls the general administration of RECON, which he/she represents legally and publicly.

The Vice-President replaces the President in his/her duties in case the latter is unavailable. She/he is also responsible for maintaining close contact with current cohorts.

RECON statutes 1.1

The Treasurer and his/her deputy are responsible for maintaining the accounts of RECON, paying bills and using the funds according to the instructions of the executive board.

The Secretary and his/her deputy are responsible for arranging invitations for meetings, taking minutes of meetings as prescribed by the law of 1st July 1901, as well as RECON correspondence.

RECON Members shall be entitled to a list of all other members. This list is to be kept by the executive board. Should any of the members wish for their contact details not to be made available, they should inform the Secretary. Contact details of members are kept solely to meet the aims of RECON and will not be used for commercial purposes.

All members of the executive board are responsible for drafting the RECON Annual Report, ideally before 31_{st} March of each year.

Article 12

Annual General Assembly

The General Assembly is open to all members of RECON and takes place each year. The Secretaries must invite members at least fifteen days before the date of the meeting, and must send the agenda of the event with the invitation.

Members of RECON unable to attend the annual GA can be represented in absentia with a written procuration given to another member. A member cannot represent more than five absent members at a meeting. The President chairs the meeting assisted by other members of the executive board and presents the achievements of the association. The Treasurer presents the annual financial report for approval. New projects are presented, discussed and voted on immediately following the GA. Only issues mentioned on the agenda will be discussed.

Any RECON member, including members of the executive board and the President, can vote. Votes can be resolved via anonymous ballots or using an electronic voting system available online. Decisions are taken by an absolute majority of votes (i.e. half the votes + 1 are needed to win). If the vote is split, the president has the casting vote.

If the members of the executive board are due for replacement, there will be an election immediately following the GA. For the election of a new executive board to be valid, at least 25% of the members must have voted.

Proposed modifications of the statutes must be circulated with the invitation to the GA and will be voted on immediately after the GA alongside the vote for members of the executive board. New issues arising during the GA that may require statute modifications can be voted on by the membership in the interim between GAs.

The discussion and decisions of the annual GA are recorded in written minutes and kept by the Secretary.

Article 13

If there is a need, or on the request of at least half of the active members plus one, the president can call an extraordinary GA following the procedures described in Article 12.

Article 14

The executive board can establish internal regulations to cover unforeseen areas or issues not covered by the statutes. These regulations should be communicated to RECON members within two months of establishment and also presented during the GA.

Title 5: Dissolution

Article 15

Dissolution

Dissolution of RECON shall occur if more than two thirds of active members vote in favour following a GA. One or several liquidators should be appointed at the meeting and the dissolution, if it is approved, should be carried out in accordance with article 9 of the law of 1st July 1901 and decree of 16th August 1901. Any funds belonging to RECON that may remain after termination will be donated to a charity chosen by the members that has a role in the response to infectious disease outbreaks, public health emergencies, or humanitarian crises.

The present statutes have been approved by the constitutive assembly of 19th September 2018.

The original constitution of the executive board at the creation of the association is:

President, Treasurer: Thibaut Julien Xavier Jombart Vice-president, Coordinator 'Training and capacity building: Amrish Yashwant Baidjoe Secretary, Coordinator 'Software development': Zhian Namir Kamvar Deputy Secretary, Coordinator 'Field deployment': Patrick Keating Deputy secretary: Lulla Opatowski Deputy Treasurer: Claire Thomson Deputy Treasurer: Rosalind Eggo Coordinator 'methodology': Anne Cori