



# Reducing emissions from aviation by changing trajectories for the benefit of climate

## REACT4C DATA PROTOCOL for REGISTERED USERS

(as of 16 June 2021)

REACT4C is an EU Integrated Project based on funding from the European Commission under Framework Programme 7. This Data Protocol regulates data access, data use and Intellectual Property Rights (IPR) issues.

The aims of the REACT4C Data Protocol are:

- a) to encourage rapid dissemination of data, e.g. climate cost function and emissions to registered users;
- b) to uphold the IPR of the data originators; and
- c) to ensure proper credit is given to the REACT4C project in any publications (written or oral) by registered users dealing with or based on REACT4C data.

### 1. General

- I. A registry of the REACT4C data users will be kept on the project web site [www.react4c.eu](http://www.react4c.eu). REACT4C data users will formally get access to data from the REACT4C project after they have signed and submitted this REACT4C Data Protocol.
- II. All registered users will have equal and complete access to the accessible data-sets produced during the REACT4C project.

### 2. Climate Cost Function data

#### 2.1 General

- I. All datasets have been documented by the data originators.
- II. If necessary, corrections or amendments to the data shall be made solely by the data originators, and without undue delay. Suggestions by the user for corrections or amendments to the data shall be directed to the REACT4C Project Office, attn: [sigrun.matthes@dlr.de](mailto:sigrun.matthes@dlr.de).
- III. It is the REACT4C data user's responsibility to verify and ensure that the data used are the best available at that time.

#### 2.2 Access to Datasets

- I. Individual users or organisations wishing to apply the REACT4C data shall fill in the form on p. 3 of this data protocol, including a short written description of the intended (non-) commercial application of the data. This will be considered by the REACT4C Project Office, and a final decision will be made by the Coordinator. All REACT4C partners will be notified of this decision.
- II. The data are only to be accessed via the interface provided on the REACT4C homepage: [www.REACT4C.eu](http://www.REACT4C.eu), and no duplicate datasets may be made available on other servers, except for internal use by REACT4C project partners during the course of the project.
- III. No registered user may pass REACT4C data obtained from the REACT4C server, or enable unauthorized access to the server, to third parties.



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### 3. Publication and Intellectual Property Rights

During the REACT4C project and 2 years after the end of the project (=Phase 1, until 31 December 2015) intellectual property rights have to be respected when publishing the REACT4C results. After that time (Phase 2) data can be used freely. However, the data source, the project REACT4C, and respective publications have to be cited properly. Publication of results in the scientific literature is encouraged at any time during, as long as the IPRs are met.

#### Phase 1 intellectual property rights:

- I. Groups using the REACT4C data must offer a joint authorship to each Principal Investigator.
- II. Each Principal Investigator has the right to refuse to allow his/her work to be used in another publication prior to his/her publication of that work.
- III. Publications using the REACT4C data shall be approved by all data originators and the project coordinator before release. The manuscript for any journal publication has to be sent to the co-authors and the REACT4C coordinator 4 weeks before submission. Contributions to conferences have to be sent to the co-authors 1 week before submission with a copy to the REACT4C coordinator. The principal authors have to take substantial comments into account before submission of the publication. The co-authors and the project coordinator should be kept informed on the fate of the publication. Approval is implicitly given, if the principle authors do not get a reply within the respective deadlines.
- IV. REACT4C must be acknowledged, e.g. by: “The Climate-Cost-Functions/Emission data<sup>1</sup> were derived within the EU-project REACT4C, funded under the EU 7th framework programme, grant ACP8-GA-2009-233772”, and the REACT4C homepage has to be listed as the source of the data.
- V. The REACT4C data have to be referenced properly as indicated in the list of data-sets on the REACT4C homepage. For each data set a list of data originators is indicated.

Currently two data sets are available:

1. Climate cost functions:

References:

Grewe, V., Frömming, C., Matthes, S., Brinkop, S., Ponater, M., Dietmüller, S., Jöckel, P., Garny, H., Tsati, E., Dahlmann, K., Søvde, O.A., Fuglestedt, J., Berntsen, T.K., Shine, K.P., Irvine, E.A., Champougny, T., and Hullah, P., Aircraft routing with minimal climate impact: The REACT4C climate cost function modelling approach (V1.0), *Geosci. Model Dev.*, 7, 175–201, <https://doi.org/10.5194/gmd-7-175-2014>, 2014.

Data Originators: Grewe, Volker and Matthes, Sigrun (DLR), Søvde, Amund (CICERO), Shine, Keith (University Reading).

Frömming, C., Grewe, V., Brinkop, S., Jöckel, P., Haslerud, A.S., Rosanka, S., van Manen, J., Matthes, S. Influence of weather situation on non-CO<sub>2</sub> aviation climate effects: The REACT4C Climate Change Functions, *Atmos. Chem. Phys.*, 21, 9151–9172, 2021, <https://doi.org/10.5194/acp-21-9151-2021>.

2. Emissions data:

Reference: Owen B., Lim L.L., Gray E. and Lee D.S. Emission inventories for sensitivity studies, CATE, Manchester Metropolitan University, 2011.

Data Originators: Lim, Ling (MMU).

#### Phase 2 intellectual property rights:

As in phase 1, without I)-III).

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<sup>1</sup> Choose accordingly



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The undersigned is authorized to represent the applicant and agrees to the conditions of this REACT4C Data Protocol for registered users.

Name: .....

Position: .....

Address: .....

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eMail: .....

Type of data use (please tick)  commercial  non-commercial

Purpose of data use .....

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.....

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Signature: .....

Place, Date: .....

**Please submit the REACT4C Data Protocol (signed original) to:**

DLR-IPA  
REACT4C Project Office  
Oberpfaffenhofen  
82234 Wessling  
Germany  
Attn: Dr. Sigrun Matthes, eMail: [sigrun.matthes@dlr.de](mailto:sigrun.matthes@dlr.de)  
(cc: [christine.froemming@dlr.de](mailto:christine.froemming@dlr.de), [sabine.baumann@dlr.de](mailto:sabine.baumann@dlr.de))