

## 2. Status of Deliverables and Milestones

In column "Nature": R = report, O = other. Any "report" may be an informal report, a formal report to the EC or a manuscript for a peer-reviewed publication. In column "Dissemination level": PU = public, PP = restricted to other programme participants, RE = restricted to a group specified by the consortium, CO = confidential, only for members of the consortium.

### Deliverables

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
<b>Activity 1</b>							
D1.1.1.4	Report on the traffic and emission inventories	30	<b>34</b>	R	RE	MMU	
D1.1.1.5	Development of mathematical model for calculation of 4D model of intensity of exploitation of aircraft fleet according to airlines schedule above Russia	25		O	RE	TsAGI	
D1.1.1.6	Creation of database of time – spatial distribution of aircraft flight endurance in elementary cells (of resolution of 1° latitude by 1° longitude, the vertical discretisation utilizing real flight levels) in atmosphere above Russia during 1992-2005	29		O	RE	TsAGI	
D1.1.1.7	Report on the database	32		R	RE	TsAGI	
D1.1.1.8	Updated global traffic and emission inventories for 2000 (gridded) for aviation	32		O	RE	MMU	
D1.1.3.5	Global transport volumes for past years (1990 – 2000)	27	<b>22</b>	O	RE	TML	
D1.1.5.1	Fuel consumption (diesel, coal, other) and transport volumes (pkm, tkm) for rail and inland waterways (1970-2005) on national level	34		O	RE	CATS	
D1.1.5.2	Reviewed inventories of road, rail and inland waterways' transport emissions	30	<b>30</b>	O	RE	CATS	
D1.1.6.1	Reviewed inventories of road and rail transport emissions	30	<b>31</b>	O	RE	CIRT	
D1.2.1.3	Report on transport scenario storylines for 2025, 2050, and 2100	25	<b>33</b>	R	PU	DLR-IVF	
D1.2.2.2	Gridded global emission inventories for scenarios of future aviation for 2025, 2050 and 2100	28	<b>32</b>	O	RE	MMU	
D1.2.2.3	Short report on the consistency of the emission inventories	32		R	RE	AI-F	

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
D1.2.2.4	Refined global emission inventories for scenarios of future aviation for 2025, 2050 and 2100	36		O	RE	MMU	
D1.2.2.5	Short report on emission scenarios and inventories in Russian Federation	30		R	RE	TsAGI	
D1.2.3.2	Global emission inventories for scenarios of future maritime shipping for 2025, 2050 and 2100	28	32	O	RE	DNV	2050 only, 2100 scheduled for 15.12
D1.2.3.3	Sensitivity inventories of future maritime shipping for 2025, 2050 and 2100	36		O	RE	DNV	
D1.2.4.3	Specific emissions factors for each geographical region	26	31	O	RE	KTI	2050 only, 2100 scheduled for 1.12
D1.2.4.4	Future emissions from provision of fuels and electricity	30	33	O	RE	CICERO	
D1.2.4.5	Global scenarios for future land transport volumes (2025, 2050, 2100)	22	31	O	RE	TML	
D1.2.4.6	Global emission inventories for scenarios of future land based transport for 2025, 2050 and 2100	32	32	O	RE	DLR-IVF	
D1.2.4.7	Sensitivity emission inventories for scenarios of future land based transport for 2025, 2050 and 2100, accounting for Chinese and Indian estimates	36		O	RE	DLR-IVF	
D1.2.4.8	Report on ranges of emission factors, fuel types and consumption, transport volumes of different modes in China consistent with the selected SRES scenarios	33	34	R	RE	CATS	
D1.2.4.9	Report on ranges of emission factors, fuel types and consumption, transport volumes of different modes in India consistent with the selected SRES scenarios	33		R	RE	CIRT	
D1.3.1.1	Traffic and emission inventories, covering the years 2025, 2050 and 2100, for the European region for each transport mode, including fuel life cycle emissions	30	32	O	RE	TML	2050 only, 2100 scheduled for 15.12
D1.3.1.2	Estimates of sensitivities and uncertainties for key driving factors of emission developments for top-down and bottom-up approach for the European region	33		O	RE	TML	
D1.3.2.1	Report on technology developments and specific emission factors for Asia in each geographical region	33		R	PU	KTI	

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
D1.3.2.2	Traffic and emission inventories, covering the years 2025, 2050 and 2100, for the Asian region for each transport mode	33		O	RE	DLR-IVF	
D1.3.2.3	Estimates of sensitivities and uncertainties for key driving factors of emission developments for top-down and bottom-up approach for the Asian region	36		O	RE	DLR-IVF	
D1.3.2.4	Report on real world driving cycles and national emission factors including their sensitivity for China	35		R	RE	CATS	
D1.3.2.5	Report on real world driving cycles and national emission factors including their sensitivity for India	35		R	RE	CIRT	
	<b>Activity 2</b>						
D2.1.1.4	Report on simulation results with ADMS	24		R	PU	CERC	Pending
D2.1.1.5	Report on simulation results including all developments with MM5/CMAQ	24	<b>30</b>	R	PU	NIMH	
D2.1.1.6	Report on simulations needed by AC2.4	26	<b>36</b>	R	RE	CERC	
D2.1.2.6	Ship plume data analysis report	28	<b>28</b>	O	RE	CERFACS	
D2.1.3.1	Heterogeneous chemistry for ship plume model	28		O	RE	IVL	Pending
D2.1.3.2	Report on the final version and validation of the code	30		R	PU	NIMH	Delayed
D2.1.3.3	Report on the final version and validation of the code	30		R	PU	CUNI	Pending
D2.2.1.3	LES simulations and the outcome of the validation	26	<b>26</b>	O	RE	ONERA	Done
D2.2.1.4	Input for the development of effective emissions	30	<b>30</b>	O	RE	ONERA	Done
D2.2.1.5	Report on the results of the aircraft wake simulation and their implications for effective emissions	30	<b>29</b>	R	PU	ONERA	
D2.3.1.1	Report on existing field data on ship emissions	26	<b>26</b>	R	PU	DLR-IPA	
D2.3.1.4	Report on campaign infrastructure and logistics	26	<b>26</b>	R	RE	DLR-FB	
D2.3.1.5	Report on strawman flight plans	26	<b>26</b>	R	RE	DLR-IPA	
D2.3.2.1	Report on tracer forecasts provided for main campaign	27	<b>30</b>	R	PU	CUNI	
D2.3.2.2	Main campaign quicklooks & preliminary data for O <sub>3</sub> , CO, CO <sub>2</sub> , NO, NO <sub>y</sub> , SO <sub>2</sub>	30	<b>30</b>	O	RE	DLR-IPA	
D2.3.2.3	Main campaign quicklooks and preliminary data for aerosol physical properties	30	<b>30</b>	O	RE	DLR-IPA	

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
D2.3.2.4	Main campaign quicklooks and preliminary data on aerosol hygroscopic properties	30		O	RE	PSI	Pending
D2.3.2.5	Main campaign quicklooks and preliminary data on organic compounds	30	30	O	RE	UYO	Done
D2.3.2.7	Pre-campaign quicklooks and preliminary data for O3, CO, CO2, NO, Noy, SO2	19	19	O	RE	DLR-IPA	
D2.3.2.8	Pre-campaign quicklooks and preliminary data for aerosol physical properties	19	19	O	RE	DLR-IPA	
D2.3.2.9	Main campaign quicklooks and preliminary data for NO2	30	30	O	RE	CAO	Done
D2.3.2.10	Main campaign quicklooks & preliminary data from the ship exhaust measurements	30	31	O	RE	IVL	
D2.3.3.1	Final data of CO2, CO, NO, NOy, O3, SO2	34		O	RE	DLR-IPA	
D2.3.3.2	Final data on aerosol physical properties	34		O	RE	DLR-IPA	
D2.3.3.3	Final data on aerosol hygroscopic properties	34		O	RE	PSI	
D2.3.3.4	Final data of organic compounds	34		O	RE	UYO	
D2.3.3.11	Final data of NO2	34		O	RE	CAO	
D2.3.3.12	Final data from the ship exhaust measurements	30		O	RE	IVL	Delayed
D2.4.2.1	Contribution to a report on effective emission indices test in regional climate simulation	30	23	R	RE	CUNI	
D2.4.2.2	Contribution to a report on effective emission indices test in regional climate simulation	30		R	RE	NIMH	Delayed
D2.4.2.3	Contribution to a report on effective emission indices test in regional climate simulation	30		R	RE	NMA	Unclear if NMA can/will deliver
D2.4.2.4	Report on effective emission indices test in regional climate simulation	30		R	RE	CERFACS	Delayed
D2.4.2.5	Report on second generation effective emission indices test in regional climate simulation	34		R	PU	NMA	
D2.4.2.6	Report the influence of regional conditions on emissions, sensitivity test	36		R	PU	CERC	
D2.4.2.7	Report on the final parameterization for EEs	36		R	PU	CERFACS	
D2.4.2.8	Contribution to a report on effective emission indices	30		R	RE	IVL	Delayed
	<b>Activity 3</b>						
D3.1.1.9	First report on the performance of the models	25	25	R	PU	ETH Zürich	

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
D3.1.1.10	Second report on the performance of the models	<del>48</del>		R	PU	ETH Zürich	
D3.1.2.7	Preliminary current chemical perturbation fields from the UCI model	31	<u>34</u>	O	RE	UCI	
D3.1.2.9	Report with estimates of the current impact on <u>atmospheric composition</u>	25	<u>25</u>	R	RE	MPICHEM	
<u>D3.1.2.10</u>	<u>Final current perturbation fields from the DLR-IPA model</u>	<u>42</u>		<u>O</u>	<u>RE</u>	<u>DLR-IPA</u>	
<u>D3.1.2.11</u>	<u>Final current perturbation fields from the CNRS-LSCE model</u>	<u>42</u>		<u>O</u>	<u>RE</u>	<u>CNRS-LSCE</u>	
<u>D3.1.2.12</u>	<u>Final current chemical perturbation fields from the KNMI model</u>	<u>42</u>			<u>RE</u>	<u>KNMI</u>	
<del>D3.1.2.13</del>	<del>Final current chemical perturbation fields from the Oslo CTM2 model</del>	<del>42</del>		<del>O</del>	<del>RE</del>	<del>UIO</del>	
<del>D3.1.2.14</del>	<del>Final current chemical perturbation fields from p-TOMCAT</del>	<del>42</del>		<del>O</del>	<del>RE</del>	<del>UCAM-DCHEM</del>	
<u>D3.1.2.15</u>	<u>Report with final estimate of the current impact on atmospheric composition</u>	<u>48</u>		<u>R</u>	<u>PU</u>	<u>MPICHEM</u>	
D3.1.3.2	Output fields from ACM simulations with/without effective emissions	34	<u>36</u>	O	RE	CNRS	
D3.1.3.3	Output fields from ACM simulations with/without effective emissions	34		O	RE	KNMI	Cancelled due to late input
D3.1.3.4	Output fields from ACM simulations with/without effective emissions	34		O	RE	MPICHEM	Cancelled due to late input
D3.1.3.5	Output fields from ACM simulations with/without effective emissions	34		O	RE	UCAM-DCHEM	Cancelled due to late input
D3.1.3.6	Output fields from ACM simulations with/without effective emissions	34		O	RE	UIO	Postponed, month 48 due to late input
D3.1.3.7	Output fields from ACM simulations with/without effective emissions	34		O	RE	UCI	Cancelled due to late input
D3.1.3.8	Report on the uncertainty in estimates of chemical perturbations from aviation, shipping and road transport due to sub-grid scale chemical conversions	36	<u>37</u>	R	PU	CNRS	
D3.2.1.5	Report on the impact of removal of sulphur and nitrogen compounds on the chemical perturbations caused by transport modes	28	<u>34</u>	R	PU	KNMI	
D3.2.2.1	Description of the set-up of the model calculations of sulphur impact	35	<u>30</u>	O	RE	UCAM-DCHEM	
<u>D3.2.2.2</u>	<u>Output from CNRS/CEA-LSCE model simulation with perturbed/unperturbed stratospheric aerosol</u>	<u>44</u>		<u>O</u>	<u>RE</u>	<u>CEA</u>	
<u>D3.2.2.3</u>	<u>Output from MPICHEM model simulation with perturbed/unperturbed stratospheric aerosol</u>	<u>44</u>		<u>O</u>	<u>RE</u>	<u>MPICHEM</u>	Cancelled

Deleted: 36

Deleted: the performance of the models

Formatted: Font: 10 pt

Deleted: 2

Deleted: C

Deleted: 36

Deleted: for the final emission inventories

Deleted: 1

Deleted: Chemical

Deleted: 36

Deleted: p-TOMCAT

Deleted: for the final aviation emission inventory

Formatted: Justified

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
<a href="#">D3.2.2.4</a>	<a href="#">Output from UCAM-DCHEM model simulation with perturbed/unperturbed stratospheric aerosol</a>	44		<a href="#">O</a>	<a href="#">RE</a>	<a href="#">UCAM-DCHEM</a>	
<a href="#">D3.2.2.5</a>	<a href="#">Output from UIO model simulation with perturbed/unperturbed stratospheric aerosol</a>	44		<a href="#">O</a>	<a href="#">RE</a>	<a href="#">UIO</a>	
<a href="#">D3.2.2.6</a>	<a href="#">Report on the effect of aircraft sulphur emissions</a>	48		<a href="#">R</a>	<a href="#">PU</a>	<a href="#">UCAM-DCHEM</a>	
D3.2.3.1	Description of a new parameterisation for ice cloud interaction based on recently determined parameters	30		R	RE	KNMI	Postponed, month <a href="#">43</a>
D3.2.3.2	Report on the effect of cirrus clouds on the chemical perturbations by transport	36		R	PU	KNMI	<a href="#">Postponed, month 48</a>
D3.3.1.2	Future chemical perturbation fields from the CNRS- <a href="#">LSCE</a> model	<a href="#">27/36</a>		O	RE	CNRS	Postponed, month <a href="#">42 due to late input</a>
D3.3.1.3	Future chemical perturbation fields from the KNMI model	<a href="#">27/36</a>		O	RE	KNMI	Postponed, month <a href="#">42 due to late input</a>
D3.3.1.4	Future chemical perturbation fields from the MPICHEM model	<a href="#">27/36</a>		O	RE	MPICHEM	<a href="#">Might be joint with DLR-IPA, D3.3.1.8</a>
D3.3.1.5	Future chemical perturbation fields from the UCI model	<a href="#">27/36</a>		O	RE	UCI	Postponed, month <a href="#">42 due to late input</a>
D3.3.1.6	Future chemical perturbation fields from the UCAM-DCHEM model	<a href="#">27/36</a>		O	RE	UCAM-DCHEM	Postponed, month <a href="#">42 due to late input</a>
D3.3.1.7	Future chemical perturbation fields from the UIO model	<a href="#">27/36</a>		O	RE	UIO	Postponed, month <a href="#">42 due to late input</a>
D3.3.1.8	Future chemical perturbation fields from the DLR-IPA model	<a href="#">27/36</a>		O	RE	DLR-IPA	Postponed, month <a href="#">42 due to late input</a>
D3.3.1.9	Report with estimate of the future chemical impact	30		R	PU	UIO	Postponed, month <a href="#">46 due to late input</a>
D3.3.2.1	Document describing the setup of the chemistry-climate feedback model experiments	28	<b>31</b>	R	RE	DLR-IPA	
<a href="#">D3.3.2.2</a>	<a href="#">Future chemical perturbation fields including climate feedbacks from the DLR-IPA model</a>	42		O	RE	DLR-IPA	
<a href="#">D3.3.2.3</a>	<a href="#">Future chemical perturbation fields including climate feedbacks from the CNRS-LSCE model</a>	42		O	RE	CNRS	
<a href="#">D3.3.2.4</a>	<a href="#">Future chemical perturbation fields including climate feedbacks from the MPICHEM model</a>	42		O	RE	MPICHEM	<a href="#">Might be joint with DLR-IPA D3.3.2.2</a>

Formatted: Justified

Formatted: Justified

Formatted: Justified

Deleted: 36

Deleted: 36

Deleted: 36

Deleted: Postponed, month 42 due to late input

Deleted: 36

Deleted: 36

Deleted: 36

Deleted: first-order

Deleted: 2

Deleted: D3.3.1.10

... [1]

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
<a href="#">D3.3.2.5</a>	<a href="#">Future chemical perturbation fields including climate feedbacks from the UIO model</a>	42		O	RE	UIO	
<a href="#">D3.3.2.6</a>	<a href="#">Report on the effect of climate feedbacks on future impact</a>	48		R	PU	DLR-IPA	
D3.3.3.1	Description of model setup for describing effects of mitigation options	30	<a href="#">30</a>	R	RE	UIO	
<a href="#">D3.3.3.2</a>	<a href="#">Datasets from the CNRS-LSCE model with chemical perturbations for different mitigation options</a>	<a href="#">45</a>		O	RE	CNRS	
<a href="#">D3.3.3.3</a>	<a href="#">Datasets from the KNMI model with chemical perturbations for different mitigation options</a>	<a href="#">45</a>		O	RE	KNMI	
<a href="#">D3.3.3.4</a>	<a href="#">Datasets from the MPICHEM model with chemical perturbations for different mitigation options</a>	<a href="#">45</a>		O	RE	MPICHEM	<del>Cancelled</del>
<a href="#">D3.3.3.5</a>	<a href="#">Datasets from the UCAM-DCHEM model with chemical perturbations for different mitigation options</a>	<a href="#">45</a>		O	RE	UCAM-DCHEM	
<a href="#">D3.3.3.6</a>	<a href="#">Datasets from the UIO model with chemical perturbations for different mitigation options</a>	<a href="#">45</a>		O	RE	UIO	
<a href="#">D3.3.3.7</a>	<a href="#">Report on mitigation strategies</a>	<a href="#">48</a>		R	PU	UIO	
	<b>Activity 4</b>						
D4.1.1.4	2nd update of report on CARIBIC data quality and availability	36		R	PU	MPICHEM	
D4.1.1.5	3rd updated report on CARIBIC data analysis	36		R	PU	MPICHEM	
D4.1.2.3	Validated data-set of concentration profiles in the UTLS within and outside flight corridors including documentation of detailed retrieval characteristic and quality information	36		O	RE	IUP-UB	
D4.1.3.4	2nd interim report on case studies, combining Activity 3 and Activity 4 results	36		R	RE	MPICHEM	
D4.2.1.2	Preliminary report on analysis of measurements – climatologies	30		R	RE	UCAM-DCHEM	
	<b>Activity 5</b>						
D5.1.1.3	Report describing the ATSR ship track climatology including estimation of ship track coverage	36		R	PU	UOXF.DC	
D5.1.1.4	Manuscript of scientific paper on the ship track climatology	36		R	PU	UOXF.DC	
D5.1.2.3	Data of the numerical results and report on the cloud simulations	36		O	RE	CERFACS	

Deleted: Pending

Deleted: Might be c

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
D5.1.2.4	Report on the on the validation of the numerical result	36		R	PU	CERFACS	
D5.2.1.3	Report on the results of case studies of contrails cirrus evolution	32		R	PU	DLR-IPA	
D5.2.2.3	Report describing the analysis of large scale model simulations of spreading contrails for selected satellite scenes	30		R	PU	DMI	Delayed due to illness and early retirement of PI
D5.2.3.4	Report on the attribution of cirrus cloud cover long-term variations to natural and anthropogenic sources	30	<b>30</b>	R	PU	NKUA	
D5.2.4.2	Report on impact of aerosol on cloud changes	34		R	PU	UIO	
D5.3.1.2	Report on the results of the flight experiment to prove or disprove existence of an aerosol (indirect) effect of 1 <sup>st</sup> kind	xx	<b>31</b>	R	PU	DLR-IPA	Depended on date of a second flight experiment
D5.3.1.3	Manuscript of scientific paper on the results of the flight experiment to prove or disprove existence of an aerosol (indirect) effect of 1 <sup>st</sup> kind	xx		R	PU	DLR-IPA	Depends on date of a second flight experiment
D5.3.2.3	Report on atmospheric, aerosol and cloud properties from the CIRCLE-2 experiment focusing on the optical properties of ice crystals forming in natural cirrus and in aged aircraft exhaust	36		R	RE	DLR-IPA	
D5.3.3.4	Report on comparison of heterogeneous ice nucleation physics in MPC and NCAR	34		R	RE	UMICH	
D5.3.4.3	Detailed report on indirect aerosol effects from different transport sectors and other emission sources	32		R	PU	UniHH	
	<b>Activity 6</b>						
D6.1.2.1	Results of uncertainties in radiative forcing calculations for allocated forcing mechanisms	25		R	RE	CNRS	Pending
D6.1.2.2	Results of uncertainties in radiative forcing calculations for allocated forcing mechanisms	25	<b>35</b>	R	RE	UIO	
D6.1.2.3	Results of uncertainties in radiative forcing calculations for allocated forcing mechanisms	25	<b>34</b>	R	RE	UREADMY	
D6.1.2.4	Results of uncertainties in radiative forcing calculations for allocated forcing mechanisms	25	<b>34</b>	R	RE	UW	

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
D6.1.2.5	Manuscript of paper or papers for the peer reviewed literature papers describing impact of uncertainties in input parameters on forcing calculations	26	35	R	PU	UIO	
D6.1.2.6	Recommendations for GCM groups in Activity Component 6.3 on calculations for forcing (oral report plus written summary at QUANTIFY project meeting)	26		R	RE	UIO	With all participants
D6.1.3.1	Provision of allocated radiative forcing values for initial study	30		O	RE	CNRS	Expected month 33
D6.1.3.2	Provision of allocated radiative forcing values for initial study	30		O	RE	UIO	Expected month 33
D6.1.3.3	Provision of allocated radiative forcing values for initial study	30		O	RE	UREADMY	Expected month 33
D6.1.3.4	Provision of allocated radiative forcing values for initial study	30		O	RE	UW	Expected month 33
D6.1.3.5	Report on the radiative forcings derived from initial phase of QUANTIFY	30		R	PU	UIO	With CNRS, UREADMY, UW Expected month 33
D6.2.1.2	Provision of GCM results for idealised aerosol specifications	27		O	RE	DLR-IPA	Delayed
D6.2.1.3	Report on radiative forcing – climate response relationships in GCMs for idealised changes in absorbing aerosol	28		R	PU	UREADMY	With DLR-IPA Expected month 34
D6.2.1.4	Provision of GCM results for more realistic aerosol specifications	34		O	RE	UREADMY	
D6.2.1.5	Provision of GCM results for more realistic aerosol specifications including interactive cases	34		O	RE	DLR-IPA	
D6.2.1.6	Report on radiative forcing-climate response relationships in GCMs for more realistic radiative forcings from one transport sector (DLR-IPA, UREADMY) and interactive changes in absorbing aerosol	36		R	PU	DLR-IPA	
D6.2.2.1	Completion of GCM integrations and analysis	34		O	RE	DLR-IPA	
D6.2.2.2	Completion of GCM integrations and analysis	34		O	RE	UREADMY	
D6.2.2.3	Manuscript of scientific paper or papers describing results from the GCM experiments	36		O	RE	UREADMY	With DLR-IPA
D6.3.1.1	Validation of coupling of ocean-atmosphere model	30		R	RE	CNRM	Pending
D6.3.1.6	Time slice calculations for all transport sectors for 2000	36		O	RE	UREADMY	

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
D6.3.2.3	Benchmark radiative forcing results for comparison with sophisticated radiation models	26		O	RE	DLR-IPA	Pending
D6.3.2.5	Outputs from concentration forced model simulations: model data, report. DLR-IPA results	30		O	RE	DLR-IPA	Delayed
	<b>Activity 7</b>						
D7.1.1.7	Report on response of coupled ocean-atmosphere models to idealised forcing changes	25	29	R	PU	UREADMY	With all participants
D7.1.1.8	Report on the appropriate parameters to be used in simple models to mimic coupled model responses	25	29	R	PU	UREADMY	With all participants
D7.1.2.1	New and improved versions of UREADMY's SCMs based on D7.1.1.7 and D7.1.1.8	25	29	O	RE	UREADMY	
D7.1.2.2	New and improved versions of CICERO's SCMs based on D7.1.1.7 and D7.1.1.8	27	29	O	RE	CICERO	
D7.2.1.3	Input dataset from CICERO's SCM to WP7.3.2	36		O	RE	CICERO	
D7.2.1.4	Input dataset from UREADMY's SCM to WP7.3.2	36		O	RE	UREADMY	
D7.3.1.3	Contribution to the overview report: climate impact functions	30		R	RE	UniHH	
D7.3.1.4	Contribution to the overview report: possibilities and challenges	30		R	RE	CNRS	Pending
D7.3.1.5	Contribution to overview report: policy implications	30		R	RE	SZTE	Pending
D7.3.1.6	Contribution on climate impact functions to paper	30		R	RE	UniHH	With SZTE, pending
D7.3.1.7	Contribution on new metric formulations to paper	30		R	RE	UREADMY	With CNRS, pending
D7.3.1.8	Paper on new and/or revised metric formulations suitable for emissions from the transport sector	30	26	R	PU	CICERO	Preprint available
D7.3.1.9	Revision of paper on new and/or revised metric formulations suitable for emissions from the transport sector	35		R	PU	CICERO	With all participants
D7.3.2.1	Quantitative comparisons of different sectors and scenarios using the alternative metrics	35		O	RE	CICERO	
D7.3.2.2	Contribution to a research paper: calculations of metric values	35		R	RE	UREADMY	
D7.3.2.3	Contribution to a research paper: discussion of applied climate impact functions	35		R	RE	UniHH	

Deliverable Number	Deliverable title	Delivery date planned [month]	Delivery date achieved [month]	Nature	Dissemination level	Responsible Participant, (short name)	Remarks
D7.3.2.4	Contribution to a research paper: the role of aerosols	35		R	RE	CEA	
D7.3.2.5	Contribution to a research paper, policy implications	35		R	RE	SZTE	
D7.2.3.6	Research paper describing the results to be published in a peer-reviewed journal	36		R	PU	CICERO	
	<b>Activity 8</b>						
D8.1.1.8	24-month management report	25	26	R	RE	DLR-IPA	In Ann. Rep.
D8.1.1.9	Detailed work plan for months 25-42	25	26	R	RE	DLR-IPA	In Ann. Rep.
D8.1.1.10	Second Annual Report	26	26	R	RE	DLR-IPA	
D8.1.1.11	30-month management report	31	32	R	RE	DLR-IPA	Semi-ann. Rep.
D8.1.1.12	36-month management report	37		R	RE	DLR-IPA	In Ann. Rep.
D8.1.1.13	Detailed work plan for months 37-54	37		R	RE	DLR-IPA	In Ann. Rep.
D8.1.1.14	Third Annual Report	38		R	RE	DLR-IPA	
D8.3.1.3	Final version of the web portal for emission inventories data bank	36		O	PU	DLR-IVF	
D8.3.2.5	Updated report on the data archive and recommendations for optimal use of the data	36		R	PU	ETH Zürich	
D8.3.3.3	3 <sup>rd</sup> report on Quality control of emission inventories	36		R	RE	CICERO	
D8.4.1.4	3 <sup>rd</sup> report on the status of the web sites	36		R	RE	DLR-IPA	
D8.4.2.4	Report on 2nd annual workshop	26	26	R	RE	DLR-IPA	Minutes
D8.4.2.5	Report on 3rd annual workshop	38		R	RE	DLR-IPA	Minutes
D8.4.2.8	Proceedings of TAC conference	27	30	R	PU	DLR-IPA	
D8.4.3.5	3rd dissemination report	36		R	RE	DLR-IPA	
	<b>Activity 9</b>						
D9.1.1.3	3 <sup>rd</sup> Project Office report	36		R	RE	DLR-IPA	
D9.2.1.3	2nd cost statement	26	26	O	CO	DLR-AD	In Ann. Rep.
D9.2.1.4	2nd financial report	26	26	O	CO	DLR-AD	In Ann. Rep.
D9.2.1.5	3rd cost statement	38		O	CO	DLR-AD	In Ann. Rep.
D9.2.1.6	3rd financial report	38		O	CO	DLR-AD	In Ann. Rep.
D9.3.1.5	Minutes and proceedings of summer school	33		O	PU	DLR-IPA	
D9.4.1.3	3 <sup>rd</sup> annual gender action report	36		R	RE	UREADMY	

**Milestones**

Milestone No	Milestone title	Milestone date planned [month]	Milestone date achievement [month]	Responsible Participant, (short name)	Remarks (reasons for delay, problems)
<b>Activity 1</b>					
M1.1.1.4	Development of appropriate interface between database and requirements of EU teams necessary for ecology impact estimation	25		TsAGI	
M1.1.1.5	Database of time – spatial distribution of aircraft in atmosphere above Russia during 1992 -2005 completed	32		TsAGI	
M1.1.5.1	Differentiation of vehicle stock for target city	27	27	CATS	
M1.1.5.2	Proposal on methodology for survey, city, approach	27	27	CATS	
M1.1.5.3	National fuel consumption by fuel type	28	28	CATS	
M1.1.5.4	Draft final	33		CATS	
M1.1.6.1	Differentiation of vehicle stock for target city	27		CIRT	
M1.1.6.2	Proposal on methodology for survey, city, approach	27	27	CIRT	
M1.1.6.3	National fuel consumption by fuel type	28	28	CIRT	
M1.1.6.4	Draft final	33		CIRT	
M1.2.2.3	Sensitivity inventories for aviation completed and available on web site	36		MMU	
M1.3.2.1	Technology developments and specific emission factors for Asia available	33		KTI	
M1.3.2.3	Estimates of sensitivities and uncertainties for key driving factors of emission developments for top-down and bottom-up approach for the Asian region available	27		DLR-IVF	Postponed to M38 (following the inclusion of new partners since Jan 2007; otherwise we lose their input)
M1.3.2.4	Draft methodology for measurements a) in CHN (TU) / b) in IND (CIRT)	27		TU, CIRT	
M1.3.2.5	Base data driving cycle a) in CHN (TU) / b) in IND (CIRT)	31		TU, CIRT	
M1.3.2.6	Draft final a) in CHN (TU) / b) in IND (CIRT)	33		TU, CIRT	
<b>Activity 2</b>					
M2.1.3.1	Numerical tools available and evaluated	30	30	CUNI	
M2.3.1.2	Airborne Tandem-DMA	24	24	PSI	

Milestone No	Milestone title	Milestone date planned [month]	Milestone date achievement [month]	Responsible Participant, (short name)	Remarks (reasons for delay, problems)
M2.3.1.6	Campaign preparation document ready	26	26	DLR-FB	With DLR-IPA
M2.3.2.1	Preliminary data on CO <sub>2</sub> , CO, NO <sub>x</sub> , O <sub>3</sub> , SO <sub>2</sub> in data bank	30	30	DLR-IPA	
M2.3.2.2	Preliminary data on aerosol physical properties in data bank	30	30	DLR-IPA	
M2.3.2.3	Preliminary data on aerosol hygroscopic properties in data bank	30	30	PSI	
M2.3.2.4	Preliminary data on organic compounds in data bank	30	30	UYO	
M2.3.2.5	Field campaign made	28	28	DLR-IPA	
M2.4.2.1	Reliable method for the estimate of pollution from traffic validated on regional scale	30		CERFACS	Pending
M2.4.2.2	Assessment of regional effects on emission transformations	36		CERC	
M2.4.2.3	Final parameterization and conclusions on its quality and validity available	36		CERFACS	
M2.4.2.4	Decision whether it meets the requirements or not	36		CERFACS	
	<b>Activity 3</b>				
M3.1.3.1	Selection and setup of effective emission data sets / parameterisations performed	27	27	CNRS	
M3.1.3.2	Model simulations with/without effective emissions carried out	34	34	CNRS	
<a href="#">M3.1.3.3</a>	<a href="#">Provide documented parameterization for effective emissions to UIO</a>	43		CNRS-LSCE	
<a href="#">M3.2.2.1</a>	<a href="#">Description available of model simulations to be performed</a>	38		UCAM-DCHEM	
<a href="#">M3.2.2.2</a>	<a href="#">Model simulations carried out</a>	44		UCAM-DCHEM	
M3.2.3.1	A new parameterisation for ice cloud interaction based on recently determined parameters available	30		KNMI	Delayed due to departure of postdoc, expected month 38
M3.2.3.2	Model simulations carried out	34		KNMI	<a href="#">Delayed due to departure of postdoc, expected month 46</a>
M3.3.1.2	<a href="#">Results from simulations of future impact from CTMs available</a>	32		UIO	<a href="#">Postponed, month 42 due to late input</a>
<a href="#">M3.3.1.3</a>	<a href="#">All results from simulations of future impact available, incl. GCMs</a>	42		UIO	
M3.3.2.1	Design of model experiments available	28	31	DLR-IPA	
<a href="#">M3.3.2.2</a>	<a href="#">2050 SSTs distributed among Act.3 partners</a>	38		DLR-IPA	

Deleted: First r

Deleted: (only with CTMs)

Milestone No	Milestone title	Milestone date planned [month]	Milestone date achievement [month]	Responsible Participant, (short name)	Remarks (reasons for delay, problems)
<a href="#">M3.3.2.3</a>	<a href="#">Historical composition fields distributed to CNRM (Act. 6)</a>	<a href="#">38</a>		<a href="#">DLR-IPA</a>	
<a href="#">M3.3.2.4</a>	<a href="#">Model simulations ready</a>	<a href="#">42</a>		<a href="#">DLR-IPA</a>	
M3.3.3.1	Selection done of reduction options to be investigated	30	<b>36</b>	UIO	Deleted: Pending
<a href="#">M3.3.3.2</a>	<a href="#">Gridded mitigation scenarios available from Act. 1</a>	<a href="#">42</a>		<a href="#">UIO/DLR-V</a>	
<a href="#">M3.3.3.3</a>	<a href="#">Model simulations ready and provided to Act. 7</a>	<a href="#">46</a>		<a href="#">UIO</a>	
	<b>Activity 4</b>				
M4.1.3.2	1st data set from SCIAMACHY and CARIBIC available for comparative studies with models	36		MPICHEM	
M4.1.3.3	2nd data set from SCIAMACHY and CARIBIC available for comparative studies with models	28		MPICHEM	
M4.1.3.4	Data set from SCIAMACHY and CARIBIC available for comparative studies with model or alternative aircraft observations	36		MPICHEM	
M4.1.3.6	2nd workshop on measurement and modelling studies, focusing on the analysis of SCIAMACHY and CARIBIC data for selected cases in the UTLS region	34		MPICHEM	
	<b>Activity 5</b>				
M5.1.2.2	Cloud simulation for the selected cases performed	36		CERFACS	
M5.1.2.3	Numerical results validated	36		CERFACS	
M5.2.2.3	Simulations of selected satellite scenes with the IFSHAM model performed	26		DMI	Delayed due to illness and early retirement of PI
M5.2.2.4	Simulations of selected satellite scenes with the IFSHAM model analysed	30		DMI	Delayed due to illness and early retirement of PI
M5.2.3.4	Comparison of changes in contrail-cirrus and natural cirrus clouds with fuel consumption/ flown distance and with changes in natural parameters	30	<b>30</b>	NKUA	
M5.3.1.2	Flight experiment performed and analysed	27	<b>27</b>	DLR-IPA	Depended on date of flight experiment
M5.3.2.2	Data set of atmospheric, aerosol and cloud properties obtained during the CIRCLE-2 experiment available for analysis	30	<b>30</b>	DLR-IPA	

Milestone No	Milestone title	Milestone date planned [month]	Milestone date achievement [month]	Responsible Participant, (short name)	Remarks (reasons for delay, problems)
M5.3.4.3	Detection of indirect aerosol effects performed	32		UniHH	
<b>Activity 6</b>					
M6.1.2.1	Quantification of the uncertainty in radiative forcings due to imprecise information in input parameters	26		UIO	With all participants
TM6.1.3.2	Decision about detailed experimental design of "final phase" forcings and allocation of tasks among participants	32		UIO	
M6.2.1.1	Quantification of the climate sensitivity of the participating GCMs to absorbing aerosol for idealised and more realistic changes in absorbing aerosol loading	36		UREADMY	With DLR-IPA
M6.2.1.2	Quantification of the degree of difference between the participating GCMs and as far as possible explaining the causes of those differences	36		UREADMY	With DLR-IPA
M6.2.2.1	Understanding developed of the extent to which the total climate impact can be regarded as a linear superposition of individual transport-related forcing mechanisms	35		UREADMY	With DLR-IPA
M6.3.2.1	Calculation of radiative forcing values due to different transport components from the initial study of emissions and concentration changes provided by other Activities, for comparison with detailed values from WP 6.1.1	26		CNRM	With DLR-IPA
<b>Activity 7</b>					
M7.1.2.1	New and improved versions of SCMs	27		UREADMY	With CICERO
TM7.2.2.1	Decision about detailed design (set up with emissions from Activity 1) of calculations of development in global temperature	19		CICERO	
M7.3.1.2	Policy implications of the new or revised metrics for the transport sector analysed	35		CICERO	
M7.3.2.1	First set of metric values based on the new and revised concepts of WP 7.3.1 and the results from QUANTIFY Activities 1 to 6 and Activity Components 7.1 and 7.2	30		CICERO	Pending
<b>Activity 8</b>					
M8.1.1.6	Third annual meeting	36		DLR-IPA	

Milestone No	Milestone title	Milestone date planned [month]	Milestone date achievement [month]	Responsible Participant, (short name)	Remarks (reasons for delay, problems)
M8.1.1.7	Decision on revised work plan	36		DLR-IPA	
M8.3.3.1	All data in emission inventories quality-checked	36		CICERO	
M8.4.2.8	Meeting of the Steering Committee	30	<b>31</b>	DLR-IPA	
M8.4.2.9	Meeting of the Steering Committee	36		DLR-IPA	
M8.4.2.10	3rd annual workshop and meeting of the Advisory Committee	36		DLR-IPA	
	<b>Activity 9</b>				
M9.1.1.3	New QUANTIFY-TTC partners successfully integrated to QUANTIFY	27	<b>27</b>	DLR-IPA	
M9.3.1.3	QUANTIFY summer school	31	<b>31</b>	DLR-IPA	

D3.3.1.10	Future chemical perturbation fields from the CNRS model	36		O	RE	CNRS	
D3.3.1.11	Future chemical perturbation fields from the KNMI model	36		O	RE	KNMI	
D3.3.1.13	Future chemical perturbation fields from the UCI model	36		O	RE	UCI	
D3.3.1.14	Future chemical perturbation fields from the UCAM-DCHEM model	36		O	RE	UCAM-DCHEM	
D3.3.1.15	Future chemical perturbation fields from the UIO model	36		O	RE	UIO	