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# **Review of the 2015 Adjustment Application by France**

Expert Review Team Report for the EMEP Steering Body

<b>Report title</b>	Review of the 2015 Adjustment Application by France
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## Expert Review Team

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Primary expert reviewer	Road transport (1A3bi-iv)	Yvonne Pang (UK)
Secondary expert reviewer	Road transport (1A3bi-iv)	Michael Kotzulla (DE)
Primary expert reviewer	Off-road mobile machinery (1A2gvii, 1A4cii)	Yvonne Pang (UK)
Secondary expert reviewer	Off-road mobile machinery (1A2gvii, 1A4cii)	Michael Kotzulla (DE)
Basic checks (Steps 1 and 2)	N/A	Katarina Mareckova (CEIP)

## Executive Summary

1. As mandated by decision 2012/3 (ECE/EB.AIR/111/Add.1) of the Executive Body to the Convention on Long-range Transboundary Air Pollution (CLRTAP), the nominated expert review team (ERT) undertook a detailed review of the adjustment application submitted by France. The review was undertaken on behalf of the EMEP<sup>1</sup> Steering Body (SB) and following the guidance published in the Annex to decisions 2012/12 (ECE/EB.AIR/113/Add.1) and 2014/1 (ECE/EB.Air/130).
2. Each section of the application was reviewed by two independent sectoral experts in May and June 2015. The findings were discussed at the meeting held from 22 to 26 June 2015 at the EEA in Copenhagen. The conclusions and recommendations for the EMEP Steering Body have been documented in this country report.

**Table ES1: Summary Information on the Submitted Application, France 2015**

Reasons for adjustment application (decision 2012/3, para 6 as amended by decision 2014/1, annex, para 3)	Road transport (1A3bi-iv): revisions of EFs and methodology Off-road mobile machinery (1A2gvii, 1A4cii): significantly different methodology
Pollutant /sector for which adjustment is applied for	Road transport, NO <sub>x</sub> Off-road mobile machinery, NO <sub>x</sub>
Year(s) for which inventory adjustment is (are) applied for	2010, 2011, 2012, 2013
Date of notification of adjustment to the Convention Secretariat	12 February 2015
Date of submission of supporting documentation	23 February and 13 March 2015

3. The expert review team (ERT) reviewed and evaluated the documents submitted by France.
4. **NO<sub>x</sub> emissions from road transport (1A3bi-iv):** France provided information that transparently presented “extraordinary” revisions of NO<sub>x</sub> emission factors and, moreover, clearly quantified the impact of the EF revisions alone. The expert review team concluded that the application meets all of the requirements set out in decision 2012/12 of the Executive Body of the CLRTAP and therefore recommends that the EMEP Steering Body **ACCEPT** this adjustment application.
5. **NO<sub>x</sub> emissions from off-road mobile machinery (1A2gvii, 1A4cii):** The ERT undertook a full and thorough assessment of France’s application for an adjustment for 2010–2013 to its NO<sub>x</sub> emission inventory for the off-road mobile machinery sector (1A2gvii and 1A4cii). The ERT discussed the application with France, explaining that the application based on a revised methodology was not deemed to comply with the requirements (as set out in decision 2012/12, and in particular the three circumstances listed in para 6 of decision 2012/3). The ERT suggested that an application based on

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<sup>1</sup> Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe

revised EFs might comply with the requirements. However, following further discussions, France elected **to withdraw** this particular adjustment application.

6. The quantity and impact of the adjustments recommended for acceptance is summarized in tables ES2 and ES3 below.

**Table ES2: Sum Total of Recommended Inventory Adjustments (ktonnes), France 2010-2013**

Pollutant		2010	2011	2012	2013
NO <sub>x</sub>	kt	-168.56	-169.83	-162.75	-159.84

**Table ES3: Impact of Recommended Inventory Adjustments on National Emissions, France 2010 and 2013**

Poll.	GP emission reduction commitment (kt)	2010 emissions reported in 2015 (kt)	2010 emissions (adjusted) (kt)	Difference (%)	2013 emissions reported in 2015 (kt)	2013 emissions (adjusted) (kt)	Difference (%)
NO <sub>x</sub>	860	1,096.36	927.80	15%	989.52	829.68	16%

7. France's total national emissions will be below the Gothenburg Protocol ceilings from 2012 onwards if the proposed adjustment is accepted.

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# 1 Introduction and Context

8. Parties may apply for an adjustment to their inventory data or emission reduction commitments whenever they are (or expect to be) in non-compliance with their emission reduction targets<sup>2</sup>. However, in making an adjustment application, they must demonstrate that extraordinary circumstances have given rise to the need to revise their emission estimates. These extraordinary circumstances fall into three broad categories:

- a) emission source categories are identified that were not accounted for at the time the emission reduction commitments are set (for a more detailed definition see decision 2014/1, annex, para. 3 (a) (i)–(iii)); or
- b) emission factors used to determine emissions levels for the year in which emission reduction commitments are to be attained are significantly different than the emission factors applied to these categories when the emission reduction commitments were set; or
- c) the methodologies used to determine emissions from specific source categories change significantly between the time the emission reduction commitments are set and the year they must be attained.

9. Any Party submitting an application for an adjustment to its inventory is required to notify the Convention Secretariat through the Executive Secretary by 15 February at the latest. The supporting information detailed in decision 2012/12 and in the Technical Guidance document (ECE/EB.Air/130) must be provided (either as part of the Informative Inventory Report or in a separate report) by 15 March of the same year.

10. Decision 2012/12, as amended by the decision 2014/1, of the Executive Body of the CLRTAP, mandates that applications for adjustments submitted by Parties shall be subject to an expert review<sup>3</sup>. Technical coordination and support in the review is provided by EMEP's Centre on Emission Inventories and Projections (CEIP). The members of the review team are selected from the available review experts<sup>4</sup> nominated by Parties to the CEIP roster of experts.

11. The expert review team (ERT) undertakes a detailed technical review of the adjustment application in cooperation with the technical bodies under EMEP and makes a recommendation to the EMEP Steering Body on the acceptance or rejection of the application. The EMEP Steering Body then takes its decision on each adjustment application based on the outcome of the technical assessment completed by the ERT.

12. The flow diagram below outlines the different stages of the technical review. The following sections of this report are structured in the same way and provide a detailed description of the ERT findings at each of the decision gates in the process.

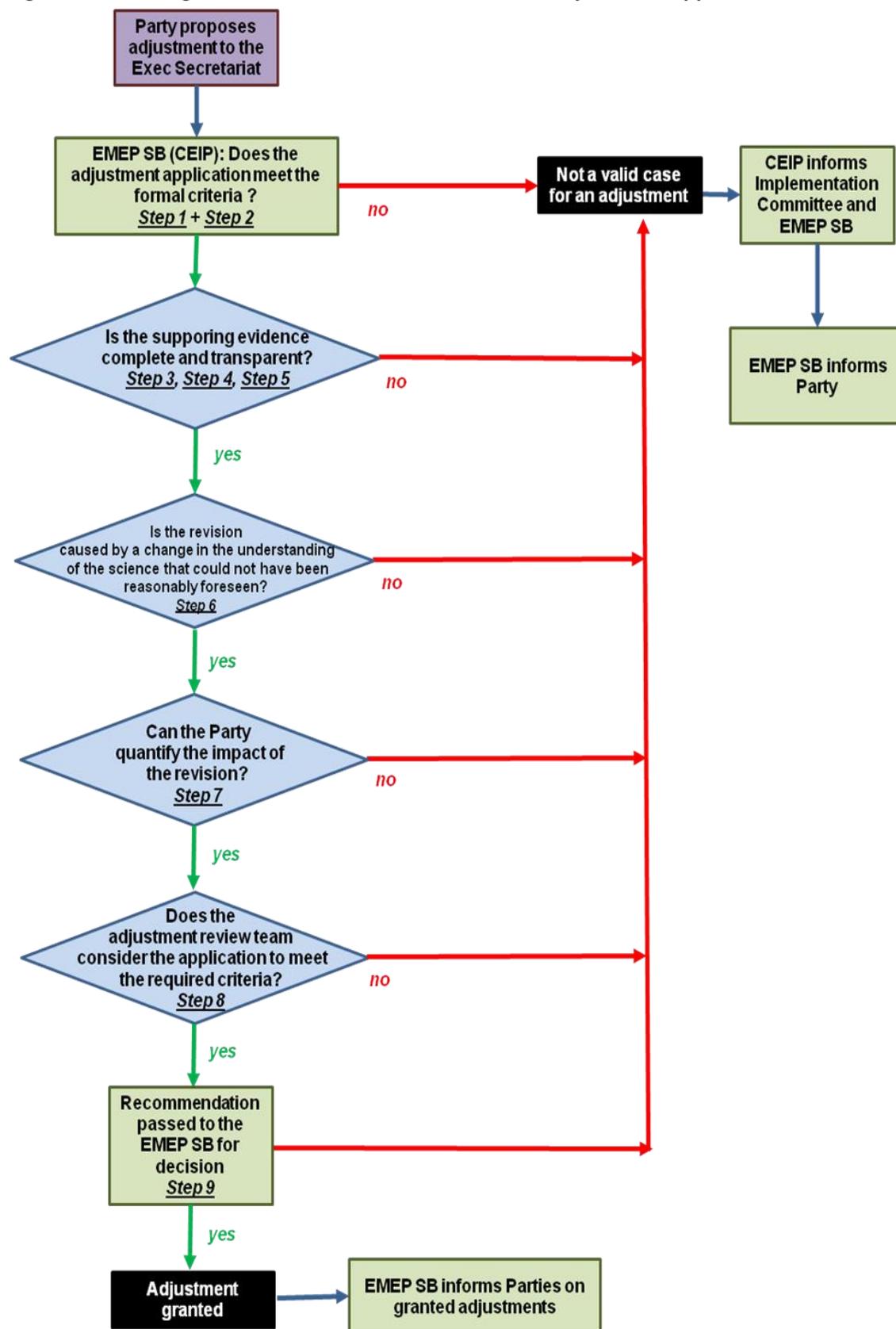
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<sup>2</sup> The term "emission reduction commitments" is used throughout this report. However, the term "emission ceilings" is equally applicable.

<sup>3</sup> The EMEP Steering Body, in conjunction with other appropriate technical bodies under EMEP, shall review the supporting documentation and assess whether the adjustment is consistent with the circumstances described in para 6 of EB decision 2012/3 and the further guidance in EB decision 2012/12 as amended by EB decision 2014/1 and Technical Guidance ECE/AB.Air/130.

<sup>4</sup> [http://www.ceip.at/fileadmin/inhalte/emep/pdf/2015/0\\_Roster\\_2015.pdf](http://www.ceip.at/fileadmin/inhalte/emep/pdf/2015/0_Roster_2015.pdf)

Figure 1: Flow Diagram/Decision Tree for the Review of Adjustment Applications



## 2 Review of Adjustments Submitted in 2015

### 2.1 Assessment of Formal Criteria

13. France submitted an adjustment application in 2014, which was given an “open” status. It was therefore scheduled to be reviewed in 2015. France notified the Convention Secretariat through the Executive Secretary of its intention to apply for a new adjustment on 12 February 2015, i.e. before the legal deadline of 15 February. All supporting information requested by decision 2012/12 amended by decision 2014/1 was provided before the legal deadline of 15 March of the same year it was submitted for review by the EMEP Steering Body (decision 2012/12, annex, para 1). Section 4 lists the documentation provided by the Party.

14. France submitted an application for NO<sub>x</sub> emission adjustments for 2010-2013 in the sectors indicated below:

- a) Road transport (1A3bi-iv)
- b) Off-road mobile machinery (1A2gvii and 1A4cii)

15. France does not comply with its emission reduction commitments listed in Annex II of the Gothenburg Protocol (para 1 of decision 2012/3).

16. France provided information relating to the adjustment impact on its emission inventory and the extent to which it would reduce the current exceedance and presumably bring the Party in compliance with the emission reduction commitments.

17. In the supporting documentation, France included information on when it expects to meet its NO<sub>x</sub> emission ceiling without the adjustment.

### 2.2 Road Transport (1A3bi-iv), NO<sub>x</sub>

#### 2.2.1 Assessment of Consistency with Requirements of EB Decision 2012/3 as amended by EB Decision 2014/1

18. France made an application for significant EF and methodology revisions.

19. The adjustment application requires the provision of specific supporting information to demonstrate compliance with specific criteria (decision 2012/3, para 6a-c as amended by decision 2014/1, annex, para 3). The ERT reviewed the supporting documentation (see Section 4) on the basis of these criteria and concluded that the emission factors used to determine emission levels for road transport source category 1.A.3.b for the year in which emission reduction commitments were to be attained are significantly different than emission factors applied to these categories when the emission reduction commitments were set.

20. The EF changes highlighted in the adjustment application could not have been foreseen at the time the 2010 emission ceilings were set and result entirely from the Euro standards not delivering the originally projected emission reductions in the real world. The ERT therefore concluded that the supporting evidence provided complies with the criteria presented in decision 2012/3 and that the circumstances on which the adjustment is based could not have been reasonably foreseen by the Party at the time the emission ceilings were established for 2010.

21. The ERT reviewed the documentation that was provided to support the application (listed in Section 4).

22. The supporting information provided by the Party on the EF and methodology revisions made was deemed complete and transparent. The ERT was satisfied that this information fully explained the impact of the different revisions that had been made to the calculation methodology on NO<sub>x</sub> emissions (resulting in the exceedance of the 2010 ceiling).

### 2.2.2 Assessment of the Quantification of the Revision Impact

23. The adjustment application requires that the Party submit a quantification of the impact of the adjustment for which an application has been submitted. The ERT found small discrepancies in the activity data used for mopeds and motorcycles (1A3biv) with a minor difference (by less than 1%) between the current and adjusted methods. However, 1A3biv is a very small source and only contributes approximately 1% of France's total road transport NO<sub>x</sub> emissions. The ERT therefore deemed this to be "insignificant" for the quantification of the adjustment, particularly because it does not alter the final conclusion on whether and when the Party is expected to be in compliance if the adjustment is granted.

24. Table 1 provides an overview of the NO<sub>x</sub> adjustment applications of France in the road transport sector.

**Table 1: France's NO<sub>x</sub> Adjustment Applications for Road Transport, 2010-2013**

Reference number	Pollutant	NFR14	Unit	2010	2011	2012	2013
FR-adjustment_A	NO <sub>x</sub>	1A3b	kt	-168.56	-169.83	-162.75	-159.84

25. The ERT concluded that the quantification of the impact of this adjustment, as calculated by the Party, on total national emissions is based on an appropriate methodology and does not include any calculation errors (with the exception of the minor discrepancy issue explained above). Furthermore, the ERT concluded that the information presented by the Party is in line with the most up-to-date guidance available from the EMEP/EEA Guidebook and the scientific literature.

## 2.3 Off-road Mobile Machinery (1A2gvii, 1A4cii), NO<sub>x</sub>

### 2.3.1 Assessment of Consistency with Requirements EB Decision 2012/3 as amended by EB Decision 2014/1

26. The Party submitted an application based on the use of different methodologies.

27. The adjustment application requires the provision of specific supporting information to demonstrate compliance with specific criteria (decision 2012/3, para 6a-c as amended by decision 2014/1, annex, para 3).

28. The ERT reviewed the supporting documentation (see Section 4) on the basis of these criteria and concluded that the increase in estimated emissions from these source categories

(compared with the assumptions made in 1999) results from the implementation of revised and reallocated activity data that allowed the application of specific emission factors that are much higher than those applied in the Party's earlier submissions. This improvement in the correctness and transparency of the inventory is not deemed to be "extraordinary", but merely a routine inventory development, particularly not in accordance with the criteria set out in the guidance (specifically the circumstances listed in para 6 of decision 2012/3).

29. The ERT discussed this conclusion with France and suggested that an application based on EF revisions might comply with the criteria presented in the guidance. However, France noted that an application based on EF revisions, whilst potentially acceptable, would result in a zero adjustment. France therefore concluded that it was not worthwhile to continue with the adjustment application for off-road mobile machinery and elected to withdraw this specific adjustment application.

### 3 Conclusions and Recommendations

30. The ERT has undertaken a full and thorough assessment of the application for an adjustment of the NO<sub>x</sub> emission inventory submitted by France for the following source sectors:

- a) Road transport (1A3bi-iv);
- b) Off-road mobile machinery (1A2gvii and 1A4cii)

31. The review of the submitted application was performed in accordance with the guidance provided in the Annex to decision 2012/12 of the Executive Body of the CLRTAP and in the Technical Guidance ECE/EB.AIR/130. The ERT findings are described in detail in Section 2 of this report.

32. Prior to concluding the review of the adjustment application for off-road mobile machinery, **France elected to withdraw this application**. As a result the ERT has not reached a formal conclusion, and hence no such conclusion is included in the recommendations that follow.

33. Table 2 below provides a summary of the adjustment applications received from France as well as the subsequent recommendation the ERT made to the EMEP Steering Body.

**Table 2: ERT Recommendations to the EMEP Steering Body, France 2015**

Country	Sector	NFRs	Pollutant	Years	ERT recommendation
France	Road transport	1A3bi - iv	NO <sub>x</sub>	2010- 2013	Accept

34. **Road transport 1A3bi-iv, NO<sub>x</sub>**: France provided information that transparently presented “extraordinary” revisions of the NO<sub>x</sub> emission factors and, moreover, clearly quantified the impact of the EF revisions separately. The ERT has concluded that the application meets all the requirements set out in decision 2012/12 of the Executive Body of the CLRTAP and therefore recommends that the EMEP Steering Body ACCEPT this adjustment application.

35. France provided information on when it expects to meet its emission ceiling for NO<sub>x</sub> in the supporting documentation.

## 4 Information Provided by the Party

36. Table 3 below lists the information provided by the Party in its adjustment application. The information provided by Party can be downloaded from the CEIP website<sup>5</sup>.

**Table 3: Information Provided by France**

Filename	Short description of content
Annex_VII_Adjustments_summary_template_extended2_Feb2015.xlsx	MS Excel file with detailed data serving as basis for the proposed adjustment applications
FR_NotificationTemplate__CLRTAP_EMEP_emission_inventory_status_report_2015.doc	MS Word file of the Party's 2015 CLRTAP/EMEP Emission Inventory Status Report sent to the UNECE secretariat on 15 February 2015
IIR_FR_section 11.2 NO <sub>x</sub> adjustment_2015_April2015.pdf	PDF file of the Party's supporting document for the adjustment application (in English)
Table NFR v2014 - an 2010 with Adjustment_V2.xls	MS Excel file of the Party's emission report file showing the adjusted national total for NO <sub>x</sub> in 2010
Table NFR v2014 - an 2011 with Adjustment_V2.xls	MS Excel file of the Party's emission report file showing the adjusted national total for NO <sub>x</sub> in 2011
Table NFR v2014 - an 2012 with Adjustment_V2.xls	MS Excel file of the Party's emission report file showing the adjusted national total for NO <sub>x</sub> in 2012
Table NFR v2014 - an 2013 with Adjustment_V2.xls	MS Excel file of the Party's emission report file showing the adjusted national total for NO <sub>x</sub> in 2013
UNECE_France_mars2015.pdf	PDF file of the Party's report on "Inventory of air pollutant emissions in France under the Convention on Long- range Transboundary Air Pollution and the European Directive on National Emission Ceilings (NEC)" (in French)

37. The CEIP found it necessary to ask the Party for further information. The information provided is described in Table 4 below.

**Table 4: Additional Information Provided by France**

Filename	Short description of content
Annex_VII_Adjustments_summary_template_extended2_V2_April15.xlsx	MS Excel file with detailed data serving as basis for the proposed NO <sub>x</sub> adjustment applications from 1.A.3.bi-iv, 1.A.2.g.vii and 1.A.4.c.ii.

<sup>5</sup> [http://www.ceip.at/ms/ceip\\_home1/ceip\\_home/adjustments\\_gp/](http://www.ceip.at/ms/ceip_home1/ceip_home/adjustments_gp/)

## 5 References

Decision 2012/3 (ECE/EB.AIR/111/Add.1): Adjustments under the Gothenburg Protocol to emission reduction commitments or to inventories for the purposes of comparing total national emissions with them

Decision 2012/12 (ECE/EB.AIR/113/Add.1): Guidance for adjustments under the 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone to emission reduction commitments or to inventories for the purposes of comparing total national emissions with them

Decision 2014/1 (ECE/EB.Air/127/Add.1): Improving the guidance for adjustments under the 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone to emission reduction commitments or to inventories for the purposes of comparing total national emissions with them

Data submitted by Parties applying for an adjustment:

[http://www.ceip.at/ms/ceip\\_home1/ceip\\_home/adjustments\\_gp/](http://www.ceip.at/ms/ceip_home1/ceip_home/adjustments_gp/)

EMEP/EEA air pollutant emission inventory guidebook 2013 (EMEP/EEA Guidebook)

<http://www.eea.europa.eu/publications/emep-eea-guidebook-2013>

EMEP/CORINAIR atmospheric emission inventory guidebook - Second edition 1999. (1999 Guidebook)

<http://www.eea.europa.eu/publications/EMEPCORINAIR>

Guidelines for reporting emissions and projections data under the Convention on Long-range Transboundary Air Pollution (ECE/EB.AIR/125)

[http://www.ceip.at/ms/ceip\\_home1/ceip\\_home/reporting\\_instructions/](http://www.ceip.at/ms/ceip_home1/ceip_home/reporting_instructions/)

ECE/EB.AIR/130: Technical Guidance for Parties Making Adjustment Applications and for the Expert Review of Adjustment Applications, 14 April 2015

<http://www.unece.org/environmental-policy/conventions/envlrtapwelcome/guidance-documents-and-other-methodological-materials/emissions-reporting.html>

The 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol)

[http://www.unece.org/env/lrtap/multi\\_h1.html](http://www.unece.org/env/lrtap/multi_h1.html)