



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 13<sup>TH</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a teleconference on 9<sup>th</sup> December 2020**

*"This meeting, originally scheduled as a physical meeting, was converted into a teleconference to avoid traveling to EFSA in line with the measures established to reduce the risk of coronavirus infection."*

**(Agreed on 16<sup>th</sup> December 2020)**

#### Participants

- Working Group Members:  
Christer Hogstrand (Chair)  
Emilio Benfenati  
Amélie Crépet  
Antonio Hernandez-Jerez  
Kyriaki Machera  
Jan Dirk te Biesebeek  
Emanuela Testai  
Josef Schlatter
  
- Hearing Experts<sup>1</sup>:  
Not Applicable

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:  
SCER Unit: Jean Lou Dorne (Secretariat)  
DATA Unit: Bruno Dujardin

## **1. Welcome and apologies for absence**

The Chair welcomed the participants. Apologies for absence were sent by Susanne Hougaard-Bennekou.

## **2. Adoption of agenda**

The agenda was adopted without changes.

## **3. Declarations of Interest of Working Groups members**

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## **4. Scientific topics for discussion (EFSA-Q-2019-00517)**

The members of the working group discussed the comments and proposals for change from the last Scientific Committee plenary of the 12<sup>th</sup> November, and the working group meetings of the 13<sup>th</sup> and 25<sup>th</sup> November. Further editorials were proposed for Chapter 3 and Chapter 4. It was agreed to address the remaining comments prior to submission to the Scientific Committee for the next plenary (17<sup>th</sup>-18<sup>th</sup> February 2021).

## **5. Next meeting(s)**

The next meeting with a drafting WG will take place on the 22<sup>nd</sup> February 2021.

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 12<sup>TH</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a teleconference on 25<sup>th</sup> November 2020**

*"This meeting, originally scheduled as a physical meeting, was converted into a teleconference to avoid traveling to EFSA in line with the measures established to reduce the risk of coronavirus infection."*

**(Agreed on 1<sup>st</sup> December 2020)**

#### Participants

- Working Group Members:  
Josef Schlatter  
Emanuela Testai
- Hearing Experts<sup>1</sup>:  
Not Applicable
- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:  
SCER Unit: Jean Lou Dorne (Secretariat and Chair)

#### 1. Welcome and apologies for absence

<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

The Chair welcomed the participants.

## **2. Adoption of agenda**

The agenda was adopted without changes.

## **3. Declarations of Interest of Working Groups members**

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## **4. Scientific topics for discussion (EFSA-Q-2019-00517)**

The members of the working group discussed the comments and proposals for change from the last working group meeting of the 13<sup>th</sup> November. Further minor editorials were proposed for Chapter 3 and Chapter 4. It was agreed to address the remaining comments at the next working group meeting with the whole working group (9<sup>th</sup> December 2020) prior to submission to the Scientific Committee for the next Plenary (17<sup>th</sup>-18<sup>th</sup> February 2021).

## **5. Next meeting(s)**

The next meeting with a drafting WG will take place on the 9<sup>th</sup> December 2020.

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 11<sup>TH</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a teleconference on 13<sup>th</sup> November 2020**

*"This meeting, originally scheduled as a physical meeting, was converted into a teleconference to avoid traveling to EFSA in line with the measures established to reduce the risk of coronavirus infection."*

**(Agreed on 24<sup>th</sup> November 2020)**

#### Participants

- Working Group Members:  
Christer Hogstrand  
Antonio Hernandez-Jerez  
Suzanne Hougaard Bennekou  
Kyriaki Machera
- Hearing Experts<sup>1</sup>:  
Not Applicable
- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:  
SCER Unit: Jean Lou Dorne (Secretariat and Chair)  
DATA Unit: Bruno Dujardin

<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

## **1. Welcome and apologies for absence**

The Chair welcomed the participants.

## **2. Adoption of agenda**

The agenda was adopted without changes.

## **3. Declarations of Interest of Working Groups members**

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## **4. Scientific topics for discussion (EFSA-Q-2019-00517)**

The working group discussed the comments received from the Scientific Committee (SC) at the Plenary of the 12<sup>th</sup> November 2020. It was agreed to address the focus on the comments on chapter 4 dealing with prioritisation methods (exposure-driven and risk-based prioritisation methods). Further amendments were proposed to clarify the text in this chapter. The working group discussed the need for further refinements of the document prior to its submission to the next meetings (25<sup>th</sup> November and 9<sup>th</sup> December 2020) and for the next Scientific Committee Plenary (17<sup>th</sup>-18<sup>th</sup> February 2021).

## **5. Next meeting(s)**

The next meeting with a drafting WG will take place on the 25<sup>th</sup> November 2020.

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 10<sup>TH</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a teleconference on 6<sup>th</sup> and 7<sup>th</sup> October 2020**

*"This meeting, originally scheduled as a physical meeting, was converted into a teleconference to avoid traveling to EFSA in line with the measures established to reduce the risk of coronavirus infection."*

**(Agreed on 19<sup>th</sup> October 2020)**

#### Participants

- Working Group Members:
  - Christer Hogstrand (Chair)
  - Emilio Benfenati
  - Amélie Crépet
  - Antonio Hernandez-Jerez
  - Suzanne Hougaard Bennekou
  - Kyriaki Machera
  - Jan Dirk te Biesebeek
  - Emanuela Testai
  - Josef Schlatter
- Hearing Experts<sup>1</sup>:
  - Not Applicable

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:  
SCER Unit: Jean Lou Dorne (Secretariat)  
DATA Unit: Bruno Dujardin  
FEEDAP Unit: Paola Manini

## 1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies for absence were sent by Emanuela Testai for the 6<sup>th</sup> and 7<sup>th</sup> October 2020 and Josef Schlatter and Suzanne Hougaard Bennekou for the 7<sup>th</sup> October 2020.

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## 4. Scientific topics for discussion (EFSA-Q-2019-00517)

The working group discussed the comments received from the Scientific Committee at the Plenary of the 17<sup>th</sup> September 2020. It was agreed to reduce the section on problem formulation and contextualise the prioritisation methods. The discussion then mostly focused on chapter 4 on prioritisation methods (exposure-driven and risk-based prioritisation methods) with proposals to modify the figure. Further amendments were also proposed to clarify the text for this chapter and introduce another case study in the annex for the use of combined risk metrics. The working group discussed the need for further refinements of the document prior to its submission to the Scientific Committee (SC) (30<sup>st</sup> October 2020) for the next plenary (11<sup>th</sup>-12<sup>th</sup> November 2020).

## 5. Next meeting(s)

The next meeting with a drafting WG will take place on the 13<sup>th</sup> November 2020.

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)





SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 9<sup>TH</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a teleconference on 27<sup>th</sup> July 2020**

*"This meeting, originally scheduled as a physical meeting, was converted into a teleconference to avoid traveling to EFSA in line with the measures established to reduce the risk of coronavirus infection."*

**(Agreed on 14<sup>th</sup> August 2020)**

#### Participants

- Working Group Members:  
Christer Hogstrand (Chair)  
Emilio Benfenati  
Amélie Crépet  
Antonio Hernandez-Jerez  
Suzanne Hougaard Bennekou  
Kyriaki Machera  
Jan Dirk te Biesebeek  
Emanuela Testai  
Josef Schlatter
- Hearing Experts<sup>1</sup>:  
Not Applicable

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:  
SCER Unit: Jean Lou Dorne (Secretariat)  
DATA Unit: Bruno Dujardin  
PRES Unit: Luc Mohimont  
FEEDAP Unit: Paola Manini

## **1. Welcome and apologies for absence**

The Chair welcomed the participants. Apologies for absence were sent by Diane Benford.

## **2. Adoption of agenda**

The agenda was adopted without changes.

## **3. Declarations of Interest of Working Groups members**

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## **4. Scientific topics for discussion (EFSA-Q-2019-00517)**

The working group discussed the document chapter by chapter starting with chapter 1 (introduction) and chapter 2 (general principles: problem formulation and grouping) for which all comments were addressed. The discussion followed with chapter 3 on hazard driven criteria and chapter 4 on prioritisation methods (exposure-driven and risk-based prioritisation methods). Further amendments were proposed to clarify the text for both chapters. The working group discussed the need for further refinements of the document prior to its submission to the Scientific Committee (SC) (1<sup>st</sup> September 2020) for a first read at the next plenary (16<sup>th</sup> -17<sup>th</sup> September 2020).

## **5. Next meeting(s)**

The next meeting of the WG will take place as a conference call on the 6<sup>th</sup>-7<sup>th</sup> October 2020.

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 8<sup>TH</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a teleconference on 30<sup>th</sup> June 2020**

*"This meeting, originally scheduled as a physical meeting, was converted into a teleconference to avoid traveling to EFSA in line with the measures established to reduce the risk of coronavirus infection."*

**(Agreed on 10<sup>th</sup> July 2020)**

#### Participants

- Working Group Members:
  - Christer Hogstrand (Chair)
  - Emilio Benfenati
  - Amélie Crépet
  - Antonio Hernandez-Jerez
  - Suzanne Hougaard Bennekou
  - Kyriaki Machera
  - Jan Dirk te Biesebeek
  - Emanuela Testai
  - Josef Schlatter
- Hearing Experts<sup>1</sup>:
  - Not Applicable

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:  
SCER Unit: Jean Lou Dorne (Secretariat)  
DATA Unit: Bruno Dujardin  
PRES Unit: Luc Mohimont  
FEEDAP Unit: Paola Manini

## 1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies for absence were sent by Diane Benford.

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## 4. Scientific topics for discussion (EFSA-Q-2019-00517)

The working group first discussed examples in the annex illustrating the use of exposure-driven and risk-based prioritisation methods for pesticides and for the monitoring of biological media (i.e. human milk). It was proposed to provide a table summarising the outcome of the exercise for each example using a modified form of the table from the MIXTOX guidance document. The text of the document regarding the prioritisation tools was then discussed together with the general scheme with some comments. Further amendments were proposed to clarify the figure particularly to provide a clear link with the outcome of the grouping of chemicals using hazard-driven criteria. The working group then discussed comments on the introduction, background, problem formulation section and hazard-driven criteria with some comments. It was proposed to produce a clean document for the next meeting after considering all comments from the working group members.

## 5. Next meeting(s)

The next meeting of the WG will take place as a conference call on the 27<sup>th</sup> July 2020.

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 7<sup>TH</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a teleconference on 14<sup>th</sup> May 2020**

*"This meeting, originally scheduled as a physical meeting, was converted into a teleconference to avoid traveling to EFSA in line with the measures established to reduce the risk of coronavirus infection."*

**(Agreed on 29<sup>th</sup> May 2020)**

#### Participants

- Working Group Members:
  - Christer Hogstrand
  - Emilio Benfenati
  - Amélie Crépet
  - Diane Benford
  - Antonio Hernandez-Jerez
  - Suzanne Hougaard Bennekou
  - Kyriaki Machera
  - Jan Dirk te Biesebeek
  - Emanuela Testai
  - Josef Schlatter
- Hearing Experts<sup>1</sup>:
  - Not Applicable

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:  
SCER Unit: Jean Lou Dorne (Secretariat and Chair)  
DATA Unit: Bruno Dujardin  
PRES Unit: Luc Mohimont  
FEEDAP Unit: Paola Manini

## 1. Welcome and apologies for absence

The Chair welcomed the participants.

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## 4. Scientific topics for discussion (EFSA-Q-2019-00517)

The working group first discussed the figure on prioritisation tools (exposure-driven and risk-based criteria) and further amendments were proposed to clarify the figure. The working group proposed to also finalise the text in the document to describe the figure for the next meeting. The working group then discussed comments on the introduction, background and problem formulation section with some comments. A discussion on the chapter on hazard-driven criteria followed and all figures were agreed including the modified figure on AOP networks and the general framework. The Working group then discussed the weight of evidence approach and the summary table to be finalised and agreed to produce an excel spreadsheet to support users for practical applications. The short section on the use of toxicokinetic data for grouping was discussed and common metabolites were agreed as a potential option for grouping in some specific contexts including contaminants. The use of the hazard index approach using risk-based criteria to prioritise the grouping of pesticides into assessment groups was briefly discussed as a practical example to be finalised for the next meeting.

## 5. Next meeting(s)

The next meeting of the WG will take place as a conference call on the 30<sup>th</sup> June 2020.

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 6<sup>TH</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a teleconference on 23<sup>rd</sup>-24<sup>th</sup> April 2020**

*"This meeting, originally scheduled as a physical meeting, was converted into a teleconference to avoid traveling to EFSA in line with the measures established to reduce the risk of coronavirus infection."*

**(Agreed on 8<sup>th</sup> May 2020)**

#### Participants

- Working Group Members:
  - Christer Hogstrand (Chair)
  - Emilio Benfenati
  - Amélie Crépet
  - Diane Benford
  - Antonio Hernandez-Jerez
  - Suzanne Hougaard Bennekou
  - Kyriaki Machera
  - Jan Dirk te Biesebeek
  - Emanuela Testai
  - Josef Schlatter
- Hearing Experts<sup>1</sup>:
  - Not Applicable

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:  
SCER Unit: Jean Lou Dorne (Secretariat)  
DATA Unit: Bruno Dujardin  
PRES Unit: Luc Mohimont  
FEEDAP Unit: Paola Manini

## 1. Welcome and apologies for absence

The Chair welcomed the participants.

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## 4. Scientific topics for discussion (EFSA-Q-2019-00517)

The working group discussed individual schemes proposed for the draft document on grouping chemicals into assessment groups when applying component-based approaches. The working group first discussed the updated figure for problem formulation providing a general framework for the document. The Working group then discussed the figures related to the hazard-driven criteria including figures depicting 1. the difference between mode of action and adverse outcome pathway (AOP), 2. AOP networks, 3. The general framework for the hazard-driven criteria. All figures were agreed amongst the working group members. The Working group then discussed the proposed figure on prioritisation tools (exposure-driven and risk-based criteria) and amendments were proposed to clarify the figure. Finally, figures dealing with the use of toxicokinetic data and information on interactions were also discussed and the working group concluded that this information would be replaced by text in the opinion. Proposals to introduce practical examples in the document were also briefly discussed.

## 5. Next meeting(s)

The next meeting of the WG will take place as a conference call on the 14<sup>th</sup> May 2020.

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)





SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 5<sup>TH</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a teleconference on 9<sup>th</sup> March 2020**

**(Agreed on 16<sup>th</sup> March 2020)**

#### Participants

- Working Group Members:  
Christer Hogstrand (Chair)  
Emilio Benfenati  
Amélie Crépet  
Antonio Hernandez-Jerez  
Suzanne Hougaard Bennekou  
Kyriaki Machera  
Jan Dirk te Biesebeek  
Emanuela Testai  
Josef Schlatter
- Hearing Experts<sup>1</sup>:  
Not Applicable
- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

SCER Unit: Jean Lou Dorne (Secretariat)

DATA Unit: Bruno Dujardin

PRES Unit: Luc Mohimont

## **1. Welcome and apologies for absence**

The Chair welcomed the participants. Apologies for absence were sent by Diane Benford.

## **2. Adoption of agenda**

The agenda was adopted without changes.

## **3. Declarations of Interest of Working Groups members**

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## **4. Scientific topics for discussion (EFSA-Q-2019-00517)**

The working group discussed individual contributions to the draft document throughout the meeting. The working group first discussed the updated problem formulation section in the context of grouping chemicals into assessment groups when applying component-based approaches as well as regulatory and science -based criteria (hazard-driven criteria and prioritisation methods including exposure-driven and risk-based criteria). In addition, the general introductory scheme for the problem formulation section was discussed in relation to applying such criteria and proposals for further refinements were formulated. A discussion followed on the general approach for grouping chemicals into assessment groups using hazard-driven criteria in relation to mode of action, adverse outcome pathways, phenomenological effects and systemic toxicity data particularly while applying weight of evidence approaches. Proposals to introduce practical examples in the document were also discussed.

## **5. Next meeting(s)**

The next meeting of the WG will take place as a physical meeting or conference call on the 23<sup>rd</sup> and 24<sup>th</sup> April 2020.

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 4<sup>TH</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held in Parma on 6-7 February 2020**

**(Agreed on 18<sup>th</sup> February 2020)**

#### Participants

- Working Group Members:  
Christer Hogstrand (Chair)  
Emilio Benfenati  
Diane Benford (by Teleconference)  
Amélie Crépet  
Antonio Hernandez-Jerez  
Suzanne Hougaard Bennekou  
Kyriaki Machera  
Jan Dirk te Biesebeek  
Josef Schlatter
- Hearing Experts<sup>1</sup>:  
Not Applicable
- European Commission and/or Member States representatives:  
Not Applicable
- EFSA:

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<sup>1</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

SCER Unit: Jean Lou Dorne (Secretariat)

DATA Unit: Bruno Dujardin

PRES Unit: Luc Mohimont

FEEDAP Unit: Paola Manini

## **1. Welcome and apologies for absence**

The Chair welcomed the participants. Apologies for absence were sent by Emanuela Testai.

## **2. Adoption of agenda**

The agenda was adopted without changes.

## **3. Declarations of Interest of Working Groups members**

In accordance with EFSA's Policy on Independence<sup>2</sup> and the Decision of the Executive Director on Competing Interest Management<sup>3</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## **4. Scientific topics for discussion (EFSA-Q-2019-00517)**

The working group discussed, throughout the meeting, individual contributions to the draft scientific opinion. During the first day (6<sup>th</sup> February), the working group discussed the interpretation of the terms of reference for the grouping of chemicals into assessment groups when applying component-based approaches. Hazard-driven criteria were then discussed in relation to weight of evidence approaches for grouping and available hazard data ranging from systemic toxicity, to target organ toxicity to mode of action and adverse outcome pathways. Particular emphasis was given to the consideration of mechanistic data for the grouping of chemicals when available. On the second day (7<sup>th</sup> February), the working group discussed approaches and potential practical frameworks to consider exposure-driven criteria and risk-based criteria as well as prioritisation tools.

## **5. Next meeting(s)**

The next meeting of the WG will take place as a conference call on the 9<sup>th</sup> March 2020.

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<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 3<sup>rd</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a Teleconference on 14<sup>th</sup> January 2020**

**(Agreed on 31<sup>st</sup> January 2020)<sup>1</sup>**

#### Participants

■ Working Group Members:<sup>2</sup>

Christer Hogstrand (Chair)

Emilio Benfenati

Amélie Crépet

Antonio Hernandez-Jerez

Suzanne Hougaard Bennekou

Kyriaki Machera

Jan Dirk te Biesebeek

Diane Benford

Joseph Schlatter

■ Hearing Experts<sup>3</sup>:

Not Applicable

■ European Commission and/or Member States representatives:

Not Applicable

■ EFSA:

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<sup>3</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

## **1. Welcome and apologies for absence**

The Chair welcomed the participants. Apologies for absence were sent by Emanuela Testai.

## **2. Adoption of agenda**

The agenda was adopted without changes.

## **3. Declarations of Interest of Working Groups members**

In accordance with EFSA's Policy on Independence<sup>4</sup> and the Decision of the Executive Director on Competing Interest Management<sup>5</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## **4. Scientific topics for discussion (EFSA-Q-2019-00517)**

Contributions for the draft scientific opinion on "Scientific criteria for grouping chemicals into assessment groups for human risk assessment of combined exposure to multiple chemicals" were presented by each member to the working group. This included interpretation of the terms of reference, problem formulation, exposure criteria, hazard criteria and use of the weight of evidence particularly for toxicological effects including mechanistic data.

## **5. Next meeting(s)**

The next meeting of the WG will take place on the 6<sup>th</sup>-7<sup>h</sup> February 2020 as a physical meeting.

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<sup>4</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>5</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 2<sup>nd</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held as a Teleconference on 18<sup>th</sup> November 2019**

**(Agreed on 5<sup>th</sup> December 2019)<sup>1</sup>**

#### Participants

- Working Group Members:<sup>2</sup>  
Christer Hogstrand (chair)  
Emilio Benfenati  
Amélie Crépet  
Antonio Hernandez-Jerez  
Suzanne Hougaard Bennekou  
Kyriaki Machera  
Jan Dirk te Biesebeek
- Hearing Experts<sup>3</sup>:  
Not Applicable
- European Commission and/or Member States representatives:  
Not Applicable  
Not Applicable
- EFSA:

<sup>1</sup> Minutes should be published within 15 working days of the final day of the relevant meeting.

<sup>2</sup> Indicate first full name and then surname (John Smith) all throughout the document.

<sup>3</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

SCER Unit : Jean Lou Dorne (Secretariat)

DATA Unit : Bruno Dujardin

## **1. Welcome and apologies for absence**

The Chair welcomed the participants. Apologies for absence were sent by Diane Benford and Joseph Schlatter.

## **2. Adoption of agenda**

The agenda was adopted without changes.

## **3. Declarations of Interest of Working Groups members**

In accordance with EFSA's Policy on Independence and the Decision of the Executive Director on Competing Interest Management, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## **4. Scientific topics for discussion (EFSA-Q-2019-00517)**

Contributions for the draft scientific opinion on "Scientific criteria for grouping chemicals into assessment groups for human risk assessment of combined exposure to multiple chemicals" were presented by each member to the working group. This included interpretation of the terms of reference, problem formulation, use of the weight of evidence in applying the scientific criteria, exposure criteria, hazard criteria and risk criteria for different applications (prioritisation, urgent assessment, risk assessment of multiple chemicals as regulated products or contaminants).

## **5. Next meeting(s)**

The next meeting of the WG will take place on the 14<sup>th</sup> January 2020 as a teleconference.





SCIENTIFIC COMMITTEE AND EMERGING RISKS UNIT

## SCIENTIFIC COMMITTEE

### MINUTES OF THE 1<sup>ST</sup> MEETING OF THE WORKING GROUP ON "SCIENTIFIC CRITERIA FOR GROUPING CHEMICALS INTO ASSESSMENT GROUPS FOR HUMAN HEALTH RISK ASSESSMENT OF COMBINED EXPOSURE TO MULTIPLE CHEMICALS"

**Held on 01-02 October 2019, Parma**

**(Agreed on 15 October 2019)<sup>1</sup>**

#### Participants

- Working Group Members:<sup>2</sup>
  - Christer Hogstrand (chair)
  - Emilio Benfenati
  - Diane Benford via teleconference
  - Amélie Crépet
  - Antonio Hernandez-Jerez
  - Suzanne Hougaard Bennekou
  - Kyriaki Machera
  - Jan Dirk te Biesebeek
  - Josef Schlatter via teleconference
- Hearing Experts<sup>3</sup>:
  - Not Applicable
- European Commission and/or Member States representatives:
  - Not Applicable

<sup>1</sup> Minutes should be published within 15 working days of the final day of the relevant meeting.

<sup>2</sup> Indicate first full name and then surname (John Smith) all throughout the document.

<sup>3</sup> As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work:  
<http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf>.

Not Applicable

■ EFSA:

SCER Unit : Jean Lou Dorne (Secretariat)

DATA Unit : Bruno Dujardin

CONTAM Unit : Hans Steinkellner (1 October)

## 1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies for absence were sent by Emanuela Testai.

## 2. Adoption of agenda

The agenda was adopted without changes.

## 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence and the Decision of the Executive Director on Competing Interest Management, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

## 4. Scientific topics for discussion (EFSA-Q-2019-00517)

Background to the previous MIXTOX working group of the scientific committee, lessons learnt and current terms of reference for the self-tasking mandate to produce a scientific opinion on "Scientific criteria for grouping chemicals into assessment groups for human risk assessment of combined exposure to multiple chemicals" was presented to the working group by the secretariat (Jean Lou Dorne). Self-tasking mandate proposed by the Scientific Committee.

A first draft of the scientific opinion was discussed with regards to scientific criteria for grouping chemicals in assessment groups for human risk assessment of combined exposure to multiple chemicals namely exposure criteria, hazard criteria and risk criteria for different applications (prioritisation, urgent assessment, risk assessment of multiple chemicals as regulated products or contaminants).

## 5. Next meeting(s)

The next meeting of the WG will be a teleconference on 18th November 2019.