

# WCRP out-of-the-box workshop

S. Seneviratne

## WCRP out-of-the-box workshop, 23-24. June 2016, Paris

Organizers: Mathias Tuma, Christian Jakob, Dave Carlson and Guy Brasseur

Invited participants:

Sandrine Bony

Guy Brasseur

David Carlson

Paul Dirmeyer

Paul O'Gorman

Ed Hawkins

Christian Jakob

Corinne LeQuere

Jochem Marotzke

Sophie Nowicki

Sarah Perkins-Kirkpatrick

Sonia Seneviratne

Bjorn Stevens

Matthias Tuma

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“[...]“ we are aiming to design two days of innovative, forward-looking, and science-focused brainstorming sessions. The goal is to identify key research directions for the community, potential surprises along the way as well as pathways to addressing key issues.”

“[...] we would like to ask each participant to prepare a short (anything from one paragraph to one page) written input, in which you outline your views on the future of our field. As you prepare this short document, you may wish to think about a few questions, which we propose to use as a starting point for our discussions. Those are

- 1) What will be the key issues in climate science over the next decade?
- 2) What potential surprises might we encounter as we pursue those?
- 3) How should those issues be tackled and how should the community organize itself to do so?

“

Held at ICSU offices:

**Address:** ICSU Secretariat, 5 rue Auguste Vacquerie, 75116 Paris, France, +33.1.45.25.03.29  
**Metro:** Charles de Gaulle Etoile (RER A, Line 1 / Kleber, Line 6)  
**Metro info:** [http://www.ratp.fr/en/ratp/c\\_5000/accueil/](http://www.ratp.fr/en/ratp/c_5000/accueil/)  
**Information on getting to ICSU and the Hotels:** <http://www.icsu.org/getting-to-icsu>  
**To enter the building:** The door code is 2480 (not to be otherwise disclosed).  
**Emergency contact:** +49 1577 1597819 (M. Tuma, private), [mtuma@wmo.int](mailto:mtuma@wmo.int), or ICSU as above

All theme blocks below are open discussion rounds.

	Thursday, 23 June	Friday, 24 June
	Arrival, setup from 8.30 – 9.00, start at 9.00	Start at 9.00
Block 1	Welcome ( <i>D. Carlson</i> ) Background ( <i>G. Brasseur</i> ) Workshop aims ( <i>C. Jakob</i> ) Introduction round ( <i>everyone</i> )	<b>Open Slot to elaborate on issues raised yesterday</b>
Block 2	<b>Theme 1: Climate science issues and surprises</b>	
	Coffee break with Group photo	Coffee break
Block 3	<b>Theme 1: (<i>continued</i>)</b>	<b>Theme 3: The community</b>
<b>12:30</b>	<b>Lunch</b> ( <i>details TBA</i> )	<b>Lunch</b> ( <i>details TBA</i> )
Block 4	<b>Theme 2: Pathways</b>	<b>Theme 3: (<i>continued</i>)</b>
	Coffee break	Coffee break
Block 5	<b>Theme 2: (<i>continued</i>)</b>	<b>Summary / Conclusions:</b> The group is invited to deliberate/decide on how to utilize and take forward the workshop outcomes
	<i>End of Day 1</i> ( <i>Around 18:00</i> )	<i>Conclusion of Workshop</i> ( <i>Around 17:00</i> )
19.30	No-host Dinner (details TBA)	

# WCRP out-of the box workshop

Varied choice of topic: Research topics, science management (travel, etc), Funding, ...

Final outcome: Nat CC commentary with proposed 3 questions (taken up in document outlining possible WCRP future directions):

- Where does the carbon go?
- How does weather change with climate?
- How does climate influence habitability?

COMMENTARY:

# Climate research must sharpen its view

Jochem Marotzke, Christian Jakob, Sandrine Bony, Paul A. Dirmeyer, Paul A. O’Gorman, Ed Hawkins, Sarah Perkins-Kirkpatrick, Corinne Le Quéré, Sophie Nowicki, Katsia Paulavets, Sonia I. Seneviratne, Bjorn Stevens and Matthias Tuma

Human activity is changing Earth’s climate. Now that this has been acknowledged and accepted in international negotiations, climate research needs to define its next frontiers.

(Nature Climate Change, 2017)

## WCRP context: Review and new cycle

NB: The workshop was presented as simple brainstorming session. It was not assumed that the results would be taken as are to redefine the WCRP mission.

However, with timing of new WCRP review, proposal (“WCRP ahead”) from Dave Carlson & Guy Brasseur strongly builds upon paper

WCRP Ahead document  
(outline: core projects  
and grand challenges  
invited to comment)

### *Three key questions*

WCRP identifies three primary questions that confront science and society:

Where will the carbon go?

How will weather vary with climate?

How will climate change impact the habitability of our planet and its regions?

These deceptively-simple questions demonstrate WCRP’s role in defining key topics confronting the research community and in anticipating emerging needs of society. (The Global Environmental Research Committee of the UK Royal Society identified a convergent set of priorities for future UK research.) Each plan and priority presented in detail below contributes to this overall framework.

## 3 Questions, WCRP Ahead

- Implications for GEWEX?
- Some reframing of panels and GEWEX science questions?
- Impacts on Grand Challenges?