



Introduction

- Where are we ?
- Structure and objectives of workshop
- Logistics

This workshop is funded by WCRP and Université Paris-Saclay.

Thank you to Shannon Macken from IGPO for her help.



Where are we ... physically ?

- The domain was established in the 15th century by the lords of Gif.
- The castle was built in 1754 by Claude Merault, lieutenant to Louis XV.
- In 1946 Frédéric Joliot-Curie bought the domain for the CNRS from Jacques Noetzlin.
- Both were students of Jean Perrin !
- The campus of the CNRS is now part of the Université de Paris-Saclay.
- Université Paris-Saclay gathers 2 universities, 10 “grandes écoles” and 7 research institutions.
- 9000 scientists, 65000 students, 6000 PhD students.



Where are we ... scientifically ?

- 17 years ago, in this room, GLASS was founded.

At that time land-surface modelling was simpler :

- LSMs were starting to be able to run off-line and coupled independently.
- LSMs started to include the carbon cycle and dynamical vegetation.
- Taikan Oki was claiming that soon LSMs would either be coupled to Global hydrological Models (GHM) or integrate the routing.



A few achievements since 1999

- LSMs have matured !
- Off-line and coupled inter-comparisons are standard.
- Some human actions were included :
 - Driven by carbon-cycle needs land use changes are imposed on the models.
 - Forest and crop management are now included.
- The role of land surfaces in climate are better understood :
 - Semi-arid regions are hot-spots for surface atmosphere interactions.
 - Land-surface gradients are driving atmospheric processes.



The water cycle is still largely natural in LSMs

- Can we quantify the current human footprint on the water cycle and its impact on climate ?
 - Is this water usage sustainable in a changing climate and water cycle ?
 - Why or how far, do climate analysis and predictions need to consider human processes ?
 - What is needed to ensure the WCRP/GEWEX community makes progress on these issues ?
 - How do we ensure that we integrate human activities in our analysis and models ?
 - What strategies can we recommend to the community ?
- **These are our objectives for the next 3 days !**



The agenda

- The agenda divides the topic in 3 parts :
 - 1) Observations of human intervention on the water cycle (Wednesday).
 - 2) Modelling human processes (Thursday).
 - 3) Potential feedbacks of human interventions on the water cycle (Friday).
- Some last minute changes :
 - Min-Hui Lo needs to switch to Thursday ... volunteers to present today ?
 - Jay Famiglietti's slides will be presented by Hyungjun Kim?



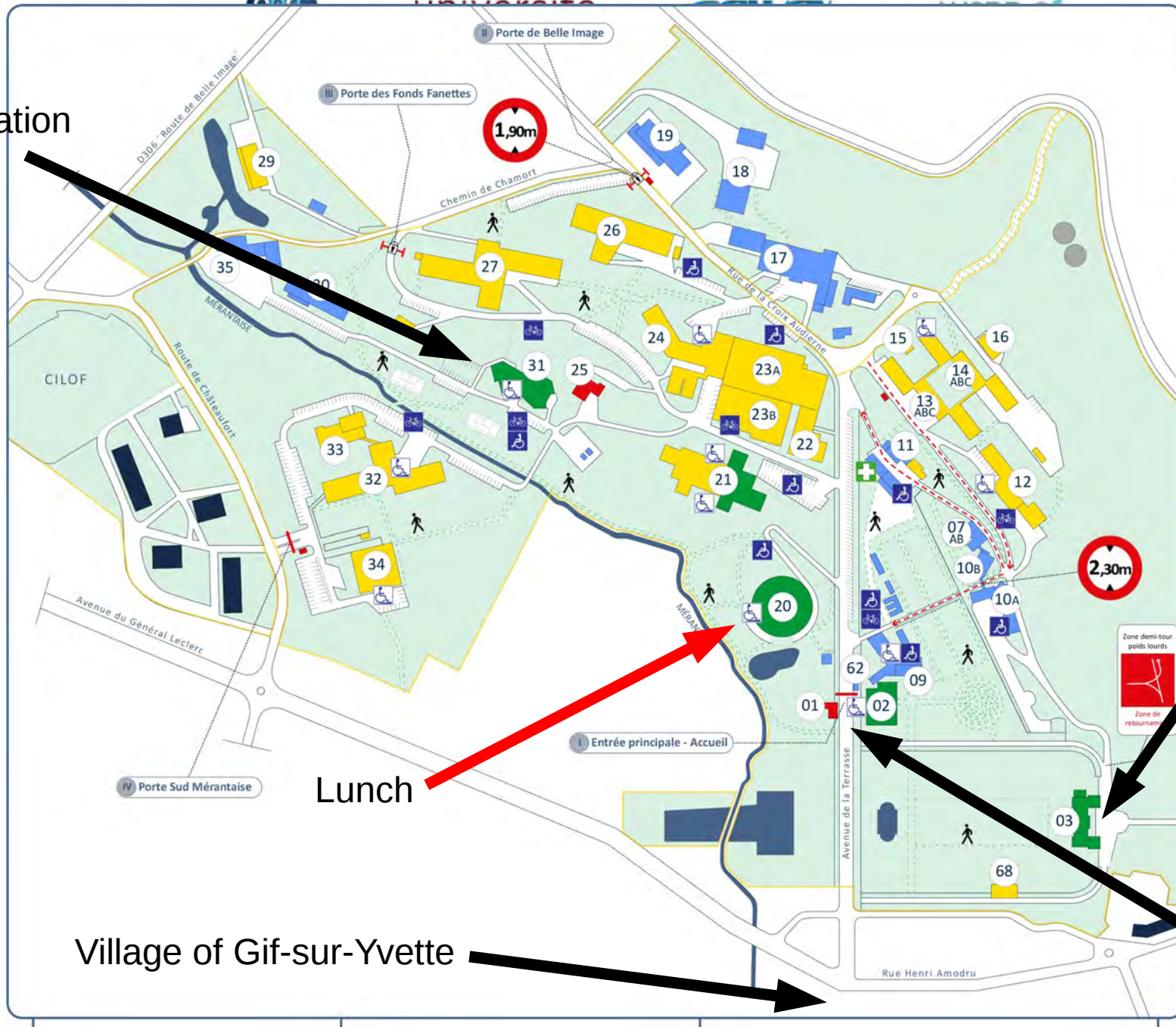
The discussions

- Each day ends with a discussion time. They are structured as follows :
 - *Observing and quantifying the impact of human activities on the water cycle. (Martina Flörke & Taikan Oki)*
 - *Modelling the human impact on the water cycle (Pere Quintana & Aaron Boone).*
 - *Planning of a joint cross-cut activity on the impact of water management on the continental water cycle (Richard Harding & Jan Polcher).*

Including Water Management in Large Scale Models

Gif-sur-Yvette, France | 28-30 September 2016

Accommodation
on campus



We are
here

Lunch

Village of Gif-sur-Yvette

Entrance



Lunch

- Lunch will be between 13:00 and 14:30 to be at the canteen after the rush.
- You can also go to the village for a sandwich or to a bistro.
- The lunch at the canteen costs between 10€ and 12€.
- Only cash is accepted when you pay for the lunch you have chosen.



Dinner

- Nothing is planned.
- We have a list of restaurants in Gif-sur-Yvette
- You may also take the RER to Paris : Place Denfert Rochereau or Les Halles.