THE PARIS-SACLAY INITIATIVE:

A SHARED AMBITION

1. fight fragmentation of research and higher education

2. bridge the innovation deficit

3. build an international showcase associating Campus life with research, education, and socio-economic impact at highest international level

→ Paris-Saclay University
Paris-Saclay Initiative: partner institutions

A strong center for research and higher education developing since the early 50es, with many major French players ...

... attracting new top players after 2010 French Government decision

By 2018, 22 prestigious partner institutions will be based in Paris-Saclay perimeter:

- 2 universities *(including top French university in Shangaï ranking: Paris-Sud)*
- 1 Ecole Normale Supérieure *(training higher education professors and researchers)*
- 10 Grandes Ecoles *(engineering and business, among the top ranked in France)*
- 6 National Research organizations and Research Institutes
- A world level *competitiveness cluster*: Systematic *(on IST)*
- A large scale *synchrotron facility*: SOLEIL
- A joint institution as leader: the scientific cooperation foundation: FCS Campus Paris-Saclay
Academic Buildings and infrastructures in the Saclay area

- **Doseo**
  - 2014

- **Neuro Sciences**
  - 2017

- **ENS Cachan**
  - Start of construction 2015

- **EDF Campus and R&D**
  - 2015

- **Mines-Telecom ParisTech**
  - 2018

- **Digiteo2**
  - 2015

- **Cilex**
  - 2015

- **I2BC**
  - 2017

- **Ecole Centrale Paris**
  - 2017

- **Institut des Sciences Moléculaires**
  - CPMR
  - 2015-2018

- **C2N**
  - 2017

- **ENSAE ParisTech**
  - 2016

- **Institut des Sciences Moléculaires**
  - 2015

- **CPMR**
  - 2017-2018

- **Doseo**
  - 2014

- **EPPS**
  - Sept. 2013

- **Cilex**
  - 2015

- **Ecole Centrale Paris**
  - 2017

- **Institut des Sciences Moléculaires**
  - CPMR
  - 2015-2018

- **C2N**
  - 2017

- **ENSAE ParisTech**
  - 2016

- **Laboratoires Polytechnique**
  - 2015

- **On-going projects**

- **Existing buildings**

- **Grand Paris subway**
- **RER B**
- **Bus**
Paris-Saclay Cluster key success factor: fast transport to Paris and Orly airport

- **by 2015**: high flow buses from Versailles to Massy/RER-TGV

- **by 2023**: light automatic train connection from Saclay to Massy RER/TGV
  - < 10mn Saclay to Massy
  - < 30mn cross campus

- **by 2030**: light automatic train from Versailles to Orly and then Roissy
  - < 10 mn Versailles to Saclay
  - 30 mn Saclay to Paris

Several B€ of State funding
What Paris-Saclay is doing to encourage interdisciplinarity

In training:

- broader masters, interdisciplinary masters, fellowships for foreign students
- 30 Ph.D. fellowships per year for interdisciplinary work
- Interdisciplinary doctoral school
- *Upcoming*: interdisciplinary summer schools

In research:

- seed funding for interdisciplinary collaborations
- networking of projects across at least 2 disciplines
- inter-department coordination of emerging themes
The twelve IDEX projects (2013-2014)

- Digital Society Institute
- Physics and Engineering in Medicine
- NeuroSaclay Institute
- PS Inst. for control and decision
- Interactions Science Innov. Society
- Integrative Genome Biology
- Plant Phenotyping Pipeline
- Optical pulses for ultrafast science
- Food-Health Project
- Nano Design Platform
- Modeling of Living Systems

PS Center for Data Science

- Chem
- IST
- Life
- Soc Sc
- Phys
- Math
At least two different motivations behind CDS:

- Response to the data deluge and data challenge, in all different disciplines (this conference, Paris-Saclay project as a whole)
  - Biology, bioinformatics
  - Health sciences
  - Modelling
  - Post-processing and visualization tools
  - Planetary science
  - Cosmology
  - Search
  - Marketing, engineering sciences
  - Music information retrieval
  - particle physics,…

- Need to bring a Paris-Saclay global and coherent approach (efficiency, attractivity)
« Big Data » and « Data science »:
an exemple of a major asset that needs a global and coherent approach:

✓ In the Paris-Saclay perimeter:
  • 2 Equipex : CASD, Digiscope
  • 2 Labex : ECODEC, DigiCosme
  • 2 Lidex : Data Science et ISN
  • 1 IRT : SystemX
  • Many initiatives by Paris-Saclay members (chairs)
  • A center to promote the efficient use of HPC : Maison de la simulation
  • Two unique national supercomputing centers : Idris, CEA
✓ A new and ambitious master offer

Key issues:
- Which common approach, which strategy and goals (research, teaching technological transfer)
- Global coherence and optimisation of the local plan
- Which future plan
- Which infrastructures and which evolution (DataCenter, HPC, Visualization etc.)
Thank you for your attention

Hope you'll enjoy the meeting

Good luck and long life to CDS