

September 28<sup>th</sup>, 29<sup>th</sup> and 30<sup>th</sup> 2016

IFOCAP  
6 rue de la Rochefoucauld  
75009 Paris



Day 1 – Wednesday, September 28<sup>th</sup>

### Introduction

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- 14:00 – 14:20 Introductory speech – *Minister of State for Higher Education and Research*  
14:20 – 14:50 GIS BV 2011 - 2016 Activity report – *GIS BV Managing board*

### Highlights and next challenges for the current PIA1 (Plan d'Investissements d'Avenir, Stimulus Initiative) projects (Biotechnology & bio-resources, Infrastructures)

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- 14:50 – 15:00 Introduction – *GIS BV Managing board*  
15:00 – 15:15 AKER – *V. Laudinat (ITB)*  
15:15 – 15:30 AMAIZING – *A. Charcosset (INRA) / P. Flament (Limagrain)*  
15:30 – 15:45 BIOMASS FOR THE FUTURE – *H. Höfte (INRA)*  
15:45 – 16:00 BREEDWHEAT – *B. Béjar (Céréales Vallée) / J. Le Gouis (INRA)*  
16:00 – 16:15 GENIUS – *W. Paul (Biogemma) / P. Rogowsky (INRA)*
- 16:15 – 16:30 Break
- 16:30 – 16:45 PeaMUST – *M-L. Pilet-Nayel (INRA) / N. Rivière (Limagrain)*  
16:45 – 17:00 PHENOME – *D. Gouache (Terres Inovia) / F. Tardieu (INRA)*  
17:00 – 17:15 RAPSODYN – *J-E. Dheu (Limagrain) / N. Nesi (INRA)*  
17:15 – 17:30 SUNRISE – *N. Langlade (INRA) / D. Lespinasse (Syngenta)*
- 17:30 – 18:10 General discussion
- 18:10 – 18:30 Conclusions of the first day – *Minister of Agriculture, Agrifood and Forestry*

### Dinner (On invitation)

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- 19:30 Dinner (project coordinators, Scientific Advisory Board, GIS BV Managing Board, president and vice-president of the Governing council, president of Génoplante-Valor)



Day 2 – Thursday, September 29<sup>th</sup>

## Main results from the PIA1 and other GIS BV labelled projects

### Practical information: 20' presentation + 10' discussion OR 7' presentation + 7' discussion

#### 🌱 Understanding plant genome organisation

09:00 – 09:30 BREEDWHEAT – *E. Paux* – Combining sequencing and genotyping for efficient genetic and genomic studies in wheat

09:30 – 10:00 SUNRISE – *S. Muños* – *De novo* sequencing of the sunflower genome

#### 🌱 Impact of recombination on genome structure and consequences for breeding

10:00 – 10:30 AMAIZING – *M. Falque* – Meiotic recombination in maize: diversity and use to infer genome structure

10:30 – 10:45 CROC – *E. Jenczewski* – Recombination-mediated homoeologous exchanges drive extensive dosage dependent changes in gene expression in *Brassica napus*

10:45 – 11:15 Break

#### 🌱 Phenotyping tools and strategies for breeding

11:15 – 11:45 PHENOME – *F. Tardieu* – Phenome, a project to phenotype plant-environment interactions

11:45 – 12:00 BIOMASS FOR THE FUTURE – *M. Reymond* – Assessing phenotypes for biomass related traits

12:00 – 12:15 RAPSODYN – *A. Laperche* – New tools and technologies for Nitrogen status and senescence evaluation in oilseed rape

#### 🌱 Unravelling and harnessing natural genetic variability

12:15 – 12:30 AMAIZING – *M. Tenaillon* – European history of cultivated maize

12:30 – 12:45 AKER – *A-F Adam-Blondon* – Sugar beet genetic resources for new breeding strategies

#### 🌱 Developing and assessing Genomic Selection for crops

12:45 – 13:15 BREEDWHEAT – *G. Charmet* – Genomic selection in annual crop plants: from theory to application

13:15 – 13:30 PeaMUST – *J. Burstin* – Genomic selection in pea

13:30 – 14:45 Lunch

#### 🌱 New breeding techniques: genome editing in crops

14:45 – 15:15 GENIUS – *C. Perin* – CRISPR/Cas9 for genome editing in rice: progress and opportunities

#### 🌱 Towards new biomass-based products

15:15 – 15:45 BIOMASS FOR THE FUTURE – *H. Höfte* – Plant breeding for the benefit of the bioeconomy

#### 🌱 Control of pathogens and pests to reduce pesticides

15:45 – 16:00 PeaMUST – *C. Lavaud / M-L. Pilet-Nayel* – QTLs combinations for Marker-Assisted-Selection of *Aphanomyces* root rot resistance in pea

16:00 – 16:15 GENIUS – *B. Danilo* – CRISPR-Cas9/TALEN-mediated targeted gene modifications in tomato for the development of virus resistance

16:15 – 16:30 COBRA – *V. Decroocq* – A combination of systems biology and experimental high-throughput approaches to engineer durable resistance against plant viruses in crops

16:30 – 16:45 ABCPaPoGen – *L. Kaiser-Arnauld*) – Adaptation in biological control – parasitoid population genomics

16:45 – 17:15 Break

### 🌱 Reducing fertilisers and enhancing abiotic stress tolerance

- 17:15 – 17:30 BREEDWHEAT – *S. Lafarge* – Analysis of wheat genetic diversity for a better nitrogen use efficiency in the frame of sustainable agricultural systems
- 17:30 – 18:00 RAPSODYN – *A. Bouchereau* – N stress tolerance may largely rely on N remobilization efficiency in oilseed rape
- 18:00 – 18:15 SUNRISE – *P. Casadebaig* – Using modeling and simulation to unravel abiotic stress combinations during crop growth

### General assembly of GIS BV members (Restricted to GIS BV members' representatives)

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- 18:35 – 19:50 General assembly of GIS BV members
- 19:50 – 20:30 Cocktail



Day 3 – Friday, September 30<sup>th</sup>

### 🌱 Big data: how to handle and exploit them more efficiently for breeding purposes?

- 09:00 – 09:30 *A-F. Adam-Blondon* – Bioinformatics in PIA1 Biotechnology & Bio-resources projects
- 09:30 – 09:45 PHENOME – *P. Neveu* – PHIS : an Information System for High Throughput Phenotyping

### 🌱 Feedback of economic studies in PIA1 projects

- 09:45 – 10:15 *S. Lemarié* – Economic impacts of new breeding strategies

### Round table – From PIA1 to PIA3: feedback and perspectives

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- 10:15 – 10:30 Introduction: summary of major PIA 1 results and key challenges for the future – *GIS BV Managing board*
- 10:30 – 12:15 Short presentations of key challenges and ways to address them via the PIA3. Global discussion

### Conclusion

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- 12:15 – 12:30 Feedback from the Scientific Advisory Board
- 12:30 – 12:45 Conclusion and end of the meeting

### Meeting (On invitation)

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- 14:00 – 15:30 Meeting of the Scientific Advisory Board
- 15:30 – 17:30 Meeting (Scientific Advisory Board, GIS BV Managing Board, president and vice-president of the Governing council)

## Access

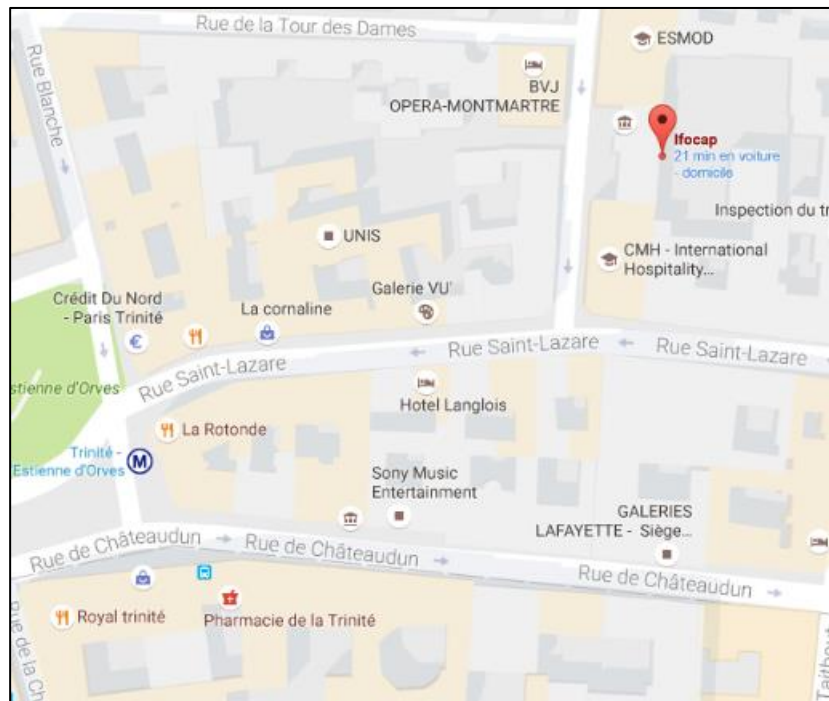
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6 rue de la Rochefoucauld  
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Ligne 12 Mairie d'Issy/Front-populaire  
Arrêt : Trinité d'Estienne d'Orves



Lignes 26, 32, 43  
Arrêt : Trinité



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