

Third Academic Forum Chile France

Workshop 3 SMART-AGRO

28-30 september 2021

General context

- Is the first time SMART-AGRO actively participates in Chile France Academic Forum with a devoted workshop
- GENERAL CHALLENGES OF AGRICULTURE:
 - Agriculture is one of the main concerns of climate change, both as it is affected by CC and as it affects CC
 - Have to feed an increasingly populated world
 - Fulfilling consumer demands: environmentally friendly production, healthy food for healthy diets for a healthier society
 - Limited important resources- irrigation water availability: scarcity, quality and not evenly distributed in time.
 - Agriculture is more and more complex (difficult to decide !)
- SMART-AGRO IS AN IMPORTANT TOOL TO FACE ALL THESE CHALLENGES
- WORKSHOP OBJECTIVE:
 - Depict the picture of SMART-AGRO research in Chile and France

Main issues

- **Chile:** Climate change is negatively impacting central Chile (mediterranean climate)
 - How to predict new climate scenarios?
 - How to monitoring and manage data to take good decisions?
 - What new technologies are necessary ?

 - Smart technologies: precision agriculture, data science, robotics, biotechnology and breeding
 - *Transfer and training (adapting university programs and careers)*

- **France:** Social and environmental issues and energy
 - European strategy - Green deal
 - Sustainable use of pesticides
 - Local production supply (water and carbon footprint)
 - Soil in the centre of agriculture (giving life back to the soils)
 - Energy and agriculture

Knowledge and skills

- Chile: 6 speakers (universities, research institute)
- France: 5 speakers (university, research institute, joint technological unit, spin-off)

- 35 people attended the workshop

- **Chile:** Climate change
 - Data science and sensoring: Territorial and local levels
 - Mathematical modelling: Satellites and local sensors
 - Biotechnology: Biological control agents
 - Smart irrigation – remote sensing – Territory to plot

Knowledge and skills

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- **France:** Social and environmental issues and energy
 - Multidisciplinary approach to plant health (environment/agriculture)
 - From genes to agrosystem – From theory to engineering
 - More and more agriculture and PV (agrivoltaics) experiences, landscape approach
 - JTU FioriMed² - Bottom-up and participatory approach to bring agroecology for all
 - S@M - Tools and DSS to help growers with a complex system
 - MYCOPHYTO – Revitalising soils and renewing biodiversity

Final discussion

- We have shown the picture of research/work done on either side of the Atlantic regarding SMART-AGRO
- It is time to carefully and consciously digest all the information. The pieces of the puzzle have been shown, from now is time to build it up
- How to follow up from now ? How to build collaboration for the near future ?
 - Francisco Meza (PUC): Productive meeting, a lot of information, find a way to systematically abstract key and common projects: Taskforces
 - Launch a survey in topic interests, type of collaboration and continue in touch (specific thematic workshops)
 - It could also be the moment to propose programs on SMART-AGRO topics to authorities to facilitate collaboration
 - Many elements of complementarity. So, it is important to co-construct together (not waiting for thematic framework) and to be agile and responsive to next funding opportunities with no restrictions.
- Tania Zaviezo (PUC) “I am glad to realize that biological control is also SMART-AGRO”

SMART-AGRO HAS A PLACE IN ALL ASPECTS OF AGRICULTURE