

Meeting of the SWG SCAR AKIS Strategic Working Group on Agricultural Knowledge and Innovation Systems

The role of education and training in the EU AKIS

Webinar

20/1/2021

Member State: Spain

SCAR
Standing Committee
on Agricultural Research



Case-study: School for Agriculture and Forestry Engineering (ETSIAM), Córdoba - Spain

• AKIS in Andalusia: role of ETSIAM



2. Innovation hotspot

- Higher education since 1968
- Aprox. 770 students and 100 tenured faculty
- Bachelor + Master (4 + 2 years)
- Top research (QS: 150 best ranked universities)

1. Erasmus+ Mobility

International universities and research institutes

Spanish universities and research institutes

IFAPA
Instituto de Investigación y Formación Agraria y Pesquera



- Joint personal
- Joint research projects
- BSc and MSc thesis
- traineeships

CSIC INSTITUTO DE AGRICULTURA SOSTENIBLE IAS



AgTech companies

The role of education and training in the EU AKIS

- **What are the links between Education/Training and the AKIS in your country at the moment?**
- **Can you give illustrative examples?**
- **What are the priorities of change for the future?**

1. AKIS and Erasmus+
Mobility

2. AKIS and Innovation

The role of education and training in the EU AKIS

- **What are the links between Education/Training and the AKIS in your country at the moment?**
 - Erasmus+ SMS
 - Erasmus+ SMP
 - Erasmus+ teaching mobility
 - Other mobility initiatives:
 - ✓ practicals with FAO
 - ✓ Riverside Proof of Concept Grants
 - ✓ UCOGlobal fellowships with Latinamerica, USA ...

1. AKIS and Erasmus+ Mobility

The role of education and training in the EU AKIS

- Can you give illustrative examples?

(1) Erasmus+ SMS

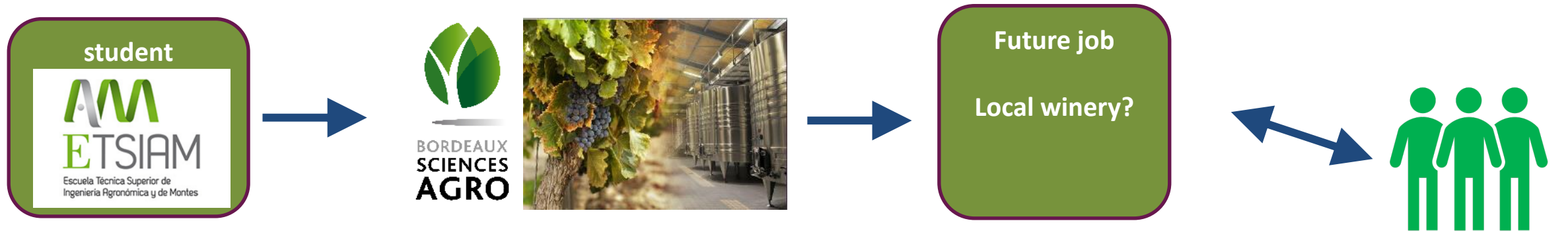


The role of education and training in the EU AKIS

- **Can you give illustrative examples?**

(2) Erasmus+ SMP Student Mobility for Placement

- **Outgoing: traineeship brings students in contact with innovative knowledge from companies**



- **Incoming: bring novel research techniques from ETSIAM/ University to stakeholders**



The role of education and training in the EU AKIS

- **Can you give illustrative examples?**

(3) Erasmus+ Teaching mobility

5 day exchange for professors: teaching, establishing research contacts and knowledge exchange



- **Photosynthesis of soils to capture atmospheric NO_x and create nitrate**
- **Control of soil erosion by gullies using different plant species**

The role of education and training in the EU AKIS

- **What are the priorities of change for the future?**

- ✓ **Promote mobility of students**



- ✓ **Mobility excellence:**

- promote strategic alliances with international AgTech Hubs



- ✓ **Regional knowledge exchange:**

- promote Erasmus+ SMP programme as alternative to obligatory traineeships in Cordoba: ideal opportunity to learn new knowledge/technology in other European countries and bring this knowledge home



The role of education and training in the EU AKIS

- **What are the links between Education/Training and the AKIS in your country at the moment?**

2. AKIS and Innovation

Master's Degree in Digital Transformation of the agri-food and forestry sector - DigitalAgri



First Official Spanish Master Degree leading the transition to the digitization of professionals in the agricultural and agri-food sector, through a specific postgraduate offer in new digital technologies applied in this sector.

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- **What are the links between Education/Training and the AKIS in your country at the moment?**

2. AKIS and Innovation



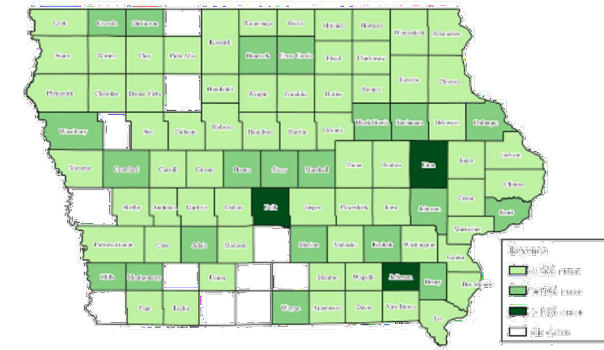
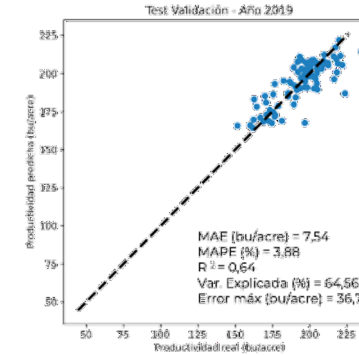
- Professionals demanded by companies
- Co-creation, Co-design and Co-Implementation with the sector
- Research, Innovation and Transfer
- Duality Training - Work Practice
- Agriculture 4.0 - Industry 4.0 - Planet 4.0
- Real problems. Success stories
- Public - Private Collaboration

Can you give illustrative examples?

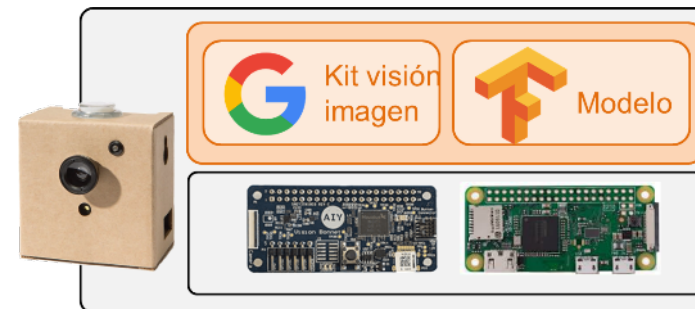
(example 1)

Final Master's Thesis with Internships in Companies to solve real cases of innovation in agriculture

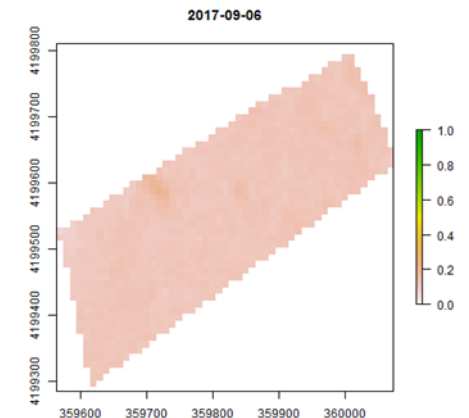
- Predictive models of agricultural production with Machine Learning from public information sources



- Automatic detection device for the presence of Bactrocera Oleae GMEL (olive fruit fly)



- Crop monitoring through remote sensing and cloud computing



The role of education and training in the EU AKIS

- **What are the priorities of change for the future?**



**Ecosystem of Innovation
and Digitization
ETSIAM (UCO)**

"New professionals are essential who assume the importance of a deep process of innovation in the agronomic field, the agri-food industry and the forestry sector, with sufficient digital skills to respond to the challenge of digital transformation that is already a reality"

Transfer knowledge and innovation from the University through training to the sector and companies

- Training AgriTech professionals
- Integrating AgriTech professionals into Agri Companies
- Collaborating in the digital transformation of Agri Companies
- Permeating AgriTech Training to Basic and University Education

Discussion:

All comments and suggestions very welcome!



**Thank you for your
attention!
and for your active participation
and commitment!**

Report available at:

https://ec.europa.eu/info/news/knowledge-and-innovation-unlocking-potential-food-and-farming-2019-sep-26_en (more paper copies can be asked to Inge.Van-Oost@ec.europa.eu)

