Are current agricultural educational models suitable to meet global challenges?
Case studies: Europe 1

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2015

Millenium Development Goals

Eradicate ...hunger
Ensure environmental sustainability

Sustainable Development Goals

Ensure healthy lives and promote well-being in a sustainable planet

Expo Milan Feeding the planet, energy for life

FAO's top priorities “Hunger eradication, nutrition and climate change” (Graziano da Silva, June 2015)

International year of Soils Healthy soils for healthy life

.....
Challenges for future agriculture

- Renewable sources of energy
- Respecting environment security
- Changing weather patterns

Global population
- Will exceed 9 billion

Increased demand for healthier and nutritious food
- Will only be met if

Agricultural production
- Increases
- 60% globally
- Developing countries
- 100%

In most countries there is little opportunity for expansion of arable land

83% of rural people in Sub-Saharan Africa depend on their land for livelihood

40% of Africa's soils are currently degraded

Food and Agriculture Organization of the United Nations
Higher education institutions mission

- Transfer knowledge to next generation
- Generate new knowledge
- Transfer knowledge to society
- Repository of the mankind knowledge
Agriculture & Universities Challenges

High demand of graduates with good knowledge in:

– Agriculture,
– Animal Science,
– Food Technology,
– Forestry,
– Environment,
– Biotechnology,
– Bioeconomy....
South Europe: Spain

Why aren’t students interested in agricultural studies?

Where have “agriculture” students gone? (Collins, 2008)
New degrees related with Life Sciences

<table>
<thead>
<tr>
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More attractive for young people? Employment possibilities
New degrees related with Life Sciences

Admissions UdL: 2001-2014
New degrees related with Life Sciences

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Research possibilities
Agricultural background and environment
Agriculture Universities in Spain

- **Degree name** “agriculture and others”
- **Degree in** “Ingeniero Agrónomo/de Montes” (Agronomy/Forestry engineer)

- **Faculty Name** “Escuela de Ingenieros Agronomos/de Montes” (School of agriculture engineering)

- **Life science degree/faculty** (northern European universities, Italy, Portugal)

- **Multiplication** of Agronomy Engineer Ms. (1990-2000)
- **Influence of professional sector & policies**
Agriculture Universities challenges

• Curricula adapted to
  – 21st century agriculture needs
  – new social and world challenges
  – students’ interests and abilities

• An approach of engineer studies to some specific group of students?
• An approach to agriculture international students

• 2014+2015? Possible increasing new interest in agricultural studies and related sciences

• Evolution similar to northern European countries 5-10 years latter
To face agricultural challenges in 21st century

- Large overview education + specialisation?
- Multidisciplinary team in different areas of life science?
- The end of monopoly to diversification and multidisciplinarity in faculties
- Separate multidisciplinary faculties into disciplinary components?
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