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# Internationalising curricula by the standards of the SDG4: a way

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**Context :** Exchanges between institutions and especially student mobility are mainly based on teaching titles and a number of ECTS. It is often complex for international relations and academic managers to understand the meaning of the competency frameworks of programs whose accreditations are national or European but rarely international. Finding a way to make an academic program understandable at a global / international level, remains challenging. Using an SDG approach can help. A first successful experience has been performed at UniLaSalle Rouen by applying the SDG competences to a batch of students from the international sustainable agriculture & food bachelor-master integrated (5yr) program.

Curricula are supported by **specifications and certifiers** ensuring the quality of education but with very precise and specific reference systems (CTI, France competences). Generally speaking, these standards (Tab. 1) are not used to **communicate** on the programs with prospects. They are much more **meaningful** for the professional world. Moreover, they ensure a certain recognition, including at international level (EUR-ACE label)



1st area of expertise: Scientific & Technical knowledge acquisition and mastery of their implementation	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
T1	To know and understand the fundamental concepts relating to: (i) bioresources / agresources, (ii) their valorization, (iii) ecosystems, by associating analysis and synthesis capacities of different scales and / or different contexts, on an international level.									
T2	Master the tools and methods: sampling, measurement, analysis, evaluation and representation in the context of specialties in agronomy and agro-industry (acquisition, management, analysis, management and validation of the data in the context of specialties in agronomy)									
T3	Identify and diagnose systems to design, implement, test, validate and evaluate innovative solutions, methods, products and services in the agronomy and agribusiness sectors.									
T4	Ability to perform basic or applied research activities, implement experimental designs, open to the practice of collaborative work.									
T5	Ability to do and summarize scientific and/or technical intelligence regulatory, to find relevant information, to evaluate it, to share it.									
T6	Understand the sustainability criteria in any analysis or action and be able to anticipate environmental, economic and societal changes, in sectors and territories (national and international).									
T7	Understand the issues of a company: economic dimension, respect for quality, competitiveness and productivity, commercial requirements, economic intelligence, integrate them and contribute to their evolution.									
T8	Ability to take into account the complexities and issues of workplace relations, ethics, responsibility, safety and health at work.									
T9	Ability to think globally while acting locally, take into account the issues of sustainable development.									
T10	Ability to take a step back and have a critical sense in all activities and take a stand for the sustainability of agricultural and agro-industrial production in the sectors and territories (national and international).									
T11	Ability to lead teams, to lead cross-functional intersectoral projects, to be a main actor in good collaboration by allowing everyone to grasp the issues and constraints of each other, to be a mediator and to show diplomacy.									
T12	To have the spirit of initiative, entrepreneurship, intrapreneurship, and creativity: to provide advice and proposition for a company									
T13	Be attentive to the different expectations of consumers on an international level, adapt to different postures, approaches and practices, and specific regulatory and normative references. Respect for others in their otherness.									
T14	To know and understand oneself, to know how to self-evaluate. Ability to identify one's professional and personal expectations, and know how to align them to the expectations necessary for the realization of a project, make compromises, and plan personal and professional development by setting goals in relation to societal									

By 2030, ensure that all learners acquire knowledge and skills needed to **promote sustainable development**, including, education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity. There is **general agreement** that sustainability citizens need to have certain **key competencies**<sup>1</sup> that allow them to engage constructively and responsibly with today's world. These SDGs Competencies describe the specific attributes individuals need for action and self-organization in various complex contexts and situations. They include cognitive, affective and motivational elements; hence they are the result of an interplay of knowledge, capacities and skills, motives and affective dispositions. Competencies cannot be taught, but have to be developed by the learners themselves. They are acquired during action, contextualisation on the basis of experience and reflection (Rangel 2015<sup>2</sup>). Key competencies (Tab. 2) represent cross-cutting competencies that are necessary for all learners of all ages worldwide (developed at different age-appropriate levels). Key competencies can be understood as transversal, multifunctional and context-independent. They do not replace specific competencies necessary for successful action in certain situations and contexts, but they encompass these and are more broadly focused.

Tab. 1: Outcomes Framework CTI engineer "Agronomy & Agro-industries" for i-SAFE pathway

- SD1 : Systems thinking competency
- SD2 : Anticipatory competency
- SD3 : Normative competency
- SD4 : Strategic competency
- SD5 : Collaboration competency
- SD6 : Critical thinking competency
- SD7 : Self-awareness competency
- SD8 : Integrated problem-solving competency

Tab. 2: Key competencies for sustainability<sup>1</sup>



Semester	ECTS	Sustainable Development Skills								Bachelor CTI Outcomes (T: Competence Trajectory)																
		SD1	SD2	SD3	SD4	SD5	SD6	SD7	SD8	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15		
Semester 1	Teaching Unit 1.1 - Ag & Food	8																								
	UNILASALLE T12.1 - Financial Accounting-concepts	8																								
	T13.1 - Transdisciplinary unit & Cross Culturalality	8																								
	T14.1 - Transdisciplinary unit & sustainable development	6																								
Semester 2	Teaching Unit 1.2 - Ag & Food	8																								
	UNILASALLE T12.2 - Management accounting & control systems (MACS)	7																								
	T13.2 - Transdisciplinary unit & Cross culturality	8																								
	T14.2 - Transdisciplinary unit & sustainable development	7																								

Tab. 3: integration of UNESCO key competencies in the learning outcomes framework, (UniLaSalle - Bachelor in Green Ag Business). The SD key competencies are generic and appropriate for all levels of higher education. Programs are simpler to characterize with 8 major competencies.



As was discussed during the EAIE<sup>3</sup> 2022 workshop "Internationalization at home" in Barcelona, the integration of international standards - such as UNESCO's key competencies - in the description of syllabi is a **way** to make the learning objectives of a program intended for incoming mobility **more readable** and to communicate easily about the programs (beyond the teaching and credits). This cross-referencing also makes it easier for academic leaders in charge of validating mobility to understand the expected levels.

1 - Published in 2017 by the United Nations Educational, Scientific and Cultural Organization, 7, place de Fontenoy, 75352 Paris 07 SP, France © UNESCO 2017 ISBN 978-92-3-100209-0  
2 - Rangel, M., 2015. La actualidad de los principios didácticos de La Salle. Digit. J. Lasallian Res. 11.  
3 - EAIE 2022 - « Internationalisation at home » - 32nd EAIE Conference - European Association for International Education - 13-16 september 2022 - Barcelona, Catalonia

