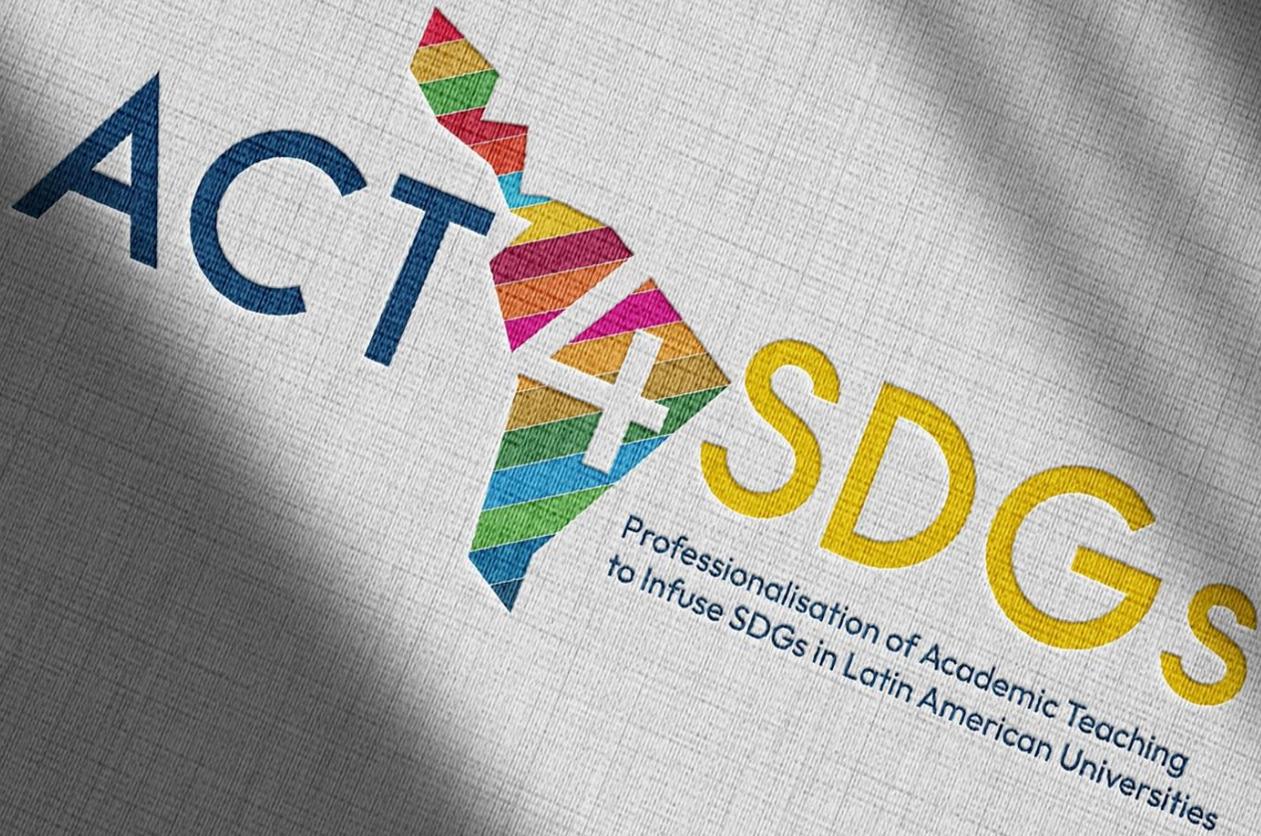




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Integration of the Sustainable Development Goals in the School of Biosystems Engineering, University of Costa Rica.

A cargo de:

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UNIVERSIDAD DE
COSTA RICA

EIB

Escuela de
Ingeniería de
Biosistemas



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Context



Teaching: Agricultural and Biosystems Engineering Degree



Projects: Research, social action and teaching



Administrative department



Why is the EIB interested in implementing the SDGs?

- Lack of a solid foundation by instructors when selecting SDGs for their courses.
- To empower students to make informed decisions and act responsibly toward a sustainable development model.
- To strengthen a sustainable development education model within engineering disciplines.



Teaching Project

General Objective

Develop an action plan to implement the SDGs in the courses of the program, as well as in research projects, social outreach, and final graduation projects (TFG) of the EIB.

Methodology:

- Development of tools to guide the identification and prioritization of SDGs in courses, projects, and final graduation projects (TFG).
- Training workshops for faculty members on SDG-related topics.
- Workshops for the application of the tools.
- Meetings with supporting institutions.



Herramientas



SDG in courses



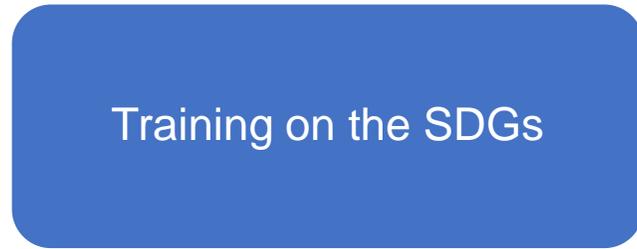
SDG in projects



SDG in
administrative

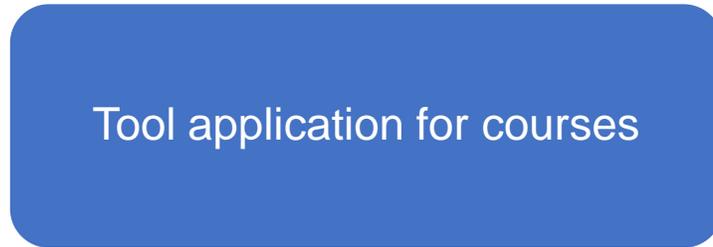
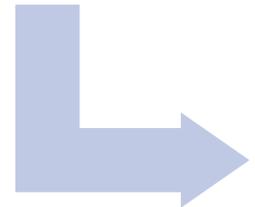


Workshop 1
I semester -
2023



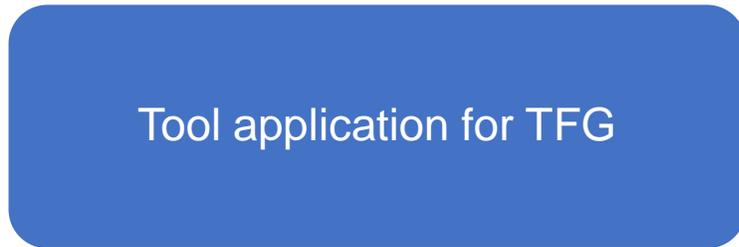
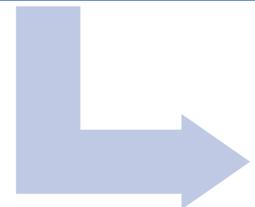
Staff of the School of Biosystems Engineering - MIDEPLAN

Workshop 2
II semester -
2023



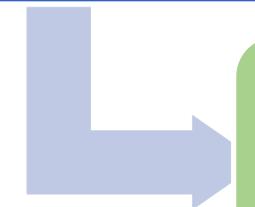
Teaching staff of the School of Biosystems Engineering

Workshop 3
II semester - 2023



TFG students

Workshop 4
I semester - 2024



Administrative staff of the School of Biosystems Engineering



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Results



Teaching: Agricultural and Biosystems Engineering Degree



Projects: Research, social action, teaching and TFG.



Administrative department



SDGs identified in courses



Key points



- Prioritization of two SDGs per course.
- The selection of the SDGs to be developed in each course was based on the letter to the student of each course.



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Prioritization of two SDGs per course

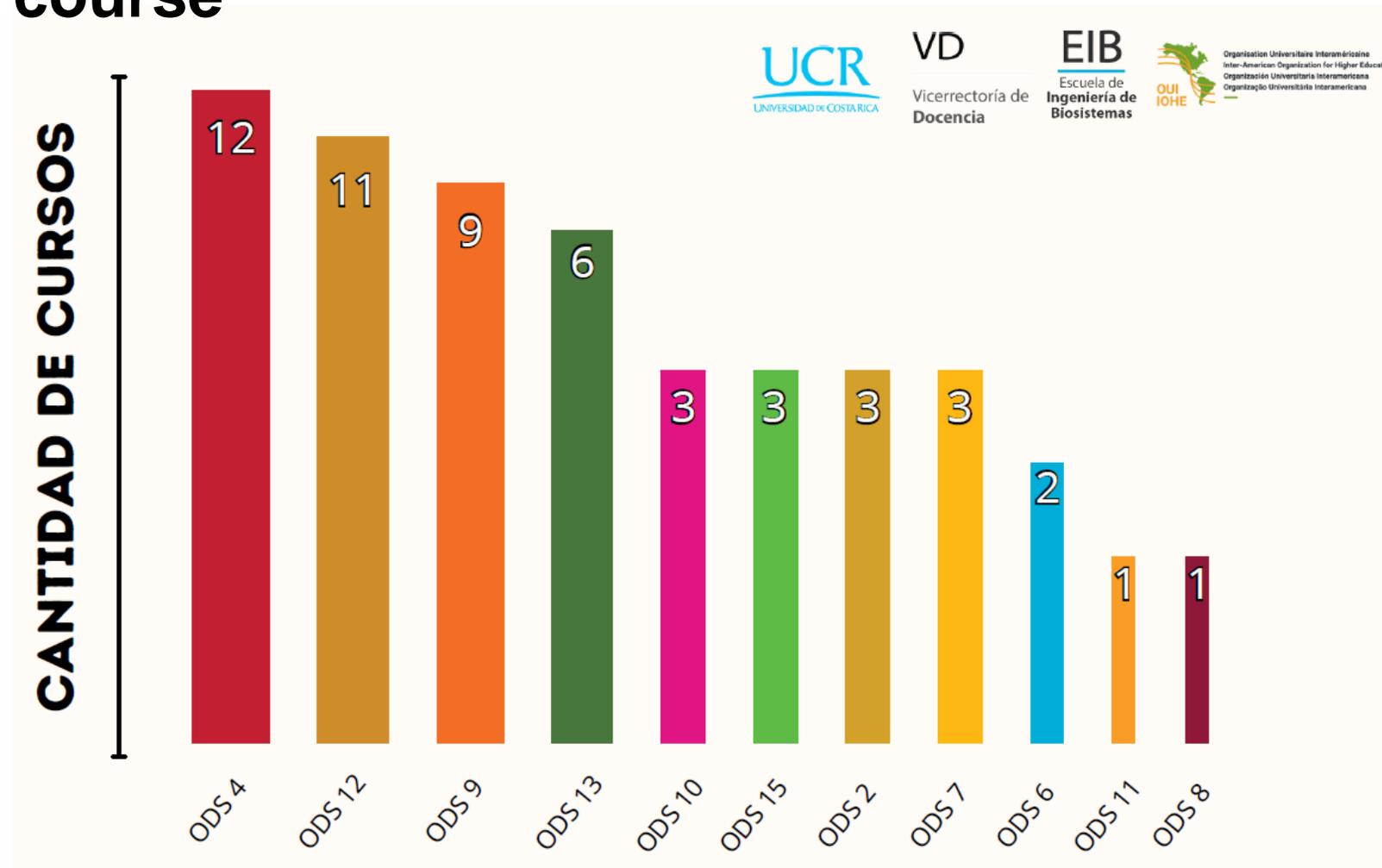


Figure 1. SDGs selected to be developed in the Agricultural and Biosystems Engineering courses.



Based on the Student Letter for each course



Mapping SDGs in the curriculum of the agricultural and biosystems engineering degree



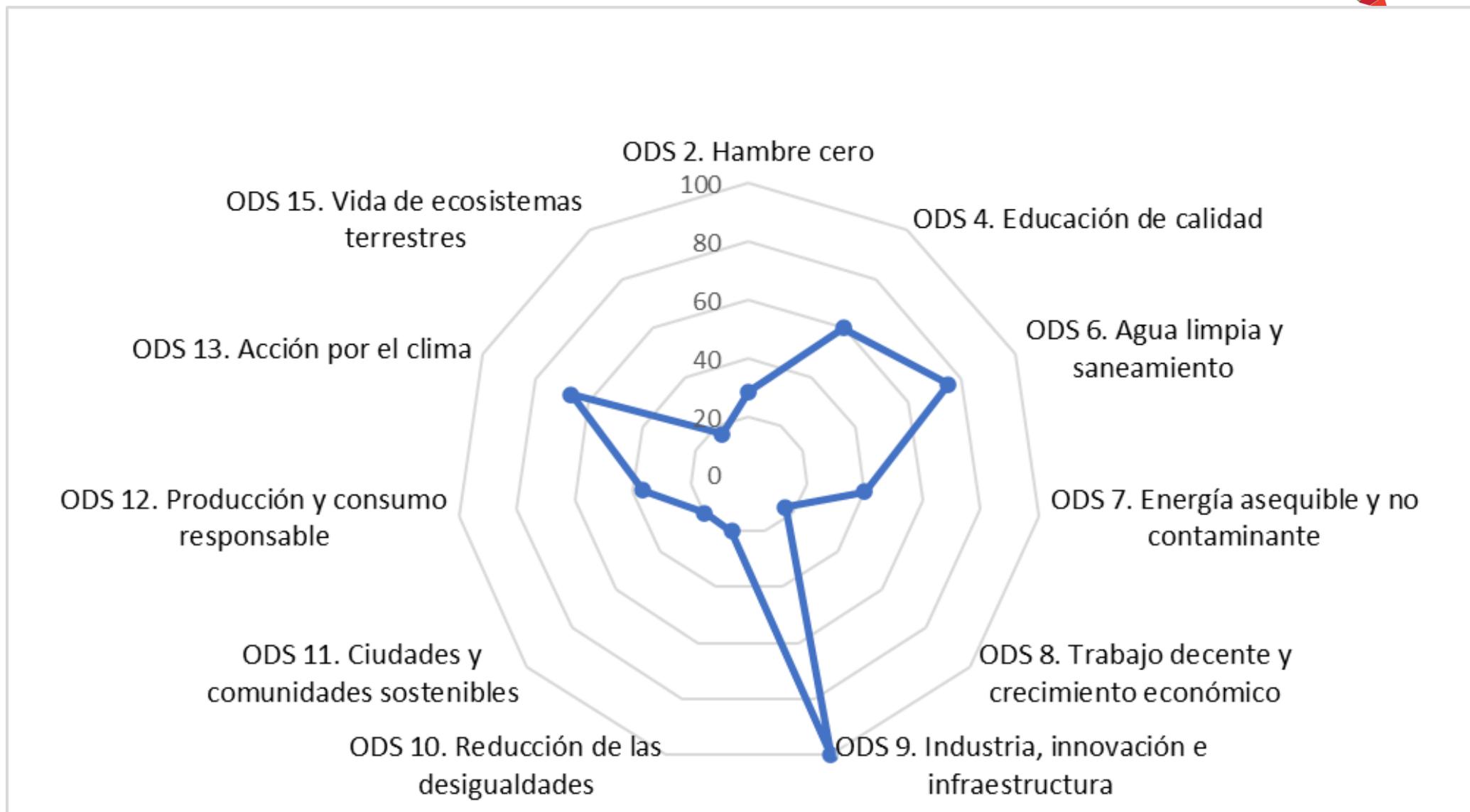


Figure 2. Percentage of goals of each SDG that are covered in the courses of the degree.



How to cover the SDGs in courses?



Course	Area	Goal	Indicator *	Evidence
IB 0008 Edaphology	Production Systems Engineering	12.2 Achieve sustainable management and efficient use of natural resources.	Sustainable soil management for production	Case study on the topic "land use capacity for agrosystem management"
		12.4 Achieve environmentally sound management of chemicals and all wastes throughout their life cycle.	Soil fertility and biogeochemical cycles	Soil fertility class focused on the proper use of fertilizers for GHG mitigation

*Course content that responds to the goal.



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SDG in projects and TFG



SDGs in TFG vs Courses

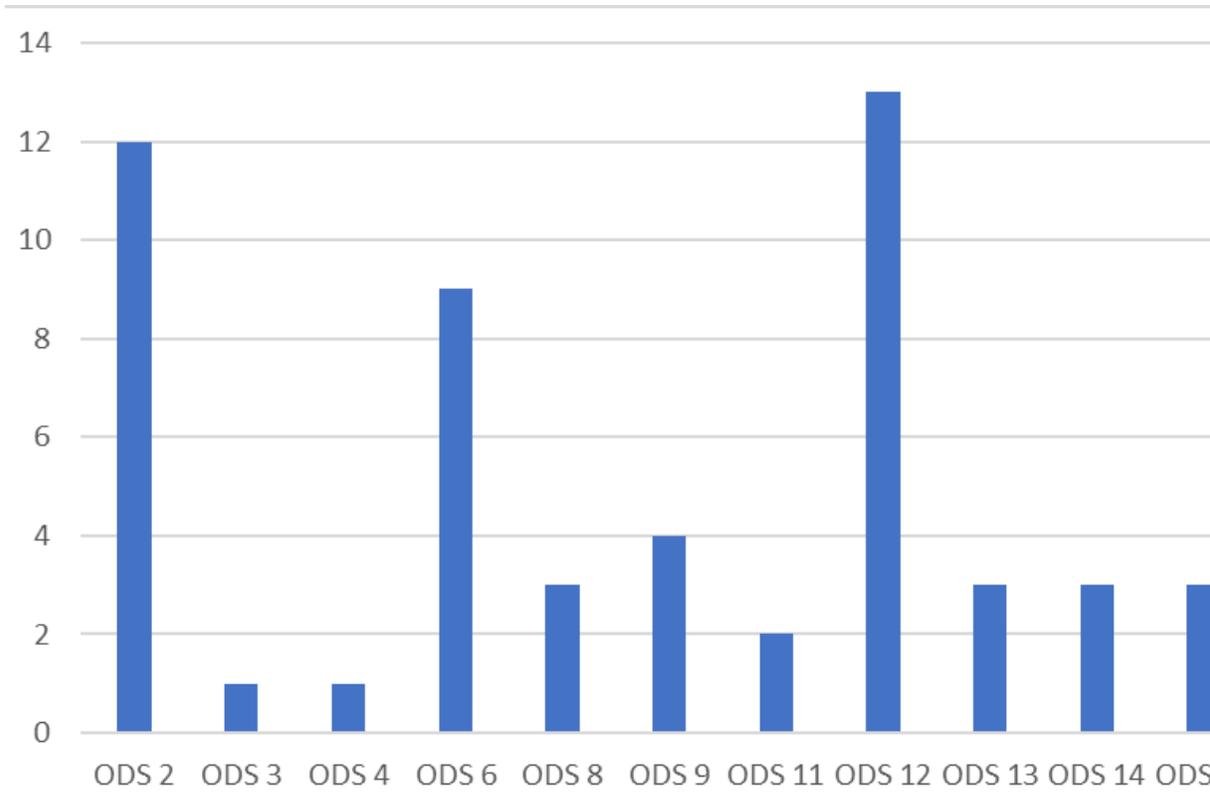


Figure 3. SDGs identified in final graduation projects

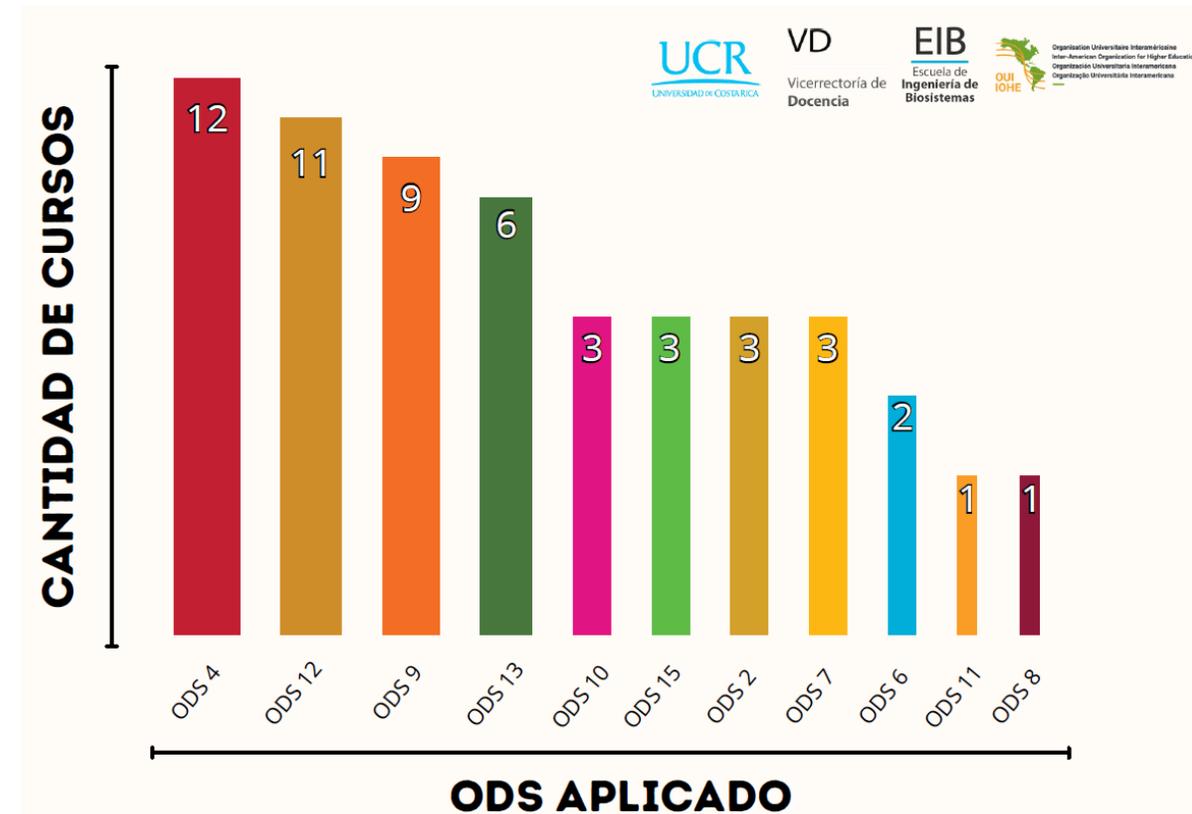


Figure 1. SDGs identified in courses

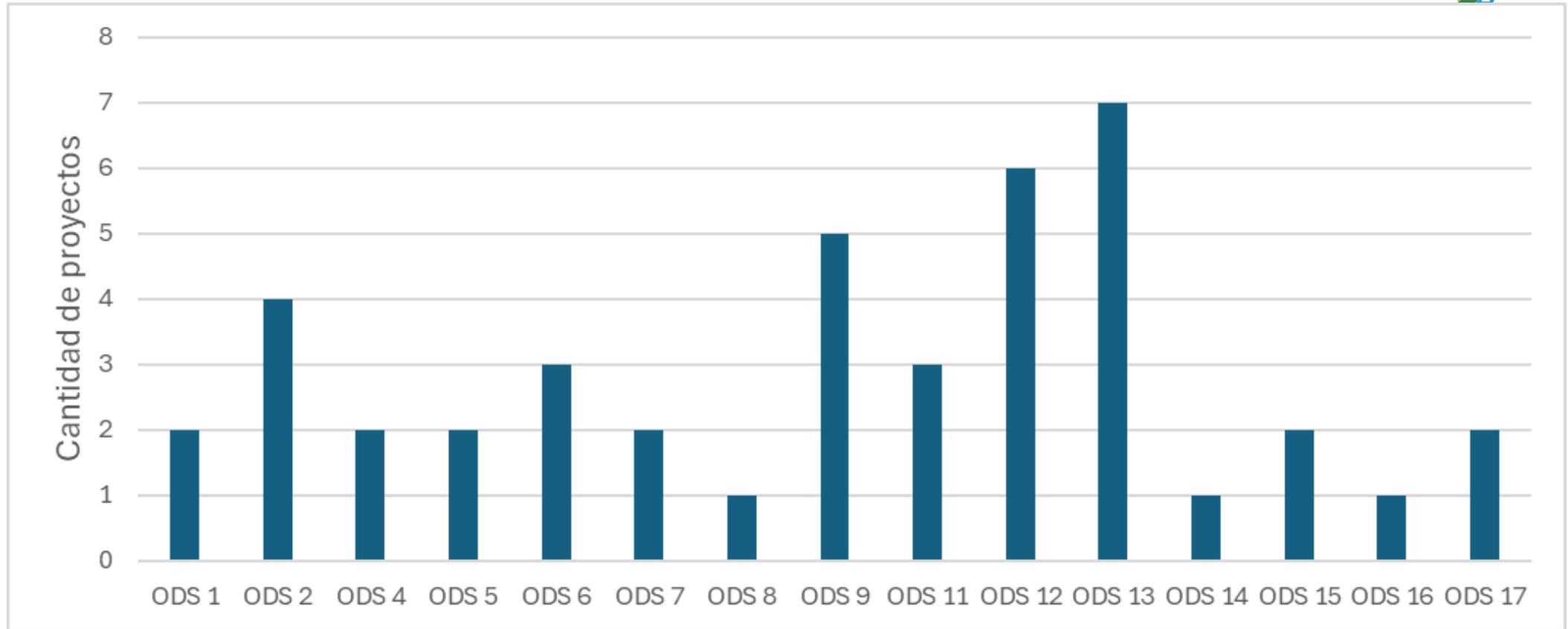


Figure 4. SDGs identified in research projects of EIB teachers.

SDG in the administrative sector



SDGs identified by administrative staff



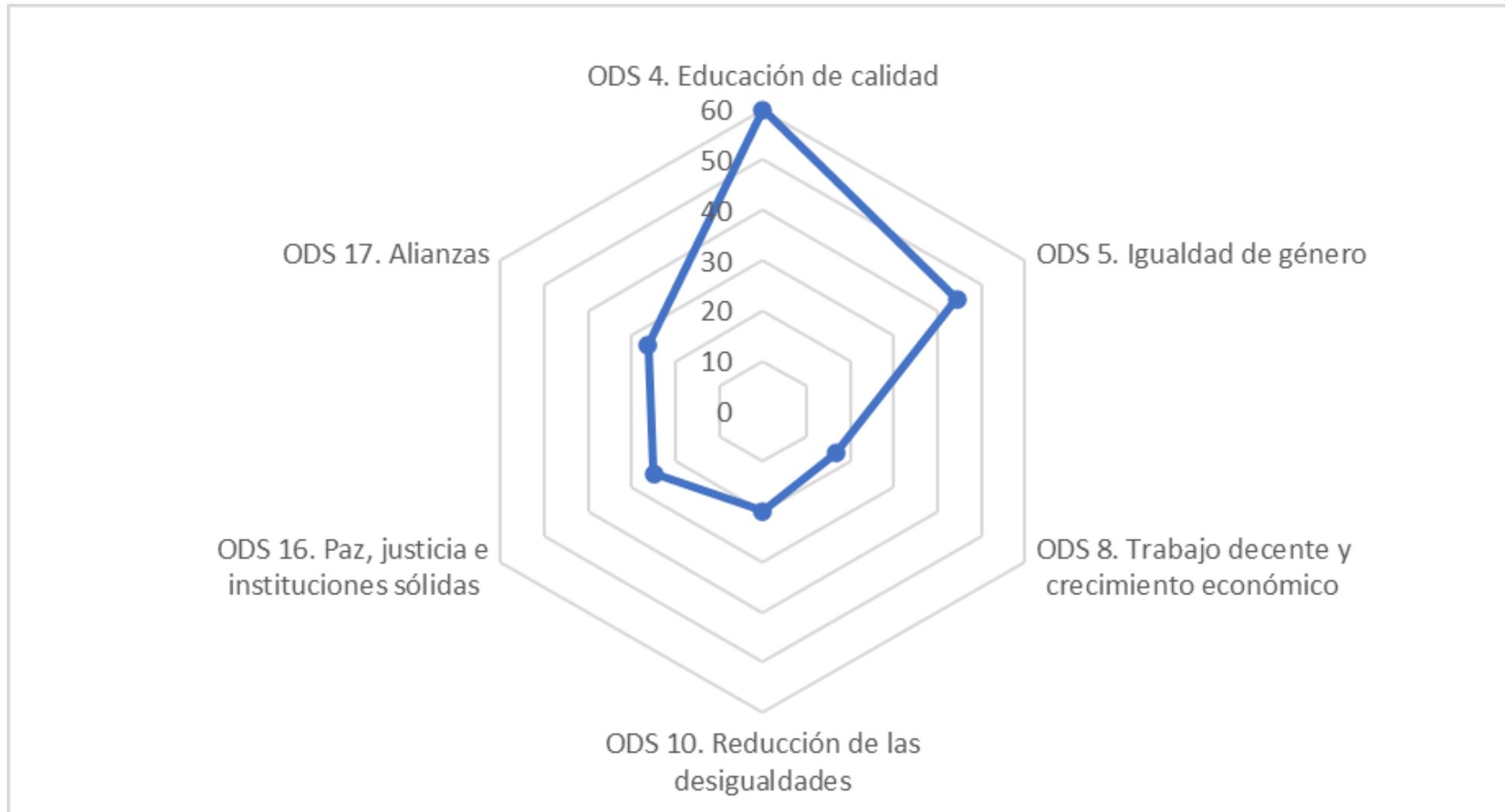


Figure 5. Percentage of goals that are covered for each SDG in the administrative department of the School of Biosystems Engineering.

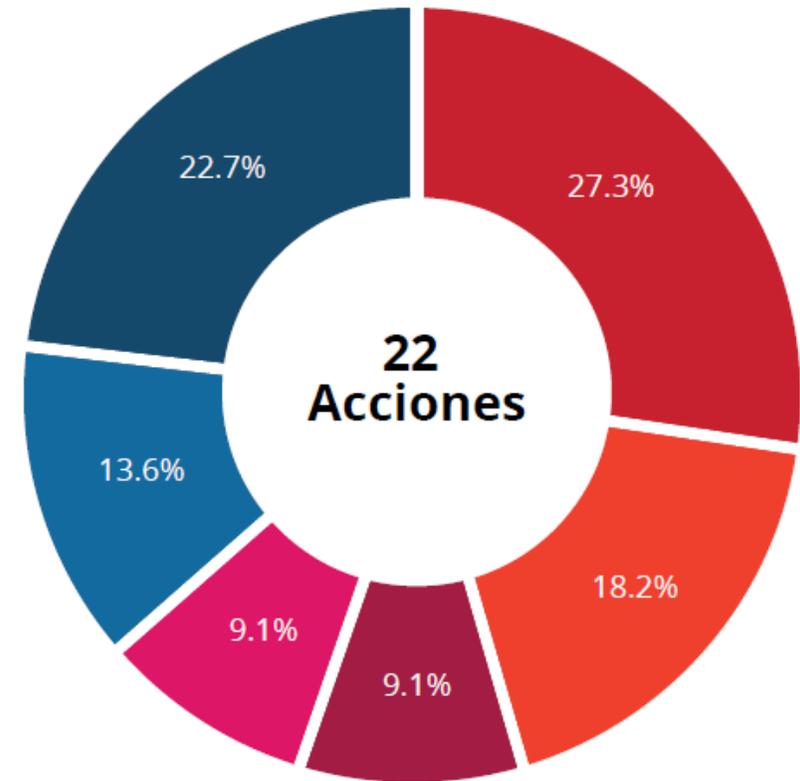
Acciones ODS administrativas en la Escuela de Ingeniería de Biosistemas

Objetivos de Desarrollo Sostenible

ODS 4 - Educación de Calidad	6
ODS 5 - Igualdad de Género	4
ODS 8 - Trabajo decente y Crecimiento económico	2
ODS 10 - Reducción de las desigualdades	2
ODS 16 - Paz, justicia e instituciones sólidas	3
ODS 17 - Alianzas para lograr los objetivos	5

Acciones

6
4
2
2
3
5





Meta	What is being done at the school level regarding each goal?	What could be done to reinforce this goal?	What resources are needed to achieve this?
5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation	The use and application of the Regulations against Sexual Harassment, issued by the University, at the beginning of each cycle is promoted	Disclosure in formal media	Active participation by teachers and administrators

Conclusions



- The teaching and administrative staff of the EIB managed to train in the area of SDGs.
- The SDGs worked on in the different sectors of the EIB were identified: teaching, research, and administration.
- The identified SDGs were included in the Letters to Students for each course, as a commitment to develop them every semester.
- The approach to addressing the SDGs in each course was defined.
- A talk on the SDGs and the use of the tool was incorporated into the TFG Seminar course to encourage students to apply it in their TFG.



What's next?



- Define a strategy to determine if the student is receiving the desired message regarding each SDG.
- Analyze the results to assess whether the method used to address the SDGs in the courses needs improvement.
- Start working on new goals at both the course and administrative sector levels.
- Virtualize the tools.



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Thank you!



