



**THIRD WORLD SYMPOSIUM  
ON SUSTAINABILITY  
SCIENCE AND RESEARCH**

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Sustainability Futures: Challenges  
and Opportunities Towards a More  
Sustainable World

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# The contribution of the circular economy to the fulfillment of the 2030 Agenda in Higher Education Institutions

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## OBJECTIVES OF THE PAPER

In this work, we studied the impact of Circular Economy (CE) as a strategic tool towards fulfilling the sustainable development goals (SDG) proposed in the 2030 Agenda for Higher Education Institutions (HEI). The scope were Latin American HEIs with special focus on the benefits of the application of CE from environmental, social and economic perspectives.

## APPROACH USED

HEIs have three main pillars of activities: academic training, research and management.

The policy with focus in CE should approach pillars as a holistic system and influence all their aspects.

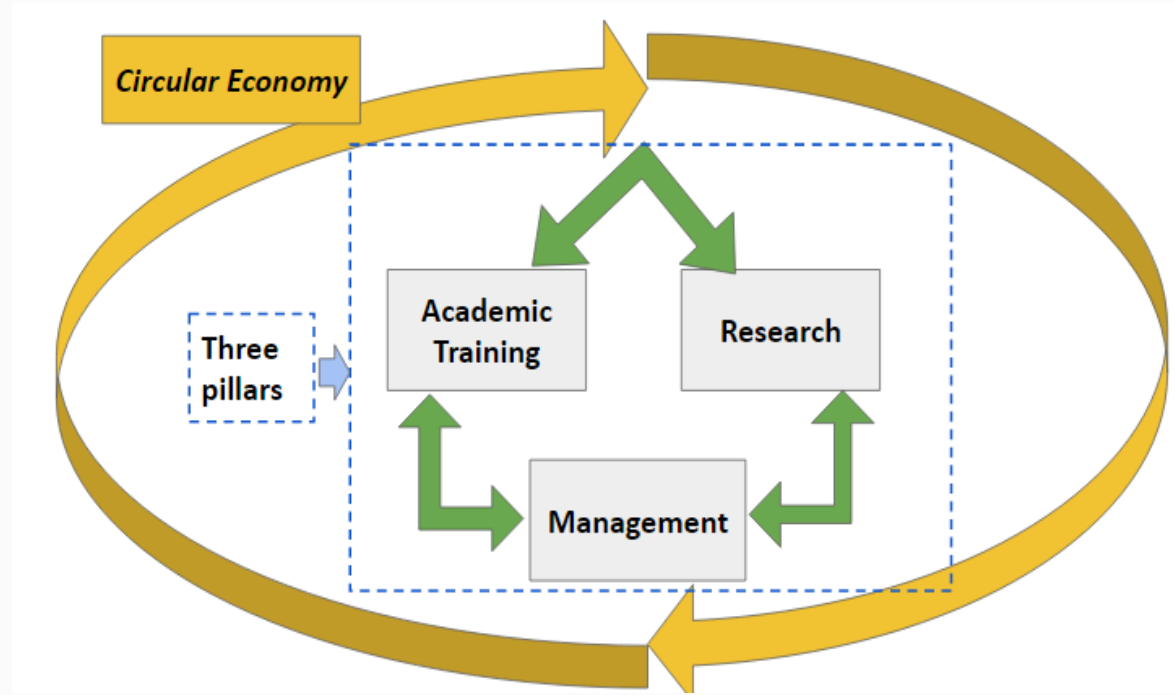


Image 1- The EC Vision encompassing the three pillars of HEI. Source: own elaboration

## APPROACH USED

CE vision has influence on eight UN SDGs that are mainly affected by the HEIs activities:



*Image 2- The circular economy vision has influenced multiple UN SDGs, particularly goals 6 on clean water, 7 on clean energy, 8 on economic growth, 11 on sustainable cities, 12 on sustainable consumption and production, 13 on climate change, 14 on oceans, and 15 on life on land. Source: [europeanbusinessreview](https://www.europeanbusinessreview.com).*

# APPROACH USED

## Main steps of the study:

- Data collection through comprehensive search in published and grey literature.
- Selection of 14 HEIs of seven Latin American countries.
- **SDGs addressed** through the CE-based plan, project or research
- **Scope** of the CE-based plan, project or research. Impacts that go beyond campus boundaries

# Results

## Data Collection

- Keywords used: CE, HEI, SDGs, sustainability, MSW management
- 14 HEI from 7 Latin American countries were analyzed

Colombia		Chile		Argentina		Peru		Mexico		Ecuador		Bolivia	
UNC	EAFIT	USACH	PUCV	UnRaf	UnCuyo	PUCP	UPN	UAM	Tec	UCE	UES	UMSA	UMSS

\*Note: It is intended to expand the number of HEIs from other Latin American countries to obtain a more specific diagnosis.  
Table 1- HEIs Investigated. Source: own elaboration.

# RESULTS

Key findings related to sustainable development aspects:

Environmental	Social	Economics
Environmental quality improvement was found in some HEIs.	Application of preventive and corrective practices is increasing beyond campus boundaries.	Cost reduction. Creation of green Jobs.

Table 2- findings related to sustainable development aspects. Source: own elaboration.

# RESULTS

Key findings related to the HEIs three pillars:

Management	Research	Academic Training
<p>Few HEI carry out activities or plans to improve their campus management.</p> <p>Those who implement them do so, mainly, through waste or water management.</p>	<p>In most of the HEIs there are research groups that analyze CE as a tool for minimizing environmental impacts and improving the local economy.</p> <p>Although it is not specifically mentioned.</p>	<p>Most HEIs have postgraduate programs that include CE subjects. It is included rarely in undergraduate curriculum.</p>

Table 3- Key results on three pillars of the HEI. Source: own elaboration.



# RESULTS- SDGs

Distribution of CE actions with focus on SDGs:

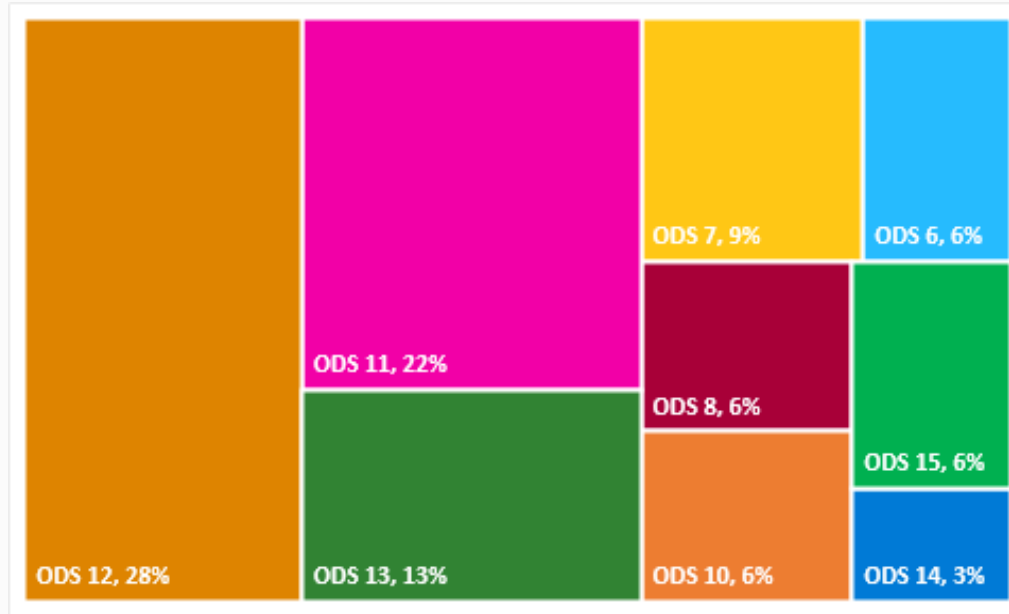


Image 3- SDGs sought to be achieved in LAC HEIs. Source: own elaboration

## MAIN CONCLUSIONS

**Circular Economy** plays a fundamental role in **Higher Education institutions** in LAC in order to fulfill of specific SDGs and the 2030 Agenda.

**Circular Economy** is considered a **sustainable tool** to be applied in **Higher Education institutions** because it generates positive impacts in the three aspects of Sustainable Development.

The success of the model will depend on the strength of **alliances** inside of HEI. That is, alliances between the areas involved in the **three HEI pillars**.

# MAIN CONCLUSIONS

## CE actions in HEIs

### Advantages

- Link between HEIs and public or private government agents.
- New graduates understand the relevance of CE for the achievement of the SDGs.

### Disadvantage

- EC concepts were not applied in campus operations.

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