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Dipartimento di Ingegneria Civile,  
Ambientale e Meccanica

# INTERNATIONAL COOPERATION AND UNIVERSITY AGREEMENTS: NEW OPPORTUNITIES FOR SUSTAINABLE DEVELOPMENT

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# INTRODUCTION

## SDGs

International cooperation is mentioned into the **17<sup>th</sup> goal of the SDGs**, for supporting and improving local conditions of the **least developed countries**



## Universities

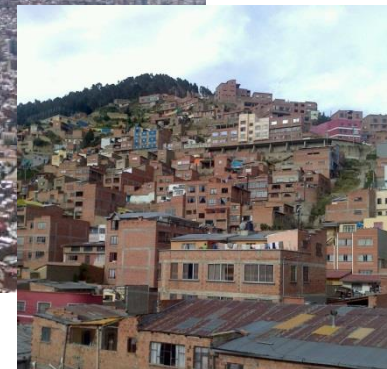


- Strategic institutions in the process of **social inclusion** and **spread of public awareness** (Stefanini et al., 2013)
- The cooperation among International Universities has a central role in global markets for **spread graduates cultural background** (Chan et al., 2004)
- International researches could be a strength point for **future sustainable programs** (Koehn et al., 2011)

# THE STUDY AREA

## La Paz (Bolivia)

- About 900,000 inhabitants
- About 3,600 m a.s.l.
- Lack of wastewater treatment, land use planning, low recycling rate, water scarcity, lack of free areas





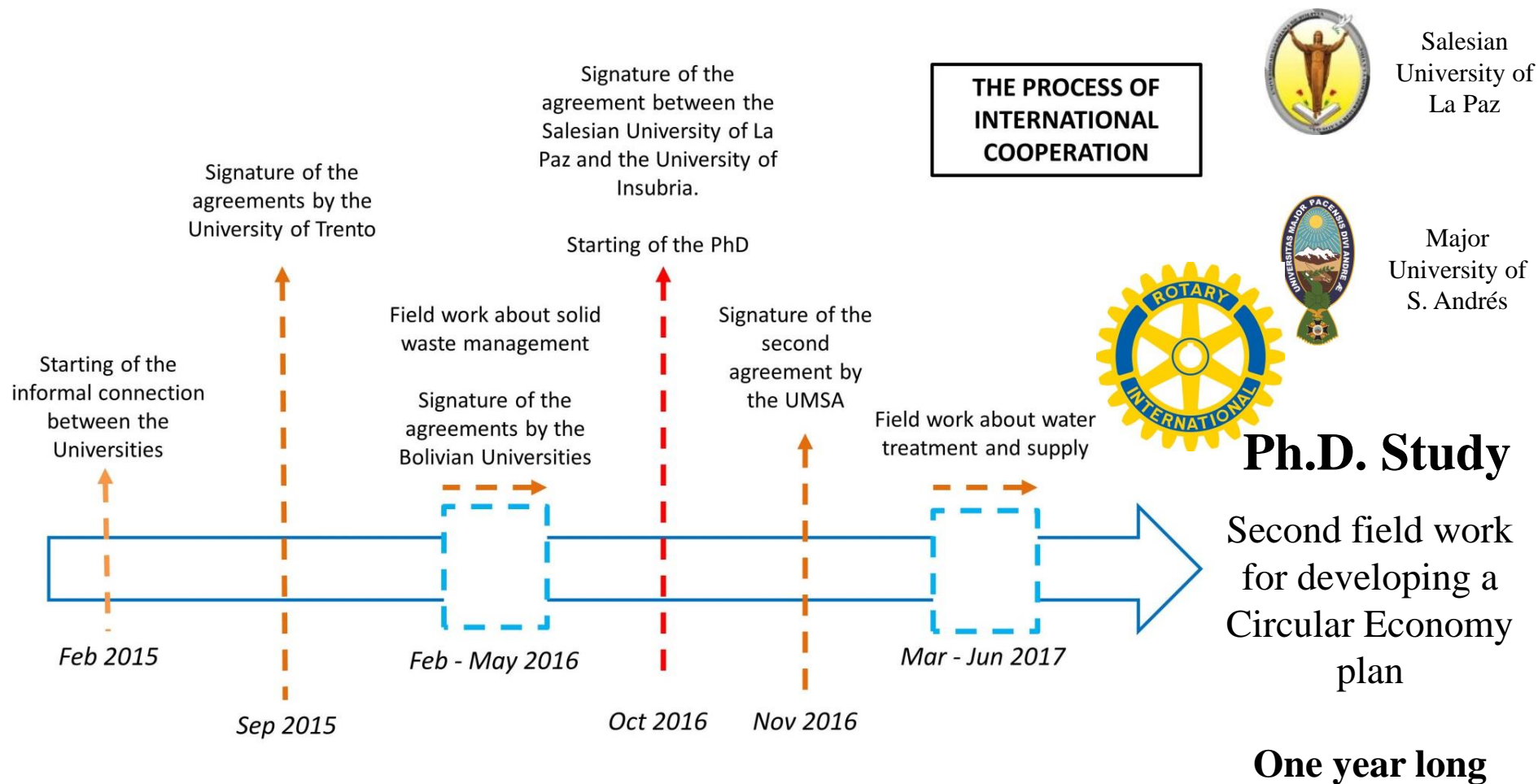
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# THE TIME REQUIRED AND THE ACTORS INVOLVED



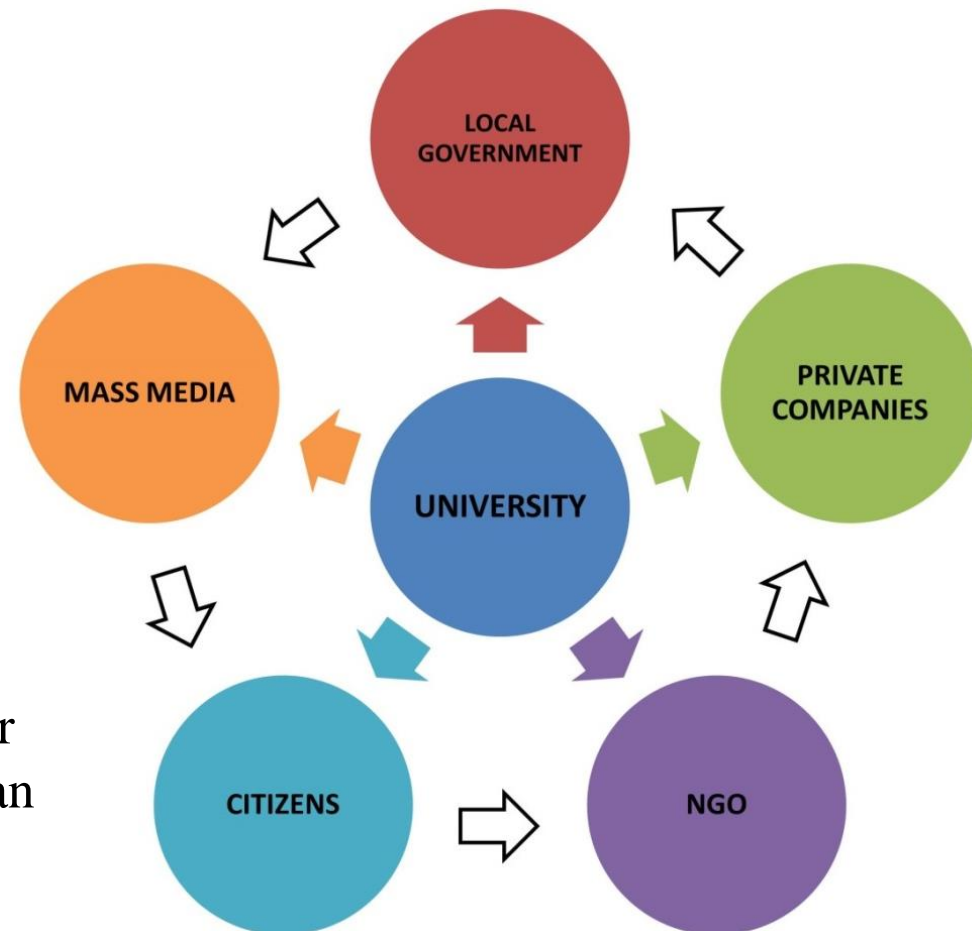


# THE ROLE OF THE UNIVERSITIES AND THE RESEARCHES INVOLVED

First research applied:

- Inclusion of an Italian **private company**
- Provision of new tools to the **local Government**
- Collaboration with **mass media** (local radio and Television) and so, inclusion of citizens
- Collaboration with a **local NGO** (Swisscontact)

**University** as the **central stakeholder** for involving all the actors for implementing an **integrated approach**



# FUTURE PERSPECTIVES FOR IMPROVING THE INTERNATIONAL AGREEMENTS



- **To develop** the research, thanks to a Ph.D. study about the introduction of the Circular Economy into the area.
- **Include** other Universities, NGOs and Private Companies interested in environmental topics.
- Develop a management plan for waste valorisation for **introducing international or national investment** with the **support of private companies**.
- **Include other students** for developing thesis about environmental engineering, concerning other environmental subjects (indoor and outdoor air pollution, biomass valorisation, renewable energy, climate change...).

## CONCLUSIONS

- Universities introduced directly a **process of bilateral cooperation** for studying environmental impacts and improving sustainable development;
- In this case study, **Universities play a central** role for developing an international cooperation process, introducing new management plans;
- Integrated management and future development could be guaranteed only thanks to the cooperation with all the stakeholders, building a **multi-stakeholder approach**.

## MAIN DIFFICULTIES AND BARRIERS

- The relation among the stakeholders should be developed **equally**, since the disparity of the benefits could lead to failure of the agreements;
- **Lack of budget** at local national level could be a problem for developing new researches, while the exploration of international grants is challenging;
- The different language and culture could mean **unreliable exchange of information and requests**.

