



# SBE16 BRAZIL & PORTUGAL

Cristina Engel de Alvarez  
Luis Bragança



Organisers:



International Co-owners:





# SBE 16 Brazil & Portugal

## Basic Information

- City: Vitória, Brazil
- 07 – 09 September







# Organizations

- Universidade Federal do Espírito Santo (Brazil)



- Universidade do Minho (Portugal)



Universidade do Minho  
Escola de Engenharia



Organisers:



International Co-owners:



# Theme/Papers

- Theme: Sustainable urban communities towards nearly zero impact built environment
- Papers: 403 abstracts submitted and only 205 full papers selected and published in the proceedings





# Application

An App is also available in the event website (free access)



**In addition to the printed Proceedings, Pendrives with a software application that allows the search for published papers by title, author or keywords were distributed to all participants for free.**



# Presentations

- 7 Keynote Lectures
- 134 Paper Presentations
- **21 Scientific Video Presentations**
- 5 Workshops
- 03 Technical Visit



# Presentations

## Speakers and Workshop Leaders



**André Gomyde**



**Nils Larsson**



**Nelson Pôrto**



**Neyval Reis**



**Vanderley John**



**Roberto Lamberts**



**Marta Cruz**



**Giovana Ulian**



**Maria Beatriz Piderit**

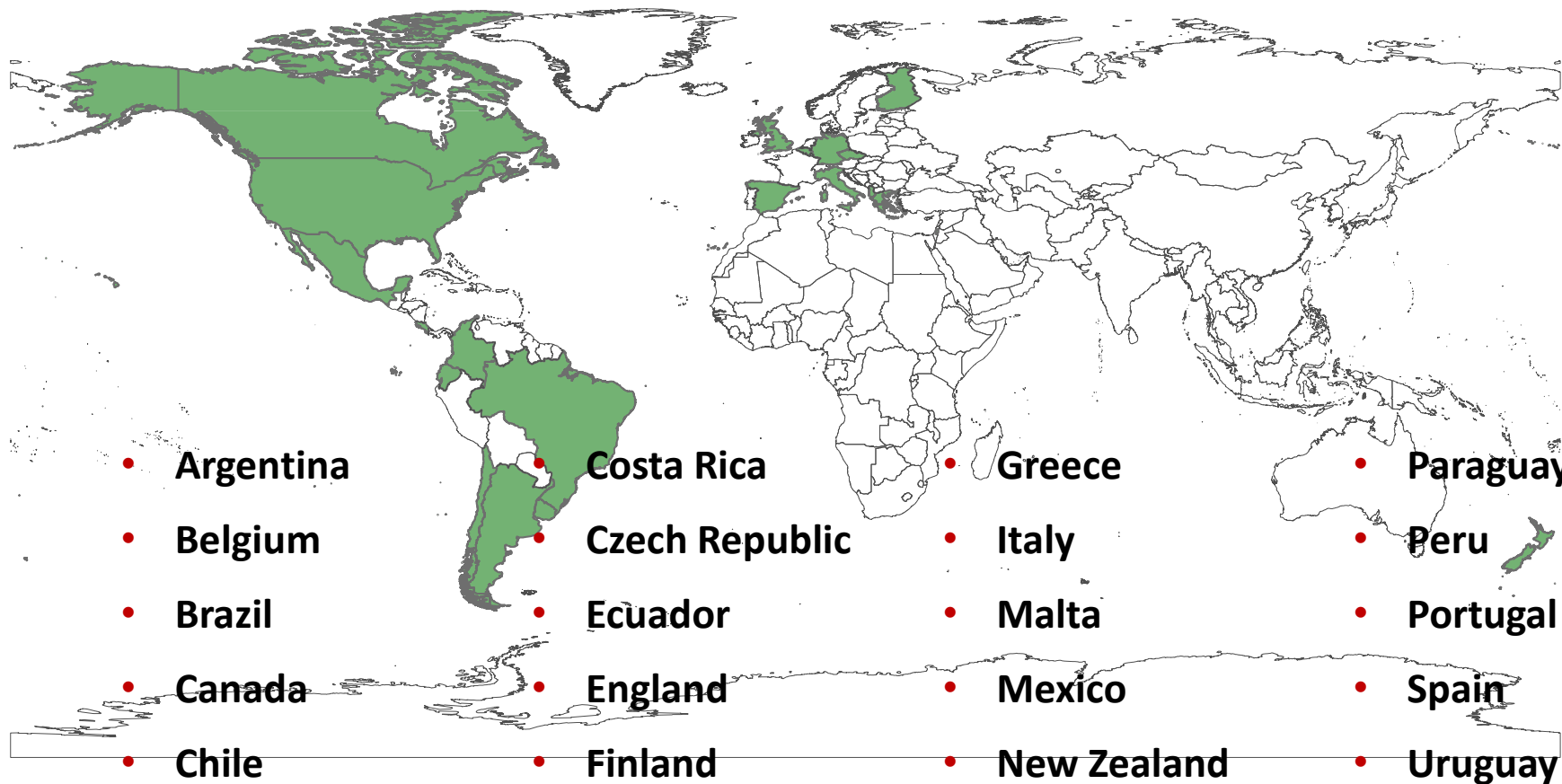


**Maria Augusta Hermida**



# SBE 16 Brazil & Portugal

- Participants: 25 countries



- Argentina
- Belgium
- Brazil
- Canada
- Chile
- Colombia
- Costa Rica
- Czech Republic
- Ecuador
- England
- Finland
- Germany
- Greece
- Italy
- Malta
- Mexico
- New Zealand
- Palestine
- Paraguay
- Peru
- Portugal
- Spain
- Uruguay
- USA





# Delegates: 190



125 Undergraduate and  
postgraduate students  
(69%)



45 Professors and  
researchers  
(26%)



20 Professionals  
(11%)



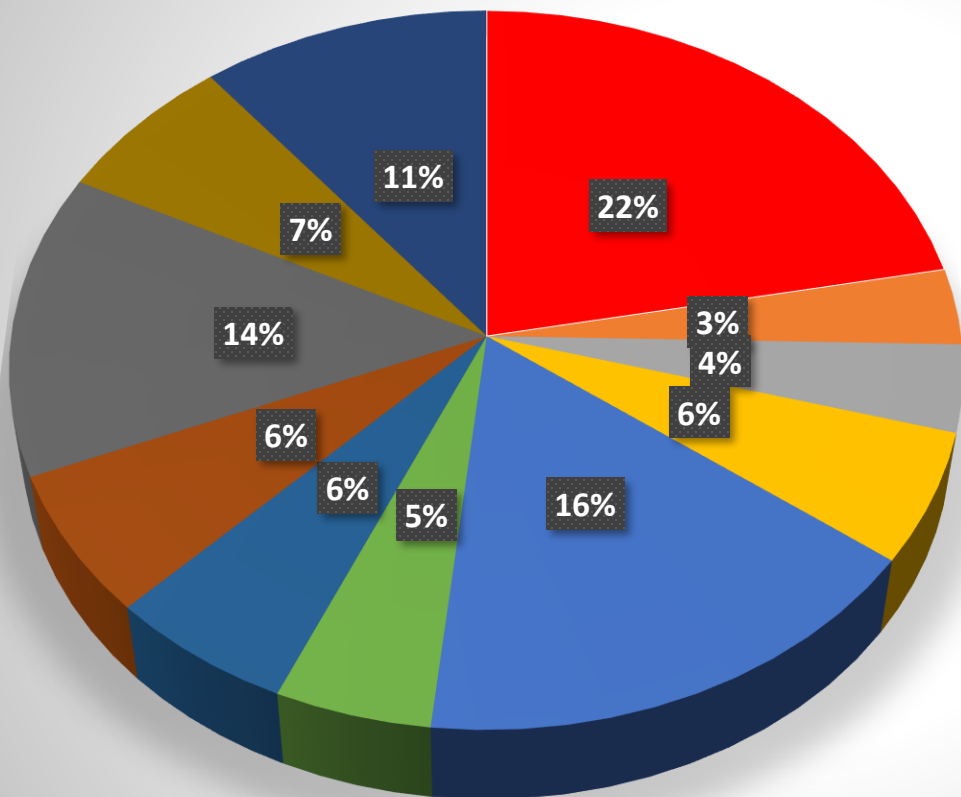
# Themes

- 1. Adaptation of cities and buildings to climate changes**
- 2. Contributions and consequences of urban landscaping**
- 3. Governance and strategies for a sustainable built environment**
- 4. Mitigation of impacts in urban areas**
- 5. Nearly zero and positive energy built environments**
- 6. Sustainability assessment tools**
- 7. Sustainable urban mobility and accessibility**
- 8. Technologies for a sustainable built environment**
- 9. The BIM concept applied to sustainable buildings and cities**
- 10. Training and education to promote adoption of sustainable approaches**
- 11. Urban planning for sustainable communities**





# % articles by theme



## Themes

- I - Technologies for a sustainable building environment
- II - Nearly zero and positive energy built environments
- III - The BIM concept applied to sustainable buildings and cities.
- IV - Training and education to promote adoption of sustainable approaches
- V - Sustainability assessment tools
- VI - Adaptation of cities and buildings to climate changes
- VII - Mitigation of impacts in urban areas
- VIII - Contributions and consequences of urban landscaping
- IX - Urban planning for sustainable communities
- X - Sustainable urban mobility and accessibility
- XI - Governance and strategies for a sustainable built environment

# Comments

- The subjects that most attracted the attention of the participants were **Technologies for a sustainable building environment** (22%) and then, **Sustainability assessment tools** (16%).
- Characteristically urban themes (themes, VII, VIII, IX, X, XI) represent almost **50%** of the total number of articles approved, which demonstrates the growth of interest in the subject
- The theme with the lowest participation was **Nearly zero and positive energy built environments** (3%) and **The BIM concept applied to sustainable buildings and cities** (4%)



The Energy theme:  
distributed in  
de others  
subjects



# Other informations

- The official support of governmental agencies and private companies, **validating the quality of the event** should be noted
- 97% of participants responded positively to the survey about their **satisfaction** with the conference and many congratulatory emails have been received.
- All sessions **had great participation** and interesting spontaneous **discussions** about the topics presented.



Organisers:



International Co-owners:



# Coffee break

- The way the coffee-breaks were organized was a great incentive to the exchange of experiences among participants, **encouraging networking** and the closeness between the speakers and the participating public.





# Additional Information (BRAZIL)



Organisers:



International Co-owners:



Sustainable Buildings and Climate Initiative  
Promoting Policies and Practices for Sustainability



# Central Theme

- SBE16 Brazil & Portugal was not directed to the relevant issues in relation to COP 21



[dreamstime.com](http://dreamstime.com)



Organisers:



International Co-owners:



Sustainable Buildings and Climate Initiative  
Promoting Policies and Practices for Sustainability



Global Alliance  
for Buildings and  
Construction



# A BIT OF BRAZIL

- **Country of contrasts**



# Planned cities





# Disordered cities





Wonderful places totally preserved





Powerful cities...





That an insect can knock down

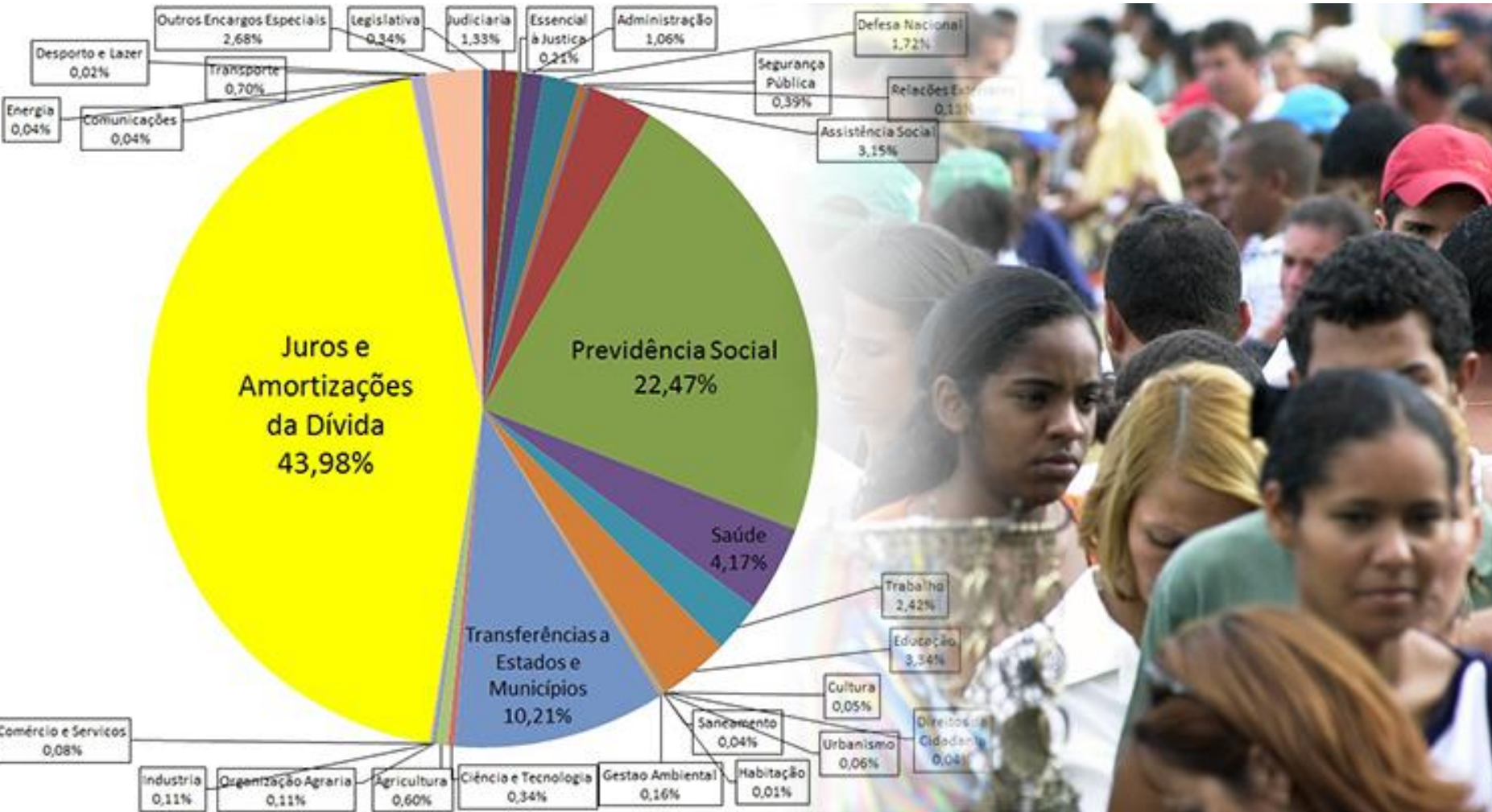




Priceless cultural heritage, and...



# Countless social debt



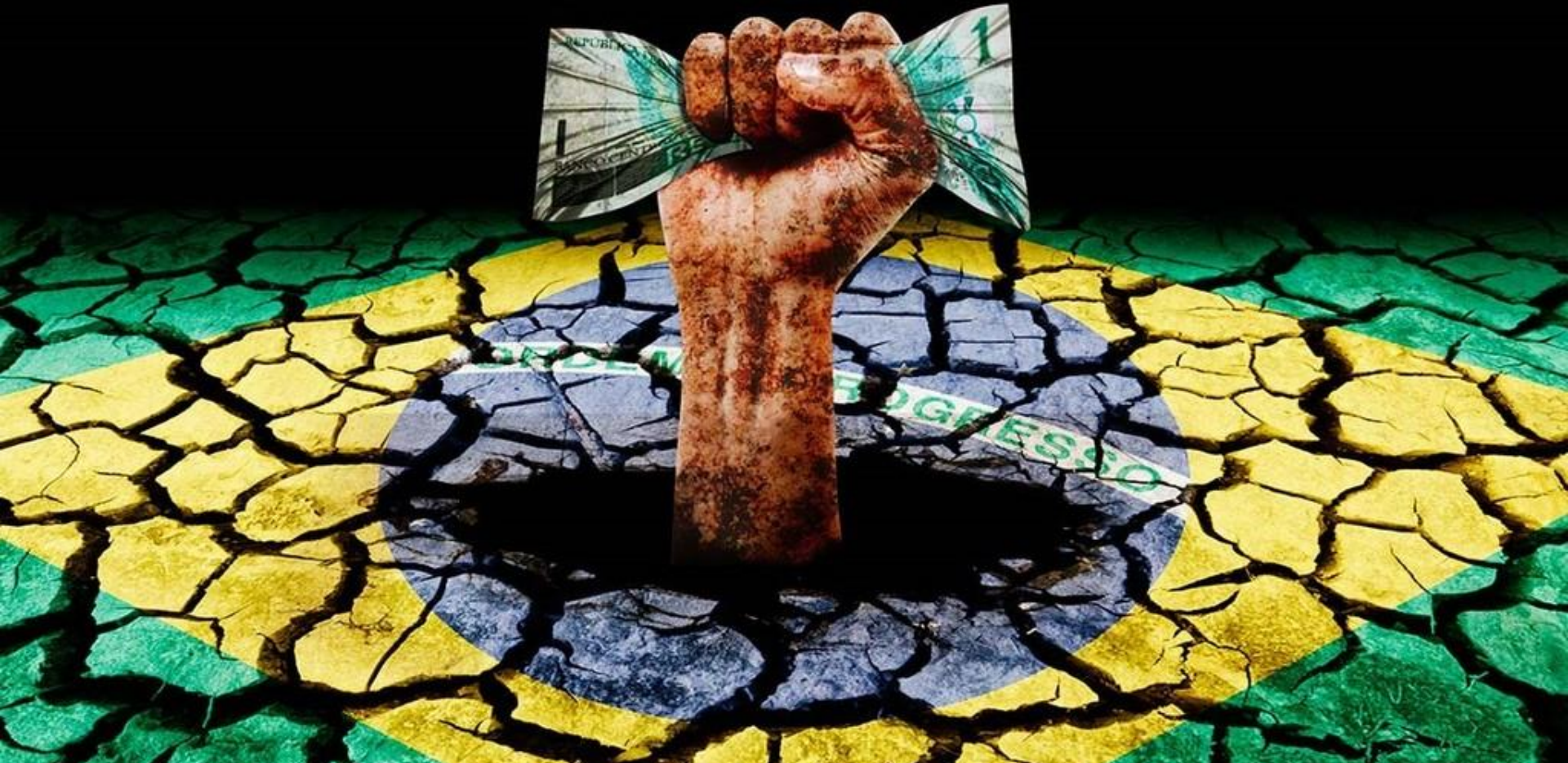


The biggest show on earth, and...



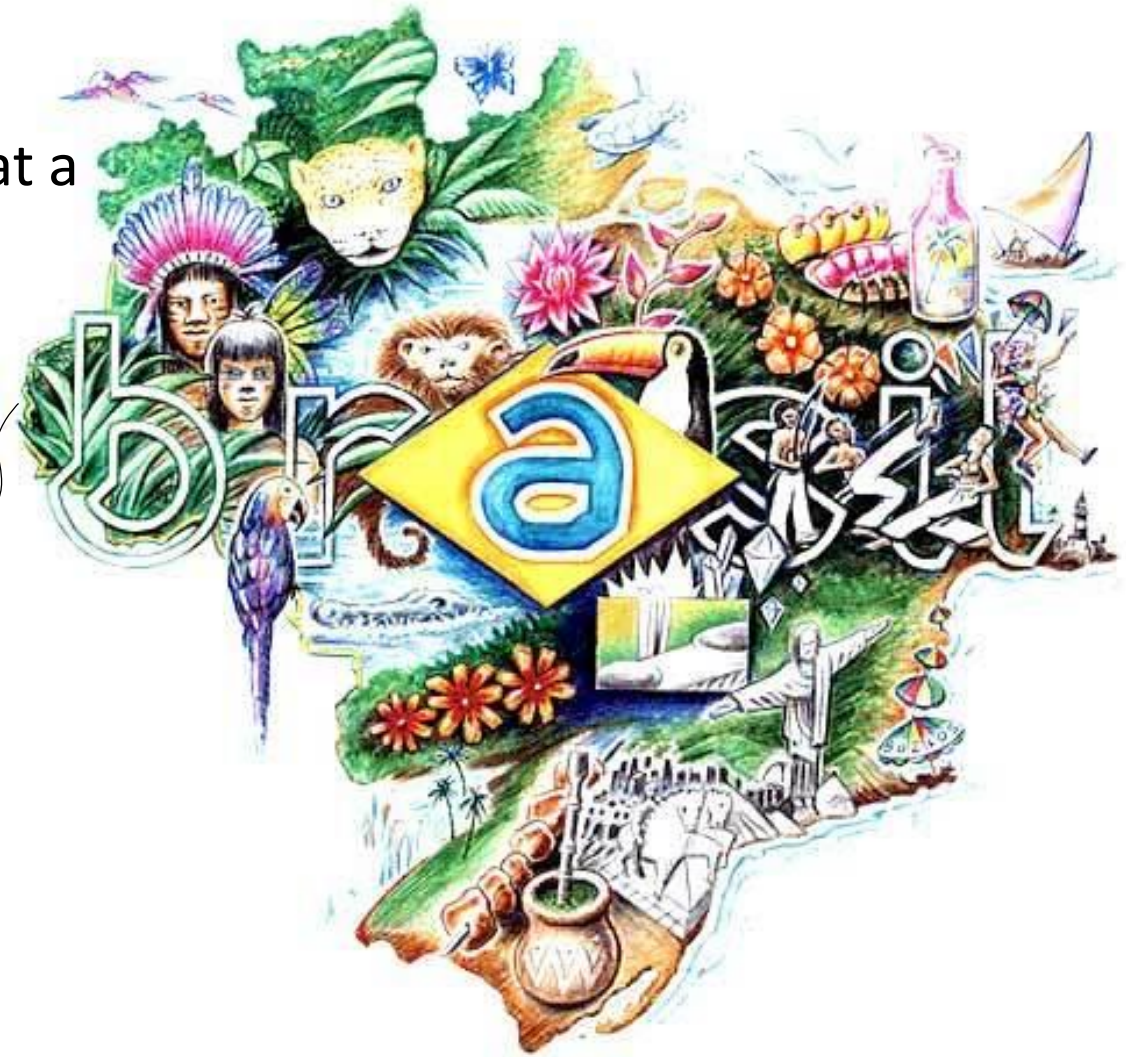


# The worst show on earth



# Brazil X Sustainability

- For Brazil, the path to sustainability happens at a slow pace, but firm, regardless of the crisis





# COP21 Paris agreement

## Effectiveness of government policies and programs

- Brazil has been adopting **measures** since the preparatory actions of COP21 Paris agreement.
- Since 2014, the **energy certification** of Public Buildings is mandatory, through the “PROCEL Edifica” procedure. The aim is to achieve 50% reduction of electrical consumption in new buildings and 30% in existing buildings submitted to major renovations.
- Since 2010, the "Normative Instruction n° 1" establishes that **Public Buildings should be sustainable**.





# COP21 Paris agreement

## Effectiveness of government policies and programs

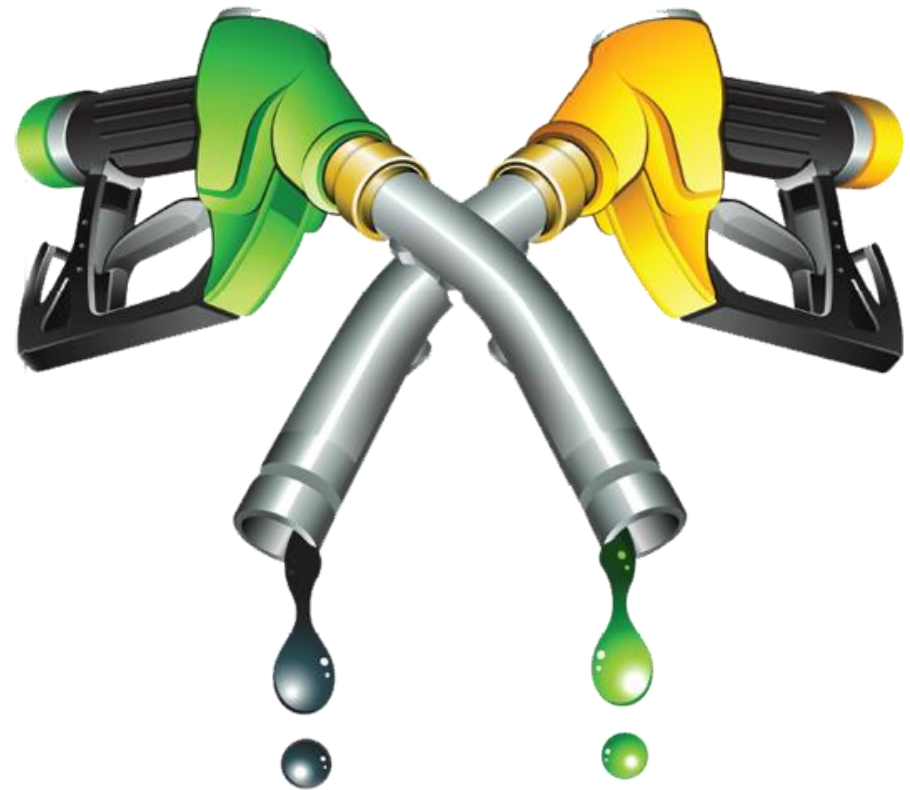
- The financial increase of funds related to the **training of human resources** - especially in undergraduate and postgraduate courses
- Encouraging **innovative processes** and expansion of the knowledge related to the topics of interest.



# COP21 Paris agreement

## Effectiveness of government policies and programs

- **Reduction** of forest fires
- Incentives for the production of **biofuels**, such as ethanol, which is widely used in Brazilian vehicles.





# What will be the likely outcomes over the next decade?

- The expectation is that Brazil can continue its process of transformation already initiated, through the market action of **qualified professionals** to build efficient buildings and to the action in the processes of **urban regeneration**.
- Its expected that buildings and cities could have a **better performance** with consistent solutions and in accordance with the social, environmental and economic reality of the country.



WORLD Sustainable Built Environ

HKGBC 香港綠色建築

# What will be the likely outcomes over the next decade?

- Positive actions regarding **energy efficiency** are already perceptible nowadays and should emerge in the next decade.
- The encouragement of the **non-motorized urban mobility** and the investment in **good quality public transportation** - carried out practically throughout the national territory - can also generate significant results.





# What will be the likely outcomes over the next decade?

- However, in **rural areas, there are not many initiatives** that may infer a fast evolution in this matter especially with regard to agriculture and livestock.



# Thank you

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