

# Creating Intelligent Cities

November 25, 2020

## RETHINKING THE DESIGN OF SMART & SUSTAINABLE COMMUNITIES





DANIELLE RALLECA  
**FOUNDER & PRESIDENT**  
**AUDEO**

**Social entrepreneur using her public health  
background to advocate for sustainable  
communities in the Philippines**



UC San Diego  
SCHOOL of MEDICINE | Center for  
Community Health



 **CITY HEIGHTS**  
COMMUNITY DEVELOPMENT

# AUDEO

We aim to help families achieve sustainable and affordable living. AUDEO is here to revolutionize the housing industry while reducing the plastic footprint. To do this, we are introducing a Colombian technology called Bloqueplás, a lego-like construction brick composed of 90% upcycled plastic.



# AUDEO GENERAL TIMELINE



PARTNERSHIPS



PILOT MODEL



ACCREDITATION &  
CERTIFICATION



FACILITY



LOCAL  
PRODUCTION



**4 DAYS**

Build Structural  
Framework

**7 TONS**

Upcycled Plastic

**4 PEOPLE**

Build Structural  
Framework

**50 - 80%**

Reduction in Labor  
Costs & Lead Time

50 SQ.M SINGLE-STOREY UNIT



# QUALITIES



Water Resistant



Withstands winds up to  
250 kph



Earthquake Resistant  
up to 8.0 magnitude



Flame Retardant - Withstands  
direct heat up to 700°C



Thermoacoustic - 36%  
temperature decrease indoors



Does not require adhesive,  
rebar, or plaster



Resistant to Rodents, Insects and  
Microorganisms



Low maintenance costs



Durable  
460 PSI

















# IMPLEMENTING & PROMOTING SUSTAINABLE COMMUNITIES

- Developing self-sustaining ecosystems
- Using a community-based approach
- Surrounding premium-quality housing with proper access to livelihood, food security, sustainable energy, running water access to social services and more
- Partnering with the right organizations and companies to make this happen



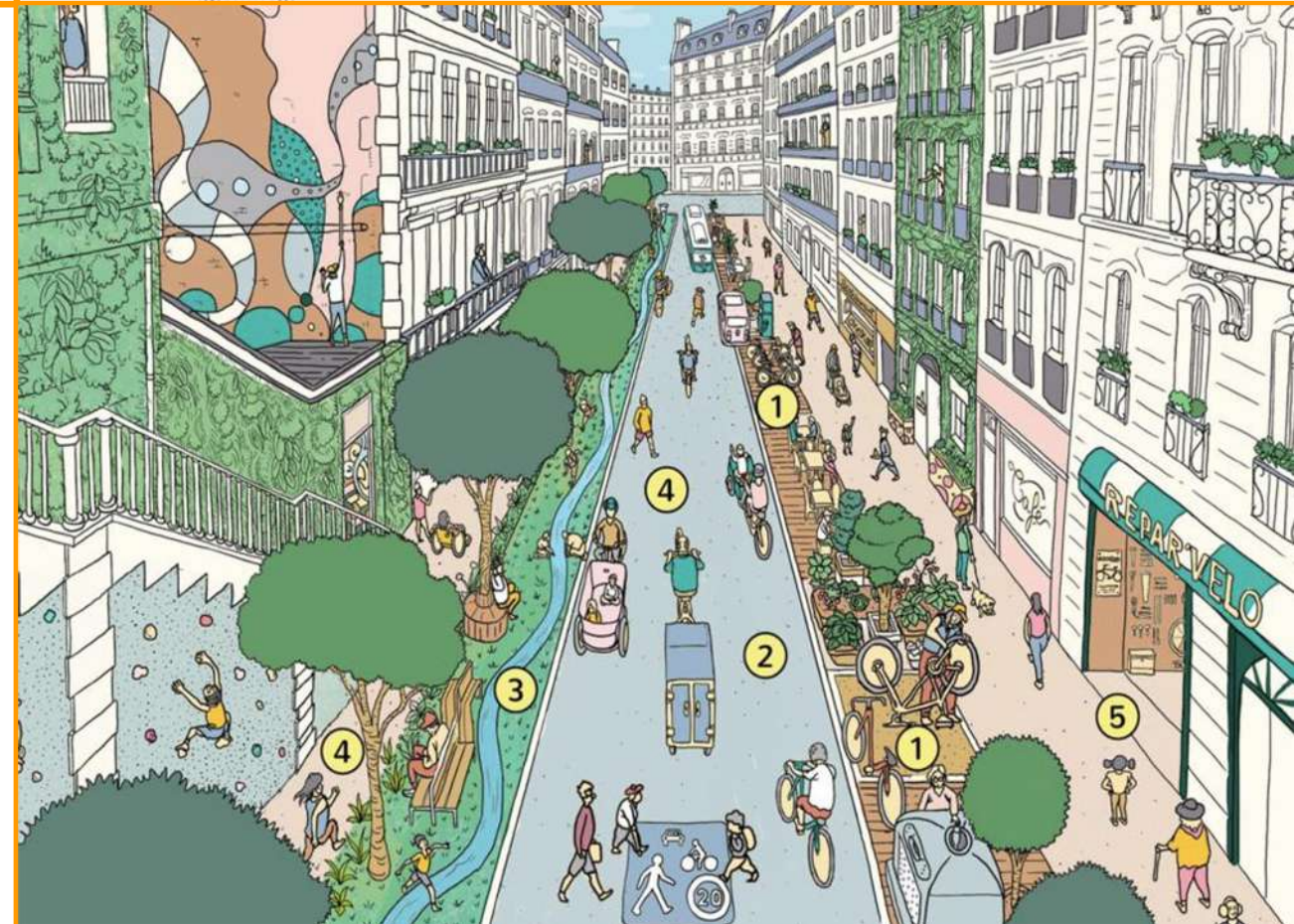




## THE 20-MINUTE NEIGHBORHOOD



## THE 15-MINUTE CITY



[How the '15-Minute City' Could Help Post-Pandemic Recovery](#)

# AUDEO COALITION



and more!



In response to COVID-19, the AUDEO Coalition was developed to rethink the design of our cities to fight the disease and build more sustainable communities. Our goal is to learn more about industries in different sectors focused on sustainability (social, economic, and environmental) and have professionals across the Philippines put their minds together to create new self-sustaining ecosystems.



# RETHINKING WITH OUR CHAMPION COMMUNITY



**Miraculous Homeowners Association**  
Rodriguez, Rizal

# INTEGRATING INTO A SMART COMMUNITY

- Cities and communities need to be data driven
- Opportunity to use mapping and GIS technology as a basis for development
- Mapping data can help with the transformation of a smart community, no matter how small





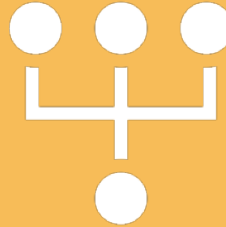
# STEPS TO BECOMING A SMART COMMUNITY

1



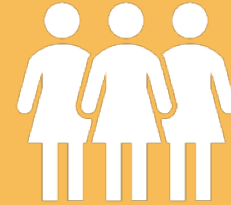
**Organize Your Data**

2



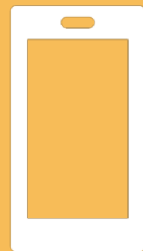
**Create Operational Efficiency**

3



**Engage Citizens**

4



**Have the Right Mobile Strategy**

5



**Make Data Driven Decisions**

Developing smart and sustainable communities cannot be accomplished by one person or organization. It requires a **multi-actor approach**.



# IMPACT

If we use the 81% of Philippines' mismanaged plastic waste (5,589 tons/day), then we can erase the 3,000,000-unit socialized housing deficit within 7 years.





## EMAIL ADDRESS

[audeoph@gmail.com](mailto:audeoph@gmail.com)



## SOCIAL MEDIA

[@audeoworld](#)



## WEBSITE

[www.audeoworld.org](http://www.audeoworld.org)