

# **SMART COMMUNITIES**

## **SDGs & COP 21**

### **GUIRR**

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**Executive Board**  
**World Federation**  
**of**  
**Engineering Organizations**

# WFEO STANDING TECHNICAL COMMITTEES

- ENERGY
- EDUCATION
- ANTI\_CORRUPTION
- WOMEN IN ENGINEERING
- INNOVATIVE TECHNOLOGY

# WFEO STANDING TECHNICAL COMMITTEES

- DISASTER RISK MANAGEMENT
- INFORMATION AND COMMUNICATION
- ENGINEERING CAPACITY BUILDING
- ENGINEERING AND ENVIRONMENT
- YOUNG ENGINEERS AND FUTURE LEADERS

Goal	Engineering Contribution	WFEO STC Activities
<ul style="list-style-type: none"> <li>• Ensure healthy lives and promote well-being for all at all ages</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Engineer better medicines</b></li> <li>• <b>Advance health informatics</b></li> <li>• Clean air, clean water, safe food production</li> <li>• Develop bio-engineering and nanotechnology life improvement devices and materials</li> </ul>	<ul style="list-style-type: none"> <li>• Committee on Engineering for Innovative Technologies</li> </ul>

For Complete Table see

<http://www.aaes.org/sites/default/files/WFEOENGINEERSFORASUSTAINABLEPOST2015%20V1.6.pdf>

See also WFEO Web Site <http://www.wfeo.org/sdgs/>

# Committee on Engineering for Innovative Technologies (CEIT)



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[CEIT Main Page](#)

[Strategic Plan](#)

[Operations and Budget](#)

[Membership and](#)

*The Committee on Engineering for Innovative Technologies has set its objectives in the area of technological advancements to identify and promote suitable technologies for sustainable development, especially in the context of the UN Sustainable Development Goals and the relevant agenda.*

**Cloud Engineering & Internet Plus**

**Big Data**

**Intelligent Technology and Robotics**

**Sensor Technology and Internet of Things (IoT)**

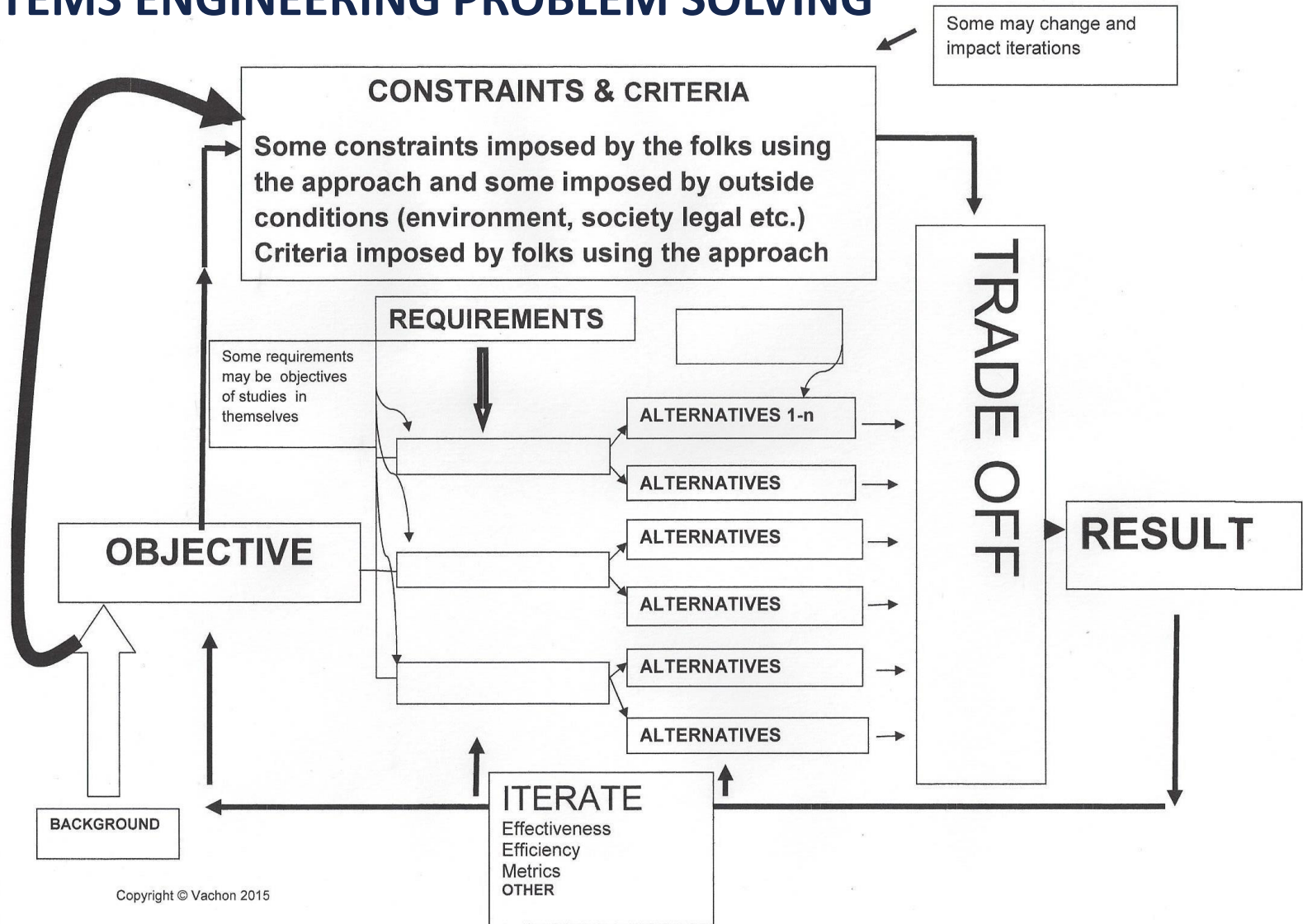
**Smart Devices and Materials**

## Background

The Chinese Association of Science and Technology ([CAST](#)) serves as the host of the Committee on Engineering for Innovative Technologies (CEIT) from 2016 to 2019. The Committee was earlier known as WFEU Standing Technical Committee on Technology and was transferred from Puerto Rico in November 2007. The Institution of Engineers India (IEI) [hosted the Committee from 2007 to 2015](#).

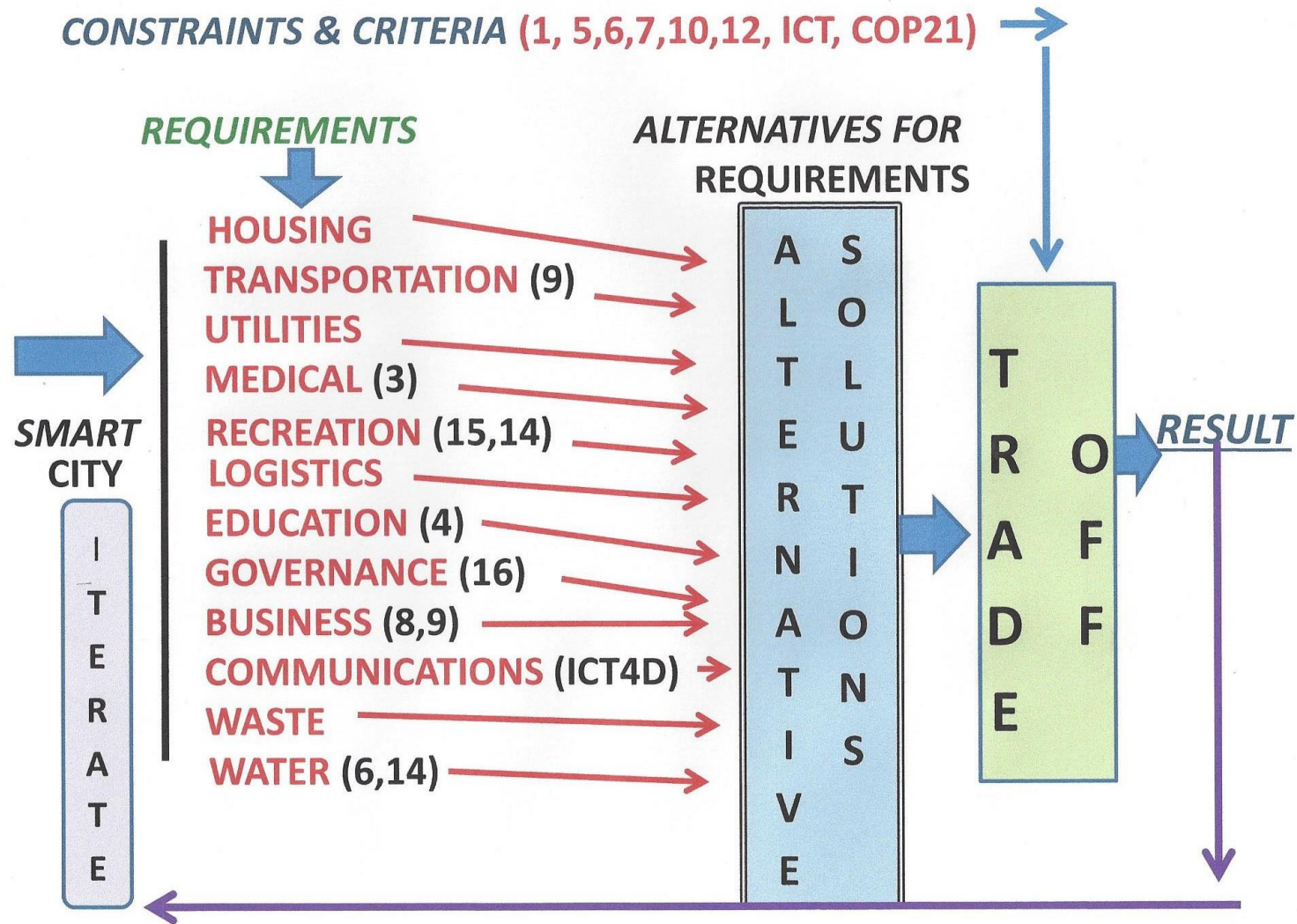
After its second term from September 2011 to the WFEU General Assembly in December 2015, approved by the WFEU General Assembly in Kyoto in 2015, the committee is transferred to CAST. As UN has announced its Sustainable Development Goals (SDGs) and the Agenda for sustainable development for 2030, CAST has

# SYSTEMS ENGINEERING PROBLEM SOLVING



# SYSTEMS ENGINEERING FOR SMART COMMUNITIES

CONSTRAINTS & CRITERIA (1, 5,6,7,10,12, ICT, COP21)



**A smart city is an urban development vision to integrate multiple information and communication technology (ICT) solutions in a secure fashion to manage a city's assets – the city's assets include, but not limited to, local departments information systems, schools, libraries, transportation systems, hospitals, power ... BUT WE MUST ADDRESS SOCIAL SUSTAINABILITY & THINK OF COMMUNITIES**





**RURAL**

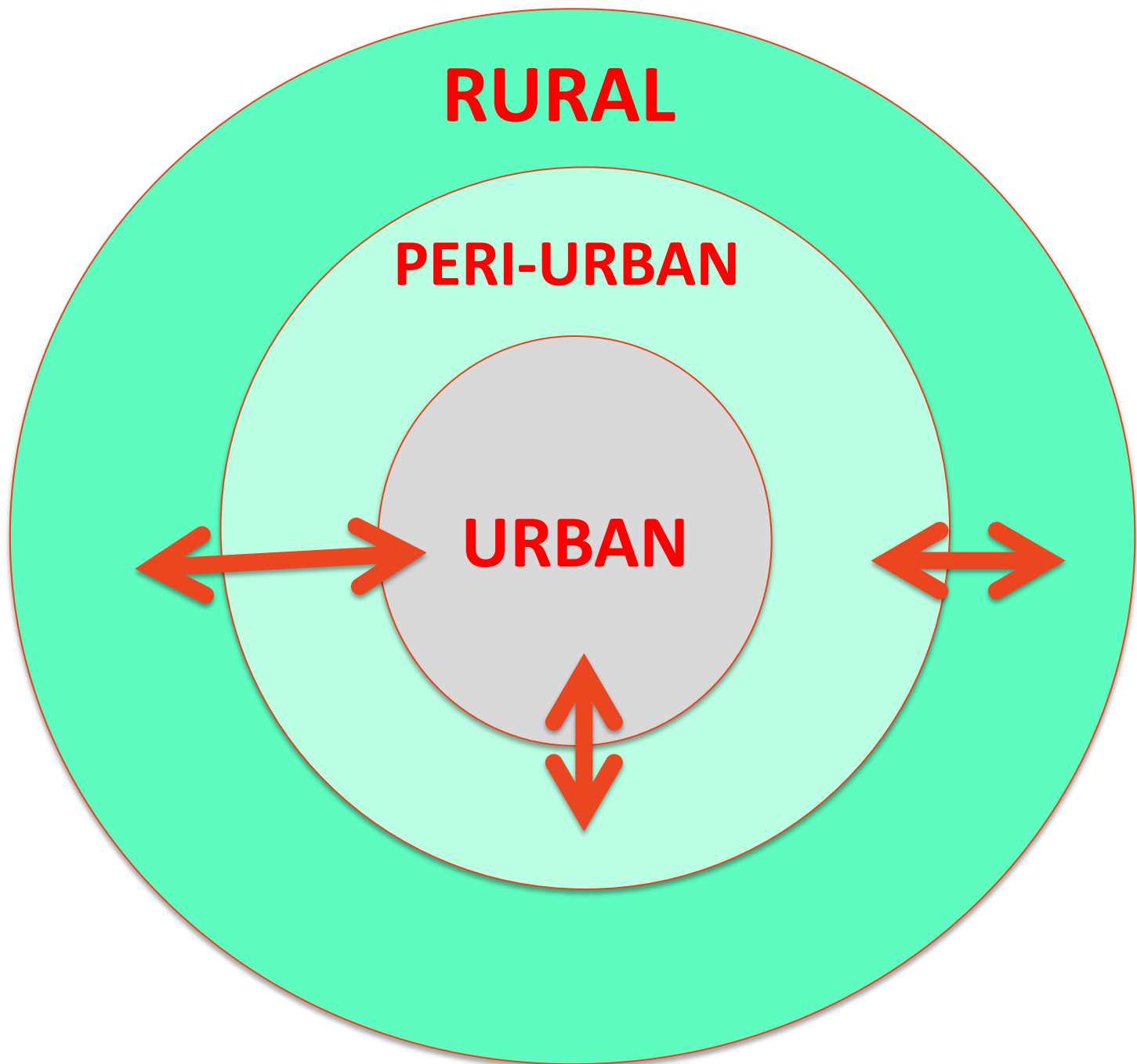


**URBAN**



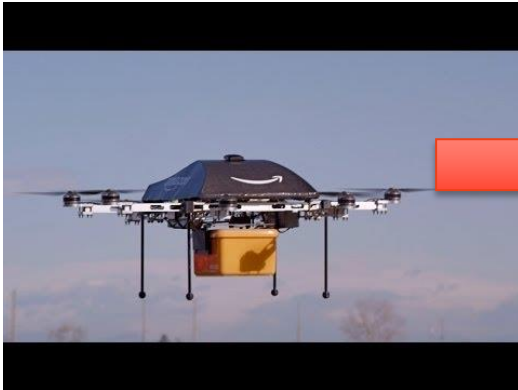
**PERI-  
URBAN**







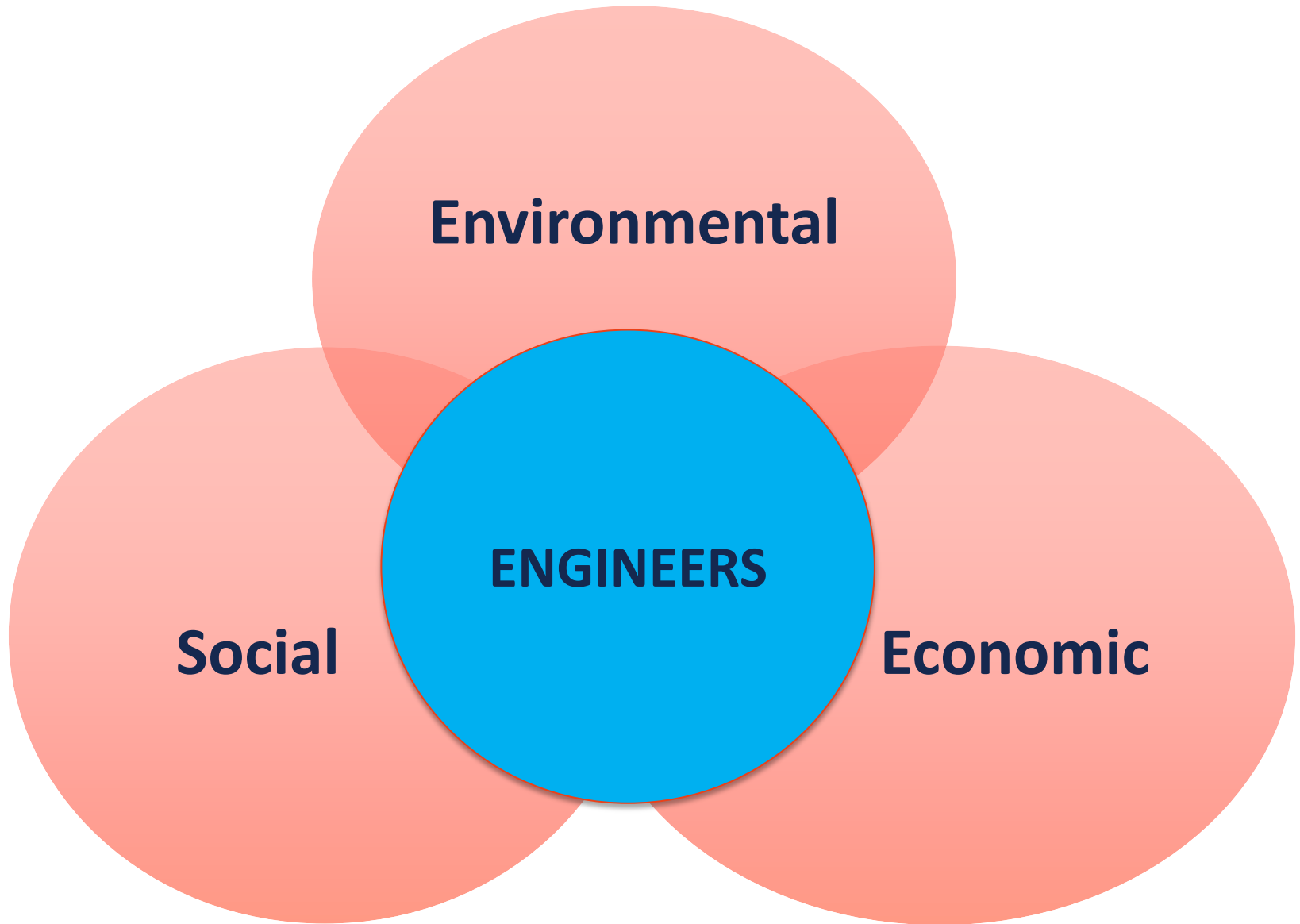
# ENGINEERING FOR SMART COMMUNITIES



**RURAL  
PERI-URBAN  
URBAN  
SYMBIOSIS**



CONFERENCE



# The Five Capitals of Sustainability

## All to be Sustained/Restored

1. Natural (environment)
  2. Human (part of social)
  3. Social (part of social)
  4. Produced (part of economic)
  5. Financial (part of economic)
- <<https://www.forumforthefuture.org/project/five-capitals/overview>>

# SMART CITIES

SINGAPORE

New York

Atlanta

