



**V. Srinivasa Rao (VSR)**

Chairman, Smart Cities  
Working Group, IET, IOT Panel

CMD - BT&BT

March, 2019

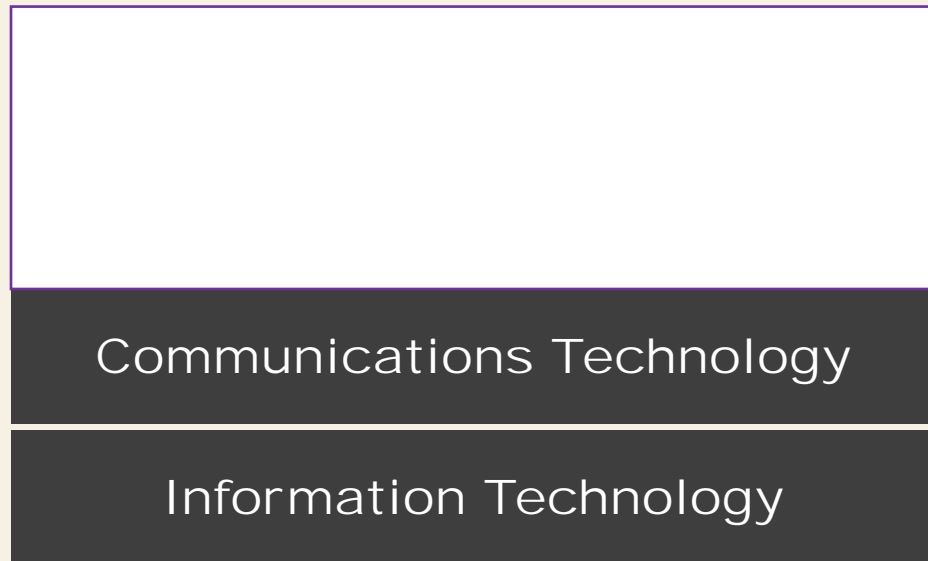
New Delhi



ICT ERA IS OVER !?

# Cities are driven by Fusion of Technologies

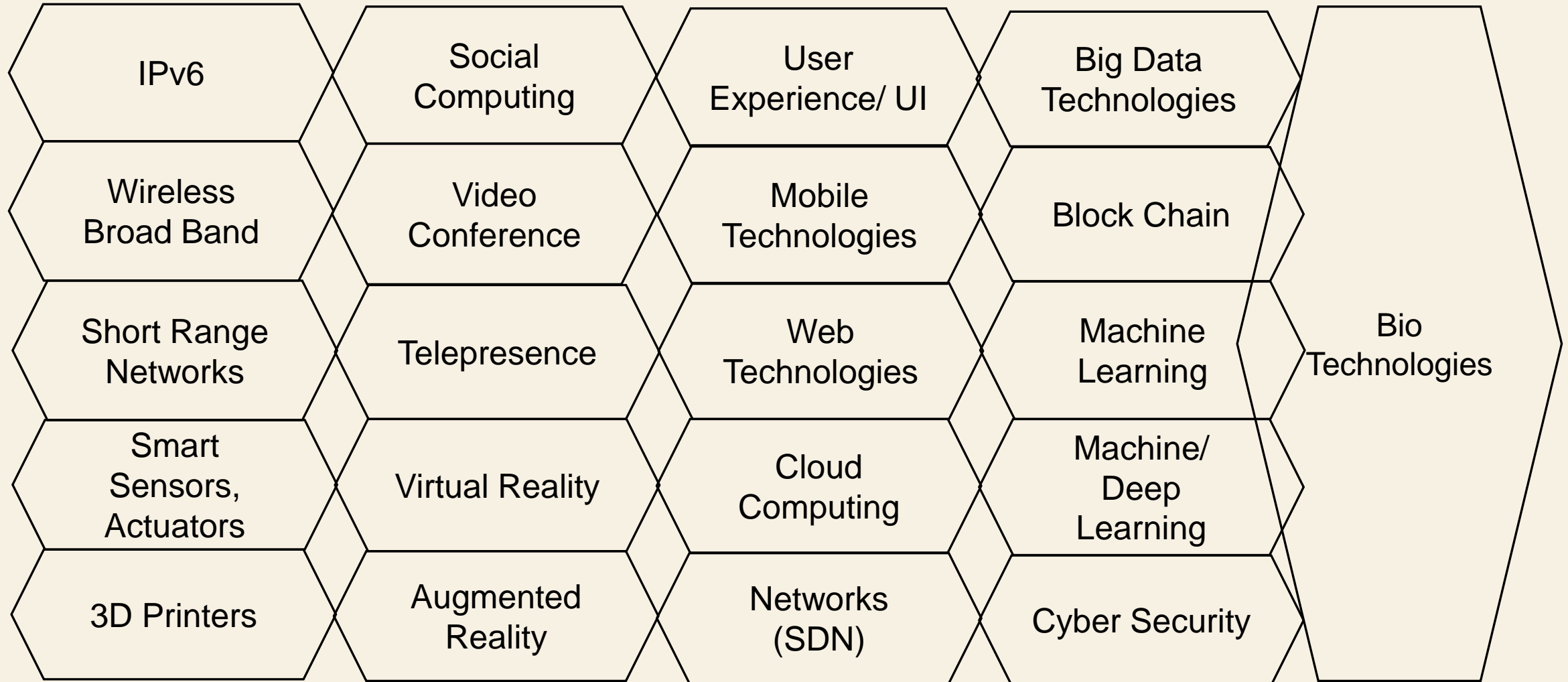
ICT



DIGITAL TECHNOLOGY



# Cities are driven by fusion of technologies (Cont'd)





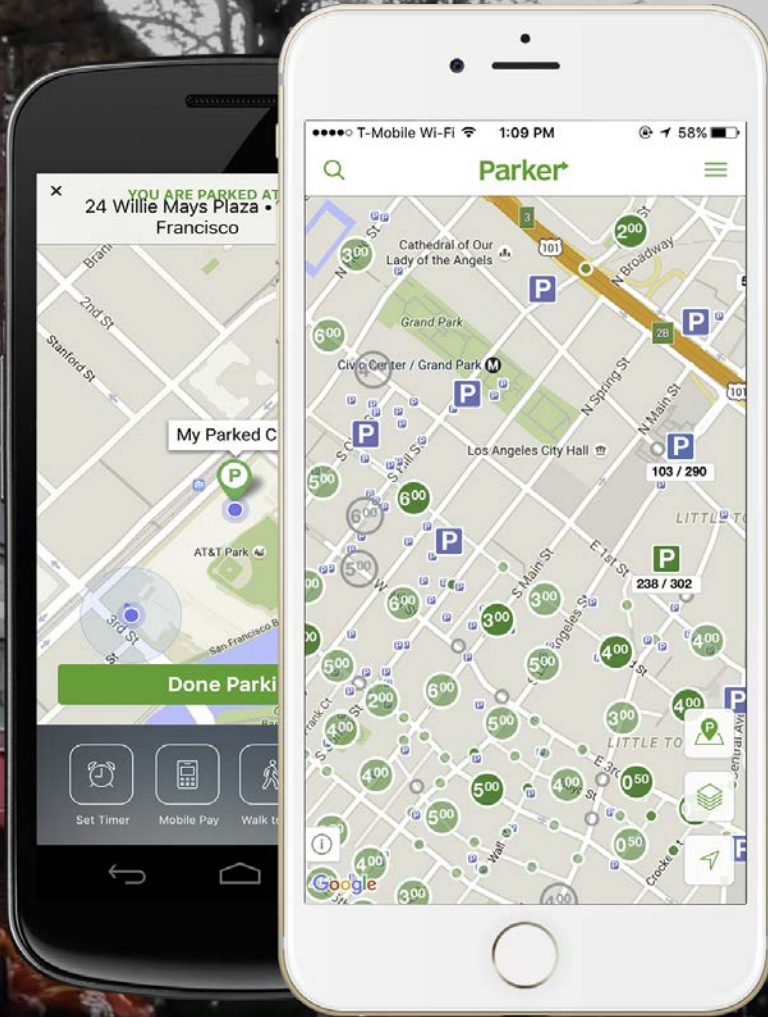
# Giving Life to Cities With Digital Technologies



Source: Hypercat

The lamppost not  
as a power source  
also be used

# Streetline



## Get the most out of Parking

abilities to manage parking assets and provide the best parking experience for drivers, merchants and solution providers.

12 Spaces Available

FULL

3 Spaces Available

See How It Works



Smart parking improves the quality of life

712,956 Hours Saved

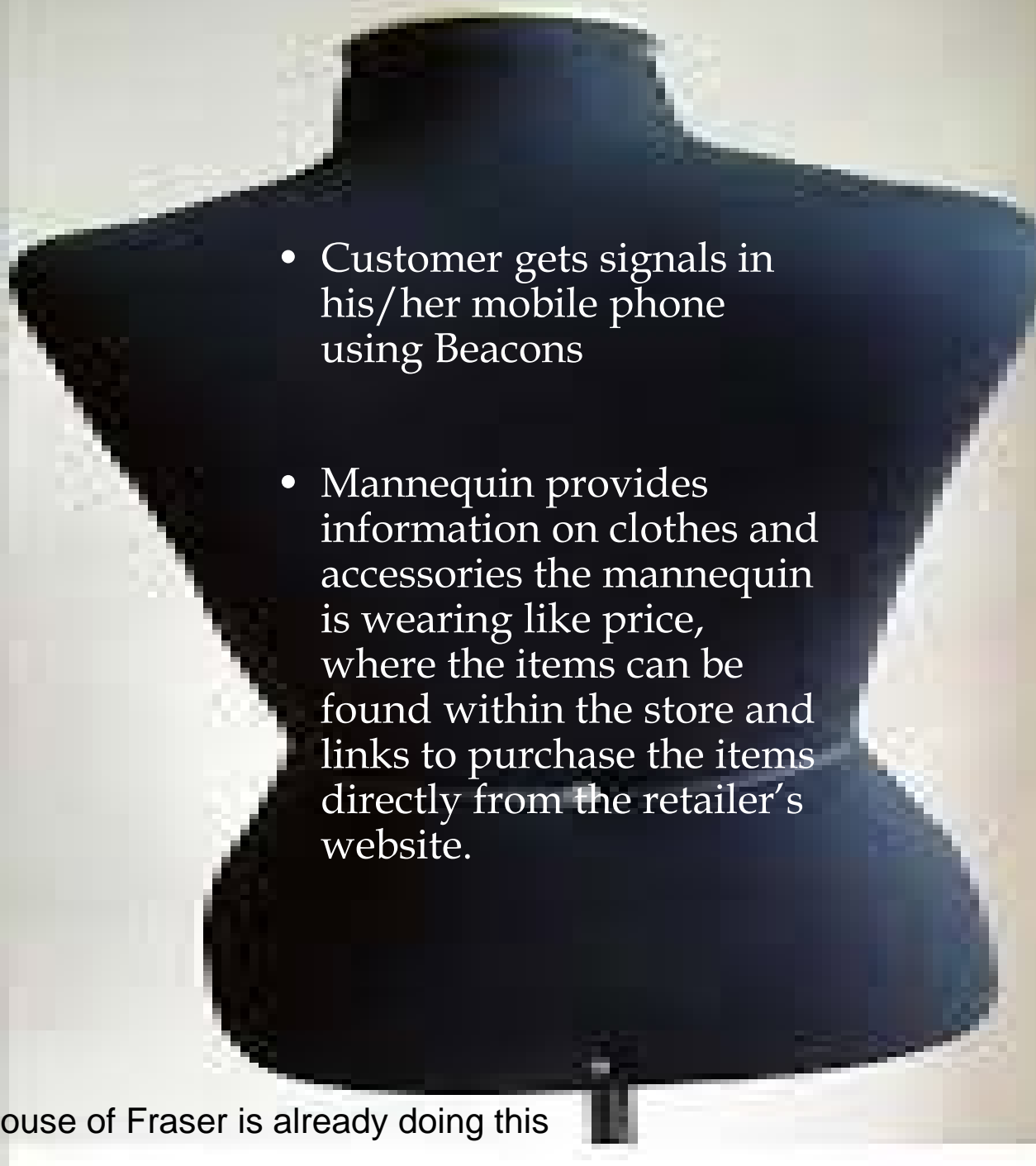
3,021,964 Miles Saved

177,763 Gallons Saved

3,142,843 Lbs Saved



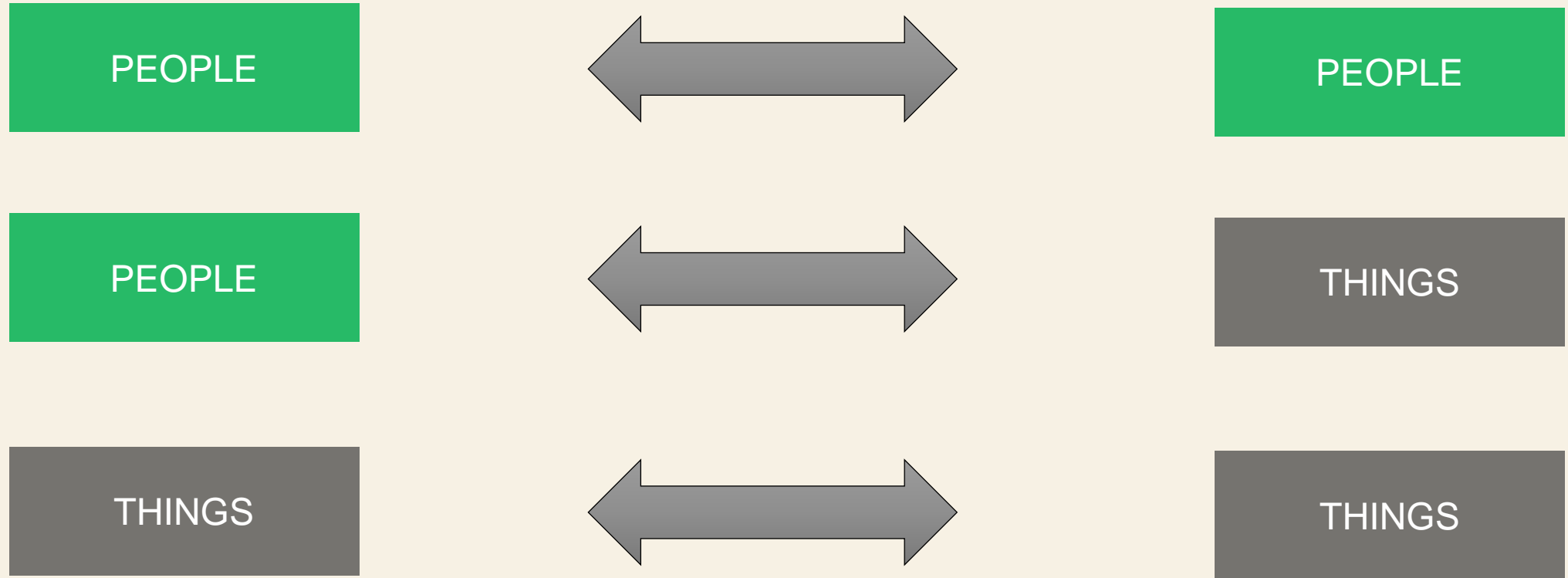
# CUSTOMER EXPERIENCE

- 
- Customer gets signals in his/her mobile phone using Beacons
  - Mannequin provides information on clothes and accessories the mannequin is wearing like price, where the items can be found within the store and links to purchase the items directly from the retailer's website.

House of Fraser is already doing this



# CITY Today is "Hyper Connected"

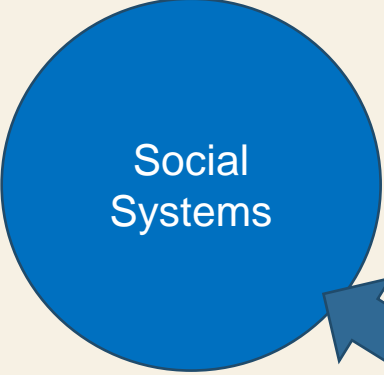


People and Things are Teammates

For example Delhi Population is  $2 \text{ cr} + 5 \text{ cr} = 7 \text{ cr}$  !!!!!?

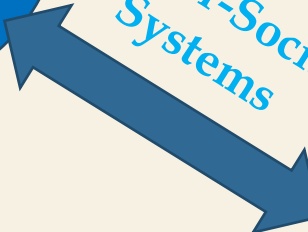
# City is System of Systems

- Government
- Healthcare
- Community
- Education
- Community
- Others

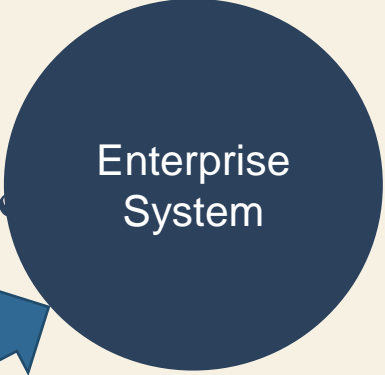


Social  
Systems

Cyber-Social  
Systems

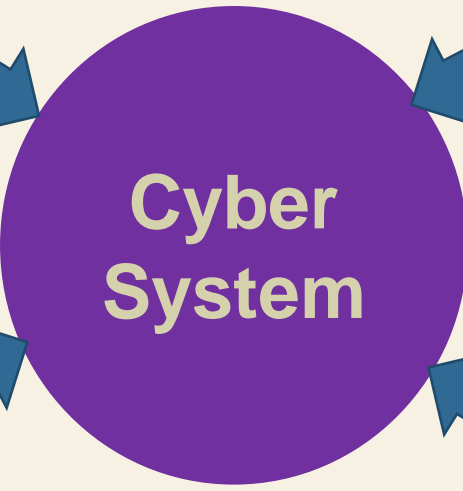
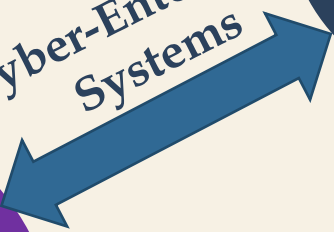


- Business Model
- Services
- Processes
- Operating Model
- Talent



Enterprise  
System

Cyber-Enterprise  
Systems



Cyber  
System

Cyber-Physical  
Systems

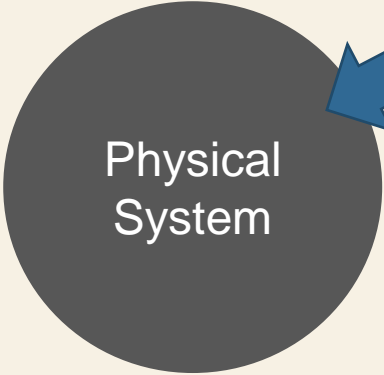


- Computing
- Storage
- Algorithms
- Logic & Flow
- Communication system
- Collaboration system
- Information Processing

Cyber-Biological  
Systems



- Mechanical System
- Optical Systems
- Electrical System



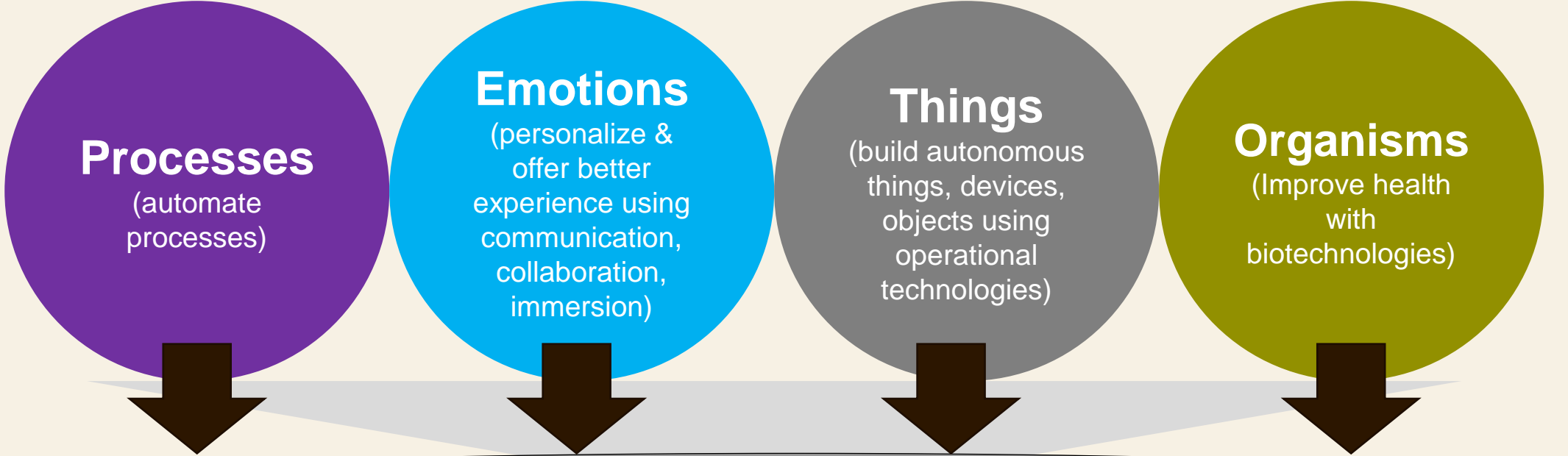
Physical  
System

- Circulatory
- Respiratory
- Nervous
- Muscular
- Digestive
- Reproductive
- Sensory
- Urinary
- Others
- Micro organisms



Biological  
System

# Smart City is driven with human and virtual brains



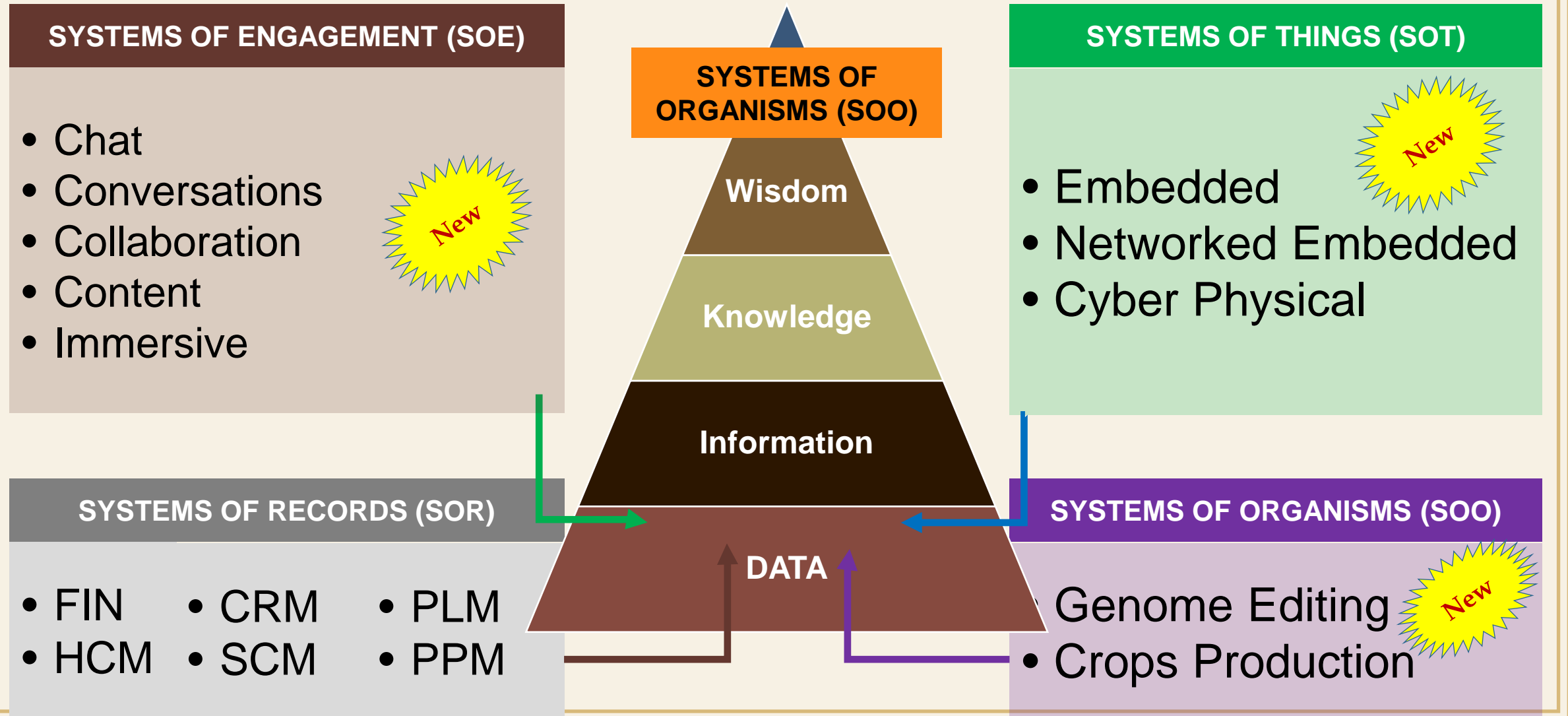
What Happened ?

Why Did it Happen ?

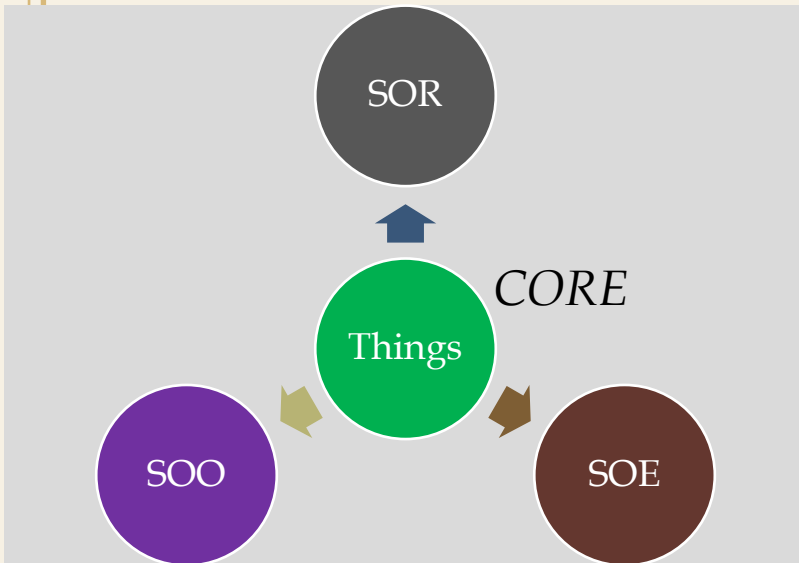
What will Happen ?

How We can Make it Happen ?

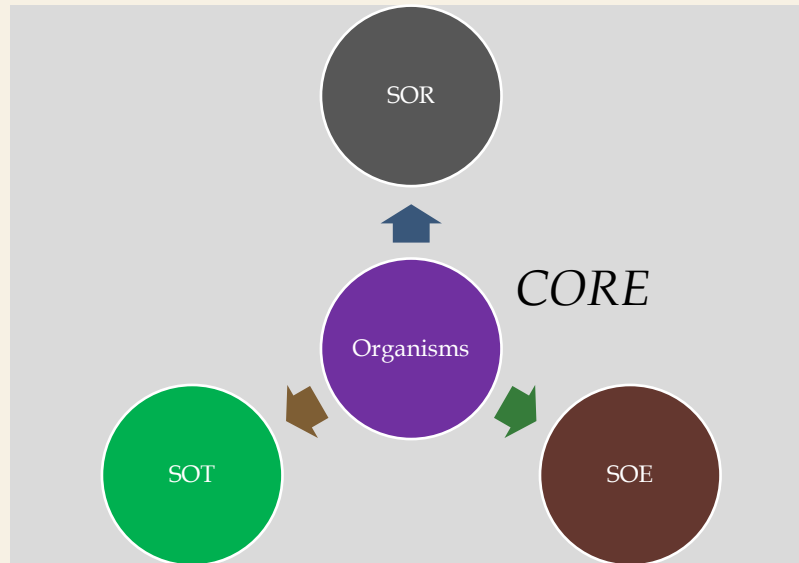
# City requires a new age Digital Applications



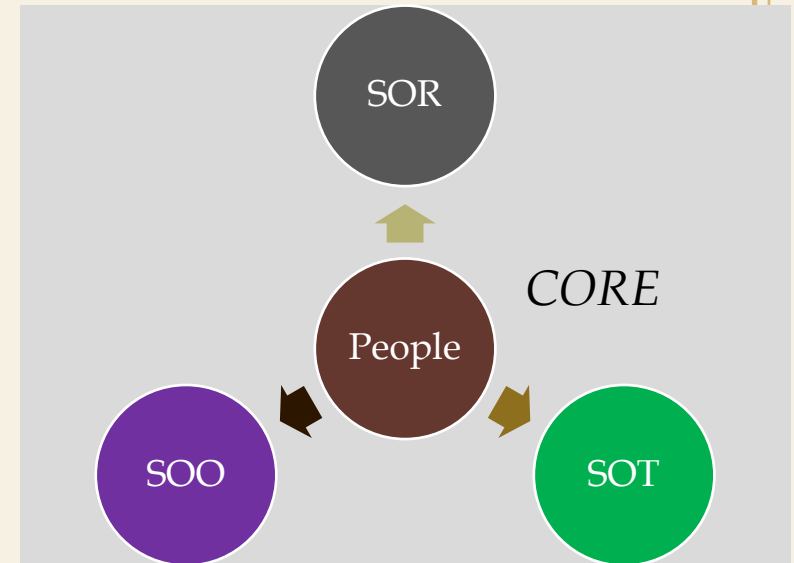
# City requires a new age Digital Applications (Cont'd)



Smart Factories. Smart Grids. Smart Buildings



Healthcare, Agriculture, Bio Fuels etc.

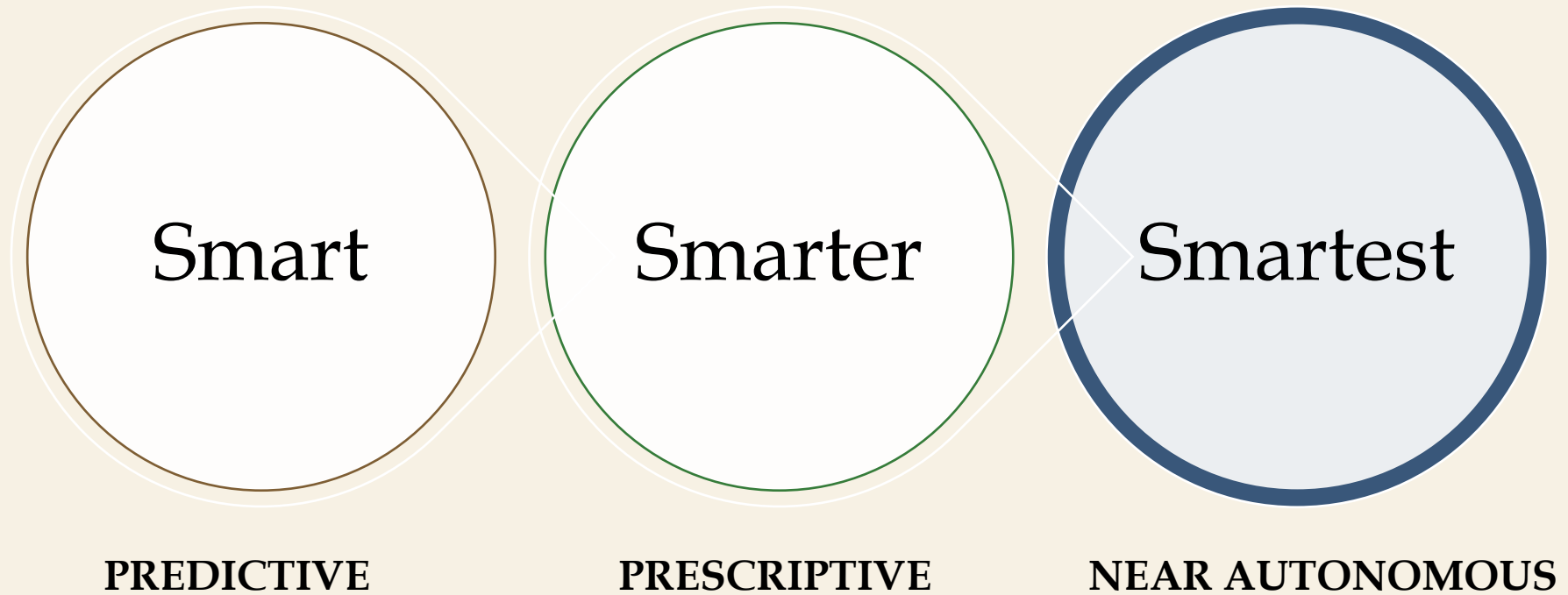


Retail, Healthcare, Banking, Hospitality

DATA DATA DATA DATA DATA DATA DATA DATA DATA DATA DATA DATA DATA DATA DATA DATA

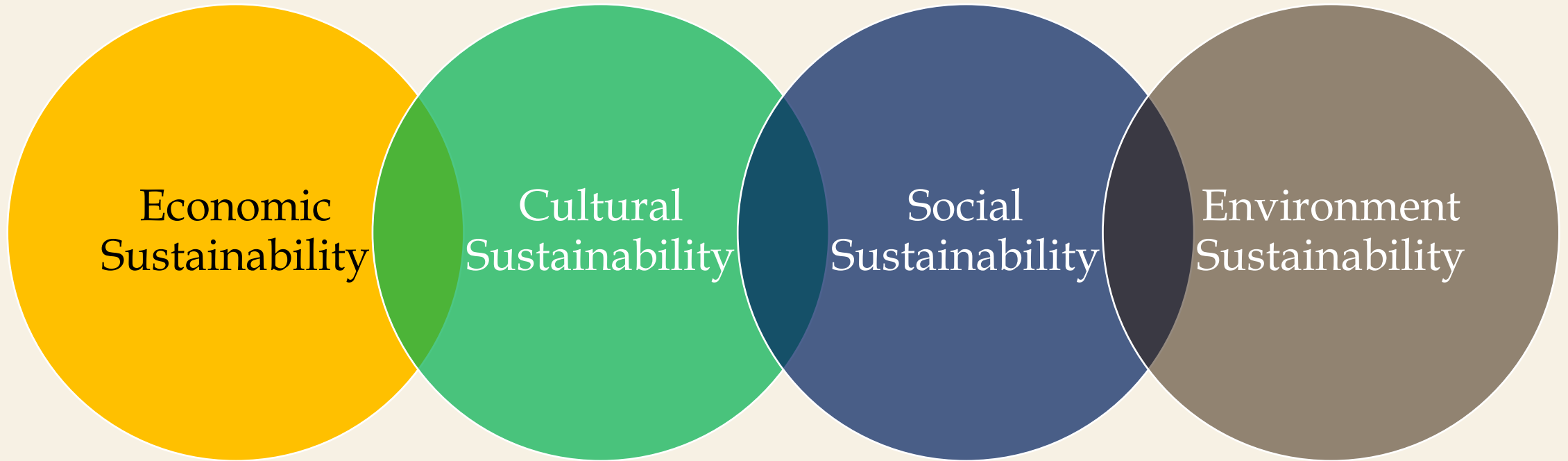
# SMART CITY

DIGITAL TECHNOLOGIES



# SUSTAINABLE CITY

DIGITAL TECHNOLOGIES



# SAFE CITY

## DIGITAL TECHNOLOGIES

Health

Privacy

Devices  
Security

Applications  
Security

Data  
Security

Network  
Security

Infrastructure Security

- Digital Literacy
- Digital Diet
- Digital Smartness



*Thank You!*

---

@vsr111

© Copyright with VSR

Phone

+91 9866893307

---

Email

vsr@btbt.co.in