

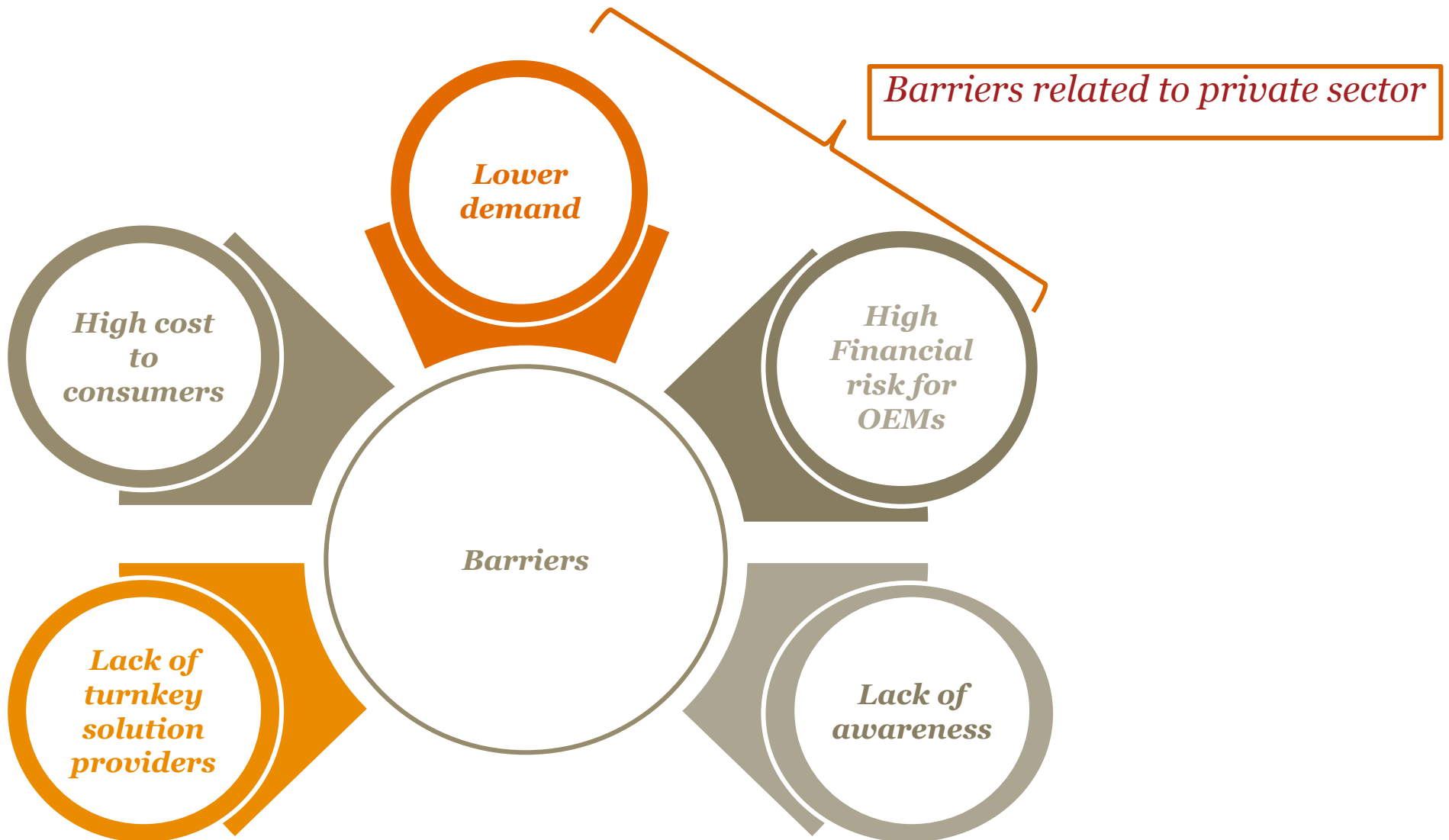
GRID

# Energy Efficiency Market Transformation

## Drivers- Demand or Financing

*June 2019  
Strictly Private  
and Confidential*

# Transition Challenges



# *Strategy-1*

## *Creating Demand/Financing*

### *Case study-Unnat Jyoti by Affordable LEDs for All (UJALA)*

**1**

# About the programme ( Demand & Financing )

Unnat Jyoti by Affordable LEDs for All (UJALA, meaning Light in Hindi), is the world's largest lighting replacement programme.

The programme is implemented by Energy Efficiency Services Limited (EESL), a super Energy Service Company (ESCO) under the Ministry of Power, Government of India.

Largest zero-subsidy LED bulb programme for domestic consumers, is an extraordinary example of successful energy efficiency programmes.

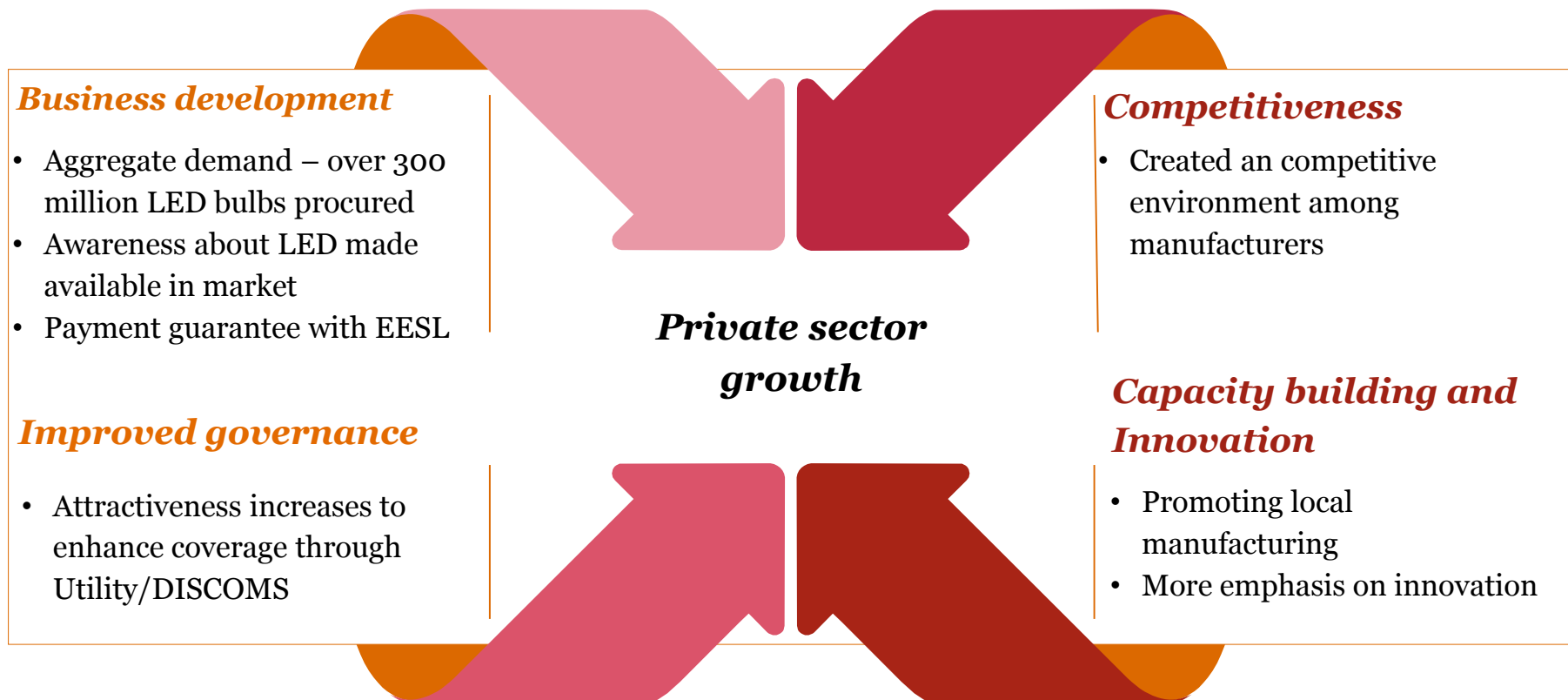
UJALA aims to replace 770 million old wasteful lamps with modern, efficient and longer lasting LED lamps by 2019.

UJALA is a market driven initiative, with strong policy support from the government.

*PwC India is key implementing partner to take forward this journey*

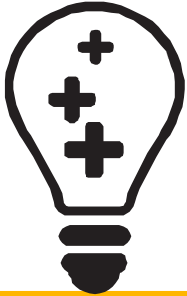
# Solutions

- EESL's model obviates the need for DISCOMs to invest in the upfront cost of energy efficient appliances; EESL procures the appliances and provides to consumers at a affordable rate.
- The model addressed the barriers and supported private sector on following elements-



# Results

## Fastest growing LED market in the World



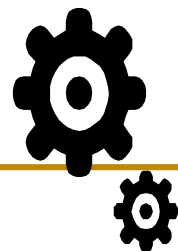
- Successfully distributed more than 347 million LED lamps across India till date.
- Triggered huge **private sector investment**, particularly in manufacturing - the market (outside the programme) accepted **1112** million LEDs.
- Domestic manufacturing increased from approximately 3 million LED bulbs in 2013 to 62 million in 2015. **The number of manufacturers are also increased.**

## Economies of Scale



- **88% reduction in price of LED bulbs**
- Reduction in price led to increased demand and **provided opportunity to manufacturers** to enhance the capacity.

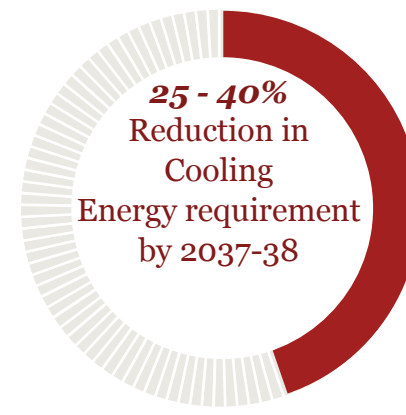
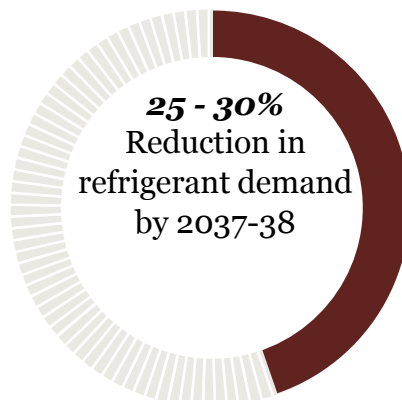
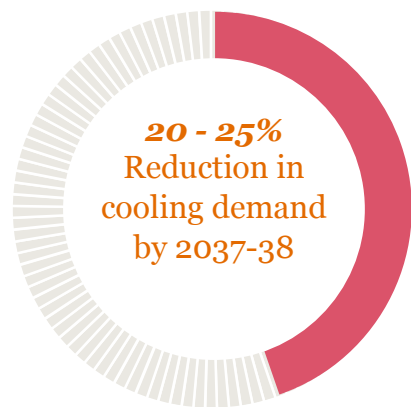
## Best-in class manufacturing and high quality



- No compromise on quality and **high quality**
- With best-in class manufacturing and high quality product, the **Indian manufacturers received high visibility in global LED market**

# Replication potential

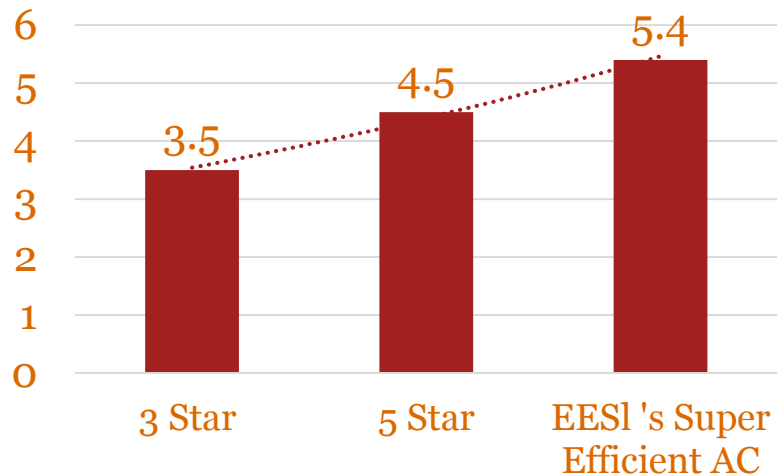
- Potential to do for other appliances.
- Potential for replication can continue to trigger investment, innovation and best-in class manufacturing, will contribute to the **Make in India ( promoting local manufacturing )**.
- Given the potential of electricity savings and GHG emission reduction, there are plans to include Room Air-conditioners (RAC) aligning it with the goal of **India Cooling Action Plan (ICAP)**. **The goal of ICAP are-**



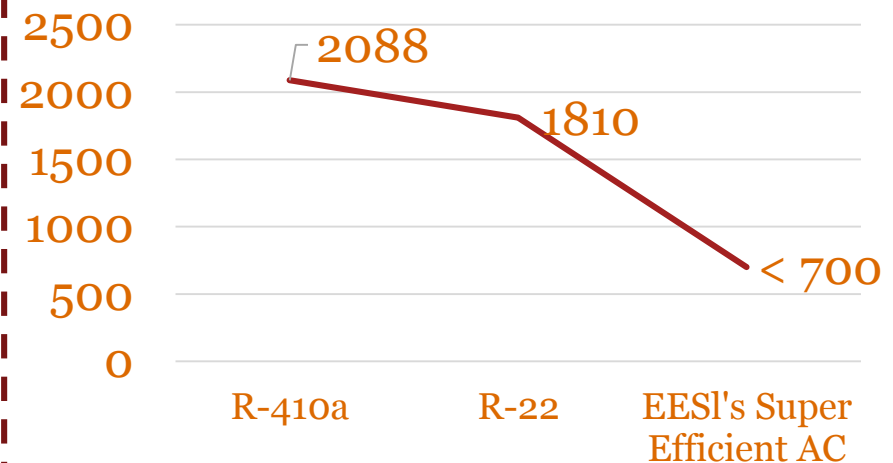
# Pilot - RAC programme ( Financing )

- Under this pilot phase, 50,000 super high efficiency and climate friendly air conditioners to consumers at affordable price. ( Target is to 5 million in 5 years)

1. To leapfrog the current energy efficiency levels in Indian RAC market ( **ISEER > 5.4** )



2. Promote the use of low **GWP value (GWP < 700)** refrigerants



## *Strategy-2*

### *Promoting Cooperation Knowledge Exchange*

### *India-EU Clean Energy and Climate Partnership (CECP)*

**2**

## *About the programme*



### **Strengthening Policy Dialogue**

- 1) Policy Development & implementation
- 2) Support to the dialogue: EU India Energy Panel and India-EU Climate Change dialogue
- 3) Exchange of experiences, best practices & views (through webinars, Workshops, study tours, field visits, demo projects)



### **Cooperation between India, EU and EU member states**

- 1) Organization of key EU-India events
- 2) Research and Innovation
- 3) Development & implementation of technical solutions
- 4) Investment in Renewable energy and Energy Efficiency
- 5) Business to Business engagement

*Building Relationships...*

*Thank you*



Rajeev Ralhan  
Director  
Advisory-GRID  
T: 0124 – 330 6259  
M: +919910063775  
[rajeev.ralhan@in.pwc.com](mailto:rajeev.ralhan@in.pwc.com)

