

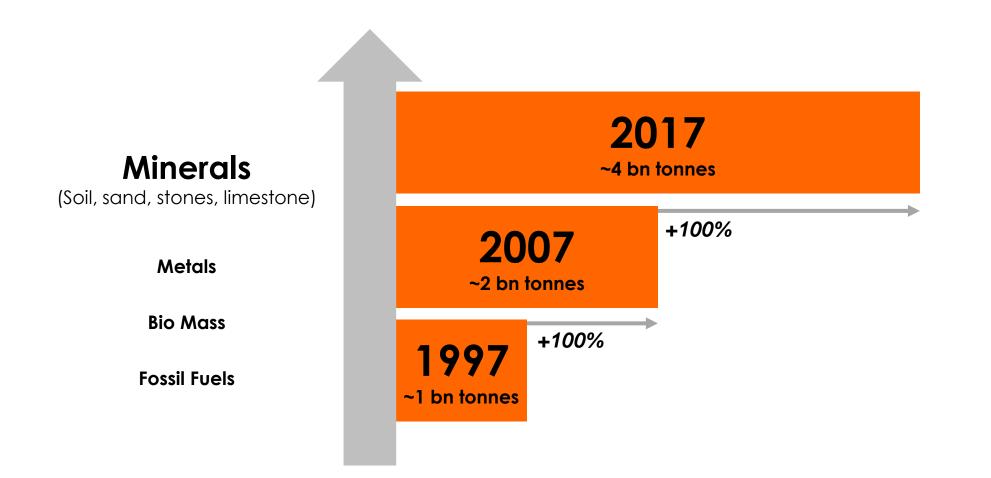
Ushering in a Paradigm Shift

Global Housing Technology Challenge - India



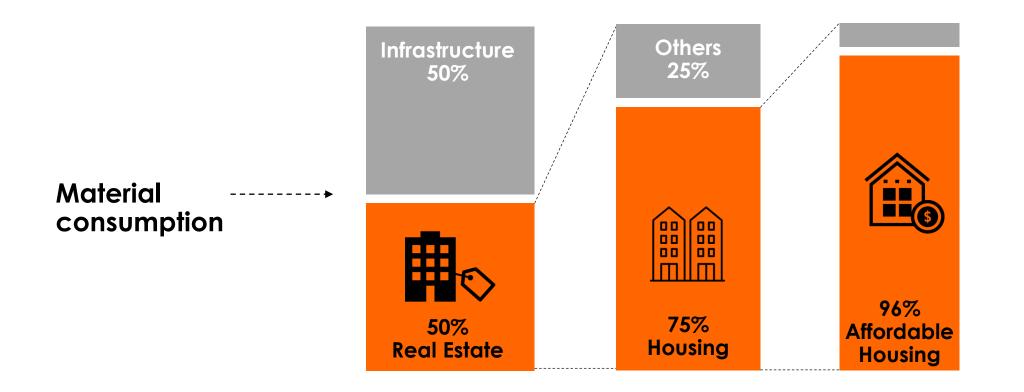
The PMAY-U is committed to deliver 1.2 Crore houses by 2022...





Material consumption by the construction sector is doubling every decade





With the large demand for affordable houses, this segment will account for the highest consumption of construction related materials – sand, soil, stone, limestone, metals, fossil fuels and biomass – approx. 1.5 billion tonnes currently



Data Source – GIZ (2012, 2016); 12th Five Year Plan (2012-2017)

Its adverse implications





A technology transition is needed to ...



Reduce Costs

Improve Labor conditions

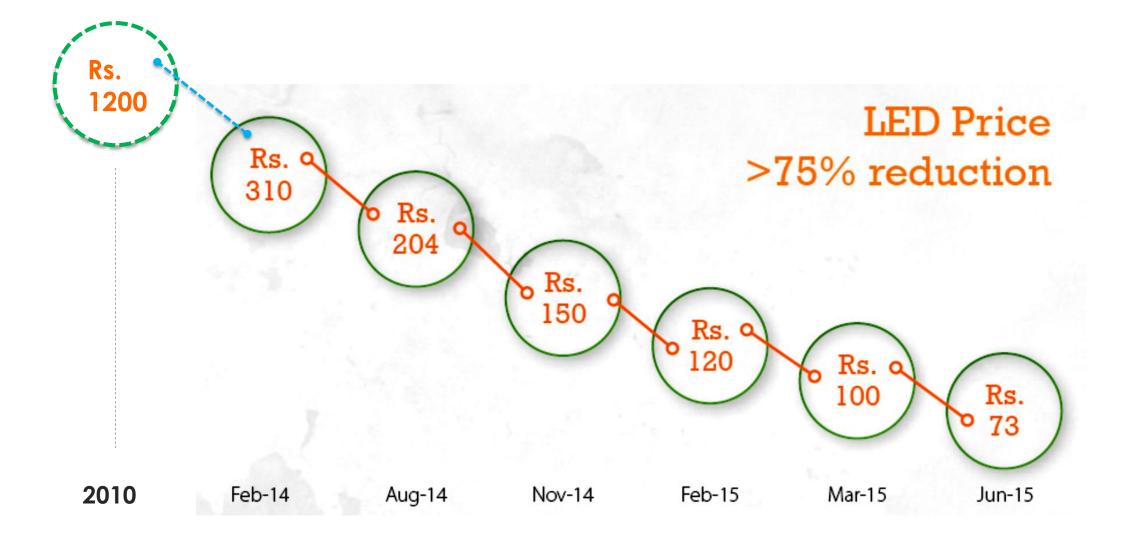




Making technology transitions a success - Learnings from experience in India



LEDs | Energy Efficiency - Technology Transition



The first LED lamp made in India, in 2010 was sold for INR 1200, a price unaffordable for most consumers.



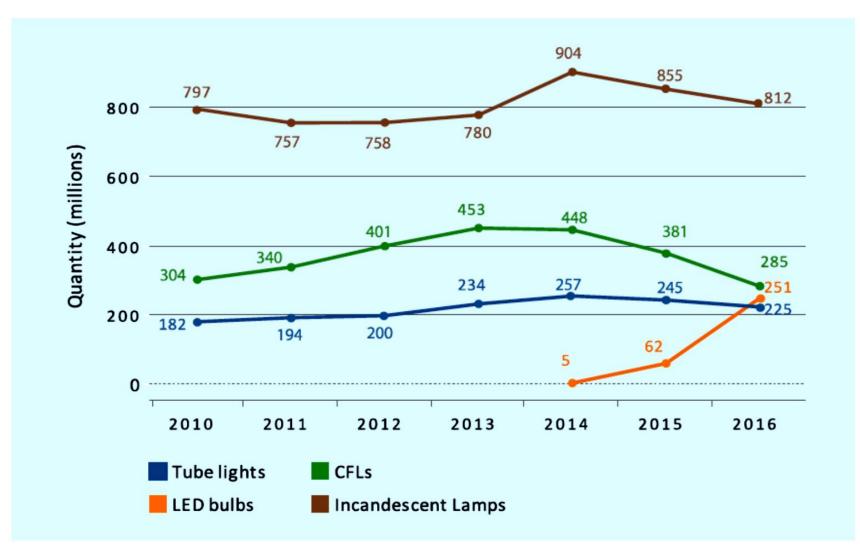
LEDs | Energy Efficiency - Technology Transition

Started in Puducherry in 2012

- **3 key partners** (the Puducherry Electricity Department (PED), Energy Efficiency Service Limited (EESL), and International Institute for Energy Conservation (IIEC))
- Demand aggregation that promoted economies of scale through Institutional Anchors
- **Sops for bulk procurement of LED bulbs** using a Standard Offer Program that treated energy efficiency as a commodity, similarly to renewable energy or conventional resources
- Monitoring & Evaluation, Distribution and Marketing
- National level schemes/ promotion and distribution of LED bulbs undertaken subsequently



Figure 4: Sales trends of CFLs, tube lights, incandescent bulbs, and LED bulbs



Source: ELCOMA

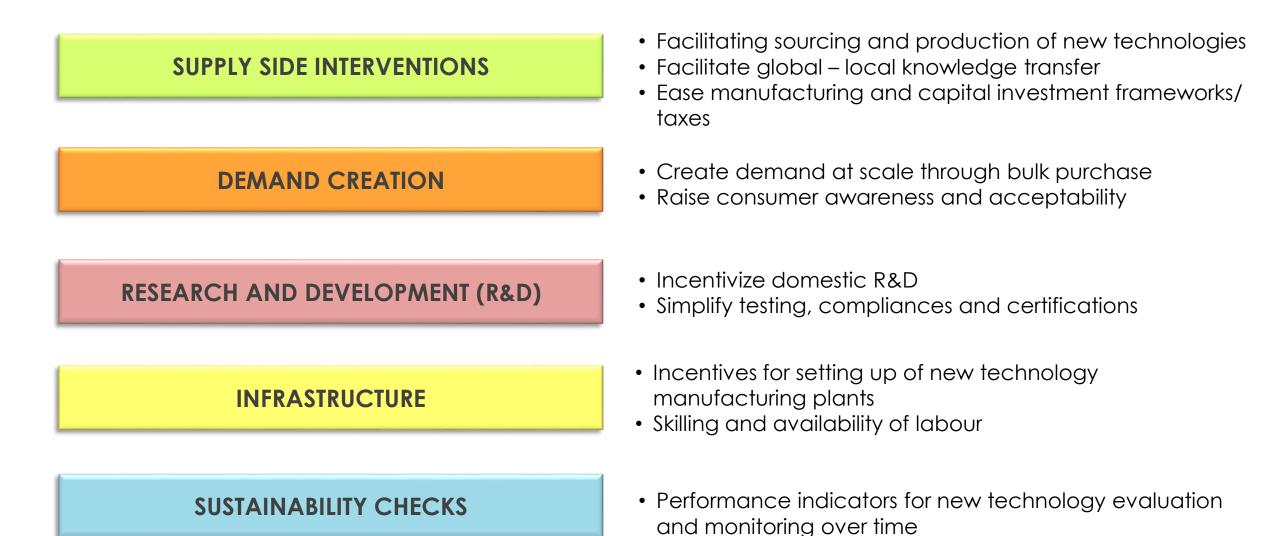


Electric Vehicles | Fuel Efficiency - Technology Transition

- Gol commits to India becoming a 100% EV Nation by 2030
- Creating demand EESL has made 2 bulk orders of 10,000 EVs each
- Private players encouraged to join the market
- Support to R&D
- Financial support under FAME
- Financial commitment to develop the eco-system



Effecting a Paradigm Shift



፠ WRI INDIA

Bringing about a Paradigm Shift in Housing Construction Technology



Hon'ble Minister, Mr Hardeep Singh Puri announced the intent to launch the Global Housing Technology Challenge at the World Urban Forum in Kuala Lumpur in February 2018.





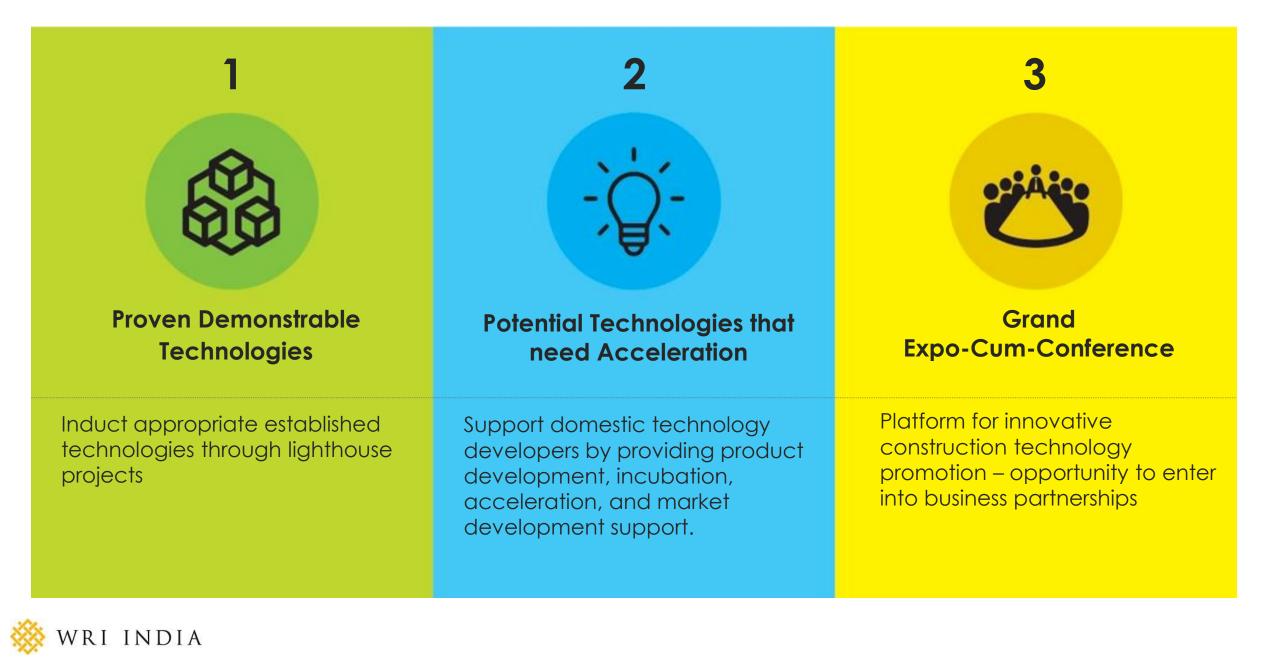
The Challenge seeks to get the best construction technologies from around the world, which will:

- Deliver the maximum number of houses,
- Within the minimum time,
- At minimum cost, and
- In a sustainable manner

Quick, Cheap and Green



Challenge Components



Thank You.

