



Bureau of Energy Efficiency



सत्यमेव जयते  
Government of India  
Ministry of Power



**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

# ANGAN

## Augmenting Nature by Green Affordable New-habitat

A Courtyard for Revolutionary Change in Building Energy Efficiency

An International Conference on Building Energy Efficiency

9<sup>th</sup>-11<sup>th</sup> September, 2019 | Hotel The LaLIT, New Delhi





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THIS PRESENTATION WAS SHARED BY

**Daniel Magallon**

BASE (Basel Agency for Sustainable Energy)

FOR THE SESSION:

*“State-of-the-art Cooling Systems, including District Cooling System”*

DURING ANGAN 2019

Knowledge Partner

**teri** | THE ENERGY AND  
RESOURCES INSTITUTE  
*Creating Innovative Solutions for a Sustainable Future*

Event Partner

**TEC INDIA**™  
EVENT & BRAND MANAGEMENT CO.



**Cooling as a Service**  
Refresh the planet



*Driving investment in  
sustainable energy*



COOLING EFFICIENCY PROGRAM

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- The Basel Agency for Sustainable Energy (BASE) is a Swiss not for profit Foundation and Specialized Partner of UN Environment.
  - The mission of BASE is to **unlock private investments in sustainable energy** to meet the challenges of climate change.

 **BASE**

*Driving investment in  
sustainable energy*

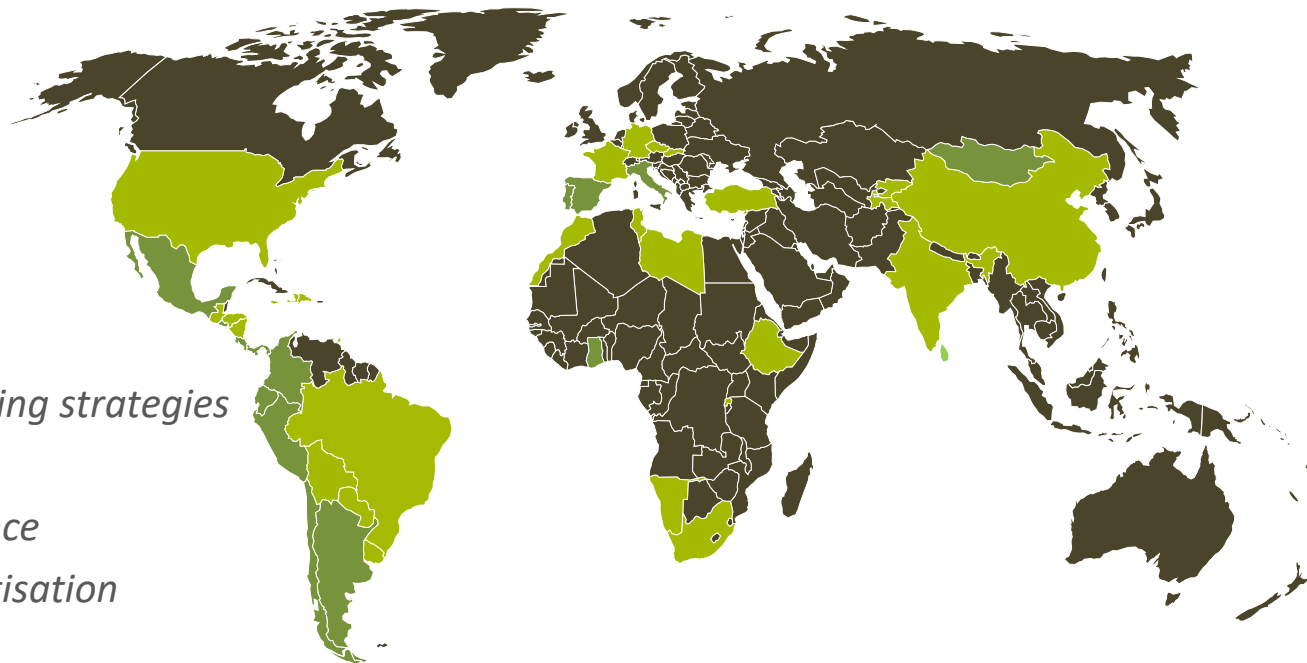
**KIGALI**

COOLING EFFICIENCY PROGRAM



*Driving investment in  
sustainable energy*

- *Founded 2001*
- *UNE Collaborating Centre*
- *U4E member*
- *Develop innovative financing strategies  
and business models*
  - *Energy Savings Insurance*
  - *Energy Efficiency Servitisation*
  - *Electric Buses*
  - *Street lighting*
  - *Supporting Banks in building green  
services*



## Barriers

- Energy efficient Cooling systems require high up front investments
- Compete with other investment opportunities
- High-risk perception
- Lack of trust
- Sometimes developer is different to the electricity customer



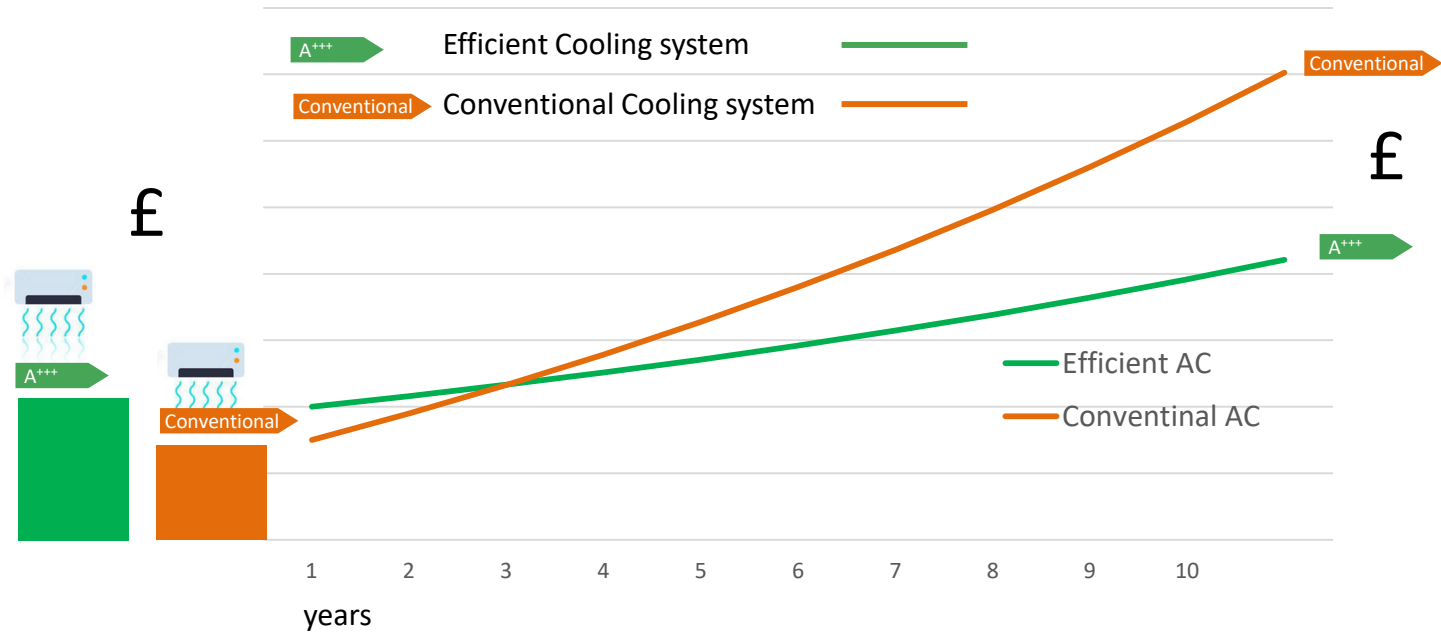
## The Challenge and the Opportunity

- 1.6 billion ACs today
- Demand x 3 by 2050 (= China electricity)
- 6.9 trillion USD market over next 30 years
- Average efficiency of air conditioners sold today is one third of best available technology

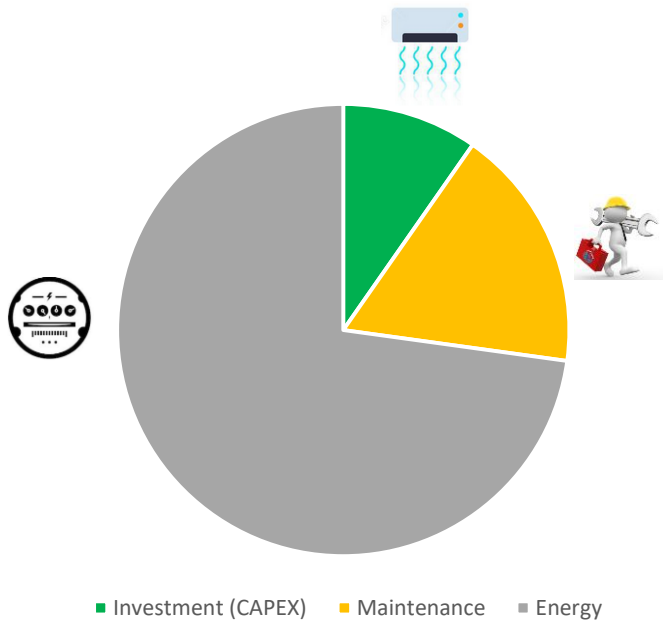
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# Cumulative Costs (supply + operation)



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Cooling as a Service

Pay per unit of cooling (eg. TR)

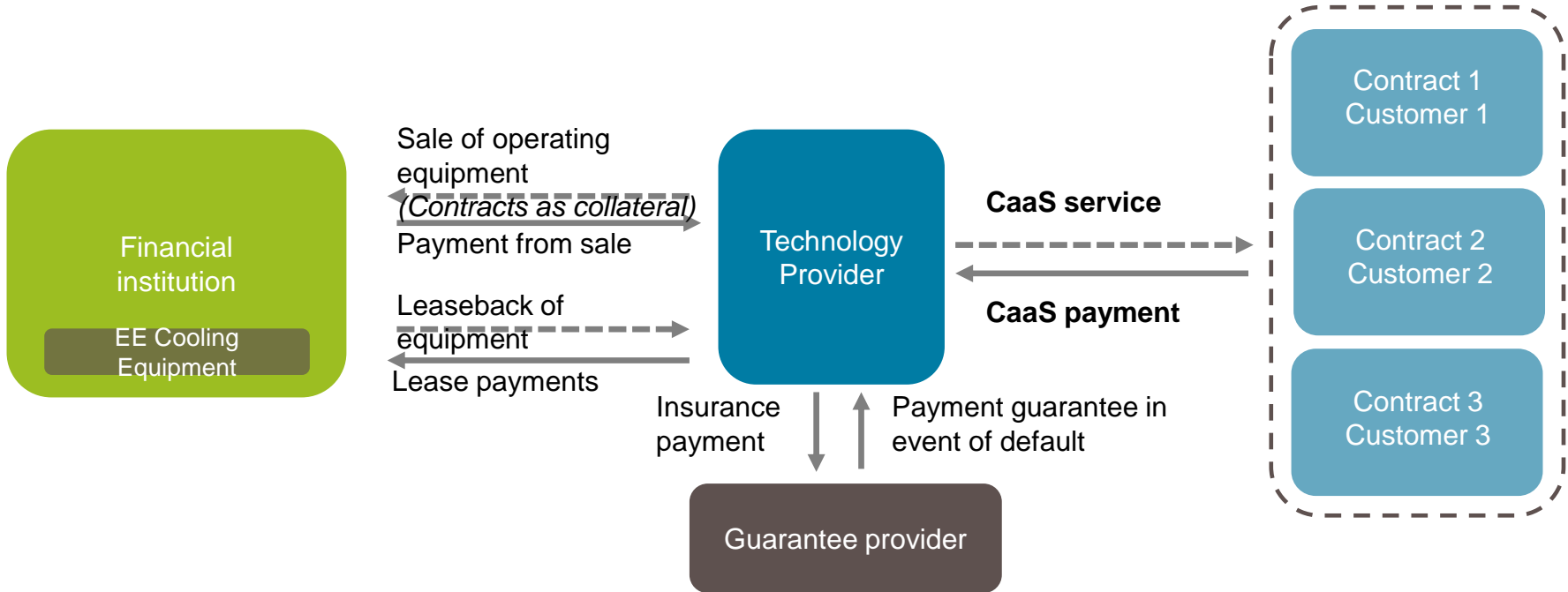
**Includes:**

- Service
- Maintenance
- Utilities

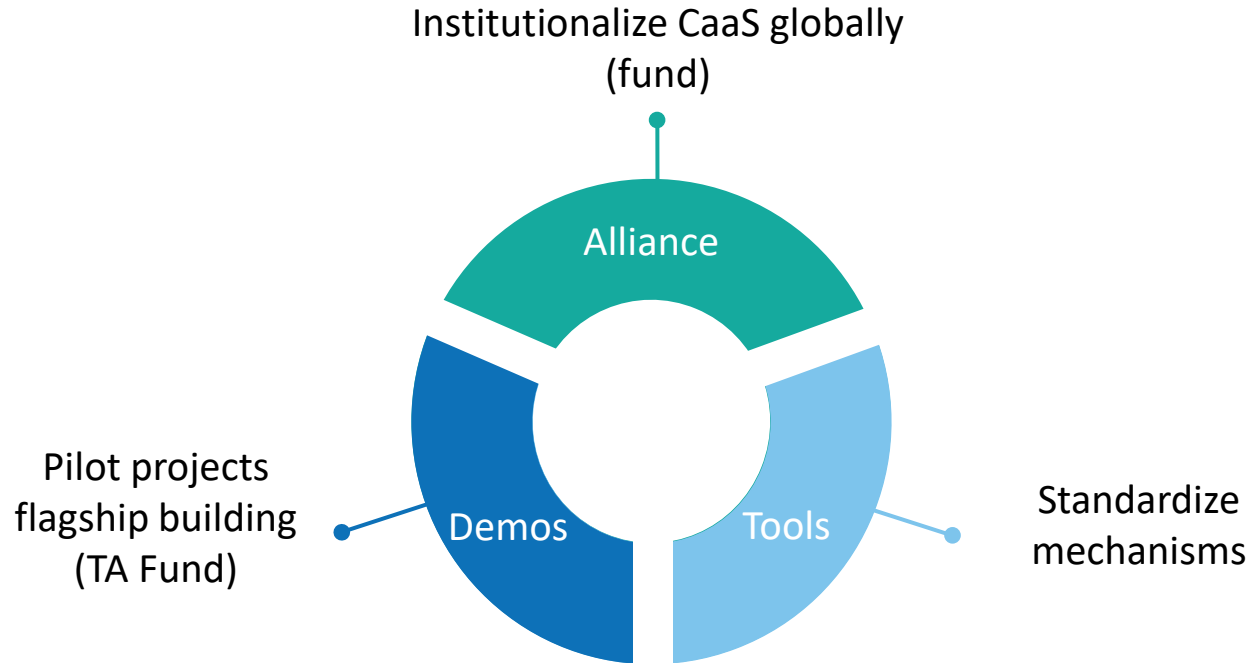


Circular economy

# CaaS + capitalisation



# CaaS Initiative





**Cooling as a Service**  
Refresh the planet

[www.caas-initiative.org](http://www.caas-initiative.org)

Daniel Magallón  
[daniel.magallon@energy-base.org](mailto:daniel.magallon@energy-base.org)



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