



**Global Growth Potential for Energy Efficient  
Datacentres  
December, 2018**



# The institutional set-up



- Collaborating Centre supporting UN Environment for 27 years
- 65 economists and scientists from more than 26 different nations
- Integral part of DTU Management Engineering
- A wide network of collaborating institutions and partners in more than 50 developing countries
- A non profit public institution with highest standards on procedures, transparency and accounting.



# SUSTAINABLE DEVELOPMENT GOALS

**1** NO POVERTY

**2** ZERO HUNGER

**3** GOOD HEALTH AND WELL-BEING

**4** QUALITY EDUCATION

**5** GENDER EQUALITY

**6** CLEAN WATER AND SANITATION

**7** AFFORDABLE AND CLEAN ENERGY

**8** DECENT WORK AND ECONOMIC GROWTH

**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

**10** REDUCED INEQUALITIES

**11** SUSTAINABLE CITIES AND COMMUNITIES

**12** RESPONSIBLE CONSUMPTION AND PRODUCTION

**13** CLIMATE ACTION

**14** LIFE BELOW WATER

**15** LIFE ON LAND

**16** PEACE, JUSTICE AND STRONG INSTITUTIONS

**17** PARTNERSHIPS FOR THE GOALS

  
SUSTAINABLE DEVELOPMENT GOALS



# Achieving Sustainable Energy for All by 2030



ENSURING  
*universal access*  
TO MODERN ENERGY  
SERVICES.



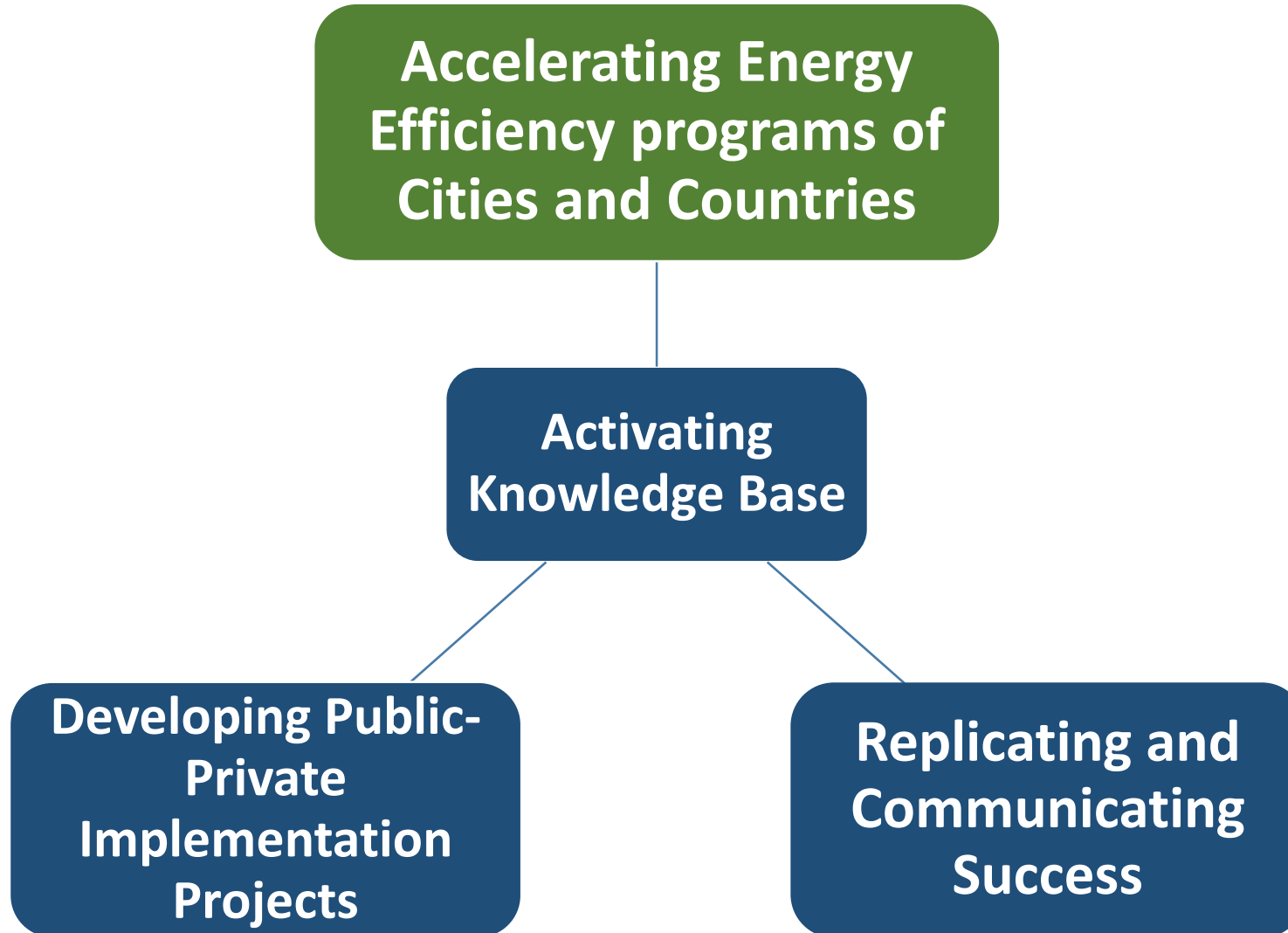
DOUBLING THE GLOBAL  
RATE OF IMPROVEMENT IN  
*energy efficiency.*



DOUBLING THE SHARE OF  
*renewable energy*  
IN THE GLOBAL  
ENERGY MIX.



# The Copenhagen Centre on Energy Efficiency



# Global Energy Efficiency Accelerator Platform

## Global Energy Efficiency Accelerator Platform

**Building**  
 WORLD RESOURCES INSTITUTE  
 Johnson Controls

**District Energy**  
 Danfoss  
 UN environment

**Lighting**  
 PHILIPS  
 UN environment



- Communications
- Co-ordination
- Tracking activity/results
- Cross-sectoral funding

City & Country Commitments to EE Action

Evaluate Opportunities

Develop Strategy and Plans

Build the Enabling Environment

Formulate Initiatives and Investments

Achievement of municipal, national and global EE objectives

**Vehicle Fuel**  
 FIA FOUNDATION  
 UN environment  
 GFEI

**Industry**  
 UNIDO  
 CARBON TRUST

**Appliances & Equipment**  
 UN environment  
 Cu  
 U4E



### Global Team

- Platform ownership
- High level oversight





# Why Energy Efficiency in Datacentres?

Increase in the amount of data demand and for more processing and storage space

Growth in the global data centre construction market

Amount of energy currently consumed is pressing the global electricity supply and global greenhouse gas emissions

Growing energy appetite of data centres to spike share of global electricity consumption in the next decade.



# Where are the opportunities to act?

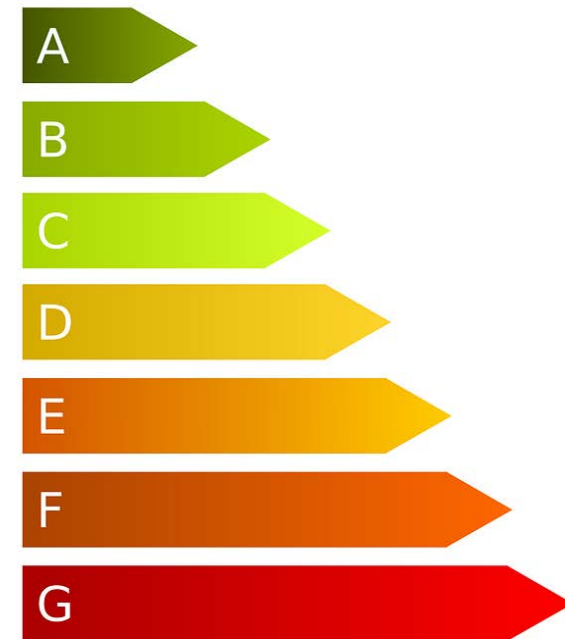
- Greenfield datacentre construction in developed countries
- Aid cooperation in developing countries new facilities and equipment
- Retrofit of existing datacentres (public and private)
- Medium and small-size datacentres
- Smart cities, smart homes, smart appliances, smart vehicles, smart grids
- Smart datacentres ...





# Which are the areas of work?

- Smart management strategies
- Sustainable Cooling
- Ventilation management
- Smart and sustainable power
- Efficient Lighting
- Efficiency of processors & Green ICT
- Minimum Performance Standards
- Policy and Plans
- Labelling and information
- Monitoring, Reporting & Verification
- Sustainable investment
- Training
- ...





**Thank you.**

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