

# Indo-German Energy Programme (IGEN)

Energy Efficiency in Industry & Data



Implemented by



## Why Energy Efficiency



# 1820 - 1840

## Industrial revolution

- Excessive use of fossil fuel

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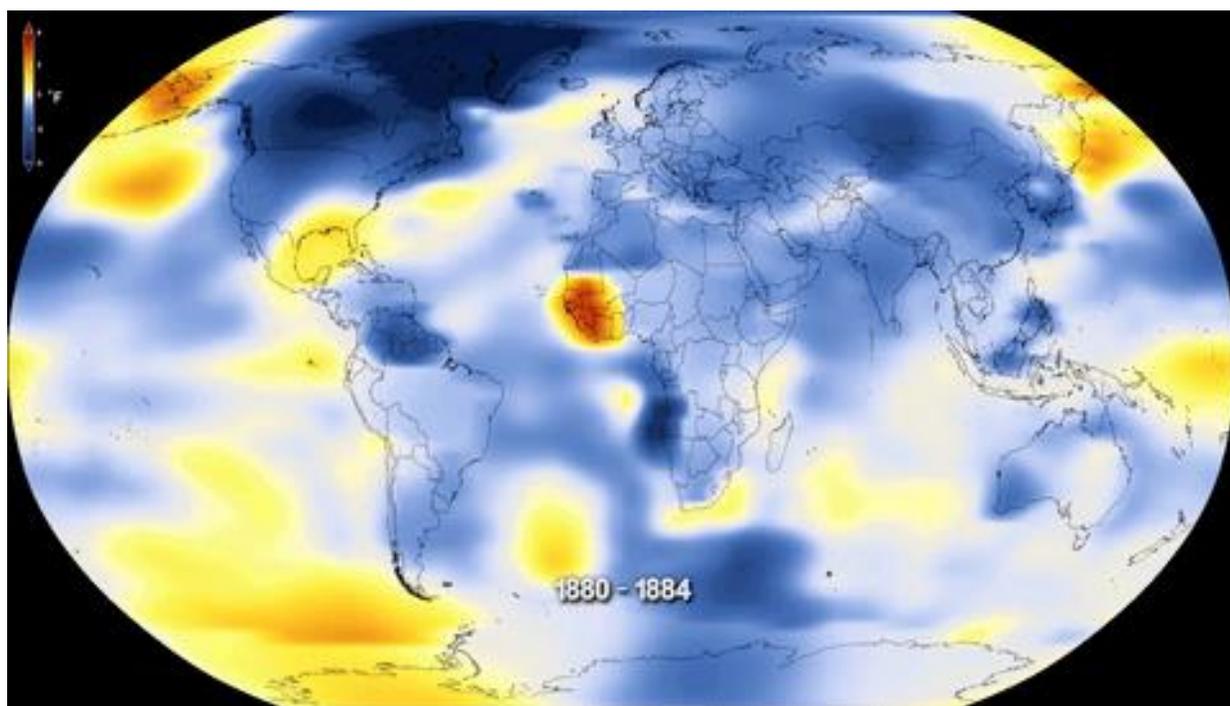
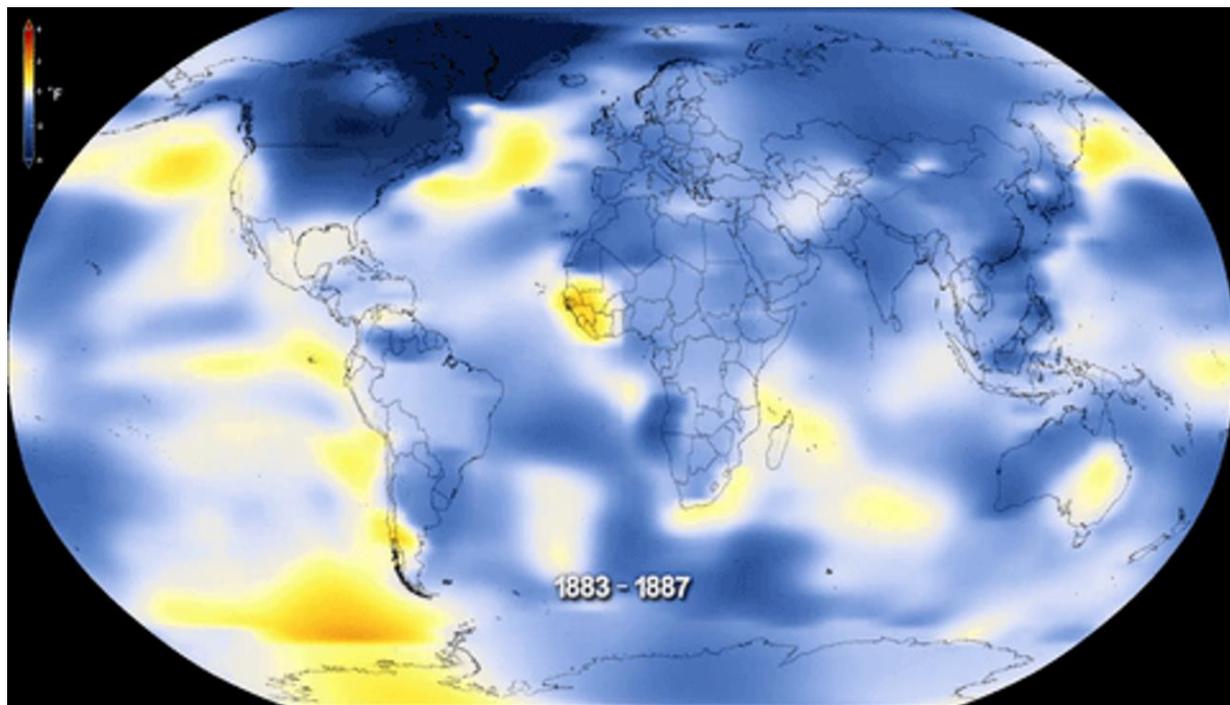
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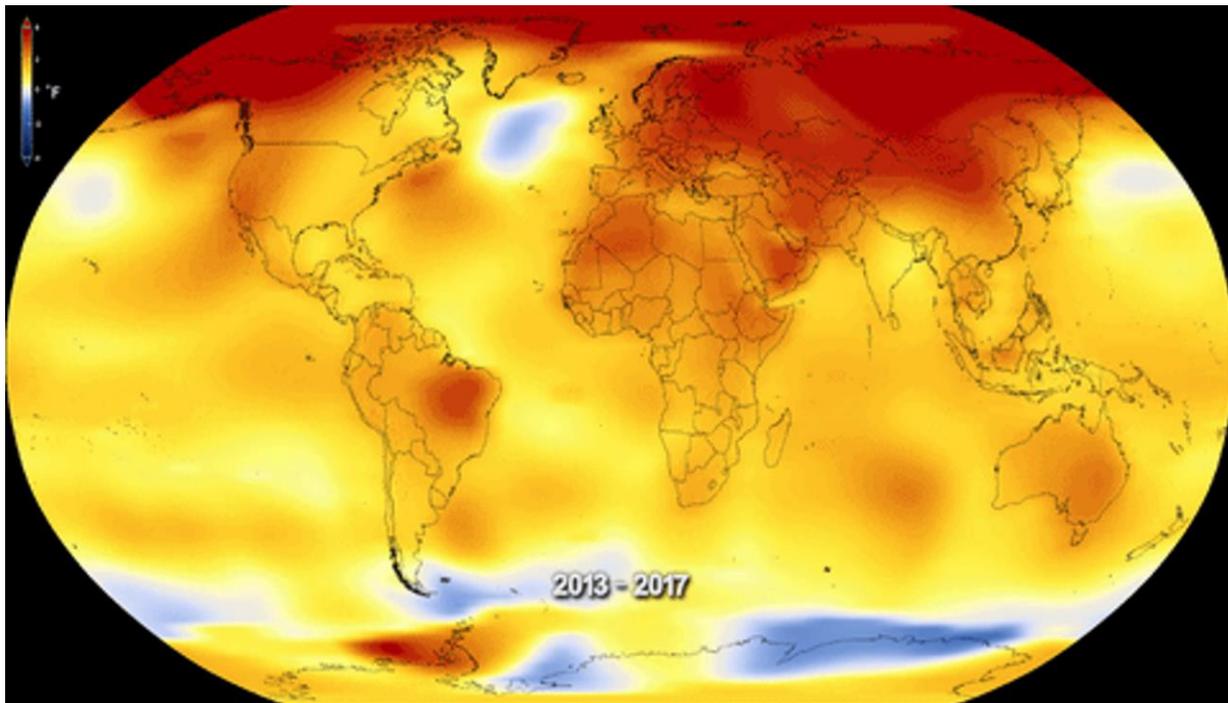


How it had  
effected the Earth

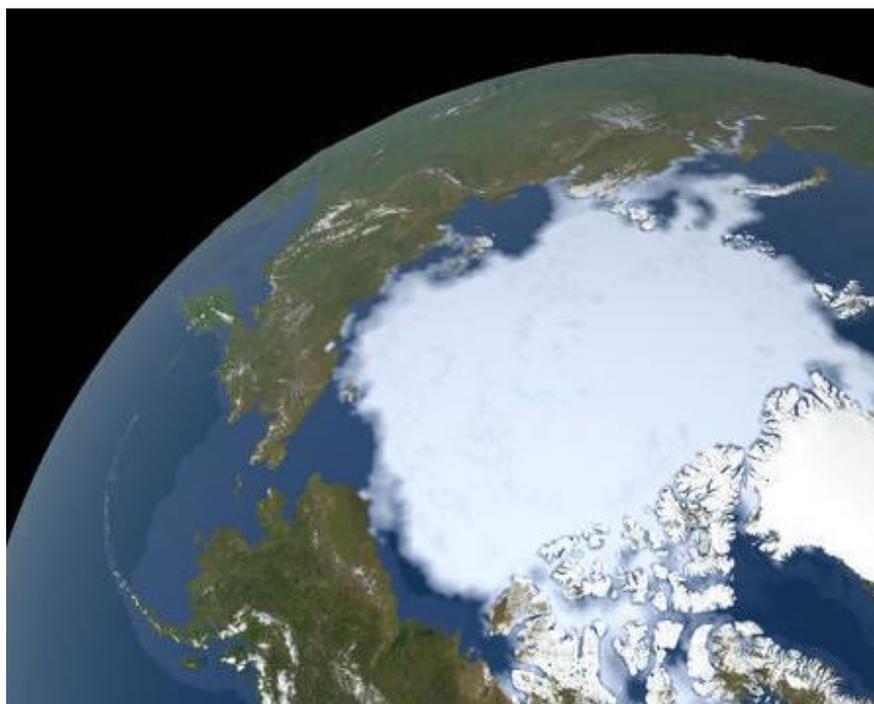
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1980





2000



2021





Wholly owned by the Government of the Federal Republic of Germany  
Service providers on behalf of the whole of German Government

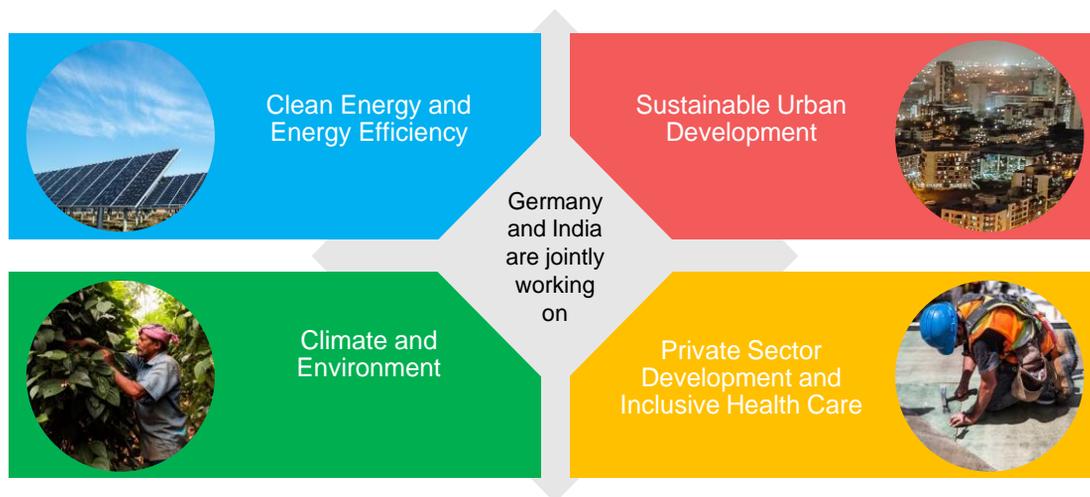


Over 50 years of experience and expertise in a range of thematic areas

Energy || Environment || Climate Change Natural Resource Management || Skills & Vocational Training  
Education || Water || Health || Good Governance.....and many more!!

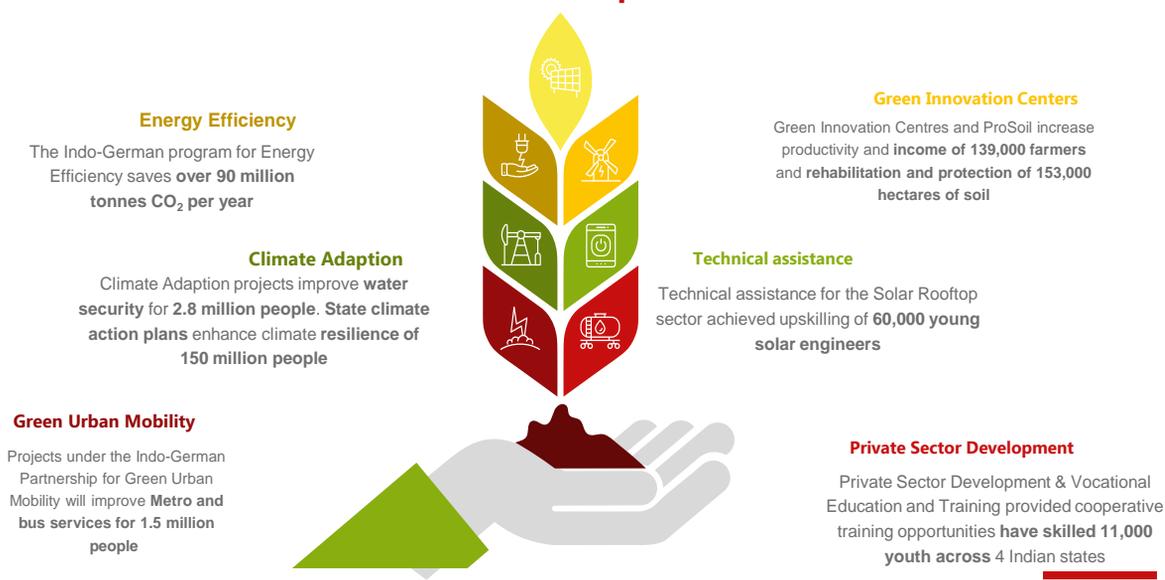


## GIZ India – Thematic Areas



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## GIZ in India – Impacts



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# Energy Efficiency



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## IGEN-EE Achievements



**1st Indo-German energy efficiency project** launched between GTZ and EMC, in 1995, followed by **EC Act 2001**, and establishment of **BEE**

Support towards formation of **EESL**



**Implementation of PAT** scheme including its deepening and widening - **92.3 Million** tonnes Of **CO2 reduction** • **21.95 Million** Tonnes of **Oil Equivalent** energy savings

- **Brick Industry Market Transformation:** Developed and Approved- market approach for encouraging energy efficiency in Brick manufacturing • Potential Impact- Energy Efficiency Enterprise (E3) Mark for manufacturers



**Above 8.4 million school children** participated in **national painting competition-2019** on energy conservation

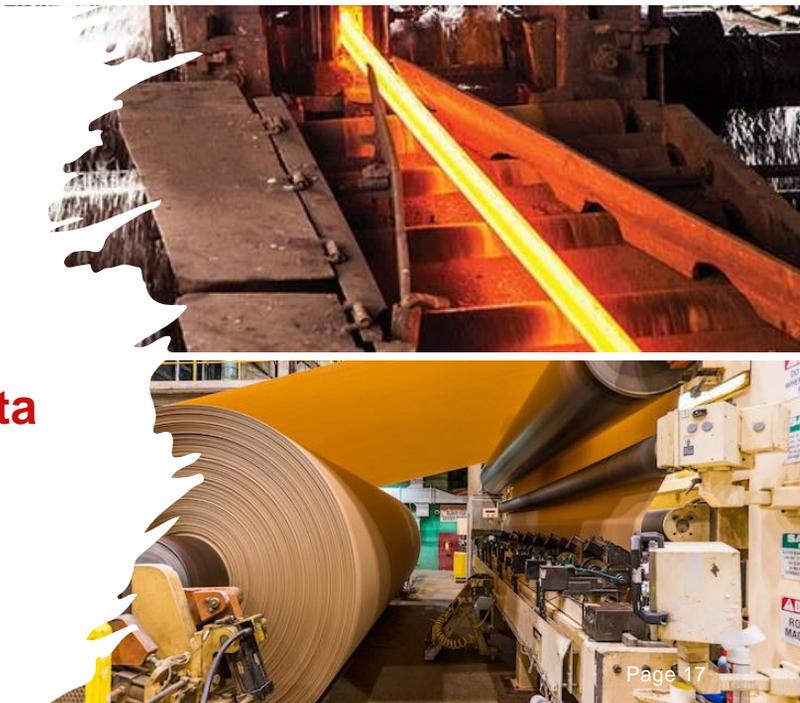


**Bachat Lamp Yojana (BLY)** – transformation from incandescent bulbs to CFLs



Certification examination for **Energy Managers (EM)** and **Energy Auditors (EA)**

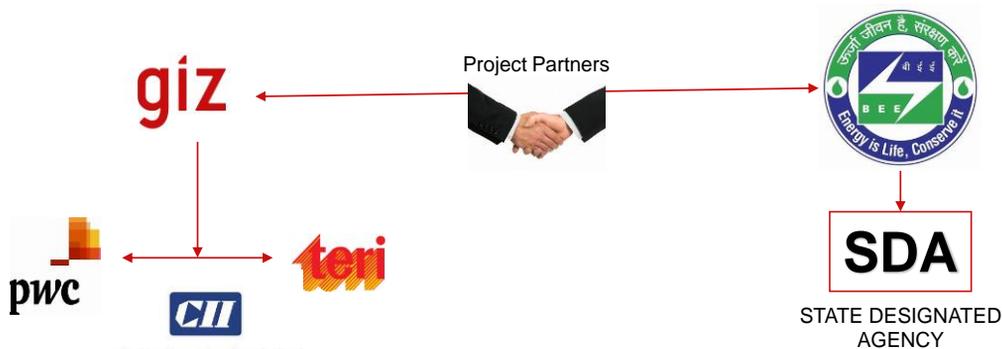
# Energy Efficiency in Industry & Data



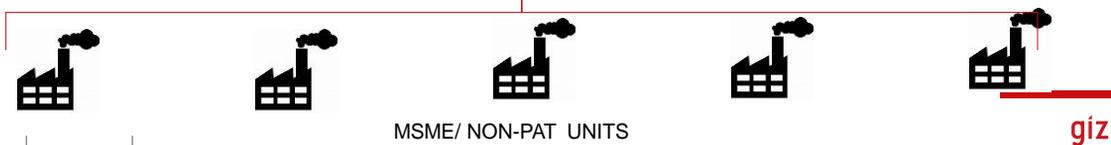
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## Cooperation



## Associations

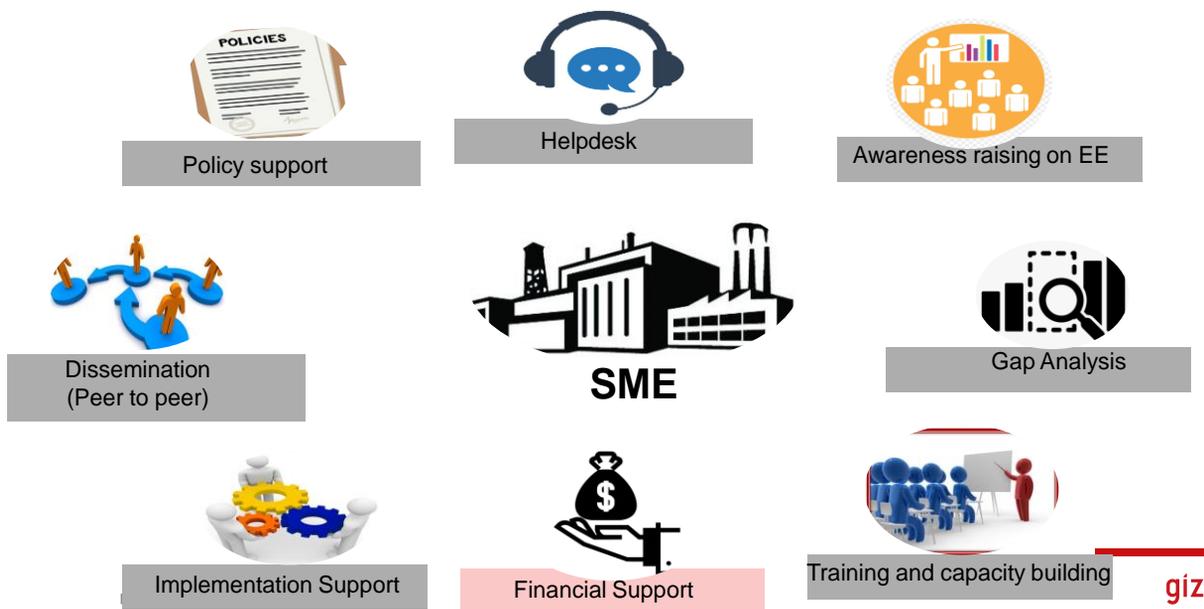


## Project Outputs

Energy Efficiency in Industry & Data



## Project's area of intervention



## Access to Finance



- Support in preparation of technology feasibility report (through web portal)
- Pooling resources of different ministries/ departments
- Dissemination of various financing schemes of BEE to industries

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## MSME Help Desk

A one stop solution for MSME



### WhatsApp chatbot

**Resolving technical queries**, Users can raise queries via help desk portal on technical issues- chatbot will be backed by pool of experts

### EE Benchmarking Tool

This e-tool will help you understand **where you stand**, and probable measures to improve your performance (SEC)- **Technology benchmarks**

### Digitized Knowledge Products

AV documentaries on EE technology solutions, Case Studies, technology Hand-book/compendium, Newsletters, articles

### Technology Data Base

vendors and ESCOs providing/ supplying EE technology solutions



Helpdesk is getting build in existing [sidhnee.beeindia.gov.in](http://sidhnee.beeindia.gov.in) of Bureau of Energy Efficiency

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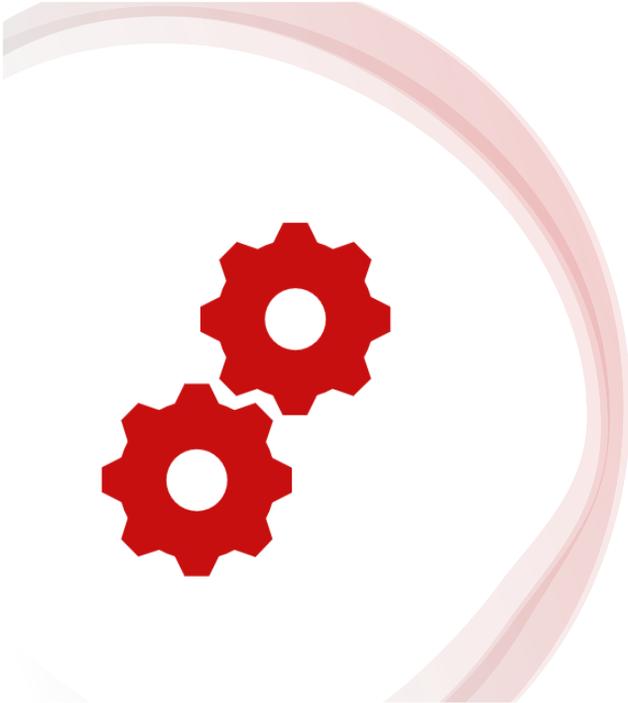
# Digital Simulators for Training

## Digi-Twin

Exact digital replica of the major and commonly used energy intensive utilities for hands on training



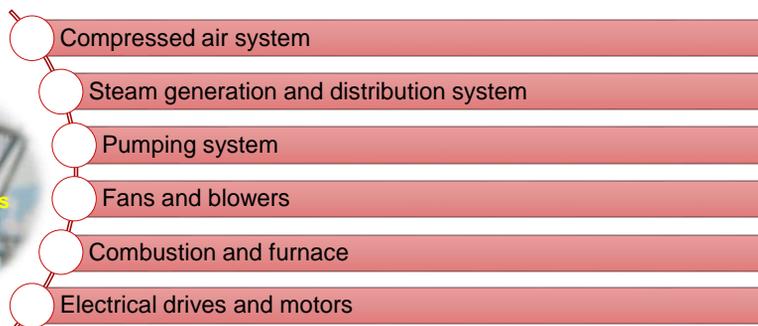
The trainee will be able to play and understand the effects of their actions without impacting the actual plant operation.



## Operations Example of Digi Twin



## Digi-Twin



### Project Target

- ✓ 6 portable Digi-Twin models to be developed for hands on training
- ✓ Portable Training to increase cluster reach
- ✓ About 2000 industries' manpower are to be capacitated

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# Thank you

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