Why cities?

Population of the world:
- 1950: 28%
- 2000: 47%
- 2030: 61%

Urban Population:
- 1950: 100 million
- 2000: 500 million
- 2030: 500 million

CO₂ emissions:
- 1950: 28 hundred million ton
- 2000: 61 hundred million ton
- 2030: 61 hundred million ton
Why developing countries?
No one Left Behind
What is APEC? What is LCMT?
APEC LCMT Phase 1 Tianjin Yujapu
TOD (Transit Oriented Development)
APEC LCMT Phase2 Samui Island

Smart Resort Island

Island area: 228km²
Population: 53,000
Tourists: 900,000/year
Phase7 Russia Siberia Krasnoyarsk City

Design Guideline for Smart Cities
APEC LCMT Dissemination (DSM) Phase1 since 2018

Location of 3 Volunteer towns

Banda Aceh City, Indonesia
Shah Alam City Center, Section14, Malaysia
Hang Tuah Jaya, Malaysia
Symposium and Exhibition

SDCJ
@Abu Dhabi and Dubai, in 2007

Daikin Industries., Ltd.
Manufacturer
http://www.daikin.com/

FIGLA CO., LTD.
Manufacturer
http://www.figla.co.jp/

Hitachi, Ltd.
Manufacturer
http://www.hitachi.com/

Kume Sekkei Co., Ltd.
Architectural & Engineering Consultant
http://www.kumesekkei.com/index.html

Panasonic
Ideas for life
Matsushita Electric Works, Ltd.
Manufacturer
http://www.pewsmr.panasonic.as/

Nikken Sekkei Ltd.
Architectural & Engineering Consultant
http://www.nikken.co.jp/en/

SANYO Electric Co., Ltd.
Manufacturer
http://www.sanyo.com/

Tokyo Gas Co., Ltd.
Utility Company
http://www.tokyo-gas.co.jp/index_e.html

Tokyo Gas Engineering Co., Ltd.
Engineering Company

Toshiba Corporation
Manufacturer
http://www.toshiba.co.jp/worldwide/index.html

Tsuchiya Gumi Co., Ltd.
Contractor
http://www.tsuchiyagumi.co.jp/

Yamatake Corporation
Manufacturer
http://www.azbil.com/
COOL CITY

What is Cool City?

Cool City unites technologies and knowledge of the ISU member companies into one ideal model city for sustainable urban development and an architecture in the Gulf region. It is a compact city with essential services and environmental aesthetics to thrive, and provide an enjoyable lifestyle even under the challenging natural conditions such as deserts. If there is a willingness to create Cool City, we have the technology to realize it right now, starting tomorrow.

Site Area : 5 km²
Building : Office, Commercial, Residence
Population : 160,000
COOL CITY

Conventional System

Urban Planning 35% saving
- transportation
- energy infrastructure
- renewable energy

60% saving

SDCJ's Research Project

Architectural Design 25% saving
- high performance facade
- natural energy use
- high efficient equipment
Smart TOD in Jakarta, 2013
Project Finance
Tokyo Declared Zero Carbon by 2050
Super Eco-School
“Mizunami” Junior High School”
How reached ZEB zone?
YKK 80 building
Radiant cooling system with a slight airflow
Actual Energy Performance of YKK 80 BUILDING

Tokyo Reference Building: 2609 MJ/m²-yr
Actual: 960 MJ/m²-yr

63%

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More participants and more speed