



AIM TRAINING WORKSHOP 2008

NIES, Tsukuba Japan

COUNTRY CASE - MALAYSIA

HO CHIN SIONG



BACKGROUND

- **Geography**

Area: **329,749** sq. km. (127,316 sq. mi.); almost the same size as Japan

Cities: *Capital*--Kuala Lumpur.

Climate: **Tropical.**

- **People**

Population : **27.73million('08) and 40 (S1), 57 million(S2)(2050)**

- **Multi ethnic and multi religious population**

Annual growth rate: **2.6%**. And Household size of **4.6 person**

Age **cohort** 0 -15 (32%). 16-65 yrs old (63.5%). 65+ (4.5%)

- **Economy (2007)**

Nominal GDP: **\$357.9 billion.**

- **GDP by sector : 8.6% agri, industry 47.8%, service 43.6%**

Annual real GDP growth rate: **6.3% (2007); 5.2% (2005).**

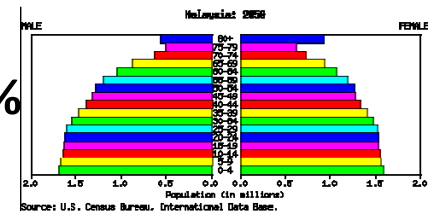
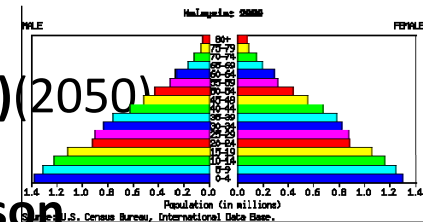
Per capita (GDP) income: **\$14,400**

Natural resources: **petroleum, liquefied natural gas (LNG), tin, minerals.**

Agricultural products: palm oil, rubber, timber, cocoa, rice, tropical fruit, fish, coconut.

Industry: *Types*--**electronics, electrical products, chemicals, food and beverages, metal and machine products, apparel.**

Trade: *main trading partner* **Japan(13.3%), USA (12.6%), China (12.2%) and Singapore (11.7%).**



National Vision



VISION 2020

MALAYSIA TO BE **DEVELOPED NATION BY 2020.**

CHALLENGES OF VISIONS - CARING & PROGRESSIVE SOCIETY

MALAYSIA INDUSTRIAL MASTERPLAN- HEAVY INDUSTRY

-MALAYSIA MULTI SUPERECORRIDOR DEVELOPMENT – CREATION OF CYBERCITIES
-which brings together a legislative framework and a next-generation telecommunications infrastructure in eco-friendly surroundings to create the best environment for the development of multimedia industries.



MALAYSIA AGRICULTURE POLICY – PRODUCT BASED APPROACH, AGO-FORESTRY APPROACH AND FOOD SECURITY

MALAYSIA URBANISATION POLICY AND NATIONAL PHYSICAL PLAN

-CONURBATION AND CORRIDOR DEVELOPMENT – TOD AND COMPACT CITIES

ENVIRONMENTAL POLICIES – EQA,

-ENERGY POLICY - DIVERSIFICATION , RENEWABLE AND ENERGY EFFICIENCY

GLOBAL VIEW

- Malaysia is newly developed nation and one of the 172 countries who signed on 12 March 1999 and ratified on 4 September 2002 the Kyoto Protocol to the United Nations framework Convention on Climate Change, aimed at combating global warming.
- Ratification does not imply a country has agreed to cap their emissions and Malaysia is not within the 35 countries that have agreed to cap their emissions

MAP OF MALAYSIA



FUTURE IMAGE

HIGH GROWTH SCENARIO-
INDUSTRIALISED K ECONOMY

MODERATE GROWTH – ECO K ECONOMY

ENDLESS POSSIBILITIES
THROUGH ICT



KULIM HI-TECH PARK · MSC CYBERCITY



SCENARIO 2050	HIGH GROWTH SCENARIO- INDUSTRIALISED K ECONOMY	MODERATE GROWTH – ECO K ECONOMY
POPULATION	57 MILLION	40 MILLION
GROWTH RATE	3% p.a.	2%p.a
MINDSET LIFESTYLE	HITECH & RESOURCE HUNGRY APARTMENT LIVING	SUSTAINABLE RESOURCE FRIENDLY - TERRACE
ECONOMY AND INDUSTRY	VALUE ADDED MFG , SSO/ IT GROWTH RATE 7- 10%	AGROBASE BIO TECH IND GROWTH RATE 5-7%
LAND USE	COMPACT CITIES CYBERCITIES & CONURBATION	DECENTRALISED AND CONCENTRATED - TOD
HOUSING	HIGH DENSITY- MIXED LANDUSE	MEDIUM DENSITY- ECO GREEN
INFRASTRUCTURE	AUTO ORIENTED CITY	TOD/WALKABLE CITY

Leapfrogging Malaysia's Development

Go Global

**Create ideal multimedia environment to
attract
world-class companies**

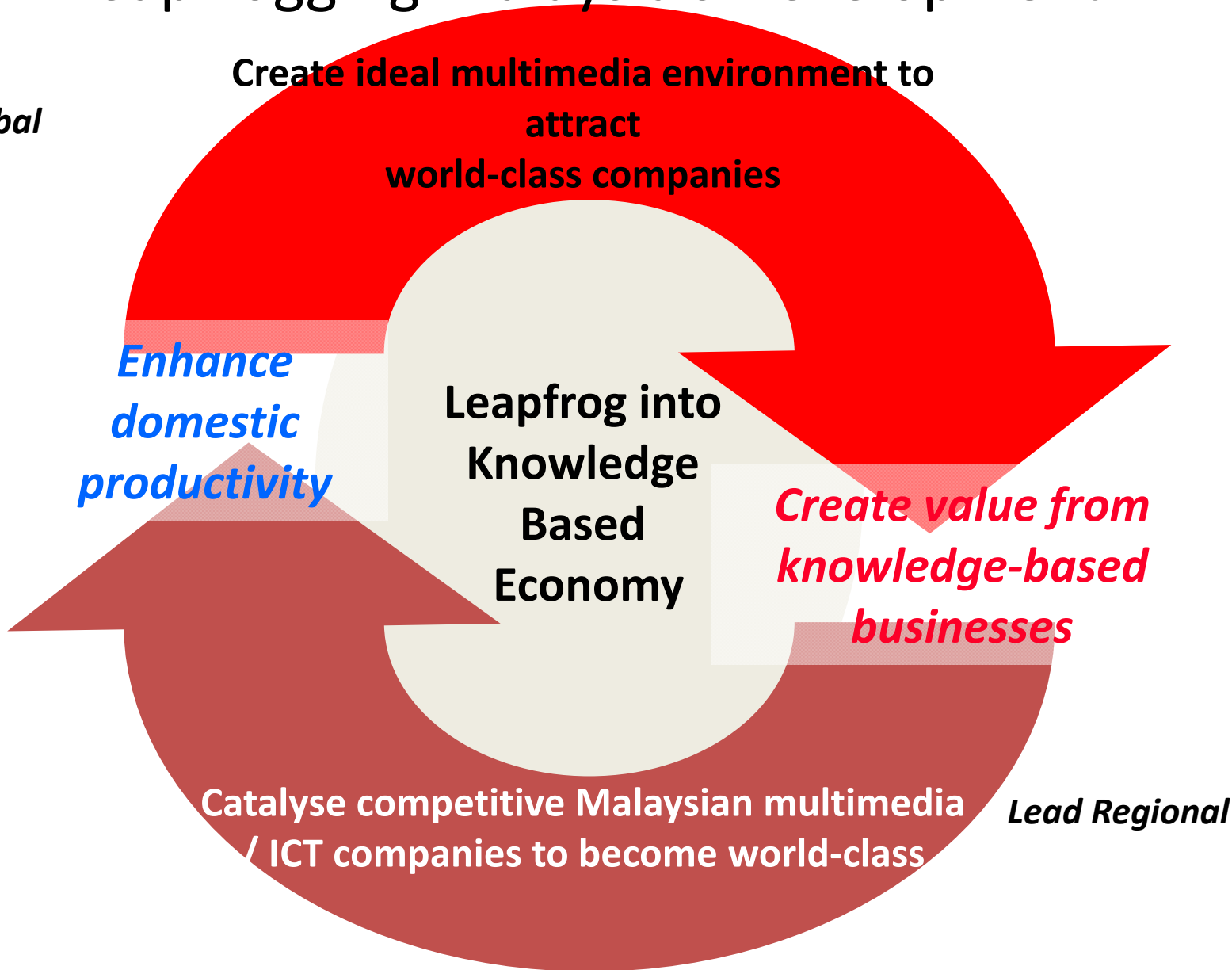
*Enhance
domestic
productivity*

**Leapfrog into
Knowledge
Based
Economy**

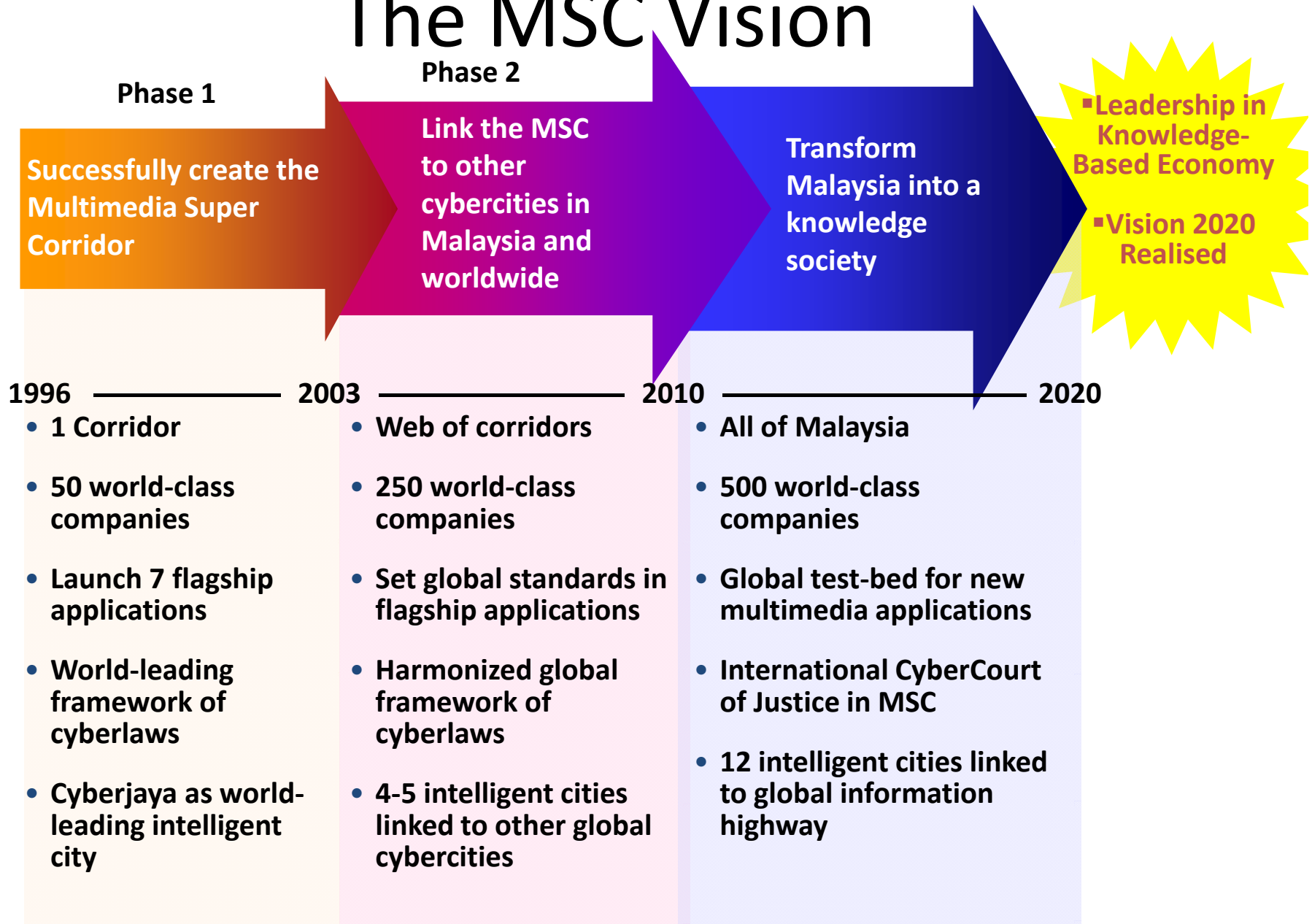
*Create value from
knowledge-based
businesses*

**Catalyse competitive Malaysian multimedia
/ ICT companies to become world-class**

Lead Regional



The MSC Vision

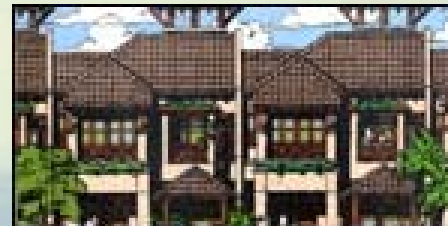


FUTURE IMAGE - RESIDENTIAL

HIGH GROWTH SCENARIO – HIGH DENSITY/ COMPACT AND APARTMENT LIVING



MODERATE GROWTH SCENARIO MEDIUM DENSITY AND SUSTAINABLE AND ECO LIVING



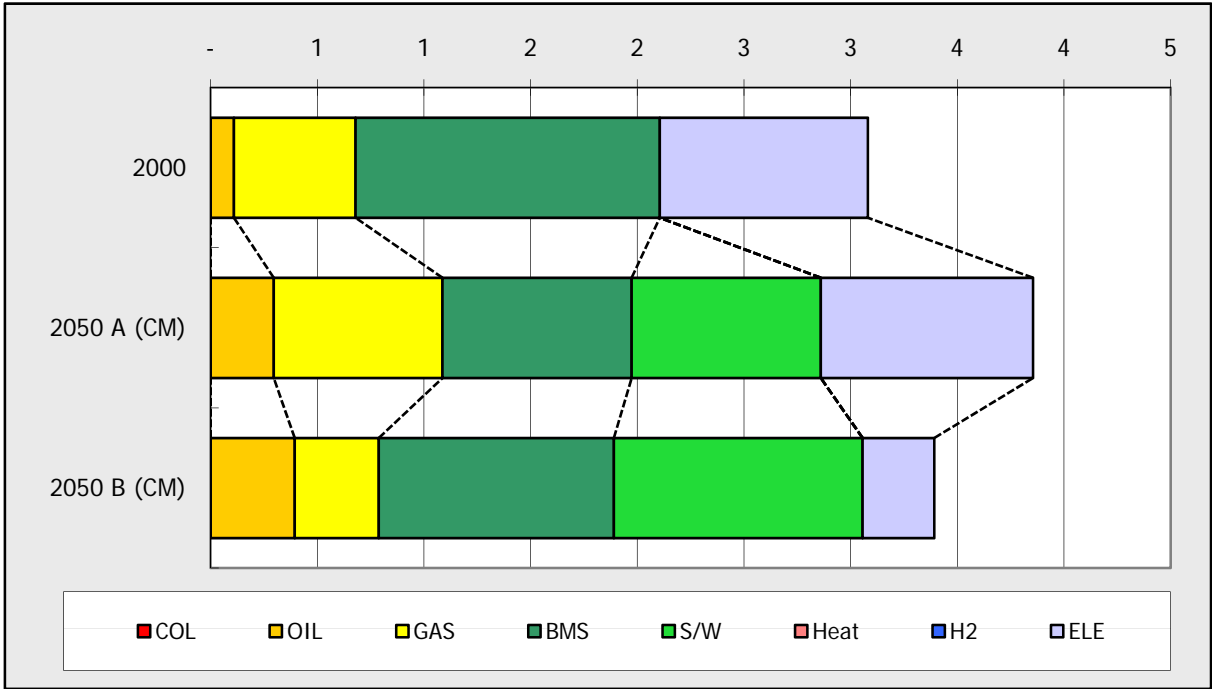
FUTURE IMAGE - TRANSPORT



ENERGY DEMAND – MODELLING APPROACH

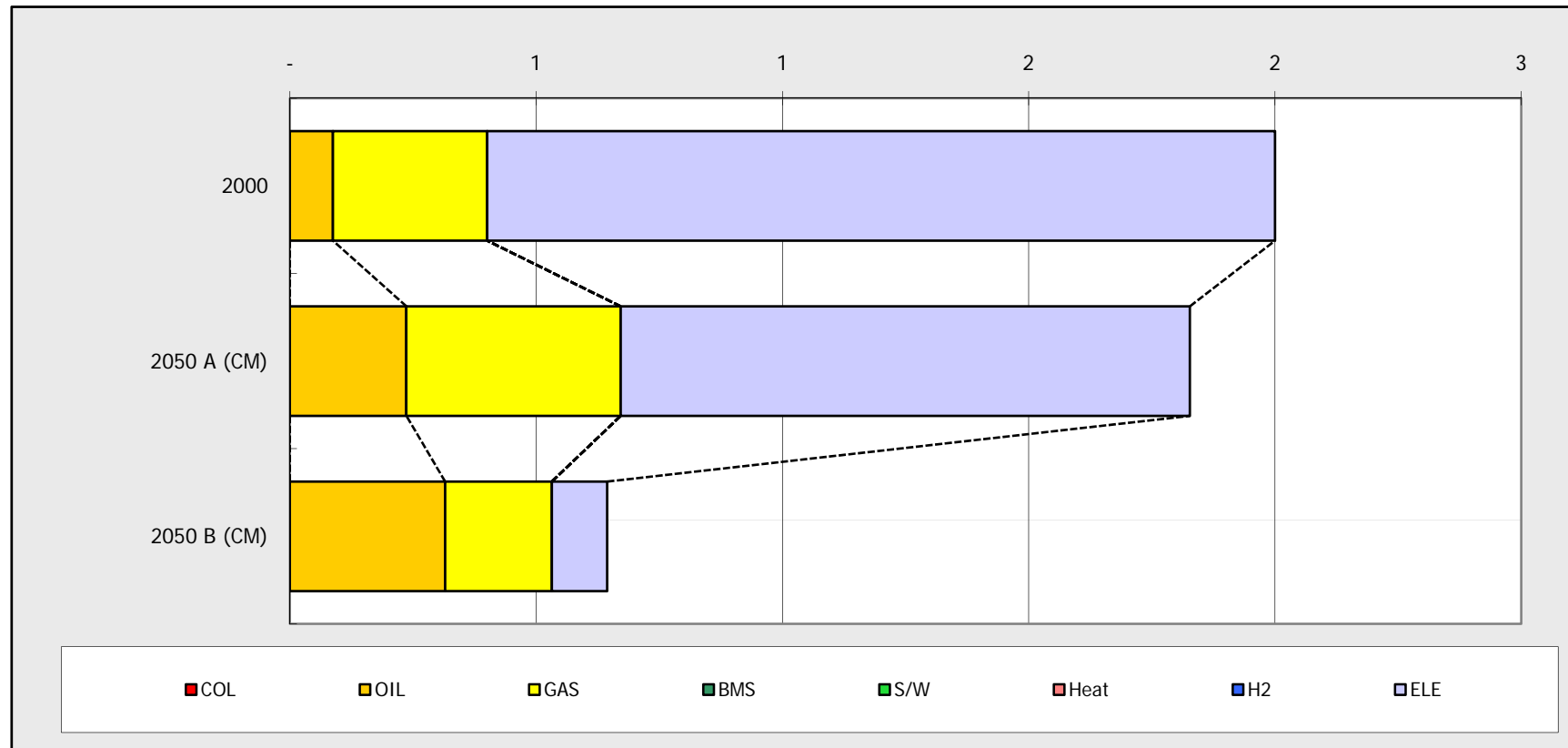
- Energy snap shot (ESS) tools is used to calculate energy consumption of the end users sector (Residential and Transport) by energy classification and service classification with using service demand, mixture of energy and energy improvement (technology/ innovation-countermeasures)
- Finally CO₂ emission table is created with CO₂ emission factor given exogenously.

ENERGY CONSUMPTION IN RESIDENTIAL SECTOR(Mtoe)



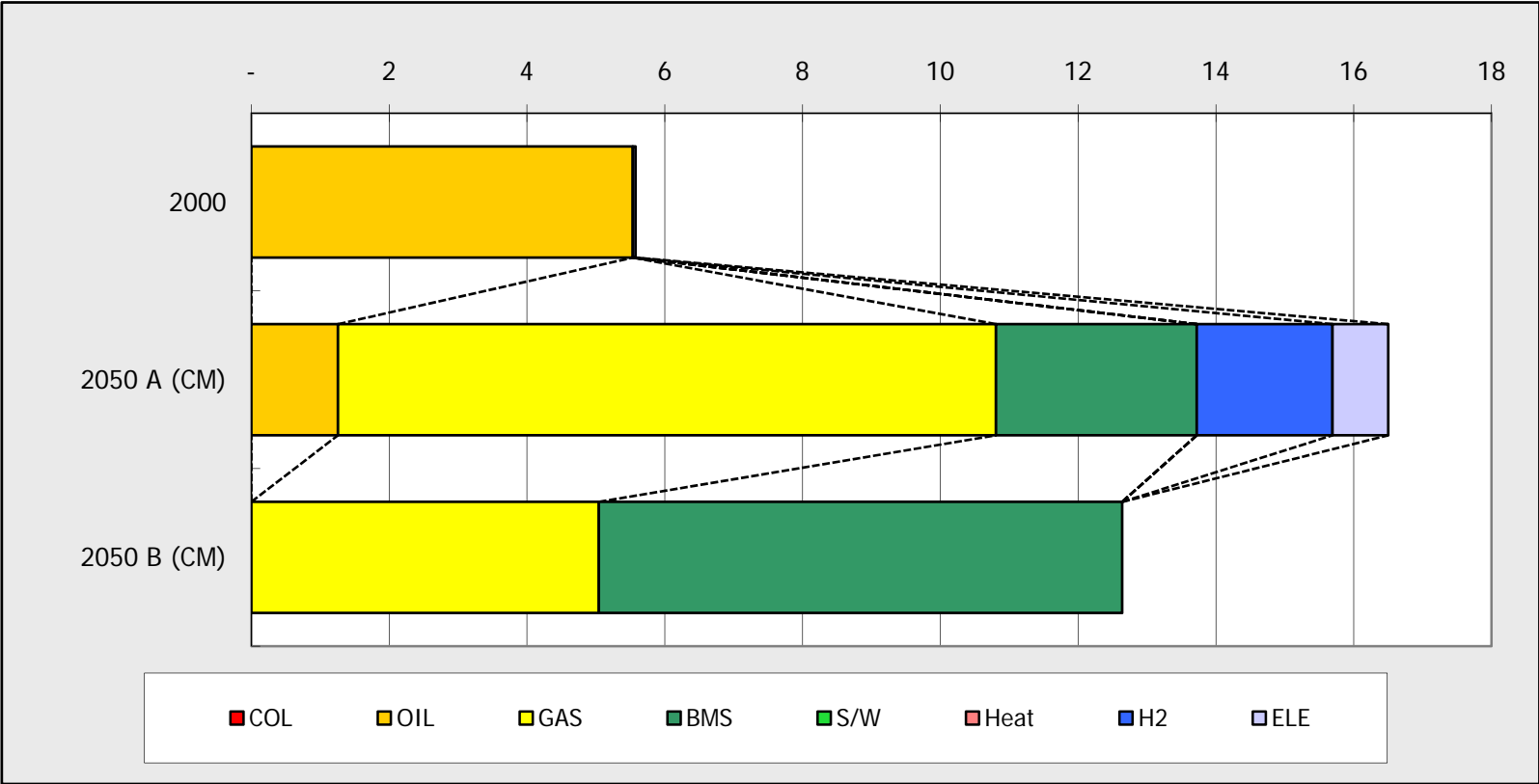
S(A) uses solar and gas in residential sector .
 S(B) uses more friendly biofuel and solar energy

CO2 emission IN RESIDENTIAL SECTOR(MtC)



CO2 emission is mainly due to big reduction in electricity usage and increase of gas and oil

ENERGY CONSUMPTION IN TRANSPORT SECTOR(Mtoe)

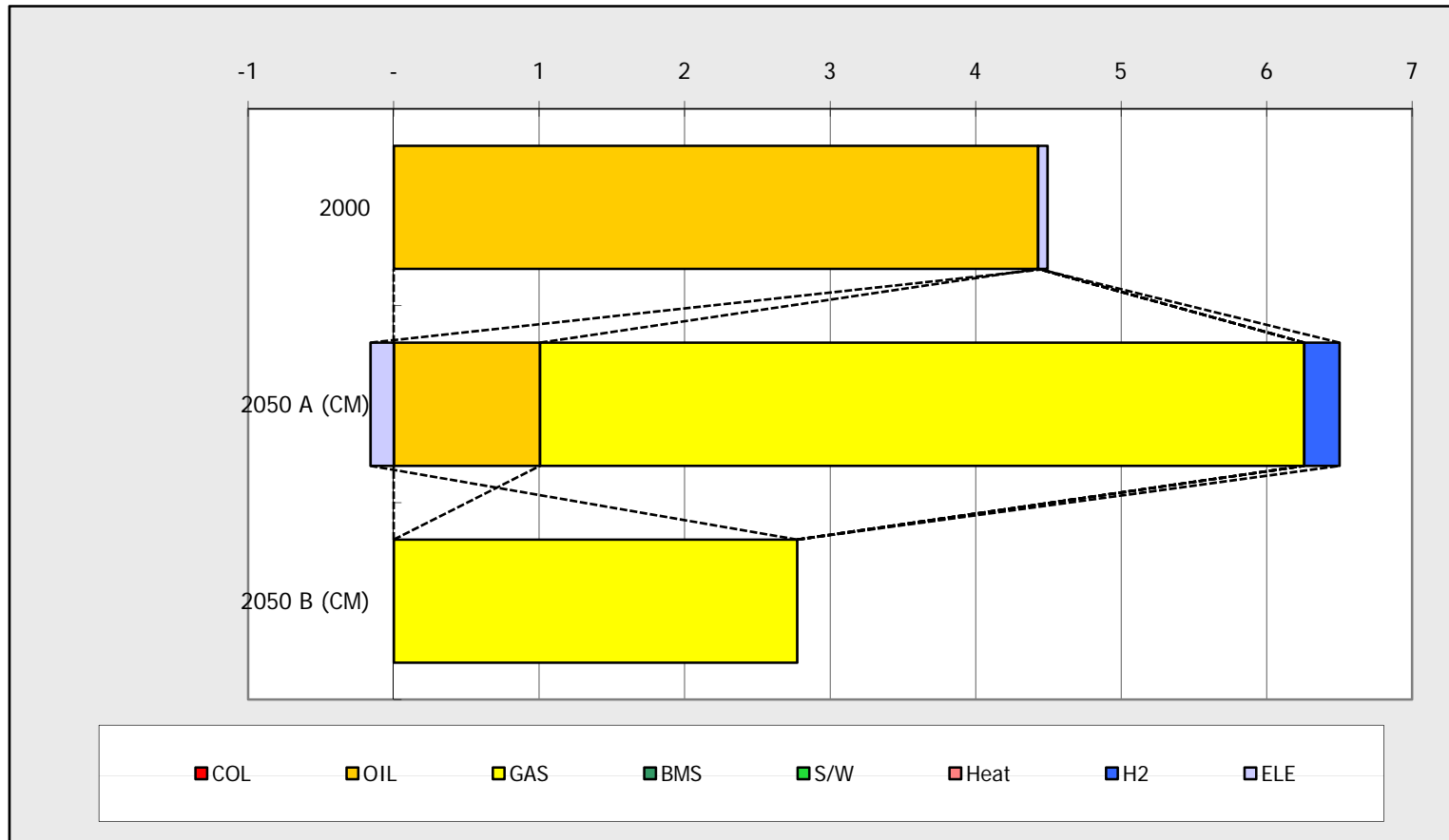


S(A) diversify into other fuel mainly with NGV , biofuel and technological car

H2 and electric.

S(B) mainly uses gas and biofuel

CO2 emission IN TRANSPORT SECTOR(MtC)

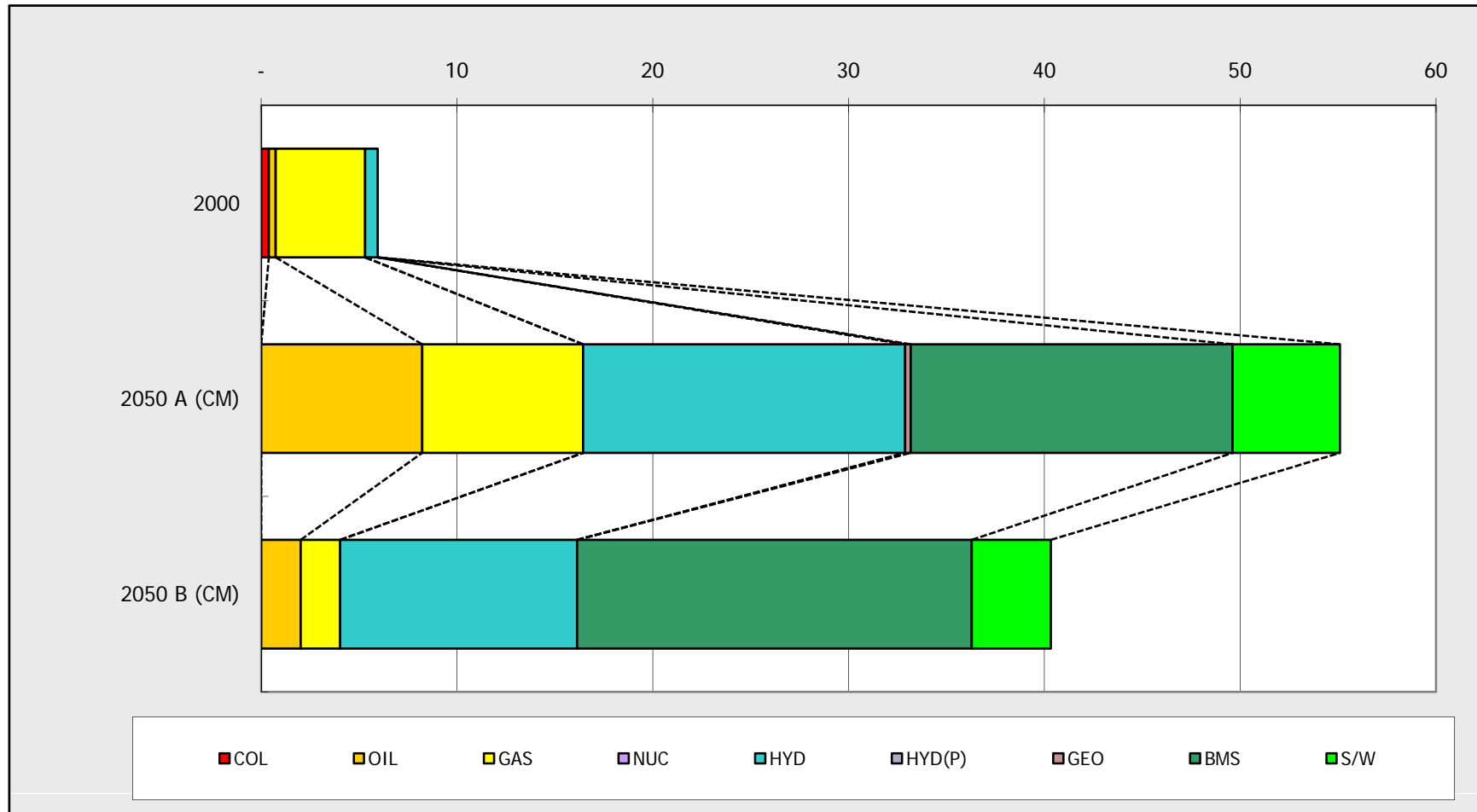


S(A) CO2 contributed by gas and H2.

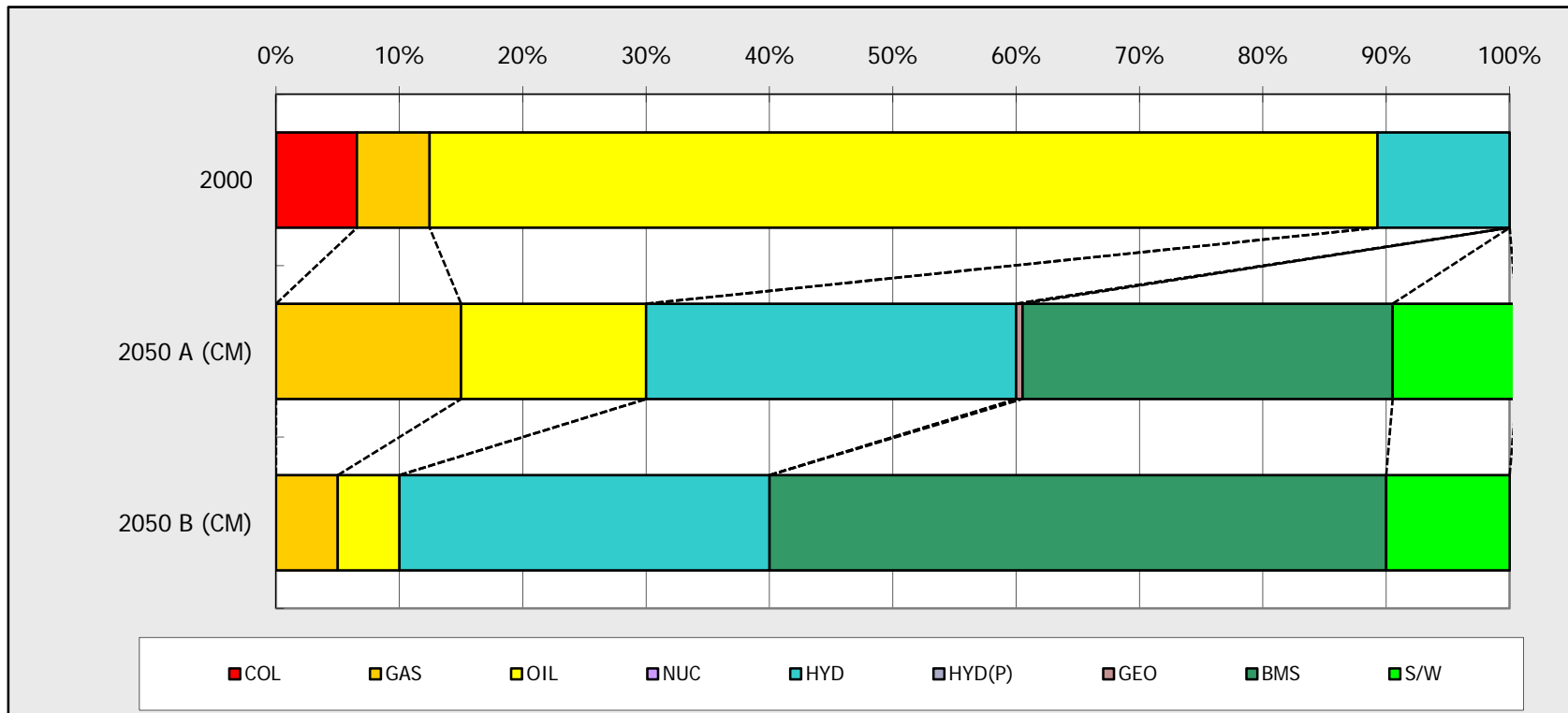
S(B) CO2 contributed s mainly by gas

ENERGY DEMAND –POWER

Energy consumption in power generation sector (Mtoe)



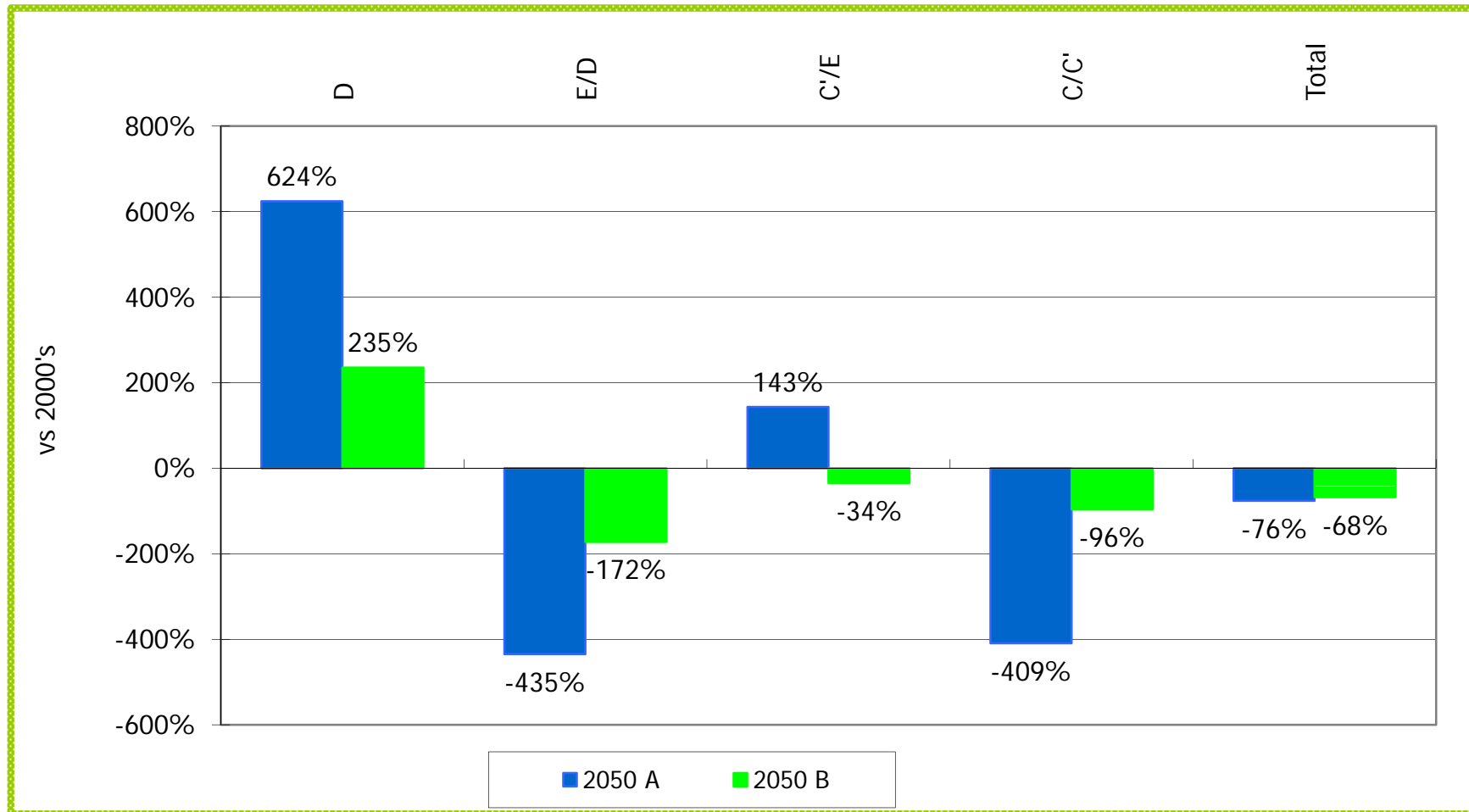
CO2 EMISSION- POWER SECTOR



ENERGY DEMAND –DATA LIMITATION

- Main problem encountered.
- Difficulty to obtain detailed breakdown of
 - A) Transport
 - Modal split at national level (use ODA)
 - Passenger km (equivalent case - Thailand)
 - B) Residential (Energy balance table)

CONCLUSION- Residential sector



CONCLUSION- Transport sector

