

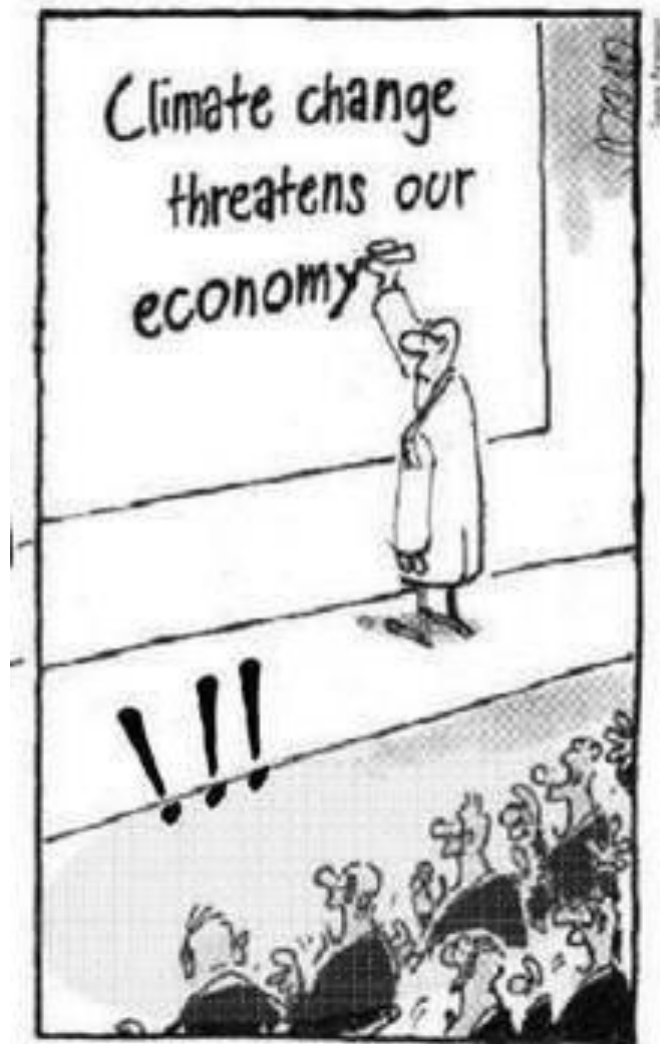
Low Carbon Cities

Global, national & sectoral perspectives

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Le Meridian, Putrajaya





High Consumption

Energy
Water
Food
Consumer goods
Lifestyle products

High Resources Required

Natural resources, oil, gas, coal, \$\$
Raw water, energy, \$\$
Land use, pesticides, fertilizer, carbon sink
Shipping, waste to dispose?
Want vs needs?

**The more water you utilized,
the more trees, money and energy required
to produce the treated water.
And the more the wastewater you will generate;
the more money and energy required
to treat and dispose (recycle) the wastewater!**

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**The more water you utilized,
the more trees, money (90% subsidy) and
energy (50% subsidy) required to produce the treated water.
And the more the wastewater you will generate;
the more money (90% subsidy) and energy (50% subsidy)
required to treat and dispose (recycle) the wastewater!**

Principles

High Consumption

Energy
Water
Food
Consumer goods
Lifestyle products

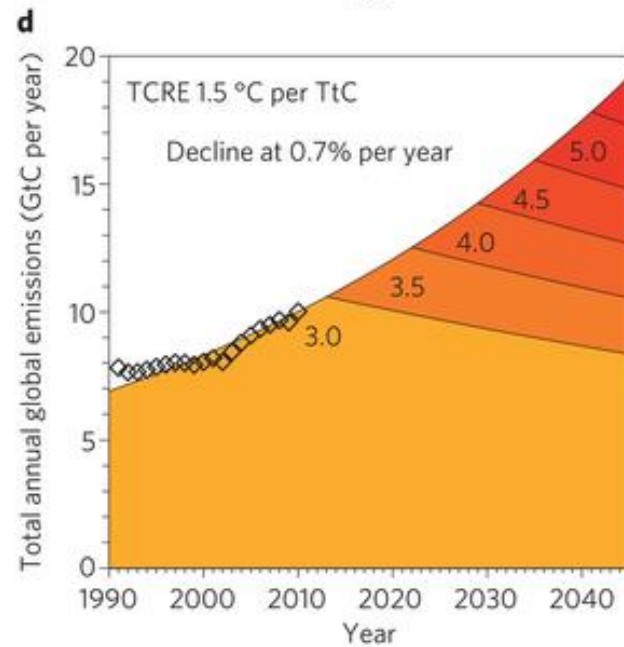
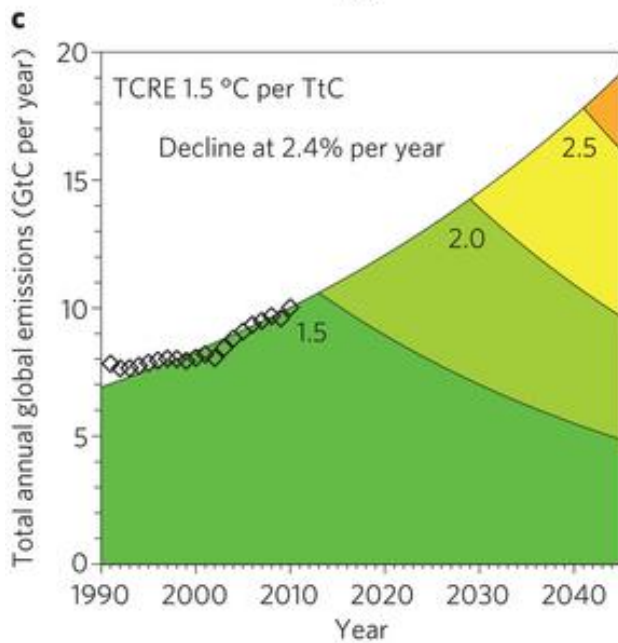
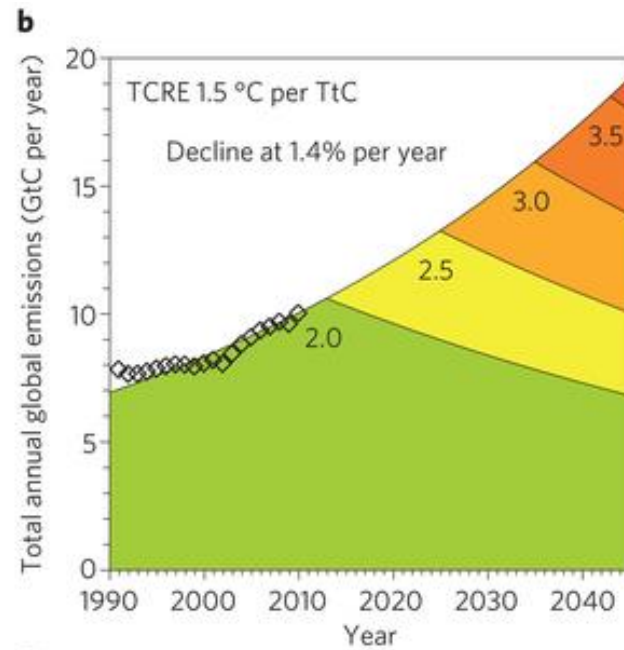
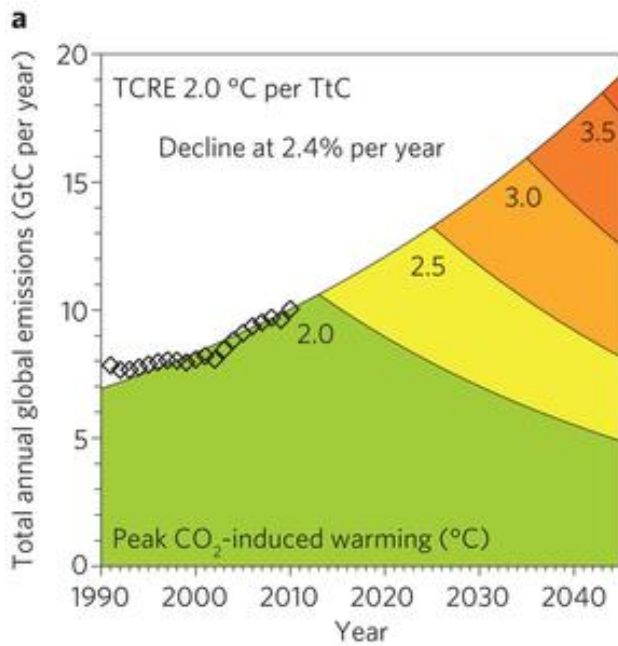
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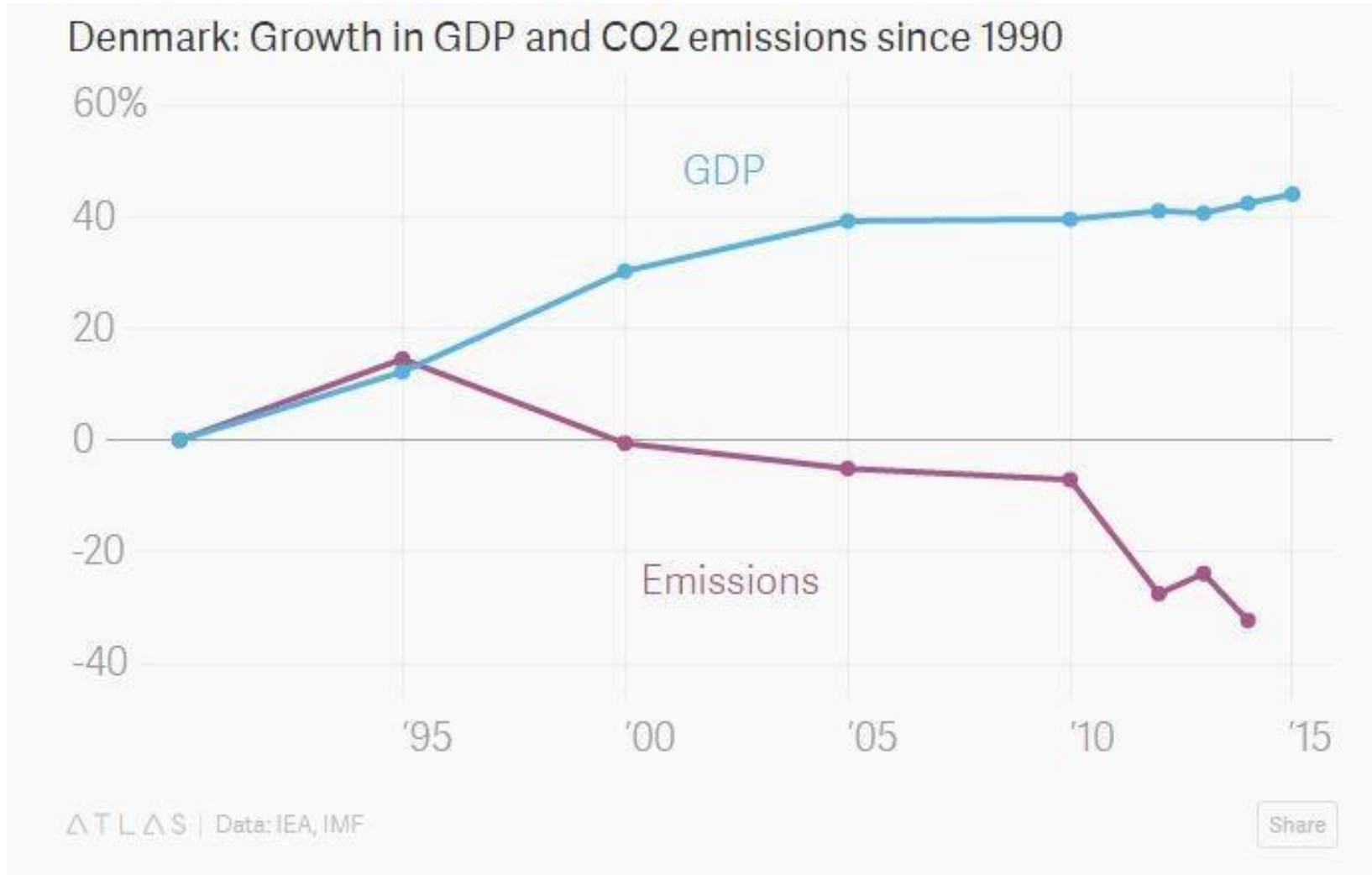
Sustainable Consumption

Sustainable Development

<p>1 NO POVERTY</p> 	<p>2 NO HUNGER</p> 	<p>3 GOOD HEALTH</p> 	<p>4 QUALITY EDUCATION</p> 	<p>5 GENDER EQUALITY</p> 	<p>6 CLEAN WATER AND SANITATION</p> 
<p>7 RENEWABLE ENERGY</p> 	<p>8 GOOD JOBS AND ECONOMIC GROWTH</p> 	<p>9 INNOVATION AND INFRASTRUCTURE</p> 	<p>10 REDUCED INEQUALITIES</p> 	<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p> 	<p>12 RESPONSIBLE CONSUMPTION</p> 
<p>13 CLIMATE ACTION</p> 	<p>14 LIFE BELOW WATER</p> 	<p>15 LIFE ON LAND</p> 	<p>16 PEACE AND JUSTICE</p> 	<p>17 PARTNERSHIPS FOR THE GOALS</p> 	 <p>THE GLOBAL GOALS For Sustainable Development</p>



GDP vs C emissions





Sustainability

The currency is Carbon (C)

Approach?

- Reduce C emission
- Increase C sink

Methodology (e.g.)?

- Green technology
- Green cover



Strategic Thrusts



Enhancing
inclusiveness towards
an equitable society



Improving
wellbeing for all



Accelerating human
capital development
for an advanced nation



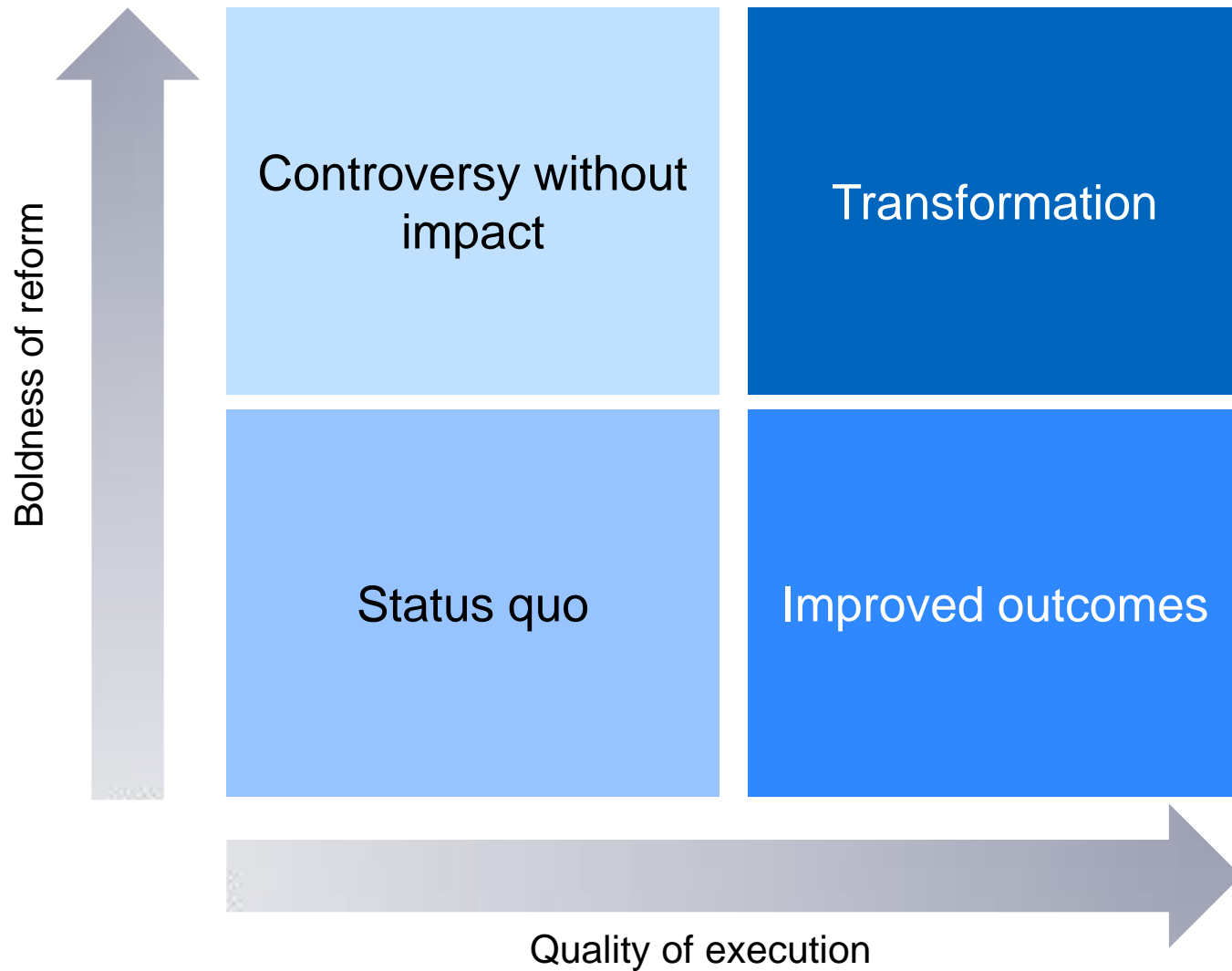
Pursuing green growth
for sustainability
and resilience



Strengthening
infrastructure to support
economic expansion



Re-engineering
economic growth for
greater prosperity



Environmental Sustainability

Project Selection Grid

HIGH Value	High-tech, capital-intensive <ul style="list-style-type: none">○ Technology-focus○ Capital-intensive○ Cleaner production	Green-Economy <ul style="list-style-type: none">○ Green-culture○ Education-focus○ Local expertise-niche○ Low carbon footprint○ Public well-being
LOW Value	Regulatory, Enforcement <ul style="list-style-type: none">○ Compliance-focus○ Pollution control○ Public health	Low-tech, people-centered <ul style="list-style-type: none">○ Pollution prevention○ Employment-focus○ Local-expertise
	LOW Sustainability	HIGH Sustainability

From **third** to **first** class mentality

	Third Class	First Class
Responsibility	Not me	Me
Payment	Government	My contribution
Culture	By law, enforcement	Passion, commitment
Education	Benefits?	DNA
Civic matters	By law, incentives	Way of life
Politics	Power	Tasking
Leadership	Class-bound	Professionalism

From Planning to DNA green culture

PLAN what?

IMPLEMENT how?

IMPROVE how?

HABIT

CULTURE

Artifacts, thinking, systems, SOP, integrity, teamwork, life style, etc

DNA

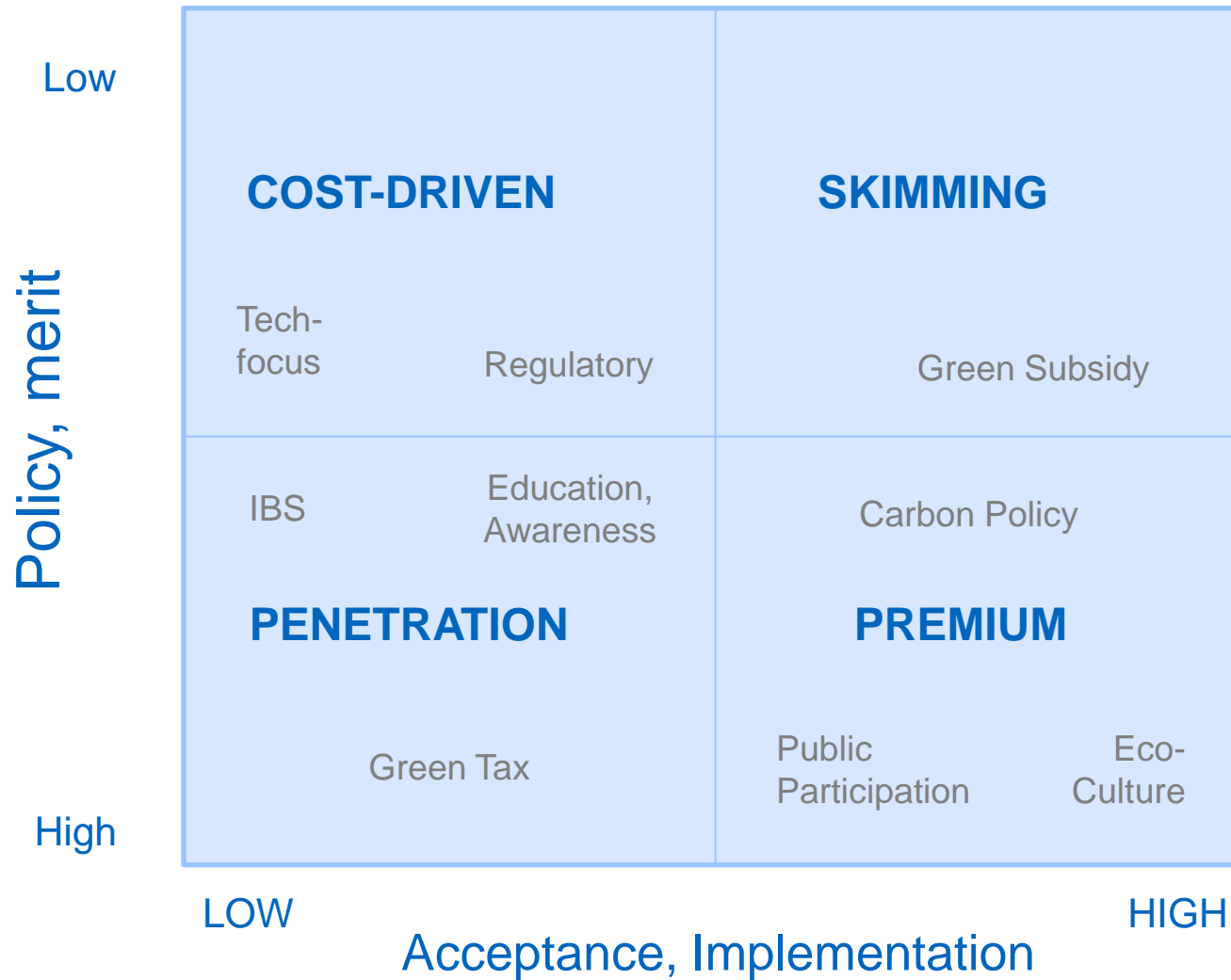
Example of sustainability report card

EXAMPLE

	2015	2020	2025	2030	2050
Freshwater withdrawal	2%	8%	15%	25%	50%
NRW	37%	25%	20%	15%	<10%
Water demand l/d.cap	210	180	170	160	150
Wastewater Recycling	1%	5%	15%	30%	50%
Regional STP	20	100	150	200	500
SAIDI	57 min	40 min	20 min	10 min	5 min
Fuel Mix: RE	18% (2016)	20%	25%	35%	50%
C footprint (ton percapita)	12-13	12	11.5	11	8
EV cars	<100	1000	10,000	100,000	1,000,000
Green investment**	RM3 b	RM20 b	RM35 b	RM50 b	RM300 b

EXAMPLE

Eco-strategy matrix



Incentive? SUSTAINABLE AMAL

Prophet Muhammad saw said:

“When a man dies, no further reward is recorded for his actions, with three exceptions:

- (1) Sadaqah jariyah (donation with which continues to be benefited), or
- (2) Knowledge from which benefit continues to be reaped, or
- (3) The prayers of a good son to his dead father”

SUSTAINABLE
CONSUMPTION

SUSTAINABLE
DEVELOPMENT

SUSTAINABLE
FUTURE

(Sahih Muslim)