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| Title | Upscale & Downscale - Innovative Planning Through Sustainable Architecture |
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| Summary | Not to be distributed |

Upscale & Downscale

Innovative Planning Through Sustainable Architecture



Population increase, transmigration



high density living, urban sprawl



We are using enough resources that would require 3 Earths to sustain our 1 Earth



5

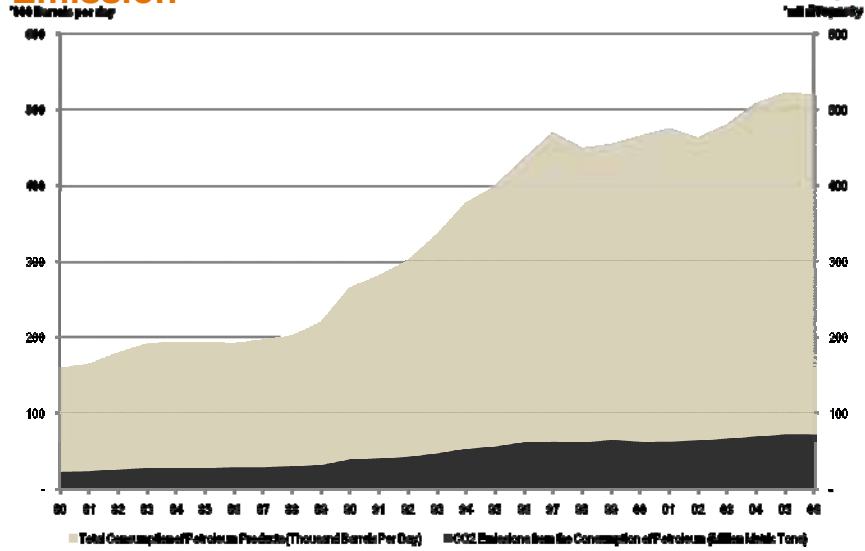


...enough to fill 5 pyramids of Giza on a daily basis



6

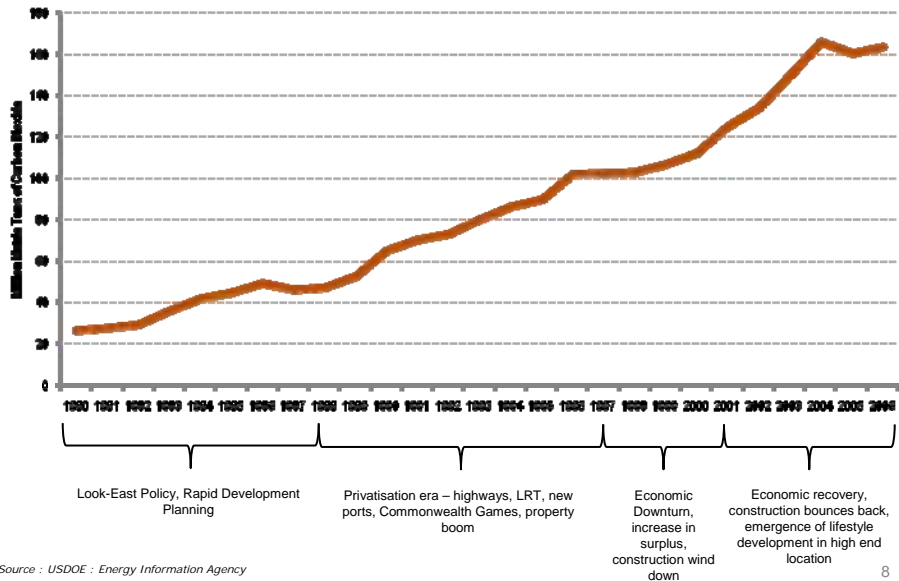
Consumption of Petroleum & CO₂ Emission



Source : USDOE : Energy Information Agency

7

CO₂ Emissions from the Consumption of Energy, 1980-2006, Malaysia



Source : USDOE : Energy Information Agency

8

Sime Darby's Stake – Post Merger



9

Fulfilling the brand promise



*Developing
Sustainable
Futures*

Property

10

If we get it wrong - What's at stake?



Inefficient cost management
Low value product deployment
Environmental and ecological endangerment
Brand dilution
Stakeholder disengagement

11

If we get it wrong - What's at stake?



Our future

12

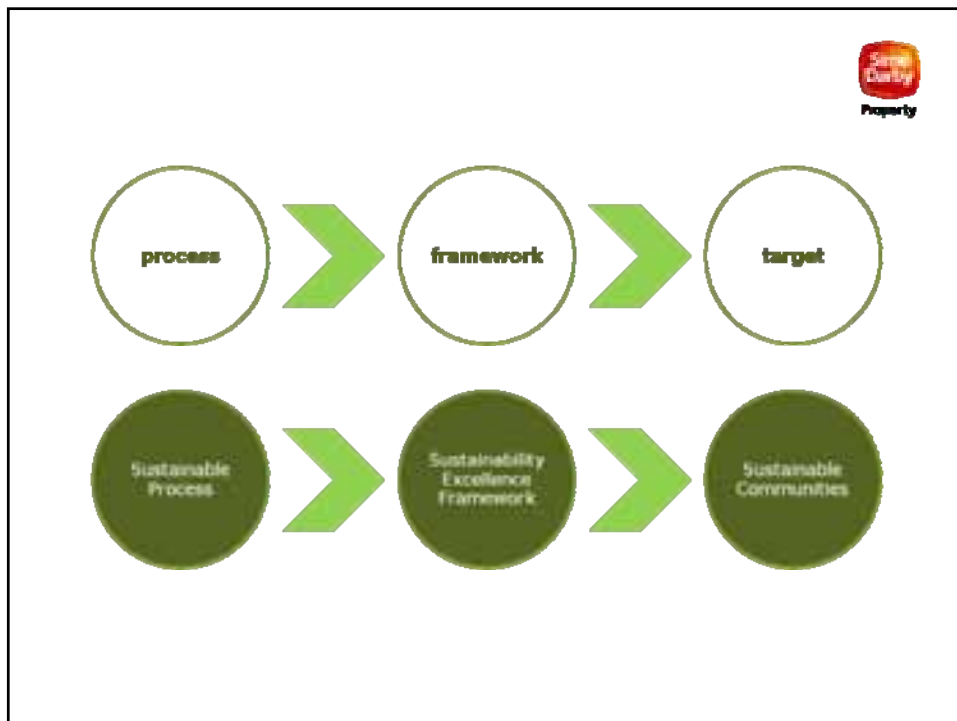
Relating the business to the tagline



Developing Sustainable Futures



The word 'Sustainability' has become the sticky plaster to cure the Worlds' carbon woes



The Framework

A holistic framework



Sustainable Development Excellence Framework¹



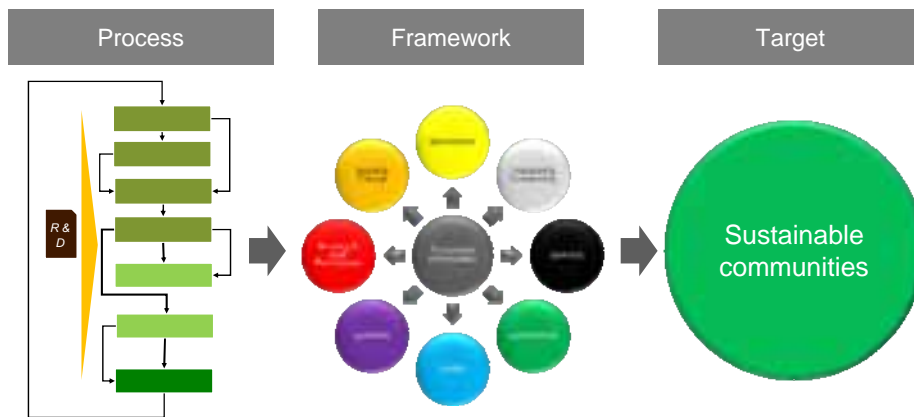
The Sustainable Development Excellence Framework is a tool to help a **project achieve excellence by considering the components of a sustainable community.**

It is a 2 tier assessment system

1. TIER 1 – audits the masterplan against sustainable parameters
2. TIER 2 – audits the masterplan against known/established standards

1. The Excellence Framework was developed jointly by the Building Research Establishment and Sallet Consulting

Theoretical Framework



A holistic framework



A holistic framework



..not an individual task!



The Design Process

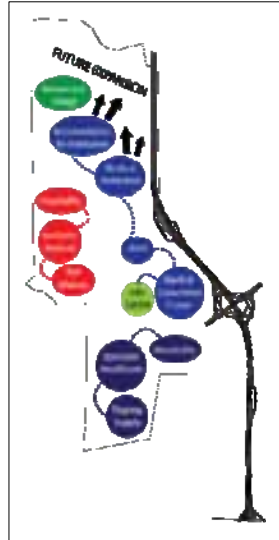
Inter-disciplinary collaboration



Design Charrettes



Value Driven Collaborative MCP Creation



Day 1



Day 2



Day 3

Integrated Project Delivery



CONCEPTUALIZATION



- The project team come together at earliest stage, improving accuracy of decisions.
- Predictable process – thus avoiding costly redesign work

Integrated Project Delivery with BIM



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DESIGN



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Integrated Project Delivery with BIM



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IMPLEMENTATION DOCS



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CONSTRUCTION



- Able to use materials efficiency, creating less waste.
- Change orders are minimized and no operational revenue lost
- Construction completed on schedule and on budget

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OWN/OPERATE/MAINTAIN



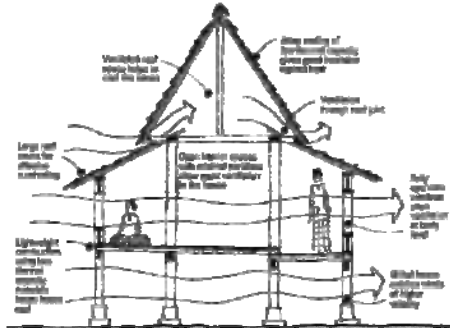
- Owner – enjoy better quality assurance
- Provided with complete virtual building for manual, operational and renovation purposes

Concept & Precedent

The solution is in our own backyard



Capturing the essence



Functional response to user needs

