



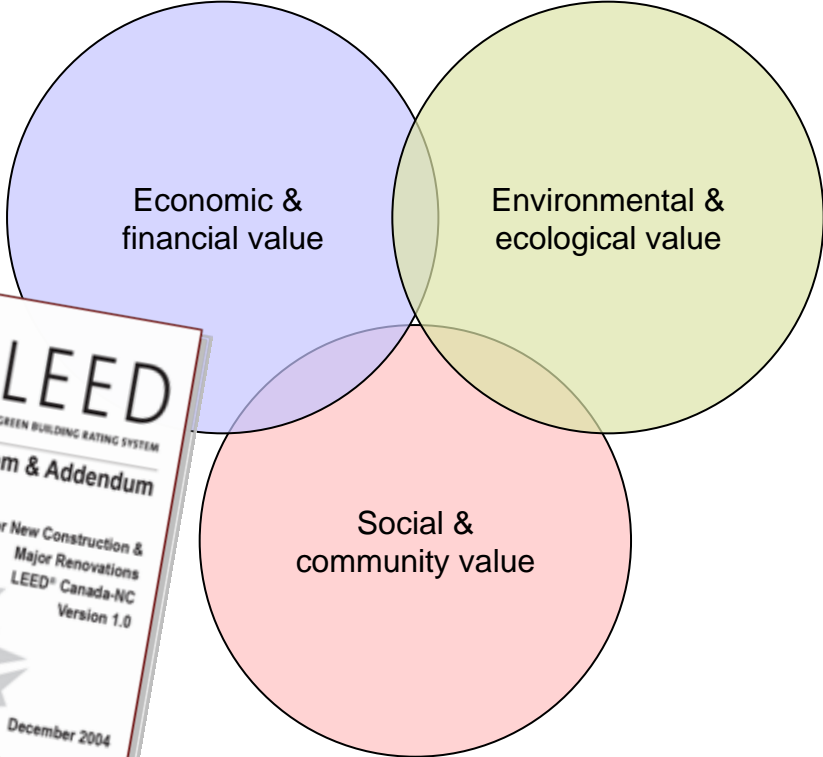
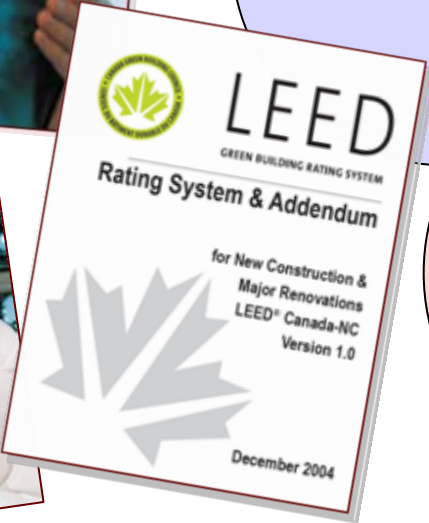
The Sustainable Healthcare Business Case

Chris Corps

28th January, 2010



Healthcare & the Triple Bottom Line





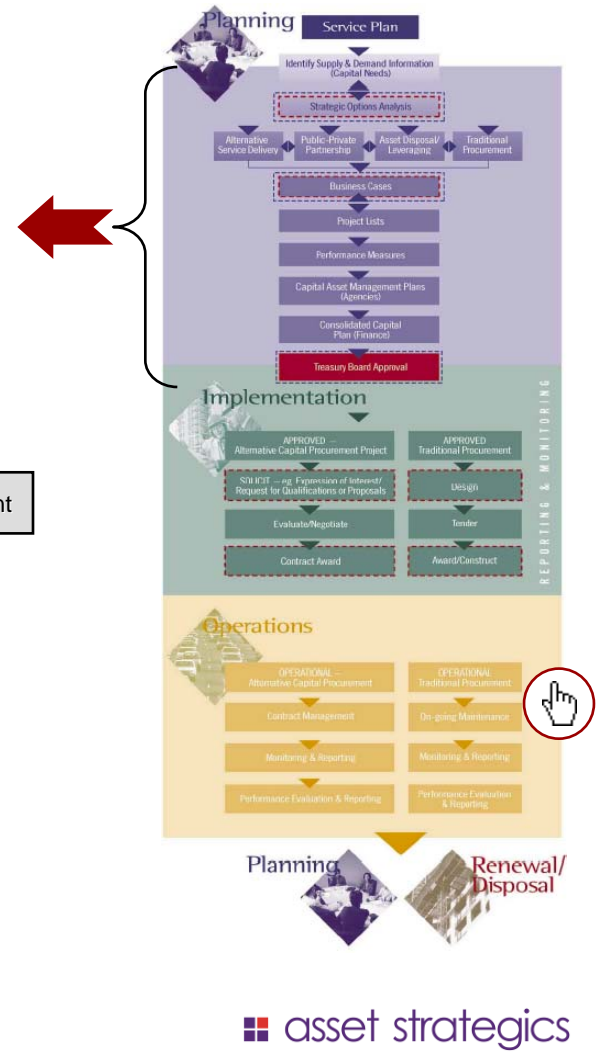
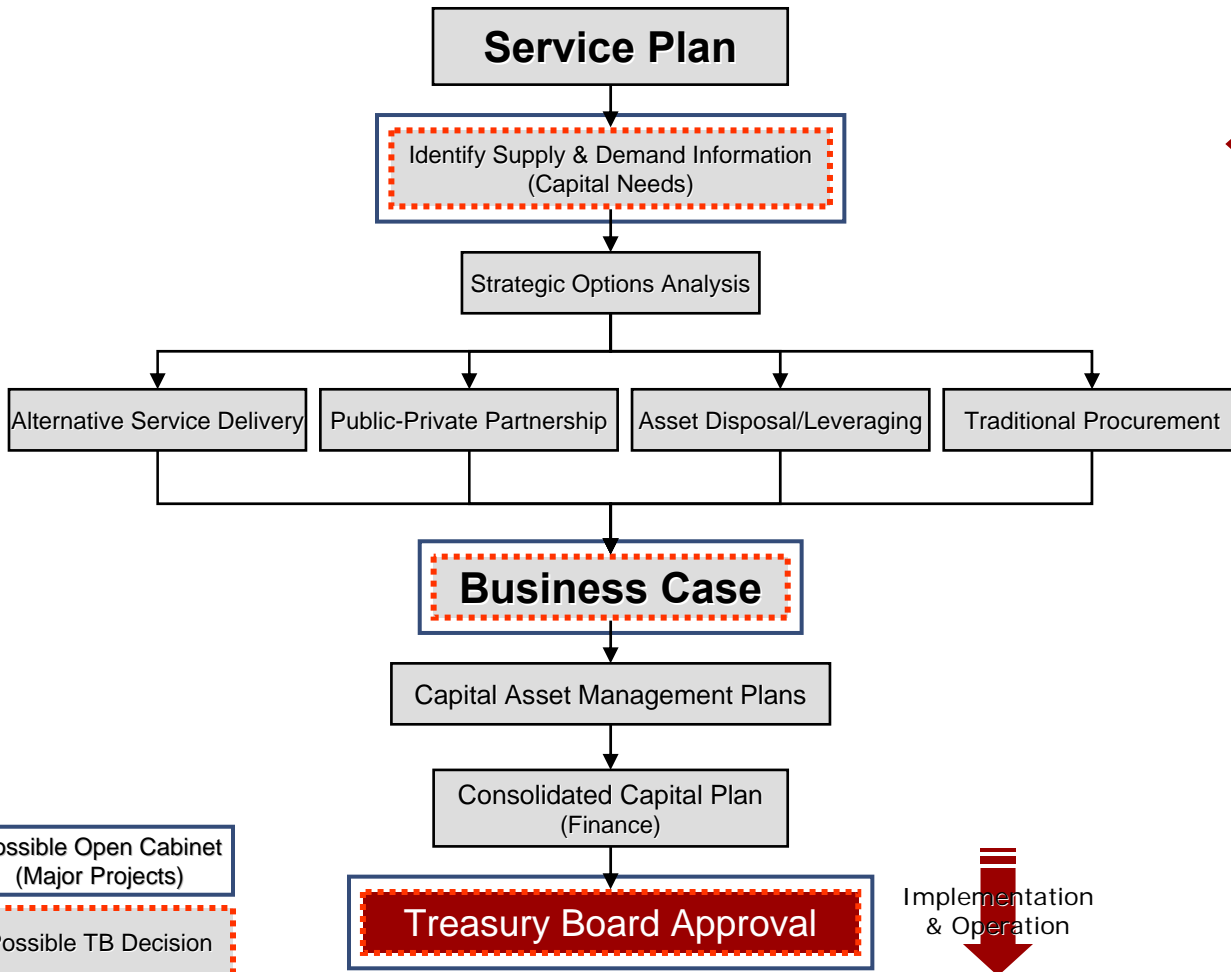
BC's Policy & Capital Dimensions





Capital Asset Management Framework

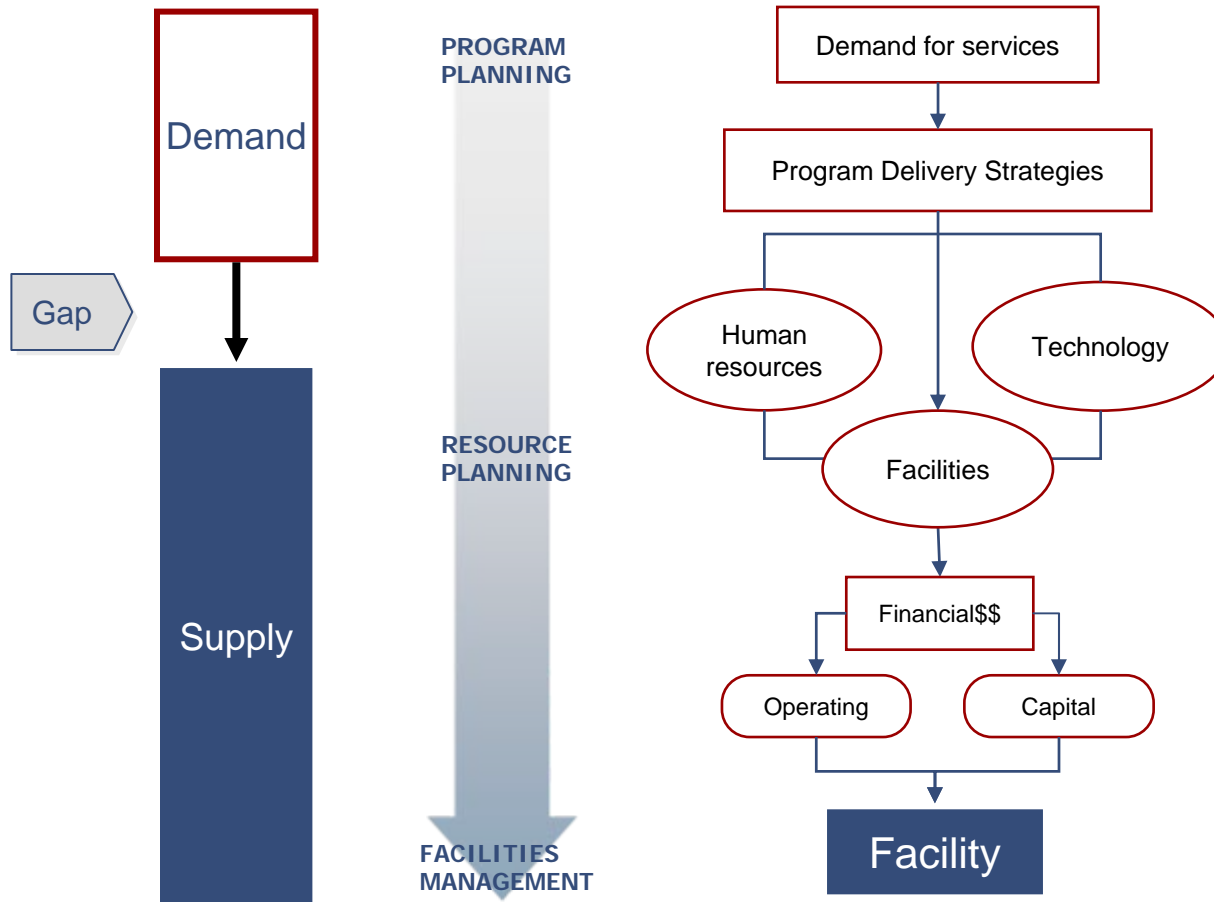
Step 1: Planning



Implementation & Operation

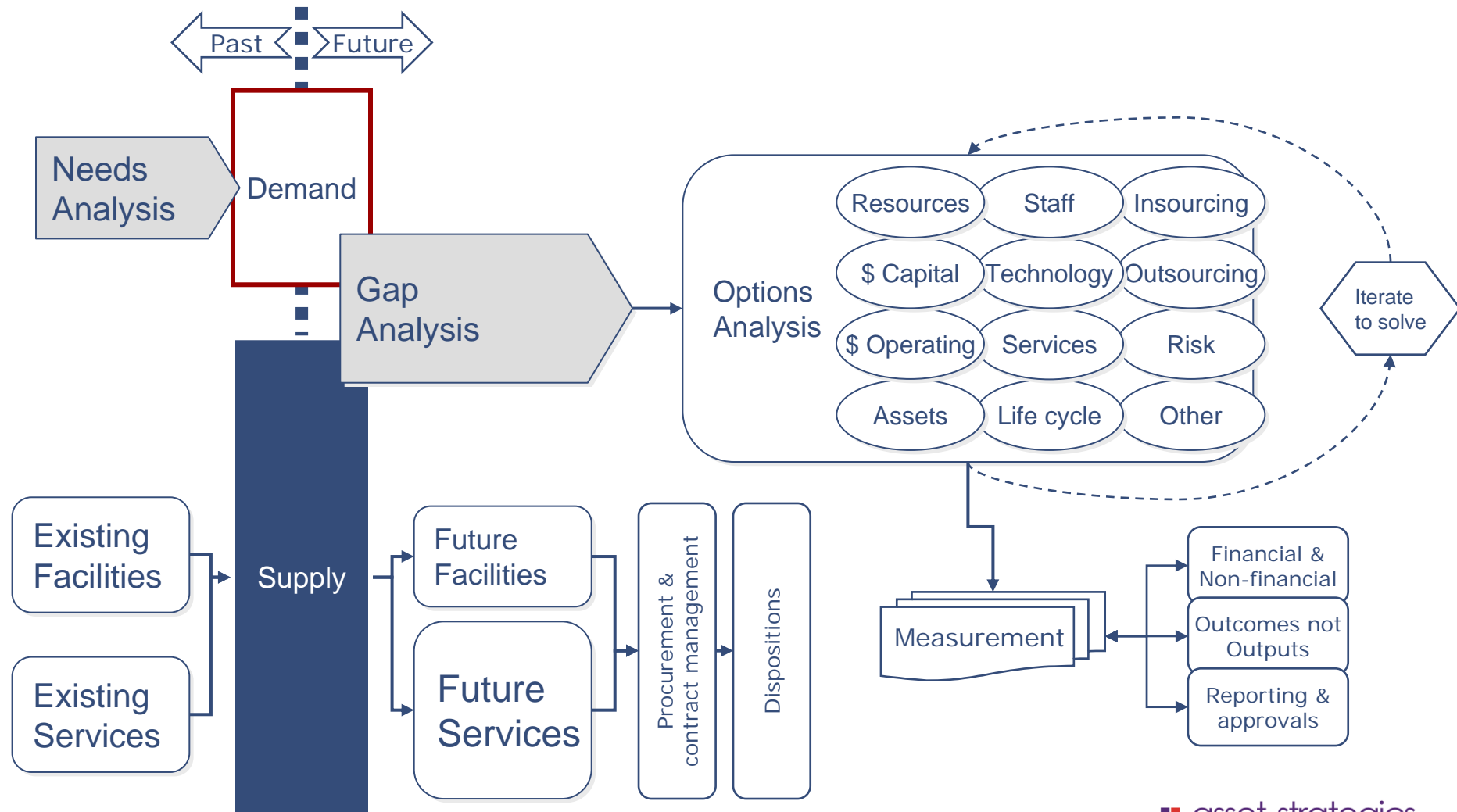


Linear Planning





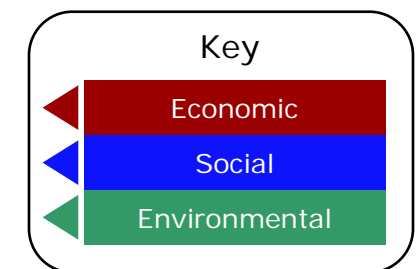
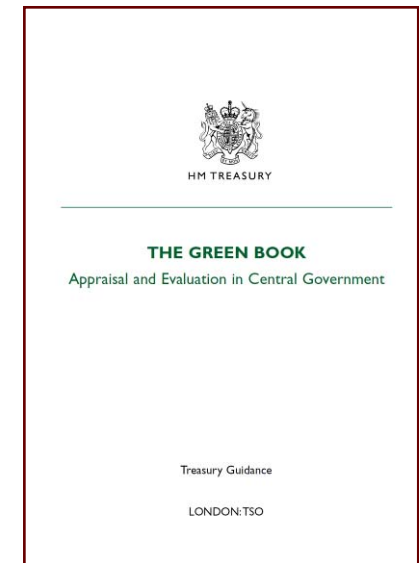
The Underlying Role of IDP





The UK Model : Integrating Sustainability

- ❑ Business cases (either Preliminary, Outline or Full) consisting of:
 - ❑ Strategic Case;
 - ❑ Economic Case (or Option Appraisal);
 - ❑ Financial Case (or Affordability);
 - ❑ Commercial Case;
 - ❑ Programme;
 - ❑ Project Management Case (or Achievability).
- ❑ Regulatory Impact Assessment
- ❑ Health Impact Assessment
- ❑ Environmental Appraisal
- ❑ Health and Safety Impact appraisal
- ❑ Consumer Impact Assessment
- ❑ Integrated Policy Appraisal (IPA)²
- ❑ Evaluation and audit reports.





Traditional Value ► Green Value



Valuing Sustainability : Green Value

- Initiated 2004, published November 2005
 - ◆ Literature & best practice review
 - ◆ Reviewed green building value aspects
 - ◆ Subsequent studies now improving analysis, better data now available
- *"There is a relationship between the market value of a real estate asset, its green features and related performance."*





Green Value Summary

- Sponsors:
 - ◆ RICS
 - ◆ BC Hydro
 - ◆ Canada Green Building Council
 - ◆ English Partnerships (UK)
 - ◆ Greater Vancouver Regional District
 - ◆ Green Buildings BC
 - ◆ Natural Resources Canada
 - ◆ RealPac
 - ◆ Others: CMHC, City of Vancouver
- Team
 - ◆ Cushman Wakefield LePage, Busby Perkins + Will, BuildGreen, DTZ (UK)
- 18 project reviews in:
 - ◆ San Francisco, California
 - ◆ Minneapolis, Minnesota
 - ◆ Oberlin, Ohio
 - ◆ New York City, New York
 - ◆ New Westminster, Vancouver, Victoria, BC
 - ◆ Kitchener, Ottawa & Toronto, Ontario
 - ◆ Montreal, Quebec
 - ◆ 6 UK projects

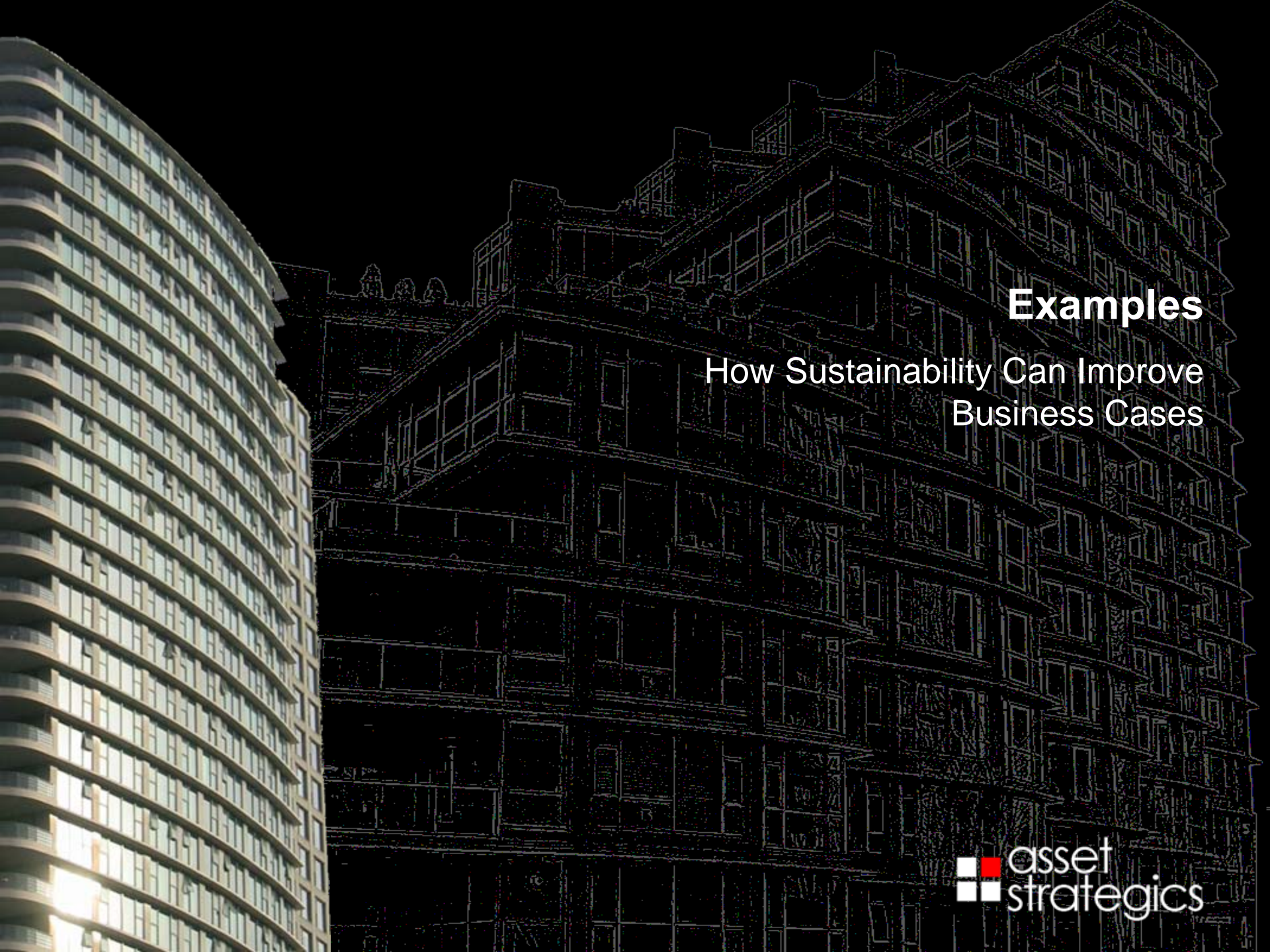


Green Value: The Main Value Benefits

1. Lower operation/maintenance costs
2. Energy & resource savings
3. Grants, subsidies, inducements etc.
4. Attract tenants faster (i.e. absorption)
5. Higher rents, investment/sale value
6. Lower turnover/vacancy
7. Reduced fitting-out costs (i.e. TI's)
8. Lower internal move costs (i.e. churn)
9. Increased productivity
10. Faster, better public process
11. Improved risk, marketability



Vancouver Island Technology Park, BC



Examples

How Sustainability Can Improve
Business Cases

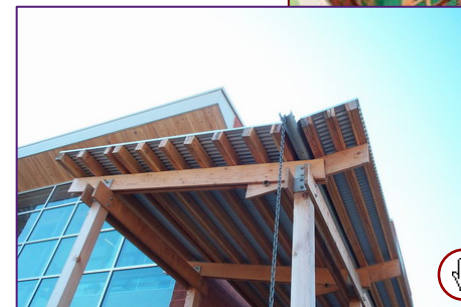


Examples of Green Value

- Pennsylvania Power and Light conversion's power savings:
 - ◆ Traditional energy saving: 4.1 yrs payback, **24% ROI**
 - ◆ Green Value: 69 days payback, **540% ROI**
 - ◆ Difference: largely productivity benefits
- Reno Post Office upgrade:
 - ◆ Improved productivity gains paid for the \$500,000 renovation in under a year
 - ◆ Annual energy savings a 'free bonus'
- Solaire, New York:
 - ◆ Residential development
 - ◆ Asthmatic gets better



The Solaire, New York



Mountain Equipment Co-op, Montreal



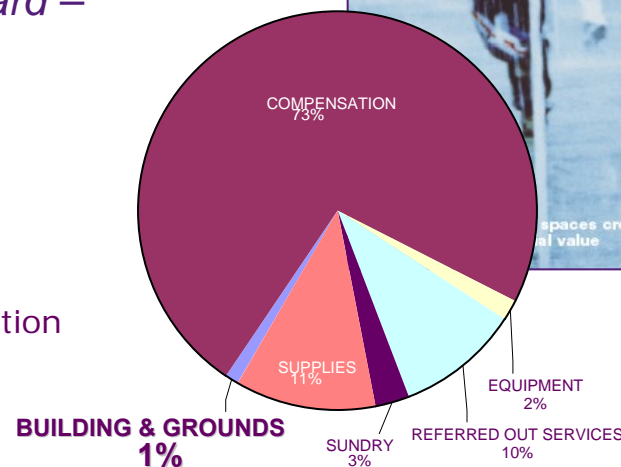
The Green Business Case

"A study by Sheffield University for NHS Estates compared patient outcomes in a newly refurbished orthopaedic unit at Poole hospital with those in a 1960s conventional ward.

The study found that patients treated on the refurbished ward required less analgesic medication than those on the older ward. **Patients not undergoing operations were discharged significantly more quickly from the newer ward – after 6.4 days compared with 8.1 days!**

Math

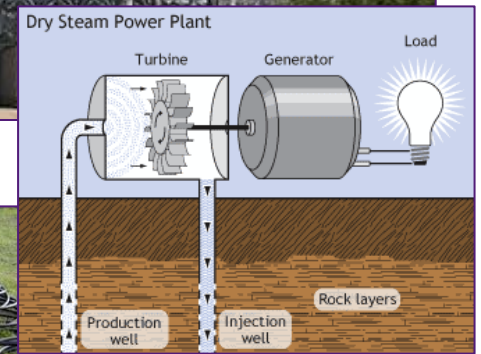
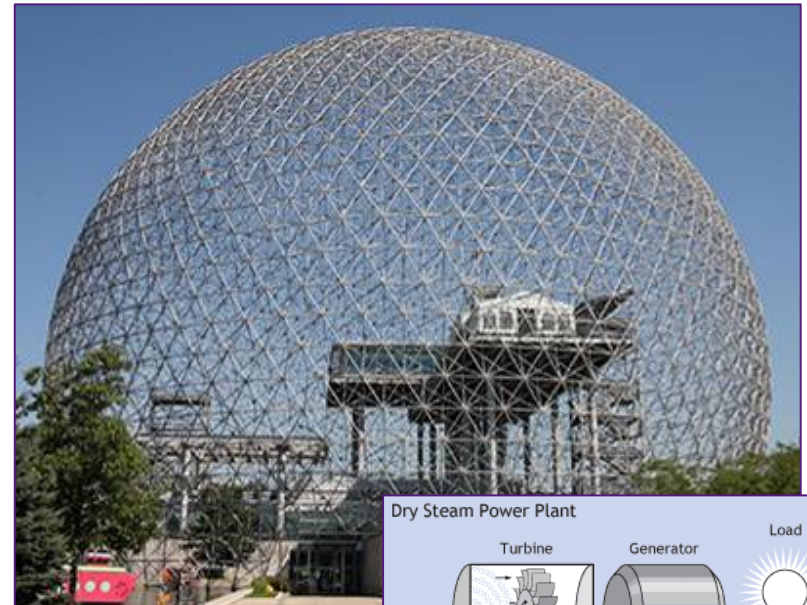
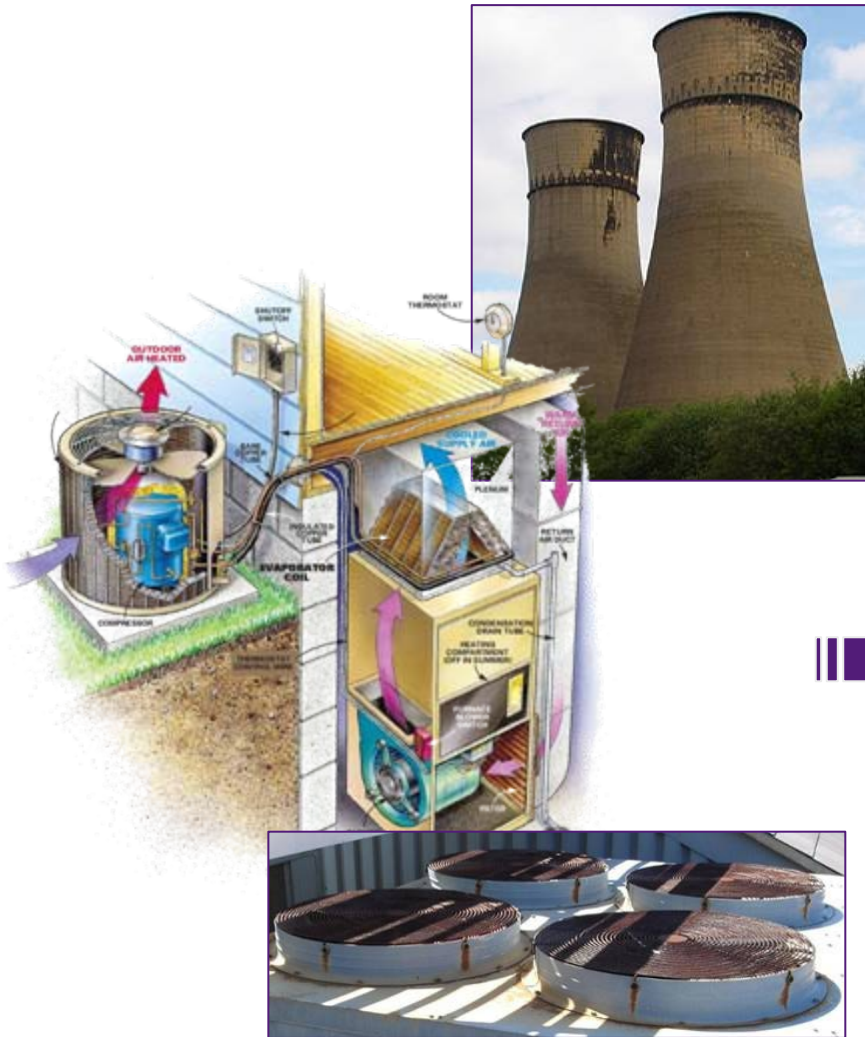
8.1 days ÷ 6.4 days = 21% cost equivalent reduction
 BC Healthcare = \$11bn/year
 \$11bn x 21% = \$2.31bn savings/year!
 ...potentially.





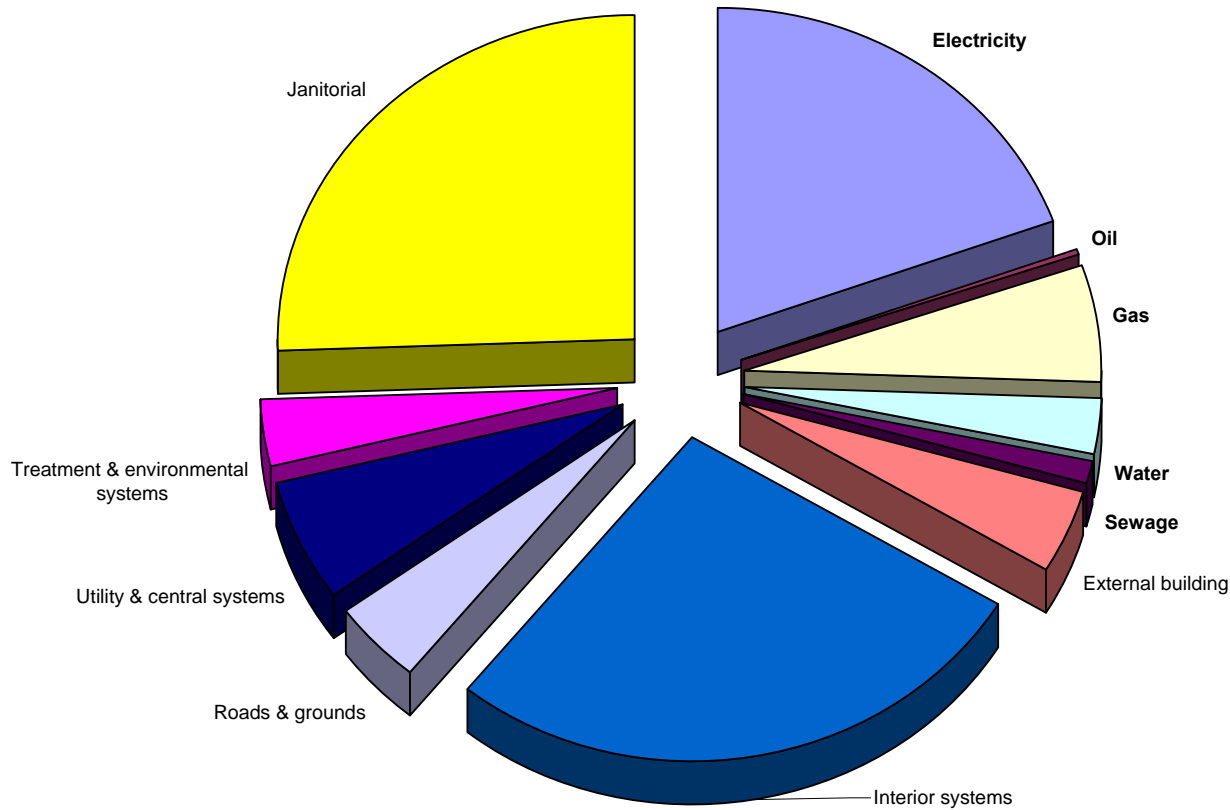
Example : A/C vs. Geothermal

Montreal biosphere payback 0.4 years





Cost ≠ Cost Savings ≠ Value



Energy: 30%

	%
Electricity	19.5%
Oil	0.3%
Gas	5.9%
Water	2.8%
Sewage	1.0%
External building	4.2%
Interior systems	27.3%
Roads & grounds	4.1%
Utility & central systems	6.2%
Treatment & environmental systems	3.3%
Janitorial	25.5%

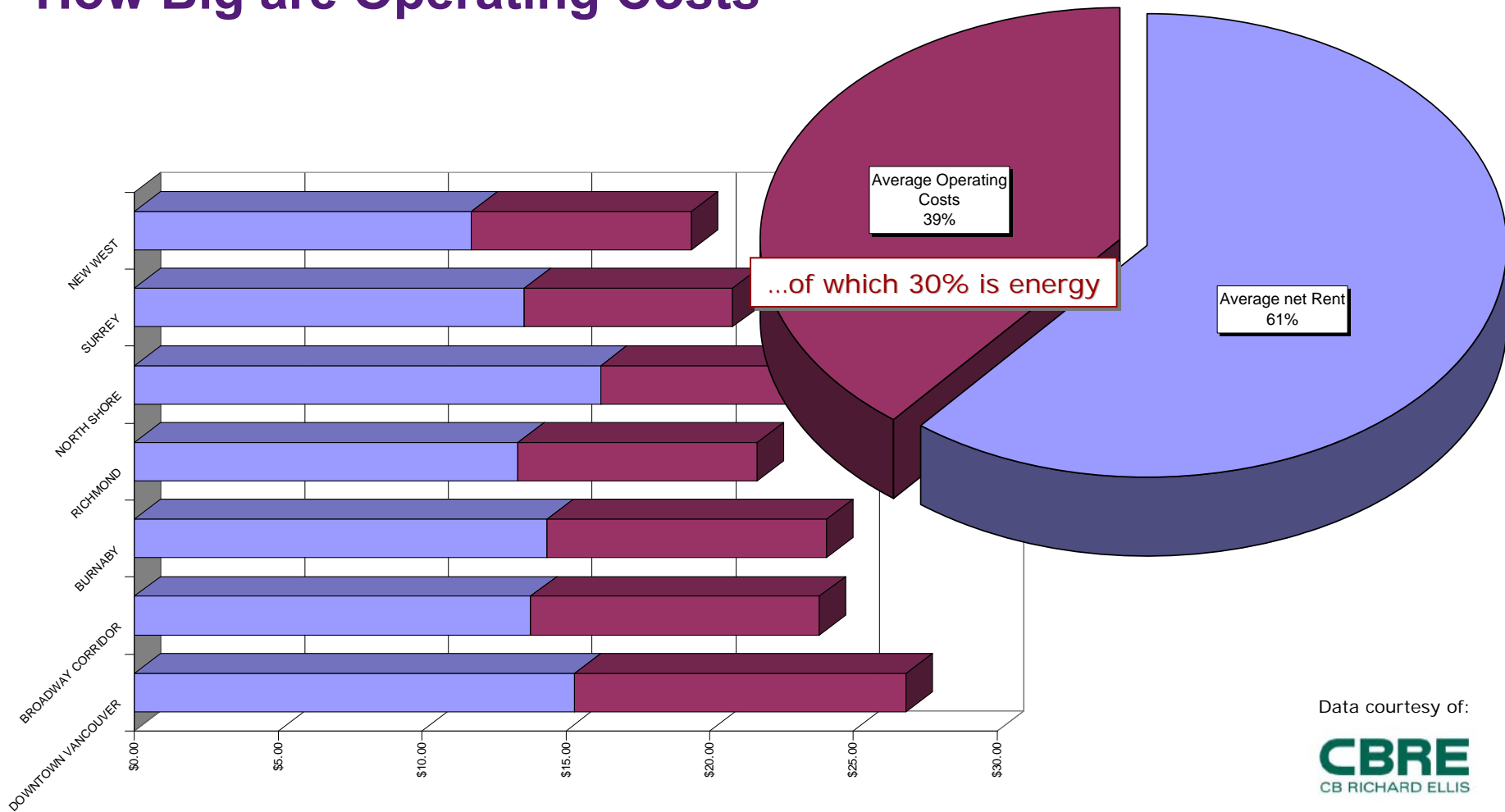
Data courtesy of:



International Facilities
Management Institute



Green Cost Savings: How Big are Operating Costs

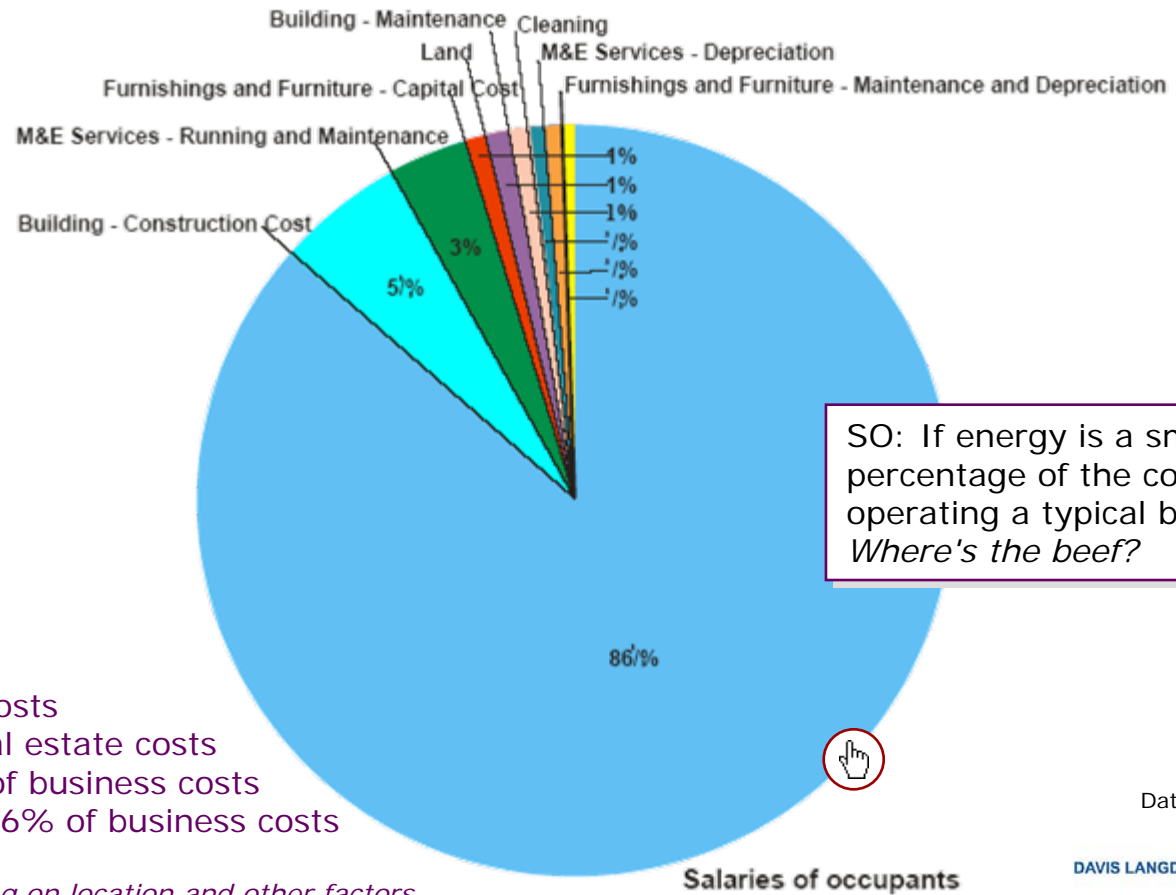


Data courtesy of:





Green Cost Savings: The Total Costs of Business



SO: If energy is a small percentage of the costs of operating a typical business...
Where's the beef?

CONTEXT

- Energy = 30% of operating costs
- Operating costs = 39% of real estate costs
- Real estate costs = 10-15% of business costs
- 20% energy savings = 0.2-0.6% of business costs

Figures are typical & vary depending on location and other factors

Data courtesy of:





Example : Riverview Tertiary Mental Health





Example 2 : The Riverview Residential Prototype Business Case

- New mental health facility, conceived 1999
 - ◆ Green principles but not LEED™
- Less costly to build, operate
 - ◆ Hospital \$350,000/bed; Connolly Lodge \$100,000/bed
 - ◆ **Construction savings: \$5m for 20 beds**
 - ◆ Hospital \$375/diem; Connolly Lodge \$142/diem
 - ◆ **Operational Savings: \$1.7m/year for 20 beds**
 - ◆ **30yr NPV @ 5% : over \$31m** ← **Financial reporting**
- Overall benefit
 - ◆ **Unexpectedly, residents return to the community** ← **Non-financial reporting**
 - ◆ Projected viable in **under 2 years** from business savings
 - *Effectively*, 14 month payback



Example : BC Seniors Care

- 1999 request for support
 - ◆ Need 3,400 new seniors care beds
- Response
 - ◆ Review alternatives
 - Existing services increasingly outdated, insufficient
 - Edmonton: Choice Centre
 - Surrey: Dutch Assisted Living
 - ◆ "Natural step" approach
 - Better, cheaper care
- Recommendation : change program & buildings to be more sustainable





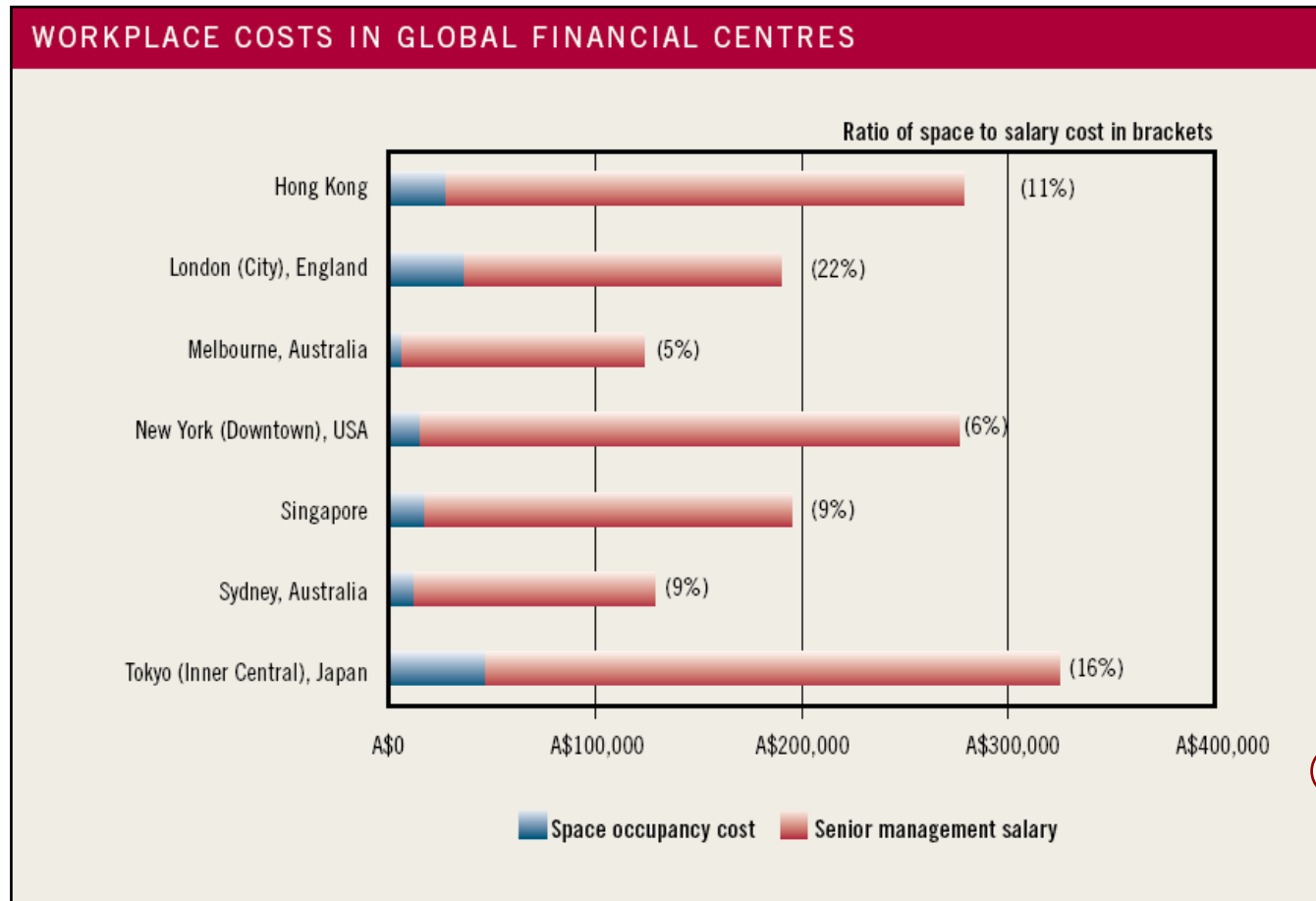
Example : BC Seniors Care Result

- Holistic business case
 - ◆ 25 year projection: demand analysis by illness, gender, location, age, ethnicity etc.
 - ◆ 32mb s/sheet, approved in 6 weeks
 - Sensitivity and options analysis
 - Linked to financials, resources
 - ◆ **\$7bn "savings"** : \$2m to implement as a Public-Private Partnership
- Difference
 - ◆ Integrated demand & supply; capital & operating; resources & inventory
 - Property just another aspect
 - ◆ Method: Modified development viability analysis





In Conclusion - It's Not About the Buildings



Source: [Executive Briefing on the Prime Office Market in Australia](#), AXISS Australia



A Rumsfeld Moment...

...we know what we know, we don't know what we don't know...

- Have your green features been properly valued?
 - ◆ Do you know? Do you care?
- Having difficulty adopting green?
 - ◆ Green can be the most compelling approach
 - Not all that's green is gold
 - Value probably isn't where you're looking
 - ◆ Integrating green in capital business cases is complex but possible
- *Does it affect value?*
 - ◆ *Don't know? Better find out.*

