

Retrofitting Victoria's B,C & D Grade Buildings

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June 19, 2012

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Agenda

1. Introduction
2. Understanding our building stock
3. Commercial office building retrofitting
4. Key Findings

Retrofitting Victoria's B,C and D Grade Buildings

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Introduction

Brief:

- To develop a greater understanding of:
 - the size and impact of existing B,C and D grade commercial building stock in Victoria
 - drivers and barriers to improve environmental performance
 - ESD retrofitting initiatives in this sector

Introduction

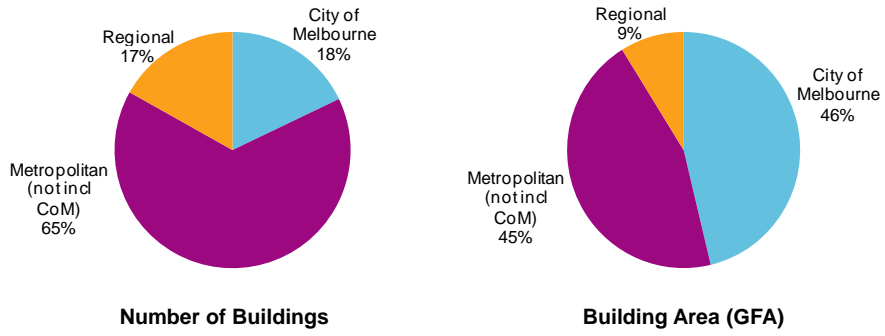
Key Market locations:

- City of Melbourne municipality
- Metropolitan Melbourne
- Regional Victoria

Parameters:

- Size and number of storeys
- Construction type
- PCA Grade
- Age
- Ownership
- Location
- Tenant Structure
- Typical energy/water consumption and GHG emissions

Understanding our building stock



Source: Davis Langdon Research, Valuer General Victoria 2010

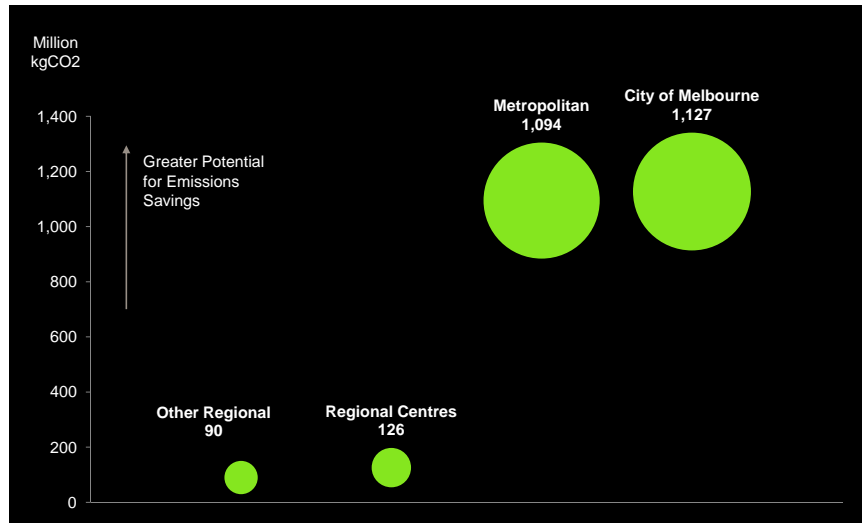
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Understanding our building stock

GHG Emissions



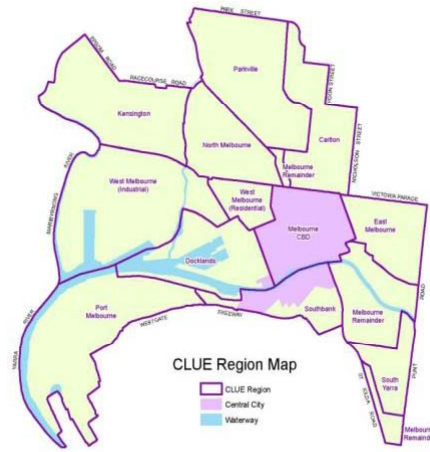
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Understanding our building stock

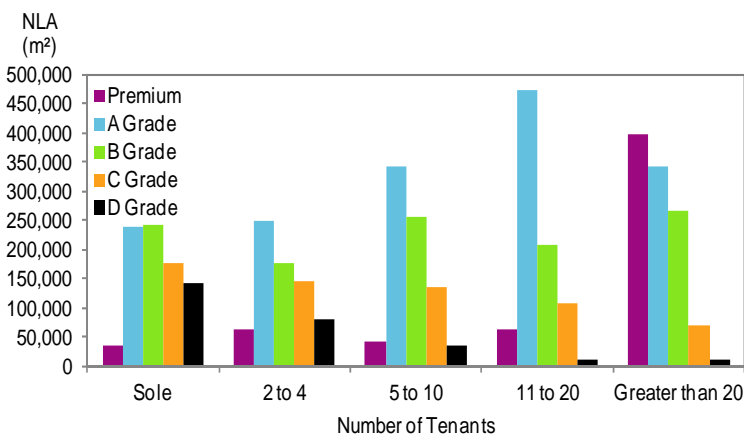
City of Melbourne Municipality



Source: City of Melbourne CLUE 2008

Understanding our building stock

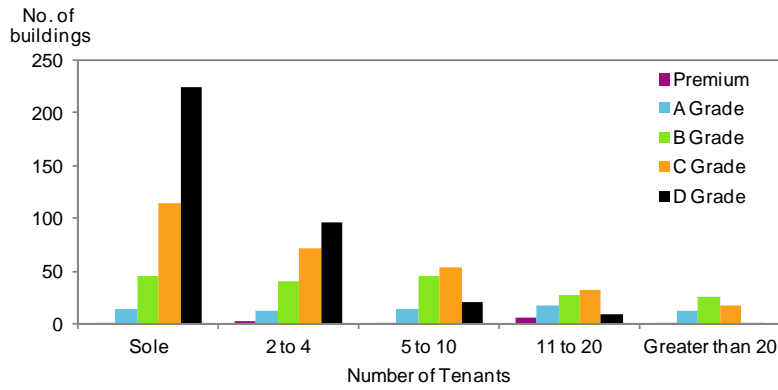
City of Melbourne – Tenant Structure by PCA Grade and NLA



Source: Davis Langdon Research, City of Melbourne CLUE 2008

Understanding our building stock

City of Melbourne – Number of tenants



Source: Davis Langdon Research, City of Melbourne CLUE 2008

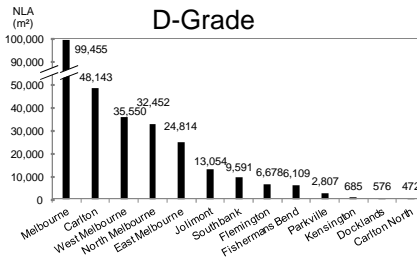
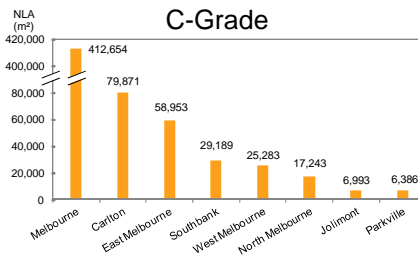
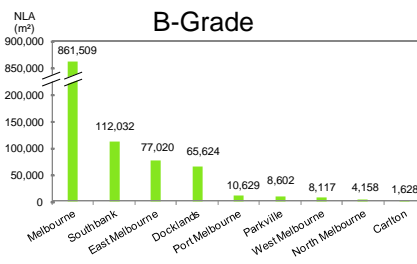
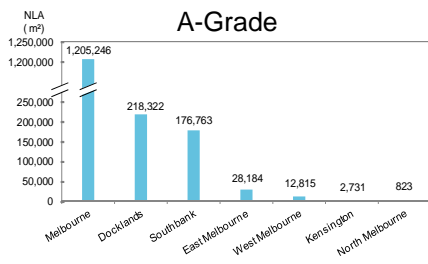
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Understanding our building stock

City of Melbourne – PCA Grade



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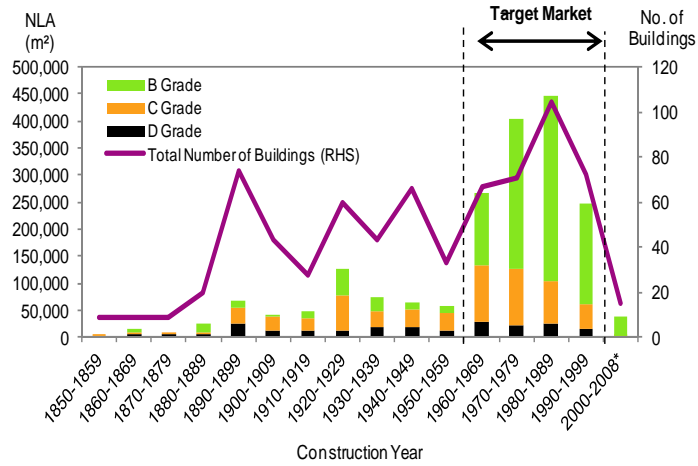
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Source: Davis Langdon Research, City of Melbourne CLUE 2008

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Understanding our building stock

City of Melbourne



Source: Davis Langdon Research, City of Melbourne CLUE 2008

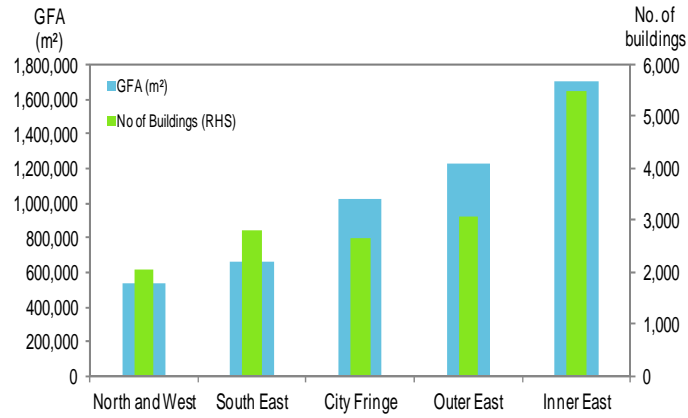
Understanding our building stock

Metropolitan Melbourne



Understanding our building stock

Metropolitan Melbourne



Source: Davis Langdon Research, City of Melbourne CLUE 2008

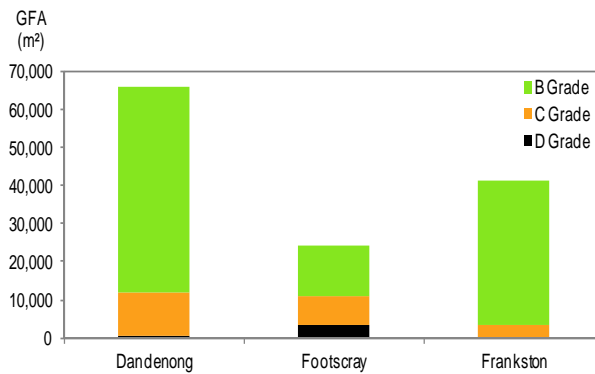
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Understanding our building stock

Metropolitan Melbourne



Source: MAV, DPCD, Davis Langdon Research,

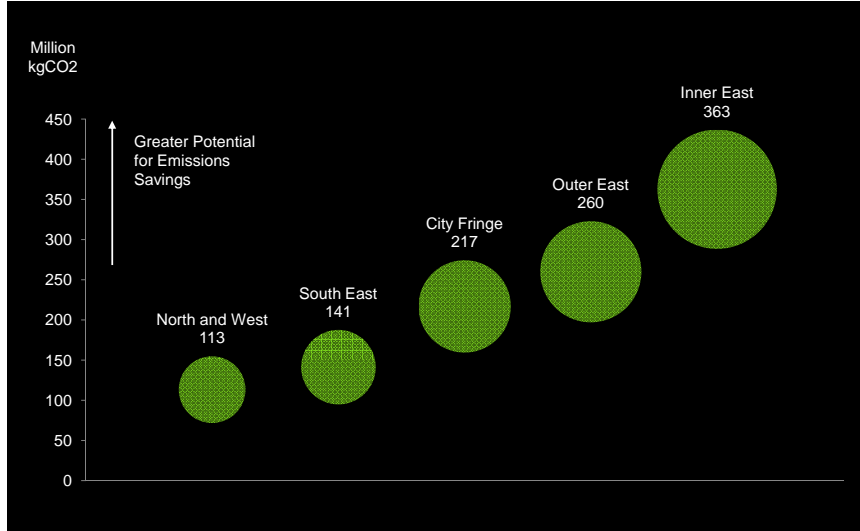
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Metropolitan Melbourne



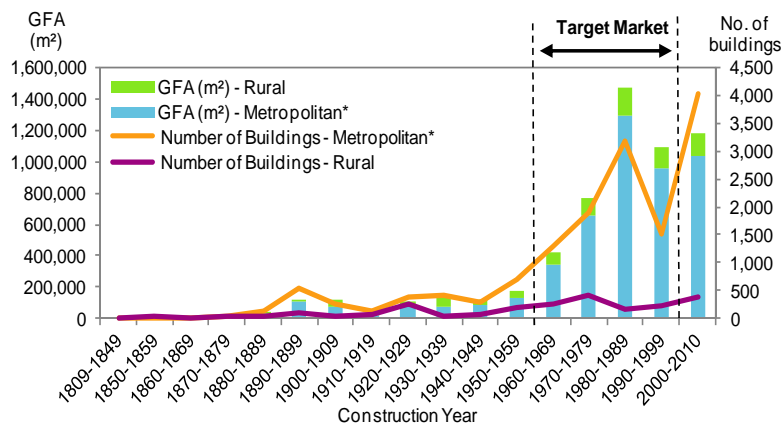
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Understanding our building stock

Metropolitan Melbourne



Source: Davis Langdon Research, Valuer General Victoria 2010

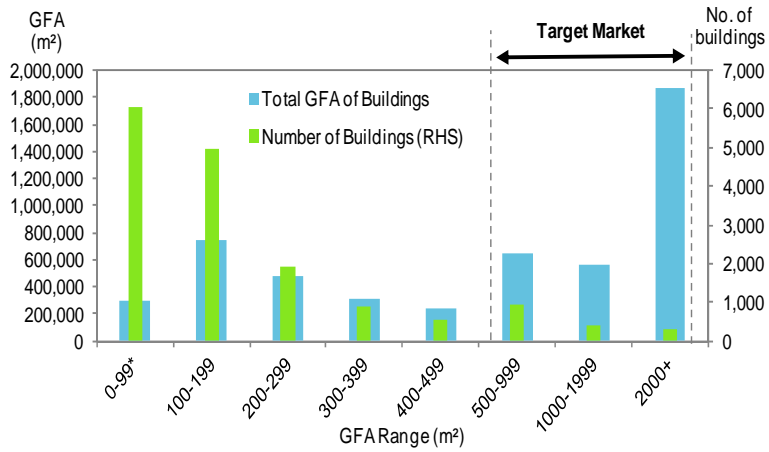
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Metropolitan Melbourne



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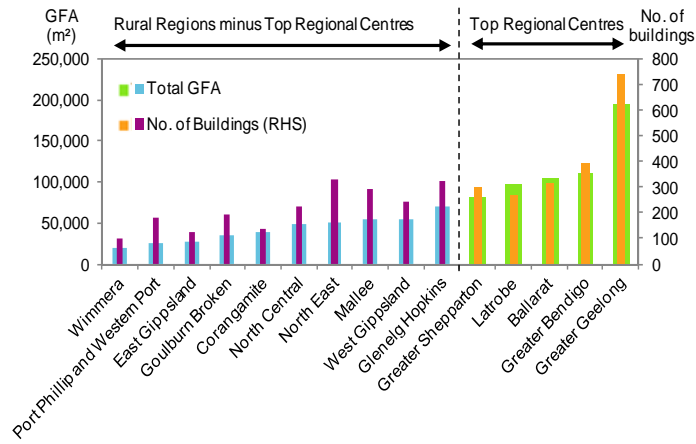
Understanding our building stock

Regional Victoria



Understanding our building stock

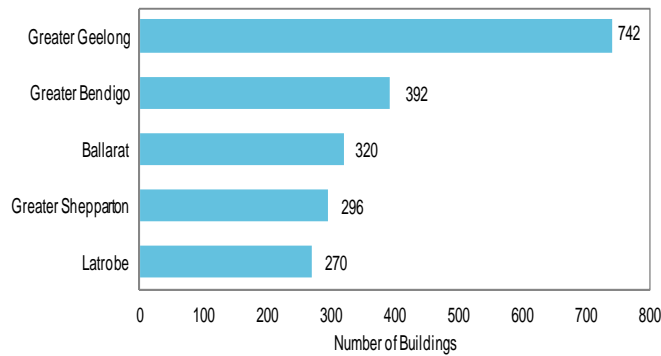
Regional Victoria



Source: Davis Langdon Research, Valuer General Victoria 2010

Understanding our building stock

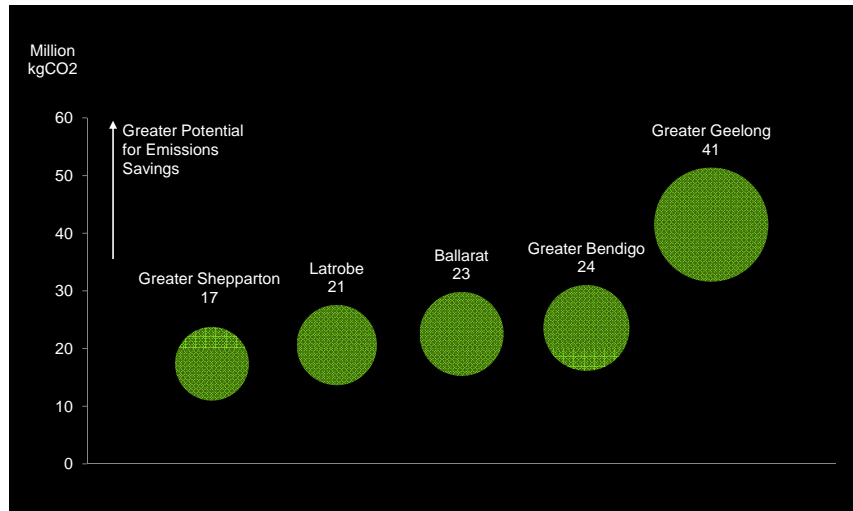
Regional Victoria



Source: Davis Langdon Research, Valuer General Victoria 2010

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Regional Victoria



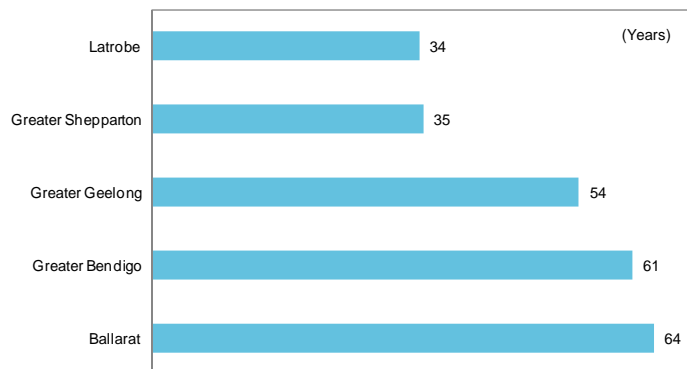
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Understanding our building stock

Regional Victoria – Mean age of building stock



Source: Davis Langdon Research, Valuer General Victoria 2010

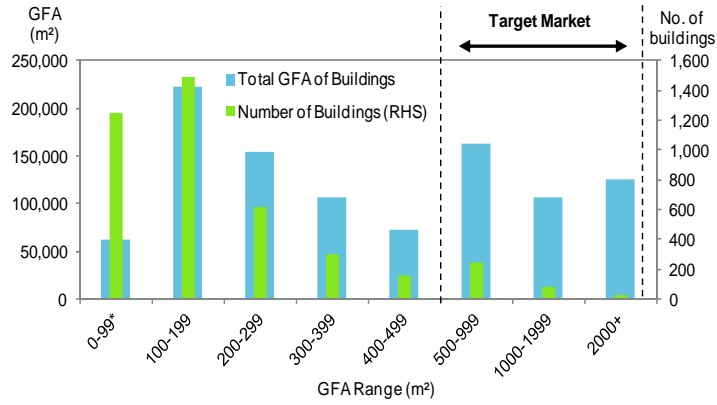
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Regional Victoria



Source: Davis Langdon Research, Valuer General Victoria 2010

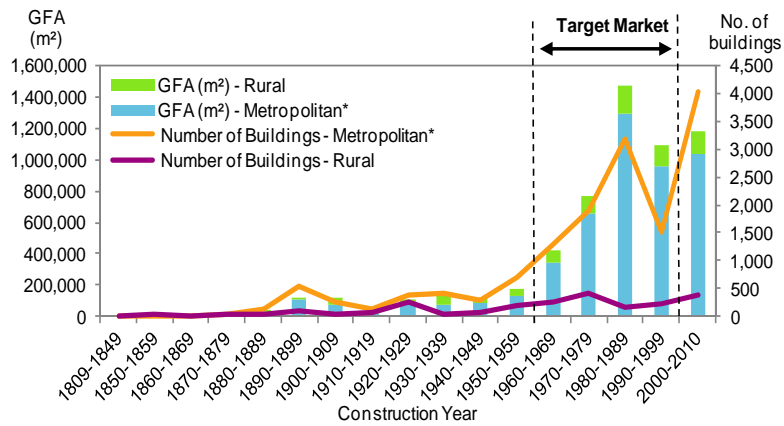
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Understanding our building stock

Regional Victoria



Source: Davis Langdon Research, Valuer General Victoria 2010

Retrofitting Victoria's B,C and D Grade Buildings

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Commercial Building Retrofitting

- Drivers
- Barriers
- Retrofitting Decision Making Process
- Retrofitting Cycles
- Retrofitting Market Regulations and Incentives
- ESD Planning and Upgrades

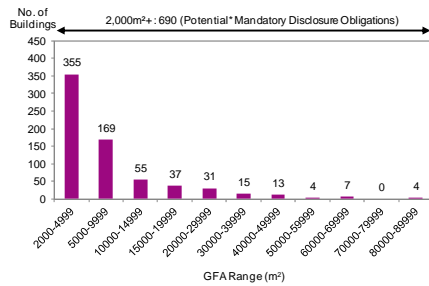
Commercial Building Retrofitting

Drivers

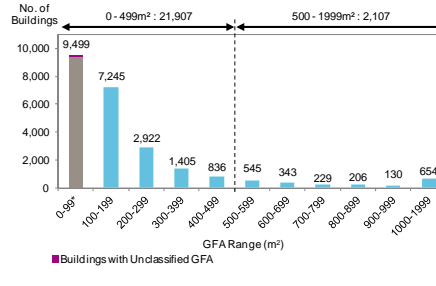
- Tenant demand
- Government purchase policies
- Commercial building disclosure
- Financial gains
- Rising cost of utilities
- Impact of carbon tax
- Industry leadership
- Healthy workplaces
- Corporate Social Responsibility

Commercial Building Retrofitting

Drivers - Commercial Building Disclosure



Greater than 2000m² = 690



Less than 2000m² = 24,014

Source: Davis Langdon Research, Valuer General Victoria 2010

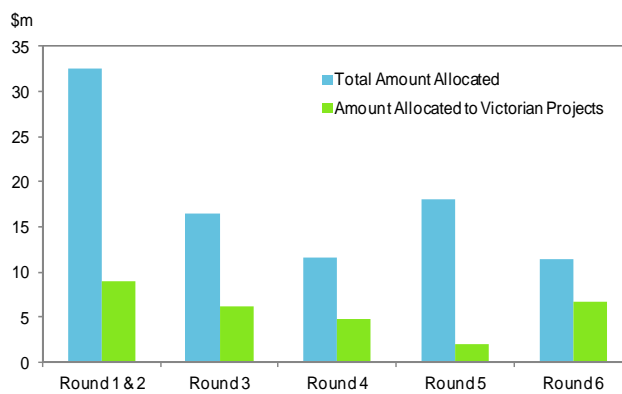
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Commercial Building Retrofitting

Drivers - Green Building Funding



Source: Ausindustry

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Commercial Building Retrofitting

Barriers

- Financial risks
- Disruption to tenants
- Lack of tenant demand
- Industry risks
- Climatic conditions
- Heritage overlays

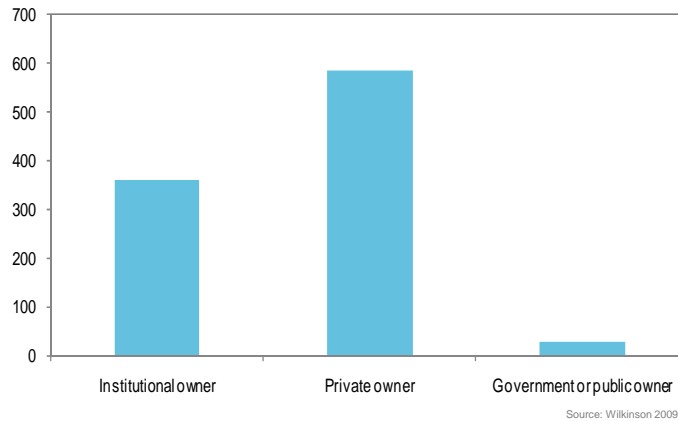
Commercial Building Retrofitting

Retrofit Decision Making Process

- Ownership Type
- Tenant Type/Structure
- Property Attributes
- Economic capacity for investment
- Rising cost of utilities

Commercial Building Retrofitting

Retrofit Decision Making Process – Ownership Type



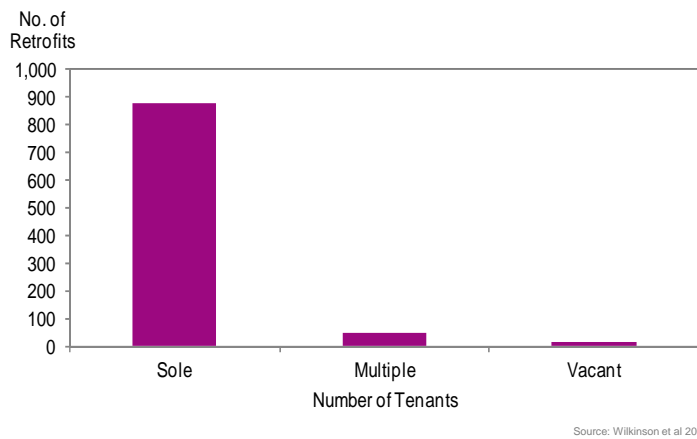
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Commercial Building Retrofitting

Retrofit Decision Making Process – Tenant Type/Structure



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Commercial Building Retrofitting

Retrofitting Market Finance Mechanisms, Regulations & Incentives



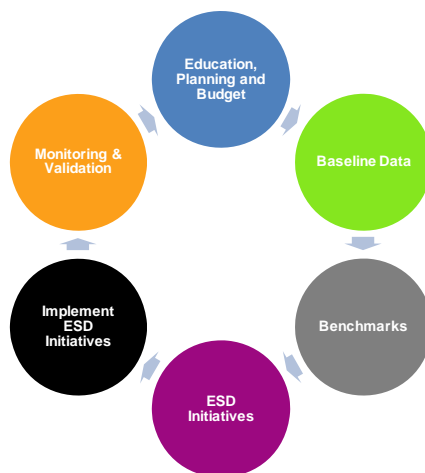
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Commercial Building Retrofitting

ESD Planning Phase



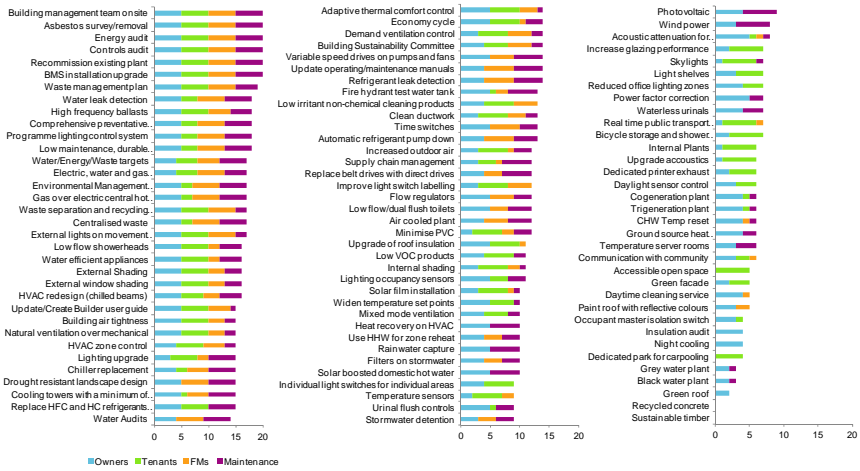
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Commercial Building Retrofitting

ESD Retrofitting Initiatives



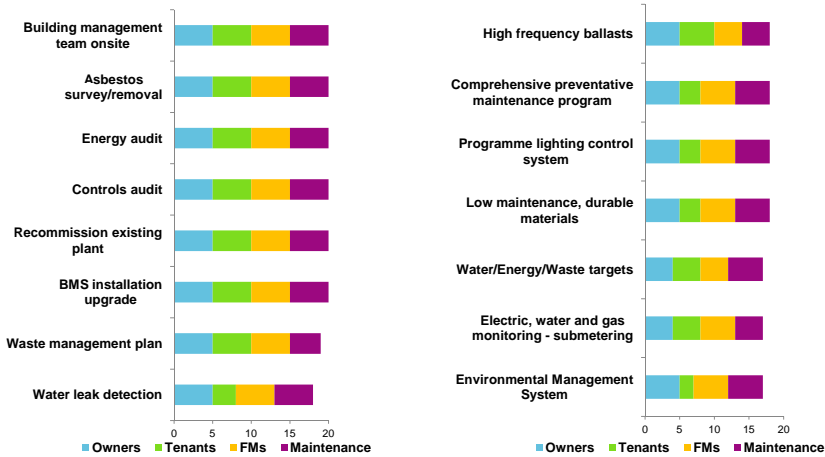
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Commercial Building Retrofitting

ESD Retrofitting Initiatives



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Key Findings

- Buildings constructed between 1960 and 1999 would yield the largest opportunity for industry to embed environmental features into existing buildings.
- B, C and D grades represent 80% of the City of Melbourne office market.
- Due to lack of data the exact ratio of lower grade building stock in metropolitan and regional areas cannot be determined.
- Although D grade buildings represent 20% of the office buildings in the City of Melbourne, they account for only 6% of the total office Net Lettable Area (NLA)
- Metropolitan Melbourne will emit approximately (1,094,000 tonnes (45%)) same GHG emissions as the City of Melbourne (1,127,000 tonnes (46%).
- Commercial Building Disclosure thresholds currently capture 690 existing buildings across Victoria. If the threshold for disclosure was lowered to 500m² NLA, it would capture an additional 2,107 buildings across the state.
- Key barriers include financial risks, disruption to tenants, lack of tenant demand, capital constraints and industry risks.

Key Findings

- Key drivers for retrofits include the establishment of interactive education tools for tenants and building managers, and easier access to finance for building retrofits.
- A heritage buildings retrofit strategy would have a significant impact in regional centres.

City of Melbourne	Metropolitan	Regional
<p>Building Type A</p> <ul style="list-style-type: none"> • Constructed between 1960 and 1989 • B Grade Building • 21-30 floors <p>Building Type B</p> <ul style="list-style-type: none"> • Constructed between 1980 and 1999 • B and C Grade Building • 11-20 floors 	<p>Building Type C</p> <ul style="list-style-type: none"> • Constructed between 1960 and 1989 • Located in an inner east suburb • Multi Level Building <p>Building Type D</p> <ul style="list-style-type: none"> • Constructed 1980-1999 • Located in an outer east suburb • Single Occupancy Building 	<p>Building Type E</p> <ul style="list-style-type: none"> • Constructed between 1930 and 1939 • Located Bendigo, or Ballarat • Less than 500m²GFA • Heritage Overlay <p>Building Type F</p> <ul style="list-style-type: none"> • Constructed between 1970 and 1989 • Located in Latrobe • More than 500m² GFA

Introduction

Data Source

- City of Melbourne Census of Land Use and Employment (2008)
- Valuer General Victoria
- 1200 Buildings Segmentation Study
- PCA Office Quality Grade Matrix
- Australian Bureau of Statistics
- Warren Centre
- Municipal Association of Victoria (MAV)
- Department of Planning and Community Development (DPCD)
- Davis Langdon Research

Thank You

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