




Greater Dublin Area

**Exchange of experiences:
WP1 - Market analyses results/problems
& effects on the project**




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Presentation Structure

- Regional Summary
- Procedures for Building – Erection, Renovation, Selling & Renting
- Calculation Methods for Energy Performance of Buildings
- Existing Minimum Energy Performance Requirements
- Existing Experience with Energy Performance Certificates & Boiler/AC inspection
- Relevant Actors
- Estimation of Numbers of Certificates
- Problems & effects on BUDI




GDA - Regional Summary

- Located on the east coast / east midlands of Ireland
- GDA includes 4 counties :
 - Dublin
 - Meath
 - Kildare
 - Wicklow
- Population approx 1.4 million
- Area coverage is 6,982 km²




Erection of New Buildings

- Governing Legislation
 - Planning & Development Acts 2000 & 2001
 - Planning & Development Regulations 2001 to 2002
 - Building Control Act 1990
- Procedures
 - Planning Permission from Local Authority
 - Compliance with Buildings Regulations
 - Compliance with other controls may apply for commercial buildings, e.g. Local Government (Water Pollution) Acts, 1977 and 1990



Renovation of Larger Buildings


- Governing Legislation
 - Planning & Development Acts 2000 & 2001
 - Planning & Development Regulations 2001 to 2002
 - Building Control Act 1990
- Procedures
 - Not all renovations need planning permission
 - Exempt developments set out in planning laws

Selling of Buildings & Dwellings



- Actors involved
 - Real estate agents, auctioneers and property advisors
 - Solicitors
 - Financial Institutes
- Procedures
 - Contract between buyer & seller
 - Registration at Land Registry or Registry of Deeds office







Renting of Buildings



- Legislation
 - Residential
 - Residential Tenancies Act 2004
 - Commercial
 - Landlord & Tenant Act 1931
- Procedures
 - Residential
 - All landlords obliged to register tenancies
 - Commercial
 - Majority of lettings are short term







Calculation Methods for Energy Performance of Buildings

- Inter Departmental Working Group established in 2003 - to oversee and plan the implementation of the EPBD
- Published a Draft Action Plan - sets out proposed tasks, responsibilities and timescales for implementing EPBD in Ireland
- Existing methodology for calculating the energy performance of a building - Heat Energy Rating
- The HER is based on the Standard Assessment Procedure (SAP) as used by the UK Government agencies
- HER method possibly form the basis of the "calculation engine" on which future building energy rating calculation methods are based









Calculation Methods for Energy Performance of Buildings

HER takes account of the following:



- Energy requirements –
 - heat loss through the fabric, including at thermal bridges
 - air infiltration and ventilation
 - provision of domestic hot water
- Energy inputs –
 - solar gains
 - occupancy including the use of energy-using appliances
- Heating system responsiveness to demand and degree of control







Existing Minimum Energy Performance Requirements

- Part L – Conservation of Fuel & Energy (1997)
- Part L – Conservation of Fuel and Energy Dwellings (2002)
- Part F – Ventilation (2002)
- Part J – Heat Producing Appliances (1997)
- Building Regulation S.I. No. 260/1994 – Efficiency Requirements for new Hot Water Boiler fired with Liquid or Gaseous Fuels






Conservation of Fuel & Energy

Part L – Conservation of Fuel & Energy (1997)

Part L – Conservation of Fuel and Energy Dwellings (2002)

- Elemental U-values should not exceed the following limits for non-domestic buildings:
 - Roof: 0.35W/m²K
 - Walls: 0.55W/m²K
 - Ground Floors: 0.45W/m²K
- Domestic Buildings
 - Roof: 0.25W/m²K
 - Walls: 0.37W/m²K
 - Ground Floors: 0.37W/m²K








Ventilation

Part F – Ventilation (2002)

- "adequate means of ventilation shall be provided for people in buildings, including adequate provision for the removal of water vapour from kitchens, bathrooms and other areas where water vapour is generated"
- "adequate provision shall be made to prevent excessive condensation in a roof or in a roof void above an insulated roof"

Heat Producing Appliances

Part J – Heat Producing Appliances (1997)

- deals with provisions for solid fuel, oil and gas burning heat sources under several heading: 'Air Supply', 'Discharge of products of combustion', 'Protection of Buildings' and 'Oil storage tanks'

Existing Experience with Energy Performance Certificates

- Concept of "energy rating" of dwellings - been in operation on a voluntary basis for several years
- Principal voluntary methods in Ireland:
 - Heat Energy Rating (HER)
 - Irish Home Energy Rating (IHER)
 - National Home Energy Rating (NHER)
 - National Irish Centre for Energy Rating Ltd (NICER)
- HER is the official Irish rating method and is freely available in the Irish Building Regulations

Existing Experience with Energy Performance Certificates

- Estimated approx. 230 full-time assessors will be required to carry out approx. 62,700 transactions p.a. in GDA
- Assessors drawn from existing base of building professionals, e.g. Engineers, Surveyors, Architects, Building Services Engineers, etc
- Estimated cost of Building Energy Rating €300 per house

Existing Experience with Boiler/AC inspection

- Boiler and AC inspection is voluntary in Ireland
- Boiler inspections encouraged through the National Boiler Awards
- Irish EPBD working group has specified in the Draft Action Plan that it favors option (b) of Article 8 of the Directive regarding boilers
- Study to be commissioned by SEI - review the existing structures and activities in place in the area of air-conditioning systems commissioning, servicing and inspection in Ireland

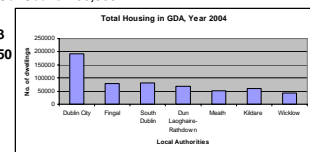
Target Groups

Relevant Actors	Names
Housing Associations	Napco
Auctioneers	Irish Auctioneers and Valuers Institute
Estate Agents	DTZ - Sherry Fitzgerald Lisney Hamilton Osbourne King Gunn
Local Authority Departments	DCC Housing, Social and Community Services Department <ul style="list-style-type: none"> Architects Division Housing Management Services Quantity Surveyors Division DCC Planning and Economic Development Department <ul style="list-style-type: none"> Building Control Planning Enforcement
Architects	Howley Harrington O Mahoney Pike Solekath Architects
Developers	Ballymore Construction
Property Managers	WYSE
Property Investors	Not yet identified

Residential Buildings

577,538 Residential Buildings (single family houses & greater residential buildings):

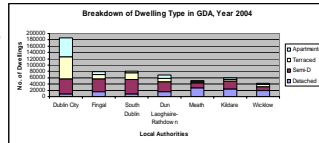
- Dublin City Council: **192,876**
- Fingal Co. Council: **79,933**
- South Dublin Co. Council: **81,825**
- Dun Laoghaire-Rathdown Co. Council: **68,565**
- Meath Co. Council: **51,836**
- Kildare Co. Council: **60,053**
- Wicklow Co. Council: **42,450**



Residential Buildings

91,529 Apartments (Greater Residential buildings)

- Dublin City Council: **60,318**
- Fingal Co. council: **8,077**
- South Dublin Co. Council: **4,619**
- Dun Laoghaire Rathdown Co. Council: **9,111**
- Meath Co. Council: **2,641**
- Kildare Co. Council: **3,890**
- Wicklow Co. Council: **2,873**



Estimated Certificates & Assessors Needed

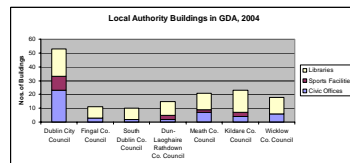
Annual Sales & Rental transactions of Residential Buildings in GDA will require:

- Approx. 62,700 energy certificates
- Approx. 230 estimated full-time assessors

Public & Commercial Buildings

151 Local Authority buildings

- libraries
- sports facilities
- civic offices



Public & Commercial Buildings

• **Approx. 76,312** Public & Commercial buildings in GDA

	Dublin	Meath	Kildare	Wicklow
Hospitals	35	1	1	4
Hotels	144	140	24	33
Restaurants	578	32	44	41
Pubs	822	235	212	173
Education Buildings	633	127	128	108
Local Authority Buildings	89	21	23	18
Museums	4	1	8	6
Commercial buildings	52,600	2,500	2,800	14,700
Courts	13	4	4	6
Total	54,918	3,061	3,244	15,089

Estimated Certs /Experts Needed

Annual Sales & Rental transactions of Public & Commercial Buildings in GDA will require:

- Approx. 12,591 energy certificates
- Approx. 181 estimated full-time assessors

Problems & effects on the project

- Calculation Method for BER not yet finalised
- Statistical analysis:
 - no centralised data source
 - Some assumptions/estimations



Thank You For Your Attention

