Defects in Apartments

Report of the Working Group to Examine Defects in Housing

July 2022

Contents

Letter to Minister for Housing, Local Government and Heritage

Darragh O'Brien, TD

Minister for Housing, Local Government and Heritage

Custom House

Dublin D01 W6X0

28 July 2022

Dear Minister,

On behalf of the Independent Working Group to Examine Defects in Housing, which you established on 16 February 2021, I attach the report *Defects in Apartments - Report of the Working Group to Examine Defects in Housing (July 2022).*

In line with the commitment in the Programme for Government, and with the terms of reference developed by the Working Group, this report:

(1) identifies the scope of fire safety-, structural safety- and water ingress defects in apartments and duplexes;

(2) evaluates the scale of apartments and duplexes affected;

(3) proposes a means of prioritising defects;

(4) evaluates the cost of remediating defects;

(5) recommends appropriate mechanisms for resolving defects; and

(6) considers financing options including options for those impacted by defects to access low-cost, long-term finance.

The Working Group trusts that you and your colleagues in Government will find the report of assistance in helping owners of affected properties.

The Working Group estimates that of apartments and duplexes (or associated common areas) constructed between 1991 and 2013, the number that may be affected by one or more defects, i.e. fire safety-, structural safety- or water ingress defects, is likely to range between 50% and 80%, which equates to between 62,500 and 100,000 apartments/duplexes. Fire safety defects were found to be the most prevalent defects; it is estimated that 40% to 70% of properties may be affected by fire safety defects. Water ingress defects may affect an estimated 20% to 50% of properties, while structural safety defects may affect an estimated 5% to 25% of properties.

The Working Group estimates that the average cost of undertaking the remediation of defects is likely to be approximately €25,000 per apartment/duplex. This translates into a potential overall total remediation cost ranging from approximately €1.56 billion to €2.5 billion. Remedial works may already have been completed in respect of up to 12% of the affected properties. Up to 34% of the affected properties may now be in the process of carrying out remedial works.

The Working Group consulted widely and at length with stakeholders and interested parties. On foot of this consultation process, the Working Group concluded that there is no single cause of defects; they tend to arise due to a variety of design, product, supervision, inspection and workmanship issues, occurring either in isolation or in various combinations.

Having discussed and reflected on the issues, the Working Group is now in a position to make technical recommendations in relation to the carrying out of remedial works.

The Working Group identifies owners' management companies (OMCs) as key to the resolution of defects, and recommends that OMCs and owners should be provided with advice and support. The Working Group makes recommendations in relation to the role of building professionals, and the establishment of a statutory register to facilitate the identification and linking of OMCs (as persons having control of premises) to multi-unit developments.

The Working Group makes recommendations in relation to the planning, prioritisation and resourcing of any programme to address defects. It identifies approaches in relation to life safety protection, inspection and certification. Where necessary, to enable continued use of affected buildings, interim measures should be carried out, pending the implementation of full remedial works.

A Code of Practice is recommended to support the development of a reasonable and practicable approach to resolving defects, and to achieve a consistent approach to remediation across the country.

In identifying options for potential supports, the Working Group considered existing and historical schemes in Ireland, and the approaches taken in response to defects in other countries, including the funding mechanism utilised. Options for potential supports, including funding options and deployment of funding options, are presented in this report, along with commentary that may assist Government in considering these options.

Given that the overall potential scale and estimated cost of fixing the problem is so considerable, the Working Group recognises that it will take many years to address all buildings affected, and resources and works will therefore need to be prioritised.

The report details the stakeholders and interested parties who assisted us with our work and, on behalf of the Working Group, I would like to acknowledge their help. The Working Group has sought to accurately reflect the input of parties that engaged with us. However, the Working Group accepts no responsibility for statements made by others and incorporated in this report.

I wish to express my thanks to the members of the Working Group for their assistance and support in the preparation of this report. Thanks are also due to the staff in your department, and in the Housing Agency, including those staff members who made up the Administrative and Technical Support Team to the Working Group.

I hope that the recommendations and options presented by the Working Group will help you and your Government colleagues as you address the problems identified in this report.

Yours sincerely,

Séamus Neely

Chairperson, Working Group to Examine Defects in Housing

Executive Summary

Introduction

The Working Group to Examine Defects in Housing, hereinafter referred to as "the Working Group", was established by the Minister for Housing, Local Government and Heritage in February 2021. The Working Group was tasked with delivering on the commitment in the Programme for Government to examine defects in housing, having regard to the recommendations of the Joint Oireachtas Committee on Housing report *Safe as Houses?*

Terms of Reference

The Working Group's terms of reference are focused on fire safety-, structural safety- and water ingress defects in purpose-built apartment buildings, including duplexes, constructed between 1991 and 2013. In summary, the terms of reference require the Working Group to

- estimate the scale of such buildings affected by these defects;
- establish the nature of such significant widespread defects;
- consider a means for categorising the seriousness of the defects and prioritising remedial action;
- suggest mechanisms for resolving defects;
- evaluate the cost of remediation; and
- pursue options regarding possible financial solutions to effect a resolution, in line with the Programme for Government commitment to identify options for those impacted by defects to access low-cost, long-term finance.

Overview of Approach

In order to efficiently deliver on its terms of reference, the Working Group divided into a number of separate sub-groups, each dealing with a specific theme. During the course of its deliberations, the Working Group met as a plenary on 17 occasions. The sub-groups met on approximately 50 occasions.

Consultation Process

To inform its report, the Working Group engaged in an extensive consultation process. This process included written consultation with almost 30 stakeholder organisations, including organisations representing homeowners, construction professionals, property professionals, the banking sector, the Local Authority sector, the construction industry, insurance providers and other relevant parties. Follow-up online meetings took place with 22 of these organisations. Additional written submissions, both solicited and unsolicited, were received from seven stakeholder groups or representative bodies. A focused workshop took place with two representative organisations. Online meetings were held with counterparts in other jurisdictions who are presently involved in the remediation of defects.

The consultation process included a comprehensive Irish- and English-language online consultation that was open to all homeowners, landlords, owners' management companies (OMCs) and property management agents. The online survey was extensively publicised and was open for six weeks, from 31 January to 14 March 2022.

During that period, the survey received just under 1,800 unique responses, which represented stakeholders/parties either owning or involved in the management of 28,215 apartments/duplexes built between 1991 and 2013, across all 31 Local Authority areas. The online survey provided an opportunity for respondents to provide anonymised information on a broad range of topics.

In addition to existing Irish schemes, the Working Group also considered a range of schemes that other countries — including Australia, Canada, New Zealand, and the UK — introduced in order to address housing defects.

The consultations provided the Working Group with insight and knowledge about defects in apartments and duplexes and informed its deliberations.

Nature of Defects

The defects examined relate to fire safety, structural safety, and water ingress.

The Working Group defined the defects in question as being attributable to defective design, defective or faulty workmanship, defective materials[1], or any combination of these at the time of construction, and as being in contravention of the relevant part of the Building Regulations.

Defects arising from inadequate maintenance or poor management of apartment/duplexes were outside the scope of the terms of reference.

The stakeholders identified many of the same defects, and the Working Group compiled a non-exhaustive list of examples of significant defects.

The Working Group concluded that there is no single cause of the defects. They tend to arise due to a variety of design, product, supervision, inspection and workmanship issues, occurring either in isolation or in various combinations. This position was replicated throughout the country.

The defects manifested both as non-compliances with Building Regulations and as actual damage. In the case of fire safety, defects rarely resulted in damage, and they were more likely to arise due to the omission of measures (e.g. fire-stopping), poor detailing, or the misuse or poor installation of products. In the cases of structural safety and water ingress defects, it was noted that these often presented as visible damage.

In relation to the severity of defects, or the impact they have on the serviceability of the apartment/duplex, the Working Group concluded in general that fire safety defects rarely impact on the serviceability of a dwelling. By contrast, because they often manifest as physical damage, structural safety- and water ingress defects can often impact on the day-to-day use of the building. Although such

[1] In relation to products/materials, the issues that arise include poor specification and selection of products/materials, the misuse of products/materials, the poor installation of products/materials and the omission of products/materials etc.

defects could potentially present a serious risk, stakeholders concluded that this did not generally appear to be the case.

Although fire safety defects may rarely impact the serviceability of a building, it was also acknowledged that such defects have the potential to give rise to greater risk in the event of a fire, and in some cases may present a risk to life safety. However, the Working Group noted that the common fire safety defects identified by stakeholders were capable of being remediated.

Estimated Scale of Defects

The Working Group used Central Statistics Office (CSO) Census data to estimate that there are approximately 125,000 purpose-built apartments and duplexes built throughout the 31 Local Authority areas and within the time period identified in the terms of reference. The Working Group, through consultation, has collated data representing approximately 20% to 25% of these apartments/duplexes, and has extrapolated this data to estimate the potential scale of defects.

The Working Group found that fire safety-, structural safety- and water ingress defects in purpose-built apartments and duplexes, constructed between 1991 and 2013, are a widespread issue affecting apartments or duplexes in each Local Authority area.

Having considered the information available, the Working Group estimates that of apartments and duplexes (or associated common areas) constructed between 1991 and 2013, the number that may be affected by one or more defects, i.e. fire safety-, structural safety- or water ingress defects, is likely to range between 50% and 80%, which equates to between 62,500 and 100,000 apartments/duplexes.

In terms of a breakdown, the Working Group found that fire safety defects are the most prevalent form of defect, with a likely range of 40% to 70% of apartments/duplexes affected by this defect. Water ingress defects come next, with a likely range of 20% to 50% of apartments/duplexes affected by this defect. Structural safety defects are the least common defect, with a likely range of 5% to 25% of apartments and duplexes affected.

The Working Group also estimates that remedial works have been completed in up to 12% (12,000) of apartments/duplexes, (or associated common areas) and

remedial works may be on up to 34% (34,000) of apartments/duplexes (or associated common areas).

Estimated Cost of Remediating Defects

The Working Group faced a challenging exercise in estimating the average costs of remediation of fire safety-, structural safety- and water ingress defects in purpose-built apartments and duplexes built between 1991 and 2013.

The approach taken involved analysing information from various forms of consultation, each with defined limitations, and making certain assumptions in order to arrive at what the Working Group agrees is a reasonable estimate of the average cost.

It should be noted that the costs that stakeholders presented to the Working Group for remedying the various combinations of defects covered a very wide range (from less than €2,500 to in excess of €80,000), with little apparent correlation between them.

Despite the variances, the Working Group estimates that the average cost of undertaking the remediation of fire safety-, structural safety- and water ingress defects in purpose-built apartments/duplexes constructed between 1991 and 2013 is likely to be in the region of €25,000 per apartment/duplex. These represent all-in costs, including professional fees and Value Added Tax (VAT).

The Working Group notes that the actual cost of remediation will vary greatly between different developments and types of apartment/duplexes and depending on the various types or combinations of defects that may be encountered.

Based on these estimated remediation costs and the potential scale of affected apartments/duplexes, the overall total remediation cost is likely to be within the range of €1.56 to €2.5 billion.

Given that the overall potential scale and estimated cost of fixing the problem of defects in apartment/duplexes is so considerable, the Working Group recognises that it will take many years to address all buildings affected, and that resources and works will need to be prioritised.

Owners' Management Companies

Due to the responsibilities and obligations of OMCs under various pieces of legislation (in particular the Multi-Unit Developments Act 2011 and the Fire Services Acts 1981 and 2003) relating to ownership, control of common areas and fire safety, the Working Group concluded that OMCs should have a central role in the implementation of remedial works to apartments/duplexes.

The Working Group agreed that supports for OMCs are required to address these defects in apartment and duplex buildings, and has presented a range of technical recommendations. In addition, the Working Group recognises the significant challenge faced by OMCs in collecting sufficient funds to address defects in a comprehensive manner, and the limited alternative sources of funding that are available. In this regard, the Working Group has explored a number of funding options to support the remedial works process. The Working Group considers it important that any funding is ultimately channelled or routed through the OMC.

Recommendations

The Working Group makes the following recommendations in relation to the process of remedial works. In the case of each recommendation, the Working Group has suggested the organisation(s) that should take the lead role in implementing the recommendations.

R1 – Central Organisation

A central organisation should provide an advice and support service to owners' management companies (OMCs) and apartment owners on the remedial works process.

Action: Department of Housing, Local Government and Heritage (DHLGH)

R2 – Register of Building Professionals

The bodies representing the various building professionals should establish registers of members who are willing and competent to provide services in relation to the remedial works process.

Action: Royal Institute of the Architects of Ireland (RIAI), Engineers Ireland (EI) and Society of Chartered Surveyors Ireland (SCSI)

R3 – Engagement of Building Professional(s)

Owners' management companies (OMCs) should engage a building professional/building professionals from the proposed registers (R2), to provide professional services in relation to the remedial works process.

Action: Owners' Management Companies (OMCs)

R4 - Identification of Person(s) Having Control of Premises

A statutory register should be established to facilitate the identification of owners' management companies (OMCs), as persons having control of premises in the context of the Fire Services Acts, and the linking of them to multi-unit developments.

Action: Department of Justice (DoJ), Department of Housing, Local Government and Heritage (DHLGH)

R5 – Interim Measures

Where necessary, interim measures should be carried out, pending the implementation of full remedial works, to enable continued use of the building as an apartment/duplex building.

Action: Owners' Management Companies (OMCs)

R6 – Resources

Any programme to address fire safety-, structural safety- and water ingress defects in purpose-built apartments/duplexes constructed between 1991 and 2013 should be planned, prioritised and adequately resourced over a suitable period of time.

Action: Government

R7 – Standard of Remedial Works

a) Apartments/duplexes should, where practicable, be remediated to the standard that applied at the time of their original construction, e.g. in respect of fire safety, the original Fire Safety Certificate or appropriate Technical Guidance Document.

b) Where it is not practicable to achieve the standard identified at a), alternative approaches and options should be considered that provide a reasonable level of life safety protection in accordance with the Fire Services Acts.

Action: Department of Housing, Local Government and Heritage (DHLGH)

R8 – Code of Practice

a) To support the development of a reasonable and practicable approach to resolving defects, and in order to ensure a consistent approach nationwide to remediation, a Code of Practice should be developed to provide guidance to building professionals and Local Authority building control / fire services.

b) The scope of the Code of Practice should cover the following:

(i) Identification of defects / initial building survey and report

(ii) Safety risk assessment of defects

(iii) Standard for remedial works

(iv) Prioritisation of remedial works

(v) Identification of interim measures

(vi) Alternative approaches and options for remedial works

(vii) Scheduling of remedial works

(viii) Carrying out of remedial works

(ix) Certification of remedial works

c) In relation to fire safety defects, use of the provisions in Section 18A of the Fire Services Acts for the preparation of the proposed Code of Practice should be considered. This is in order to provide guidance on a

reasonable level of remedial works to address fire safety defects in apartments/duplexes constructed between 1991 and 2013.

d) While the Working Group did not consider it necessary to provide detailed guidance to building professionals on structural safety- or water ingress defects, consideration should be given to providing general guidance on these matters.

Action: Department of Housing, Local Government and Heritage (DHLGH)

R9 - Remedial Works

Remedial works should be carried out and supervised by a competent builder, and should be inspected by a competent building professional / competent building professionals.

Action: Owners' Management Companies (OMCs)

R10 - Certification

Remedial works should be certified in a prescribed format by both the competent building professional and the competent builder, in accordance with the Code of Practice (See R8).

Action: Department of Housing, Local Government and Heritage (DHLGH)

These recommendations are illustrated in Figure 1 entitled "A Pathway for Remedial Works", which set outs the process from discovery of a defect through to certification of remedial works.

Figure 1 A Pathway for Remedial Works

Remedial Works Process		1. Discovery and identification of defects	2. Identification of the remedial works required	3. Engagement with Statutory bodies	4. Tendering of works	5. Funding of remedial works	6. Carrying out of remedial works[R9]	7. Certification of remedial works [R10]
R1 – Central Organisation - Provide an advice and support service to OMCs and apartment owners on the remedial works process.								
R8 – Code of Practice - Provide guidance to building professionals and Local Authority building control / fire services in order to ensure a consistent approach nationwide to remediation.								
Type of Defect	Fire Safety defect	OMC should appoint a competent building professional[R3] Competent building professional[R2] should • adhere to a Code of Practice[R8] • carry out an initial survey and report • prepare a schedule of significant defects	Competent building professional should • propose the standard of remediation[R7] • prioritise the remedial works required • prepare a Remedial Works Plan • propose a programme of remedial works • use risk assessment to identify any interim measures to be undertaken[R5]	Competent building professional should • prepare a schedule of works • consult with the Local Authority fire services based on a Code of Practice[R8] • identify and make arrangements for the carrying out of interim measures[R5]	Competent building professional should tender for the remedial works/ interim measures deemed necessary (See Section 8 for Funding Options).	OMC should secure funding for the remedial works/interim measures deemed necessary (See Section 8 for Funding Options).	OMC should appoint a competent builder. Builder should supervise the remedial works. Competent building professional should carry out appropriate inspections.	Both the competent builder and the competent building professional should certify the works.[R10]
	Structural Safety defect			N/A - Schedule of remedial works to be determined by the competent building professional.				
	Water Ingress defect							

R1 – Central Organisation
R2 – Register of Building Professionals
R3 – Engagement of Building Professional(s)
R4 - Identification of person(s) having control of premises
R5 – Interim measures
R6 – Resources
R7 – Standard of Remedial Works
R8 – Code of Practice
R9 – Remedial Works
R10 – Certification

Options for Financial Assistance

The Working Group has considered options for potential sources of financial supports that might be provided to affected parties.

These funding options are summarised below:

Funding Option 1 – Low-Cost Loans

The Working Group has considered options for access to low-cost finance for those who undertake remediation works. Given the challenges involved in designing and administering a low-cost loan scheme for remediating defects, this funding option should be fully considered and costed by comparison with alternative options to support the financing of remediation work.

Funding Option 2 – Industry Levy

The Working Group has considered the option of raising funds through an industry levy. The concept of an industry levy requires careful policy, legal and public scrutiny and should be considered as an option in particular in the context of other similar industry levies under consideration.

Funding Option 3 – State-Funded Grants

The Working Group considered existing State-funded remediation schemes both nationally and internationally. Given the estimated cost of remedial works, which is in the range of €1.56 to €2.5 billion, and the potential scale of apartments/duplexes affected, which is in the range of 62,500 to 100,000 homes, this funding option should be fully considered from a policy and cost perspective taking into account the tenure-type mix in existing apartment/duplexes, which are set out in the report.

Funding Option 4 – Taxation Measures

The Working Group considered the extent to which tax measures may offer options to provide financial assistance to affected parties with respect to meeting the costs of remedial works or reducing the financial burden of financing remedial works. These options require further consideration of the

impact on each tenure type, and in the context of the Department of Finance Guidelines for Tax Expenditure Evaluation.

Delivery of Financial Assistance

In addition, the Working Group has presented four potential channels for deployment of the funding options. The channels for deployment of the funding options are summarised below, along with some relevant considerations:

Deployment Option 1 - Low-Cost Loan to OMC

The way in which this option might operate is as follows:

- The OMC would receive a low-cost, unsecured loan to cover some or all of the cost of remedial works.
- Over a period of time, the OMC would levy apartment owners and repay the loan from those proceeds.
- Support for owner-occupiers could be in the form of one or more of the following: a tax credit, a rebate of Local Property Tax (LPT), a means-tested grant or a low-cost loan.

Deployment Option 2 – State-Funded Grant to OMC

The way in which this option might operate is as follows:

- The OMC would receive a State grant to cover some of the cost of prioritised remedial work (interim measures), this grant would be capped at a certain figure or as a percentage (which may be 100%) of overall cost.
- To cover the costs of remaining works, the OMC would levy apartment owners.
- Support for owner-occupiers could be in the form of one or more of the following: a tax credit, a rebate of LPT, a means-tested grant or a low-cost loan.

Deployment Option 3 - Direct State Intervention

The way in which this option might operate is as follows:

- The State would pay directly for some of the work.
- The rest of work would be dealt with under one of the above mechanisms.

Deployment Option 4 - Retrospection

In the context of this report, retrospection means the provision of financial support (a) where a remediation project has been initiated but not completed or (b) where a remediation project has been completed.

The Working Group is satisfied from its deliberations, and having regard to information supplied to it, including through the online survey, that many properties within its terms of reference have already been remediated either partially or fully.

The Working Group considered the potential of a moral hazard arising, should necessary safety works be delayed or deferred to ensure the ability to avail of any potential remediation support scheme that might come into effect. Such a scenario might give rise to unnecessary risk to health and safety arising from the deferral of important works or where necessary works have only partially been completed within a development. The Working Group considered that the inclusion of a relief for retrospective expenditure on remedying defects could mitigate the risk of such a moral hazard materialising.

Definitions

For the purposes of this report, the following definitions have been adopted:

Apartments/Duplexes

"Apartments/duplexes" means purpose-built apartment buildings, including duplexes, constructed in Ireland between 1991 and 2013.

Common Area

"Common area" means an area that is available for use by more than one person/owner, and all areas under the control of the owners' management company, including the following areas:

- external walls, foundations and roofs and internal load bearing walls;
- entrance halls, landings, lifts, lift shafts, staircases and passages; and
- all ducts and conduits other than ducts and conduits within and serving only one unit in the development.

Fire Safety Defect

A "fire safety defect" means a defect that is attributable to defective design, defective or faulty workmanship, defective materials (or any combination of these), that is in contravention of the requirements of Part B of the Building Regulations at the time of construction, and that in the event of fire adversely affects or is likely to adversely affect any of the following:

- The ability of people to safely evacuate the building
- The control of the spread of fire and smoke
- The structural integrity of the building
- Access and facilities for the fire services

Owners' Management Company

The "owners' management company" (OMC) is usually a company made up of, and controlled by, all the owners of the homes and commercial units within the development. The OMC owns the common areas of the development and is responsible for the management, maintenance and repair of those areas. It may employ a property management agent to provide management services.

In conventional "build-to-sell" apartments or multi-unit developments (MUDs), membership of an OMC goes hand-in-hand with ownership of a home or property. In other words, each owner of a home or property is a member of the OMC. Each property is entitled to one vote in the OMC structure, as opposed to each member having one vote.

Property Management Agent

A "property management agent" may be a person or company. The agent is employed by the OMC to provide services in the management of the development. The agent acts under the instructions of the board of directors of the OMC.

An agent may work for a number of different OMCs. Agents are required to hold a license and are regulated by the Property Services Regulatory Authority, under the Property Services (Regulation) Act 2011.

Structural Safety Defect

A "structural-safety defect" is a defect in a structural or load-bearing element of a building — foundations, walls, floors, roofs, balconies, etc. — that is attributable to defective design, defective or faulty workmanship, defective materials (or any combination of these), that is in contravention of Part A of the Building Regulations at the time of construction, and that causes, or is likely to cause one or more of the following:

- the inability to inhabit or use the building (or part of the building) for its intended purpose
- the destruction of the building or any part of the building
- a threat of collapse of the building or any part of the building

Water Ingress Defect

A “water ingress defect” is a defect where the passage of moisture to the inside of the home or common area is attributable to defective design, defective or faulty workmanship, defective materials (or any combination of these), that is in contravention of the requirements of Part C of the Building Regulations at the time of construction; and that results in, or is likely to result in, damage to the fabric of the home or building, the inability to inhabit or use the building (or part of the building) for its intended purpose and deterioration of the structure or reduction in the effectiveness of fire protection measures.

Abbreviations and Acronyms

ACEI – Association of Consulting Engineers of Ireland

AHB – Approved Housing Body

AON – Apartment Owners' Network

BCAR – Building Control (Amendment) Regulations

BPFI – Banking and Payments Federation Ireland

CCMA – County and City Management Association

CDA – Construction Defects Alliance

CFOA – Chief Fire Officers' Association

CIF – Construction Industry Federation

CSO – Central Statistics Office

CSV – Cladding Safety Victoria

DFB – Dublin Fire Brigade

DHLGH – Department of Housing, Local Government and Heritage

DoJ – Department of Justice

EI – Engineers Ireland

EU – European Union

GDP – Gross Domestic Product

HA – Housing Alliance

HBFI – Home Building Finance Ireland

HFA – Housing Finance Agency

HRI – Home Renovation Incentive

ICSH – Irish Council for Social Housing

IFE – The Institution of Fire Engineers Republic of Ireland Branch

IHBA – Irish Home Builders Association

IIP – Irish Institutional Property

IPAV – Institute of Professional Auctioneers and Valuers

IPOA – Irish Property Owners' Association

IREF – Irish Real Estate Funds

LPT – Local Property Tax

NAMA – National Asset Management Agency

OMC – Owners' management company

PII – Property Industry Ireland

PMA – Property management agent

PRB – Pyrite Resolution Board

REIT – Real Estate Investment Trust

RIAI – The Royal Institute of the Architects of Ireland

RTB – Residential Tenancies Board

SBCI – Strategic Banking Corporation of Ireland

SCSI – Society of Chartered Surveyors Ireland

TGD – Technical Guidance Document

VAT – Value Added Tax

Section 1 Introduction

1.1 Working Group to Examine Defects in Housing

The Working Group to Examine Defects in Housing was established by the Minister for Housing, Local Government and Heritage in February 2021. The press release[2] notice issued by the DHLGH described the Working Group's mission as follows:

> *The main purpose of the Working Group will be to identify the scope of relevant significant defects in housing, to evaluate the scale of housing affected, to propose a means of prioritising defects, to evaluate the cost of remediation, to recommend appropriate mechanisms for resolving defects and to consider financing options in line with the Programme for Government commitment to identifying options for those impacted by defects to access low-cost, long-term finance.*

The terms of reference of the Working Group are set out in Appendix A.

Mr Séamus Neely, former Chief Executive of Donegal County Council, was the chairperson of the Working Group. The membership of the Working Group (See Figure 2) included representatives with relevant expertise and experience from

- Construction Defects Alliance (Ms Ciara Holland)
- Apartment Owners' Network (Mr Des McCabe)
- Society of Chartered Surveyors Ireland (Mr Kevin Hollingsworth)
- the Local Authority sector (Mr Peter Finnegan and Mr Séamus Coughlan)

[2] Press Release "Minister O'Brien establishes Independent Working Group to examine defective housing"

Refer to: https://www.gov.ie/en/press-release/10dc3-minister-obrien-establishes-independent-working-group-to-examine-defective-housing/

- the legal Sector (Mr Christopher O'Toole)
- Department of Finance (Ms Aileen Gleeson)[3]
- Royal Institute of the Architects of Ireland (Mr Joe Kennedy)
- Engineers Ireland (Mr Michael P. Lyons)
- the public Sector (Mr John O'Connor)

[3] While the representative from the Department of Finance was actively involved in the discussions of the Working Group, as a representative of the Minister, she does not take a position on the recommendations of the Group.

Figure 2 Working Group to Examine Defects in Housing		
 Chairperson: Mr Séamus Neely, former Chief Executive of Donegal County Council	 Ms Ciara Holland, Construction Defects Alliance	 Mr Des McCabe, Apartment Owners' Network
 Mr Kevin Hollingsworth, Society of Chartered Surveyors Ireland	 Mr Peter Finnegan, Local Authority sector	 Mr Séamus Coughlan, Local Authority sector
 Mr Christopher O'Toole, legal sector	 Ms Aileen Gleeson, Department of Finance	 Mr Joe Kennedy, Royal Institute of the Architects of Ireland
 Mr Michael P. Lyons, Engineers Ireland	 Mr John O'Connor, public sector	

1.2 Report Structure

This report is structured in eight sections as follows:

Section 1 – Introduction

Section 2 – Background

Section 3 – The Consultation Process

Section 4 – Nature of Defects

Section 5 – Scale of Defects

Section 6 – Remedial Works Process

Section 7 – Cost of Remedial Works

Section 8 – Funding Options

Sections 1 to 3 report on how the Working Group undertook its task. Sections 4 and 5 consider the nature and scale of defects. Section 6 examines the remedial works process and makes technical recommendations. Section 7 reports on the costs of remedial works. Section 8 considers existing schemes, the international experience and funding mechanisms available to affected parties. Section 8 also presents options for potential supports.

1.3 Working Group's Approach

In order to efficiently deliver on its terms of reference, the Working Group divided into a number of separate sub-groups, each dealing with a specific theme. The Working Group met as a plenary on 17 occasions. The sub-groups met on approximately 50 occasions.

To facilitate operational and administrative matters, other meetings of Working Group members also took place. The activities of the Working Group were supported by an Administrative and Technical Support Team made up of personnel from the Department of Housing, Local Government and Heritage and personnel from the Housing Agency.

The COVID-19 pandemic meant that meetings of the Working Group took place almost entirely online. On one occasion, the Working Group met in person in plenary.

It was considered that the online method of meeting delivered an additional level of participation and engagement that might not have been available in an exclusively in-person environment. Absences due to the pandemic caused only minor disruption to the activity of the Working Group.

Section 2 Background

2.1 Building Activity

The period relevant to this report included the so-called “Celtic Tiger” years when the Irish economy grew at an unprecedented level. Construction activity also increased rapidly, and employment in the sector rose to 255,000 in the second quarter of 2007, by which time some 60% of construction activity was concentrated on dwellings. At the height of the Celtic Tiger period in 2006, in excess of 88,000 homes were constructed.[4] This figure began to fall in 2007, but there was a dramatic decline during the recession: fewer than 5,000 dwellings were constructed in 2013.[5]

Prior to the construction boom, apartment building had been principally for social housing and was developed by Local Authorities, but the period under review saw a substantial increase in development of apartments by the private sector.[6] CSO figures for the period between the Census of 2002 and that of 2016 indicated an 85% increase in the number of apartments nationally. In Dublin, some 35% of households in the Dublin City Council area lived in apartments. Compared to other EU countries, Ireland still has a relatively low level of apartment dwellings as a proportion of the housing stock, but the share substantially increased in this period. The number of occupied purpose-built apartments rose by 3.5% from 166,379 to 172,096 over the 2011–2016 period.[7]

Despite the increase in apartment living in recent years, the number of households living in apartments still lags behind the number living in houses. According to the 2016 Census, detached houses accounted for four out of ten dwellings, while 28% of households resided in semi-detached houses.

As construction activity increased, there was a rise in reports of defective and non-compliant buildings. Defective materials such as pyrite and mica resulted in

[4] CSO *Construction and Housing in Ireland (2008 edition)*

[5] CSO *Statistical Yearbook of Ireland 2018*

[6] Research quoted in *Apartment Living in Ireland 2019*

[7] CSO Census 2016 data

serious problems in homes and commercial buildings. Issues relating to failures to comply with building and fire safety standards also made the news. While there are anecdotal accounts of problems in a number of apartment complexes built before 2014, there is no robust data on the scale and extent of problems in the sector. One of the tasks specified in the Working Group's terms of reference is to address this deficiency.

2.2 Oireachtas Committee Report

The Houses of the Oireachtas Joint Committee on Housing, Planning and Local Government initiated an examination of housing regulation and of the difficulties faced by owners with defective dwellings.

The Joint Committee published the report entitled *Safe as Houses?* in 2017. This report deals with policy issues in relation to building standards, consumer protection, the building control system, latent defects, and redress schemes for bad building. The recommendations in the report are categorised in four groups:

1. Building standards and the Consumer Protection Agency
2. Making BCAR truly independent
3. Protecting against latent defects
4. Addressing the legacy of bad building and poor regulation

Given the very wide-ranging scope of these recommendation categories, the Working Group's review of the *Safe as Houses?* report focused on the last category, i.e. "addressing the legacy of bad building and poor regulation." An extract from the *Safe as Houses?* report detailing the recommendations in this category is provided here:

4. Addressing the legacy of bad building and poor regulation

i. Government should establish a redress scheme to assist home owners with latent defects.

ii. The mission statement of the Redress Scheme should be: "Ordinary owners who purchased in good faith should not be liable for the costs of remediation caused by the incompetence, negligence or deliberate non-compliance of others".

iii. The redress scheme should provide an information and advice service for those affected by non-compliance and regulatory failure.

iv. *The redress scheme should examine a number of possible funding mechanisms for assisting owners affected by pre 2014 non-compliance, including:*

- *An industry levy funded levy matched by Government funding*

- *Allowing home owners to write off the costs of remedial works against their tax liabilities*

- *An interest-free loan scheme to assist home owners fund the cost of remedial works*

v. *The redress scheme should be accompanied by a programme of fire risk assessments based on a methodology designed to assess those boom time developments deemed potentially at risk of containing latent defects.*

2.3 Building Control Reform

The design and construction of buildings is regulated under the Building Control Acts 1990 to 2020. The Acts provide for the making of Building Regulations and Building Control Regulations.

The purpose of Building Control Regulations is to establish procedures, administration and control to secure implementation of, and compliance with, the performance requirements of Building Regulations.

Following the building boom of the 2000s, which at its peak in 2006 saw almost 90,000 dwellings being built, many incidences of building failures and non-compliance concerns came to light. These have had significant economic and personal consequences.

The statutory position is very clear in terms of where responsibilities lie. Under the Building Control Acts 1990 to 2020, primary responsibility for the design and construction of works in compliance with the requirements of the Building Regulations rests with the owners, designers and builders of buildings.

Enforcement of the Building Regulations is a matter for the 31 local Building Control Authorities, which have extensive powers of inspection and enforcement under the Acts, and which are independent in the use of their statutory powers. Therefore, in general, building defects are matters for resolution between the contracting parties involved: the homeowner, the builder, the developer and/or their respective insurers, structural guarantees or warranty schemes. However, the State has assisted homeowners, on the basis of no liability, with certain legacy issues.

During the period under review, the construction of dwellings was governed by the Building Control Act 1990 and regulations made pursuant to the Act under a specific power for the protection of the health, safety and welfare of people in and around buildings. For the purpose of the regulations, *Technical Guidance Documents* (TGD A to M) are published for Parts A – M of the Second Schedule to the Building Regulations. Where works are carried out in accordance with the relevant TGD, such works are considered to be, *prima facie*, in compliance with that part of the Building Regulations.

Prior to 2014, the building control regime placed the primary responsibility for compliance on designers, builders and owners of buildings. A system of non-statutory Opinions of Compliance, in which professionals stated their opinion that buildings substantially complied with the Building Regulations, prevailed at this time. Inspections by professionals were not mandatory. It appears that in most cases Opinions of Compliance were provided on the basis of non-invasive viewings at completion, without any inspections during construction to assess if the building was constructed in line with design, planning, Building Regulations, fire safety requirements, etc. Enforcement of this system was in the hands of Local Authorities, designated under the acts as Building Control Authorities.

In 2011, a High Level Working Group, which included representatives from the Department of Housing, Planning, Community and Local Government (as it was then called) and from Local Government (nominated by the County and City Management Association), reviewed the building control regulatory framework and consulted with stakeholders. Key deficits identified in the regulatory regime were the lack of involvement of construction professionals on site and the lack of accountability in relation to compliance with the Building Regulations. The High Level Working Group's review resulted in a new draft of the Building Control Regulations, which went for public consultation in 2012. The new structure was put in place by the Building Control (Amendment) Regulations 2014 (S.I. No. 9 of 2014) and a *Code of Practice for Inspecting and Certifying Buildings and Works.*

It was through the Building Control (Amendment) Regulations 2014 that the key deficits were addressed by empowering competence and professionalism in construction projects and establishing a chain of responsibility that begins with the owner.

The owner must assign competent persons to design, build, inspect and certify the building works, and these competent persons must in turn account for their role through the lodgement of compliance documentation, inspection plans and statutory certificates.

The roles and responsibilities of owners, designers, builders, assigned certifiers, etc., during building works are set out in the *Code of Practice for Inspecting and Certifying Buildings and Works.* The main provisions of S.I. No. 9 of 2014 include the following:

(i) Certified compliance documentation must be submitted to the local building control authority before works commence.

(ii) The design of a building is certified by a registered construction professional (i.e. an architect or a building surveyor or a chartered engineer who is included on a statutory register maintained respectively by The Royal Institute of the Architects of Ireland, the Society of Chartered Surveyors Ireland, or Engineers Ireland) to demonstrate compliance with the Building Regulations before works commence.

(iii) Owners must appoint a competent builder to undertake and certify construction works.

(iv) Owners must appoint an “assigned certifier” to prepare an inspection plan for the building works, to carry out or oversee, inspections in accordance with the inspection plan and to certify (jointly with the builder) that the construction works are in compliance with the Building Regulations upon completion.

(v) Designers, builders and “assigned certifiers” must accept legal liability for their work.

(vi) Any change in circumstances in terms of owner, builder or assigned certifier must be notified to the local Building Control Authority.

(vii) The accompanying *Code of Practice for Inspecting and Certifying Buildings and Works* was developed to outline the roles and responsibilities of owners, designers, builders, assigned certifiers, etc., during building works.

(viii) Drawings and particulars relevant to the building works will be accessible to any person who subsequently acquires an interest in the building. The statutory Certificate of Compliance on Completion signed by both a registered construction professional and the builder must be in place prior to occupation (for certain works). It effectively represents a badge of approval reassuring owners of buildings that their building is compliant with the Building Regulations and is safe and healthy to live in; structurally sound and

resistant to fire; energy efficient and comfortable, requiring relatively low spending on fuel; and durable, having used certified materials and competent persons.

It is an offence to open, occupy or use a building unless the Certificate of Compliance on Completion has been submitted to a Building Control Authority and included on the register.

2.4 Fire Safety

Fire safety is governed by Part III of the Fire Services Acts 1981 and 2003 (the Acts), which is aimed at achieving reasonable fire safety measures and procedures in premises within the scope of the Acts, while the Building Control Act is concerned with compliance with Building Regulations.

Multi-unit developments come within Part III of the Acts. Under Section 18(2) and (3) the responsibilities of those who control the building or are present in it are set out:

> *(2) It shall be the duty of every person having control over premises to which this Section applies to-*
>
> > *a) take all reasonable measures to guard against the outbreak of fire on such premises,*
> >
> > *b) provide reasonable fire safety measures for such premises and prepare and provide appropriate fire safety procedures for ensuring the safety of persons on such premises,*
> >
> > *c) ensure that fire safety measures and procedures referred to in paragraph (b) are applied at all times, and*
> >
> > *d) ensure, as far as reasonably practicable, the safety of persons on the premises in the event of an outbreak of fire whether such outbreak has occurred or not.*
>
> *(3) It shall be the duty of every person, being on premises to which this Section applies, to conduct himself in such a way as to ensure that as far as is reasonably practicable any person on the premises is not exposed to danger from fire as a consequence of any act or omission of his.*

Under Section 18(6), a person authorised by a fire authority may require a person having control over premises, an owner, or an occupier of premises to carry out a fire safety assessment of the premises. Equally, persons having control of premises and owners or occupiers may find a fire safety assessment of the premises of assistance in meeting duties under Section 18(2), or in providing independent assessment of compliance.

Section 19 of the Fire Services Acts defines a potentially dangerous building as any building which would, in the event of fire occurring therein, constitute a serious danger to life as a consequence of the absence of or inadequate provisions for fire safety.

Sections 18, 20, 20A, and 23 of the Acts give Local Authority fire services a suite of enabling/enforcement powers, ranging from giving verbal warnings to issuing closure notices, which they may use where they are not satisfied that “persons having control” are complying with their statutory duty.

Refer to Appendix I for more details.

Section 3 The Consultation Process

3.1 Introduction

This section of the report describes the extent of the consultation with stakeholders and interested parties undertaken by the Working Group. The Working Group noted the lack of research on building defects in Ireland. The aim of the consultation was therefore to gather evidence on the nature and scale of defects in purpose-built apartments and duplex buildings constructed between 1991 and 2013.

To maximise its range and scope, the consultation methodology involved four main elements:

- Written engagement
- Meetings with stakeholder and interested parties
- Workshops
- An online survey

The later stages of the consultation focused on the implications of fire safety issues for the Local Authority fire services and the impact of the presence of defects on the conveyancing of apartments/duplexes.

In addition to the above, the Working Group considered a number of unsolicited submissions received during its deliberations.

The findings from the consultation process informed the deliberations of the Working Group, and the high-level findings, or key messages, are referred to in the appropriate sections of the report.

3.2 Written Engagement

The Working Group identified representative bodies in Ireland and abroad that were considered to be stakeholders or interested parties and that would be in a position to provide information on the nature and scale of defects, on the process of remediation, on certification, on legal matters and on financial issues.

The Working Group prepared a schedule of specific, targeted questions for 28 stakeholders or interested parties and requested a written response within a specified timeframe. Responses to the questions were received from 23 stakeholders or interested parties.

The stakeholder organisations or interested parties identified by the Working Group for written engagement are listed in Table 1.

3.3 Stakeholder Meetings

In conjunction with the written engagement with stakeholders or interested parties, the Working Group held online meetings with 21 stakeholders or interested parties.

During each meeting, the stakeholder was invited to submit a further written submission on the matters discussed during the meeting.

An offer to meet with the Working Group was declined by four stakeholders or interested parties.

The stakeholder organisations or interested parties that variously met with or declined an invitation to meet with the Working Group are listed in Table 1.

Table 1 Stakeholders/Interested Parties Identified for Consultation, and the Manner of Consultation With Them				
Stakeholder/interested party	**Written questions issued**	**Written response to questions received**	**Online meeting took place**	**Request to meet online declined**
Construction Defects Alliance (CDA)	✓	✓	✓	
Apartment Owners' Network (AON)	✓	✓	✓	
County and City Management Association (CCMA)	✓	✓	✓	
Insurance Ireland	✓	✓	✓	
The Royal Institute of the Architects of Ireland (RIAI)	✓	✓	✓	
Society of Chartered Surveyors Ireland (SCSI)	✓	✓	✓	
Engineers Ireland (EI)	✓	✓	✓	
Association of Consulting Engineers of Ireland (ACEI)	✓	✓	✓	
Institute of Professional Auctioneers and Valuers (IPAV)	✓	✓	✓	
National Asset Management Agency (NAMA)	✓	✓	✓	
Global Home Warranties Limited	✓	(1)	✓	
Irish Council for Social Housing (ICSH)	✓	✓	✓	

Property Industry Ireland (PII)	✓	(1)		✓
Irish Institutional Property (IIP)	✓	(1)		✓
HomeBond	✓	✓	✓	
Premier Guarantee	✓	✓		✓
Banking and Payments Federation Ireland (BPFI)	✓	✓		
Construction Industry Federation/Irish Home Builders Association (CIF/IHBA)	✓	✓	✓	
Law Society of Ireland – Conveyancing Committee	✓	✓	✓	
Chief Fire Officers' Association (CFOA)			✓	
Dublin Fire Brigade (DFB)			✓	
The Institution of Fire Engineers Republic of Ireland Branch (IFE)	✓	✓		
Housing Alliance (HA)	✓	✓		
Home Building Finance Ireland (HBFI)	✓	✓	✓	
Housing Finance Agency (HFA)	✓	✓	✓	
Irish Property Owners' Association (IPOA)	✓	(1)		
Clúid Housing	✓	✓	✓	
Strategic Banking Corporation of Ireland (SBCI)	✓	✓		

Cladding Safety Victoria	✓	✓	✓	
New South Wales - Project Remediate	✓			✓
Nicole Johnston, Deakin University,[8] and Bronwyn Weir, Weir Legal and Consulting[9]			✓	
Total	**28**	**23**	**22**	**4**

(1) – While a written response was received, it did not address the specific questions issued.

[8] Co-author of *An Examination of Building Defects in Multi-owned Properties (2019)*

[9] Co-author of *Building Confidence: Improving the Effectiveness of Compliance and Enforcement Systems for the Building and Construction Industry Across Australia (2018)*

3.4 Workshop

An online workshop was organised with chartered surveyors and fire safety consultants who have specific experience in relation to the remediation of building defects.

The purpose of the workshop was to gather more specific detailed technical information from experienced industry practitioners on the following matters:

- The nature of defects encountered
- The kinds of remediation works that were carried out
- Advice and guidance in relation to defects

3.5 Online Survey

The Working Group determined that in order to inform its deliberations, it was important to obtain from as many different sources as possible specific and detailed information regarding fire safety-, structural safety- and water ingress defects that affect purpose-built apartments and duplexes built between 1991 and 2013. The group also considered it essential to provide an opportunity for affected homeowners to inform the Working Group of their experiences with regard to these defects.

To achieve these objectives, an online survey was conducted by the Working Group. This survey was open to the public.

To ensure that the most relevant and accurate data could be gathered, four separate surveys were prepared, each one being specifically tailored to one of the following stakeholder groups:

- Homeowners (both current and former)
- Landlords (including private investor/owner, institutional/commercial, Approved Housing Body (AHB), Local Authority)
- Directors of OMCs
- Property management agents

To help the Working Group estimate the overall cost and scale of defects, the surveys for the property management agents and for the directors of OMCs requested a greater level of detail.

To address concerns raised during the consultations, and to maximise participation, the online surveys were designed to be anonymous, meaning that specific developments or individuals would not be identified. The surveys were published in English and Irish.

The survey questions were prepared by the Working Group members and were reviewed by researchers in the Housing Agency.

Each survey was reviewed by focus groups that comprised of stakeholders within each stakeholder category. The Working Group members nominated the members of each focus group.

The surveys were hosted on EUSurvey,[10] a survey platform hosted by the European Commission. Survey links and a host page were provided on the gov.ie/consultations website.[11]

The surveys ran for a period of six weeks from 31 January to 14 March 2022 and were heavily publicised by Working Group members and their organisations, by stakeholder organisations and by the Department of Housing, Local Government and Heritage. Throughout the course of the survey process, the surveys were publicised online through a number of separate social media campaigns, in local and national print media, and on national broadcast media.

The findings from the online survey informed the Working Groups deliberations and the key outcomes are referred to throughout this report.

In order to provide an indication of the extent of participation, the following sections provide a high-level overview of the responses.

[10] Refer to: https://ec.europa.eu/eusurvey/home/welcome

[11] Online survey in relation to defects in apartment and duplex buildings

Refer to: https://www.gov.ie/en/consultation/7e319-online-survey-in-relation-to-defects-in-apartment-and-duplex-buildings/

3.5.1 Number and Breakdown of Online Survey Responses

When the survey closed, there were 1,838 responses. Analysis was subsequently conducted on 1,790 responses,[12] which represented 24% (28,215) of the 117,346 purpose-built apartments/duplexes constructed between 1991 and 2016.[13]

The number of individual responses and the number of apartments/duplexes represented in each of the surveys are indicated in Table 2.

Table 2 Number of Online Survey Responses Analysed and the Number of Apartments/Duplexes for Each Survey Type

Stakeholder group	Number of responses analysed	Number of apartments/ duplexes represented
Homeowners	1,116	1,116
Landlords	531	5,435
Owners' management companies	70	8,463
Property management agents	73	13,201
Total	**1,790**	**28,215**

Source: Online Survey

[12] 48 responses were omitted from the analysis as they related to matters outside the scope of the terms of reference of the Working Group, were incomplete or were identified as being duplicates of responses relating to the same development.

[13] Interim census data was not available up to 2013. In Section 5.2.1, an adjustment has been made to the overall stock to reflect the potential reduction in numbers to 2013.

3.5.2 Number and Breakdown of Landlord Responses

The landlord responses were subdivided into a number of different categories. The number of responses in each category and the number of apartments/duplexes represented are indicated in Table 3.

The highest level of response was from AHBs. The number of responses in this category represented 4,653 apartments/duplexes, or potentially 84% of the 5,489 purpose-built apartments constructed between 1991 and 2016[14] that were described in the 2016 Census as being rented from voluntary bodies.

Table 3 Number of Online Survey Responses and the Number of Apartments/Duplexes for Each Landlord Type

Landlord type	Number of responses	Number of apartments/ duplexes represented
Approved Housing Body	188	4,653
Institutional/Commercial	2	145
Local Authority	1	156
Other	4	4
Private investor/owner	336	477
Total	**531**	**5,435**

Source: Online Survey

[14] Interim Census data was not available up to 2013. In Section 5.2.1, an adjustment has been made to the overall stock to reflect the potential reduction in numbers to 2013.

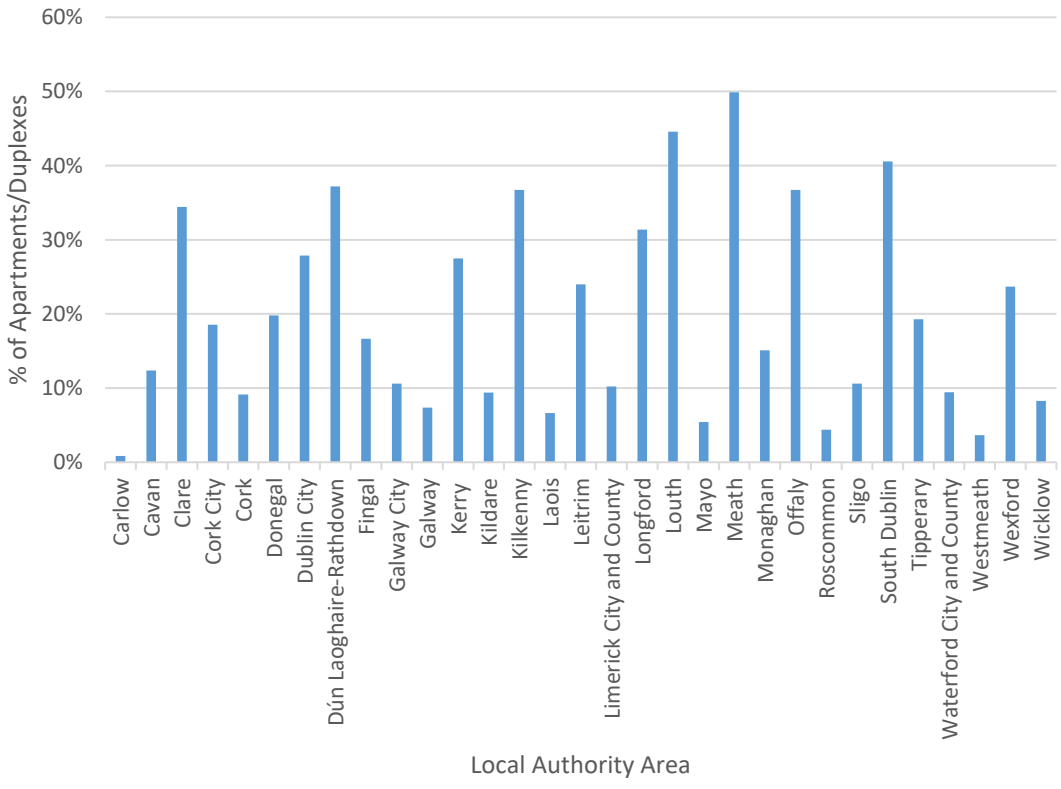
3.5.3 Response Rate by Local Authority Area

Survey responses were received in relation to apartments/duplexes in all 31 Local Authority areas.

The number of apartments/duplexes represented in the survey as a percentage of the total number of purpose-built apartments constructed between 1991 and 2016 in each Local Authority area, as indicated in the 2016 Census data, ranged from less than 1% in Carlow to 50% in Meath.

The percentage of the total number of apartments/duplexes represented in each Local Authority area is shown in Figure 3.

Figure 3 Percentage of Apartments/Duplexes as a Percentage of the Total Number Constructed in Each Local Authority between 1991 and 2016



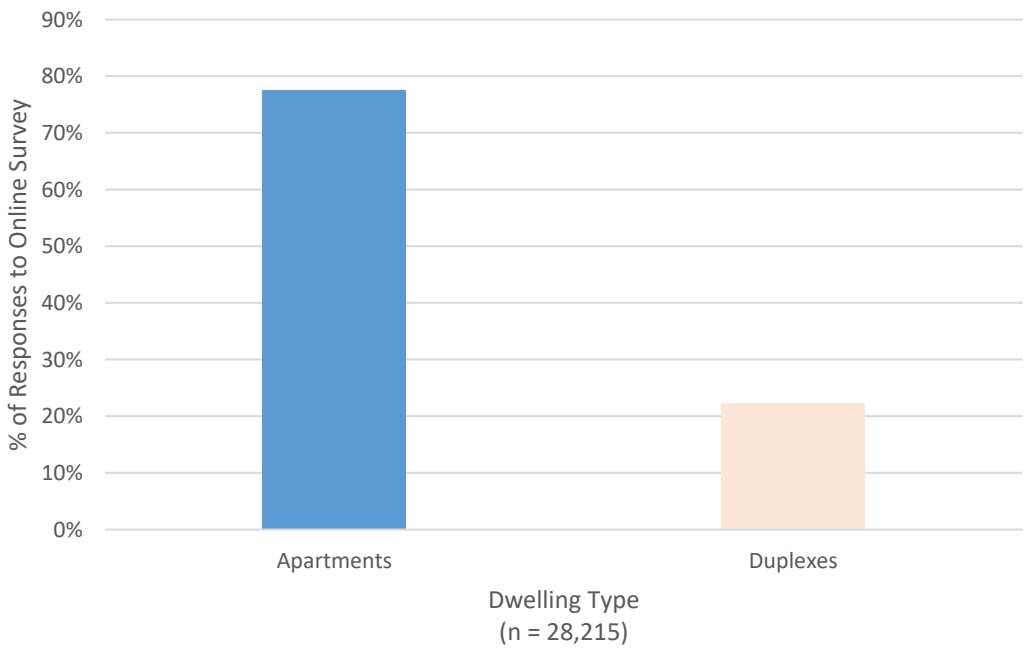
Source: Online Survey/CSO Statistics

3.5.4 Types of Dwelling Affected

Survey responses were received in relation to both apartments and duplexes. 78% of responses related to apartments, while 22% related to duplexes.

The percentage breakdown of the number of apartments/duplexes represented in the online survey responses is shown in Figure 4.

Figure 4 Online Survey Responses – Relating to Each Type of Dwelling



Source: Online Survey

3.6 Unsolicited Submissions to the Working Group

During the course of its deliberations, the Working Group considered the content of a number of unsolicited submissions that it received. In some cases, these unsolicited submissions were additional to earlier engagement with the Working Group. Unsolicited submissions were received from the following:

- (A joint submission on behalf of) the Apartment Owners' Network (AON) & Construction Defects Alliance (CDA)
- Housing Alliance
- Clúid Housing
- Beacon South Quarter Owners' Management Company
- (On behalf of) Eoin Ó Broin, T.D. Sinn Féin spokesperson on Housing, Local Government and Heritage
- Mr. Liam Egan
- Irish Council for Social Housing

Section 4 Nature of Defects

4.1 Introduction

This section of the report uses the information obtained through the consultation process to consider the nature of fire safety-, structural safety- and water ingress defects.

Definitions for each defect type were developed by the Working Group and are included in this section along with examples of defects that may be considered to be significant.

This section considers the nature of fire safety-, structural safety- and water ingress defects under the broad headings of:

- Maintenance and management
- The origin of the defects (design, product, supervision, inspection and workmanship)
- Non-compliance with Building Regulations or actual damage
- Severity/risk to life or serviceability of dwellings

4.2 Defect Definitions

There are no standardised definitions for fire safety-, structural safety- and water ingress defects.[15]

With the objective of achieving a common level of understanding of the different defect types, the Working Group sought to agree upon a definition for each type of defect, and to provide a definition of a “significant defect”.

Questions relating to the definition and typical examples of each type of defect were included in the consultation, and there was general agreement among consultees that it was important to have a working definition of these defects. Responses on this matter were received from Engineers Ireland, Society of Chartered Surveyors Ireland, the National Asset Management Agency, Clúid Housing and the Irish Council for Social Housing.

During the consultation process, several stakeholders made interchangeable use of the terms “significant”, “serious”, and “major” when describing building defects. For many, the significance of a building defect is primarily related to risk, particularly risk to life or to the health of occupants. There is also risk where a significant defect might render a building uninhabitable or lead to the destruction or collapse of the building.

In the context of this report, a significant defect can be described as any fire safety-, structural safety- and water ingress defect that poses a serious risk to life as determined by risk assessment or any defect that causes or is likely to cause one of the following:

- An inability to inhabit or use the building (or part of the building) for its intended purpose
- The destruction of the building or any part of the building
- A threat of collapse of the building, or of any part of the building

[15] *Cracks in the Compact City: Tackling defects in multi-unit strata housing (2021)*

In relation to products/materials, the issues that arise include poor specification and selection of products/materials, the misuse of products/materials, the poor installation of products/materials and the omission of products/materials etc.

The Working Group considered the information presented throughout the consultation for the three types of defects included within its terms of reference and agreed on the following definitions for each type of defect:

4.2.1 Fire Safety Defect

Fire safety defects have been described to the Working Group as failures to ensure the expected level of life safety in the event of a fire. The Working Group agreed on the following definitions for a fire safety defect:

Fire Safety Defect

A fire safety defect means a defect that is attributable to defective design, defective or faulty workmanship, defective materials (or any combination of these), that is in contravention of the requirements of Part B of the Building Regulations at the time of construction, and that in the event of fire, adversely affects, or is likely to adversely affect any of the following:

- The ability of people to safely evacuate the building
- The control of the spread of fire and smoke
- The structural integrity of the building
- Access and facilities for the fire services.

Having considered the consultation responses, examples of significant fire safety defects are set out in Table 4.

The Working Group noted that the common fire safety defects identified by stakeholders were capable of being remediated. Cladding issues did not feature to any great extent. This is consistent with the findings presented in *Fire Safety in Ireland - Report of the Fire Safety Task Force.*

The Working Group understands that in a survey initiated by the Fire Safety Task Force, Local Authority fire services were asked to identify buildings in their functional areas in excess of 18m or six storeys in height, with cladding installations, and to consider whether to exercise their power under Section 18(6)

of the Fire Services Acts 1981 and 2003, to require the persons having control over the buildings identified to carry out a fire safety assessment. As a result, 102 residential buildings (hospitals, nursing homes, homes for old people or children, schools or other similar establishments providing accommodation, hotels, hostels, guest buildings, residential colleges, halls of residence, and buildings containing flats or maisonettes) were identified. A fire safety assessment was required in each case.

Work is on-going on this assessment process and on remediation, where necessary. From the most recent figures provided to DHLGH, 83 assessments have been received by fire services. Assessments identified eight buildings where some remedial works to cladding installations were required. In six cases, remedial works are reported as complete.

However, some fire safety defects can be of a more serious nature and have the potential to present a risk to life.

The Fire Safety Task Force commented on defects in apartment buildings in its report and noted, "*The key to life safety in all apartment buildings is a proper two-stage fire detection and alarm system, together with an evacuation strategy and involvement of residents in preventing nuisance alarms and knowing how to react in the event of fire alarms being activated.*"

Table 4 Examples of Significant Fire Safety Defects

- Design, installation or commissioning deficiencies in automatic fire detection/alarm or emergency lighting systems
- Inadequate escape routes, for example, deficiencies in:
  - fire resisting doors
  - fire resisting enclosures to escape routes
  - ventilation systems
  - fire protection of lobbies
  - enclosures to electrical cupboards
- Service risers built incorrectly in stairs and in corridors/lobbies
- Building layouts not matching fire safety certification
- Ineffective fire stopping to service risers and services entry points to apartments
- The absence of, or deficiencies in, fire resisting compartmentation/separation at party wall and floor levels
- Inappropriate external cladding systems
- Omissions of fire safety measures
- Incorrectly built protected entrance halls
- The absence or inadequacy of fire stopping and cavity barriers
- Construction materials not achieving the required fire performance standards

Source: Consultation Responses

4.2.2 Structural Safety Defect

A structural safety defect has been described to the Working Group as a defect that makes it impossible to inhabit or use the building (or part of the building) for its intended purpose — or a defect that risks destroying the building or any part of the building, or causing the building or part to collapse.

The Working Group agreed on the following definitions for a structural safety defect:

Structural Safety Defect

A structural safety defect is a defect in a structural or load-bearing element of a building — foundations, walls, floors, roofs, balconies, etc. — that is attributable to defective design, defective or faulty workmanship, defective materials (or any combination of these), that is in contravention of Part A of the Building Regulations at the time of construction, and that causes, or is likely to cause, one or more of the following:

- The inability to inhabit or use the building (or part of the building) for its intended purpose
- The destruction of the building or any part of the building
- A threat of collapse of the building or any part of the building

Drawing on the consultation responses, Table 5 presents examples of significant structural safety defects.

Table 5 Examples of Significant Structural Safety Defects
• Significant cracks in substructure and/or superstructure • Movement in foundations causing major cracking • Insufficient tying, which reduces the resistance of a multi-storey building to disproportionate collapse • Insufficient tying of cladding or masonry external leaf or inadequate wall restraint straps and wall ties • Inadequate balcony design or construction • Inadequate roof bracing • Use of construction materials that do not achieve their required performance standards
Source: Consultation Responses

4.2.3 Water Ingress Defect

During the consultation, water ingress defects have been described as defects that adversely affect roofs; balconies; membranes of various kinds; external materials; service penetrations; and flashings, which when displaced can result in water leaking into a building/ home.

It was indicated that such defects may frequently cause immediate secondary consequences that may become apparent very quickly, and in many cases make the need for repair more urgent.

If left unchecked, water ingress defects may lead to unacceptable levels of habitability, with the possibility of health and safety issues.

The Working Group agreed on the following definitions for a water ingress defect:

Water Ingress Defect

A water ingress defect is a defect where the passage of moisture to the inside of the home or common area is attributable to defective design, defective or faulty workmanship, defective materials (or any combination of these), that is in contravention of the requirements of Part C of the Building Regulations at the time of construction; and that results in, or is likely to result in, damage to the fabric of the home or building, the inability to inhabit or use the building (or part of the building) for its intended purpose and deterioration of the structure or reduction in the effectiveness of fire protection measures.

The Working Group is of the view that defects due to plumbing, inadequate maintenance or internally generated condensation issues do not come within the parameters of the above definition.

Drawing on the consultation responses, Table 6 presents examples of significant water ingress defects.

Table 6 Examples of Significant Water Ingress Defects

- Water ingress with the potential to cause deterioration of the structure and/or fire safety provisions
- Water ingress that results in health and safety issues
- Water ingress through:
  - Roofs or parapet junctions
  - Terrace balconies
  - External walls/rendering
  - External cladding systems
  - Curtain wall systems
  - Basements
  - External openings, i.e. windows and doors
  - Service penetrations,
  - Walls due to missing or ineffective damp proof courses or cavity trays
  - Faulty rainwater disposal systems

Source: Consultation Responses

4.3 Maintenance and Management

Defects arising from inadequate maintenance or poor management of apartment/duplex buildings are outside the scope of the terms of reference of the Working Group and this report.

It should be noted that in each of the defect definitions agreed by the Working Group, such defects are attributable to defective design, defective or faulty workmanship, defective materials (or any combination of these), and are in contravention of the Part A, Part B, Part C and Part D of the Building Regulations, as appropriate, at the time of construction.

The defects considered by the Working Group do not include the following:

- Defects arising from inadequate maintenance
- A failure of sinking funds to adequately allow for end-of-life replacement of building and safety systems
- Inadequate management of later works to the building that have inadvertently resulted in defects

The Working Group recognises that in some cases it may be challenging to identify the causes of defects.

4.4 The Origin of the Defects

Questions relating to the root cause of each type of defect were included in various parts of the consultation.

Detailed responses on this matter were provided by Engineers Ireland, the Society of Chartered Surveyors Ireland, the Royal Institute of the Architects of Ireland and a workshop with chartered surveyors and fire safety consultants.

The widespread geographical nature of these defects indicated that there were similar contributory factors around the country.

The common thread seems to be an overall lack of understanding of the complexities of constructing these buildings in accordance with the Building Regulations in place at the time, inadequate supervision and inspection, together with a lack of experience and a lack of coordination of relevant construction information.

This lack of understanding and coordination appears to have run through construction professionals, contractors and sub-contractors, developers, insurers, financers and lenders, and all parties involved in the development of purpose-built apartment and duplex developments. Limited regulatory oversight at Local Authority level was also identified as a contributory factor.

In relation to products/materials, the issues that arise include poor specification and selection of products/materials, the misuse of products/materials, the poor installation of products/materials and the omission of products/materials etc.

Having considered the information obtained throughout the consultation, the Working Group concluded that there is no single cause of fire safety-, structural safety- and water ingress defects in purpose-built apartments or duplexes. They tend to arise due to a variety of design, product, supervision, inspection and workmanship issues, occurring either in isolation or in various combinations.

4.5 Non-Compliance with Building Regulations or Actual Damage

Questions relating the classification of defects arising from either, non-compliance with Building Regulations or actual damage, were included in various parts of the consultation, with observations made by a number of organisations.

In its submission to the Working Group, the CCMA stated, “In the context of the Building Regulations, a defect is a non-compliance with a requirement of the Building Regulations”.

In the workshops on fire safety, it was noted that damage may not have become visibly apparent despite the presence of building defects, and that this is particularly the case with regard to fire safety defects.

Having considered the various consultation responses, the Working Group notes that the presence of fire safety defects may not always result in damage. Such defects are more often likely to arise due to the omission of measures, e.g. fire-stopping, poor detailing or the misuse or poor installation of products. Unlike many structural safety and water ingress defects, fire safety defects often do not manifest as visible damage, but they still represent non-compliance with Building Regulations and affect how the building may perform in the case of a fire.

In the cases of structural safety- and water ingress defects, it was noted that these will often present themselves as visible damage, thereby alerting the building owner to their presence and allowing for timely interventions to minimise damage arising from them.

4.6 Severity of Impact: Serviceability Issues vs. Risk to Life

Questions relating to the severity of the impact of defects were included in various parts of the consultation, with observations made by a number of organisations.

When assessing the impact of a type of defect, the Working Group considered whether the defect would have most impact (a) on the serviceability of a building for day-to-day use or (b) on health and safety, including life safety.

Having considered the information obtained throughout the consultation, the Working Group is of the view that fire safety defects rarely impact on the serviceability of a dwelling, but some fire safety defects can be of a more serious nature and in the event of a fire have the potential to present a risk to life and to the building.

The issues arising from structural safety defects have generally been issues that affect serviceability, but in some instances structural safety defects may present an increased risk to life.

Water ingress defects often affect the serviceability of apartments/duplexes rather than presenting as risk-to-life issues. These defects can often result in damage appearing quickly, e.g. staining, dampness, leaks. Because their consequences are so visible, water ingress defects often receive immediate attention, which can result in early repairs. If left unrepaired, however, they can deteriorate and may lead to more serious impacts on structural integrity (especially in relation to timber elements) and can affect fire safety provision.

Section 5 Scale of Defects

5.1 Introduction

Due to the lack of research relating to building defects, estimating the nature and scale of defects was challenging.

The consultation and online survey responses indicated that in each Local Authority area there are purpose-built apartments and duplexes affected by fire safety-, structural safety- and water ingress defects or various combinations of defects.

In order to estimate the overall scale of the issue, the Working Group considered the following:

- 2016 Census data provided by the CSO
- The consultation responses from a range of stakeholders
- The responses to the online survey
- Data on the number of apartments/duplexes already remediated

5.2 2016 Census Data

The information from the 2016 Census[16] was used by the Working Group to estimate the total number of purpose-built apartments and duplexes built in Ireland during the period from 1991 to 2013.

The Census is a count, and account, of everybody in Ireland on Census night and is organised by the CSO. Census results are used in planning services at community, local and national levels, including healthcare, education, transport and housing. The Census is usually conducted every five years. Due to COVID-19, however, the Census scheduled for 2021 was delayed until 2022.

The Census is considered to provide reliable and official data on the housing stock in Ireland. The Census data provides a breakdown of the number of "family units" and their tenure. The data is based on the number of completed Census forms and does not specifically account for vacant or unoccupied units or units that did not return a Census form.

5.2.1 Estimated Total Number of Purpose-Built Apartments/Duplexes

In the 2016 Census, the total housing stock in the State was 2,003,645 homes, including houses and apartments, of which 200,879 were flats or purpose-built apartments. At that time, purpose-built and non-purpose-built flats represented approximately 10% of the total housing stock.

The CSO data refers to "flats" instead of apartments. For the purposes of the analysis and consideration of the CSO data, and in the context of the Working Group, the terms "flats" and "apartments" are interchangeable.

The CSO housing statistics are broken down into various age bands of buildings, of which the following are most relevant to the Working Group:

- 1991 to 2000
- 2001 to 2010
- 2011 or later (up to 2016)

[16] *Census 2016 Reports*

A breakdown of the number of flats reported in the 2016 Census is provided in Table 7.

Table 7 Apartments/Duplexes by Age Band		
Range of apartments/duplexes by age band	**Number of apartments /duplexes**	**Percentage of all apartments /duplexes**
All flats – including purpose-built and non-purpose-built flats (all years)	200,879	
All purpose-built flats (all years)	172,096	
All purpose-built flats (1991-2000)	27,108	16%
All purpose-built flats (2001-2010)	84,521	49%
All purpose-built flats (2011-2016)	5,717	3%
All purpose-built flats (1991-2016)	117,346	68%
Source: CSO 2016 Census		

Based on the 2016 Census data, of the 172,096 purpose-built flats[17] in the State, 117,346 were built between 1991 and 2016, representing approximately 68% of all purpose-built flats in the State up to the end of 2016.

Almost 50% of all purpose-built flats or apartments in the State were built between 2001 and 2010.

[17] 28,783 Flats or apartments in converted houses or commercial buildings (non-purpose-built blocks) and 3,266 bed-sits are not included in the CSO figures relating to purpose-built flats.

Between 2011 and 2016, there was a marked reduction in the numbers of purpose-built flats or apartments constructed. Only 5,717 purpose-built flats, or 3% of all purpose-built flats or apartments, were built during this period.

The Census data also indicates that a year of construction was not provided for 26,520 purpose-built flats. It is reasonable to expect that some of these were built between 1991 and 2016. In the absence of an alternative method for apportioning these purpose-built flats, the Working Group has assumed that 68%, or 18,083, may have been constructed between 1991 and 2016.

Based on its analysis of the 2016 Census data, the Working Group estimates that there were between 115,000 and 135,000 purpose-built apartments/duplexes constructed between 1991 and 2013.[18] For the purposes of the report, the Working Group has assumed the figure of 125,000 as the number of purpose-built apartments/duplexes that were constructed between 1991 and 2013.

[18] These approximate figures include an estimated proportion of the purpose-built flats for which a year of construction was not given, and exclude an estimated proportion of purpose-built flats built between 2013 and 2016.

5.2.2 Tenure

Table 8 provides a breakdown of tenure types in the purpose-built apartments as reported in the 2016 Census.

Table 8 Tenure Type of Purpose-Built Flats Built Between 1991 and 2016

Tenure type	Number of apartments/duplexes	Percentage of all apartments/duplexes
Rented (private/corporate landlord)	65,337	56%
Owner-occupied	29,521	25%
Rented from Local Authority	13,016	11%
Rented from Voluntary bodies	5,489	4.7%
Ownership not stated	2,808	2.3%
Free of rent	1,175	1%

Source: CSO 2016 Census

5.2.3 Number of Apartments/Duplexes by Landlord Type

The CSO report *Rental Sector in Ireland 2021,* developed in collaboration with the Residential Tenancies Board and the Department of Housing, Local Government and Heritage, suggests that some 86% of the landlords within the State own no more than two properties, with 13.7% owning more than two and fewer than 20 properties, while 0.3% owned 20 or more rental properties.

This position was supported by the findings set out in *Institutional Investment in the Housing Market,* a report published in February 2019 by the Economics Division of the Department of Finance. Among the findings of this report are the following:

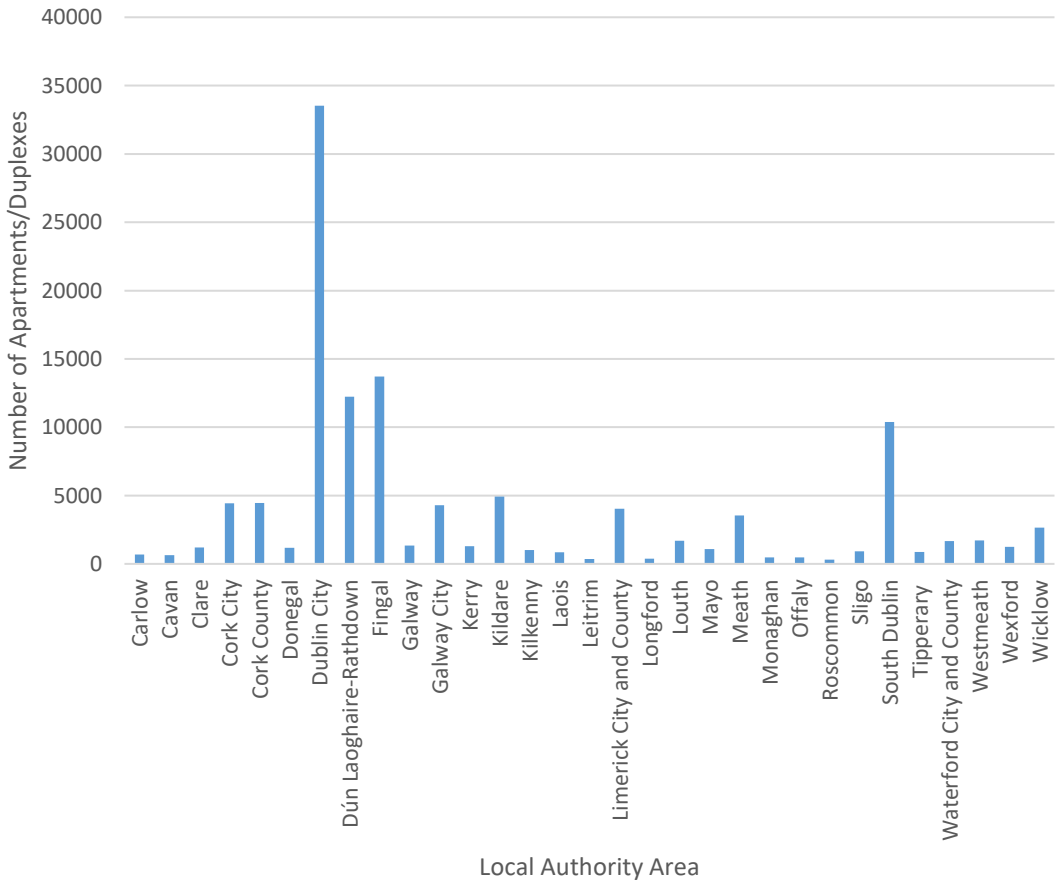
- 70.6% of landlords have one tenancy
- 86.36% of landlords have not more than two tenancies
- 13.17% of landlords have more than two and fewer than 20 tenancies
- 0.47% of landlords have 20 or more tenancies.

5.2.4 Distribution of Apartments/Duplexes by Local Authority Area

The 2016 Census data indicates that in every Local Authority area in the State there are purpose-built flats that were constructed between 1991 and 2016.

Figure 5 shows the distribution of apartments by Local Authority area.

Figure 5 Number of Purpose-Built Apartments/Duplexes Constructed Between 1991 and 2016 in Each Local Authority Area



Source: CSO 2016 Census

5.3 Consultation Responses

During the consultations a number of stakeholders were asked to provide an indication of the number of apartments and duplexes that may be affected by fire safety-, structural safety- and water ingress defects.

Detailed information was provided by three organisations that represented around 14,400 apartments or duplexes, or approximately 12% of all apartments and duplexes constructed between 1991 and 2013. Their responses are as follows:

The Irish Council for Social Housing provided information on four of their AHB members, with a combined portfolio of just over 6,000 apartments or duplexes.

- On average, across the 4 AHBs, fire safety defects were identified in approximately 14% of the properties.
- On average, across the 4 AHBs, structural safety defects were identified in approximately 4% of the properties.
- On average, across the 4 AHBs, water ingress defects were identified in approximately 6% of the properties.

The National Asset Management Agency (NAMA) provided information on 63 projects comprising just over 8,400 apartments or duplexes:

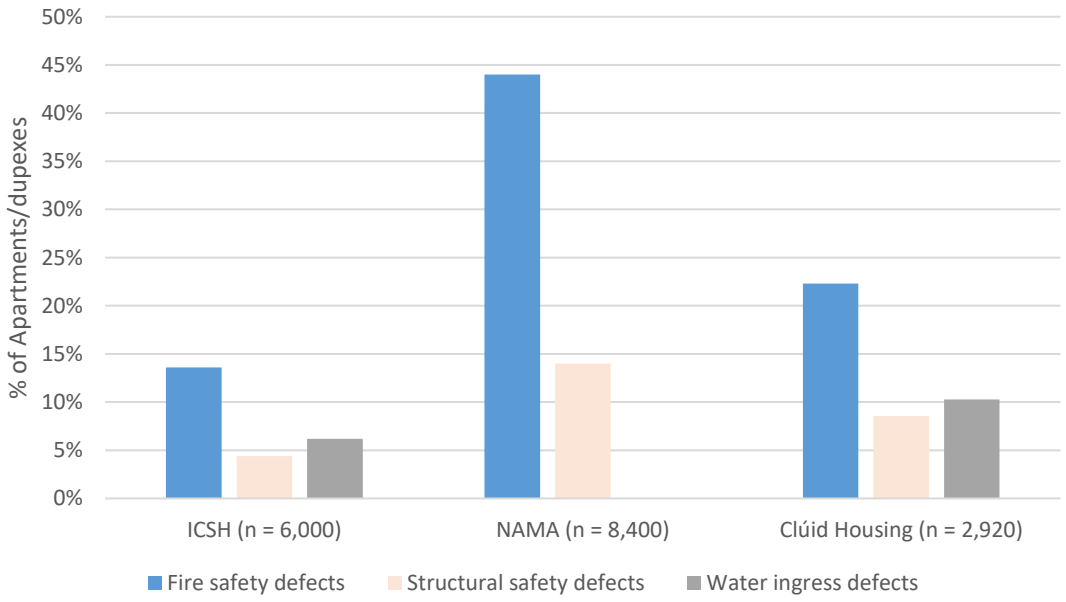
- Fire safety defects alone were identified in 44% of the properties.
- Health and safety defects that included some structural safety defects were identified in 14% of the properties.
- Fire safety defects, combined with health and safety defects that included some structural safety defects and some water ingress defects, were identified in 86% of the properties.
- Information on water ingress defects was not provided as a standalone category.

Clúid Housing provided information on 2,920 apartments or duplexes that had been remediated.

- Fire safety defects were identified in 22% of the properties.
- Structural safety defects were identified in 9% of the properties.
- Water ingress defects were identified in 10% of the properties.

These organisations' respective responses are compared in the Figure 6.

Figure 6 Percentages of Defect Types as Reported by Each Organisation



Source: written submissions

In addition to the above detailed information, the following responses were received:

In its submission to the Working Group, HomeBond indicated that claims submitted for either structural and water ingress defects applied to less than 1% of the apartments and duplexes registered with them between 1991 and 2013.

In its submission to the Working Group, the Apartment Owners' Network made the following statement:

We do not have a breakdown, but often if there is one type of defect, there are others in the same development. We estimate 75% overall.

In its submission to the Working Group, the Construction Defects Alliance said that fire safety defects were the issue brought to its attention “in almost 100%” of cases. It went on to say that, as of July 2021, the number of defects in its network of which it was aware might fall far short of the total number:

Through our network, we’re aware of an estimated 20,750 affected by defects in 106 developments around the country. However, our clear sense is that this number only represents the tip of the iceberg.

The consultations with the Apartment Owners’ Network and the Construction Defects Alliance indicated that many property owners, property management agents, and OMC directors are often reluctant to provide information on the defects in specific developments for fear of any potential negative personal, financial or investment consequences.

Throughout the consultation, the general consensus was that fire safety defects were much more prevalent than structural safety- or water ingress defects.

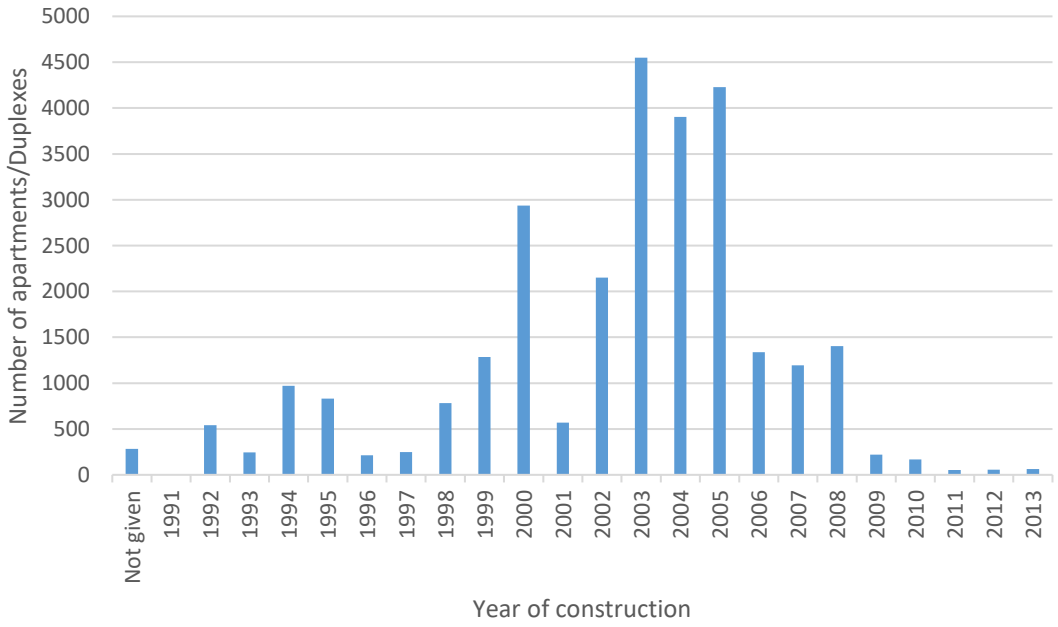
5.4 Online Survey

There were almost 1,800 unique responses to the online survey. The responses represented 28,215 apartments or duplexes built between 1991 and 2013.

Most apartments/duplexes represented in the survey responses were constructed between 2001 and 2010. According to the CSO Census data, almost 50% of all purpose-built flats/apartments in the State were built between these years.

The number of apartments/duplexes included in the survey[19] for each year of construction is shown in Figure 7.

Figure 7 Apartments/Duplexes per Year of Construction



Source: Online Survey (n = 28,215)

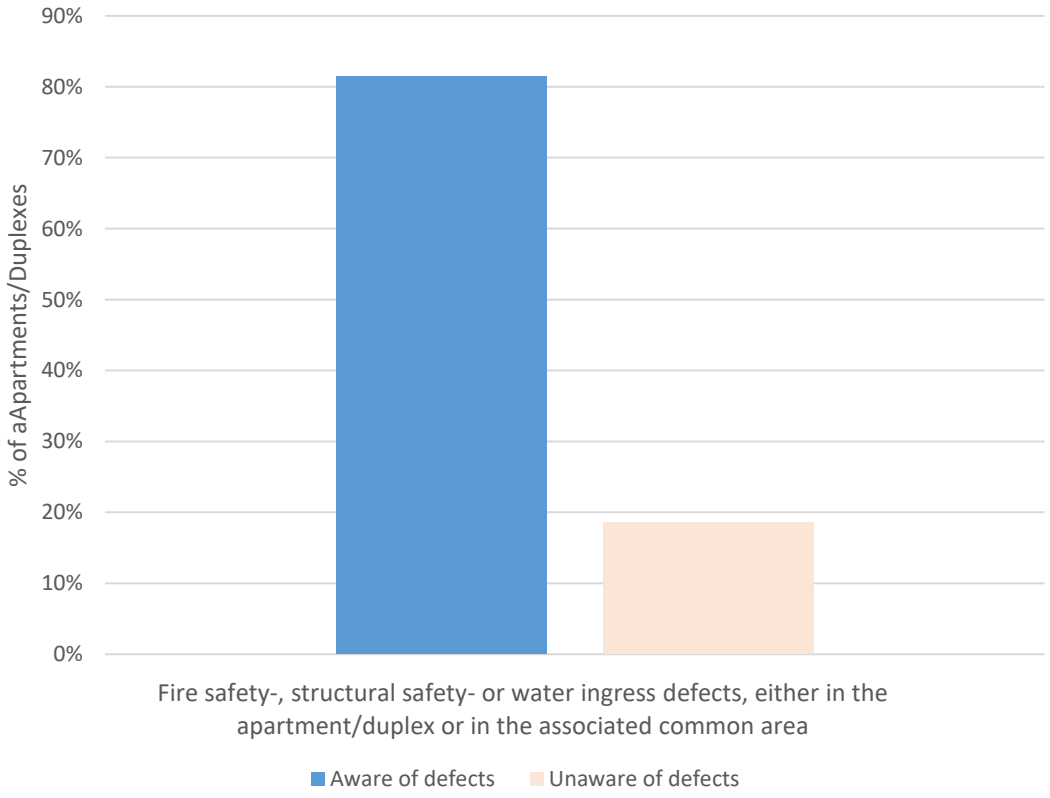
[19] In the survey responses, a year of construction was not given for 265 homes. As the survey respondents indicated that the homes were built between 1991 and 2013, these homes have been included in the survey analysis.

5.4.1 Awareness of Defects

As shown in Figure 8, of the 28,215 apartments/duplexes reflected in the online survey, responses representing 81% (22,976) indicated an awareness of at least one building defect (fire safety-, structural safety- or water ingress defect) either within the apartment/duplex or within the associated common area.

When comparing the online survey responses relating to apartments and those relating to duplexes, the levels of awareness of at least one building defect, (fire safety-, structural safety- or water ingress defect), were similar, with 80% of responses relating to apartments and 86% of responses relating to duplexes indicating an awareness of at least one of these defects either in the apartment/duplex or in the associated common area.

Figure 8 Awareness of Defects



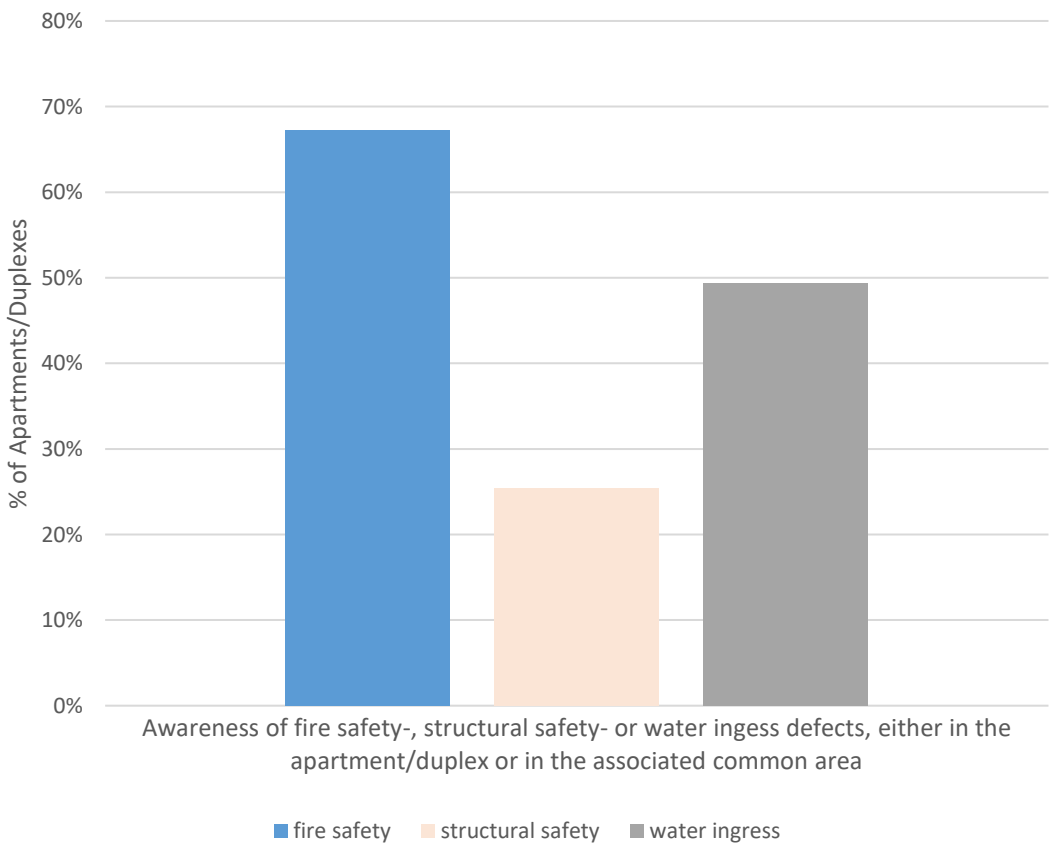
Source: Online Survey (n = 28,215)

5.4.2 Awareness of Each Type of Defect

As shown in Figure 9, the response to the online survey, representing 28,215 apartments/duplexes, indicated the following levels of awareness of defects in either the apartments/duplexes or in the associated common areas:

- Respondents representing 67% (18,968) of properties were aware of fire safety defects.
- Respondents representing 25% (7,169) of properties were aware of structural safety defects.
- Respondents representing 49% (13,916) of properties were aware of water ingress defects.

Figure 9 Awareness of Each Defect Type



Source: Online Survey (n = 28,215)

5.4.3 Combinations of Defects

Many of the apartments/duplexes represented in the responses to the online survey were reported to be affected by more than one type of defect. The responses to the online survey indicate the following:

- Respondents representing approximately 19% (5,239) of properties were not aware of any defects
- Respondents representing approximately 32% (8,998) of properties indicated that the property may be affected by one type of defect, with fire safety defects at 21% (5,959) being the most prevalent single type of defect.
- Respondents representing approximately 49% (13,978) of properties indicated that the property may be affected by various combinations of defects, with the combination of fire safety and water ingress defects at 21% (6,043) being the most prevalent.

The various combinations of reported defects are listed in Table 9.

Table 9 Awareness of Various Defect Combinations in Apartments/Duplexes or Associated Common Areas		
Reported defect combination	**Number of apartments/ duplexes**	**Percentage of apartments/ duplexes**
No defects reported	5,239	19%
Fire safety defects	5,959	21%
Fire safety- and structural safety defects	2,154	8%
Fire safety-, structural safety- and water ingress defects	4,833	17%
Fire safety- and water ingress defects	6,043	21%
Structural safety defects	218	1%
Structural safety- and water ingress defects	948	3%
Water ingress defects	2,821	10%
Total	**28,215**	**100%**
Source: Online Survey		

5.4.4 Approved Housing Bodies

As reported in Section 3.5, there were 188 responses from the AHB sector, which related to 4,653 apartments/duplexes.

This figure represents potentially 84% of the 5,489 purpose-built flats constructed between 1991 and 2016 that were described in the 2016 Census as being rented from voluntary bodies.

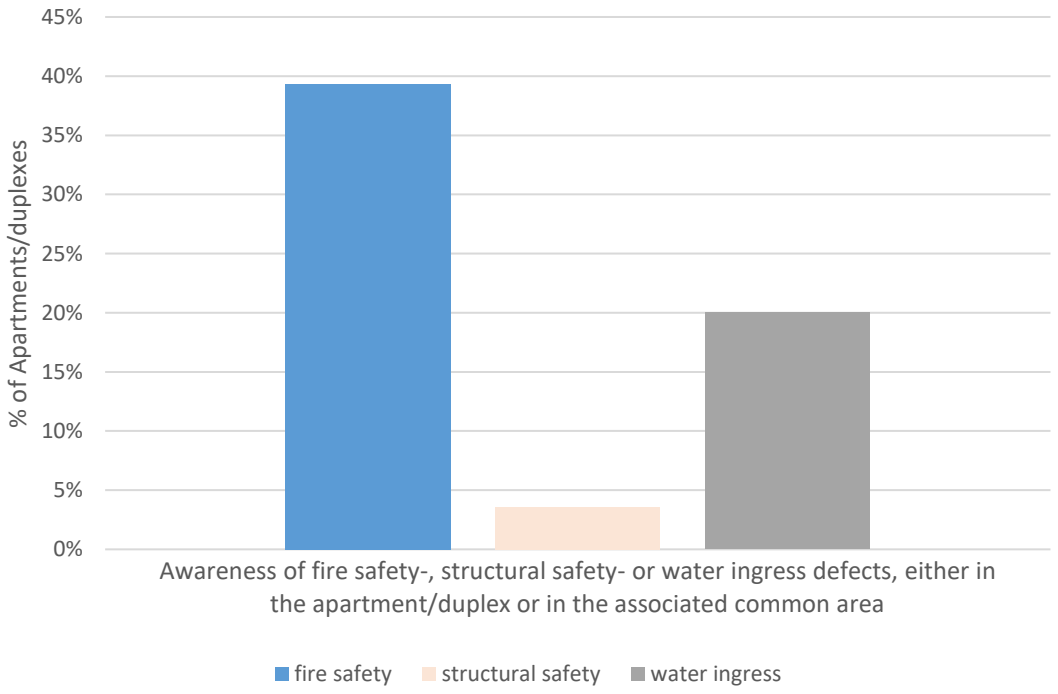
Approximately 50% of AHB responses (representing 2,379 apartment/duplexes) indicated that there was an awareness of at least one of the defect types — fire safety-, structural safety- or water ingress defects — either within the apartments/duplexes or in the common areas providing access.

5.4.4.1 AHB Awareness of Each Type of Defect

As shown in Figure 10, of the 4,653 apartments/duplexes represented in the responses received from AHBs, the following levels of awareness were indicated:

- In 39%, or 1,830, of the 4,653 apartments/duplexes, there was an awareness of fire safety defects within the apartment/duplex or associated common area.
- In 4%, or 167, of the 4,653 apartments/duplexes, there was an awareness of structural safety defects within the apartment/duplex or associated common area.
- In 20%, or 932, of the 4,653 apartments/duplexes, there was an awareness of water ingress defects within the apartment/duplex or associated common area.

Figure 10 AHB Awareness of Each Defect Type



Source: Online Survey (AHB responses) (n = 4,653)

5.4.4.2 AHB Combinations of Defects

Of the 4,653 apartments/duplexes represented in the responses to the online survey from AHBs, many of the apartments/duplexes were reported to be affected by various combinations of defects. The responses from AHBs indicate an awareness for the following combinations of defects in the properties represented in their responses:

- 51% (2,379) are not aware of any defects
- 31% (1,430) may be affected by one type of defect, with fire safety defects at 22% (1,033) being the most prevalent single type of defect.
- 18% (844) may be affected by various combinations of defects, with the combination of fire safety- and water ingress defects at 13% (619) being the most prevalent.

The various combinations of reported defects are listed in Table 10.

Table 10 AHB Awareness of Defect Combinations		
Reported defect combination	**Number of apartments/ duplexes**	**Percentage of apartments/ duplexes**
No defects reported	2,379	51%
Fire safety defects	1,033	22%
Fire safety- and structural safety defects	116	2%
Fire safety- , structural safety- and water ingress defects	83	2%
Fire safety- and water ingress defects	619	13%
Structural safety defects	16	1%
Structural safety- and water ingress defects	26	1%
Water ingress defects	381	8%
Total	**4,653**	**100%**
Source: Online Survey		

5.4.5 Application of Survey Results to the Wider Population

The Working Group requested researchers in the Housing Agency to consider if the responses from the online survey could be directly extrapolated across the entire population of apartments and duplexes constructed between 1991 and 2013.

A memo prepared by the Housing Agency's researchers[20] concluded that it was unlikely that such an extrapolation process would be feasible:

> *In my opinion, it is unlikely that the results can be accurately extrapolated across the total overall stock. It is inherently difficult for an online survey to obtain a representative and random sample of the relevant building stock or of relevant owners. Online surveys often have some element of self-selection from respondents, with those most interested in an issue (in this case, owners with known defects) more likely to take the time and effort to respond, even when it is open to all. Groups not affected by an issue are often harder to reach through online surveys and less likely to engage. This is probably an inevitable consequence of an online survey and something that this survey could not be expected to overcome.*
>
> *Although the survey results contain a substantial proportion of the relevant housing stock, with 24% of all purpose-built flats from the period 1991-2016, there are some indications of over-representation of units with defects compared to the overall building stock. Data on the year units were built can allow some comparison, as the questions in the survey and Census 2016 are similar (albeit with broader bands in the Census).*
>
> *Units built post-2011 are under-represented compared to the overall building stock. 0.6% of units in the survey were built 2011-2016, compared to 4.9% of the relevant housing stock in Census 2016 (although some of this may be due to delays and low construction rates caused by the financial crisis).*

[20] Housing Agency memo 'Analysis of online survey on defects in apartment and duplex buildings, 18th May 2022 – issues raised by Working Group'

Units built 1991-2000 are over-represented, with c. 29% of homes compared to 23% of the relevant stock in Census 2016.

These represent significant differences, particularly for units built in the 1990s. While there may be a variety of reasons for this, it does indicate the responses are not completely representative. Overall, the survey results show that c.80% of units represented have known defects. The nature of the online survey would suggest higher engagement from those who were aware of defects. This level of 80% is therefore probably overstated, although it is not possible to accurately estimate by how much as the detailed information needed on the building stock and ownership is not available from the Census or other public datasets.

However, this does not mean the survey is unrepresentative of units with known defects. The high number of units represented likely covers a very broad range of apartments with known defects, and the data appears to reflect this. The survey therefore does give valuable and detailed data on apartments and duplexes with known defects.

The Working Group considered that the survey data provides a reasonable and representative sample of properties for the purposes of the Working Group's deliberations.

5.5 Estimated Scale of Defects

Having considered the information available, the Working Group is in a position to estimate, but cannot be definitive about, the scale of the fire safety-, structural safety- and water ingress- defects in apartments and duplexes constructed between 1991 and 2013.

However, the Working Group is satisfied that fire safety-, structural safety- and water ingress defects in purpose-built apartments and duplexes constructed between 1991 and 2013 is a widespread issue. Every Local Authority area has apartments or duplexes that are affected by these defects.

The findings of the Working Group in relation to purpose-built apartments and duplexes built between 1991 and 2013 may be summarised as follows:

- The Working Group estimates that there are between 115,000 and 135,000 purpose-built apartments/duplexes that were constructed within this period, and for the purposes of the report, it has assumed the figure of 125,000.
- It is estimated that through the consultation engagements with industry and stakeholders, the Working Group has collated data representing between 20% and 25% of these apartments/duplexes.
- Based on the overall response to the online survey, relating to 28,215 apartments/duplexes, the percentages of these apartments/duplexes, or the associated common areas, that may affected by the different defects or defect combinations may be summarised as follows:
    - The percentage that may be affected by any one of the three types of defects, i.e. fire safety-, structural safety- or water ingress defects, is estimated to range between 50%[21] and 80%.[22]

[21] Based on the AHB sector responses to the online survey – See Section 5.4.4.1

[22] Based on the percentage of the overall responses to the online survey – See Section 5.4.1. Also, refer to Housing Agency advice given in 5.4.5 regarding the application of the online survey data to the general population of apartments and duplexes

- The percentage that may be affected by fire safety defects is likely to range between 40%[23] and 70%[24] of the total number.
- The percentage that may be affected by structural safety defects is likely to range between 5%[25] and 25%.[26]
- The percentage that may be affected by water ingress defects is likely to range between 20%[27] and 50%.[28]
- The percentage that may be affected by a combination of more than one of the three types of defects is estimated to range between 20%[29] and 50%.[30]
- Fire safety- and water ingress defects are the most prevalent combination. This combination of defects is estimated to occur in between 13%[31] and 21%[32] of apartments/duplexes or associated common areas.

Therefore, The Working Group estimates that of apartments and duplexes (or associated common areas) constructed between 1991 and 2013, the number that may be affected by one or more defects, i.e. fire safety-, structural safety- or

[23] Based on the AHB sector responses to the online survey – See Section 5.4.4.1

[24] Based on the percentage of the overall responses to the online survey – See Section 5.4.2

[25] Based on the AHB sector responses to the online survey – See Section 5.4.4.1

[26] Based on the percentage of the overall responses to the online survey – See Section 5.4.2

[27] Based on the AHB sector responses to the online survey – See Section 5.4.4.1

[28] Based on the percentage of the overall responses to the online survey – See Section 5.4.2

[29] Based on the AHB sector responses to the online survey – See Section 5.4.4.2

[30] Based on the overall responses to the online survey – See Section 5.4.3

[31] Based on the AHB sector responses to the online survey – See Section 5.4.4.2

[32] Based on the overall responses to the online survey – See Section 5.4.3

water ingress defects, is likely to range between 50%[33] and 80%,[34] which equates to between 62,500 and 100,000 apartments/duplexes.

From the information received during the consultation, the Working Group has concluded that fire safety defects are the most prevalent form of defect. Due to the potential impact of fire safety defects on the health and safety of the occupants and users of affected apartment and duplex buildings, the Working Group is of the opinion that supports are required to address these issues.

[33] Based on the AHB sector responses to the online survey – See Section 5.4.4

[34] Based on the percentage of the overall responses to the online survey – See Section 5.4.1. Refer also to Housing Agency advice given in 5.4.5 regarding the application of the online survey data to the general population of apartments and duplexes.

5.6 Apartments/Duplexes Already Remediated

The consultation process showed that remediation works may have already been completed on apartments/duplexes or associated common areas.

In its submission to the Working Group, the Irish Council for Social Housing indicated that remediation works have been completed on the vast majority of the 1,400 apartments/duplexes in its combined portfolio of 6,000 apartments/ duplexes where defects have been identified.

Drawing on the responses received in the online survey, Table 11 below summarises the reported status of the remediation of defects within apartments/duplexes.

Table 11 Breakdown of the Reported Remediation Status of Fire Safety-, Structural Safety- or Water Ingress Defects Within Apartments/Duplexes

Defect type	Number of apartments/ duplexes reflected in responses	Remediation completed (%)	Remediation in progress (%)
Fire safety	14,115	11%	31%
Structural safety	4,098	13%	28%
Water ingress	8,193	8%	27%
Average		**11%**	**29%**

Source: Online Survey

Drawing on the responses received in the online survey, Table 12 below summarises the reported status of the remediation of defects within common areas.

Table 12 Breakdown of the Reported Remediation Status of Fire Safety-, Structural Safety- or Water Ingress Defects Within Common Areas

Defect type	Number of apartments/ duplexes reflected in responses	Remediation completed (percentage)	Remediation in progress (percentage)
Fire safety	16,760	12%	39%
Structural safety	5,991	8%	40%
Water ingress	11,537	16%	23%
Average		**12%**	**34%**

Source: Online Survey

Based on the responses to the online survey,[35] it appears that remediation works may already be completed in up to 12% of apartments/duplexes or associated common areas, with remediation works in progress in up to 34% of apartments/duplexes or associated common areas.

[35] When estimating the percentage of homes where remediation works were completed, the emphasis was placed on the outcome of the online survey. This was done to avoid double counting the units represented in the ICSH and NAMA submissions, which may also be represented in the online survey.

Section 6 Remedial Works Process

6.1 Introduction

This section examines the process of dealing with defects from discovery through to certification of remedial works.

Having consulted with a wide range of stakeholders and interested parties who had undertaken remedial works, the Working Group reviewed the commonly adopted approach. Although this common approach has been shown to have worked successfully in some cases to date, many technical challenges that impede the process were identified to, and by, the Working Group.

It is clear that the OMC plays a central role in the management of the remedial works process, from the time of discovery of the problem through the identification of the works required and the securing of funding to the carrying out and certification of the remedial work. Navigating this pathway to remediation can be complex, time consuming, costly and at times fraught with uncertainty for OMCs.

The Working Group advocates that OMCs should be better supported in their task, to facilitate a consistency of approach and better delivery channels, with the overall aim of promoting a more efficient means of carrying out remedial work.

This section reviews the remedial works process step by step, makes recommendations for its improvement and summarises the pathway for remedial works. This enables the interaction of the Working Group's recommendations to be visualised and understood.

6.2 Responsibilities of the Owners' Management Company

The OMC is usually a company made up of, and controlled by, all the owners of the apartments/duplexes and commercial units within the development. Depending on the circumstances, responsibilities can arise under legislation such as that related to health and safety, planning, property services, waste/environmental management, employment, taxation, data protection and fire safety. An OMC may employ a property management agent to provide management services.

6.2.1 Companies Act 2014

As most OMCs are companies, they have responsibilities under the Companies Act 2014. These relate mainly to the structure, operation, and governance of the OMC.

6.2.2 Multi-Unit Developments Act 2011

An OMC has specific responsibilities under the Multi-Unit Developments Act 2011. These responsibilities relate to the ownership and management, maintenance and repair of the common areas of the development. They include responsibilities concerning the transfer of common areas from the developer, the setting of service charges and sinking fund contributions, and the making of house rules.

While common areas are defined in Section 1(1) of the Multi-Unit Developments Act 2011, in individual developments/estates the precise building components owned by the OMC, and the parts owned by the apartment owner, will be documented in the demise clause(s) of the head lease for the estate. The head lease is a contract between the developer, the OMC, and the individual homeowner (referred to as the "leaseholder").

Section 13 of the Multi-Unit Developments Act 2011 gives the OMC the right to access individual units in order to carry out necessary repairs. There is also likely to be a similar contractual right in the lease or other form of agreement with individual owners.

6.2.3 Fire Services Acts 1981 and 2003

In the context of this report, the Fire Services Acts 1981 and 2003 are particularly important and impose statutory obligations on persons having control over buildings containing flats or apartments. In this regard, Section 18(2) of the Fire Services Acts 1981 and 2003 provides that:

It shall be the duty of every person having control over premises to which this Section applies to –

a) *take all reasonable measures to guard against the outbreak of fire on such premises,*

b) *provide reasonable fire safety measures for such premises and prepare and provide appropriate fire safety procedures for ensuring the safety of persons on such premises,*

c) *ensure that the fire safety measures and procedures referred to in paragraph (b) are applied at all times, and*

d) *ensure, as far as reasonably practicable, the safety of persons on the premises in the event of an outbreak of fire whether such outbreak has occurred or not.*

In relation to buildings containing flats or apartments, these obligations are generally taken to fall on the OMC, and include the following:

- Providing a property/premises that is safe, including structural fire precautions, such as fire resistance of elements of structure, protection of escape routes and compartmentation appropriate to the building.
- Putting in place procedures — procedures for maintaining electrical systems in buildings or making fire safety advice available to residents, for example — to prevent fires occurring.
- Providing means of escape (corridors, stairways, exits), and providing ventilation and emergency lighting, so that means of escape can be used in the event of fire, as well as ensuring that doors on escape routes are readily openable.

- Ensuring through provision of a fire detection and alarm system that building occupants receive early warning in the event of fire.
- Providing information to residents and occupants on how to react in the event of fire or alarm. In general, the appropriate response is to evacuate immediately to a place of safety outside the building. Persons with disabilities may proceed to a designated refuge (a place of relative safety within the building) and await assistance if required. Inside the entrance door to each flat or apartment, information should be provided for display, showing all escape routes from the building and the locations of refuges, and informing residents and occupants of the action to be taken in the event of fire or alarm – including evacuation, and calling the fire service.
- Making arrangements for assistance to the fire service on arrival.
- Ensuring maintenance of buildings and fire protection systems, such as fire detection and fire alarm systems emergency lighting, ventilation and automatic sprinklers (where provided).
- Carrying out repair or remedial works, where necessary.

Additionally, Section 18(3) places a duty on every person on such premises, including buildings containing flats or apartments, to conduct themselves in such a way as to "ensure that as far as is reasonably practicable any person on the premises is not exposed to danger from fire as a consequence of any act or omission of his". This duty applies to everyone in a building containing flats or apartments – including residents, visitors, maintenance personnel and contractors.

6.3 Housing (Standards for Rented Houses) Regulations 2019

All landlords have a legal duty to ensure that their rented properties comply with certain minimum physical standards. These minimum standards are set out in the Housing (Standards for Rented Houses) Regulations 2019.

These Regulations require landlords of rented houses (including flats and maisonettes), with some exceptions, to ensure that such houses meet certain minimum standards. The standards relate, inter alia, to structural condition and fire safety.

6.4 Remedial Works Process

Having consulted with a range of stakeholders and interested parties, the Working Group is of the view that the following are the common steps in the process of remediating defects in apartment/duplex buildings:

1. Discovery and identification of defects.
2. Identification of the remedial works required.
3. Engagement with statutory bodies.[36]
4. Tendering of remedial works.
5. Funding of remedial works (Refer to Section 8 – Funding Options).
6. Carrying out of remedial works.
7. Certification of the remedial works.

These steps are explained in more detail in the following sections, which also identify the challenges currently being encountered in connection with each step. The Working Group makes technical recommendations with the aim of resolving these challenges where possible and streamlining the process of remediation to improve the overall efficiency, effectiveness and certainty for owners and OMCs.

6.4.1 Discovery and Identification of Defects

The consultation process provided insights into the scale,[37] nature,[38] distribution and combinations of defects[39] encountered in purpose-built apartment/duplexes in Ireland.

[36] Local Authority fire services; Building Control Authority

[37] Refer to Section 5 – Scale of Defects

[38] Refer to Section 4 – Nature of Defects

[39] Refer to Section 5.4.3

Overall, fire safety defects were the building defects most commonly reported to the Working Group.

By their very nature, many fire safety-, structural safety- and water ingress defects are often hidden, and the homeowners, OMCs and their property management agents in many developments may be unaware of the presence of building defects. Individual apartment owners may be unaware of the severity of the defects, or of the urgency of the need to deal with such defects, or of the implications of defects for other occupants of the apartment block.

Furthermore, in many cases OMCs may not have any reason proactively to commission surveys or audits to look for defects.

In its submission to the Working Group, the Apartment Owners' Network explained how awareness of water ingress defects often leads to the discovery of fire safety defects:

> *Construction defects typically initially manifest in the form of water ingress. When the OMC investigates the cause of the ingress via opening-up works, it is often discovered that fire-stopping is absent or inadequate.*

In its submission to the Working Group, the Society of Chartered Surveyors Ireland similarly indicated that defects may become evident when opening up works are carried out on behalf of owners due to a leak or other apparently minor issue. This may be brought to the attention of the property management agent or the OMC, who may then commission a fire safety audit of the building, which may uncover additional defects.

Other means by which building defects are discovered vary. Discoveries may arise from any of the following:

- A notification from a contractor undertaking general repair work.
- A request from an insurance company.
- An inspection of a building by an insurance company risk assessment surveyor.
- An inspection or assessment carried out by a building professional acting on behalf of a prospective purchaser.

- A complaint by an individual owner/member of the OMC to the Local Authority fire services.
- A communication from Local Authority fire services.
- A voluntary instruction from the board of directors of the OMC to ascertain whether the building is compliant.

6.4.2 Challenges

Challenges at this step in the process include the following:

- Defects are often discovered in an ad hoc manner, through either manifestation of damage or through the uncovering of hidden defects.
- OMC directors must accept that the building may have a problem, which is their legal responsibility to resolve.
- OMCs may encounter difficulties in managing the concerns and expectations of homeowners.
- Securing funding from the individual owners to enable the commissioning of a full investigation of the defects, including opening up works, can pose a challenge because the cost of the work may not be provided for in the OMC's budget for the current year.
- Uncertainty surrounding the extent of the defects in a given situation can be a significant challenge, because other matters may arise when remediation work commences.
- The Local Authority fire services may encounter difficulties or delays in identifying the person having control of the premises, e.g. the OMC.[40]
- There may sometimes be difficulties in engaging appropriately qualified and competent professionals.

6.4.3 Discussion

6.4.3.1 Central Organisation

The Working Group is of the view that unless a remedial works process is approached in a well-planned, systematic manner, it may result in poor quality

[40] Source: Chief Fire Officers' Association, Dublin Fire Brigade

remediation, excessive cost, unnecessary burden on homeowners and inconsistent application of standards.

The Working Group recognises that most OMC directors take on the role in a voluntary capacity and they may not have the necessary experience to manage the remedial works process.[41] Therefore, the establishment of an effective advice and information service is considered an essential support for OMCs and homeowners.

Given the nationwide distribution of apartments, the estimated scale and nature of defects, and the complexity of remedial works, such a service would be best delivered via a central organisation. The aim of this service should be to support best practice, standardisation and consistency of approach.

The Working Group evaluated relevant national remedial works schemes[42] and a selection of international ones[43] that involved State intervention to assist with the remediation of privately owned buildings. These remedial works schemes[44] provide some good examples of advice and support services.

[41] The Housing Agency has developed general information and resources for stakeholders in MUDs and OMCs. These include guides and training webinars, available on the Housing Agency website www.housing.ie

[42] Refer to Appendix B: Irish Remedial Works Schemes

[43] Refer to Appendix C: International Remedial Works Schemes

[44] Examples of advice services include:

Australia - Cladding Safety Victoria provides online material including guidance documents, videos, and liaison services for affected homeowners. They also project-manage, engage design and building contractors and oversee cladding replacement projects.

Australia - New South Wales – Project Remediate provides online courses/webinars, resources (guide booklets), and briefing materials to strata (i.e. apartment) communities.

New Zealand – "Leaky Homes" provides extensive information and advice available to owners of "leaky homes".

England & Wales – Non-ACM Remediation Scheme and the Building Safety Fund provides comprehensive material in relation to the information and advice services available under the non-ACM remediation scheme and the Building Safety Fund.

The national and international remedial works schemes reviewed by the Working Group employed a variety of approaches. The Working Group noted that the extent of State involvement varied, depending on the perceived risk to occupants, and on the building owners' capacity to rectify the defects without assistance. The full extent of the role of the central organisation proposed above should be considered in the context of the overall level of State intervention that may be required to address defects in apartment/duplexes on foot of this report.

6.4.3.2 Competent Building Professionals

Feedback from several consultees[45] advocated the benefits of engagement with a competent professional at the earliest stage. These consultees also emphasised the value of investment in a comprehensive defects report, and noted that limitations to the scope of investigation may even deter some building professionals from becoming involved.

Stakeholders[46] expressed concerns about the consistency, thoroughness and quality of some assessment reports and commented that the recently published *Code of Practice for Fire Safety Assessment of Premises and Buildings* should help improve the quality of such reports. However, they suggested that additional specific guidance on acceptable Fire Safety mitigation factors may also be necessary.

The Working Group advocates that where OMCs have concerns in relation to building defects, they should engage with competent building professionals in order to investigate the matter.

While statutory registers of professionals[47] exist, and professionals must act within their scope of competence, the existing registers currently do not identify

[45] Including: Clúid Housing, Cladding Safety Victoria, Nicole Johnston, Deakin University

[46] Chief Fire Officers Association, Dublin Fire Brigade

[47] Register maintained pursuant to Part 3 or Part 5 of the Building Control Act 2007 or Section 7 of The Institution of Civil Engineers of Ireland (Charter Amendment) Act, 1969

professionals with particular expertise and interest in providing services to identify and manage the resolution of fire safety-, structural safety- or water ingress defects.

The Working Group therefore suggests that the bodies representing the various building professionals should establish registers of their members who are competent and willing to provide services in relation to remediation of building defects.[48]

The Working Group also advocates that guidance should be prepared on the scope of investigation and reporting of building defects, having regard to the *Code of Practice for Fire Safety Assessment of Premises and Buildings*.

While the *Safe as Houses?* report suggested a programme of fire safety assessments, the Working Group took note of and concurred with *Fire Safety in Ireland – Report of the Fire Safety Task Force,* which expressed doubt as to whether a blanket inspection approach would be a proportionate or practical response to this issue. Instead, the Task Force favoured a focus on fire detection and alarm systems and evacuation arrangements. It suggested that an extensive "look back" inspection system would not be a priority from the life safety perspective, whatever about its merits from a consumer protection perspective, and, when allied with issues of capacity was not recommended. Instead, the Task Force recommended the approach of dealing with issues on a case-by-case basis, as they emerge.

6.4.3.3 Identification of Person(s) Having Control of Premises

The Working Group acknowledges the lack of an official register of all OMCs. It has been reported that the lack of such a register has made it difficult for Local

[48] Engineers Ireland host registers of professionals supporting the Pyrite Remediation Scheme and Defective Concrete Blocks Grant Scheme, i.e.

- I.S. 398 (Pyrite) Register - Building Condition Assessors
- I.S. 398 (Pyrite) Register - Design Professionals
- I.S. 465 (Concrete Blocks and Mica) – Register

Authority fire services readily to identify the person having control of the premises.

The Working Group took note of a number of reports in which this issue was highlighted, including the following:

- The report *Owners' Management Companies Sustainable Apartment Living for Ireland* recommends that a regulator of OMCs should be established, one function of which would be "to maintain a register of OMCs and process annual returns to incorporate additional return requirements, thereby ensuring compliance within the sector by OMCs".
- *Fire Safety in Ireland – Report of the Fire Safety Task Force* noted that "a number of local authorities reported having difficulty identifying the management company and contact information for certain privately owned buildings".

The Working Group advocates that a statutory register should be established to facilitate the identification of OMCs (in respect of each building) as the persons having control of premises that are multi-unit developments.

6.4.4 Recommendations: Discovery and Identification of Defects

The Working Group makes the following recommendations:

R1 – Central Organisation

A central organisation should provide an advice and support service to owners' management companies (OMCs) and apartment owners on the remedial works process.

Action: Department of Housing, Local Government and Heritage (DHLGH)

R2 – Register of Building Professionals

The bodies representing the various building professionals should establish registers of members who are willing and competent to provide services in relation to the remedial works process.

Action: Royal Institute of the Architects of Ireland (RIAI), Engineers Ireland (EI) and Society of Chartered Surveyors Ireland (SCSI)

R3 – Engagement of Building Professional(s)

Owners' management companies (OMCs) should engage a building professional/building professionals from the proposed registers (R2), to provide professional services in relation to the remedial works process.

Action: Owners' Management Companies (OMCs)

R4 - Identification of Person(s) Having Control of Premises

A statutory register should be established to facilitate the identification of owners' management companies (OMCs), as persons having control of premises in the context of the fire Services Acts, and linking of them to multi-unit developments.

Action: Department of Justice (DoJ), Department of Housing, Local Government and Heritage (DHLGH)

6.5 Identification of Remedial Works Required

After an initial survey report has been completed, the building professional should explain the nature of the defects, whether interim works are required and whether it is necessary to prioritise any remedial works. Given the potential consequences arising from fire safety defects, the building professional should advise the OMC regarding requirements for any interim fire safety measures pending completion of remedial works.

It is essential for the OMC to review and scrutinise the building professional's findings and recommendations. In certain cases, it may be possible to carry out remedial works as part of an existing maintenance programme.

Building defects can range from cosmetic defects to defects that render a building uninhabitable. It is important to risk-assess the defects to get a better understanding of their impact and to facilitate prioritisation of remediation works.

Risks posed by fire safety defects are considered the most important from a health and safety perspective, but consideration should also be given to structural safety- and water ingress defects where present. It is likely that water ingress issues will be the first defects addressed by OMCs, because defects of this nature have a direct impact on the living standards of the occupant.

There are several potential approaches to the use of risk assessment to aid prioritisation of remediation works.

In the case of defects with fire safety implications, application of the methodology set out in the *Framework for Enhancing Fire Safety in Dwellings where concerns arise*[49] may be considered to mitigate the risks pending the remediation of defects identified through application of the *Code of Practice for Fire Safety Assessment of Premises and Buildings.*

Only appropriately competent and qualified professionals should undertake risk assessments. Such assessments will be unique for each development, and direct comparisons with other developments are not recommended. When

[49] Refer to 6.5.2.1

considering the risk ratings, certain remedial works may be accorded a higher priority than indicated by the risk rating alone. For instance, certain fire-safety-management improvements may not have a very high risk rating, but may nevertheless be recommended for immediate implementation, because they are low-cost and practicable measures.

Prioritisation should be based on outputs of the risk assessment for each type of defect (fire safety-, structural safety- and water ingress defects).

A remedial works plan for the design, specification, programme and inspection of the works required to be carried out should be prepared by the competent professional.

6.5.1 Challenges

Challenges at this stage in the process include the following:

- There may be pressure from insurance companies and/or Local Authority fire services to resolve all issues in a building defects report. In the case of insurance companies, this pressure often comes with the risk of removal of cover and will remain until a start date for the work has been confirmed.
- The retrieval of the approved Fire Safety Certificate and associated documentation from the developer/OMC/Local Authority in a timely manner.
- This stage of the process can be slow. For example, from the time of appointment of a competent building professional to investigate the matter, it may take anywhere from one to four months (if retrieval of the Fire Safety Certificate and associated documentation is required) to prepare an initial survey report of the building defects.
- Interim measures to address potential life safety issues need to be identified as a priority.
- Given the scale of the properties affected, the capacity within the private sector (to undertake and oversee the remedial works, etc.) and within the public sector (to carry out its functions in respect of this work) must be present.
- The cost and availability of professional indemnity insurance must be considered.

6.5.2 Discussion

The Working Group formed the opinion that remedial works should be considered in the context of the building as a whole.

6.5.2.1 Framework for Enhancing Fire Safety in Dwellings Where Concerns Arise

The *Framework for Enhancing Fire Safety in Dwellings where concerns arise* was published in 2017 and is intended to be used as a guide by the owners and occupants of dwellings where fire safety deficiencies have been identified, or are a cause for concern.

This publication will also be of assistance to building professionals, OMCs and property management agents in developing strategies to improve fire safety and ensure compliance with the relevant Building Regulations. The framework is not intended to be applied to any other category of dwelling except where non-compliance with Building Regulations has been identified.

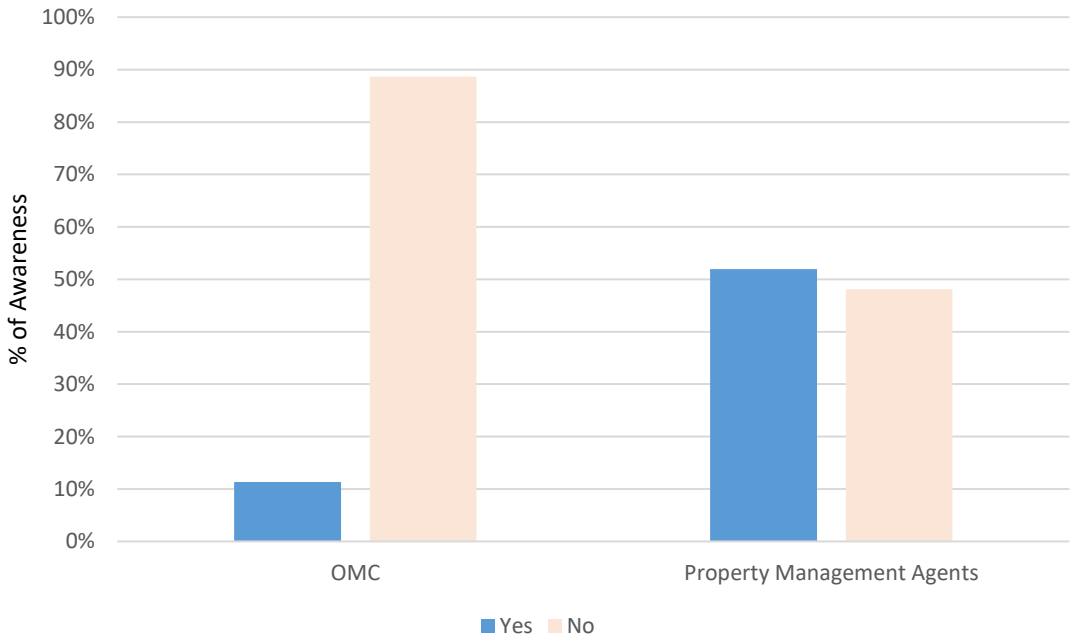
As illustrated in Figure 11 and Figure 12, the online consultation process revealed that of 44 responses from OMCs and 52 responses from property management agents who had indicated an awareness of fire safety defects in their developments, or in developments that they manage, only 33%, or 32 responders, indicated that they were aware of the publication.

Of the 44 responses from OMCs, 11% (5) indicated that they were aware of the publication, while 52% (27) of the 52 responses from property management agents indicated that they were aware of the publication.

Figure 11 Awareness of the Publication *Framework for Enhancing Fire Safety in Dwellings Where Concerns Arise*

Source: Online Survey (n = 96)

Figure 12 **Awareness, by Respondent Type, of the Publication *Framework for Enhancing Fire Safety in Dwellings Where Concerns Arise.***



Source: Online Survey (n = 96)

Engagement during the workshops with chartered surveyors and fire safety consultants, who have specific experience in relation to the remediation of building defects, reflected a very low level of awareness of the document.

In the case of defects with fire safety implications, the Working Group proposes that greater awareness is needed of the methodology set out in the *Framework for Enhancing Fire Safety in Dwellings where concerns arise*, and this should be considered in the context of the need for a Code of Practice, discussed in Section 6.6.2.

6.5.2.2 Resources

The Working Group notes the significant scale of apartments and duplexes that may potentially be affected by fire safety-, structural safety- and water ingress defects, and the considerable cost associated with addressing these defects. In recognition of this, and of the capacity constraints in the construction industry, particularly relating to building professionals, and in the Local Authority fire services, the Working Group is of the view that it will take many years to address this problem in full. The Working Group recommends that the programme to address fire safety-, structural safety- and water ingress defects in apartments and duplexes within its terms of reference should be planned, prioritised and adequately resourced over a suitable period of time.

6.5.2.3 Interim Measures

Interim measures are measures or works that may need to be carried out pending the implementation of full remedial works.

Interim measures will be required only in certain cases. They should be based on the findings of an initial survey report and subsequent risk assessment. Interim measures may be temporary, or part of the long-term remedial works.

Interim fire safety measures may include enhancement of the fire detection and fire alarm system, and in extreme cases may involve the presence of fire wardens. Where interim fire safety measures are proposed, the Local Authority fire services should be consulted and may exercise powers under the Fire Services Acts.

Based on responses to the online survey relating to 9,021 apartments/duplexes, where it was reported that engagement had taken place with Local Authority fire services, interim measures were agreed for 46% (4,142) of these apartments/duplexes. It was noted that these interim measures were satisfactorily implemented in 83% (3,449) of the apartments/duplexes.

The data received from the exercise undertaken by practitioner members of the Working Group (See Section 7.3.4) outlined that 25% of the sample developments analysed had interim measures undertaken as agreed with the Local Authority fire safety officer.

The Working Group took note of *Fire Safety in Ireland - Report of the Fire Safety Task Force*, which sets out the basic fire safety measures that should be present in apartment/duplex buildings:

> *The key to life safety in all apartment buildings is a proper two-stage fire detection and alarm system as described in Chapter 8, together with an evacuation strategy and involvement of residents in preventing nuisance alarms and knowing how to react in the event of fire alarms being activated.*

The Working Group is aware that Local Authority fire services work with OMCs and other stakeholders to ensure that appropriate levels of fire safety are achieved to minimise the probability of life loss.

6.5.2.4 Professional Indemnity Insurance

The Working Group was informed by stakeholders that in recent years the cost of professional indemnity insurance has escalated considerably across the construction industry globally, with some professionals experiencing difficulty in securing insurance cover, particularly in the area of fire safety work.

Given the predominance of fire safety defects in relation to the remedial works under consideration by the Working Group, it was noted that these insurance issues may create a resource constraint when it comes to availability of sufficient building professionals to support the remedial works process. The Working Group took note of Cladding Safety Victoria, a remedial works scheme under which the building professionals involved were provided with State-backed, project-based professional indemnity insurance.

While the matter of professional indemnity insurance is outside the remit of the Working Group, a solution that would facilitate the remedial works process should be explored.

6.5.2.5 Statutory Documentation

While the Local Authority may have copies of fire safety application documentation, the Working Group took note of Section 31(2) and Schedule 3 of the Multi-Unit Developments Act 2011:

> *Where the development stage of a multi-unit development has ended, a developer shall furnish to each owners' management company concerned the documentation specified in Schedule 3 relating to the development concerned.*

The Working Group considers that the OMC should be in possession of all documents relevant to the building that they manage. This should include a copy of the Fire Safety Certificate and supporting application documents.

6.5.3 Recommendations: Identification of Remedial Works Required

The Working Group makes the following recommendations:

R5 – Interim measures

Where necessary, interim measures should be carried out, pending the implementation of full remedial works, to enable continued use of the building as an apartment/duplex building.

Action: Owners' Management Companies (OMCs)

R6 – Resources

Any programme to address fire safety-, structural safety- and water ingress defects in purpose-built apartments/duplexes constructed between 1991 and 2013 should be planned, prioritised and adequately resourced over a suitable period of time.

Action: Government

6.6 Engagement with Statutory Bodies

Many stakeholders raised the issue of the application of building control and fire services legislation to remedial works addressing fire safety defects. This has an impact on the extent and standard of remedial works required. It should be noted that these issues did not appear to arise in relation to structural safety- and water ingress defects.

The Working Group was informed that current practice in respect of the application of legislation varies from project to project, due to the specific and unique circumstances of each project and the different approaches adopted by building professionals and individual Local Authorities.

The approach of stakeholders and common practice may be summarised as follows:

i. The remedial works comply with the Building Regulations that applied at the time of construction. In relation to fire safety, for example, this would mean that remedial works would comply with the Fire Safety Certificate for the building.

ii. The remedial works comply with the Building Regulations, e.g. as is the case for a material alteration.[50]

iii. The remedial works achieve a reasonable level of fire safety in accordance with fire services legislation.

Depending on which of the approaches is adopted, the Building Control Regulations may or may not apply.

Some stakeholders expressed how challenging the remedial works to existing buildings can be. They suggested that in some cases, works to bring buildings

[50] "Material alteration" means an alteration, where the work or part of the work carried out by itself would be the subject of a requirement of Part A (Structure), B (Fire Safety) or M (Access and Use) of the Second Schedule to the Building Regulations 1997 (as amended).

into compliance with Building Regulations may be impractical. Such works can be costly and disruptive. It was suggested that there may be scope for alternative approaches to provide a reasonable standard of fire safety, and that this may be acceptable under the Fire Services Acts.

The Working Group considered stakeholders' views and noted the focus of Local Authority fire services on life safety issues, as highlighted in *Fire Safety in Ireland – Report of the Fire Safety Task Force*:

> *Where they have become aware of and involved in such cases, Local Authority fire services work with management companies and other stakeholders to ensure that appropriate levels of fire safety are achieved which minimise the probability of life loss. Actions are based on a case by case fire safety assessment.*

6.6.1 Challenges

The main challenge at this step in the process is the lack of a consistent approach between building professionals and statutory authorities regarding the standard of remediation that should be applied to fire safety defects.

6.6.2 Discussion

Considerable discussion took place with stakeholders, in workshops and among the Working Group as to the standard and legislation applicable to addressing fire safety defects.

The Working Group examined the application of the Building Regulations,[51] Building Control Regulations[52] and Fire Service Acts[53] to remedial works to apartment blocks/duplexes.

Clúid Housing said that it adopts an approach that balances value for money with the need to protect the health and safety of their residents. Its submission stated,

[51] Refer to Appendix G : Application of the Building Regulations

[52] Refer to Appendix H : Application of the Building Control Regulations

[53] Refer to Appendix I : Fire Services Acts 1981 and 2003

"Our intention is not to make the buildings perfect as that would be totally unaffordable." The also stated that "It is, however, our intention to make our properties safe for our residents by ensuring, in particular, that alarm systems and exit routes are all effective and secure."

In one sample remediation project provided by the SCSI, the adoption of this principle when repairing fire safety defects was found to save 80% of the cost of bringing the building in line with its original Fire Safety Certificate. It was acknowledged that this was an extreme cases in which complex ventilation systems and destruction of pod bathrooms were necessary to bring the building in line with the original Fire Safety Certificate.

The Working Group regards remedial works to bring buildings into compliance with Building Regulations as preferable. It was agreed, however, that, in cases where such works would not be practicable or economically feasible, potential for alternative approaches or options may be considered, where they provide a reasonable level of fire safety in accordance with the Fire Services Acts.

During the consultation, the Working Group sought to understand the level of engagement that was occurring with the Local Authority fire services when building defects were discovered. From 1,023 responses to the online survey, relating to 17,408 apartments/duplexes where there was an awareness of fire safety, it was indicated that engagement had taken place with the Local Authority fire services for 50% (9,021) of them.

With respect to the balance between the need for remedial work and sustainable costs, the Working Group acknowledged the following:

- Remedial works that would bring a building into full compliance with an original Fire Safety Certificate, while preferable, may, in some cases, cost significantly more than works that would provide a reasonable level of fire safety.
- In situations where it is considered that works are not practicable or economically feasible, the Working Group considered that taking a reasonable approach to fire safety defects remediation is preferable to a do nothing approach.

The Working Group acknowledges that the aforementioned approach would require guidance in the form of a Code of Practice for building professionals and

Local Authority building control / fire services in order to ensure a consistent and appropriate approach nationwide.

The application of such a Code of Practice should be limited to apartment/duplexes built between 1991 and 2013, and align with the terms of reference of the Working Group.

Furthermore, the legislative position and application of the Building Regulations, Building Control Regulations and Fire Services legislation may require clarification in the Code of Practice, to ensure consistent application and implementation.

In this regard, the Working Group took note that in relation to fire safety defects, the powers to draw up a Code of Practice already exists in Section 18A of the Fire Services Acts 1981 and 2003.

In developing the Code of Practice, consideration should be given to the following publications:

- *Framework for Enhancing Fire Safety in Dwellings where concerns arise*
- *Code of Practice for Fire Safety Assessment of Premises and Buildings*
- *(Draft) Fire Safety Guide for Building Owners and Operators - Guide for Persons having Control under Section 18(2) Fire Services Acts 1981 & 2003*

Taking on board earlier discussion in this report, the Code of Practice should also cover the following topics:

(i) Identification of defects / initial building survey and report

(ii) Safety risk assessment of defects

(iii) Standard of remedial works

(iv) Prioritisation of remedial works

(v) Identification of interim measures

(vi) Alternative approaches and options for remedial works

(vii) Scheduling of remedial works

(viii) Carrying out of remedial works

(ix) Certification of remedial works.

While the Working Group did not consider it necessary to provide detailed guidance to building professionals on structural safety- or water ingress defects, consideration should be given to providing general guidance.

6.6.3 Recommendations: Engagement with Statutory Bodies

The Working Group makes the following recommendations:

R7 – Standard of Remedial Works

a) Apartments/duplexes should, where practicable, be remediated to the standard that applied at the time of their original construction, e.g. in respect of fire safety, the original Fire Safety Certificate or appropriate Technical Guidance Document.

b) Where it is not practicable to achieve the standard identified at a), alternative approaches and options should be considered that provide a reasonable level of life safety protection in accordance with Fire Services Acts.

Action: Department of Housing, Local Government and Heritage (DHLGH)

R8 – Code of Practice

a) To support the development of a reasonable and practicable approach to resolving defects, and in order to ensure a consistent approach nationwide to remediation, a Code of Practice should be developed to provide guidance to building professionals and Local Authority building control / fire services.

b) The Code of Practice should cover the following:

(i) Identification of defects / initial building survey and report

(ii) Safety risk assessment of defects

(iii) Standard of remedial works

(iv) Prioritisation of remedial works

(v) Identification of interim measures

(vi) Alternative approaches and options for remedial works

(vii) Scheduling of remedial works

(viii) Carrying out of remedial works

(ix) Certification of remedial works

c) In relation to fire safety defects, use of the provisions in Section 18A of the Fire Services Acts for the preparation of the proposed Code of Practice should be considered. This is in order to provide guidance on a reasonable level of remedial works to address fire safety defects in apartments/duplexes constructed between 1991 and 2013.

d) While the Working Group did not consider it necessary to provide detailed guidance to building professionals on structural safety- or water ingress defects, consideration should be given to providing general guidance.

Action: Department of Housing, Local Government and Heritage (DHLGH)

6.7 Tendering of remedial works

Tendering of construction projects and the appointment of a competent builder to carry out the remedial works are standard professional services.

Due to the complex nature of remedial works to existing buildings and the uncertainty in relation to the possible extent of remedial works, the Working Group is of the view that it is important that a building professional is retained to advise and manage on the tendering and procurement of builders.

In addition, general guidance on these aspects of the remedial works process should be provided for OMCs and homeowners through the advice and information service referred to in 6.4.3.1.

6.8 Carrying out of Remedial Works

In carrying out remedial works to address defects, the whole building must be considered. Works are generally required in many areas. This usually involves both the interior of apartments/duplexes and the common areas of buildings containing them. In their communications with the Working Group, stakeholders noted the significant potential difficulties of co-ordinating and planning access to all areas requiring works during the construction contract in a multi-unit development.

Many stakeholders with experience in remediation works informed the Working Group of the risk of overruns and scope-creep during the construction phase as unforeseen issues arise and/or further defects are discovered.

Like the tendering and procurement of construction projects, the management of construction projects is a standard professional service. The need for competent building professionals to manage the contract and oversee the works, and for a competent builder to supervise the remedial works, was made clear to the Working Group.

6.8.1 Challenges

Challenges raised at this step in the process include the following:

- It may prove difficult or impossible to secure the co-operation of individual apartment owners in a building that requires remedial works.
- The possibility that unforeseen issues will arise poses a high risk of cost and programme overruns.

6.8.2 Discussion

The fire safety strategy of most apartment blocks is based on the overall building, including common areas, and any approach to remedial works should take the entire building into account.

The Working Group acknowledges the importance of addressing defects on a whole-building basis, and also acknowledges that this may present logistical challenges for OMCs in providing access to all parts of the building to the builder to carry out remedial works. However, the Working Group considers that Section 13 of the Multi-Unit Developments Act 2011 provides the OMC with the right to effect essential repairs and access individual properties.

The Working Group is of the view that, to ensure that remedial works are carried out to a proper standard, the building professional should be retained to manage the remedial works contract and oversee the remedial works themselves. It is also critical that a competent builder is employed to carry out the works and that the builder adequately supervises the works. The Working Group considers that an appropriate inspection regime should be implemented throughout the works. Guidance on these matters should be provided in the proposed Code of Practice.

The risk of uncovering unforeseen defects is an issue for all works to existing buildings, and the Working Group acknowledges that it is particularly relevant to the remedial works under consideration in this report. In discussions on this topic, Cladding Safety Victoria emphasised the importance of an in-depth and thorough building assessment at the outset in order to scope out the remedial works as accurately as possible.

6.8.3 Recommendations: Carrying Out of Remedial Works

The Working Group makes the following recommendation:

R9 - Remedial Works

Remedial works should be carried out and supervised by a competent builder, and should be inspected by a competent building professional / competent building professionals.

Action: Owners' Management Companies (OMCs)

6.9 Certification of Remedial Works

Throughout the consultation process, the Working Group repeatedly heard of the adverse impact that defects have on a residential building's reputation and on the ability of owners to sell their apartments/duplexes.

The Law Society indicated that the saleability of apartments is negatively affected by poor information on the presence of defects, or on their remediation, and by poor access to information being held by OMCs.

While dwellings may be saleable to cash purchasers, buyers requiring a loan will often have difficulties securing finance where concerns over defects arise.

The Law Society spoke of the need for comprehensive meaningful certification in order for legal professionals to have evidence to "reasonably advise a client" and to facilitate the conveyancing process.

Stakeholders explained to the Working Group that various forms of certification and assurances were currently being provided for remedial works that have been carried out.

6.9.1 Challenges

At the end of the remedial works process, it can be challenging to get a certificate that will satisfy all parties concerned e.g. homeowners, Local Authorities, insurers, prospective buyers etc., that the defects have been adequately addressed.

6.9.2 Discussion

The general issue in relation to selling apartments/duplexes with defects was confirmed in the online consultation process. While a relatively small sample of 172 homeowners/landlords responded to the question "Have you tried to sell your home since the discovery of a fire safety, structural safety or water ingress defects?" 82% of them indicated that they had been unable to sell their homes, or perceived that the presence of defects made it more difficult to sell them.

The Working Group considers that robust certification of remedial works is important for multiple reasons. Essentially, certification provides evidence

(1) to confirm and demonstrate to OMCs and homeowners that the remedial works have been completed satisfactorily,

(2) to satisfy the Local Authority fire services,

(3) to satisfy insurance providers (where necessary), and

(4) To facilitate conveyancing.

While certificates that have been issued for remedial works that have been carried out up to this point may be sufficient, the Working Group proposes that a consistent, standardised approach to certification be developed for future remedial works. Based on best practice in respect of inspection and supervision of works as discussed in Section 6.8, a prescribed form of certificate should be developed, to be signed by the competent building professional and competent builder, confirming that the defects discovered have been satisfactorily remediated. Good examples of this type of certification can be found in other remediation schemes, e.g. the Pyrite Remediation Scheme and the Defective Concrete Blocks Grant Scheme. This should be developed in the context of the proposed Code of Practice.

6.9.3 Recommendations: Certification of Remedial Works

The Working Group makes the following recommendation:

R10 - Certification

Remedial works should be certified in a prescribed format by both the competent building professional and the competent builder, in accordance with the Code of Practice (See R8).

Action: Department of Housing, Local Government and Heritage (DHLGH)

6.10 Pathway to Remedial Works

Figure 13 summarises the pathway for remedial works and incorporates the Working Group's recommendations for this section.

Figure 13 A Pathway for Remedial Works

Remedial Works Process	1. Discovery and identification of defects	2. Identification of the remedial works required	3. Engagement with Statutory bodies	4. Tendering of works	5. Funding of remedial works	6. Carrying out of remedial works[R9]	7. Certification of remedial works [R10]
R1 – Central Organisation - Provide an advice and support service to OMCs and apartment owners on the remedial works process.							
R8 – Code of Practice - Provide guidance to building professionals and Local Authority building control/fire services in order to ensure a consistent approach nationwide to remediation.							
Type of Defect: Fire Safety defect	OMC should appoint a competent building professional[R3] Competent building professional[R2] should • adhere to a Code of Practice[R8] • carry out an initial survey and report • prepare a schedule of significant defects	Competent building professional should • propose the standard of remediation[R7] • prioritise the remedial works required • prepare a Remedial Works Plan • propose a programme of remedial works • use risk assessment to identify any interim measures to be undertaken[R5]	Competent building professional should • prepare a schedule of works • consult with the Local Authority fire services based on a Code of Practice[R8] • identify and make arrangements for the carrying out of interim measures[R5]	Competent building professional should tender for the remedial works/ interim measures deemed necessary (See Section 8 for Funding Options).	OMC should secure funding for the remedial works/interim measures deemed necessary (See Section 8 for Funding Options).	OMC should appoint a competent builder. Builder should supervise the remedial works. Competent building professional should carry out appropriate inspections.	Both the competent builder and the competent building professional should certify the works.[R10]
Type of Defect: Structural Safety defect			N/A - Schedule of remedial works to be determined by the competent building professional.				
Type of Defect: Water Ingress defect							

R1 – Central Organisation
R2 – Register of Building Professionals
R3 – Engagement of Building Professional(s)
R4 - Identification of person(s) having control of premises
R5 – Interim measures
R6 – Resources
R7 – Standard of Remedial Works
R8 – Code of Practice
R9 – Remedial Works
R10 – Certification

Section 7 Cost of Remedial Works

7.1 Introduction

The purpose of this section is to estimate the potential cost of remediation of fire safety-, structural safety- and water ingress defects in purpose-built apartments and duplexes constructed between 1991 and 2013.

To achieve this, the Working Group considered information obtained through written consultation, the online survey, AHBs, the workshop with chartered surveyors and fire safety consultants and Working Group members. The data obtained from the consultation indicated that there are significant costs faced by OMCs when it comes to remediating these defects.

The Working Group has concerns that the costs of remediation submitted were based on historical data and are not reflective of current construction costs, with the result that remediation costs at today's rates would be higher than those reported in the consultation.

To address this issue, the estimated remediation costs were adjusted using the SCSI Tender Price Index (TPI) H1 2022[54] so that in so far as possible the cost estimates reflect 2022 construction costs.

In addition to the above, this section considers the estimated remediation costs for the following:

- Various combinations of defects
- Fire safety defects in isolation

[54] The TPI is not specifically designed for this use. It is based on sentiment returns only. The TPI is intended for non-residential projects during the period in question. It is based predominantly on new-build projects with values in excess of €0.5m and covers all regions of Ireland. It should be regarded as a guide only when looking at any specific project, as the pricing of individual projects will vary depending on such factors as their complexity, location, and timescale.

The limitation of the TPI in relation to this costing exercise is acknowledged by the Working Group. In the absence of an alternative method, however, TPI was considered to be a reasonable approach to the attempt to align historical figures with current costs.

- Structural safety defects in isolation
- Water ingress defects in isolation

Also considered are other categories of cost that contribute to the overall cost of remediation of fire safety-, structural safety- and water ingress defects in purpose-built apartments and duplexes constructed between 1991 and 2013.

7.2 Remedial Works Cost Data

The Working Group obtained information relating to the estimated average cost of remedial works from a number of sources, including the written consultation engagements and the online survey.

The Working Group's analysis and consideration of the information obtained is presented in the following sections.

7.2.1 Written Consultation Engagements

During the consultations, a number of stakeholders provided an indication of the cost of remediation of apartments and duplexes affected by fire safety-, structural safety-, and water ingress defects.

Cost information for the remediation works completed on 11,097 apartments/duplexes was provided by the Irish Council for Social Housing, the National Asset Management Agency, and Clúid Housing. Their combined responses relate to approximately 9% of all apartments/duplexes constructed between 1991 and 2013.

These responses may be summarised as follows:

7.2.1.1 Irish Council for Social Housing

The Irish Council for Social Housing provided the following information on the remediation costs for 1,453 apartments/duplexes:

- The remediation of fire safety defects relating to 829 apartments/duplexes cost between €10,000 and €20,000 per dwelling.
- The remediation of structural safety defects relating to 259 apartments/duplexes cost between €5,000 and €10,000 per dwelling.
- The remediation of water ingress defects relating to 365 apartments/duplexes cost between €1,000 and €5,000 per dwelling.

7.2.1.2 National Asset Management Agency

The National Asset Management Agency provided the following information on the remediation costs for 8,401 apartments or duplexes:

- The remediation of fire safety defects alone relating to 3,700 apartments/duplexes cost approximately €9,500 per dwelling.
- The remediation of health and safety defects, including some structural safety defects, relating to 1,183 apartments/duplexes cost approximately €11,650 per dwelling.
- The remediation of fire safety defects, combined with health and safety defects that included some structural safety defects and some water ingress defects, relating to 3,519 apartments/duplexes cost approximately €18,500 per dwelling.
- Cost Information on the remediation of water ingress defects was not provided as a standalone category.

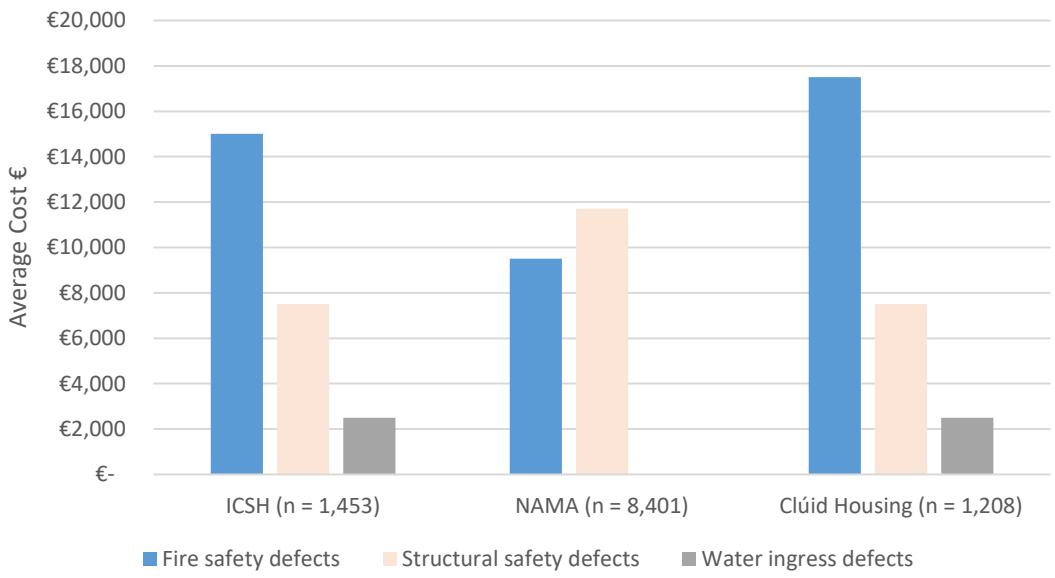
7.2.1.3 Clúid Housing

Clúid Housing provided the following information on the remediation costs for 1,208 apartments/duplexes:

- The remediation of fire safety defects relating to 656 apartments/duplexes cost between €15,000 and €20,000 per dwelling.
- The remediation of structural safety defects relating to 247 apartments/duplexes cost between €5,000 and €10,000 per dwelling.
- The remediation of water ingress defects relating to 305 apartments/duplexes cost between €1,000 and €5,000 per dwelling.

The responses from the Irish Council for Social Housing, the National Asset Management Agency and Clúid Housing are compared in Figure 14.

Figure 14 Average Cost of Remedial Works Reported per Defect Type



Source: Written Submissions

7.2.1.4 Society of Chartered Surveyors Ireland

In its submission to the Working Group, the Society of Chartered Surveyors Ireland stated the following:

> *Anecdotally, SCSI is informed that remediation works for some apartments ranged from €5k to €35k.*

7.2.1.5 Apartment Owners' Network

In its submission to the Working Group, the Apartment Owners' Network stated the following:

> *The highest cost per unit that we are aware of is an estimated €60,000 per unit*.

7.2.1.6 Construction Defects Alliance

In its submission to the Working Group, the Construction Defects Alliance stated the following:

> *The remediation levies being paid by or charged to our members range from a low of €5,000 to a high of €72,000.*
>
> *The average is €17,635, which would mean for the 20,750 units the Alliance is aware of, the overall estimated cost is €365,926,250.*

7.2.2 Online Surveys

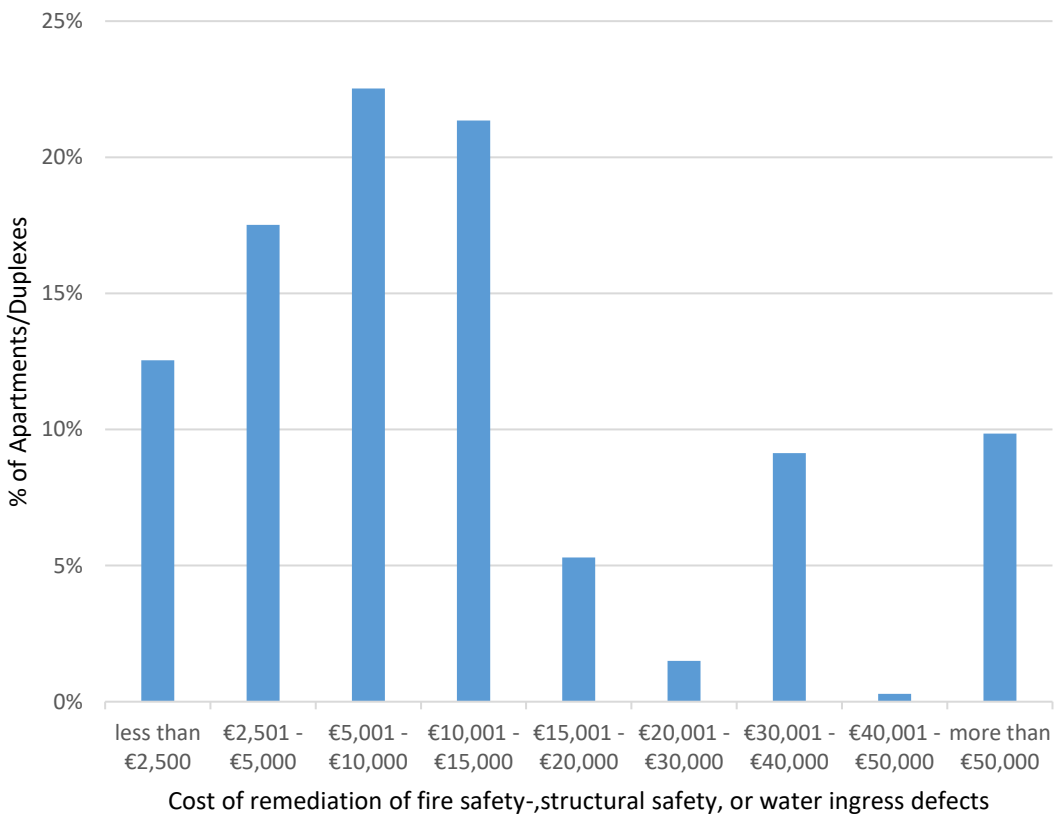
The responses to the online survey indicated that there are many combinations of fire safety-, structural safety- and water ingress defects within some purpose-built apartments/duplexes constructed between 1991 and 2013. These combinations are discussed in detail in Section 5.4.3.

The analysis of the combinations of these defects for which a remediation cost (representing 10,541 apartments/duplexes) was provided is in Table 13. This table estimates the average remediation cost to be €18,505 per apartment/duplex.

Table 13	**Average Remediation Costs of Fire Safety-, Structural Safety- and Water Ingress Defects for Apartments/Duplexes**		
Reported defect type or combination of defect types	**Number of apartments / duplexes** (n = 10,541)	**Remediation costs**	**Average remediation cost per apartment/ duplex**
Fire safety defects	2,596	€23,720,150	€9,137
Fire safety- and structural safety defects	1,311	€25,340,331	€19,329
Fire safety-, structural safety- and water ingress defects	3,004	€96,619,212	€32,164
Fire safety- and water ingress defects	3,042	€46,330,116	€15,230
Structural safety defects	144	€850,000	€5,903
Structural safety- and water ingress defects	127	€970,000	€7,638
Water ingress defects	317	€1,234,416	€3,894
Total	**10,541**	**€195,064,225**	**Average = €18,505**
Source: Online Survey			

When the remediation costs provided in the online survey are grouped into various bands and analysed, it is observed that the reported remediation costs for nearly 45% of apartments/duplexes were between €5,000 and €15,000, while for nearly 20% of apartments/duplexes the reported remediation costs were over €30,000 (See Figure 15).

Figure 15 Distribution of the Cost of Remedial Works



Source: Online Survey (n = 10,541)

7.2.2.1 Review of Online Survey Responses Relating to Remediation Costs

At the request of the Working Group, the online survey responses relating to remediation costs were reviewed by the researchers in the Housing Agency. Having completed their review, the researchers issued a memo to the Working Group.

In their memo the Housing Agency researchers summed up their findings as follows:

> *The data analysis already undertaken gives several useful measures of the distribution of estimated remediation costs. In particular, the use of charts and of cost bands demonstrates how typical costs cluster in the region of €5,000-€15,000 per unit.*
>
> *The data on costs does show a relatively small number of units with very high remediation costs, which can skew the average/mean cost upwards. One way to overcome this is to examine the median cost, which shows the mid-ranking cost without being skewed by high values.*
>
> ***Table 1: Distribution of remediation costs per unit (respondent estimates)***

Mean	€ 18,505
Median	€ 9,259
25th percentile	€ 4,762
75th percentile	€ 15,693
90th percentile	€ 55,000

> *Total: 10,541 units*
>
> *The median cost is €9,529 per unit, compared to mean/average cost of €18,505. Examining further percentiles shows how costs cluster between c. €5,000 and c. €15,000 per unit, with c. 50% of units falling within this range. The 90th percentile value is €55,000, with 10% of units at or above this level of cost per unit.*

7.2.3 Indexation of Costs

To form its opinion, the Working Group considered the information received during the consultation, particularly the following details about cost:

- The National Asset Management Agency response indicated that the cost of remediating fire safety defects, combined with health and safety defects that included structural safety defects and water ingress defects, relating to 3,518 apartments/duplexes was approximately €18,500 per dwelling.
- The response from the Construction Defects Alliance stated, “The average is €17,635, which would mean for the 20,750 units the Alliance is aware of, the overall estimated cost is €365,926,250”.
- The online survey responses indicated that the average cost of remediation of all issues was €18,505 per apartment/duplex.

The Working Group is of the opinion that the historical average cost of remedial works per apartment/duplex was in the region of €18,200.

Having considered the costs submitted, the Working Group was concerned that the figures are based on historical data and are not reflective of current construction costs, which are likely to be higher than those reported in the consultation.

In order to align the historical remediation costs with estimated 2022 costs, the Working Group undertook an analysis of potential increases in the costs for remedial works from 2016 up to the end of the 1st half of 2022. For this analysis, the Working Group used as an index the SCSI Tender Price Index (TPI) H1 2022[55] published in July 2022, while being aware of the limitations of its use for

[55] The TPI is not specifically designed for this use. It is based on sentiment returns only. The TPI is intended for non-residential projects during the period in question. It is based predominantly on new-build projects with values in excess of €0.5m and covers all regions of Ireland. It should be regarded as a guide only when looking at any specific project, as the pricing of individual projects will vary depending on such factors as their complexity, location, and timescale.

The limitation of the TPI in relation to this costing exercise is acknowledged by the Working Group. In the absence of an alternative method, however, TPI was considered to be a reasonable approach to the attempt to align historical figures with current costs.

this purpose. The cost increases assumed over the period 2016–2020 are set out in Table 14.

In the absence of specific information on the year in which any reported remediation works were completed, and to facilitate the indexation process, the Working Group assumed that the majority of the remediation-works costs reported in the consultation responses were for works conducted between 2016 and 2021.

Table 14 Construction Cost Index Rate

First half of year	Percentage increase - to update costs to 2022 levels
2016	36%
2017	32%
2018	27%
2019	22%
2020	19%

Source: SCSI TPI (H1 2022)

The Working Group agreed that 28% represented a reasonable indexation rate and applied this figure to the average remediation costs reported during the consultation. As a result, the Working Group is of the opinion that the average cost of remedial works per apartment/duplex, based on 2022 construction costs, is in the region of €23,300[56] per apartment/duplex.

[56] €18,200 x 1.28 = approximately €23,300

7.3 Fire Safety Defects

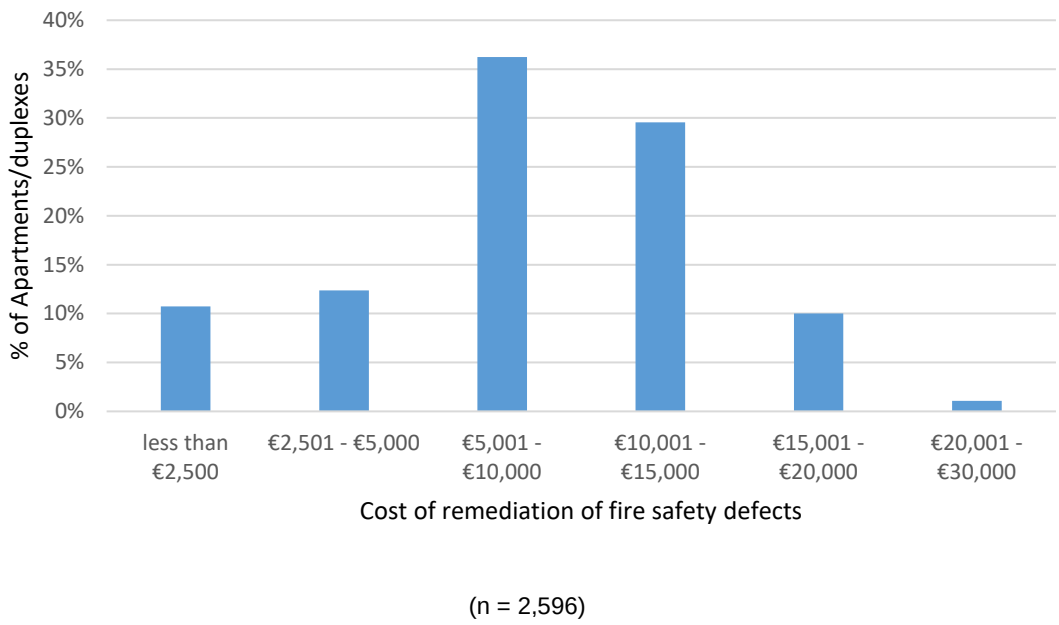
Based on the consultation responses, fire safety defects appear to be the most widespread defect in purpose-built apartments/duplexes constructed between 1991 and 2013. Responses to the online survey indicate that fire safety defects — considered in combination with other defects — may affect as many as 67% of these apartments/duplexes.

7.3.1 Online Surveys

Responses to the online survey indicate that the average remediation costs of fire safety defects alone in 2,596 purpose-built apartments/duplexes constructed between 1991 and 2013 is €9,137, with costs ranging from less than €2,500 to €30,000.

When the remediation costs provided in the online survey for fire safety defects are grouped into various bands and analysed, it is observed that the reported remediation costs for nearly 90% of apartments/duplexes were less than €15,000, while for just over 10% of apartments/duplexes the reported remediation costs were between €15,000 and €30,000. This distribution is shown in Figure 16.

Figure 16 Distribution of the Cost of Remediation of Fire Safety Defects



(n = 2,596)

Source: Online Survey

7.3.2 Consultation Responses

Cost information for the remediation for fire safety defects in 5,185 apartments/duplexes was provided by the Irish Council for Social Housing, the National Asset Management Agency, and Clúid Housing. The number of fire safety defects represented in the responses of these three organisations accounts for approximately 4% of all purpose-built apartments and duplexes constructed between 1991 and 2013.

The relevant information emerging from the three organisations' responses may be summarised as follows:

7.3.2.1 Irish Council for Social Housing

The Irish Council for Social Housing indicated that the remediation cost of fire safety defects relating to 829 apartments/duplexes was between €10,000 and €20,000 per dwelling.

7.3.2.2 National Asset Management Agency

The National Asset Management Agency indicated that the remediation cost of fire safety defects alone relating to 3,700 apartments/duplexes was approximately €9,500 per dwelling.

7.3.2.3 Clúid Housing

Clúid Housing indicated that the remediation cost of fire safety defects relating to 656 apartments/duplexes was between €15,000 and €20,000 per dwelling.

The responses from the Irish Council for Social Housing, the National Asset Management Agency, and Clúid Housing are compared in Figure 14 (See Section 7.2.1).

7.3.3 Workshop

During the workshop with chartered surveyors and fire safety consultants who have specific experience in relation to the remediation of building defects, it was suggested that the average cost of remediating fire safety defects was in the region of €10,000 – €20,000 per apartment/duplex.

7.3.4 Working Group Members and Chartered Building Surveyors

A cost analysis exercise was undertaken by practitioner members of the Working Group and chartered building surveyors from the SCSI who have specific experience in relation to the remediation of building defects.

In this exercise, detailed and specific costs relating to the remediation of fire safety defects relating to 13 developments (2,419 apartments/duplexes) were analysed. It was known that the apartments/duplexes were remediated between 2016 and 2021, that a detailed investigation and remediation works design had been completed and that the works were based on bringing the developments into line with their approved Fire Safety Certificates.

Using the SCSI Tender Price Index (TPI) H1 2022[57] as a benchmark, the Working Group has updated the average cost obtained from this analysis to provide estimated 2022 costs.

The outcome of this exercise indicated that the indexed total costs to remediate fire safety defects varied from approximately €12,000 to approximately €54,000 with the average cost estimated to be approximately €25,000 per purpose-built apartment/duplex constructed between 1991 and 2013.

These costs are total project costs and are inclusive of investigation costs, construction costs, management costs, bad debt provision for irrecoverable levies, debt recovery costs, professional fees, and VAT.

The Working Group is of the view that this cost represents an accurate estimation of the cost of remediating fire safety defects up to the standard of the approved Fire Safety Certificate.

The lower average cost of remediation observed in this exercise matched the position observed in the online survey, in so far as the average remediation cost in six of the thirteen remediation projects in this exercise was less than €20,000 per dwelling.

Four of the thirteen projects reflected an average remediation cost of between €20,000 and €30,000 per dwelling.

While three of the thirteen projects reflected an average remediation cost in excess of €30,000 per dwelling.

[57] The TPI is not specifically designed for this use. It is based on sentiment returns only. The TPI is intended for non-residential projects during the period in question. It is based predominantly on new-build projects with values in excess of €0.5m and covers all regions of Ireland. It should be regarded as a guide only when looking at any specific project, as the pricing of individual projects will vary depending on such factors as their complexity, location, and timescale.

The limitation of the TPI in relation to this costing exercise is acknowledged by the Working Group. In the absence of an alternative method, however, TPI was considered to be a reasonable approach to the attempt to align historical figures with current costs.

7.3.5 Average Cost of the Remediation of Fire Safety Defects

Having considered the various consultation responses, the Working Group is of the opinion that the average cost of remediating fire safety defects in isolation from all other defects is estimated to be €17,000 per purpose-built apartment/duplex constructed between 1991 and 2013.

7.4 Structural Safety Defects

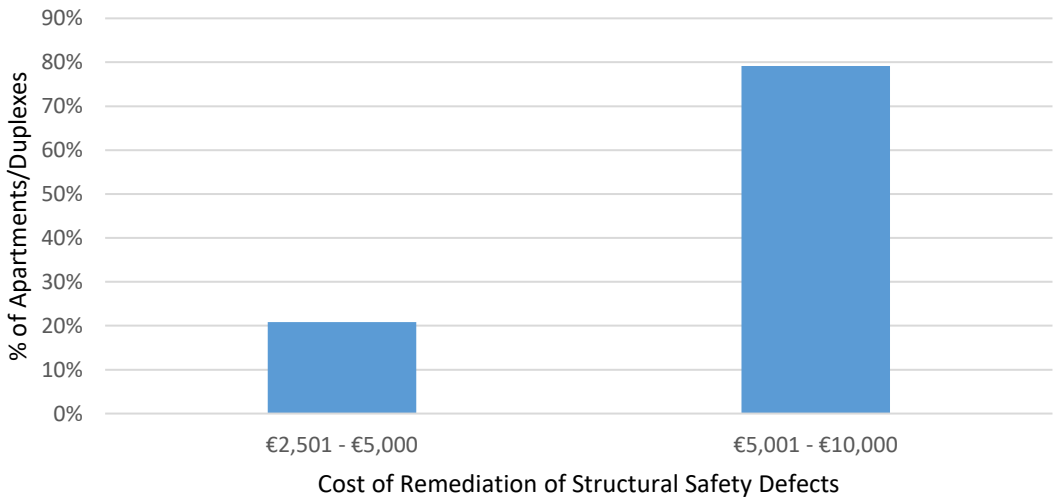
On the basis of the consultation responses, structural safety defects appear to be the least frequently occurring defect in purpose-built apartments/duplexes constructed between 1991 and 2013. Responses to the online survey indicate that structural safety defects — considered in combination with other defects — may affect 25% of these apartments/duplexes.

7.4.1 Online Surveys

The responses to the online survey indicate that the average remediation costs of structural safety defects alone relating to 144 purpose-built apartments/duplexes constructed between 1991 and 2013 is €5,903, with costs ranging from less than €2,500 to €10,000 per dwelling.

When the remediation costs detailed in the online survey for structural safety defects are grouped into various bands and analysed, it is observed that the reported remediation costs for 100% of apartments/duplexes are less than €10,000. This distribution is shown in Figure 17.

Figure 17 Distribution of the Cost of Remediation of Structural Safety Defects



Source: Online Survey (n = 144)

7.4.2 Consultation Responses

Cost information for the remediation of structural safety defects in 1,689 apartments/duplexes was provided by the Irish Council for Social Housing, the National Asset Management Agency, and Clúid Housing. With regard to structural safety defects, their combined responses relate to approximately 1% of all purpose-built apartments and duplexes constructed between 1991 and 2013.

The key information in these responses may be summarised as follows:

7.4.2.1 Irish Council for Social Housing

The Irish Council for Social Housing indicated that the cost of remediating structural safety defects relating to 259 apartments/duplexes was between €5,000 and €10,000 per dwelling.

7.4.2.2 National Asset Management Agency

The National Asset Management Agency indicated that the cost of remediating health and safety defects that included some structural safety defects, relating to 1,183 apartments/duplexes was approximately €11,650 per dwelling.

7.4.2.3 Clúid Housing

Clúid Housing indicated that the cost of remediating structural safety defects relating to 247 apartments/duplexes was between €5,000 and €10,000 per dwelling.

The responses from the Irish Council for Social Housing, the National Asset Management Agency, and Clúid Housing are compared in Figure 15 (See Section 7.2.2).

7.4.3 Average Cost of the Remediation of Structural Safety Defects

Having considered the various consultation responses, the Working Group is of the opinion that the average cost of remediating structural safety defects in isolation from all other defects is estimated to be €8,000 approximately per purpose-built apartment/duplex constructed between 1991 and 2013.

7.5 Water Ingress Defects

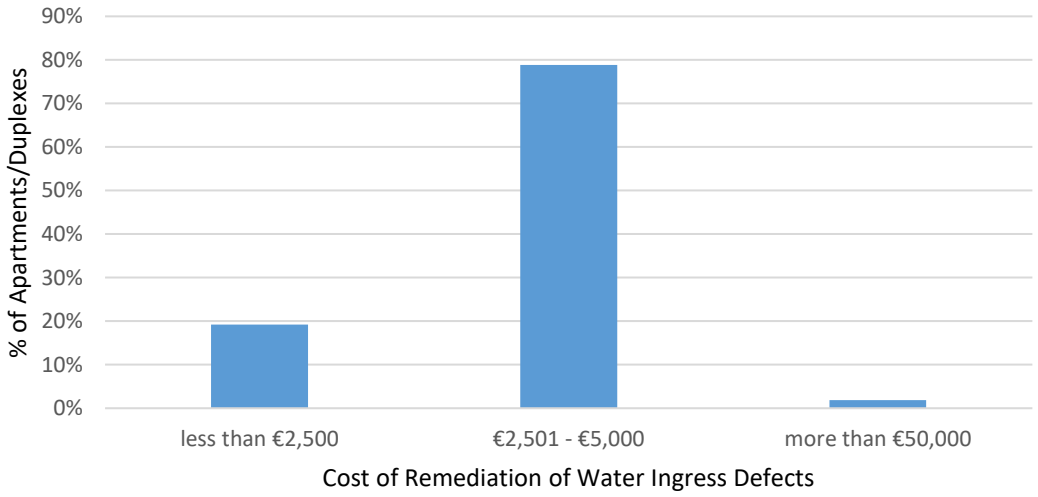
The consultation responses indicate that water ingress defects appear to be the second most frequently occurring defects in purpose-built apartments/duplexes constructed between 1991 and 2013. Responses to the online survey indicate that - considered in combination with other defects - water ingress defects may affect 49% of these apartments/duplexes.

7.5.1 Online Surveys

Responses to the online survey indicate that the average remediation costs of water ingress defects relating to 317 purpose-built apartments/duplexes constructed between 1991 and 2013 was €3,894, with costs ranging from less than €2,500 to €10,000.

When the remediation costs provided in the online survey for water ingress defects are grouped into various bands and analysed, it is observed that the reported remediation costs for 98% of apartments/duplexes were less than €5,000, while for just under 2% of apartments/duplexes, the reported remediation costs were more than €50,000. This distribution is shown in Figure 18.

Figure 18 Distribution of the Cost of Remediation of Water Ingress Defects



Source: Online Survey (n = 317)

7.5.2 Consultation Responses

Cost information regarding the remediation of water ingress defects in 670 purpose-built apartments/duplexes constructed between 1991 and 2013 was provided by the Irish Council for Social Housing and Clúid Housing.

Their responses may be summarised as follows:

7.5.2.1 Irish Council for Social Housing

The Irish Council for Social Housing indicated that the cost of remediating water ingress defects relating to 365 apartments/duplexes was between €1,000 and €5,000 per dwelling.

7.5.2.2 Clúid Housing

Clúid Housing indicated that the cost of remediating water ingress defects relating to 305 apartments/duplexes was between €1,000 and €5,000 per dwelling.

The responses from the Irish Council for Social Housing and Clúid Housing, respectively, are compared in Figure 14 (See Section 7.2.1).

7.5.3 Average Cost for the Remediation of Water Ingress Defects

Having considered the various consultation responses, the Working Group is of the opinion that the average cost of remediating water ingress defects in isolation from all other defects is estimated to be approximately €5,000 per purpose-built apartment/duplex constructed between 1991 and 2013.

7.6 Consideration of Cost Categories

The Working Group investigated remediation costs under the following headings:

- Investigation costs
- Cost of repairing defects
- Cost of repairing consequential damage
- Professional fees
- Cost of risk mitigation/interim measures
- Relocation costs
- Contingency costs

By canvassing Working Group members practising in the sector, and following further engagement with the Society of Chartered Surveyors Ireland, the Working Group arrived at estimated average costs, where possible, under these headings. These costs are described in the following sections.

7.6.1 Investigation Costs

A detailed investigation by competent building professionals is needed to establish the extent and nature of the defects. This exercise is likely to involve opening up of areas of the building (See Section 6.4).

From figures supplied by the SCSI, the cost of investigating fire defects, a fire risk assessment, including the cost of builders opening-up work, and the retrieval of a Fire Safety Certificate, where necessary, was on average €7,000 per development, including VAT. This figure varied from €4,000 to €10,000 per development. This range depended heavily on the size and complexity of the development.

In relation to structural safety- or water ingress defects, the Working Group is of the view that the average cost of investigating these defects is likely be in the range of €10,000–€18,000 per development based on an average development size of 60–100 dwellings. The Working Group notes that the nature of each structural safety- or water ingress defect is specific to the form of construction of the affected development.

As outlined earlier in this report, the incidence of structural safety- and water ingress defects appears to be lower than fire safety defects and therefore this form of investigation may not always be required.

7.6.2 Cost of Repairing Defects

The costs of repairing fire safety-, structural safety- and water ingress defects in purpose-built apartments constructed between 1991 and 2013 have been considered in detail in the earlier parts of this section.

7.6.3 Cost of Repairing Consequential Damage

Parts of the apartment/duplex or common areas may be damaged as a consequence of a defect. For example, a leak in a roof can damage carpets. In addition, consequential works will arise as a function of remedial works being carried out. For example, rewiring of emergency lights may require the subsequent repainting of a common area.

Consultations undertaken by the Working Group indicated that little to no consequential damage arises when fire safety works are undertaken. While damage to plasterboard and decoration can arise during works, the Working Group learned that where remedial works have been carried out these areas were often patch repaired by the OMC in the interest of keeping costs down. While this may not have been to the satisfaction of all owners, it seemed to be largely accepted.

Limited feedback on the costs of consequential damage from the repair of structural safety- or water ingress defects was received during the consultation process. However, it is accepted by the Working Group that in repairing structural safety- or water ingress defects, significant consequential damage to the interior finishes of the property may occur.

7.6.4 Professional Fees

Professional fees arise when a building professional is engaged to provide any of the following services:

- Carrying out an inspection and preparing a report (See Section 7.6.1).
- Preparing marked up drawings, specifications and schedules of work.
- Inviting tenders from competent contractors.

- Administering a contract, inspecting the works during the remediation period and providing certification on completion of the works.

A design team appropriate to the size and complexity of the building should be appointed. The professionals that could be involved are:

- Project Manager
- Fire Safety Consultant
- Building Surveyor
- Architect
- Mechanical & Electrical Engineer
- Structural Engineer
- Quantity Surveyor
- Project Supervisor for the Design Process (PSDP)

It is possible that some professionals can undertake a number of the above roles, however on larger and more complex projects a multi-disciplinary team may be required.

The feedback received during the consultation was that consultants' fees amounted to between 8% and 15% of the construction costs. Fees as a percentage of costs were lower in developments comprising of a larger number of apartments and involving less complicated defects, whereas higher fees were observed in smaller developments involving defects of a more complex nature.

7.6.5 Cost of Risk Mitigation/Interim Measures

Interim measures are measures or works that may need to be carried out pending the implementation of full remedial works, to ensure the continued use as an apartment/duplex building (See Section 6.5.2.3). Interim fire safety measures may involve enhancement of the fire detection and alarm system, or in extreme cases may involve the presence of fire wardens.

While the costs will vary for each development, depending on what measures are required, it is estimated that interim measures may cost between €50,000 and €80,000 per development.

Cost data for risk mitigation in relation to structural safety- or water ingress defects was not received. However, the Working Group accepts that risk mitigation measures, such as propping and shoring, can be necessary in relation to addressing structural safety defects, and that temporary and patch repairs to elements such as the façade/roof can be necessary to halt the progress of invasive and destructive water ingress.

7.6.6 Relocation Costs

Depending on the nature and extent of the remedial works required, it may be necessary for occupants to relocate during the execution of building works.

The exercise undertaken by practitioner members of the Working Group (See Section 7.3.4), indicates that the relocation of occupants was not required during the works in any of the sample fire safety projects analysed. However, the developments in question were concrete framed, and so the work largely consisted of filling gaps within the concrete frame. Where remediation to timber framed units is required, the work may be significantly more intrusive, and relocation may therefore be necessary.

The Working Group did not receive data relating to the cost of relocation during the period of works during the consultation process.

7.6.7 Contingency Costs

A contingency sum is a cost provision, usually expressed as a percentage, included in the project budget to allow for the unknown or unresolved aspects of a design.

Generally, it is not possible to accurately predict all costs relating to works to existing buildings. The consultation by the Working Group indicated that the investigation phase of a remediation project generally involves some opening up of areas to assess the nature and likely extent of defects. However, this degree of opening up is limited to the minimum required to establish sufficient information to inform a schedule of works.

This restricted exposure of elements of the building may have two relevant consequences during the execution of the works. First, the extent of the defects can be estimated beforehand based on only those defects identified in the investigation. For example, investigation of service shafts may identify a specific

problem. When the remediation work proceeds, it may come to light that the extent of deficient fire separation between service shafts and common areas is greater than could reasonably have been expected. This will then lead to a variation in the contract sum to reflect the cost of work involved.

Second, when a particular defect is being addressed, a defect of a different nature may be discovered. For example, when removing a ceiling in the course of dealing with a water ingress defect in an apartment, deficiencies in fire separation between the apartment and a common area may be identified. Addressing this defect will result in an increased cost.

In addition, if there is a significant delay between the time at which tenders for remedial works are received and the decision to award a contract is made, the tender sum may increase because of inflation.

In order to take account of the foregoing factors, a contingency sum is usually included in budgets relating to remedial works. The calculation of the contingency sum is normally undertaken by the professional team based on their understanding of the building, on the inherent defects and on their experience. A contingency sum typically ranges between 10% and 15% of the tender amount, depending on the extent of the opening up works and the complexity of the construction methodology.

7.7 Estimated Average Costs of Remedial Works

The costs that stakeholders presented to the Working Group for remedying the various combinations of defects covered a very wide range (from less than €2,500 to in excess of €80,000 per apartment/duplex), with little apparent correlation between them. The Working Group analysed this data in detail.

The Working Group concluded that it can provide only an estimate of the average costs of remediation. While the figure cannot be definitive, it is a useful basis for estimating the potential overall costs of the remediation of these apartments/duplexes (see Section 8).

Taking all cost data into account, it is the considered view of the Working Group that the estimated average cost of undertaking the remediation of fire safety-, structural safety- and water ingress defects in purpose-built apartments/duplexes constructed between 1991 and 2013 is likely to be in the region of €25,000 per apartment/duplex, based on 2022 construction costs. These represent all-in costs, including professional fees and VAT.

The Working Group notes that the actual cost of remediation will vary greatly between different developments and types of apartment/duplexes and depending on the various types or combinations of defects that may be encountered in the course of remediation.

Section 8 Funding Options

8.1 Introduction

An estimate of the scale of defects and the cost of remedial works has been provided in earlier sections. This section extrapolates that data to provide a potential range of overall costs for addressing fire safety-, structural safety- and water ingress defects in apartments/duplexes. It also provides a breakdown of the potential range of overall costs by tenure type.

Financial constraints arise alongside the other challenges that OMCs face in addressing defects. Consultations undertaken by the Working Group indicate that OMCs are often financially constrained and have difficulties collecting management charges. OMCs face challenges in funding defects remediation on account of the unavailability of legal and financial recourse to the source of the defects. In the absence of recourse, already financially insecure OMCs are left to levy their members to meet the costs of remediation works. Members may be unable or unwilling to pay levies to the OMC. This section explores the current sources of funding for OMCs, and the shortcomings of these sources.

This section provides options on possible financial solutions to effect a resolution for those impacted by defects, in line with the Programme for Government and having regard to the recommendations in the report *Safe as Houses?.* In addition, potential channels for deployment of the funding options are presented in this section.

In many cases, remedial works have already been implemented in apartment buildings without any financial support for the owner-occupier, either through increased levies paid to the OMC or through direct funding of building works. There will also be cases where defects have been identified and work is planned or will have commenced at the time of the publication of this report. Both of these scenarios are considered below under the heading of “Retrospection”.

In this section, financing mechanisms in other remediation schemes in Ireland and in other countries are considered. The examples identified do not form an exhaustive list but are relevant in relation to mechanisms employed and outcomes experienced.

8.2 Estimate of Overall Costs

In order to assess the potential overall cost of addressing fire safety-, structural safety- and water ingress defects in apartments/duplexes within the terms of reference of this report, the Working Group has extrapolated the data collected on the scale of defects in Section 5 and on the estimated average cost of remedial works per apartment/duplex in Section 7[58] onto the stock of apartments and duplexes built between 1991 and 2013.[59]

The outcome of this analysis (see Table 15) shows the following:

- The estimated number of purpose-built apartments/duplexes constructed between 1991 and 2013 that may be affected by fire safety-, structural safety- or water ingress defects ranges between 62,500 and 100,000.
- The estimated overall cost of addressing these defects in these apartments/duplexes ranges between €1.56 billion and €2.5 billion, approximately.

[58] The estimated average costs of remedial works (all-in costs, including professional fees and VAT) per purpose-built apartment/duplex constructed between 1991 and 2013 is in the region of €25,000 (See Section 7.7).

[59] For the purpose of this report, the Working Group has assumed that 125,000 purpose-built apartments/duplexes were constructed between 1991 and 2013 (See Section 5.2.1).

Table 15 Estimated Scale of Overall Costs		
Description	**Estimated Range**	
	Lower Limit	**Upper Limit**
Percentage of purpose-built apartments/duplexes constructed between 1991 and 2013 that may be affected by one or more defects, i.e. fire safety-, structural safety- or water ingress defects (See Section 5.5)	50%	80%
Number of purpose-built apartments/duplexes constructed between 1991 and 2013 that may be affected by one or more defects, i.e. fire safety-, structural safety- or water ingress defects[1]	62,500	100,000
Overall costs of addressing fire safety-, structural safety- and water ingress defects in purpose-built apartments/duplexes constructed between 1991 and 2013[2]	€ 1.56 billion	€ 2.5 billion

NOTES:

1. For the purposes of estimating the overall costs, the Working Group has assumed that 125,000 purpose-built apartments/duplexes were constructed between 1991 and 2013 (See Section 5.2.1).

2. For the purpose of estimating the overall costs, the Working Group has assumed that the estimated average costs of remedial works (all-in costs, including professional fees and VAT) per purpose-built apartment/duplex constructed between 1991 and 2013 is in the region of €25,000 (See Section 7.7).

8.3 Overall Costs per Tenure Type

The breakdown of apartments/duplexes by tenure type, is shown in Table 16. As this is based on the CSO 2016 Census data, it represents the period between 1991 and 2016. However, the Working Group has assumed that the proportion of tenure types is similar for apartments/duplexes built between 1991 and 2013.

It should be noted that 25% (29,521) of apartments/duplexes are owner-occupied. An additional 2.4% did not state the ownership type. Therefore, potentially 27% (or 32,329) of apartments/duplexes, may be owner-occupied.

The Working Group noted the focus on owner-occupiers in the report *Safe as Houses?*. The Working Group also noted the report's recommendation that the mission statement of a redress scheme should be expressed as follows:

> *Ordinary owners who purchased in good faith should not be liable for the costs of remediation caused by the incompetence, negligence or deliberate non-compliance of others.*

It is also worth noting that approximately 16% of apartments/duplexes are owned by voluntary housing bodies (or Approved Housing Bodies) and Local Authorities. These properties are part of the social housing stock.

Approved Housing Bodies (AHBs) are independent, not-for-profit organisations. They provide affordable rented housing for people who cannot afford to pay private sector rents or buy their own homes.

In relation to funding, Local Authorities, in general, receive direct exchequer funding for social housing from the DHLGH. Through Local Authorities, the DHLGH also makes a number of funding programmes available to AHBs for the provision of housing both for general social housing and for a range of specific priority categories of housing need. These funding programmes include the Capital Assistance Scheme (CAS), the Capital Loan and Subsidy Scheme (CLSS – closed to new applications since 2011), Payment & Availability – Capital Advance Leasing Facility (P&A-CALF).

Finally, landlords represent the largest tenure type, owning and renting approximately 56% of apartments/duplexes.

Table 16 Tenure of Purpose-Built Flats Built Between 1991 and 2016		
Tenure type	**Number of apartments /duplexes**	**Percentage of all apartments /duplexes**
Rented (private/corporate landlord)	65,337	56%
Owner-occupied	29,521	25%
Rented from Local Authority	13,016	11%
Rented from voluntary bodies	5,489	4.7%
Ownership not stated	2,808	2.3%
Free of rent	1,175	1%
Total	**117,346**	**100%**
Source: CSO 2016 Census		

Based on the data above, Table 17 shows a breakdown of the estimated overall costs of addressing fire safety-, structural safety- and water ingress defects in purpose-built apartments/duplexes constructed between 1991 and 2013 per tenure type.

Table 17 Estimated Overall Costs by Tenure Type			
Tenure type	**Percentage of apartments /duplexes**	**Estimated Range**	
		Lower limit	**Upper limit**
Rented (private/corporate landlord)	56%	€ 875,000,000	€ 1,400,000,000
Owner-occupied	25%	€ 390,625,000	€ 625,000,000
Rented from Local Authority	11%	€ 171,875,000	€ 275,000,000
Rented from voluntary bodies	4.7%	€ 73,437,500	€ 117,500,000
Ownership not stated	2.3%	€ 35,937,500	€ 60,000,000
Free of rent	1%	€ 15,625,000	€ 25,000,000
All Tenure types	**100%**	**€ 1.56 billion**	**€ 2.5 billion**

The estimated overall cost of addressing fire safety-, structural safety- and water ingress defects for owner-occupiers in purpose-built apartments/duplexes constructed between 1991 and 2013 that may be affected by defects ranges between €390 million and €625 million approximately.

The estimated overall cost of addressing fire safety-, structural safety- and water ingress defects for purpose-built social housing apartments/duplexes constructed between 1991 and 2013 that may be affected by defects ranges between €245 million and €395 million approximately.

The estimated overall cost of addressing fire safety-, structural safety- and water ingress defects in purpose-built apartments/duplexes constructed between 1991

and 2013 that are owned and rented by landlords and that may be affected by defects ranges between €875 million and €1.4 billion, approximately. Table 18 identifies the proportion of these costs associated with different categories of landlords, depending on their property portfolio sizes (i.e. number of homes rented).

Table 18 Breakdown of Landlords (by Portfolio Size) and Associated Proportion of Estimated Overall Costs

Landlord's portfolio size (Private rented)	% of private landlords	Estimated Range	
		Lower limit	Upper limit
1–2 rental properties	86.0%	€ 752,500,000	€ 1,204,000,000
3–19 rental properties	13.7%	€ 119,875,000	€ 191,800,000
20 or more rental properties	0.3%	€ 2,625,000	€ 4,200,000
Total	**100%**	**€ 875,000,000**	**€ 1.4 billion**

Source: CSO 2016 Census

8.4 Current Sources of Funding

The Working Group examined the sources of funding that may currently be available to OMCs to address the issue of defects in their apartments/duplexes. These funding sources are as follows:

- Warranty schemes and latent defects insurance
- Financial compensation through legal redress
- Contributions by developers
- OMC sinking funds
- Owners' levies

In many cases, OMC finances are insufficient to address the cost of remedial works, either in full or in part. The speed at which funding can be arranged by the OMC often determines which building defects are remediated and which are prioritised.

8.4.1 Warranty Schemes and Latent Defects Insurance

During the period 1991–2013, there was a variety of warranty, guarantee and insurance products on the Irish market for new homes, including apartments. It was generally a requirement of mortgage providers that purchasers of new homes should be covered by such a product.

As part of its consultation process, the Working Group engaged with Warranty and Insurance providers e.g. HomeBond, Premier Guarantee (active between 2003 and 2011) and Global Home Warranties Ltd (active from 2011). The details of the warranty/insurance products covered by these companies and their interactions with the Working Group are covered in Appendix J.

In summary, the Working Group notes that although some defects may still be covered by ten-year insurance products, i.e. defects in covered apartments/duplexes built in 2012 and 2013, and some claims may still be in progress for older apartment/duplexes, it is clear that the majority of apartments/duplexes coming within the terms of reference of this report are out of cover, and that in any event the cover was in general limited to major structural defects and water ingress. The Working Group therefore concludes

that insurance is not a significant source of funding available to owners of affected properties to meet the costs of defects remediation.

However, the Working Group acknowledges the enhanced latent defects policies now available on the Irish market, and that they appear more robust and reliable. These new products are first-party insurance policies, which cover damage and non-damage (breaches of Building Regulations, e.g. fire safety defects) claims, to varying degrees. This means that the purchaser does not have to make a claim through the builder but can submit a claim directly to the insurer. This would be of particular benefit to a homeowner in circumstances where the builder or developer has ceased trading. In addition, the policies seem to be attached to the dwelling and as such can transfer to subsequent owners.

It is worth noting that while latent defects insurance (LDI) is not a mandatory requirement, lending institutions, legal professionals, and consumers are likely to, and often do, demand it. In order to provide appropriate consumer protection and to protect the taxpayer and the State from exposure in future, appropriate LDI has an important role to play. The benefits of LDI include the following:

- Without borrowing or self-funding, the funds that will enable remedial works to be carried out can be accessed quickly under the LDI policy.
- The upfront cost of LDI to the developer is relatively low.
- Additional inspection and oversight is generally carried out by the LDI provider during construction to prevent defects happening in the first place.
- An LDI policy in general lasts for a 10- or 12-year period.
- Under an LDI policy, there is no need for the homeowner to prove third-party fault or liability.
- Under an LDI policy, the homeowner is financially protected where a developer or contractor ceases trading.

8.4.2 Financial Compensation Through Legal Redress

In the context of this report, “financial compensation through legal redress” refers to the pursuit through the courts of those who were involved in the construction of defective apartments for the purposes of obtaining financial compensation. This is a complex area, and some of the issues are set out in Appendix E.

Submissions to the Working Group indicated that, for reasons explored elsewhere in Appendix E, the likelihood of success in legal actions is low, and the costs of action are considered to be prohibitive. Information on the outcome of legal action by owners was otherwise not available. Professional bodies and commercial firms either do not have information or treat it as confidential. Under the standard contract in use for apartments, owners are obliged to use arbitration, which is a confidential process, which means that no data is available.

The Working Group considered the following issues in relation to legal redress:

- Privity of contract in the main limits a claim to the party with whom the owner contracted, which means that a claim cannot be made against third-party sub-contractors or suppliers who may have been negligent.
- Many of the developers of apartment complexes built between 1991 and 2013 were special purpose companies for specific projects and have been wound up or ceased trading. Other firms became insolvent following the economic collapse at the end of the so-called “Celtic Tiger” period. Because any company concerned usually had a separate legal personality, it is not possible to pursue the principals who owned and/or directed the companies.
- The properties covered by this report are between 9 and 31 years old, but the standard limitation period is 6 years (12 years in some instances) under the Statute of Limitations 1957, making it virtually impossible to mount a legal claim.
- It may be possible in the case of a claim in tort that time starts running only from the date on which damage actually occurred, and not the date when the building was completed. However this is a difficult case to make successfully and an attempt to do so is inherently risky for an owner.

- Taking legal action is an expensive exercise, and a successful outcome is far from certain. It can also take a considerable time, during which the defects may remain unresolved.

The Working Group concluded that legal redress is not a secure route to funding remedial works for apartment/duplex owners.

8.4.3 Contributions by Developers

The Working Group learned that in a limited number of cases developers have made contributions or have arranged for some works to be carried out at their cost. However, for many of the reasons outlined in Section 8.4.2, this is not a source of funding upon which many can rely.

8.4.4 OMC Sinking Funds

Part of the annual management charges raised by OMCs is intended to contribute to a building investment or sinking fund, the purpose of which is to pay for future refurbishment, improvement, or maintenance of a non-recurring nature.[60] In reality, many OMCs experience difficulties in collecting management fees. Consequently, sinking funds are often stretched and cannot meet the main purpose for which they were put in place[61].

The Working Group took note of *Fire Safety in Ireland – Report of the Fire Safety Task Force,* which recommended the facilitation of the efficient and timely

[60] Section 19(7) of the Multi-Unit Developments Act states-

"*The contributions made to the sinking fund shall be held in a separate account and in a manner which identifies these funds as belonging to the sinking fund and such funds shall not be used or expended on matters other than expenditure of a type referred to in subsection (1).*"

Section 18(6) of the Multi-Unit Developments Act states-

"*Service charges levied under this section may not be used to defray expense on matters which are or were the responsibility of the developer or builder of the multi-unit development concerned unless such expenditure is approved in writing by 75 % of the members of the owners' management company concerned.*"

[61] The Housing Agency (2019). Owners' Management Companies - Sustainable Apartment Living for Ireland.

recovery of service charges in apartment blocks, so that funding is available to maintain, enhance and replace fire protection facilities.

The Working Group also noted in policy objective 25 of Chapter 5 of *Housing for All* actions to regulate under the Multi-Unit Developments Act in relation to service charge collection and sinking fund provisions, and to examine dispute resolution. The Department of Justice has been assigned the lead role for these actions, and informed the Working Group that "in relation to what is provided for in the MUDs Act, it is not foreseen that such regulations will have specific provisions in relation to defects in housing and defects relating to fire safety, structural safety and water ingress."

The Working Group concluded that sinking funds are not a permissible or a likely source of funding for addressing defects.

8.4.5 Owners' Levies

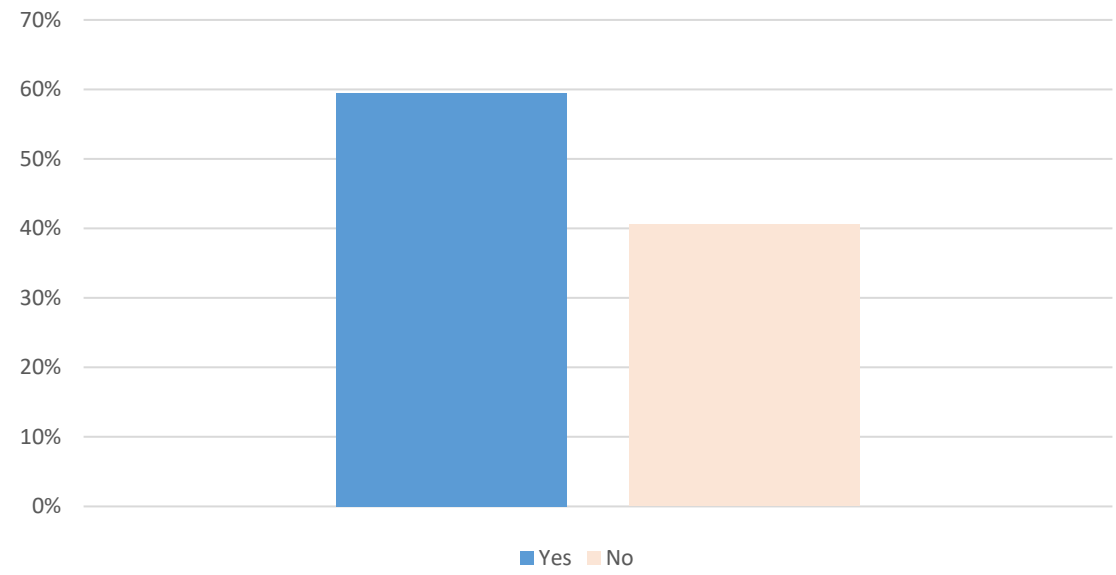
In the absence of financial compensation through legal redress and of financial support from those responsible for the defects, and given shortfalls in some cases where they have contributed, remedial works have largely been funded by special levies raised by OMCs from apartment owners.

The data provided in Section 8.3 indicates that the tenure mix of individual apartment/duplex developments can vary considerably, and the owners' capacity to pay remediation levies is equally variable.

The report *Safe as Houses?* highlights the view that owner-occupiers, having bought in good faith, should not be asked to bear the burden of putting right issues that were caused by others.

Of the responses received to the online survey that related to 28,215 purpose-built apartments/duplexes built between 1991 and 2013, it is indicated that the owners of just under 60% (16,767) of apartments/duplexes have been asked to pay a levy for the remediation of fire safety-, structural safety- or water ingress defects (See Figure 19).

Figure 19 Percentage of Homeowners who Received a Request to Pay a Levy for the Remediation of Defects



Source: Online Survey (n = 28,215)

In the cases of 16,767 apartments/duplexes owners were asked to pay a levy for the remediation of defects. The following bullets indicate the extent to which these owners were aware of the amount of the levy and could provide details regarding it:

- Owners of 44% of these apartments/duplexes (7,384) knew the amount of the levy and provided the figure in their response to the online survey.
- Owners of approximately 36% of these apartments/duplexes (5,971) provided an estimate of what they thought the potential levy might be.
- Owners of approximately 4% of these apartments/duplexes (630) knew the amount of the levy and reported it within defined bands.
- Owners of approximately 17% of these apartments/duplexes (2,782) did not know the amount of the levy.

The Working Group analysed the data reported on levies across a pre-defined set of cost bands, and Figure 20 shows the results.

The Working Group observed that the reported levies for almost 65% (8,931) of apartments/duplexes were less than €15,000. For just under 5% (661) of apartments/duplexes, the reported levies were indicated to be in excess of €50,000.

Figure 20 Data Provided by Homeowners who Were Requested to Pay a Levy for the Remediation of Defects

Source: Online Survey (n = 13,985 responses)

The Working Group learned from the consultation process that the financial resources of many OMCs may be insufficient to complete the remedial works either in full or in part. The speed at which finances can be raised and collected will determine when defects are addressed. Refer to Section 6 for discussion and the Working Group's recommendations in respect of the prioritisation of remedial works and interim measures.

The Working Group acknowledges the significant challenge faced by OMCs in collecting sufficient funds to address defects in a comprehensive manner.

8.4.5.1 Non-Payment of Owners' Levies

Feedback received through the consultation process identified that facilitation costs, comprising of a provision for non-payment of levies and legal fees necessary to pursue members who do not pay defects remediation levies, are required as a component of total remediation project costs in some cases.

It appears that the provision for non-payment of levies mirrors the general percentage of members who fail to pay annual management charges.

The inclusion of this provision is seen to be unpalatable for contributing members of OMCs, who subsidise members who will not or cannot pay. However, in the absence of an adequate provision for facilitation costs, the remediation project may not be able to proceed.

Facilitation costs can vary widely depending on the size and payment non-compliance rate in individual developments.

An added financial burden for OMCs is that the cost of debt recovery can be up to €15,000 per case if the matter was to go to court. If the OMC loses the case, it runs the risk of incurring the legal costs of the member. The OMC can end up in the position of not recovering a levy and incurring on average double the cost of that levy in legal costs. Detailed analysis of this issue is outside the terms of reference of this report, but the Working Group noted that measures should be considered to make debt recovery for OMCs more streamlined and affordable.

8.5 Options for Financial Assistance

The Working Group considered the following options for providing affected parties with financial assistance to help meet the cost of remedial works, or to reduce the financial burden of financing remedial works. The funding options are set out and explored in sections 8.5.1 to 8.5.4.

8.5.1 Funding Option 1 - Low-Cost Loans

In line with Term of Reference 7, the Working Group has considered options for access to low-cost finance for those who undertake remediation works. The matters arising are considered in detail in Appendix F and are summarised below.

In order to identify options for low-cost, long-term finance to fund the remediation of defects, consideration was first given to the extent to which this funding may be provided by a commercial lender on the market.

From a lender's perspective, key considerations in assessing the viability of providing finance are the repayment capacity of the borrower as well as the security underpinning the loan. In order to accept the credit risk, the lender must be satisfied that the borrower has the capacity to repay the loan over its term and that, in the event of non-repayment or default, the lender will have recourse to security that underpins the loan. Following this assessment, the perceived risk will be reflected in the terms of the loan and in the cost of the finance provided.

For homes that are subject to remediation, both of these factors can present challenges for a lender. In the first instance, the provision of the loan would not generate any additional repayment capacity. In relation to security underpinning the loan, two issues arise. First, the asset is compromised, as it is defective. Second, as the remediation loan would be unsecured, the lender will not have the option of appointing a receiver over this security in the event of default. Consequently, from an underwriting perspective, this is a high-risk loan and is unlikely to be considered commercially viable for a lender.

Therefore, a product that provides access to long-term, low-cost finance is not likely to be provided by the market without State intervention. Any such intervention is likely to involve some element of risk sharing with the State. In order to ensure that the finance is commercially viable, the lender may seek to pass the burden on to the State, given the difficulties identified above. It is

important to note that the loan will remain high risk, and that the involvement of the State would not eliminate or reduce the risk, but would rather redistribute the burden of the risk onto the State. Therefore, the level of any State involvement would depend on the level of risk that the State would be willing to underwrite.

In assuming a portion of the credit risk, any State-backed loan scheme would incur a cost, either through a direct upfront payment to meet expected losses or through the provision of a contingent liability, and either option would result in ongoing administrative costs. The level of this cost would depend on the design of the scheme, on the scope of work covered, on the level of guarantee and on the default rate.

In recent times, State-supported loans have provided a guarantee up to a maximum of 80% of a loan, with the 20% provided by commercial lenders also being subject to a commercial viability assessment. Best practice indicates that responsibility for credit appraisal and loan management for any State-supported loans should rest with the commercial lender partners. This has the advantage of leveraging their established expertise in credit assessment. Coupled with a risk-sharing model, the ability to leverage this expertise should minimise risky credit decisions.

Specifically in relation to financing the remediation of apartment defects, the borrower will be either the OMC, operating on behalf of the entire development, or the individual homeowner.

Providing a loan to an OMC on behalf of the entire development presents a number of challenges, and standard criteria around counterparty, purpose, term and repayment would typically apply. In relation to security for the loan, the OMC generally does not own property, apart from common areas, such as lift shafts and hallways. Therefore, the OMC does not own any economic value in the property and does not have collateral that would be acceptable to a lender. In seeking a loan, the OMC would also need to ensure that it is permitted to borrow, and it is likely that it would need the consent of all residents.

In contrast, lending to individuals allows a lender to pursue loan repayments directly from an individual, rather than relying on an OMC, which may not have sufficient means or powers to secure repayments. However, without having first legal charge to the property, security over the loan would remain a concern for a

lender. A lender would also be required to operate in compliance with the core principle of protecting the borrower by ensuring that they do not take on a loan commitment that is unaffordable. Therefore, due diligence on each individual's repayment capacity would be necessary.

To assess the repayment capacity of a loan for remediation of an apartment development, a lender will need to look at the development in totality. As the repayment capacity will be underpinned by the circumstances of individual homeowners, the ultimate risk will sit at the individual level. Therefore, regardless of whether the borrower is an OMC or at individual level, a lender will need to carry out due diligence for each individual in an apartment development and assess whether they would have ability to fund repayments over time. This would be an onerous and costly process carrying a heavy administrative burden. These high administrative costs may result in a loan scheme not being commercially viable, even if backed by a State guarantee.

Potential State Aid implications of loans to OMCs may require consideration. These will depend on the funding model, on the design of the low-cost loan and on the level of State intervention. In general, State Aid issues should not arise for individuals, but may arise for OMCs that are companies, and in this scenario de minimis rules may apply.

In summary, an assessment of the viability of a commercial lender providing a loan for remediation works, ether to an OMC or to an individual, has shown that such a product would not be commercially viable without a significant State guarantee. In the case of remediating defects, the risks for a lender are high and the loan is generally unsecured. In addition, a low-cost loan scheme for remediating apartment defects will carry a heavy administrative burden, given that it will require credit assessment of each individual borrower who will be a beneficiary of the loan scheme. This will require significant levels of due diligence by a lender.

Given the challenges involved in designing and administering a low-cost loan scheme for remediating defects, this funding option should be fully considered and costed by comparison with alternative options for supporting the financing of remediation work.

Further detail in relation to low-cost loans is set out in Appendix F.

8.5.2 Funding Option 2 - Industry Levy

An industry levy is a charge on certain enterprises. The Working Group understands that it is not feasible retrospectively to impose a penalty on the individual firms that were responsible for the defects, and a general industry levy imposed now would target all those in the industry, including those who did not contribute to the problem.

An industry levy can be imposed only through primary legislation. The funds raised by any such levy are likely to be collected centrally and not exclusively ring-fenced for one purpose.

The concept of an industry levy would require careful policy, legal and public scrutiny, including consideration of the following:

- Legal issues in relation to imposing financial burdens on enterprises[62] and impinging on constitutional property rights.
- Potential impacts on the general cost of construction in the current inflationary environment.
- Perceived fairness for both homeowners and industry.

The Working Group notes that a Government decision taken on 30 November 2021 regarding the Defective Concrete Block Grant Scheme agreed a number of actions to help address the defective blocks issue. One of those proposed actions was the introduction of a levy on the construction sector in order to raise in the region of €80m a year. The Working Group understands that Government departments and agencies, including the Revenue Commissioners, have been working on identifying and evaluating a range of options in regard to such a levy,

[62] Legislation can be challenged on constitutional grounds. For example, the Employment Equality Bill 1996 was referred to the Supreme Court and struck down. Employers were obliged to provide facilities for disabled employees, which involved a cost on employers. Although the Constitution allows property rights to be regulated for the common good (That is what taxes are for) there are limits to this. In the case mentioned, the Court was concerned about the particular problems faced by smaller firms and by those in financial difficulty. It is not that it was impossible to have the measure, but there needs to be a balance in terms of fairness and burden sharing.

and it is envisaged that the views of relevant stakeholders will be sought before a final decision on the proposed levy is made.

The deliberations of the Working Group indicate that defects that have arisen in apartments/duplexes are due to a variety of design, product, supervision, inspection and workmanship issues occurring either in isolation or in various combinations. This differentiates this issue from the defective concrete blocks issue, where the defect is predominantly product-related.[63]

Notwithstanding the differences between the two legacy issues, the Working Group is of the view that an examination of an industry levy as a potential funding option should take account of the findings of this report.

8.5.3 Funding Option 3 - State-Funded Grants

The State has previously provided, and is currently providing, financial assistance in specific situations where defects have arisen. The details of these schemes are presented in Appendix B, and a summary of key issues is provided below (See Section 8.5.3.1). The Working Group also reviewed international assistance schemes (See Appendix C) and has summarised the key findings below (See Section 8.5.3.2).

In respect of a State-funded grant scheme, the Working Group concluded that such a funding option would require further consideration from a policy and cost perspective, in light of the estimated overall cost of remedial works (in the range of €1.6 billion to €2.5 billion) and the potential scale of apartments/duplexes affected (in the range of 62,500 to 100,000 homes) and the tenure mix existing in apartment/duplex buildings.

8.5.3.1 Defects Remediation Schemes: The Irish Experience

Construction defects remediation has been financed to date through such schemes as the Pyrite Remediation Scheme and the Defective Concrete Blocks Scheme. There have also been wider State schemes offering financial supports to homeowners for works other than defects, e.g. lead-pipe replacements, home

[63] *Report of the Expert Panel on Concrete Blocks (2017)*

improvement works and energy efficiency improvement works. These schemes, which are summarised in Appendix B, are intended to bring homes to an acceptable standard and/or to ensure that they remain viable as part of the housing stock.

The schemes to date have dealt in the main with houses rather than apartments, but they have not excluded apartments. This reflects the balance of home types in the State, where houses are predominant. In recent years, however, apartments have become a more significant component of the housing stock, especially since around 2000.

A common feature of most of the existing schemes has been that they are available to homeowners, and in some cases to owners of a single rental property.

One of the important issues in the case of apartments is that it is the OMC, and not the individual homeowner, that is the owner of the common areas, and the party that can commission the necessary remedial works. The Working Group has identified in Section 6 that the OMC must be central to the remedial works process. The central role of OMCs is further considered in Section 8.6.1.

Most of the existing support schemes provide a grant to the owner as a contribution to the cost of the works, which the owner is responsible for organising. The exception is the Pyrite Remediation Scheme, where the Housing Agency acts as the contracting authority for the remedial works.

No scheme to date has included a loan, although there are some provisions for possible clawback of grants where an owner would be compensated under an insurance or liability claim.

8.5.3.2 Defects Remediation Schemes: The International Experience

The Working Group considered the extent to which the experience of defects and their remediation in other countries might inform options for the provision of financial assistance to affected parties in Ireland.

Appendix C provides recent examples of remedial works schemes seen internationally, namely fire safety- and water damage defects in Australia, Canada, New Zealand and the United Kingdom. Each example gives an

overview of the defect, of the scheme and of the funding options that were made available for remediation. In some examples, there is also a broader discussion of related matters.

8.5.4 Funding Option 4 – Taxation Measures

The Working Group considered the extent to which tax measures may offer options to provide financial assistance to affected parties with respect to meeting the costs of remedial works or reducing the financial burden of financing remedial works. By way of background, the Working Group examined current and historical taxation arrangements in relation to remedial works costs, the tax treatment of owner occupiers and landlords, and Local Property Tax (LPT). The key findings are summarised below.

The Working Group concluded that further consideration should be given to taxation options and the impact they have on each tenure type (owner-occupiers, landlords, AHBs, etc.). It is also acknowledged by the Working Group that taxation measures must be considered in the context of Department of Finance Guidelines for Tax Expenditure Evaluation.

8.5.4.1 Tax Treatment of Remedial Works Costs

Appendix D provides an overview of current taxation arrangements in relation to property, particularly in relation to repairs and refurbishments. Also covered are the current taxation treatment of rental income, and specific targeted schemes, such as the Living City Initiative. In addition, the appendix provides an overview of expired schemes that relate to property, such as the Home Renovation Incentive (HRI) and Section 23 taxation relief (rented residential relief). While the HRI operated as an Income Tax credit, it was calculated at a rate of 13.5% on all qualifying expenditure, 13.5% being the VAT rate charged on the qualifying work. Appendix D also provides details of the LPT exemptions for properties qualifying under the pyrite and defective concrete blocks provisions.

8.5.4.2 Tax Treatment of Owner-Occupiers

Under tax rules, landlords are entitled to a deduction for input costs associated with running their business. This approach is in line with the normal tax treatment of business profits and is therefore, from a taxation perspective, not considered to be analogous to the circumstances of an owner-occupier who is not in the

same position. Generally, expenditure on a property that is capital in nature, such as expenditure on structural improvements, is not deductible when computing taxable income. However it would generally qualify for deduction in calculating any capital gain on disposal of the property.

8.5.4.3 Tax Treatment of Landlords

The tax treatment of landlords is determined by the nature of the entity in each case, whether it is an individual, a corporation or some other fund or structure. The taxation treatment of landlords is documented in Appendix D.

8.5.4.3.1 Individuals and Companies

The tax system in Ireland does not differentiate in its treatment of rental income accruing to resident individuals on the basis of their reasons for becoming a landlord. Irish source rental income is subject to tax under Case V of Schedule D. The Income Tax rate that an individual pays depends on their total income and personal circumstances. The current rates applying to Income Tax are the "standard rate" of 20% and a higher rate of 40% on that part of a taxpayer's taxable income for a tax year that exceeds the "standard rate band". To determine an individual's tax rate and band, total Case V income for the year is added to their other income. PRSI and USC may also be chargeable.

The rental profits of an Irish resident company are in general chargeable to Corporation Tax at the higher 25% rate if classed as Case V rental income.

For both resident individuals and companies, net rental income must be calculated separately for each rental source. The aggregate of all net rental incomes determines the total Case V income for the year. Generally, expenditure on a property that is capital in nature, such as expenditure on structural improvements, is not deductible when computing taxable income. However it would generally qualify for deduction in calculating any capital gain on disposal of the property.

Capital Gains Tax, currently at the rate of 33%, is chargeable on the gain arising on assets sold, including the sale of a property operated as a rented residential property by an individual landlord. In the case of companies, Corporation Tax on chargeable gains would arise at an effective rate of 33%. There are allowable

expenses, such as “enhancement expenditure”, which can be deducted from the sale price to work out an individual’s chargeable gain arising on the disposal.

8.5.4.3.2 Institutional Investment in Rental Property

Collective institutional investment in rental property most commonly takes place through either a Real Estate Investment Trust (REIT) or an Irish Real Estate Fund (IREF).

REITs are publicly listed companies set up to allow collective investment in rental property. Among other conditions, they must be widely held and must hold a diversified portfolio of property. REITs are not subject to tax on qualifying profits or gains within the REIT, but the REIT is obliged to distribute 85% of property profits annually for taxation at the level of the shareholder. Dividend Withholding Tax (DWT) at a rate of 25% generally applies to distributions made by REITs to their shareholders, except in certain limited cases, such as where the investor is a pension or charity.

An IREF is an investment fund that derives 25% or more of its value from real estate assets in the State. Qualifying investment funds are generally subject to the gross roll-up regime, where income accrues tax free within the fund and tax is levied on the investor on receipt of income or gains. However Income Tax of 20% can apply to IREFs in certain circumstances. IREFs must also operate a 20% withholding tax on distributions to non-resident investors (other than exempt investors). Investors resident in double-taxation treaty-partner countries may be able to reclaim some of this withholding tax or to offset against their home country tax liabilities on the distributions received. Irish resident investors in IREFs are not subject to the IREF withholding tax as they are instead subject to a separate exit tax.

8.5.4.3.3 Tax Treatment of Approved Housing Bodies

Approved Housing Bodies that have charitable status benefit from the charitable tax exemption, and are exempt from Income Tax and not liable for Corporation Tax. Therefore, tax deductibility of service charges would not be relevant to such entities.

8.5.4.4 Local Property Tax

Local Property Tax (LPT) is a self-assessed tax charged on the market value of residential properties in the State.

Limited LPT exemptions are available for residential property owners whose properties have been shown to have a significant level of pyrite damage or that have been damaged by the use of defective concrete blocks in their construction. The pyrite exemption is being phased out and after 21 July 2023 will not be available to property owners who meet the current eligibility conditions.

Properties qualifying under the pyrite and defective block provisions will be exempt from the LPT for a period of six years.

The principle underlying the introduction of the LPT is that exemptions should be kept to a minimum, so the rate can be kept low for those liable for the tax.

As LPT is a self-assessed tax charge, the LPT valuation date will allow homeowners to revalue their homes to take account of the impact of known defects. Such a revaluation may result in these properties being valued in the lowest LPT valuation band, which attracts an annual LPT liability of €90. For this reason, the impact of an LPT relief for affected homeowners may be minimal and should be informed by reference to any other financial supports that may be considered on foot of this report.

8.6 Options for Deployment of Financial Assistance

Having examined funding options in Section 8.5, the Working Group, in this section, considered a number of options that might be considered for the deployment of funding.

Central to each deployment option, is the role of the OMC. The responsibilities of OMCs under the Multi-Unit Developments Act 2011 and the Fire Services Acts 1981 and 2003 have been set out in Section 6. The deliberations of the Working Group in respect of these responsibilities and the remedial works process have led the Working Group to conclude that OMCs have a central role in the implementation of workable solutions to addressing defects in apartments/duplexes.

The Working Group took note of the independent report jointly commissioned by Clúid Housing and the Housing Agency, *Owners' Management Companies, Sustainable Apartment Living for Ireland,* and its commentary in relation to the adverse impact of defects on apartment living and the work of OMCs.

As a consequence, the Working Group considers it is equally important that any funding is channelled or routed through the OMC. This does not preclude the option of funding individuals so long as there is a means of ensuring that ultimately the funds are channelled to the relevant OMC.

The sections below outline each option for the deployment of funding.

8.6.1 Deployment Option 1 - Low-Cost Loan to OMC

The way in which this option might operate is as follows:

- The OMC would receive a low-cost, unsecured loan to cover some or all of the cost of remedial works.
- Over a period of time, the OMC would levy apartment owners and repay the loan from those proceeds.
- Support for owner-occupiers could be in the form of one or more of the following: tax credit, a rebate of LPT, a means-tested grant or a low-cost loan.

Commentary: While this option is possible, it may in reality be very challenging to deliver for the reasons identified in the discussion above. To test its viability

and suitability, this option needs to be explored further with potential lending agencies.

8.6.2 Deployment Option 2 – State-Funded Grant to OMC

This option might operate is the following way:

- The OMC would receive a State grant to cover some of the cost of prioritised remedial work (interim measures); this grant would be capped at a certain figure or as a percentage (which may be 100%) of overall cost.
- To cover costs of remaining works, the OMC would levy apartment owners.
- Support for owner-occupiers could be in the form of one or more of the following: a tax credit, a rebate of LPT, a means-tested grant or a low-cost loan.

Commentary: This option places a direct burden on the State and would have to be administered through an agency, whether new or existing. It would have the benefit of expediting the higher priority works, but would still leave owners needing to make financial contributions. To assist owner-occupiers, some further support might be appropriate.

8.6.3 Deployment Option 3 – Direct State Intervention

The way in which this option might operate is as follows:

- The State would directly pay for some of the work.
- The rest of work would be dealt with under one of the above options.

Commentary: The degree of direct State involvement may range from the establishment of a central framework of professionals who carry out the investigation work, right through to the establishment of a framework of builders who would carry out the remedial works.

8.6.4 Deployment Option 4 - Retrospection

In this section, the Working Group considers the matter of retrospection. In this context, “retrospection” means the provision of financial support (a) where a remediation project has been initiated but not completed, or (b) where a remediation project has been completed.

The issue of moral hazard is relevant where remediation projects may be at an early stage (the investigation phase, for example) and the actual works are deferred to ensure the ability to avail of a remediation support scheme. This scenario may give rise to unnecessary risk to health and safety arising from the deferral of important works, or where necessary works have been only partially completed within a development.

It is crucial in these instances that those apartment/duplex owners who have had their apartments/duplexes and/or common areas remediated continue to pay their levies. Retrospective financial assistance could play a very important role in tackling this moral hazard.

There are also underlying principles of fairness and equity at play as well as consistency with the mission statement set out in the report *Safe as Houses?* Some OMCs have been proactive in identifying and remedying defects of a serious nature, and it would seem unfair if their members were now to be excluded from a remediation support scheme.

To avoid the moral hazard outlined above and to ensure fairness and equity for all apartment and duplex owners affected by defects, a remediation support scheme should provide for retrospective financial assistance.

A means of verifying qualifying expenditure should be available via the relevant OMC, as owners who have already had remedial works completed by their OMC will, in most cases, have been levied by the OMC to cover the costs.

Retrospection for owner-occupiers could be delivered through one of the following:

- Refundable tax credits
- Grants
- Low-cost loans

- A mixture of tax credits, grants to those outside the tax net and low-cost loans

If retrospective assistance is to be provided by means of tax credits, then the "look back" period would have to be extended beyond the current four-year provision to enable people to claim for defects levies paid earlier.

Further consideration of measures for retrospection will be required in the context of:

- Administrative and operational challenges of implementation
- Compliance requirements to ensure equal treatment of affected parties
- Specifically in relation to tax, alignment with the Department of Finance Guidelines for Tax Expenditure Evaluation

Appendices B and C provide information on how other State-funded schemes, in Ireland and internationally, have handled the concept of retrospection.

To inform the consideration of retrospection, the following tables (Tables 19 to 22) provide estimates of the potential value of remedial works completed and works in progress as reported in the online survey, and provide a breakdown of the potential value of these works by tenure type.

In summary, it is estimated that up to 12% of apartments/duplexes may already be remediated. This equates to between 7,500 and 12,000 purpose-built apartments/duplexes constructed between 1991 and 2013. At an estimated average cost of €25,000 per apartment/duplex, the total cost of these remedial works is estimated at between €187.5 million and €300 million.

It is also estimated that remedial work may be in progress for up to 34% of apartments/duplexes. This equates to between 21,250 and 34,000 purpose-built apartments/duplexes constructed between 1991 and 2013. At an estimated average cost of €25,000 per apartment/duplex, the total cost of these remedial works in progress is estimated at between €531 million and €850 million.

Table 19 Estimated Value of Remedial Works Completed		
Description	**Estimated Range**	
	Lower Limit	**Upper Limit**
Estimated number of purpose-built apartments/duplexes constructed between 1991 and 2013 that may be affected by fire safety-, structural safety- and water ingress defects (See Table 15)	62,500	100,000
Estimated number of apartments/duplexes that may already be remediated (See Section 5.6)[1]	7,500	12,000
Estimated value of remedial works already completed to address fire-safety-, structural safety- and water ingress defects in purpose-built apartments/duplexes constructed between 1991 and 2013 (See Section 7.7)[2]	€ 187,500,000	€ 300,000,000

NOTES:

1. The Working Group estimates that remedial works have been completed on up to 12% of apartments/duplexes or associated common areas (See Section 5.6).
2. The Working Group estimates that the average remediation cost (all-in costs, including professional fees and VAT) per purpose-built apartment/duplex constructed between 1991 and 2013 is €25,000 (See Section 7.7).

Table 20 Estimated Value of Remedial Works in Progress		
Description	**Estimated Range**	
	Lower Limit	**Upper Limit**
Estimated number of purpose-built apartments/duplexes constructed between 1991 and 2013 that may be affected by fire safety-, structural safety- and water ingress defects (See Table 15)	62,500	100,000
Estimated number of apartments/duplexes where remedial work may be in progress (See Section 5.6)[1]	21,250	34,000
Estimated value of remedial works in progress to address fire- safety-, structural safety- and water ingress defects in purpose-built apartments/duplexes constructed between 1991 and 2013 (See Section 7.7)[2]	€ 531,250,000	€ 850,000,000

NOTES:

1. The Working Group estimates that remedial work may be in progress in up to 34% apartments / duplexes or associated common areas (See Section 5.6).
2. The Working Group estimates that the average remediation cost (all-in costs, including professional fees and VAT) per purpose-built apartment/duplex constructed between 1991 and 2013 is €25,000 (See Section 7.7).

Table 21 Estimated Value of Remedial Works Completed by Tenure Type			
Description	**% of Tenure type**	**Estimated Range**	
		Upper Limit	**Lower Limit**
Rented (private/corporate landlord)	56%	€ 105,000,000	€ 168,000,000
Owner-occupied	25%	€ 46,875,000	€ 75,000,000
Rented from Local Authority	11%	€ 20,625,000	€ 33,000,000
Rented from voluntary bodies	4.7%	€ 8,812,500	€ 14,100,000
Ownership not stated	2.3%	€ 4,312,500	€ 6,900,000
Free of Rent	1%	€ 1,875,000	€ 3,000,000
All Tenure Types	**100%**	**€ 187,500,000**	**€ 300,000,000**

Table 22 Estimated Value of Remedial Works in Progress by Tenure Type			
Description	**% of Tenure type**	**Estimated Range**	
		Upper Limit	**Lower Limit**
Rented (private/corporate landlord)	56%	€ 297,500,000	€ 476,000,000
Owner-occupied	25%	€ 132,812,500	€ 212,500,000
Rented from Local Authority	11%	€ 58,437,500	€ 93,500,000
Rented from voluntary bodies	4.7%	€ 24,968,750	€ 39,950,000
Ownership not stated	2.3%	€ 12,218,750	€ 19,550,000
Free of Rent	1%	€ 5,312,500	€ 8,500,000
All Tenure Types	**100%**	**€ 531,250,000**	**€ 850,000,000**

Appendices

Appendix A: Terms of Reference

Working Group to Examine Defects in Housing

Terms of Reference of Working Group

21st May 2021

1. Examine defects in housing having regard to the recommendations in Item 4 "*Addressing the legacy of bad building and poor regulation*" in Chapter 4 of the Joint Oireachtas Committee on Housing, Planning and Local Government report - '*Safe as Houses? A Report on Building Standards, Building Controls and Consumer Protection*'.

2. Establish the nature of significant, wide-spread fire safety, structural safety and water ingress defects in purpose-built apartment buildings, including duplexes, constructed between 1991 and 2013 in Ireland through consultation with affected homeowners, homeowner representative organisations, owners' management companies, relevant managing agents, public representatives, Local Authorities, product manufacturers, building professionals, industry stakeholders, insurance providers, mortgage providers and other relevant parties. Matters addressed include the following:

    - Identification and description of defect,
    - Nature of defect – design, product, workmanship,
    - Non-compliance with building regulations or actual damage,
    - Severity/risk to life or serviceability of dwelling,
    - Period of construction affected,
    - Type of dwelling affected,
    - Location of dwellings affected.

3. Establish the scale of the issue – estimate number of dwellings affected by the defects identified including those already remediated.

4. Consider a methodology for the categorisation of defects and the prioritisation of remedial action.

    - In the case of defects with fire safety implications, consider how the framework for enhancing fire safety in dwellings can be applied to mitigate the risks arising from fire safety defects pending the remediation of defects and the *Code of Practice for Fire Safety Assessment of Premises and Buildings*, which is currently being developed by the National Directorate of Fire and Emergency Management.

5. Suggest mechanisms for resolving defects, in the context of the legal rights, duties and obligations of developers, builders, building professionals, insurers, mortgage providers, building control authorities, fire authorities, owners' management companies, owner-occupiers, renters and landlords, including:

    - Technical options for the remediation of dwellings.
    - Efficient means of carrying out work:
        - individual dwellings or whole-building approach
        - routine maintenance/refurbishment or remediation.
    - Structures or delivery channels needed to facilitate resolution – advice and support.

6. Evaluate the potential cost of technical remediation options.

7. Pursue options on possible financial solutions to effect a resolution, in line with the Programme for Government commitment to identify options for those impacted by defects to access low-cost, long-term finance.

8. Report to the Minister for Housing, Local Government and Heritage on the examination of defects in housing.

Appendix B: Irish Remedial Works Schemes

B.1 Pyrite Remediation Scheme

Pyrite is an iron sulphide commonly found in rock, and the presence of concentrations of pyrite in construction materials such as aggregates used as hard core can lead to problems when exposed to oxygen and moisture. Pyrite can cause the hardcore beneath ground-floor slabs to swell and result in cracks to walls and floors.

Structural damage to buildings as a result of the presence of pyrite in building materials has been documented in a number of countries, and in 2007 it came to the notice of the authorities in Ireland that there were a number of buildings in the State — constructed during the preceding period of historically high construction activity— which were exhibiting signs of damage due to pyritic heave. The structures affected included commercial properties, public buildings (e.g. schools) and private homes. Initially, a number of homeowners were able to secure remediation under the insurance cover for newly constructed homes, but following a High Court decision, which held the supplier of the defective material responsible for the problem rather than the builder, the main insurer withdrew cover in relation to pyrite.

In view of the scale of the problem, the Government established the Pyrite Panel to investigate and make recommendations, and its report was published in June 2012. Following this, the Government brought forward legislation, and the Pyrite Resolution Act 2013 was passed by the Oireachtas in 2013 to establish a remediation scheme for dwellings affected by significant pyritic damage with reference to the applicable Irish Standard.[64] The purpose of the Act was to provide a solution for a limited number of homeowners whose homes are severely affected by pyritic heave. Housing provided on a commercial scale and dwellings owned by builders or developers were excluded.

[64] Irish Standard 398-1:2017 Reactive pyrite in sub-floor hardcore material — Part 1: Testing and categorisation protocol

The Pyrite Resolution Board (PRB) was established to implement the scheme with support and services from the Housing Agency.

The PRB's main functions may be summarised as follows:

- To consider and determine applications for inclusion in the scheme.
- To direct and oversee the implementation of the scheme.
- To manage the application and appeals process.

The Housing Agency's tasks in this context may be summarised as follows:

- To administer and implement the scheme.
- To remediate approved dwellings as directed by the Board.
- To provide verification reports to the Board.
- To liaise with scheme participants.

The stages in the process may be summarised as follows:

- The Board considers the validity of the application under the eligibility criteria based on the submitted building-condition assessment.
- The Housing Agency verifies that the damage to the dwelling is caused by pyrite. Based on the Housing Agency's recommendation, the Board makes a decision to include or exclude the dwelling in the scheme.
- A consultant engineer, appointed by the Housing Agency, prepares a remedial works plan.
- The remedial works contract goes out for tender to a panel of qualified contractors. Tender responses are reviewed by the Housing Agency.
- The Housing Agency reports to the Board on the tenders received for the remedial works contract and recommends a works contractor for the award of the contract. The contract is awarded by the Board.
- The dwelling is remediated by a contractor, under the supervision of an engineer.
- Defects resulting from the remediation works arising within a 12-month retention period will be repaired.

The PRB sets priorities for remediation based on the severity of damage and on the most economic and effective use of resources. For the purposes of efficiency and cost effectiveness, it can group together dwellings that are in need of remediation.

The scheme is limited to dwellings in certain geographical areas and to cases where owners can establish to the satisfaction of the PRB that they have no other practicable option to obtain redress other than under the scheme. There is no means test, but other factors can be taken into account, including structural warranty cover, insurance cover held by homeowners or legal actions being pursued by applicants.

It is a condition of eligibility under the scheme that an applicant gives his/her consent to the institution by the PRB of legal proceedings relating to loss arising from the act or default that caused significant pyritic damage to the dwelling. This is challenging as many of the parties that have a potential liability have become bankrupt, have ceased to exist or have no assets. However, one action has resulted in a settlement for over €2.5 million.

Under Section 12 of the Pyrite Resolution Act 2013 the Board may, with the consent of the Minister for Housing, Local Government and Heritage and the Minister for Public Expenditure and Reform, accept gifts of money, land or other property. The PRB has received a total of €4,207,500 under Section 12 payments. This includes the settlement referred to above.

The Pyrite Resolution Act is not a compensation scheme, and homeowners are not able to seek the recoupment of costs where remediation took place prior to the commencement of the scheme. Under Section 20 of the Act, if a property is remediated by the Board and any payment is received in respect of pyritic heave by the homeowner, the Board becomes entitled to this sum. The PRB has received €146,931 under Section 20 payments.

In June 2014, an agreement was signed between the Chairman of the PRB and the Chairman of HomeBond regarding HomeBond's contribution towards technical and project management services relating to the implementation of the Pyrite Remediation Scheme, under the direction and supervision of the PRB, to the value of €2 million. A Supplemental Agreement with HomeBond in December 2015 deals with structural defects not related to pyritic heave that are identified prior to, or during, the course of pyrite remediation works and that affect the structural stability of the dwelling.

Homeowners whose properties are admitted to the scheme may claim certain incidental expenses:

- They may claim back a maximum of €500 for a Building Condition Assessment.
- They may claim refunds for vouched alternative accommodation subject to a maximum limit of €4,500 per dwelling.
- They may claim refunds for vouched costs for removal, storage and return of furniture and contents, subject to a maximum limit of €2,500 per dwelling.

Homeowners affected by pyrite damage may be eligible for an exemption from Local Property Tax for a period of six years, but no new applications for this exemption can be made after 2023.

According to the PRB's 2021 Annual Report, a total of 201 dwellings were remediated in 2021 bringing an overall total of 2,292 remediations completed since the commencement of the scheme in 2014. The total expenditure of the pyrite remediation programme in 2021 amounted to €16,072,459 seeing an average cost of the works per dwelling of approximately €75,000. Contractual commitments on 31 December 2021 since commencement of the Scheme amounted to approximately €146,750,000.

B.2 Defective Concrete Blocks Grant Scheme

In 2013 problems due to the cracking of walls in a significant number of dwellings and other buildings in Donegal and Mayo came to public notice. The concrete blocks used in the construction of the affected buildings were crumbling, and the cause was suspected to be the presence of muscovite mica (and in some cases pyrite) in the aggregate used to make the blocks. In 2015 the Government established the Expert Panel on Concrete Blocks in Counties Donegal and Mayo, and this panel reported in 2017.

In summary, the conclusion of the Panel was that the cracks in the affected dwellings were due to excessive amounts of deleterious material (muscovite mica in Donegal; pyrite in Mayo) in the aggregate used to manufacture concrete blocks. Severe winter weather in 2009 and 2010 exacerbated the problems caused by the interaction between the mica/pyrite and moisture in the defective concrete blocks.

A financial assistance scheme was established by S.I. No. 25 of 2020 - Dwellings Damaged by the Use of Defective Concrete Blocks in Construction (Remediation) (Financial Assistance) Regulations 2020.

The grant scheme opened in June 2020. However, issues arose in relation to the implementation of the scheme. In response, the Minister for Housing, Local Government and Heritage, Darragh O'Brien, set up a Working Group to examine the scheme in mid-2021.

In November 2021, the Government agreed to fundamentally overhaul the Defective Concrete Blocks scheme with an enhanced scheme to ease access to the scheme for homeowners and ensure that the worst affected homes were prioritised for remediation.

Primary legislation was passed by the Oireachtas in July 2022. The Remediation of Dwellings Damaged by the Use of Defective Concrete Blocks Act 2022, provides for the enhanced scheme.

The key features of the Remediation of Dwellings Damaged by the Use of Defective Concrete Blocks Act 2022 that will provide for the enhanced scheme include the following:

- Provision for 100% grants subject to an overall maximum grant of €420,000 per dwelling
- Grant rates in keeping with the construction cost report prepared by the Society of Chartered Surveyors Ireland
- A Government guarantee in regard to remediation works other than full demolition and rebuild (Options 2-5) through eligibility for a second grant if required for a period of 40 years
- A revised application process that will require the homeowner to submit an initial "Building Condition Assessment" at minimal cost recoupable on entry to the Scheme
- Introduction of an independent appeals process for applicants with all key decisions under the scheme appealable by homeowners
- Provision of alternative accommodation and storage costs and immediate repair works to a maximum value of €25,000 within the overall grant cap
- The Housing Agency playing a key role under the enhanced scheme by taking on the financial cost of testing and assessing homes and determining on behalf of the Local Authorities the appropriate remediation option and grant rate for each dwelling

- Extension of the enhanced scheme beyond the Principal Private Residences, to also cover rented dwellings registered with the RTB on or before 1 November 2021
- Inclusion of Clare and Limerick (in addition to Donegal and Mayo) in the enhanced scheme upon commencement

B.3 Other Financial Aid Schemes

The Housing (Miscellaneous Provisions) Act 1979 was used for a number of different schemes in addition to the Defective Concrete Blocks Grant Scheme (see above).

The schemes made under Section 5 of the 1979 Act include the following:

B.3.1 S.I. No. 56 of 2016 - The Domestic Lead Remediation (Financial Assistance) Regulations 2016

The purpose of the Domestic Lead Remediation (Financial Assistance) Regulations 2016 (S.I. No. 56 of 2016) is to provide financial assistance to owners of premises in which the replacement of lead pipes and fittings is necessary to protect human health by reducing exposure to lead in drinking water.

The grant scheme to replace lead pipes and fittings[65] is administered by water services authorities, and a grant is available where there is evidence that lead pipes need to be replaced.

The level of grant is based on the household's gross annual income in the previous tax year. A grant of 80% of the cost (up to a maximum of €4,000) is available where the household income is under €50,000. A grant of up to 50% of

[65] Grant scheme to replace lead pipes and fittings. Refer to: https://www.citizensinformation.ie/en/housing/housing_grants_and_schemes/lead_piping_grant_scheme.html

the cost (up to a maximum of €2,500) is available where the household income is between €50,001 and €75,000.

These Regulations are currently under review.

B.3.2 S.I. No. 609 of 2001 - The Housing (Improvement Grants) (Thatched Roofs) Regulations 2001

The Housing (Improvement Grants) (Thatched Roofs) Regulations, 2001 (S.I. No. 609 of 2001) provide for the payment of grants for the renewal or repair of thatched roofs of houses. They provide for a higher grant to applicants who hold a medical card.

There is no means test, and the Thatching Grant[66] is limited to certain geographic areas.

B.3.3 S.I. No. 670 of 2007 - Housing (Adaptation Grants for Older People and People with a Disability) Regulations 2007 (as amended)

The Housing Adaptation Grant for Older People and People with a Disability scheme provides grants, paid via Local Authorities, to eligible applicants living in privately owned homes to make their accommodation more suitable for their needs.

The maximum grants of €30,000 in the case of disabled persons and €8,000 for older persons can cover up to 95% of the cost of the works and are assessed on a sliding scale depending on household income. Grant assistance is not available to applicants whose household income, after disregards and deductions, exceeds €60,000 in the previous tax year. There is also a separate grant for mobility aids that can cover 100% of the cost of the works, up to a maximum of €6,000. This grant is available to eligible applicants whose

[66] Thatching Grant.

Refer to: https://www.gov.ie/en/service/32e72-thatching-grant/

household income, after disregards and deductions, does not exceed €30,000 in the previous tax year.

B.3.4 Part 3 of S.I. No. 296 of 1980 - Housing Regulations 1980

There were also a number of statutory instruments that provided for home improvements, and Part 3 of the Housing Regulations 1980 (S.I. No. 296 of 1980) set out some general conditions. These were time-limited schemes dealing with substandard properties or making accommodation habitable.

B.3.5 S.I. No. 261 of 1988 - The Housing (Improvement Grants) Regulations 1988

The Housing (Improvement Grants) Regulations 1988 (S.I. No. 261 of 1988) provided for grants to persons (including housing authorities) to carry out the following works:

- Installation of a water supply
- Installation of sewerage facilities
- Building a masonry chimney
- Installation of bathroom facilities
- Building a living room, kitchen or bedroom extension
- Repairs to the basic fabric of a house
- Replacement of defective windows / external doors
- Repair and reconstruction of houses built, or dwellings provided as self-contained units, before 1940.

B.3.6 The Sustainable Energy Authority of Ireland's Grant Schemes

The Sustainable Energy Authority of Ireland (SEAI) was established by the Sustainable Energy Act 2002 and is intended, amongst other things, to promote and assist environmentally and economically sustainable production, supply and use of energy. The grants available fall under three main energy upgrade options:

- Individual Energy Upgrade Grants: A selection of individual grants for home energy upgrades are part funded. For a typical family home, this can mean that up to 80% of the cost of the upgrade is available.[67]
- One Stop Shop Service: A complete home energy upgrade solution, managed by a One Stop Shop, is part funded. For a typical family home, this can mean 45 to 50% of the cost of the complete home energy upgrade is available.[68]
- Fully Funded Energy Upgrade: This service is managed by SEAI and is available to qualifying homeowners in receipt of certain welfare benefits. All of the costs of the energy updates are funded.[69]

B.3.7 The Approach to Retrospection in Other Irish Remedial Works Schemes

Retrospective payment of grants is not a feature of any of the Irish schemes referred to in this appendix.

B.4 Local Government (Multi-Storey Buildings) Act 1988

In January 1987, two people were killed when a gas explosion caused Raglan House, a five-storey load-bearing-masonry residential building in Dublin, to collapse. Following this incident, a task force to advise on the susceptibility of multi-storey buildings to progressive collapse was established. The work of this task force led to the enactment of the Local Government (Multi-Storey Buildings) Act 1988.

[67] Individual Energy Upgrade Grants | Home Energy Grants | SEAI

Refer to: https://www.seai.ie/grants/home-energy-grants/individual-grants/

[68] One Stop Shop Services | Home Energy Grants | SEAI

Refer to: https://www.seai.ie/grants/home-energy-grants/one-stop-shop/

[69] Free Home Energy Upgrade | Home Energy Grants | SEAI

Refer to: https://www.seai.ie/grants/home-energy-grants/free-upgrades-for-eligible-homes/

The Act required Local Authorities to compile a register of multi-storey buildings in their functional areas. A certificate had to be provided, to the Local Authority, by the owner of a multi-storey building to certify one of the following:

- The building is subject to the procedures and tolerances of normal building practice, constructed in accordance with specified codes of practice and standards.
- The occupiers of, and persons who have recourse to, or are in the vicinity of, such building would not be exposed to risks related to the robustness of the building which would be unduly in excess of those normally present in a building constructed, subject to the procedures and tolerances of normal building practice, in accordance with the specified codes of practice and standards.
- All reasonable actions as set out in the certificate (which included where appropriate actions that were listed in the Act) had been taken to minimise as far as is practicable the risk of accidental damage to the building.

The certificates had to be given by a competent person.

In this case, the intervention of the State was limited to the enactment of legislation, the identification of the extent of the problem, ensuring actions to minimise the risk of accidental damage to multi-storey buildings were taken, and the maintenance of a register. No financial assistance was provided for under this legislation. At the time, privately owned multi-storey residential developments were uncommon, although the gas explosion that led to the legislation was in such a building.

Note: It was the view of the Joint Engineering Committee, representing engineering professionals in Ireland, that the damage to Raglan House was not disproportionate to the cause and was therefore not a true case of disproportionate collapse.

Appendix C: International Remedial Works Schemes

C.1 Australia

Following the Grenfell fire in London, where combustible cladding was identified as a factor in the rapid spread of fire, an audit of cladding in high-risk buildings was implemented across Australia. The responses of each state varied, but at least two states provided a high level of state assistance, including assistance with funding.

C.1.1 Cladding Safety Victoria

In 2014 a fire took place in a 23-storey, mixed-use building in Melbourne, Australia. A report following the fire identified that the fire was not contained in the room or area of origin, but instead spread vertically through the building. A subsequent investigation found that the "external wall between the balcony and the bedroom was not non-combustible",[70] and this was contrary to the requirements of the Building Code of Australia. The review also found deficiencies with the fire safety documentation, which did not provide clarity on whether the wall was considered to be non-combustible.

Following the incident, the Victorian Building Authority carried out an audit of external wall cladding on high-rise and public buildings in Melbourne's Central Business District to determine the extent of non-compliance with the Australian National Construction Code. This initial audit covered a total of 168 buildings, of which 85 (51%) were assessed as non-compliant.

Subsequently, in 2017, the Victorian Cladding Taskforce was established to assess the extent of non-compliant cladding across the state, and also included assessments of essential safety measures and fire safety. This comprised a state-wide audit, which examined all residential apartments, hotels and student accommodation of three storeys or more – as well as hospitals, schools and care facilities of more than two storeys. In July 2019, the Victorian Government

[70] *Lacrosse Building Fire, 673 La Trobe Street, Docklands on 25 November 2014* (2015)

announced that Cladding Safety Victoria (CSV) was designated as an agency for the delivery of publicly funded cladding-rectification works.

The purpose of CSV is to oversee a risk-reduction program that supports owners of buildings (both private and public) impacted by combustible cladding. CSV does this by administering the Cladding Rectification Program.[71]

Table C.1 summarises the approach to rectifying the issue of non-compliant cladding on buildings in Victoria:

Table C.1 Cladding Rectification Program - Victoria	
Identification and assessment	Buildings are inspected on site and risk-assessed by an expert panel. Recommendations are made on managing the risk, which could include an emergency order or an evacuation order if necessary.
Emergency work undertaken	Emergency work includes the provision of additional smoke alarms, the immediate removal of cladding from around exits, turning off electrical cables that run through the cladding, and other measures.
Rectification planning	Where a performance solution (retention of cladding) is proposed, a building notice is issued, which requires owners to justify why the cladding does not need to be removed. This is assessed by a special court, the Building Appeals Board.
Building work undertaken	A building order is issued and the work is carried out.
Works completed	Work is completed. Work is inspected by officials and the building order is cancelled if they are satisfied.

[71] Further information is available at: https://www.vic.gov.au/cladding-safety

Since December 2020, Cladding Safety Victoria has operated as an independent statutory entity. To achieve its purpose, CSV has the following functions, duties and powers under the Cladding Safety Victoria Act 2020:

- Prioritising buildings for potential financial assistance for cladding-rectification work.
- Determining the amounts of financial assistance to owners (including owners corporations) of buildings for cladding-rectification work.
- Supporting owners and owners corporations of buildings by procuring building practitioners and engaging technical design and project management services to undertake cladding-rectification work.
- Facilitating cladding-rectification work for Government buildings.
- Providing information, advice and support to owners (including owners corporations) of buildings and other persons and bodies in relation to cladding-rectification work.
- Notifying the appropriate regulators, municipal building surveyors, persons and bodies about matters relating to compliance and enforcement under the Cladding Safety Victoria Act 2020, the Building Act 1993 or any other relevant Act.

C.1.1.1 Funding Options

Under the Cladding Rectification Programme, access to funding is available for owners corporations under certain circumstances and is determined through a risk prioritisation process carried out by Cladding Safety Victoria.

Under the scheme, funding is available for owners corporations that are responsible for a building that meets the following requirements:

- It has been assessed through the Victoria Cladding Audit as having combustible cladding and is deemed to be higher risk.
- It is subject to a building notice, or building order, in relation to combustible cladding.
- It has been referred to CSV through either the Victorian Building Authority or a Local Council.
- It has been prioritised for rectification.

In these circumstances, some of the costs incurred by the owners corporations (including design, procurement and remediation works) may be covered by the Government under a funding agreement with CSV.[72] An assessment of the cost of work is undertaken by CSV, which can include benchmarking costs against other similar projects, or can include quantity surveying.

The terms and conditions for funding will be set out in a funding agreement, which states that the owners corporations must engage practitioners who are on a pre-approved Government register, ensure that project milestones are met, provide regular progress reports and fund any non-cladding building defects discovered through the course of the cladding-rectification works, if any. The funding provided is restricted to work that is directly related to remediating external cladding defects only.

Where cladding is removed and replaced, this funding will cover the replacement of cladding, sarking and insulation, and will also provide external fire-rated linings where required. However, any additional works must be financed by the building's owners. It is also a requirement that owners corporations set aside at least 10% surety upfront as a pre-condition for funding. This is required in order to cover non-CSV funded defect works and not unduly delay building progress by seeking strata finance or raising owners corporation levies at that time.

Where buildings are assessed as not being eligible for funding, non-financial assistance may be provided through information, advice and support to owners and owners corporations.

The state Government has also introduced powers to allow it (in certain circumstances) to "step into owners' shoes" and pursue builders for compensation through the courts. A new levy will be charged for building permits, which will also contribute to funding. Funding will be prioritised for the most at-risk buildings.

[72] *Cladding Rectification Funding Guidelines*

C.1.1.2 Retrospective Funding

As a general rule, it is the owners corporations that are responsible for the rectification of non-compliant cladding. If there are cases where owners corporations have commenced cladding-related rectification works, they may still be eligible to participate in the funding program. This will be the case only if the rectification works commenced after the establishment of the Victorian Cladding Taskforce (3 July 2017), and if the works meet the requirements of the funding programme. Any work undertaken prior to this date is not eligible.

C.1.1.3 Cladding Safety Victoria Activity

By the end of 2022, CSV aims to have 220 residential projects and all of the 131 public projects remediated.

C.1.2 Project Remediate - New South Wales

The New South Wales (NSW) Government established a Cladding Taskforce in 2017 to address the issue of combustible cladding on high-risk, residential apartment buildings. The NSW Cladding Taskforce sought to identify and assess potentially affected buildings, and to improve fire preparedness. Through the process, over 4,000 buildings were assessed for potentially combustible cladding.

Working with local councils, the NSW Cladding Taskforce identified a number of high-risk residential apartment buildings that required remediation.

C.1.2.1 Funding Options

In order to support the funding of remediation works, a three-year program, “Project Remediate”,[73] was introduced in March 2021, to help with replacement of combustible cladding on an estimated 225 buildings that were identified by the NSW Cladding Taskforce.

[73] *Apartment owners guide to Project Remediate*

The following options are available to building owners through Project Remediate:

- Financial support for owners corporations.
- Interest-free loans over a 10-year period for building owners.
- Assurance and programme-management services for owners corporations or managing agents.

To be eligible for Project Remediate, the building must meet the following requirements:

- It must be a residential apartment building (Class 2) in NSW. These include multi-use buildings, for example part commercial / part residential buildings.
- It must have been confirmed by the NSW Cladding Taskforce to have a high-risk combustible cladding façade that requires remediation.

The owners corporation will also be asked to provide documents such as strata records (owners corporation records), audited accounts, building replacement valuations, insurance details, details of the building's condition, and any notices, orders or correspondence from the local council or consent authority.

The NSW Cladding Taskforce identifies buildings as high risk if they have combustible cladding of a type, amount and configuration that increases the risk of fire spread and the risk to occupants and/or firefighters in the event of a fire.

C.1.2.2 Financial Support for Owners Corporations

Owners corporations are eligible for a payment of between AUS $10,000 and AUS $15,000 to support management costs of participating in Project Remediate.

C.1.2.3 Interest-Free Loans

Under Project Remediate, ten-year interest-free loans are provided to building owners corporations to fund the cladding-remediation work. The NSW Government will pay for the interest on loans on behalf of apartment owners, with loan repayments commencing after the building work has been completed. In order to fund loan repayments made by owners corporations, special levies are applied to unit owners, which are in addition to their normal levy.

Provisions to support owners who may experience financial hardship may be included in the loan scheme on a case-by-case basis.

Following a competitive tender process, a loan-service provider was appointed to coordinate the drawdowns and repayments under this scheme.

C.1.2.4 Assurance and Programme Management Services for Owners Corporations or Managing Agents

An Australian construction company was appointed as the managing contractor to coordinate the remediation of cladding works across all buildings eligible for the Project Remediate scheme. In this way, the contractor works with owners corporations through the process and procures the services to deliver the required works.

C.1.2.5 New Powers and a Levy on Developers

In addition to the specific remediation scheme introduced through Project Remediate, the NSW Parliament also passed the Building Legislation Amendment Act in June 2021. This Act has the following aims:

- To strengthen the powers of the NSW Building Commissioner and NSW Fair Trading to enforce the new regulatory scheme.
- Potentially to introduce a new levy on developers to pay for the administration of the Design and Building Practitioners (DBP) Act.

As part of the changes introduced, developers may be required to pay a levy into the Home Building Administration Fund, which will be used to administer the Design and Building Practitioners (DBP) Act. The levy would be designed to provide an ongoing source of funding for the regulator, including administering the new practitioner registration scheme and conducting occupation-certificate audits.

Although the levy would impose an added cost on the developer at the start of the design and building process, it would support the regulator's new schemes and is hoped to avoid defects and rectification costs during a project's life cycle.

The levy would operate on a sliding scale, with larger projects attracting a higher levy and smaller developments being eligible for an exemption.[74]

C.2 Canada – Leaky Condos

The Canadian "leaky condo" issue[75] refers to damage that was caused by rainwater infiltration to apartment developments, generally built between the 1980s and early 2000s, in British Columbia, Canada.

A Commission of Inquiry was established in 1998 to investigate the quality of construction of condominiums in the province of British Columbia, to determine the reasons for faulty construction and to recommend any measures required to address the issues raised. The report concluded that while geographic and climatic conditions increased the likelihood of water ingress and intensified the process of wood rot, this alone did not account for the magnitude of the problem. The report concluded that the residential building process and building-science issues led to a disintegration in the quality of construction.

C.2.1 Financial Assistance

Following the inquiry, the British Columbia Government introduced an interest-free loan programme, which was in place from 1998 to 2009. Under the programme, a total of CAN $670 million in loans was administered. The loans were financed through a levy on new residential projects.

In order to qualify for the interest-free loan, a household's income had to be below a maximum established for the area. The maximum loan amount provided was CAN $18,000. In certain circumstances, it was possible to have a proportion of the loan amount forgiven, up to a maximum of CAN$ 12,000. Loan

[74] Refer to: https://corrs.com.au/insights/nsw-government-strengthens-powers-of-building-commissioner-and-introduces-new-levy-on-developers-to-support-dbp-act

[75] Refer to: https://www.millerthomson.com/assets/files/article_attachments/KLW_2016-02_Water-Ingress.PDF

forgiveness was determined according to household income and was based on a percentage of mandatory repair costs. Maximum forgiveness was available where the household income was 60% or less of an income threshold for a certain area.

C.2.2 Retrospection

If a homeowner qualified for the interest-free loan, but the repairs were undertaken before funding became available, the potential candidate was disqualified. This could happen if the strata council required that the repairs be done immediately.

C.2.3 Legislative Amendments

In 1998 the British Columbia Government implemented the Homeowner Protection Act. This legislation was designed to protect homebuyers and improve the quality of residential construction. The legislation also established the Homeowner Protection Office, which has the following responsibilities:

- Licensing builders and monitoring the provision of compulsory third party home warranty insurance.
- Mandatory registration of residential contractors with an approved warranty insurance provider.
- Administering a no-interest repair-loan programme available to qualified owners of leaky homes.
- Operating a research and education programme.

C.2.4 Residential Rehabilitation Program

Canada Mortgage and Housing Corporation operates a Residential Rehabilitation Assistance Program. The Residential Rehabilitation Assistance Program provides funding for mandatory repairs that are required to improve the health and safety of affordable housing.

This funding is provided through loans and grants to low-income homeowners and to landlords of properties rented to low-income households. Funding of up to CAN$60,000 can be provided for each unit that needs major home repairs.

This is a forgivable loan, meaning that it doesn't have to be repaid if all the terms and conditions are met.

C.3 New Zealand – Leaky Homes

The "leaky home" crisis relates to issues that emerged in New Zealand for properties built between 1988 and 2004. Some homes built during this period were not fully weather-tight for a number of reasons, including design issues, building practices, substandard materials and, sometimes, a general lack of surface finish or maintenance. In many cases, moisture had gotten between the exterior cladding and the inside walls.

C.3.1 Financial Assistance

Under legislation introduced through the Weathertight Homes Resolution Services Act 2006, affected homeowners can pursue an assessment of their home to determine their eligibility for a claim under the Act. If eligibility criteria are met, a claim can be progressed that will provide the claimant with various resolution options, including negotiation, mediation and adjudication.

In 2007 a tribunal was established and given additional powers to help resolve disputes in a timelier manner. Following assessment, eligible owners who have necessary repairs assessed at NZ $20,000 or more may apply to the tribunal for adjudication. A more streamlined process applies where claims are for less than NZ $20,000.

Following the adjudication, the outcome is either a settlement agreement or a legally binding decision about who is liable for the defects, who should pay and how much they should pay. The majority of cases were settled through mediation, with less than 10% progressing to a hearing[76].

The Financial Assistance Package was another resolution option to assist eligible claimants in repairing their leaky homes. The Financial Assistance Package scheme opened on 23 July 2011 and expired on 23 July 2016. The

[76] Refer to: https://www.justice.govt.nz/assets/Documents/Publications/WHT-introduction-to-wht.pdf

scheme was designed to encourage the repair of homes and offered a 25% financial contribution from the Government towards eligible repair costs. In addition, where councils were participating in the scheme, claimants could receive an additional 25% of eligible repair costs from the council. New claims received after the date on which the Financial Assistance Package scheme closed cannot access the scheme.

C.4 United Kingdom

C.4.1 Fire Safety and Cladding Defects

Following the Grenfell Tower fire in June 2017, the UK Government established a Building Safety Programme, which aimed to ensure the removal of aluminium composite material (ACM) from high-rise buildings. High-rise buildings in this context means buildings that are 18 metres or more in height, or have at least seven storeys. In May 2019 the UK Government announced that the replacement of unsafe ACM cladding on high-rise private residential properties would be fully funded where building owners had not already had it replaced.

At the end of June 2022, 94% (459) of all identified high-rise residential and publicly owned buildings in England had either completed or started remediation work to remove and replace unsafe ACM cladding. 432 buildings no longer have unsafe ACM cladding systems. 380 have completed ACM remediation works. This includes 320 that have received building control sign off.

In 2020, the UK Government also announced the establishment of a Non-ACM Cladding Systems Remediation Fund. The purpose of this is to fund the remediation of unsafe non-ACM cladding systems on buildings that are 18 metres and over in high rise residential buildings.

As of June 2022, the Building Safety Fund has received 2,824 Private Sector Registrations of which 935 registrations (1,021 buildings) are proceeding with an application for funding. 220 Social Sector Grant Claims have been reviewed of which 143 have been approved (166 buildings). Remediation work has started on 277 buildings and has been completed on 41 of these buildings.

In addition, the UK Government has required home builders to sign up to the Building Safety Pledge. As of 8 July 2022, 48 home builders have signed a pledge committing to remediate fire-safety defects in buildings over 11 metres

that they have played a role in developing or refurbishing over the last 30 years, in England.

In 2021, the Residential Property Developer Tax was introduced by the UK Government. It came into force on 1 April 2022 and is expected to run for a 10-year period. The tax will apply to companies with profits arising from UK residential property development but will apply only if the group's profits from that activity exceed £25 million per year. Profits in excess of £25 million per year will be taxed at a rate of 4%. The tax, applied over a ten-year period, is expected to raise £2 billion over its lifetime to pay for removing unsafe cladding on high-rise buildings.

C.4.2 Building Safety Act 2022

The UK's Building Safety Act (the "Act") received royal assent on 28 April 2022. Many of the provisions of the Act came into force on 28 June 2022. The coming into force of some provisions is subject to the introduction of secondary legislation.

The Act applies mainly to England, although there are provisions that apply to Wales, Scotland, and Northern Ireland.

The legislation changes the way in which residential buildings in the UK are to be constructed and maintained. Some of the more significant provisions of the Act may be summarised as follows:

- Introduction of new duties in relation to buildings, designated as "higher-risk", during the occupation phase, including the creation and maintenance of a so-called "golden thread" of building information throughout the lifecycle of higher-risk buildings.
- Provision for a Building Safety Regulator (BSR), established under the UK's Health and Safety Executive.
- Requirement for registration of occupied higher-risk buildings with the BSR by October 2023.
- Protection of leaseholders, such that costs of removal and replacement of external cladding will not be recoverable from them, and, subject to certain conditions, an obligation on building owners to refund to leaseholders any

costs they may have overpaid through their service charge in the last five years.

- Change to liability in relation to the construction of new domestic and commercial buildings, including the expansion of existing rights under the UK's defective premises legislation.
- Introduction of a statutory general right of action for breach of the Building Regulations.
- Introduction of direct rights of action against construction product manufacturers in relation to domestic properties that are unfit for habitation.
- Introduction of a 30-year retrospective limitation period for claims against construction product manufacturers, and for claims under existing defective premises legislation.
- Introduction of a 15-year limitation period into the future on the aforementioned rights of action.
- Provision for the introduction of a levy for the purpose of meeting any building safety expenditure.
- Provision of an additional planning approval process in relation to higher-risk buildings. This includes a new planning approval step, "Gateway Two", which applies before commencement of building work. The BSR must be satisfied that building designs and construction plans meet the Act, and the UK's Building Regulations.
- Introduction of a third gateway, on completion of building work. The BSR must be satisfied that the works as built comply with the Building Regulations, and that the completed building is safe for occupation.
- Introduction of a new homes ombudsman scheme to resolve disputes involving, and determine complaints against developers from buyers of new-build homes.

C.5 Overview of the European experience

The Working Group also sought to identify publicly funded remediation supports that European countries (excluding Ireland and the UK) provided to owners of defective housing.

Following a desktop exercise, no such supports or schemes were discovered. However, Chapter 5.5.3 of a European University Institute (EUI) report[77] identifies the approach in 13 countries (including England and Scotland) to builders' obligations in relation to material defects:

- "In a number of countries, the seller has to procure adequate insurance at his expense, which may refer to different kinds of defects."
- "A number of European countries (including France and Belgium) impose 10-year statutory warranties of quality on builders, which must be supported by mandatory 'decennial' insurance."
- "The French Civil Code, however, provides for a 10-year period of liability in respect of major defects in construction works, supported by mandatory defects insurance."
- "[M]any other jurisdictions have either modified the common law rule (such as England and Wales and various Australian territories), or have significantly different procedural and substantive remedies governing building defects (in the case of France, Belgium, Egypt and other civil law jurisdictions in which the ten-year liability of builders and architects in respect of significant building defects is provided for by law and supported by decennial insurance)."

[77] *Real Property Law and Procedure in the European Union General Report (2005)*

C.6 Approaches to Retrospection in Other Schemes

Table C.3 outlines approaches to retrospection in other international remedial works schemes.

Table C.3 Approaches to Retrospection in Other International Remedial Works Schemes

Scheme	Retrospection	Notes
Cladding Safety Victoria	Applicable in some cases	As a general rule, it is the owners corporations that are responsible for the rectification of non-compliant cladding. If there are cases where owners corporations have commenced cladding-related rectification works, they may still be eligible to participate in the funding program. This will only be the case if the rectification works commenced after the establishment of the Victorian Cladding Taskforce (3 July 2017), and if the works meet the requirements of the funding program. Any work undertaken prior to this date is not eligible (Refer to *Cladding rectification funding guidelines*).
New South Wales Project Remediate	Applicable in some cases	Schemes that have already scoped/tendered the replacement of cladding in line with council orders are encouraged to register interest for Project Remediate. The documents that are provided with online registration are reviewed by the managing contractor, who contacts building owners about any tender

		process underway and advises owners about how they can work together. Retrospective assistance is considered on a case-by-case basis only for buildings that commenced remediation work before Project Remediate was available.[78]
Canada – Leaky Condos	No	If a homeowner qualifies, but the repairs are undertaken before funding becomes available, the potential candidate becomes disqualified. This can happen if the strata council requires that the repairs be done immediately.
New Zealand – Leaky Homes	No	This scheme excluded those who had already paid for works.[79]
UK - Fire safety and Cladding	Partly	While the UK Government will not repay leaseholders for the costs of work already undertaken, the caps for leaseholder contributions to non-cladding costs in building above 11

[78] Refer to: https://www.nsw.gov.au/building-commissioner/remediate-cladding and https://www.nsw.gov.au/building-commissioner/remediate-cladding/project-remediate-industry-and-strata-briefings#toc-questions-from-the-strata-communities-and-councils-briefing

[79] Refer to: https://www.building.govt.nz/resolving-problems/resolution-options/weathertight-services/financial-assistance-package-for-weathertight-claims/#jumpto-existing-claims and

https://www.stuff.co.nz/business/6707895/Owners-left-to-shoulder-leak-bills

		metres in height will take into account costs that leaseholders have already incurred for remediation or interim measures. As such, where leaseholders have already contributed to the costs of remediation it is highly unlikely that they will face for any further costs.[80] UK Ministry of Housing Communities & Local Government guidance for leaseholders states the following in relation to the "responsible entity", usually a commercial landlord: "*The responsible entity for your building is responsible for works on your building and will therefore be making an application for funding and managing the works. However, the funding is being provided for the benefit of leaseholders, who would otherwise ordinarily be required to pay for the works via the service charge as per the provisions in their lease. Leaseholders will not directly receive any funding (unless they have already paid for works), as the benefit they receive is the service charge which they would otherwise have had to pay. If you have already paid service charge for these*

[80] Refer to: https://www.gov.uk/government/publications/building-safety-remediation-and-funding-government-response-to-the-select-committee-reports/building-safety-remediation-and-funding-government-response-to-the-select-committee-reports#costs-already-paid-out

		works, then if the application for funding is successful, the responsible entity for your building will be obliged to reimburse you some or all of the service charge you have already paid."[81]

[81] Refer to: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/991204/Subsidy_Control_Guidance_for_Leaseholders_-_FINAL.pdf

Appendix D: Current and Historical Tax situation

D.1 Rental Property

D.1.1 Rental Income - Deductible Expenses

As a general principle, income from all sources should be subject to taxation. In line with this, income received from renting out a property is taxable and must be declared to Revenue for assessment.

However, when a business calculates profits, it may be able to claim a deduction for some expenses incurred for the purposes of the business. Similarly, owners of rental properties are entitled to claim deductions and reliefs from gross rents for various expenses relating to their rental property. These can be claimed while the property is rented out only, and cannot generally be claimed for any period pre- or post-letting.

These deductible expenses include any rent payable in respect of the premises, general or common repairs and maintenance, such as rot treatment or the repair of windows and doors. Deductible expenses may also include insurance and management fees, rates, service charges, accountancy fees and certain mortgage protection policy premiums. Capital expenditure, such as additions and alterations or improvements to the premises, is excluded and cannot be deducted. Pre- or post-letting expenses also cannot be deducted. Income Tax is then charged on the rental income following deductions, at a rate of either 20% or 40%.

D.1.2 Mortgage Interest Relief

The interest on mortgages used to purchase, improve or repair rented residential property can be deducted when calculating rental income for tax purposes.

All tenancies in the property must be registered with the Residential Tenancies Board (RTB), and interest can be deducted only during the period in which the property is let. It should be noted that this relief was withdrawn for owner-occupiers on 31 December 2020.

D.2 Living City Initiative

The Living City Initiative is a very specific and targeted tax incentive aimed at the regeneration of the historic inner cities of Dublin, Cork, Galway, Kilkenny, Limerick and Waterford.

The scheme provides Income - or Corporation Tax relief for certain expenditure incurred in refurbishing or converting qualifying buildings that are located within pre-determined “Special Regeneration Areas”.

There are three types of relief available under the Living City Initiative:

- Owner-Occupier Residential Relief.
- Rented Residential (landlord) Relief.
- Commercial Relief

The scheme is scheduled to expire on 31 December 2022, and refurbishment and conversion work that is carried out only during this time will qualify for relief.

D.3 Local Property Tax Exemption

Local Property Tax (LPT) is a self-assessed tax charged on the market value of residential properties in the State.

LPT exemptions are available for residential property owners whose properties have been shown to have a significant level of pyrite damage or to have been damaged by the use of defective concrete blocks in their construction. The pyrite exemption is being phased out and will not be available to property owners who meet the current eligibility conditions after 21 July 2023.

Properties qualifying under the pyrite and defective block provisions will be exempt from the LPT for a period of six years**.**

D.4 Expired Taxation Measures

D.4.1 Mortgage Interest Relief

Mortgage Interest Relief was a tax relief on the interest on a qualifying mortgage loan. This relief was withdrawn for owner-occupiers on 31 December 2020.

D.4.2 Home Renovation Incentive

The Home Renovation Incentive (HRI) was introduced in 2014 and provided tax relief by way of an Income Tax credit on repair, renovation or improvement works on principal private residences or rental properties carried out by tax-compliant contractors.

The HRI was introduced at a time when there was considerable loss of employment within the construction sector, with the aim of addressing this market failure by stimulating increased activity in the sector.

While operating, the HRI provided an Income Tax credit to homeowners and landlords who carried out qualifying renovation and improvement works. The definition of “qualifying residence” for that purpose was broad (Section 477B of the Taxes Consolidation Act, 1997): it encompassed both houses and apartments, and was not restricted to freeholds in all cases. The credit was payable over two years following the year in which the work was carried out and was calculated at a rate of 13.5% on all qualifying expenditure. The qualifying expenditure had to amount to at least €4,405 and the maximum qualifying figure was €30,000 (both figures before VAT).

The HRI expired on 31 December 2018 following a review of its nature and effects. The review found that in the context of the current housing supply shortage, and the need at that time to deliver 25,000 additional homes per annum over the period 2017–2021, there was a risk that the scheme could lead to increased competition for scarce resources within the construction sector, leading to upward pressure on construction costs and house prices.

The review concluded that the continuation of the scheme could give rise to displacement of labour from work on new builds to work on home renovations, and would create a high opportunity cost of labour that was not present at the inception of the scheme.

D.4.3 Section 23 Relief

Section 23 relief was a tax relief available to rental residential property in a tax incentive area. The relief was available to a person who had incurred expenditure on the purchase, construction, conversion or refurbishment of a property and who let that property. Relief for the expenditure incurred could be set against rental income received on the property, thereby reducing the person's taxable income. In order to qualify for the relief, a certificate of reasonable cost, or a certificate of compliance, must have been issued.

D.4.4 Owner-Occupier Relief

Owner-occupier relief was a tax relief available to individuals who incurred expenditure on the purchase, construction, refurbishment or conversion of a qualifying residential property that was used by an individual as their main residence. Relief for expenditure incurred could be used to reduce an individual's taxable income. Such relief was provided by means of a deduction.

Appendix E: Legal Redress

E.1 Legal Redress

In the context of this report, “legal redress” refers to the legal pursuit of those who were involved in the construction of defective apartments for the purposes of obtaining financial compensation. This is a complex area, and the following sections of this appendix outline some relevant considerations:

E.2 Statute of Limitations 1957

The scope of the Working Group is to examine defective apartment buildings for the period before 2014. A legal remedy may have been available for some of these properties. Under Section 11 of the Statute of Limitations 1957, however, the basic limitation period is six years, and this has now run in most cases. It is not feasible to make a claim now unless one of the very limited exceptions under the Statute of Limitations applies. A longer limitation period (12 years) applies to a contract under seal, which is a contract formally signed and witnessed as a deed. It is possible that there may be some instances where proceedings were issued by some owners in order to stop the Statute of Limitations running, but the Working Group has no way of establishing the number of such pending cases. In any event, the Working Group is of the view that the prospect of such a case succeeding may be slight given the costs of litigation and the number of bankruptcies or liquidations of the potential defendants during the recession.

In New South Wales, the legislation extended the limitation period for defective buildings retrospectively, but that option may be legally impossible under the Irish Constitution. It may be possible to amend legislation to provide a longer limitation period in relation to newly constructed properties in the future, but that is a matter beyond the scope of the Working Group’s terms of reference.

E.3 Contract

Potential remedies did exist for defective properties under contract law within the 6-year (or 12-year) limitation period, and that period started to run from the date of completion. A purchaser of an apartment under construction would have entered into a contract with the developer/builder, and the standard form of contract in common use is that drawn up by the Construction Industry Federation and the Law Society of Ireland.

The written terms of the contract define the rights of the purchaser, and it is highly unlikely that a purchaser could have obtained anything beyond those standard terms.

The standard contract provides certain warranties as to quality and suitability, for example that “the building will be built and completely finished in a good, substantial, workmanlike manner” and will be fit for habitation. There may be limits on liability, however, and under the contract a purchaser must use arbitration in the case of dispute, which creates a barrier to taking any other form of legal proceedings.

Arbitration is a private and confidential process, and it is not possible to obtain details of awards or settlements under the Law Society/CIF contract. Going by anecdotal evidence, however, arbitration does not appear to have been used very often.

Privity of contract means that a remedy is available only against the other party or parties to the contract. Under the contract, therefore, it is not possible for purchasers of a new dwelling to directly sue sub-contractors or others involved in the construction process. Commercial contracts may provide bespoke collateral warranties from third parties involved in a project, but for ordinary purchasers this will not be the case.

Even in cases where proceedings have been issued by purchasers, problems arise, as many projects will have been organised by setting up special-purpose vehicles. The potential plaintiff is therefore likely to have ceased trading on the completion of the project or to have no realisable assets of any value in the event of a judgement. Company law makes it difficult to “lift the corporate veil” and pursue the principals behind these shell companies.

A developer/builder of a property has certain statutory rights under the Sale of Goods and Supply of Services Act 1980, but a purchaser does not. There is an important change introduced under Section 31 of the Multi-Unit Developments Act 2011: an owners’ management company can acquire the rights of the developer to any warranty. Given the barriers to and risks involved in litigation, however, the extent to which this change is significant is unclear.

E.4 Tort

Tort law offers another possible litigation route in addition to contract. A tort is a civil wrong, and where it can be established that the negligence of an actor resulted in damage to a person, and that there is a duty of care towards that person, then it may be possible to bring a claim despite there being no direct contractual relationship. For example, a professional certifying compliance with building standards could be held liable where this is done negligently, as it is within the contemplation of the parties that such certification is necessary to provide assurance to the purchaser.

A six-year limitation period also applies in tort, but under Irish law the time may run from the date of the damage, not the date on which the defective work was completed or on which the defects could be discovered by the purchaser. A latent defect might never result in damage, but it has the potential to cause damage at some stage in the future. The date for tort purposes is therefore not necessarily the date that damage is discovered, as the damage may have been in train before it was discovered. This rather abstract and fine distinction shows how complex tort proceedings can be in legal terms and how much may depend on the conflicting evidence of industry experts, which all adds to the cost and uncertainty of such legal proceedings

E.5 Owners' Management Company

The OMC is defined in the Multi-Unit Developments Act 2011 as "a company established for the purposes of becoming the owner of the common areas of a multi-unit development and the management, maintenance and repair of such areas". The OMC is a corporate entity, and each purchaser is a member of the company. There is also a legal agreement between the member and the company, and the member is liable for the cost of maintenance and repair of the buildings carried out by the OMC, which will set management charges for maintenance as well as sinking fund contributions for non-routine works and expenses.

The OMC is responsible for the building's common areas, roof, foundations, walls, corridors and stairs. Only the OMC has the necessary authority to commission works in these areas, and it will have responsibility for the fire safety of the building as it comes within the scope of "a person having control of a premises" under Section 18 of the Fire Services Act 1981. The reality is that the

bulk of any remedial works will be a matter for the OMC, and only the OMC will be capable of commissioning works in the common areas.

Section 13 of the Multi-Unit Developments Act 2011 gives the OMC the right to access individual units in order to carry out necessary repairs, and there is also likely to be a similar contractual right in the lease or other form of agreement with individual owners. Despite the existence of this right, there are instances of owners objecting to and preventing access to their apartment, which can frustrate and delay remediation.

The cost of remedial work will ultimately fall on the individual owner, who may have had a potential claim against the developer/builder or in tort (bearing in mind the limitation period issue). The OMC could have a role as a potential coordinator of legal action for owners, but there are considerable difficulties, costs and risks involved in taking such a step. The owner who commissions a one-off property or the purchaser of a house on a new estate is in a better position to bring an individual case to court.

E.6 Time and Expense

The typical experience of those who have pursued legal action is that it is expensive and can take several years to run its course. If a case goes to the High Court, the legal costs can exceed the costs of the remediation works. Furthermore, the exposure to those costs rests with the plaintiff (the owner-occupier in this context) unless the case is successful and costs are awarded against the defendants.

It is not unusual for cases such as these to take many years to go through the system. The process tends to be a stressful experience for the plaintiff, and there is no certainty of outcome. Given these considerations, it is not surprising that there is a reluctance to take legal action, which in the vast majority of cases is not seen as a viable option in relation to seeking redress.

Appendix F: Exploring Options for Access to Low-Cost Finance

F.1 Private Market Financing of Remediation Works

In order to identify options for low-cost, long-term finance to fund the remediation of defects, consideration should first be given to the extent to which this funding may be provided by a commercial lender on the market.

From a lender's perspective, key considerations in assessing the viability of providing finance will be the repayment capacity of the borrower and the security underpinning the loan. In order to accept the credit risk, the lender must be satisfied that the borrower has the capacity to repay the loan over its term. The lender must also be satisfied that they will have recourse to security that underpins the loan in the event of non-repayment or default. Following this assessment, the perceived risk will be reflected in the terms of the loan and in the cost of the finance provided.

For homes that are subject to remediation, both of these factors can present challenges for a lender. In the first instance, the provision of the loan would not generate any additional repayment capacity. In relation to security underpinning the loan, two issues arise. First, the asset is compromised, as it is defective, so the security is compromised from a lender's perspective. Second, there is likely to be a mortgage in place on the property with another finance provider. Therefore, the remediation loan would be unsecured, and the lender will not have the option of appointing a receiver over this security in the event of default. Consequently, from an underwriting perspective, this is a high-risk loan and is unlikely to be considered commercially viable for a lender. This is particularly the case where the repayment capacity is unproven.

An additional challenge for a lender will be to conclusively cost the full remediation works and the level of loan required. Given the nature of remediation work, it is necessary to include a provision for significant contingency costs, which may amount to between 20% and 30% of the initial costings. Stakeholders indicate that in the vast majority of cases, once the remediation work has commenced, the requirement for additional, unforeseen remediation is identified. It will be challenging for lenders to balance the requirement for realistic contingency costs, with the requirement to ensure a viable loan. This also potentially presents a difficult situation for a homeowner, as a situation may arise where additional costs cannot be covered by a loan agreement, but where

remediation work has commenced and entire works must be completed without funding approval.

To mitigate this problem, an extensive upfront survey will be necessary. This may also be a condition of a loan agreement, whereby the lender will wish to ensure that all defects can and will be remediated prior to releasing approved funding. It will be important to fully consider this issue in the design of any scheme, including determining the extent of remediation work covered and identifying the party responsible for funding additional works that may emerge during the process. Even with a robust advance assessment, however, there will be a risk of additional funding being sought after initial costing, or a risk of deliberate exploitation of a scheme.

On the market, the interest rate typically reflects the level of risk borne by a lender (as well as the cost of funds for the borrower). If a lender were to consider providing such a loan, it is likely that the risk would be reflected in the interest rate charged. As there are no comparable products available on the market, it is difficult to estimate what a current market price might be. In addition, pricing has not emerged as the key issue for funding of this nature, given the wider challenges that have been identified with such a scheme, as set out in further detail below.

In the case of remediating defects, the risks for a lender are high, and the loan is generally unsecured. It is clear that providing low-cost finance on an unsecured basis will incur significant risk and capital costs for a commercial finance provider. Therefore, a product that provides access to long-term, low-cost finance is not likely to be provided by the market without State intervention. A State-supported loan scheme would partially shift the burden of risk from the private market to the State. This means that in order to make it viable, it would require a high level of State guarantee, with an upfront cost or contingent liability to cover expected losses.

F.2 State-Supported Financing of Remediation Works

As set out above, the provision of finance to remediate a defective home is perceived by lenders to be high risk, and would therefore require State support in order to make it commercially viable.

This support is likely to involve some element of risk sharing with the State. In order to ensure that the finance is commercially viable, the lender would seek to pass the burden on to the State, given the difficulties in establishing repayment capacity, and in having security over the loan. It is important to note that the loan will remain high risk, and any involvement of the State would not eliminate or reduce the risk, but would rather redistribute the burden of the risk on to the State. Therefore, the level of State involvement would depend on the level of risk that the State would be willing to underwrite.

Any State-backed loan scheme would therefore incur a cost, either through a direct upfront payment to meet expected losses or through the provision of a contingent liability, and either option would result in ongoing administrative costs. The level of this cost would depend on the design of the scheme, on the scope of work covered, on the level of guarantee and on the default rate.

At the inception of any scheme, an upfront cost is usually provided in full by the Exchequer, or else it may be split into tranches. The advantage of this approach is that a Government department can allocate a pre-determined amount of their annual budget against the loan scheme. This is the approach taken for a number of State-supported risk-sharing loan schemes such as the Brexit Impact Loan Scheme, where the direct cost is met from the budgets of the Department of Enterprise, Trade and Employment and the Department of Agriculture, Food and the Marine.

Some State-backed schemes have been counter-guarantee schemes, where the European Investment Fund is a joint guarantor. An example is the Future Growth Loan Scheme (FGLS), where the direct cost is met from the budgets of the Department of Enterprise, Trade and Employment and the Department of Agriculture, Food and the Marine. The FGLS also receives support from European Commission resources. The EIB and EIF are compensated by the State and the European Commission.

These schemes are administered by the Strategic Banking Corporation of Ireland (SBCI) on behalf of the Government Departments. The SBCI has a specific focus on delivering effective financial supports to Irish SMEs. A risk of additional costs may arise, however, in the event that loan losses exceed the first loss amount, and this risk falls on the SBCI's balance sheet. In this event, and if the losses are very high, then it is possible that the Minister for Finance may need to provide additional capital to the SBCI. On the other hand, if actual losses are lower than the first loss, then the unused amount is returned to the Exchequer when the scheme's potential liabilities have been extinguished.

An alternative approach for risk sharing is through the provision of a contingent liability guarantee. The advantage of a contingent liability is that it does not incur an upfront cost. However, the cost materialises where there are defaults, and best practice would indicate that this potential cost should nevertheless be provided for to ensure that sufficient financial reserves are available if required.

An example of a current scheme with a contingent liability is the Covid-19 Credit Guarantee Scheme. The Minister for Enterprise, Trade and Employment guarantees 80% on each loan, subject to the maximum loan being no more than €1 million.

This State intervention shifts the distribution of risks. However, the policy rationale underpinning the State's intervention through the Credit Guarantee Scheme is to improve SME access to credit, on the assumption that the wider economic benefits will outweigh the costs of potential loan defaults.

While a low-cost loan scheme for remediation works would clearly not be viable without State intervention, the level of administrative burden at all stages of the lending cycle (assessment, due diligence, ongoing monitoring), along with the likelihood of default and reputational concerns, means that there is a risk that it may remain unviable from a commercial lender's perspective, even with such a guarantee in place.

F.3 Design

The design of a State-supported loan scheme for remediating defects would require careful consideration of such factors as the respective roles of the State and commercial lenders, including the level of the guarantee, the pricing of the scheme and whether premiums and fees are charged.

Even in State-backed schemes, the responsibility for credit risk appraisal of borrowers rests with the commercial finance provider. In recent times, the State has guaranteed a maximum of 80% of a loan, in this case the remaining 20%, provided by the commercial finance providers, is also the subject of a commercial viability assessment. The availability of the guarantee for loan schemes ensures that loans are provided at low cost and without security over terms that are not typically available otherwise. However, the fact that the lender retains 20% of the risk in each transaction means that the borrowers need to have a likely ability to repay the amounts sought.

F.4 Borrower

F.4.1 OMC Borrower

To finance the remediation of apartment defects, the borrower will be either the OMC, operating on behalf of the entire development, or the individual homeowner.

There may be a perceived advantage in providing a loan to an OMC on behalf of an entire development, because in that circumstance there is just one borrower for the whole apartment development, although it comprises multiple properties. This could ensure that all of the work is financed as a whole, which makes it less likely that individual owners would stall or prevent the project from progressing.

However, providing a loan to an OMC also presents a number of challenges to a lender. In relation to security for the loan, the OMC generally does not own property, apart from common areas such as lift shafts and, hallways. Therefore, the OMC does not own any economic value in the property and does not have collateral that would be acceptable to a lender.

An OMC would also need to ensure that it is permitted to borrow, and any borrowing would likely require the agreement of all individual property owners within the development. As for any credit assessment, standard criteria would apply, including an assessment of repayment capacity and of the ability to meet repayments over the duration of the loan. Even if lending were to be advanced to an OMC, the repayment capacity of the OMC would remain dependent on the repayment capacity of the individual property owners. Consideration could be given to strengthening OMCs' powers to levy owners for loan repayments. However, each individual's financial circumstances and repayment capacity will

differ, and should individual property owners choose not to pay contributions to the OMC, the OMC itself won't have repayment capacity. The lender in turn won't have recourse to security, as the assets are owned by individual owners, and not by the OMC. From a lender's perspective, therefore, lending to an OMC would not be a preferred option.

F.4.2 Individual Borrower

In order for a lender to assess the repayment capacity of a loan for remediation of an apartment development, it will need to look at the development in totality. As the repayment capacity will be underpinned by the circumstances of individual homeowners, the ultimate risk will sit at the individual level.

Therefore, a lender will need to carry out due diligence for each individual in an apartment development and assess whether they would have ability to fund repayments over time. Lenders are required to operate in compliance with the core principle of protecting the borrower by ensuring that they do not take on a loan commitment that is unaffordable. This necessary due diligence across a high number of individual apartment owners with differing financial circumstances would be an onerous and costly process carrying a heavy administrative burden.

In general, the emerging view is that from a credit-risk perspective, lending to individuals is preferable to lending to companies, including OMCs. Lending to individuals allows a lender to pursue loan repayments directly from an individual, instead of relying on an OMC, which may not have sufficient means or powers to secure repayments. However, this preference may not hold from the perspective of regulation, reputation or the costly administrative considerations associated with lending to a private individual. Additional issues might arise in a scenario where only some of the apartment owners were successful in securing loan finance.

F.5 Interest Rates

The interest rate applied to any loan products will vary depending on the individual characteristics of each loan, such as the amount, the duration and the profile of the borrower. However, in the case that the loan is supported by a 100% State guarantee (unlimited and unconditional), it could be expected that finance providers would offer a reduced interest rate, subject to State Aid

considerations. Because it carries a high risk of defaults and claims, however, a 100% State guarantee would not be recommended or considered best practice.

Another option to pursue could be an interest rate subsidy. Any capital relief could be designed in accordance with State Aid rules, so that the State benefit would not remain with the lender but would be passed through to the borrower. In this scenario, however, the lender would still assume all of the risk, and the provision of such a product on the private market is therefore unlikely to be incentivised.

Options will include whether rates are benchmarked to within a certain percentage of commercial rates, whether there are different rates depending on repayment capacity, the type of work being funded or the amount of the loan.

A clear process will assist, but there may be a heavy administrative burden in credit assessment and administration of a number of individual loans in an apartment building. This increased administration would likely be reflected in the interest rate. Ideally, therefore, the administrative burden would be reduced as much as possible.

F.6 State Aid

State Aid considerations may need to be addressed. How these are addressed will depend on funding model, design and on the level of State intervention. In general, State Aid issues should not arise for individuals, but may arise for OMCs that are companies, and in this scenario, de minimis rules may apply.

F.7 Administration

In some cases, in order to access a State-supported loan, there may be a requirement for applicants to demonstrate prior rejection for credit. The purpose of this requirement would be to ensure that the State was intervening where a loan would not otherwise be provided. However, this requirement places an additional administrative burden both on the applicant and on the lending institution, and this burden would be considered too onerous in this instance.

A low-cost loan scheme could be administered either directly through retail banks or through a State entity acting as an on-lender. Regardless of who is administering the scheme, a consistent approval procedure and credit risk assessment process should be agreed in advance and documented, including

the level of assessments of required remediation works to be completed. A clear procedure for defaults or payment breaks will also be required. If the State is acting as an on-lender, it will assume the risk for the entire loan, irrespective of the guarantee. It would also be expected that all the lending would be classified as general Government expenditure (and therefore considered “on balance sheet”). Therefore, the preferred approach would be to operate a scheme through retail banks.

As set out above, a low-cost loan scheme for remediating apartment defects would carry a heavy administrative burden, given that it would require credit assessment of each individual borrower who would be a beneficiary of the loan scheme. This would require significant levels of due diligence by a lender and should also be costed in comparison to alternative options to support the financing of remediation work.

As outlined previously, best practice indicates that responsibility for credit appraisal and loan management for such a scheme should rest with the commercial lender partners involved. This has the advantage of leveraging their established expertise in credit assessment. Coupled with a risk-sharing model, the ability to leverage this expertise should minimise risky credit decisions.

Appendix G: Application of the Building Regulations

G.1 General

This appendix sets out the application of the Building Regulations in respect of works to existing buildings.

Building Regulations apply to existing buildings where works[82] are being performed on a building as prescribed in the Building Regulations 1997 (S.I. No. 497 of 1997) as amended.

The requirements of the Building Regulations are set out in 12 parts (classified as Parts A to M). Technical Guidance Documents (TGDs) are published to accompany each part of the Building Regulations, and these TGDs indicate how the requirements of that part can be achieved in practice.

In the case of material alterations or material changes of use of existing buildings, the adoption of the guidance in TGDs without modification may not be appropriate in all circumstances. In particular, the adherence to guidance — including guidance on codes, standards and technical specifications — that is intended for application to new work may be unduly restrictive or impracticable. To address this, specific guidance on works to an existing building is provided in some TGDs, including the following ones:

- TGD E – Sound
- TGD L - Conservation of Fuel and Energy (See Section 2 of TGD L)
- TGD M - Access and Use (See Section 2 of TGD M)

Article 9(2) of the Building Regulations 1997 (as amended) prescribes that no works shall be carried out to a building that would cause a new or greater contravention in the building of any provision of the Building Regulations.

[82] "Works" includes any act or operation in connection with the construction, extension, alteration, repair or renewal of a building.

In addition, subject to Article 3 (Application) and Article 8 (Exemptions), the Building Regulations 1997 (as amended) have specific provisions applying to the following:

- Material alterations[83], extensions and repair or renewals[84]
- Provision of services, fittings and equipment (by way of new work or by way of replacement)
- Material changes of use
- Major renovations[85]

G.2 Material Alterations, Extensions and Repair and Renewals

With regard to material alterations, extensions of buildings and repair and renewals, Article 11 of S.I. No. 497 of the Building Regulations 1997 (as amended) applies to the following:

(a) all works in connection with the material alteration or extension of an existing building;

(b) every part of a building affected by such works referred to in Paragraph (a) above, but only to the extent of prohibiting any such works which would cause a new or greater contravention, in such a building, of any of the provisions of the Building Regulations; and

[83] "Material alteration" means an alteration, where the work or part of the work carried out by itself would be the subject of a requirement of Part A (Structure), B (Fire Safety) or M (Access and Use) of the Second Schedule to the Building Regulations 1997 (as amended).

[84] "Repair or renewal" means works of maintenance or restoration of a routine nature relating to

(a) the keeping of a building in good condition or working order, and

(b) the return of the fabric of the building to its original condition.

[85] "Major renovation" means the renovation of a building where more than 25% of the surface of the building envelope undergoes renovation. The "surface area of the building thermal envelope" means the entire surface area of a building through which it can lose heat to the external environment or the ground, including all heat-loss areas of walls, windows, floors and roofs.

(c) any repair or renewal likely to affect the structural integrity of the building or building element that is being repaired or renewed.

In addition, Part L (Conservation of Fuel and Energy) of the Second Schedule to the Building Regulations applies:

(a) to renewal works to existing buildings involving the replacement of external doors, windows and roof lights, and

(b) to the replacement of oil or gas boilers; where practicable, replacement oil or gas boilers should have a boiler efficiency of greater than 90% in dwellings as defined on the HARP database (Condensing boilers should achieve an efficiency of > 86%).

Part L (Conservation of Fuel and Energy) of the Second Schedule to the Building Regulations does not apply to works (including extensions) to an existing building that is a “protected structure” or a “proposed protected structure” within the meaning of the Planning and Development Act 2000.

G.3 Provision of Services, Fittings and Equipment

With regard to building services, Article 12 of S.I. No. 497 of 1997 of the Building Regulations applies to all works in connection with the provision (by way of new work or by way of replacement) in relation to building services, fittings and equipment where Parts G (Hygiene), H (Drainage and Waste Water Disposal) or J (Heat Producing Appliances) of the Second Schedule to the Building Regulations impose a requirement.

G.4 Material Change of Use

Where a material change of use to a building takes place, Article 13(1) of the Building Regulations 1997 (as amended) provides that the following requirements apply to the building undergoing the change of use:

- Parts A1 and A2 (Structure).
- Part B (Fire Safety).
- Part C4 (Site Preparation and Resistance to Moisture).
- Part E (Sound).
- Part F (Ventilation).

- Part G (Hygiene).
- Part H (Drainage and Waste Water Disposal.
- Part J (Heat Producing Appliances).
- Part L (Conservation of Fuel and Energy).[86]

In addition, Part M (Access and Use) also applies to the building, where a material change of use to a day centre, a hotel, a hostel or guest building, an institutional building, a place of assembly, a shop (which is not ancillary to the primary use of the building) or a shopping centre takes place.

G.5 Major Renovations

With regard to major renovations, where works commence to (a) non-domestic buildings on or after 1 Jan 2019 or (b) domestic buildings on or after 1 November 2019, Part L requires that the minimum energy performance requirement of the building or the renovated part thereof should be upgraded in order to meet the cost optimal level of energy performance in so far as this is technically, functionally and economically feasible.

[86] For existing buildings, the applicable Requirements of Part L are covered by Section 2 of TGD L.

Appendix H: Application of the Building Control Regulations

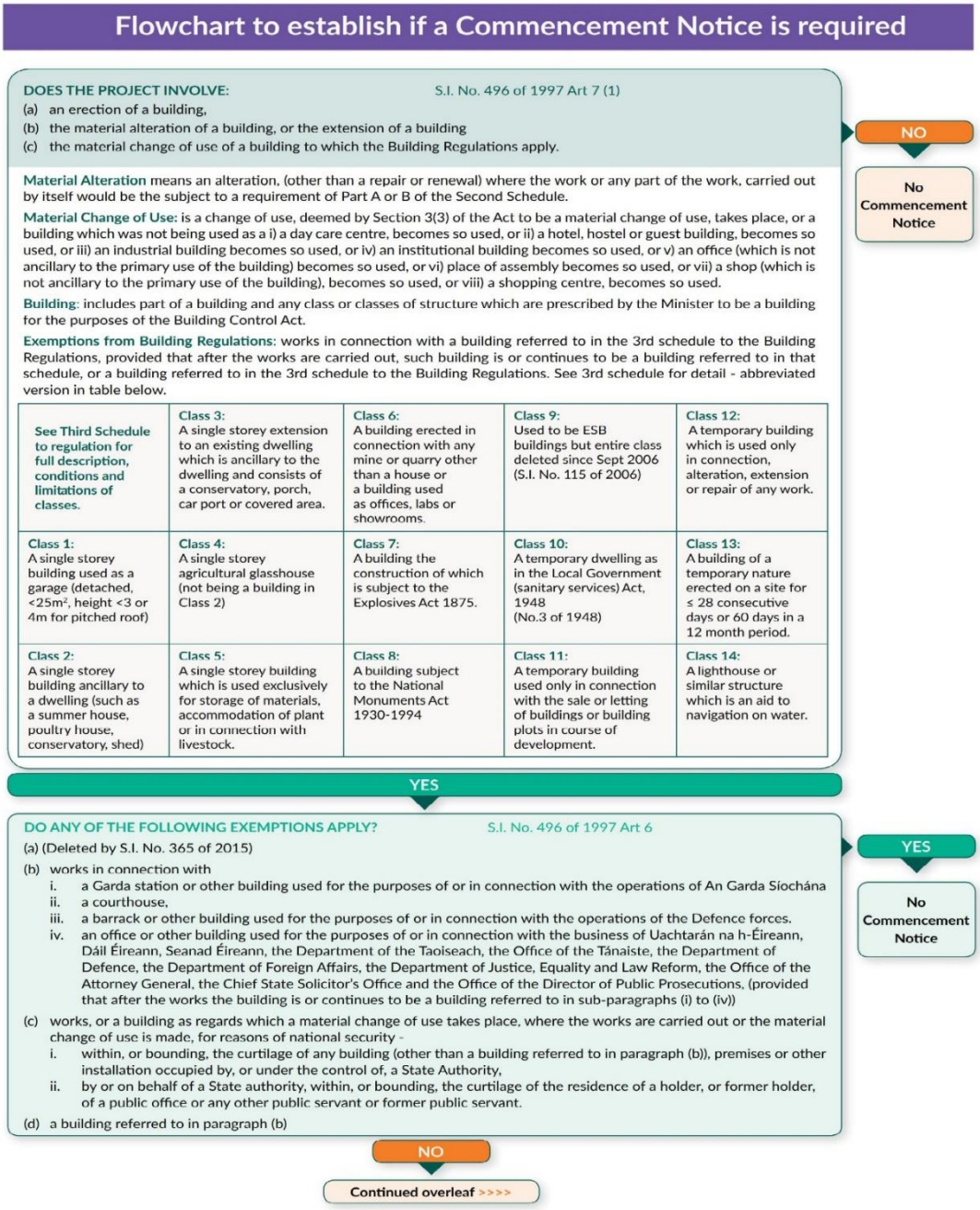
Building Control Regulations apply generally to new buildings and to existing buildings which undergo an extension, a material alteration or a material change of use. The Building Control Regulations require owners, builders and registered construction professionals to demonstrate through building control processes that the works or building concerned have been designed and constructed in compliance with the Building Regulations.

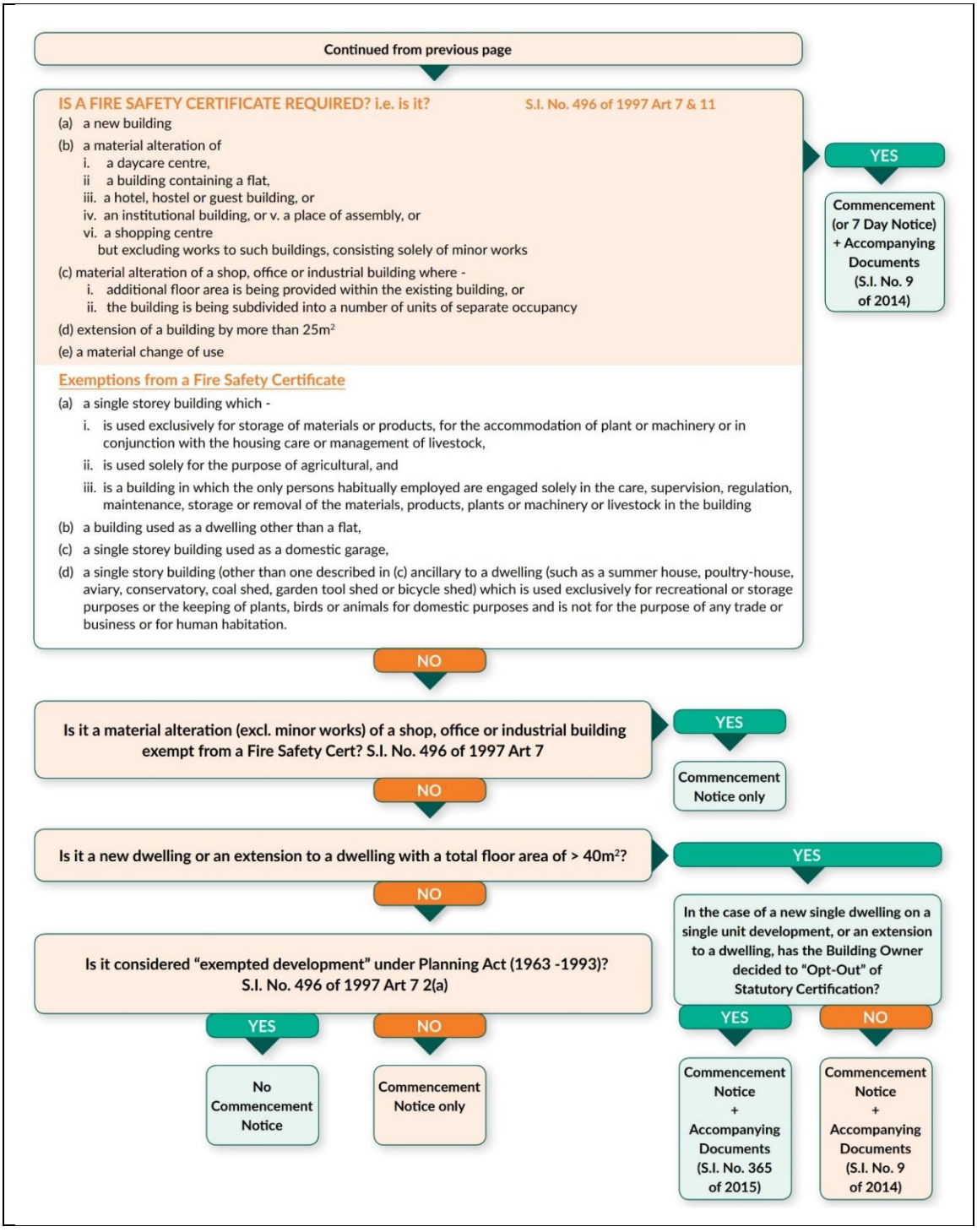
The Building Control (Amendment) Regulations 2014 (S.I. No. 9 of 2014) were introduced to ensure greater accountability in relation to compliance with Building Regulations. Where S.I. No. 9 of 2014 applies, improvements in accountability will be achieved by ensuring that design and construction receive statutory certification from registered construction professionals and builders, that Commencement Notices and compliance documentation are lodged, that mandatory inspections are carried out during construction and validation, and that certificates of compliance are registered.

On completion of a building or works, a certificate of compliance is jointly signed by the builder and the assigned certifier. This must be accompanied by plans and documentation that collectively show how the constructed building/works complies/comply with the Building Regulations — and also with the inspection plan, as implemented.

The requirement to submit a Commencement Notice is outlined below in Figure H.1.

Figure H.1 Flowchart to Establish if a Commencement Notice is Required




Continued from previous page
IS A FIRE SAFETY CERTIFICATE REQUIRED? i.e. is it?
S.I. No. 496 of 1997 Art 7 & 11
(a) a new building
(b) a material alteration of
i. a daycare centre,
ii a building containing a flat,
iii. a hotel, hostel or guest building, or
iv. an institutional building, or v. a place of assembly, or
vi. a shopping centre
but excluding works to such buildings, consisting solely of minor works
(c) material alteration of a shop, office or industrial building where -
i. additional floor area is being provided within the existing building, or
ii. the building is being subdivided into a number of units of separate occupancy
(d) extension of a building by more than 25m²
(e) a material change of use
YES
Commencement (or 7 Day Notice) + Accompanying Documents (S.I. No. 9 of 2014)
Exemptions from a Fire Safety Certificate
(a) a single storey building which -
i. is used exclusively for storage of materials or products, for the accommodation of plant or machinery or in conjunction with the housing care or management of livestock,
ii. is used solely for the purpose of agricultural, and
iii. is a building in which the only persons habitually employed are engaged solely in the care, supervision, regulation, maintenance, storage or removal of the materials, products, plants or machinery or livestock in the building
(b) a building used as a dwelling other than a flat,
(c) a single storey building used as a domestic garage,
(d) a single story building (other than one described in (c) ancillary to a dwelling (such as a summer house, poultry-house, aviary, conservatory, coal shed, garden tool shed or bicycle shed) which is used exclusively for recreational or storage purposes or the keeping of plants, birds or animals for domestic purposes and is not for the purpose of any trade or business or for human habitation.
NO
Is it a material alteration (excl. minor works) of a shop, office or industrial building exempt from a Fire Safety Cert? S.I. No. 496 of 1997 Art 7
YES
Commencement Notice only
NO
Is it a new dwelling or an extension to a dwelling with a total floor area of > 40m²?
YES
In the case of a new single dwelling on a single unit development, or an extension to a dwelling, has the Building Owner decided to "Opt-Out" of Statutory Certification?
YES
Commencement Notice + Accompanying Documents (S.I. No. 365 of 2015)
NO
Commencement Notice + Accompanying Documents (S.I. No. 9 of 2014)
NO
Is it considered "exempted development" under Planning Act (1963 -1993)? S.I. No. 496 of 1997 Art 7 2(a)
YES
No Commencement Notice
NO
Commencement Notice only

Appendix I: Fire Services Acts 1981 and 2003

Relevant provisions of the Fire Services Acts 1981 and 2003 are outlined in Table I.1 below.

Table I.1 Provisions of Fire Services Acts 1981 and 2003

Section Number	Commentary
General obligations with regard to fire safety – Section 18 - applies to premises or any part thereof put to use as, or for any purpose involving the provision of, sleeping accommodation, excluding premises consisting of a dwelling house occupied as a single dwelling. - It shall be the duty of **every person having control over premises** to which this section applies to- a) take all reasonable measures to guard against the outbreak of fire on such premises, b) provide reasonable fire safety measures for such premises and prepare and provide appropriate fire safety procedures for ensuring the safety of persons on such premises, c) ensure that fire safety measures and procedures referred to in paragraph (b) are applied at all times, and d) ensure, as far as reasonably practicable, the safety of persons on the premises in the event of an outbreak of fire whether such outbreak has occurred or not. - It shall be the duty of **every person, being on premises** to which this section applies, to conduct himself in such a way as to ensure that as far as reasonably practicable any	This section sets out in general terms the fire safety obligations on those having control over premises, and on every person on premises.

person on the premises is not exposed to danger from fire as a consequence of any act or omission of his.	
Advice, recommendations, fire safety assessment, specified works – Section 18 A fire authority may give **advice** in relation to fire safety to the owner or occupier of any premises or to any person having control over any premises. Advice may be given by an authorised person. Advice may include a **warning** that a fire safety notice may be served under Section 20 or that the owner or occupier may be liable to prosecution by reason of a contravention of a provision of the Act. Advice may include **recommendations**, orally or in writing, concerning fire safety measures and procedures. An authorised person may require a person having control over premises or an owner or occupier of premises to carry out a **fire safety assessment** of such premises and to notify the fire authority of such assessment. An authorised person may require a person having control over premises or an owner or occupier of premises to carry out **specified works** to such premises within a specified period of time.	This section provides for a range of steps that a fire authority may take, in response to queries, or on becoming aware of fire safety issues in a premises. • Advice • Warning • Recommendations • Fire safety assessment • Specified works
Powers of inspection by authorised persons – Section 22 A person authorised by a fire authority shall be entitled to enter at all reasonable times (subject to his producing, if so required, his authority in writing as such person) and inspect any land or	This section provides powers of inspection to a person (generally,

building (other than a dwelling house occupied as a single dwelling) for the purposes of the Acts. The section provides details in respect of the powers of authorised persons, and provides that it shall be an offence to refuse entry, obstruct or impede an authorised person, fail to provide information, or fail to comply with requirements of the section.	a fire officer) authorised by a fire authority.
Potentially dangerous building – Section 19 Potentially dangerous building means a building which would, in the event of fire occurring therein, constitute a **serious danger to life** for any of a range of reasons set out in the section. **Fire safety notice – Section 20** A fire authority may serve on the owner or occupier of any building which appears to the authority to be a potentially dangerous building a fire safety notice. A fire safety notice may **prohibit the use of the building**, or a specified part of the building, for the purpose(s) specified in the notice. A fire safety notice may **prohibit the use of the building**, or a specified part of the building, for the purpose(s) specified in the notice – **unless or until specified precautions are taken** to the satisfaction of the fire authority whether by the provision in the building of specified appliances or fittings or by the execution of specified structural alterations or additions to the building, or by the removal from the building of furniture, furnishings, fittings or any other material or thing, or by the doing in relation to the building or its contents of any other thing whatsoever. A fire safety notice may impose requirements as to:	Where a fire authority becomes aware of a potentially dangerous building, it may serve a fire safety notice. As set out in Section 19, this is intended for cases involving serious danger to life.

- provision and maintenance of exit signs, emergency lighting and notices as to the procedure to be followed in the event of fire, - the arrangements to be made for provision and maintenance of equipment and fittings for fire detection, fire prevention, the extinguishing of fires, the giving of warning in case of fire, and for securing that the means of escape can be safely and effectively used at all material times, - the installation, maintenance and use of the power, lighting, heating and ventilation systems of the building, - the arrangements to be made for the safe storage of flammable, explosive or potentially explosive articles or materials used, stored or deposited in the building, - the measures to be taken for securing that persons employed in the building receive appropriate instruction or training in fire safety, and in what to do in the event of fire, and that records are kept of such instruction or training, - the holding of fire safety evacuation drills at specified intervals, and that records are kept of such drills, - the nomination of an appropriate person or persons employed in the building to have responsibility for fire safety measures in the building, and - limiting the number of persons who may be in the building at any one time.	

A fire safety notice may specify a **time** within which any requirement shall be complied with. **Appeal against fire safety notice – Section 21** A person on whom a fire safety notice is served may, within fourteen days from the date of service, appeal against the notice to the District Court on one or more of a range of grounds set out in the section. **Withdrawal of fire safety notice – Section 21A** An owner of occupier of a building may apply to the fire authority requesting that the fire authority withdraw a fire safety notice. The owner or occupier shall furnish the fire authority with any necessary information concerning compliance with the matters specified in the fire safety notice. Where a fire authority refuses to withdraw a fire safety notice, the owner or occupier may appeal to the District Court.	There is provision to appeal against a fire safety notice. There is provision for withdrawal of a fire safety notice.
Closure notice – Section 20A If an authorised person is of the opinion that a building or premises poses or is likely to pose a **serious and immediate risk**, including a risk of fire, to the safety of persons on or in such buildings or premises, the authorised person may serve a closure notice on a person who owns, occupies or is in control of that building. A closure notice shall direct that the activities to which the notice relates shall not be continued by any person unless the matters giving rise to the risk and contraventions of the Acts have been remedied. A closure notice may take effect immediately, if the notice so declares; the section provides details in respect of the coming into effect of the notice in other cases. The section also provides details in respect of appeal to the District Court against a closure notice.	Where an authorised person becomes aware of a serious and immediate risk to the safety of persons in buildings or premises, he may serve a closure notice. There is provision for appeal against a closure notice. There is provision for revocation of a closure notice.

The section also provides details in respect of confirmation that the matters specified in the notice have been remedied. An authorised person my revoke a closure notice having obtained confirmation that the matters have been remedied, or if the authorised person is of the opinion that the matters have been remedied or that the activities no longer pose a risk of fire.	
Order of High Court as to use of land or buildings – Section 23 Where a fire authority considers that the **risk to persons in the event of fire is so serious** that the use of **particular land or a particular building**, or part thereof, should be restricted or should be immediately prohibited until specified measures have been taken to reduce the risk to a reasonable level, it may apply to the High Court for an order restricting or prohibiting the use of the land or building accordingly.	In serious cases, the fire authority may apply to the High Court for an order in respect of land or building.

Appendix J: Warranty schemes and Latent Defects Insurance

J.1 HomeBond

The National Housebuilding Company Limited, trading as HomeBond, is a private company limited by guarantee, and since 1978 it has provided a Warranty Scheme for dwellings. In summary, the HomeBond Warranty Agreement provided cover[87] for the following:

- Repair of major structural defects (ten years).
- Remedial work in the event of water ingress / smoke penetration caused by major structural defects: two years for dwellings registered prior to 2004, and five years for dwellings registered after 2004.
- Loss of money before completion (deposit and stage payments cover).

The Warranty Scheme ceased writing new business in November 2008. Since then, HomeBond Technical Services Limited, a private company limited by shares, has operated the HomeBond Membership Scheme whereby builders/developers who are members and who comply with the rules can register new dwellings with HomeBond Insurance Services Limited for a new insurance policy.

HomeBond Insurance Services Limited provides first-party insurance policies for newly built homes: (1) Latent Defects Insurance (LDI) and (2) Mechanical & Electrical Inherent Defects Insurance (MIDI). Covering certain defects and damage, these policies offer protection for up to twelve years for the first homeowner and subsequent owners. The policies are underwritten by 'A' rated insurance companies, and all valid claims that fall within the scope of the policies are dealt with by the underwriters.

HomeBond provided the Working Group with the following details about its various products:

[87] *Limits and exclusions apply. The cover details are a summary of the covers provided. Full terms and conditions and obligations are set out in the company documents.*

- Structural major defects were covered for six years up to June 1999, and thereafter for ten years.
- Water ingress was covered for two years up to September 2004 and thereafter for five years.
- Fire safety defects fall within the scope of cover from September 2015.

HomeBond indicated that the warranty scheme continues to honour its obligation for dwellings still under cover. With respect to dwellings registered from November 2008, claims are addressed either by the builder/developer, or by the underwriter, where covered by the relevant insurance policy.

While HomeBond provided warranty/insurance to the vast majority of apartment/duplexes built in the period between 1991 and 2013, they informed the Working Group that they received claims representing less than 1% of registered apartment/duplex properties from that period, and these claims were largely in relation to water ingress/dampness. It was acknowledged that in some cases, defects may have been fixed by developers on a case-by-case basis without making a claim on the policy. In other cases, for reasons unknown, official claims were not made on foot of an initial claim notification.

J.2 Premier Guarantee Latent Defects scheme

The Premier Guarantee Latent Defects product was an insurance-based product underwritten by Liberty Syndicates Insurance. It operated in Ireland between 2003 and 2011. The insurance policy was between the purchaser and Liberty Syndicates Management, and as such the builder has no liability for dealing with structural defects that occur after purchase.

Premier Guarantee offered cover,[88] including the following:

- Ten years of protection against losses caused by defects in the design and/or materials and/or workmanship of a property that results in major damage to the structural elements.

[88] *Limits and exclusions apply. The cover details are a summary of the covers provided. Full terms and conditions and obligations are set out in the company documents.*

- Deposit paid or additional costs incurred in the event of insolvency or fraud by the developer during construction.

Neither Premier Guarantee nor their Managing General Agents accepted the invitation to meet with the Working Group; nor did it provide a response to the written questions issued by the Working Group. However, it confirmed that it stopped accepting new orders in 2011, and that Liberty Syndicates Management has transferred the “claims handling function” to an outsourced third party.

J.3 Global Home Warranties Limited

Global Home Warranties Limited (GHW) is a specialist technical services company that carries out technical inspections on new-build properties to ensure they meet the current Building Regulations and technical guidelines, so that they will be eligible for ten-year structural and LDI cover as provided by IGI (Europe). GHW has been involved in the LDI market in both the UK and Ireland since 2011.

GHW indicated to the Working Group that since it was established in March 2011 and up to December 2013, claims from homeowners including apartment owners, were received by the insurer. The insurer appointed loss adjustors to each claim. If covered under the policy, a remediation plan was agreed with the policyholder. The number of these claims represented less than 0.1% of their apartment/duplex registrations in that period. The claims related to water ingress only.

References

Irish Legislation

Building Control Act 1990 to 2020
http://revisedacts.lawreform.ie/eli/1990/act/3/revised/en/html

Building Control Regulations 1997 to 2021
https://revisedacts.lawreform.ie/eli/1997/si/496/front/revised/en/html

Building Control (Amendment) Regulations 2014 (S.I. No. 9 of 2014)
https://www.irishstatutebook.ie/eli/2014/si/9/made/en/print

Building Legislation Amendment Act 2021 No 21
https://legislation.nsw.gov.au/view/pdf/asmade/act-2021-21

Building Regulations 1997 to 2021
https://www.gov.ie/en/publication/1d2af-building-regulations/

Companies Act 2014
https://www.irishstatutebook.ie/eli/2014/act/38/enacted/en/html

Remediation of Dwellings Damaged by the Use of Defective Concrete Blocks Act 2022
https://data.oireachtas.ie/ie/oireachtas/bill/2022/66/eng/ver_a/b66a22d.pdf

Domestic Lead Remediation (Financial Assistance) Regulations 2016 (S.I. No. 56 of 2016)
https://www.irishstatutebook.ie/eli/2016/si/56/made/en/print

Dwellings Damaged by the Use of Defective Concrete Blocks in Construction (Remediation) (Financial Assistance) Regulations 2020 (S.I. No. 25 of 2020)
https://www.irishstatutebook.ie/eli/2020/si/25/made/en/print

Fire Services Acts, 1981 and 2003
https://www.irishstatutebook.ie/eli/1981/act/30/enacted/en/html
and https://www.irishstatutebook.ie/eli/2003/act/15/enacted/en/print#part3

Housing (Adaptation Grants for Older People and People with a Disability), Regulations 2007 (S.I. No. 670 of 2007)
https://www.irishstatutebook.ie/eli/2007/si/670/made/en/print

Housing (Improvement Grants) Regulations, 1988 (S.I. No. 261 of 1988)
https://www.irishstatutebook.ie/eli/1988/si/261/made/en/print

Housing (Improvement Grants) (Thatched Roofs) Regulations, 2001 (S.I. No. 610 of 2001)
https://www.irishstatutebook.ie/eli/2001/si/610/made/en/print

Housing (Miscellaneous Provisions) Act, 1979
https://www.irishstatutebook.ie/eli/1979/act/27/enacted/en/html

Housing Regulations, 1980 (S.I. No. 296 of 1980)
https://www.irishstatutebook.ie/eli/1980/si/296/made/en/print

Housing (Standards for Rented Houses) Regulations 2019 (S.I. No. 137 of 2019)
https://www.irishstatutebook.ie/eli/2019/si/137/made/en/print

Local Government (Multi-Storey Buildings) Act, 1988
https://www.irishstatutebook.ie/eli/1988/act/29/enacted/en/html

Multi-Unit Developments Act 2011
https://www.irishstatutebook.ie/eli/2011/act/2/enacted/en/html

Planning and Development Act, 2000
https://www.irishstatutebook.ie/eli/2000/act/30/enacted/en/html

Property Services (Regulation) Act 2011
https://www.irishstatutebook.ie/eli/2011/act/40/enacted/en/print

Pyrite Resolution Act 2013
https://www.irishstatutebook.ie/eli/2013/act/51/enacted/en/html

Statute of Limitations, 1957
https://www.irishstatutebook.ie/eli/1957/act/6/enacted/en/html

Sustainable Energy Act, 2002
https://www.irishstatutebook.ie/eli/2002/act/2/enacted/en/html

Taxes Consolidation Act, 1997
https://www.irishstatutebook.ie/eli/1997/act/39/enacted/en/html

The Institution of Civil Engineers of Ireland (Charter Amendment) Act, 1969
https://www.irishstatutebook.ie/eli/1969/prv/1/enacted/en/html

Australian Legislation

Design and Building Practitioners (DBP) Act 2020 No 7
https://legislation.nsw.gov.au/view/html/inforce/current/act-2020-007

Canadian Legislation

Homeowner Protection Act 1998
www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/98031_01

UK Legislation

Building Safety Act 2022
https://www.legislation.gov.uk/ukpga/2022/30/contents/enacted

New Zealand Legislation

Weathertight Homes Resolution Services Act 2006
www.legislation.govt.nz/act/public/2006/0084/latest/DLM403530.html

Publications

Central Statistics Office (2018). *Census 2016 Reports* https://www.cso.ie/en/census/census2016reports/

Central Statistics Office (2008). *Construction and Housing in Ireland 2008 edition* https://www.cso.ie/en/media/csoie/releasespublications/documents/construction/current/constructhousing.pdf

Central Statistics Office (2018). *Statistical Yearbook of Ireland 2018* https://www.cso.ie/en/releasesandpublications/ep/p-syi/psyi2018/

Central Statistics Office (2021). *The Rental Sector in Ireland 2021* www.cso.ie/en/csolatestnews/presspages/2021/therentalsectorinireland2021/

City Futures Research Centre, UNSW Sydney, Dr Laura Crommelin, Dr Sian Thompson, A/Prof Hazel Easthope, Prof Martin Loosemore, Hyungmo Yang, Dr Caitlin Buckle and Prof Bill Randolph (2021). *Cracks in the Compact City: Tackling defects in multi-unit strata housing* https://cityfutures.ada.unsw.edu.au/research/projects/defects-strata/#:~:text=This%20ARC%20Linkage%20project%20addresses,half%20of%20new%20Australian%20housing.

City of Melbourne, Giuseppe Genco (2015). *Lacrosse Building Fire, 673 La Trobe Street, Docklands on 25 November 2014*

https://www.melbourne.vic.gov.au/sitecollectiondocuments/mbs-report-lacrosse-fire.pdf

Deakin University, Johnston, Nicole and Reid, Sacha (2019). *An Examination of Building Defects in Residential Multi-owned Properties* www.griffith.edu.au/__data/assets/pdf_file/0022/831217/Examining-Building-Defects-Research-Report-S-Reid-N-Johnston.pdf

Department of Finance (2019). *Institutional Investment in the Housing Market* https://www.gov.ie/en/publication/0e942b-institutional-investment-in-the-housing-market/

Department of Finance (2014). *Report on Tax Expenditures Incorporating Department of Finance Guidelines for Tax Expenditure Evaluation*

https://assets.gov.ie/181244/b0751f6a-d9b0-4bf4-bdcb-68214c7d62a7.pdf

Department of Housing, Local Government and Heritage (2022). *Code of Practice for Fire Safety Assessment of Premises and Buildings* https://www.gov.ie/en/publication/354c8-code-of-practice-for-fire-safety-assessment-of-premises-and-buildings/

Department of Housing, Local Government and Heritage (2016). *Code of Practice for Inspecting and Certifying Buildings and Works* https://www.gov.ie/pdf/?file=https://assets.gov.ie/80497/7c5e1298-58b3-4444-a8ee-f1c589f131c2.pdf#page=1

Department of Housing, Local Government and Heritage (2022). *(Draft) Fire Safety Guide for Building Owners and Operators - Guide for Persons having Control under Section 18(2) Fire Services Acts 1981 & 2003* https://www.gov.ie/en/consultation/c5eea-public-consultation-on-the-draft-fire-safety-guide-for-building-owners-and-operators/

Department of Housing, Local Government and Heritage (2018). *Fire Safety in Ireland – Report of the Fire Safety Task Force* https://www.gov.ie/en/publication/77c85-fire-safety-in-ireland-report-of-the-fire-safety-task-force/

Department of Housing, Local Government and Heritage (2017). *Report of the Expert Panel on Concrete Blocks* https://www.gov.ie/en/publication/0218f-report-of-the-expert-panel-on-concrete-blocks/

Department of Housing, Local Government and Heritage (2012). *Report of the Pyrite Panel* https://www.gov.ie/en/publication/58bec3-report-of-the-pyrite-panel-june-2012/

Department of Housing, Local Government and Heritage (1997 to 2021). *Technical Guidance Documents (A to M)* https://www.gov.ie/en/collection/d9729-technical-guidance-documents/

Department of Housing, Local Government and Heritage (2017). *Framework for Enhancing Fire Safety in Dwellings where concerns arise* https://www.gov.ie/en/publication/2d9a3-framework-for-enhancing-fire-safety-in-dwellings-where-concerns-arise/

European University Institute (EUI) Florence/European Private Law Forum Deutsches Notarinstitut (DNotI) Würzburg (2005). *Real Property Law and Procedure in the European Union* https://www.eui.eu/Documents/DepartmentsCentres/Law/ResearchTeaching/ResearchThemes/EuropeanPrivateLaw/RealPropertyProject/GeneralReport.pdf

Government of Ireland (2022). *Housing for All - a New Housing Plan for Ireland* https://www.gov.ie/en/publication/ef5ec-housing-for-all-a-new-housing-plan-for-ireland/

Joint Committee on Housing, Planning & Local Government (2017). *Safe as Houses?: A Report on Building Standards, Building Controls & Consumer Protection* https://data.oireachtas.ie/ie/oireachtas/committee/dail/32/joint_committee_on_housing_planning_and_local_government/reports/2018/2018-01-24_report-safe-as-houses-a-report-on-building-standards-building-controls-consumer-protection_en.pdf

Ministry of Housing, Communities & Local Government (2019). *Subsidy Control Guidance for Leaseholders* https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/991204/Subsidy_Control_Guidance_for_Leaseholders_-_FINAL.pdf

National Construction Code (2022). *Building Code of Australia* https://ncc.abcb.gov.au/

National Standards Authority of Ireland (2017). *I.S. 398-1:2017 Reactive pyrite in sub-floor hardcore material — Part 1: Testing and categorization protocol* www.standards.iehttps://shop.standards.ie/en-ie/standards/i-s-398-1-2017-876764_saig_nsai_nsai_2083846/

National Standards Authority of Ireland (2018). *I.S. 465:2018 - Assessment, Testing and Categorisation of Damaged Buildings Incorporating Concrete Blocks Containing Certain Deleterious Materials*
https://www.nsai.ie/images/uploads/standards/I.S_.465-2018_Web_Download_.pdf

New South Wales Government (2021). *Apartment owners guide to Project Remediate*
https://www.nsw.gov.au/sites/default/files/2021-06/apartment-owners-guide-to-project-remediate.pdf

New Zealand Government (2022). *Leaky homes*
https://www.govt.nz/browse/housing-and-property/leaky-homes/

Pyrite Resolution Board (2021). *Annual Report 2021*
https://www.pyriteboard.ie/More-Information-(1)/Annual-Reports.aspx

Shergold, P. & Weir, B. (2018). *Building Confidence: Improving the effectiveness of compliance and enforcement systems for the building and construction industry across Australia*.
https://www.industry.gov.au/sites/default/files/July%202018/document/pdf/building_ministers_forum_expert_assessment_-_building_confidence.pdf

Society of Chartered Surveyors Ireland (2022) *SCSI Tender Price Index*
Tender Price Index - July 2022 - Society of Chartered Surveyors Ireland (scsi.ie)

The Housing Agency (2019). *Apartment Living in Ireland 2019*
https://www.housingagency.ie/sites/default/files/2020-09/Apartment%20Living%20Attitudinal%20Report%202019.pdf

The Housing Agency (2019). *Owners' Management Companies Sustainable Apartment Living for Ireland*
https://www.housingagency.ie/sites/default/files/2019-06/HA19011%20OMC%20report%20p1-100%20onlineV3.pdf

United Kingdom Government (2022). *Remediation of non-ACM buildings*
https://www.gov.uk/guidance/remediation-of-non-acm-buildings

Victorian Government (2021). *Cladding Rectification Funding Guidelines*

https://www.vic.gov.au/cladding-rectification-funding-guidelines

Victorian Government (2022). *Cladding Safety Victoria*
https://www.vic.gov.au/cladding-safety