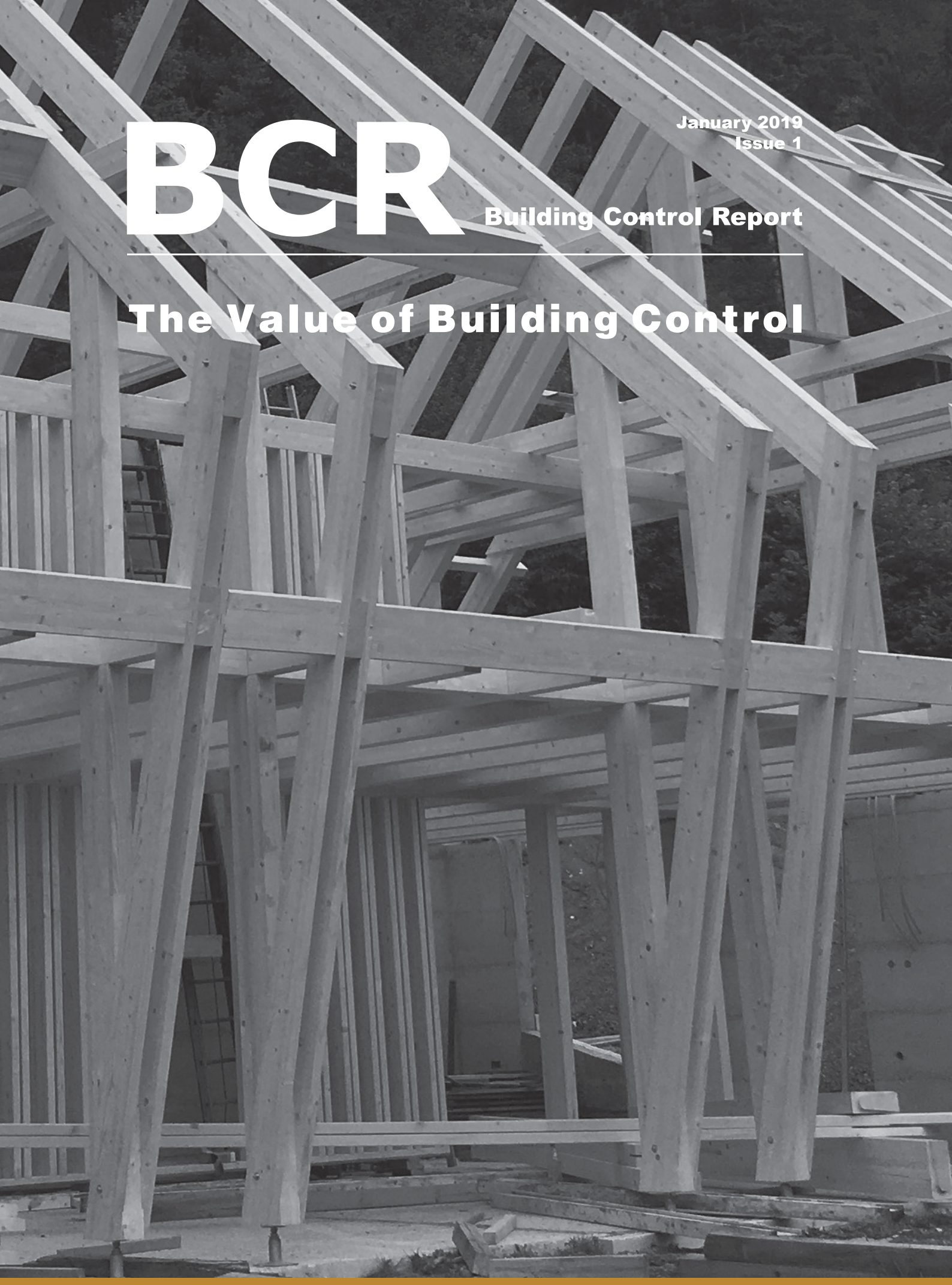

January 2019
Issue 1

BCR

Building Control Report

The Value of Building Control

Consortium of European Building Control

Forward

The Consortium of European Building Control (CEBC) is a pan-European body that represents the Building Control profession across Europe.

Its membership encompasses government departments, professional bodies, institutions and private companies.

Consortium members meet as a body twice a year at locations around Europe. A theme is chosen for each meeting depending on the country to be visited. A typical meeting usually includes a site visit of a significant development, circulation of Technical papers and debate on their content, linked to a particular theme.

At recent meetings, members have debated the following topics:

- Building Control systems in a number of European countries;
- Private/ public involvement in Building Control;
- The Value of Building Control;
- Defining a model Building Control system (best practice toolbox);
- Comparison of E – permitting processes across member states in Europe;
- CE-marking;
- Updates of EU building related legislation.

Each meeting also allows members to debate developing issues in their respective countries and to be able to share information and experiences. This has been particularly important on subjects such as defects in construction, building products and durability.

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Content

Executive Summary

This report examines the value that an effective Builidng Control system can bring to a country and community. It outlines the advantages to the whole of society that an effective system can bring to the economy and the well being of the residents of each jurisdiction. An effective Builidng Control system can also be a catalyst to improve skills and education levels within a society. The report concludes with a number of points indicating the real value that an effective Builidng Control system can bring.

CEBC (Consortium of European Building Control) is a European organisation which brings together countries in Europe and further afield which are responsible for building control. Members are legislative authorities, as well as those who deliver building control both as a desktop approval service and on building sites to ensure compliant development results.

Part of CEBC work involves the preparation of reports (BCR – Building Control Reports) which summarise the current state of Building Control in Europe whilst also outlining further developments in the building control industry.

Examples of previous reports include: "Building Control Systems in Europe" which explains the systems of building control in member states; another relates to access to the built environment – "Access for All in Europe". We have published a report which examines self-confirmation: "Study into Self Confirmation and Building Control and Europe" and finally, the appreciation of construction compliance checks by a building control professional: "The Value of Building Control".

1. Introduction

1.1 This report has been commissioned by the Consortium of European Building Control for the purpose of examine the value of Building Control and promoting this to the wider community.

1.2 CEBC is an international non-profit-making organisation called the "Consortium of European Building Control" represented by a board of directors.

CEBC is composed of member organisations (members) representing different European countries and associated non-European countries from both public and private sectors. Members are involved in building control or in the development of appropriate legislation and standards associated with health, safety, accessibility, energy conservation and sustainability aspects of the built environment and include professional organisations, government bodies or a comparable agency.

1. 3 Buildings are an essential component of societies and economies, providing safe and healthy buildings for people to live and work.

1.4 They provide shelter from the elements, housing, as well as a space for education and work.

1.5 They house critical infrastructure necessary to keep government and business in operation. In many countries they represent a significant percentage of gross national product in terms of the resources needed for design, building materials, construction, labour, functional use, operations and maintenance.

1.6 The economic scale, size and impact of the built environment are significant. It generates about 9% of the gross domestic product [GDP] in the European Union and it provides 18 million direct jobs.

1.7 The term Building Control refers to the complex set of laws, regulatory documents, compliance mechanisms, education and training requirements, product testing and certification, professional qualifications and licensing schemes that support a safe sustainable and resilient built environment.

1.8 Historically, Building Control systems have primarily been focused on health and safety of occupants of buildings and on reducing economic losses associated with a wide range of hazards and disasters. As societies have progressed and other aspects have become important such as access and environmental concerns Building Control measures have expanded.

1.9 A building control system provides confidence to consumers in accordance with general policies or specific needs.

1.10 A building control system may involve all or some of the following:

[i] Inspection and checking of a building (during the different construction phases and life cycle of a building.

[ii] Assessment of building plans and related documents submitted in conjunction with a building project

[iii] Certification of skills or management systems or products

1.11 The aim of a Building Control system to ensure the health and safety of building users, promote energy efficiency, facilitate sustainable development and contribute to meeting the access needs of disabled people. They provide a framework of flexible functional requirements within which buildings can be designed and constructed. The role of building control is to help ensure that all relevant building work accords with these objectives, but at the same time this service should be effective, efficient and minimise cost and delay for those carrying out such work.

1.12 There are a number of delivery models available ranging from purely state run and administered to allowing independent organisations to provide the function under licence from the state, each country will choose whatever system works best for them.

1.13 A comprehensive and effective building control system facilitates the achievement of many social and economic objectives.

1.14 Political and legal systems in many countries require that most buildings meet some minimum level of performance in terms of health, safety, welfare, energy efficiency and accessibility.

1.15 Building Control systems also facilitate economic development and stability by establishing effective, efficient and reliable regulatory practices that incentivize economic investment.

1.16 They do so by providing the market with a clear set of design and construction requirements and quality standards. This in turn minimizes barriers to trade and encourages investor confidence.

1.17 The system also benefits education and training across the sector from skilled crafts to engineers and design professionals.

1.18 Building Control and regulatory frameworks can impose requirements on developments that without them would not be included. These requirements can [and do] have an impact on the cost of the development and time taken to compete it. This means that sometimes the value of a Building Control System can be called into question. This report will attempt to identify the value that an effective Building Control system can provide to a society or country.

2. Effectiveness of the regulatory systems

2.1 The effectiveness of a regulatory system could be defined as the way the regulations contribute to the defined goals of the regulations.

2.2 The goals can be found at the starting points of the technical requirements. In the Netherlands these are: safety, health, energy economy, utility and environment.

2.3 The effectiveness of the whole system of building control could be measured by the actual quality of the buildings. It is difficult to gather reliable data for conclusions in this direction. An alternative can be found in some indicators for the way the minimum requirements are met or in the way the system of building control functions.

2.4 If the building industry functions in a perfect way and the compliance with public requirements could be assured in the primary development processes, actual building control could be minimised and still be very effective.

2.5 This implies the eminent importance of technical requirements be made known in the building industry and that the people dealing with the work are sufficiently educated to handle the work.

3 The Value of Building Control

3.1 A comprehensive and effective Building Control system is an enabler. It provides safe, healthy, energy efficient, accessible buildings by providing a robust socio-technical framework.

3.2 This helps the market understand what is expected and identifies the tools for the market to deliver well- performing buildings as well providing the oversight to help assure designs and constructed buildings meet societies expectations. The following are some ways in which Building Control achieves this.

3.3 Historically insurance has played an important role in developing building standards and building control as a means of managing risk. In France this system has become the main driver for compliance with Building Standards.

BOX 2.6 — The French mandatory liability insurance system: a main driver of compliance with building standards

In France, builders are liable to the owner for any damage revealed within 10 years which renders all or part of the building defective or unsafe. This 10-year liability provision provides joint liability for builders and manufacturers, thus shortening and simplifying the process of identifying who is liable for the cost of repair. In this way, any key player involved in the construction can be held liable for the entire cost of the repairs. In the meantime, the cause of the damage can be investigated. A 10-year liability is presumed and applies to any damage that compromises the integrity of the structure or that affects essential elements of the building, rendering it unsuitable for its intended use.

Nearly all actors involved in the building process, apart from the owner, are subject to such liability, and so is the seller of the building after completion. The idea is that whoever creates a problem must pay compensation. Because the 10-year liability is mandated by law, no contractual clause may depart from it.

The mandatory insurance requirement applies to any work on a building and to the various actors involved in the building process. Both the owner and the builder must take out insurance.

The owner's insurance covers against all damages to the building. The insurer compensates the owner before any research on liability is initiated for any damage (or any risk of damage) occurring within the 10-year period. The builder's insurance covers the 10-year liability period. Provided the builder has complied with state-of-the-art standards, referred to as "DTUs," insurance companies will cover the repair costs for any serious damage.

The mandatory insurance regime has led to a shift of power and workload toward insurance companies. With the exception of submitting a claim, the process requires no other intervention by the owner. A court process is seldom needed because insurance companies mostly resolve claims directly between themselves. As a result, delays in receiving compensation are short in most cases. Complaints are submitted to courts only if the conflict cannot be resolved at the insurance level, creating fewer costs for the state.

Due to the mandatory insurance system, insurance companies have a significant influence on the content of building contracts and on the techniques and products used during the building process. By making DTUs mandatory, insurance companies act as an actual enforcer of building standards. Moreover, by allowing a fast and adequate compensation of any damage, the system protects the owner and the user of the building.

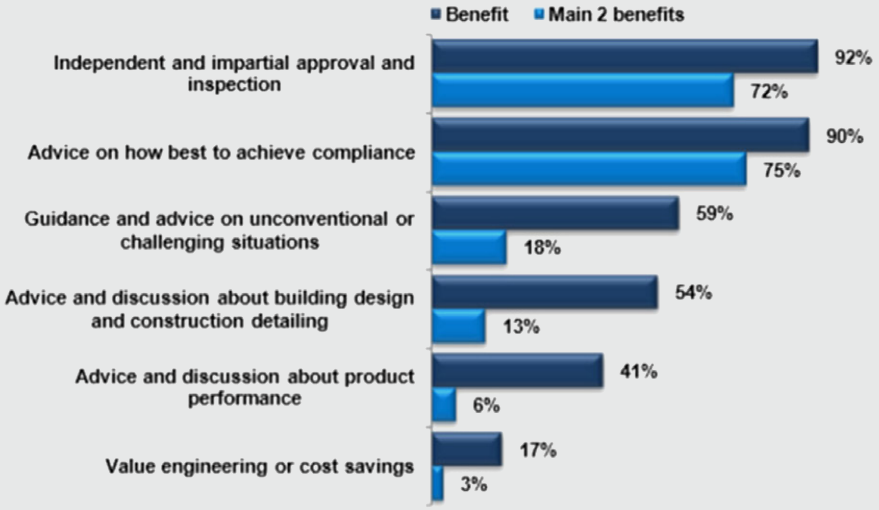
3.4 A survey on Building Control conducted in the UK in 2012 concluded the following results in relation to the main benefits of a Building Control system.

Prompted views of the main benefits of Building Control

- Prompted with some potential benefits of Building Control, 9 in 10 people feel they benefit from the:
  - Independent and impartial advice/inspection
  - Advice on how best to achieve compliance.

The majority also feel that these are the main benefits, with a lot of similarity across sectors.

Which of these benefits does Building Control provide to you? Which two are the main benefits?



Base 527. (excludes Developers and other Clients who leave Building Control to their external teams)
Not everyone gave 2 main benefits

4 Establish Minimum Standards for Acceptable Performance

4.1 A set of minimum standards provides uniformity in building performance relative to resiliency and occupant safety.

4.2 Left purely to market forces there could be a very significant variation in the minimum level of building performance within communities over a wide range of building functions and occupancy.

4.3 Before the introduction of carbon monoxide detector alarms in Slovenia in 2017 in the rooms where there is an open fire heating appliance that uses the same air as occupants. there have been no fatalities caused by CO poisoning in buildings. Before this there were 40 poisonings a year which resulted in between 2-5 deaths. These problems have now been eliminated.

5 Reduces Uncertainty, Facilitates Trade and Stimulates Economic Growth

5.1 Building Regulations outline a common set of requirements for buildings to be constructed within and sometimes between jurisdictions. For most buildings, this allows a high degree of certainty in terms of acceptable methods of design and construction, minimum building features and functions. This means that operational efficiencies can be gained across the product certification and building design, construction and approval process.

5.2 An effective Building Control system can also assist trade between jurisdictions, offering minimum performance and quality criteria and a clear path to approval of products and materials. An example of this is the EU Construction Products Directive.

5.3 The CPD provided the following four main elements:

a system of harmonized technical specifications

an agreed system of attestation of conformity for each product family

a framework of notified bodies

the CE marking of products

The Directive did not aim to harmonize regulations. Member States and public and private sector procurers were free to set their own requirements on the performance of works and therefore products. What the CPD sought to harmonize was the methods of test, the methods of declaration of product performance values, and the method of conformity assessment. Choice of value for intended use, was left to the regulators in each Member State

6 Confidence in transactions

6.1 Building Control providers all consumers with confidence that all buildings with in a jurisdiction are benchmarked by the same standards. This can reduce uncertainty in the market for sale and rental of buildings, providing some assurance of a specific standard.

6.2 Most of the people using or purchasing a building are not technical. An effective Building Control system provides a framework for those people be able to assess the buildings performance thereby removing uncertainty.

6.3 Building control in the United Kingdom goes back centuries. After the Great Fire of London wiped out 80% of the city in 1666, a new London building act banned the use of timber-framed houses and gave surveyors powers to enforce the regulations. The first national building regulations were introduced in the 1960s, initially in Scotland and later in the rest of the UK. Subsequent changes have improved the overall quality of new and altered buildings, provided practical guidance on compliance.

7 Removing External Negatives

7.1 Without Building Control there is no incentive to mitigate or compensate for negative impacts experienced by people who are not directly engaged in a particular activity. Building Control provides the means to protect such people.

7.2 Building control is much misunderstood, even among industry professionals. A senior manager from a major UK construction firm who was on the judging panel for the 2016 UK LABC building control awards expressed surprise at the full extent of the profession's reach:

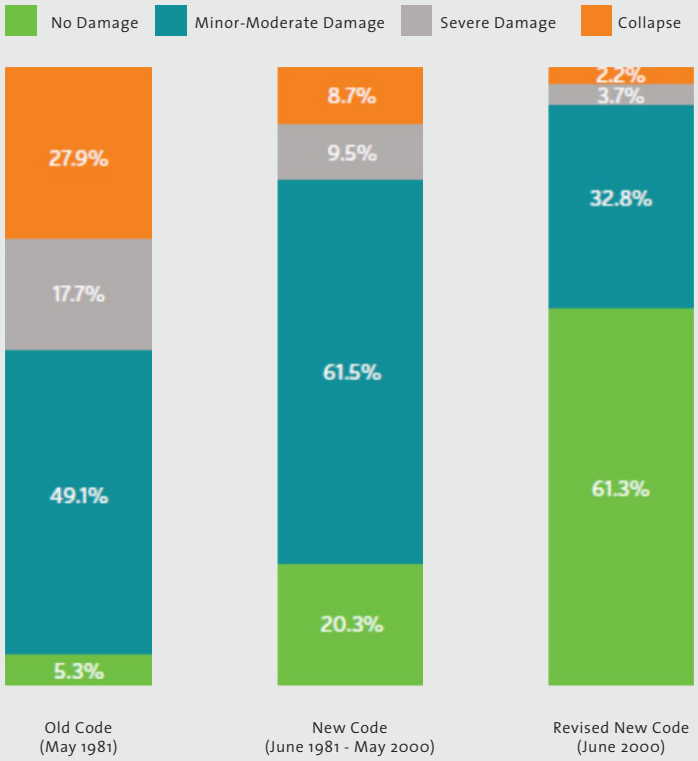
"I was amazed by the scope and depth of work carried out by building control and we saw many examples of great work by individuals covering training, emergencies and danger to the public, consumer protection and everyday support for good builders, architects, developers and property owners. It certainly helped me to see local authority building control in a new light."

Building control is a keystone in the system that keeps our buildings safe, sustainable, energy efficient and accessible for all. But if it is to continue with its work and mission, it will need all the help it can get in spreading the word to the next generation of building control professionals

8 Buildings as a National Resource

8.1 Economic impact of unsafe and unsatisfactory buildings can seriously handicap a country in advancing its own policies. This can manifest itself in many ways a demonstration of this is in Japan that has over the years developed increasing standards to protect wooden structures from earthquake damage. See illustration below. 8.2 Building control in broad sense of the phrase has insured better quality of built environment and saved many lives. As Slovenia is an earthquake prone county and earthquakes regularly test the quality of mechanical stability of construction. Following an earthquake in 2004 in Posocje 2030 buildings were structurally improved by spending 69 Million Euros. This provides an investment in buildings as a national resource thereby securing them for the future.

Figure 3.2 – Damage of Wooden Structures in 2016 Kumamoto Earthquake



8.3 It can be seen therefore that an effective Building Control system adds to a countries economy and increases the value of its Gross National Product as well as enhancing the lives of its residents.

9 Conclusion

9.1 It can be seen that in any developed or developing country an effective Building control system brings many benefits to the economy, the welfare and well-being of its citizens and businesses.

9.2 By having a mature and effective Building Control system a country's national resource can be adequately protected and secured for the future.

9.3 An effective Building Control system can improve a country's Gross National Product and significantly improve the quality of life for the population.

9.4 An effective Building Control system can provide a framework for, and develop skill levels which can only improve employment and economic prospects as well as improving the quality of life for the included population.

Acknowledgements

Building Regulatory Capacity Assessment, The World Bank

Building Regulation for Resilience, The World Bank

Building Control Performance Standards Department of Communities and Local Government

Construction Industry Council UK.

Local Authority Building Control UK.

Lychgate Value of Building Control 2012

Consortium of European Building Control