

A Need to Innovate the Dutch Building Regulation

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Abstract: In 2008, two governmental committees presented their conclusions on strengthening the role of the private building sector in building control. In 2011, three new studies were commissioned by the government to address perceived problems. One of them was an integral study, executed by ERB (Foundation Expertcentre Regulations in Building), RIGO (Research Institute for Real Estate) and TNO (Research Institute for Applied Technologies), to innovate the whole building regulations system. It led to proposals to redefine responsibility and liability for all parties. This study states that by an effort of yearly €100 million, unnecessary costs up to €1 billion can be avoided and a real quality push will take place in the building and real estate markets. The goals to reach are to minimize the administrative burden for the building owner and to enforce the construction industry to build conforming to the regulations. This paper discusses the ERB study and the given proposals. The ERB study demonstrated that a quality push is needed which potential will lead to less costs for building owners. It also shows that proven solutions, part of the regulations, might be of help for all parties involved.

Key words: Deregulation, education, liability, system innovation.

1. Introduction

The Dutch Building Decree has been under discussion for decades. Clear building rules and regulations form an important, even an essential link between building practice and society, primarily aim at the availability of safe, healthy, usable and sustainable buildings. How effective building rules and regulations are largely depends on their practical applicability, costs and the extent in which they allow building innovations.

With its Building Decree 1992, Dutch legislation took an important first step, a system that meets these objectives. As opposed to the traditional building regulations, the Building Decree does not prescribe in detail how to build, but indicates the required performance. This system leaves space for the introduction and application of fresh and innovative solutions.

Now, almost 20 years later, the building regulations

have been changed three times fundamentally, initiated by deregulation initiatives. The last one is more and more based on the idea that governmental regulation can be skipped in the belief that market forces will ensure a good performance in the whole building sector, also for the long run.

Although the Building Decree has proven to be successful in many aspects, various problems have emerged which appear to be structural in origin.

Increasing dissatisfaction with the regulatory burden, with the building control by the municipalities and the loss of knowledge and experience on operational level, led to the institution of two governmental committees who presented their conclusions and proposals in 2008. One was private certification of the building permit procedure and another to concentrate the knowledge of municipalities in regional intermunicipal bodies. These proposals will however not change fundamentally the attitudes and behaviour of the parties in the building process, owners and users of works. Experiments to implement since show only increased costs and liability.

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Also, more fundamental questions were raised about quality assurance and responsibility in a market driven construction sector. Should the national building regulation set a minimum standard for all relevant aspects because of market imperfections? Or is self-regulation feasible? And if so, will it be effective without supervision by an authority? By ERB (Foundation Expertcentre Regulations in Building), RIGO (Research Institute for Real Estate) and TNO (Research Institute for Applied Technologies), a fundamental study was done to innovate the whole building regulations system [1].

ERB published its first, overall analysis and vision [2] in 2008. One of its conclusions was that the end user, who, as the owner of a building, is legally accountable for it to meet the rules and regulations set, is represented too feebly in the building process and often does not even play any role at all in the decision-making, especially not in the formulation of regulations. Because of this, the end user could in practice become the loser. As a result, ERB assigned a group of experts and scientists to further investigate this issue and to come with a remedy to this undesirable situation [3].

Other conclusions were that, in the public and private sectors, two separated circuits of knowledge development took place and that the building regulations in their present form insufficiently warrant that public objectives are realized.

In the end of 2011, a quick scan study was realized commissioned by the government:

(1) to describe the desired change in public and private roles of involved parties in the building process and in the management and maintenance of real estate;

(2) to sketch a robust future picture of the development and content of the building regulations and the role of the different parties in that process by focusing on the protection of the non professional end-user;

(3) to change the building control process and the

process of assessment of the performance of existing stock to strengthen the position of the end user in such a way that the realized performance fulfills the regulations and that, at the transfer of real estate by owner or tenants, the performance will be transparent and guaranteed.

2. Present System

As a reaction to the abominable bad housing of city immigrants in the second half of the 19th century, the Netherlands introduced the housing act in 1901. From then, the municipalities were responsible for the drawing up and enforcement of regulations in the form of local building codes. In the 1920s and 1930s of the 20th century, the housing act advanced the construction of good and still attractive dwellings.

After World War II, building contractors and developers operated more and more nationwide. They were confronted with all kinds of different and inconsistent local regulations. In order to rationalize the building process, countrywide uniformity was required. As a first move, the Association of Dutch Municipalities issued the Model Building Bylaw. But many municipalities kept adhering to their own building regulations and the call for national uniformity became stronger.

In 1982, the Lubbers-1 cabinet took the initiative that finally resulted in the 1992 Building Decree (MVRM, 1991 [4]). The housing act stated that from then on, municipalities, fire brigades and utility companies were no longer allowed to issue regulations supplementary to or deviating from the building decree.

This first building decree had a completely different structure. In the old system, the building regulations described specific solutions to many regularly occurring construction problems, innovative solutions were formally not allowed. As the building decree states, the performance required of complete buildings, constructors could apply both existing standard solutions as well as new, equivalent or better.

Between 1992 and 1998, the government worked on a second edition of the building decree [5] which was never enforced. In 2003, the presentation form of the building decree, called Building Decree 2003 [6-9], was changed at the request of the market into the so-called tables legislation. However, the Dutch Government simultaneously introduced a new modeling principle of works that was not in conformity with the experience of neither the construction partners nor citizens.

On April 1, 2012, a revised Building Decree 2012 [10, 11] came into force after a long development struggle. It integrated elements of Building Decree 2003 of 418 municipal building bylaws, the decree on fire safety structures in use and the decree on road tunnels. The political goal was to reduce more than 25% of the volume of all clauses and to diminish the freedom of local authorities to decide about exemption of requirements for renovations.

Since its publication in 1991, the building decree has now been changed 31 times, often minor changes and two major revisions as described above.

The building decree does not cover the whole spectrum of regulations relevant to building. For specific buildings and safety and healthy rules, the specialized ministries published their own technical regulations.

Besides these, EU regulations for construction products were introduced, due to the required free movement of goods and reduction of use of energy.

In order to reduce the burden of too many regulations and organizational fragmentation, the Dutch Government recently decided to implement three important measures:

- one “environmental counter” for the dealing with “environmental” related permits (the General Physical Environmental Rights Act), but at the start of the Government Rutte I in 2010, a more rigid law reconstruction in the environmental area is foreseen;
- bundle all knowledge at the enforcement level by combining the responsible local services at regional

level, implementing the advice of the Mans Committee [12];

- organize the fire departments regionally (act on safety regions).

3. A Necessary Review of the System

The three recent measures are administrative and organizational answers to problems that are rooted deeper. Both the public legislation and the privately developed system of building standards form part of a knowledge system that is necessary to realize and manage safe, healthy and sustainable buildings. That system should function properly, which is not the case at present. Regulation is more effective when it is developed in line with this knowledge system. Everybody, involved in buildings, construction and its management, must be able to properly understand, interpret and apply the regulations.

This knowledge system should also facilitate possible adaptations and the development of new regulations. Of course, these regulations should comply with the practice of design, construction and use. Lessons learned from practice should in turn lead to research and improved regulation. Attention must be paid to the transfer of knowledge as well as to the restructuring of the regulations.

The skills of designing and constructing good and reliable buildings are rooted in building science. This has largely developed empirically and is continually developing further. With a view to practical applications, scientific knowledge has been incorporated in design regulations, governmental rules and regulations and standards. We may assume that buildings are sufficiently safe, healthy and sustainable when architects adhere to these regulations. Naturally, the same counts for owners and users when managing and running their real estate. Should they not do so, we ought to change the regulations or stimulate people’s adherence to the regulations. Occasionally or in case of technological innovations, people should be able to deviate from the details in the regulations

without necessarily endangering safety, health or sustainability. We have depicted the process outlined here as a circle of knowledge (Fig. 1).

Building regulations combine the two tracks to become a crossroads. Knowledge of standards and their background is also essential for enforcement, and knowledge of rules and regulations is just as important for education and training programs.

On the basis of the ideal model, we are able to clearly illustrate the practice related hitches. Fig. 2 charts these hitches.

The first general problem is that the various actors in the private-law circle of learning work totally independently from each other. Universities, research institutes, schools for professional training, commissioning clients, designers, engineering consultants, building contractors, fitters, suppliers and consumer representatives, they all adhere to their own policies, focusing specifically on their direct self-interests and without much coherence.

The next problem is caused by both a highly fragmented sector and the fact that not a single party

individually obtains a competitive advantage from investing in the development of communication systems and therefore chooses not to do so. However, these systems are necessary to structure and improve mutual understanding in the sector. Centralized communication systems are no one’s priority and no “central market superintendent” exists who could organize this.

There are also other factors. We refer to the characters in the black dots of Fig. 2 [3]. We summarize the importing ones. In order to make public-law rules and regulations and private-law agreements match, the two learning tracks on the left-hand side should be linked up with each other. At present, there is no interaction whatsoever.

Standardization must be based on research. The performance requirements must be based on measurement, determination or calculation methods. At present, unfortunately, many terms and conditions, and standards are insufficiently based on science. Due to the lack of proper financing, universities have little interest in the methodology and modeling necessary to

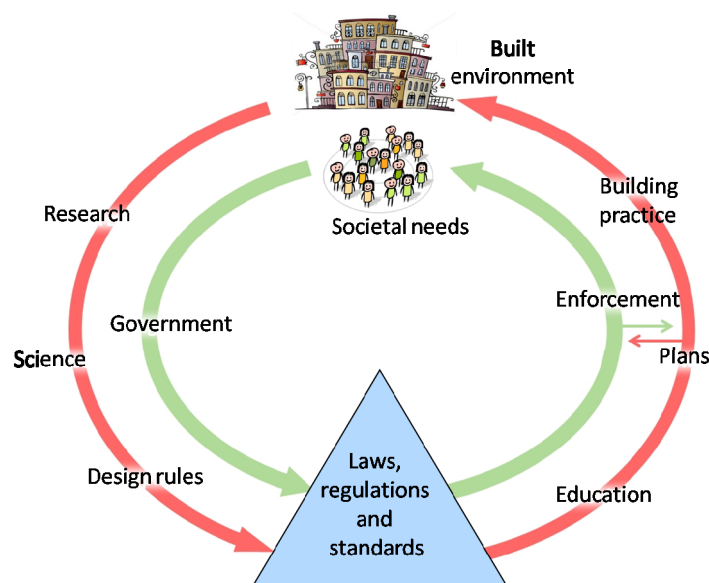


Fig. 1 Knowledge circle [3].

The public learning track (inner): public requirements are translated into rules and regulations through legislation, enforced according to public law by means of a licensing system, general terms and conditions, or sanctions recorded in the Housing Act, Municipalities Act and the Provisions of administrative law;

The private learning track (outer) runs from research and science, through technical specifications and known solutions which are transferred in training programs, leading to professional practice. Some of these specifications and agreements have been laid down in standards and assessment guidelines.

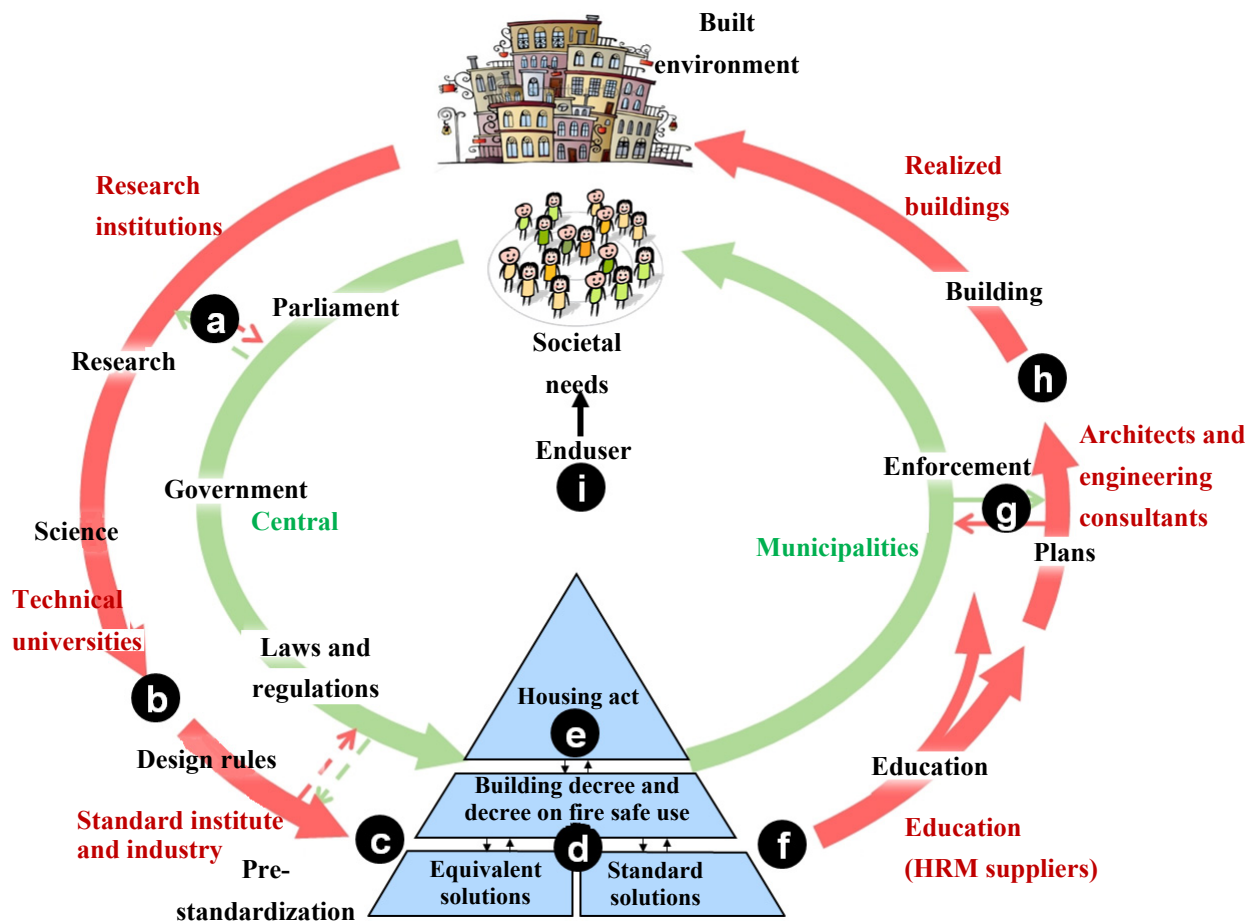


Fig. 2 Hitches in the knowledge circle [3].

formulate rules and regulations. The technological institutions such as TNO (Netherlands Organization for Applied Scientific Research) largely depend on occasional commissions from the government and industries. This is the reason why they miss the long-term stamina necessary for the development of scientifically sound rules and regulations or standards.

The knowledge on which the development of regulations and standards is based has been insufficiently recorded and managed in the present system. After the successful completion of a regulatory project, everybody should be able to easily find the relevant background information with a view to clear objectives and an unambiguous interpretation, and support of the equivalence of possible and fresh solutions. Now, this knowledge seems to ebb away to such an extent that even the responsible bodies

themselves do not always understand their regulations.

Individual private-law regulations, such as standards, have been drawn up based on different disciplinary backgrounds, for instance: by constructors, experts in fire safety and those in building physics or materials specialists. Also, European standards use other words than the Dutch regulator, so these regulations do not match nicely. One result is a differing and inconsistent use of language. As the building decree (2012) refers to such regulations, unavoidable inconsistencies develop in legislation. The legislator's use of language is not that of the standardization committees, while neither speaks the language of the man on the building site, the performance approach requires a level of abstract thinking which is not used on the shop floor,

specialists with secondary education only understand problems by way of practical solutions. The correct application of regulations would improve greatly if it is consistent and written in a more easily understandable language.

The scope of application of building regulations should probably be extended. According to the original housing act, building rules and regulations were meant for the safety and health of the users of a building. Later, as an effect of these, regulations were added with a view to its usability and energy efficiency, later followed by accessibility and sustainability and by April 2012¹ also by fire safe use, demolition, safe maintenance and sustainability. Up to now, economic and cultural aspects and the prevention of criminality have been included only to a small degree. However, the regulations which have to promote the well-being of construction and aid-workers, such as firemen, have been laid down in the law on conditions at the workplace; one can only find them implicitly in building regulations, but the construction industry is one of the most dangerous, unhealthy and energy-consuming economic sectors. Surely, a building application or process should not only meet the building regulations, but also satisfy the commodities act: elevators and appliances, the environmental management act, the nuclear power act: ionization alarm, police act, records act and the law on conditions at the workplace. With such complexity, it is not surprising that people experience regulations related stress.

Rules and regulations only form a minor part of the curricula in secondary and tertiary professional education and universities. This creates an important gap in knowledge both within industries and within law enforcement organizations of the government. It seems as if people no longer see how closely the administrative and building laws as well as technical regulations are connected.

Preventive assessment to meet public law is done

only in the design stage of a building. So, one cannot be sure that buildings realized actually comply with the relevant regulations.

In today's building processes, the end user, often the owner (to be) of a building, hardly plays a role. The end users are often parties differing from the commissioners of buildings (the developers and investors). Their specific interests will generally be insufficiently represented in the design and construction stages. Therefore they will have to rely on the public rules and regulations to protect their interests. Many commissioners completely ignore many kinds of aspects that, for a society, are desirable and beneficial in the long run—think of the accessibility of buildings or the possibility to adapt to other uses. If these requirements have been carefully dealt with in their design and construction, the layout of buildings might have to convert less often, the risk of vacancy might be lower and early demolition due to their being unfit for purpose might be scarcer. The only way to realize this societal goal is for the government to list minimum regulations and enforce them.

4. Proposals for System Innovation

Starting point is the enforcement of regulations whose societal usefulness has been proven. To diminish the burden of overregulation, we can present the rules on three different assessment levels for each aspect. That is needed for three areas of application: the newly built buildings (construction works); the renovation/refurbishment/transformation and the existing stock. For each of these areas, an own set of objectives and rules might be necessary and logical.

Starting point should be for all sub aspects that the objectives of regulation are quite clear and are discussed between all parties concerned, not in the least with the end users, and are formulated clear and concise. This is functionally a governmental task and should be taken up before anything else.

The translation of the objectives into regulation for

¹Enforcement date of Building Decree 2012.

constructions and buildings is clearly a task of the professional market parties.

A first assessment level is meant for easy elaboration of “standard solutions”. We assume that possibly 80% of the building plans or existing buildings are or consist predominantly of “standard solutions”. The middle level more or less resembles or would be an improved Building Decree 2012, which focuses on performance. The proposed third level concerns building works in which unconventional and innovative solutions are to be implemented, using a probabilistic approach in assessment.

Should an applicant differ in opinion on whether a proposal meets the level of the standard solutions or the level of the ordinary assessment according to the performance requirements of the building decree. The third level would then provide the possibility of assessment according to the objectives regarding safety, health, usefulness, energy efficiency and sustainability. In that way, discussions with regard to technical content need not end in judicial disputes.

For many people, the introduction of these two new levels will substantially diminish the burden of overregulation. By standard solutions, one could implement the greatly simplified regulations instead of those of the Building Decree 2012. While at the third level, one can judge innovations against the formulated objectives outside the known territory of solutions and construction rules.

It is in no-one’s interest to enforce regulation that is not well understood. The proposed three-level structures will improve the practical use of the regulation and will promote the legislators, real objectives: the enforcement of safety, health, usefulness, energy efficiency and sustainability. That is how regulation is linked with objectives.

Because of the lack of knowledge, the development of the objectives and structure of three levels and three areas of application should be prepared by a “knowledge institution”, financed by the government and the market parties together (public-private

partnership). In this institution, the few available experts will join forces to organize and prepare the outline of the objectives and to oversee the development and elaboration of the structure of regulation. Within the knowledge institution, all data behind the regulations will be concentrated and stored, accessible for all parties concerned, for now and in the future.

ERB also proposes to improve the safeguarding of the regulation related knowledge. Together with all those involved in the building process, from science, knowledge institutes, education, architects and engineering consultants, to the actual builders and the real estate sector, we must try and form a secure chain of knowledge with properly linked up sub processes. Only with a properly functioning knowledge system can we rely on the building sector to meet the objectives which we may expect from it. The foreseen knowledge institution will form the focal point.

Procedural innovations are required. We need to attune the three assessment levels. The accepted standard solutions will be assessed according to the performance requirements as laid down in the second category and the question whether the performance requirements themselves meet the objectives set is answered by means of the risks approach which we will apply in the third category.

The elements which the three levels share at a generic level: objectives, risks models, user models, functional models and performance requirements, prepared by the knowledge institution and discussed with all parties are concerned.

The general structure of rules and regulations, as presented in Fig. 3, has been depicted in the form of the grey triangle. This part of the structure ensures that the system remains consistent, also when objectives change or new objectives, rules or constructions are introduced. The parts relevant to applicants and assessors are represented in blue.

Explanation of captions used in Fig. 3 are as follows:

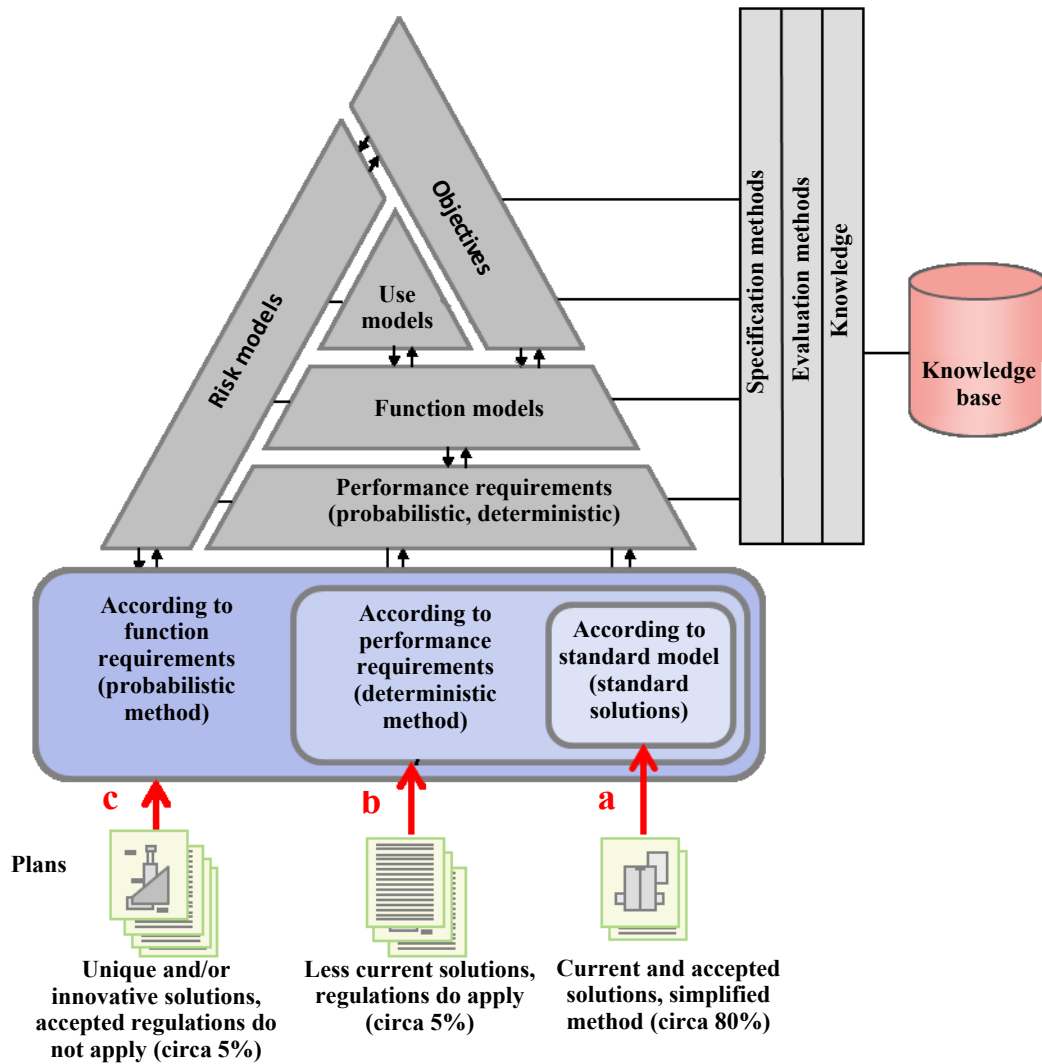


Fig. 3 Presentation of the firm structure of development of building regulations [3].

- Objectives: Regulation must be the outcome of a single coherent system of objectives. These objectives are the foundation of the regulatory system and should be well defined and written down;
- Risks models: Absolute guaranties for safety, health and sustainability cannot be given. Objectives always deal with possibilities and risks. They deal with the possibility of collapse, the risk of permanent physical injury or death and the possibility of environmental damage. The present regulation often provides strictly limited values for these possibilities and risks. Does it mean that exceeding these limit values immediately results in unsafe and unhealthy

situations or limited sustainability? Depending on varying circumstances or the use expected, a building may still, in an acceptable way, meet the objectives laid down. That is why we will again have to standardize the whole system of regulations, standards and limit values according to the objectives using risks models and the theory of probability. These models must become an integral part of the regulatory system. This would greatly simplify regulation, too;

- Use models: We can only translate objectives into specifications for buildings if we also know how these are going to be used and who their end users will be. Models are necessary because of the variation

of use in practice. That is why there is a need for realistic rules and regulation based on user models. By projecting these user models on the model of a building, in terms of floors, working spaces and partitioning elements, we then can list functional and performance requirements;

- Functional models and functional requirements describe the requirements of a building in a functional sense.

- Performance requirements: The performance requirements for a building and its parts depend on their function and use;

- Knowledge base: Many rules are clear-cut. But it is not always clear why certain rules exist or why others do not, or why specific terms are used. Often, the persons involved have stored this background knowledge in their minds, but it is not at all or hardly available to third parties. That is why this knowledge has to be publicly recorded and everybody will be able to properly interpret and apply this.

Naturally, the rules and regulations system react to ever changing opinions in the society. In the past decade, for instance, terrorism, climate change and sustainability moved to top positions in agenda. Undoubtedly, new requirements and objectives will be added in the coming decades which cannot be foreseen for the moment. We should be able to change the rules and regulations as easily as possible, with minimum economics effects for users and real estate managers, while retaining previously acquired rights.

The government wishes to withdraw from markets that might just as well be left to trade and industry, as underlined in the report of the Dekker Committee “Private whenever possible, public whenever required”.

Differing from most of the other industrial sectors, the knowledge process in the building sector is highly dispersed, as has been shown earlier and depicted in Fig. 2. Most of the parties only take responsibility for their own part in the process, nobody feels any overall responsibility. The chain of responsibilities is poorly

organized in the building sector and the process highly fragmented. This might be different in other countries, but it is the case in the Netherlands. We are highly dependent of the smooth cooperation of all parties. This has its advantages and many disadvantages.

The system of regulations and standards forms an essential link in the knowledge process, so we should continue to invest in it for future development and maintenance. However, that does not happen sufficiently. In Fig. 4, we have indicated several points of necessary improvement in the knowledge cycle.

The present public system of assessment against building regulations is aimed at the granting of an “environmental” permit in case of a construction or renovation project. But the authority will never be responsible and will never guarantee that the building fulfills the regulation. The authority does not have the duty nor the capacity to check the whole building process. Many people have the false hope that the authorities will guarantee that the performances of the building will be in line with the regulations and the market wishes. Reality is that most of the buildings do not fulfill the regulations, a lot of mistakes are made and that contractors do not feel the responsibility and liability. They say “we have a permit and it is accepted by the authorities”.

The owner of real estate is responsible that the building will be in line with the regulation. The authorities should issue penalties in case if non compliance. But the authorities do not have the manpower and the knowledge to do so. In reality, we do not know whether buildings comply or not. The owner does not know what the performance is of his real estate, nor the requirements. When transferring to a new owner or tenant, no one knows what quality is sold or rented.

To break through this false chain, we propose the following:

- A technical assessment of the construction project will be no longer necessary on beforehand, but

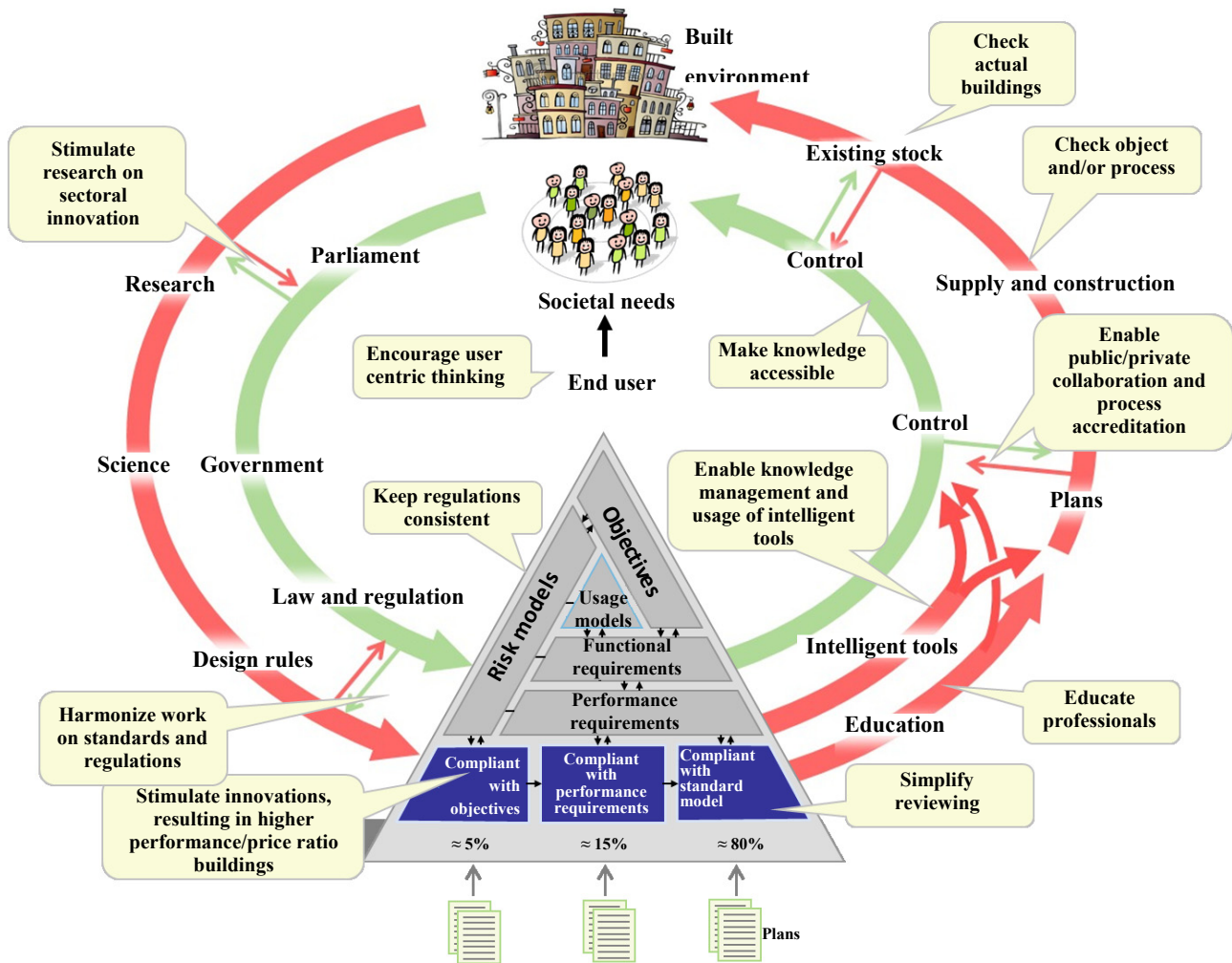


Fig. 4 Vision on future development of building regulations in closed and linked public and private law chains of knowledge [3].

just before occupation of a building. It should be clearly stated and documented that it meets the regulation. If not, the use of the building will be forbidden. In the environmental permit, this clause will be standard implemented. How much documentation is necessary depends on the level of regulation that is applicable (simplified solutions, performance based clauses or probabilistic methods);

- The regulation for existing buildings will be based on the civil law so that liabilities are clear and people can submit objections and complaints at the civil court chamber. Experts of the knowledge institution can advise the court on the technical content;

- When transferring real estate (sale or rental, conveyance), a guaranteed documentation of actual performance will be handed over for which the seller or landlord is liable;
- All parties involved, also the normal man in the street, can complain at a new body in case of unsafe or unhealthy building in the neighborhood.

By changing the system in this way and by changing the content of the building regulations and the process to develop and maintain the regulations as mentioned before, self regulation of the market will become possible and a knowledge push will take place. All parties concerned will probably take insurance so they can bear their responsibilities and liability. Not

the law dictates the duty to insure, but the market system will realize that by itself. That also will strengthen the quality chain. This innovated system will give an upward impulse to realize real performances to the level that the market expects. This system will only function when the knowledge chain is closed.

The implementation will create new functions. Acknowledgement should be organized for independent technical-legal arbitration, so that for parties that have a conflict on technical points, the dispute can quickly be settled on technical-legal arguments. The formal road of objection and appeal according to the General Administrative Law is much too cumbersome for this and can be evaded.

Furthermore, knowledge should be easier accessible and actively promoted through training, publication, the internet and knowledge systems, thus transferred to professionals in the building chain as well as to the law enforcement organizations.

Moreover, emphasis could shift from design to process assessment and possibly to process certification. That is to cover the complete process from design to the building process, including quality management and guarantee after acceptance/completion. This quality related thinking (ISO (International Standardization Organization) 9001) has been accepted in many sectors of industry. It is however not quite common in the building industry, so what would be the impact for the structurally so fragmented building sector? The ultimate test in quality related thinking is customer satisfaction, but as already stated, the actual customer, the end user generally, takes no part in the Dutch building process, except the scarce homebuilding principal. Besides, designers, contractors, suppliers and authorities have shared responsibilities: nobody feels accountable for the whole process. Although integrated contracts are becoming more popular, partly as a consequence of the need of integral accountability, they still only constitute a small part of

the present market of construction and refurbishment.

With a coherent approach, methodical improvements can also be implemented and monitored leading to a more consistent practice that, by means of reference, can become part of the same chain of knowledge.

5. Economic and Societal Relevance

Structured regulation has a key role in the translation of essential needs regarding the built environment. As we are all regular users of that built environment, whether it is living, working, recreating or travelling, that regulation is essential for our society.

However, everything has its price. When we specifically look at the development, learning, applying, enforcing and implementation of the rules and regulations, which we have symbolically represented with the two knowledge circles in Figs. 2 and 4, this refers to a process which involves thousands of specialists on a daily basis. There are no exact figures on this commitment of people and costs.

The construction, management and maintenance of real estate involve substantial amounts of money. Some expenses directly contribute to the quality of the built environment, other expenses are needed solely to apply regulations, so, at the best, they contribute indirectly to the safety, health and sustainability of buildings. We consider that these administrative costs are for a big part unnecessary.

Moreover, costs arise when a design or existing work does not meet the regulation, because the applicant simply knows them insufficiently and the regulation is not enforced. At present, enforcement takes place mainly by means of random checks based building plans on paper. Enforcement should take place much more on the basis of buildings actually constructed, specifically with a view to the real risks for which this regulation has been written.

In the ERB study report, it is demonstrated in a conservative estimation that, by implementing the

proposals every year, more than €1 billion can be saved on a turnover of €20 billion. Other benefits will be:

- better and more understandable building regulations;
- a very simplified process to get the environmental permit;
- better environmental performance;
- less disputes;
- more satisfied people in relation to the quality of buildings.

6. Steps to Take

The ERB report “After Dekker” describes actions to be taken to innovate the building regulations and the building assessment system. First of all, the parties concerned have to sign a covenant that outlines their intentions, their duties and their rights. The government has to provide starting capital to finance the creation of the independent knowledge institution and the first steps of the renewal of the system of building regulations (stating the objectives). Also, the government has to decide the necessary changes in the laws and the moment that the environmental permit system will no longer need the technical assessment of a building plan, but in stead, owner and contractor will have to declare the performance at the occupation moment.

When those decisions are taken, all other improvements will follow as the logical outcome of the new structure. Then there will be a logical need to improve the whole system and to solve all hitches. We will strengthen the regulations and better understand the regulations that building industry guarantees the performances to the client and less conflicts about interpretations have to be solved. All parties involved can finance easily yearly the institution from their savings every year, estimated at least the €1 billion predicted efficiency improvement.

At the moment, the parliament is in discussion with the ministry about the future of the building

regulations and the innovation that is needed. The reports of Actal, EIB (Economisch Instituut Bouw) and ERB are therefore starting point. The need is higher because of the political discussion about the limited quality of Building Decree 2012.

7. Actal and EIB Studies

The ACTAL (Dutch Advisory Board on Regulatory Burden) study [13] is completely in line with the ideas of the ERB study [14]. The differences are that the ERB study is comprehensive, both in regulation steps as in process steps, with an activity plan, time schedule and cost reduction estimation. The ACTAL study only does suggestions without further motivations and conclusions.

The predominantly monetary EIB study [14] calculates costs and benefits of rules and regulation. They focus on rules and regulations that they define as unnecessary, because they are not cost-effective. The study regards balconies and sheds as unnecessary: houses are cheaper without. The same applies to high standards for energy saving. The calculation of the savings of money is too high: it is not related to the effects in reality (e.g., 10% less balconies, because the majority of houses still gets them) but takes the costs of all balconies because they are no longer an obligation. For other aspects, they argue that the rules are not effective and thus unnecessary (the measurements of stairs). We think that this is an argument for better regulation, not doing without. In total, the study counts to €0.5 billion cheaper construction without these rules, which is only theoretical and highly overstated.

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