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Construction products — Assessment of release of dangerous substances — Barriers to use — Extension to CEN/TR 15855 Barriers to trade

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National foreword

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Contents

Foreword

This document (CEN/TR 16410:2012) has been prepared by Technical Committee CEN/TC 351 “Construction products - Assessment of release of dangerous substances”, the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

Executive summary

CEN Technical Report 15855 examined the concept and realities of barriers to trade in construction products within the European Union insofar as the products were affected by regulations relating to Essential Requirement 3 (ER3) of the Construction Products Directive (89/106/EEC).

Within the body of CEN/TR 15855, the topic of barriers to use was investigated briefly and it was concluded that these could be at least as significant as technical barriers to trade. The European Commission, in noting these findings, asked that the report be extended to further examine the reasons for and scope of barriers to use of construction products in the European Union (insofar as they related to ER3) of the Construction Products Directive (CPD) [2].

This report further examines the types of barriers and the fundamental reasons behind their creation and continued existence, such as the laudable aim to protect health.

Like the earlier report, this report considers barriers resulting from legislation and examines the approaches to national legislation in three countries: the UK, Germany and The Netherlands. The latter two were considered especially because they appeared to have the largest number of regulatory requirements or were cited by respondents to the original report as being the cause of barriers to use of construction products.

This report also examines European and national initiatives such as Green Public Procurement and a number of voluntary schemes, especially related to health and safety or environmental labelling issues – particularly product or building labelling and, of course, eco-labelling schemes which are far from harmonised around the world.

Specific examples of barriers to use are reviewed in detail including the use of “collateral warranties” in the United Kingdom, green product labelling, the Dutch Environmental Certification label and indoor air emission labelling schemes such as AgBB in Germany and AFSSET in France.

An industry perspective, previously identified in TR 15855, is also presented. From this point of view, not all barriers to use are seen in a negative way, but this is highly dependent upon the industry concerned and their scale of operations.

The conclusion of the report is that standardisation can only do so much to help provide the framework for prevention of barriers to use of construction products; and the harmonised test methods of CEN/TC 351 will provide some of that framework insofar as the barriers are of a technical nature and regulatory. Standardisation can provide tools but cannot prevent or eliminate voluntary measures or controls that create barriers to use.

1 Introduction

“Barriers to trade” is an emotive subject that polarises opinion amongst regulators and manufacturers alike.

For regulators, there are those who believe in setting minimum performance targets but allowing manufacturers the freedom on how these are achieved, and those who believe that the level of control, through legislation, should be very high and prescriptive to afford maximum protection to health and the environment.

Amongst manufacturing industry, views are influenced partly by national custom (and legislative background) and also by size of the enterprise – the latter, however, is not a consistent measure. Broadly, there are three groups from manufacturing whose opinions can be summarised as follows:

— those who believe that almost every piece of national legislation, and every measure and control applied to products is a barrier to them trading that product on the market;

— those who take their responsibilities for meeting legislation very seriously and fulfil their obligations under the legislation as the law demands or as they perceive society or the market demands for their product;

— those who support strong controls, high standards and levels of certification, not just to fulfil their responsibilities as they understand them but also to protect the product image (and performance) and to protect the market from cheap imports or cost cutting.

The original report on Barriers to Trade, prepared in response to Mandate M/366 given to CEN/TC 351 by the European Commission, and published as CEN/TR 15855 [1], identified that some of these barriers were truly technical or legal "barriers to trade" which can usually be overcome or minimised by technical harmonisation work. However, others were found to be quite legally in place, sometimes voluntary, but nonetheless still seen as a barrier to the use of certain products in a free market place.

This report is a further examination of these concepts in more detail and an attempt to identify the reasons behind the presence of barriers to use and to present specific examples in more detail. The information has also been provided at the request of the European Commission to support their activities in this field and to examine whether the standardisation work in CEN/TC 351 can influence or eliminate barriers to use for construction products in the field of dangerous substances (ER3 of the Construction Products Directive [2]). CEN Technical Report 15855 [1] examined the concept and realities of barriers to trade in construction products within the European Union insofar as the products were affected by regulations relating to Essential Requirement 3 (ER3) of the Construction Products Directive (89/106/EEC) [2]. ER3 relates to hygiene, health and environmental requirements for the "works" and how they may affect the choice and use of products.

The original Technical Report 15855, commissioned under Mandate M/366 from the European Commission to CEN/TC 351, was required to establish the degree to which "technical barriers to trade" already existed and, if they did, whether the harmonisation process under Mandate M/366 could, or would, eliminate any or all of the observed or perceived technical barriers.

CEN/TR 15855 stated that:

"Although the principle emphasis of the Mandate and the report was 'technical' barriers to trade, discussions outside of the TG meetings with the Commission DG Enterprise, established that the Commission was interested in all barriers to trade including barriers to "use" although it was acknowledged that such barriers could be beyond the scope of CEN harmonisation activities. The Commission also confirmed that the presence of a single national requirement and test method was sufficient grounds for commencing harmonisation procedures since the presence of an existing requirement and test method may create a future barrier to trade scenario – see later.

"As well as establishing the presence of any true 'technical' barriers to trade, TG1 therefore also considered that other barriers to trade may exist which may not be under the usual definition of a 'technical barrier'. In particular, TG1 thought it necessary to investigate indirect technical requirements or barriers to trade that may impact construction products one way or another, especially if due to de facto regulations or national requirements. It was therefore considered relevant and useful to include in the report some examples of the various types of barrier to trade where they may directly impact the 'use' of a construction product in one or more Member States compared to the rest of Europe."

It also referred to the differences between Barriers to Trade (BTT) and Barriers to Use (BTU):

"Initial concepts of the different types of barriers in the market place were considered and some examples were provided to consultees to assist in their understanding of the issues and hence their responses. These included voluntary market measures and specific national requirements, whether notified regulations or recommendations. Market measures can become de-facto barriers.

"Opinions on what constitutes a barrier to trade vary but national regulatory 'barriers' can be created within the European legal framework. Some regulations, such as the new REACH Regulation for health protection, provide common European levels of protection but the CPD defines Essential Requirements that are open to interpretation by Member States. Under Article 95 of the EU Treaty, the grounds for derogation from a harmonised level are strict, but greater freedom is afforded to countries when they implement non-harmonised levels of protection for health or environment in construction works. According to case law in the European

Court of Justice, a measure should be proportional and reasonable, and it can take precedence over other regulations such as Public Procurement. A Member State may have a legitimate health and safety requirement based upon their perception of risk which is different to that usually accepted in most other Member States. The Member State then notifies this proposed regulation and provided no justifiable and sustained objections are received from other Member States the regulation is adopted and then cannot be regarded as a legal barrier to trade, although it can create a distortion in the market place and possibly result in the creation of different products for each market area. It may also result in different certification requirements for a similar end use in different countries.

"The Notification process (98/34 procedure) is seen as being complex for industry and in many cases is not understood. Failure of industry to ask their member state authority to raise objections (either due to lack of knowledge of the proposal, or due to lack of understanding) can result in 'approval' of the new regulation. When in force the industry only then sees the problem and encounters barriers to the use of their products. Even if objections are registered they may not be considered sufficient to stop the implementation.

"Alternatively, it has also been suggested that a similar type of Member State requirement, purported to be needed for health and safety reasons, and based upon a stated demand for a higher level of protection than that generally accepted in the EU, is actually a market protection measure to make the sale of cheaper imported products more difficult [2]. Such measures can be very difficult to identify and the health or environmental grounds for requiring levels of performance higher than those adopted for CE Marking in other countries may not be clear, but they would have the impact of raising the market price for affected products in the Member State by restricting free trade or use of products carrying CE Marking. This type of barrier has been justified in certain markets as a necessity to ensure that sufficiently high levels of quality are achieved. This questions a possible conflict between the meeting of CE Marking requirements – conformity with ER3 and minimum national legislation – and what is perceived by others as a 'minimum practicable level of quality'. The latter implies that unless a certain (higher) quality standard, or a certain level of conformity assessment (including third party factory control), is achieved, then long term product performance or safety will not be guaranteed. However this still effectively constitutes a barrier to trade."

The text of footnote 2 in CEN/TR 15855 stated: *Note: This explanation is not universally accepted by Member States. An alternative opinion is that although Member States may be tempted to argue for restrictions allegedly based on health or environmental grounds to protect their home industry from imports, but such measures could also make it more difficult for the home industry to export their products abroad. Therefore, it is argued that disguised restrictions cannot generally be regarded as an attractive policy instrument.*

Within the body of CEN/TR 15855, the topic of barriers to use was investigated briefly with the following conclusions:

"5.2.4 Barriers to Use

"Many bodies cited examples where their products were manufactured to be in accordance with harmonised CEN specifications, or in some cases with European standards, but to use the product in a certain country or in a certain region additional tests or certification hurdles had to be overcome. Hence although CE Marking was available, and the product could be "placed on the market", it did not offer any guarantee that it would be specified or used. These barriers to use may be through the presence of national quality marks, "voluntary" environmental marks or other measures which are imposed or "requested" by third parties.

"A barrier to use may even be a system agreed within the industry to raise the overall performance standard for a type of product where the industry did not feel that existing European levels of control (such as attestation of conformity) were sufficient to ensure adequate safety in use against inferior products entering the market. Any producer not part of the agreement could then find it difficult to achieve acceptance of their products on the market unless they adopt the more stringent requirements and possibly certification."

Furthermore, the distinctions between the different concepts of barriers to use of construction products was summarised:

"5.2.5 Summary and Definitions of Barriers

"The definitions and the boundaries of different forms of "barriers" has been the subject of considerable debate and confusion. There are no universally adopted definitions that specifically apply to this area of work although some international definitions, such as the OECD, do provide a starting point for explaining conventional forms of barriers. It has been concluded by the Task Group that within the scope of the CPD and construction product's markets there is a hierarchy of barriers affecting construction products and CPD ER3 as follows:

"a) Technical Barriers to Trade – Non-harmonised technical regulations, minimum standards and/or certification systems for health, safety and environmental protection, which result in the erection of barriers to inter-state trade. Technical Barriers to Trade may prevent a product being legally placed on the Market. They may result from the imposition or use of legally adopted national regulations.

"b) De-facto Barriers to Trade – National or local requirements, minimum standards, or approvals, over and above those demanded and harmonised at the European level, that relate to the application or the use of products when placed on the Market. De-facto barriers to trade do not prohibit the legal placing of products on the Market but may result in them not being used or specified.

"c) Barriers to Use – National, local, or industry initiatives, schemes or recommendations, which are not mandatory, but which become accepted or demanded as a minimum requirement for products being placed on the local market. Barriers to Use are often based upon voluntary certification or approval schemes, labelling or information requirements."

2 The Wider Perspective on Barriers to Trade

2.1 General

Further to the discussions in the earlier CEN/TR 15855, www.BusinessDictionary.com [3] gives the following definition of barriers to trade:

"Economic, procedural, regulatory, or technological factors that obstruct or restrict entry of new firms into an industry or market. Such barriers may take the form of

(1) clear product differentiation, necessitating heavy advertising expenditure to introduce new products,

(2) economies of scale, necessitating heavy investment in large plants to achieve competitive pricing,

(3) restricted access to distribution channels,

(4) collusion on pricing and other restrictive trade practices (such as full-line forcing) by the producers or suppliers,

(5) well established brands, or

(6) fierce competition.

Barriers to exit, paradoxically, also serve as barriers to entry because they make it difficult to cut one's losses and run. Also called barriers to competition, entry barriers, or market entry barriers."

It is clear that the boundary between various types of "barriers to trade" and "barriers to use" can overlap or even be difficult to define in isolation. It is nevertheless also important to remember that the creation of tools and systems (through standardisation) for the removal of purely technical barriers to trade – for example the barriers caused by having to test the same property several times for different countries – can also be linked to financial barriers and to market protectionism. Barriers to use are much more complex than technical barriers. It may be simpler to drop the distinction of "trade" or "use" and refer, instead, to technical barriers, fiscal barriers and non-mandatory barriers to the use of products since they are all one form or another of barriers to trade.

The World Trade Organisation [1)] Agreement on Technical Barriers to Trade ("TBT Agreement") [4, 5] (see also Annex B), which entered into force in 1995, seeks to balance two competing policy objectives:

1. the prevention of protectionism, with

2. the right of a Member to enact product regulations for approved (legitimate) public policy purposes (i.e., allowing Members sufficient regulatory autonomy to pursue necessary domestic policy objectives).

Alongside the desire to prevent protectionism is the need to assure that Members retain sufficient regulatory autonomy to accomplish domestic policy goals. Domestic regulations can accomplish objectives unrelated to protectionism. For example, domestic regulations can serve as a means of protecting consumer health and safety, the environment and national security. Domestic regulations can also further economies of scale, and increase consumer confidence, by assuring uniform technical and production standards. Economic development, and the improved education that should result, can lead to demands from consumers and sometimes the business community for an increase in regulations or standards.

Both the preamble of the TBT Agreement and Article 2.2 of the TBT Agreement identify certain regulatory goals that are deemed "legitimate" for regulatory purposes. Article 2.2 sets forth a list of legitimate TBT objectives which includes:

— protection of life/health (human, animal and plant),

— safety (human),

— protection of national security,

— protection of the environment, and

— prevention of deceptive marketing practices.

The list of legitimate objectives in Article 2.2 is not exclusive.

The range of barriers can be extensive and as we move from fiscal barriers through the WTO agreements, and, at the European level through the breaking down of cross border barriers, we still find numerous examples of non-tariff (or non-fiscal) barriers which are either direct barriers to trade, de-facto barriers to trade, or simply barriers to the use of products.

2.2 Examples of Non-Tariff Barriers [2)]

Non-tariff barriers to trade can be:

— Import bans

— General or product-specific quotas

— Rules of Origin

— Quality conditions imposed by the importing country on the exporting countries

— Sanitary and phyto-sanitary conditions

— Packaging conditions

1) World Trade Organization (WTO) – Part of the United Nations.

2) Source: "Non-tariff barriers to trade" article, published online by Wikipedia.

— Labelling conditions

— Product standards

— Complex regulatory environment

— Determination of eligibility of an exporting country by the importing country

— Determination of eligibility of an exporting establishment(firm, company) by the importing country.

— Additional trade documents like Certificate of Origin, Certificate of Authenticity etc.

— Occupational safety and health regulation

— Employment law

— Import licenses

— State subsidies, procurement, trading, state ownership

— Export subsidies

— Fixation of a minimum import price

— Product classification

— Quota shares

— Foreign exchange controls and multiplicity

— Inadequate infrastructure

— "Buy national" policy

— Over-valued currency

— Intellectual property laws (patents, copyrights)

— Restrictive licenses

— Seasonal import regimes

— Corrupt and/or lengthy customs procedures

— Bribery and corruption.

2.3 Barriers to trade within the European Union

Tariffs on trade within the European Union were abolished decades ago. However, research by Natalie Chen and Dennis Novy [6] has found that significant trade barriers remain, notably "technical barriers to trade," such as health and safety requirements as well as packaging and labelling requirements:

“European economic integration was launched in the 1960s with the creation of customs unions, abolishing internal tariffs and trade quotas. The process was revived within the European Union (EU) by the Single European Act of 1986, which aimed to complete a Single European Market by the end of 1992.

"More recently, the introduction of the single European currency – the euro – was intended to accelerate the process of trade integration by eliminating exchange rate uncertainty and increasing transparency and competition across markets.

"The single market was motivated by the observation that in the 1980s, trade within Europe was still impeded by significant barriers to trade. In particular, there remained many non-tariff barriers, including so-called "technical barriers to trade."

"The costs of technical barriers to trade eclipse the costs associated with being outside the euro area"

"These barriers result from regulations that affect the sale of goods in some markets by requiring specific product characteristics or production processes, for example, a certain package size for food products.

"With intra-EU tariff barriers having been completely eliminated by 1968, technical barriers have become increasingly visible. They are also a key concern in today's global trade negotiations, with the World Trade Organisation (WTO) seeking to ensure that (from the WTO Agreement on Technical Barriers to Trade):

"… technical regulations and standards, including packaging, marking and labelling requirements [...] do not create unnecessary obstacles to international trade."

"So how much progress has the EU made in removing internal barriers to trade? Our research measures trade integration within the EU by examining 166 manufacturing industries in 11 member states over the period 1999-2003. We find that significant trade barriers remain and, apart from the inevitable transport costs, the most substantial costs are technical barriers.

"Indeed, the costs of these barriers eclipse the costs associated with being outside the euro area. They also eclipse the costs of not abolishing physical border controls – between continental Europe and the UK – by opting out of the Schengen Agreement.

"Policy action could lead to further gains from the reduction of trade barriers within Europe"

"In quantitative terms, we find that the costs associated with geography and transport explain 25 % of the variation in trade integration. The most important factor is the weight to value of traded goods (17 %), followed by the distance between the origin and destination of shipments (5 %).

"Policy factors explain 7 % of the variation in trade integration, which is far from negligible. Technical barriers to trade are the most important factor (5 %), while public procurement, Schengen and the euro only play very minor roles.

"The policy implications of these results are clear. While the barriers related to geography and transport costs arise from the very nature of spatial separation between markets, policy barriers such as technical barriers to trade are in principle removable. This suggests that there is room left for policy action and that further gains are possible through the reduction of trade barriers in Europe.

"A great number of those trade barriers were hidden in regulations, such as consumer or environment protection standards, which varied from one State to another. Their restrictive effects were often more damaging than customs duties and quantitative restrictions. Indeed, while customs barriers raised the price of imports or quantitatively limited them, various regulations could completely block the import of a product. Fortunately, such extreme cases were rather limited."

2.4 Barriers to Trade – A Question of Safety?

2.4.1 General

One very strong argument, supported by the WTO TBT Agreement and EU legislation, is that some barriers to trade are still necessarily within the discretion of Member States for reasons of safety and health – human or environmental.

The CPD requires that products comply with the six Essential Requirements, including, for the purposes of the CEN/TC 351 work, ER3 on Hygiene Health and Environment. This means that the works, and products incorporated into the works, shall not cause any risk to the health or hygiene of building occupants, or to the local environment during the use phase of the building's life.

The CPD is intended to remove barriers to the free trade in construction products in the EU and EEA through the harmonisation of technical regulations and standards. This only tackles the true technical barriers to trade and can easily overlook the less obvious and less transparent barriers to use, or even de-facto barriers to trade.

2.4.2 Who Decides on the Hazard?

a) The Regulator (European or national). The common basis for setting harmonised systems for classification rests with regulators at either the European level or the national level – the latter usually also take into account the existence of any agreed and harmonised classifications at the European or international level. Where only national classifications are decided (although these shall be notified to the European Commission in the EU), there is enormous scope for barriers to trade or use to be in existence, whereas provided the national regulators agree to fully adopt and not enlarge European classification decisions there should be no technical barriers to trade for these products or substances.

However, the mere act of classifying a substance or a product that would otherwise compete against non-classified products in the same application creates a barrier to the use of that product. It may perform its function perfectly well, or even better, compared to other products on the market, but a negative classification for any health or environmental related classification will “harm” the image of the product, rendering it less viable in the eyes of many who have the choices to make on material selection (see below).

b) The Developer, Designer or Specifier. Prior to design or construction, the developer who funds a building project may seek controls or limitations in the preferred use of materials. This is usually on the basis of legal guidance in the setting of contract law between the developer and those in the design and construct phases. Often these are to protect the developer’s financial investment and tend to be precautionary. Similarly, the designer and specifier may include specific design conditions on the choice or restrictions on certain materials which are known or suspected to be hazardous. Many countries also have regulations placing the responsibility for safe construction on those in the design and construction chain, such as the Construction Design and Management Regulations (CDM) in the UK.

The publication **DESIGNING FOR SAFETY IN CONSTRUCTION: Taking account of the ‘general principles of prevention’** [7] from the EFCA (European Federation of Engineering Consultant Associations) and ACE (Architects' Council of Europe), in co-operation with the European Agency for Safety and Health at Work, addresses a number of issues for architects and designers to consider. These are linked to the general responsibilities placed on the designer though Council Directive 92/57/EEC on the 24th June 1992 on the implementation of minimum Safety and Health Requirements at temporary or mobile construction sites. This Directive places responsibilities on various individuals involved in the construction process.

This publication concentrates on the responsibilities placed by the Directive on the Designer.

Hazardous materials

17. Applying the principles of prevention to the specification of materials is particularly problematic due to the lack of comprehensive comparative data. There is a huge number of products used in construction many of which can be hazardous if not used in accordance with the manufacturer’s recommendations. It is likely that, in time, comparative assessments of particular product types (e.g. paint systems) will become available to assist the designer, which will take into account all relevant aspects of products including health and safety.

Further in the report, the authors provide guidance on hazardous materials:

“Hazardous materials: most materials can be hazardous if not used in accordance with the manufacturer’s recommendations. Consider the following insofar as is reasonably practicable:

"Avoid using a potentially hazardous substance (for example, specify a natural finish rather than paint) or substitute with a safer substance (for example: specify water-based paints, glues, etc which are generally safer than solvent-based ones; specify replacement of rotten timber rather than remedial treatment with pesticides – subject to Protected Structures legislation."

There are numerous opportunities for barriers to the use of products to emerge in this phase which are the result of "custom and practice" or precautionary approach to choice and use of materials.

c) The Builder. Usually the builder follows the guidance and material specifications laid down by the designer and the specifier for the works, although the builder may be afforded the opportunity to substitute on the basis of contract clauses that indicate an "or equivalent" materials may be used. At this point, the builder's concerns or suspicions (whether founded or not) may come into play, for example favouring a material which "claims" to be more environmentally friendly than another, or rejecting a material which the builder believes will cause handling complaints from his workers (such as being irritant). Such decisions can be seen as barriers to use.

d) The Product Manufacturer or Industry. The manufacturer has, in the past, relied partly upon his own knowledge of his product and the evidence from research to classify the hazards associated with the product. Current European and many national schemes do not enforce hazard classification unless that classification has been formally agreed by regulatory bodies and incorporated into law (e.g. Dangerous Substances Directive 67/548/EEC). This system is, of course, changing with the implementation of REACH [3)] [8] which places the responsibility for hazard identification and classification on the manufacturer. Provided the classifications adopted for products or substances are applied in the same way across all Member States of the EU there should be no barriers to trade as a result of this fundamental hazard classification.

3 The State of the European Union Single Market

The European Union has been striving to remove barriers to the free transfer of goods, services and people for many years, from the Treaty of Rome to the Single Market Act and beyond.

"Europe stands at the crossroads. We either go ahead – with resolution and determination – or we drop back into mediocrity. We can now either resolve to complete the integration of the economies of Europe; or, through a lack of political will to face the immense problems involved, we can simply allow Europe to develop into no more than a free trade area."

European Commission: *"Completing the internal market"*
White Paper for the European Council [9]

Most recently (2010), the "Monti Report" [10], a "Report to the President of the European Commission, José Manuel Barroso [4)] ", identified that the market for goods was mature and although an earlier (2007) review had concluded that technical barriers had been lifted, there was still work to be done.

For trade in goods, he specifically reported the following:

"2.5. The single market for goods: reaping the full benefits

"The single market for goods is today a mature construction. The 2007 single market review concluded that all technical barriers for goods had been lifted. For many citizens, single market means first of all a wide variety of choice in the products available in their domestic markets. The trade in goods is a major driver of growth in EU manufacturing industries. Some 25 % of the EU-27 GDP is generated by the goods sector. Intra-EU trade of goods represents 75 % of intra-EU trade flows. It has increased at an annual rate of 7.6 % between 1999 and 2007.

3) REACH – Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation, EC/1907/2006 [8].

4) *A new strategy for the single market– at the service of Europe's Economy and Society*– Professor Mario MONTI, Università Commerciale L. Bocconi – 9th May 2010 [10].

"It would be a mistake to conclude that the job is done. Firstly, goods manufacture is an ever-changing business, as it responds to innovation, changing consumer tastes and new technologies. Policies and regulatory frameworks need to be regularly updated if they are to remain relevant, based, where appropriate, on market monitoring exercises. There are creeping obstacles constantly generated by licensing practices and new technical and administrative rules at national level. The stakeholders' submissions during the consultation phase revealed a long list of small scale bottlenecks. Third, when benchmarked against the US, the Single Market for goods reveals a substantial untapped potential. The ratio of intra-US exports to GDP, is still around 70 % higher than the ratio of intra-EU 15 exports to GDP. Fourth, new challenges emerge, as not only goods but also markets evolve. Examples of this are the acceleration of products cycles or the globalisation of supply chains. Fifth, e-commerce is on the rise and presents its own set of challenges, that are examined in the Report's section on the digital Single Market.

"Maintaining a dynamic and expanding single market for goods requires building on the full implementation of the goods package approved in 2008, particularly with regard to the mutual recognition principle and market surveillance. The application of the principles of the New legislative framework should also be extended to other areas of product legislation and the new Approach should be expanded to new areas across the board.

"The full potential of the single market for goods cannot be released without the support of a modern standardisation process, a seamless and efficient logistics and transport system and an effective and accessible regime for the protection of intellectual property."

At the same time, Professor Monti identified the standardisation process as a tool that afforded great potential for the operation of the single market, stating:

"Reforming the standardisation process

"Standardisation is key for the governance of the single market. Europe needs today faster and more efficient setting of interoperable and market-relevant standards, based on internationally accepted models. It is necessary to review the European standards process, maintaining the benefits of the current system while striking the right balance between European and national dimension. Special attention should be paid to enhancing private sector access to the standardisation process and to making standards cheaper and easier to use for SMEs."

The Construction Products Directive (CPD) [5]

A report on the CPD for the Commission [6)] by PRC B.V. of the Netherlands [11], said: *"The CPD deals only with 'first placing on the market'. It allows products to be legally sold, without prohibition by national market surveillance authorities. But in some cases, and for some types of products, it does not enable the products to be used in any particular application without obtaining additional application approvals or marks. In some ways CE marking has been counter-productive, by stimulating the creation of new regulations, application standards and marks."*

In particular, PRC cite:

"CE marking is not removing certain obstacles, and in some cases is stimulating their proliferation:

— *The growing number of quality marks, which are designed to go beyond the regulatory requirements of CE marking, including aspects such as durability, traceability of raw materials and distribution chain – and/or to provide more stringent 3rd party surveillance.*

— *Insurance related certificates (ATec, LPCB, FM, UL), which can be de facto mandatory, but are not removed by CE marking. FM and UL are in any case US-based certifications, of growing international importance.*

5) CPD – Council Directive 89/106/EEC on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products [2].

6) Reynolds and Vermande, *Study to Evaluate the Internal Market and Competitiveness Effects of Council Directive 89/106/EEC* [11].

— *The development of national lists of approved products, linked to CE marking, but having a national character, with the potential to impose additional requirements on top of CE marking – the long-standing German Bauregelliste and the proposed French 'Repertoire Permanent'.*

— *The development of national 'application standards', intended to create the link between CE marked performance characteristics and the requirements of national building regulations and design codes. These create the potential for new voluntary national certification schemes (approval marks) to create revenue for the NSBs and certification bodies. In some cases, especially in Germany where these application standards are mandatory, they impose new mandatory certification requirements.*

— *The development of new national standards (e.g. German 'Rest-norms') to cover aspects not covered by CE marking: e.g. dimensions and tolerances, durability, testing of the building elements, concrete testing. The hENs cause national conflicting standards to be withdrawn, but these withdrawn standards often contained important aspects related to usability and durability. The new standards may create confusion, and new learning costs for non-resident firms."*

The PRC report also identified that CE Marking had unintentionally increased the use of "voluntary" requirements which, although not legal barriers to trade, do present barriers for some products.

It has become clear from these studies and from discussions with national regulators (see Clause 4) that differences in the interpretation of the CPD can lead to and indeed have created barriers to use of products – national reactions to EU activities.

4 Barriers Created by National Legislative Approaches

4.1 The national approach to legislation – a comparison of three countries

It had been observed during the initial survey on barriers to trade that large differences occurred in both the quantity of legislation notified (or not) and the national approach to legislation for construction and construction products.

Three major European states, who are known to have different approaches to setting barriers to trade (or use) associated with dangerous substances have been studied to determine the fundamental differences in policy that dictate the final shape and implementation of legislation for health and environmental issues. These are:

— The UK, which tends to follow and/or fully implement European legislation and sets requirements in terms of building performance rather than specific product requirements;

— Germany, where a variety of product specific and application related requirements are applied, sometimes over and above the levels set by European specifications or legislation;

— The Netherlands, who, in the earlier Barriers to Trade Report, were cited as being the major source of barriers to trade in the EU due to their policy on protection of soil and ground water through the soil quality decree.

4.1.1 The UK Legislative Approach

4.1.1.1 Works versus Product

The UK Building Regulations are performance based regulations applicable to the works themselves, to ensure the building works are safe and/or environmentally adequate. These are set according to what is felt to be necessary for the local environment, but any such individual requirement should be notified using the Commission 98/34 procedure (see Clause 5). The UK acknowledges that this could sometimes lead to requirements for products.

The fundamental precept that is adopted is that of the Construction Products Directive [2], or, more recently, the Construction Products Regulation (CPR) [7] [12], with the associated requirements for the works. The CPD and the CPR are directly applied in UK law, the CPD being via transposition.

The UK national Building Regulations set “functional requirements” through “Approved Documents” (ADs) that give substance and guidance to the designer on how the functional requirement may be shown to be met. For example, the requirement for energy economy and heat retention may be met through setting guidance on the required levels of thermal insulation or performance in building elements. Government targets for energy conservation, such as setting a building requirement for zero carbon, would be a notifiable regulation if performance levels are demanded. But such a regulation would NOT restrict how that performance would be met.

Such a principle would also apply to Green Public Procurement (GPP). The declaration of the performance requirement may be in whatever way is deemed to be correct.

4.1.1.2 Product Specific Issues

Generally, no restrictions on use of products apply to the use of Construction Products in the UK, with some specific exceptions. These are restrictions or bans on the use of asbestos, which is subject to control at the European level (and international level) anyway, and regulations on the use of urea-formaldehyde foam insulation in certain types of buildings. The latter is a design requirement rather than a product requirement; UF foam may be used provided the structural elements meet certain minimum requirements to minimise or prevent ingress of formaldehyde fume into a dwelling. Similarly, restrictions apply to the design of buildings where exposure to radon is seen or expected to pose a hazard. No restrictions apply to products as to whether or not they may contain or emit radon or radionuclides, but the building has to afford protection to the occupants or users through design solutions such as ventilation or concrete raft protection over radon bearing ground.

4.1.1.3 Impact of European Legislation

Directives have to be adopted at national level through a transposition process into national laws. There is scope for justifiable national variations if the Directive itself gives an option. There may be consequential change to existing national legislation when the transposition process takes place. The UK view is that the main areas in which Member States can seek additional national requirements over and above those stipulated in a Directive are where they affect human health or the environment. Thus, the Annexe ZA in harmonised standards may result in different requirements in national annexes – provided, again, that the requirements are justifiable and notified. This option is seldom adopted since the UK generally believes that European legislation has been fully developed in the comitology process of the EU and, once voted upon and agreed with the weighted voting system, should be considered fully applicable to the UK – no more and no less. The UK therefore usually adopts all European legislation as a “cut and paste” adoption of the legislation into UK law.

4.1.1.4 CPD versus CPR

The major changes to be introduced by the CPR (apart from clarification of matters such as the mandatory nature of Marking) affect the construction and the demolition phases of the works, and hence the products. These phases are generally covered by other legislation such as REACH, and, in the UK, the Control of Substances Hazardous to Health Regulations (COSHH), Landfill Regulations, Waste and Water Framework Directives. There is thus concern over duplication of requirements and/or testing – which the CPD and CPR were originally intended to minimise or eliminate.

As an example, products used in the construction phase would normally have to comply with the requirements of Article 7 of REACH (substances in articles) and products should therefore be considered in compliance with

7) CPR – REGULATION (EU) No 305/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, of 9 March 2011, laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC [12].

the CPR requirements for release of dangerous substances if they are not subject to authorisation or restrictions on use. A similar concept may apply comparing the end of life requirements and Waste legislation.

One area where the UK believes the CPR will bring change is the introduction of BWR 7 on sustainability, and whilst this will undoubtedly bring about more sustainable construction products, care will be needed to consider impact and use of many of the existing “voluntary” environmental certification schemes or labels.

4.1.1.5 Basis for setting exposure limit values

In the UK, limit values do not generally apply to the building during the in-use phase, but specific requirements may apply where workers are potentially exposed during construction, demolition or remedial work phases of a construction works.

Occupational exposure limits (OELs) in the UK function under the COSHH Regulations and its mirror legislation in Northern Ireland. The COSHH regulations require the employer to ensure that the employee's exposure to substances hazardous to health is either prevented or, if not practically possible, adequately controlled. OELs for hazardous substances in the UK – identified as hazardous according to Annex 1 of the Dangerous Substances Directive, 67/548/EEC, or, more latterly, the Classification Labelling and Packaging Regulations – are defined as Workplace Exposure Limits (WELs). The maximum admissible or accepted concentration varies from substance to substance according to its toxicity.

The exposure times are averaged for eight hours (8-hour TWA) and fifteen minutes (short-term exposure limit - STEL). For some substances, a brief exposure is considered so critical that they are set only a STEL, which should not be exceeded even for a shorter time. The potency to penetrate through skin is annotated in the OEL list by remark "Skin". Carcinogenicity, reproduction toxicity, and irritation and sensitisation potential are considered when preparing a proposal for an OEL according to the present scientific knowledge. The OELs do not cover some hazardous substances that have their own specific legislation, most notably asbestos and lead.

Health and Safety Commission's Advisory Committee on Toxic Substances (ACTS) recommends new OELs or revision on a current OEL value. The Working Group on the Assessment of Toxic Chemicals (WATCH) is a technical sub-committee of ACTS, which considers the evidence on the occupational exposure and health effects of substances, including whether a maximum exposure limit (MEL) or occupational exposure standard (OES) would be appropriate by the agreed indicative criteria, and if an OES, its value. After the ACTS (consisting of representatives of employers, workers, government and environmental and consumer experts) has approved a WEL it is endorsed by the Health and Safety Commission (HSC).

4.1.1.6 Potential for Barriers to Use from the UK system

Firstly, the principle of using functional requirements together with guidance on “one way to achieve the result” (Approved Documents in Building Regulations) tends to limit the potential for barriers to trade, but cannot, of course, stop some barriers to use from non-regulatory requirements. Secondly, the principle of “cut and paste” for EU Directives into national law provides the framework for minimising the potential for cross border barriers.

4.1.2 The German Legislative Approach

4.1.2.1 Basis of the system

A fundamental matter that drives German legislation is that the regulators believe that CEN does not currently take up the Essential Requirement 3 sufficiently and that to meet the Essential Requirements or the future Basic Works Requirements, it is therefore necessary to legislate for products as well as for works. The grounds for the readjustment are the general clause in Annex ZA of the harmonised technical specification and the national model building code (Article 3).

So far as products are concerned, CE Marking has always been mandatory in Germany. Furthermore, relevant methods or standards are called up in German building regulations. The national building regulations have annexes, and annexes that call up either national standards (List A) or harmonised European standards

(List B). The standards within List A apply in areas of health, safety, or environmental requirements, and also, indeed, for any other requirement associated with the 6 ERs of the CPD.

With the move to CE Marking and harmonised standards, the German regulations have also changed from a descriptive approach to a performance based approach. The performance requirements are generally set according to the harmonised European Technical Specifications for the product and refer to performance levels to be achieved using levels or classes. As soon as suitable European technical classes or levels are adopted and applied for ER3, these can be used instead of regulating ER3 in separate national standards or technical approvals.

Under the CPD an interim solution to meet German concerns about the requirements for ER3 means that products have to not only meet CE Marking according to the harmonised European Technical Specification – where one exists – but also meet the Ü-Mark requirements associated with the relevant national standard or approval guideline. The product requirements that need to be tested for Ü-Mark certification are laid down by the Deutsches Institut für Bautechnik (DIBt) after consultation of the sixteen federal states and federal authorities, as are the requirements for attestation of conformity. DIBt lays down the requirements for bodies to be approved to carry out the relevant surveillance. In some cases, where tests are not carried out in an approved laboratory, a penalty is added to the measured performance value for the property. For example, in the case of thermal properties of insulation products not measured in an approved laboratory, for example by the manufacturer, the results are accepted with a safety factor. DIBt only regulates for building construction. Other works under the CPD – such as civil engineering, waterways etc – are dealt with by other authorities.

4.1.2.2 Building Regulations

The German Building Regulations have many different hierarchies. German Building Law implements the CPD at the federal level. The technical aspects are delegated to the sixteen federal states and each of these states produces a building code containing their required elements extracted from a model building code developed under the auspices of the DIBt. The federal codes may therefore differ in requirements specific to the area of the country. For example, in an area such as Berlin, with a relatively high water table, specific requirements need to be incorporated to provide protection to the water table from dangerous substances released from construction products in contact with the ground.

There is a general requirement across the model and local building codes that buildings (and hence any products used within the buildings) shall not pose a threat to the health of the occupants of the building or to the local environment. Interiors of buildings are also regulated depending upon the potential for exposure. For example, basements and bathrooms have lower requirements than spaces intended for more than temporary residence.

4.1.2.3 Link between regulations and standards

There are links between appropriate European regulations and directives and national codes where they exist and are relevant. The German thermal regulations for buildings are linked to the Energy Performance of Buildings Directive (EPBD) at the federal level. The preferred solution is to use the levels and/or classes from product standards and link these to the federal regulation. The derived list of actual requirements for any property – such as fire class – can then be found in the list of building regulations at national level.

4.1.2.4 Dangerous Substances

European Directives, such as the Dangerous Substances Directive (67/548/EEC) [13], and Adaptations to Technical Progress (ATPs) are generally adopted as published and there are only a very few cases where higher levels are created for the German national regulation. Usually, only substances not regulated at the EU level are subject to separate regulation at the German national level.

Within Germany limit values for substances according to their potential exposure route are proposed by the Deutsche Forschungsgemeinschaft (DFG – German Research Foundation), an independent body [8)] that carries out research on health hazards associated with agents in the workplace.

8) The legal status of the DFG is that of an association under private law.

The Commission of the DFG consists of working groups that prepare the proposals for:

— MAK values (Maximale Arbeitsplatzkonzentrationen – maximum concentration values of a chemical substance in the workplace);,

— BAT values (Biologische Arbeitsstofftoleranzwerte – biological tolerance values, limits for the concentration of some substances in the human body from workplace exposure) including BLWs (biological values that serve as indicators for necessary protective measures); and

— EKA (exposure equivalents for carcinogenic materials), and classifications as carcinogenic, germ cell mutagenic, sensitizing, percutaneously absorbable or having an effect during pregnancy.

Further working groups are involved in developing and evaluating methods to analyse the air at the workplace and in biological materials. Within the working groups, the members of the commission are assisted by numerous guests and ad hoc experts on specific topics.

The use of construction products within the life cycle of a building means that there may be a link between the product, any identified and related hazard, and the risk of exposure for workers. Within this framework comes the requirement for some of these classifications to be brought into national building law. The most relevant is MAK values for exposure in the workplace air. A specific working group of the DFG Senate Commission has responsibility for these limits.

The task of this working group, the largest in the commission, is the derivation of MAK values for chemical substances on the basis of experience gained in the handling of these substances, with respect to their toxicological, occupational health or occupational hygiene effects. The MAK value is defined as the highest permissible concentration of a chemical substance present as a gas, vapour or aerosol in the workplace air. This permissible level, according to current knowledge, does not adversely affect the health of an employee and does not cause unreasonable annoyance even if the employee is repeatedly exposed for long periods (usually for eight hours daily, but assuming an average weekly working time of forty hours). The MAK values are conceived and applied as eight-hour averages.

The substances are also evaluated and correspondingly classified with regard to their carcinogenic potential, their harmfulness during pregnancy, their germ cell mutagenic effect and their contribution to systemic toxicity after percutaneous absorption.

The MAK values, and the evaluation of the various factors, are described in scientific documentation that takes account of all scientific findings for humans and animals. This documentation is published in the series "Gesundheitsschädliche Arbeitsstoffe, toxikologisch-arbeitsmedizinische Begründungen von MAK-Werten" (Wiley-VCH) also available in English translation in the series "Occupational Toxicants" (until 2004, which turned into "The MAK Collection for Occupational Health and Safety. Part I: MAK Value Documentation" (since 2005).

The recommended MAK value is considered under the German Technical Rules for Hazardous Substances (TRGS) via a series of technical documents that describe the procedures and the assessments. The Federal Institute for Occupational Safety and Health (BAuA) is a governmental research institution which advises the Federal Ministry of Labour and Social Affairs in all matters of safety and health.

The German System for derivation of exposure limits is further described in Annex A.

4.1.2.5 Potential for Barriers to Use

Implementing additional national requirements over and above the minimum for CE Marking under the CPD – even if deemed to be necessary for health and environmental protection – will always lead to accusation of regulatory barriers to trade, or at the very least barriers to use.

A greater potential for barriers to use derives from the lack of mutual recognition (with or without third party certification) and the use of penalties. Such schemes can result in doubling the cost of certification where the

national requirement is unique compared to the rest of the EU; a barrier to all sizes of enterprise but especially so for SMEs.

Mandatory use of the Ü-Mark certification specifically sets the German market apart from other countries where the Essential Requirements (ER3 especially) of the CPD are considered part of the CE Marking conformity label. However it is accepted that CE Marking is not a quality mark.

4.1.3 The Dutch Regulatory System

4.1.3.1 Basis of the system

So far as buildings and construction products are affected, the main pieces of Dutch legislation are the Building Decree and the Soil Quality Decree. The first gives both general legislation on buildings and detailed instructions on buildings in a performance based way. The system changed [9)] in 1992 following a ten year project to move from local prescriptive requirements to performance based standards, mainly NEN standards but ENs where they were available. The second is based on the Soil Protection Law and sets limits on the emission from and/or the content of substances within mineral construction materials used in outdoor applications, including excavated soil and dredging sludge.

The new performance based standards support a multi-tier system of legislation:

— The Law – the Building Decree of 2003 which gives minimum performance demands and minimum requirements for safety, health, use, energy efficiency etc.

— The Regulation, with more detailed (mandatory) instructions, which is subject to review and change when necessary.

— The Standards which are called up in the Decree or the Regulation.

The Building Decree falls under the “Housing Law” and sits alongside other areas of legislation which can also have an impact upon construction products. These areas of law are shown in Figure 1. This is also the reason why civil works (roads, water works) are not affected by the Building Decrees.

The Building Decree defines minimum targets. This allows the Minister to set minimum requirements on building performance (e.g. indoor air quality levels) which can then be enacted or updated to meet current or future demands. The Decree can include future requirements on dangerous substances ('transferred' from environmental or health regulations to the Building Regulation. For example, the Decree will allow a room to be constructed of any material provided it does not result in an emission of formaldehyde greater than the prescribed limit. This limit is defined in the Regulation. It will also define the rules for measurement or calculation of the performance level – for example by reference to a code or standard.

Direct requirements on construction products are not set (apart from controls on asbestos and formaldehyde); only reference is made to CE marking according to the CPD, confirming that CE marked products are regarded as fit for their intended use, meeting their declared requirements. The limits on formaldehyde and asbestos are set in the Building Regulation 2003:

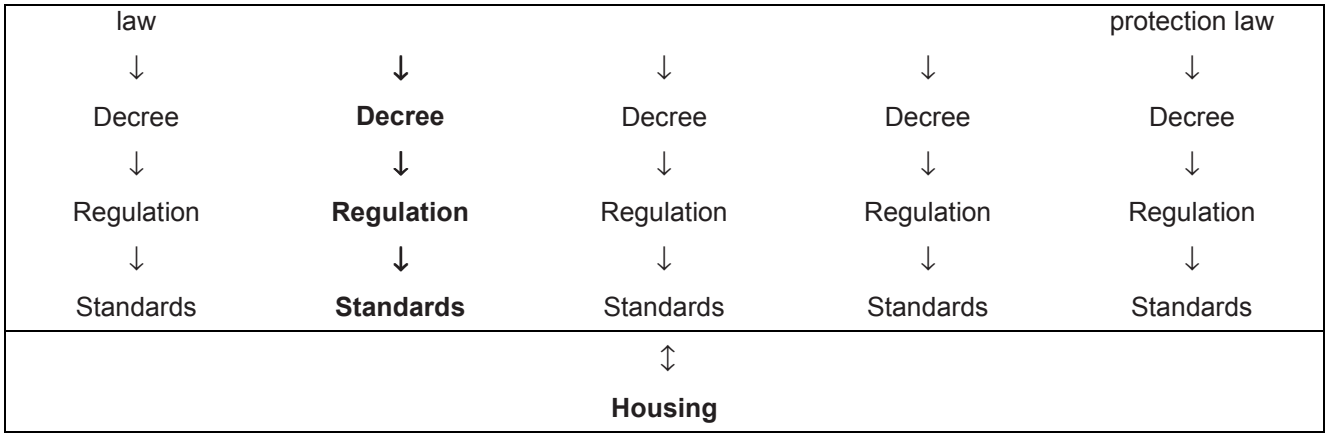
— Section 2.2, Prescription regarding the restriction of the application of formaldehyde

— Art. 2.2, Limits to formaldehyde in Indoor Air (building zones to remain).

— Section 2.3, Prescription regarding the content of asbestos fibres (Indoor air).

Worker protection	**Housing law**	Environmental law	Soil protection law	Surface water

9) Pre-1992 local regulations were based upon a central model adapted to each region according to their needs or wishes.



NOTE This scheme is not exhaustive and simply outlines how legislative areas sit alongside each other.

Figure 1 — Scheme showing parallel applications of Dutch laws for building

Environmental Protection regulations may set down banned substances that cannot be used in construction. The room or requirement for national environmental and health regulations depend on the related EU Directive(s). A directive may set values that should be implemented as such. It may set minimum levels for a number of substances; then MS or local authorities may set or keep stricter values for those substances and set limit values for other substances. In some directives, the setting of limit values for substances is completely mandate to MS and/or its local/regional authorities. In all cases, such regulations should be justified.

Products may also be affected by regulations for worker protection, and regulations for demolition and disposal of waste. The Building Decree gives requirements for control of asbestos in indoor air in existing and new buildings (concentration levels in indoor air) but the use of asbestos for new works is banned by the general regulations for substances (Environmental Protection laws), and, of course, now, by REACH. The Soil Quality Decree and the Products Decree Asbestos specify low concentration limits for asbestos in products, de facto focussing at reuse of raw materials. They are especially meant to cover materials that still contain very low concentrations of asbestos, after careful demolishing, cleaning and or other treatment of such materials.

The Environmental Laws include waste, banned substances etc, and cover impacts on human life, soil, groundwater, outdoor air, global warming: it includes everything not specifically called up elsewhere.

4.1.3.2 Link to EU Legislation

Similar to the UK, the Dutch legislation is wherever possible a “transfer” of the Directive into law, but the version of what is in the Directive may have to be applied across several areas of legislation. It adopts the minimum requirements but may be added to several laws. It might be necessary to incorporate specific requirements felt necessary for the local environment based on the state of the art of local situation and existing methods and levels of protection.

The Soil Quality Decree is, among others, based on national surface water, groundwater and soil protection and waste management legislation. This legislation is based on EU-directives like the Water Framework Directive, the Groundwater Directive and the Waste management Directive. These directives, apart from some very specific exemptions, don’t specify limit values for specific substances. They leave it to the responsibility of MS how to organise and specify in detail national and local approaches on protection of the water and soil environment. The Dutch view is that national authorities should take the local situation into account, which may lead to different limit values for different situations within one country and between Member States.

The Soil Quality Decree and Regulation set such limit values and other requirements on construction products and excavated soil used in direct or indirect contact with soil and ground or surface water. There is a

restriction on construction products that consist of silica, aluminium and magnesium > 10 % (mineral materials) with the exception of window glass and metal aluminium products.

As legal requirements applicable to construction products the Soil Quality Decree and Regulation sets the following requirements:

— The requirement for producers who deliver certified construction products to have a formal admittance to the market (chapter Clause 2 Quality of execution).

— Apart from the option of certification of the construction product, external batch testing is another option, as well as a producer's declaration of conformity. For that, successful third party type tests are obligatory, together with a factory production control system running; validated test standards (NEN standards) on release and content are available and well experienced.

— Limit values to the release of nineteen inorganic substances and to the content of nineteen organics (Annex A of the Soil Quality Regulation).

The CPD was seen as a good means to internationally harmonise tools developed for and used in the Dutch legislation on mineral products used in/on soil and water (Soil Quality Decree) and to facilitate international trade of construction products. However, it was seen as a retrograde step in terms of national legislation since it did not address some of the existing concerns of the Dutch environment and building codes, especially in relation to ER3. This required the addition of further substances for assessment under ER3, using local assessment rules – the change to ER3 in the CPD and CPR should address these concerns.

The CPD and CE Marking were felt to be confusing as they allows different national levels or classes: CE Marking granted in one country may not meet the local needs in The Netherlands. This was further affected by the possible different intended uses of products where different requirements were necessary and which may be again reflected in different levels for CE Marking. In such cases, the product could be legally “placed on the market” but restricted in its intended use.

The Dutch Soil Quality Decree only allows products (as far as falling under the scope of this decree) to be placed on the market if, apart from meeting the product requirements, they meet the required intended end-use performance conditions. **Therefore a product shall be sold with the intended use clearly specified.**

4.1.3.3 Certification

The Dutch market generally sees Dutch certification as being of a higher standard than CE Marking and prefers it. However, Dutch practice is to use CE Marking where available, and to use NEN standards or international standards under Dutch law (for testing on legislative requirements) and Dutch certification when no CE Marking is available for a product or system.

For example, concrete products made in a factory are controlled by any applicable harmonised standard, but ready-mixed concrete poured into place at the work site, or use of aggregates in embankments, shall be tested using national/local requirements, making use of the relevant European Standards for these products, such as EN 206 and EN 13285.

Products carrying CE Marking from another country, such as Germany, may have CE Marking or test data which is recognised under Mutual Recognition agreements. Article 16 is used for many products with environmental requirements although specific rules may again apply. If ready mix concrete is specified for public works then no CE Marking can be applied; but under Public Procurement rules, local KOMO [10)] certification could not be demanded. Therefore a Dutch performance standard is specified but NOT the certification scheme. Yet the contractor could then decide to ONLY purchase KOMO certified products. Hence the Dutch criteria may not necessarily specify a Dutch NEN standard or certification, but a level of technical performance based in the Regulation – which can be achieved (and hence accepted) by meeting the NEN Standard xxxx. Other solutions can be proposed which means the NEN requirements are not mandatory and not a legal barrier to trade. It is nonetheless accepted that this is seen as a barrier to use.

10) KOMO is one of the voluntary private Dutch certification marks.

On Dangerous substances, a special voluntary regime is in force, enabling groups of manufacturers (defined as a "cluster") with low releasing products, to carry a certificate based on a third party generic type test, a third party controlled Factory Production Control system in operation, and very low test frequencies for the finished product of five or ten samples up to three years on a statistical base: applying for example to concrete, calcium silicate, AAC, ceramics, asphalt.

4.1.3.4 Setting National Requirements

National building legislation has changed in recent years from a prescriptive approach to a performance based approach. The Soil Quality Decree (previously the Building Materials Decree) is set to be a practical way to achieve the target requirements. It is product oriented like some other environmental and health regulations covering construction products.

For materials (Soil Quality Decree) goals are set for a safe environment while achieving adequate use of materials and adequate re-use of materials to increase recycling. This means NOT classifying materials as “waste”.

Substances are assessed and discussed by all parties relevant to the product likely to be concerned before setting risk and limit values that could be critical in products. For protecting soil quality and surface water, Dutch regulators looked at almost 200 substances found as pollutants in soil and ground water. The National Institute for Environment and Health (RIVM) evaluated all substances on a risk assessment basis and took into account background levels found in the environment. The safe level and/or safe change in level is one that can be tolerated in soil or water without making it dangerous for drinking or for affecting flora and fauna.

Ministers then decide on whether to adopt these levels as recommended for the time being, or to modify if considered necessary, taking into account other consequences. This sets the level for the environment. The specified requirements in the Soil Quality Decree focus on a limited number of substances (for reuse of excavated soil more substances than for building products). However for all substances the ‘duty of care’ principle is in force. It means that the user and owner of products are responsible for preventing pollution and for taking measures directly when pollution has occurred. Competent authorities may set further requirements and may take measures if, in specific situations, the risk associated with the intended use of construction products or other activities is too high. Competent authorities may also require and specify clean-up procedures if pollution has occurred.

4.1.3.5 What is special about the Netherlands?

The Netherlands has a high water table and rather stagnant water in many areas. Adding buildings and other construction works can significantly affect the ground water by run-off (for example from contact with zinc or copper materials or from aggregates), which can significantly increase the concentrations in soil, groundwater and surface water, especially in an area with stagnant or slowly moving water.

The Soil Quality Decree implements the requirements of the Water Framework Directive and the Groundwater Directive. These Directives do not permit direct inputs from construction products which are in contact with the groundwater. These Directives require limiting input of non-hazardous substances and prevention of direct input of hazardous substances into groundwater from products/constructions above groundwater; the hazardous substances are to be decided by the Member State.

Where a lot is known about a product, or the ingredients used in a product are well defined and controlled, exemptions can apply.

4.1.3.6 Specific materials

In the Soil Quality Regulation, special arrangements are made for specific products. Examples are:

— **Masonry mortar**: it is considered too expensive to demand on-going certification of masonry mortar due to the frequent construction site production, the small size of many companies in this sector and the relatively small amount of material used. These products should still meet all requirements of the Soil Quality Decree. Provided the ingredients are known, the direct testing can be waived. Exemption is

assumed to be valid under the “Duty of Care Principle” in the Soil Decree provided the same known raw materials are used each time, for example, Dutch aggregates with no or very low levels of radiation. Supplies from other countries however may require testing.

— **Re-used (recycled) paving, roof tiles or bricks**: these do not need to be assessed or tested, but the over-riding requirement still applies that the user (contractor) is responsible for the products meeting limit values of the Soil Quality Decree. The exemption may not apply to recycled materials from other countries.

— **Flat Window Glass**: this product is exempted in general from the requirements in the Soil Quality Decree, but regulators noted that new developments such as the increased use of coatings might lead to tighter control in the future.

— **Railway Sleepers**: wooden railway sleepers originally treated with creosote can be “left in place” but they cannot be removed and re-used for another use. Such sleepers have been in use before the regulation on creosote came into force. As with many new regulations, the situation already in existence may continue to operate (status quo), but the reuse of such products is not allowed, or only allowed after treatment.

4.1.3.7 Potential for Barriers to Use

The Dutch system reflects a national concern from water levels, soil types and potential for contamination or release of harmful substances and the Soil Quality Decree (original the Construction Materials Decree) has enabled the use of secondary and by-products thereby avoiding landfill. The largest barrier is the apparent complexity of the regulatory system which is daunting to importers. In some specific areas, the need to use NEN standards instead of or in addition to ENs can lead to additional costs and burdens for producers, creating barriers to use. This is reinforced by the perceived low level of certification associated with the CPD CE Marking and the local requirements for third party certification of critical requirements – cost and time penalties for those who do not sell exclusively to this market, or are foreign enterprises.

At the same time, these apparently complex requirements do afford some advantage where a material resource would otherwise be classed as waste, and provided the testing and certification hurdles are completed, some products can be introduced to the market where they may otherwise have found difficulties.

4.2 National Building Regulations and the Effectiveness of the CPD

The CPD, together with the Harmonised Standards and Technical Specifications, aims to eliminate technical barriers, but its effectiveness is slightly impaired by lack of harmonised building regulations across Europe. This is hardly surprising since construction techniques in a hot and sunny climate of Mediterranean counties will be different to those required in the frozen climates of northern Europe.

National Building Regulations (or Building Codes) are tending towards the common approach of setting minimum performance standards that are deemed necessary for the works (the building) to give an economical working life and provide a safe and habitable environment for the occupant. Depending upon the climate there would also be specific minimum targets for comfort and energy use. The principles of the six Essential Requirements (ERs) of the CPD are elaborated in the national building codes to meet the local requirements.

The designer and the builder, together with any national or local inspector, needs to know whether using a specific product in a particular design or application would enable them to meet these minimum performance requirements. Most countries have standardised or recommended solutions for many standard applications. These may be codes of practice, standards, design codes or other application rules, along with (a range of) product specification(s).

Where local requirements, such as emissions to soil and groundwater, are set specifically for a country to region, this can lead to extraordinary demands for the product beyond that originally envisaged in the product Technical Specification drafting.

The “approved” solutions to show compliance with the building code performance requirement may also be given in national product approvals like Avis Technique, Zulassung or Agrément certificates; CE marking for products giving no ‘accepted solution’ in most cases. So national application documents or linking documents (and associated marks) remain necessary as long as building regulations are not harmonized and application rules are not mutually accepted in Europe.

Although most countries are developing national application rules, accepted solutions, application documents and/or linking documents to bridge the gap between the declared performances of CE Marking and the national building codes, some certification bodies, which stand to lose business because of CPD CE marking, are developing and promoting conformity marks, quality marks and approval marks to show compliance with these application rules.

Barriers to use arise when national marks become de-facto market requirements; especially if a national requirement relies upon the testing or certification at specific institute(s) or requires more stringent performance requirements than needed for other countries in the same intended use.

5 Controls on Market Legislation

5.1 Technical Standards and Regulations Directive 98/34 EC

There is also a separate European notification system for technical regulations. EU Member States notify to the European Commission proposed draft technical regulations and generally observe a three month standstill period before the regulation is made. This is to provide an opportunity for the Commission and other Member States to comment if they consider that the proposed regulation has the potential to create a technical barrier to trade. There are EU web pages and in most countries also local help pages such as the UK Department for Innovation, Universities & Skills (DIUS) website (http://www.dius.gov.uk/policy/standardisation/9834ec.html).

5.2 The Official Perspective

The following is a quotation from EC DG Enterprise and Industry (November 2008) [11]:

“Although we enjoy free movement of goods in the EU, national regulations can make it difficult for enterprises to sell their products in other Member States. There is however a successful tool which enables us to anticipate and fight against unnecessary barriers to trade. The tool is the notification procedure under Directive 98/34/EC and its predecessor, Directive 83/189/EC. For 25 years they have obliged Member States to provide information on any draft technical regulations on products and Information Society Services before they are adopted at the national level. This system gives the Commission and other Member States - during standstill periods - the opportunity to examine draft regulations. Also enterprises can actively contribute to the fight against unnecessary administrative burdens by making use of this notification procedure. Since 1984 more than 12 000 draft regulations have been cleared.”

Member States make frequent use of the 98/34 procedure. Foodstuffs and agricultural sectors as well as telecommunications, transport, construction and mechanical engineering are the major areas in which the 98/34 procedure has been applied. In 12 % of cases, the Commission found that the new regulations could have hampered trade. However, in more than 95 % of these cases, solutions were found before Member States adopted these texts. These solutions thus avoided the need for infringement procedures which are always cumbersome and onerous for all parties involved. Examples, of how the procedure has helped to abolish burdens for trade are:

— Member States previously tried to protect foodstuffs, such as tomato products, with specific names and requirements in national draft regulations. Due to the notification procedure, they had to add a mutual recognition clause to ensure that such products produced in other Member States were marketed under equivalent names.

11) IP/08/1691, *25 years of avoiding unnecessary barriers to intra EU-trade – the untold success story of Directive 98/34/EC* [14].

— Lights and brakes of bicycles had to conform to national standards making their trade in the EU complicated. Now bicycles are accepted in all Member States as long as they offer high safety standards.

— National draft regulation required scaffold manufacturers to respect these in case they intended to import to sell scaffolds in this country. As this was unnecessary and burdensome for them, they were permitted to submit the test results of the safety procedure, which had been carried out in their home country.

All intended national safety regulations have to be entered into the EU's TRIS database. Stakeholders can browse legislation proposed by the Member States in which they are interested or that may impact on their business. Notified drafts are classified according to their aim and area of activity.

5.3 Does TRIS (and the 98/34 procedure) Work?

There are differences of opinion over the merit and success of TRIS. The official position of the EC is unambiguous:

"25 years of avoiding unnecessary barriers to intra EU-trade" [12)]

"This [TRIS] procedure has prevented thousands of new obstacles and new administrative burdens since now 25 years. It is a key element of our Better Regulation initiative. It allows for early identification of potential obstacles, brings Member States together and prevents also "gold-plating". In fact, it looks very technical – but this directive has created a truly European success story."

However there are others, particularly within industry, who find the system frustrating because it does not prevent some of the real barriers being implemented. The process is felt to be slow and very difficult to enforce.

Firstly, it only applies to Member States regulations, having no impact upon barriers resulting from other sources. Secondly, a Member State may offer justification for a proposed regulation but receive substantial complaints from industry regarding the potential impact. Once the standstill period is over, the Member State can then choose to ignore those concerns having considered them or having made minor alterations, but there is no compulsion to dismiss the proposal. Formal infringement proceedings will only follow if the Commission fully supports the objections and if the Commission also wants to pursue the matter through the Courts, a process which is incredibly long and expensive.

Therefore the notification procedure only works when there is a willingness of the Member States to use the comment period to really assess the impact of their proposals. What happens in those cases where there is a perceived (or possibly clear) intent of unilaterally raising requirements in that country to the detriment of supplies manufacturing elsewhere?

6 Barriers Resulting from Policy Instruments or Schemes

6.1 Public procurement

6.1.1 Development of barriers through public procurement

The original enactment of the CPD required public procurement to stipulate CE Marking only as proof that a product was in compliance with the essential requirements and was thus safe to use. Procurement is one way, among others, of using market forces to achieve an incentive towards more sustainable behaviour.

Green Public Procurement (GPP) describes a process whereby public authorities seek to reduce the negative environmental impacts caused by the purchasing of goods, services and works with tax payer money. GPP avoids unnecessary purchases by reviewing the actual need for the product or service and seeking other solutions. If this is not possible, public purchasers seek to purchase a greener product or service that supplies the same (or better) quality and functionality as the conventional choice.

12) IP/08/1691, *25 years of avoiding unnecessary barriers to intra EU-trade – the untold success story of Directive 98/34/EC* [14].

In 2008 the Commission published its Sustainable Consumption and Production (SCP) Action Plan [13] [15] accompanied by a Communication on Green Public Procurement.

At the EU level, current Green Public Procurement (GPP) policies are all of a voluntary nature. The SCP Action Plan had been planning to introduce mandatory GPP requirements in the implementing measures of the Energy Label Directive. This would have identified one of the labelling classes below which public authorities would not be allowed to procure. This proposal was rejected by the Council.

The main voluntary policy tools are:

— A Communication of the Commission on Integrated Product Policy (2003) which "encourages" all Member States to develop National GPP Action Plans by 2006.

— The Sustainable Development Strategy (2006) which aims to increase the average level of GPP in the EU to the level of the best performing Member States (at this time) by 2010. It also identifies activities to be carried out by the Commission to promote GPP.

— The Communication on GPP of 2008 which concretises the existing target of the Sustainable Development Strategy by proposing that "by the year 2010, 50 % of all tendering procedures should be green".

— Development of common GPP criteria in the framework of a "GPP Toolkit" that is provided by the Commission. These criteria are developed to serve as a template for public purchasers and to define minimum standards for GPP in order to assess the level of GPP in the EU. At present, the Commission has developed criteria for ten product groups whilst ten other product groups are under development.

6.1.2 The European Commission

The EC website for GPP [14] [16] includes a headline comment from EU Commissioner for Environment Janez Potočnik on GPP:

"To be a success, GPP needs clear and verifiable environmental criteria for products and services. A number of European countries already have national criteria, and the challenge now, as GPP becomes more widespread, is to ensure that the criteria are compatible between Member States. A level playing field will boost the single market, ensuring that what is good for the EU is also good for the environment."

This identifies not only an objective but a problem: the lack of harmonised GPP criteria [15] creates the potential for barriers to trade or barriers to use of products. This paves the way for either national programmes or environmental lobby groups to push for criteria that may also include specific reference or controls on release of dangerous substances – long before we even have the harmonised tools at our disposal for assessing emissions.

6.1.3 The European Environmental Bureau (EEB)

6.1.3.1 General

The EEB [16] set up in 1974, is Europe's largest coalition of grass-roots environmental organisations. What makes them stand out is their expert insight on a vast amount of environmental issues including GPP, Eco-labels and climate change as affected by, or affecting inter-alia construction and construction products.

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13) Sustainable Consumption and Production and Sustainable Industrial Policy (SCP/SIP) Action Plan, COM(2008)397 [15].

14) http://ec.europa.eu/environment/gpp/index_en.htm.

15) This is changing at the EU levels – see Annex C.

16) http://www.eeb.org.

EBB works to promote the demands of its member organisations at European level. Their policy officers are in almost constant dialogue with the European institutions (Commission, Parliament and Council) and strive to improve or protect environment laws in Europe. In the field of construction products they provide product sheets that identify the issues of concern to themselves, which they then strive to become adopted in GPP criteria.

6.1.3.2 Examples of application to products

Thermal Insulation – dangerous substances: Key Environmental Impacts identified in the EEB Position Paper and Thermal Insulation Green Public Procurement Product Sheet [17)] [17] are as follows:

During the life cycle of thermal insulation, hazardous materials are a key environmental impact, especially in the chemical makeup of blowing agents. This can impact on air and water quality, as well as human health, with many of the substances identified as carcinogenic or irritant to those with breathing disorders. The hazardous properties of these substances make many of them unsuitable for landfill in non-hazardous sites. Some can be recycled thus reducing the impact on the environment.

The product will not release or leach out any substances above existing limit values set in the following regulations:

a) Substances regulated in the EU through the Regulation 842/2006/ EC on fluorinated gases.

b) Any substances or preparations that are classified according to Directive 1999/45/EC and 67/548/CEE as carcinogenic (R40, R45, R49), harmful to the reproductive system (R60, R61, R62, R63), mutagenic (R46, R68), toxic (R23, R24, R25, R26, R27, R28, R51), allergenic when inhaled (R42), cause heritable genetic damage (R46), danger of serious damage to health by prolonged exposure (R48), possible risks of irreversible effects (R68), harmful by inhalation (R20), harmful in contact with skin (R21) shall not be released.

c) Any substances or preparations that are classified according to CLP Regulation (EC) 1272/20084 as carcinogenic (H350-351), harmful to the reproductive system (H360-361), mutagenic (H340-341), toxic (H300- H301, H310-H311, H330-H331, H411), allergenic when inhaled (H334), cause heritable genetic damage (H340), danger of serious damage to health by prolonged exposure (H372-373), possible risks of irreversible effects (H371) shall not be released.

Verification: The bidder shall provide appropriate proof that this criterion is met.

Although the aims may appear quite laudable, some of the criteria are difficult to defend. For example, the ban on any R40 material would restrict the use of materials that are merely suspected of carcinogenic potential, but without any reference to the impact of exposure. In construction applications, such materials may pose negligible, if any, risk.

6.2 Sustainable Timber

6.2.1 Forest Stewardship Council (FSC Scheme)

The FSC scheme was created in 1993 to address global deforestation by certifying good sustainable forest management. Certification occurs in around 82 countries and is most widespread where forests are publicly owned. A recent report [18)] [18] suggests that its most notable use is in Croatia, Ireland and Poland. Hence, FSC forest certification has primarily gained momentum in a set of mainly developed countries. The abstract to the report states *"The article finds that the macro-effectiveness of certification on halting deforestation is still limited due to the "stuck at the bottom" problem of developing countries, which are kept out of the certification process, and the market-driven nature of certification initiatives." The report further suggests that the FSC has*

17) EEB – European Environmental Bureau Position Paper and Product Sheet (2009) (www.eeb.org).

18) Marx, A., Cuypers, D. (2010) Forest certification as a global environmental governance tool: what is the macro-effectiveness of the Forest Stewardship Council? *Regulation & Governance 4:408-434* [18].

not reduced deforestation as planned but instead acts as a market governance tool. It says, "The strong link between development and certification suggests significant limitations on the role of certification as a global governance tool. Its unequal uptake may create potential problems with international trade rules and certification as a market governance tool may become a non-tariff trade barrier."

6.2.2 UK Policy Developments in Timber Procurement

On 1 April 2009, the UK Government's timber procurement policy changed and moved towards sustainable timber as a minimum. It now requires that only timber and wood derived products originating from either 'legal and sustainable' sources or from a licensed FLEGT (Forest Law Enforcement, Governance and Trade Regulations) partner or equivalent, will be demanded for use on the Government estate. This policy is mandatory for all Central Government Departments, their Executives Agencies and Non-Departmental Public Bodies. Autonomous organisations that receive public funding are also encouraged to adopt this policy.

The UK Government states that it is keen to harmonise its timber procurement policy with those adopted by other consuming countries in the wake of the UK lead. A standard approach with similar requirements from member states would make it easier for producers and traders to understand and meet demand. The EU FLEGT Regulation has been implemented into UK legislation as of 20 February 2012, but it will not be effective until the first 'Voluntary Partnership Agreement' (VPA) country is listed on the Annex to the Regulation. This is expected to happen early to mid-2013. VPAs have already been signed with several countries and others are in the pipeline. These bilateral agreements will ensure timber products from partner countries are only allowed on to EU markets if they are accompanied by a valid licence proving they have been harvested from verified legal sources.

Without harmonised schemes and recognition, and without any such scheme being affordable and fair, there is always the potential for large organisations to absorb the cost and organisation compared to smaller producers. Well-intended sustainability initiatives can all too easily become a barrier for some producers.

7 Examples of the restrictions on use of materials

7.1 Barriers to use

Various schemes exist around Europe which are intended to set standards or directly, or indirectly, control the use of certain types of materials on the market.

Technical barriers to trade – and barriers to use – can arise when products may have to be altered in order to comply with differing country requirements such as for health, safety, environmental and consumer protection issues. These requirements can be imposed by both governments (technical regulations) and non-governmental organisations (non-regulatory barriers, standards or barrier to use). The legal character of technical regulations distinguishes them from non-regulatory barriers or standards, in that the latter are voluntary, therefore not legally binding and arise from self-interest of producers or consumers involved. The technical regulations mainly relate to technical specifications, testing or certification requirements such that "the product actually complies with the specifications to which it is subjected (conformity assessment)".

Although not legally binding, a non-regulatory barrier or barrier to use may often be more difficult to overcome. A non-regulatory barrier agreed within the industry could be just as restrictive given that it could be difficult to have products accepted within the industry unless additional tests or certifications are carried to satisfy the industry or even investors or lenders that inferior products are not being used. As such, businesses could entail significant costs if products need to be adapted or be subject to multiple testing and certification costs; the magnitude of which would differ across different products.

7.2 UK – Collateral Warranties and deleterious Materials clauses

In the United Kingdom, suppliers of construction products, contractors and builders often come across so-called "Collateral Warranties" which form part of the contract between the developer, his or her architects and designers, and the builders. The principle objective of the warranty is to ensure that the completed building or works will not be deemed to pose any risk to health when completed, nor pose any future financial liability to the developer. They arose following the well-known debacles of asbestos ridden buildings and works

constructed with materials such as high-alumina cement. Lawyers acting for developers created the collateral warranties as a form of protection but their use has grown significantly since their first conception.

The “Warranty” covers many legal aspects of the design and construction of the works, but one particular part of the warranty directly affects construction products and is directly, or indirectly, related to the ideas behind Essential Requirements (or Basic Works Requirements) of the CPD and CPR – this is the requirement relating to “Deleterious Materials”.

7.2.1 Deleterious Materials – a definition

Deleterious materials are materials or building techniques which are dangerous to health, or which are environmentally unfriendly, or which tend to fail in practice. They are often listed in property agreements, appointments and building contracts, where the developer, consultant or contractor is required not to use them.

An example of a collateral warranty clause in purchasing specification for construction product is as follows:

“3.00 DELETERIOUS MATERIALS

— *“3.01 The following materials and substances shall not be used:*

— *High Alumina cement or concrete*

— *Woodwool slabs as permanent formwork or in structural elements*

— *Concrete or mortar additives containing calcium chloride*

— *Aggregates for use in reinforced concrete which do not comply with British Standard Specification 822.1992 and aggregates for use in concrete which do not comply with the provision of British Standards 8110:1985*

— *Calcium silicate bricks or tiles*

— *Any products or materials containing urea formaldehyde [sic] foam or materials which may release formaldehyde [sic] in quantities which may be hazardous with reference to the limits set from time to time by the Health and Safety Executive*

— *Asbestos or asbestos containing products whatsoever*

— *Lead or any materials containing lead which may be ingested, inhaled or absorbed except where copper alloy fittings containing leading or specifically required in drinking water pipework by any relevant statutory requirements.*

— *Slipbricks*

— *Lightweight or air entrained concrete bricks or blocks*

— *Vermiculate plaster*

— *Polysicoyanurate [sic] foam*

— *Extruded polystyrene other than low ozone depletion materials*

— *Materials which are generally composed of mineral fibres either man made or naturally occurring which have a diameter of 3 microns or less and a length of 200 microns or less which contain any fibres not sealed or otherwise stabilized to ensure that fibre migration is prevented.*

— *Bitumen coated polythene save that the use of bitumen coated polythene may be permitted for tanking and DPM but express permission shall be sought from the Beneficiary*

— *Concrete open web lattice joists or beams (nailable type)*

— *Timber trussed rafters manufactured with truss plate connections. Bolted trusses are permitted*

— *All tropical rain forest hardwoods*

— *Any product which contains or uses Montreal listed CFC gases in its manufacture*

— *PTFE fabrics – the only permitted use of PTFE is as a jointing tape in plumbing applications and on specialist applications such as valve seats*

— *Pre-cast concrete floors at ground floor level or ribbed floors*

— *Resin coated blocks*

— *Spectra glass or similar pre-finished blocks*

— *Wall and ceiling lining products and composite cladding products that are either not non-combustible or do not meet the Loss Prevention Standard LPS1181 or which do not meet the Factory Mutual Standard FM4880*

— *Other substances or materials generally known to be deleterious at the time of use.*

— *Other substances or materials not in accordance with British Standard or codes of practice where such exist."*

This list is not only substantial in quantity but also, in places, difficult to justify even using the precautionary principle. Some materials identified in the list are clearly hazardous and are restricted or banned from use – such as lead piping for water supplies – while others are purely speculative and afford protection to the developer in case of doubt.

Such lists have tended to grow over time as one firm of lawyers sees another list of deleterious materials that includes something extra to their own list. The suggestion of many is that the "new" substance is then added, just in case, but without any scientific justification. This leads to constant struggles between material suppliers and builders trying to meet the warranty clauses.

7.2.2 Collateral Warranties – the legal position

The purpose of collateral warranties is to create legal relationships, particularly duties, which would not otherwise exist.

A warranty is a term of a contract, the breach of which may give rise to a claim of damages but not the right to repudiate the contract.

The collateral warranty has developed from a duty of care deed which, as a result of decisions and rulings in the early nineties but also from the prolonged recession in the property market at this time, narrowed the scope of the law of negligence which led to insolvent developers and huge debts.

The theoretical reasons for collateral warranties are:

1) the common law doctrine of privity, which prevents a person from suing under a contract to which he is not a party, and

2) rulings of the House of Lords in 1989 and 1990, which prevent the recovery of “economic loss” (i.e. the cost of remedial work in an action in tort for negligent design or construction).

However, the Contracts (Rights of Third Parties) Act 1999 (“the 1999 Act”) [19] has modified the doctrine of privity of contract, but so far has had little or no impact on collateral warranties. One of the objects of the 1999 Act is to allow stakeholders to be protected against construction defects or insolvency without the cost, complexity and inconvenience of collateral warranties.

The main provision of the 1999 Act is subsection 1(1); that a person who is not a party to contract may in his own right enforce a term of the contract if it expressly provides that he may, or purports to confer a benefit upon him. However by subsection 1(2) a contract term which merely purports to confer a benefit on a third party is negated if on a proper construction of the contract it appears that the parties did not intend the term to be enforceable by him.

Unfortunately, the belief that the Act would be used to eventually replace warranties now seems to be some way off. The majority of developers do not feel able to abandon the use of collateral warranties until lenders or investors are willing to accept such a change.

7.2.3 The Warranty

Many warranties will have standard clauses but there are a number of matters that should be taken into consideration:

1) **Work** – Any work or activities covered by the warranty should be no greater than the work actually been undertaken. For example, a requirement in a contract for satisfactory materials and workmanship extended under a warranty that all materials shall be and shall remain of satisfactory quality and fit for the purpose is greater than what has originally been provided for and should not be accepted.

2) **Deleterious materials** – Does the warranty contain inappropriate lists of deleterious materials? Extensive lists of deleterious materials should be resisted on the basis that most are only deleterious if used improperly.

3) **Duty** – Is the proposed duty to be undertaken wider than that existing in the absence of a warranty? For example, an engineer’s primary duty is to use skill and care. The warranty may contain an undertaking that the work will be reasonably fit for its purpose or that the works will be “properly” designed or that the “works will meet the requirements of the employer in all respects”. These examples are too wide and should not be accepted.

4) **Limitation periods** – By giving a warranty the time for a person remains liable maybe extended, even beyond that given in the original agreement. Consideration should be given to the inclusion of an express statement on the limitation period to remove any uncertainty as to the period of liability.

It would also be prudent to consider a cap on liability (either an overall aggregate cap or a cap on consequential loss) so as to be clear the potential exposure to any claim of damages.

However, from the above, we see a direct relationship to construction products and the possible creation of barriers to their use if they are directly or indirectly implicated in being “deleterious” to the works or to human health.

7.2.4 Use of Deleterious Materials Clauses

When in agreement with these clauses, obligations should be limited to exercising reasonable skill and care and to specify materials that are considered to be deleterious within the required area only as opposed to materials that are considered to be deleterious within the industry generally. Many materials are only deleterious if used improperly which would be a breach of the warrantor’s explicit duty to employ reasonable care and skill.

Potentially however any obligation under a deleterious material clause could be impossible to fulfil. No warrantor should agree to ensure that deleterious materials are not used as they have no way of checking whether certain materials have been included within the components of a building.

There is arguably little point in including such a clause other than the fact that a beneficiary or developer will expect to see such a clause. The use of unsuitable materials is most likely to be seen as a failure to exercise reasonable skill and care. In addition, the use of deleterious materials may contravene relevant legislation or regulations.

7.3 Green product or building labelling – The Eco-label

7.3.1 General

An example of a pan-European barrier to use is the voluntary schemes related to environmental labelling; these can also exist and vary at national level. The most common and well-known European scheme is the Eco-label.

In September 2009, a regulatory committee of member state representatives approved the first-ever environmental criteria for awarding the EU's Flower eco-label to manufacturers of wooden furniture, wood floor coverings and textile floor coverings such as carpets. The committee agreed on limits on energy consumption for wood and textile floor coverings. The criteria for furniture were not agreed upon due to difficulties in calculating the energy used in the manufacturing of the latter.

At least 50 % of solid wood and 20 % of wood-based materials contained in wooden furniture shall come from sustainably managed forests, rising to 70 % and 40 % from January 2013, the committee said. The same criteria apply to wood floor coverings.

Member state experts also agreed restrictions on use of chemicals such as formaldehyde and flame retardants for all three products. For example, formaldehyde concentrations in textile floor coverings are not to exceed 30 ppm. Only biocidal products approved under annex IA of the biocides directive are allowed.

Wooden furniture and wood floor coverings bearing the EU eco-label should not contain genetically modified wood. Member states also agreed limits on volatile organic compounds (VOC). For example, the VOC content of adhesives used in the manufacturing of wooden furniture shall not exceed 5 % by weight.

A manufacturer who does not seek the eco-label for flooring would still, normally, be expected to apply for CE Marking against the harmonised standard for flooring products covered by Mandate M/119.

7.3.2 Global impacts of eco-labels

In 1977, Germany introduced the first national and multiproduct eco-label, i.e., the Blue Angel label. A decade later, several countries (e.g., Nordic countries, Canada, Japan) developed their own eco-labelling programs. Eco-labelling schemes are now present in almost all OECD countries, and in some transitional economies. There are more than 40 eco-labelling schemes worldwide with a very unequal diffusion among countries.

The term eco-label is very specific. Technically, an eco-label implies the endorsement of the good or service in question by an independent third party, after the third party has used a specific set of environment criteria to test it. The types of testing done on any product are specific to the product's life-cycle. While eco-labels have support from many states and environment groups around the world, they also have their detractors. One of the biggest concerns expressed about eco-labels is their potential to be used as non-tariff barriers to trade. This concern has been expressed by numerous authors, including the UN [19)] [20], who identify the focus on regional priorities and needs as an important factor. Clearly, establishing a harmonised system of assessment and classification would reduce the regional impact within the EU, but it could never account for the additional barriers associated with any form of labelling and certification scheme, especially when of a “voluntary” nature – especially the cost of entry and cost of certification.

19) United Nations Environment Programme – Basel Al-Yousfi, Ph.D., PE, DEE – *Regional Workshop on Trade and Environment Capacity Building*, *25-27 March 2006* [20].

The cost of conformity assessment (often the most significant barrier for small companies), which is related to the proliferation of eco-labels and the use of local schemes with private developers become de-facto standards in the market place. Consumers may not be willing to pay higher prices for eco-labelled products, and the small margins associated with some commodity construction products may further weaken a manufacturer's profitability. The cost of not seeking certification however may be total loss of a market.

There are numerous reports such as the South African NEDLAC [20] [21] report that identify eco-labels as a global source of barriers to trade, particularly technical (non-tariff) barriers, which seems to stem partly from the proliferation of eco-label schemes around the world (Type 1 ISO schemes). These schemes are further complicated by the divergence of opinion and methodology for life cycle analysis that support the eco-label process. NEDLAC reports that, *"The relationship between eco-labels and the WTO rules is generally seen in the context of the potential that eco-labels may be used as a non-tariff technical barrier to trade (TBTs), …"* and also that, *"Many developing countries fear that stricter product standards relating to environmental criteria (for example through the use of eco-labels) are being used – or may potentially be used – as a means of protecting developed-country industries. Concerns have been raised by various international institutions, as well as by many developing countries, that eco-labelling, while professing to be environmentally beneficial, does in fact have a negative impact on global trade patterns. The concern relates to the fact that the demand for eco-labelled products in a particular host country or region may preclude those countries and industries where no eco-labels exist – or where the existence of labels is not widespread – from successfully penetrating such markets."*

Although such remarks are expressed by a nation outside of the EU, such measures are in reality a global concern and also a local concern so long as national environmental schemes co-exist in the EU alongside the EU Eco-Label Scheme. At best they cause confusion and at worst mean that manufacturers have to decide on which type of scheme to follow and which methodology to support. A full life cycle analysis can be a significant cost with some estimates being around Euro 15 000 to Euro 20 000 per product type for a fully certified assessment.

This concern is also expressed by UNICE who reported [21] [22] that *"Environmental labelling schemes may discriminate against foreign manufacturers and therefore have trade distorting effects."* This applies not only to mandatory eco-labelling schemes but also to voluntary schemes: *"Successful" voluntary eco-labelling programmes influence consumer demand and in this respect can create considerable pressures for manufacturers to use the label. A fundamental problem inherent to eco-labelling is that it is often more costly and burdensome for foreign producers to obtain an eco-label than for domestic producers, thus constituting an unnecessary barrier to international trade."*

CEFIC, the European chemicals industry council also reported [22] [23] on the potential impacts of eco-labelling in a report on the global impact of labels, where it states:

"Although voluntary eco-labelling schemes are a "mild" instrument of environmental policy aiming at increasing consumer information and sensibility, they may have trade distorting effects and create unnecessary barriers to trade. "Successful" eco-labelling schemes influence consumer demand and in this respect they can have a significant effect on market access and create considerable pressures for manufacturers to apply for an eco-label."

"A fundamental problem inherent to eco-labelling is that it is often more costly and burdensome for foreign producers to obtain an eco-label than for domestic producers. There may occur direct or indirect discrimination in the process of awarding an eco-label and the setting of the criteria. It is therefore crucial that the selection of criteria for awarding the label is transparent and non-discriminative."

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20) NEDLAC – National Economic Development and Labour Council (South Africa) – Fund for Research into Industrial Development, Growth and Equity – *Global Review of Eco-labels and implications for South Africa (Phase 2 report, January 2003)* [21].

21) *Labelling schemes for environmental purposes*, UNICE Updated position paper (2003) [22].

22) *Cefic comments on Trade Implications of Eco-Labelling Schemes* – 9 December 2002 [23].

7.3.3 Specific EU level impacts

More locally, addressing directly trade impacts in the European Union, a report prepared for the European Commission by Bocconi University in Milan in partnership with Ghent Management School at Ghent University [23)] [24], identified in 1998 that there were barriers to the introduction and use of the Eco-label scheme as well as barriers potential barriers to the use of certain products. Paint companies in Italy reported that the presence of various private schemes weakened the use of eco-labels and the cost of entry was often substantial. Similarly, the paper industry reported that at first sight, there are a few strong barriers that are hindering the development of Eco-labels for this product group. But, regarding copy paper, the EU Eco-Label loses the battle to the national label in the Netherlands and in Germany. The Nordic Swan became the standard in Scandinavia and is well known in the rest of the Europe.

Overall, it would appear that two factors greatly influence the viability and impact of the eco-label on use of products: firstly, the image and communication value of the labelling, and secondly the cost of entry. With regard to the former, some manufacturers are of the opinion that unless a scheme were mandatory and well publicised, it would not be of value. In this understanding, a large manufacturer or conglomerate who have the label can use their size, power and financial position to promote their own labelling – which, if successful, would then have the impact of forcing others to incur the cost penalty of also joining what is intended to be a voluntary scheme. Costs of entry are self-explanatory and unfortunately also linked directly to the visibility and value of any scheme. However, the cost of testing and conformity control would be significantly higher in proportion of turnover for small companies compared to large enterprises.

Window manufacturers share some of these concerns and more. In a letter to the European Commission in 2009 [24)] [25], EuroWindoor cited a number of concerns related to Green Public Procurement and especially Eco-labelling, with some key points shown below:

— Verification of product related characteristics and compliance with regulatory requirements is demonstrated through the CE marking system and not by eco-labels.

— National eco-labels do not guarantee to fulfil the GPP request. They cannot fulfil more requirements then these defined from the program operator. To believe in the thesis that “Products holding a relevant Type 1 Ecolabel or that demonstrate compliance with relevant Type 1 Ecolabel criteria will be deemed to comply” is naive.

— Reference to national eco-labels has to be deleted, because it builds up barriers to trade. Moreover the eco-label and criteria list at 5.2 is weighted towards non-European sources giving the wrong impression of European products which are some of the most environmentally friendly yet produced.

7.4 Dutch Environmental Certification Label

The “Milieukeur” label has its own certification scheme. Dutch “green” labels are considered an instrument for suppliers, or even purchasers, but are not a legal requirement. There is no legislation that requires or encourages green labels or quality marks. Nevertheless, a policy exists to encourage the sustainability of buildings and construction. The Environment Ministry has a policy of sustainable buying for public purchases, but this is limited to ensure that barriers are not introduced into public tendering by demanding green labels.

7.5 European Schemes for labelling of emissions to air

The ISPRA lead inventory of existing labelling schemes in Europe resulted in report 24 of the European Collaborative action “Urban air, Indoor environment and human exposure – Environment and Quality of life” in 2005 [25)] [26]. As a result of this, a harmonising initiative was undertaken by four major national schemes (AgBB scheme, regulated by DIBt in Germany (AgBB, 2005), M1 label in Finland (Saarela and Tirkonen,

23) Frey et al., *Project for the Promotion and Diffusion of the EU Eco-Label in Italy and the Benelux*, 1998 [24].

24) *EuroWindoor position on stakeholder consultation for the second set of Green Public Procurement (GPP) Criteria – Product Sheet - Windows, Glazed doors and skylights* – 5 Sept 2009 [25].

25) ECA Report 24 - Harmonisation of indoor material emissions labelling systems in the EU (2005) [26].

2004), AFSSET (France) and the Danish Indoor Climate Label (Wolkoff and Nielsen, 1996)). It is expected that this initiative will eventually lead to a harmonised labelling scheme for Europe.

At a national level there are a number of initiatives to increase labelling of low emission materials including mandatory schemes in Germany and France. Table 1 lists the main material labelling schemes. It is likely that some national and industry based schemes will continue after the CPD requirements have been established in order to address particular local and market needs. It is expected that there will be a convergence of methods of assessment to reduce the requirements for testing to achieve approval under the various mandatory and voluntary schemes.

A further proposal emerged in late 2009 from France, requiring the labelling of construction products for emission of VOCs. At the time of writing, the draft Decree and Order are undergoing review through the 98/34 Notification procedure as FR- 2009-701-F- DECRET- Etiquetage produits de construction [26)], and FR- 2009-702-F- ARRÊTÉ- Etiquetage produits de construction [27)].

NOTE The Decree and Order have since been published in the Official French Journal to be legally required with effect from 1st January 2012 for products newly placed on the market and from 1stSeptember 2013 for all construction products.

The French requirements are considered to be in conflict with the existing European legislation for Classification and Labelling and Packaging of substances and also for preparations, which each support the new REACH Regulation for dangerous substances.

The mandatory nature of the labelling requirement means a substantial cost element for producers wishing to place construction products on the French market – constituting a barrier to trade. Nonetheless, at the time of writing, it appears that the French authorities are presenting a robust defence of the value of the scheme and the interests of public health and, like many “notified” regulations before, may well become part of the national regulatory framework.

26) DRAFT DECREE – relating to the labelling of construction and decoration products with their volatile pollutant emissions.

27) DRAFT ORDER – relating to the labelling of construction and decoration products with their volatile pollutant emissions.

Table 1 — Main Material Labelling Schemes and contact points [28)]

Scheme	Details	Contact
M1, Finland	Voluntary (private), promoted by Government, all types of construction products	http://www.rts.fi/english.htm
Indoor Climate Label (ICL), Denmark	Voluntary (private), promoted by Government; open to all types of products relevant to indoor air	http://www.dsic.org/dsic.htm
AgBB (Committee for Health-related Evaluation of Building Products), Germany	Applied voluntarily to other building products; Mandatory through inclusion in approval procedure by DIBt for construction products used in spaces intended for more than temporary residence (e.g. floorings and adhesives). (DIBt = Deutsches Institut fur Bautechnik)	http://www.umweltbundesamt.de/building-products/agbb.htm
AFSSET (Agency for Environmental and Occupational Health and Safety), France	Voluntary protocol for all building products and finishes; Proposed in the framework of the first French National Environment and health Action Plan (NEHAP); On the way to become mandatory under “Le Grenelle environment.” (PNSE, 2009)	http://www.afsset.fr
GuT, Germany	Voluntary (private); textile floor Coverings	http://www.pro-dis.info/aboutgut.html?&L=0
EMICODE, Germany	Voluntary (private); products for installation of floor coverings	http://emicode.com/
Blue Angel, Germany	Voluntary (private), promoted by Government; several types of products for indoor use	http://www.blauerengel.de/en/blauer_engel/index.php

28) Bluyssen, P.M., Indoor sources and health effects: background information and ways to go – paper for the Belgian Presidency, 2010 [27].

7.6 Green Building labelling schemes

In parallel with eco-labelling schemes for products, there are now numerous schemes for green building certification, embodied energy analysis and life cycle assessment. Work to harmonise such schemes, as with the eco-label, are progressing at the international level in ISO, but progress is slow.

Meanwhile a variety of schemes exist with sometimes conflicting methodologies, and even different boundaries to the scheme application – such as whether a life cycle analysis is truly cradle to grave, e.g:

— raw material extraction,

— transportation,

— manufacture including emissions and waste issues,

— packaging with full life cycle,

— delivery and transportation to end user,

— installation,

— refurbishment and/or replacement cycles during building lifespan,

— removal and demolition at end of life,

— waste disposal and associated impacts.

This is by no means an exhaustive list, but some schemes only cover cradle to factory gate, and simpler schemes may not even take into account the raw material extraction. Within the schemes, there may be different rules on the factors under analysis, such as the energy mix used in production. Hence the life cycle assessments may need to be performed by different bodies for different schemes with significant cost implications.

As we move towards ever more stringent controls on the energy use in buildings, near carbon, or zero carbon buildings, the competition to be seen as having a “green” product creates even greater complications and difficulties for all manufacturers, with especial difficulties for small and medium enterprises.

7.7 Swedish BASTA (online) Scheme

The aim of the BASTA system is to speed up the phasing out of hazardous substances in construction. Products are assessed according their chemical ingredients. The assessment addresses a number of properties criteria for the chemical ingredients in a product, and it is the suppliers themselves who are responsible for the assessment. Only products that meet these requirements can be registered in the BASTA system.

BASTA is run as a non-profit-making limited company and is owned jointly by **IVL Swedish Environmental Research Institute** and **The Swedish Construction Federation**. All work is carried out by staff at IVL.

The BASTA system was developed by a consortium consisting of The Swedish Construction Federation, JM, NCC, Peab, Skanska and IVL, with support from the European Development Fund LIFE. BASTA is also part of The Ecocycle Council´s (Kretsloppsrådets) Environmental Program 2010© [29)].

BASTA maintains that the scheme is in line with regulatory development and, recently, the introduction of REACH. They propose that BASTA is a way of showing that products are safe under REACH. You do not need to be a chemicals expert to choose products in the BASTA system. BASTA is an initiative taken by the

29) http://www.kretsloppsradet.com/web/page.aspx?refId=176.

Swedish construction industry with the objective of producing the best products from environmental and human health perspectives. This is achieved through a process in which suppliers guarantee that their products meet a number of requirements regarding the chemical properties of the components of a product. Only products that meet these requirements can be registered in BASTA.

However, others maintain that it forms a barrier to use since it is a further hurdle that a manufacturer needs to overcome to be seen to be meeting the BASTA qualification.

8 The Industry Perspective

The manufacturing industry – and construction product manufacturers as a whole – has been slow or reluctant to offer specific examples of barriers to use, although some industry groups do feel very strongly and gave information for the initial report. Part of the problem is the pressure of workload and diminishing staff numbers in an increasingly competitive market – this means that “surveys” and “questionnaires” take a much lower priority in the eyes of management. Another jaundiced view is that everyone is in the same boat and so all are equally punished by the market measures. A further and more emotive position is that some large enterprises actually relish the increased cost of entry caused by barriers to use since it helps maintain a market share for those most able to absorb costs as a fraction of their turnover – not a view shared by many SMEs. Furthermore, as reported in CEN/TR 15855 [1], there are some who see the need for voluntary standards, codes and certification to prevent the market being eroded and receiving a bad reputation by the influx of “poorer quality” or “cheap” imports from Asia, the Far East, or even Eastern European countries with low labour costs. The use of “voluntary” European Standards, not mandated by the Commission to support the CPD, has thus been adopted in certain quarters. These standards set performance values above that demanded for CE Marking alone. Depending upon their recognition or promotion, they may become barriers to use of products that are not tested to the higher performance level.

One topic that does get raised continually is the lack of simplification of the framework for testing and approval of construction products across Europe. Many people acknowledge that – despite the CPD – countries will always seek to have their own “special” requirements, some of which are wholly sustainable and warranted, and national building codes are very unlikely to be harmonised. Yet there should only be one test regime per property coupled with mutual recognition at all levels. This is the CEN Standardisation process for test methods and, so far as national requirements are concerned, also that for product standards. However the latter can never address the myriad of local requirements.

Hence, the assessment of emission of a given gas or compound to indoor air should be able to be determined by the same test – once and only once – with the result expressed as a level or class which forms part of the product label. Then the national codes should be reviewed to use only results from those tests to set their national performance targets.

Designers, architects, builders and distributors are also part of the construction products’ “industry” and in some cases can have significant influence on the creation of barriers to use. These barriers cannot easily be legislated for: a designer is free to choose the colour of a product for a façade – even if there is only one manufacturer of that colour in the whole of the EU. Is it really a barrier to the use of other products? Somewhere along the line of detailed specifications for construction we have a mixture of “shall have” requirements and “would like to have” requirements, and some which are based purely upon irrational fears, past experience and hearsay. These will probably never be eliminated in the private development arena, but for public procurement there needs to be a greater awareness of the impact of “choices” and the fact that barriers to use may be only slightly removed from a “barrier to trade”.

9 Can Standardisation Eliminate Barriers to Use?

Barriers to use arise for many reasons, but typically through a perceived need for additional or higher levels of protection than that afforded by existing legislation such as CE Marking and supporting harmonised standards.

Theoretically, harmonised product standards should include levels or classes that encompass the full range of regulatory requirements in the EU so that each and every regulatory demand can be incorporated into CE Marking. The situation with the CPD and its ER3 on health, hygiene and environment was that ER3 was never

fully implemented as there were no harmonised methods for assessing the essential requirements – especially in relation to dangerous substances.

The programme of work in CEN/TC 351 under Mandate M/366, together with the introduction of the CPR and Basic Works Requirements, should allow the national schemes to be incorporated. However this takes no account of the member state seeking to add further or more stringent requirements, nor does it directly address the aspect of mutual recognition as opposed to specific national laboratories being listed as the only option for certification.

Standardisation can also only go so far to incorporate voluntary schemes, green labelling and other measures which are beyond the regulatory framework. Especially in the private sector, there will always be developers, architects or owners of buildings who will specify or demand a property or level of performance that is well beyond the scope of any national regulation.

It is vital to make use of as many of the available “tools” as possible, namely the inclusion of national requirements into harmonised Technical Specifications, harmonised assessment methods and labelling requirements and of course mutual recognition of laboratories and test results across Europe. It would be ambitious to suggest that these would eliminate barriers to use but some progress has been made and will continue to be made under the framework of CEN standards for construction products and harmonised methods of assessment.

European regulators like the European Commission should also be aware of the dangers of new policy instruments which may be open to less than unambiguous interpretation in the wide range of member countries or instruments that may even have negative influences on each other and how all such instruments may be linked to appropriate common assessment tools.

10 Conclusions

Barriers to the use of construction products exist in many spheres of European business and for many different reasons.

At the regulatory level in Member States, the introduction of measures to afford local protection of the environment, health, natural resource or biodiversity leads to specific requirements above those generally harmonised at the European level. Some consider such requirements to be regulatory barriers to trade but they are not considered illegal measures since they have been fully notified through the EC 98/34 notification procedure. Nonetheless, the imposition of higher performance targets or certification rules does create barriers to the use of some products, especially for importers.

Lack of supporting standards, as was evident with the CPD ER3, can lead to the vacuum being filled by national test methods and classification schemes for determination of the properties concerned. These may be written into national requirements like building codes or simply become de-facto market requirements; nevertheless, they present as barriers to some material producers. For companies selling into multiple markets their proliferation can be a substantial barrier due to the need to test several times to different schemes.

Voluntary labelling schemes for measurement of emissions or certification of classification of certain substances can become a market requirement over time. Indigenous manufacturers can sometimes support such voluntary schemes and promote their use to the extent that it is difficult for importers to reach the market without having to pursue the same level of test or certification. Understanding local rules and procedures can make this daunting and expensive for importers.

Green public procurement, environmental labelling and other such schemes can work effectively across the European market, but are alleged to restrict non-community trade. Absence of harmonised criteria and the proliferation of national marks and labels can again lead to barriers to use – depending upon the market acceptance of the mark – and increased costs for multiple assessments for sales across several EU member states. Warranty and legal protection contracts for developments and building constructions – which are intended to protect the developer’s investment – can dramatically affect the use of certain products if they fall

foul of the lawyers' "precautionary" stance. These can instigate real and unjustified barriers for certain products on the basis of hearsay or speculation.

Unlike technical barriers to trade, standardization can only go so far to remove barriers to use since many of the barriers are voluntary schemes or private specification driven demands. However, careful thought and planning of new regulatory instruments together with provision of harmonised supporting standards can help minimise the creation of new de-facto barriers to the use of products. This is not fool proof as evidenced by the most recent introduction of the new French Decree and Order on emissions of VOCs into indoor air which is coupled with a mandatory labelling scheme for construction products. Although the testing is based upon the proposed harmonised EN 16000 series, the demand for mandatory labelling will create barriers to the use of some products.

Annex A
(informative)

German System for derivation of OELs

In Germany, there are two kinds of Occupational Exposure Limits (OELs) for air in the workplace:

— TRKs (Technische Richtkonzentrationen), which are technical guidance concentrations, and

— MAKs (Maximale Arbeitsplatzkonzentrationen), which give the maximum concentration of a chemical substance in the workplace.

The MAK-values are daily 8-hour time-weighted average values and apply to healthy adults. Substance-specific acceptable peak concentrations, including the highest possible duration of such peaks, are defined. If the substance can be taken up through the skin, this is indicated.

The TRK is the concentration of a chemical substance in the air within a working area, which may be reached in accordance with the best available technology (state of the art). This type of limit value is usually applied to substances that are in carcinogenic category 1 or 2. In some cases, the Committee on Hazardous Substances proposes technical-based MAK-Values which base on the TRK-concept (TRGS 102). These type of limit value usually applies to substances which are carcinogenic or mutagenic category 3 (substances suspected of having a carcinogenic or mutagenic potential) and to important industrial substances for which no harmless minimum concentration can be determined (e.g. Cobalt, metal working fluids).

In addition to these, there are special rules for individual substances or substance groups such as hydrocarbon mixtures, diesel engine emissions, or different types of fibres and dust. The Biologische Arbeitsstofftoleranzwerte (BAT – biological tolerance values) give limits for the concentration of some substances in the human body from workplace exposure.

The limit values for hazardous substances are documented in Technical Rules for Hazardous Substances (TRGS). The TRGS describe the substances with respect to the current status of knowledge about the health hazards, typical industrial use and safety and hygiene requirements. They are based on the Hazardous Substances Ordinance (GefStoffV) which is derived from the Chemicals Act (ChemG). All exposure limit values are consistent national values based on common national legislation. The Federal Ministry of Labour and Social Affairs publishes new or revised limit values half-yearly. The MAK and TRK values are published in TRGS 900 (Limit Values in the Air at the Workplace) and the BAT are covered in TRGS 903.

The Ausschuss für Gefahrstoffe (AGS), or Committee on Hazardous Substances establishes the Technical Rules. This Committee consists of members from all concerned groups. The authorities are represented by:

— delegates of the labour inspections from the Länder (Federal States);

— institutions for statutory accident insurance and prevention (BG, HVBG);

— national institutions such as:

  — The Hazardous Substances Division of the Federal Institute for Occupational Safety and Health (BAuA);

  — The Federal Environmental Agency (UBA);

  — The Federal Institute for Health Consumer Protection and Veterinary Medicine (BgVV); and

  — The Federal Institute for Material Research and Testing (BAM);

The employers, the producers and sellers of chemicals, the trade unions and the consumers are also represented.

Limit values are developed and proposed by national scientific sources. For example:

— the DFG Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work area - the MAK Commission,

— the Committee on Hazardous Substances,

— scientific departments of the chemical industry.

International scientific proposals or official values from other States may also be included in the list.

For health based OELs of "threshold substances", recommendations of the MAK-Commission and other sources are discussed by the Beraterkreis Toxikologie (Advisory Group on Toxicology) of AGS, the Committee on Hazardous Substances. This Committee recommends a health-based OEL to the AGS, where in exceptional cases socio-economic and feasibility aspects may be taken into account. Thereafter the AGS recommends the OEL to the Ministry of Labour and Social Affairs who include it in the Technical Rules TRGS 900.

Annex B
(informative)

The World Trade Organisation

B.1 General information about the Technical Barriers to Trade (TBT) Agreement

A technical barrier to trade exists when a country applies technical regulations, standards (including packaging, marking and labelling standards) or procedures for assessing conformity with these standards, in such a way as to impose an unnecessary restriction on international trade. The WTO Technical Barriers to Trade (TBT) Agreement [4] goes some way towards addressing such barriers by requiring countries to act in a transparent and non-discriminatory manner. However, technical barriers remain a major impediment to international trade. Accordingly, the UK Government takes the view that there should be further work on this subject to:

— ensure that countries regulate only to the extent necessary to protect public health and safety or other legitimate objectives;

— encourage governments to keep technical regulations simple, wherever possible, setting basic requirements and allow voluntary standards;

— achieve greater recognition of international standards as distinct from conflicting national or regional standards (while at the same time encouraging the development of adequate international standards in those areas currently without them and greater developing country participation in standard setting).

The WTO TBT Agreement is subject to review every three years. The first review was completed in 1997 and the fourth review was completed in November 2006.

B.2 National Activities to Support the TBT Agreement

Each country assists in the process of identifying and removing technical barriers to trade through national organisations. The following explains how such a scheme works in the UK:

UK TBT Enquiry Point and Information about UK TBT notifications

The TBT Agreement (paragraph 10.1) requires the establishment of national TBT Enquiry Points. Information about this and copies of TBT notifications and corresponding draft measures can be downloaded from this website [30)]. Enquiries relevant to the TBT Enquiry Point and not related to standards applying in the United Kingdom can be sent to Marilyn Swain at UK TBT Enquiry Point at BERR.

B.3 Other information sources

European Commission

The Technical Barriers to Trade website [31)] of the European Commission also provides useful information on this subject.

30) http://www.bis.gov.uk/barrierstotrade

31) http://ec.europa.eu/enterprise/tbt/

Annex C
(informative)

European Commission Process for Setting Green Public Procurement (GPP) Criteria

In April 2010 a new procedure for GPP criteria development was proposed as the Directorate-General for Environment is seeking to make the criteria development process more transparent and participatory and enhance synergies among different product-related policy instruments such as GPP, Ecodesign, EU Ecolabel and Energy label.

The GPP process will to a large extent follow the structure of the EU Ecolabel criteria-setting procedure. It will provide stakeholders with the possibility to comment on the background studies and draft GPP criteria at several stages of the process. However, compared to the Ecolabel procedure, it will be shorter and the criteria will not be formally adopted as a Commission decision.

In this context, an informal GPP Advisory Group (AG) has been established. The AG acts as a consultative body for GPP criteria development. Its task is to assist the Commission to set a work plan for criteria development and to evaluate GPP criteria and related reports in the final stage of the criteria development process. The AG is composed of one representative per Member State as well as three representatives of other stakeholders (i.e. civil society, industry and SMEs).

A larger informal group of national GPP experts continues to exist and meets when broader policy GPP issues are discussed. National GPP experts will also be invited to take part in working groups in all stages of the development of GPP criteria.

At a meeting in June 2010, the GPP experts from all Member States broadly supported the new proposal of the European Commission for the GPP criteria-setting process and establishment of the new informal GPP Advisory Group.

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