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Approaches and possible bottlenecks for compliance and control of EPBD regulations

As a part of the ASIEPI project funded by the Community's Intelligent Energy Europe programme, a survey was done on the compliance and control approach in 13 EU Member States. Based on the information gained the control strategies are categorized and discussed in the context of cultural differences.

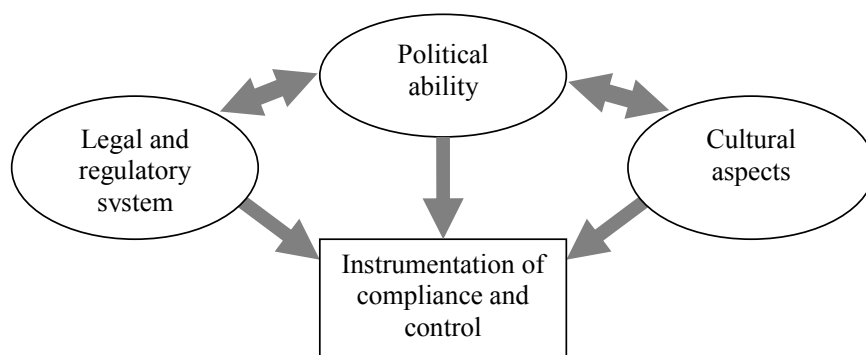
1 > National context of compliance and control approaches

Compliance and control is an essential part of a successful implementation of the European Energy Performance of Buildings Directive (EPBD). The EPBD requires adequate compliance and control; Member States have to ensure that the EPBD is executed properly. The effectiveness of a compliance and control strategy is affected by three context related factors:

- > The way compliance and control is organized has to meet the **legal and regulatory system** in a country. For instance in case of a Member State where the responsibility is strongly delegated to regions the federal legal structure will probably be a framework to facilitate the regions to design their approach. In those Member States a centralized organization is not very likely and centralized control is not possible and diversity in compliance and control instruments can occur.
- > It is not just the legal and regulatory system that influences compliance and control, also the **cultural aspects** related to the interaction between society and government play an important role. The relationship between citizens and authorities depends on values that vary from country to country. In some countries a very strict enforcement is the common approach, while in other countries the authorities can apply alternative control schemes partly based on self regulation.
- > A third important aspect that affects the effectiveness is the **political ability** which is the consequence of the democratic reality that policy objectives at a certain moment might not match with the objectives of the EPBD. For the energy issue the urge to go a step further in the ambition is not always self-evident. Within the political spectrum the need for substantial CO₂-reduction is not endorsed by every party.

Consequently government policies may not be fully in line with the goals of the EPBD. Member States may decide to implement a light version of the EPBD without stressing the compliance and control.

These three factors are of course strongly intertwined.



Three antecedents of control and compliance approaches.

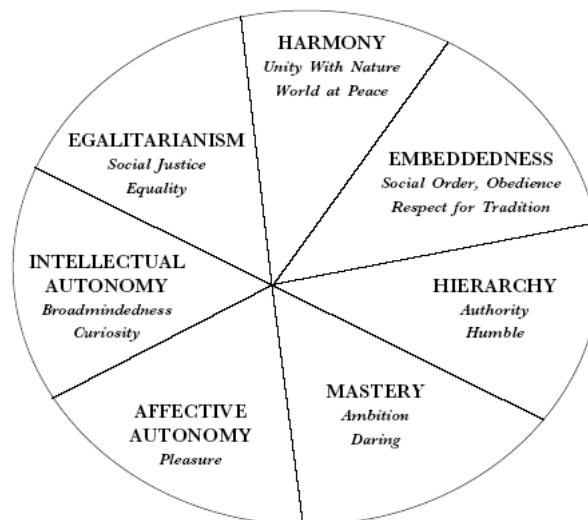
The influence of cultural aspects is not as direct as presented in the above diagram. Cultural aspects are omnipresent in societal matters and will affect the legal and regulatory system, and the political ability to comply with EU directives. When assessing differences in systems and ability, differences in culture are tacitly taken into account too.

2 > Cultural differences and political attitudes

Though the term "culture" is used in different senses, in this survey we are mainly interested in culture as a concept that influences behavior and systems, and that causes differences across Member States of the European Union. To measure cultural differences across countries, cross-cultural researcher Shalom Schwartz identified seven cultural value orientations [1]. From a (social) psychological viewpoint, these internalized values are seen as deeper drives of behavior because people act in accordance with their values even when they do not consciously think about them [2]. As such, cross-cultural differences in values determine differences in behaviour. According to Schwartz, the seven value orientations that influence behaviour in different countries form the following three value dimensions:

1. the relationship or boundaries between the person and the group (autonomy vs. embeddedness);
2. the way to guarantee that people behave in a responsible manner to maintain society (hierarchy vs. egalitarianism);
3. the way that people manage their relations to the social and natural world (harmony vs. mastery).

The dimensions are related in a circular structure, which reflects their compatibility (adjacent in the circle) or incompatibility (distant around the circle).



Schwartz's seven cultural value orientations [1]

Countries can be plotted across the seven cultural value dimensions after which their levels on each dimension can be compared. In general, countries that form a geographical region in the real world are proximate on the value dimensions too, though there also is substantial cultural variation within regions. See for more detailed information and a spatial plot of 76 countries across the seven value orientations the publication of Shalom Schwartz [1].

3 > The transposition of EU directives by the member states

The cultural value dimensions represent the common and shared ideals of individuals within a society. Knowing how countries differ across these values helps us understand why inhabitants of those countries differ in their social behaviour and attitudes towards authority, but also can explain differences in political systems. Though there has been extensive research into individual behaviour, there is only little literature available about the relation between these values and political systems. However, there exists some literature in which institutional and political differences across countries are acknowledged to directly influence the path to and level of transposition of European legislation into domestic legislation to European legislation. One study, of political scientist Gerda Falkner and her colleagues [3], offers a typology of attitudes towards transposition performance in the European Union. They distinguish four "worlds of compliance", by typical modes of treating transposition duties [3] [4]. We would like to emphasize that the offered typology can be helpful as an illustration of how countries may differ in their approach to the implementation of EU directives, but it is explicitly not meant to be read as a moral judgment.

According to Falkner and her colleagues, the first typology, the "**world of law observance**", is characterized by an approach in which complying with EU directives typically overrides domestic concerns. Transposition of EU directives is usually done in time, even when they conflict with domestic policies. In the "**world of domestic politics**", there is a tendency that in case of a major conflict between domestic and EU policies, domestic concerns may prevail which can result in (in part) non-compliance. In the countries that form the "**world of transposition neglect**", transposition proceeds after intervention of the European Commission, but is often not initiated without such encouragement. In a later study [4] the typology was extended to a fourth world: the "**world of dead letters**". Countries belonging to this world possess domestic legislation that enables them to implement the EU directives, but because of a lack of institutional organization, they are not able to do so in practice.

Though this typology gives insight in the differences in transposition approaches between countries, cannot be applied straightforward on the attitude of the EU member States. The study is not wholly uncriticized. For instance, one researcher trying to replicate these findings argues that there is no empirical evidence for this typology or the regional distinction [5]. Besides that, compliance to EU policies can explicitly be part of domestic policies in which case the distinction between EU and domestic policies that lies at the base of Falkner's typology does not exist.

Altogether, because policy issues are part of a complex and rich field of actors and influences, differences in cultural values cannot directly be connected to differences in compliance and control approach between Member States. It is clear that cultural aspects contribute to a great extent to the choice of a transposition approach for EU directives through their influence on values, attitudes and behaviour.

As a consequence, it is likely that compliance and control approaches that are effective in one Member State, cannot effectively be transferred to other Member States without taking their cultural context into account.

4 > Compliance and control according to the EPBD

The EPBD is not very explicit about compliance and control. Nevertheless several articles urge the Member States to ensure that the obligations are fulfilled.

In the proposal for a recast of the EPBD (13-11-2008) there is more emphasis on compliance and control. The recast proposal introduces a new article concerning penalties to be imposed in case of infringement of the national provisions adopted pursuant to the EPBD. In addition annex II is included. This annex is devoted to independent control systems for energy performance certificates and inspection reports, giving guidance to the control scheme to be implemented by the Member States. In several articles the recast puts more emphasis on the reinforcement of the implementation of the EPBD. It is important to acknowledge that no final version of the recast is available at the time this paper is written (summer 2009), as the recast proposal is still under discussion. However it is expected that control and penalties will be addressed more explicitly.

5 > Comparison of the compliance and control approach

Within ASIEPI, the compliance and control approach of various Member States is being surveyed for the EPBD obligations of setting energy performance requirements and for issuing energy performance certificates. In total thirteen Member States provided information about their compliance and control scheme. In order to structure the information a number of categories are distinguished.

- > First of all compliance can be enforced by withholding permits or withdrawing accreditation. These measures directly affect the process by obstruction and are very powerful, when executed and controlled in a proper way. The assumption is that this approach is combined with an active control strategy by an authority, since a lack of control will undo the effect of the measure.
- > The second set of measures is indirect and does not obstruct the process but inflicts a penalty, like a fine or even prosecution. For those categories there is a distinction between active and passive control. Regular control by an independent authority is characterized as active control, whereas the possibility for the consumer to start a procedure in case of non-compliance is labelled as passive control; the initiative is taken by the client instead of an authority.

Both approaches can be applied on setting energy requirements for new

buildings and major renovation and for issuing energy performance certificates as well as for the accreditation of assessors.

This categorization leads to the typology of measures as shown on the vertical axes of the table below. The results of the survey of the 13 Member States are plotted against this typology. For Belgium a distinction is made for the three Regions (Brussels, Flanders and Wallonia). Per country comments are added to better understand the national situation.

Overview of Control strategies:

Control categories	Implementation schemes 13 MS														
	BE			CZ	DE	DK	FR	FI	GR	HU	IT	NO	NL	PL	ES
	B	F	W												
Requirements; new buildings, major renovation															
Withhold the building permit	●				●	●	●	●	×			○	●	●	×
Withhold the utilization permit					●		●	×		●					
Impose fine / active control	●	●	●	○	●		●				●				×
Impose fine/ passive control					●				○						
Issuing building certificates; existing buildings															
Withhold the sale of the building							●				●				
Withhold the renting out of the building							×				●				
Impose fine / active control		●				●					●				
Impose fine/ passive control					●					×			●		
Accreditation of assessors															
Withdraw the assessors accreditation		●	×	●		●	○		×		●		●	●	

- applied
- partly applied
- unspecified application
- × intended application

Remarks per country:

Belgium (Brussels)	The operational details for the control of compliance with the requirements for new buildings are still under development. The procedures for the certification of existing buildings have not been decided/published yet. The withholding of the building permit applies only to some elements, not the full energy performance.
Belgium (Flanders)	Through a central electronic registration an active control is executed combined with an administrative fine in case of non-compliance
Belgium (Wallonia)	The operational details for the control of compliance with the requirements for new buildings are still under development. The procedures for the certification of existing buildings have not been decided/published yet.
Czech Republic	The control system is not specified
Germany	The compliance check varies in intensity depending on the federal state
Denmark	The compliance check varies in intensity depending on the local authorities Through a central electronic registration an active control is executed
France	For new buildings and major renovation, the owner signs commitment to comply with the regulations. The authorities can decide to control and there is a financial penalty in case of non-compliance, but this is only in force for new buildings. From the information available it is not clear whether the certification of the assessor can be withdrawn In case of sales the lawyer verifies the disposal of a certificate, the sanctions are not clear. For renting out control is not always available
Finland	In practice energy regulations are rarely applied to renovations although legislation is available
Greece	The plotted approach the intention of Greece to set-up the compliance and control scheme
Hungary	It is not clear whether control on the certification of existing buildings and the compliance with the requirements is actively executed
Italy	Controls can be done by Municipalities for 5 years after certificate issue, even on request of buyers, owner or renter In case of sale of existing building the seller can avoid the energy certification, declaring that his building is in the lowest class (G) and that its energy consumptions are very high. The sell or rent act can be declared null in absence of Energy certificate upon request of buyer and renter In Italy until now there is no certification of assessors: sanctions are established by the professional associations (engineers, architects): withdrawal from Chartered Associations of Architects or Engineers – lost of rights for design and supervise construction
Norway	Limited specification available
Netherlands	Issuing a certificate in case of sales and renting out can be forced based on the civil code, which is complex and unpractical
Poland	The only sanction of non-compliance with the requirements is the loss of rights of the responsible architect or engineer through Civil Court The certificate for existing buildings is not required unless the involved parties express the will to have a certificate
Spain	Limited specification available

6 > Discussion on the compliance and control schemes

The full implementation of the EPBD is hardly and in some countries not yet completely finalized. Implementing the EPBD is a huge task and it is an illusion to assume that the EPBD is implemented in the most effective way right from the beginning. Nevertheless parts of the EPBD like setting energy performance requirements for new buildings are already covered by existing legislation in some Member States. Other parts of the EPBD like energy certification of existing dwellings are quite new. Through implementation, evaluation and adaptation lessons learned may lead towards optimization of the approach. At this moment it is too early to generate a balanced judgement about the effectiveness of a compliance and control approach. Let alone the dependency from the legislative, cultural and political situation in a Member State. Nevertheless in this stage it is worthwhile to present the actual situation, not because of the balanced judgements that can be derived but because of the need in the Member States to get an overview of the various approaches applied of the Member States as a spectrum of possibilities. For the EPBD objectives of setting energy performance requirements, issuing energy performance certificates for existing buildings and quality control on the assessors observations derived from the table in chapter 4 are discussed.

Setting requirements for new buildings and major renovation

Probably the most imposing sanction is to obstruct the process of realization or utilization of new or majorly renovated buildings by withholding the building or utilization permit. The effectiveness of this approach strongly depends on the type and scope of control. Three major aspects of control can be distinguished to assure a solid implementation.

1. Check the presence of an energy performance indicator showing that the requirements are met.
2. Control the quality of the assessment of the energy performance indicator. This is of great importance to really reach the policy targets aimed for by setting requirements. When this quality is not integrated in the control scheme, the market might escape from the requirements by providing the authorities a fictional indicator.
3. Assure that the building is realized according to the plans.

The first activity is of course the basic action necessary to control compliance with the regulations. The second and the third action require more expertise and effort from the controlling body; a random check strategy is often applied to cover these last two issues. The fact that the building permit complies with the regulations is no assurance that eventually the building does. A utilization permit can provide the opportunity to check whether the building is realized according to the plans.

A majority of the surveyed Member States apply the approach of withholding the permit in case of requirements for new buildings and major renovation. Some countries have an additional utilization permit. One of the countries focuses on the utilization permit only. In some countries this approach is combined with imposing a fine or prosecution. A minority of countries allow the permit to be issued and only impose a fine or prosecution combined with an active control.

The differences of the approaches will most likely be explained by the legal and regulatory schemes already in force. The most rational approach is to fit into the existing procedures. This, in general, provides a better perspective for market acceptance and compliance.

The decision to control by means of imposing a fine or even prosecution and the balance between severity of the penalty in combination with the

intensity and frequency of the control is related to cultural and political values in a country. Member States where the citizens have a strong community focus the control intensities and fines can be on a lower level than in countries where the people value autonomy highly.

Issuing certificates for existing buildings when sold or rented out

Regarding the enforcement of certification of existing buildings by obstructing the sales or renting out of the building can be an effective sanction. Nevertheless there are only two countries that apply this approach. Most countries choose to impose fines or prosecution in case of non-compliance with the legislation in energy certification in the existing building stock. They don't choose to obstruct the process of selling or renting out. Presumably the obstruction is considered to be a disproportional penalty for just an informative certificate. Most Member States involved in this survey apply a control strategy of imposing fines or prosecution when the certificate is missing. There is a wide variety of approaches. Selling or renting out is a less formalized action than realizing a new building or renovation without the involvement of authorities. It is therefore difficult to define a point of action for control. A variety of solutions is detected in the survey.

One possibility is to enforce a certificate of good quality by the buyer or the tenant through civil court. Although this is juridical conclusive it might be too much of a barrier for the consumer to enforce the issuing of certificates for existing buildings.

In case of central registration of certificates there might be an opportunity to detect whether a certificate was provided by the seller. Another option is to oblige the solicitor formalizing the sales of a building to report the lack of a certificate to a controlling body. The selling will not be obstructed, but the control authority can impose a penalty.

The process of renting out buildings is even less formal than selling buildings. Enforcing the issuing of certificates is more troublesome than in the case of selling a building. An active control is hard to execute and a more passive control relying on the initiative of the tenant is more likely. It is clear that in this situation the influence of cultural values and the legal context plays an important role in the development of the enforcement. Again a balanced approach regarding the severity of the penalty and the intensity of the control is crucial for the effectiveness.

Quality of the experts executing the certification of buildings

In some Member States the qualification of the experts is prescribed. Other countries have chosen for an accreditation or certification of the experts. In most of the surveyed Member States the accreditation will be withdrawn when an expert is incapable of performing his task. This quality control is effective when a clear understanding of the quality of the certificate is provided and proper audits are carried out frequently.

Some Member States choose to organize the accreditation of experts through governmental bodies; other countries leave it to the market.

Here, cultural aspects are affecting the approach. In case the focus of the population is on consensus Member States can rely on market actors for parts of the implementation of national policies. In order to achieve this co-operation communication with the market is essential. By applying this approach market actors are stimulated to organize themselves as counter part of the government. In those countries compliance and control can partly be taken care of by the market. When this climate of consultation is not embedded in the culture, solutions should not be based on this co-operation.

ASIEPI partners:

BBRI (BE; technical co-ordinator), NKUA (GR; financial & administrative co-ordinator), TNO (NL), IBP (DE), SINTEF (NO), CSTB (FR), Cete de Lyon (FR), REHVA (BE), ENEA (IT), AICIA (ES), NAPE (PL), VTT (FI), E-U-Z (DE), Enviros (CZ), SBi (DK)

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Subcontractors:

Kaunas University (LT), University of Budapest (HU), University of Bucharest (RO), BRE (UK), UCD (IE)

Link: www.asiepi.eu

Original text language: English

Addendum:

At the time of publication of this paper there has been a political agreement on the recast of the EPBD.

Experiences in the participating Member States

Some Member States reported in the survey their impressions on the EPBD implementation in their country regarding compliance and control. These experiences are generalized and presented point by point.

- > A **good quality** of the national implementation of the EPBD (schemes, tools, training, information to the market and the public) justifies a **sound enforcement** by control and penalties. Good and controlled quality of the building certificates provide confidence in the energy performance expressed and creates awareness on the energy issue.
- > In case there are **weak parts** in the national instrumentation of the EPBD a sound enforcement approach on these issues is less acceptable.
- > Compliance and control is more **transparent and easier to execute** when the implemented tools, schemes and regulations are more explicitly determined.

A more **uniform implementation** approach enables a more uniform enforcement and creates a better level playing field for the market. A **centralized approach** with one data base and one assessment method is one of the options to provide uniformity.

- > Prescribing a **standard assessment method** for the building certification will simplify the quality control.
- > **Regional differences** in implementation within a country may complicate enforcement and diminish the level playing field.
- > Making the data of the building stock generated by the certification of buildings available provides the opportunity to evaluate and **attune the EPBD instrumentation and the control schemes** and create more efficiency and impact.
- > In the case of calculated rating, there might be a **tension** between the drive to **simplify the assessment method** and the need to include the all necessary energy measures in the methodology. Quality control regarding the use of very advanced methods typically is more complex than for simple methods. Allowing adaptations to a simple method to take into account advanced measures for specific buildings complicates the control. A well-considered approach is necessary.
- > Especially regarding **major renovation** the enforcement will benefit from a unambiguous definition of major renovation. This definition can be assessed nationally to fit the local context.

7 > References

1. Schwartz S. H. (2006). A theory of cultural value orientations: Explication and applications. *Comparative sociology*, 5, 2-3, 137-182.
2. Dietz, T., Fitzegard, A., Shwom, R. (2005). Environmental values. *Annual review environmental research*, 30, 335-372.
3. Falkner, G., Hartlapp, M., Treib, O. (2007). Worlds of compliance: Why leading approaches to European Union implementation are only 'sometimes-true theories. *European Journal of Political Research*, 46, 395-416.
4. Falkner, G., Treib, O. (2008). Three Worlds of Compliance or Four? The EU-15 Compared to New Member States. *JCMS*, 46, 293-313.
5. Toshkov, D. (2007). In search of the worlds of compliance: culture and transposition performance in the European Union. *Journal of European Public Policy*, 14, 933-959.

Disclaimer: ASIEPI has received funding from the Community's Intelligent Energy Europe programme under the contract EIE/07/169/SI2.466278.

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