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Some reflections on the EU mix of instruments on climate change

Resumo

O artigo proporciona uma visão geral do que tem sido feito, ao nível das das instituições europeias, para prevenir os gases com efeito de estufa, no âmbito das várias políticas europeias com relevância energética. Deste modo, descrevem-se desde medidas incitativas (como o regime fiscal dos produtos energéticos, medidas de apoio financeiro, medidas de incentivo das energias alternativas, de promoção da eficiência energética dos edifícios e de co-geração), até instrumentos jurídicos mais flexíveis (como a rotulagem energética e os acordos voluntários com a indústria automóvel para limitação do CO2 dos veiculos). No âmbito do Protocolo de Kyoto, são explicados o mecanismo de "burden sharing" e o comércio de licenças de emissões.
Na segunda parte segue-se uma análise rigorosa dos reais resultados alcançados em função dos comprometimentos políticos conseguidos. A ausência de um programa de luta contra as alterações climáticas e as limitações impostas pelas condições de funcionamento da União, muito dependente da acção dos Estados-membros, fazem com que as conclusões não sejam demasiado animadoras. A partir de numa síntese das metas acordadas ao nível comunitário e das medidas aprovadas em matéria energética, desenha-se o que será, de 2008 em diante, o futuro da política comunitária. Uma visão realista no plano técnico, económico e político, conduz-nos a antever sérias dificuldades no cumprimento das metas definidas, a menos que medidas urgentes sejam adoptadas.

I. The present status

1. Introduction: the EU as a global actor on climate change policy

Climate change has become, during the last two or three years, the most important global environmental subject. The main reason for this sudden increased interest was the so-called Stern-Report which was mandated by the United Kingdom government and which showed that in economic terms, the omission to fight against climate change would be much more expensive than measures taken to stop the rise of temperature on earth at two degrees above pre-industrial level. Now, climate change is a topic in discussions of the United Nations, in bilateral or multilateral meetings of heads of States and governments and slowly becomes a subject also of developing countries' policies.

The European Union came into the driving seat of the global discussions on climate change almost by chance. Having played a major role in the international discussions since the late 1980s, the EU had gone into the negotiations of the Kyoto Protocol with a relatively clear political mandate: reach a reduction of greenhouse gas (GHG) emissions by industrialised countries by 15 percent by 2010 (compared to 1990)[1]. The Kyoto Protocol fixed a much less ambitious target of a reduction by 5,2 percent by 2012. Even this result proved unacceptable to the United States which signed the Protocol but then, with Mr. Bush becoming President, withdrew their signature. This would have meant the political death of the Kyoto Protocol, had not the European Union taken up the challenge and started a political initiative to ensure the entry into force of the Protocol. This initiative which was finally successful, had as a consequence that the EU also took major initiatives in order

[1] For a history of the international and EU discussions on climate change prior to the conclusion of the Kyoto Protocol see M.Pallemaerts and R.Williams: Climate change: the international and European policy framework, in M.Peeters – K.Deketelaere(eds): EU Climate Change Policy, Cheltenham: Edward Elgar 2006, p.22-50.

to prepare and negotiate an international agreement for GHG emission reductions after 2012, when the Kyoto Protocol will expire. The Bali meeting of Contracting Parties to the Climate Change Convention in December 2007 gave some perspectives of reaching such an international agreement in 2009.

In view of this international role of the EU, it might be interesting to look at the different instruments which the EU has at its disposal or has already used in order to reach the political targets which itself had fixed or which it had accepted under international agreements. This contribution will therefore try to describe the constitutional basis of EU measures, furthermore present the different measures which were taken and which are envisaged, and conclude with some general considerations on the different instruments. It will not try to address the global aspects of EU's climate change policy.

2. The EU Treaty and climate change

The EU and the EC Treaty do not mention climate change. When they were drafted and last amended in substance (1997), climate change issues had not yet taken such a high rank in the political agenda of the Member States to be inserted as a separate field of EU policy. What is understood as "climate change" is the increase of temperature on earth[2]. This is caused mainly by the emissions of so-called greenhouse gases[3]. The Kyoto Protocol regulated the greenhouse gases carbon dioxide (CO^2), methane (CH_4), nitrous oxide (N^2O), hydrofluorocarbon (HFC) perfluorocarbons (PFC) and sulphur hexafluoride (SF6), but there is agreement that also other substances such as CFCs and other ozone-depleting substances, constitute greenhouse gases. The emission of greenhouse gases mainly occurs during the burning of fossil fuels, but is not the only source; for example, the digestion of cows and sheep generates methane, a greenhouse gas.

It is thus obvious that the reduction of greenhouse gas emissions does not only concern the burning of fossil fuels, but also other economic and non-economic activities. In legal terms, climate questions belong to the more general sector of environmental policy, while most EU policies – energy, transport, agriculture, industry, fisheries, competition, development and trade – set a cause for greenhouse gas emissions. Thus, climate change issues cannot be attributed to a specific sector of EU policy.

The constitutional matter is further complicated by the fact that the EC may only be active in those areas which are expressly attributed to it by the EU Treaties (Article 5 EC Treaty) and that energy policy does not belong to these areas: Article 3 EC Treaty only allows individual "measures" to be taken in the area of energy policy, but does not allow to develop and put into practice a coherent and consistent energy policy. This general attribution of competences also has an influence on the measures to develop an EU policy which combats climate change.

Measures to reduce greenhouse gas emissions may, according to the specific subject matter, be based on Article 37 (agricultural policy), 71 or 80 (transport policy), 93 or 175 (2) (taxation and eco-taxes), 95 (internal trade), 133 (external trade) or 175 (environment). As the EU institution try to avoid to recur to Article 308 EC Treaty as the legal basis for a specific measure, the environmental provision of Article 175 EC Treaty has, during the last decade, gained more and more importance for energy-related measures that aimed at reacting to climate change issues.

[2] See the definition of climate change in Article 1(2) of the UN Framework Convention on Climate Change of 9 May 1992: "Climate change means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods".

[3] The Convention on Climate Change defines greenhouse gases as „gaseous constituents of he atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation" (Article 1(5))

Measures which concern taxes (Article 93) or eco-taxes (Article 175(2)) or which significantly affect the choice of a Member State between different energy sources and the general structure of its energy supply (Article 175(2)) have to be adopted by the Council, acting unanimously. This means that any Member State could veto any such decision.

The Euratom Treaty aims at the promotion of non military nuclear energy. It was not changed in substance since its adoption in 1957. The environment or the climate are not mentioned in this treaty and also Article 6 EC Treaty which asks for the integration of environmental requirements into other EU policies, does not apply to the Euratom Treaty. Therefore, nuclear measures remain largely out of considerations to combat climate change.

3. Climate change policy: not yet an integrated policy

Overall, this sketchy look at the legal basis of a European Union policy demonstrates the legal problems to elaborate and put into practice a European Union climate change policy. To this must be added the vertical structure of EU policy-making: environmental measures at EU level are normally elaborated by the environmental department of the European Commission which consults mainly with the environmental administrations in Member States, and then formally adopted as Commission proposal. The discussion in the Council takes place in a working group where representatives of Member States and the Commission discuss the proposal. The final adoption is made by the Environment Council, where the environmental ministers of the 27 Member States meet. Likewise, a proposal in the transport sector is elaborated by the Commission's transport department, discussed in a transport working group of the Council and adopted by the Council of transport ministers. The same structure exists for the other policies. Of course, neither at the stage of elaboration of a text within the Commission nor at the level of the Council or, indeed, within the European Parliament, are the other interested departments excluded from participating in the discussions. However, the file-leading structure has a very considerable influence on the shaping, structure and final form of a EU legal text.

Theoretically, there could be more horizontal integration at all levels, in order to ensure that a measure on climate change indeed takes into consideration all affected interests; Article 6 EC Treaty even requires such integration. However, attempts to better structure such a horizontal integration, failed in the past, in particular in the area of environmental policy. The reasons are probably most of all linked to power issues of the different administrations at all levels. Each administration tries to pursue its own objectives, priorities and legislative action and there are rather limited signs that this attitude is changing with regard to the challenge of climate change.

4. EU measures to combat climate change

Article 249 EC Treaty provides that the EU, in order to reach the political objectives which are laid down in the EU Treaty or which, by concretising these objectives, it determines itself, may (only) use the binding and non-binding instruments mentioned in that provision.

4.1. The ban of greenhouse gases

Until now, there is no general ban of greenhouse gases. Regulation 842/2006[4] requests companies to use all measures which are technically feasible and do not entail disproportionate costs in order to reduce the use of SF6, HFC and PFC. Certain uses are prohibited. Directive 2006/40[5] limits the use of HFC with a global warming potential[6] of more than 150 for air-conditioning in cars. Both measures will yet have to become operational.

[4] Regulation 842/2006 on certain fluorinated gases (2006) OJ L 161 p.1.

[5] Directive 2006/40 relating to emissions from air-conditioning systems in motor vehicles (2006) OJ L 161 p.12

[6] The Global Warming Potential (GWP) of greenhouse gases is calculated on the basis of CO^2 (= 1), the most spread greenhouse gas. For example, the GWP of SF6 is 22.200.

Directive 1999/31 on landfills[7] provides that the quantity of biodegradable municipal waste be progressively – by 65 percent until 2015 – reduced, in order to prevent the generation of methane gases in landfills.

Apart from that, there are, until now, no specific provisions on the reduction of greenhouse gases.

4.2. Taxation

In 1992, the Commission made a proposal for the adoption of a directive on a combined CO^2-energy tax[8] which was to be fixed at 10 dollars per barrel. The proposal was based on Articles 93 and 175 EC Treaty. It indicated that it would only become applicable within the EU, if other OECD countries also introduced a similar tax or took equivalent measures. This condemned the proposal, as neither the United States nor Japan ever considered to introduce an energy tax. As some Member States opposed any tax measure to be taken at EU level, the proposal was never adopted and has become obsolete by now. Several Member States introduced such a tax at national level, but saw limits to such measures, as tax increases would bring competitive disadvantage to their businesses. Though there is, in principle, a relatively large consensus on the idea that greenhouse gas taxes would make energy products more expensive and thus reduce their generation, no concrete proposal exist for EC-wide taxes.

In 2003, the EU adopted Directive 2003/96[9] on the introduction of minimum tax rates on all energy products, including coal, natural gas and electricity, as well as motor and heating fuels. National tax minimum rates are being harmonised in a six year period. Energy-intensive industries and agricultural, horticultural and forestry sectors may be exempted from the tax requirements, if they enter into national environmental agreements, participate in emission trading schemes or otherwise contribute to reduce energy consumption. Member States were allowed to introduce reduced tax rates for bio-fuels and electricity from alternative energies. Numerous exceptions and derogations allow Member States to safeguard specific interests.

4.3. Alternative energies

In 2001, the Council adopted a directive on the promotion of electricity from renewable sources of energy which was based on Article 175(1) EC Treaty[10]. The Directive provides that Member States encourage greater consumption of energy from renewable energy sources and fix, for that purpose, national non binding targets. The objective is to "reach a global indicative target of 12 percent of gross national energy consumption by 2010" and in particular a "22.1 per cent indicative share of electricity produced from renewable energy sources in total Community energy consumption by 2010" (Article 3(4)).

Directive 2003/30 promotes the use of bio-fuels in transport[11] and fixes indicative – non binding – targets for total sales of such fuels by December 2005 (2 percent) and 2010 (5.75 percent).

4.4. Energy efficiency

Already in 1993, the EU adopted Directive 93/76 on energy conservation and use[12]. The Directive requested Member States to draw up and implement programmes for the energy efficiency of buildings, the billing of heating, air-conditioning and hot water costs

[7] Directive 1999/31 on landfills (1999) OJ L 182 p.1.
[8] (1992) OJ C 314 p.1.
[9] Directive 2003/96 restructuring the Community framework for the taxation of energy products and electricity (2003) OJ L 283 p.51.
[10] Directive 2001/77 on the promotion of electricity produced from renewable energy sources in the internal electricity market (2001) OJ L 283 p.33.
[11] Directive 2003/30 on the promotion of the use of bio-fuels or other renewable fuels (2003) OJ L 123 p.42.
[12] Directive 93/76 to limit carbon dioxide emissions by improving energy efficiency (SAVE)(1993) OJ L 237 p.28.

on the basis of annual consumption, thermal inspection of boilers and energy audits of undertakings with high energy consumption. Details for these programmes were left to the Member States.

In 2006, this Directive was repealed by Directive 2006/32 which will become operational in 2008[13]. The new Directive fixing an indicative target for energy saving of 9 percent by 2015 and sets institutional, financial and legal framework provisions to make the end use of energy more economic and efficient.

A Directive of 2001, based on Article 175(1) EC Treaty, tries to improve the energy efficiency of buildings[14]. Member Stats must introduce a methodology of calculating the energy performance of buildings, according to certain Community criteria. They then shall set binding minimum energy performance requirements for new buildings. Existing buildings with a used floor area of over 1000 m^2 must upgrade their energy performance, should they undergo major renovation and this is technically, functionally and economically feasible. Where a building is constructed, sold or rented out, an energy certificate must be made available. Regular inspections are foreseen for fuel-heated boilers, some heating installations and air-conditioning systems.

Directive 2004/8 promotes the cogeneration which is a technology that allows the production of heat and electricity in one single process[15]. Member States are obliged to set up a framework for allowing cogeneration installations to be built, but are not obliged to build such installations.

In 2005, the Council and the European Parliament adopted a framework directive on the eco-design of energy using products[16]. This Directive sets the frame for future measures to impose a design that increases energy efficiency; examples are the stand-by function of electronic equipment or the efficiency of electrical light bulbs. Cars and other transport vehicles are excluded. Until now, no concrete measures have been adopted within this framework.

A number of directive provides for the energy labelling of household appliances, hoping that an indication of their energy consumption will incite the purchaser to buy appliances with less energy consumption[17]. The same objective was the base for an agreement between the United States and the European Union which provides for an energy consumption labelling system for office equipment[18]; participation in this system, however, is voluntary.

4.5. Voluntary agreements

In 2003, the Commission had announced a proposal for a directive to limit the CO^2 emissions from cars. Intensive lobbying from the car industry led to negotiations between the Commission, the oil and the car industry. In 1998, the EU and US car industry made a commitment to limit the CO^2 emissions for new cars, brought on the EU market as of 1 January 2008, to 140g CO^2 emissions per km[19]. The Commission made a corresponding recommendation. Korean and Japanese car manufacturers made the same commitment in 1999[20]. In 2006, it became obvious that the car industry would not honour its commitments. End 2007, the Commission made a proposal for a regulation to limit CO^2 emissions to 130g per km as of 2012[21]. This figure constituted the average of emissions for a manufacturer's

[13] Directive 2006/32 on energy end-use efficiency and energy services (2006) OJ L 114 p.64.
[14] Directive 2002/91 on the energy performance of buildings (2003) OJ L 1 p.65
[15] Directive 2004/8 on the promotion of cogeneration (2004) OJ L 52 p.50.
[16] Directive 2005/32 establishing a framework fort he setting of eco-design requirements for energy-using products (2005) OJ L 191 p.29.
[17] Directive 92/75 on the conservation of energy and other resources by household appliances (1992) OJL 297 p.6. this Directive was completed by a number of specific directives for the different household appliances.
[18] See Decision 2006/1005 (2006) OJ L 381p.24.
[19] Commission, Recommendation 1999/125 on the reduction of CO^2 emissions from passenger cars (1999) OJ L 40 p.49.
[20] Recommendations 2000/303 (2000) OJ L 100 p.55; 2000/304 (2000) OJ L 100 p.57.
[21] Commission, COM(2007) 856 of 19 December 2007

car fleet. Where a car exceeded the limit, it is to pay an "excess emissions penalty" as of 2013. the proposal is at present being discussed by the EC institutions.

The reduction of stand-by energy losses was the subject of an agreement between television and video cassette recorders under Article 81 EC Treaty which the Commission approved[22].

Directive 2005/32[23] provides that voluntary agreements with economic operators shall first be looked at, before legislative solution to improve the eco-design of products are considered. It must be presumed that in a number of Member States, agreements between public authorities and economic operators are made, in order to reach the different non binding targets which are being set by the EU.

4.6 Burden sharing

Under the Kyoto Protocol, the EU had accepted to reduce its CO^2 emissions until 2012 by eight percent compared to 1990. All of the then 15 EU Member States had individually also accepted such a restriction. In view of the different economic situation among the EU Member States, the Council agreed politically – without a corresponding proposal from the Commission – to share the burden imposed by the Kyoto Protocol. Each Member State obtained a target to be reached by 2012 which partly allowed to increase CO^2 emissions, partly imposed reductions. The agreement was made legally binding in 2002[24].

As the EU has not yet undergone any further international commitment to limit its CO^2 emissions, no further burden sharing decisions has been taken as yet.

4.7 Emission trading

The Kyoto Protocol came into force in early 2005. It provides for a global system for emission trading by 2008. In view of the ongoing political discussions on climate change and in particular the negative attitude of the United States with regard to binding commitments on GHG emission reductions, such a global system is not likely to be adopted under the Kyoto Protocol.

Following the Kyoto Protocol, the EU introduced an EU system for emission trading which allows the trading of GHG emission rights within the EU[25]. The system covers some 45 per cent of all GHG emissions. It does not extend to transport and private households. End of 2007, the environment Council, against strong opposition from the United States and the International Civil Aviation Organisation, reached a political agreement to include air planes which land and take off within the EU, into the system. This agreement will still have to be formalised.

The Directive does not reduce CO^2 emissions per se, but allows investments to be shifted to places, where this is economically the most reasonable. Installations which participate, are not obliged to respect the best available techniques with regard to their CO^2 emissions. It is too early to definitely assess, whether the scheme really leads to a quicker reduction of GHG emissions.

4.8. Financial support

An EU Decision of 2006[26] which is the follow up of earlier programmes on energy saving (SAVE), alternative energies (ALTENER) and on energy in transport (STEER), provides for

[22] Commission (1998) OJ C 12 p.2 and COM(1999) 120 of 15 March 1999.
[23] Directive 2005/32 (note 16, above)
[24] Decision 2002/358 concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder (2002) OJ L 130 p.1. The obligations were fixed as follows (1990 = 100): Belgium 92,5; Denmark 79; Germany 79; Greece 125; Spain 115; France 100; Ireland 113; Italy 93,5; Luxemburg 72; Netherlands 94; Austria 87; Portugal 127; Finland 100; Sweden 104; United Kingdom 87,5.
[25] Directive 2003/87 establishing a scheme for greenhouse gas emission allowance trading within the Community (2003) OJ L 275 p.32; amended by Directive 2004/101 (2004) OJ L 338 p.18.
[26] Decision 1639/2006 on a competitive and innovation framework programme (2006) OJ L 310 p.25.

the creation of a specific programme "Intelligent Energy-Europe". For the period 2007 till 2013, a tentative sum of 720 million € – this corresponds to some 103 million € per year which are to be distributed among 27 Member States – is earmarked, in order to promote measures on energy efficiency, renewable energy sources in all sectors, including transport, and energy diversification.

There is no EU Fund for energy measures. Under the Structural Funds[27], Member State are invited to use the funds which are transferred to them, also for measures to combat climate change. The amount of money which a Member State uses for these purposes, is left at the discretion of Member States.

The Community guidelines for State aid for environmental purposes[28] do not address State aid measures on greenhouse gas emissions which they considered, in 2001, as premature. This means that it was left at the discretion of each Member State to grant or not to grant State aid for measures to reduce GHG emissions.

4.9. Monitoring measures

Since 1993, the EU monitors greenhouse gas emissions[29]. At present, a Decision of 2004 applies[30]. The last available report of 2007, for greenhouse gas emissions in 2005, indicated that the EU CO^2 emissions – for the 15 EU Member States which had undergone the Kyoto commitment - had diminished, with regard to 1990, by two percent[31], and that there is thus quite a way to make in order to reach the eight percent reduction with regard to the Kyoto commitment. The precise way of calculating GHG emissions and the exact reductions, raises some questions.

4.10 Other measures

The main other measures which are to be mentioned, are the different legislative acts, action programmes and other documents which give targets for the reduction of greenhouse gases, the percentage of renewable energies, of bio-fuels and other objectives. The most important objectives are the following:

(1) keep the global temperature increase within 2 degrees over pre-industrialised levels (Decision 1600/ 2002 — 6th Environment Action Programme)

(2) Reduce EU greenhouse gas emissions by 20 percent until 2020 (European Council, March 2007)

(3) Reduce EU greenhouse gas emissions by 30 percent until 2020, provided other States in a comparable situation (United States, China, India) take equivalent commitments (European Council, March 2007)

(4) Ensure increase of energy efficiency by 20 percent by 2020 (European Council, March 2007)

(5) Renewables take a share of 12 percent of total energy consumption by 2010 (Decision 1600/2002);

(6) Renewables take a share of 20 percent of total energy consumption by 2020 (Council, 15 February 2007)

(7) Bio-fuels in transport take 10 percent of all fuel consumption

(8) Energy saving reaches 9 percent by 2017 (Directive 2006/32)

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[27] Regulation 1080/2006 on the Regional Development Fund (2006) OC L 210 p.1; Regulation 1081/2006 on the Social Fund (2006) OJ L 210 p.12; Regulation 1082/2006 on the European grouping of territorial cooperation (2006) OJ L 210 p..19; Regulation 1083/2006 concerning general provisions for the structural funds (2006) OJ L 210 p.25; Regulation 1084/2006 (2006) OJ L 210 p.79.

[28] Commission, Guidelines for State aid for environmental purposes (2001) OJ C 37 p.3, no.71.

[29] Decision 93/389 (1993) OJ L 167 p.31; replaced by Decision 1999/296 (1999) OJ L 117 p.35.

[30] Decision 280/2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementation of the Kyoto Protocol (2004) OJ L 49 p.1.

[31] Commission, Progress Report for 2004, COM(2006) 658 of 27 October 2006; Progress Report for 2005, COM(2007) 757 of 27 November 2007.

All these targets are declared to be indicative or not binding targets; though it is intended to make the target for bio-fuels mandatory.

Furthermore, at the end of 2007, the EU discussed the following measures which are directly influenced by the concerns of climate change:

— a directive on carbon dioxide capture and geological storage;
— guiding principles for demonstration plants on carbon capture;
— the review of Directive 2004/8 on cogeneration;
— possibilities to finance low carbon technologies;
— a framework directive on renewable sources of energy;
— a report on initiatives to financially support renewable sources of energy;
— restructuring Directive 2003/96 on the taxation of energy products;
— an assessment report on climate change by the European Parliament;
— a legislative proposal to reduce NOx emissions from airplanes;
— measures to promote clean road transport vehicles;
— a review Directive 2003/87on emission trading of GHG;
— a regulation on emissions of heavy-duty vehicles and engines (Euro VI);
— a directive on labelling and product information on energy consumption;
— the review Directive 2002/91 on the energy performance of buildings;
— a directive on hydrogen powered vehicles;
— the seting up a Global Energy Efficiency and Renewable Energy Fund;
— a regulation to promote fuel cells and hydrogen joint undertakings;
— the review legislation on fuel quality;
— the establishment of targets for green public procurement;
— the review of Directive 89/106 on construction material;
— provisions under Directive 2005/32 on boilers, street lighting, water heaters, battery chargers, office lighting, domestic lighting, televisions, stand-by and off-mode losses, computers and monitors.

This list might not even be complete, as pre-drafts, reflection papers and other documents are not necessarily published by the Commission or its services.

II. Reflections

5. Constitution and climate change instruments

Within the less than twenty years that have passed since the EU tackled for the first time climate change issues, this short presentation of measures taken – without inclu-ding most of the proposals that have been made or are being prepared –, demonstrates that climate change has become an important topic of EU policy. It is certainly true that climate-change related measures are also initiated, adopted, put into practice or otherwise brought into the discussion on climate change also at national level. However, if one looks at the 27 Member States and their initiatives, at the close inter-dependency of any measure with product-related and trade-related issues, at the necessity to maintain a level playing field within the European Union and at the political necessity to speak with one voice in international meetings, the conclusion imposes itself that climate change is no longer a matter for EU Member States' national policy.

This result has been achieved through policy measures, not through a change in the provisions of the EU Treaty. It was the political will to fight climate change which was the determining factor for cooperating at EU level, not any legal competence. In fact, the constitutional provisions for adopting an EU climate change policy are poor:

(a) on energy policy, the EC Treaty only allows the taking of measures, but does not provide for the elaboration and implementation of an energy policy. The Euratom Treaty is even more restrictive.

(b) No specific mention of climate change issues exists in the EC Treaty;

(c) In the area of taxation, unanimous decisions of the Council are required. And several Member States do not consider it appropriate to introduce EU-wide taxes. This very seriously hampers the setting of incentives or disincentives for adopting an attitude which is climate-friendly.

While it is thus fair to consider climate change policy an EU policy, one should not believe, that this political change has not been influenced by the present EU constitutional provisions. EU solutions, for example on taxes[32], on financial support or on point sources for the emission of GHG, are often enough delayed or even completely blocked. And the number of measures taken or discussed hides the fact that there is, until now, not a single EC legislative measure which imposes on Member States to reduce their CO^2 emissions by eight percent till 2012, compared to 1990[33]. There is not either any obligation for economic sectors – aviation, cars, power plants or others – to reduce their CO^2 emissions by eight percent.

Perhaps, such a strict provision on reduction percentages would not have been acceptable to the Council, and it is not argued here, that such an approach would have been a reasonable, realistic approach. The examples are just quoted to show, how the constitutional poverty of the EU Treaty influences or may influence concrete legislative measures.

6. The role of administrations

Driving force for shaping the contours of a whole which one might call "climate change policy", were the environmental administrations of the Member States and the European Commission. Other departments from these administrations, in particular energy and transport, were rather passive, remained and largely still remain in traditional concepts of their respective policies and often enough considered as an objective of their policy to safeguard the vested interests of their sector. For the European level, this separation of administrations becomes obvious, when one looks at statements made under the leadership of the European Commission's environmental department[34] on the one hand and the transport[35] or energy department[36] on the other hand. Apart from some general statements, the measures which the environmental department raises, are hardly taken up by the other departments – and vice versa.

The European Parliament supported measures and often even asked for stricter measures. However, the Parliament was mainly re-active, in commenting on proposals made or resolutions adopted, rather then driving itself the policy-makers into specific climate change measures. It is significant that the first own-initiative report on climate change by the European Parliament is expected for May 2008[37].

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[32] See for example Commission, proposal for a directive to restructure the tax bases of the annual circulation and registration taxes in order to make passenger car taxation more CO^2-efficient, COM(2005) 261 of 5 July 2005.

[33] Decision 2002/358 (note 24, above) obliges Member State to respect that Decision, not the commitment of the Kyoto Protocol.

[34] See as examples Decision 1600/2002 laying down the Sixth Community Environment Action Programme (2006) OJ L 242 p.1, Article 5(2) and Commission, Adapting to climate change in Europe – options for EU action, COM(2007) 354 of 29 June 2006.

[35] See for example Commission, White Paper – European transport policy for 2010: time to decide, COM(2001) 370 of 31 July 2001; Commission: Keep Europe moving. Sustainable mobility for our continent, COM(2006) 314 of 22 June 2006.

[36] See for example Commission, Energy efficiency action plan, COM(2006) 545 of 19 October 2006; Commission, An energy policy for Europe, COM(2007) 1 of 10 January 2007; Council conclusions of 15 February 2007, document 6271/07 (Presse 24).

[37] The European Parliament adopted a considerable amount of Resolutions on climate change issues, see last Resolutions of 16 November 2005 (2006) OJ C 280E p.120; 18 January 2001 (2006) OJ C287E, p.182; 4 July 2006 (2006) OJ C 303E p.119.

7. The lack of a climate change programme

Therefore it comes as no surprise to find that, despite all policy statements and legal measures, the European Union does not have a programme to fight climate change, programme being understood, with the Court of Justice, as an organised and co-ordinated system of objectives which contains a time-table and which is reviewed at regular intervals. There are only political commitments as regards climate change, in particular now the objective to reach a 20 percent reduction of GHG emissions by 2020, and even of 30 percent, if other countries make equivalent commitments, though this commitment has not been followed, until now, by a legal or political burden sharing agreement. It is thus not clear, how this target is to be put into reality, and there seems to be no initiative whatsoever, to start discussions on this – politically extremely delicate – item of burden sharing.

It is illustrative, how the Commission's earlier action plans which related to climate change, were treated. The 2000 communication "Towards a European Climate Change Programme" contained a number of proposals for action[38]. The corresponding Council Resolution only indicated that the Council considered the list of priorities of action and selected issues that had particular importance[39]. The Commission was then invited to come forward with concrete proposals. The European Parliament stated – with regard to the Commission's communication, though this also applies to the Council Resolution – that it "contained more a list of wishes then a clear action plan with timetable"[40]. In 2007, the scenario was not different. The Commission submitted an energy action plan[41]. The Council's conclusions[42] did not approve the plan, but took note of it. In contrast, the Council agreed to the objective of reducing GHG emissions by 20 percent until 2020, but insisted that each Member State should fix itself, how it wanted to reach this result, whether through increased energy efficiency, alternative energies or otherwise.

Generally, it can be stated that the EU actions adopted in the past and considered for the future are not organised and co-ordinated. Rather, past measures seem to have been adopted as ad hoc measures, where possibilities for action existed. The solutions found were clearly influenced by the attempt to satisfy vested interests – agriculture, car industry etc – and not primarily guided by the attempt to fight climate change. This becomes even more obvious when one considers the planned action for the future: Decision 1600/2002[43] which contained a detailed catalogue of measures to be taken in the energy, transport and industry sector, was largely ignored and only taken up in some rather specific action. The Commission Green Paper of June 2007[44] rather poses questions than announcing a plan. While it is fair to assume that there will be more concrete plans for future action announced later[45], there is little prospect to see that documents elaborated under the leadership of the environmental department – even if they were followed by Council resolutions – will really be able to commit the other affected national and EU administrations to follow such planning, because of the above-mentioned vertical way of working by the administrations.

The EU objectives (targets) fixed are not binding. Overall, the EU very much relies that the Member States and the economic operators reach the objective which were fixed at

[38] Commission, COM (2000) 88 of 8 March 2000.
[39] Council, Resolution of 11 October 2000, Document 12240/00.
[40] European Parliament, Resolution of 26 October 2000 (2001) OJ C 197 p. 397 no.6; note that this Resolution was adopted later than the Council Resolution.
[41] Commission, COM(2007) 1 (note 36, above), under section 3
[42] Council (note 36, above)
[43] Decision 1600/2002 (note 34, above)
[44] Commission, COM(2007) 354 (note 34, above)
[45] See ibidem p.27: „The results of this public consultation will help shape the future work of the Commission in particular regarding the planned Commission Communication on adaptation and a further elaboration on other Community policies and the external policy action".

Community level. This means in practice that Member States have a very considerable discretion how to proceed. There is little doubt that some Member States which pursue an active national policy to combat climate change and reduce the emission of greenhouse gases, will reach the targets that were fixed for 2012 (Kyoto Protocol plus Decision 2002/358 on burden sharing). For those EU Member States which do not follow such an active national climate change policy, the doubts whether they will reach the targets, are much bigger.

8. Enforcement procedure

In this context, it has to be noted that there is practically no enforcement procedure linked to climate change issues. Indeed, the EU installed a mechanism, under which Member States shall regularly report on their annual greenhouse gas emissions. However, nothing is done, where a Member State does not respect the contingent of GHG emissions which the Kyoto Protocol and Decision 2002/358 impose on it. Part of the problem is that the Kyoto reduction of GHG emissions by eight percent must only be reached in 2012; therefore, a Member State may argue that it will correct its emissions until 2012[46]. As examples, Italy and Spain might be quoted. Italy had to reduce its GHG emissions, under Decision 2002/358, by 6,5 percent. Since 2002, it increased its emissions[47]. Spain was allowed, under Decision 2002/358, to increase its emissions to 115 (1990 = 100). It increased these emissions to 129,6(2002), 126,3(2003), 148(2004) and 153 (2005)[48]. Both Member States may argue that that they will correct their emissions and align them to the legal requirements by 2012. The EU does not dispose of any mechanism to call a Member State to order and ask it to take measures to reduce its emissions already in 2006, 2007 or 2008.

The enforcement procedure of Article 226 EC Treaty is an inappropriate mechanism. Indeed, procedures under this Article take, between the dispatch of the letter of formal notice and the judgment of the Court of Justice, on average 47 months in environmental matters[49]. Such a length of procedure has almost no deterrent effect. And what would it help the environment, if for example the Court of Justice stated in 2014 that Italy or Spain had infringed their obligations under EC law, because their GHG emissions in 2012 exceeded the levels which were allowed under the joint provisions of the Kyoto Protocol and Decision 2002/358?

9. Policy consequences

Within the next years, the EU will therefore have to adopt measures which bind all Member States and reduce the flexibility which was pursued until now by the combination of non-binding targets and economic instruments. This means that for example, cars which exceed a certain amount of GHG emissions, do not pay just a small penalty – which is only a fraction of the price of the car –, but that an upper limit for GHG emissions per car is fixed; after all, this was exactly what all car manufacturers had committed themselves to in 1998/2000, at least for the European market. More generally, there might have to be measures which fix that cars shall not burn more than 3 litre of fossil fuels per 100 km or that their engine size is limited. It is not really understandable, why the EU adopts legislation on the eco-design of energy-using products, and exempts those products which use the most of energy – airplanes, ships, cars – from this Directive. Also, the numerous products which are being discussed under Directive 2005/32, need to undergo restrictions in their making,

[46] Decision 2002/358 (note 16, above) on burden sharing provided that Spain was entitled to increase its overall GHG emissions, compared to 1990, by 15 percent. According to the Commission Report, COM(2007) 757 (note xxx, above), Spain had increased its emissions by 2005 by 53 percent.

[47] 2002: 106,4; 2003: 104, 3; 2004: 105,5; 2005: 105,5 percent. Figures from Commission, COM(2004) 818; COM(2005)655; COM(2006) 658; COM(2007) 757.

[48] For references, see previous note.

[49] See L.Krämer, Statistics on environmental judgments by the EC Court of Justice, (2006) Journal of Environmental Law, p.407.

in order to begin with the necessary shift to a low carbon economy which is required in order to reach the policy targets under the climate change policy. At the same time, this kind of measures would indicate to the public that climate change is a policy sector which requires restrictions and cannot be fought against just with policy statements.

The present situation of non-binding EU targets without an enforcement procedure and a very large flexibility at national level to act (or not to act) arranges everybody, except the environment: Member States are not yet seriously disturbed by measures to combat climate change. The target requirements are fixed within the EU, and are thus not necessarily to be taken into consideration by the EU Member States. When the Member States do not comply with the target requirements, they will not be called to order, undergo an infringement procedure or have other disadvantages to fear. Economic operators largely manage to have their interests safeguarded, as the measures mainly concentrate on the increase in energy efficiency and the promotion of alternative (renewable) energies and do not significantly affect their activities. Alternative energy producers see their efforts supported by relatively generous State aids which allow them to gain some market share, without seriously hampering economic actors on the oligopolistic energy market.

A good example of this situation is the "policy" on bio-fuels. Bio-fuels were introduced by EU measures, without any serious impact as regards their environmental charges – which are very considerable and even disastrous. Their political attraction was – and still is – that they ensure income to farmers which remains one of the principal objectives of EU agricultural policy[50]. The measure is labelled as a climate change measure, while its principal objective is elsewhere.

There is a side-effect of the present situation which also remains largely undiscussed: the longer the present situation prevails and ad hoc means are used to reach a reduction of GHG emissions, the greater will the need become to recur to nuclear energy as the last remedy for combating climate change. Nuclear energy counts at present for about 15 percent of the EU energy consumption and if it is wished to progressively substitute nuclear energy, alternatives must be conceived and put into practice. The omission to do so will lead to the situation that no other alternative than nuclear energy is available.

10. Perspectives

The real problems for the EU do not even lie in the compliance with the Kyoto Protocol obligations. The numerous measures which were adopted and are planned are likely to allow the EU to more or less respect this commitment. The problems of reaching a 20 to 30 percent reduction by 2020 and in particular a 60 to 80 percent reduction of GHG emissions by 2050 – this is the figure which the Energy Council considered necessary[51] – require a complete change in the economic structure of the EU economy. This cannot be achieved with the instruments that are developed until now.

EU Member States do not seem to have developed concepts to face this aspect of climate change. The situation is a bit contradictory: indeed, the EU is the policy driver for policy concepts on climate change. However, it does not have a competence for many measures, and even, where it may act, the unanimity requirements of Articles 175(2) and 93 EC Treaty give each Member State a veto right against measures that are based on these provisions.

Of course, issues must start with research on cleaner technologies, energy efficiency, alternative energies. Probably for reasons of policy, the EU does not lay annual accounts, how much research funds – from the EU itself and from EU Member States – go into nuclear research, research on alternative energies, energy efficiency etc. Such an account would reveal

[50] See Article 33 EC Treaty.
[51] Council, conclusions on climate change policies of 15 February 2007 (note 36, above)

that the investment into nuclear research continues to be much higher than the research in alternative energies, clean non-nuclear technologies or energy efficiency. The Commission indicated in its Communication on energy policy[52] that research on climate change issues would mainly be governed by the 7th Framework Programme for Research[53]. However, this Programme, equipped with some 50 billion €, does not concentrate on climate change, but on the whole range of research; climate change issues are seen as part of environmental issues, for which some seven percent of the total budget is earmarked. The Council's conclusions[54] are remarkably discreet on the subject and accept obviously the orientation of not making climate change research a priority. In this author's opinion, there would be good reason, following the model of the Euratom Treaty, to set up a new Treaty on alternative energies, in order to concentrate efforts, finances and resources on low carbon technologies.

The Commission's proposal for a global energy efficiency and renewable energy fund[55] rather aims at investments at global level than mobilising research money. Once more, the announcement of action is not really followed by concrete steps.

Funding. All EU institutions agree that clean technologies are to be supported, that energy efficiency is to be promoted and that alternative energies must be made more competitive with the traditional energies. However, this EU policy does not really coincide with the practical arrangements. Indeed, it is more or less up to Member States to decide, if and what funding they will make available for climate change issues. This constellation confirms that the EU climate change policy is a frame, which leaves, de facto, the decision to Member States what to do and how much to do for climate change issues. This discretion, it should not be forgotten, also includes the discretion not to act.

It should be seriously considered, whether an integrated climate change policy does not need a climate change fund which coordinates initiatives and favours very targeted objectives. The present system leads to dispersed investments and uncoordinated activities. This favours big and economically strong Member States (Germany, France, United Kingdom), but might not really favour the EU's march towards climate change improvements.

Instruments. It was already observed that the EU legislation is very largely a framework legislation. As regards the reduction of GHG emissions, the EU relies heavily on Directive 2003/87 concerning the emission trading system. This system does not reduce the quantity of emissions per se; emission trading only provides that investments for reductions are made there, where they are economically the cheapest. It is too early to assess, whether Directive 2003/87 will deliver what economists expect from it, as the administrative charge of the system is rather considerable.

Whether the emission trading system will contribute to achieving the 20 percent reduction objective for 2020, will also depend on the question how the burden sharing among Member States is organised for the period 2012 till 2020. No discussion paper has been issued on this question until now and no criteria have been established. The burden sharing for the period 1997-2010 had been a policy agreement among 15 Member States which had been prepared by the Council Presidency – the United Kingdom at that time – in the aftermath of the negotiations on the Kyoto Protocol, without a corresponding Commission proposal. Only several years later was this political agreement "legalised".

Unless one wishes to completely ignore EU rules of procedure and make thus a mockery of the European Union, the next burden sharing decision will have to be based on a proposal of the Commission – unless the Member States wish to keep commitments general and not

[52] Commission, COM(2007) 1 (note 36, above), no.5.3
[53] Decision 1982/2006 concerning the 7th framework programme of the EC for research, technological development and demonstration activities (2006) OJ L 412 p.1.
[54] Council, Conclusions of 15 February 2007 (note 36, above)
[55] Commission, COM(2006) 583 of 6 October 2006

binding and concert once more on a policy agreement. Solutions will not become easier, because the number of countries of such a burden sharing has increased from 15 to 27. And in view of the absence of criteria, any proposal is likely to raise heated discussions.

Could the EU get along without a burden sharing agreement? Certainly not. Indeed, the present policy decision to reach a 20 percent GHG emission reduction by 2020 means that every Member State would, individually, have to reach this target. However, it would not make sense to allow Greece, Spain, Ireland and Portugal to increase their GHG emissions by 2012[56], and then ask them to reduce them to eighty percent of their 1990 emissions: for Portugal, this would mean a 37 percent, for Greece 35 percent, for Spain 25 percent and for Ireland 23 percent reduction of GHG emissions within eight years – this is completely unrealistic, technically, economically and politically. And this consideration even leaves aside the twelve new Member States and those Member States of the old fifteen which had considered that the burden sharing agreement of 2002 had been too harsh for them.

These considerations show already the problem of the present approach: the legal rule, so often defamed as following "law and order", ensures equality of everybody before the rule of law. It has the disadvantage that strong economies may more easily cope with reductions. Yet, it has the advantage that strong economies are not able to arrange the economic rule according to their economic advantage. A perfectly just system does not exist. However, it is submitted that economic-based, more or less voluntary solutions in a European Union of 27 Member States are more difficult to obtain, more difficult to bargain – the word "negotiate is expressly avoided -, and more difficult to enforce than law-based solutions.

The period of probation for the EU climate change policy is thus still to come. Until now, the measures taken and the results in reducing GHG emissions which were achieved, were largely taken from the "reserve" which existed. This will not be so in the future. This means that the EU climate change administrative and political infrastructure must be improved now, that the strategy must become a long term strategy, that the climate change policy must be an integrated and less piecemeal-oriented policy. The present instrument mix might be sufficient to reach a reduction of GHG emissions by eight percent until 2012. It will not be sufficient to prepare, elaborate and enforce the necessary, much more fundamental changes which lie ahead.

11. The new EU Treaty (Lisbon Treaty)

The new Treaty of Lisbon, signed on 13 December 2007[57] which yet will have to be ratified by the 27 Member States, introduces the words "climate change" in the environmental chapter[58]. Furthermore, the EU obtains a shared competence for energy questions. The respective chapter on energy identifies as objectives of an EU energy policy:

(a) the functioning of the internal energy market;

(b) ensure security of energy supply in the Union;

(c) promote energy efficiency and energy saving and the development of new and renewable forms of energy;

(d) promote the interconnection of energy networks".

It seems that these provisions do not significantly change the constitutional situation that exists at present. Therefore, as mentioned above, almost all depends on the political will of the EU institutions and the Member States of what kind of climate change policy they want to conduct.

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[56] See note 24, above on the percentages.

[57] Lisbon Treaty on European Union (2007) OJ 2007, C 306 p.1

[58] The new Article 174(1), last indent, will thus read: „promoting measures at international level to deal with regional or worldwide environmental problems, in particular combating climate change".