7. Nuclear safety: a new dimension, an old direction? Regulation of the European electronuclear industry during the period between 2002-2004

Nuclear power's inability to survive the market test has become, along with its environmental and social impact, another reason for its global rejection.
Anthony Frogatt , *Nuclear Power - The End of the Road*, Green Matters Report 1999

We all have a responsibility to encourage sustainable energy decisions ...The nuclear option is part of this wider picture. A durable and sustainable energy mix includes, in my view, safe and clean nuclear power. Repeated surveys have shown that the public would be more receptive to nuclear power if they were convinced that a high level of nuclear safety was assured and that a permanent solution to the problem of management of radioactive waste could be found.

Loyola De Palacio, SPEECH/04/299, Workshop de Foratom, Brussels, 15 June 2004

7.1. Introduction

By 2002, a new sense of urgency underpinned by the lack of common nuclear safety standards emerged at the supranational level. Years that followed the Chernobyl catastrophe were generally marked by the growing awareness that leaving nuclear safety exclusively to national authorities could no longer be considered as a wise option. An escalation of conflicts between nuclear and non-nuclear member states and accessing countries did not only epistomise this phenomenon but also signalled of the deficiency of the European regulatory regime, which could not in any way contribute to the resolution of these conflicts. To this wider picture one should also add pressures that were mounting concerning the need to do away with a special status of electronuclear technology on the increasingly liberalized energy market. These and other concerns over the side effects of electronuclear technology led to a growing dissatisfaction over the lack of supranational policy concerning nuclear safety.

Yet none of the concerns instigated such an incredible sense of urgency as did the upcoming enlargement. Scheduled for 2004, it signified that more than 20 reactors, majority of which were of the Soviet design and construction, were to be soon part of the European nuclear fleet. Paradoxically, once the borders of the Union were extended, the Commission would no longer dispose of any instruments in order to continue the regulation of nuclear safety situation at these installations; the EU lacked internal legislation to back up such activities. The remaining two years of the Prodi Commission in the sphere of electronuclear technology were marked by unprecedented developments - the Commission devoted its full attention to creating something that had never been envisioned by the Euratom Treaty – regulations on nuclear safety and nuclear waste. If in the preceding years the Commission's involvement in the area of health protection was limited to radiation protection, it was in 2002 extended to include even nuclear safety at nuclear installations, until then a strictly national policy prerogative.

In other words, the Commission was about to add a new dimension to the European nuclear energy policy. A proliferation of concerns for the risks of electronuclear technology at the supranational level epitomised the processes characteristic to risk society in the EU where the benefits of technological progress were increasingly questioned and side-effects recognized (Beck 1992; 1990).

In what follows, I will attempt to analyse what focus underpinned the Commission's engagement with the issues the regulation of which was greatly supported by policy actors which shared the environmental policy frame. Was these development to add a new dimension to the consolidating approach of the European Commission where the increased attention to electronuclear technology as a solution to climate and energy security concerns was to be complemented with a more vigilant concern for its side-effects?

The chapter begins with an elaboration of concerns which legitimised the creation of new competence on nuclear safety matters. In order to sketch out on this ideational environment, I will present external and internal pressures that led to the legitimation of new competence, stressing in particular the roles played by the upcoming enlargement and the European Court of Justice in this development. It is followed by the elaboration on the institutional dimensions which marginalised the role of the primary rival of the traditional policy frame in the internal Commission politics. The rest of the chapter centers around the framing attempts of the European Commission concerning the text of the proposed directives, focusing on how the Commission defined the problems to be addressed by new regulations as well as what solutions were offered. I will argue that DG TREN, despite its apeals to the neutrality of the decision-making process, was intensively engaged in the process of framing, producing and dissemenating meanings that challenged (Benford and Snow 2000) the wide-spread concerns that underpinned the regulated issues. A concluding discussion is offered at the end of the chapter. The decision-making process came to a halt and no directives were adopted. However, more than being unambitious, weak and dilluted in substance, these proposals embodied an increased influence of the traditional nuclear policy frame on the trajectory of the European energy policy.

7.2. New competence creation: pressures internal and external

The Chernobyl catastrophe is generally seen as an event which provided countries with a strong impetus to proceede with the cooperation on matters pertaining to the regulation of nuclear safety (Pelzer 2006). The event transformed several areas, both adjacent and very distant such as Cumbria in the UK, into an ongoing nuclear catastrophe (Wynne 1992), making it possible to question the wisdom of allowing nuclear safety to be an exclusively national question (Pelzer 2006). The post-Chernobyl period witnessed an increased cooperation among nation states under the aegis of IAEA to adress the deficiencies of the earlier international regime in the light of Chernobyl. The results of this cooperation led to the adoption of several international instruments concerning nuclear safety and waste management with a character of an incentive instrument (Pelzer 2006) in the sense of being non-binding and non-enforceable.

Within the EU, however, the issue of nuclear safety had continued to be zealously controlled by the member states, even in the aftermaths of Chernobyl. The Euratom Treaty did not forsee cooperation on these matters, where harmonization of safety issues was limited to the issue of radiation protection for purposes of health protection of the general public and workers. Unlike nuclear safety, this competence was not concerned with the actual situation at nuclear installations.

At the same time, several developments indicated of the need to regulate nuclear risks even inside the European Union. Nuclear waste issue was perceived to be in full crisis as no country appeared to find a solution to this problem and amount of high level nuclear waste was growing. Further, reprocessing managed to discredit itself as an approach to nuclear waste. Regular leaks from the UK's Sellafield nuclear reprocessing plant, started around 1994 when it initiated the treatment of liquid waste from Britain's Magnox family of nuclear reactors (ENDS Europe Jan.7 1999; ENDS Europe 1999-2002), were initially a source of disagreements between Ireland and the UK. However, what began as angry protests in Ireland

escalated into a bigger international conflict involving also some neighboring Nordic countries as the tritium radioactive discharges began reaching the North Sea threatening health of the local population as well as tourism and fishing industries (ENDS Europe 1999-2000). Despite the fact that most of the involved countries were EU member states, there was no mechanism at the supranational level to address the situation.

Also, as was demonstrated by the so-called STOA report commissioned by the European Parliament (2001), reprocessing activities presented disproportionate danger to the environment and human health. About 80 per cent of the collective dose of the French nuclear industry and 90 per cent of the UK nuclear programme was said to have their origin in this industrial activity (EP 2001: 16). It was further estimated that about ten years of reprocessing gave a cumulative dose which corresponded to 1/7 of the collective dose which resulted from the Chernobyl catastrophe (Ibid). The message was that this type of waste management, dangerous from the environmental perspective and uneconomic, was not justifiable. Debating this issue during several occasions, the European Parliament urged the Commission to take an initiative to restrict or end reprocessing (ENDS Europe 2001a).

Among many other issues which gave rise to nuclear safety concerns were aslo 9/11 events. The attaks in United States on New York city and Washington DC led to the birth of new fears in connection to the use of civil nuclear technology as it was not clear whether nuclear power plants were built to withstand the impact of military and civilian aircrafts. The authors of the report ”International Terrorism - The Vulnerabilities and Protection of Nuclear Facilities” (Schneider and Large 2001) suggesting that most of the nuclear plants – both old and new – were ill-prepared for the attack, put the danger into very pragmatic terms:

> *After what happened on 11 September, we know what terrorists are capable of. It is a question of calculating what the impact will be.*

Further, the end life of the nuclear facilities gave reasons for concern from the point of nuclear safety. As the fleet of nuclear reactors was ageing in Europe, the strategy in many countries in relation to the preservation of the share of nuclear power amounted to the prolongation of the life time of installations, something that was assessed as carrying along significant risks.

Also, there were problems from the point of internal market: nuclear energy technology was a child of politics, not economics: of all subsidies ever lavished on OECD countries on energy one half went to electronuclear industry (Economist 2004). The Members of the European Parliament have called on the Commission to take measures necessarily and ensure a level playing field for all energy actors in the market (European Parliament 2001). For instance, the operators of nuclear installations were largely exempt from the EU competition rules and enjoyed special benefits in the form of loans borrowed under specially advantageous conditions (Barnes 2003). The European Parliamentarians maintained that such a situation was not compatible with the rules of the internal market under which nuclear industry was to either become competitive independent from national and supranational aid, or perish (Ibid.).

Further, the lack of common regulation concerning the availability of funds for managing decommissioning activities gave reasons for concerns. The closure of nuclear istallations in the countries of Central and Eastern Europe revealed the lack of decommissioning funds – for many years prior to the fall of the Berlin Wall installations in these countries were not required by law to maintain any funds. Among the old member states the situation was somewhat less problematic, but even there not all the member states provided for strict rules on decomissioning. Many nuclear undertakings were engaged in the practice of using decommissioning funds for other purposes such as investments or market acquisition. This practice on one hand placed the decomissioning funds at risk. On the other, it left other energy producers at a competitive disadvantage. A situation where decommissioning funds regulated differently from a member state to a member state, was potentially responsible for the distortion of the internal market in electricity

(Irrek et al 2007) and was condemned by the Commission already in 1998.

The adoption of the legislative measure was necessary to make sure that the operation of nuclear activities was subject to the "polluter pays" principle and that those were nuclear operators and not taxpayers who in the end of the day financed the consequences of their polluting activity.

At the same time provisions in this area would finally address the uncompetitive practices of the industry. During the inter-institutional consultation in relation to the Electricity Market Directive in 2002, the European Parliament requested the Commission to include regulating provisions on the subject of decommissioning funds but the Commission promised to address that issue within the then forthcoming nuclear package. The attempts to create a legally binding measure in this field have been repeated by the European Parliament in the subsequent years (European Parliament 2005).

7.2.1. Nuclear safety in accessing countries as a source of urgent concern

> *It would be paradoxical, to say the least, if the EU were to monitor nuclear safety in the new Member States but not in the rest of the enlarged EU*
> Loyola de Palacio, 2002, Towards a Community Approach to Nuclear Safety Brussels

And yet none of the concerns were perceived as urgent as was the upcoming enlargement. It signified that reactors the design of which was considered as less safe were to be on the terrirory of the EU and yet there would be no longer instruments with which the European institutions could exercise control over matters of safety because none existed. While the issue of nuclear safety was interpreted narrowly in the EU as radiation protection, a very different situation was developing outside the borders of the European Union. There the EU was intensively involved with the competence it lacked at home. In line with the commitments made by the European heads of states and government at G7 meeting in Munchen (Saurugger 2004), the Commission was actively engaged with issues of nuclear safety at nuclear power plants in the candidate countries of Central and Eastern Europe. In the light of the planned accession, the EU provided financial assistance via PHARE programmes for the modernization of reactors which were considered as upgradeable.

The general objective was to bring those reactors to the level of safety equivalent to the one in the European Union (Barnes 2003: 124). Those former countries of Eastern Block with nuclear power plants included the Czech and Slovak Republics, Hungary, Lithuania, Bulgaria, Romania and Slovenia. Particular worries cocerned Bohunice 1 and 2 installations in the Slovak Republic, Kozloduy 1-4 in Bulgaria and Ignalina 1 and 2 in Lithuania because some of these nuclear plants were categorised by the EU as unsafe and not capable of being upgraded to an acceptable standard. Romania and Slovenia both had one operating reactor of Western design and were therefore perceived as being less of a priority. As 2004 – the year of the scheduled enlargement – was rapidly approaching, several issues remained unresolved, such as a concern that safety authorities in some of the future candidate countries were perceived to lack the necessary independence to do an effective job. It was however unclear how it would be possible to adress the remaining concerns once these countries were inside the EU and internal European rules were to apply which did not envision the regulation of nuclear situation at nuclear plants.

Another wide-spread concern was that there was no body of standards defining what the level of safety in the EU was, and critical voices emerged concerning the inability to measure progress of this engagement in

any meaningful way. Crtitics complained about the fact that it was unclear in which direction the modernization process of nuclear reactors was heading and against which benchmarks nuclear reactors in Eastern and Central European countries were modernized; there were even speculations that the EU had been financing the revival of nuclear industry instead by providing contracts to Western nuclear industry involved in the modernization process (EUEW 1998; Green 8 2003). This deficiency was also recognized by the Council's Working Party on Atomic Questions in 2001 which regrettably regretted:

> *...the lack of Community frame of reference for safety in nuclear installations as this made comparison and evaluation of the safety standards in the CEE installations difficult.* (Council of the European Union 2001)

In other words, the Union's assurance to bring reactors of Central and Eastern Europe to the safety level equivalent of those situated within the territory of the European Union revealed to be a promise too difficult to verify. Was something that was being referred to as common Western standards an illusion? This state of things was heavily criticised by several supranational environmental organisations. For instance, Friends of the Earth Europe (FoEE) in their report adopted in 2000 complained that

> *Ten years of cooperation in the nuclear field have not solved the basic question of how much safety is going to be required as a condition for EU accession.*

With the Commission proposing to increase the ceiling of Euratom loans with two millions for purposes of financing the improvement of nuclear situation in the new member states (European Commission 2002a), the need for a common frame of reference in order to understand for what purposes the loans were used became even more relevant.

This ambarassing state of things on nuclear safety concerning the EU and the upcoming accession may be particularly well illustrated on the example of the long standing dispute between Austria and Czech Republic over the safety of its Temelin nuclear power plant. Austria was threatening with the use of its veto power and prevent the Czech Republic from entering the European Union if considered dangerous by Austria Temelin plant was not shut down (Fawn 2006). The conflict was finally resolved by the agreement between Austrian chancellor Wolfgang Schüssel and Czech premier Miloš Zeman and brokered by the EU Enlargement Commissioner Verheugen. The compromise known as a Melk Agreement obliged the Czechs to be legally bound to implement a series of improvements while Austria retained a right of oversight over the nuclear safety situation at the plant, a state of affairs highly unusual in the international regime (Barnes 2003: 127; Fawn 2006). The matter was so sensitive to the people of Austria that even after the peace was reached, one sixth of Austrian electorate (some 900 000 people) backed up at the beginning of 2002 a new petition demanding the closure of the plant. This situation revealed the total impotence of the EU political sphere in face of technoechonomic influence on the life of European citizens.

Despite the concluded agreement at the end of 2001 by the Laeken Summit of the European Council of the need to monitor the safety of nuclear installations in the European Union (EU), no actual progress could be made. Increasingly, the adoption of binding standards was believed to be a way out and provide a possibility to interfere with the situation in these countries and demand modernization or closure of the plants.

7.3. Nuclear safety competence receives green light

The post-Chernobyl period symbolised a development where states and international organization sought to embrace a new type of cooperation in nuclear issues in the light of of the Chernobyl catastrophe, seeking to address at the international level issues that had been overlooked earlier. The aspirations of the

Commission to engage with nuclear safety may be seen as a larger part of this process. On the one hand, the Commission was engaged with the evaluation of safety at nuclear plants in the candidate countries. However, due to lack of internal regulation, the Commission found it incredibly difficult to engage with this task within the EU, and was seeking during the late 1990s to make the European Union party to the Convention on Nuclear Safety adopted in 1994 under the aegis of the IAEA. Under the Euratom Treaty, the Council adopted in 1998 a decision approving accession to the Nuclear Safety Convention. The Commission applied to the Court of Justice for annulment in part of that decision inasmuch as it did not refer to all the competencies of the Euratom Community in the fields covered by the Convention (Koutrakos 2004). The judgement that the Court delivered in this case in 2002 effectively extended the competence of European institutions on nuclear safety matters.

The Court has observed that since the Euratom Treaty did not contain a title relating to installations for the production of nuclear energy, the answer to the question on whether the Community was endowed with competence over the other fields covered by the Convention depended on the interpretation of the provisions of the Euratom Treaty relating to health and safety (Koutrakos 2004). The earlier narrow interpretation of EU's powers under the provision relating to health and safety as being only limited to radiation protection prevented the Union from adequately exercising the health protection objective since control of the sources of harmful radiation was missing (Koutrakos 2004; ECJ 2002). It therefore interpreted broadly the Euratom competencies under the Treaty and its decision confirmed that it was:

> *...not appropriate, in order to define the Community's competences, to draw an artificial distinction between the protection of the health of the general public and the safety of sources of ionizing radiation.* (ECJ 2002)

Arguably, pressures in connection to the upcoming enlargement made the Commission procede immediately with the steps concerning the adoption of a package of legislative measures addressing some of the aspects of nuclear safety and nuclear waste. Only a month prior to the judgment, the Commission had drawn upon the Opinion of Advocate General Jacobs and released a Communication "Nuclear safety in the European Union" (European Commission 2002) in November 2002 summarizing its position on the situation of nuclear safety in the EU and announcing its intention to adopt a comprehensive approach to nuclear safety which would include the decommissioning of nuclear installations (Commission 2002). And already on January 30 2003, less than two months after the Court had delivered its judgment, the Commission put forward a proposal for a set of regulatory measures which laid down some common European general principles and obligations concerning issues of nuclear safety and waste management in the form of:

(1) A draft proposal for a Council Euratom Directive " Setting out the basic obligations and general principles for the safety of nuclear installations" (European Commission 2003)

(2) A draft proposal for a Council Euratom Directive "The management of spent nuclear fuel and radioactive waste" (Ibid.)

The text to these two directives was adopted by the Commission in a single proposal, the so- called "Nuclear Package". The text of the first proposed directive sought to address the issue of nuclear safety. Despite the fact that the Directive provided that the common approach to nuclear safety in the EU was to include on the one hand a set of common standards and, on the other, a mechanism for their verifications, the Directive itself did not introduce any standards; nor did it mention that there was a need for the latter. What the proposal provided was, as the Commission explained, a set of general principles which already made part of the Convention on Nuclear Safety (European Commission 2003). The text of the Directive yet justified the need for the adoption of these provisions on two grounds. To begin with, they were legally

binding and thus provided an advantage to a nearly identical body of principles at the international level. Further, the directive offered an extension of the scope of the directive to all nuclear installations and was not limited to only nuclear power stations (Ibid). Finally, the Commission's proposals contained contradictory statements regarding future Commission's steps towards improving nuclear safety in the Union and it was unclear whether the directive, once adopted, were to be supplemented with technical standards at some point in the near future. (European Commission 2002; 2003; 2004)

Also, referring to the need to maintain safety even after the nuclear power plant was taken offline, the text of the original proposal went beyond the provisions of the Convention on Nuclear Safety seeking to regulate the availability of decommissioning funds at the end life of nuclear installations, proposing that these funds were not to be used and to be specially earmarked for decommissioning (European Commission 2003).

The other directive which was presented as addressing the issue of nuclear waste management, went beyond the existing international instruments in the area. In a clear and unequivocal manner, the Directive set deadlines for the introduction of underground nuclear waste management facilities (European Commission 2003).

7.4. A bias of institutional decision-making venues

Like many policy issues, nuclear safety and waste have more than one dimension. Which of these multiple dimensions were to dominate the policy-making process is often a result of several factors. Nuclear safety arrived at the supranational agenda owing greatly to the ideational context underpinned by concerns over the risks of potentially catastrophic accidents of electronuclear technology. These fears legitimised but however did not necessarily determine what understanding was to inform the subsequent policy-making. Institutional venues along which the proposed directives were to be processed were to play an enormous role in defining what dimensions of nuclear safety and waste directives were to underpin future legislative documents. Institutional venues assign jurisdiction over a particular policy issue (Daviter 2012: 9) and narrow down a range of organizational actors involved as well as dimensions that may inform how a particular issue may be conceptualized (Ibid. 9-10).

While the involvement of the European Commission with the issue of nuclear safety and waste management within the territory of the European Union was a new development, the Commission's responsibility in this area existed *de facto* in relation to nuclear energy situation in the countries of Eastern and Central Europe. The institutional process was marked by the shared competence among three Commission's departments – DG Environment (Safety and Civil Protection), DG Enlargement and DG Energy – and exhibited the traits of bureaucratic politics whereby these different DGs promoted different solutions to the problem often unable to engage in organizational learning and arrive at a common policy position (Saurugger 2004). If the preceding period witnessed the proliferation of inter-departmental conflicts over the direction of the European nuclear energy policy epitomised as attempts of DG TREN and DG Environment to impose their own diagnostic-prescriptive conceptualisation, by the beginning of the legislative process on nuclear safety and waste the role of DG Environment was severally marginalised.

Fischer (2003) maintains that who is given authority to adress the policy problem is usually determined depending on how that very problem is defined. Stressing that there are no immutible rues that govern who has jurisdiction over a particular issue, Baumgartner and Jones (1991: 1047) in similar vein underline that reframing of the issue usually accompanies the allocation of responsibilities and this allocation usually reinforces a particular definition of a policy issue. Unlike it has been the case in the Commission for many years following the Chernobyl catastrophe, the focus of the European nuclear energy policy from beginning

of the term of the Prodi Commission was increasingly being reframed from being an environmental and health risk to a solution to the problems of energy security and climate change. Arguably, this fact motivated the reallocation of responsibilities within the European Commision to the department which was originally entrusted with the goal of promoting technology - DG Transport and Energy headed by the nuclear energy enthusiast - Commisioner de Palacio. As in the old pre-Chernobyl days when the use of nuclear power was seen as contributing to technological and, importantly, social progress and needed promotion, the Commission department favourable to the employment of nuclear technology was to be yet again responsible for its promotion once this technology was once more expected to play an important role, this time to adress the issues of climate change and energy security.

Thus the Commission faced a series of internal reorganizations informed by a decision to consolidate its expertise on nuclear safety matters. DG Environment was at the beginning stripped of its responsibilities in nuclear safety matter in 2000 followed by the transfer of all of its remaining competences concerning electronuclear policy in the form of radiation protection and nuclear waste management to DG TREN in 2003. As a result of this transfer DG Transport and Energy became an official *chef de file* - the primary sponsor of all future legislation - in matters on nuclear safety, an issue with tremendous implications for environmental protection and sustainable development.

Within the complex web of European policy-making rules, the European Commission enjoys an exclusive prerogative of making a proposal for a future legislation. This early invovlement of the European Commission limits the degree of infuence of other actors involved with the policy-making process because it is at this early stage when an issue is being framed in a particular way and one particular dimension is chosen from a number of multiple possible alternatives (Daviter 2007). When the proposal is submitted for deliberation to other participating in the decision-making process actors, reframing of an issue is no longer practically possible and the policy-actors may only make amendments as to the substance of the proposed legislative measure or reject the Commission's proposal in its entirety.

The influence of environmental interests on the policy process was even marginalised putside the European Commission. Since the legislative process were to take place under the Euratom Treaty, the latter envisioned only a consultory role for the European Parliament. In other words, the Parliament's opinion had neither a binding or veto powers in relation to the Commission's proposal. Unlike the main European Treaty, which was reformed substantially and with each revision expanded powers of the European Parliament, the unreformed Euratom Treaty did not follow this path.

The policy venue foresaw the intervention of environmentally concerned voice only much later in the process once the proposal reached the Council of Ministers, leaving a large margin of discretion to DG TREN to define the issues that were at stake in relation to the regulation issues.

7.5. Nuclear safety: what is at stake?

Paradoxically, throughout the history of the European integration the processes of enlargement contributed to the strengthening of the environmental protection because with the each accession, the existing member states saw the need to codify the laws existing within the Community in order to avoid uncompetitive disadvantage of the new comers and a risk of watering down of the existing practice (reference).

Arguably, the upcoming fifth and largest in the EU history enlargement once again provided the Union with the strong impetus to create a body of European standards on safety. It heralded a potential to finally formalise technical requirements against which nuclear safety situation had been earlier evaluated in the accessing countries.

In the long run this engagement gave reasons to hope that the renewed Commission's enthusiasm over the benefits of electronuclear technology would be somewhat mitigated. On the eve of the Commission's engagement with the new competence on nuclear safety, Austrian and Irish delegations to the Council expressed in 2002 their view which condemned the Commission's attempts to consolidate reliance on electronuclear technology as part of its approach to sustainability. In the document ”Nuclear power in the light of the sustainable development” these countries, stressing the nuclear power's safety concerns and the unresolved problem of nuclear waste, argued against the compatibility of the electronuclear technology with the goal of sustainable development. Instead, they suggested that it was more appropriate for the Commission to focus on its regulatory functions:

> *Consequently we are looking forward to the Commission's proposal regarding nuclear safety, in particular with respect to common standards.*
> *We expect this proposal to adress legally binding basic safety standards covering all kinds of nuclear installations and the full life- and fuel-cycle of nuclear power to ensure the highest possible level of protection of health and the environment...*

Also Ireland, forming an alliance with Germany, Austria, Belgium, Denmark and Greece, advocated the redirection of European nuclear energy policy and financial funds away from the production of new problems into dealing with legacy of nuclear technology (de Rijk 2002). These actors demanded the abolishment of the biased in relation to electronuclear technology Euratom Treaty. The goal was a new policy on nuclear energy in the form of a body of binding standards on nuclear safety supplemented and underpinned by concerns for human health and environment (Lyons 2002: 126-127?). Disenchanted by the impossibility to revise or dismante the Euratom Treaty on the one hand and the Commission's growing attempts to reinvigorate the industry on the other, actors which shared an environmental policy frame sought to redirect the Commission's attention to the engagement with the regulation of the industry instead.

In other words, the European Commission was faced with external and internal political pressures to adress the situation concerning nuclear safety. The European Commission itself in its Communication acknolwledged that since the inception, of the Euratom Treaty the latter had disproportionately focused on the task of promoting nuclear industry because the latter at the time of the creation of the Treaty was still at its infancy (European Commission 2002: 7). By entering the process of the creation of the body of standards concerning nuclear safety, the Commission sought to imply that it was making an important step by complementing the Treaty's focus on promotion with the objective of regulation.

In fact, in the speech preceding the announcement of the nuclear package, de Palacio in 2002 (Europa RAPID 2002/1616) framed the adoption of the proposal as a response to the concerns raised:

> It is our responsibility to ensure a common approach to nuclear safety and waste management: European citizens would never forgive us for inaction by the EU in this field.

But, as may be inferred from the discussion below, while the issue was placed on the agenda, the Commission had a considerable degree of discretion in defining what exactly was at stake.

Seeking to maximise support for the proposed legislation, the Commission arguably attempted to dress the proposal into the language that would appeal to both the proponents of the environmental approach to nuclear safety and those actors which supported the traditional policy frame in European nuclear policy. On the one hand the Commission rhetorically referred to the fact that the directives must be adopted in order to ”avoid risks to human health and the environment” (European Commission 2003). On the other hand, texts of the proposals refered to the need to keep nuclear energy technology open. At the very same time

the proposed regulation was rhetorically presented as an attempt of the European Commission to engage with safety and nuclear waste issues in a neutral way. Among other things, the Commission framed this activity rhetorically as an attempt to adress the problems of electronuclear technology ”without engaging in an ideological debate” (Lamoureux 2002) and of interest to both actors who supported the use of nuclear power and those who did not, suggesting that safety was a common interest to all policy actors involved, regardless of the framing position.

However, despite the Commission's claims that the engagement with the creation of new regulatory mechanism on the safety and waste management signified a neutral regulatary activity (”our task is not how to specifically promote the use of any specific nuclear technology but to create the environment in which nuclear energy can be used safely in those States wishing to do so” (de Esteban 2002: 7), the text of the tabled proposals suggested otherwise. It revealed that the process was on the way to take a rather different course, opposite to the one that was called to by the ideational context.

7.5.1. Nuclear safety: exploring the link between public trust and support of nuclear technology

> *The arrival of pressure groups and ecological parties onto the political stage of the Member States and the Chernobyl accident (26 April 1986), undeniably the most serious accident in the history of atomic energy, marked a turning point in the development of Europe's nuclear industry.*
> European Commission, *Green Paper on Energy Supply, 2000*

Judging from the text of the proposed legislation, the Commission's engagement with the regulation of nuclear industry was far from being informed by concerns for human safety and environmental protection but was also making a U-turn from the predominant understanding of nuclear risks, effectively seeking the erosion of nuclear safety concerns. The proposed legislative measure on nuclear safety was part of the much broader agenda setting of the European Commission concerning the role of nuclear energy as a solution to climate change and energy security which took hold of the European nuclear energy policy during the first years of the Prodi Commission. Both in tone and content the text of the proposed Directive drew on the policy lines based on the traditional policy frame. Expressed by the Commission in its earlier communications, these ideas sought the reinvigoration of the stagnating industrial sector. DG TREN in charge of both a regulatory function and the function to promote nuclear technology had to find a balance between these two:

> *The Commission will do everything it can to promote – with full openness and transparency – the conditions necessary for the nuclear option to remain open safely*. (de Esteban 2002)

Despite the predominant ideational context informed by growing concerns for the nuclear safety situation, the Commission's engagement with the directive resulted in a situation where the focus on nuclear safety and waste management was effectively translated into an argument strenthening public confidence and improving electronuclear technology's chances to remain open in the EU.

The official line of reasoning which underpinned the text of the proposed directive suggested that the revival of public support was only possible when the body of nuclear safety principles and standards were put in place at the supranational level. Begining from the text of the Green Paper, representatives of DG TREN has under numerous occasions elaborated on the correlation between the nuclear safety regulation,

public support, and the revival of nuclear industry.

In particular, Commissioner de Palacio, an ardent supporter for the inclusion of nuclear power into the category of sustainable energy technologies numerously motivated the Commission's engagement with issues of nuclear safety as important in the light of surveys which highlighted the fact that public would be more receptive to the use of nuclear energy if it was convinced that the most urgent problems of nuclear industry were resolved:

> *Repeated surveys have shown that the public would be more receptive to nuclear power if they were convinced that a high level of nuclear safety was assured and that a permanent solution to the problem of management of radioactive waste could be found* (de Palacio 2004).

The explanatory memorandum which accompanied the launched directives in an uncritical manner suggested that the directives were expected ”to strengthen the public confidence on safety of nuclear facilities” (Commission 2003:5).

Even in the case of failure of the adoption, there were concerns for the impact such development would have for public confidence in nuclear industry:

> *What will happen if the Council does not succeed in adopting the Directives? Public confidence in the nuclear sector – and Public acceptance of proposals for new facilities – is a vital, and possibly the single most important, requirement to keep the nuclear option open. The role of the Public has been greatly underestimated in the past – much to the detriment of the sector. We disregard it in future at our peril. (Taylor 2004)*

Given discretion over the definition of risks issues it sought to controll, the Commissiom was departing from a particular conceptualization of what was at stake concerning nuclear safety.

7.5.2. Nuclear standars: nuclear safety - a problem like many others?

Like most of the policy issues, nuclear safety has potential of being conceptualised from more than one perspective. The focus of concerns which legitimised the engagement of the European Commission with the issue of nuclear safety were underpinned exclusively by considerations on human safety and the protection of the environment from known and unknown risks associated with nuclear power technology. Accidents such as the ones that took place at the Three Miles Island and Chernobyl were decisive in mobilising public opinion against the use of nuclear power. The extreme concentration of dangerous for the environment and human health substances at one industrial installation risking to affect not only the living conditions in the areas surrounding the nuclear plant but also very remote territories and in addition leaving a long lasting legacy were some of the issues at the heart of the criticism against the reliance of nuclear power. Another, deeper concern, however, was the general inability of scientific enterprise to control nuclear safety. The extreme complexity of the socio-technical systems such as nuclear plants made it impossible to apply empirical methods to evaluate safety; instead, computer-based modelling systems were being used (Welsh 2000: 19-20). In practice, this meant that no guarantee regarding the safety of any of the nuclear installions existing today could ever be made; each and every nuclear power plant built and connected to the grid represents in practice a laboratory experiment (Beck 2009? more referenes that this is how nuclear energy technology is perceived by the public).

However, the Commission's enthusiastic engagement with the issue of nuclear safety was underpinned by an alternative framing of nuclear safety risks which stood in stark contrast with the widespread public perception of nuclear power as technology out of control. Various speeches of the representatives of DG Energy and Transport Commissioner de Palacio surrounding the proposal on nuclear safety revealed one common feature: the nuclear safety that the Commission was about to regulate was not cardinally different from any other environmental problems. De Palacio numerously drew parallels to the fact that while quolity standards on water in rivers and lakes were in place at the supranational level, the EU failed to have similar approach based on common standards for nuclear safety (de Esteban 2002: 5). These comparisons arguably implied a general stance of DG TREN that nuclear safety was not a qualitatively different problem than for instance, water pollution. Consequently, it did not call for any special approach and would be addressed by the introduction of common ”standards”.

In line with this approach, the diagnosis of nuclear safety concerns revolved around the absence of a uniform European strategy. In fact, concerns for the lack of common and unique nuclear safety standards underpinned all versions of the Commission's nuclear safety proposal (Commission 2002; 2003; 2004). Stressing the fact that the nuclear safety situation was not compromised, the Commission was nevertheless concerned with a situation characterised by the ”diversity of rules and principles” in relation to nuclear safety throughout the territory of the European Union. It was this lack of homogenity that according to the Commission did not guarantee that a high level of nuclear safety was to be maintained in Europe. In this context, the solution implied a harmonization of the nuclear safety standards throughout the EU:

> *While we can be proud of having an excellent level of nuclear safety in the EU, the shortcomings in nuclear legislation, in the run-up to enlargement, need to be overcome* (Loyola de Palacio)

> *…(n)Nuclear safety measures remain very different from one member state to another. This diversity of national rules and principles does not mean that a high level of nuclear safety does not exist within the EU. However, it is not guaranteed that it will be maintained. The Community approach should address this particular point.* (European Commission 2003: 13)

The solution that was advanced boiled down to having common rules in the area:

> *Only a common approach can guarantee the maintenance of a high level of safety in nuclear installations, from conception to decommissioning, in an enlarged EU.* (European Commission 2003)

While the Commission placed a great emphasis on ”standards”, the text of the proposal did not contain them but focused instead on general principles adopted directly from the Convention on Nuclear Safety (CNS). The Commission extended the application of these rules to comprise all types of nuclear reactors and complemented provisions with a rule on decommissioning funds. It was unclear whether the standards that the Commission was referring to would be ever adopted. Thus the original Communication of the Commission dated from the 6th of November 2002 referred to the future regulation as a ”framework” directive; implying that daughter directives were envisioned in the near future, arguably with a body of nuclear safety standards. Yet once the official proposal was tabled, the definition of a ”framework” was removed from the texts bringing uncertainty as to the Commission's plans.

One may speculate that the Commission, in an attempt to ensure support for the directive, by placing emphasis on the introduction of nuclear safety standards, strategically drew on the ideational context in the backdrop of which the necessity for the directive on nuclear safety was born. Strict regulation of the European nuclear industry with state-of-the-art binding standards was the demand of the actors which advanced ideas of the environmental policy frame.

However, by placing emphasis on the fact that nuclear safety standards had to be necessarily *common* and

uniform, the Commission's proposal lost support ironically of the actors whose very interests the Commission sought to advance by adopting the Directive. Four nuclear member states - Finland, Sweden, the United Kingdom and Germany - rejected the Commission's text of the proposal to the Directive, tabling their own alternative approach to nuclear safety where nuclear safety standards were neither binding nor uniform (Council 2004).

The rejection of the binding nuclear safety standards at the supranational levels had arguably less to do with the reluctance of the existing nuclear member states to be subject to the standards which had been applied to the applicant countries, even if one assumes that binding nuclear safety standards are liable to have an unfavourable effect on the steadily increasing capital and safety costs of already economically challenged industry. However, an explanation of the resistance to the Commission's approached may be traced to a peculiar nature of nuclear safety. While the diagnosis and solution in the Commission's proposal was informed by the perception of nuclear safety as a straightforward and objectively measurable problem, the opposing to it national actors stressed its ambiguous and subjective dimensions. Unlike radiation protection, which could be verified and measured in an objective way, nuclear safety was a lot about how differents components and relevants factors were integrated to a whole (Laaksonen 2002) and therefore represented an area where the judgement on the adequacy of the safety level will always be ”subjective” (Laaksonen 2002):

> *One cannot prove in a credible manner that the overall safety level of one facility is higher than the safety level of a different facility.* (Laaksonen 2002)

Further, while the Commission claimed that a methodology which emerged as a result of the assessment of safety of nuclear power plants in Eastern and Central Europe could serve as a basis for the development of the future European nuclear safety standards, opposing to the directive national policy actors insisted that ”methodology that could be used in all EU member states after the enlargement (did not) does not exist” (Laaksonen 2002). At the same time application of uniform standrads was impossible as there was no single body of standards that would fit all reactors; the existing European fleet of civil nuclear reactors with a history of over 50 years comprised of at least 5 basic designs and about 20 different vendors (referens). The ambiguity of nuclear safety was liable for the fact that no *systematic* methodology for assessing the safety level had been developed (Laaksonen 2002); safety of each nuclear power plant has been evaluated on an *individual* basis. Against this backdrop the Commission attempts to regulate the existing plants *retroactively* attracted particularly much criticism (Council) – an understandible development if one takes into considerations that making even small changes into already existing nuclear power plants might compromise ”safe operation of the facilities” (Ilina,2010, p. 1).

While the Commission's proposal stressed that differences in nuclear safety standards, principles and routines risked to jeopardise nuclear safety in the EU, national actors insisted that all the differences were ”necessary” and ”natural” (Council 2004). Safety approaches differed from plant to plant and all these required a special, tailored approach towards the evaluation of safety at different installations. In particular a harmonization approach in relation to existing nuclear power plants was a ”complex undertaking”, requiring ”time and clear objectives.” (Council 2004)

All in all, the Commission's approach was rejected for its unrealistic (Laaksonen 2002) nature and its attempt to frame a nuclear safety issue as a controllable problem that may be easily isolated, measured and fixed was challenged by the sponsors of the very same frame the interests of which DG TREN advanced.

7.5.3. Decommissioning funds

The only provision that sought to adress the priveleged status of nuclear industry on the EU's liberalised energy market concerned the rule on the segregation of the decommissioning funds, probably because the provision was closely related to the issue of nuclear safety. In line with earlier demands, the uncompetitive practice of the industry in relation to the management of decommissioning funds was recognized by the European Commission as an important problem to be addressed by the directive (Ibid.). Yet the Commission's further strategy indicated a failure to pursue this objective.

In the first place this provision contained from the beginning a derogation in relation to "exceptional circumstances" (European Commission 2003) for which it was criticized by the environmental NGOs (Green 8 2003) as it would have allowed operators to escape the requirement to set funds which were clearly segregated from the rest of the company's assets and earmarked solely for the purpose of decommissioning. Most importantly, the significance which was prescribed by the Commission to that problem became more evident after the Commission tabled a revised proposal to the directives in 2004. Despite the fact that a request to put a stop to the "outrageous distortion" in the energy market was supported by 450 MEPs (Turmes, speech via Europolitics 2002), the provision on decommissioning funds was deleted in its entirety. The Commission explained that move by referring to the opposition to this provision in the Council (European Commission 2004) and it may be speculated whether it illustrated the fact that the Commission prescribed more priority to the very fact of adopting the directives rather than being concerned for their content.

7.6. Nuclear waste: a political problem?

The difficulty associated with the finding a solution to the problem of radioactive waste has been a long standing argument against making nuclear technology part of the sustainable energy system. This position is based on the recognition that an industry operation of which is liable for large quantities of highly hazardous waste for indefinite periods of time and which most certainly affects future generations cannot be really a part of the future underpinned by sustainable development principles (see, for instance, Krämer 2007). Framed as a problem, the lack of solutions to radioactive waste exposes the conditions under which the latter is created and therefore casts critical light on the continued production of energy from nuclear technology, even in the light of its alleged climate friendly qualities. As Margot Wallström, a strong sponsor of the environmentalist policy frame, put it:

> Nuclear energy is of course CO2 neutral... Everyone has his or her own views on nuclear energy. It is a fact that most Member States do not see nuclear as a long-term energy option at this stage. There are concerns about safety and that we have not yet solved the problem of storage of nuclear waste. (Wallström 2003, speech SPEECH/03/308)

Nearly two decades folowing the Chernobyl catastrophe of largely accident-free functioning of nuclear power plants owed to a situation where public perception of the dangers of operational safety of nuclear power plants was being perceived less accutely as in the immediate post-Chernobyl period. Arguably more than the issue of nuclear safety, by the beginning of the new century the unresolved problem of nuclear waste was considered to be a serious argument against the continued reliance and especially revival of nuclear industry. By the turn of the century, the solution to nuclear waste, an issue which at the dawn of the nuclear power technology seemed to be within reach, appeared to be as remote as ever; none of the countries relying on electronuclear technology implemented a solution to this problem.

The problem of nuclear waste looked particularly despairing in the future candidate countries which in addition to the nuclear safety crisis also experienced a crisis of nuclear waste management. Being former

satellite countries of the Soviet Union, these countries used to share with Moscow an integrated system of processing and disposal, where Moscow took responsibility of taking care of all the waste (1993: 45). Ever since the disolution of the Soviet Union, piles of dangerous nuclear waste have been steadily accumulating (European Commission 2002: 21).

At the supranational level nuclear waste was officially recognised as a problem. Increasingly, however, DG TREN's conceptualisation was out of tune with political and public concerns, reflecting instead priorities of the traditional nuclear policy frame which sought the revival of electronuclear industry. Thus, for example, the recognition of the nuclear waste problem in the Commission's Green Paper (European Commission 2000) is underpinned not so much by environmental considerations as concerns for the future of the industry where nuclear waste was perceived as a serious impediment to the revival of the industry:

> *Nuclear cannot develop without a consensus that gives it a long enough period of stability, bearing in mind the economic and technological constraints of the industry. This will only be the case when the waste issue finds a satisfactory solution with maximum transparency.*

The text of the tabled Commission's proposal continued to echo the priorities of the traditional policy frame by engaging with the nuclear waste problem. On the face of it, the text of the Commission's proposal had a concilatory approach and drew on the elements of the environmental policy frame by recognising that the problems associated with the current management of nuclear waste – the method of surface storage combined with monitoring and maintenance practiced – was unsustainable not the least because it passed "an unacceptible burden ... on to future generations".

At the same time these nuclear waste management practices were not conceived to be the result of the complexity of the nuclear waste problem where science was increasingly unable to to provide a satisfactory solution. Quite the opposite, the Commission chose to reframe this object of environmental critique, recasting the issue of nuclear waste as a shortage of political will across the European Union. By pointing to the broad consensus regarding the concept of geological disposal, the text of the proposal implied that a safe technological solution was already "out there", the authorities of the members states simply lacked political motivation to implement it. Such problem conceptualisation obviously reflected the priorities of the dominant policy frame within the European electronuclear policy. The function of policy-making, as Hajer (1995:2) have observed, is not so much problem solving in as much it redefinition of a certain phenomenon in such a way that one can also find a solution to it. The question that the directive was actually designed to address was how to make national politicians implement the solution within their territory; clear, binding and increasingly tight deadlines for the designation of repositories and implementation of the method of deep geological disposal were indicated in the proposal's text (European Commission 2003, art.4). Following deadlines were proposed: 2008 for deciding on a high-level waste disposal to be put into operation by 2018; and 2013 for putting into operation "disposal facilities" for "low-level, short-life" radioactive waste.

It is interesting to observe that backed by the European Commission method of "solving" the nuclear waste dilemma was presented as an answer to the calls of the public, a direct responce to the opinion expressed by European citizens in the Eurobarometer survey dated by 2001. In accordance with the latter survey, the Europeans prefered that the generation that took care of nuclear waste was the same generation that produced it – arguably a critique against further production of nuclear waste – was reframed as a support for the Commission's approach. At the same time, it remains an open question whether deep geological disposal is a solution in the sense that it frees future generations of the concerns for its impact on the environment (Andrén 2009). The very time frame – hundreds of thousands of years which are required for highly radioactive waste to become free from radioactivity – implies that science is not in a position to provide a definitive answer on the safety of such practices.

Re-articulated as a manageable problem, the directive served to promote the goals of the traditional policy

frame and reinforce its position in several respects. To begin with, it turned green lights for the continued use of nuclear technology. The Commission ever since the adoption of its Green Paper of 2000 had been stating that the future of nuclear industry depended on finding a satisfactory solution to the problem of the management of nuclear waste (European Commission 2000; de Esteban 2002; European Commission 2003). Focus on the political inertia helped to create an impression that the greatest problem of the nuclear waste policy, the solution to which was widely believed to be still missing during the time analysed, even by parts of the European Commission (see my discussion earlier on the position of Margot Wallström and DG Environment on this issues), suddenly was gone. Moreover, it was presented as reflecting the wider concerns in relation to nuclear technology.

Through the re-articulation of the problems in the nuclear waste management policy, the Commission sought to neutralize the most powerful argument against the use of nuclear energy in the sustainable energy system.

7.7. Concluding discussion

The decision of the European Court of Justice in 2002 arguably opened a window of opportunity for a new and radically different approach to the issue of nuclear energy in the European Union. It allowed to circumvent decades of inaction of the member states in the Council of Ministers and extended competences of the European institutions beyond the ones that had been originally prescribed to them by the Euratom Treaty. The tabled by the Commission proposals were rather unambitios and weak in its content; they were also rejected in the Council of Ministers. Nevertheless, there are all reasons to conclude that, contrary to the Commission appeals to neutrality, the decision-making period between 2002 and 2004 witnessed a substantial influence of the traditional policy frame on the nuclear energy policy.

Thus, for instance, the content of the proposed directive on nuclear safety was rather dilluted and did not reflect a large number of concerns that drove the support for the creation of the common nuclear safety framework in the first place. Mostly limited to the provisions of the CSN, the Commission's proposal offered very limited benefits in terms of health and environmental protection by making them enforceable in the EU. However, its text cannot be simply viewed as a directive with a symbolic content. Rather, it signified a new stage in the development of the Commission's policy towards the issue of nuclear power use in the European Union.

Policy documents mirror a changing balance of powers and as the analysis of the Commission's policy statements during the preceding policy-making period between 1999 and 2002 sought to demonstrate, a traditional policy frame had been increasingly adopting a dominant position, reshaping the understanding of what was at stake within the European Union concerning nuclear energy policy. The text of the proposed Directives may be seen as a continuation of that process to define a future trajectory for the EU policy concerning nuclear energy. At the same time it signified a new stage in the development of the European nuclear energy policy. While within the preceding period between 1999 and 2002 the Commission was attempting to define general priorities for the European nuclear power policy, the engagement of the Commission with the legislative proposals witnessed of the transfer of the framing attempts into a new, more influential stage with higher stakes. Legislative instruments are not just another type of policy, they demand more authority and, most importantly, they are enforceable. The Commission's engagement with regulatory instruments on nuclear safety and waste management may be seen as a transition from the statement of goals into their implementation.

The proposed directives were more than instruments for delivering public good in the form of nuclear safety and waste management. They represented a site for a potential framing struggle over the definition of priorities that stood before supranational institutions within the nuclear sector, a struggle which

concerned different dimensions of the issues of nuclear safety and waste.

However, the struggle could never really play out; the new period witnessed the triumph of the traditional policy frame within the nuclear energy sector, underpinned by technological optimism and belief in progress and rationality. Important and far reaching instruments as they were, the proposals were being processed within the institutional venues formed during the first years of the Prodi Commission. These decision-making venues reflected the fact that during the first two years of the Prodi Commission the traditional policy frame had been rapidly assuming a dominant position in the nuclear energy policy. Once established, these venues continued to exercise bias during the new decision-making process regarding future legislatve proposals (Baumgartner 2007: 484). They narrowed down the circle of legitimate policy actors that were able to exercise meaningful influence over the policy-making process, most importantly preventing DG Environment, a principle rival of the traditional policy frame within the European Commission, from challenging DG TREN's framing exercise. New policy venues effectively prevented any serious or meaningful opposition where the policy-making process was limited to two meaningful players, it was only at the level of the Council of Ministers that the Commission's framing exercise could be met with resistance.

The Commission's involvement with the nuclear package stopped short of the attempts to manipulate the ideational environment. Nuclear safety and waste – public goods at the face of it – are from the perspective of policy-making issues with more than one dimension. As the analysis sought to demonstrate, the Commission succeeded to reframe the issue of nuclear safety by exploring the link between public disenchantment with nuclear energy policy and the envisioned revitalization of the electronuclear industry in the European Union. The focus on environmental and human protection which have characterised the post-Chernobyl attention to nuclear energy issues and raised support for the adoption of nuclear safety and waste directives at the European Union was transformed into the argument supporting the survival of the European nuclear industry.

Reframing nuclear safety and waste concerns had a potential of neutralising challenge that was mounted in relation to nuclear industry through the use of the regulatory instrument. The text of the proposal on nuclear waste management is particularly illustrative where it sought to recast a powerful argument against the employment of nuclear power and frame it as a manageable problem that was neither scientific but technological but purely political in its nature:

> *De Palacio, the pro-nuclear Energy Commissioner behind the nuclear package, wants to show that problems perceived by opponents of nuclear power, like safety and radioactive waste, are gone. … The details of the package show clearly that the only purpose is to revitalise the nuclear industry in an enlarged EU* (Traume via Euractiv 2002-11-07).

The fact of rejection of the proposal in the Council revealed an interesting paradox. While these were centrally the community of countries which shared an environmental frame on the use of electronuclear technology that had been pushing for the adoption of the Directive on nuclear safety, the text of the proposal mirrored the central tenets of the traditional policy frame. Nevertheless, the Commission's approach received serious opposition from the very supporters of the traditional policy frame. Aimed at improving public confidence in nuclear power, and, in the long run, eliminating some of the obstacles to nuclear revival – a development clearly of interest to supporters of the traditional nuclear policy frame - the Commission failed to mobilise support of the latter group of policy actors. Considering extremely short time period between the adoption of the ECJ judgement recognizing the existance of a legitimate link between the legal basis in the Euratom Treaty concerning protection of health of general public and workers and the Commission's adoption of its proposal for two directives, one may understand that the Commission was acting under the unrealistic time table. Clearly, the time was too short for the Commission to organize

interests which advanced the traditional policy frame in order to persuade them about the benefits of the proposed legislative measures for the nuclear sector or work out a common approach in any meaningful way. Obviously the Commission was in a hurry to see the adoption of the Directive prior to the enlargement scheduled for the year 2004, and was striking ”the iron while it was still hot”, tabling its proposal shortly after the ECJ delivered its landmark judgement and gave green light to regulatory measures concerning nuclear safety at installations. Aggressive framings in the form of the waste directive were not very helpful for generating support for the Commission's proposals in the ideational context that did not yet support nuclear revival.

On the face of it, the Commission got involved with nuclear safety and nuclear waste - “public goods” – the benefits of which hypothetically would be acquired by those who supported the continued use of nuclear energy in the future and those who did not. And yet, due to the multidimensional nature of the regulated issues, the Commission’s involvement with the nuclear package revealed attempts to manipulate the ideational environment. The Commission sought to convey a particular image of the situation concerning nuclear safety and waste management manipulating the ideational framework in which the subsequent policy-making process was to take place. This could have resulted in a much narrow place for action in relation to nuclear safety. While the enlargement opened an unprecedented opportunity to finally bring in the European nuclear energy policy into the framework of sustainability and integrate environmental concerns, the Commission’s involvement sought to completely redirect the trajectory of future policy in the domain away from the environmetal policy frame.

The reaction of the representatives of nuclear member states (and safety authorities) revealed the pandora box-like complexity of problems of nuclear safety and nuclear waste. They were anything else than the conventional problems that the institutions of modernity were prepared and equipped to adress. Several decades later after the nuclear power plants began to be built in Europe and the political sphere was still desperately behind the technoeconomic one in its attempts to exercise any meaningful control over it while the gap was not getting smaller yet.