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**Friends of
the Earth
Europe**



Under the patronage of the MEPs
Nicholas CLEGG, Jorge MOREIRA DA SILVA, Claude TURMES, Mechtild ROTHE

EURATOM conference “After 45 years of nuclear promotion: time for change”

CONFERENCE PROCEEDINGS

Thursday 12th September 2002

**European Parliament
Brussels, Belgium**

Friends of the Earth Europe gratefully acknowledge financial support for the conference to the Heinrich Böll Foundation, the Friedrich-Ebert-Stiftung and the European Commission.

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November 2002



Printed on recycled paper, by PLAN 2000 INC, Brussels

EURATOM conference “After 45 years of nuclear promotion: time for change”

CONFERENCE PROCEEDINGS



ABOUT THE ORGANISERS OF THE CONFERENCE:

Friends of the Earth is the largest grassroots environmental network in the world, campaigning to protect the environment and create sustainable societies. Friends of the Earth Europe (FoEE) unites more than 30 national member organisations with thousands of local groups. FoEE coordinates and supports the campaigns and projects of its member groups which deal with a large variety of subjects including food, farming and biotechnology; climate change, energy, eco-taxation and nuclear safety; globalisation, trade, corporate accountability and sustainable development; EU Accession; and regional programmes in Central, Eastern and South Eastern Europe and the Mediterranean.
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Preface

By Anja Köhne, Heinrich Böll Foundation

The current process of EU Treaty reform is going to be the most far reaching and encompassing of any Treaty reform process since the establishment of the European Union, aiming at nothing less than a kind of “Constitutional Treaty”. European Citizens and their representatives in the EU Convention and subsequent Intergovernmental Conference will, over the next two years, decide on the type of European Union they want, its goals and its institutional set-up.

During this fundamental re-view and re-definition of the European Union several political issues which have previously been sacrosanct in many European debates of past decades get drawn into the logic and atmosphere of a relaunch of Europe. One of the structures where change and progress seemed impossible until just recently was the Euratom Treaty, one of the three founding Treaties of the European Union – a Treaty criticised, albeit without much resonance, for many years by civil society for being undemocratic, outdated, uneconomic, harmful in its implementation, a threat to human health and the environment and a source of unbearable risks for current and future generations.

This perception that the Euratom Treaty is a “given fact” is changing, rapidly. For the attendants of the timely conference “Euratom – After 45 years of nuclear promotion: Time For Change”, the winds of change were conspicuous, as the contributions to this conference reader also show. Furthermore, more and more voices of political leaders in the EU-Convention, in other EU-institutions and Governments, are raised to suggest that it does not make sense to maintain the static, singular position of the Euratom Treaty, and that it would be inconsistent not to submit Euratom – just like any other EU-Treaties and provisions – to constitutional reform. To name just a few of these voices:

- October 14th, Klaus Hänsch (member of the Convention and former EP-President) submitted a proposal with six options for Euratom Treaty reform (Conv 344/02, Contribution 121).
- October 22nd, Hannes Farnleitner, Herrn Caspar Einem und Herrn Reinhard E. Bösch (Austrian members of the Convention), also submitted a proposal to make Euratom consistent with the new Treaty (CONV 358/02, Contribution 123).
- October 28th, Dany Cohn-Bendit (vice-president of the Green/EFA Group in the EP), in a speech held at the Forum Constitutionis Europae at the Humboldt University in Berlin, pressed for strengthening democratic control over Euratom, for reviewing its mission statement and submitting it under the umbrella of the new Constitution.
- The Enquete-Commission of the German Bundestag 1998-2002 on “Sustainable Energy Supply, taking into account Globalisation and Liberalisation” suggested three options on how to reform Euratom. Consequently, the German Bundestag adopted a resolution on EU-Treaty Reform which included the demand to abolish Euratom and transfer and extend the European competencies on safety issues and disposal within the new Treaty (Bundestagsdrucksache 14/9097, 15.5.2002). The red-green coalition agreement of the new German government states the political goal to end the special position of the Euratom Treaty within the current Treaty reform, with a view to refocus EU energy research policies.

These few examples demonstrate the growing consensus that the Euratom Treaty, after 50 years without change, has to be and is going to be altered. The discussion must now turn to the way in which Euratom will be reformed – will it be completely abolished or integrated somehow into the

new Treaty and/or submitted under a new Constitution as secondary legislation? Definitely, two goals of the reform seem to be shared by the majority of actors: 1) The “Sonderwirtschaftszone” established by Euratom is economically absurd, harmful to human and environmental health, and fundamentally undemocratic, and thus needs to be abolished; 2) Within any new Treaty provisions, issues of inter-generational sustainability, safety to health and the environment and the open problems of disposal need to be addressed.

The Heinrich Böll Foundation is grateful for the inspiring and fruitful cooperation experienced around this conference and reader with the Friedrich Ebert Stiftung (especially Jürgen Ditthardt), with Friends of the Earth Europe (particularly Patricia Lorenz, Martin Rocholl and Antony Froggatt), and with the Members of the European Parliament which supported our endeavours, Nicholas Clegg, Jorge Moreira da Silva, Claude Turmes and Mechtild Rothe.

Anja Köhne, Regional Officer for EU, Central Eastern Europe and Transatlantic Issues at the Heinrich Böll Foundation (Berlin), November 2002

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Martin Rocholl, Director, Friends of the Earth, Europe: “Introduction to the conference”



The coming few years will be a defining period for the European Union. Proposals will be completed to increase the Membership of the European Union by another ten countries, making it the largest every expansion of the EU. To accommodate this change the EU is preparing a fundamental review of its institutions, the European Convention, whose aim is to streamline the institutions to enable the smooth operation of the enlarged EU.

The Euratom Treaty was signed in Rome in 1957. The ‘European Atomic Energy Community’ (as the agreement is also known) was signed at a time when the nuclear industry was seen as new, exciting and having great potential. The main aim of Treaty is to undertake various measures that together **promote** nuclear power across Europe. Although a few minor procedural changes have been made, the Euratom Treaty today remains substantially unchanged, 45 years after it was drawn up. This includes, for example, the fact that co-decision making procedures, normally shared by the European Parliament and Commission, do not exist. Decisions under Euratom are therefore not subject to the same democratic scrutiny as elsewhere.

There are four main reasons why the EU must seize the opportunities that the Convention creates to fundamentally reform Euratom, these are:-

- In 2002 the European Coal and Steel Community (ECSC), another founding Treaty of the EU, expired after 50 years of operation. This time-limited Treaty was established to promote two industries which at the time were deemed to be necessary for economic expansion and to increase the standards of living in Member States. However, no attempt was made to renew the ECSC at the end of its projected life, as a specific technology

promoting Treaty was no longer deemed appropriate in the current EU. The demise of the ECSC has left Euratom as the only Treaty promoting a specific technology.

- The EU is developing a single electricity market. Part of this process must be developing a level playing field for electricity generators. This market must not be established to create *'the conditions necessary for the speedy establishment and growth of nuclear industries'* as required by Article 1 of the Euratom Treaty.
- The European Commission now believes that the EU should develop mandatory nuclear safety standards, whose legal base will be the Euratom Treaty. These standards will require the EU to oversee the inspection of nuclear facilities in the EU to determine the conformity to these new standards in nuclear safety. By giving Euratom this new regulatory role the EU would significantly increase the regulatory functions of Euratom. To adequately fulfil such a regulatory function, the Euratom Treaty must not be burdened with the responsibility of also promoting nuclear power. A single body cannot adequately promote and regulate, as it can, or gives the impression that, lead to compromises in the regulatory regimes.
- European public opinion as it stands today does not support the special treatment of nuclear power. Many people and governments see nuclear power as a very costly and unsafe form of energy production, with many problems – such as waste storage – unsolved. Amongst the fifteen member states of the European Union today, seven states have never adopted nuclear power and a further five states have decided to phase it out.

Within discussions that have taken place with the European Commission and civil society it has become clear that EU officials want the support of NGOs to help in the promotion and support of the Convention process. However, to date NGOs have not seen much willingness by EU officials to discuss the issues that NGOs see as fundamental in the restructuring of the EU, including the reform of the Common Agricultural Policy, the elimination of unanimity with EU council decision making on all environmental decisions (e.g. environmental taxes) and the fundamental reform of Euratom. The NGOs believe that issues such as these are as important for the creation of a sustainable EU as the reallocation of voting rights in the Council and streamlining of decision making in EU structures.

It is vital for the credibility of the EU that the reform of Euratom be included within this agenda of the Convention. Without it, the Convention will be seen purely as a process designed to strengthen the positions of the existing institutions rather than a real opportunity to develop a sustainable, fair and democratic EU.

Dr Mervyn O'Driscoll, Lecturer; Department of European Integration Studies, University College, Cork, Ireland: “What is EURATOM and how does it work“



INTRODUCTION

In the 1950s, three European Communities were created: the European Coal and Steel Community (ECSC) in 1952; the European Economic Community (EEC, now EC), and the European Atomic Energy Community (EAEC - usually referred to as 'Euratom'), both in Rome in 1957. Euratom came into force on January 1, 1958. The ECSC Treaty expires this year. The other two treaties are of **limitless duration**.

The EEC (now EC) Treaty has been much amended, by, inter alia, the Single European Act (1987), and the Maastricht Treaty (1993), which created the European Union. The most recent amendments have been introduced by the Treaty of Amsterdam, which came into force in 1999. The Treaty of Nice has not yet come into force.

The Euratom Treaty (ET) has never been amended as to substance by these treaties and has been largely ignored. It is one of the least well-understood aspects of European integration. The general public is not aware of its significance as one of the three founding treaties of the current EU. In general, many European and national decisionmakers also tend to suffer from a lacuna of knowledge about its origins, objectives, operation and functions. Much confusion reigns. Let us hope that in the future this will be rectified and this conference plays a role in initiating the necessary debate.

The neglect of the ET is unwarranted. Its tactical pairing with the EEC proposal was a crucial factor in initially persuading and eventually convincing a sceptical French Government to engage with European integration after the embittering experience of the aborted 'European Army' – the so-called European Defence Community (EDC). As a result a major **asymmetry** in decisionmaking procedures has developed the operation of Euratom and the rest of the European

Community pillar. To all intents and purposes the Euratom is an **odddity** in the **first pillar** of the European Union, the European Community. It is almost entirely **intergovernmental** in nature and member states dominate the decisionmaking unlike the European Community where the EP has very limited co-decision rights with the Council.

The European Parliament (EP) has a very limited **consultation** role in the operation of Euratom. An expansion in the use of **co-decision procedures** in the ET in line with the European Community would end this '**democratic deficit**' by increasing public awareness, transparency and accountability. The EP has an established strong interest in nuclear reactor safety, the protection of the environment, and public safety. A revision of the ET to permit a similar role for the EP in decisionmaking could be beneficial. A revision of the ET is also necessary because many of its articles are redundant or do not function in a way that was initially intended. An additional major factor calling for a revision of the ET is the fact that it is an anachronism from an age of optimism about the potential of nuclear energy. The ET was in this sense intended as an **industrial promotional device** for civil nuclear energy and therefore largely neglected or failed to emphasise and seriously provide for other aspects of nuclear energy such as the environment and safety. In this sense the ET needs more balance.

The goal of this morning is to ascertain what Euratom is and how does it operates. First, we will briefly examine the goals of the ET and the means by which it hoped to establish a civil nuclear industry in Euratom. Next, to understand the ET we will delve into the context in which it was created, and this was very different from the situation prevailing today. We must seek to understand its origins and the context in which it was negotiated. Understanding the difficulties in the Euratom negotiations (1955-7) and the reasons for the diluted provisions of the ET shed light on some of the shortcomings of Euratom. Thirdly, we will examine the failure of the ET to create an integrated Community nuclear sector in practice. Finally we will focus on the current operation of ET on a chapter-by-chapter basis.

THE TREATY: ITS ROLE AND FUNCTIONS

The basic purpose and structure of the Euratom Treaty are set out in its first two articles:

'The tasks of the Community

Article 1

By this Treaty the HIGH CONTRACTING PARTIES establish among themselves a EUROPEAN ATOMIC ENERGY COMMUNITY (Euratom).

It shall be the task of the Community to contribute to the raising of the standard of living in the Member States and to the development of relations with the other countries by creating the conditions necessary for the speedy establishment and growth of nuclear industries.

Article 2

In order to perform its task, the Community shall, as provided in this Treaty:

- a. promote research and ensure the dissemination of technical information;
- b. establish uniform safety standards to protect the health of workers and of the general public and ensure that they are applied;
- c. facilitate investment and ensure, particularly by encouraging ventures on the part of undertakings, the establishment of the basic installations necessary for the development of

- nuclear energy in the Community;
- d. ensure that all users in the Community receive a regular and equitable supply of ores and nuclear fuels;
 - e. make certain, by appropriate supervision, that nuclear materials are not diverted to purposes other than those for which they are intended;
 - f. exercise the right of ownership conferred upon it with respect to special fissile materials;
 - g. ensure wide commercial outlets and access to the best technical facilities by the creation of a common market in specialised materials and equipment, by the free movement of capital for investment in the field of nuclear energy and by freedom of employment for specialists within the Community;
 - h. establish with other countries and international organizations such relations as will foster progress in the peaceful uses of nuclear energy'.

Instruments

- A **Euratom Supplies Agency (ESA)** would own and control the supply of all fissile materials in the Community, and the Commission would control the distribution of patent rights and production licences for a series of reactor designs and fuel cycle technologies to be developed by the Joint Nuclear Research Centre (**JNRC**).
- The Commission would develop **multi-annual research programmes** not in excess of five years duration to foster nuclear research and development within the Community. The Council could only sanction the Commission's research proposals by unanimity. Research was considered necessary at this early stage of civil nuclear energy development to establish industrial nuclear power reactors
- The Commission is charged with solely negotiating **international agreements** or contracts (Article 101) with external or non-Community organs. The Commission undertakes these negotiations with directives from the Council. Agreements cannot be successfully completed without the approval of the Council acting by a qualified majority. International agreements were considered essential to gain access to fissile materials and civil nuclear technologies. (The USA was to be the major supplier of enriched uranium, and had a monopoly of the supply of the highly enriched uranium required for research reactor at the time).
- A **Euratom Safeguards Directorate** was established to ensure that nuclear materials would not be diverted from their intended uses by users. This was particularly important for fissile materials imported from the USA under international agreements.

Decision making, the Institutional Balance & the Democratic Deficit

The ET is almost identical in nature to the unreformed 1957 EEC Treaty in terms of its institutional, decisionmaking and implementation arrangements. A **Euratom Council** and **Euratom Commission** were established. The Euratom Commission proposed policy, often in consultation with the unelected **Economic and Social Committee (ESC)** and an unelected advisory **Scientific and Technical Committee** (nominated by the Member States). The Euratom Council composed of the member state governments, usually acting unanimously, had the power over decisionmaking, policymaking and budgets, e.g., **multi-annual research programmes**. The unanimity requirement often made it difficult to reach decisions especially on Euratom Research Programmes. The Commission was tasked to carry out Euratom Council sanctioned decisions and policies, but found that the Treaty often failed to give it the necessary power to override national nuclear interests in the best interests of the nuclear 'community'.

The **European Parliament** (then known as the Common Assembly) is rarely mentioned in the Treaty and when mentioned the European Parliament has only to be **consulted**, which implies that its opinions can be ignored. The implementation procedures established by the ET are essentially the same as that provided for in the EC Treaty, i.e., via Commission or Council **Regulations, Directives, Decisions and Recommendations**.

A few minor alterations have occurred in practice since 1957:

- With the **merger** of the separate institutions of the three treaties (EEC, Euratom, ECSC) in 1968 the separate Euratom Council and Euratom Commission were terminated and a merged EC Council and EC Commission dealt with Euratom, the EEC and the ECSC.
- Following the direct election of the European Parliament and its gradual accretion of powers with the successive revisions of the original EEC Treaty beginning with the Single European Act (1987), the European Parliament has taken a stronger more assertive posture on many nuclear matters even though it was granted very limited formal powers under the Euratom Treaty.
- The European Parliament is the **co-budgetary authority** for all expenditure based on the Euratom Treaty. As a result the Council has developed the practice of requesting the EP's opinion under a process termed the '**consultative facultative**' (optional consultation) on some issues related to the Euratom Treaty, such as the Euratom Framework Programme. But this is a simple consultation and the Council is not obliged to act on, or even acknowledge, the EP's opinion. The EP has no **co-decision** role relating to Euratom at the current time.

ORIGINS AND MOTIVATIONS

Role in *la relance*

Thus, Euratom's underlying motive was **political**. It originated as the vehicle for relaunching European integration after the stillbirth of the EDC. Jean Monnet's initial nuclear energy community proposal, and the negotiations that it generated during 1955, played a vital role in initiating the *relance*. Monnet was predisposed to seeking integration in sectors which required the existence of a strong centralised economic planning authority. Monnet believed that nuclear energy 'was the right star to hitch [the] European wagon to'. In due course, Euratom was overshadowed by its sister proposal for the creation of a 'common market'. However, it is undeniable that Monnet's Euratom proposal was responsible for relaunching the European integration process.

Nuclear Euphoria & 'Atoms for Peace'

The creation of Euratom reflected an international phenomenon: universal optimism about the commercial and scientific applications of nuclear energy. The shift away from coal as the primary source of energy in the Western Europe exacerbated European anxieties about the dangers of dependence on Middle East oil. The political goal of furthering European integration through the device of a nuclear energy community proved attractive. It coincided with the liberalisation of US nuclear policy which was initiated by President Eisenhower's 'Atoms for Peace' speech of December 1953. Under the ensuing US programme the US promised to provide civil nuclear technology and materials to construct nuclear power stations if participating countries submitted to tight safeguards designed to prevent the diversion of fissile materials to military purposes. This was designed to serve a number of purposes:

- Nonproliferation – by providing non-nuclear states with nuclear technology etc under tight safeguards it was hoped that states efforts to build independent and potentially military programmes would be undermined (the French in particular)

- Cold War Propaganda – to undermine public fears about the dangers of nuclear weapons and introduce them to the ‘benefits’
- Cold War strategy – the hope that the USSR would also have to participate in the donation of materials, expertise and technologies for public relations reasons and this would slow down the ‘arms race’
- Commercial advantage – to give US nuclear power firms a larger market for their reactors particularly in Europe
- Regional integration – by giving regional organisations such as Euratom better deals than individual states it was hoped to cultivate a ‘United States of Europe’. This would also strengthen Western Europe against the Warsaw Pact.

Complementarity of Interests?

Consequently, a strong overlapping of interests between the ‘Europeanists’ or ‘**supranational entrepreneurs**’ (Jean Monnet and Paul-Henri Spaak) and US nuclear policy existed. Monnet viewed nuclear energy as ‘God’s gift to integrators’. He believed Europe’s energy needs and his political integration goal were conveniently complementary. His rationale could be characterised as the following:

the demands of a ‘**big science**’, such as nuclear energy, were beyond the capabilities of the individual medium and small states of Western Europe, but together in an integrated collective programme they could build an industrial scale nuclear sector producing competitively priced electricity in a matter of years. Such an enormous collective nuclear energy effort requiring the provision of then scarce raw materials (uranium) and the development of new technologies, required to Monnet’s mind a strong ‘**supranational**’ Euratom **High Authority** or Commission on the model of the ECSC thus furthering regional integration.

In addition, Monnet, his Action Committee and most of the European states desired to prevent the spread of national nuclear weapons programmes in Western Europe. In Western Europe nuclear weapons programs were underway in Britain (overtly) and France (covertly) and genuine concern existed that the FRG would follow suit. The Euratom proposal was envisaged as a means was to prevent **proliferation** in Western Europe. By giving all members in a European regional organisation access to the alleged benefits of the ‘**prestige industry**’ of civil nuclear energy under a tight system of **safeguards**, it was hoped that a potential nuclear arms race between Western European nations would be prevented as they would learn to cooperate together and create a stable ‘**zone of peace**’.

Therefore, another central objective of Euratom was also proposed as a **confidence building measure**, made even more vital by the failure to establish the EDC. The proponents of the EDC were eager to create another organization to dissipate regional concerns about potential conflict between old rivals France and Germany and maintain **regional dialogue**.

An Expectation-Capabilities Gap?

Despite the expectations and best intentions of supranationalist entrepreneurs the Treaty that was finally signed was a dilution of Monnet’s original conception. Monnet’s intention had been a strong Euratom with power and decisionmaking firmly vested in the Euratom Commission on the model of the ECSC (Monnet, 1978: 401). Monnet was predisposed to seeking integration in sectors which required the existence of a strong **centralised economic planning authority**. From his perspective he believed this was the correct approach in light of the great outlays of resources and finance required to enter the nuclear sphere. Additionally, the nuclear situation necessitated **regulation**, to ensure the **impartial allocation** of then scarce raw materials (uranium) and finance, as well as to ensure no diversification of materials to military applications (Duchêne, 1994: 264-5). However this did not transpire. Charles de Gaulle when out of office was a major critic of European nuclear integration. He believed it would infringe France’s nuclear sovereignty and freedom.

However, on returning to power in mid-1958 and on seeing the Euratom Treaty he derisively commented: 'Is that all it is?'

Why did this weakening of Monnet's original conception occur?

- **Divergent National Interests & vested interests:** France was the most advanced, with an extensive nuclear infrastructure, and since 1952 it was moving from the experimental into the industrial stage. Its programme was **dual-purpose** in character, and concealed military intent. France, who had by far the most extensive and developed national nuclear programme of the 'Six' hoped to obtain enriched uranium and costly **gaseous diffusion** uranium enrichment technology from Euratom. Its policymakers desired the establishment of a Euratom joint gaseous diffusion facility which would substantially subsidise the French nuclear research effort. This was the primary benefit it saw in a prospective Euratom. A secondary consideration was that as the **nuclear 'leader'** of the 'Six' France could heavily influence Euratom's formation and policies to coincide with her indigeneous nuclear programme. This would multiply its international power influence and commercial possibilities. Meanwhile, the Netherlands and Italy were still in the initial experimental stages. Belgium showed considerable promise owing to a close relationship with the USA and its uranium deposits in the Belgium Congo. The FRG, though a late starter, also held considerable potential because of its powerful electrochemical industry.
- **Different economic and administrative approaches:** In terms of economic philosophies and administrative bodies the situation in each state was extremely disparate. Administratively, France had a powerful centralised public body, the CEA. There was little or no private involvement in the nuclear sphere. Belgium and Germany favoured a more liberal, business-friendly approach to nuclear development. Italy wavered between a **liberal** and more **interventionist** policy. '[E]ach country faced different internal circumstances and preoccupations which shaped its perceptions of international priorities' (Nau, 1974: 95). In particular the basic difference between France's desire for a strong centralised, **dirigiste** or interventionist Euratom clashed with substantial elements in the German Government (Erhard and the Economic Ministry in particular) who favoured a more laissez-faire or liberal economic model for Euratom. This severely complicated the negotiations as the German authorities resisted the French insistence on a **supply monopoly** vested in Euratom. The French desire was related to military considerations.
- **The Military or Strategic Question:** France and all the other parties (including the USA) harboured concerns about Germany's nuclear weapons' acquisition intentions. Euratom could serve as a means to regionally control and monitor Germany's civil nuclear programme and prevent the diversion of materials to a possible covert German military programme. During the negotiations in early 1956 the French Government, under pressure from domestic nationalist opposition, declared it would not agree to a Treaty which impinged on France's right to develop a national nuclear deterrent. A fundamental rationale for Euratom was undermined:

'The primary purpose of Euratom controls, to preclude nuclear weapons had lost its point. There was still a secondary one, to stop any diversion of fissionable materials earmarked for civil use to the military. But this was binding only on horses which had no intention of bolting from the stable. Euratom could now be presented as a hypocritical device of the French to control Germany while evading all obligations themselves' (Duchêne, 1994: 296-7).

France maintained her position that her nuclear military facilities and materials had to be exempt from all Euratom control. This gave the FRG additional reason not to agree to the

French Government's 'wish list' in regard to Euratom, i.e., a powerful Euratom monopoly of all nuclear materials, a Euratom gaseous diffusion plant etc.

- **External Factors:** The actions and intervention of the USA eventually ensured that the ultimate model of Euratom agreed to was more in conformity with US interests than French ones. In February 1956, President Eisenhower committed the USA to provide large quantities of **enriched uranium** to second parties for peaceful nuclear activities (Hewlette & Holl, 1989: 324). This offer gave additional material and control privileges to regional cooperative organisations such as the proposed Euratom over the rights granted to individual countries such as Germany. On the one hand, this ensured German support for Euratom, but on the other hand it undermined the French desire for a Euratom gaseous diffusion plant. In addition, in July 1956 the USA amended the **US-Belgian nuclear agreement** of 1955 to permit Belgium to make available increasing quantities of uranium from the Belgium Congo to a prospective Euratom, thus ensuring Euratom had a supply of uranium.

Thus the USA, while strengthening the case for Euratom in these ways, in the long-run undercut the role that France would play in it. France as the leading nuclear power among the 'Six' had hoped to benefit commercially and scientifically by having a dominant position in sponsoring nuclear programmes with its European partners. The French Government saw Euratom as a potential tool in the future to develop a self-sufficient, wholly 'European' nuclear power industry which could compete effectively against the USA. This form of '**third force**' thinking was at odds with the more **Atlanticist** mentalities of the FRG. These alternative visions and competing interests created insurmountable obstacles to Euratom's functioning in the future. For these and the other reasons enumerated above the Euratom Treaty, as eventually framed, failed to fulfil the expectations of its inspirers.

Contingency and Circumstances

However, the threat cast by the international environment ultimately overcame the differences between the various parties in the Euratom negotiations. The **Suez Crisis** and Soviet military intervention reiterated to the French Government its weakened and precarious position in the world. Despite the imposition of a US agenda on Euratom, French decisionmakers with urging from **Konrad Adenauer**, considered that European cooperation was the only feasible route by which to maintain a strong French presence in international affairs. Suez to a very great degree was the 'midwife' or 'lady-in-waiting' to the birth of Euratom. The Suez Crisis appeared to substantiate concerns about **security of supply** of oil to Western Europe which was a large **net importer of energy**. 70% of Western Europe's oil originated in the Middle East and 70% of this was transported through the **Suez Canal**. Proponents of Euratom argued that Europe needed increased **self-sufficiency** in energy and that nuclear energy was the means to achieve this. Fears concerning the reliability of the US conventional and nuclear defense of Western Europe, also led elements in the FRG Government to view Euratom as a reserve option. If the USA withdrew from Europe or failed in its security guarantees, Germany could link-up with France to develop a nuclear deterrent and Euratom might provide a vital connection in this regard (Schwarz, 2997: 239-40). In any case the Suez Crisis impelled the 'Six' to sign the Euratom Treaty on 28 March 1957.

L'échec d'Euratom, 1958-1968?

The Treaty aimed to give considerable centralised powers to the Commission responsible for its implementation. Euratom's primary mission was '**promotional**', i.e., the promotion of the nuclear industry. However, it was vested with secondary functions, those of regulating the nuclear industry and maintaining safeguards against the diversion of fissile material from the stated aims of the users, which proved more durable in the long-term. At the time of Euratom's conception and

initialisation, however, these **secondary functions** were viewed as incidentals necessary to achieve the primary goal of the commercial development of nuclear energy for the 'Six'. During the **first Five-Year Programme** (1958-62) Euratom developed in a 'hopeful manner'.

Euratom, nonetheless, failed to achieve its primary directive of developing a large and successful Community nuclear industry in the next decade:

- **Uranium enrichment politics:** Member states of Euratom failed to support the construction of a **uranium enrichment plant** after 1957 and this had been the principal attraction of Euratom for France. This was a 'fatal blow' for French enthusiasm towards Euratom and they embarked on constructing their own independent, national gaseous diffusion plant eventually.
- **Unrealistic economic predictions for nuclear energy** Western Europe had been **oversold** the possibilities of nuclear power by the USA in late 1956 and early 1957. Civil nuclear energy was still in its infancy and remained largely in its research, development, and **prototype** stages. The development of commercial nuclear power plants was still at an early stage in the USA, Britain and France and several years were required to 'work the **bugs** out' and reduce the **costs** of generating electricity from nuclear energy to somewhat competitive levels. Until this was achieved most member states were reluctant to commit to purchasing and constructing industrial scale electricity generating nuclear reactors.
- **Abundance of Oil:** The fear of an energy shortage that had propelled Monnet's efforts during 1955 and 1956 was unfounded and following the end of the Suez crisis cheap Middle Eastern oil flooded Europe. The **Soviet Union** also sold crude oil at **discount prices** to undermine the attractiveness of nuclear energy for the Euratom member states. By 1959 Western Europe was experiencing a **coal glut**.
- **Ample quantities of nuclear materials** materialised contrary to the pessimistic forecasts of the mid-1950s. The ESA was created on the assumption of a **scarcity** of nuclear materials. In this situation **ESA** was to ensure an **equitable distribution** of nuclear materials between member states and industrial firms. Abundance undermined the whole **raison d'être** of the ESA.
- **National rivalries and nuclear nationalism:** Member states with a less developed nuclear sector feared that the '**nuclear giant**', France, would permanently dominate Euratom. This realisation of inequality between the member states impelled them to develop **national nuclear programmes** expeditiously. By 1958 or 1959 most of the member states established national nuclear research facilities, before Euratom had an opportunity to create its **JNRC**. Though the JNRC was intended to have developed a single **green field** site for its location it ended up having to '**Europeanise**' some existing national centres. It took Euratom until late 1960 to acquire its major centre at **Ispra** in Northern Italy. The delay in establishing the JNRC permitted national nuclear research programmes to become entrenched. The result was the Euratom and the JNRC now had to **coordinate** research with national centres. It was no longer virgin territory and Euratom could no longer determine the research and industrial agenda. A major **duplication** and **dispersal** of scarce resources ensued.
- '**Reactor wars**' and the **catch-up syndrome:** The desire of the less developed nuclear states to catch up with France enticed them to use already developed **external technology** rather than the French natural uranium **gas graphite moderated reactors**. This would permit them to 'catch up' with France quickly without undue dependence on French

technology. The Euratom Commission also considered that the use of external technology would permit Western Europe to catch up quickly in the field. Euratom signed an advantageous **Agreement for Cooperation** with the USA on 8 November 1958. This instituted a **joint nuclear power programme** offering low interest loans to build nuclear power stations. This embittered France who repeatedly argued that Euratom should be using French expertise rather than acquiring technology from non-Euratom state. France was thus a sustained critic of Euratom's external cooperation agreements with the USA and the UK and objected to the use of Community funds for subsidising US nuclear research and technology. France successfully refused to comply with **Article 106** of the Treaty which stated that all bilateral nuclear agreements between Euratom member states and third parties should be registered with and approved by the Euratom Council. It did not want to strengthen the international profile of a body which it considered ignored the contribution France could make to it.

Therefore by 1967 as a result of many factors such as the shortcomings of the Euratom Treaty, nuclear nationalism, a lack of leadership, overinflated initial expectations and inauspicious circumstances etc Euratom was experiencing a pervasive **malaise**. The **divergent interests** of the member states proved irreconcilable. Belgium and the FRG joined France as strong civil nuclear powers and used primarily **US Light Water Reactor (LWR) technology** to France's anguish. These three strong nuclear powers were largely self-sufficient and resented a strong Euratom encroaching on their national nuclear programmes. They favoured '**association contracts**' by which the Euratom research budget would fund research in national nuclear research centres, rather than in JNRC research centres. In order to maintain the peace, an unofficial practice had developed under the Euratom Commission termed **juste retour**, whereby each member state regained the portion of research funding it originally contributed to the Euratom research fund. Therefore it lacked the '**unity of purpose**' essential for success. The EC Commission presented a **pessimistic** analysis to the EC Council on **9 October 1968** which stated:

The founding Treaty of the European Atomic Energy Community was intended to establish the conditions in which the nuclear industries could develop. Ten years later we must admit to having achieved very few of its aims. It is true that Euratom's actions have often been fruitful within their limits, but the Community generally has not succeeded in co-ordinating and even less in drawing together into a coherent whole, the efforts of the Member States.

Therefore a crisis occurred during the late 1960s and early 1970s. Euratom lacked the **institutional strength** to develop a coherent Community nuclear research and industrial programme in the face of national rivalries.

Victory of LWR

Nonetheless, Euratom member states succeeded in getting access to U.S. technology and materials while limiting the U.S. influence within the region. However, commercial conflicts among member countries prevented the successful integration of technological development in Europe. In the early 1970s, France gave up its gas graphite reactor technology and adopted **U.S. LWR technology**, finally admitting that the LWR would be the dominant reactor type in Europe (and the rest of the world).

Following the 1973 oil crisis, the U.S. Atomic Energy Commission (AEC) changed its enrichment contract policies, which led to European plans to develop its own enrichment capacity within Europe. Because of the competition between France and Germany, two enrichment enterprises were established instead of a single European enrichment enterprise: Germany's **URENCO** and France's **EURODIF**. As the LWR market was growing rapidly, French, German and U.S. LWR vendors started to compete with each other outside the European market. Both the German vendor (KWU) and the French vendor (**FRAMATOME**) terminated their license contracts with the U.S. vendor (**Westinghouse**) to compete independently in the world market. Each vendor

won contracts in various parts of the world, including Brazil, Argentina, Pakistan, South Korea, and China. Each country developed its own nuclear industry and competed using similar technologies transferred from the United States. The commercial integration of the nuclear industry originally envisioned under the Euratom was never achieved.

So what has happened since? Let us look at the ET on a chapter-by-chapter basis.

PROVISIONS OF THE TREATY: THE GAP BETWEEN THEORY AND PRACTICE

Promotion of Research & Dissemination of Information (Chapters I & II)

To achieve its industrial mission, Euratom was tasked to promote research (Chapter I) and disseminate research information (Chapter II). The Treaty defines research as nuclear research and specifically provides for the establishment of a JNRC to carry out research assigned to it by the Commission. The Commission actually has little power beyond offering 'reasoned opinions', directing research towards sectors it feels are 'insufficiently explored' (Article 5) and generally facilitating research programmes. It is tasked with proposing and implementing Community research and training programmes not in excess of 5 years in duration, once they have been unanimously agreed to by the Council.

Following the Euratom crisis on the late 1960s and the cancellation of JNRC's flagship ORGEL project in 1969, the Commission attempted to reformulate the JNRC's role and renamed it the JRC. The Commission wanted to broaden its remit to play a major role in the formulation of Community science and technology policy. The 1957 EEC Treaty had no explicit provision for the promotion of research, and so the Euratom Treaty though it was basically confined to nuclear research was used to provide the basic model for EEC/EC research. The JNRC (later JRC) and the concept of five-year framework research programmes were enshrined in later EC treaties. The SEA adopted this notion – the notion of five-year framework R & D programmes. The SEA provided for a new two-reading **co-operation procedure** related to technological R & D, as well as QMV in the council, to create a European Technological Community. These EP's powers were extended with the adoption of the **co-decision procedure** to the formulation of EC Framework Research Programmes under the Maastricht 'Treaty of the European Union'.

However, nuclear research is not covered under these treaties and remains within the remit of the ET. Thus the EP has only a right to a single reading on the so-called **Euratom Framework Programme**. The Council and the Commission wish to present the Euratom Framework Programmes as almost identical to the **EC Framework Programme**. There is a clear **asymmetry** between the two-decisionmaking procedures as well as the legal basis on which the research work is undertaken. In particular, the EP is critical of the European fusion research programme but lacks any formal powers to have its opinions taken into account. It desires more **transparency** and **closer monitoring** of nuclear research

Health and Safety (Chapter III)

Since nuclear materials are often hazardous, their uses and transport have to be closely supervised. The control, supply and external dimensions of the Euratom Treaty, therefore, are inseparable from issues of ownership and public safety (Gaudet, 1959: 168).

- Euratom was given rights and powers to ensure the establishment and implementation of community-wide '**basic standards**' in the Member States to ensure the **health protection** of the nuclear workers and the general public (Articles 30-39). This Chapter provides Euratom

with the right to establish maximum dose/exposure limits for human beings to radiation. The ET only requires the EP to be consulted about a Commission's health proposal.

- The ET does not provide Euratom with the right to protect the environment from the nuclear industry or radiation. Neither does it grant Euratom with any role in insuring the safety of nuclear reactors or other nuclear installations. This activity is regarded by Member States as an **exclusively national competence**. Thus the Euratom Treaty makes no provision to establish standards in the design, construction and operation of nuclear reactors. There is no such thing as a Community **nuclear acquis** as regards reactor safety.
- With **Chernobyl** and the **enlargement** of the EU into Central and Eastern European, the Commission is concerned about their nuclear safety regimes.. Though both the Commission and Euratom Council of Ministers maintains the impression it has some competence in the domain of nuclear reactor safety the ET provides no explicit **Communautaire** legal basis for nuclear safety regime. Ad hoc **Euratom Council of Minister Resolutions** or inter-operator standards (such as by **WENRA** –the Western European Nuclear Regulator's Association) are either **intergovernmental** or totally non-Communautaire. Thus they cannot be enforced by the **European Court of Justice**. What is required is a revision of the Treaty or an emergency Directive under Article 203 to set down uniform and enforceable pan-European nuclear installation safety standards. Unless this is done the EU has no legal basis to impose nuclear safety standards on the ECE accession states. However the current existing nuclear states of the EU fear this action. As a result a serious gap exists within the Community in this regard.

Investment (Chapter IV) & Euratom Loans

To facilitate coordinated investment, the Commission is charged with periodically publishing 'illustrative programmes' (which later became known as **PINCs**) indicating nuclear energy production targets and the investment required to achieve these targets (Article 40).

Euratom Loans is a highly visible facet of Euratom's activities in the investment area. They are intended to finance investment projects relating to the industrial production of electricity. However, no provision for Euratom Loans is made in the ET. Euratom Loans were established under a **Council Decision of 29 March 1977**. Since the mid-1990s they have been progressively used to fund Soviet-designed nuclear reactors in Central and Eastern Europe, ostensibly to increase the safety and efficiency of these power stations. The EP has no formal decisionmaking power in granting these loans, even though it is a co-budgetary authority.

Joint Undertakings (Chapter V)

Euratom was granted powers to establish joint undertakings, with a 'legal personality', in areas of 'fundamental importance to the development of the nuclear industry in the Community' (Article 45). This chapter was included in the Treaty to meet the French desire to research and construct a costly and demanding uranium enrichment plant (gaseous diffusion plant) and with a view to any innovative and large-scale nuclear installation that was beyond the capability of an individual member state. To the best of my knowledge this provision for joint undertakings has been rarely if ever used.

Supplies (Chapter VI) & Property Ownership (Chapter VIII)

Ostensibly, to ensure 'equal' and **nondiscriminatory** 'access' to necessary materials, a common supply policy and the ESA were created. The ESA was granted: the '**right of option** on ores, source materials and special fissile materials (**SFMs**) produced in the territories of the Member States and

an exclusive right to **conclude contracts** relating to the supply of ores, source materials and special fissile materials coming from inside the Community or from outside' (Article 52).

However, these provisions and many articles of Chapter VI have either not been implemented at all, or only partially implemented or applied. The reason is that the shortage of fissile materials did not materialise undermining the entire *raison d'être* for the ESA. In addition before the Euratom Treaty came into force in 1957, Germany entered into bilateral agreements with the USA and Canada, soon to be followed by France and Italy. Thus they argued they did not need the ESA to supply the fissile material needs.

The key provisions of Chapter VIII regarding property ownership have never been implemented. Euratom was granted **legal right to ownership of all SFMs** (Article 86), excepting those of a military character or on loan from suppliers outside the Community. **Ownership did not normally mean possession. Rightful possessors** of SFMs, i.e., member states, persons or firms engaged in the nuclear industry, were conferred with full rights to their use and consumption subject to safeguards against their diversion to undeclared uses, Euratom's ultimate right of option, and the maintenance of Euratom's health and safety regulations (Article 87). The ESA does not appear to have ever exercised its purchase option: indeed it does not seem to have ever, in 35 or so years, used any of its capital.

Safeguards (Chapter VII)

The Treaty instituted the first working international safeguards system. IAEA safeguards did not come into operation until at least 1960. The Euratom safeguards system sought to assure third parties and Member States that:

- ores, source materials, and special fissile materials were not diverted to unintended uses or destinations;
- special safeguarding provisions in Euratom's agreements with third parties were adhered to (Article 77).

This was not a control system designed to prevent military activities (Article 84). It was a simple '**conformity-control**' system, i.e., 'conformity of the use with declared destination and with the Treaty provisions regarding supply' (Mathijssen, 1961: 448). The Euratom Commission was endowed with substantial powers to enforce compliance with this control system including total withdrawal of assistance (financial etc) and supplies from the guilty party (Euratom Treaty, Article 83).

To satisfy its **major sponsor**, the USA, Euratom regional safeguards, were heavily modelled on U.S. bilateral safeguards requirements. Thus they had stricter requirements than the IAEA safeguards employed under the **Nuclear Nonproliferation Treaty** (NPT). Therefore, Euratom's safeguards system were drafted to satisfy U.S. as possible. This had the direct advantage that though it was intrusive Euratom had the sole right to police its safeguards. U.S. rights of intervention into Euratom's nuclear affairs ended at the Community's external frontier as long as Euratom fulfilled its security commitments. One of the most important aspects of the Euratom safeguards was strong authority given to the Euratom. There were several important Articles to define the uniqueness of Euratom safeguards.

- **Article 81**, which applies to all member countries, even to **Nuclear Weapon States** such as France and the United Kingdom, specifies that the Euratom inspectors "shall at all times have access to all places and data and to all persons who, by reason of their occupation, deal with materials and equipment or installations." Nuclear Weapons States are not obliged to accept safeguards under the NPT/IAEA safeguards (voluntary submission), and this "**universality**" is a unique aspect of Euratom safeguards. Thus Euratom Safeguards are **unique** and the Directorate spends 70% of its resources inspecting the reprocessing facilities of the UK (Sellafield) and France (Cap le Hague). Euratom duplicates the on-site national

laboratories for testing nuclear materials at these locations and which are operated by BNFL and Cogema.

- Conversely, the '**defense clause**' of **Article 84** exempts materials intended for military use from the safeguards. This clause was inserted primarily to encourage French participation in Euratom. France did not want to preclude their option to use nuclear materials for defense purposes, which it finally exercised in 1960. While the NPT/IAEA safeguards do not allow non-NWS to be engaged in any military activities, Euratom safeguards do not prohibit the military use of nuclear materials. Is there any point in continuing the inspection of the civil nuclear cycles of France and Britain, when their military nuclear cycles are exempt? The IAEA certainly does not think so believing it is pointless to inspect an **alcoholic's cupboard** to find alcohol. Instead it seeks to prevent the creation of new alcoholics.
- Article 86 specifies that special fissile materials, such as plutonium-239, uranium-235, and uranium-233, shall be the legal property of the Community. Euratom's right of ownership extends to all special fissile materials which are produced or imported by a Member State. However, while Euratom has exclusive ownership to those Special Fissile Materials, it only has the **right of option** to other nuclear materials.

Arising from this a series of questions must be asked: what is the point in inspecting just the civil side of fissile materials production in the weapon States, at considerable cost to the European taxpayer? Should inspection be extended to all fissile materials (a highly unlikely scenario), should European inspection of State owned facilities in nuclear weapons States simply cease, or is the current situation acceptable?

A recent report by a 'High Level Expert Group' ('**Three Wise Men**') for the European Commission **Directorate-General for Energy** has concluded that the Euratom Safeguards Office should continue as the 'supranational control instance' of the EU. However it recommends that its mission be revised to focus on its core activity – nuclear material accounting and control. The non-proliferation features that it has developed over the past twenty years should be jettisoned as this is already undertaken by the IAEA and is not provided for in the Euratom Treaty. This would create a **streamlined** more **cost-effective** ESO without the necessity of revising the ET which the HLEG deems undesirable and unnecessary. The HLEG asserts that the ET is a 'remarkable document that expresses the essential commitments of the parties in a flexible and forward-looking language.' Effectively it argues, correctly, that the ESO has gone beyond the remit it was granted in the ET at considerable cost to the EC/EU. Nuclear accounting and control under the ESO must continue to prevent **theft** of SFMs and their **transfer** to criminals, terrorists or 'rogue States outside the Union.'

External Relations & International Agreements (Chapter X)

Another crucial element of the Euratom Treaty was its international dimension. It was deemed essential by the framers of the Treaty that Euratom, in particular its Commission, should have exclusive powers to negotiate and conclude agreements with third powers such as individual countries like the USA, UK and Canada or international organisations. External assistance in the form of research, scientists, equipment (research and industrial), uranium ores, and special fissile materials were considered invaluable to supplement the embryonic West European industry in a world market that was experiencing a scarcity in nuclear resources. By giving the Euratom Commission exclusive competence to act on behalf of the Member States in the international domain, 'a united and, therefore, stronger front' could be presented in negotiation with third countries (Gaudet, 1959: 452).

There is no mention of the European Parliament in this article. For once, there is no mention of the Economic and Social Committee either. This therefore effectively guarantees that any such international agreements can be negotiated in secret, away from public scrutiny by European taxpayers, or by their elected representatives in the European Parliament, although the other countries with whom such agreements are signed may well have extensive provisions for

Parliamentary accountability. Parliament's Rules of Procedure do provide for Parliamentary monitoring of international agreements - but such rules have no legal force, and the Council and the Commission have in the past somewhat neglected them with respect to Article 101.

In 1998, Parliament refused to cast a favourable vote on budgetary appropriations destined for Community participation in the financing of the modernisation of nuclear power plants in North Korea under the guidance of **KEDO** (Korea Peninsula Energy Development Organization) which had been founded in 1997 on an initiative by the United States. Negotiations of a Euratom-KEDO agreement were covered by Article 101 of the Euratom Treaty and thus did not formally require the Commission to consult Parliament. Yet Parliament strongly criticised the Commission for not asking for its opinion. **Parliament's Foreign Affairs Committee** requested that Parliament be consulted by the Commission on a voluntary basis 'in the light of the extremely important foreign policy implications of the Agreement'¹. However, the agreement between Euratom represented by the Commission and KEDO had already been concluded without the Parliament having delivered an opinion thereon. Nevertheless, Parliament sought to improve its position with regard to future international agreement based on Article 101 of the Euratom Treaty by making use of its **budgetary powers** over what then were non-compulsory expenditures.

In a meeting between the Commission, (represented by **Sir Leon Brittan**) and the Parliament representatives in Strasbourg on 09/03/1999, Brittan promised that the Commission would provide a list annually of **all** agreements being negotiated or planned under Article 101. Furthermore, it was promised that any draft agreement would be forwarded automatically to Parliament at the same time as to the Council and it was also proposed that deadlines should not be fixed as there should be ample time for Parliament to express its views. It thus seemed that, finally, Parliament having expressed its dissatisfaction with the exchange of letters and having re-iterated its '**threat**' to make use of the budgetary weapon, has succeeded in making a small step towards reducing the 'democratic deficit' on one important aspect of the Treaty.

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¹ Letter by the Chairman of the Committee on Foreign Affairs, Security and Defence Policy, Tom Spencer, to the President of the European Parliament, José Maria Gil-Robles, 10/03/1998.

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Olivier Deleuze, State Secretary for Energy and Sustainable Development, Belgium: “EURATOM in an open energy market”**Mr Deleuze’s Speech was delivered by Cathy Plasman**

Although I knew the Treaty in general, I took some time to read it more in depth for this meeting. After all, reading the first three pages would have been enough to understand the political and economical spirit at the time when the Treaty was drafted. Language as “Nuclear energy represents the essential resource”, “nuclear energy will permit the advancement of the cause of peace”, “the development of a powerful nuclear industry lead to the modernization of technical processes and contribute, through its many other applications, to the prosperity of their peoples” learns you that the whole society was focussed on nuclear. It would even bring peace. I won’t give a lecture on the post war period, but this latter is difficult to understand for me. Nuclear has always been linked to the military applications of it and you would think that this was in 1957 a very sensitive issue. Or was everybody blind for this due to promising economic perspectives. Article 1 is certainly clear in this matter. The task of the community is to create the conditions necessary for the speedy establishment and growth of nuclear industries. Article 2 lists what the Community needs to do to perform its task. “Facilitate investment”, “free movement of capital for investment”. Investment in nuclear industry is the core of the Treaty. You can hardly find something concerning radioactive waste or nuclear installations safety.

It is clear that the content as well as the form of the Euratom Treaty is completely out of date. The situation has significantly changed over the years. Accidents, but also economic reasons have led to the fact that out of the 15 member states in the EU, only 3 (Finland, France, UK) are still in favour of nuclear energy. Italy, the Netherlands, Germany and Belgium, as co-authors of the Treaty have already stopped or will stop their nuclear electricity production. Nuclear represents only 15 % of the energy demand within the EU, an amount that is still declining.

There are also new challenges to deal with, there is the liberalisation of the energy sector, we have the enlargement of the EU and there are environmental concerns. The competition introduced in the electricity sector by the internal market is changing the conditions of competitiveness for the different sources of energy supply. One can ask if it is still acceptable to favour nuclear energy by the means provided by the Treaty and if this will not cause a distortion of the market. Reprocessing and MOX production are examples of not economic viable applications. As the liberalisation will stop the financial support, the sector uses now disarmament arguments to get the necessary aid. It is true that renewables gets also a certain financial aid, but if you compare it to the nuclear sector since 1957, it represents only a small part of it.

Liberalisation will surely shuffle the priorities of the Treaty. The concept of a supply agency for example is in contradiction with a free energy market, while aspects of nuclear installation security and provisions for decommissioning will become more important to be controlled by the Commission.

To achieve a new and diversified energy market, taking into account the environmental objectives, we need balanced conditions for each type of energy production based on the integration of the external costs. The conditions for nuclear should be set on the same level as for renewables. This principle should also be used in the framework of enlargement. The loan facility for the development of nuclear power (incl reprocessing and MOX production) in those states is in my opinion not acceptable. The same logic is valid for the research programmes, eg. the high budget for fusion.

Despite a positive evolution of the role of the institutions within the Treaty of the European Union, no changes has been made to the Euratom Treaty. If they have luck, advice is asked to the European Parliament. With the many mandates given to the Commission and the creation of a separate Euratom administration, transparency has completely gone.

It is clear that nuclear energy has to be dealt on the same foot and together with other types of energy production. It is also clear that the Euratom Treaty is not in line with the current liberalisation of the energy market, nor with the recent institutional reforms of the Treaty of the European Union.

I think personally that we don't need the Euratom Treaty anymore, like we don't need anymore the European Community on Coal and Steel, and that a new chapter on energy within the Treaty of the European Union will be much more efficient and transparent. Such a chapter and preferably, the creation of an energy agency, is in line with the green book of the Commission. It respects the institutions of the EU. The integration of the Euratom administration within the Commission has already started and causes no problems. The nuclear package – which I can fully support - recently proposed by the Commission is compatible with this proposal. This proposal leaves also the possibility open for close cooperation as stated in the EU Treaty between - nuclear minded - countries if they wish so. The Convention 2004 is an ideal opportunity to bring this forward. I will bring this on the table for discussion at the next Energy Council.

Peer de Rijk, Coordinator, World Information Service on Energy, The Netherlands: “Need for Euratom reform from an NGO perspective”

We are here together to discuss the phenomenon of the Euratom treaty, a relic of the past in the perspective of many environmental NGOs'. Almost all in this room are in one way or the other professionally dealing with what Euratom is all about; a budget line of the European Union to help support the further deployment of nuclear power and the dissemination of nuclear technologies. Born in the 50ies when optimism on the possible role of nuclear power was still sky-rocketing and little criticism was heard, it's fair enough to say that a fundamental discussion on the principles, advantages and disadvantages is hard needed.

Its time to fundamentally assess the role the Euratom treaty is playing in the discussion and development of the European energy policy. In a period of time when all European subsidies, being used to keep the European farmer or industry alive, are thoroughly being discussed, as we all know the sky is no longer the limit and that at the end of the day we all want to work towards a situation where the playing field is really level the flow of money for nuclear has to the be subject of an open discussion as well.

What has Euratom done so far?

The Euratom treaty is the only European treaty which supports the development of a single and particular energy source. It openly calls for the support of further development of nuclear power throughout the European Union, including the accession countries.

However, currently seven member states do not use nuclear power and four more (including big ones such as Germany) are in the process of leaving behind the nuclear era. Whatever will happen

politically in Germany and Belgium, the two countries that have currently clear plans to phase out, one can state for sure that in the coming 20 years no new reactors will be built in the European Union. There is one exception; Finland which has recently taken the political decision to enable the industry to build a new nuclear power station. Although the NGO-community is not that glad with the decision we also know that it has yet to be seen if a new reactor will ever materialise; finding the money to build a new reactor will be, to put it mildly, very hard.

So why, given the lack of a bright perspective for the nuclear industry, keep alive a budgetline with an enormous amount of money? There is only one clear reason; the nuclear industry lacks new orders, not only in Europe but world-wide. The Euratom budget is no longer used to support a new-born unknown energy source with a possible great potential which just needs a little extra help to become mature, it's used and extended to postpone the final collapse of an industry that has caused so many problems. With a history of 50 years, almost 500 nuclear power stations world-wide and after having poured hundreds of billions US\$ into the technology nuclear energy has had its fair chance to prove itself.

We don't neglect the role nuclear power is playing in the European Union, we don't neglect the importance of the future of the people making a living by working in and with this industry. We don't even ask for a political or ideological rejection of nuclear power. The only thing we want is a true and fair level playing field for all energy sources. If a utility wants to build a nuclear power station let it raise the money by itself, if a nuclear station is considered to be too dangerous let the utility pay for repair and upgrades. If it is uneconomical to do so it should be closed. Discussion on the safety level of several Eastern European reactors are being disturbed and flawed by the fact that at the end of the day there is always European taxpayers money to extend the lifetime. Let's face it; Euratom money is not being used to fix safety problems which have to be dealt with very quickly after which the reactor is being closed soon. On the contrary, all the spending so far shows that the receiving country has been using investments on safety to gain arguments to keep the reactor running. In a real level playing field we won't even have to plea for more subsidies to give real renewables a fair chance. If all external costs were included, all subsidies were removed and legislation was equal for all energy sources we would face an even more rapid phase-out of nuclear.

Today we will discuss the several problems and dilemmas connected to the Euratom budget. We will hear about clear examples of how the money is not even spent the way it is supposed to be officially, like in the case of Cernavoda. NGOs all around the globe will keep fighting such abuse of the funding principles. But starting today, as we have learned from these one-issue struggles, we will also start fighting the Euratom Treaty itself. As the European Commission is re-discussing basic principles of the Union (in the European Convention) we will urge politicians, civil servants and the commission itself to have the courage and open mind to evaluate the meaning of Euratom and open their minds to the possibility that, as happened to the European Coal and Steel Community, we get rid of an old-fashioned, dangerous and money-wasting treaty.

In the very interesting working paper "The European Parliament and the Euratom Treaty: past, present and future", written in December of last year, quite a few possibilities have been described for parliamentary work. The role of NGOs is different but supportive: We will do our utmost best to put pressure on the commission, the parliament and the different member states so that the European Parliament is given the possibility to do what it is supposed to do; represent the common feeling in most European countries; nuclear power is outdated and money should only be spent on ways to deal with its legacy and not with the production of new problems. Also encouraging is the initiative of the Irish government to form an alliance with 5 other EU countries to limit further expansion of nuclear power. So far Germany, Austria, Belgium, Denmark and Greece have joined the alliance. We have good hope that The Netherlands will follow shortly.

Petko Kovatchev, Director, Center for Environmental Information and Education – CEE Bankwatch Network, Bulgaria: “EURATOM project in Bulgaria – the role of the EU Commission and of the Bulgarian authorities”



Euratom loan in Bulgaria: Is is the right money at the right time, at the right place?

Perhaps some of you are surprised by my question. It comes very natural – after so many years of debate around Kozloduy NPP – to think that finally we have an activity that is 100 % good, that would lead to a step on the right path. Is it the truth?

On November 29, 2000 the Bulgarian parliament (Narodno Sabranie) ratified the Guarantee Agreement on a Loan Agreement from May 29, 2000 between Kozloduy nuclear power plant (Kozloduy NPP), the National Electricity Company (NEC) and Euratom for 212 500 000 Euro. On this same day the Parliament ratified similar guarantee agreements for 80 000 000 USD loan from Eximbank (Russia) and another loan for 76 639 694 USD from City Bank (USA) and ExIm Bank (USA). Thus, the total amount of the project for rehabilitation and safety upgrades of units 5 and 6 at Kozloduy NPP grew as much as twice in comparison to the initial project proposals.

Here is some basic data about Kozloduy NPP. It is situated in the northwestern part of Bulgaria, some few kilometers from the town of Kozloduy. The plant consists of 6 units (4 VVER 440/230 and 2 VVER 1000). Total installed power is 3760 MW. There are several other facilities on the site like Facility for Interim Storage of the Spent Fuel, Facility for Radioactive Waste, etc. After 1992 when the unit 6 was put in operation the power plant produces about 40-45% of the total amount of

electricity production of Bulgaria. Although there is no transparency about the real costs of the Kozloduy NPP the officials and experts usually say that the small units (1-4, VVER 440/230) produce the cheapest energy in Bulgaria and perhaps – in the whole Balkan region.

According to the Memorandum between Bulgaria and EU dating from the fall of 1999, Bulgaria ought to close down and start the decommissioning of units 1 and 2 of Kozloduy NPP before 2003. In 2002 Bulgaria and EU also have to reach an agreement for the closure dates of units 3 and 4. Today we still have completely different understanding on both sides for the future of these units. EU would like to see these units closed until 2006 while the latest results of the IAAE mission give the Bulgarian governmental and nuclear authorities hope that the units could be in operation for next 20 years.

Let me start with the **time**. The upgrade of units 5 and 6 was included in the first ever agreement for earlier closure of units 1-4 at Kozloduy NPP dating from 1993 between the Government of Bulgaria and the European Bank for Reconstruction and Development (EBRD). The officials in Bulgaria did nothing to realize this condition as well as the others. With one exception only – the completion of a perfect system for waste of energy – the “Chaira” Pumping-Storage Hydro Power Plant with the support of the World Bank. Today’s project for units 5 and 6 upgrading is some 7-8 years late and comes more like a political activity than as a support for the energy system of Bulgaria!

One may say: “But now the Euratom loan is a guarantee that dangerous units 1-4 will be closed.” We encounter a contrasting reality – the loan became effective due to the fact that at the very last moment the agreement for the decommissioning of the small units was reached. It is very important to emphasize that Euratom loan would not happen without the agreement for the decommissioning of units 1-4. The closure is a pre-condition for the loan.

What about the **money**? There are a number of people – trade unionists and nuclear experts among them – that doubt the need to implement all the proposed measures of the project. As I mentioned above, the final costs of the project almost doubled since the initial project. Nevertheless, the decision-makers did everything to include as many measures as possible. The “opponents” stated that such approach is in favor of the main nuclear business players in USA, EU and Russia. The goal is clear, they say – in retribution to the contracts received, the nuclear industry will lobby for political support for the prolonging of the life of Kozloduy dangerous 1-4 reactors and/or the construction of new nuclear power plant at Belene. Which indeed would mean new contracts. If this position is the right one it would also mean that the Euratom loan is a part of much bigger – and I would say, dirty – game, that involves politicians and nuclear business.

The place – surprise, or not exactly? It seems very natural to give money – as a loan or in other forms – for upgrading already existing units. This might be the truth to some extent. But there is another viewpoint that takes into consideration the regional perspective. Today many Bulgarian politicians and proponents of the extension of the lifetime of units 1-4 at Kozloduy NPP consider every support for Kozloduy a tool to keep the position of Bulgaria as a “regional energy centre”. Although this concept is very much doubtful (for various reasons), it is wide spread due to the extensive political and media support. But at least two other countries on the Balkans – Romania and Greece – have similar ideas for themselves. Romania is almost to receive Euratom money as well. Thus the role of Euratom takes a completely wrong direction. It would increase the tensions between the countries in the region – no matter if people at Euratom want it or not. It will also keep the competition for new power plants alive in our region that already has enough energy capacities, but is a region with extremely high level of energy waste. The result is easily predictable – no real support for energy saving, for energy efficiency and renewables in the near and mid-term future.

As a whole the above three problems put Bulgarian people into the danger of sooner or later receiving less social services because it might happen so that the state budget should pay back the loans. If those, who say the Kozloduy NPP would not be able to do without small units in operation, are right, then this might be the final result of the project and from the Euratom and other creditors' loans. Let me briefly touch on few other problems around the project.

Following the worst traditions of preparation and implementation of energy projects in Bulgaria, the Euratom loan for Kozloduy NPP was – and still is – covered with secrecy. Despite the text in the Guarantee Agreement that clearly defines disclosure of the information (article 3.8), a negative answer from Euratom office was received to my request for the documents that should in no way be closed. The situation is even worst with the Bulgarian Ministry of Energy and Energy Resources (MEER). They simply refuse to answer for almost 2 months. Last week I tried to follow by phone the fate of my request. But it was just like following the Ariadne's yarn. I went through the documentation office then through the Director of Nuclear Energy Department, then the lawyers' office, then – the Director of the Department for Management of Crises Situations and finished with the office of the Executive Director of Kozloduy NPP. But the request wasn't in his office either. It just disappeared. In the meantime I was told that it might be state security information, so I should go through the Regional Office of the Security Services. What can I say – publicity and transparency in full swing!

I was much lucky with the Ministry of Environment and Waters (MEW). But their answer shows another problem – there is no EIA study or a following Decision of the Minister for the project. All the above facts and considerations lead to the initial question. What to do in this situation? I would say that once again we need the same “medicine” – full transparency for all aspects of the project. No more public money for nuclear industry – this will not only decrease the risks, but will allow the ending of hidden subsidies and the distortion of the market principles in the energy sector through state debts or guarantees. New energy policies and strategies not only for Bulgaria but also for the whole region are needed. Policies and strategies that take fully into account the principles of sustainability as well as energy efficiency and energy saving and renewables. In this case Euratom– or whatever other name it gets – would be more than welcome.

Antonio Tricarico, Coordinator, Campagna per la Riforma della Banca Mondiale, Italy: “Cernavoda II – A new reactor for Romania?”

The project of completion of the second CANDU reactor of the Cernavoda nuclear power plant in Romania is doubtless a crucial test case for Euratom and other European bilateral financiers as regards the definition of their nuclear policies for the coming years. In particular, it is the last project that could benefit from Euratom support before its replenishment and several Export Credit Agencies involved in the project financing have reviewed their policies ad hoc to find the Cernavoda 2 project eligible for their financing. This is the case of SACE from Italy, which has recently adopted nuclear guidelines within the framework of its environmental approaches to export credits. The controversial project is also a challenge for advanced US Eximbank's guidelines on transparency and ex-ante environmental review of nuclear projects and for EDC from Canada which has been exempted through a specific bill from the mandatory implementation of the EIA Law for nuclear projects, after a legal case was moved against it in 1996 for the lack of publication of environmental studies for a nuclear project in China. Therefore Euratom's final decision on the project will influence the attitude toward nuclear projects of several other bilateral donors.

The 700 million Euro project of Cernavoda 2 is not a greenfield project, since works on it has begun under Ceausescu regime, but as the first reactor of the plant functioning since 1996 it can be completed only through the support of foreign financing. At the same time, the core of the nuclear project still has to be implemented and apart of civil works most of the work on the second reactor has been implemented through assistance and equipment already in place for Cernavoda 1.

The 250 million Euro Euratom loan for Cernavoda 2, if agreed, would result in clear violation of the European Council Decision of 21 March 1994 amending Decision 270 of 1977 on Euratom, which authorises to contract Euratom borrowings only in efficiency of nuclear power stations in certain non-member countries, but not explicitly in support of the construction or completion of new nuclear reactors, as in the case of Cernavoda.

Since 1999 Euratom commissioned through the PHARE programme four studies concerning environmental, safety, economic and financial aspects of the Cernavoda 2 project. None of these studies has been made public so far, despite the requests of civil society in European countries and Romania and DG Enlargement's public commitment to make public at least the environmental study and relevant parts of the safety study at beginning of 2002. The European Commission has made clear to NGOs that the economic and financial documents cannot be made public because of their commercial confidentiality, even though the economic study is currently under review by the European Investment Bank which manages European taxpayers' money.

The publication of Euratom-funded studies is quite crucial since these are complementary to the fully inadequate Environmental Assessment Summary which has been produced by AECL of Canada, one of the foreign sponsor of the project, and made public only as a summary and not as a full document by the Export Credit Agencies involved in project financing as the main environmental document for the project. The AECL study fails to consider alternatives to completing the Cernavoda 2 reactor, to assess the consequences of a catastrophic nuclear accident and the security provisions, to disclose details of the nuclear emergency plan and the complete nature of the seismic risks, and to conduct an adequate Probabilistic Risk Assessment.

In any case, the publication of and public consultation about the Euratom project studies will not be able to guarantee the safety of the projects and that the Romanian government will properly implement and manage the project in its entire lifetime. As a matter of the fact, the lead local sponsor and operator of the project, the State-owned Romanian nuclear agency, SNN, has not made public the official EIA of the project yet, which should be finalised by the Romanian Institute ICIM. The completion and publication of this final study has been delayed for years. The Romanian nuclear Regulator recently told NGOs that a new EIA is not mandatory for C2 since the whole plan of construction of the Cernavoda NPP, consisting of 5 nuclear reactors, was licensed at the beginning of the 90s. It does not matter that more than 140 changes occurred in the project design of Cernavoda 2.

According to the Romanian Environmental Protection Law of 1995 and the associated Ministerial Order No. 125 of 1996 on Permitting Procedure for Economic and Social Activities having an Environmental Impact the Romanian EIA "accepted report shall be subjected to public debate by the local EPA and shall record the comments and conclusions resulted". In September 2001 an unofficial presentation of the project by AECL and SNN officials took place in Cernavoda, Constantza and Medgidia. It should be noted that these meetings have been attended mainly by representatives of pro-nuclear NGOs which have been established in the last years by officials of the national nuclear agency, as per their admission to international NGOs.

Representatives of the Romanian Environmental Ministry made clear to international NGOs that those meetings cannot be regarded as official consultation since the official EIA study of the project had not been made public yet at that time. New consultations should be hold in the next months, maybe too late for project financiers and nuclear companies' interests.

Which is the commitment of Euratom and the European commission at this regard? Going ahead with project financing without expecting the publication of the official project EIA and the outcome of related public consultation would be a clear violation of the principles of European environmental law and a terrible example given to an accession country which has been requested by the European Union itself to live up its environmental rules to European standards as a pre-accession condition.

Furthermore, the financing of Cernavoda 2 under current circumstances would be in violation not only of the Romanian Environmental Protection Law, but also of international environmental law. In particular, Romania and all its neighbouring countries, apart the Serbian federation, have all signed and ratified the ESPOO Convention on EIA in a transboundary context, which came into force in 1997. It should be noted that the Cernavoda plant is located less than 100 km away from the Romanian border with Bulgaria and that this country has been insistently requested by the European Union to phase out nuclear production at the Kozloduy nuclear plant on safety grounds. As reported in a letter to Bulgarian NGO dated 27th June 2002, the Bulgarian government has never been notified by the Romanian government about its intention to go ahead with the project and the preparation of its EIA study, as requested under article 3 of the Convention. Again, is this the model of implementation of European law that the commission aims to suggest to an accession country through Euratom funding for Cernavoda 2?

The real aim of the Cernavoda 2 project is to produce electricity for export to western European countries and not for matching Romanian energy demand. As a matter of the fact, the country is still experiencing a severe financial crises, its energy demand is not increasing and some of the electricity produced at Cernavoda 1 is being exported. In particular, Italy has a strong interest in importing additional nuclear energy produced at Cernavoda, even though nuclear production on the Italian territory has been banned through a popular referendum since 1987. Quite a clever expedient to relocate nuclear production and associated risks far away to eastern Europe.

At the same time the Romanian energy system needs immediate intervention in energy efficiency as regards existing fossil-fuel fired power plants and the transmission grid, as admitted by the European Commission itself in the last accession country report for Romania of last November.

Preliminary EIA studies are based on the conclusion of the 1998 Alternatives Study commissioned by the European commission and never made public. No detailed cost-benefit analyses for each of the options has been produced and the Romanian government has kept refusing to make public the production costs at Cernavoda 1.

Is this the long-term energy vision of the European Union for accession countries? If European energy experts clearly denounce the inadequacies of Romanian energy policy and performance, why Euratom is so keen to help the government complete a project which is not needed under Romanian actual priorities?

All these questions find an easy and clear answer: the financing of Cernavoda 2 is not coherent with European Union's environmental and energy policies and needs to be denied to the Romanian government. A different energy intervention is possible and needed in Romania and the European Union has the responsibility to act soon, putting aside inadequate nuclear plans.

Antony Froggatt, Consultant: “The Extension of the Euratom Loan Ceiling: An Opportunity for EURATOM Reform”



Executive Summary

The Euratom Treaty is one of the cornerstones of the current EU. The Euratom Treaty, first signed in 1957, was established to promote nuclear technology as it was believed to “*represent an essential resource for the development and invigoration of industry*”. Today within the EU-15 there are no reactors being built and not even any on order.

In March 1977 the Council of the European Communities agreed on “*empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations*”. Initially, this was restricted to nuclear fuel cycle facilities inside the Union with an initial credit ceiling of 500 million European units. As projects were financed so the loan fund had to be increased, most recently in April 1990 by another 1 billion ECU to the current ceiling of ECU 4 000 million. The increasing of the Euratom Loan facility requires the unanimous support of Member States, but does not require the approval or involvement of the European Parliament.

In March 1994 the remit of the fund was changed “*to authorise the Commission to contract Euratom borrowings in order to contribute to the financing required for improving the degree of safety and efficiency of nuclear power stations in certain non-member states*”. The Council was quite clear for one reason for this change, “*Whereas, following the slowdown in the nuclear energy sector and the changes in nuclear energy policy by some Member States, there will not be a strong*

demand for the remaining finance from nuclear energy projects in the Community over the next few years”.

However, in the eight years since the rules were changed only one loan for Kozloduy 5 and 6 in Bulgaria has been fully approved. In two other cases - Mochovce (Slovakia) and Khmelnytsky 2/Rovno 4 (Ukraine) - the applicant countries have withdrawn the projects at the last minute due to their unwillingness to meet financial conditionalities of the projects – notably the rapid increase in electricity prices required by the financial institutions involved.

Critics of Euratom loans note a number of problems with the facility. Firstly, due to the lack of EU nuclear safety standard there are no binding safety standards that the projects must comply too. Secondly, the European Investment Bank, which assesses the economics of the projects do not lend its own resources for nuclear power plants or lend in the CIS region at all, and thus has little experience in assessing nuclear projects or in this region. Thirdly, the Cabinet of the Commissioners is the body responsible for approving the loan decision, neither Member States nor the Parliament are involved in individual project assessment decisions. Finally, as with other more general criticisms of Euratom, the loan facility unfairly favours nuclear power as other technologies which don't have their own loan facilities.

In the coming months the Commission is expected to launch a proposal for a further €2 billion to be added to the loan facility. Already a number of Governments and their Parliaments have expressed opposition too or are sceptical of the need for this increase. Therefore its approval is in doubt as it will require the unanimous support of Member States to be adopted. The abandonment of the Euratom loan facility should be seen as an essential first step on the road to the reforming of Euratom.

Euratom

The Euratom Treaty is one of the cornerstones of the current EU. The Euratom Treaty, first signed in 1957, was established to promote nuclear technology as it was believed to “*represent an essential resource for the development and invigoration of industry*”. However, despite significant political support and subsequent unparalleled subsidies nuclear power has declined since a peak two decades ago. Today within the EU-15 there are no reactors being built nor even any on order. Only in Finland are there apparently any concrete plans for the construction of a new nuclear reactor, but even here proposals are still far from finalised and a reactor design has still to be chosen. Seven countries do not possess nuclear power plants – Austria, Denmark, Greece, Ireland, Italy, Luxembourg and Portugal, while in others – Belgium, Germany, Netherlands and Sweden politically agreed phase out plans for the operating reactors are in place. Consequently the technology can no longer be deemed as essential, if it ever was.

Euratom as an institutions plays a dual role of both promoting nuclear power and creating standards and guidelines for the nuclear industry, in particular those relating to the health and safety of workers and the public and in the control of fissile and radioactive material. Furthermore, the ‘regulatory’ role of Euratom may well be significantly changed in the coming months if a European Commission proposal to introduce nuclear safety standards is proposed and adopted by Member States.

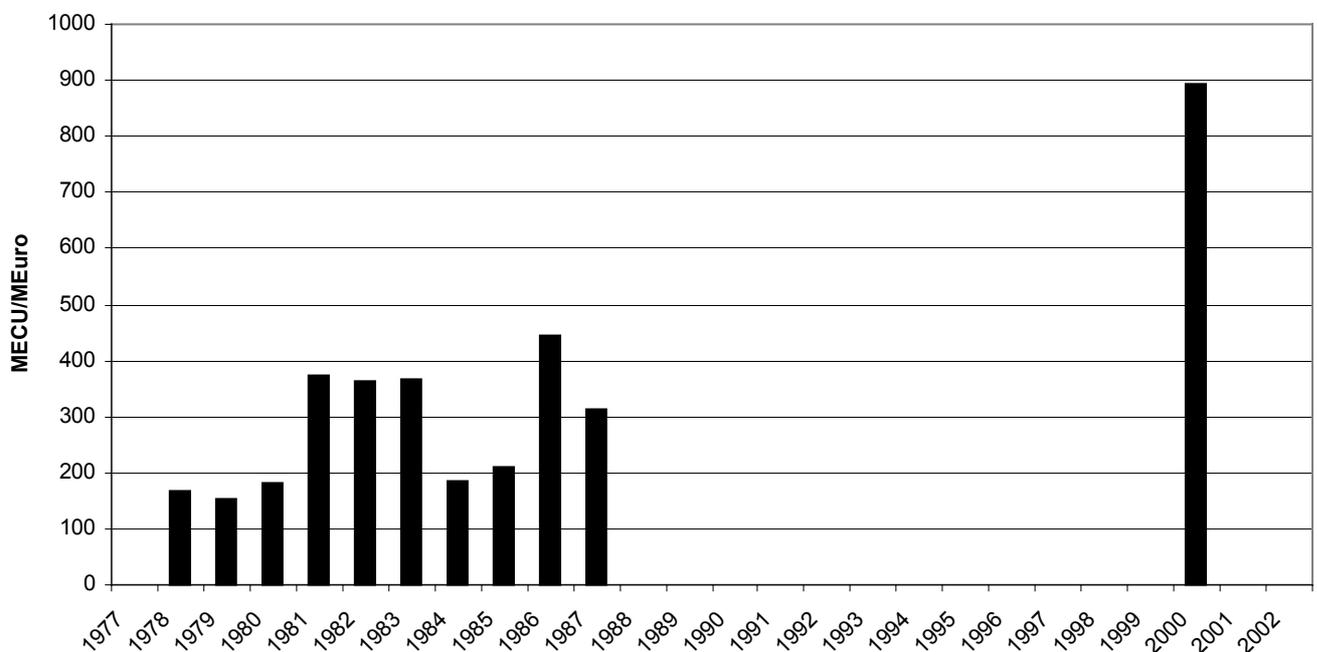
One key element in Euratom’s promotional arm is its ability to grant loans for the development of the nuclear industry.

Euratom Loans

In March 1977 the Council of the European Communities agreed on *"empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations"*². Initially, this was restricted to nuclear facilities inside the Union with an initial credit ceiling of 500 million European units. As projects were funded the loan fund had to be increased which was done in 1979, 1982 and 1985. The most recent addition was undertaken during the Irish Presidency in April 1990, which increased the loan facility by another 1 billion ECU to the current fixed ceiling of ECU 4 000 million.³ The increasing of the Euratom Loan facility requires the unanimous support of Member States, but does not require the approval or involvement of the European Parliament.

The chart below shows the history of Euratom Loans granted from 1977 to the present day.

History of Euratom Loans 1977-2002



Source: Euratom Annual Reports

Eastern Europe

In March 1994 the remit of the fund was changed *"to authorise the Commission to contract Euratom borrowings in order to contribute to the financing required for improving the degree of safety and efficiency of nuclear power stations in certain non-member states"*⁴ The Council was

² Council Decision, 77/270/Euratom, Official Journal of the European Communities, No L 88/9, 6th April, 1977.

³ Council Decision, 90/212 Euratom, Official Journal of the European Communities, No L 112, 3rd May 1990.

⁴ Council Decision, 94/179/Euratom, Official Journal of the European Communities, No L 84/41, 21st March 1994.

quite clear for one reason for this change, *“Whereas, following the slowdown in the nuclear energy sector and the changes in nuclear energy policy by some Member States, there will not be a strong demand for the remaining finance from nuclear energy projects in the Community over the next few years”*.

In order to guarantee that EU firms would benefit the Council decision insisted that Euratom could only fund projects where *“a major proportion of the capital goods item or service, which is to be financed”* be provided by a Community enterprise. The criteria for projects eligible for loans were very broad requiring only that the projects had *“received a favourable opinion from the Commission in technical and economic terms”*. Euratom loans cannot be used as the sole source of finance for any project and can only fund a maximum of 50% (which is higher than in Member States where a ceiling of 20% is in place). If European Bank for Reconstruction and Development (EBRD) co-financing is involved the two institutions can only fund up to 70%. Any Euratom loan will require a Government guarantee by the recipient state.

The Commission has to undertake both a technical (safety) and economic review of the projects. The Phare/Tacis Nuclear Safety Expert Group (NSEG) undertakes the Safety analysis. This body is comprised of representatives of Member States. The economic analysis is undertaken by the Commission taking into account a specific recommendation from the European Investment Bank (EIB) on the economic and financial aspects.

The full Cabinet of Commissioners makes the final decision, there is no formal involvement of either Member States or the European Parliament in the decision. Although prior to the Commission’s decisions on both the Kozloduy and Khmelnytsky/Rovno (provisional approval) loans the Commission presented material to the relevant Parliamentary Committees in the days preceding the final decision.

The table on the next page summarises the status of the major projects considered or under consideration for a Euratom Loan. Since the rules were changed in 1994 to allow lending outside Member States in only one loan – for Kozloduy 5 and 6 – have funds actually been dispersed. In two other cases - Mochovce and Khmelnytsky 2/Rovno 4 - the applicant countries have effectively withdrawn the projects at the last minute due to the financial conditionalities of the projects – notably the rapid increase in electricity prices required by the financial institutions involved. The Kalinin 3 project is Russia, although still officially under consideration, cannot be considered as active. Therefore the only loan actively under preparation is for a Canadian licensed reactor in Romania at Cernavoda. Due to the lack of construction, this reactor is the only ‘western’ designed reactor under active construction in continental Europe. If finally approved it will be completed by firms from Canada, France, Italy, the US and Romania, using funding from the Export Credit Agencies (ECAs) from these countries, domestic resources and a Euratom Loan. There are three additional part build reactors on site which the Romania Government hopes to complete.

Table 1: Summary of Projects Considered for Euratom Loans in CEE and CIS

	Date Proposed	Date Finalised	Amount - Million	%	Co-financiers	Current Status
Mochovce 1 and 2 (Slovakia)	1994		DM 363 (C €200)	25	EBRD ECA, France, Germany, Russia, Slovak Sources	Prior to a final decision in the EBRD, the project was withdrawn at the request of the Slovak Government. Project completed without Euratom involvement, in spring 1995
Khmelnitsky2/ Rovno 4 (Ukraine)	July 1995	-	\$585	40	EBRD ECAs from Czech Republic, France, Spain, Switzerland, UK and US, Ukrainian Sources	Prior to final approval in December 2001, the project was withdrawn from the EBRD and subsequently Euratom. Currently the project is suspended.
Kozloduy 5 and 6 (Bulgaria)	August 1995	April 2000	€212.5	43	Bulgarian Source US EX-IM Russia Export Credit Agency	Actively Underway
Kalinin 3 (Russia)	December 1995		\$335	50	Unknown	According to the Court of Auditors consideration for the project was slowed down due to the failure of the Russian authorities to supply all the financial information necessary for project evaluation.
Cernavoda 2 (Romania)	2001		€375	50	ECAs from Canada, Italy, France and US Romania Sources	The project is still actively under development

Inherent Problems of Euratom Loan

Lack of Definitive Safety Standard and its Implementation

One of the supposed advantages of Euratom involvement is that it will lead to an increase in nuclear safety standards. However, this is hard to quantify and difficult to enforce as even within the EU there is currently no safety standard to which nuclear reactors receiving funds from Euratom must comply to.

The lack of adequate safety standard has been compounded in the past by rushing through safety approval, prior to the completion of key documentation. The safety requirement is that the projects receive a favourable opinion from the Commission in technical terms. In the case of K2R4 the NSEG gave their technical approval for the completion of K2R4 on the 2nd December 1996, based only on partial information. In particular, at the time of the decision no detailed information was available on the status and quality of past construction. In fact the report which analysed this was not completed until 1997, with further analysis undertaken in 1998, 1999 and 2000. Despite this additional data, no subsequent review of the K2R4 project was made by the NSEG.

Inadequate Public Scrutiny

Unlike International Financial Institutions (IFIs) like the EBRD or World Bank, Euratom loans have no specific public consultation process associated with them. Rather the loan conditions rely on the national procedures or those associated with other co-financiers. This haphazard approach either gives the impression or actually undermines the importance of public scrutiny in the procedure.

Furthermore, and in many ways as important, the decision on whether or not to award a loan to particular project rests solely with the Commission, neither Member States nor the European Parliament play any formal role in the loan decision.

Accusations of Data-Manipulation

The political pressure to fund these large projects is enormous and undue influence has been shown to have been exerted to enable the projects to meet the lending conditions of the institutions involved. This highlights the need for greater public and political involvement in nuclear projects.

Mochovce: In 1995 the EBRD and Euratom proposed to co-fund the completion of two VVER 440 reactors in Slovakia. During the due diligence process data used to justify the economic case for the project was manipulated. This was revealed by the former head of the project within the EBRD who stated: -

“The first phase of the independent Least-Cost Study was completed by Putnam Hayes in early August 1994, accepted and paid for by the Bank. This showed that the nuclear and conventional options, namely combined cycle gas, were in the balance.... Unbelievably, the consultants were then instructed to rewrite the Least-Cost Study according to assumptions given by this residual Project Team, resulting in the nuclear option being seen in a more favourable light”⁵.

⁵ Financing Nuclear Power in Central Europe, T. Martin Blaiklock, presented at the Changing Politics of International Energy Investments Conference, organised by the Royal Institute for International Affairs, London, UK, 4th December 1995

K2R4: In 2000 the Commission and EBRD gave preliminary approval for the funding of the completion of two VVER 1000 reactors in Ukraine, Khmel'nitsky 2 and Rovno 4. Approval was given despite the conclusions of an independent – funded in part by the European Commission – panel of experts that it was not economic. Furthermore, the subsequent economic analysis commissioned to discredit the independent panel contained methodological errors that skewed the final conclusions in favour of the nuclear option. One analysis undertaken by the German Consultancy FITCHNER concluded that there were serious “discrepancies and unresolved questions” in the revised least cost assessment⁶. Following these criticisms a further economic analysis was undertaken, which only compounded the errors noted by FITCHNER, thus invalidating the final economic conclusion on which the EBRD and Euratom based their decisions.⁷

Economic Due Diligence Beyond the Experience of EIB

Under the terms of article establishing Euratom Loans, the EIB is responsible for assessing the projects in economic terms. However, the EIB does not lend outside the EU or Accession countries. The EIB is therefore being asked to advise on the economics of a project, in which it may not have any operational experience. This has already occurred for the completion of K2R4 in Ukraine and could occur in other projects.

Furthermore, the EIB, as it doesn't lend for nuclear project itself doesn't have the necessary experience in dealing with nuclear power construction projects, with their complex engineering and consequential cost over-runs and delays. This is one of the reasons why the World Bank does not finance nuclear power plants. They cite some of the problems of funding nuclear power as⁸:-

- *There is also evidence that the cost figures usually cited by suppliers are substantial underestimated.*
- *Delays of several years (on construction) are not unusual... Each plant represents and investment of US\$1.5-2.0 billion. Failure to complete a plant on time involves added costs of between US\$150 and US\$200 million per year in financial charges*
- *The issue of safety construction and operation of a plant cannot be separated from its economic analysis, and the Bank would need to ensure that the institutional structure exists to support the safety operation of the plant. The Bank is not in a position to advise independently on the safety of nuclear.*
- *Nuclear plants in the power sector would not be economic; they are likely to be large 'White elephants'.*

Technological Bias

The existence of a loan facility for the development of nuclear power goes against the principals of the free market and actively discriminates other technologies. The consequences of this can especially be seen in Ukraine, where proposals for the funding of the K2R4 reactors have been under development for over seven years, but no funds have been dispersed. The completion of K2R4 was originally proposed as a replacement of the Chernobyl nuclear power plant as it was said to be the only option available to Ukraine to replace the 2000 MW of the operating reactors at Chernobyl by the 2000 closure date embodied in the 1995 Memorandum of Understanding. However, nearly 2 years after the closure of the reactors the project has still not even been finally approved.

⁶ FITCHNER, Critique of the Economic Due Diligence for K2R4, commissioned by Greenpeace International 2000

⁷ Financial and Economic Alchemy, November 2000, published by Greenpeace International.

⁸ Environmental Assessment Sourcebook, Volume III, Guidelines for Environmental Assessment of Energy and Industry Projects, Environmental Department, WorldBank Technical Paper Number 154, 1991, ISBN: -0253-7494

Furthermore, over €40 million in grants have been allocated to prepare the project via the TACIS programme and other bilateral assistance programs, funds which could have been used to fund extensive energy efficiency for supply or demand side projects. Furthermore, due to the limited availability of Government credit guarantees, which have been earmarked for K2R4, the development of other state sector loans have not proceeded.

Increasing the Loan Ceiling

At the last increase in the loan ceiling was approved in 1990 it was stated that :-

When the total value of the transactions effected reaches ECU 3 800 million, the Commission shall inform the Council, which, acting unanimously on a proposal from the Commission, shall decide on the fixing of a new amount as soon as possible⁹.

Following the preliminary approval by the Commission of the loan for K2R4, the total value of the loans awarded or earmarked reached approximately EUR 3 776 million. This is approaching the reporting level of EUR 3 800 million required by the Council. Furthermore, according to a draft proposal for a decision, obtained by Friends of the Earth Europe in 2001: -

‘There are a number of Euratom loan applications being processed, any of which may possibly exceed the balance of the lending limit (EUR 224 million). Each of these loan applications will be presented individually to the Commission for decision, if appropriate. To ensure that the borrowing ceiling is not a constraint, the Commission considers it prudent to inform the Council before the formal reporting limit is reached and to propose an increase in the limit.’

In the leaked document referred to above, the Commission states that it is proposing to increase the ceiling by a further €2 billion.

Growing Opposition

Despite the clear requirement for unanimity approval within the Council of Ministers – probably ECOFIN - it is unlikely, due to political pressure – that a smaller EU country will be able to block any proposal from the Commission to increase the loan ceiling. However, there are already clear signs that a number of Member States have at minimum reservations about some uses of Euratom loans. The table below summarises the Parliamentary statements from a number of countries on this issue.

⁹ COUNCIL DECISION of 23 April 1990 Amending Decision 77/271/Euratom on the implementation of Decision 77/270/Euratom empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations (90/212/Euratom)

Table 2: Summary of Recent Governmental Statements on the intension by the Commission to extend the Euratom Loan Ceiling.

Austria ¹⁰	Considering the always-critical attitude of the Austrian government against promoting the nuclear energy, it has to be stated that a extension of the EURATOM loan framework is not in the Austrian interest. Therefore I will have a critical attitude, whenever a decision will have to be made within an ECOFIN-meeting
Denmark ¹¹	The attitude of the government is, that the increase of electricity production at nuclear power plants in Eastern Europe or other European countries should not receive bilateral aid or support through international organisations
Ireland ¹²	The Irish Government's policy is to ensure that Euratom's activities in regard to the nuclear industry are directed towards nuclear safety and radiological protection, rather than towards the expansion of the nuclear energy sector
Luxembourg ¹³	"The increase in line of credit granted under the auspices of Euratom would only be acceptable to the extent that these credits would be used to increase safety of nuclear reactors in Eastern Countries".

More recently in July 2002 the Austrian Parliament passed a resolution calling upon their Government to oppose any proposals to extend the Euratom Loan facility.

Next Steps

Since giving its preliminary approval of the K2R4 loan in December 2000 the European Commission have '*close to finalising*' its proposal to raise the loan ceiling. The Commission now state that a decision in its full Cabinet will be made within the next weeks.

If the Commission does ask the Council of Ministers to increase the loan ceiling, then it is highly unlikely that it will gain approval for the following reasons: -

- The increase in the loan ceiling requires the Council to '*act unanimously*' to approve the proposal.
- Already the Austrian Parliament has requested that its Government oppose the proposal.
- A number of other countries have already expressed reservations about the process and the conditions that some of them have placed upon their support of Euratom loans cannot be met. In particular the requirement that Euratom loans do not result in an increase in the nuclear sector (Denmark and Ireland) cannot be met as the only loan under active consideration is for the completion of Cernavoda 2 in Romania and there is no requirement to close a nuclear reactor of similar size.
- There is a growing realisation that Euratom loans are not essential to carry out proposed 'safety upgrades' in reactors in Eastern Europe. The Mochovce reactors were completed without Euratom funding and according to the IAEA to acceptable standards, by firms from

¹⁰ The reply of the Austrian Minister for Finance (dated 23.5.01), Karl-Heinz Grasser, to the parliamentary questions about EURATOM asked by the Social democratic Party (dated 30.3.01).

¹¹ Prime Minister Poul Nyrup Rasmusen, June 20, 2001

¹² Written answer to question 147 on Tuesday, 1st May, 2001

¹³ Response of Minister of Finance and Minister of Environment to the Parliamentary Question number 1123 of 26th April 2001 by the Honorable deputy Camille Gira, concerning the capacities of Euratom.

Member States using funding their Governments ECAs. Furthermore, in the only project to receiving Euratom funding – Kozloduy 5 and 6 – the French and German ECAs had proposed to co-fund the project, but their financial assistance was not needed and in many ways were replaced by Euratom. Therefore the project could have probably proceeded without Euratom funding and if Western European companies wish to undertaken projects in CEE or CIS, then this should be funded by the ECAs of their Governments.

- This issue of Euratom Loans is already regarded by NGOs an important issue to win and many national and international organisation will focus their resources to stop the increase in the ceiling as it symbolises the pro-nuclear bias within parts of the EU institutions.

Euratom Reform

Euratom needs to be reformed, as it is anachronistic to believe that nuclear power is essential for the functioning and well being of the EU. A launch of the larger reform of Euratom should begin now for three main reasons: -

- 1) The EU is currently reviewing its Treaties and bodies through the Convention, which is designed to streamline the institutions and develop greater public involvement and trust in the EU institutions. The exclusion of a review of the role of Euratom from the Convention would miss a key opportunity to increase the accountability of all parts of the EU institutions.
- 2) The EU is developing a single electricity market. Part of this process must be developing a level playing field for electricity generators. This market must not be established to create *'the conditions necessary for the speedy establishment and growth of nuclear industries'* as required by Article 1 of the Euratom Treaty.
- 3) The proposal by the Commission to develop EU nuclear safety standards increases the contradiction in Euratom, in that the body should not both promote and effectively regulate the technology.

Time will tell whether or not a more general overhaul of Euratom take place, many believe that this is unlikely as it will require the unanimous support of Member States to occur, and those States that are more pro-nuclear do not wish to see it reformed. However, on the much shorter term Euratom loans will both test the resolve of the European Commission and Member States. The European Commission still has the opportunity to accept that the roles given to Euratom decades ago are now outdated and they can make a proposal to abandon the Loan facility. If this were not to occur, then Member States must send a clear message that Euratom reform must begin, either piece by piece, as decision arise, and/or in a more planned and almost certainly coherent way through a general reform of Euratom. The way to begin this is to block the extension of the Euratom Loan facility.

Annex**A) Council Decision of 29 March 1977****empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations**

(77/270/Euratom)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Articles 2, 172 and 203 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament ⁽¹⁾,

Having regard to the opinion of the Economic and Social Committee ⁽²⁾,

Whereas the use of nuclear energy can reduce the Community's excessive dependence on external sources of energy and thus improve the terms on which energy is imported;

Whereas, under present technical and economic conditions, the use of nuclear energy for the production of electricity is economically advantageous and more satisfactory than the use of petroleum products;

Whereas the additional investment required for nuclear plant by comparison with conventional plant, combined with the costs arising out of the increase in the price of petroleum products which affect the operating costs of existing conventional power stations, means that electricity producers are being forced to borrow more;

Whereas Article 2 (c) of the Treaty gives the Community the task of facilitating investment and ensuring, particularly by encouraging ventures on the part of undertakings, the establishment of the basic installations necessary for the development of nuclear energy in the Community ; whereas, if a contribution is to be made to the financing of nuclear power stations, arrangements must be made for borrowing and lending ; whereas such action appears to be necessary if the objective set out in Article 2 (c) of the Treaty is to be attained, although the Treaty does not provide for the powers necessary for that purpose;

Whereas in view of the large amount of capital required the financing potential should be increased; whereas it appears that the Community can provide a substantial amount of aid in this field;

Whereas the Community has a duty to employ all the means at its disposal to facilitate the attainment of the aims adopted under the new common energy policy strategy,

HAS DECIDED AS FOLLOWS:

⁽¹⁾ OJ No C 157, 14.7.1975, p. 35.

⁽²⁾ OJ No C 248, 29.10.1975, p. 8.

Article 1

The Commission is hereby empowered to issue loans, on behalf of the European Atomic Energy Community (Euratom) and within amounts fixed by the Council, the proceeds of which will be lent for the purpose of financing investment projects relating to the industrial production of electricity in nuclear power stations and to industrial fuel cycle installations.

The Commission shall borrow no more than the amounts of the loans for which it has received applications.

Borrowing transactions and the lending transactions related thereto shall be expressed in the same currency and carried out on the same terms as regards the repayment of principal and the payment of interest. The costs incurred by the Community in concluding and carrying out each transaction shall be borne by the beneficiary undertakings concerned.

Article 2

The terms of loans to be issued shall be negotiated by the Commission in the best interests of the Community having regard to the conditions on capital markets and in accordance with the constraints imposed by the duration of the loans to be granted.

Article 3

The Commission shall decide on the grant of each loan. Its decisions shall be based in particular on the principle that preference will be given to the use of resources under the most profitable conditions in installations of optimum size.

Loans shall be guaranteed in the manner customary in banking practice.

Article 4

The Commission shall inform the Council and the European Parliament at regular intervals of the revenue and expenditure transactions arising out of the contracting and servicing of Euratom loans issued and granted. Each year it shall submit a review of its borrowing policy together with the budget estimates.

Article 5

Financial control and auditing shall be carried out in accordance with the Financial Regulation of 25 April 1973 applicable to the general budget of the European Communities (OJ No L 116, 1.5.1973, p. 1.)

Done at Brussels, 29 March 1977.

For the Council
The President
T. BENN

B) Council Decision of 23 April 1990

**amending Decision 77/271/Euratom on the implementation of Decision 77/270/Euratom
empowering the Commission to issue Euratom loans for the purpose of contributing to the
financing of nuclear power stations
(90/212/Euratom)**

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Atomic Energy Community,

Having regard to Council Decision 77/270/Euratom of 29 March 1977 empowering the Commission to issue Euratom loans for the purpose of contributing to the financing of nuclear power stations ⁽¹⁾, and in particular Article 1 thereof,

Having regard to the proposal from the Commission,

Whereas the total value of transactions effected has reached the figure of ECU 2 800 million, provided for in Decision 77/271/Euratom ⁽²⁾, as last amended by Decision 85/537/Euratom ⁽³⁾;

Whereas nuclear energy accounts for a major part of the Community's total energy supplies and considerable investment ought to be made in this sector both at the production stage, in view of the safety and security requirements, and downstream of production, particularly with regard to the reprocessing and storage of waste;

Whereas experience indicated that it is desirable to raise, by ECU 1 000 million, the total amount of borrowings which the Commission is empowered to contract on behalf of the European Atomic Energy Community;

Whereas Decision 77/271 should therefore be amended,

HAS DECIDED AS FOLLOWS:

Sole Article

The Sole Article of Decision 77/271/Euratom shall be replaced by the following:

'Sole Article

Loans as provided in Article 1 of Decision 77/270/Euratom may be contracted for amounts the total principal of which shall not exceed the equivalent of ECU 4 000 million.

When the total value of the transactions effected reaches ECU 3 800 million, the Commission shall inform the Council, which, acting unanimously on a proposal from the Commission, shall decide on the fixing of a new amount as soon as possible.'

Done at Luxembourg, 23 April 1990.

For the Council
The President
A. REYNOLDS

⁽¹⁾ OJ No L 88, 6. 4. 1977, p. 9.

⁽²⁾ OJ No L 88, 6. 4. 1977, p. 11.

⁽³⁾ OJ No L 334, 12. 12. 1985, p. 23.

C) Council Decision of 21 March 1994

amending Decision 77/270/Euratom, to authorize the Commission to contract Euratom borrowings in order to contribute to the financing required for improving the degree of safety and efficiency of nuclear power stations in certain non-member countries

(94/179/Euratom)

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Articles 1, 2, 172 and 203 thereof,

Having regard to the proposal from the Commission ¹⁴,

Having regard to the opinion of the European Parliament ¹⁵,

Whereas the European Atomic Energy Community was created to establish the conditions of safety necessary to eliminate hazards to the life and health of the public; whereas the Member States have expressed the desire to associate other countries with their work and to co-operate with the international organizations concerned with the peaceful development of atomic energy;

Whereas the Community and its Member States have decided to make a concerted effort at G-24 level to support the process of reform undertaken by the countries of central and eastern Europe and of the Commonwealth of Independent States (CIS) and have decided on measures to give economic aid to these countries; whereas it is appropriate, in order to make this concerted effort more effective, to call for the co-operation of other international bodies, committed to this goal, thus preventing the necessary manpower and resources from being dissipated;

Whereas, in respect of improvements to nuclear safety in central and Eastern Europe and the CIS, there is a need for a coherent strategy taking a long-term approach and taking into account the technological factors, safety 'culture' and practices and the overall energy balance of each country involved;

Whereas some of these countries have nuclear installations whose level of safety is inadequate and whose functioning could have repercussions on the entire continent; whereas these countries are committed to the continued use of nuclear energy;

Whereas nuclear safety has to be seen as part of the problem of overall energy options in central and eastern Europe and the CIS, and having regard in this context to the report drawn up jointly in June 1993 by the World Bank, the International Energy Agency (IEA) and the European Bank for Reconstruction and Development;

Whereas it is appropriate to insist that all countries having nuclear power stations be required to ratify the international conventions on civil liability or, on a transitional basis, to adopt binding measures of equivalent force;

Whereas the Community is duty bound to commit the requisite resources to enable it to meet the expectations of the public in the Member States in terms of the safety and quality of the environment; whereas, in particular, action must be taken in some central and eastern European

¹⁴ OJ No C 22, 26. 1. 1993, p. 11.

¹⁵ OJ No C 44, 14. 2. 1994.

countries and some of the CIS States to modify certain existing nuclear installations or, if need be, to dismantle others which it would not be feasible in technical or economic terms to bring up to standards;

Whereas projects undertaken by the Community under the Phare and Tacis programmes to improve the level of safety of the nuclear installations comprise *inter alia* studies to identify areas of weakness and to put forward appropriate corrective measures; whereas the technical assistance will result in proposals for programmes to modify some of the nuclear installations in service or under construction and to shut down and dismantle others; whereas it is in the Community's interest that this work be carried out;

Whereas the investment required to bring up to standard the nuclear installations in some central and eastern European countries and some of the CIS States is on such a scale that these countries are unable to undertake it although the problems require urgent solutions;

Whereas a substantial proportion of available financial resources should be called up; whereas, to this end, Decision 77/270/Euratom¹⁶, which authorizes the Commission to contract Euratom borrowings to finance investment in the nuclear energy sector should be amended, in order to extend the scope of the Decision to cover some countries involved in the Phare programme and some members of the CIS so that the safety and efficiency of their nuclear power stations can be improved and protection of man and the environment be thereby improved;

Whereas Decision 77/271/Euratom¹⁷ fixed the ceiling for Euratom borrowings at ECU 4 000 million and whereas at 31 December 1991 ECU 2 876 million of this limit had been taken up; whereas, following the slowdown in the nuclear energy sector and the changes in nuclear energy policy by some Member States, there will not be a strong demand for the remaining finance from nuclear energy projects in the Community over the next few years;

Whereas the recipient countries will act as guarantors for the loans granted under this Decision and whereas, whenever it is appropriate, other first class securities will also be envisaged;

Whereas the question of providing finance for safety is inseparable from a coherent energy options strategy;

Whereas short-term measures must be supplemented by medium- and long-term loans in accordance with a coherent strategy providing for, in particular, the replacement and dismantling of the least reliable nuclear power stations,

HAS DECIDED AS FOLLOWS:

Sole Article

Article 1 of Decision 77/270/Euratom shall be replaced by the following:

'Article 1

The Commission is hereby empowered to contract, on behalf of the European Atomic Energy Community (Euratom), and within the limits fixed by the Council, borrowings, the proceeds of which will be allocated in the form of loans to finance, within the Community, investment projects relating to the industrial production of electricity in nuclear power stations and to industrial installations in the nuclear fuel cycle. The Commission shall also

¹⁶ OJ No L 88, 6. 4. 1977, p. 9.

¹⁷ OJ No L 88, 6. 4. 1977, p. 11. Decision as last amended by Decision 90/212/Euratom (OJ No L 112, 3. 5. 190, p. 26).

be empowered to contract, within the same limits, borrowings, the proceeds of which will be allocated in the form of loans to finance projects to increase the safety and efficiency of the nuclear power stations of the non-member countries listed in the Annex. For these projects to be eligible they must:

- relate to nuclear power stations or installations in the nuclear fuel cycle which are in service, or under construction, or to the dismantling of installations where modification cannot be justified in technical or economic terms,
- have received all the necessary authorization at national level and in particular the approval of the safety authorities,
- have received a favourable opinion from the Commission in technical and economic terms.

The Commission may borrow only within the limits of loans requested of it.

The borrowing and corresponding lending operations shall be denominated in the same monetary unit and carried out under the same conditions as regards repayment of the principal and interest payments. Cost incurred by the Community in concluding and executing each operation shall be borne by the recipient undertakings.'

Done at Brussels, 21 March 1994.

For the Council

The President

Y. PAPANTONIOU

ANNEX

List of eligible non-member countries

- Republic of Bulgaria
- Republic of Hungary
- Republic of Lithuania
- Romania
- Republic of Slovenia
- Czech Republic
- Slovak Republic
- Russian Federation
- Republic of Armenia
- Ukraine

Andreas Molin, Head of Division Nuclear co-ordination of the Federal Ministry of Agriculture, Forestry, Environment and Water Management, Austria (BMLFUW): “Possibilities to phase out or reform EURATOM”



Good afternoon, Ladies and Gentlemen,

I have been invited to present “possibilities to phase-out or reform EURATOM”, more precisely “The Treaty establishing the European Atomic Energy Community”. I will provide convincing evidence that there are no such possibilities in real life.

Am I right? Am I Wrong? Make up your own minds!

During the next 20 minutes or so I will present to you the

- legal procedure,
- a brief history of initiatives to change the EURATOM Treaty and –
- hopefully – a "window of opportunity".

Forgive me, if I will also use this opportunity to present my Government’s views on where such an - impossible? - change should lead us to.

The Procedure:

In procedural terms, it seems to be rather easy. Article N of the “Treaty on European Union” reads as follows:

Article N

1. *The government of any Member State or the Commission may submit to the Council proposals for the amendment of the Treaties on which the Union is founded.*

If the Council, after consulting the European Parliament and, where appropriate, the Commission, delivers an opinion in favour of calling a conference of representatives of the governments of the Member States, the conference shall be convened by the President of the Council for the purpose of determining by common accord the amendments to be made to those Treaties. The European Central Bank shall also be consulted in the case of institutional changes in the monetary area.

The amendments shall enter into force after being ratified by all the Member States in accordance with their respective constitutional requirements.

To my knowledge, the making of the Treaty of Amsterdam (1996/1997) and of the Treaty of Nice (2000) were based on Article N in legal terms. The procedure spelled out in Article N may be broken down into seven distinct steps:

Step 1: Proposal

The government of any member state – Austria for example – would have to submit a proposal to the Council. My government has already stated clearly that we aim for a phase-out of the EURATOM Treaty. We would transfer those provisions aiming at protecting people and the environment into a new chapter “Energy” in the “Treaty establishing the European Community” and we would of course abandon completely all promotional provisions of the EURATOM Treaty. In addition we would introduce new provisions on renewable sources of energy and energy efficiency as well as more comprehensive and stronger provisions regarding the protection of people and the environment. To give you just one example, we would like to have a clear legal basis for common safety standards at a very high level.

Step 2: Comments by the European Parliament and the European Commission

The European Parliament and the European Commission would provide their comments. Legal experts we have consulted are of the opinion that despite the wording of article N the European Commission would have to be heard in any case. But the comments of the European Parliament as well as of the European Commission would be of a non-binding nature.

Step 3: Council Decision

Then the Council would have to decide on whether or not to convene an Intergovernmental Conference (IGC). Again following the opinion of our legal experts and referring to Article 148 of the “Treaty establishing the European Community” a simple majority of Member States would be sufficient.

Step 4: Convening of an Intergovernmental Conference

If so decided, the Presidency would have to convene an Intergovernmental Conference.

Step 5: The Intergovernmental Conference

The IGC would discuss the proposed amendments and decide whether or not to amend the Treaties as proposed. But here Article N clearly states that the amendments to be made to the Treaties shall be determined by common accord, in other words, unanimously. Here, at the latest, we would get into trouble.

Step 6: Ratification

All Member States would ratify the amendments according to their national constitutional requirements.

Step 7: Entry into Force

With the ratification of the amendments by all Member States the amendments would enter into force. I imagine some of you being tempted to ask: “So why don’t you submit a proposal to the Council?”

A brief history of initiatives to change the EURATOM Treaty:

Let us have a brief history of initiatives to change the EURATOM Treaty. I will only cover the period since 1995, that is since Austria is a member of the European Union. Already in 1995, during our first year of membership, we proposed to introduce a long term phase-out of nuclear power into the concept of sustainability. We had intended to have a strong reference to that concept in Article 2 of the “Treaty establishing the European Community”. During the pertinent discussions in the so-called “Reflection Group” preparing the IGC 1996 we got the support of Ireland only. Later on, during the IGC 1996 Ireland submitted a detailed proposal to amend the EURATOM Treaty (CONF/3877/96 of 22 July, 1996 „Discussion paper on the EURATOM Treaty in the context of EU enlargement“). This proposal got the support of Luxembourg, Sweden and of course Austria in principle, but was finally turned down in early 1997. In a somehow related move Belgium and Italy proposed to have an energy chapter as such during the IGC 1996 and the European Parliament - in order to achieve sustainable development - deemed it essential “*to establish the competence of the European Union in the field of energy by creating a new chapter on energy in the Treaty, where the energy policy aspects of the ECSC and Euratom Treaties and other energy policy considerations should be integrated within a common energy policy framework, helping to ensure overall cooperation with regard to security of supply and environmental protection within the internal market framework*”¹⁸. But all these proposals failed.

From this experience there is only one lesson to be learned: There has been - and most probably there is - no consensus among Member States regarding the need to abandon, not even to modify the EURATOM Treaty.

Consequently, we approached this issue rather carefully when preparing for the IGC 2000. Realizing the constraints of this IGC in particular we finally decided to wait for a better “window of opportunity”.

Why then should we have another try?

The Convention on the Future of Europe: A “window of opportunity”?

There have been a number of significant developments in recent years, all indicating clearly - in our view - the need to do something with the EURATOM Treaty rather urgently.

But before I enter into these developments, let me state that Austria does respect current international as well as European law which reserves the right of each sovereign state to decide whether or not to use nuclear power. Nevertheless, we feel entitled and obliged to ask for a high level of protection. We are not ready to tolerate that such sovereign decisions of one state might

¹⁸ Resolution on (i) Parliament's opinion on the convening of the Intergovernmental Conference; and (ii) evaluation of the work of the Reflection Group and definition of the political priorities of the European Parliament with a view to the Intergovernmental Conference - Based on the DURY/MAIJ-WEGGEN report (A4-0068/96), 13 March, 1996

infringe upon the health and well-being of the people of another state as well as inflict long lasting damage to the environment.

So what are the developments we think make it worthwhile to start another attempt to modernize the EURATOM Treaty?

- The enlargement process clearly highlights the deficiencies of the current regime. Although we seem to be on a sensible track now to deal with nuclear safety in the context of enlargement and although it is with some pride that I recall that Austria actively contributed to make nuclear safety an important issue in the enlargement context, in particular by fostering the Council Conclusions on Accession Strategies for the Environment and on Nuclear Safety in the Context of Enlargement of the European Union during our Presidency in 1998, it has been and still is an extremely difficult and tedious process to find appropriate means and procedures to deal with this issue. This difficulty is caused by the fact that we do have provisions - to a certain extent - to protect the *“health of workers and the general public against the dangers arising from ionizing radiations”* (Chapter 3 of Title II of the EURATOM Treaty), but we do not have a clear basis for “emission” standards, that is minimum nuclear safety requirements which would be legally binding throughout the Union. Therefore, it is rather difficult to tell candidate countries what to do.
- These days, the fact that a special European Treaty exists for a relatively small industrial sector, i.e. for nuclear power production, whereas the large majority of economic activities are regulated in the “Treaty establishing the European Community”, is certainly an anachronism. The latter one has been amended several times, the “Treaty Establishing the European Coal and Steel Community” has recently expired, only the EURATOM Treaty has practically remained unchanged since its inception in 1957. This is rather strange given the profound societal and economic changes during the decades passed since then. Remember, the "Fifties" were the times of “Atoms for peace” and “Too cheap to meter” campaigns. Be it as it is, this is not exactly great news. But from the point of view of fair competition, it is an important issue. The EURATOM Treaty forms the legal basis to promote the nuclear industry and to shelter it from competition. The developments since the entry into force of the European Electricity Directive are a clear proof of this assertion - and a call for swift action.
- Last but not least, the EURATOM Treaty is no longer appropriate from an institutional point of view, as it displays a democracy deficit compared with the “Treaty establishing the European Community”. It would be high time to strengthen the role of the European Parliament and to bring the decision-making structures in line with present democracy policy standards in the Union.

It is worthwhile to note that the European Commission in its Communication “A Basic Treaty for the European Union” of 12 July 2000, called for an examination of the EURATOM Treaty as part of a comprehensive concept designed to overhaul the Treaties. The procedure adopted in 1996 at the Intergovernmental Conference during which the possibility of merging the Treaties was considered, could, in the Commission’s view, be taken as a basis in that respect.

In the light of all of this we do see an important role - a big chance but also a major challenge - for the Convention on the future of Europe to initiate a comprehensive debate on the future of EURATOM. My government is determined to fuel the ideas set out above into the European Convention’s debate on streamlining and simplifying the Treaties.

I do hope that the next speaker might enlighten us a little bit more on the opportunities the European Convention offers in this regard. Of course I stand ready to answer your questions to the best of my abilities.

Thank you very much for your attention.

Nina Commeau-Yannoussis, Head of Unit “EURATOM Coordination and Nuclear Safety” of DG TREN, European Commission, Belgium: “Do we still need the Euratom treaty?”



The EURATOM Treaty, adopted in 1957, is one of the three founding treaties of the European Communities. Twin treaty of the European Coal and Steel Community Treaty, both sector-based treaties, both are applied to provide a framework for the energy policy in the sectors of solid fuels for the first and nuclear energy for the second.

Contrary to the ECSC Treaty which expired on July 24 of this year, the EURATOM Treaty does not contain an expiry date. This is no coincidence. In 1951 and in 1957, it became already clearly apparent that in the twentieth century petrol imports would become a vital issue and that fossil and nuclear energy would assure Europe’s independence in terms of energy.

The oil crises have confirmed these considerations. You may recall the Club of Rome and the decisions taken at the G7 Summit in Tokyo in 1979 that advocated pursuing coal extraction and the development of nuclear energy. The concerns regarding climatic change let the sector appear in a new light. Let us not forget that in Europe electricity production from nuclear energy allows us to save more than 300 million tons of carbon dioxide waste each year. That is enormous: as much as is produced by half of all passenger cars driven in the EU.

According to the first article of the Treaty, the European Atomic Energy Community’s task is to contribute, by the development of nuclear energy, to better living standards in the Member States and to develop exchanges with the other countries. Presently, the wording of this article may appear

somewhat obsolete being so proactive in promoting such energy source. However, the EURATOM Treaty is well-balanced in its aspects of «promotion» and «controls». Indeed, it contains measures of a restrictive nature, notably in the area of health protection and safety of nuclear materials, unparalleled in other industrial areas.

With the passing of 45 years since its implementation, the EURATOM Treaty has adapted to the requirements and certain post-war concerns have proven somewhat obsolete or without practical application. They are however of lesser importance, I think, to land tenure or the common nuclear market. The EURATOM Treaty mainly remained in force and is still a source of abundant derived legislation representing the framework of applicable national regulations.

I shall not attempt to examine the Treaty in detail. My remarks shall be limited to the examination of the principal chapters, among which implementation still represents a vital factor.

I. PRINCIPAL PROVISIONS OF THE EURATOM TREATY

Research and development
 Health protection
 Supply of fissile materials
 Safeguards
 External relations

• *Research and development*

It is interesting to note that the founder fathers of the Treaty intended to dedicate the first chapter to research. Indeed, it should be recalled that in the fifties nuclear industry was in its infancy, not only in Europe but also worldwide. At the time, nuclear energy was known by the public principally for its military applications.

Research and development represents one of the principal fields of activity of the European Atomic Energy Community. As research costs are very high in the nuclear field, it was in the Member States' interest to unite their means.

According to the Treaty, I cite «*the Commission shall undertake to promote and facilitate nuclear research in the Member States and to complement it by executing the Community research and teaching programme*». The successive EURATOM Research Framework Programmes supplied the necessary financial means for the development of civil nuclear research.

The sixth EURATOM Research Framework Programme covers the period 2002-2006. It is endowed with a budget of 1230 million euros and covers the following fields:

- controlled thermonuclear fusion;
- radioactive waste management;
- radioprotection;
- nuclear safety;
- activities of the Joint Research Centre.

Research trends have varied over time. Presently, they concentrate mostly on environmental concerns such as waste management, radioprotection and the safety of nuclear installations.

Waste management probably represents one of the principal obstacles for a better acceptability of nuclear energy by the European citizens. Yet, safe storage techniques exist, but have not yet been implemented. It should be mentioned here that Finland has taken a decision leading to the timely construction of an underground disposal installation.

The safety of nuclear installations is also a main element in the consideration whether nuclear energy should continue to ensure the independence of the EU as concerns energy supply.

The EU enlargement including countries that have for the most part Soviet-type reactors makes this issue particularly acute. I shall come back to this point later on.

Thermonuclear fusion may well lead the way in future nuclear development. Achieved in the framework of EURATOM, the integration of all European activities in the area of fusion power has largely contributed to the trailblazer position of European research in this field. The results of work undertaken in the framework of the Joint European Torus (JET), common enterprise within the meaning of the EURATOM Treaty, enable the EU to participate in the International Thermonuclear Experimental Reactor (ITER) project, which is conducted in collaboration with Japan and Russia.

It should be mentioned that the Joint Research Centre foreseen in article 8 of the Treaty is a basic asset of Community nuclear research. This institution is presently recognized and respected not only at the EU level but also internationally.

The dynamic created by the EURATOM Treaty in the area of research is evident. The Single European Act was inspired by it as reflected in its nuclear research framework for the entire Community research and technological development programme.

• *Chapter 3 : Health protection*

This chapter contains five main sections:

- the Community's definition of radio-protective standards;
- the Commission's opinion on particularly dangerous experiments;
- the establishment of necessary installations to carry out permanent controls of radioactivity in the environment and verification of their functioning by the Commission;
- the communication to the Commission of data relating to radioactivity levels collected by these installations;
- the communication of all projects involving the discharge of radioactive effluents likely to cause a contamination in another Member State for approval by the Commission.

This chapter forms the basis of abundant derived legislation representing the framework of national regulations of Member States in the field of radioprotection.

The basic standards were determined for the first time in 1959 and have been revised several times since then. The last revision dates back to 1996, it noticeably reduces the authorized annual maximal doses of exposure to radiation.

It is interesting to note that the derived legislation adopted in application of chapter 3 not only concerns the exposure of workers and the population to ionising radiation, but also the medical sector and, as a consequence of the Chernobyl accident, the maximum levels of radioactive contamination allowed for foodstuffs as well as the methods of information exchange and the protective measures to be taken in case of radiological emergencies.

We shall also see that the Commission is about to propose important initiatives in the areas of safety of nuclear installations, radioactive waste management and the creation of specific funds for dismantling nuclear installations on the basis of chapter 3.

- **Chapter 6 : Supply**

Chapter 6 of the EURATOM Treaty foresees the supply organisation for nuclear materials of the Community. This chapter, drawn up with a view to a shortage in nuclear materials, sets up a monopoly entrusted to the EURATOM Supply Agency whose objective is to ensure equal access to nuclear materials for the Community's users.

Since 1957, the economic and social context has changed considerably in relation to the conditions envisaged when chapter 6 was first drawn up. Nuclear industry had not known any shortage then. Therefore, the practical application of the Treaty has become more and more flexible without however challenging the exclusive right to conclude contracts that chapter 6 grants to the Agency.

The implementation of this chapter succeeded in adapting to the new situation of the nuclear materials market. Thus, in the early nineties, the massive dumping of important quantities of nuclear materials from Russia at a low price on the market led to the implementation of measures restricting quantities to ensure the diversity of supply sources. As a consequence, the Procurement Agency was given the new role to continue to ensure an equitable supply of Community users.

The provisions of this chapter still serve as guidelines in the negotiation of nuclear cooperation agreements between the Community and third countries.

- **Chapter 7 : Safeguards**

Chapter 7 implements a very complete control system to guaranty that civil nuclear material is not diverted from the civil use declared by the Member States.

In order to exercise this control, the Commission disposes of extensive powers. It may, in particular, send inspectors to the territory of Member States who *«have at any time access to any site, information and all persons who professionally deal with material, equipment or installations subject to control»*. To achieve this, the Commission disposes of a unit of 250 inspectors. This is the EU's only inspection unit and goes to show the seriousness with which EURATOM accompanies nuclear activities.

EURATOM safeguards are expressed in an original manner with guarantees given by the International Atomic Energy Agency (IAEA) in the framework of the three-party agreements entered into by the Member States, the Community and the IAEA. Presently, there exist three guaranty agreements at the EU level, binding on the one hand the thirteen Member States not disposing of nuclear arms, then France and finally the United Kingdom. Additional protocols to these agreements, concluded in the framework of the safeguards reinforcement programme, have been signed by the Member States and the Community in 1998. They still have to be ratified by some Member States. It is however reasonable to assume they will enter into force in 2003.

In order to render safeguards still more effective and to allow the implementation of additional protocols, the Commission has submitted to the Council the project of a new safeguard regulation which covers in particular nuclear waste.

EURATOM safeguards have enabled the Community to achieve an undisputed credibility as far as non-proliferation of nuclear arms is concerned. These safeguards offer a genuine guaranty for States supplying nuclear material as to their use. The unique character of these safeguards is furthermore expressly recognized in the agreements concluded by the Community with these States. The EURATOM safeguards have thus largely contributed to ensure safety in the supply of nuclear materials in the Community.

- **Chapter 10 : External relations**

According to article 101.1 of the Treaty, «*the Community may, in the framework of its competence, commit itself by signing agreements or conventions with a third State, an international organisation or a national of a third State.* »

The agreements are negotiated and concluded by the Commission according to the Council's guidelines. The conclusion of these agreements is however subject to the Council's approval which decides by qualified majority. Presently, there are many EURATOM agreements that organise nuclear cooperation with countries such as the United States, Australia, Canada or shortly Japan and Uzbekistan. The negotiation guidelines for concluding an agreement with China are presently discussed in the Council. The Commission intends to propose shortly a negotiation guideline project for the conclusion of an agreement on commerce with nuclear material with the Russian Federation. Apart from these agreements with a relatively general field of application, there are also many more specialized agreements in the area of research, particularly with the United States, Brazil, Argentina or the Russian Federation.

It is impossible to talk of the EURATOM Treaty without broaching the issue of the enlargement of the European Union. Indeed, it is in order to question the ability of this sector-based treaty, which was concluded more than 45 years ago, to face the challenges of an unprecedented enlargement.

The next enlargement, in this case the fifth, highlighted the nuclear sector and particularly the issues affecting nuclear safety. Nevertheless, other aspects linked to that energy source are equally important in the global context of an enlarged Union.

II. INNOVATIVE INITIATIVES BASED ON THE EUROATOM TREATY

From this perspective, the Commission intends to shortly submit four initiatives on the safety of nuclear installations, the dismantling of nuclear installations, nuclear waste management and the supply of nuclear materials. These four initiatives are all legally based on the EURATOM Treaty. This is no secret; the press has already spread the news.

- **Towards a new safety approach of nuclear installations**

The Directorate-General for Energy and Transport would welcome the implementation of a common and Community safety approach for nuclear installations. This would require the definition of a common reference framework. Indeed, even if the references in the area of nuclear safety would be the same, the practical implementation of nuclear safety would still vary considerably between Member States.

The dismantling of nuclear installations

The European Parliament itself revealed during its examination of the interior energy market that provisions concerning **dismantling funds** for electro-nuclear power stations were indispensable. The Commission's propositions naturally meet such requirements.

The current situation within the EU shows disparities harmful to the smooth functioning of the internal market, which hamper healthy competition in the electrical sector. This disparity is likely to increase dramatically in an enlarged Union. It is indeed essential, particularly with regard to radioprotection, to guaranty the availability and sufficiency of dismantling funds for shutdown activities and thus ensure they are only used for these activities.

As to the applicant countries, the issue is particularly urgent. Indeed, there are eight nuclear units which should be shut down between 2002 and 2009. But the funds that are presently available are generally insufficient, mainly for two reasons. On the one hand, they were provided at a late stage. On the other, the early shut-down of the power stations does not, in any case, entail the abundance of sufficient funds. Sure, the Phare Programme and EURATOM loans may meet and partly compensate for these shortages, but the creation of the internal market and the respect of the environment demand that Community rules in an enlarged Union ensure the availability and sufficiency of funds. An intervention at the Community level is thus required.

Dismantling represents the ultimate stage in the life of a nuclear installation. This activity, like other nuclear activities, generates waste, some of which remains radioactive and thus presents a health hazard for periods which can be extremely long. Presently, technical solutions exist to ensure safe management of radioactive waste.

- **Nuclear waste management**

Whatever the future of nuclear energy, whatever use it is put to, whether in the energy or medical sector, whether one is in favour or against nuclear energy, the resulting **nuclear waste** requires radical solutions. So far, nuclear waste has not been the object of an active policy defining the rules of definitive storage. Radioactive waste have been accumulated for nearly half a century in various conditions, according to the Member States and the applicant countries either close to nuclear power stations or at intermediary storage sites. This method of temporary and, at present, permanent storage raises concerns as to the vulnerability of these sites after the events of September 11, 2001.

Some States have taken time out to reflect on the ultimate disposal of long-life waste. Others have already opted for definite underground storage. The applicant countries have begun to concern themselves only relatively recently with waste management. In the past, the waste would have been re-expedited to Russia at relatively low cost. Thus, the applicant countries are presently confronted with an accumulation of irradiated fuel near nuclear power stations, an unacceptable situation in the long term. The EU should make sure that decisions are taken within a reasonable time limit and in the interest of future generations. Action at the Community level is required.

As stressed in the Green Book on the security of energy supply, the nuclear option could only be pursued if the issue of nuclear waste would finally be resolved satisfactorily and with the utmost transparency. The opinion polls recently carried out by the Commission (Eurobarometer) have confirmed this analysis and shown that the clear definition of a waste management policy would considerably improve the acceptance by the public of nuclear energy.

Research in the area of waste management technology that would allow the reduction of radioactive elements with a long half-life are no alternative to geological storage which could be implemented in the short and in the medium term. They should be pursued to enable future generations, thanks to the reversibility of definite storage, to turn to new waste treatment technologies as, for example, transmutation. This is why the 6th Research Framework Programme for the years 2002-2006 has allocated half the available funds for the nuclear sector to research on waste disposal.

CONCLUSION

The impending enlargement which, as I already mentioned, focuses particularly on the nuclear sector, shows that the EURATOM Treaty is a vital instrument capable of facing the challenges raised by this unprecedented modification of the EU's outlines.

"The opinions expressed in this speech are those of the author and do not represent the official point of view of the European Commission"

Jo Leinen MEP, Committee on Constitutional Affairs, European Parliament, Belgium: "The EURATOM Treaty and the European Constitution: Arguments for phasing out the EURATOM Treaty and the embodiment of a Chapter on Energy in the future European Constitution"



From former core element of integration to anachronism

In 1957, the founding fathers created parallel to the Economic Community also the European Atomic Energy Community. According to the principle "Atomic energy for peaceful use" the **EURATOM Treaty** represented an essential mainstay of common European energy policy. Its objective was twofold: to promote atomic energy as energy source of the future and to protect the population and the environment from the harmful effects of nuclear power. Funds were made available for research and investment incentives, a proper supply agency and other special institutions were set up.

But for the common promotion of atomic energy the Member States employed different strategies to ensure security of supply in their countries. While France strongly favours nuclear power with approximately 42%, the importance of nuclear energy in the primary energy supply is considerably less with 16% at the EU average. Five out of eight Member States using nuclear energy have decided to withdraw from the nuclear energy programme. On a world-wide scale, the importance of nuclear energy is even lower. Only approximately 2 % to 3 % of end-user energy world-wide is produced by nuclear power. It remains far behind the energy sources oil (40 %), coal (26 %) and natural gas (24 %). Even renewable energies have a share of 6%.

Presently, the EURATOM Treaty changed in several aspects **from former core element** of the European integration process **into an anachronism** in the European agreements:

1. The EURATOM Treaty runs counter efforts to make the agreements more transparent and effective as well as their standardization.

After the expiry of the ECSC Treaty in July 2002, the EURATOM Treaty represents a unique special agreement that did not fit into the structure of the EU agreements of Maastricht, Amsterdam and Nice. Furthermore, the EURATOM Treaty itself presents considerable shortcomings. Institutions and procedures often lack efficiency. The competences are incomprehensible for the citizens and scattered among the general directorates of the European Commission.

The *Safety management executive* lacks funds and competences to fulfil its task – the supervision and accounting of the use of nuclear material. With 1.5 million reports on stocks, the executive must largely rely on data provided by the operators. Only once in the past 45 years, examining commissions were sent for four days each to the processing plants in Sellafield and The Hague – sites where 75% (approximately 125 tons) of separated plutonium used for civil purposes is stored. Five kilograms of plutonium would suffice to build a nuclear weapon. Altogether, 530 tons of plutonium, 9.8 tons of highly enriched and 313000 tons of weakly enriched uranium have to be supervised. Material used for military purposes remains totally outside any control.

The role of the *EURATOM supply agency* appears obsolete. It was meant to ensure non-discriminatory access to scarce fissionable material by common supply and prevent its misuse. It could never fulfil this role because it became apparent rather quickly that there was no scarcity. The regulations on *ownership in chapter VIII* were worded so vaguely that the European Community was granted the right to exclusive ownership but not the right to possession. The Member States profited from this situation to conclude supply agreements bypassing the agency and thus making it useless.

Efficiency and capacity to act are also lacking in the regulations in the area of *Health and Environmental Protection*. Important issues, particularly concerning the safety of power stations, waste disposal or final storage are not dealt with. There are no European standards for the construction and operation of nuclear facilities. In the light of the imminent enlargement towards Middle and Eastern Europe, such shortcomings can no longer be justified. The European Court of Auditors, in a special report of November 1998, arrives at a shattering conclusion on the results so far of the programmes Tacis and Phare to enhance nuclear safety in the former Soviet Union and Middle Eastern Europe. The bulk of the 966 million euros made available was largely squandered ineffectively, according to the report. In the final assessment it says that the Commission directorates were unable to "supervise measures in a satisfactory manner, to deal with problems quickly and to examine the quality of contractor performance."

2. All the more reason for concern is that the role of the European Parliament as supervisory and legislative organ is being undermined. The regulations reflect an institutional power structure dating back to European political primeval times that is no longer acceptable.

Those responsible for the EURATOM Treaty – in particular the Commission - largely exercise their authority without parliamentary supervision. Parliament is excluded from the co-decision process during the negotiation of international nuclear treaties and the granting of loans under the EURATOM Treaty. The problem of lack of control is also demonstrated by the EURATOM research programme, for example. From 2002 to 2006 it has been estimated at 1.23 billion euros, after all 7.6% of the total EU research budget. The research funds are spent largely on further nuclear fission research, while the second core task – research for the protection of citizens – is neglected. A mere right to make recommendations, as granted to the European Parliament in the EURATOM Treaty, no longer fits its role of co-decision organ determined in the Amsterdam and Nice Agreements. Thus, the European Parliament may not prevent unilateral preferential treatment in the allocation of funds. After 45 years it is time to abolish these democratic shortcomings, particularly before the background of yearly spending of 246

million euros for nuclear research, more than two and a half times as much as for the total area of reusable energies.

3. The EURATOM Treaty should be scrapped and replaced by a chapter on energy in the European Constitution. The EURATOM Treaty prevents the solution of energy-political challenges of the security of supply, the uniform European energy market and future-orientated climate policy.

Presently, the Member States are more interdependent than in the past. In the common market energy-political decisions taken by one country have an impact on the markets of the other Member States. Therefore, energy policy must be adapted to common challenges. These are the completion of the internal energy market, safeguarding the security of supply and – the most urgent challenge these days – the fight against climatic change.

The common **internal energy market** needs framework regulations guaranteeing fair competition. This runs contrary to the unilateral preference of the energy source of nuclear power. Subsidies of billions of euros hamper equal opportunities among the different energy sources.

Events like Chernobyl and the terror attacks of September 11 highlight the risks and the vulnerability of nuclear installations. In order to guarantee **security of supply** for the benefit of the citizens and the economy, we need diversification and more decentralized energy supply. The Green Book of the European Commission entitled "Towards a European Strategy for Security of Energy Supply" offers a basis for discussion thereon.

The energy supply should be oriented towards future problems. The most important is **climatic change**. The EU has, in the framework of the Kyoto process and at the UN Conference in Johannesburg, reaffirmed its determination to increase the share of renewable sources of energy to 15% of total energy production until 2010. By its active intervention, the EU has become the trailblazer on issues of the protection of the atmosphere world-wide. This role must be maintained and reinforced and embodied in the bases of the common European Constitution.

A chapter on energy for the future European Constitution

Both from an institutional, economic and ecological point of view a revision of the European energy policy seems to be imperative. Many energy-political issues can no longer be resolved only at the national level but require **European solutions**. To this end, the competences have to be adapted at the Community level. **The Convention on the Future of the European Union and the Intergovernmental Conference end 2003 offer the historic chance to lay the constitutional foundations for a European energy policy that is forward-looking.** To this end, a **working group** should be set up in the **Convention**.

Textually, the reforms should be adjusted to the following cornerstones:

- 1) Energy policy should be further developed from a heretofore largely national to a European policy. This requires a proper common legal basis in the shape of a new **energy chapter in the future European Constitution**.
- 2) European energy policy should pursue the objectives of **security of supply, protection of the atmosphere and fair competition**.
- 3) All **sensible components of the EURATOM Treaty**, particularly the protection of humans and the environment against the harmful effects of nuclear installations, should be **integrated into the European Constitution**. They should however be subject to **qualified majority decision** in the Council as well as **co-decision** by the European Parliament.

- 4) **Preference for atomic energy must cease.** To this end, all articles relating to the finality and instruments should be deleted that prioritize atomic energy over other primary energy sources. For example, article 1 and the conditions for EURATOM loans are to be mentioned in this connection.

Environmental protection and global partnership in energy supply should be part of the “European model”. A chapter on energy in the European Constitution should create the basis of a sustained European energy policy.



**Friends of
the Earth
Europe**



Under the patronage of the MEPs
Nicholas CLEGG, Jorge MOREIRA DA SILVA, Claude TURMES, Mechtild ROTHE

EURATOM conference
“After 45 years of nuclear promotion: time for change”

Thursday 12th September 2002
European Parliament, Eastman Building, Room 170, Rue Belliard 135, Brussels

PROGRAMME

Session 1: Introduction on EURATOM and reform proposals
9:00 – 11:00

Chair: Martin Rocholl, Friends of the Earth Europe

- Welcome and opening by the patrons and the organisers of the event
- Dr Mervyn O'Driscoll, Lecturer in Modern European History and European Integration Studies, University College, Cork, Ireland: "What is EURATOM and how does it work"
- Olivier Deleuze, State Secretary for Energy and Sustainable Development, Ministry for Mobility and Transport, Belgium: "EURATOM in an open energy market"
- Peer de Rijk, Coordinator, World Information Service on Energy, The Netherlands: "Need for EURATOM reform from a NGO perspective"

Discussion

11:00 – 11:30
Coffee break

Session 2: EURATOM loans in practise
11:30 – 12:30

Chair: Jürgen Ditthard, Friedrich-Ebert-Stiftung

- Petko Kovatchev, Executive Director, Centre for Environmental Information & Education - CEE Bankwatch Network, Bulgaria: "EURATOM project in Bulgaria – the role of the EU Commission and of the Bulgarian authorities"
- Antonio Tricarico, Coordinator, Campagna per la Riforma della Banca Mondiale, Italy: "Cernavoda II – A new reactor for Romania?"
- Antony Froggatt, Consultant, UK: "The extension of the EURATOM loan ceiling: an opportunity for EURATOM reform?"

Discussion

12:30 – 14:00
Lunch

Session 3: Options for EURATOM reform

14:00 – 16:00

Chair: Anja Köhne, Heinrich-Böll-Stiftung

- Nina Commeau-Yannoussis, Head of Unit "EURATOM Coordination and Nuclear Safety" of DG TREN, European Commission, Belgium: "Why we still need EURATOM"
- Andreas Molin, Head of Division Nuclear co-ordination of the Federal Ministry of Agriculture, Forestry, Environment and Water Management, Austria: "Possibilities to phase out or reform EURATOM"
- Jo Leinen, MEP, Committee on Constitutional Affairs, European Parliament, Belgium: "The EURATOM Treaty and the Constitutional Future of Europe"

Discussion

16:00 – 16:30
Coffee break

Session 4: Panel discussion and closing

16:30 – 18:00

Chair: Anja Köhne, Heinrich-Böll-Stiftung

- Panel discussion with the following speakers:
 - Nina Commeau-Yannoussis, Head of Unit "EURATOM Coordination and Nuclear Safety" of DG TREN, European Commission
 - Andreas Molin, Head of Division Nuclear co-ordination of the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW)
 - Dr Mervyn O'Driscoll, Lecturer in Modern European History and European Integration Studies, University College Cork
 - Claude Turmes, MEP, European Parliament
 - Peer de Rijk, Coordinator, World Information Service on Energy

Followed by a reception

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Biographical notes of Speakers

Martin Rocholl, Dr., obtained his diploma in Biology at the University of Freiburg (1988), followed by his PhD in Plant Molecular Biology (1995), research on transgenic plants. He is the founder of the global network A SEED (Action for Solidarity, Equality, Environment and Development), later he initiated the sustainable city project in Freiburg "Forum Vauban" (Life project of the European Union). From 1996 on he was with Deutscher Naturschutzring (German umbrella organisation of all environmental groups) as coordinator of the nation wide ecological tax reform campaign (1996-1997) which resulted in a national ecological tax law (Ökologische Steuerreform). Since 1998 he is the Political Coordinator of Friends of the Earth Europe in Brussels, since February 2001, Director of Friends of the Earth Europe. Martin Rocholl is the author of the book "Die Ökologische Steuerreform" (Ecological Tax Reform) (Birkhäuser 1998)

Nick Clegg was elected as Liberal Democrat MEP for the East Midlands in June 1999. He is a Member of the European Parliament's Trade & Industry Committee and DTI spokesman for the ELDR group. He takes a particular interest in trade, energy and telecoms policy. In September 2000 he published "Doing less to do more: a new focus for the EU". Nick's other publications include "Trading for the Future: Reforming the WTO" (Centre for Reform, London, 2001), a pamphlet analysing the weaknesses of the world trading system; and a study "Learning from Europe, lessons in Education" (May 2002) comparing European secondary education systems.

Mervyn O'Driscoll, MA (NUI), PhD (Cantab). British Council Chevening Fellow, University of Cambridge 1992-95. Junior Research Fellow, Wolfson College, Cambridge 1995-96. He has written extensively on nuclear politics and was co-author of the report "The European Parliament and the Euratom Treaty; past, present and future", published by Directorate-General for Research, European Parliament, 2002.

Peer de Rijk, started working on nuclear energy issues in 1980 as a volunteer activist in several small grassroot groups. 1990 to 1996, he worked as Energy campaigner at Milieudefensie (Friends of the Earth Netherlands) responsible for climate and energy work. 1997 to 2000, he was the Nuclear energy campaigner for WISE Amsterdam. Since 2000 he is the Coordinator of WISE, responsible for internal coordination, media, campaigning strategy, fundraising and national political work.

He is Member of the Board of Nuclear Information & Resource Service (NIRS), Member of the Board of the X-Y fund, Member of the Board of Vereniging WeeGee, Member of the Board of Stichting RWW

Jürgen Dithard studied politics, European integration and history in Cologne, Lisbon and Bruges. Currently he is the project manager on EU Programmes at the Brussels office of the Friedrich-Ebert-Stiftung since 1999. His task is the following of and advising on EU economic and social policies and its effects on German policy-making.

Petko Kovatchev, born 1966, obtained a Master of Science in Economics degree. Presently is the Executive Director of the Centre for Environmental Information and Education.

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