



# ***Nuclear fuel supply in the Euratom Treaty: the role of the Euratom Supply Agency***

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## ● Summary

- 1 *Mission of ESA*
- 2 *Tools given to ESA to implement the common supply policy*
- 3 *Nuclear fuel market monitoring*
- 4 *Imports of enrichment services from Russia*
- 5 *ESA Advisory Committee*

*or*

*How to read the Chapter 6 'SUPPLIES'  
Of the Euratom Treaty ...*

# ● 1 Mission of the Euratom Supply Agency

Historical and still valid key mission:

ESA's main mission, according to the Euratom Treaty, is to ensure that all users in the Community receive **regular and equitable supply** of **ores and nuclear fuels**.

The Treaty also establishes **a common supply policy** for the nuclear fuel, based on principle of **equal access** to sources of supply.

New role given to ESA in 2008:

The revised Statutes of ESA (2008) state that ESA should also fulfil an enhanced **market observation and monitoring role**.

# ● 1 Mission of the Euratom Supply Agency

## Basic facts about ESA itself:

- In order to implement the supply policy, the **Euratom Supply Agency was set up** in 1960 and was entrusted with a number of tools.
- **It is a unique Agency in the EU** which was **set up by one of the funding treaty**. *ESA shall have legal personality and financial autonomy.*
- From its establishment in 1960, ESA was based in Brussels. **In June 2004 it was moved to Luxembourg.**
- Currently ESA employs 19 people.

# ● 1 Mission of the Euratom Supply Agency

Materials covered by the common supply policy implemented by ESA:

- Special fissile materials: enriched uranium (LEU and HEU), plutonium;
- Source materials: natural and depleted uranium, thorium;
- Ores.

Who are ESA main partners ? "users" and "producers" of nuclear materials in the EU:

utilities - all NPP operators, RR operators, intermediaries, uranium producers, providers of conversion, enrichment, fuel fabrication, reprocessing, storage services.

- **2 Tools to implement the supply policy**

## **THE RIGHT OF OPTION**

The Agency has a **right of option** on nuclear materials **produced within** the Community.

The right of option is exercised through the conclusion of supply contract: by concluding the contract, the Agency waives its right of option on the nuclear materials concerned.

## ● 2 Tools to implement the supply policy

### **EXCLUSIVE RIGHT TO CONCLUDE SUPPLY CONTRACTS:**

it applies to:

**All Supply Contracts**, meaning:

- change of ownership of the material,
- all kind of transactions (sale, purchase, exchange, loans),
- in relation to any kind of nuclear material.

**Supplies from both Inside and Outside** the Community.

## ● 2 Tools to implement the supply policy

- Regarding the commercial supply contract conclusion, ESA has particularly **far-reaching competences** which do not exist in any other sector of the EU energy policy.
  - *ESA acts as a third party to the contracts and one original of the concluded contracts remains in ESA (substantial archives stored).*
- The European Court of Justice in the “KLE” judgement acknowledged that ESA has **a large margin of appreciation in deciding what is necessary for the security of supply.**
  - *For example, ESA has a right to limit purchases from one supplier if the dependency is considered too high.*

## ● 2 Tools to implement the supply policy

⇒ **Simplified procedure**

### **ESA's intervention in the conclusion of supply contracts:**

- 1) Before the submission of the contracts to the Agency for conclusion:
  - commercial parties (utilities, intermediaries, research reactors) **negotiate modalities of their supply contracts** without ESA participation,
  - parties are recommended to always submit the draft contract to ESA for advice.

## ● 2 Tools to implement the supply policy

### ESA's intervention in the conclusion of supply contracts:

2) Following the signature of the contract by the parties:

If the Agency agrees with the contract, it :

- **concludes the contract by co-signing the three originals,**
- attributes a reference number,
- returns two originals to the parties and informs of the reference number,
- the third original is kept for the Agency's file.

**The Agency may also impose conditions or refuse to sign** the contract on the basis of a motivated decision.

## ● 2 Tools to implement the supply policy

Supply contracts have to be concluded by ESA to be valid and enforceable under Community law.

Agency's decision may be challenged through the European Commission.

In 2 cases, conclusion of a supply contract requires also an **authorization from the European Commission:**

- when nuclear material produced in the Community is **exported** (Article 59 b and 62 c),
- contracts that have a duration of more than **10 years** (Article 60, §2).

## ● 2 Tools to implement the supply policy

Recent example of ESA's intervention in the conclusion of a supply contract

One EU based company presented a sales contract consisting of a commitment **to sell** EU produced natural uranium **to a non-EU company** (i.e., export, Art.59b) for a period **exceeding 10 years** (i.e., time frame, Art.60, §2).

Both involved commercial companies negotiated commercial terms of the contract, however ESA imposed **specific conditions to be respected** by the companies **in case there is a natural uranium supply shortage in the EU**: they were fixed in **an Amendment** to the initial commercial contract.

**Only on the basis of ESA's requested conditions**, it was possible to receive **the Commission's authorization** (through the written procedure) to conclude this contract.

## ● 2 Tools to implement the supply policy

⇒ **Exception to the Simplified procedure:**

**For the supplies of HEU and LEU** (enriched up to 19,9%),

taking into account **the potential shortage of these materials** on the EU market,

ESA is looking for the possibility **to be involved in the supply transaction at an earlier stage:** i.e., when negotiations and drafting of the supply contract by the commercial parties starts.

## ● 2 Tools to implement the supply policy

**Other cases of ESA intervention** but not requiring conclusion of contracts by ESA:

- Transfer, import, export of **small quantities** (defined on the next slide) of nuclear material **shall be notified** to the ESA,
- **Services commitments** such as conversion, enrichment, storage and fabrication of nuclear fuel as well as reprocessing of spent fuel **have to be acknowledged** by the Agency.

- **2 Tools to implement the supply policy**
  - European Court of Justice in its « INB » judgement of 2006 decided that **enrichment was a 'service'** and not a product supplied.
  - Therefore, ESA practice of concluding supply contracts about enrichment had to be changed to the acknowledgment of **enrichment service notification**.
    - Now, provision of enrichment without selling or buying the uranium is only notified to ESA under Article 75.
  - The US Supreme court has however confirmed the opposite definition of the enrichment: in the States, it is still considered as a 'product'.

## ● 3 Nuclear fuel market monitoring

### MARKET MONITORING

The revised Statutes of ESA (2008) state that ESA should also fulfil an enhanced **market observation and monitoring role**.

This activity is carried out by **analyzing commercial information** submitted by the utilities and in cooperation with ESA Advisory committee.

 NB: individual commercial data is never published by ESA, only aggregate information is made available

## ● 3 Nuclear fuel market monitoring

- Uranium **data**, including prices are **collected** directly **from utilities** or via their procurement organizations from end-of-year questionnaires.
- ESA compares the data on deliveries and prices reported in **questionnaires** with the data submitted at the time of conclusion of the **contracts**.
- ESA gives its vision of the **global** nuclear fuel market and detailed analysis of the EU market.

## ● 3 Nuclear fuel market monitoring

### ESA ANNUAL REPORT

Presentation of the **EU nuclear fuel market developments** in 2011 based on:

- Information provided as of **31 January 2012**;
- by the 18 EU utilities generating nuclear power or their procurement organisations;
  - operating **134** reactors;
  - located in **14** Member States;
  - **28%** of the EU energy mix;
  - generating **34%** of world nuclear electricity supplied.

# 3 Nuclear fuel market monitoring

## EU Demand of U

U contained in fuel loaded and fuel delivered to EU-27 Utilities in tonnes U, 2002-2011



**Fuel delivered**  
17 832 tU

>

**Fuel loaded**  
17 465 tU

## ● 3 Nuclear fuel market monitoring

### Future Demand of U

EU and worldwide up to 2030

- EU U demand is approximately **stable** around **18 000 tU /year** up to 2030 whereas global demand is increasing rapidly
- EU Share of Global U Demand falls from **29%** in 2011 to **16%** in 2030

Year	2011	2015	2020	2030
EU Demand	21.130	18.537	18.178	17.729
Global Demand*	62.552	72.682	87.014	107.557
EU Share (%)	34%	26%	21%	16%
Growth rate (of Global demand as of 2011)	-	16%	39%	72%

## ● 3 Nuclear fuel market monitoring

### Supply of U

Global supply ~ **70,000tU**

- **Primary supply**

- ▶ Newly mined uranium
- ▶ Covers **75%** of world requirements
- ▶ Annual capacity (2011)~ **53,000tU**

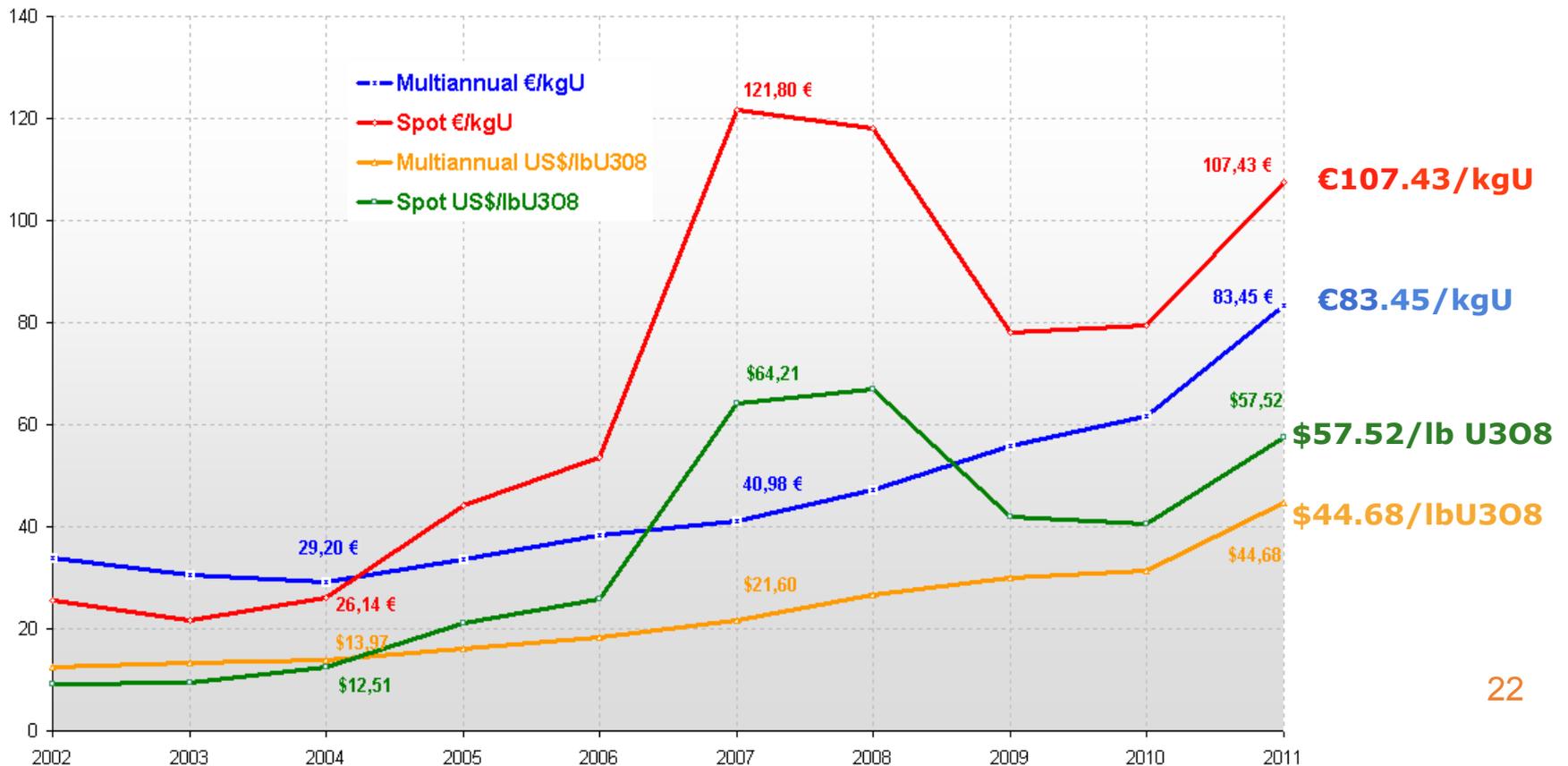
- **Secondary Supply**

- ▶ Covers **25%** of world requirements or ~**17,000tU**
- ▶ inventories, downblending of weapons grade uranium, reprocessing of spent fuel and re-enrichment of depleted uranium tails
- ▶ To decline by 2030

# ● 3 Nuclear fuel market monitoring

## ESA U Prices

Calculated Average price indices  
based on the contracts concluded by EU utilities, 2002-2011

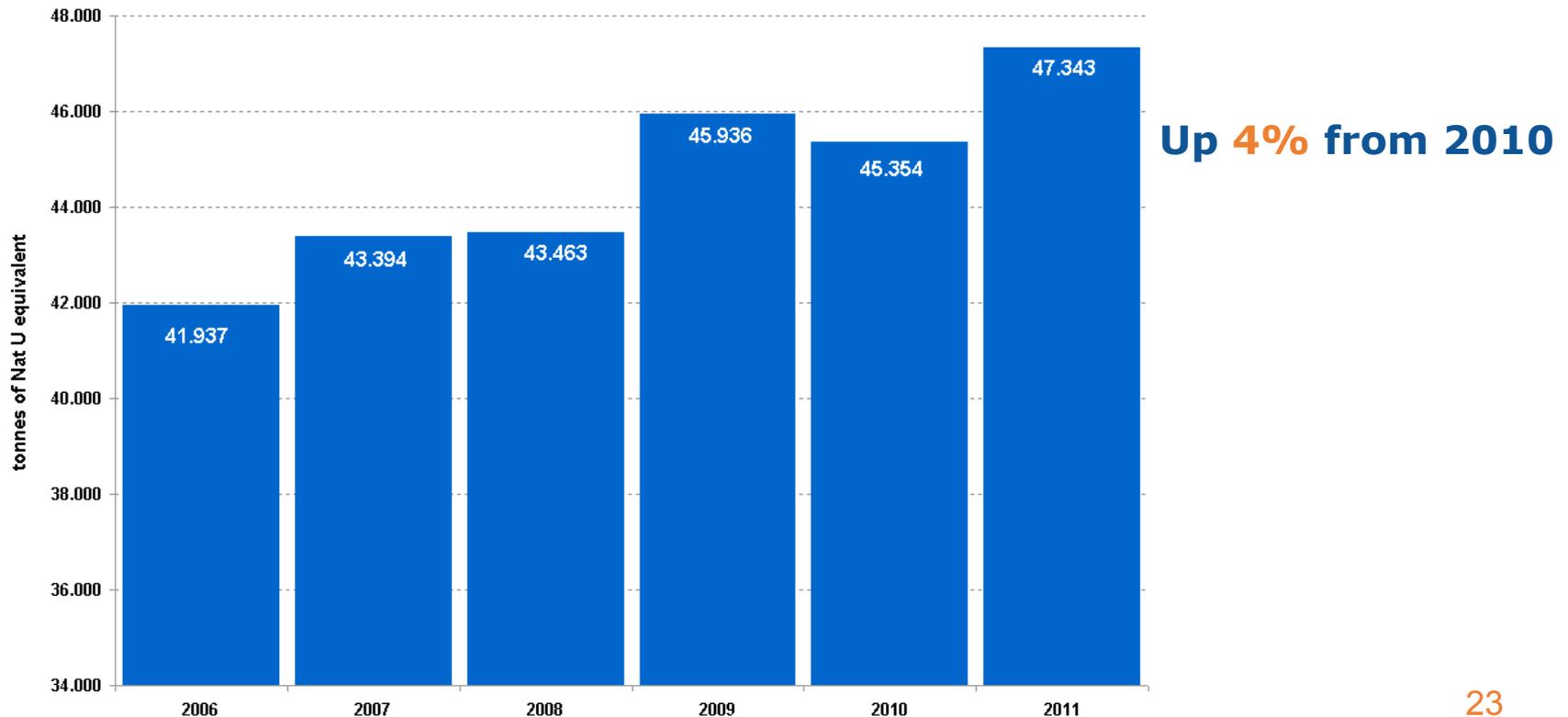


# 3 Nuclear fuel market monitoring

## Security of Supply

EU Uranium stocks

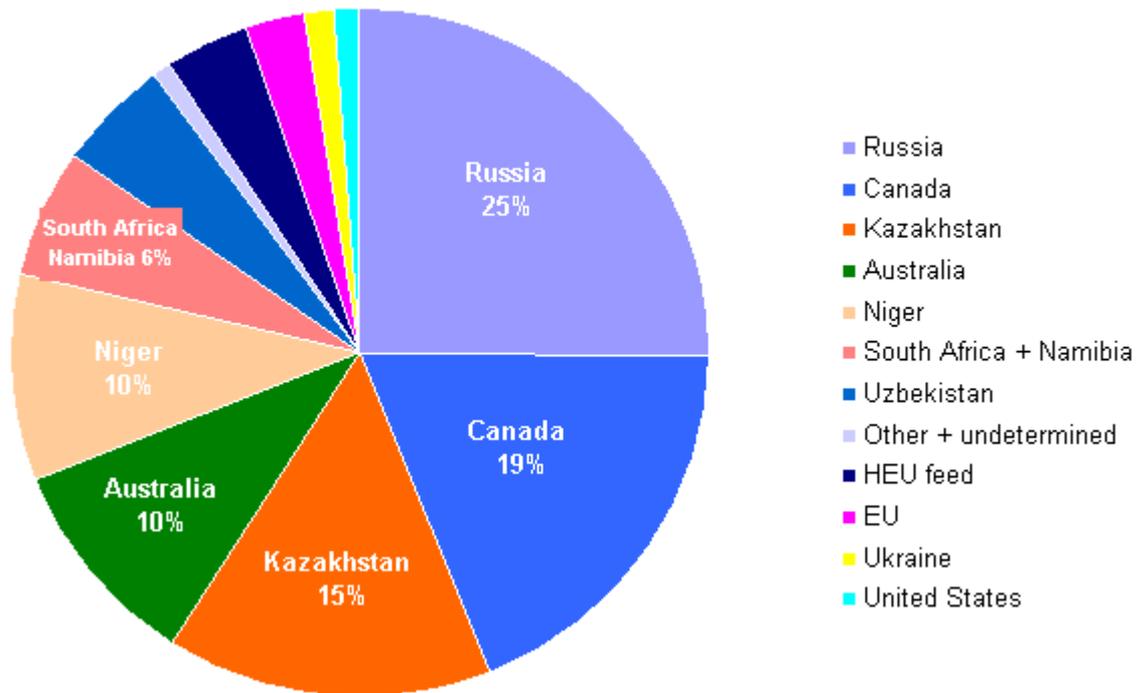
Enough to cover more than **2½** years of estimated demand for NatU



# ● 3 Nuclear fuel market monitoring

## Security of Supply

Diversification of U origins, supplied to EU Utilities



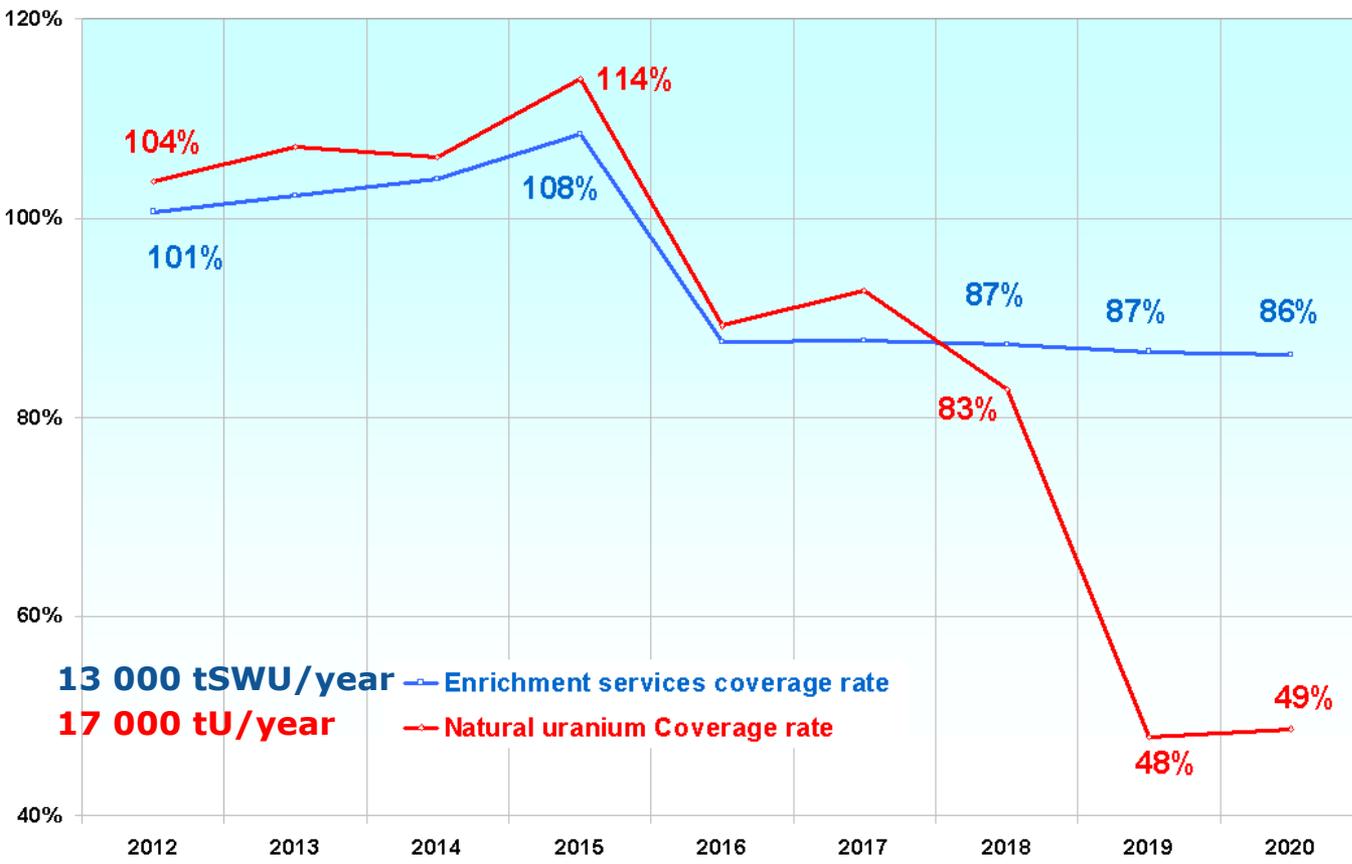
5 continents

13 countries

# 3 Nuclear fuel market monitoring

## Security of Supply

Long-term contractual coverage for U and SWU of EU utilities, 2012-2020



**max Contracted deliveries**

**Net Reactor req.**

**U:** more than 80% covered until 2018

**SWU:** more than 80% covered until 2020

- **4 Imports of enrichment services from Russia**

**Corfu declaration** - Statement by the Council and the Commission in 1994.

Imports of enriched uranium services from Russia should not threaten the viability of the EU industry.

**The Council's Mandate** to the Commission in 2009: the then status quo to be maintained.

**Grandfathered contracts** (mainly MS after 2004).

Russia's accession to WTO may present further challenges to this policy.

## ● 5 ESA Advisory Committee

52 members appointed for 3 years by Member States.

Experts in the field of trade of nuclear materials and services (represent companies & governments).

Advisory Committee meets twice per year – the new chairperson is Mrs Marlies Hoedemakers, from The NL.

It gives opinion on ESA Annual report and discusses current issues.

Its Working Group on Security of Supply advises ESA on ESA market monitoring tools.

## ● CONCLUSION

In accordance with the EURATOM treaty,

ESA ensures security of supply by applying the common supply policy:

- requires **diversification** of sources,
- recommends to **conclude long term contracts** and to **keep inventories**.

Through its publications, ESA monitors market situation and **increases nuclear fuel market transparency**.

Further information available at:

[http://ec.europa.eu/euratom/index\\_en.html](http://ec.europa.eu/euratom/index_en.html)

# Thank you for your attention!