

# Exiting Euratom.



Nuclear Industry Association

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THE UK'S WITHDRAWAL  
FROM EURATOM

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MAY 2017

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# Introduction

This paper, written by the Nuclear Industry Association (NIA) with the support of its members, outlines the purpose of the Euratom Treaty, its key functions and benefits, and what industry needs from the negotiation with the European Commission if serious disruption to normal nuclear business both in the UK and across the European Union is to be avoided.

The NIA and its members made the case to Government that it is not necessary to leave Euratom as part of the Brexit process, but, having decided to leave Euratom, the key now is for Government to work closely with industry on the replacement arrangements required. Our message is that it is imperative to maintain the benefits derived from the current membership of the Euratom Treaty by creating equivalent new arrangements. In doing so, Government must ensure as smooth and effective changeover as possible, and must explore whether an implementation period is necessary.

The structure of this paper has been designed to provide a logical process to support the Government's negotiation for a positive outcome over the UK's withdrawal from Euratom. To assist the Government's plan it must, at the earliest possible opportunity:

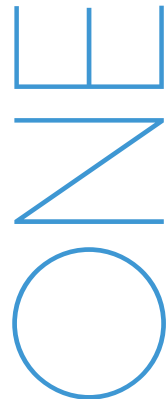
- a. Agree a replacement Voluntary Offer Agreement<sup>1</sup> with the IAEA for a new UK safeguards regime
- b. Replace the Nuclear Co-operation Agreements (NCA) with key nuclear markets; the Euratom Community, United States, Canada, Australia, Kazakhstan and South Korea
- c. Clarify the validation of the UK's current bilateral Nuclear Co-operation Agreements with Japan and other nuclear states
- d. Set out the process for the movement of nuclear material, goods, people and services
- e. Agree a new funding arrangement for the UK's involvement in Fusion 4 Energy and wider European Union nuclear R&D programme
- f. Maintain confidence in the industry and secure crucial investment

1] Agreement of 6 September 1976 Between the United Kingdom of Great Britain and Northern Ireland, the European Atomic Energy Community and the Agency in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons – [www.iaea.org/publications/documents/infcircs/text-agreement-6-september-1976-between-united-kingdom-great-britain-and-northern-ireland-european-atomic-energy-community-and-agency-connection-treaty-non-proliferation-nuclear-weapons](http://www.iaea.org/publications/documents/infcircs/text-agreement-6-september-1976-between-united-kingdom-great-britain-and-northern-ireland-european-atomic-energy-community-and-agency-connection-treaty-non-proliferation-nuclear-weapons)

# Overview

- 1.1 The Government announced in the explanatory notes of the European Union (Notification of Withdrawal) Bill 2016-17<sup>2</sup> that the UK will withdraw from the European Atomic Energy Community (Euratom) as part of the Brexit process. This position was reaffirmed in the Prime Minister's letter<sup>3</sup> to the President of the European Council triggering Article 50.
- 1.2 Euratom was formed by the Treaty Establishing the European Atomic Energy Community<sup>4</sup> (the Euratom Treaty), signed in 1957. The UK joined Euratom when it joined the European Economic Community (EEC) in 1973.
- 1.3 The UK's nuclear industry had argued the UK should remain in Euratom following the UK's departure from the European Union, but Government has concluded leaving is necessary because the Euratom Treaty and the Treaty on European Union<sup>5</sup> are "uniquely legally joined".
- 1.4 It is worth noting the notification for withdrawal from Euratom is not tied to the Article 50 notification, and as they are separate processes, Government should preserve flexibility as to when the existing Euratom arrangements will be terminated.
- 1.5 Against this background the NIA and its members call on the Government to ensure there is continuity of current arrangements that maintain the benefits derived from Euratom membership through an implementation period and beyond. This means:
  - a. There must be no 'cliff edge' when the UK leaves the Euratom Treaty which would cause disruption to current arrangements
  - b. Government should produce a timeline for the process, ensuring that key dependences are understood
  - c. Government must agree an implementation period if necessary, to allow enough time to negotiate and complete new arrangements with European Union member states and third countries
  - d. Consideration should be given to the UK remaining a member of Euratom until new arrangements are in place
- 1.6 The nuclear industry welcomes the Government's continuing commitment<sup>6</sup> to the nuclear sector, and to maintaining the highest standards of nuclear safety. We also welcome its early engagement with the industry on the Euratom issue. However it is vital this dialogue between Government and industry continues as the Brexit negotiations progress to maintain this confidence.

- 2] European Union (Notification of Withdrawal) Act 2017 – <http://services.parliament.uk/bills/2016-17/europeanunionnotificationofwithdrawal.html>
- 3] Prime Minister's letter to Donald Tusk triggering Article 50 – [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/604079/Prime\\_Ministers\\_letter\\_to\\_European\\_Council\\_President\\_Donald\\_Tusk.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/604079/Prime_Ministers_letter_to_European_Council_President_Donald_Tusk.pdf)
- 4] Official Journal of the European Union, Consolidated Version of The Treaty Establishing the European Atomic Energy Community – <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CJ:C:2010:084:0001:0112:EN:PDF>
- 5] Treaty on European Union and the Treaty on the Functioning of the European Union – <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A12012M%2FTXT>
- 6] HM Government, The United Kingdom's exit from and new partnership with the European Union White Paper – [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/589191/The\\_United\\_Kingdoms\\_exit\\_from\\_and\\_partnership\\_with\\_the\\_EU\\_Web.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/589191/The_United_Kingdoms_exit_from_and_partnership_with_the_EU_Web.pdf)



# What is Euratom?



- 2.1 Signed in 1957 by Belgium, France, Germany, Italy, Luxembourg and the Netherlands, the Euratom Treaty's principal aim is, "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."<sup>4</sup>
- 2.2 The structure and scope of Euratom is set out in Article 2 of The Treaty Establishing the European Atomic Energy Community:<sup>4</sup>
- 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 organisations such relations as will foster progress in the peaceful uses of nuclear energy
- 2.3 The Euratom Treaty is separate from the European Union Treaties, but it is governed by the same institutions; the European Commission, Council and Courts of Justice.
- 2.4 The Euratom Community is funded by the European Union's central budget. As a result, any new relationship with Euratom is likely to be included as part of any new UK funding agreement with the European Union.

# Benefits of Euratom, impact of withdrawal and potential solutions

- 3.1 The full implications of the Government's decision to withdraw from the Euratom Treaty and the UK's future relationship with the Euratom Community are currently uncertain and will ultimately depend on the outcome of negotiations between the UK Government and the European Commission, as well as the UK Government's ability to agree co-operation agreements with nuclear nations outside of the Euratom Community.
- 3.2 The UK's position as a leading European nuclear nation with a significant operating fleet, an extensive new build programme, and a broad-based decommissioning programme means there is a strong case for the UK maintaining a close relationship with Euratom. The Government clearly understand this and has identified the nuclear industry for a Sector Deal, as part of its Industrial Strategy<sup>7</sup> initiative.
- 3.3 This section of the paper looks at Euratom's key activities, the benefits of the UK's membership, the potential impact of withdrawal, and considers potential resolutions to the challenges of withdrawal.

## Safeguarding

- 3.4 As a nuclear weapons state the UK currently meets some of its safeguards obligations under international nuclear law through a Voluntary Offer Agreement with the International Atomic Energy Agency (IAEA) to which the Euratom Community is also a signatory.
- 3.5 This agreement manages the Euratom/IAEA interrelationship and complementary processes which include inventory, material and accounting and record keeping as well as governing transfers of nuclear material into or out of the UK.
- 3.6 All of the UK's nuclear licenced facilities and movements of nuclear products and materials are subject to Euratom's safeguards regime and are monitored by Euratom inspectors who report on their findings. This is fundamental to the discharge of the UK's safeguards obligations under international law.
- 3.7 On withdrawal from the Euratom Treaty, the UK would have to negotiate a replacement Voluntary Offer Agreement with the IAEA to remain in compliance with its obligations under international law. This must be completed in sufficient time to enable the negotiation of bi-lateral NCAs with third countries such as the US.
- 3.8 Falling back on World Trade Organisation (WTO) arrangements in the absence of a replacement safeguards agreement with the IAEA and/or an implementation period with Euratom risks putting the UK in breach of its obligations under international nuclear law and would have a significant impact on the UK nuclear sector.
- 3.9 Removal of Euratom safeguards could also invalidate any bi-lateral agreement the UK had entered into with third countries since joining the Euratom Community in 1973, such as the agreement with Australia, which assumes Euratom safeguards are in place. These agreements will need to be redrafted to acknowledge the UK's new safeguarding regime.

7) Building our Industrial Strategy Green Paper, January 2017 – [https://beisgovuk.citizenspace.com/strategy/industrial-strategy/supporting\\_documents/buildingourindustrialstrategygreenpaper.pdf](https://beisgovuk.citizenspace.com/strategy/industrial-strategy/supporting_documents/buildingourindustrialstrategygreenpaper.pdf)



- 3.10 If the UK has not replaced the Euratom safeguards regime with its own system by the time it left Euratom, normal business could be disrupted right across the nuclear industry. It is currently unclear the extent to which transitional arrangements could operate to ensure the UK remains compliant with its obligations under international nuclear law. It is vital therefore that a replacement Voluntary Offer Agreement is agreed with the IAEA and that a new safeguards regime, compliant with IAEA requirements, is in place by the time the UK leaves Euratom.

### Solution:

- 3.11 The UK needs to rework its safeguards relationship with the IAEA outside of Euratom. This includes agreeing a Voluntary Offer Agreement as soon as possible and enforcement arrangements that can be implemented on exit from Euratom. If the reworked, long term compliance arrangements are not in place on exit, the UK must negotiate transitional arrangements that are acceptable to all parties to ensure business as usual.
- 3.12 The UK's new arrangements with the IAEA must involve establishing a revised UK safeguards inspection regime by increasing the responsibilities of the UK's independent Office for Nuclear Regulation to include the provision of data to IAEA. This change would need to be facilitated by appropriate legislation.
- 3.13 During a potential implementation period prior to the UK formally leaving Euratom, an arrangement may need to be agreed allowing Euratom inspectors to continue their work on the UK's nuclear sites. As Euratom costs are currently met through the UK's European Union membership a new funding relationship would need to be established.

## Access to the European nuclear market and Nuclear Co-operation Agreements

- 3.14 The Euratom Community has agreed NCAs on behalf of its member states with a number of nuclear nations who have 'third country' status. These include agreements with Australia, Canada, Japan, Kazakhstan, South Africa, Ukraine, US and Uzbekistan.
- 3.15 These agreements are not required by international nuclear law, but in certain countries, such as in the US, where a 123 Agreement is required under domestic law before it can engage in meaningful nuclear trade. In both Australia and Canada, it is not a legal requirement but the presence of an NCA is considered a strict policy requirement.
- 3.16 Whilst all NCAs are important, the key ones are those with the US, Canada, Japan, Australia, Kazakhstan and South Korea.
- 3.17 If the UK fails to negotiate its own NCAs with the aforementioned countries prior to the end of the two year Article 50 process, nuclear trade with such states would almost certainly be significantly affected. This is a risk given it could take years for the UK Government to negotiate, agree and approve each new bilateral NCA.
- 3.18 The Euratom Treaty has underpinned the development of the nuclear industry both in the UK and in Europe. The UK has benefitted enormously from its involvement in the common nuclear market facilitated by the Euratom Treaty as well as the NCAs established by the Euratom Community. WTO arrangements will not be sufficient to facilitate nuclear trade due to the additional requirements of international nuclear law.

- 3.19 Leaving the Euratom Treaty without alternative arrangements in place would have a dramatic impact on the nuclear industry including the UK's new build plans, existing operations and the waste and decommissioning sector which all depend, to some extent, on cooperation with nuclear states.

## Nuclear New Build

- 3.20 At Hinkley Point C, while 64% of the project spend will be with UK companies, the remainder of the supply chain for the construction covers a broad international base. The same is likely to be true of the rest of the new build programme.
- 3.21 Horizon Nuclear Power's chosen reactor design for its projects at Wylfa Newydd and Oldbury is based on the Japanese, Advanced Boiling Water Reactor design. Looking forward, the fuel for the reactor is due to come from the US. As a result, the project is dependent on ongoing collaboration with Japan and the US. It is important for the UK Government to explain to industry whether the UK's current bilateral agreement with Japan will cover the industry's needs. It is also imperative that a 123 Agreement is agreed with the US to allow trading of nuclear materials between the UK and the US.
- 3.22 The chosen reactor design for NuGeneration's new build programme at Moorside in Cumbria is the American, Westinghouse AP1000. As a result the project is currently dependent on the ongoing collaboration between the UK and the US. If a 123 Agreement is not agreed between the UK and the US before the UK formally leaves Euratom, it will be illegal under US law to continue collaboration with the UK.

## Existing Operations

- 3.23 Current operational nuclear power stations require continuing access to uranium fuel and fuel feed stocks; reactor components; nuclear technology; and the provision of significant services from outside the UK, including the US. Components, spares, material and finished products and international property rights frequently pass across borders, often more than once.
- 3.24 For instance, the existing Pressurised Water Reactor at Sizewell B which is scheduled to operate until at least 2035, is based on a US design and relies on an international supply chain for specialised maintenance.

## Decommissioning and waste disposal

- 3.25 In decommissioning, products, goods and services are sourced from across the world to assist the work being carried out across the Nuclear Decommissioning Authority estate.

## Exports

- 3.26 The UK nuclear supply chain includes some of the world's leading nuclear companies and exports products, materials and nuclear expertise to nuclear markets in North and South America, Europe, the Middle East and Asia.
- 3.27 Many companies are currently working on new build programmes overseas and the UK's expertise is helping decommissioning and waste management programmes across Europe, Russia and the US. The UK has also been particularly active in providing support to the decommissioning effort in Japan.



## Solution:

- 3.28 If the UK nuclear industry is to continue to trade without additional barriers, alternative new trading arrangements with countries within and outside the European Union must be in place when the current Euratom arrangements are terminated.
- 3.29 If the Government does not believe it can negotiate NCAs with the Euratom Community and third countries within the two year time limit set out by Article 50, an early priority should be to agree an implementation period. This would allow the UK to remain within Euratom for an extended period of time, so it can continue to take advantage of its Euratom membership, and allow time to agree a new safeguards regime and ratify NCAs with key nuclear markets.
- 3.30 The UK will need to negotiate a number of new bilateral NCAs to replace the ones agreed by Euratom. As spelt out above, those with the US and Canada are the priorities, and the ones with Australia and Kazakhstan are important. It is therefore essential to engage with each of these third countries to agree the basis on which such NCAs will be replaced on a bilateral basis before the UK leaves Euratom. The Government also needs to be clear that the existing bilateral NCA with Japan provides all the benefits of the existing Euratom-Japan agreement.
- 3.31 The UK has a number of bilateral NCAs with nuclear territories including Japan, India and the UAE but all these bilateral NCAs are predicated on the UK's membership of Euratom, for example most make reference to Euratom and/or safeguard inspections.
- 3.32 It is essential the UK Government engages with representatives of these countries to agree what amendments and approval process is required to ensure the continuing validity of these bilateral NCAs.
- 3.33 The UK will need to put in place export and import licenses to allow the transfer of nuclear material in and out of the UK to ensure it remains in compliance with its obligations under international law and other relevant arrangements such as its obligations to the Nuclear Suppliers Group.<sup>8</sup>

## Export controls

- 3.34 The international export controls regime exists in order to stop the proliferation of weapons technology and the ability of unregulated facilities, persons or states acquire fissile material. Nuclear material and technology forms part of this regime. Licences usually cover a specific period of time for a specific export (supplier or component/equipment type).
- 3.35 The main legal basis for controls on dual-use goods within the European Union is the EU Dual-Use Regulation.<sup>9</sup> This legislation is binding and directly applicable in all EU countries, including the UK.
- 3.36 The UK Military and Consolidated Dual Use List which comprises 10 dual use categories are 'controlled' for the purpose of the legislation. For intra-EU exports, only the highest category (Cat 0) currently requires an export licence. Post-Brexit there is the possibility the Cat 1 to 9 items will also require a licence, increasing the burden for industry. At present obtaining a licence with a European Union state is a relatively straightforward process which takes around two months, and this is made easier by Government to Government assurances which mean the UK Government can effectively sign the licence on behalf of the counterparty government.

8] Nuclear Suppliers Group, About The NSG – <http://www.nuclearsuppliersgroup.org/en>

9] COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items – <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:134:0001:0269:en:PDF>

- 3.37 For non-EU export control licences (ie rest of the world), leaving the European Union should make no difference to current arrangements, provided current Euratom NCAs are replaced by new UK/third party country NCAs, or an implementation period is agreed which still allows the UK to benefit from Euratom NCAs. Export control licences with the rest of the world do however take longer to put in place, taking on average four months, which could become the new norm.
- 3.38 Safeguards and where required, NCAs, are the foundation for the trade in nuclear materials, equipment and services across the world. However, on a daily basis it is the export control licence regime that facilitates this trade. If requirements are not in place and met, trade is at best hindered and at worst stopped.

## Solution:

- 3.39 Government should negotiate a similar arrangement with the European Union to facilitate continued co-operation with member states.

## Access to skills

- 3.40 One of the key principles of Euratom is the free movement of nuclear industry workers. The current arrangements enable people in the UK nuclear industry to work in European member states, and European nuclear workers to work in the UK. The global nature of the nuclear industry, means this arrangement is a reciprocal benefit for both the UK and Europe, and allows those working in the industry to use their unique skills and expertise with ease in different countries.
- 3.41 This is particularly important given the need for specialist skills across a broad international supply chain to support the UK's new build developments, current operating fleet of reactors and decommissioning programme.
- 3.42 Certain skills for the UK's nuclear programme are only available in certain countries or are in short supply in the UK. For instance the UK has historically imported specialist skills such as welders, steel fixers and pipefitters from overseas.
- 3.43 It is therefore crucial that the UK supply chain can draw on the skilled workers it needs from overseas to maintain the performance of existing nuclear power stations, construct new nuclear power stations and deliver decommissioning, alongside delivering the countries broader programme of infrastructure development. Currently, access to nuclear workers is specifically covered by the Euratom Treaty and does not specify particular skills.

## Solution:

- 3.44 Any uncertainty in this area could have an impact across the full UK nuclear fuel cycle and Government needs to confirm its position as quickly as possible to reassure industry. It is imperative that the new arrangement, including any implementation agreement with Euratom, provides for continuity in the existing free movement provisions for nuclear workers.
- 3.45 The Government needs to ensure nuclear industry employees in the UK and the European Union can continue to work without new exhaustive barriers. Any changes to bring about stronger border controls should not result in increased cost, complexity and time to hire the required skilled migrant labour. Government must avoid introducing any changes that hinder the ability of the nuclear sector to deliver operationally or introduce additional costs.
- 3.46 In the long term, Government will need to support the UK supply chain and help them invest in nuclear skills. The Government's work towards a new Industrial Strategy will be important to ensure the UK supply chain has the right skills, and the Nuclear Sector Deal initiative will be vital in this context.

## Fuel market

- 3.47 The nuclear fuel market epitomises the international nature of the nuclear industry. Natural uranium is sourced from a number of countries around the world: Australia, Canada, Kazakhstan, Namibia, Niger and the US. Uranium conversion services are available in the UK, Germany, France, the Netherlands, Russia, and the US.
- 3.48 Nuclear fuel supply contracts are governed under Chapter 6 of the Euratom Treaty, which governs the supply of ores, source materials and special fissile materials to and from member states. It confers ownership of all special fissile material to the community and also grants the Euratom Supply Agency (ESA)<sup>10</sup> a legal option over such materials produced in the member states and an exclusive right to conclude contracts relating to the supply of such materials, whether coming from inside or outside the European Union.
- 3.49 The UK's existing nuclear reactors are reliant on this global fuel supply chain. The UK has stocks of finished nuclear fuel but it is not limitless and new stocks will be required for the current and new build fleet of reactors.

## Solution:

- 3.50 As a matter of urgency, the Government needs to agree and implement a revised accredited safeguards regime, as previously outlined, to ensure trade in this essential market can continue.
- 3.51 The Government also needs to renegotiate the UK's bilateral NCAs and redraw any reference to Euratom and its safeguarding regime. It will also need to establish a new relationship with the Euratom Community and other key markets to ensure there are no additional barriers to trade with the UK.
- 3.52 The Government must confirm whether approval will continue to apply for ESA "concurrent" fuel supply contracts entered into by UK companies but for which delivery has not been effected.
- 3.53 For the post Euratom exit period, the Government will be required to clarify the procedures, ensure simplicity and process efficiency in relation to export of fissile materials from the Euratom Community to the UK, which (now being an export) may need to be authorised by the European Commission.

## Research & Development

- 3.54 Euratom currently facilitates the UK's participation in long term research funding on important projects such as the ITER and JET Fusion 4 Energy (F4E) programmes.
- 3.55 The UK's membership of F4E and participation in the ITER programme, allows the UK to receive contracts on the project. So far, the UK supply chain has won contracts worth €500 million either from F4E or directly from the ITER organisation. It is expected this could ultimately rise to at least €1 billion.
- 3.56 The programme of work at ITER is an internationally significant programme of collaborative work, and it is imperative that the UK remains a strong partner outside of Euratom, if the Government has ambitions for the UK to remain a top table nuclear nation.
- 3.57 The UK Atomic Energy Authority receives £50 million from Euratom each year to operate JET and employs 500 people to implement the contract. The current contract runs until the end of 2018, but was expected to be extended to 2020 with strong interest from Euratom to extend it further to 2024.

10] European Commission, Euratom Supply Agency – <http://ec.europa.eu/euratom/index.html>

- 3.58 The Euratom H2020 Fission R&D programme, worth circa €60 million per annum, funds research into nuclear fission (safety of Gen II, III and IV systems), radiological protection, waste management and geological disposal. All these programmes involve extensive collaboration with European Union and international consortia members and gives the UK access to research infrastructures and capabilities not available in the UK as well as significant leverage of UK investment. For instance, European Union fission funding for UK organisations, in the order of £10 million, leverages significant investment for industry, national laboratories and academia.
- 3.59 On a broader level, as a leading participant in Euratom working groups and participation in European Union funded research projects, the UK has been able to influence and shape the European Union R&D agenda and its priorities to support UK interests. The UK has also had mutually beneficial access to facilities, material, people and data which are essential for developing cutting edge technology and innovation which in turn enhances the UK's reputation internationally.

## Solution:

- 3.60 The Government must find a way with Euratom to enable JET to be paid for from the Euratom Framework Programme.
- 3.61 Separately the Government must negotiate an agreement with either ITER or F4E to enable the UK to continue to participate in the ITER fusion programme. This should be feasible and welcome as China, India, Japan, South Korea, Russia and the US are all engaged in the programme alongside the European Union.
- 3.62 More generally, the UK and the European Union will need to put in place arrangements to ensure international collaboration continues. In addition to the above examples, the UK Government may also need to negotiate access to individual Euratom R&D projects to ensure not only that it has access to this world-leading research, but that it continues to be able to contribute its expertise to this work.

## Maintaining investment

- 3.63 With all of the UK's coal stations closing by 2025 and the progressive retirement of all but one of the UK's existing fleet of nuclear reactors in the period up to 2030, the UK needs huge investment in new electricity generation. With the financial arrangements agreed, and construction underway at Hinkley Point C, the UK's new nuclear build programme has officially started and plans are in place for up to 16GW of new capacity in the period from the mid-2020s – with a combined investment of more than £60 billion.
- 3.64 Given their capital intensive and long term nature, investment for these projects will only be forthcoming if there is continuing confidence in the stability of the UK's energy policy and regulatory regime. Therefore it is vital there is confidence within industry that a Euratom cliff-edge will be avoided. This is also important for smaller scale investment across the supply chain.
- 3.65 There is also a significant decommissioning programme underway, including some significant capital projects that will grow with the closure of the existing UK Advanced Gas-cooled Reactor fleet.

## Solution:

- 3.66 Government needs to make progress in negotiating the arrangements detailed in this paper to ensure the benefits derived from Euratom membership are maintained or enhanced.

- 3.67 Government must keep in contact with key representatives across industry as the negotiation with the European Commission develops.

## Safety Standards

- 3.68 Nuclear safety is not specifically mentioned in the Euratom Treaty but it is widely accepted the Euratom Community has competence in this field and the European Commission has initiated proposals on nuclear safety including the Nuclear Safety Directive.<sup>11</sup> These are enshrined in UK law and will remain in place outside Euratom.
- 3.69 The UK has a robust and well established domestic civil nuclear regulator and safety regime, and leaving Euratom will not result in the industry being less safe. The basic safety standards required under the Euratom Treaty are ultimately derived from international nuclear law which will continue to apply in the UK once it has left the Euratom Community.

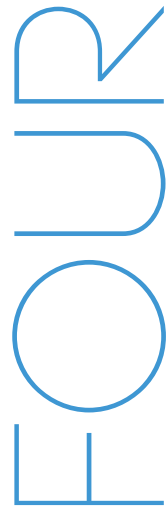
## Solution:

- 3.70 Government needs to emphasise that whatever the status of the UK's relationship with Euratom, the UK's strong regulatory regime, which ensures the safety of the UK's nuclear industry, will not be undermined.

11] European Commission, Implementation of Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations – <https://ec.europa.eu/energy/en/topics/nuclear-energy/nuclear-safety>

# Conclusion

- 4.1 As the preceding paragraphs make clear, Euratom has played a key role in underpinning the UK's nuclear industry since the country joined the EEC in 1973. To avoid major disruption to business across the whole nuclear fuel cycle, both in the UK and overseas, there must be no cliff-edge when the UK leaves Euratom and the Government needs a clear plan.
- 4.2 This paper has suggested some potential solutions for Government's consideration, to address some of the key challenges likely to arise when the UK leaves Euratom. However, Government should look to agree an implementation period to give enough time to negotiate and complete new arrangements with the Euratom Community and third countries. In this context, strong consideration should be given to the UK remaining a member of Euratom until new arrangements are in place.
- 4.3 At this early stage in the process, a key focus for Government should be securing an alternative accredited safeguards regime outside Euratom that is compliant with IAEA requirements, together with appropriate inspection arrangements.
- 4.4 The Government also needs to ensure, as a matter of priority, that new trading arrangements are in place with key nuclear countries in the European Union and overseas. This includes the negotiation of new bilateral NCAs to replace the Euratom NCAs with the US, Canada, Australia, Kazakhstan and South Korea, and establish whether or not the bilateral NCAs with Japan include all of the benefits of the Euratom-Japan NCA, or if it needs updating.
- 4.5 It is also essential that the UK's successor arrangement to Euratom preserves the free movement in nuclear fuel, materials, goods, information and people that the sector requires.
- 4.6 The Brexit negotiation process is likely to be highly dynamic and the issues spelt out above may change and new issues arise. Therefore, it is vital Government and industry work closely together as the negotiation proceeds.





**The Nuclear Industry Association (NIA) is the trade association for the civil nuclear industry in the UK, representing more than 250 companies across the supply chain. The diversity of NIA membership expertise in new build, management and decommissioning enables effective and constructive industry-wide interaction.**

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