# Instrument for Nuclear Safety Cooperation

## In a nutshell
The EU's Instrument for Nuclear Safety Cooperation (INSC) was created to help promote a high level of nuclear safety, radiation protection, and safeguards for nuclear material outside the EU. It does this by funding peer support for, and technical assistance to, third countries that are managing or in the process of developing nuclear power. EU cooperation in the field of nuclear energy dates back to the EU's post-war beginnings, but financial assistance to non-EU countries only began in the 1990s, with the TACIS programme to help the countries that emerged from the former Soviet Union to manage their nuclear legacy.

## EU's Multiannual Financial Framework (MFF) heading and policy area
**Heading 4 (Global Europe)**
Energy; international cooperation

## 2014-20 financial envelope (in current prices and as % of total MFF)

| Commitments  | €225.32 million (0.02%) |

## 2016 budget (in current prices and as % of total EU budget)

| Commitments | €71.80 million (0.05%) |
| Payments     | €96.99 million (0.07%) |

## 2017 budget (in current prices and as % of total EU budget)

| Commitments | €62.33 million (0.04%) |
| Payments     | €81.45 million (0.06%) |

## Methods of implementation
**Direct management** (European Commission, Directorate-General for International Cooperation and Development (DG DEVCO)).

## In this briefing:
- EU role in the policy area: legal basis
- Objectives of the INSC
- Funded measures
- Assessment of the INSC
- Other EU programmes and action in the same field
EU role in the policy area: legal basis

All EU Member States are party to the Treaty establishing the European Atomic Energy Community (Euratom), which was designed to promote research and investment in, and enhance the safety of, nuclear power in the Community and beyond. Since the early 1990s, this has included efforts to strengthen nuclear safety and safeguards in central European and former Soviet Union countries via the TACIS and PHARE programmes, including countries that would subsequently join the EU: Lithuania, Slovakia and Bulgaria. With the first INSC during the period 2007-2013 (Council Regulation (Euratom) No 300/2007), nuclear safety cooperation was extended to all third countries.

The EU's Instrument for Nuclear Safety Cooperation (INSC) for the period of the 2014-2020 MFF was established by Council Regulation (Euratom) No 237/2014. Its legal basis is Article 203 of the Euratom Treaty, which empowers the Council to take action in pursuit of any Euratom objective where the treaty has not explicitly empowered the European Atomic Energy Community, acting unanimously on a proposal from the Commission and after consulting the European Parliament.

The INSC is also described in the regulation as serving the external policy objectives of the EU's Europe 2020 strategy. The Community is also party to the 1994 Convention on Nuclear Safety and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

Objectives of the INSC

The INSC was created to fund EU efforts to promote nuclear safety, protection against radiation, and effective safeguards for the management of nuclear material in countries outside the EU. The INSC's pre-2014 forerunners were aimed at countries in the EU's eastern neighbourhood, coming in response to concerns about a repeat of the Chernobyl nuclear disaster in the post-Soviet and post-Warsaw Pact countries. Under the current INSC, accession and European neighbourhood policy countries still take priority, but all third countries are eligible for support. To this end, the EU also uses the INSC to cooperate on projects with the International Atomic Energy Agency and the European Bank for Reconstruction and Development. High-income countries are typically ineligible for direct financial support via the instrument, with cooperation limited to stakeholder peer learning, but exceptions can be made in such crises as a major nuclear accident.

The INSC Regulation sets three specific objectives:

- promotion of a culture of nuclear safety and radiation protection standards;
- responsible and safe management of spent fuel and radioactive waste, which includes its transport, treatment, processing, storage and disposal, and the decommissioning and remediation of former nuclear sites and installations; and
establishment of frameworks and methodologies for applying effective safeguards for nuclear material in third countries.

**Funded measures**

The EU first provided neighbouring countries with nuclear safety assistance via the TACIS programme, which supported reform and development in 11 post-Soviet and post-communist countries during the period 1991-2006. Its nuclear component saw €857 million spent on nuclear safety work outside the EU. The 2007-2013 INSC had a budget of €524 million and supported regulatory and capacity improvements in 21 countries outside the EU in eastern Europe, central, eastern and south-eastern Asia, the Middle East and northern Africa. During the first half of the 2007-2013 MFF, the balance between assistance to countries formerly part of the Soviet Union (FSU) on the one hand, and 'new' third countries on the other, was approximately 7:1. In the second half, this balance shifted to 2:1, reflecting the gradual completion of the most urgent safety upgrades in FSU countries.

**Figure 2 – INSC expenditure in third countries in 2007-2013 (€ million)**

![INSC expenditure in third countries in 2007-2013](image)

Source: European Commission.

Funds in the 2014-2020 INSC are allocated in line with annual action programmes (AAP) based on two multiannual indicative programmes, the first of which covers the period from 2014 to 2017. These in turn reflect an INSC strategy paper,\(^1\) which takes as its starting point specific measures set out in Article 3 of the INSC Regulation for each of the three objectives listed above, as well as general support measures for the programme, including audits, evaluations, studies, awareness-raising and publicity measures, and administration.

For the **first objective – promotion of a nuclear safety culture** – the specific measures are support for regulatory bodies and technical support organisations; strengthening of regulatory frameworks for review, assessment, licensing and oversight of nuclear power plants and installations; promotion of regulatory frameworks providing protection against ionising radiation from radioactive materials; putting in place procedures to prevent accidents; and support for practical protective measures to reduce the risk of workers and the general public being exposed to radiation.
Examples of such projects in the 2016 AAP include a project to enhance the capabilities of the Iranian Nuclear Regulatory Authority (EU budget contribution: €5 million) and a project to enhance emergency preparedness and response for radiological and nuclear emergencies in Association of Southeast Asian Nations (ASEAN) countries through regional cooperation and technical support for decision making (EU budget contribution: €1 million). Some examples from the 2015 AAP are a project to enhance the capabilities of the Armenian Nuclear Regulatory Authority to prepare for and respond to a nuclear or radiological emergency (EU budget contribution: €1 million), and a project to strengthen the capacity of the Belarusian Nuclear Regulatory Authority MES/Gosatomnadzor (EU budget contribution: €1 million).

For the second objective – responsible and safe management of spent fuel and radioactive waste – the specific measures are support for regulatory bodies, technical support organisations and strengthening of the regulatory framework; development of strategies and frameworks for safe management of spent fuel and radioactive waste; and development of strategies for decommissioning existing installations and former nuclear sites, and recovery and management of radioactive material at sea. In the 2016 AAP, one such project is the EU contribution of €40 million to the European Bank for Reconstruction and Development’s (EBRD) Chernobyl Shelter Fund, and in the 2015 AAP, measures for the management and remediation of high risk uranium legacy sites in Central Asia (EU contribution: €8 million).

For the third objective – putting in place frameworks for the application of effective safeguards for nuclear material in third countries – the specific measures are to introduce methodologies and share technology and approaches enabling implementation of nuclear safeguards, including for accounting and control of fissile material. In the 2015 AAP, measures aimed at achieving this objective include a project to transfer EU nuclear safeguards methodology to INSC beneficiary countries, particularly China and countries in Africa (EU contribution: €5 million).

Figure 3 – Financial envelope 2014-2020 INSC, by objective (€ million)

Support for Russia that began under the TACIS programme and continued under the 2007-2013 INSC was discontinued after Russia declined to sign the financing agreement for INSC projects. No new projects involving Russia have been launched under the current INSC.²
Assessment of the INSC

According to the Commission's 2016 annual report on the implementation of the EU's instruments for financing external actions in 2015, the main achievements of the INSC in 2015 include ongoing work on environmental problems resulting from the legacy of former uranium mining activities in central Asia; support for nuclear regulatory authorities in Armenia, Belarus, China, Ukraine and Vietnam; support for regulatory authorities in Turkey and Iran; and radioactive waste management activities in central Asia and Ukraine.

A January 2017 consultancy report produced for the Commission for the INSC's mid-term evaluation states that the instrument helps leverage significant financial resources for nuclear safety cooperation from donors and partner countries. Drawing on data both from the first years of the current MFF (2014-2016) and from the previous MFF's INSC (2007-2013), the authors conclude that, since 2007, the INSC has consistently produced results in line with specific nuclear safety objectives, and has appropriate mechanisms and resources in place to support the scheduled project pipeline. They also find, however, that the instrument has no comprehensive monitoring system and that comparison of results suffers from a lack of baselines. The authors recommend that the Commission improve its approach to documenting and measuring results, and make greater use of evaluations to learn lessons and improve accountability.

Another consultancy assessment published in March 2014 and accompanying the Commission report on the evaluation of the 2007-2013 INSC concluded that the instrument was broadly in line with its objectives, but lamented an average time lag of 2.5 years between formal project approval by the Commission and contracting. The authors also observed a shift in funding during the period from 'hard' support for safety improvements in the design, operation and maintenance of nuclear installations to 'soft' support in the form of regulatory training and expertise sharing, and underlined the importance of the former. They also noted that there was less cooperation than expected on the nuclear safeguards element of the strategy, which they attributed to confusion about the division of labour between the 2007-2013 INSC and the 2007-2013 Instrument for Stability (IFS).

Other EU programmes and action in the same field

Euratom research programmes

European cooperation in the nuclear field dates back to the 1957 European Atomic Energy Community (EAEC or Euratom) Treaty, but it is only since 1994 that there have been framework programmes for, inter alia, nuclear research and training activities. EU research activities continue to run in parallel to the current 2014-2020 Framework Programme, rebranded as Horizon 2020. Euratom has a different legal basis from the Horizon 2020 programme, and its budgets are fixed by its founding treaty at five rather than seven years. For the 2014-2018 period, Euratom has been allocated €1.603 billion. In the final two years of the current MFF, Euratom funds are expected to total approximately €770 million.

The International Thermonuclear Experimental Reactor (ITER)

ITER is an experimental fusion energy reactor currently being built in Cadarache, France, as a jointly funded endeavour of the EU, China, India, Japan, the Russian Federation, South Korea and the United States. Its aim is to demonstrate the viability of fusion power as a safe, affordable, inexhaustible and CO2-free source of energy. During 2014-2020
MFF, the EU's financial contribution will amount to a maximum amount of €2.7 billion (at 2011 prices).

**Nuclear decommissioning assistance programmes (NDAPs)**

Through the NDAPs, the EU provides financial assistance for Bulgaria, Lithuania and Slovakia to safely close and dismantle Soviet-designed nuclear reactors. This assistance began before these countries joined the EU, and continued EU assistance was written into the countries’ accession treaties. Approximately €969 million has been allocated to the NDAPs under the current MFF, but no further EU financial assistance is planned beyond 2020, according to the Commission.

**Instrument contributing to Stability and Peace (IcSP)**

The IcSP, which is intended to link the EU’s external action in security and development, funds efforts to prevent and respond to existing or emerging crises in third countries around the world, allowing quick and agile crisis response, particularly when other EU funding mechanisms are not readily available. Some 27-35% of the IcSP’s €2.4 billion financial envelope for the 2014-2020 MFF is allocated to addressing global, trans-regional, and emerging threats, including the chemical, biological, radiological and nuclear (CBRN) risk mitigation centres of excellence initiative.

**Endnotes**


2 After Russia annexed Crimea in early 2014, the EU took retaliatory measures in the form of sanctions and the cancellation of some €450 million in EU grants set aside for Russia in bilateral and regional programmes for the 2014-2020 period. For more on this topic, see M. Russell, Sanctions over Ukraine impact on Russia, Briefing, European Parliamentary Research Service, March 2016.

3 The report has been published on the Commission website but is still only a draft report. According to the Commission’s Evaluation Roadmap, the report will inform a Commission mid-term evaluation of the INSC planned for completion in the second quarter of 2017. This evaluation will in turn be part of a broader assessment of the EU’s nine external financing instruments (EFIs) for the 2014-2020 MFF.

4 The 2007-2013 IfS has been succeeded in the current MFF by the Instrument contributing to Stability and Peace (IcSP).

5 In the same series: M. Parry and G. Sgueo, How the EU budget is spent: Nuclear decommissioning assistance, Briefing, European Parliamentary Research Service, April 2017.


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