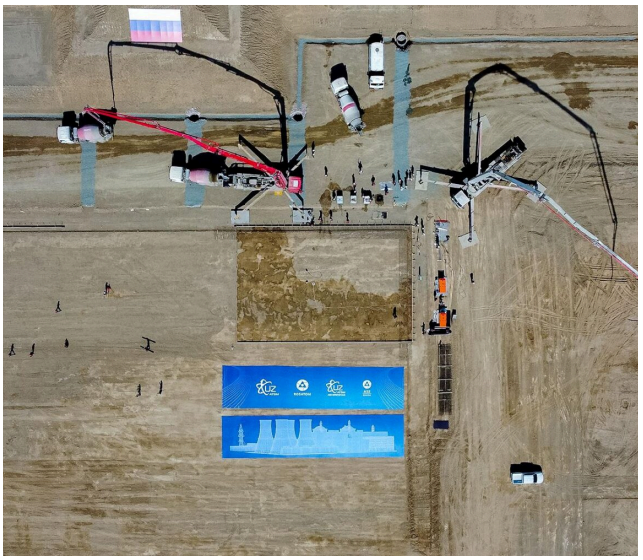
ROSATOM NEWSLETTER

01.

STORIES



02.

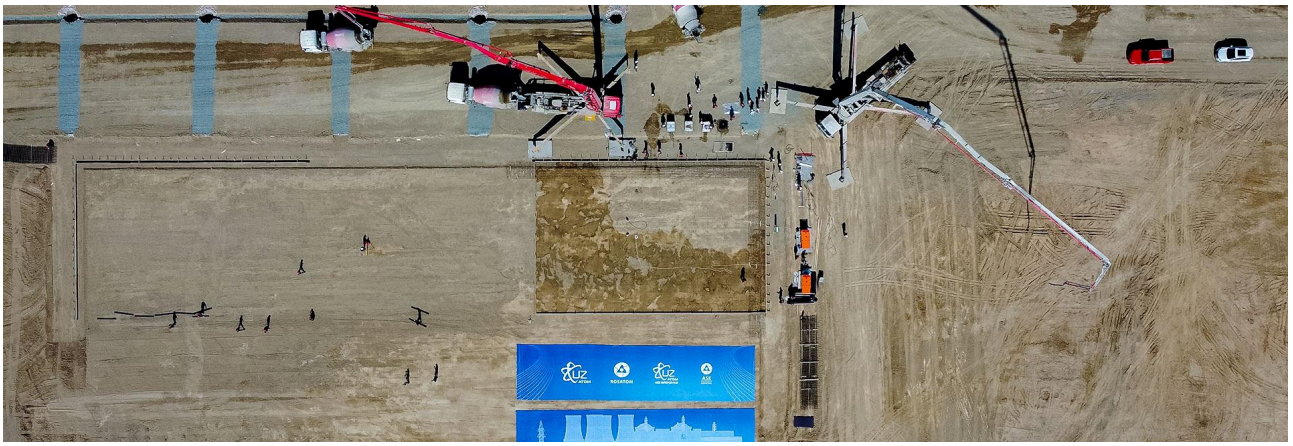
TRENDS

03.

REGIONAL STORIES

Concrete for Uzbek NPP

On March 24, concrete bedding works began at the site of Uzbekistan's nuclear power plant to prepare the foundation for the official start of construction. On the same day, Rosatom Director General Alexey Likhachev and Uzatom Director Azim Akhmedkhadjaev signed documents expanding cooperation between Uzbekistan and Rosatom.



Concrete bedding works commenced at the construction site in the Farish District of the Jizzakh Region for the first power unit to be equipped with a RITM-200N small modular reactor (SMR). Workers are leveling the base and installing waterproofing and grounding systems. Around 900 cubic meters of concrete will be laid during this stage. Previously, Uzatom received a site license for the placement of two RITM-200N reactors. First concrete for the foundation slab of the nuclear island buildings is expected to be poured later this year. The reactor is being manufactured in parallel.

The nuclear power plant in Uzbekistan will be the first in the world to host two different types of power units on a single site: two 1,000 MW units with VVER-1000 reactors and two 55 MW units with RITM-200N SMRs. This configuration is formalized in an addendum to the nuclear power plant construction contract. It was signed by Rosatom Director General Alexey Likhachev and Uzatom Director Azim Akhmedkhadjaev on the day the preparations for concrete bedding began.

When operating at full capacity, the four units will generate around 17.2 billion kWh per year, covering up to 14% of Uzbekistan's total power consumption. This is nearly enough to supply electricity to Tashkent, Samarkand, and Bukhara, the country's major cities. The combination of units with different capacities will cover both baseload and peak demand. The shared plant infrastructure will reduce capital and operating costs.

More than just a nuclear plant

Alexey Likhachev and Azim Akhmedkhadjaev also signed a roadmap for cooperation in the nuclear and related sectors. It outlines the key areas of bilateral collaboration during the nuclear plant construction, namely personnel training, the establishment of a nuclear host town adjacent to the plant, and public awareness campaigns on present-day nuclear technologies. On the same day, the construction of the nuclear power plant was discussed over the phone by the presidents of both countries.

Along with building a comfortable, modern town near the nuclear plant, Rosatom proposes turning it into a hub for the development of nuclear medicine, materials science, and irradiation solutions for the treatment of seeds, food products, and medical devices. A memorandum of cooperation for the establishment of multifunctional irradiation centers was signed in June 2025.

Uzbekistan has a long history of cooperating with Rosatom across various fields of interest. For instance, a branch of the National Nuclear Research University (MEPhI), Rosatom's flagship university, opened in Tashkent in 2019, and this year marked the first internship for Uzbek graduates at the Rosatom Technical Academy. The Fuel Division of the Russian nuclear corporation supplies fuel for the research reactor installed at the Nuclear Physics Institute of the Uzbekistan Academy of Sciences. They also collaborate in nuclear decommissioning and radioactive waste management. Furthermore, the institute has joined the international consortium that will operate the MBIR Generation IV

multipurpose research reactor, which Rosatom is building in Dimitrovgrad.

Successful VVER track record

VVER-1000 reactor units with a capacity of 1,000 MW have proved efficient and reliable in Russia and a number of foreign countries. For example, the four commissioned power units at China's Tianwan NPP have repeatedly been recognized as the safest in the world across certain parameters. The first two VVER-1000 units at India's Kudankulam NPP have already fed 100 billion kWh of electricity into the country's national power grid, demonstrating beyond-design efficiency.

The RITM-200N reactor belongs to the RITM-200 reactor family developed for nuclear icebreakers, floating power units, and land-based small nuclear power plants. The RITM-200 design features an integrated steam-generating section with reduced dimensions, an innovative higher-energy core, and a steam generator with a compact heat-exchange surface. Its I&C and safety systems meet the latest standards, offering inherent safety, environmental compliance, ease of maintenance, and other user-friendly features.

Photo by: Atomic Energy Agency under the Cabinet of Ministers of the Republic of Uzbekistan, Rosatom State Corporation, Electric Power Division of Rosatom State Corporation

Closed Nuclear Fuel Cycle News

Rosatom's Fuel Division (TVEL) is continuously improving its fuel to enhance safety and is advancing R&D to establish a closed nuclear fuel cycle and maximize the use of energy contained in natural uranium. Here is an overview of recent achievements in this field.

Unit 2 of the Rostov NPP completed the last iteration of piloting accident tolerant fuel (ATF). "Tolerant" means that fuel is designed to be more resistant to severe beyond-design-basis accidents. The fuel assemblies were loaded into the VVER-1000 reactor in 2021 and have completed a full operating cycle consisting of three 18-month refueling intervals. The pilot operation involved three combined TVS-2M assemblies, each containing 12 fuel rods. Six of these rods utilized a 42CrNiMo alloy, while the cladding for the rest was made of a chromium-coated zirconium alloy. In the event of an emergency, these new materials will either completely eliminate or significantly slow down the development of a steam-zirconium reaction in the reactor core.

"Considering all factors — economics, technology, regulation, and procedures — the optimal choice for commercial application is the cladding made of a conventional chromium-coated zirconium alloy. The ATF development program has yielded another result essential for closing the nuclear fuel cycle. The properties of the chromium-plated surface eliminate several manual operations during the fabrication of nuclear fuel for VVER reactors. Fully automated fabrication is a prerequisite for the commercial production of fuel containing reprocessed uranium and plutonium," explained Alexander Ugryumov, Senior Vice President for Research and Development at TVEL.

REMIX fuel

Unit 1 of the Balakovo NPP concluded the third 18-month pilot operation period for the fuel assemblies containing REMIX fuel. This fuel is a mixture of reprocessed uranium and plutonium recovered from the spent nuclear fuel of VVER reactors. REMIX is slated for the use in light-water thermal reactors, thereby integrating them into the closed nuclear fuel cycle (CNFC).

Six fuel assemblies fully loaded with the innovative fuel rods were introduced into the VVER-1000 reactor in late 2021. No deviations were detected during operation; the neutronic performance and lifecycle parameters remained within design limits. The final three of these six assemblies were extracted from the core in March 2026. Like the assemblies with ATF cladding, they successfully passed three 18-month refueling intervals. After being extracted from the reactor core, the irradiated fuel assemblies were placed in a spent fuel pool. Three assemblies extracted in 2024, following the completion of the second refueling interval, are already stored there.

The cooled assemblies will be sent to the research institute in Dimitrovgrad for post-irradiation examinations.

“Taking into account the operation of experimental fuel rods and, subsequently, standard fuel assemblies, we have accumulated almost 10 years of experience in irradiating REMIX fuel in a commercial large-capacity reactor. After completing post-irradiation examinations of the spent fuel rods, we will be able to qualify uranium-plutonium fuel for VVER reactors and offer it to the market for the first time in the world. The next step will be loading a VVER reactor with uranium-plutonium fuel assemblies containing depleted uranium and up to 5% plutonium. Thus, we are developing a complete line of products and solutions for the balanced nuclear fuel cycle concept, ranging from reprocessed uranium to various uranium-plutonium compositions,” Alexander Ugryumov commented.

MUPN fuel

Scientists from the Fuel Division have developed a commercial method for producing the nitrogen-15 isotope to manufacture the next generation of mixed uranium-plutonium nitride (MUPN) fuel. It is planned to be used in the BREST-OD-300 fast neutron reactor under the Proryv (Breakthrough) project.

Since nitrogen-15 absorbs almost no neutrons, a greater number of them will remain in the core. Therefore, using nitrogen-15 theoretically allows for a reduction in the amount of fuel material loaded into the reactor. Additionally, nitrogen-15 will reduce the generation of unwanted carbon-14. All of this will improve the reactor’s economic and operational performance.

To produce nitrogen-15 in two-phase gas-liquid systems, a pilot laboratory facility was set up at the Bochvar Institute (VNIINM). Technological processes for obtaining the highly enriched isotope were tested and optimized, and the first batch of the product was manufactured.

“Our research on fuel for fast reactors covers both advanced fuel and structural materials, uranium-plutonium fuel fabrication technologies, and solutions for its reprocessing. All these developments are aimed at ensuring energy security and environmental safety within the sustainable paradigm, expanding the resource base for nuclear power plants to the greatest extent possible, while minimizing radioactive waste and irradiated fuel,” Alexander Ugryumov concluded.

Photo by: the newspaper “Strana Rosatom”, FSUE “FEO”, JSC “NIITFA”

Advancing the Bioeconomy

Bioeconomic technologies are among the new business lines being developed by Rosatom. The Russian nuclear corporation presented its achievements in this field at the Future Technologies Forum (FTF) in March. Featured exhibits included water purification solutions, an artificial heart valve, models of energy facilities, and other developments.

Last year, a rabbit named Zayats (Hare) caused a sensation at the FTF after being implanted with a blood vessel grown in a Rosatom biofabricator. He was not brought to this year's forum, but as Rosatom Director General Alexey Likhachev informed Russian President Vladimir Putin during a tour of the exhibition, Zayats "is alive, well, and has found a girlfriend."

During the year between the two forums, the corporation's scientists learned to create organs more complex than vascular equivalents, such as a human heart valve. The next step is to move on to functional systems. In March of this year, Russia adopted its first national standard regulating the 3D bioprinting of tissue and organ equivalents. The document, which enters into force on September 1, 2026, will serve as the foundation for the accelerated advancement of one of the most promising areas in modern biomedicine.

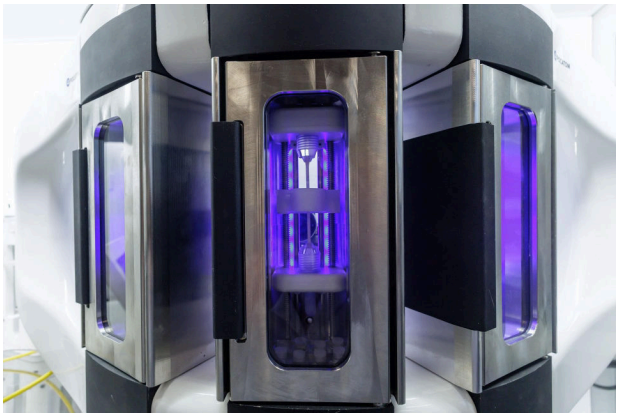
Another Rosatom development aimed at improving human health is a cyclotron for producing medical isotopes. It is being developed at the Efremov Research Institute of Electrophysical Apparatus (NIIEFA) in partnership with Rosatom RDS. A 3D model of the cyclotron was presented at the FTF exhibition. By 2030, several cyclotrons are planned to be delivered to regional Russian clinics.

Meanwhile, nuclear batteries can be effectively used in cardiac pacemakers and other similar devices.

Remediating legacy waste for the benefit of nature

Rosatom is developing biogas-based energy solutions to preserve the environment. For instance, its booth at the FTF was decorated with flowers grown in greenhouses heated by biogas. This biogas is collected from the Chelyabinsk city landfill, which was remediated by Rosatom in 2021. Today, a neat hill stands on the site of the former landfill. Harmful atmospheric emissions and runoff into the Miass River have ceased.

Another development involves power plants operating on biological waste. One such plant is being constructed in Kazakhstan. The facility operates as follows: organic waste (poultry litter, manure, etc.) is loaded into tanks, where it is processed by microorganisms. The resulting biogas is used to generate electricity and heat. The solid residue left over after processing serves as a valuable fertilizer.



At the FTF, Rosatom presented the interim results of a project to rehabilitate the Krasny Bor landfill, a hazardous legacy site in the Leningrad Region. A 13-stage system installed there purifies water to fishery-grade quality. Live crucian carp from the Tosna River, which receives the purified water from Krasny Bor, were shown at the forum. “This proves that the water is indeed suitable for the further development of natural ecosystems,” Alexey Likhachev pointed out.

Infrastructure for the bioeconomy

Big data processing is an important component of advanced solutions, including those in the bioeconomy. One of the most common tools is neural networks. They can be made more economical by reducing their massive energy consumption using photonic technologies. This is exactly what researchers at the Russian Federal Nuclear Center in Sarov are working on. For example, 15 NVIDIA graphics processing units used about 10 kW for image recognition, while a photonic coprocessor used only about 120 W.

Photo by: Rostov NPP, Balakovo NPP, Siberian Chemical Combine JSC (SHK)

Vietnam Embraces Atoms

Russia and Vietnam have signed an agreement on the construction of a nuclear power plant. Dmitry Raspopin, Director of the Rosatom International Network office in Vietnam, explains the reasons behind the focus on nuclear energy and how Rosatom's technologies can help.

On March 23, during the official visit of Vietnamese Prime Minister Pham Minh Chinh to Moscow, Rosatom Director General Alexey Likhachev and Minister-Chairman of Vietnam's Government Office Tran Van Son signed an intergovernmental cooperation agreement for the construction of the Ninh Thuan 1 Nuclear Power Plant in Vietnam.

Vietnam's power sector is the second largest in the ASEAN region in terms of capacity. It is growing rapidly, but the situation is extremely tense. The grids are overloaded, the country is highly dependent on intermittent renewable energy sources, and capacity shortages occur during peak consumption. The authorities are taking measures to stabilize the situation. For instance, 3,900 km of power transmission lines were commissioned in 2025 as part of 260 grid upgrade projects. Adopted last year, amendments to Vietnam's National Power Development Plan (PDP8, covering the 2021–2030 period with a vision to 2050) provide for up to USD 130 billion in investments by 2030.

Industrial electricity consumption is growing at about 12% annually, and demand is increasingly outpacing supply. Meanwhile, Vietnam's GDP growth outstrips all other countries in the region, hovering around 7–8% annually, meaning electricity demand doubles every 10 years. The current 80 GW of capacity is woefully insufficient to meet all needs and fulfill Vietnam's strategic objectives.

The most severe electricity challenges are in the northern regions, which are plagued by supply disruptions and rolling blackouts. State utility EVN is gradually deploying Battery Energy Storage Systems (BESS) to stabilize the situation but is urging households and industrial facilities to consume electricity sparingly.

Nuclear advantages

Nuclear energy provides, first and foremost, clean and stable baseload generation, minimizing the risk of blackouts. Nuclear power plants will help power everyday needs (lighting, household appliances, electric transport, etc.). Furthermore, nuclear plants will reduce dependence on imported coal and gas, and improve the environmental conditions. This is especially crucial for rural areas and growing cities where coal-fired thermal power plants pollute the air.

Nuclear energy will also support Vietnam's export-oriented industries (electronics, textiles, and agriculture) — for example, enterprises like Samsung, Intel, Nike, and others that have long invested billions of dollars in manufacturing in Vietnam. Stable and reliable generation will facilitate the development of petrochemicals and other heavy industries. A well-supplied, diversified industry will make the national economy more competitive and, of course, will create new jobs in the energy and related sectors.

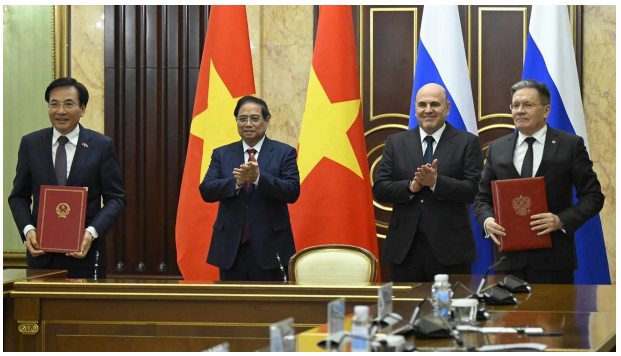
Nuclear power will also facilitate the transition to a new technological paradigm. Vietnam is actively attracting investments in data centers: Google, Amazon, Microsoft, and major local companies like Viettel, FPT, and CMC are building hubs here due to low construction costs and a rapidly growing market. These facilities require massive amounts of stable,

low-carbon energy. Nuclear power, particularly small modular reactors (SMRs), is an ideal option for a stable source of electricity, and many market players are already seriously considering it.

Nuclear technologies also stimulate R&D and are used in the production of radiopharmaceuticals, agriculture (food irradiation), and environmental protection. In the long term, all this will enable Vietnam to become a regional leader in green and high technologies.

Political support

Given the growing power deficit, nuclear energy plays a key role in diversifying power generation and ensuring long-term energy security. After a pause that began in 2016, the country resumed its nuclear program in 2024 and integrated it into the updated PDP8. On March 18, 2026, the Vietnamese government approved the Strategy for the Development of Peaceful Uses of Atomic Energy until 2035 with a vision to 2050. The strategy stipulates that nuclear energy is one of the key drivers for the country's long-term development, aimed at enhancing technological independence, modernizing industry, and improving the quality of life.



The Ninh Thuan 1 project (named after the province where the nuclear power plant will be built) is scheduled for implementation by 2035. The intergovernmental agreement signed by Russia and Vietnam sets up the terms and key areas of bilateral cooperation related to the construction of a two-unit nuclear power plant equipped with VVER-1200 reactors and a total capacity of 2,400 MW. The Leningrad II NPP (Units 1 and 2) was selected as the reference project for the Vietnamese facility. The document establishes the necessary legal framework for the plant's construction and defines the vector of Russian-Vietnamese nuclear cooperation for decades to come.

The commissioning of another 8 GW of nuclear capacity is planned by 2050, including through the use of SMRs. Nuclear power is viewed as a green energy source that contributes to reducing CO2 emissions and achieving carbon neutrality by 2050, making it a strategic priority for the country.

Nuclear energy enjoys strong political support. For instance, Prime Minister Pham Minh Chinh heads the National Steering Committee for Nuclear Power. He has repeatedly noted that the Ninh Thuan 1 construction project is a national priority of strategic importance.

The leadership of the Communist Party of Vietnam, represented by General Secretary To Lam, also supports nuclear power. Through resolutions and decrees, the Political Bureau of the Communist Party is stimulating the accelerated deployment of nuclear energy. The National Assembly has approved the resumption of the Ninh Thuan 1 and 2 projects and passed a new Law on Atomic Energy, which entered into force in 2026.

Public support

The Vietnamese public's attitude toward nuclear energy ranges from skeptically neutral to passive acceptance. The lingering fears following the Fukushima accident in Japan are still noticeable. However, there are no serious protests.

The government is actively promoting nuclear technologies. For the third year now, it has been informing the country's residents, especially in Ninh Thuan Province, about the safety of nuclear power plants and the benefits they bring. The Ministry of Science and Technology, the Ministry of Industry and Trade, EVN, and the leadership of the People's Committees in Ninh Thuan and Khanh Hoa provinces are publishing media materials and developing online resources dedicated to nuclear technologies. Many events are being held, such as the Vietnam Conference on Nuclear Science and Technology (VINANST-16) organized by the Vietnam Atomic Energy Institute (Vinatom), Science and Atom Days festivals (joint projects of Rosatom and the Russian House), the Global Atomic Quiz, and HackAtom, organized directly by the Russian nuclear corporation. Furthermore, work is underway on conducting the feasibility study for the Center for Nuclear Science and Technology (CNST) in Dong Nai Province.

Russian capabilities

Vietnam is showing great interest in innovative radiopharmaceuticals, new materials, and additive technologies. The latter are needed in the oil and gas industry, shipbuilding, energy, and medicine.

Vietnamese partners are interested in developing energy storage technologies, and building an end-to-end value chain in wind energy, including the production of magnets for wind turbines. Other areas of interest include data center development, digital twins and simulators for the nuclear and power industries, logistics, and environmental solutions — given the challenging situation with air quality and waste management in various provinces, including the capital. Rosatom is ready to share its expertise with Vietnamese colleagues in all these areas, as the corporation possesses a wide range of relevant experience and competencies.

Educational progress

To sustain economic growth, Vietnam is reforming its education system. For instance, legal amendments came into effect on January 1, 2026: teachers' salaries are being raised, and a unified set of textbooks is being introduced. Currently, 90% of schools have access to the internet, with the immediate goal being 100%. "Professional secondary schools" have become part of the vocational education system. Students can study there for 3–4 years after junior high school (9th grade) or 1–2 years after high school (12th grade), combining general education with practical vocational training.

About 98% of children attend primary and secondary schools and, as rankings show, they perform well. However, there are challenges as well: a large gap exists between the quality of urban and rural education; old teaching methods prevail in some Vietnamese provinces, and there is a shortage of qualified teachers.

Together with Russian universities

Cooperation with Russian technical universities is expanding rapidly. The year 2026 has been declared the Year of Russian-Vietnamese Science and Education. Rosatom and its flagship universities are actively involved in these activities. For example, more than 400 Vietnamese students have already been trained in nuclear physics and reactor engineering at the National Nuclear Research University (MEPhI) and the Moscow Power Engineering Institute (MPEI). An internship system is in place, and joint laboratories operate with the Hanoi University of Science and Technology (HUST). Here is another example: in February of this year, the Tomsk Polytechnic University (TPU) and Rosatom held a Career Day for graduating Vietnamese students. TPU also plans to open new laboratories and launch new courses on sustainable energy for the joint Russian-Vietnamese science and education programs. The focus will be on training technical staff for the nuclear power plant, the CNST, and data centers.

In line with traditions

As in many Asian countries, ambiguity is preferred over directness in Vietnam. "Yes" can mean "maybe, if we build trust." A direct "no" is very rare; more often you will hear "it is difficult" or "we will think it over." Therefore, one must be able to read between the lines, avoid direct confrontation with a partner to prevent a "loss of face," and have immense patience and respect for the local cultural specifics.

Consequently, communication is unhurried. Because the process is no less important than the result, it will take more than one meeting to build trust. Following negotiations, informal socialization over lunch or dinner is a must.

Business culture includes presenting small, memorable souvenirs at welcoming meetings and in honor of festive events. Another extremely important component of etiquette is showing respect for elders, even if they are lower in status. Small but significant gestures of respect matter: business cards should be presented with both hands, and upon receiving one, it should not be put away immediately but demonstratively studied as a sign of respect.

The Vietnamese are superstitious about numbers. Four and 13 are unlucky; they are often skipped in building floor numbers and airplane rows. Six and eight, conversely, are lucky. The seventh lunar month (most often July) is considered unlucky, so during this period, Vietnamese people try to avoid closing major deals or making large purchases. This should be taken into account when preparing for meetings or signings with Vietnamese partners.

Photo by: The newspaper "Strana Rosatom", Vietnam Institute of Nuclear Research, Press Service of the Government of the Russian Federation, Leningrad NPP

Nuclear Fusion: A Leap for Humanity

Nuclear fusion has hit the practical agenda of science and power engineering. Russia and China are among the key contributors to the major International Thermonuclear Experimental Reactor (ITER) project. Both countries are developing their national fusion programs in parallel. Here is an overview of the achievements and challenges in this field.

The development of nuclear fusion is a priority area for Russian researchers and engineers. In a speech made last year, Russian President Vladimir Putin noted that research in controlled thermonuclear fusion could provide a "qualitative leap for the domestic economy, and indeed for the entire civilization."

Alongside China, the US, the European Union, India, South Korea, and Japan, Russia is participating in the development of the world's largest experimental thermonuclear reactor, ITER, which is under construction in France. The project aims to demonstrate the feasibility of using fusion reactions on a commercial scale and to refine the engineering solutions needed to build a commercial fusion power reactor in the future. Russia is making a crucial contribution to the project, manufacturing and supplying 25 extremely complex, high-tech equipment systems. The Rosatom-operated ITER Project Center acts as the Russian national ITER agency responsible for Russia's in-kind contribution to the project.

China is another key participant in the ITER project. Speaking at the World Atomic Week in Moscow last year, Xu Guosheng, Deputy Director General of the Institute of Plasma Physics at the Chinese Academy of Sciences, emphasized the importance of international cooperation. "It is a great honor for China to participate in the ITER project. We have already been able to obtain and sustain plasma for extended periods, and we expect to achieve even greater success by 2028. China is not only a contributor to the project but also an active partner in joint research, developing new technologies. We are confident that thermonuclear fusion will soon gain momentum, and international cooperation is essential here," noted Xu Guosheng.

Russia is actively advancing its national fusion program. The country has several operating tokamaks, particularly the T-15MD, the T-11, and the Globus-M2 spherical tokamak. A demonstration facility is also operated for educational purposes at the National Nuclear Research University (MEPhI), Rosatom's flagship university.

The principal initiative of the Russian fusion program will be the construction of a new-generation thermonuclear facility, an unparalleled tokamak with reactor technologies (TRT). It will serve as a prototype for a commercial fusion power plant. The TRT aims primarily to refine the studies and technology that will underlie the development of fusion energy. The construction of the TRT, like other Russian advancements in controlled thermonuclear fusion, is supported by the government under the

Thermonuclear Fusion Technologies federal program, which is part of the New Nuclear and Energy Technologies national technology leadership project launched last year.

Latest news

The latest achievements and challenges in nuclear fusion are traditionally discussed at the International Zvenigorod Conference on Plasma Physics and Controlled Thermonuclear Fusion, a major event for the global fusion community. This March, it was held in Russia for the 53rd time.

“Nuclear fusion is one of the priority development areas for Rosatom in cooperation with all the leading research centers in the country. We have long-established practices, groundwork, and knowledge, as well as vast experience in implementing the most innovative fusion projects, including our participation in the major ITER project. Today, we are advancing the domestic fusion program within the framework of the national project, creating a domestic infrastructure for fusion research,” Rosatom Director General Alexey Likhachev said while addressing the conference.

Anatoly Krasilnikov, Director of Rosatom’s ITER Project Center, noted significant progress in the construction of ITER. “The project is confidently entering the homestretch. In late January, well ahead of schedule, the fourth sector of the vacuum vessel was installed at the ITER construction site. As a key partner in the project, we also have undeniable achievements in terms of manufacturing and delivering our components for the future mega-facility,” Anatoly Krasilnikov said.

ITER Organization representative Alexander Alekseev shared details of the ITER construction. In 2023, problems arose during the assembly of the vacuum vessel sectors, and the equipment was sent for repair. According to Alexander Alekseev, four of the nine vacuum vessel sector modules have already been repaired and installed in the reactor hall. The commissioning of several key systems — power supply, cooling, and the cryogenic plant — is nearing completion. All poloidal and toroidal field coils, as well as the central solenoid modules and many other critical components, have been delivered to the construction site.

Russia-China collaboration

Rosatom Director General Alexey Likhachev emphasized that fusion researchers around the world are “destined for the deepest scientific cooperation.” Fusion experts from different countries communicate closely and share experiences, and this cooperation extends beyond the ITER project.

“We have very good relations with China,” Anatoly Krasilnikov said in an interview with the Strana Rosatom newspaper. “Cooperation agreements between Rosatom, the PRC Ministry of Science and Technology, and the Chinese Academy of Sciences are in the final stages of approval. Today, our Chinese colleagues are building the BEST tokamak. The superconducting machine will have a fusion power of 200 MW. They plan to launch BEST as early as next year. Naturally, we are interested in participating in this one-of-a-kind project.”

Photo by: ITER, People’s Daily China, JSC “D.V. Efremov NIIEF”

Joyce Mendez: Strength in Solidarity

Rosatom is holding its second recruitment campaign for Impact Team 2050, the international youth advisory council to the Director General of the Russian nuclear corporation. The council aims to foster a direct dialogue between young leaders and Rosatom executives to develop international education, attract young talents to the nuclear industry, and broaden support for nuclear technologies among the younger generation worldwide. Here is the story of Impact Team 2050 member Joyce Mendez, a co-founder of the Latin American Observatory of Energy Geopolitics and a member of the UN Secretary-General's Youth Advisory Group on Climate Change.

Joyce Mendez was born and raised in Colombia. Since childhood, she observed the natural and cultural diversity of the Paraná River basin and the Guaraní Aquifer, one of the world's largest freshwater reservoirs.

"One day in school, during a biology class, we were told about one of the consequences of climate change in Brazil: rising temperatures affected the growth of the mosquito population that carries dengue fever and the chikungunya virus. And this is just one of many problems. I was 12 years old then. I became fascinated by the topic and started telling other students about the impact of climate change on our lives," Joyce Mendez tells her story.

Projects with Joyce's involvement

Joyce's belief in the power of education and community engagement prompted her to co-found several non-governmental organizations across Latin America. In 2014, she began working with young people under a social and environmental program for Itaipu, the world's second-largest hydroelectric power plant. In 2015, Joyce helped launch the Moema Viezzer Environmental Education Observatory, which fosters local community engagement in biodiversity conservation and the fight against climate change. Among the Observatory's achievements is the Foz do Iguaçu Municipal Plan for the Conservation of the Atlantic Forest aimed at protecting the region's ecosystems.

In 2016, Joyce co-founded the Latin American Observatory of Energy Geopolitics, and in 2018, she co-founded the Paraguayan Youth for Water Network, which empowers young professionals to implement projects aligned with the UN Sustainable Development Goals (SDGs), Clean Water and Sanitation and Life Below Water. The organization mobilized young people throughout Paraguay via national forums and programs.

One of Joyce's key missions is advocating for indigenous peoples, ensuring their voices are heard in discussions on climate policy and resource management. She believes that traditional

knowledge is not merely a cultural heritage but a vital tool for achieving the SDGs.

International collaboration

Joyce participates in the BRICS Youth Energy Agency, helping develop youth programs on the energy transition and sustainable development.

In 2023, UN Secretary-General António Guterres appointed Joyce to his Youth Advisory Group on Climate Change. Only five young people received such an offer. Representing her region in the international arena, Joyce emphasizes the importance of incorporating the perspectives of youth and migrants when developing sustainable solutions.

Her vision for the future is rooted in collaboration and transparency. “We need to encourage dialogue across cultures, generations, and socio-economic groups,” asserts Joyce Mendez. “Only through discussion can we find common ground and overcome shared challenges.”

For Joyce, building resilient systems is a life philosophy. “I won’t be young forever,” she reflects. “But I have created platforms that will provide the next generation with the tools needed to continue this work.”

Impact Team 2050

Joyce took an interest in nuclear energy back when she was a university student. In 2022, she joined the Impact Team 2050 council. Together with Rosatom, Joyce has organized major events that enabled young people across Latin America to learn about nuclear technologies, how to build a career in the nuclear industry, and how to improve their countries’ climate footprint.

“I joined Impact Team 2050 to prove that the energy transition must be inclusive and that the voices of Latin America must be heard. And we succeeded. We brought together young leaders from nine countries in the region. We conducted technical tours to the Angra NPP and the IPEN research reactor in Brazil, and organized a joint workshop with the IAEA, which laid the groundwork for developing relevant TECDOCs (*IAEA technical documents — Ed.*). But my greatest point of pride is the presentation of our two years of work at COP30 in Belém, in the heart of the Amazon. We showed the whole world at the IAEA session that the Latin American youth nuclear movement exists, it is strong, and it is ready to offer solutions. When representatives of indigenous communities and young engineers speak the same language, that is true progress.”

Making a contribution

In her younger years, Joyce heard a parable that influenced her worldview. A fire broke out in the Amazon rainforest. The animals fled from the flames in terror. But suddenly, they noticed a hummingbird flying into the forest.

“Why are you going back there?”

“I carry a drop of water in my beak. If everyone does this, we can stop the fire.”

“I thought that I wanted to be like the hummingbird, to make my contribution and stop the fire,” says Joyce Mendez. “For the sake of this dream, I had to sacrifice parties and relationships in my youth, but I don’t regret a thing. If everyone makes the contribution they can, we will see how everything changes. Collaboration is more important than competition; there is strength in solidarity.”

Photo by: From the author’s personal archive