

Global Launch Event

The World Nuclear Industry Status Report 2026

(WNISR2026)

www.WorldNuclearReport.org

Co-hosted by

Heinrich Böll Stiftung, Friedrich Ebert Stiftung, Ekosfer, and WNISR/Mycle Schneider Consulting



World Nuclear Industry
Status Report

Istanbul, 29 September 2026

A Mycle Schneider Consulting Project
Paris, September 2026

The World Nuclear Industry Status Report 2026



With a foreword by
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Former Minister for Foreign Affairs, Japan

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Cover-page Design and Layout

Paris, 2026
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**Tuesday
29-09
2026
Istanbul**

Global Launch The World Nuclear Industry Status Report 2026

**MEDIA
BRIEFING**
10:00-12:30 (local time)
Point Hotel Taksim
Topçu Caddesi No.2
Giza Conference Room
Taksim, Istanbul
Türkiye



Friedrich Ebert Stiftung



HEINRICH BÖLL STIFTUNG



Ekosfer

Co-Hosted by Friedrich-Ebert-Stiftung, Heinrich-Böll-Stiftung, Ekosfer, and WNISR/Mycle Schneider Consulting

9:30 > Welcome coffee/tea and registrations

Welcome

DAWID D. BARTELT
Istanbul Office Director,
Heinrich Böll Stiftung, Istanbul, Türkiye

BARIŞ ECEÇELİK
Chair of the Board of Directors of the Ekosfer Association,
Istanbul, Türkiye

Commentary

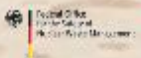
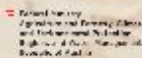
KONO TARO
Member of Parliament, Former Minister for Foreign Affairs, Japan
(via Zoom)

Presentation WNISR2026

Global Overview and France Focus

Mycle Schneider
Independent Analyst, Paris, France; WNISR Coordinator
and Publisher

The WNISR Project is supported by



Russia Focus, Ukraine Focus and Eastern Europe

DMITRY GORCHAKOV
Nuclear Advisor, Bellona Foundation, Vilnius,
Lithuania; WNISR Contributing Author

Russia Nuclear Interdependencies

SEBASTIAN STIER
European Patent Attorney (retired), Physicist, Munich,
Germany; WNISR Contributing Author (via Zoom)

Small Modular Reactors (SMRs)

STEPHEN THOMAS
Emeritus Professor, University of Greenwich, Editor-in-Chief
of the journal Energy Policy, London, UK; WNISR Contributing
Author (via Zoom)

Fukushima Status Report and Japan Focus

TATSUJIRO SUZUKI
President, Peace Depot, Former Vice-Chair Japan Atomic Energy
Commission, Japan; WNISR Contributing Author (via Zoom)

**Decommissioning Status Report
and Western Europe**

ALEXANDER WIMMERS
Research Associate, Berlin University of Technology,
Germany; WNISR Contributing Author (via Zoom)

**Nuclear Power vs. Renewable Energy
Deployment / Conclusions**

Mycle Schneider
WNISR Coordinator and Publisher

Q & A

The event will prioritize questions from media representatives;
however, a public event with a similar program will be held in the
afternoon 15:00-17:30, at the same location. (Presential only!)

To attend in person, please e-mail Ms. Hatem Vural
at hatem@ekosfer.org

To watch live www.youtube.com/live/Bw73RGMr6MI

Note: The full report will be available for free download
as of 29 September 2026, at 10:00 Istanbul time here:
www.worldnuclearreport.org/World-Nuclear-Industry-Status-Report-2026



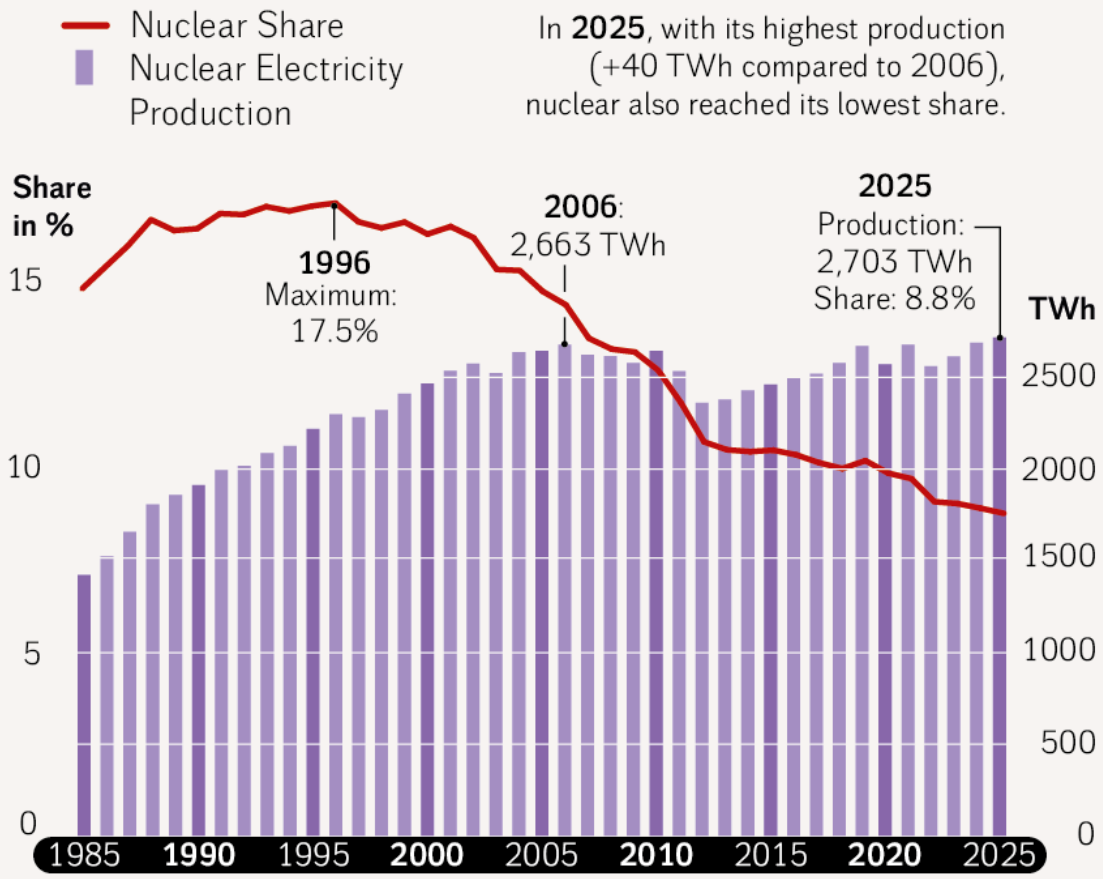
Mycle Schneider works as independent international consultant on energy and nuclear policy. He is the initiator, coordinator, and publisher of the [World Nuclear Industry Status Reports](#). He is a Founding Board Member and the Spokesperson for the International Energy Advisory Council ([IEAC](#)). He is a Founding Member of the International Nuclear Risk Assessment Group (INRAG) and a member of the International Nuclear Security Forum ([INSF](#)), based at the Stimson Center, US. He is a member of the International Panel on Fissile Materials ([IPFM](#)), based at Princeton University, US.

Between 2004 and 2009, he has been in charge of the Environment and Energy Strategies Lecture of the International Master of Science for Project Management for Environmental and Energy Engineering at the *Ecole des Mines* in Nantes, France.

From 2000 to 2010, he was an occasional advisor to the German Environment Ministry. 1998–2003, he was an advisor to the French Environment Minister's Office and to the Belgian Minister for Energy and Sustainable Development. Mycle Schneider has given evidence or held briefings at national Parliaments in 16 countries and at the European Parliament. He has advised Members of the European Parliament from four different groups over the past 35+ years. He has given lectures or had teaching appointments at over 20 universities and engineering schools in a dozen countries.

Nuclear Electricity Production 1985–2025 in the World...

in TWh (net) and Share in Electricity Generation (gross)

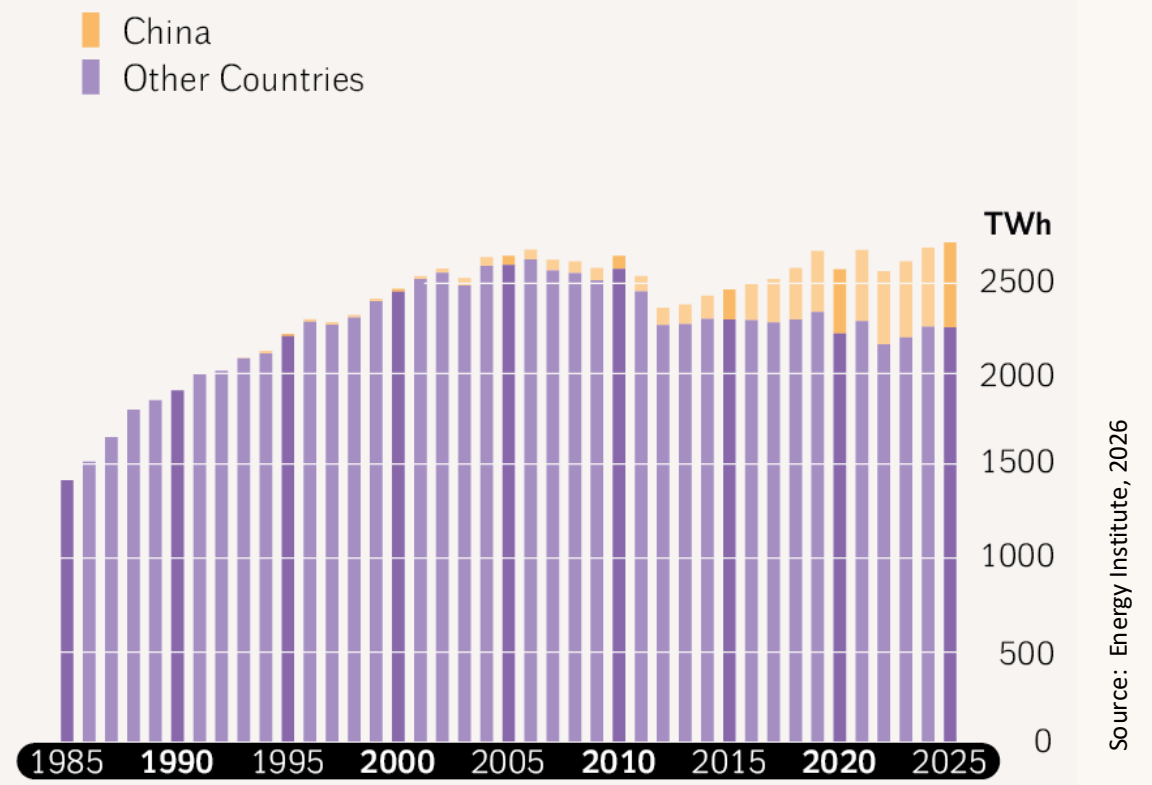


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...and in China and the Rest of the World

in TWh (net)

In 2025, global generation increased by 1.1%. China saw a 7.6% rise.

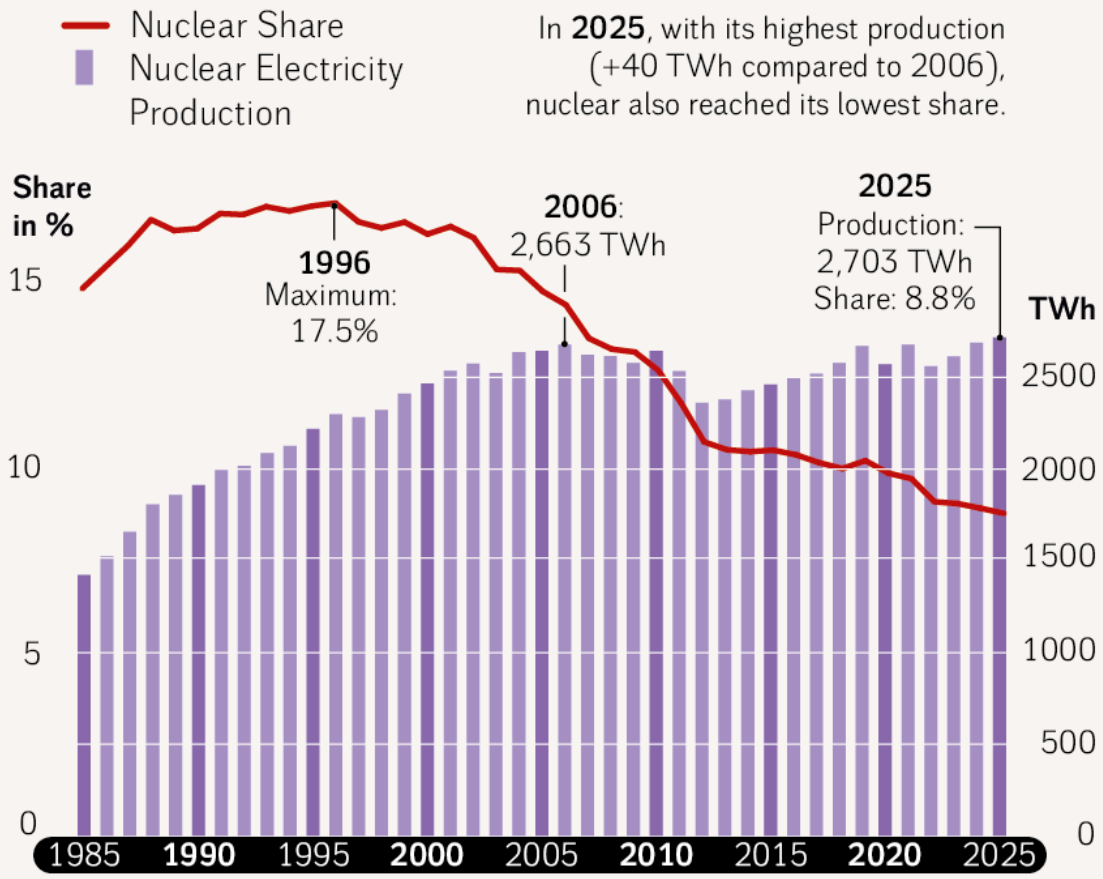


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Source: Energy Institute, 2026

Nuclear Electricity Production 1985–2025 in the World...

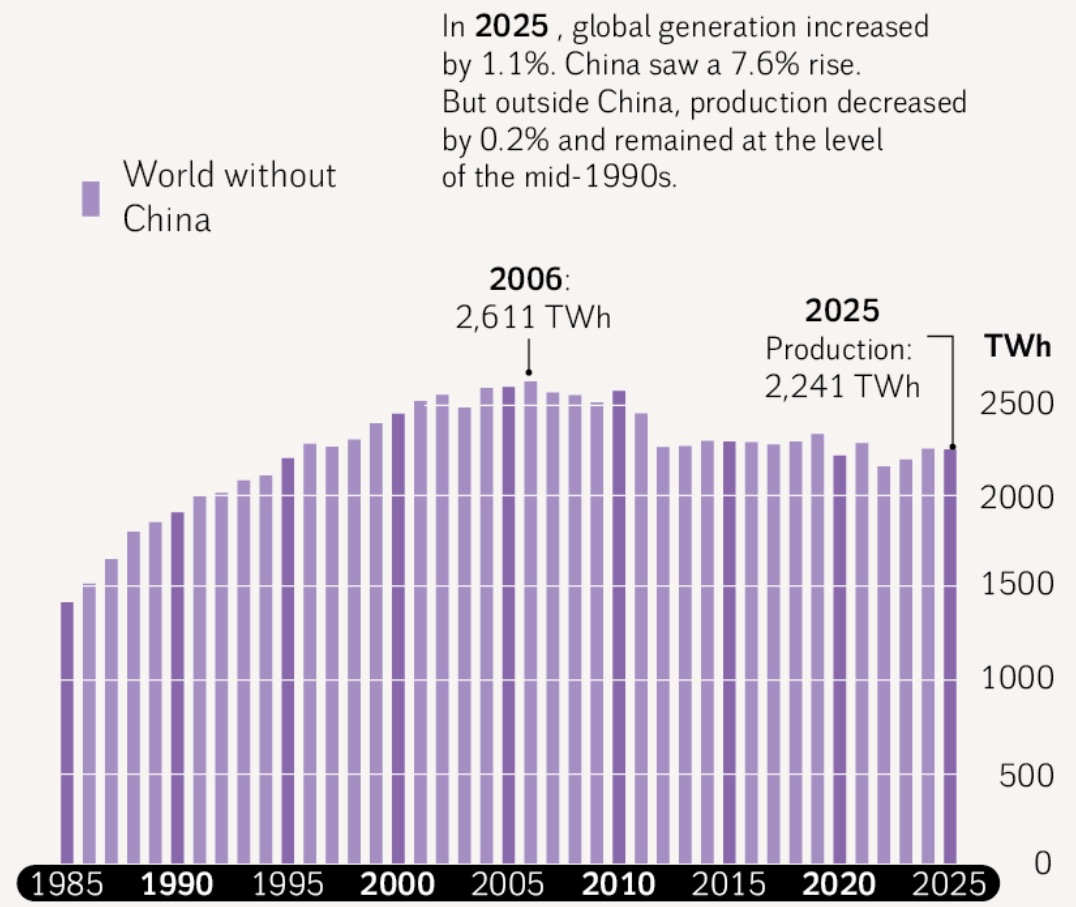
in TWh (net) and Share in Electricity Generation (gross)



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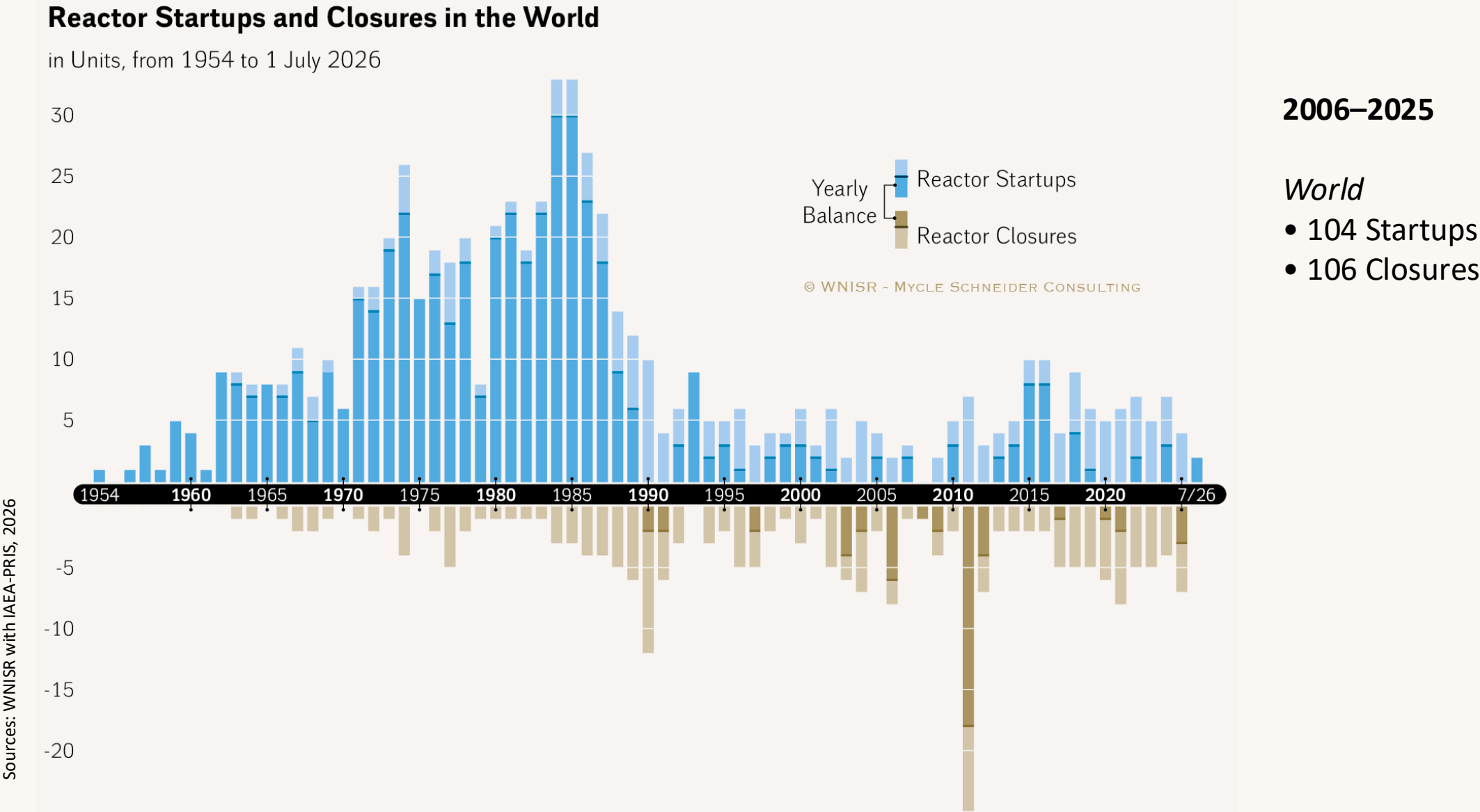
...and in China and the Rest of the World

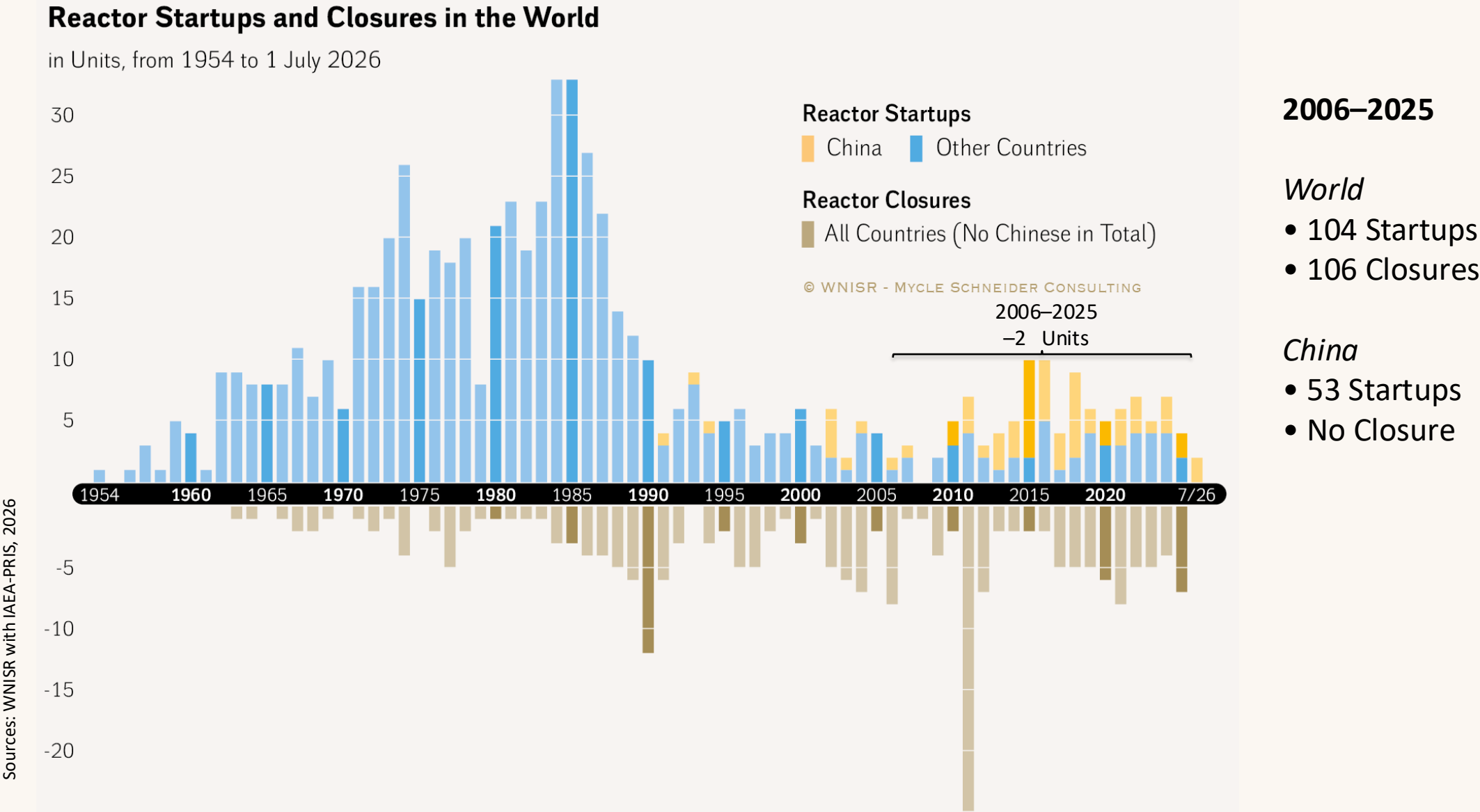
in TWh (net)

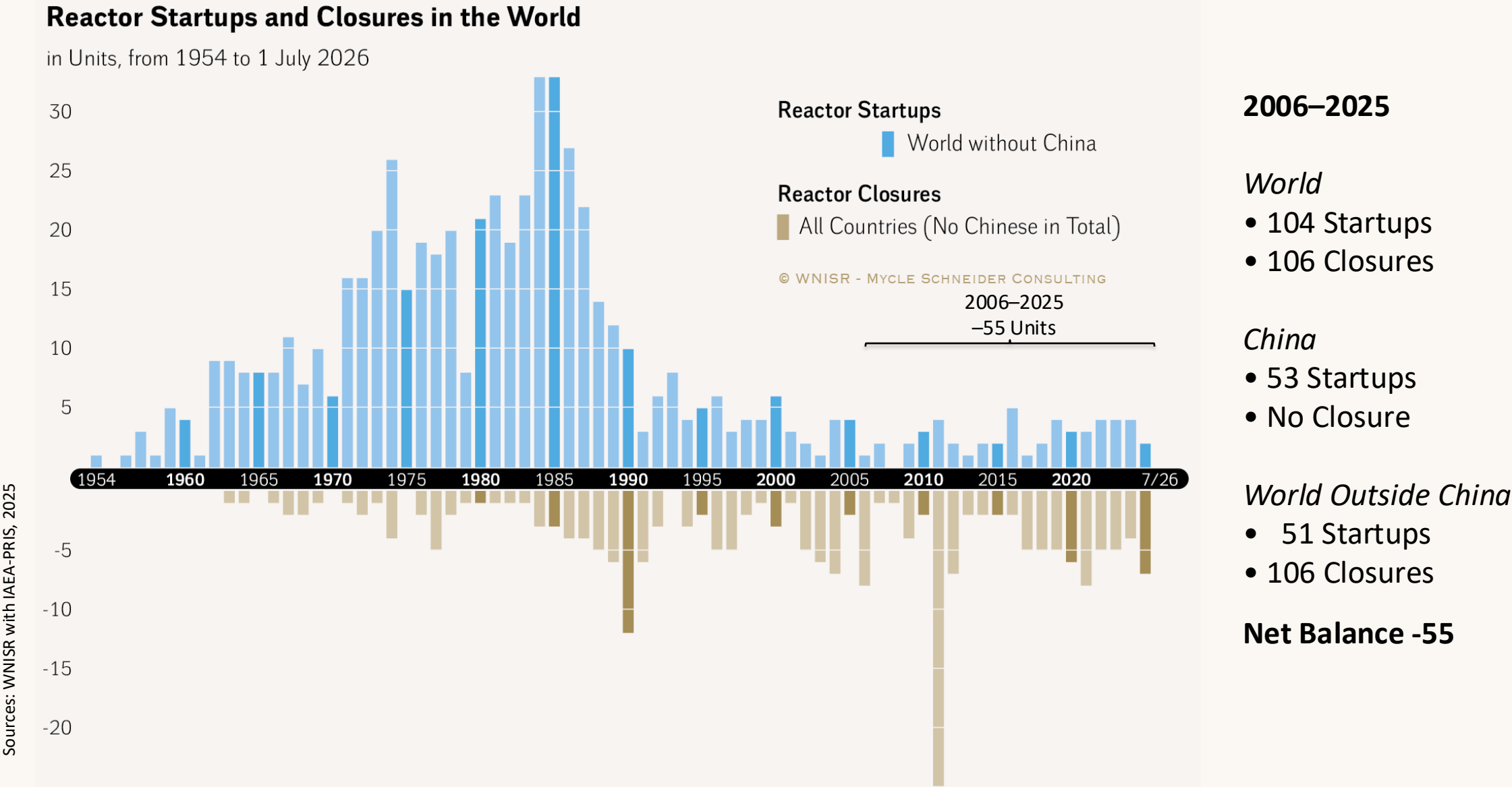


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Source: Energy Institute, 2026

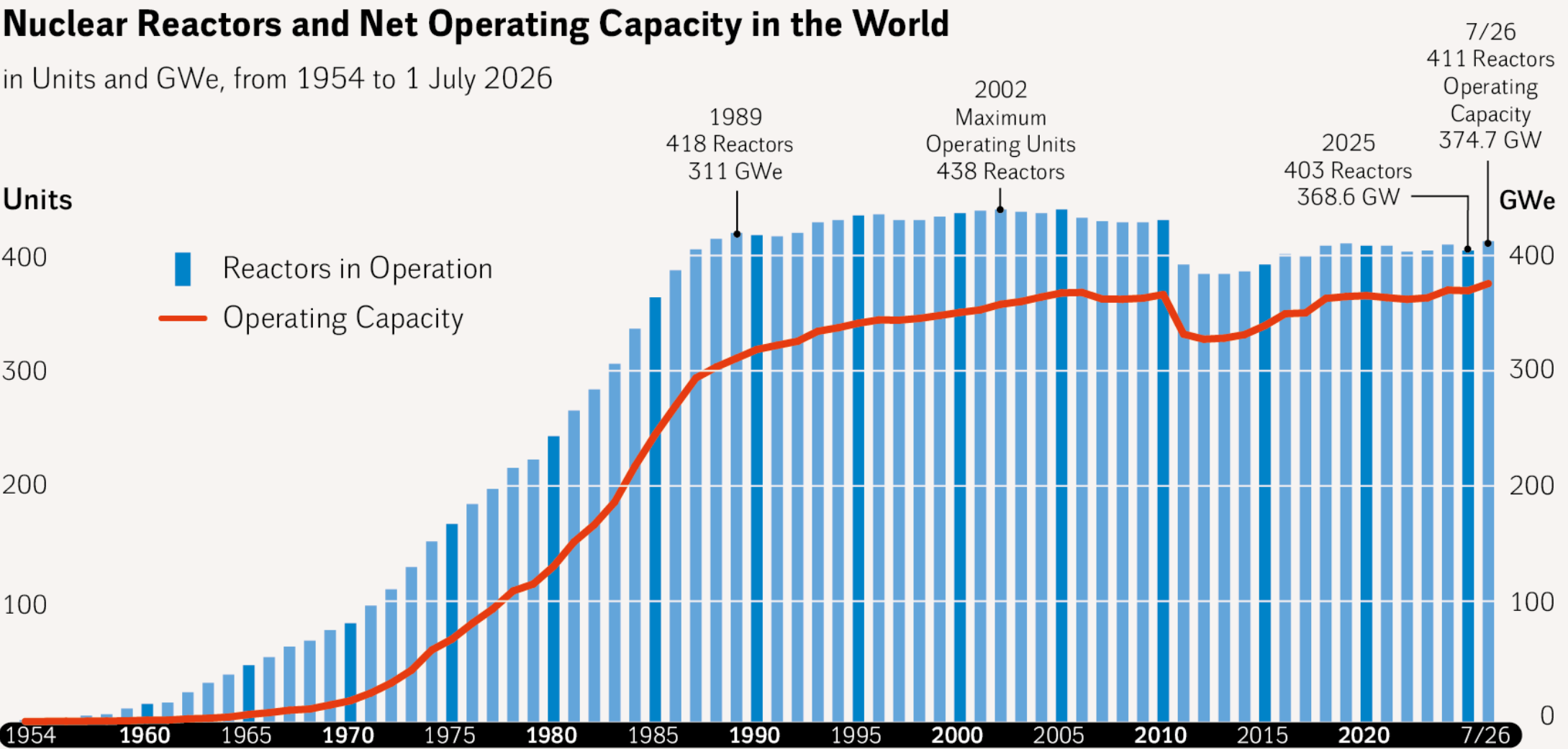






Nuclear Reactors and Net Operating Capacity in the World

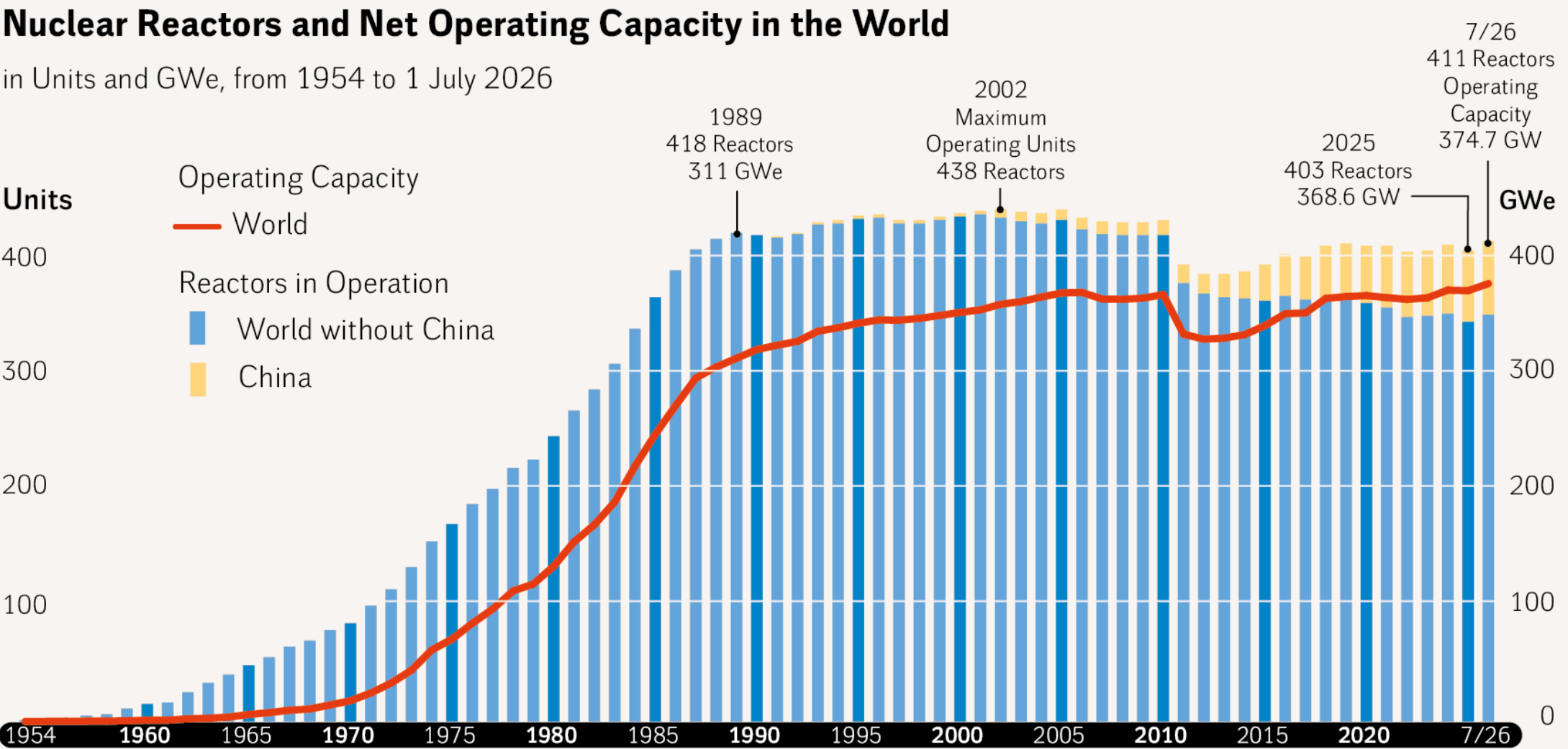
in Units and GWe, from 1954 to 1 July 2026



Sources: WNISR, with IAEA-PRIS, 2026

Nuclear Reactors and Net Operating Capacity in the World

in Units and GWe, from 1954 to 1 July 2026

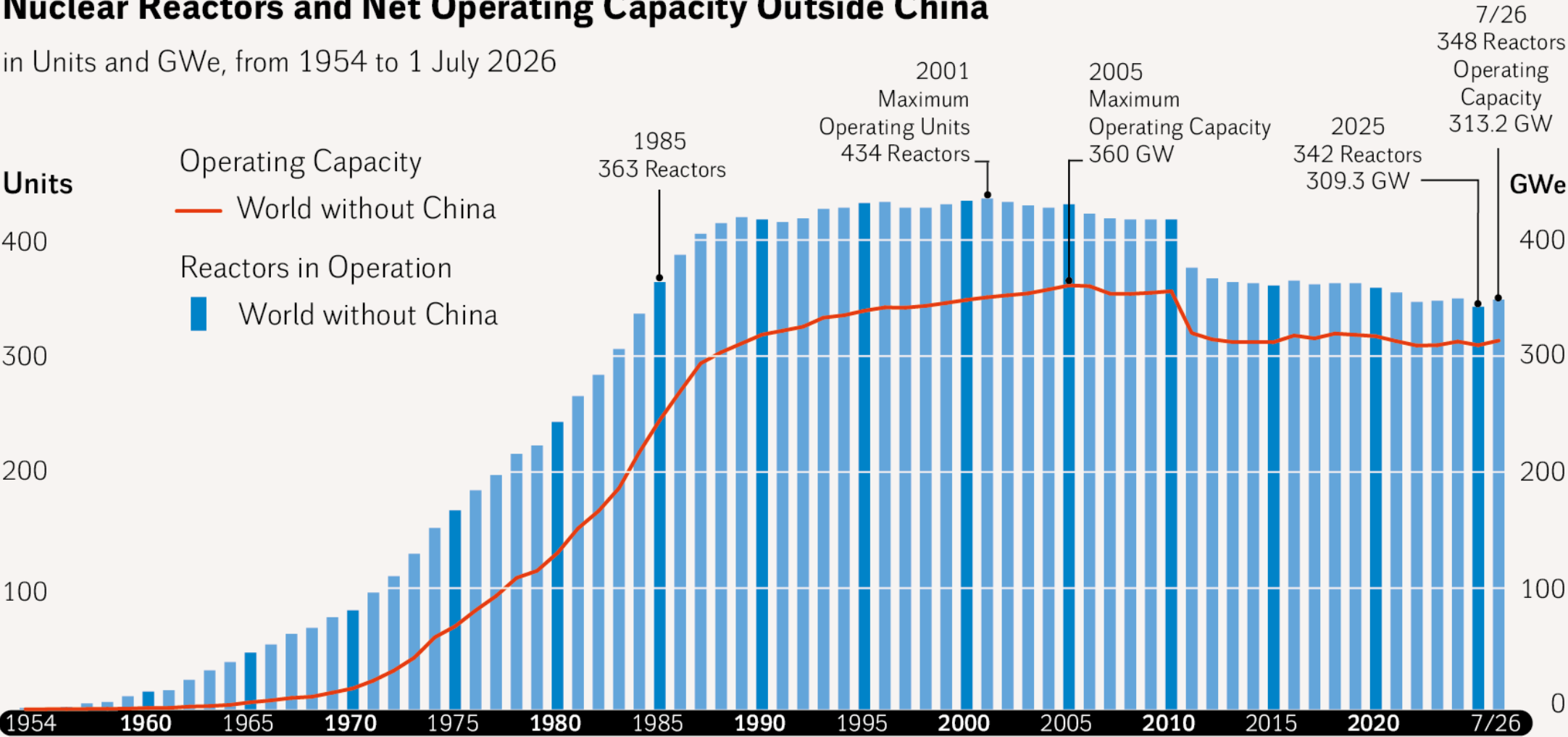


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Sources: WNISR, with IAEA-PRIS, 2026

Nuclear Reactors and Net Operating Capacity Outside China

in Units and GWe, from 1954 to 1 July 2026

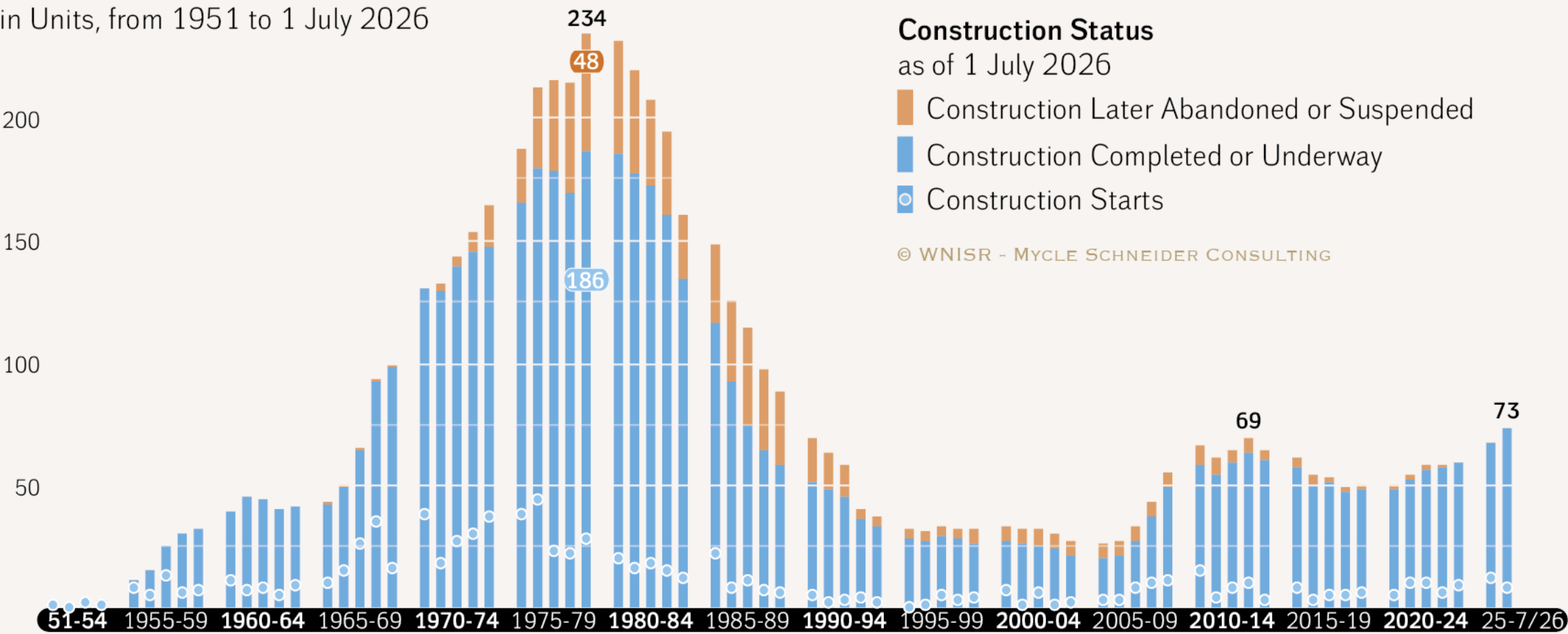


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Sources: WNISR, with IAEA-PRIS, 2026

Reactors Under Construction in the World

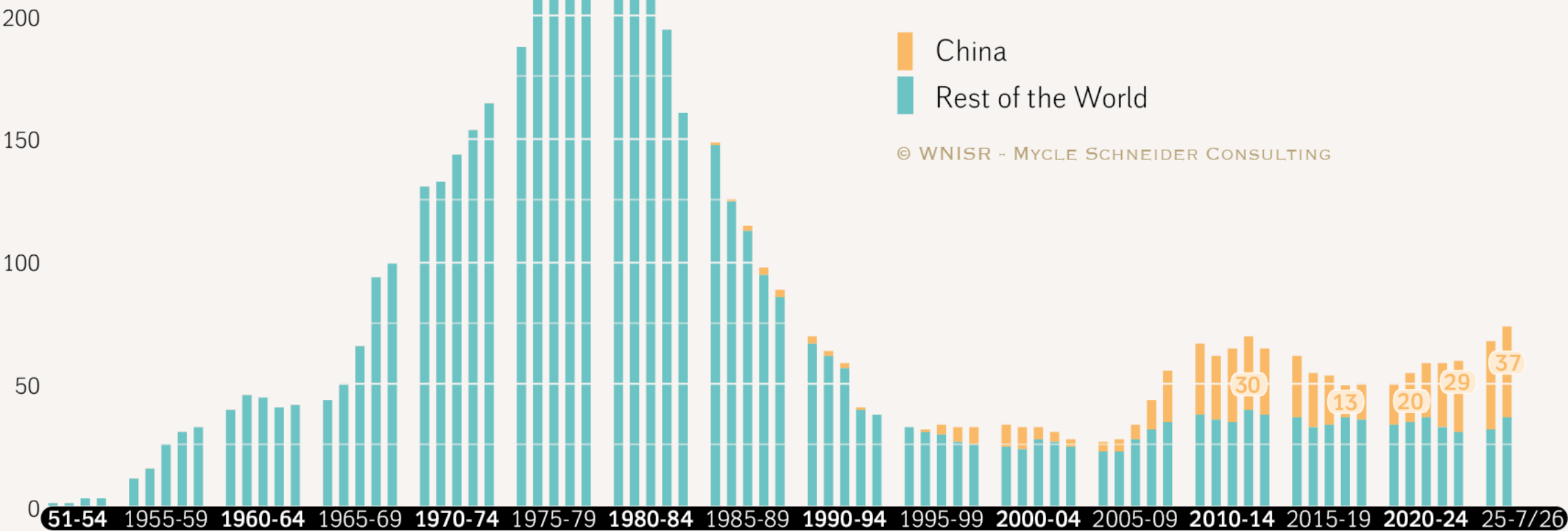
in Units, from 1951 to 1 July 2026



Sources: WNISR, with IAEA-PRIS, 2026

Reactors Under Construction in the World

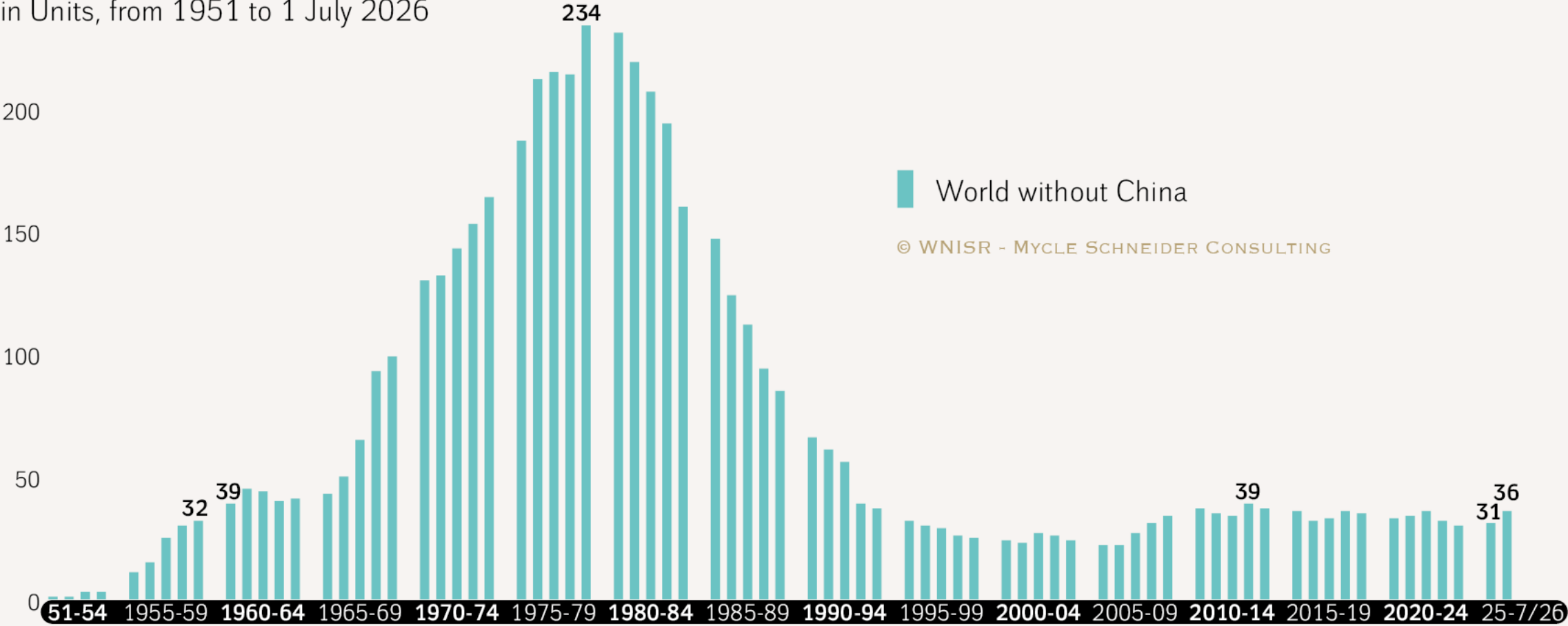
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Sources: WNISR, with IAEA-PRIS, 2026

Reactors Under Construction in the World

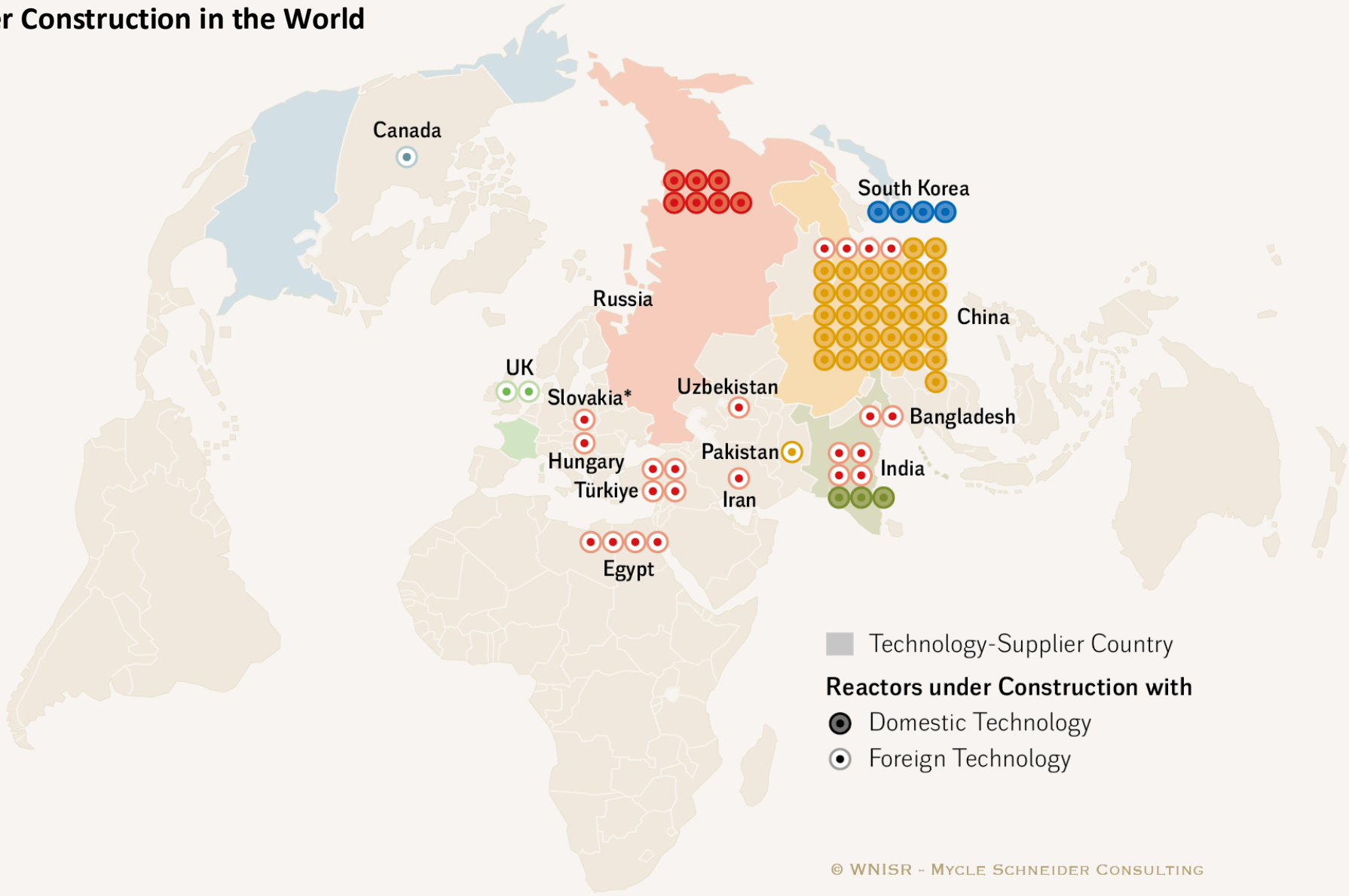
in Units, from 1951 to 1 July 2026



Sources: WNISR, with IAEA-PRIS, 2026

Nuclear Power Reactors under Construction in the World

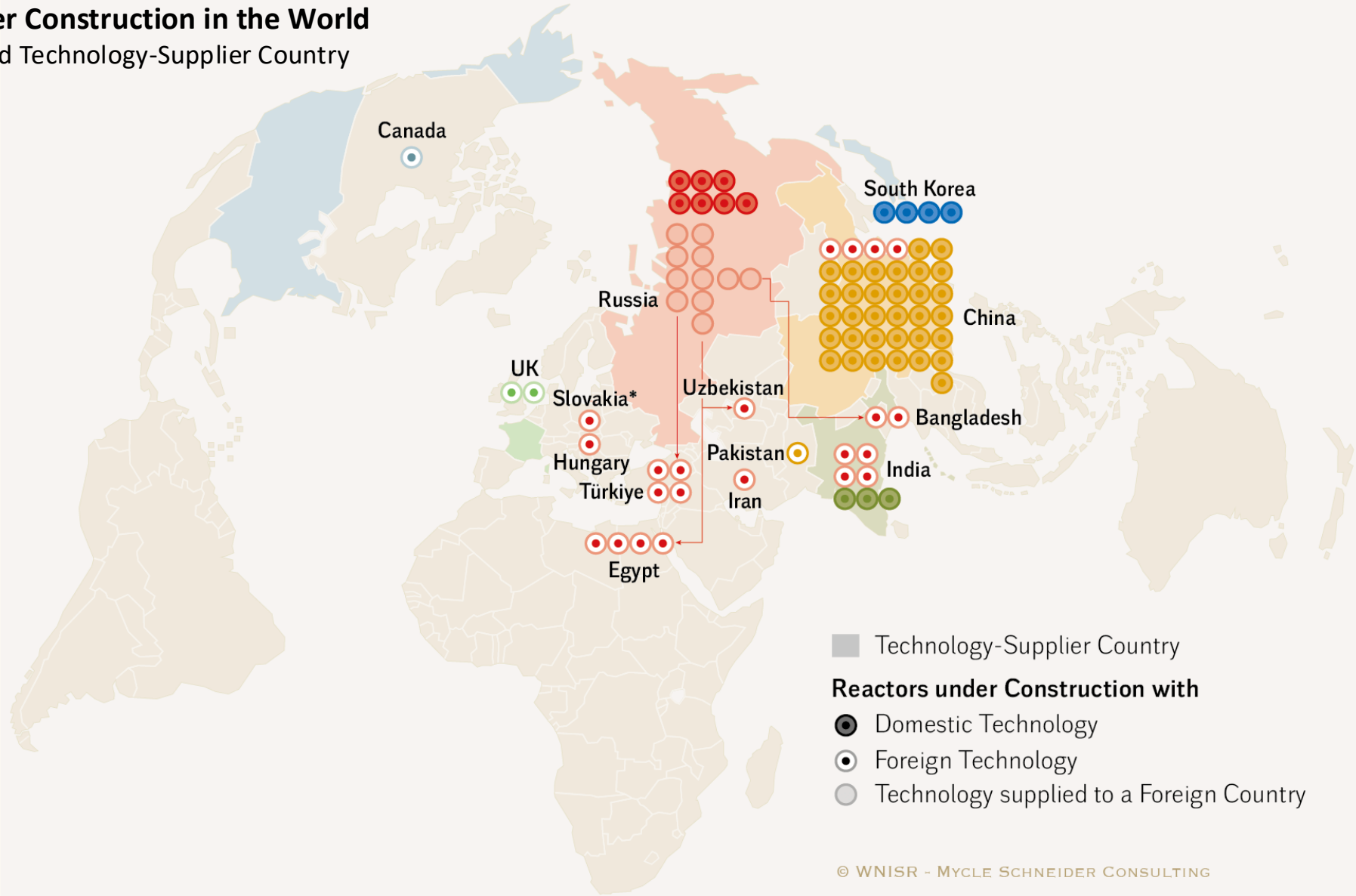
Units by Construction Country
as of 1 July 2026



Sources: compiled by WNISR, with IAEA-PRIS, 2026

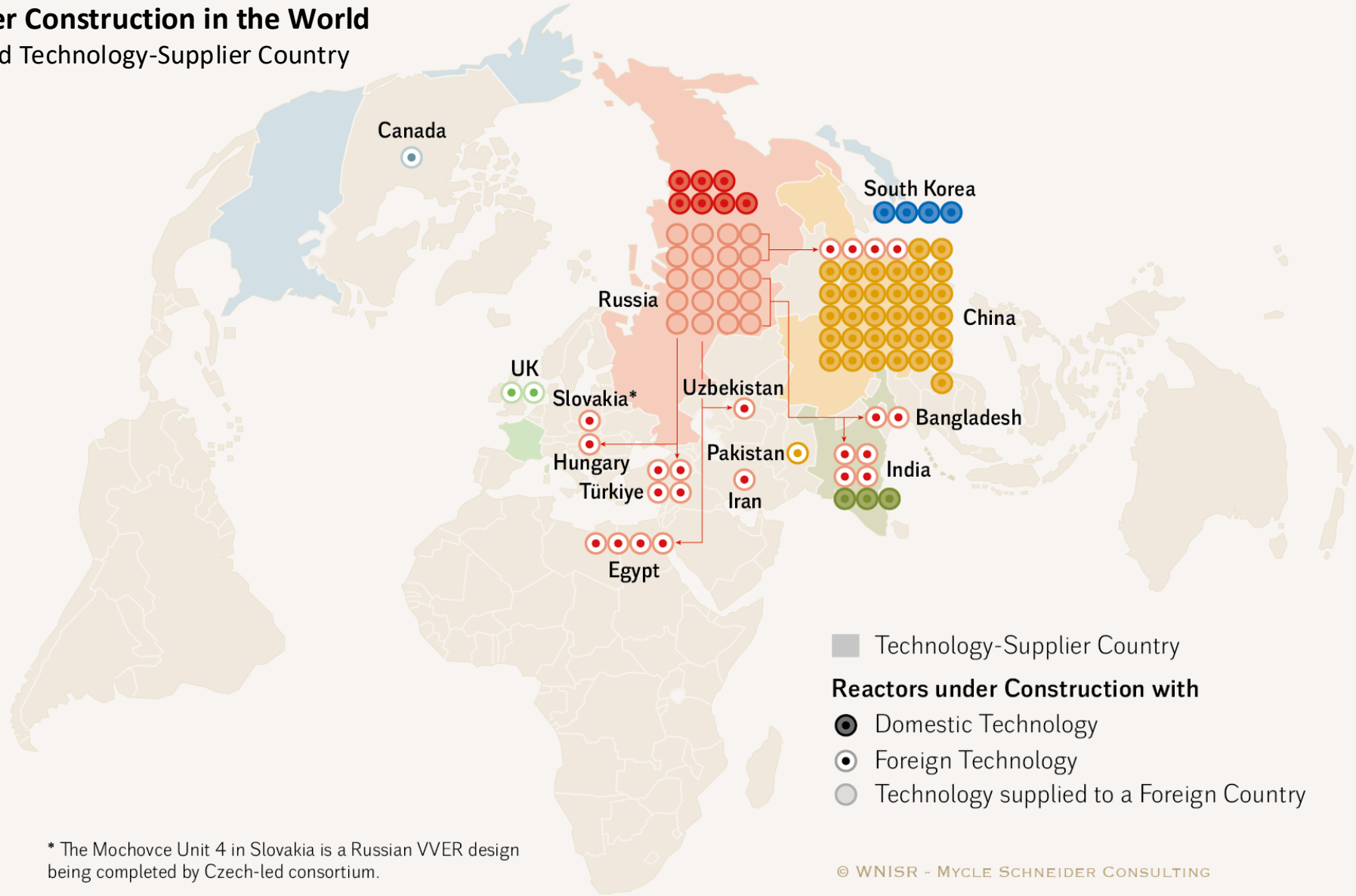
Nuclear Power Reactors under Construction in the World

Units by Construction Country and Technology-Supplier Country
as of 1 July 2026



Nuclear Power Reactors under Construction in the World

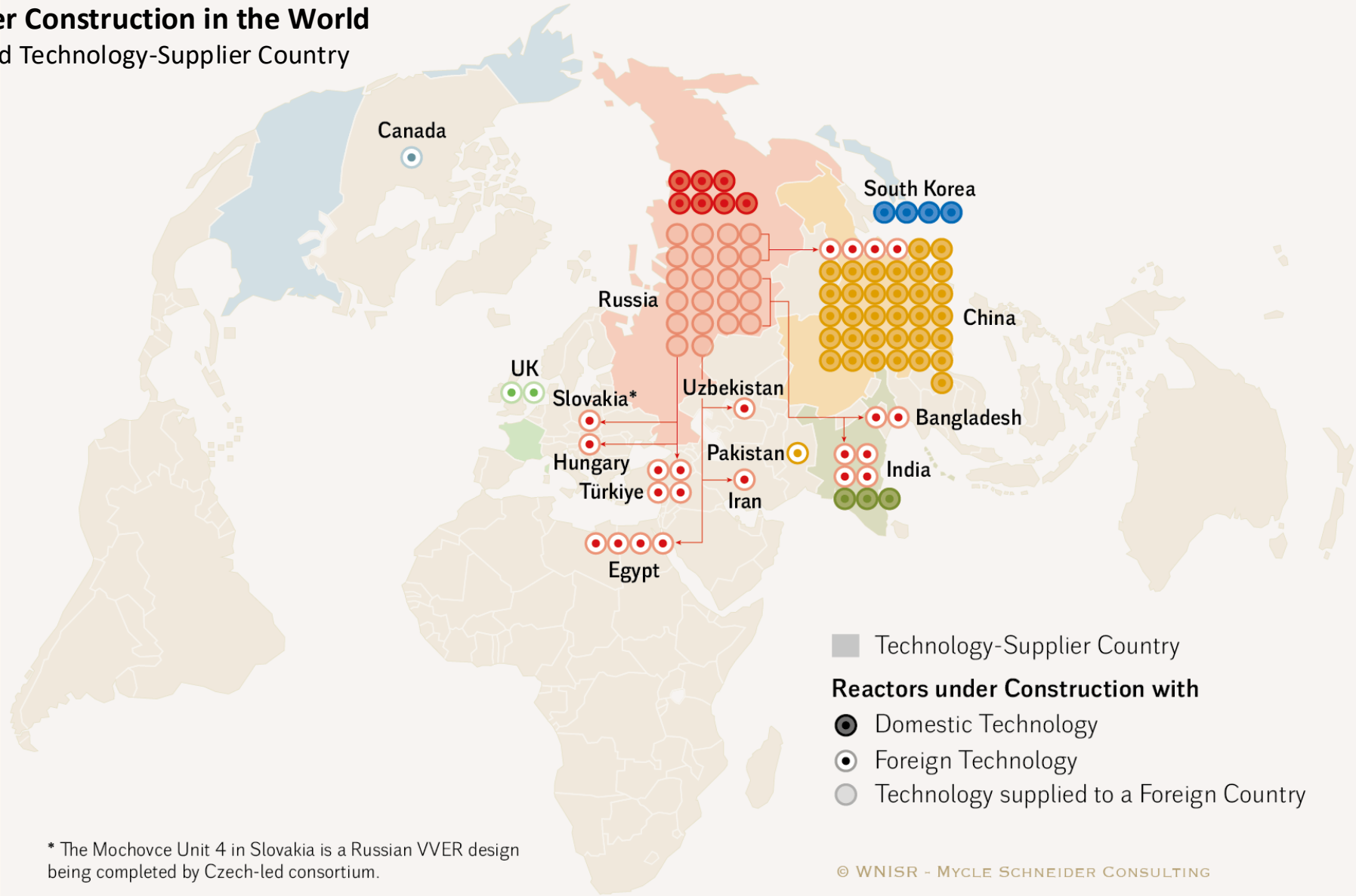
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Sources: compiled by WNISR, with IAEA-PRIS, 2026

Nuclear Power Reactors under Construction in the World

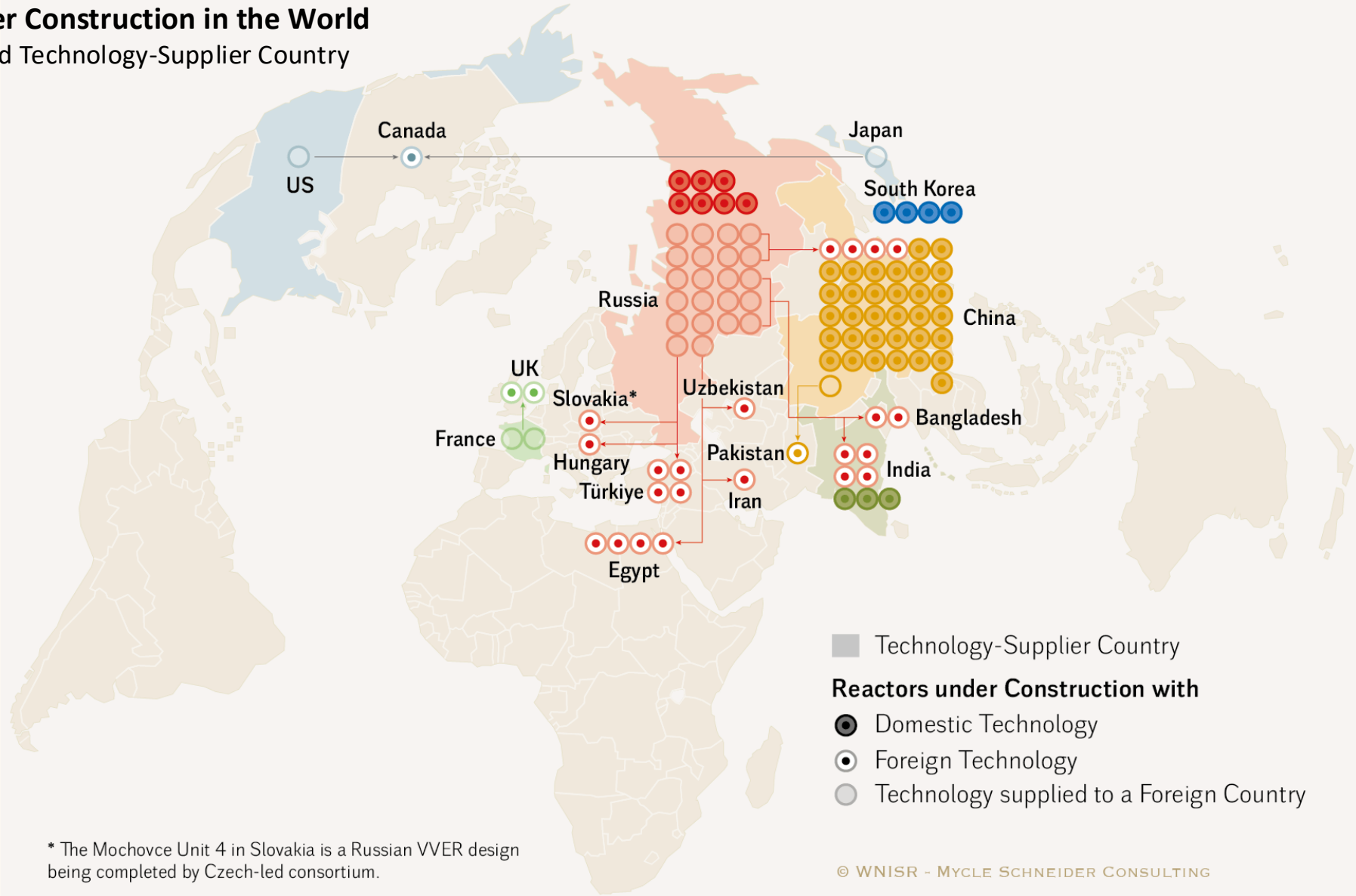
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Sources: compiled by WNISR, with IAEA-PRIS, 2026

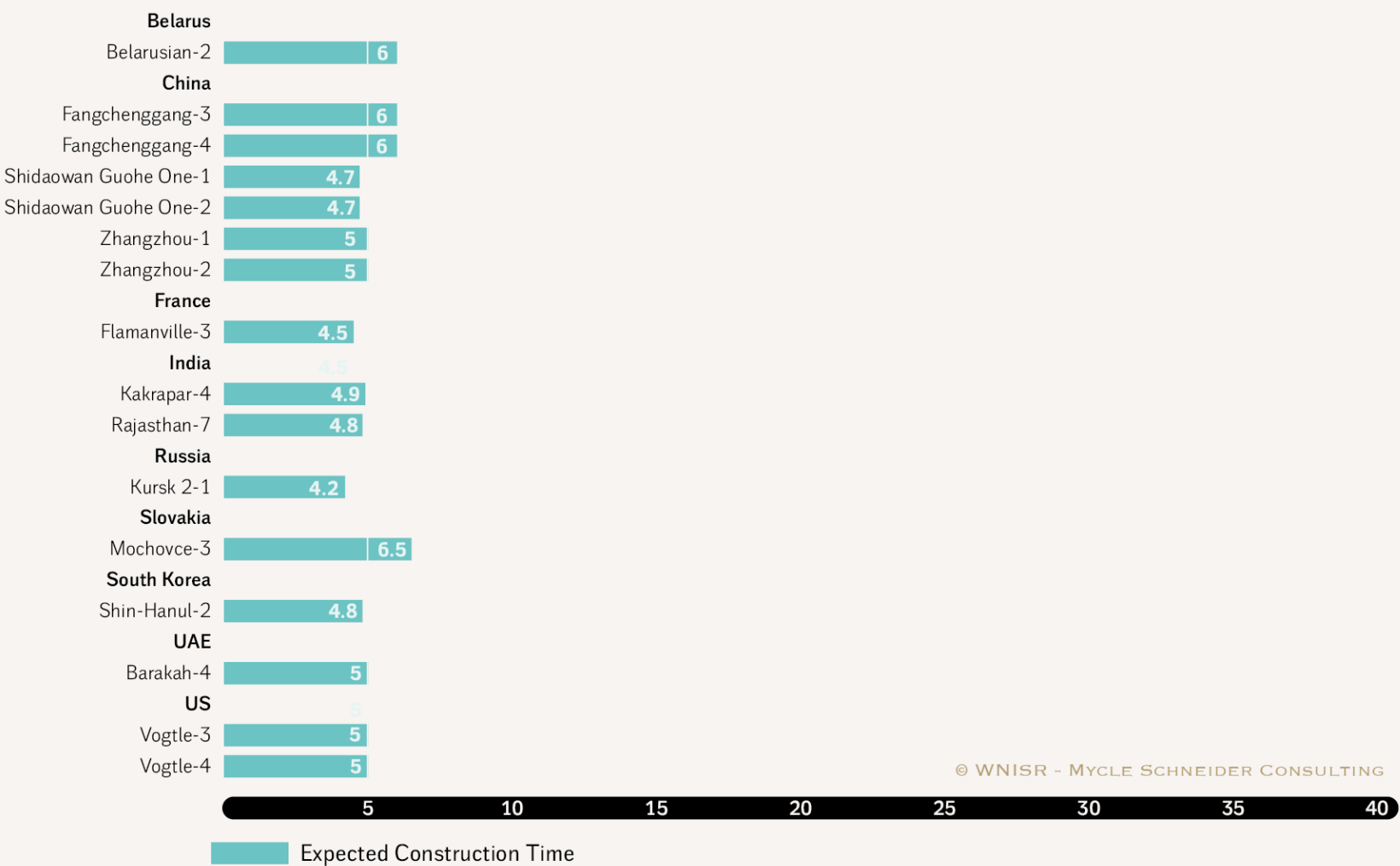
Nuclear Power Reactors under Construction in the World

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Sources: compiled by WNISR, with IAEA-PRIS, 2026

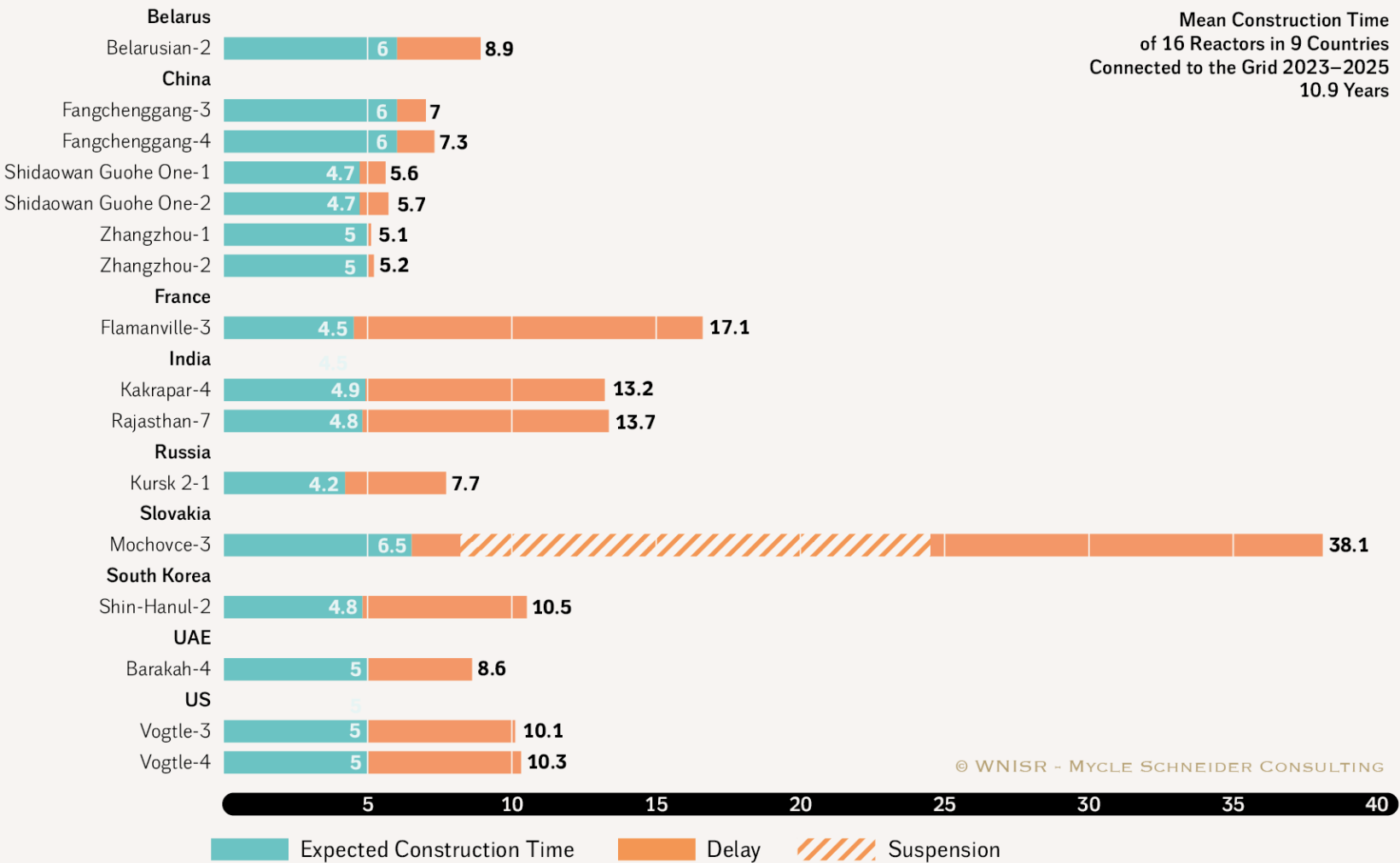
Expected vs. Real Duration from Construction Start to Grid Connection for Startups 2023–2025
in Years



Sources: Various, compiled by WNISR, 2026

Expected vs. Real Duration from Construction Start to Grid Connection for Startups 2023–2025

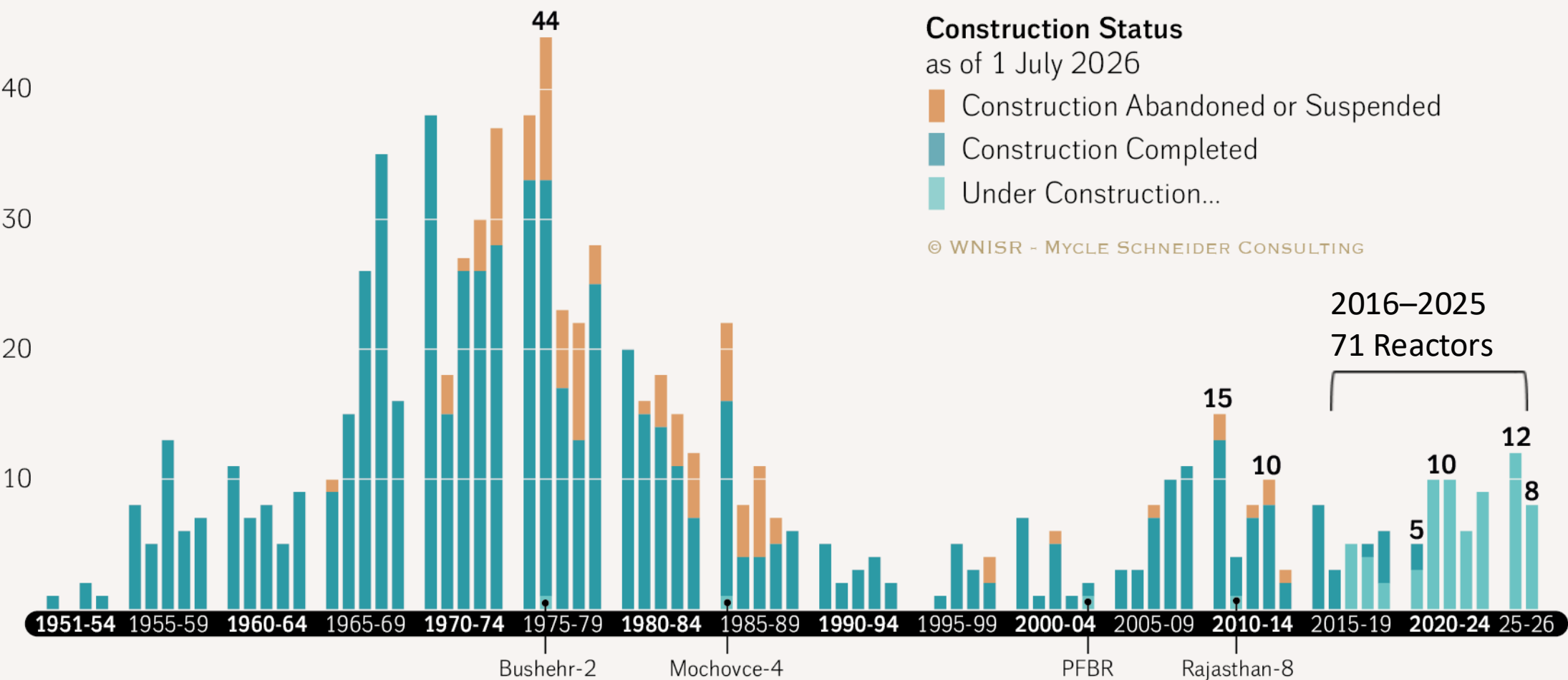
in Years



Sources: Various, compiled by WNISR, 2026

Construction Starts of Nuclear Reactors in the World

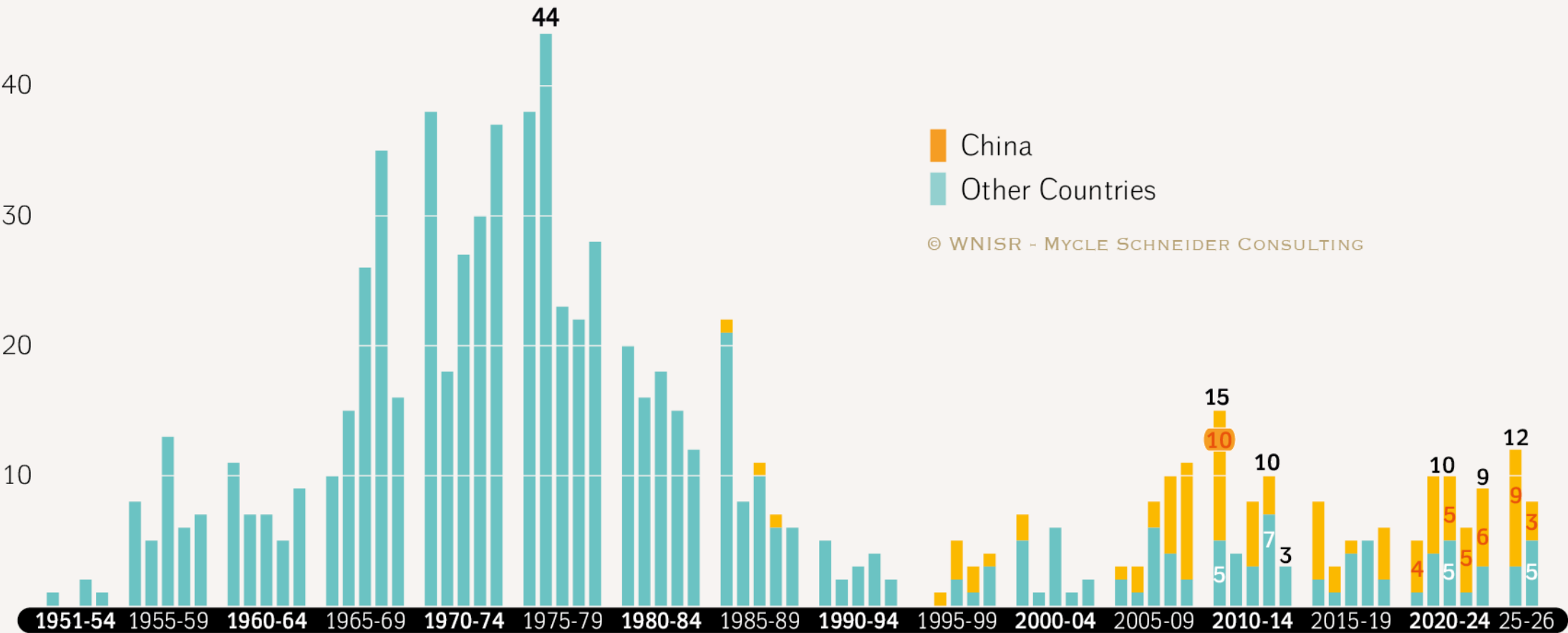
in Units, from 1951 to 1 July 2026



Sources: WNISR, with IAEA-PRIS, 2026

Construction Starts of Nuclear Reactors in the World

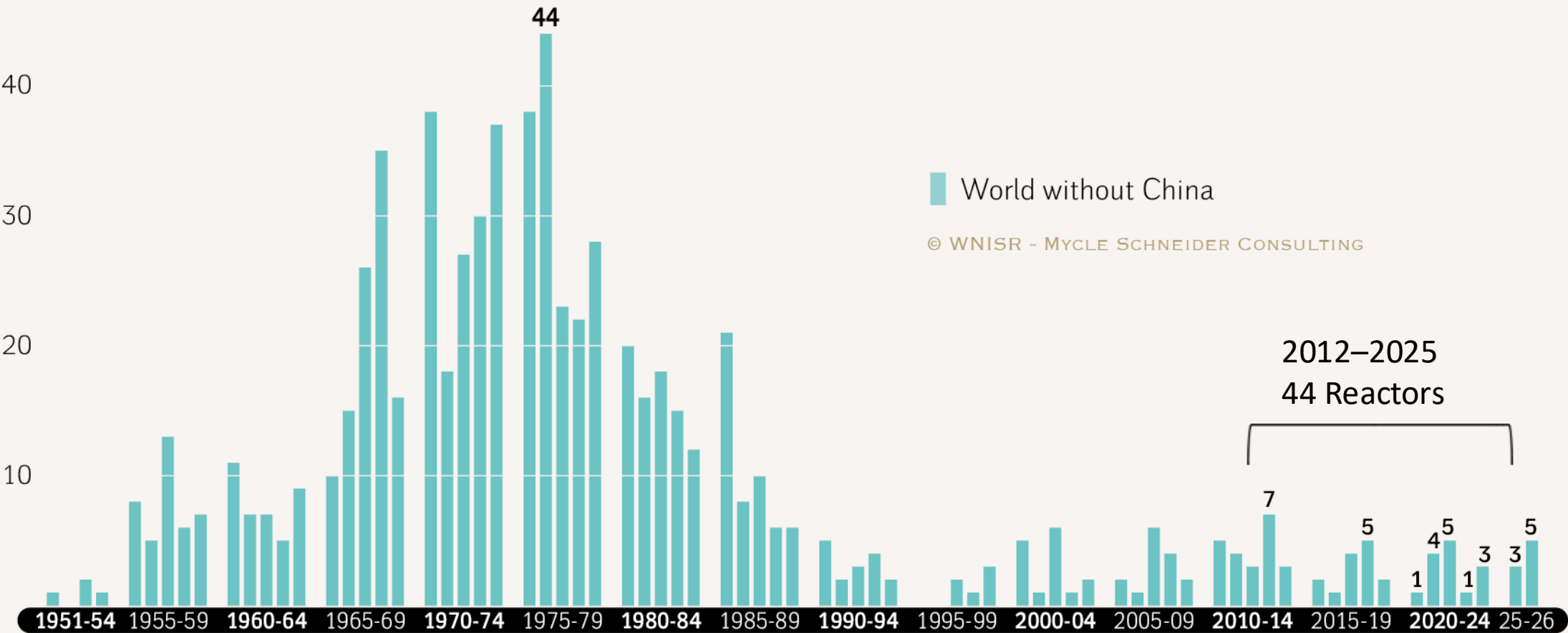
in Units, from 1951 to 1 July 2026



Sources: WNISR, with IAEA-PRIS, 2026

Construction Starts of Nuclear Reactors in the World

in Units, from 1951 to 1 July 2026

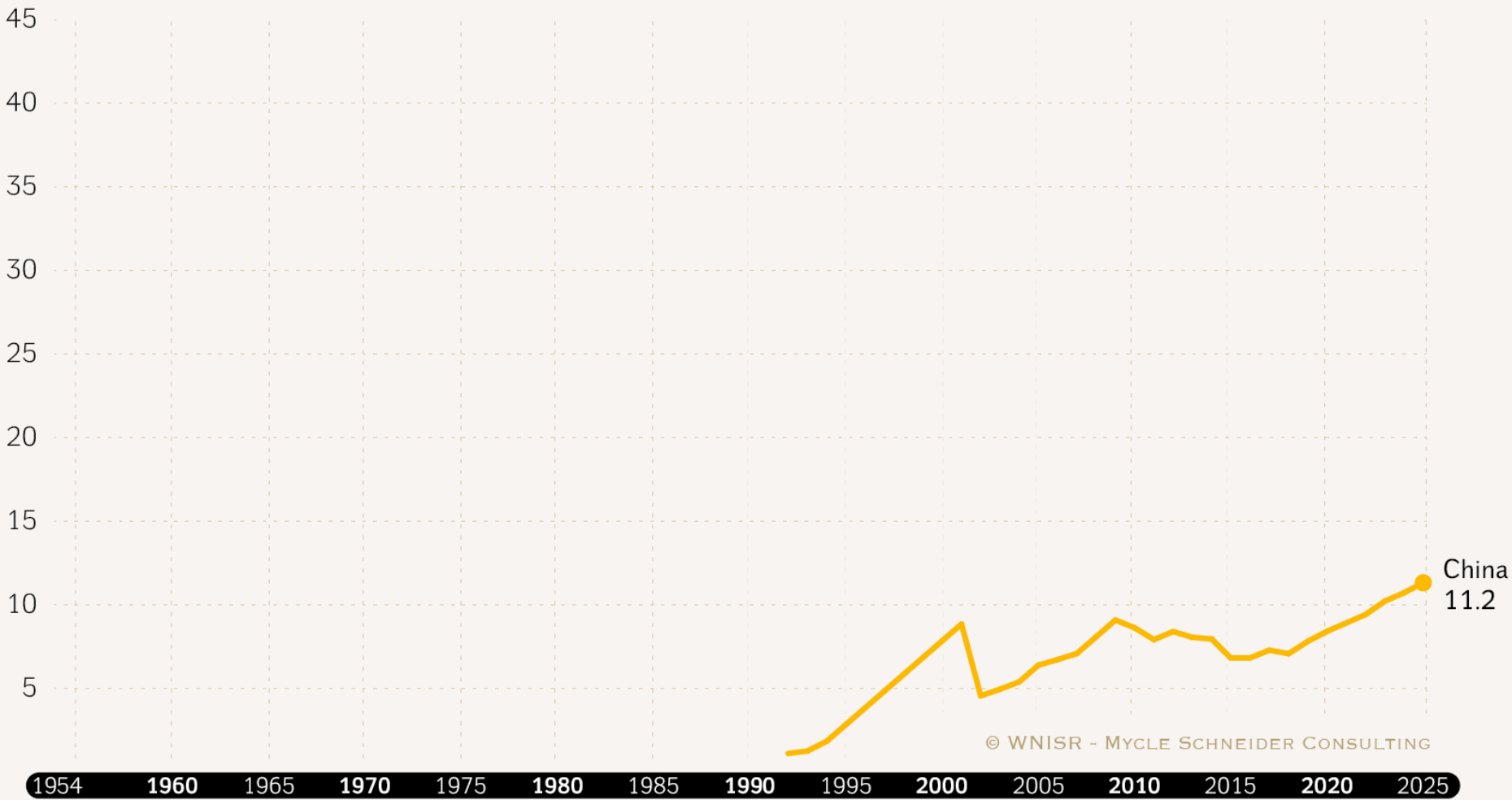


Sources: WNISR, with IAEA-PRIS, 2026

Evolution of Mean Age of Top 5 Reactor Fleets in the World

in Years, as of year-end 1954–2025

Mean Age
in Years, as of 31 December 2025

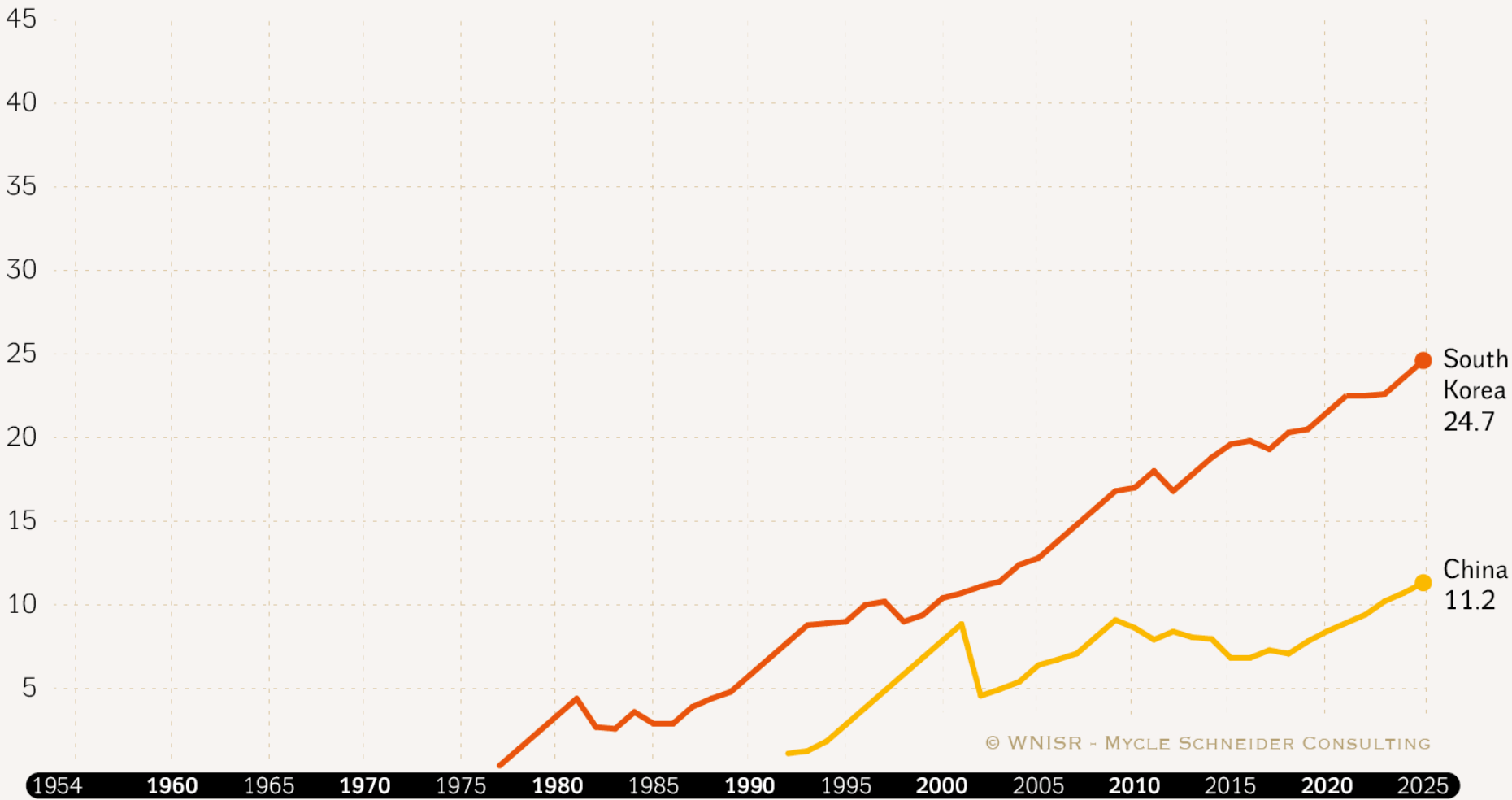


Sources: WNISR, with IAEA-PRIS, 2026

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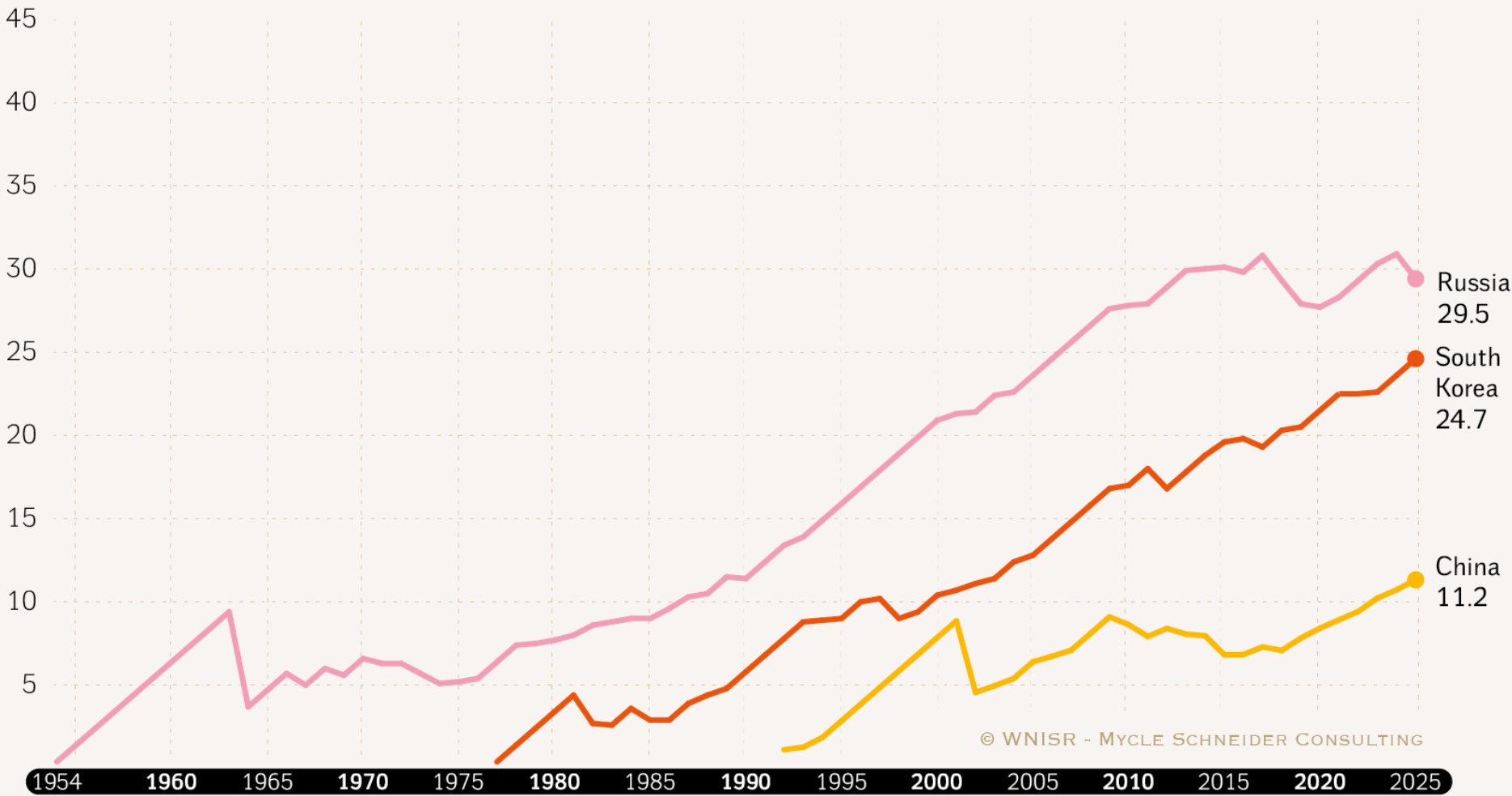


Sources: WNISR, with IAEA-PRIS, 2026

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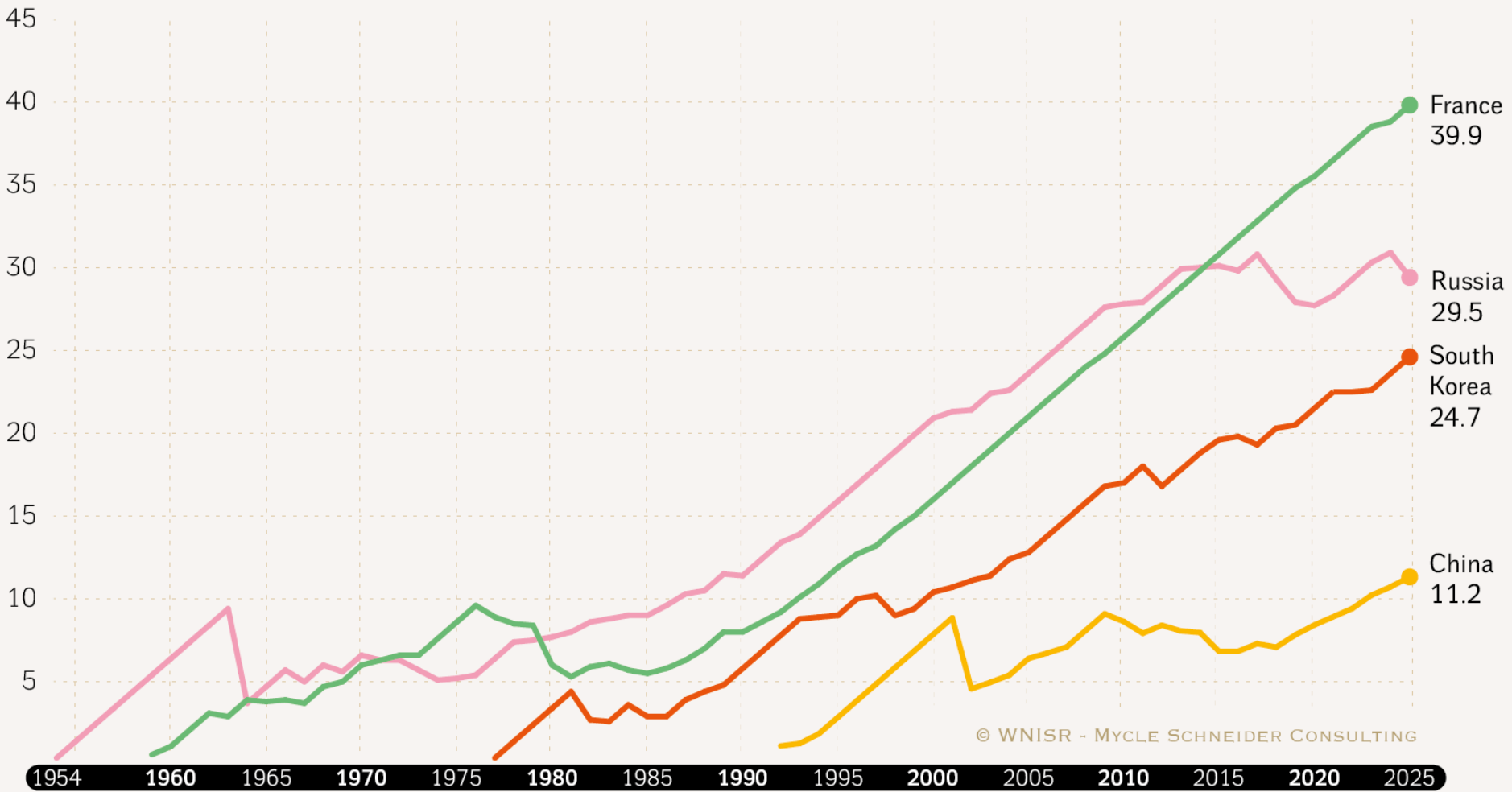


Sources: WNISR, with IAEA-PRIS, 2026

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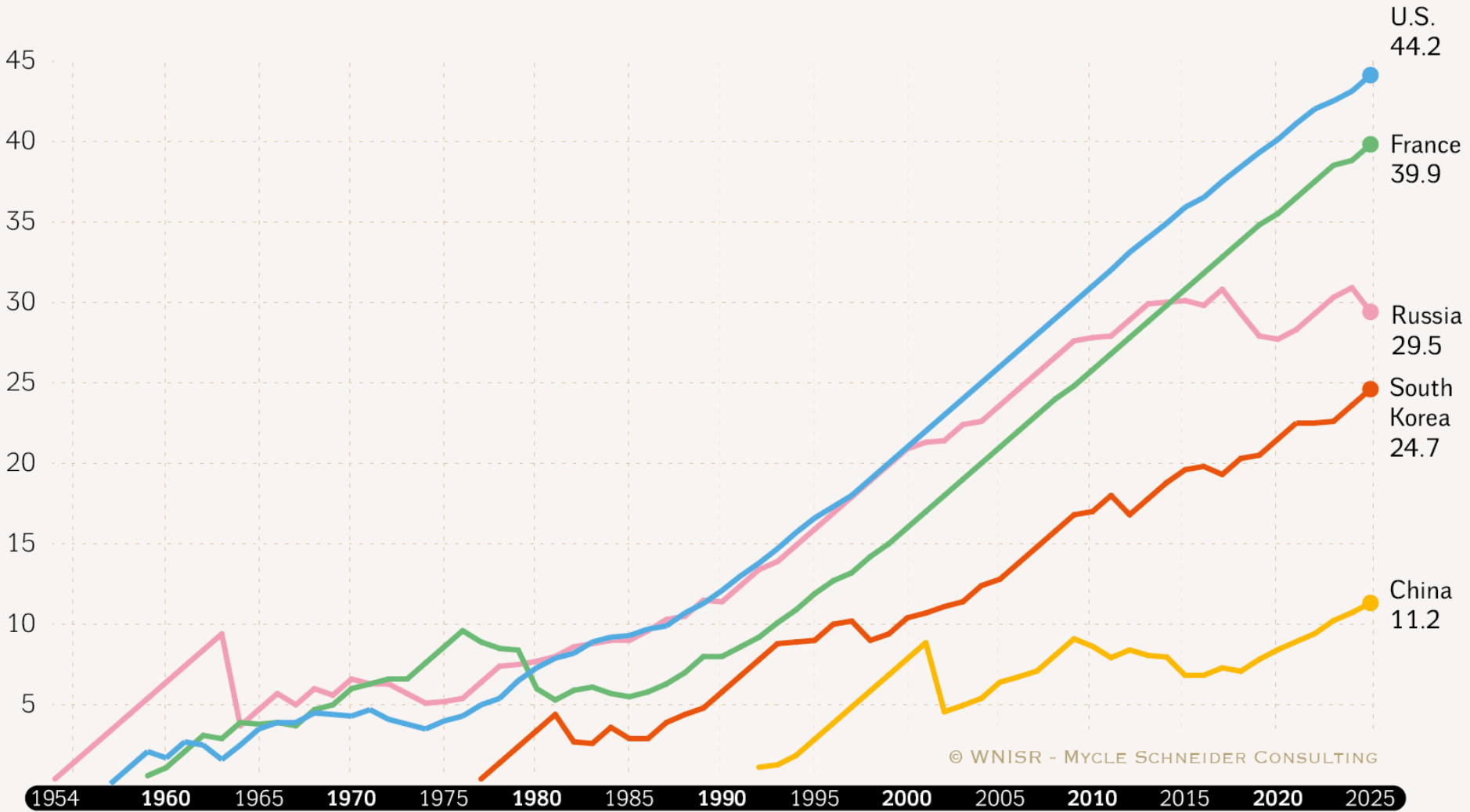


Sources: WNISR, with IAEA-PRIS, 2026

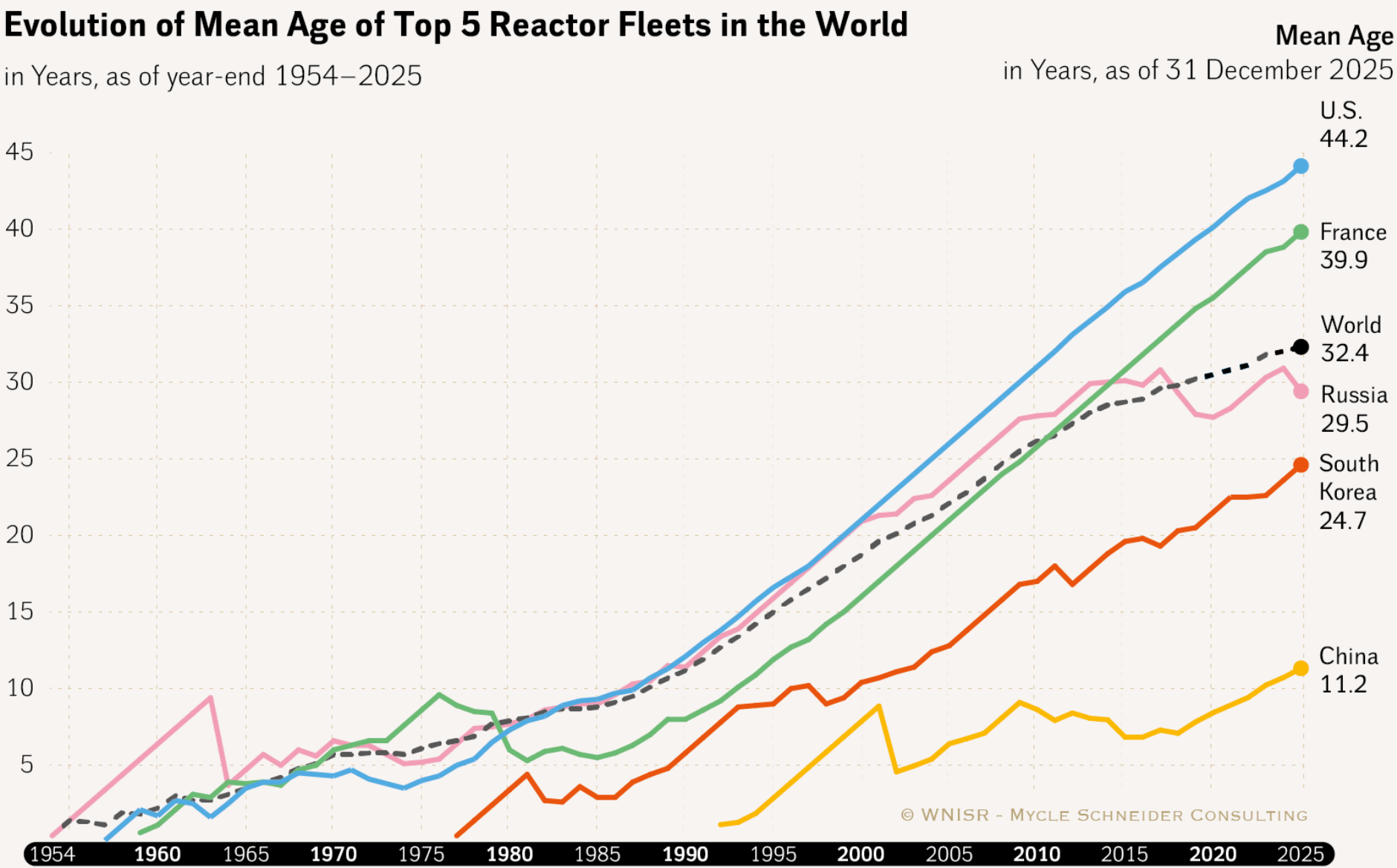
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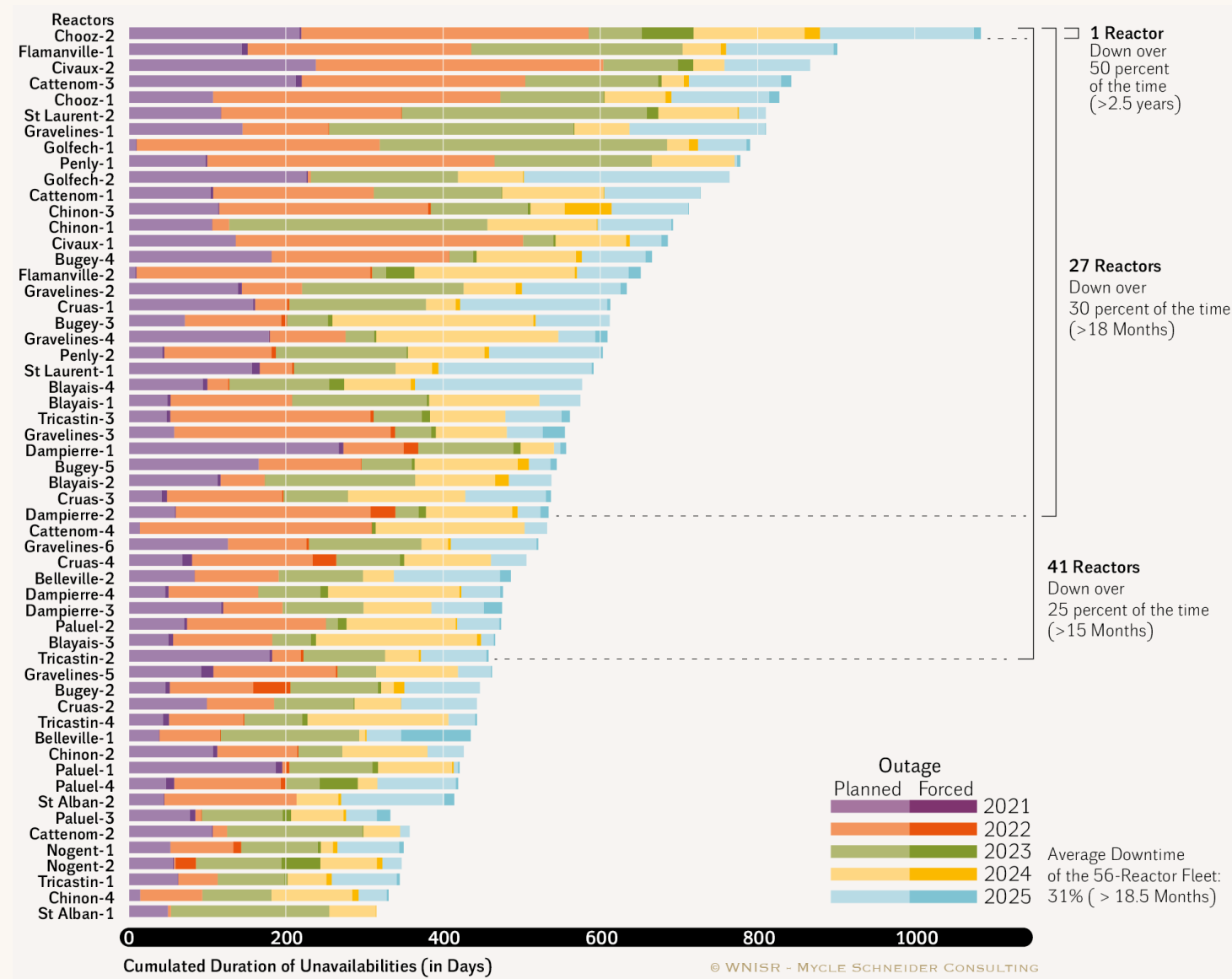
Mean Age
in Years, as of 31 December 2025



Sources: WNISR, with IAEA-PRIS, 2026



Sources: WNISR, with IAEA-PRIS, 2026

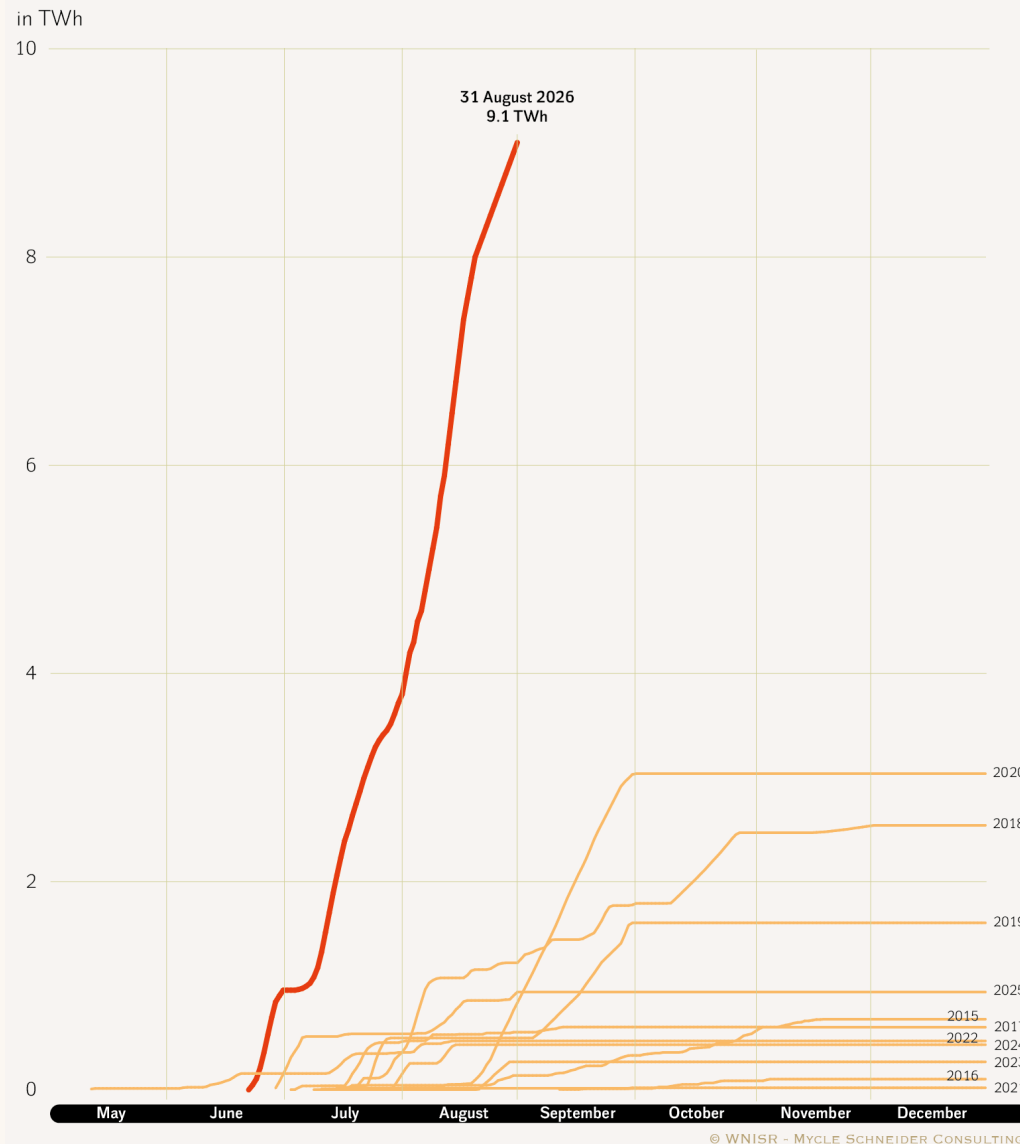


Downtime Over 5-Year Period

- Average 56 reactors 31%
- 1 Reactor >50%
- 27 Reactors >30%

Source: compiled by WNISR with RTE and EDF REMIT Data, 2020–2024

Climate Related Unavailabilities - Yearly Cumulated Production Losses



- Climate induced (heat, water flowrate, jellyfish) capacity reductions impacted 15 reactors
- Occasionally exceeding 20 percent nuclear capacity loss
- Operator EDF estimated climate induced production losses at 5.6 TWh by 2050:
 - Level reached on 17 Aug. 2026
 - 2 x level on 22 Sept. 2026

Source: Callendar, 2026



Dmitry Gorchakov, WNISR Contributing Author, was born in 1983 in Yekaterinburg, Russia. In 2006, he graduated from the Faculty of Physics and Technology at Ural State University (Russia), specializing in “Nuclear Reactors and Power Plants,” and later completed postgraduate studies at the Ural Branch of the Russian Academy of Sciences in the field of “Environmental Protection.” He conducted research in radioecology at the Russian Academy of Sciences, developed technologies for radioactive waste management and environmental monitoring in private companies, and worked as an independent consultant and analyst in the field of nuclear energy.

He has published frequently in Russian media, has given lectures on nuclear energy, and has written for both scientific and popular publications. As a journalist and expert, he has visited dozens of nuclear facilities in Russia and other countries.

After condemning Russia’s invasion of Ukraine, he left the country in 2022, relocated to Lithuania, and joined the Norwegian Environmental NGO [Bellona Foundation](#) as a nuclear adviser. As part of the nuclear team, he has since co-authored several reports and dozens of publications on nuclear risks related to Russia’s war in Ukraine and the global nuclear industry's dependence on Russian technologies and supplies.

Nuclear Power Plants and Nuclear Facilities in Armed Conflicts



Damaged building of the Centralized Spent Fuel Storage Facility (CSFSF), Chornobyl, June 2026.
Photo: Energoatom

Limits of the International Nuclear Safety and Security System



IAEA delegation at a Kyiv electrical substation in Ukraine.
4 February 2025. Photo: IAEA

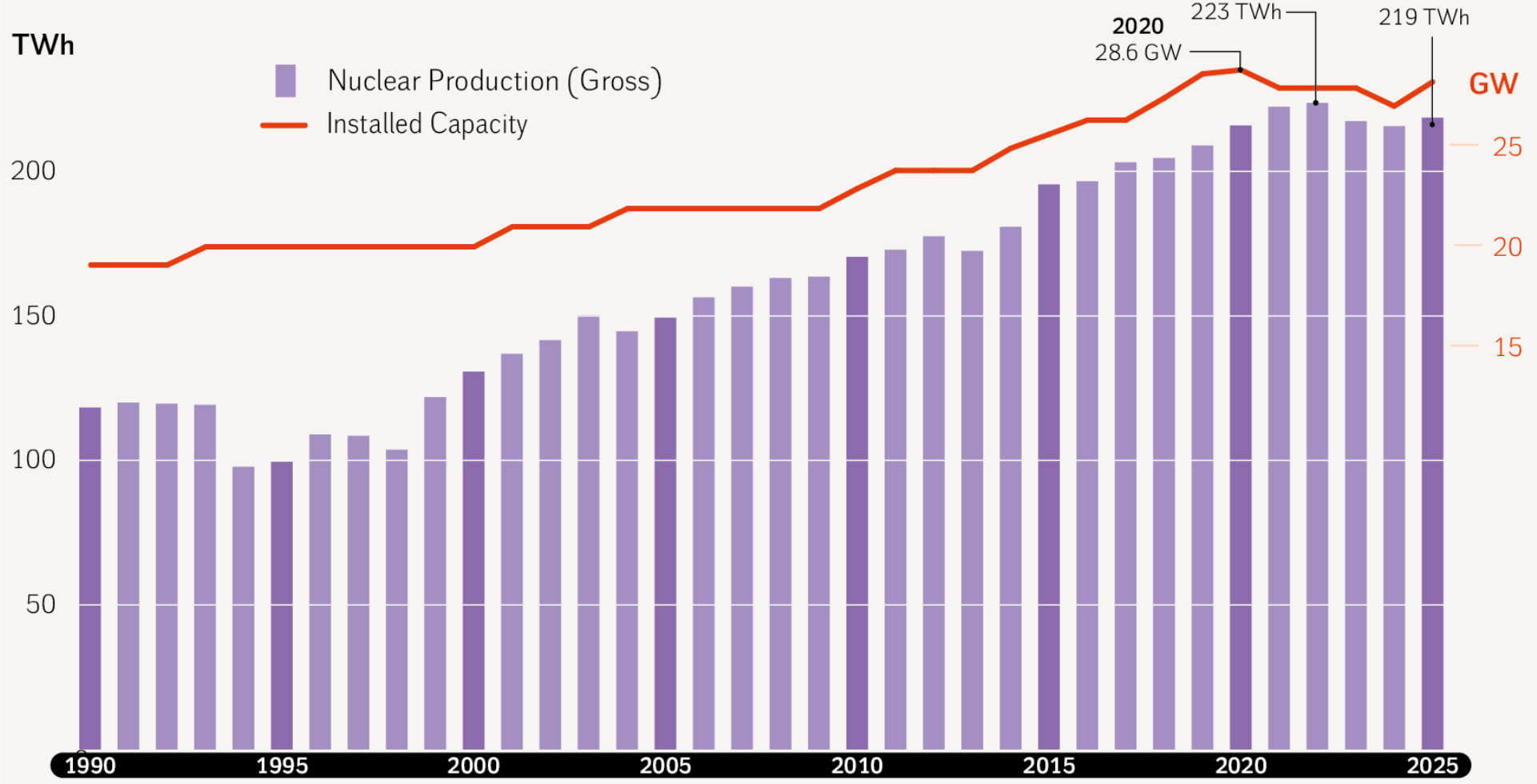
Moving Away from Russian Nuclear Fuel and Supplies



Inspection of western fuel assemblies
at Ukrainian nuclear power plant
Photo: Energoatom

Nuclear Electricity Production in Russia 1990–2025

in TWh and Installed Capacity in GW

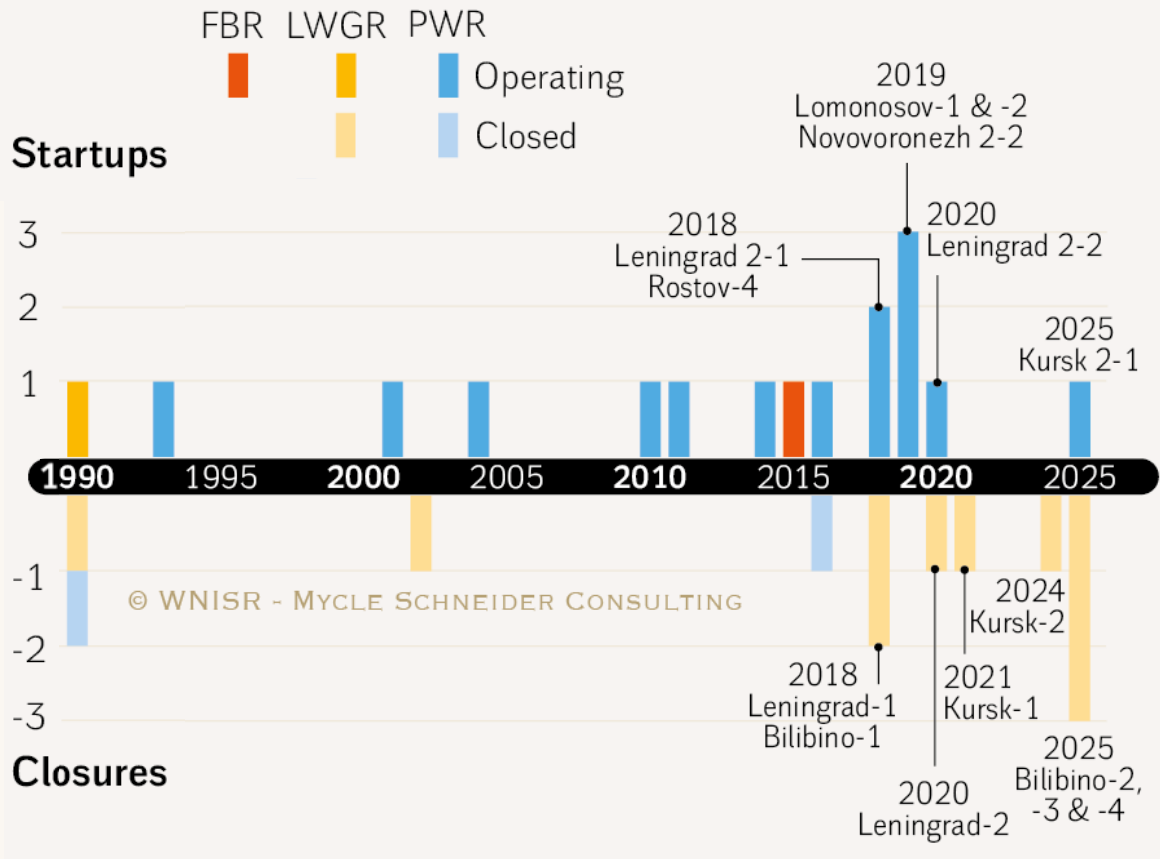


Sources: WNISR, with IAEA-PRIS and Energy Institute, 2026

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Russian Reactor Startups and Closures

in Units, from 1900 to 1 July 2026



Sources: WNISR, with IAEA-PRIS, 2026

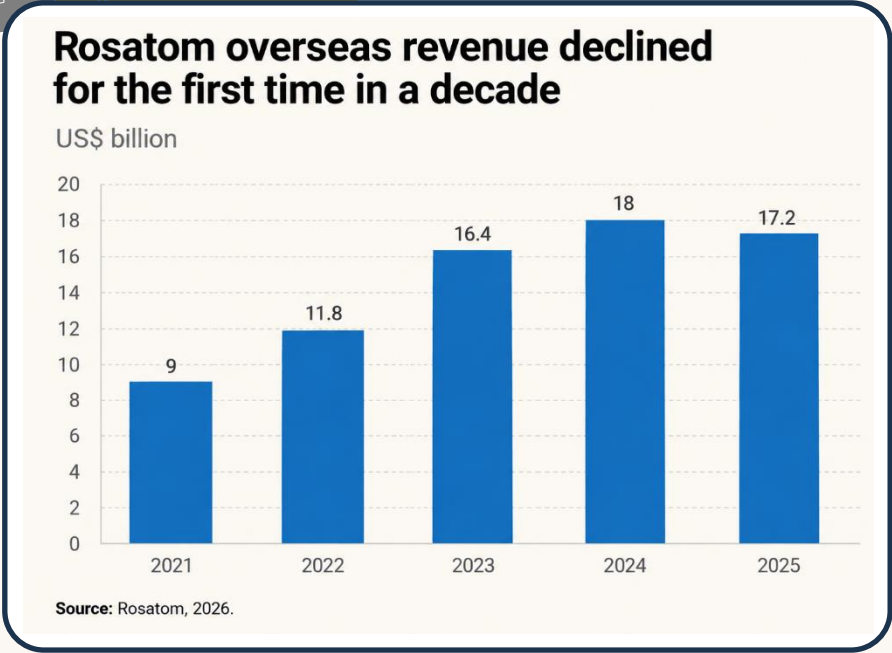
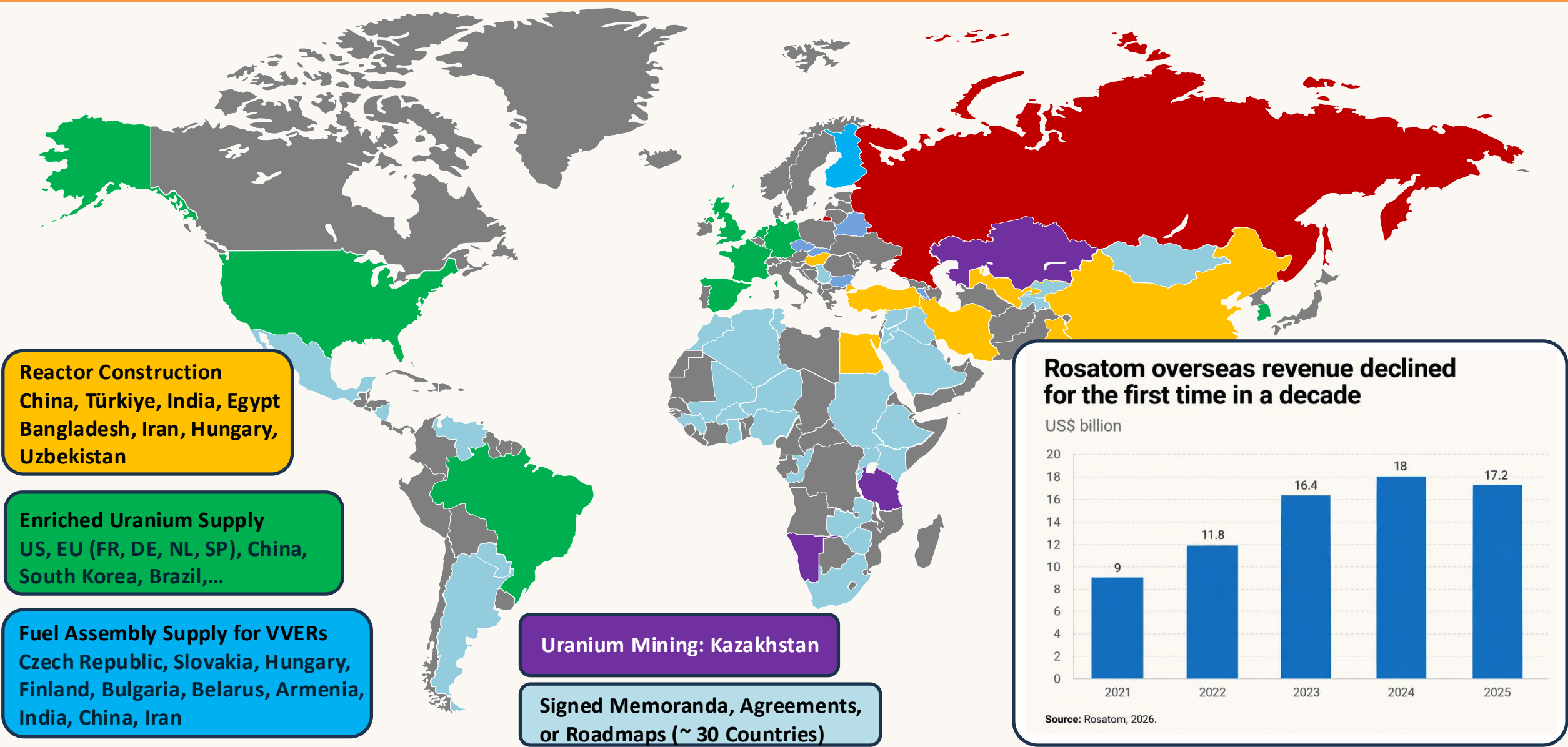
Nuclear Reactors Under Construction in Russia (as of 1 July 2026)

7 reactors under construction

5 106 MWe total

Plant	Reactor design		Number of reactors (barges)	Total capacity (MWe)
Kursk II Kursk region	VVER-TOI		2	2 400
Leningrad II Leningrad region	VVER-1200		2	2 300
BREST ODEK Tomsk region	BREST-OD-300 (fast reactor)		1	300
Baimsky GOK (FNPP) at Cape Nagloynyn	RITM-200C (2 per barge)		2 (1)	106
Total			7 (1)	5 106

Sources: General Scheme for the Placement of Energy Facilities through 2042, with Rosatom and IAEA-PRIS, 2026



“

**Some projects have
been caught in the
sanctions grinder.”**

— Alexey Likhachev,
CEO of Rosatom, on
Rosatom's 2025 results



Akkuyu (Türkiye)



Photo: Akkuyu NPP

4 VVER-1200 Units

Estimated cost US\$24–25 billion (BOO model)

First concrete 2018-2022

Planned commissioning 2025–2029

Paks 2 (Hungary)



Фото: Paks II Ltd

Photo: Paks II Ltd

2 VVER-1200 Units

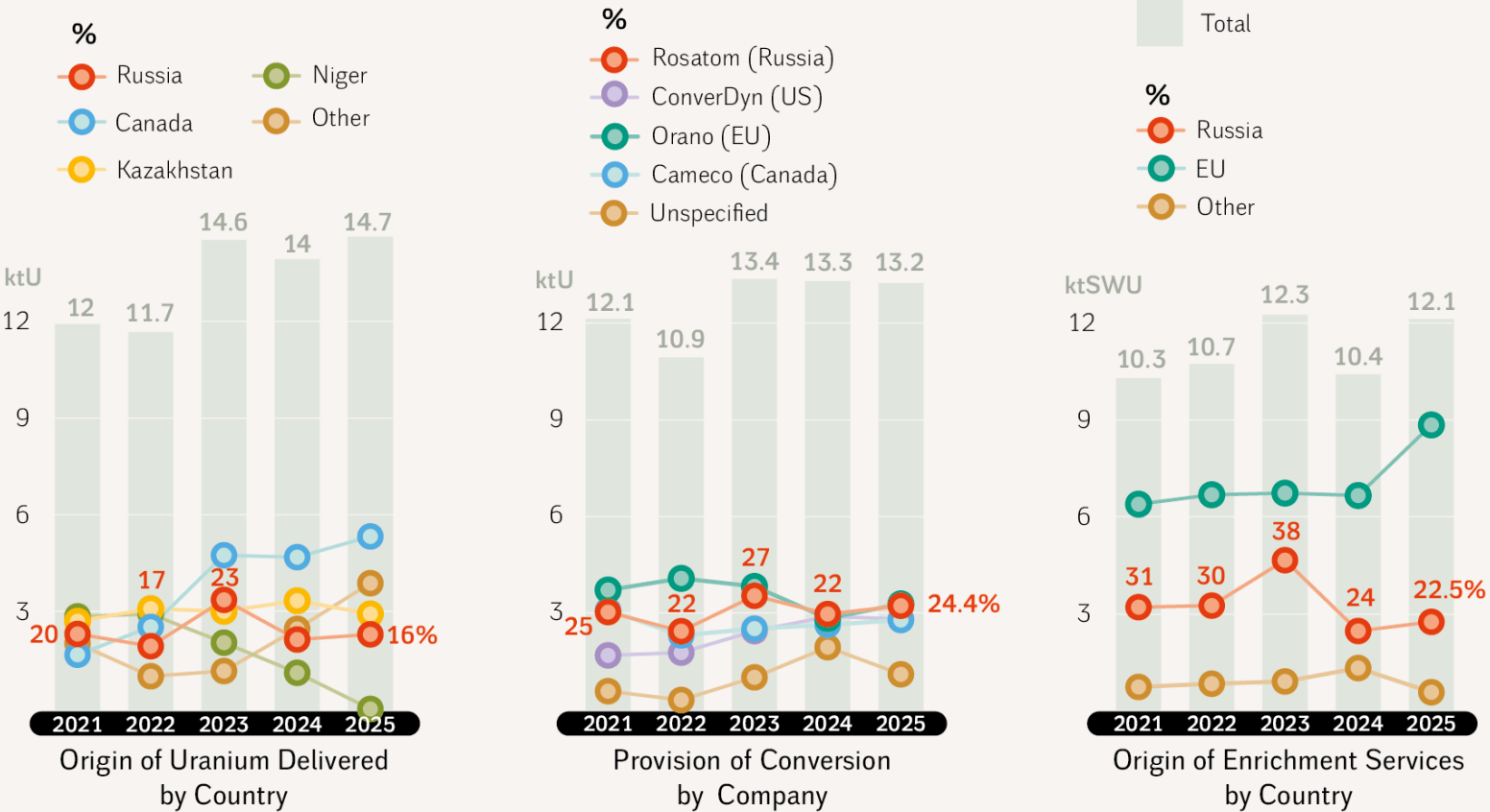
Estimated cost €12.5 bn (80% Russian state loan)

Contract signed in 2014

First concrete on Unit 1 - On 5 February 2026

Natural Uranium, Conversion, and Enrichment Services to the EU, by Provider Country 2021–2025

in Thousand Tons of Uranium (ktU) and Thousand Tons of Separative Work Units (ktSWU)

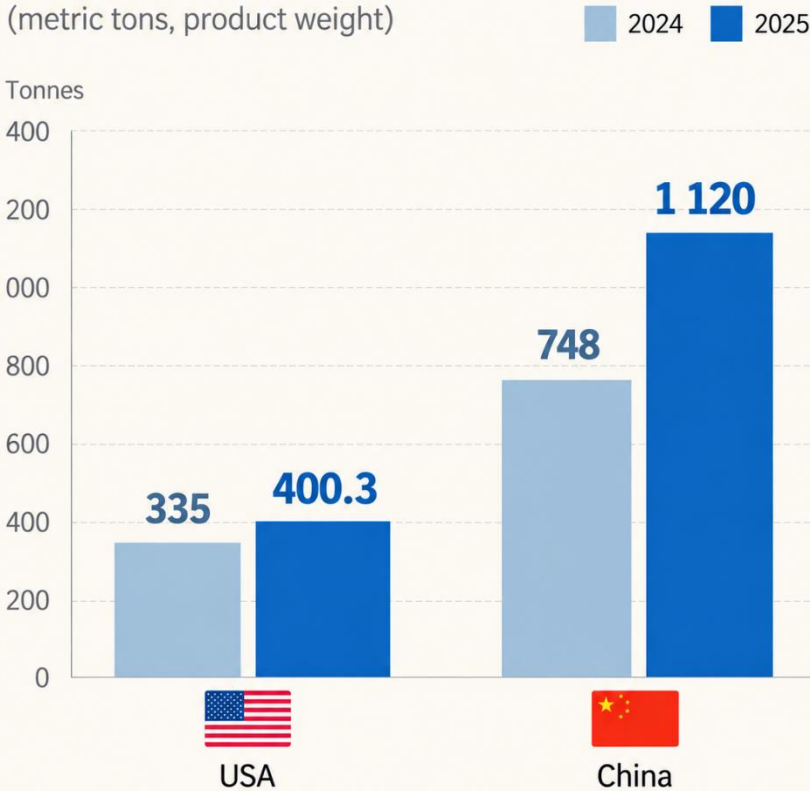


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Source: ESA, 2023 - 2026

Russian enriched uranium supplies to the USA and China in 2024–2025

in Tonnes of Enriched Uranium (metric tons, product weight)



Sources: U.S. Census Bureau, China Customs, 2025-2026

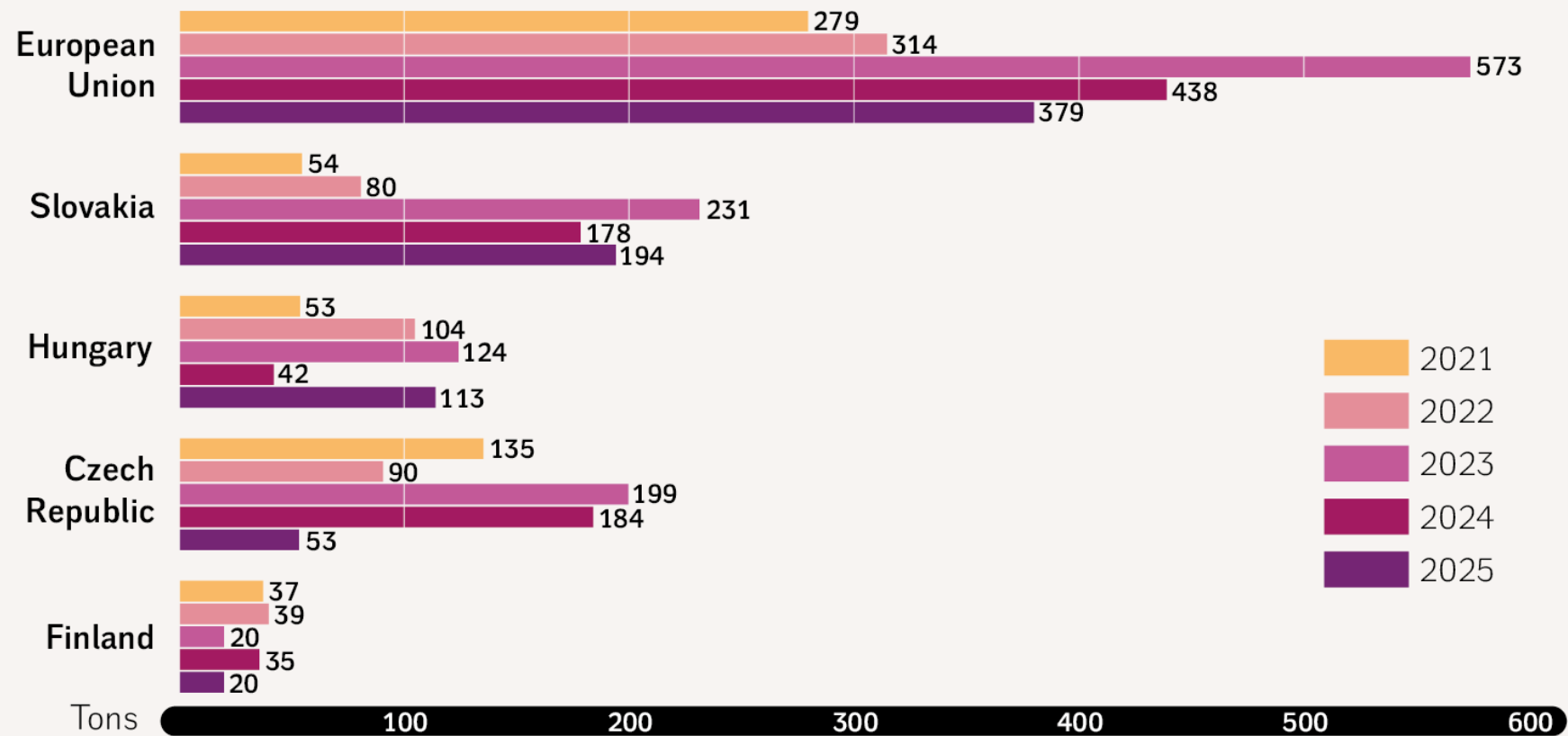


Sebastian Stier is a retired European patent attorney who worked for the Munich-based law firm Betten&Resch from 2012 to 2025. He represented clients before the European Patent Office (EPO) in patent prosecution, opposition, and appeal proceedings. His clients included large international tech firms mainly from the telecom, computer, and electronics industries. He has a diploma in physics from the University of Heidelberg (1985) and obtained a PhD in artificial intelligence from the University of Hamburg (1990).

At corporate research of Siemens AG in Munich, he worked as a research engineer and held various positions in technology and innovation management. In the Mobile Phones Division, he was responsible for the integration of a newly acquired mobile phone company in Aalborg/Denmark. In 2005, he joined a patent law firm and qualified as European patent attorney in 2009.

Nuclear Fuel Elements Imports from Russia 2021–2025

in Tons



EU Total does not count imports to Bulgaria (data not available).
Due to rounding, numbers may not add-up

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Source: Eurostat Database, 2026

- 19 VVER nuclear reactors in 5 EU-countries (and 15 in Ukraine) built by Russia need specific fuel elements.
- Imports of Russian fuel to the EU **further declined in 2025**, after a strong peak in 2023, but **still above pre-war level**.
- Slovakia and Hungary took 80% of Russian 2025 imports.
- Financially, from 2023–2025 the **EU spent 2.4 times** the amount compared to 2020–2022 (€1.71 bn vs. €754 m).



Framatome
VVER-1000
Fuel Assembly Design
Photo: Framatome

- Alternative supply of fuel elements for Russian VVER reactors requires years of development and tests.
- Started by **Westinghouse** (US-Canada) around 2000.
- Meanwhile, Westinghouse has signed **delivery contracts** with all respective EU-countries and Ukraine.
- **Deliveries started** in 2023 and continued in 2025.
- **Ukraine** intends licensed manufacture of Westinghouse fuel elements; started in May 2026.

FRAMATOME / ROSATOM CLOSE PARTNERSHIP

- French state-company **Framatome** is a newcomer to the market for VVER fuel elements.
- 2018: Start of development of their **own design**.
- 2019: Partnership with Rosatom for **licensed manufacturing**.
- March 2022: Application for VVER-1000 fuel manufacturing in their factory in **Lingen**, Germany.
- 22 July 2026: German **Government approval**, under tight security restrictions.
- Licensed manufacturing of VVER-440 fuel elements in **Romans-sur-Isère**, France.



- Western companies have provided **I&C technology** („The brain and nervous system of a power plant“) to reactor projects in Russia for decades.
 - Recent example: Framatome I&C for **Kursk 2-1** (grid connection 12/2025) and **Kursk 2-2** (under construction)
 - Western technology also helped Rosatom to become the **dominant global player** in newbuild of reactors.
 - Rosatom projects in Türkiye, Egypt, Hungary heavily involve Western technology, for example:
 - I&C technology from Framatome (Paks II)
 - the French Arabelle turbine
- **Strong mutual dependencies between Rosatom and Western companies in their reactor business**

Installation of the Arabelle turbine at the first unit of the Akkuyu nuclear power plant, 2024
Photo: Akkuyu Nükleer



Stephen Thomas, Emeritus Professor, was an Energy Policy Researcher at Science Policy Research Unit, University of Sussex (1979–2000) and then at Public Services International Research Unit, University of Greenwich until his retirement in 2015. In recent years his work has focused on nuclear power policy issues, especially economics, and the potential contribution of nuclear power to meeting climate change goals. He has also researched extensively on EU energy and climate change policy and on the policies of the large European energy utilities. He is Editor-in-Chief of the journal *Energy Policy*.

THE CLAIMS

- Large numbers of commercial SMRs would be operating, under construction, and firmly planned.
- They would be proven to be cheaper, easier to build and less prone to cost and time escalation than large reactors.
- They would be safer and produce less waste than large reactors.
- Because they are small, they would be easier to site technically and from a public acceptance point of view and require little site-work with most work done in factories.

THE INDUSTRIAL REALITY

- No commercial SMR is operating in the western world, only one is under construction (Darlington, Canada for less than 6 months). A handful are sited and site preparation is underway.
- So, **costs and buildability are unknown**. The scale economies of building large will be lost so all things equal, they will be more expensive than large reactors.
- There is likely to be more waste per kWh than for large reactors.
- Nearly all the designs with serious order prospects are larger than 300 MW, so not small, they will require major site-work.
- New sites will continue to be hard to establish so developers will try to build as many units on a site as possible. In UK, sites housing 2–3.5 GW of capacity are proposed.
- Safety will depend on how far vendors are able to convince regulators that some of the systems required for large reactors are not needed and this will also be a major influence on cost. None of these main designs has completed a full safety assessment by a credible safety regulator.

US AND UK GOVERNMENTS MAIN DRIVERS

- As with the previous forecast Nuclear Renaissance of around 2000, US and UK are leading the way. The resulting programmes went very badly in both countries.
- US Government is giving large amounts of subsidy to projects such as Kemmerer, Long Mott, Oak Ridge, Clinch River. Federal subsidies to stimulate the market failed in the previous Renaissance attempt.
- UK Government is supporting one project, Wylfa/Gwyndod. Who will own it, how it will be financed, and how the power will be sold have not been established.
- UK Government hopes private sector projects will emerge e.g. Cottam, Hartlepool, and Oldbury. These are unlikely to go ahead without major government support, e.g. a large equity stake, provision of finance, guarantees, and a power purchase agreement that guarantees the owners a high level of profit no matter how badly the project goes.

CANADA AS WORLD LEADER?

- Since 2018, Canada has been trying to position itself as world leader in SMR technology despite there being no well-developed Canadian SMR design.
- Three potential uses were identified: grid, heavy industry, and remote communities with provinces of Ontario, Saskatchewan, and New Brunswick offering support.
- Only the grid option seems to have made progress, New Brunswick appears to have dropped SMRs, and Saskatchewan may now be going back to large reactors.

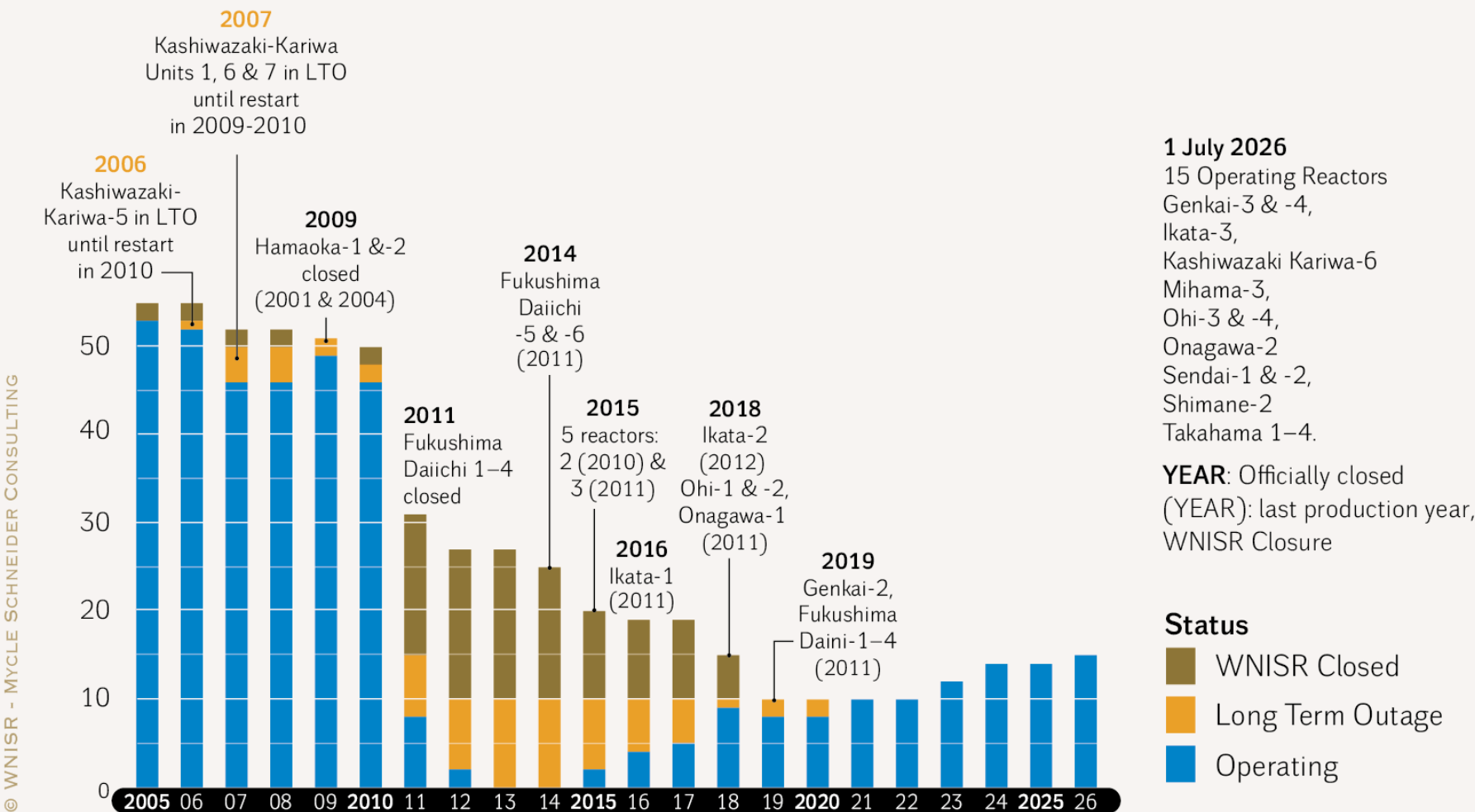
- SMR technology has made some progress since WNISR2025 with Darlington construction start and some projects progressing, but first power from the first commercial SMRs, apart from Darlington, is probably at least 7–8 years away.
- Only then will we know if the claims on cost, buildability, etc. are realistic. Ordering reactors before then would be a huge risk so it will be long after 2040 before SMRs could eventually be operating in sufficient numbers to have an impact.
- The central involvement of national governments providing equity stakes, offering low-cost finance, providing guarantees to private owners minimising the risk to them, and imposing power purchase arrangements that place the risks on consumers and taxpayers.
- *Startup Fortune*, 17 September 2026: “Small modular reactors still aren’t commercially operating anywhere in the US [or anywhere else for commercial reactors]. That’s the detail a lot of investors seem to be discovering only after they’ve bought the stock.”



Tatsujiro SUZUKI is President of “Peace-Depot”, and a Visiting Professor at the Research Center for Nuclear Weapons Abolition at Nagasaki University (RECNA), Japan. Before joining RECNA, he was Vice Chairman of the Japan Atomic Energy Commission (JAEC) of the Cabinet Office from January 2010 to March 2014. Until then, he was Associate Vice President of the Central Research Institute of Electric Power Industry in Japan (1996–2009), Associate Director of MIT’s International Program on Enhanced Nuclear Power Safety (1988–1993) and a Research Associate at MIT’s Center for International Studies (1993–95). He is a member of the Advisory Board of Parliament’s Special Committee on Nuclear Energy since June 2017. He is also a Council Member of Pugwash Conferences on Science and World Affairs (2007–09 and from 2014~). Dr. Suzuki has a PhD in nuclear engineering from Tokyo University (1988).

Status of Reactors Officially Operational in Japan vs. WNISR Assessment

in Units, as of year-end 2005–2025, and mid-2026



Sources: Various, compiled by WNISR with IAEA-PRIS, 2026

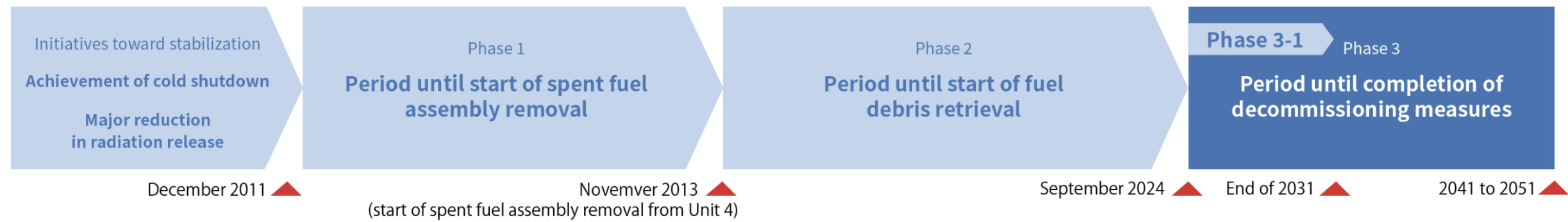
Revival of Nuclear Power in Japan?

- July 2025 : Kansai Electric Power (KEPCO) resumes preparatory survey for new reactor construction: the first time since the Fukushima accidents that plans for new reactor construction have begun to take shape.
- April 2026: Kashiwazaki-Kariwa-6 restarted operation, the first time since the Fukushima accidents that TEPCO restarted a reactor.

Uncertain Future?

- **Chubu Electric Power's Falsified Seismic Assumption Data for Hamaoka**
 - Jan. 2026: Public admission that whistleblower revealed Chubu Electric Power's falsification of data on seismic assumptions.
 - Sept. 2026: An independent investigation commission set up by Chubu Electric published its final report showing top management involvement and a total of 18 falsifications. In the aftermath, Chairman and President resigned and withdrew the restart application for Hamaoka-3 and -4.
- **Public Confidence in Nuclear Energy not Fully Recovered**
 - While public support for reactor restarts has been increasing (now 48% vs 21% oppose), 30 percent remain undecided (*Mainichi Shimbun* polling in December 2025).

Milestones on the Mid- to Long-Term Roadmap



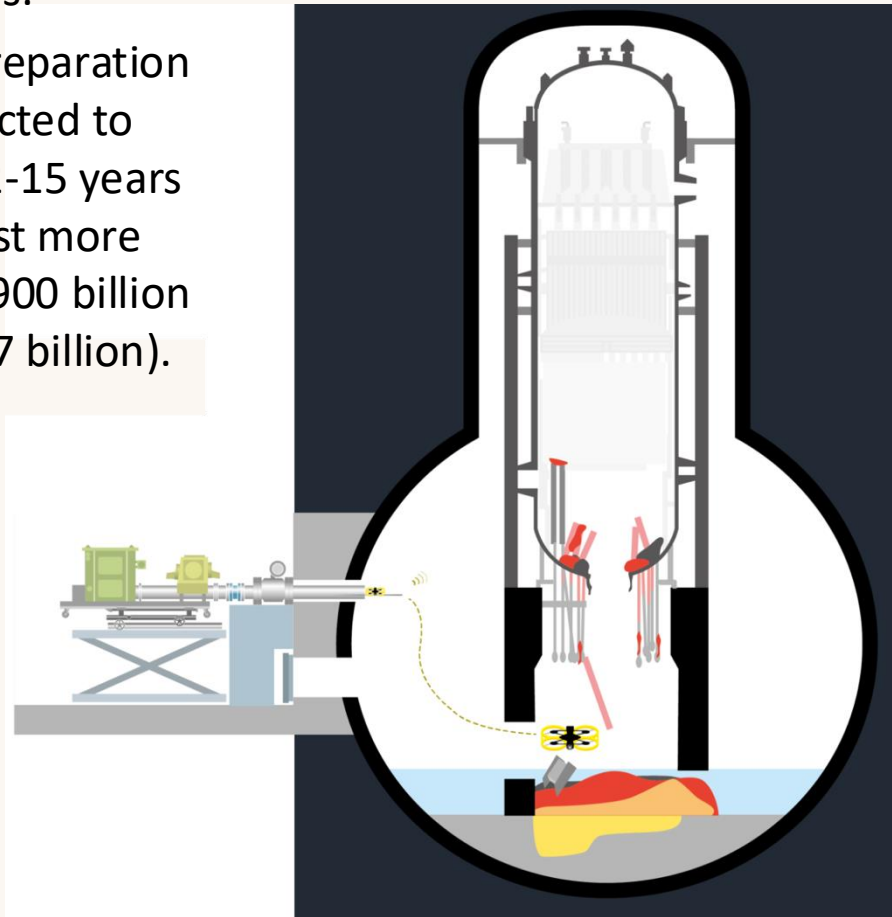
“What the end state of the decommissioning of the Fukushima Daiichi Nuclear Power Station will look like, and when it will be achieved, is something that we are examining while consulting with stakeholders, such as the local residents, and also the government and related agencies.”

TEPCO Q&A on Decommissioning

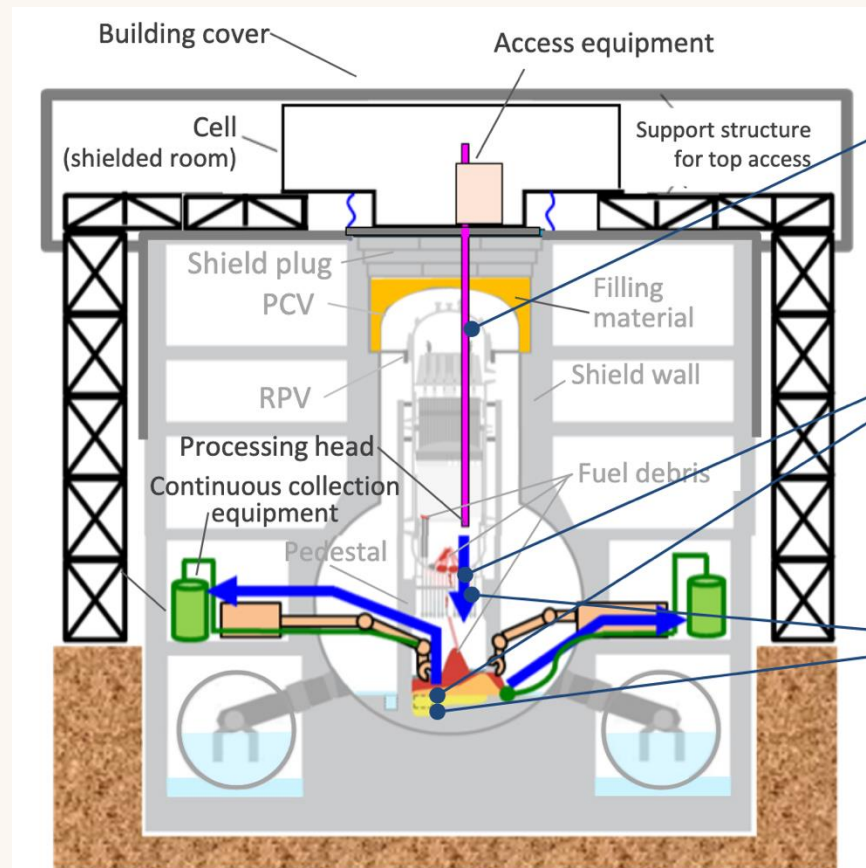
Source: TEPCO, see
https://www.tepco.co.jp/en/hd/decommission/towards_decommissioning/Things_you_should_know_more_about_decommissioning/answer-04-e.html

Large Scale Fuel-debris Removal Is to Start With Unit 3

- Now TEPCO is trying to figure out exactly where the debris is, and what the conditions are like inside the reactors.
- That preparation is expected to take 12-15 years and cost more than ¥900 billion (US\$5.7 billion).



By FY2037, TEPCO Hopes to Be Able To Do Something Like This:

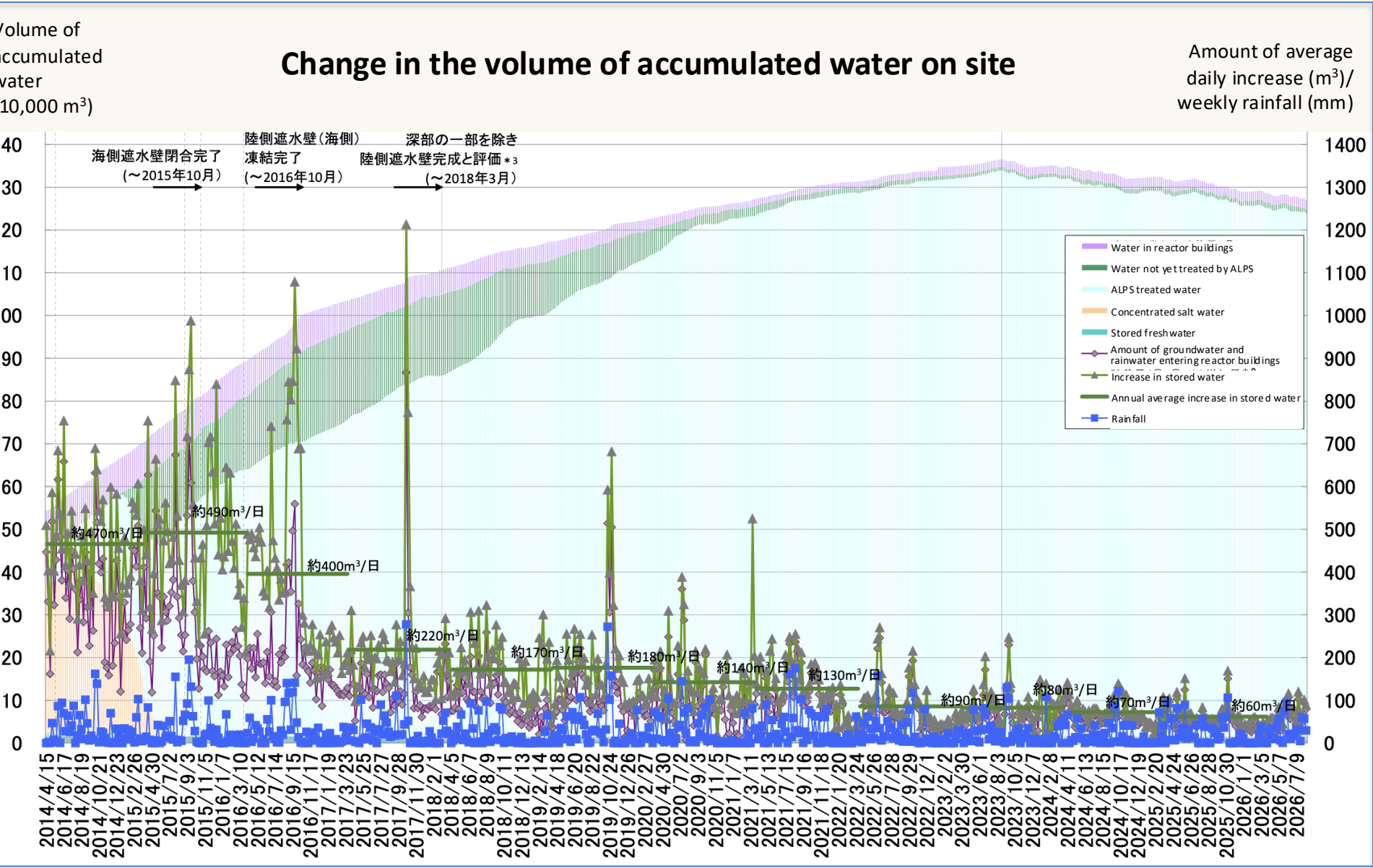


Use existing reactor walls for shielding; keep openings small

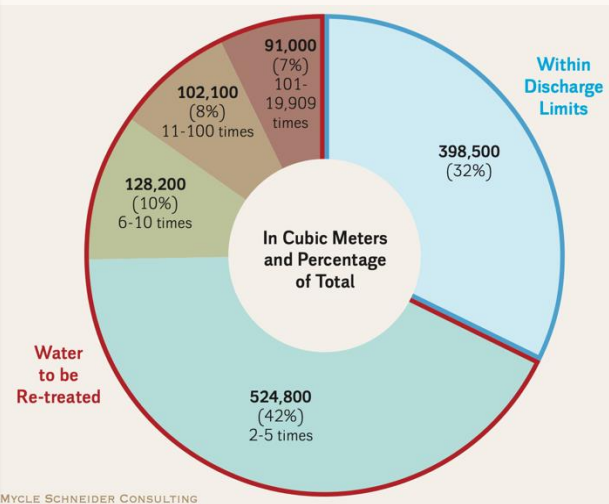
Grind debris into small pieces and suck out continuously

Option of lowering a machining head from the top to grind the debris in the pressure vessel and drop it to the bottom of the containment vessel for collection

Source: TEPCO



Two-thirds of stored water exceed regulatory discharge limits

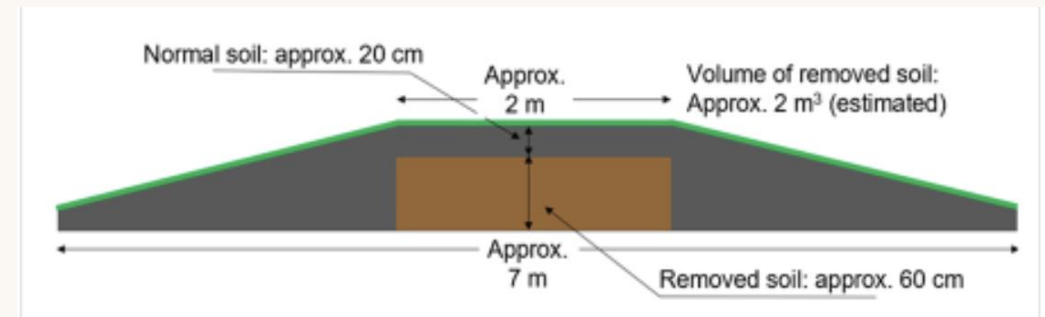


Source: TEPCO

Contaminated Soil

- There is around 14.4 million m³ of contaminated soil at temporary storage facilities near the Fukushima Daiichi plant.
- The Japanese government is required to move all that out of Fukushima Prefecture by March 2045.
- Three-quarters of the contaminated soil has radiation levels low enough that it is considered safe to use as fill in construction or agricultural projects.
- The government is implementing a number of demonstration reuse projects.
- By 2030 the government aims to ready a slate of potential reuse projects, as well as finalize the process for disposal of the more heavily contaminated waste outside Fukushima Prefecture.
- Those efforts face significant local pushback.

A demonstration project for reuse of contaminated soil in front of the Prime Minister's Office



Source: Ministry of the Environment

The WHO, UNSCEAR and Japanese Government Stance

- There has been no scientifically verifiable evidence of direct health effects from the radioactive releases from Fukushima Daiichi.
- Given the relatively low estimated dose rates the public was exposed to, it would be impossible to prove any illnesses that do occur were caused by radiation.

But...

- Nobody actually knows what the exposure doses were.
- There is an increasing amount of epidemiological evidence of cancer risks at low dose levels.
- Japan has approved worker's compensation claims for 17 Fukushima Daiichi workers who developed cancer associated with radiation exposure.
- Fukushima Prefecture is seeing extraordinarily high rates of pediatric thyroid cancer.

Pediatric Thyroid Cancer in Fukushima

- Fukushima offers thyroid-cancer screening for 381,000 people who were 18 or under at the time of the Fukushima Daiichi meltdowns.
- Suspected thyroid cancer cases found so far: 371.
- That is dozens of times higher than the normal rate of pediatric thyroid cancer in Japan.

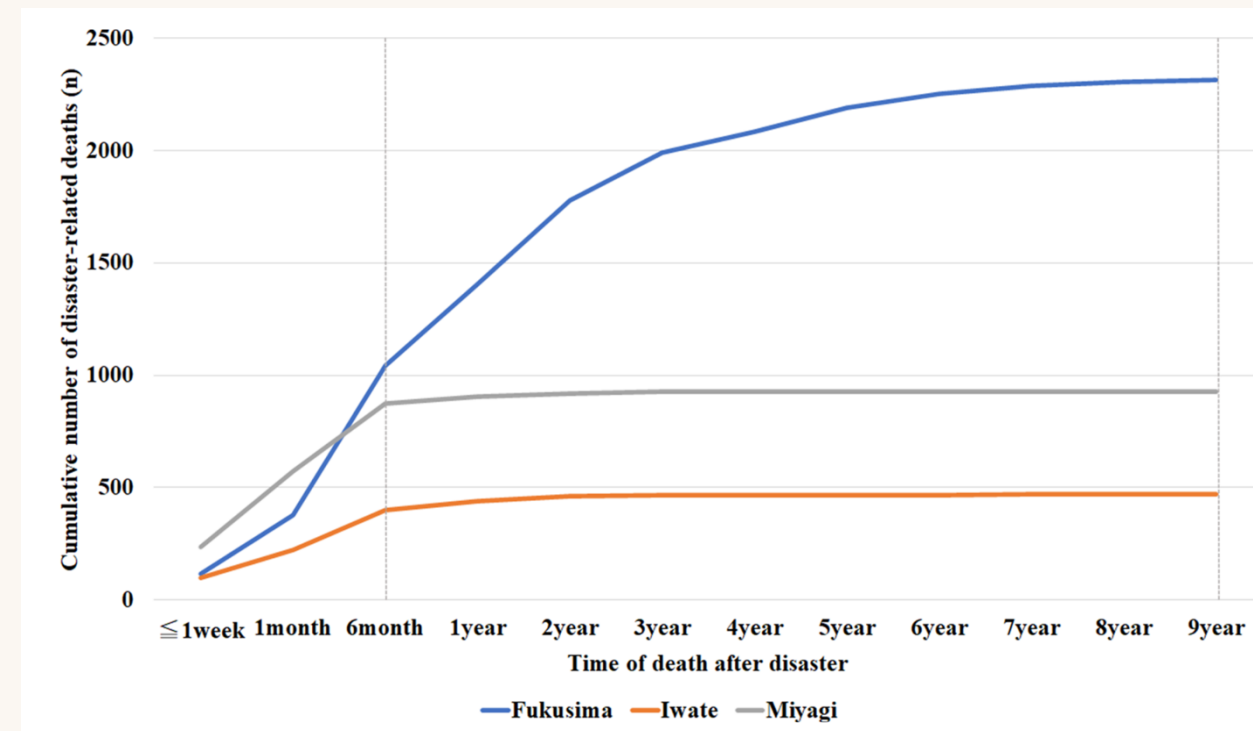


Kenichi Ido, the lawyer representing a group of young thyroid cancer patients suing TEPCO (left) and Motomi Ushiyama, internist and co-head of a cancer patient support group (right) at a March 2026 press conference in Tokyo.

Indirect Health Effects

- The lifestyle and livelihood disruptions resulting from the Fukushima Daiichi disaster had a significant impact on physical and mental health.
- Fukushima Prefecture has been monitoring the health of hundreds of thousands of its residents for the past 15 years, particularly those evacuated from their homes because of radiation concerns.
- Evacuees have shown elevated levels of everything from trauma to obesity, high blood pressure and diabetes.
- Fukushima Prefecture has had much higher rates of death indirectly caused by the 2011 disasters than other hard-hit prefectures in the northeast.
- There had been 2,350 of such indirectly caused deaths by the end of 2025, largely seen as associated with the nuclear disaster.

Fukushima has had more deaths indirectly caused by the 2011 disasters than neighboring prefectures, and the trend has persisted for years



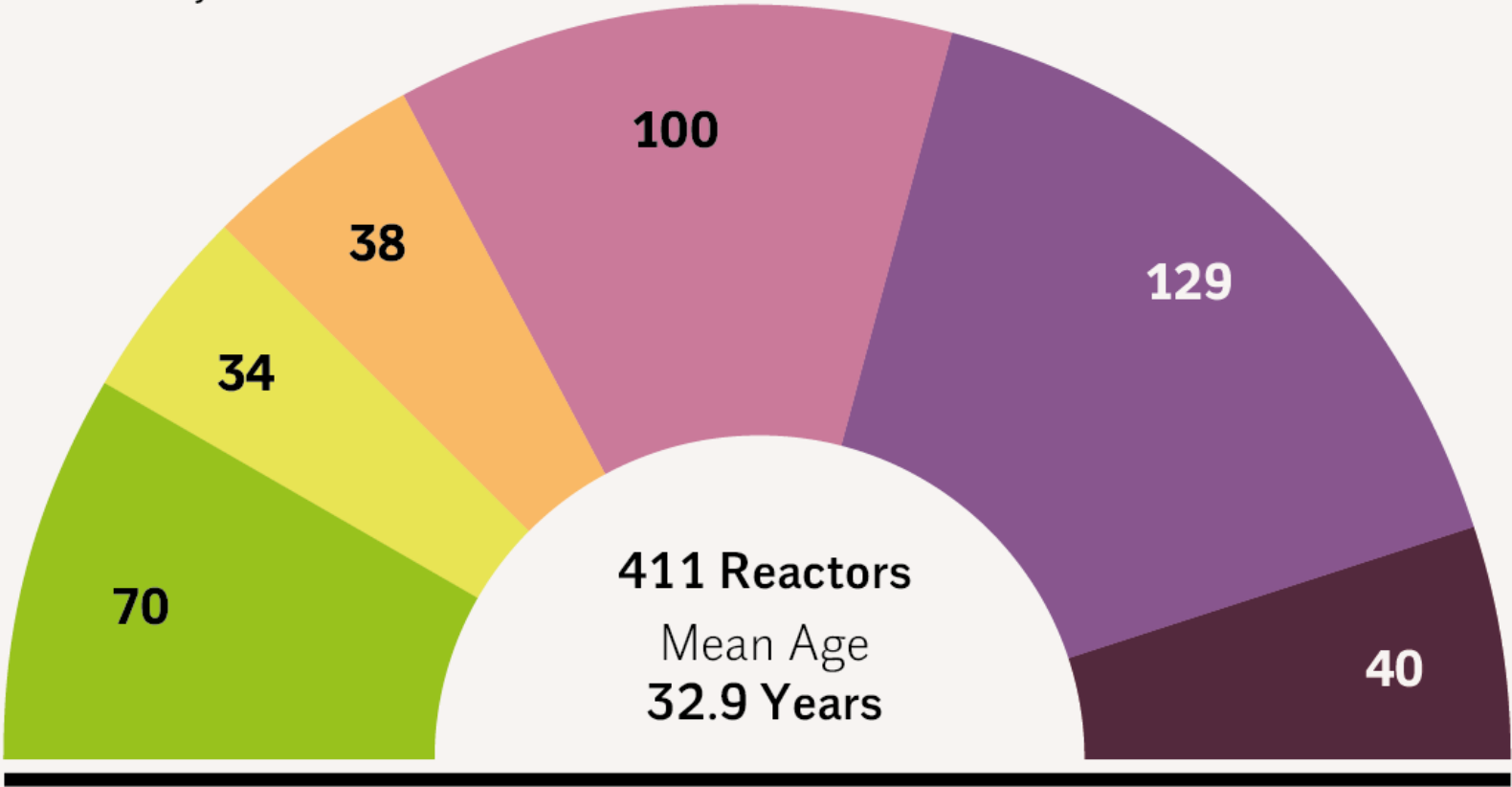
Source: Tsuboi et al, "Disaster-Related Deaths After the Fukushima Daiichi Nuclear Power Plant", 2024



Alexander Wimmers, WNISR Contributing Author, is a post-doc researcher at the Workgroup for Economic and Infrastructure Policy (WIP) at the Berlin University of Technology (TU Berlin), Germany, and a guest researcher at the German Institute for Economic Research (DIW Berlin). Before joining WIP, he worked as a consultant for renewable energy markets at a renowned energy consulting firm in Berlin. He holds an MSc in Business Administration and Engineering (Wirtschaftsingenieurwesen) from RWTH Aachen University and a PhD in economics from TU Berlin. His current research focuses on the political economy of nuclear power, from newbuild, operation, and decommissioning to nuclear waste management. He has been part of the WNISR author team since 2022.

Age of World Nuclear Fleet

as of 1 July 2026



Reactor Age

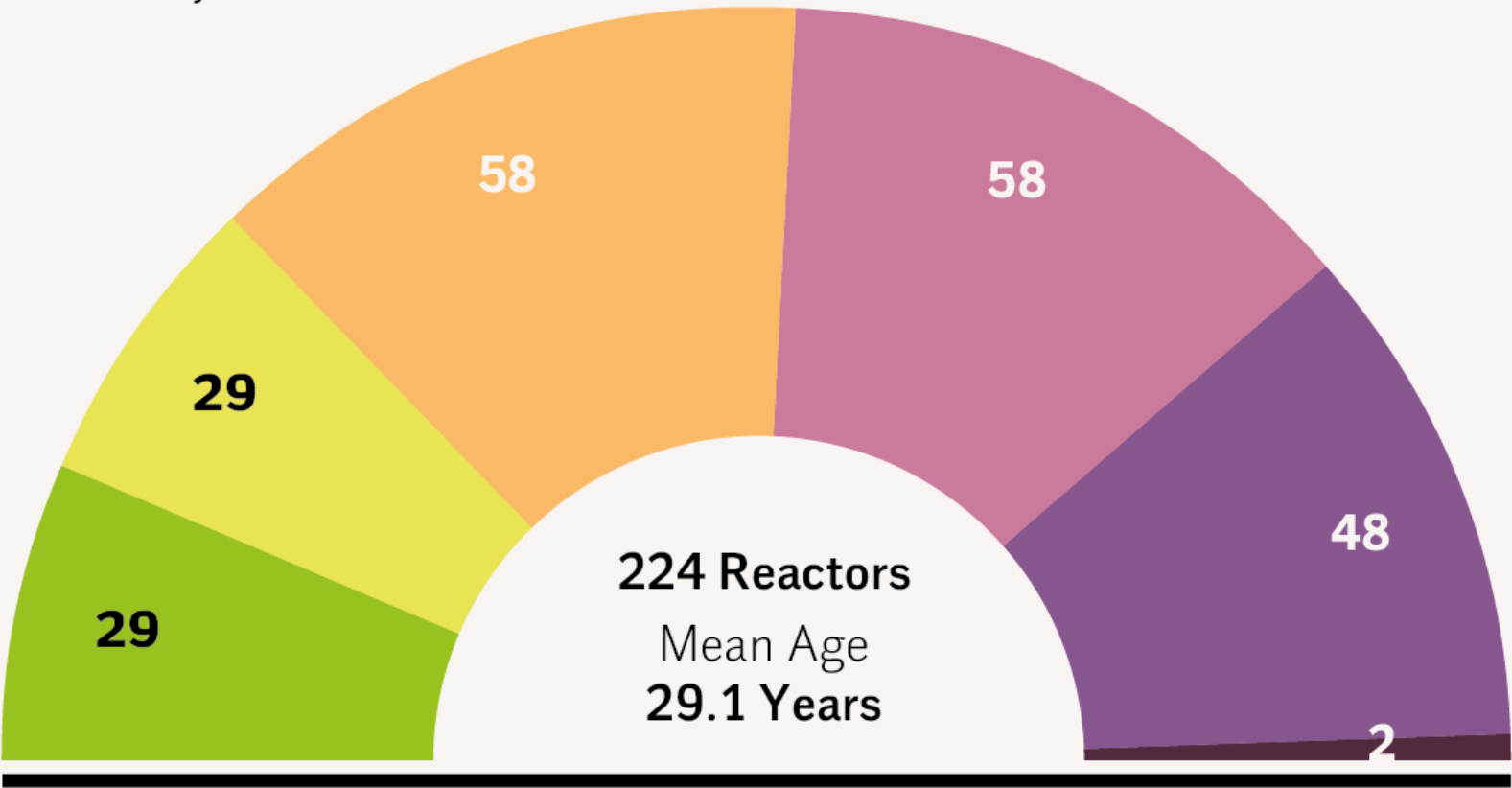
- 0–10 Years
 - 11–20 Years
 - 21–30 Years
 - 31–40 Years
 - 41–50 Years
 - 51 Years and Over
- 50** Number of Reactors by Age Class

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Sources: WNISR and IAEA-PRIS, 2026

Age of Closed Reactors in the World

as of 1 July 2026



Reactor Age

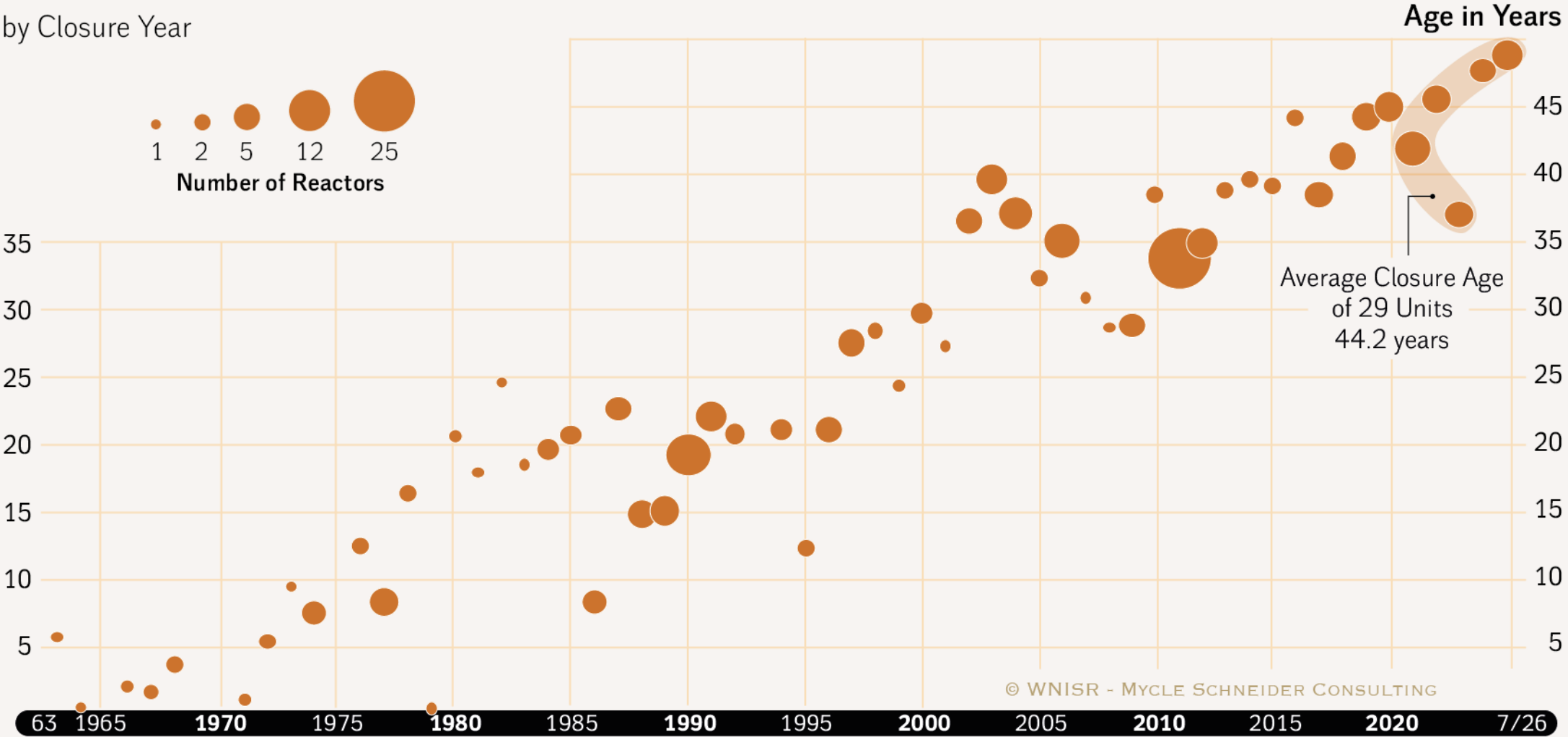
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- 50** Number of Reactors by Age Class

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Sources: WNISR and IAEA-PRIS, 2026

Evolution of Nuclear Reactors' Average Closure Age 1963 – 1 July 2026

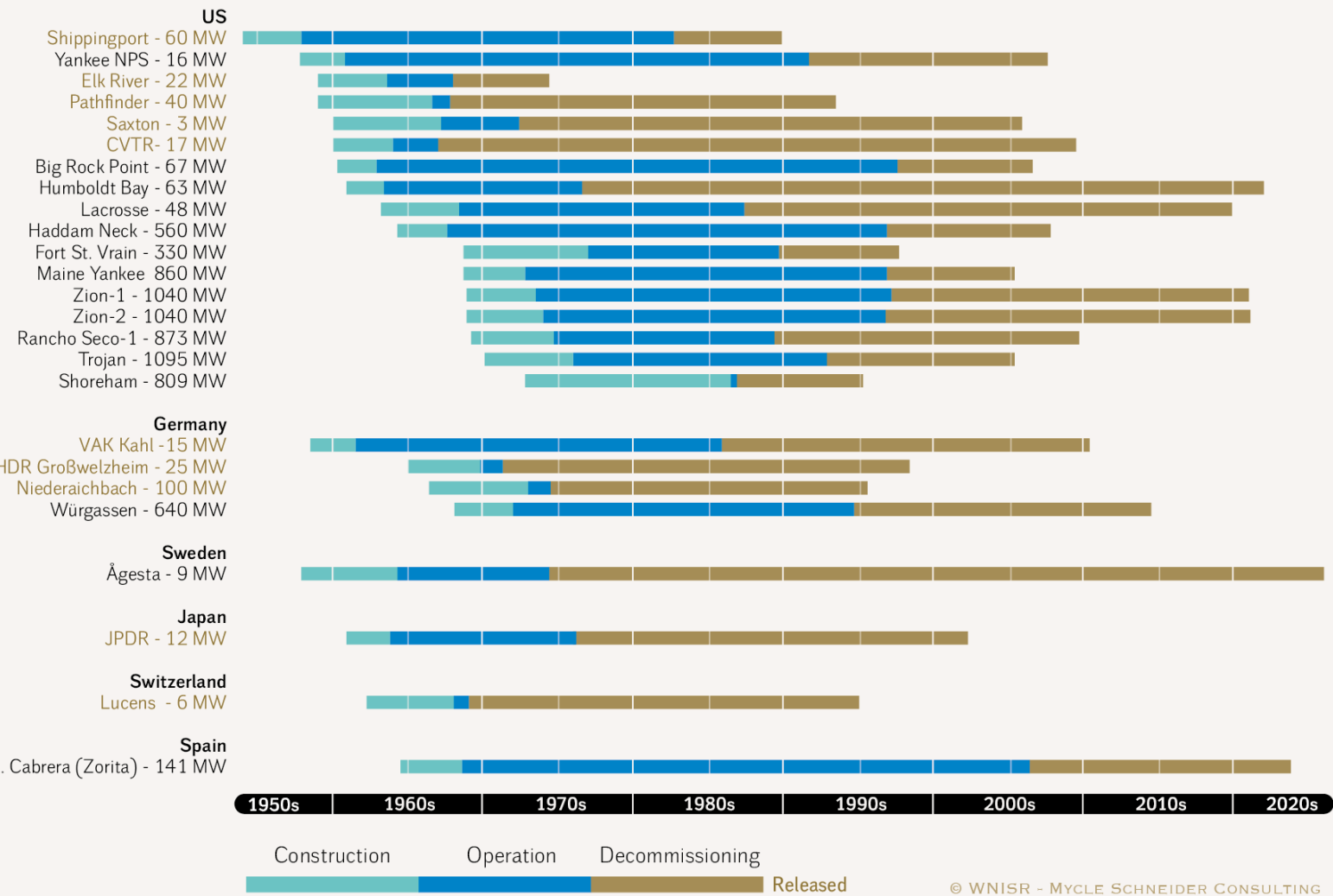
by Closure Year



Sources: WNISR and IAEA-PRIS, 2026

Overview of Completed Reactor Decommissioning Projects in the World, 1954–2026

as of 1 July 2026



Sources: Various, compiled by WNISR, 2026

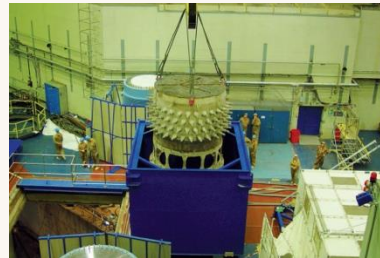
Warm-Up-Stage

- Removal of spent fuel (“Defueling”)
- Overview of contaminated inventory
- Removal of all machines and components that are not needed for hot-zone dismantling
- Set-up of technical and logistical infrastructure for hot-zone tasks
- Dismantling of contaminated machinery, such as steam generator
- Preparation of dismantling of strongly contaminated components and machinery

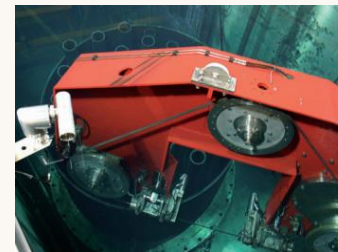


Hot-Zone-Stage

- Dismantling of strongly contaminated machinery and components, such as reactor pressure vessel or biological shield



Remote
underwater
cutting



„One piece“ dismantling

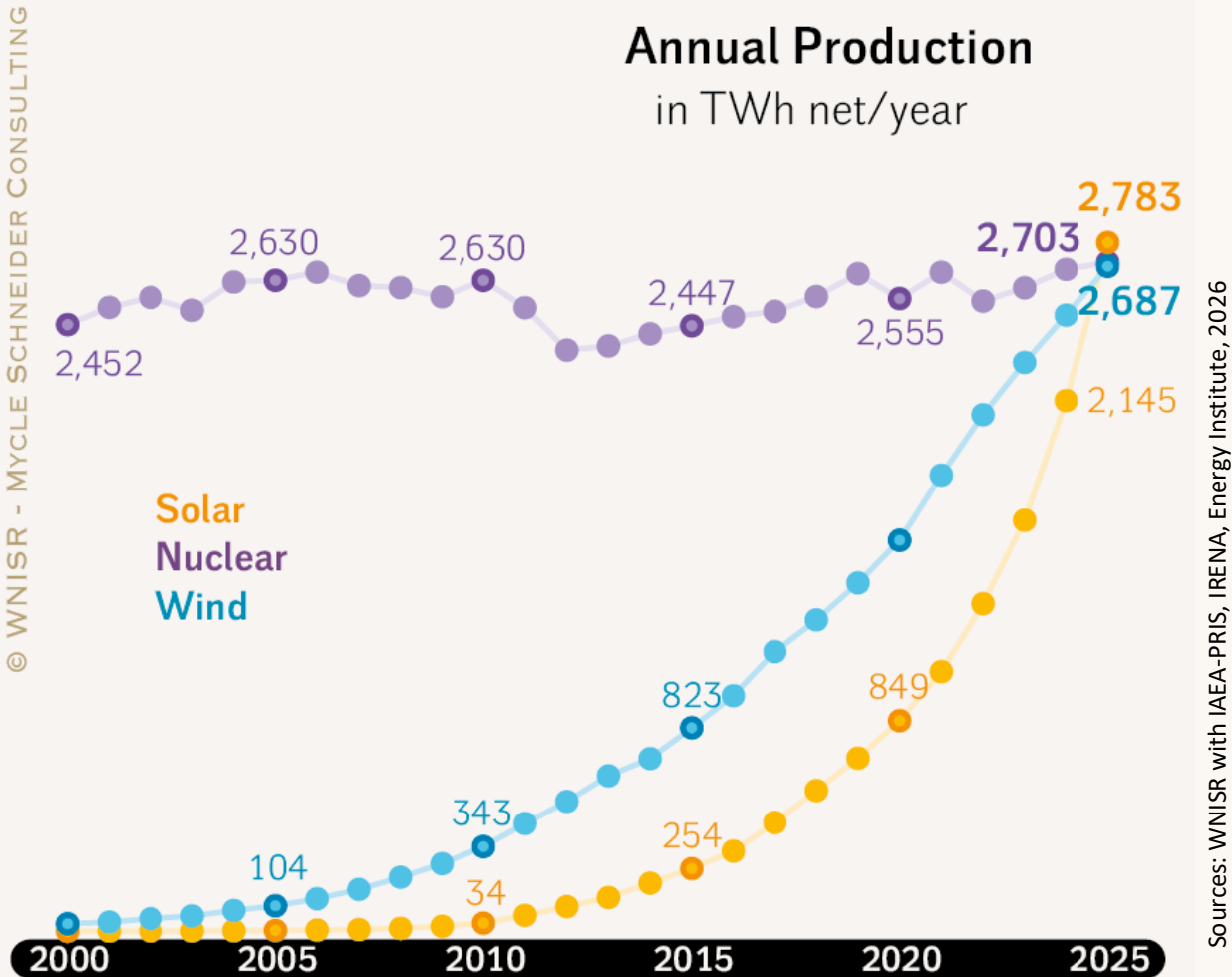
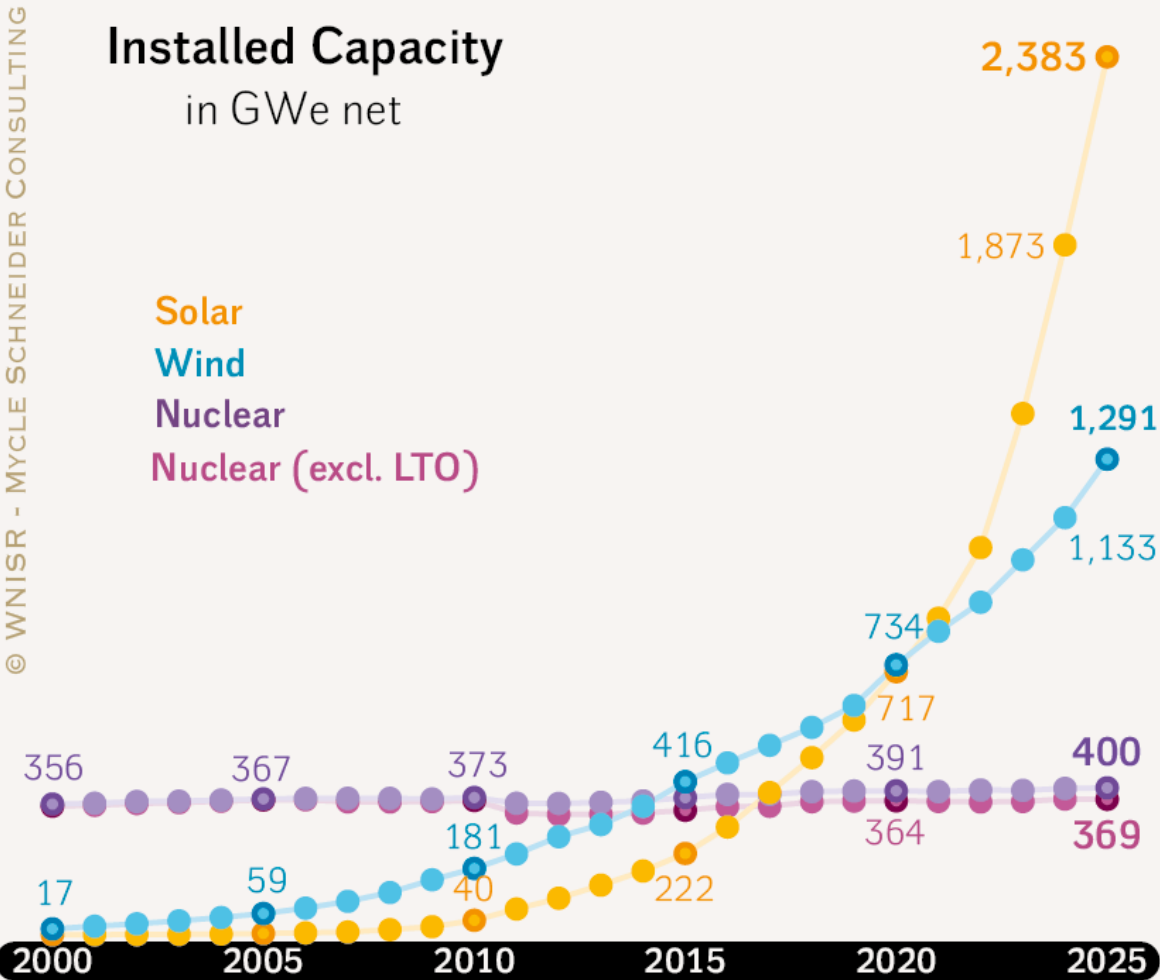
Ease-Off-Stage

- Dismantling of remaining components and machinery
- Decontamination of buildings
- **Release from regulatory oversight**
- Demolition of buildings
 - **Greenfield:** Site released to be used in non-industrial (and non-nuclear!) context
 - **Brownfield:** Site released for industrial use, e.g., further electricity generation or interim storage facility for nuclear waste.



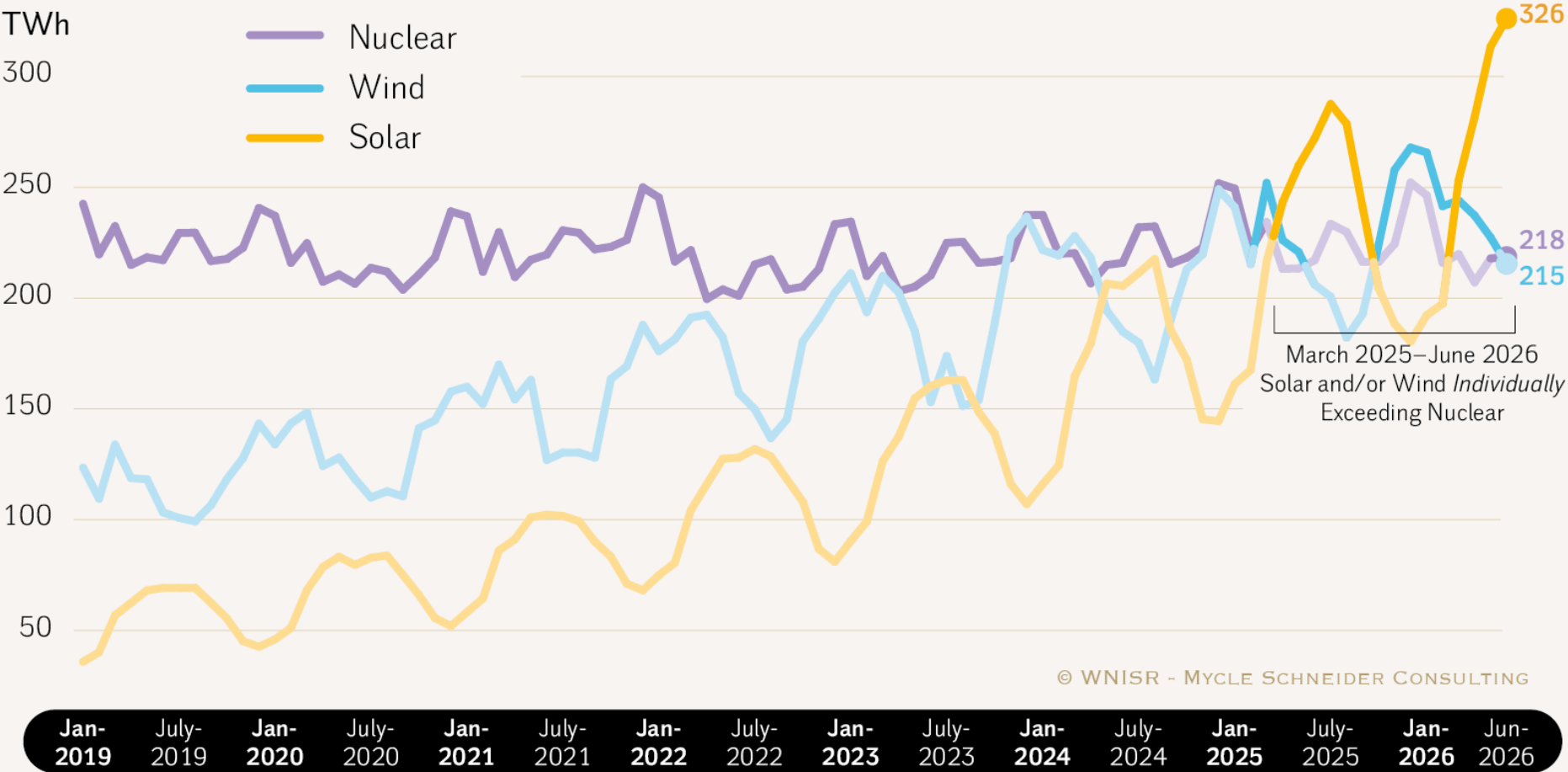
Images: Brendebach et al. (2017) Decommissioning of Nuclear Facilities, Gesellschaft für Anlagen- und Reaktorsicherheit, <https://www.grs.de/sites/default/files/publications/grs-s-58.pdf>

Wind, Solar and Nuclear Capacity and Electricity Production in the World 2000–2025



Solar or Wind Exceeding Monthly Nuclear Electricity Generation Since March 2025
Complementarity Between Solar and Wind

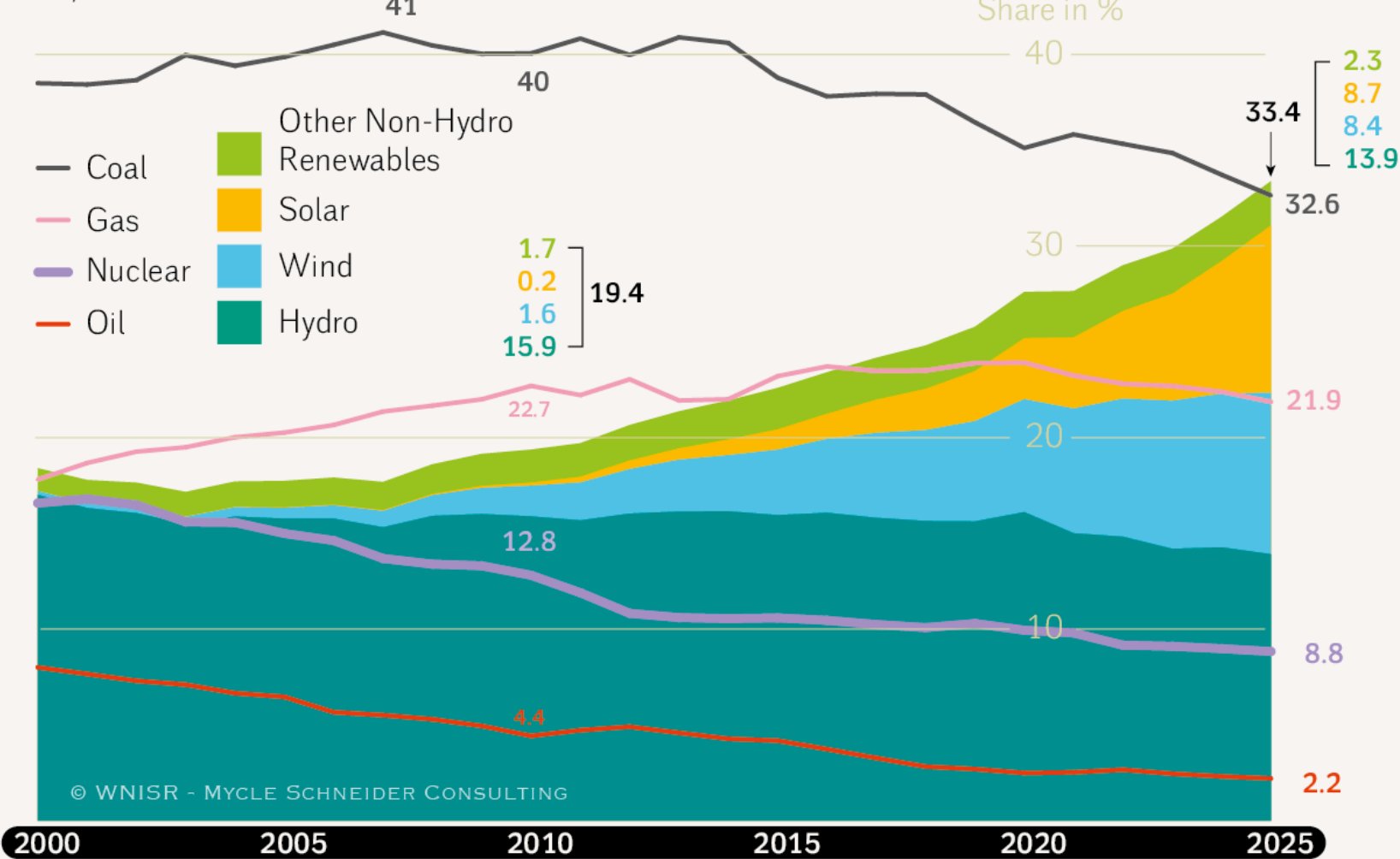
Monthly Electricity Generation January 2019–June 2026, in TWh



Source: EMBER, 2026

Share of Gross Electricity Production by Source in the World

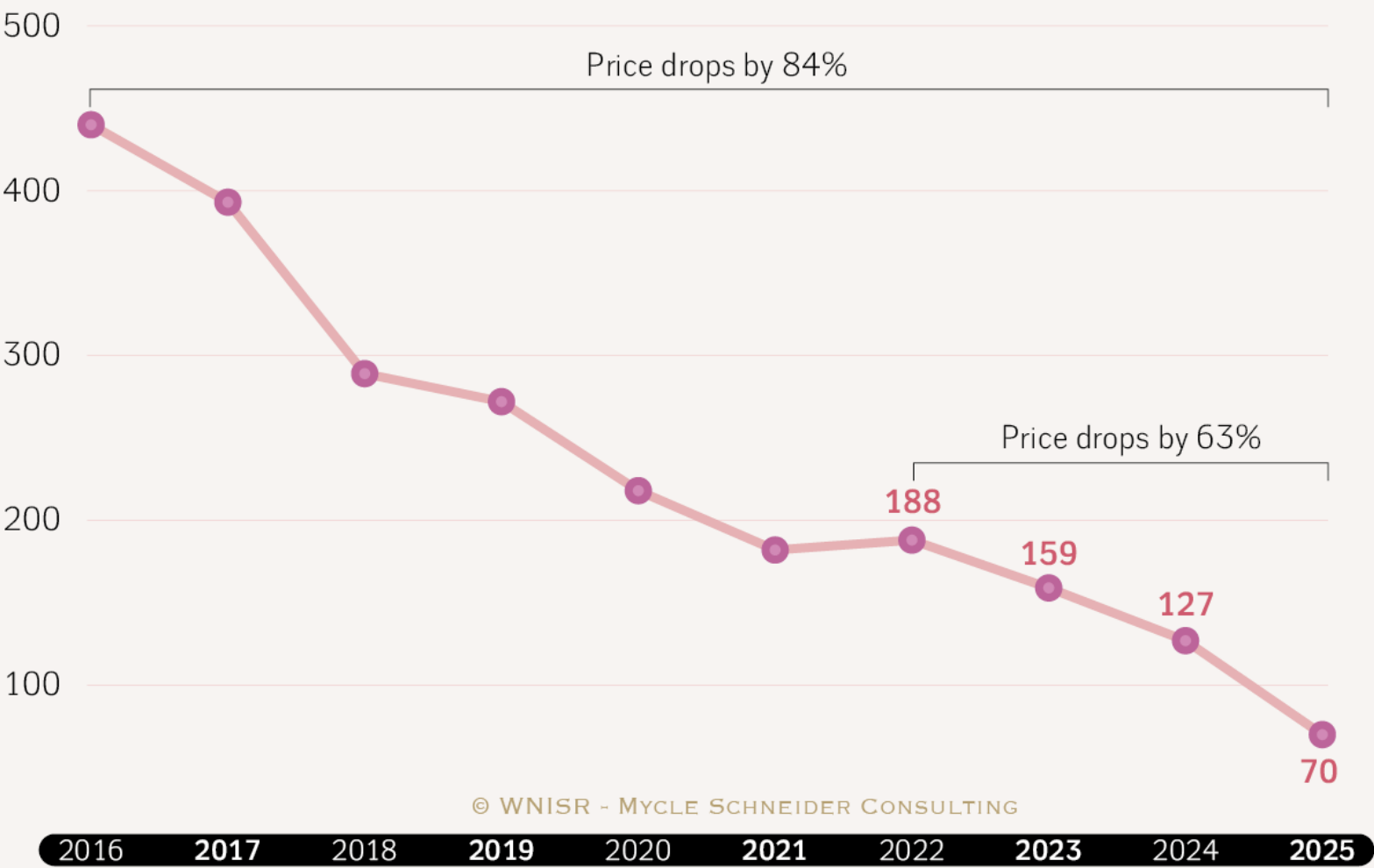
in %, 2000–2025



Source: Energy Institute, 2026

Battery Energy Storage System Price Development

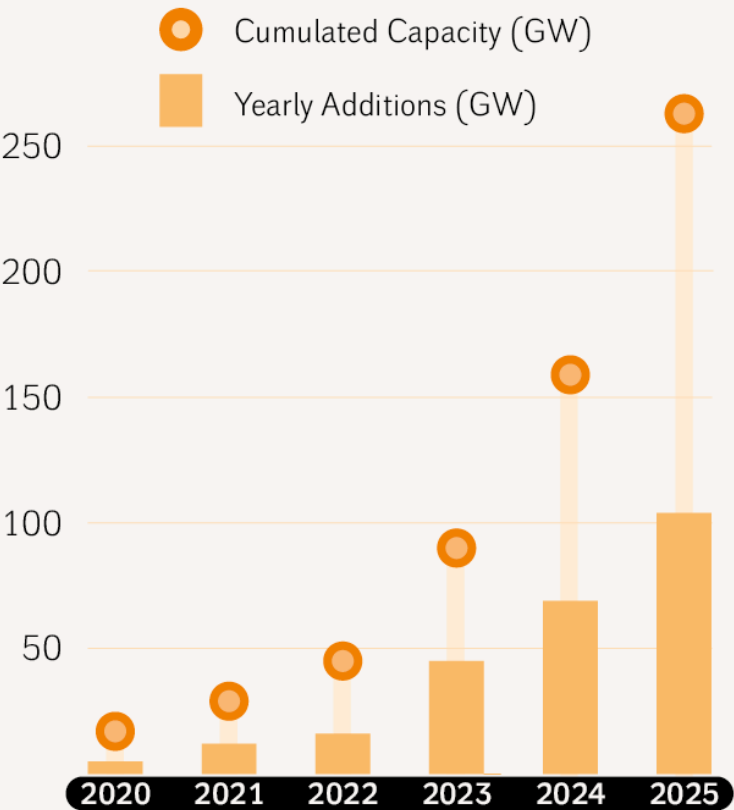
in US\$ per kWh



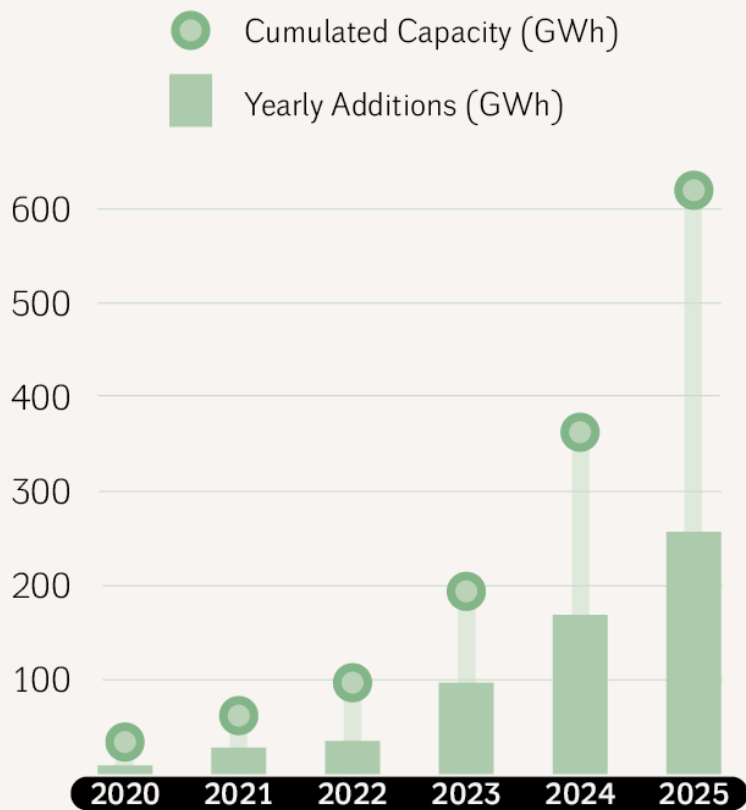
Source: BloombergNEF, 2026

Evolution of World Battery Energy Storage Systems Capacity 2020–2025

Yearly Additions and Cumulative Power Capacity in GW



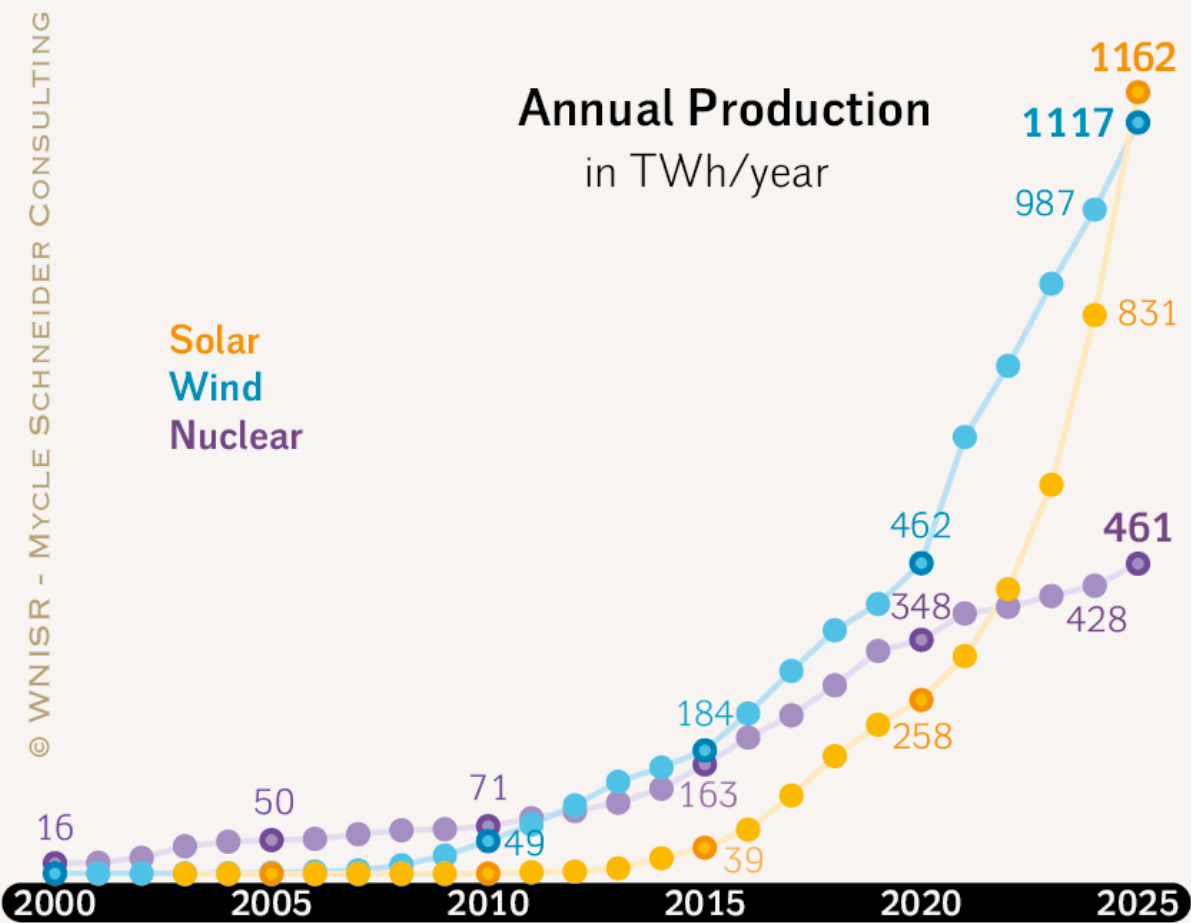
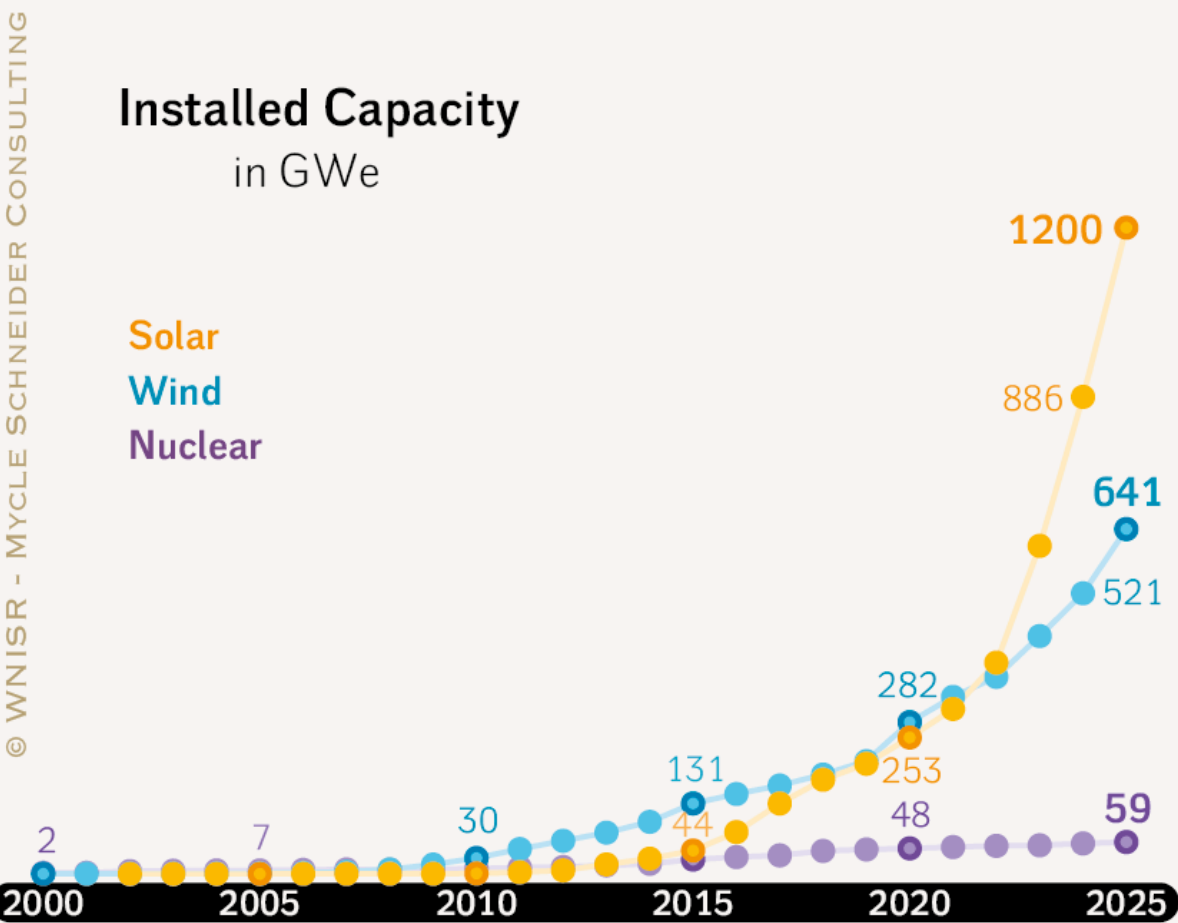
Yearly Additions and Cumulative Energy Capacity in GWh



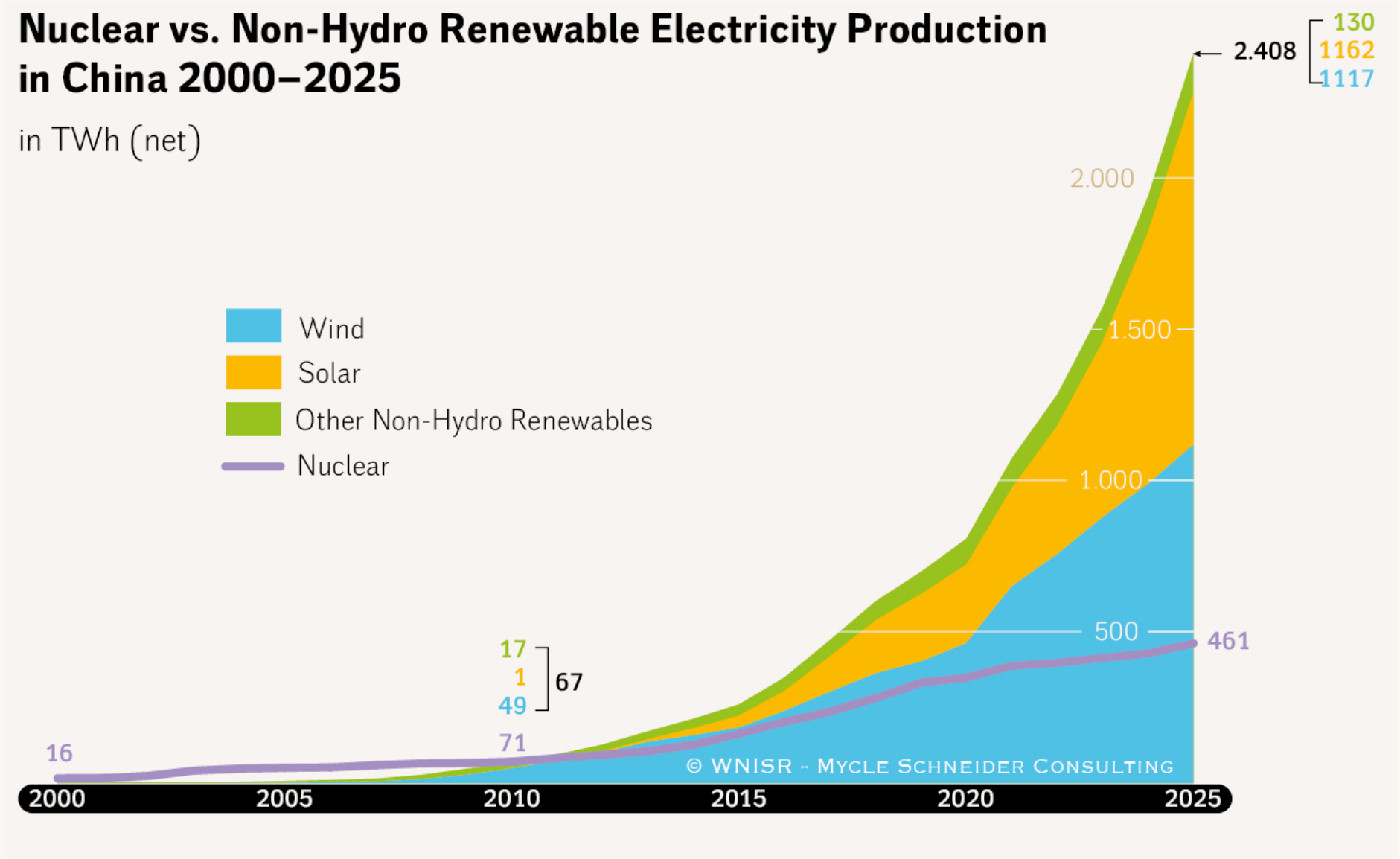
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Source: Wood Mackenzie, BloombergNEF, IEA, based on Graphic by PowerSwitch/Volta Foundation, 2026

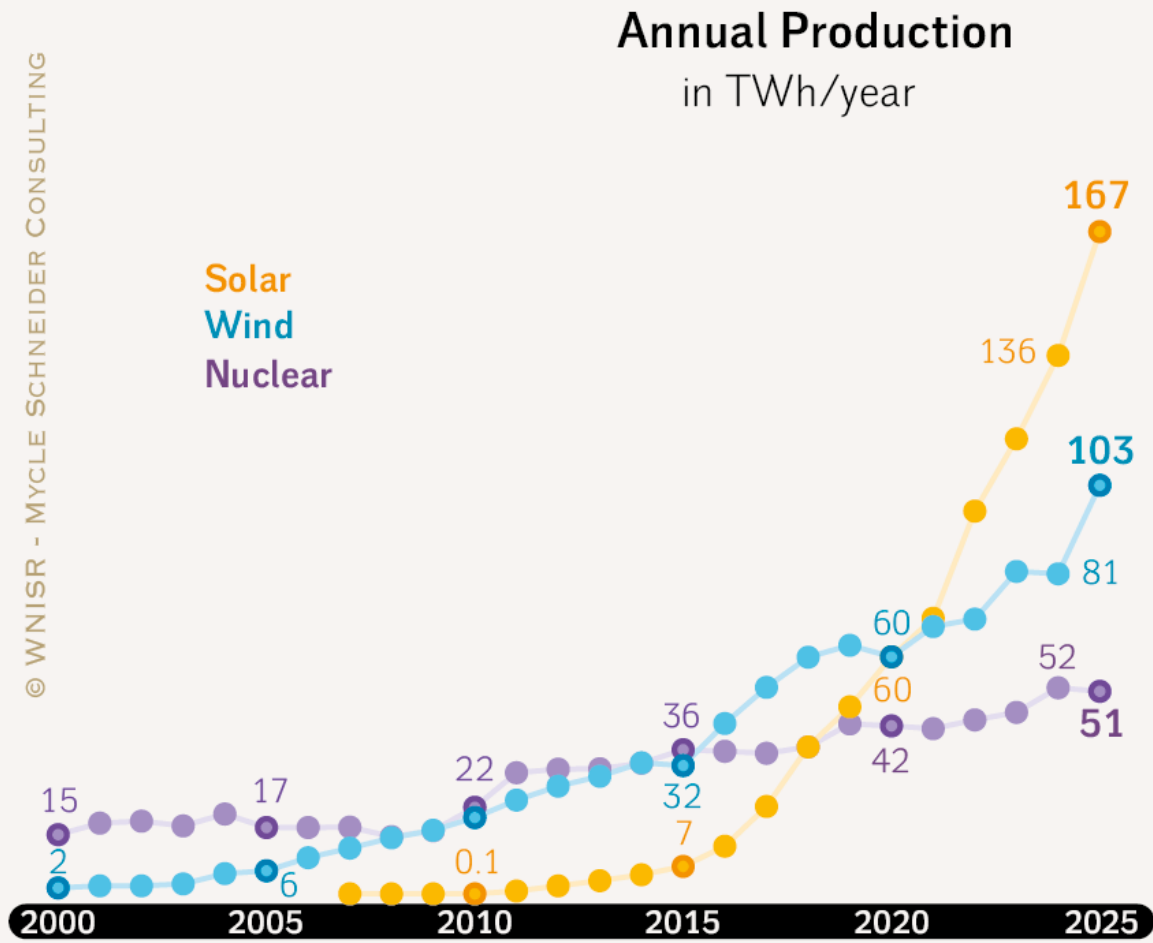
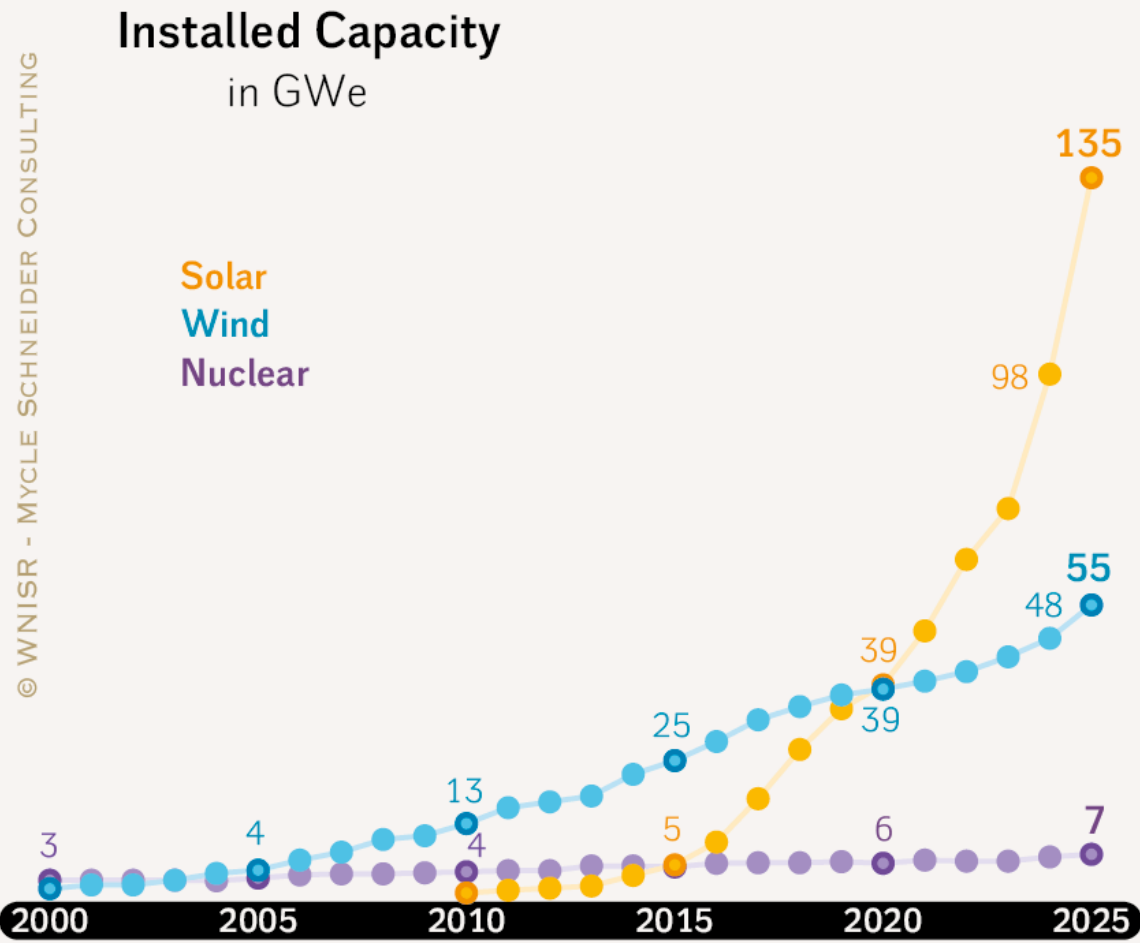
Wind, Solar and Nuclear Capacity and Electricity Production in China 2000–2025



Sources: WNISR with IAEA-PRIS, IRENA, Energy Institute, 2026



Wind, Solar and Nuclear Capacity and Electricity Production in India 2000–2025



Sources: WNISR with IAEA-PRIS, IRENA, Energy Institute, 2026

There have been no remarkable changes in nuclear industry trends: stagnation at best.

In 2025,

- more reactors were closed than new ones started up;
- operating capacity was slightly down;
- nuclear power generation increased slightly on a global level, but decreased outside China;
- nuclear construction starts increased exclusively due to China and Russia;
- nuclear share in the global electricity mix has continued its decline (since 1996).

As of mid-2026,

- one Small Modular Reactor (SMR) is under construction in the Western world (Canada).

The comparison with nuclear's main competitors illustrates a rapidly widening gap:

- solar output alone outpaced nuclear's for the first time; solar + wind = 2 x nuclear generation;
- in China *and* India, solar + wind = 5 x nuclear generation;
- over 3/4 of global battery capacity added in past three years.

It is all in the growth rates: nuclear output +1% vs. wind +8%, solar +30%, and battery capacity +50%.

The gap will be widening further, fast.