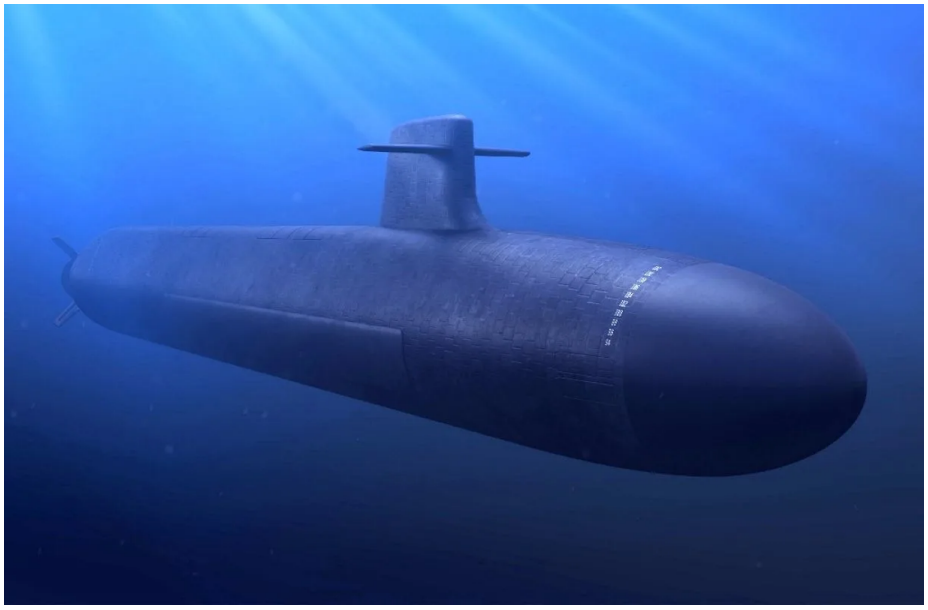

Italy, Japan, and South Korea: The New Race for Nuclear Submarines

Published on 20/11/2025

Italy, Japan, and South Korea – three allies of the United States, three countries with different histories and sensitivities on the nuclear issue – are converging on a common point: evaluating or initiating **naval nuclear propulsion** for major ships and submarines.

There is no talk (for now) of atomic weapons, but of **nuclear reactors as a power source** for military units, with enormous effects on autonomy, deterrence, power projection, and geopolitical weight. From the expanded Mediterranean to the Indo-Pacific, these choices are transforming traditionally "defensive" navies into actors capable of long-range operations.

Italy: Towards a Naval Nuclear Doctrine

In Italy, the shift is currently **under study**, but structured.
The **Naval Armaments Directorate** has entrusted **Fincantieri** with a two-year assignment to evaluate the use of nuclear propulsion on:

- the amphibious assault ship **“Trieste”**
- the submarines **U212NFS**

The study will define:

- design modifications to accommodate **III/IV generation naval reactors**
- where to develop prototype, production, and supply chain
- which **naval bases** to convert into **“Nuclear Naval Base”** for fueling, refueling, and maintenance
- requirements for **shipyards and arsenals** capable of building and maintaining nuclear-powered units

It builds on previous experience: the **CISAM of Pisa** and the **“Minerva”** project, on mini-naval reactors, involving Fincantieri, Cetena, Ansaldo Nucleare, RINA, and the University of Genoa.

Japan and South Korea: The Indo-Pacific Heats Up

The study (3 million euros) should provide by **2028** a **theoretical framework of feasibility**; any operational units would not be seen before **2040**. Officially, it does not bind the Defense, but in fact, it paves the way for a possible **Italian naval nuclear doctrine**, with repercussions also on the civilian sector and Italy's role in NATO and the Mediterranean.

In **South Korea**, the process is more advanced politically.
After the support of President **Donald Trump**, the **US Navy** also gave full endorsement to Seoul's acquisition of nuclear-powered submarines, considering SSNs as a tool:

- for containment towards **China**
- to transform the South Korean navy from **regional** to **global**

President **Lee Jae Myung** spoke of a first informal agreement with Washington on:

- commercial and security terms
- expansion of South Korean rights on **uranium enrichment** and **reprocessing** of spent fuel

Crucial issues remain open (shipyards, submarine model, possible units for the USA, long construction times), while North Korea's submarine and nuclear missile program fuels the

urgency perceived by Seoul.

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In **Japan**, the shift is mainly **doctrinal and symbolic**.

The new Defense Minister **Shinjiro Koizumi** has called for an open discussion on the possibility of **nuclear submarines**, in a country:

- marked by **Hiroshima and Nagasaki**
- with a strongly **pacifist** constitution
- traditionally committed to **nuclear disarmament**

Strategic Implications and Arms Race

The deterioration of the strategic environment – North Korea's nuclear and missile arsenal, the growth of the Chinese nuclear fleet – has pushed Tokyo to reconsider the taboo on atomic naval propulsion. A Defense document already hinted at the start of feasibility studies. No definitive decision, but the mere fact that the issue has come to light represents a **historic step**.

The moves of Italy, Japan, and South Korea have a common denominator: the desire to **not fall behind** in a context where the depths of the oceans are increasingly the heart of competition between powers.

Nuclear propulsion offers:

- **extended autonomy** for submarines

- the ability to operate far from home for long periods
- greater **deterrence** and operational flexibility

For the United States, it means strengthening a **maritime allies arc** – from the Mediterranean to the Indo-Pacific – with advanced underwater capabilities.

For **China** and **North Korea**, these developments appear as part of a **containment** process and could fuel a new **regional arms race**, especially below the sea surface.

Italy, Japan, and South Korea have not yet launched new nuclear submarines, but they have taken the decisive step: **politically and conceptually accepting the idea that nuclear at sea can be a tool of security and power**, not just a taboo of the past.

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