



Nuclear Energy and Generational Change in Slovakia

Insights from Slovenské elektrárne



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Nuclear energy has long been the backbone of Slovakia's energy system—quietly powering the country with unmatched reliability, precision, and safety. Yet, as I recently explored in a conversation with **Slavomír Vinkovič**, Director of Asset Management at **Slovenské elektrárne**, the sector is entering a pivotal phase. This new chapter is not only about technological evolution, but about the **people** who will shape its future.

A Strategic Asset with a Human Core

Slovenské elektrárne operates **35 CO₂-free power plants**, including hydropower and solar installations, but its core lies in **nuclear energy**, which accounts for **63% of Slovakia's electricity production**. With five operational units and a sixth soon to be commissioned—comparable in size to a Small Modular Reactor (SMR)—Slovakia is poised to become **Europe's leading nuclear energy mix generating more than 70% from nuclear**, surpassing even France.

As Slavomír succinctly put it:

"We are mainly a nuclear company. The majority of our energy comes from nuclear."

Generational Transition: A Talent Imperative

While the infrastructure is robust, the conversation quickly turned to the **human capital** sustaining it. Slovenské elektrárne is undergoing a **generational shift**. A wave of seasoned experts is retiring, and the next generation brings fresh expectations—more dynamic career paths, faster progression, and a desire for broader impact.

This shift presents a challenge: **how to retain young professionals long enough** for them to gain the deep expertise nuclear operations demand. Slavomír noted:

“To be fully effective, you need years of experience. That doesn’t align easily with the rhythm younger professionals are used to.”

To address this, the company is **reimagining roles**—blending technical and managerial responsibilities to spark curiosity and long-term engagement. The traditional archetype of the 20-year specialist is evolving, and leadership must evolve with it.

Lessons from Mochovce: Talent as a Success Factor

The recent commissioning of a new unit at **Mochovce**, after 18 years of construction, offered valuable lessons. Slavomír emphasized that **team composition and communication** were critical to success. With **70 project managers, 300 engineers and 1500 in house staff** coordinating together **up to 5000 workers** both internal and external in the peak, the ability to build effective, cross-functional teams was paramount.

“Top professionals are essential—but their ability to communicate and collaborate is what drives project success.”

SMRs: Strategy, Not Just Innovation

Drawing on two decades of experience in new builds, Slavomír shared a candid view on **Small Modular Reactors (SMRs)**. While promising, he cautioned that early projects will be cost-intensive and complex. The real value lies in **scalability within a consistent regulatory framework**.

“If you plan to build multiple units under the same legislation, SMRs make sense. But building just one or two? That’s not economically viable.”

Slovenské elektrárne is proactively investing in global know-how, sending top talent to foreign exchanges, e.g. a 6-month internship at TerraPower, the nuclear innovation company founded by Bill Gates.

Public Trust: Built Over Time

Public perception remains a critical factor. Slovakia offers a model for building trust—through **long-term community engagement, job creation, and transparent operations**. Future expansion will focus on **brownfield sites**, reinforcing safety and continuity.

“Today’s plants are designed with multiple protective layers. Sharing this openly helps build public understanding and trust.”

Safety: The Defining Difference

Slavomír highlighted a unique aspect of nuclear operations: the **role of safety authorities**. Unlike other industries, these bodies have significant impact on the construction and for a good reason. Navigating this requires not just technical skill, but **strategic leadership** and **regulatory fluency**.

"Safety authorities can increase both the project timeline and budget. It's a reality many professionals from other sectors don't fully grasp."

Looking Ahead: Leadership for a New Era

As the nuclear sector evolves, **leadership will be the differentiator**. Companies must balance operational excellence with talent strategies that resonate across generations. Roles that combine **technical depth with managerial growth** will be key to attracting and retaining the next wave of nuclear professionals.

"We need to make the work more interesting for graduates—not just technical, but combining management and technical together."

Why This Matters for Executive Search

At **Pedersen & Partners**, we understand that the future of nuclear energy depends on **people**—leaders who can navigate complexity, inspire teams, and drive innovation. Our Industrial Practice Group is committed to supporting nuclear companies in identifying and developing the talent they need to thrive in this new era.

If you're leading transformation in the nuclear sector—whether through new builds, SMRs, or generational change—I'd welcome a conversation about how strategic hiring can support your goals.