

Finland Project Management Roundup¹



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INTRODUCTION

This roundup continues the coverage of Project Management Association Finland, PMI Finland Chapter and some of the key projects currently going on in Finland.

PROJECT MANAGEMENT ASSOCIATION FINLAND

Project Management Association Finland (PMAF), **Projektiyhdistys ry** in Finnish, is a not-for-profit organization, and the International Project Management Association (IPMA) Member Association (MA) in Finland.



Founded in 1978, PMAF promotes the interaction, project-oriented thinking, and exchange and development of practical and theoretical knowledge among project management professionals with 4000 individual and over 600 organizational members.

PMAF promotes the development and dissemination of project and project management knowledge. PMAF members are able to enjoy information sharing, workgroups, development projects, project management forums, conferences and certification services PMAF provides. PMAF organizes two annual conferences: *Project Days* (*Projektipäivät* in Finnish) in early November, and *3PMO* in early June. Please navigate to www.pry.fi/en , <https://www.oppia.fi/events/3pmo/?lang=en> and www.projektipaivat.fi for general information on PMAF and its annual events.

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PMI FINLAND CHAPTER

PMI Finland Chapter is a not-for-profit organization providing project practitioners in Finland continuous learning, networking and community support. The Chapter was founded in 2005. Today, with more than 400 members, the chapter is increasingly recognized as a community where its members can enhance their project management and leadership skills, as well as network with other project management professionals.



PMI Finland Chapter hosts a number of events such as Breakfast Round Tables, regular meetings taking place once a month in Helsinki and occasionally also in other locations. The chapter members have the opportunity to attend events for free or with a discount and the chapter sends its members a regular newsletter with localized content on project management. Additionally, the Chapter supports its members in their professional development and training.

PMI Chapter Finland organizes an annual conference in the spring. In 2019 the conference takes place on May 23rd, with an overarching theme “Inspire”. Please navigate to www.pmifinland.org and www.conference.pmifinland.org for general information on the PMI Finland Chapter and the annual events.

OLKILUOTO 3

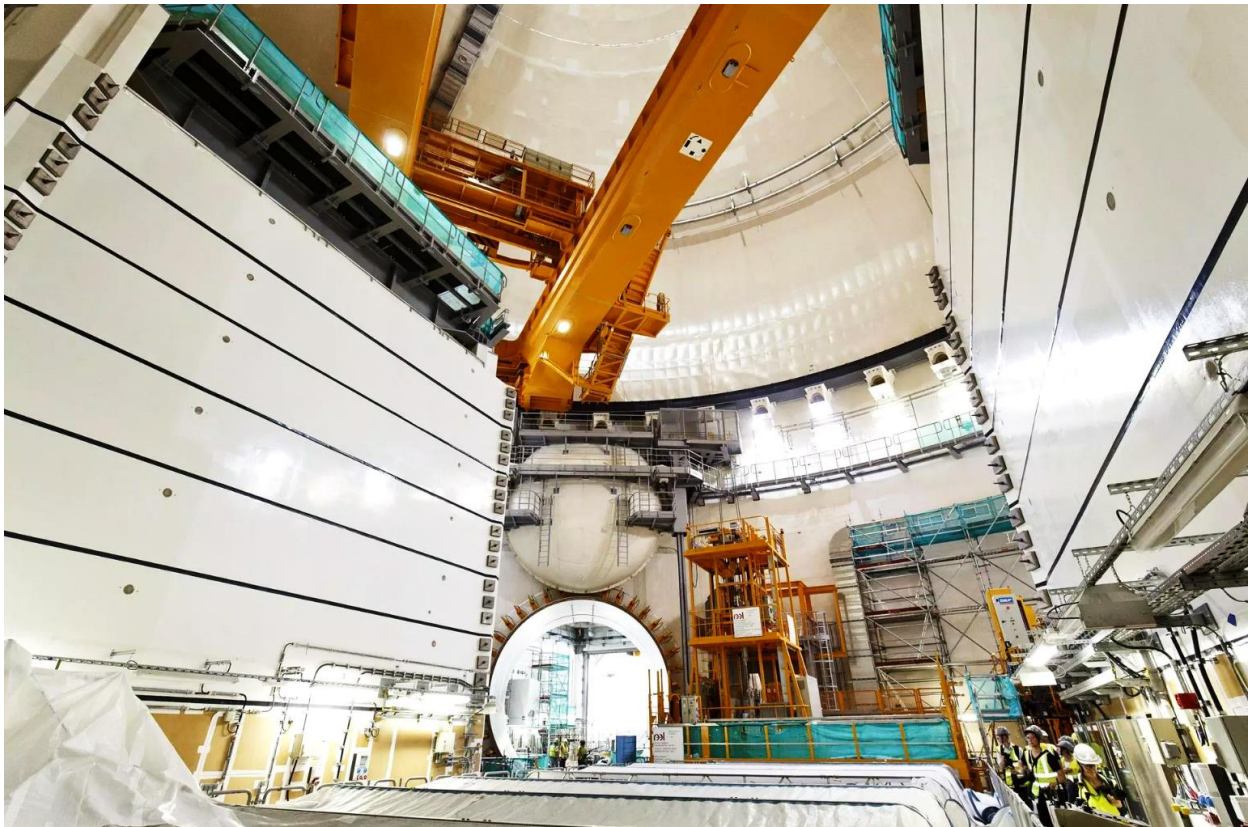
The 1 600 MW Olkiluoto 3 nuclear power plant, originally contracted to be built by consortium comprising **Areva** and **Siemens** for **Teollisuuden Voima** (TVO) at Olkiluoto, Finland, has been granted operation permit in March. The operation permit was granted by the Finnish Government, following a statement by **Säteilyturvakeskus** (STUK), the Radiation and Nuclear Safety Authority in Finland, saying that it is safe to commission the unit. This is a historical step towards starting up the plant. This is not, however, the final permit required, as one more permission needs to be granted by STUK before the reactor of Olkiluoto 3 can be loaded with nuclear fuel.

The delivery of Olkiluoto 3 power plant has been subject to a substantial number of challenges. In March 2018 an agreement was reached between TVO and Areva regarding the overruns in project budget and time schedule. According to TVO, Areva has agreed to compensate 450 M€ assuming the power plant is fully operational by the end of 2019. If the plant is not fully operational at that time, Areva will compensate a further 400 M€. As part of the agreement, both contractual parties agreed to dispend any further judicial acts.

Once completed, Olkiluoto 3 will be the largest nuclear power plant in the world. TVO has been understandably disappointed about the fact that the plant is almost 200 % over original budget and more than 10 years behind the original time schedule.

The contract for building the Olkiluoto 3 power plant was signed in 2003 for 3 000 M€, and construction began in 2005, targeting completion in June 2009. Due to numerous challenges during the planning and construction phases, the target date has been pushed forward several times, finally to January 2020 – nearly eleven years in total. The delays have pushed the total cost up to 8 500 M€.

While the Olkiluoto 3 plant is nearing commercial operation, the Finnish Council of State has approved the extension of Olkiluoto 1 and Olkiluoto 2 power plant operation until 2038. Olkiluoto 1 and 2 are each rated at 900 MW electrical power, and annually produce a combined 15 TWh of electrical power to the Finnish power grid. This is approximately 23 % of electrical power annually produced, and approximately 18 % of electrical power annually consumed in Finland.



Olkiluoto 3 reactor hall in August 2017 (photo courtesy Roni Rekoma / Lehtikuva)

HANHIKIVI 1

The start of the construction works of the 1 200 MW Hanhikivi 1 nuclear power plant, contracted to be built by **Rosatom** for **Fennovoima** at Pyhäjoki, is still waiting for the main nuclear power station building permit. According to Fennovoima, the completion of the Hanhikivi 1 power unit has been delayed by four years – from 2024 up until 2028. This estimate is based on information from the Russian power plant supplier **Raos Project**, which is part of **Rosatom**. **Säteilyturvakeskus** (STUK), the Radiation and Nuclear Safety Authority in Finland, announced earlier the building permit will be delayed as Fennovoima has not delivered the documentation necessary for the building permit to be appropriately addressed.

Meanwhile, Fennovoima has announced its intention to change its organizational structure and establish a new Utility Operations organization unit. The goal of the change is to clarify responsibilities and improve collaboration with the plant supplier in

the next phases of the project. The purpose of the development program Fennovoima launched in late 2018 is to ensure the progress of the Hanhikivi 1 power plant project in accordance with the new timetable estimate. The development program's main goals are a safe plant and high-level safety planning, construction readiness and integrity of the technical design, high-quality implementation and supply chain performance, operational readiness and a strong safety culture.

Additionally, Fennovoima has published its responsibility report for 2018, highlighting the development and progress in several areas key areas for the sustainable development of Fennovoima and the Hanhikivi 1 project and including, among other things, environment, nuclear safety, occupational health and safety, supply chain management, and organizational development. Following the development work already performed, Fennovoima has identified four main target areas:

1. Plant safety by safety engineering
2. Construction readiness by design integrity
3. Implementation quality by supply chain performance
4. Operational readiness with strong safety culture

Due to the EU sanctions towards Russia, the Hanhikivi 1 plant has become involved in international politics. Many see the Rosatom three-way involvement in the Hanhikivi 1 project – being one of the main shareholders as well as the main contractor and the main equipment supplier – as a way for Russia to get involved in EU matters. Some go as far as seeing the Rosatom involvement in the Hanhikivi 1 project as a way for Russia to strike a blow against a uniform EU sanction policy towards Russia. Setting aside the international politics, experts say the Hanhikivi 1 plant is unlikely to be able to produce electrical power at a price lower than the **Teollisuuden Voima Olkiluoto 3** plant.



The Fennovoima construction site at Hanhikivi (photo courtesy HS / Pekka Fali)

The plant will be constructed by Rosatom, and will use a pressurized water reactor. Rosatom – formally known as *Rosatom State Atomic Energy Corporation* – is a Russian state corporation, established in 2007, and the regulatory body of the Russian nuclear operations. 66% of Fennovoima is owned by the Finnish *Voimaosakeyhtiö SF*, and 34% by *RAOS Voima*, the Finnish subsidiary of Rosatom.

The plant is expected to generate approximately 10% of Finnish electricity demand. Rosatom has 34% ownership of the plant, which translates to Rosatom supplying 3% of Finland's electricity production according to Veli-Pekka Tynkkynen, professor of Russian energy politics at University of Helsinki. Professor Tynkkynen argues Russia may use its ownership of the plant to attempt manipulating Nordic power prices, or use it to leverage political disputes the same way Russia is already using its gas supply in disputes with neighboring countries such as Ukraine. Researcher Martin Kragh of Uppsala University in Sweden notes that Russia has already applied pressure to keep the Hanhikivi 1 project going by pressuring Fortum – a major player in the Finnish power business – to invest in the Hanhikivi 1 project through Voimaosakeyhtiö SF.

LÄNSIMETRO

The second implementation phase of Länsimetro extension to the existing Helsinki metro system is progressing. The main underground tunneling work has been completed, and the finalization of station and auxiliary spaces is under way.



Soukka station prior to casting of the station platform floor (photo courtesy Länsimetro)

The westward metro extension is being implemented in two phases: The first phase of the extension lengthened the existing line from *Ruoholahti* to a new terminus at *Matinkylä* in late 2017. The second phase of the extension will lengthen the line further from *Matinkylä* to *Kivenlahti*. The Länsimetro project is undertaken by Länsimetro Ltd, a jointly founded a company, of which the city of Espoo owns 72%, and the City of Helsinki the remaining 28%.

The second phase of the extension, a 7.4 kilometer (4.7 mi) route was approved for construction in February 2014, and the construction began flexibly as the work on the first phase was being completed. The second phase of the westward metro extension runs entirely within Espoo city limits. The second phase of the extension was originally planned to be completed in 2020, and now at 2023. The cost of the second phase was originally estimated at 801 M€, however, now stands at 1 159 M€.

The number of passengers taking the first metro from the *Matinkylä* terminus of the first implementation phase of Länsimetro has exceeded all expectations – to such extent that the public is getting worried about whether there will be room on the trains once the second implementation phase is completed. There is an ongoing discussion regarding the implementation of 100 M€ worth of additional tracks at the *Matinkylä* terminus in order to allow more trains to be run.

RAIDE-JOKERI

A consortium comprising **Yleinen Insinööritoimisto** (YIT) and **VR Track** continues the planning the main building works for the Raide-Jokeri light rail line. Building of track and related structures is expected to start shortly, and operations in early 2020s. The main building budget was approved at 275 M€, however, calculations are showing 386 M€ are required due to unanticipated costs related to the alliance mode employed.

The Raide-Jokeri light rail transit system – similar to the *Metro Blue Line* light rail in Minneapolis, Minnesota, US, and the *Metrolink* in Manchester, England – is planned for the metropolitan Helsinki area to complement the existing public transit service. Raide-Jokeri will connect two Helsinki metro stations – *Itäkeskus* in eastern Helsinki, and *Keilaniemi* in the eastern Espoo – to one another with 25 km of street-level double track and 33 stops. Raide-Jokeri will replace bus line 550, which is currently the most heavily congested line in metropolitan Helsinki area, in 2021. The new light rail transit system is intended to enhance the reliability and travel comfort of the transverse public transportation i.e. traffic in the areas surrounding the immediate downtown Helsinki.



An artist's view of the RaideJokeri train (illustration courtesy Eiro Lintunen)

The first idea of a transverse light rail transit system was introduced in 1990, and it was agreed to be one of the next-generation public transit systems to be constructed in 1994. Instead of a light rail system, the transverse connection was established with bus service in 2006. The number of passengers has grown enormously, and bus connection 550 along the proposed path of the Raide-Jokeri route is currently the most popular bus service offered by Helsinki Regional Transport Authority. Due to the increasing traffic, and need for quick and reliable connection, the plan to establish the originally proposed light rail transit system has been approved by the city of Helsinki as well as the city of Espoo.

About the Author



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Jouko Vaskimo is an International Correspondent and Senior Contributing Editor for **PM World** in Finland. Jouko graduated M.Sc. (Tech.) from Helsinki University of Technology in 1992, and D.Sc. (Tech.) from Aalto University in 2016. He has held several project management related positions with increasing levels for responsibility. Jouko holds a number of professional certificates in the field of project management, such as the IPMA Level C (Project Manager), IPMA Level B (Senior Project Manager), PMP, PRINCE2 Foundation, and PRINCE2 Practitioner. Jouko is also a Certified Scrum Master and SAFe Agilist. Jouko is a member of the Project Management Association Finland, a founding member of PMI Finland Chapter, and the immediate past chairman of the Finnish IPMA Certification Body operating IPMA certification in Finland. Since October 2007, he has been heading the Finnish delegation to ISO/TC 258. Jouko resides in Espoo, Finland and can be best contacted at jouko.vaskimo@aalto.fi . For more information please navigate to www.linkedin.com/in/jouko-vaskimo-6285b51 .