

Optimised technology transfer model

Project Output 2.1

Interreg



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RoboDemo



Output description

A modified, optimised and agile newest technology transfer template to suit different parts of the NPA region and different manufacturing industries.

This document is based on the project deliverables: *1.2.1 RoboDemo implementation plan report on developmental need assessments for SMEs in the NPA region*, *2.2.1 An agile technology transfer model* and *3.1.1 Documentation of a jointly developed and defined technology transfer model*.

About the project

Interreg NPA project RoboDemo, Demonstrating New Generation Robotics and Smart Manufacturing to SMEs in the NPA Region aims to create an agile and optimised technology transfer model to support manufacturing SMEs in their investment decision-making process in an inexpensive and risk-free way. The model can be integrated into the operations of various organizations offering technology transfer to the SMEs, depending on the tools and resources they have available for such activities.

Within the project, the five partner organisations from Finland, Sweden, Norway and Ireland have developed the model according to their experiences gained from working in cooperation with 26 enterprises of various industries around the NPA region. Reference videos of the 30 case studies made in the project are publicly available in RoboDemo's channel in YouTube.

Main target groups of the optimised technology transfer model are:

- [Manufacturing SMEs seeking to explore or adopt automation](#)

Small and medium-sized manufacturing companies that are curious about automation but lack the internal resources, expertise, or confidence to initiate investments.

- [Technology transfer providers and innovation support organisations](#)

Universities, universities of applied sciences, applied research institutions, digital innovation hubs (DIHs/EDIHs), regional and municipal development agencies, and business support units that aim to promote industrial modernisation.

Links to the materials:

A video version of the optimised technology transfer model available in YouTube:

<https://youtu.be/4xqIHsh7gF0>

Reference videos of the company cases:

<https://www.youtube.com/@interregnparobodemo>

Find all public project documents and project results from the website:

<https://www.interreg-npa.eu/projects/robodemo/>

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1 Purpose and users of the model

The RoboDemo technology transfer model has been developed to support small and medium-sized enterprises (SMEs) in adopting new emerging technologies and methodologies. It is designed to be agile, iterative, and adaptable to the specific needs of each company. The primary goal is to reduce the barriers that prevent SMEs from investing in new technologies by offering a structured yet flexible approach to technology transfer.

Who can use the model for technology transfer?

The RoboDemo technology transfer model can be used by a variety of organisations that are positioned to support SMEs in adopting automation and robotics. These include:

Research and Educational Institutions

Universities, universities of applied sciences, and technical colleges are well-suited to use the model. They often have:

- Access to laboratories and demonstration equipment.
- Expertise in robotics, automation, and digital technologies.
- Capacity to organise workshops, seminars, and student collaboration.
- A neutral position that builds trust with SMEs.

Digital Innovation Hubs (DIHs) and European Digital Innovation Hubs (EDIHs)

These hubs are specifically designed to support digital transformation in SMEs. They can:

- Offer assessments (e.g., digital maturity).
- Provide access to funding advice and technical expertise.
- Facilitate simulations and demonstrations.
- Act as intermediaries between SMEs and technology providers.

Regional Development Agencies and Municipal Business Services

These organisations have close ties to local businesses and can:

- Promote the model through their networks.
- Identify companies with automation potential.
- Support matchmaking between SMEs and technology experts.

Industry Clusters and Business Associations

These groups can:

- Act as multipliers by promoting the model to their members.
- Organise joint events or group demonstrations.
- Help identify common challenges across companies.

Private Technology Providers and System Integrators

While the model is not designed to replace commercial services, private providers can:

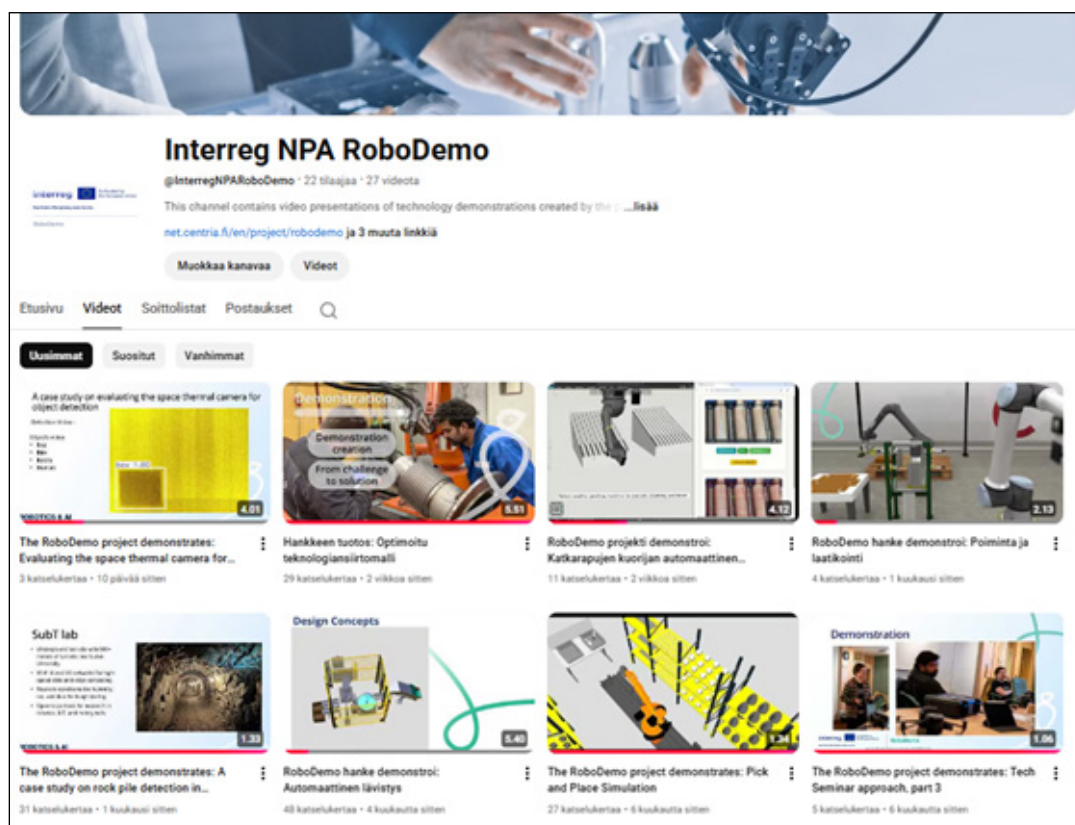
- Use the model as a pre-sales or early engagement tool.
- Collaborate with public actors to offer co-funded demonstrations.
- Support SMEs in scaling up from demonstration to implementation.

2 Process begins: Stimulating the interest within target companies

To effectively engage SMEs, the providing organisation should implement a **multi-channel communication strategy**. This includes maintaining a frequently updated **website that showcases relevant content and success stories**, which helps create a strong first impression. **Social media platforms** such as LinkedIn and Facebook can be used to announce calls for participation and share updates, while **newsletters** and **targeted emails** can inform companies about collaboration opportunities.

Direct phone calls remain a powerful tool for initiating conversations, especially when the caller is well-prepared and knowledgeable. Publishing **articles and blogs** can also increase visibility. Attending **industry conferences and trade fairs** allows the organisation to network with potential clients and remain visible within the automation ecosystem.

Creating and sharing **demonstration videos** (examples of RoboDemo videos in the image below) and collecting **testimonials** from satisfied clients further enhances credibility. These videos should be promoted across multiple channels and include subtitles in multiple languages to reach a broader audience. **Word-of-mouth** referrals from successful collaborations can also lead to new partnerships, as demonstrated in the RoboDemo project.



In addition to the communication methods mentioned above, partnerships can be initiated through **business associations, chambers of commerce, or regional industrial clusters**.

Municipal business support services can also play a key role in promoting the model, especially when they have insight into the automation readiness of local companies. Furthermore, **existing networks** from previous projects or events can be reactivated to identify new opportunities for collaboration.

3 Process steps and demonstration methods

Gaining background information in discovery session(s)

When initiating contact with a new company, it is essential for the specialist to approach the situation with an open mind. Whether the meeting takes place via **phone** or **in person**, the specialist should be well-versed in the subject matter and capable of presenting relevant reference cases. During these initial discussions, the goal is to identify the company's development needs and determine the most viable challenges and potential solutions.

It is important to **manage the expectations** of the company. If the model is being used within a funded project, company should be informed that the solutions presented are not turnkey implementations, but rather conceptual demonstrations intended to support decision-making.

An interview is used to gather background information. Specialists prepare for the interview by reviewing a "Company Case Need Assessment" document. During the interview, they engage in conversations with company representatives, focusing on listening rather than proposing solutions. Notes are taken and used to complete the assessment template afterward. **Photos and videos** of the company's current setup are also collected, with appropriate consent, to document the starting point.

Based on the assessment, the specialist determines whether the company is suitable for a demonstration, simulation, or other support activity. If so, a **formal agreement** is signed. If not, the assessment is still documented for future reference. In some cases, digital maturity assessments from European Digital Innovation Hubs may also be recommended.



Key points of discovery sessions

- **Initial interview:** Conducted casually on-site or via call, focusing on listening and understanding challenges.
- **Assessment template:** Used post-interview to document needs and determine suitability for demonstration or simulation.
- **Transparency:** Clarify that solutions are not turnkey but serve as a foundation for decision-making.

Demonstration development

Once the company's needs are understood, the specialists collaborate with technology integration experts to plan the next steps. Regular partner meetings are held to share updates, insights, and feedback, ensuring that all partners benefit from each other's expertise. This collaborative approach helps refine the solutions and maintain alignment across the project.

Demonstrations are developed through an iterative process. If a proposed solution is not feasible, the planning cycle is revisited. Demonstrations can take place in two main formats:

- **Lab demonstrations** are conducted in controlled environments using smaller-scale equipment. These sessions focus on precision, repeatability, and early-stage testing, allowing for easy adjustments and comparisons between different technologies.
- **On-site demonstrations** are carried out in the company's actual operating environment. These involve either the mobile demonstration equipment from the technology transfer provider or full-scale equipment and emphasise real-world integration. While more complex, they provide valuable insights into customisation needs and build confidence among company stakeholders.

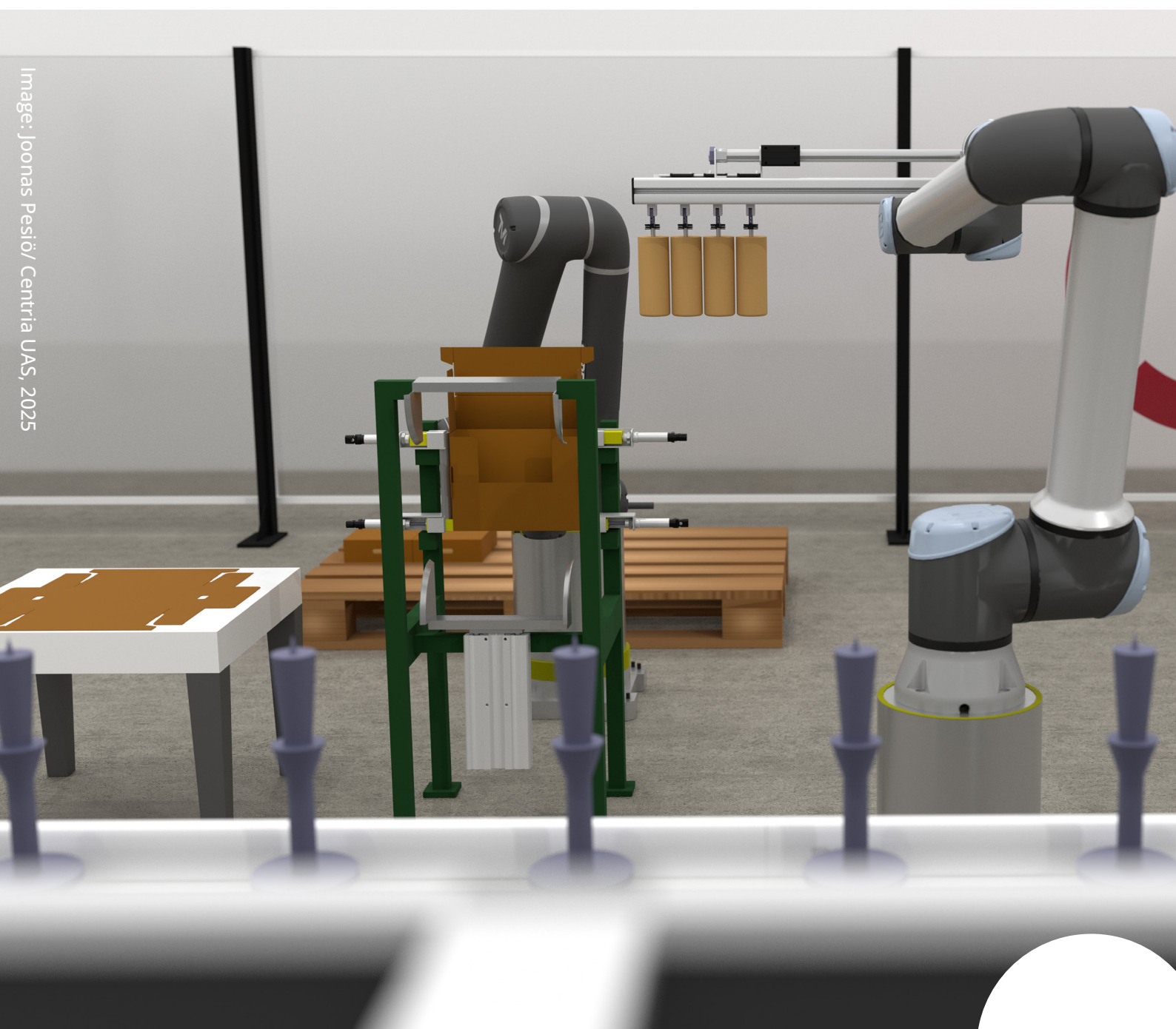


Image: Joonas Pesio / Centria UAS, 2025

Simulations are used to test the feasibility of automation solutions **without requiring physical investments**. They provide visualisations of new systems, identify space and infrastructure needs, and offer accurate lead time calculations. Simulations also help evaluate how new technologies integrate with existing systems.

Additional support activities include **lab visits, open-door events, and workshops** (image on the next page) where companies can interact with equipment and specialists. Seminars may combine practical demonstrations, guest lectures, and networking opportunities, fostering a deeper understanding of automation possibilities.

Investment appraisal tools such as Net Present Value (NPV), Payback Period, or Return on Investment (ROI) are used to help companies evaluate the financial viability of automation projects. These tools support informed decision-making and can also be used to strengthen grant applications. Some technology transfer providers can also assist companies in **preparing financial models and connecting with funding agencies**.



Tools in a nutshell

Demonstrations

- **Lab demonstrations:**
Controlled, flexible, and ideal for early-stage testing.
- **On-site demonstrations:**
Real-world integration, offering practical insights and building user confidence.

Simulations

- Use of **software** to model processes and test automation feasibility.
- Benefits include:
 - No physical investment needed.
 - Visual and data-driven insights.
 - Identification of bottlenecks and layout needs.

Additional activities

- **Workshops & seminars:**
Hands-on sessions, expert talks, and lab visits.
- **Investment appraisal:**
Financial tools like NPV, ROI, and payback period help SMEs evaluate automation investments.
- **Grant support:**
Specialists assist in preparing financial models for funding applications.

4 Monitoring, outcomes, and end-user benefits

Throughout the engagement, the progress of each company case is closely monitored and documented. Updates are stored on a shared but secured platform to ensure transparency and accessibility for the technology transfer parties. In RoboDemo, bi-weekly partner meetings provided a forum for presenting use cases, discussing challenges, and incorporating feedback.

Demonstrations and workshops are tailored to each company's needs and evaluated for effectiveness. Visual documentation, including photos and videos, is used to capture outcomes. Regular reports are submitted to the project's steering committee, and all materials are archived for future reference.

Follow-up contact is made after a set period (e.g., one year) to assess whether the proposed solution was adopted and to gather insights into the company's evolving perspective on automation. These insights, whether positive or not, are valuable for refining the model and may be shared as testimonials.

- **Progress tracking:** Continuous documentation and updates shared among partners.
- **Bi-weekly meetings:** Collaborative refinement of cases.
- **Demonstrations & workshops:** Tailored to company needs, incorporating partner feedback.
- **Evaluation:** Visual and qualitative assessment of outcomes.
- **Follow-Up:** Check in after implementation to assess adoption and gather testimonials.

Post-transfer outcomes for SMEs

The ultimate goal of the technology transfer model is to empower SMEs to make informed decisions about automation investments. This can result in several positive outcomes:

- Companies may proceed with investments based on the knowledge gained.
- Some may improve existing processes without new investments.
- Others may engage system integrators for further development or implementation support.

Beyond individual outcomes, the model fosters broader collaboration between companies and research organisations. This includes joint projects, mentoring programs, student engagement, and networking events. These activities contribute to a stronger innovation ecosystem and enhance the reputation and influence of the technology transfer providers.

Benefits for the SMEs in a nutshell

Informed investment decisions:

SMEs gain clarity on automation feasibility.

Process improvements:

Even without new investments, companies can optimise existing systems.

Access to expertise:

Ongoing support from system integrators and research partners.

New collaboration:

Opportunities for joint projects, mentoring, and networking.

Long-term impact:

Strengthens innovation culture and competitiveness in the region.

5 Imaginary company case examples

Please note that the following cases are not actual RoboDemo reference cases, but cases created for example purposes, based on the technology transfer model.

The actual case studies made by RoboDemo partners can be found as videos in YouTube:
<https://www.youtube.com/@interregnparobodemo>

1. Automating a bottleneck

Company profile:

A small metal fabrication company specializing in custom steel components for the construction industry.

Challenge:

Manual welding was a production bottleneck, limiting output and causing delays in delivery.

Technology transfer process:

- The technology transfer provider team conducted an on-site visit and used simulation tools to model the welding process.
- A lab demonstration showcased a collaborative robot (cobot) performing similar welding tasks.
- Financial appraisal (ROI and payback period) showed a return within 18 months.

Outcome:

The company invested in a welding cobot, reducing production time by 30% and improving consistency. The simulation and demonstration gave management the confidence to proceed with the investment.

2. Exploring automation without investment

Company profile:

A micro-enterprise producing custom bakery machinery for local bakeries.

Challenge:

The company lacked resources to invest in automation but wanted to explore efficiency improvements.

Technology transfer process:

- A casual interview revealed inefficiencies in the assembly process.
- Specialists invited the team to a lab for a hands-on workshop.
- A simulation was created to visualize how a simple conveyor system could streamline assembly.

Outcome:

Although no immediate investment was made, the company restructured its workflow based on insights from the simulation, improving throughput by 15%. They are now considering a phased automation plan.

3. Collaborative innovation through seminars

Company profile:

A small wood products manufacturer focused on sustainable furniture.

Challenge:

The company was unsure how automation could fit into its highly customized production process.

Technology transfer process:

- The company participated in a seminar with other SMEs and researchers
- During the event, they discussed their use case and received feedback from automation experts.
- A follow-up lab visit allowed them to test robotic sanding tools.

Outcome:

The company initiated a pilot project with a local integrator and began mentoring students on automation topics. The exposure to new ideas and peer collaboration helped them envision a long-term automation roadmap.