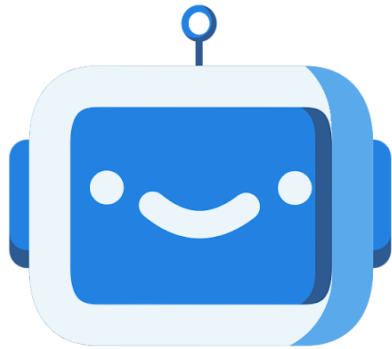
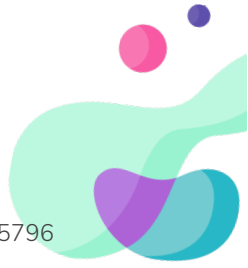
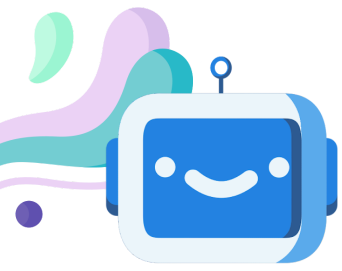




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Work Package n°2

Austria Case Library

AI Adoption in Austrian SMEs.

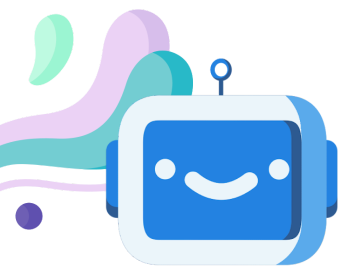
Austria has established itself as one of the more advanced adopters of Artificial Intelligence (AI) within the European SME landscape. Over the past decade, the country has combined strong national digitalisation strategies with robust infrastructure and innovation-driven policies to create fertile ground for AI experimentation and integration. As a result, many Austrian SMEs have moved beyond mere awareness and are actively embedding AI into their operations, particularly in sectors where efficiency, customer experience, and data-driven decision-making are critical.

The Austrian government has played an important role in shaping this environment. Initiatives such as the **Austrian AI Mission**, alongside a range of funding schemes and digitalisation support programmes, have lowered entry barriers for SMEs. These measures provide not only financial support but also access to advisory services and training hubs that enable companies to experiment with AI in a low-risk context. At the same time, Austria's participation in broader EU frameworks such as Horizon Europe and Digital Europe has given SMEs access to international research networks and collaborative projects, further reinforcing their ability to innovate.

Despite these advantages, challenges remain. Many SMEs continue to face **implementation costs, skills shortages, and cultural resistance** to adopting new technologies. While Austria's education system produces a relatively strong pool of technical talent, SMEs often struggle to attract and retain these professionals due to competition from larger corporations. Ethical considerations, particularly regarding data governance and algorithm transparency, also contribute to a cautious adoption pace. These gaps have been highlighted in recent **Training Needs Analyses (TNAs)**, which stress the importance of sector-specific training, modular learning opportunities, and hands-on applications to make AI adoption more inclusive and practical.

Looking ahead, Austrian SMEs are expected to deepen their use of AI as competitive pressures increase and as more accessible, user-friendly tools enter the market. Early adopters in industrial AI,





knowledge management, hospitality, and education technology have already demonstrated that SMEs can harness AI not only to optimise operations but also to redefine their value propositions. To ensure that this progress is sustained and widely shared, continued investment in digital skills, peer learning, and supportive ecosystems will be essential. Austria's ability to combine technological innovation with inclusive training and practical support will ultimately determine how successfully its SMEs navigate the AI-driven future.

SME #1	CASE TITLE:	Optimizing Industrial workflows with predictive AI		
	SME Name:	Craftworks		
	Number of employees:	<50	Years in operation:	8
	Sector:	Industrial AI/Manufacturing		

1. Overview and contents

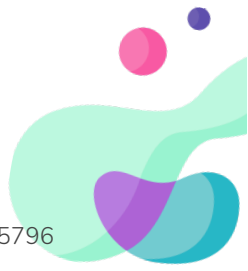
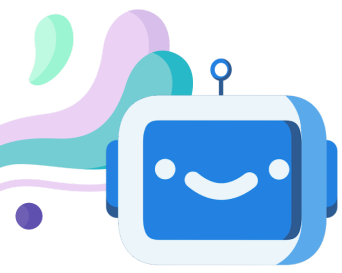
Craftworks is an Austrian SME specialising in Artificial Intelligence solutions for industrial manufacturing. Its flagship platform, Navio, leverages machine learning to provide predictive maintenance and real-time production optimisation. By enabling companies to anticipate equipment failures, streamline workflows, and reduce downtime, Craftworks illustrates how SMEs can transform industrial operations with targeted, practical AI applications.

2. Background

Headquartered in Vienna, Craftworks was founded in response to a growing demand for intelligent maintenance solutions in Austria's manufacturing sector. The company recognised that traditional approaches to machinery upkeep—based on fixed schedules and manual inspections—were inefficient and costly. Unexpected equipment failures caused production bottlenecks, financial losses, and reduced competitiveness, especially for SMEs unable to absorb such disruptions.

Austria's strong industrial base, particularly in automotive, machinery, and advanced manufacturing, provided fertile ground for innovation. Many SMEs in this space were under pressure to improve efficiency, reduce energy costs, and maintain flexibility while facing labour shortages and increased global competition. Craftworks identified predictive AI as a way to address these challenges by combining data-driven insights with practical industrial applications.





3. Approach and Implementation

Craftworks developed **Navio**, a Machine Learning Operations (MLOps) platform designed to deploy and monitor AI models in real industrial environments. The platform collects and analyses sensor data from machinery to detect anomalies, optimise performance, and anticipate failures before they occur.

Implementation typically follows a collaborative process with client companies:

1. **Data Collection:** Sensors gather information on vibration, temperature, and energy consumption across production lines.
2. **AI Model Development:** Craftworks works closely with clients to train predictive models tailored to specific machinery and production settings.
3. **Deployment and Monitoring:** Navio integrates into existing IT and operational infrastructures, providing real-time dashboards and automated alerts.
4. **Continuous Optimisation:** The system is refined through feedback loops, ensuring models adapt to evolving industrial conditions.

This step-by-step approach emphasises co-development with users, ensuring that solutions are not only technically sound but also practical and accepted by employees on the shop floor.

4. Results and Impact

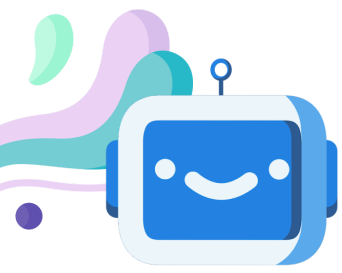
The introduction of predictive AI solutions has generated tangible benefits for Craftworks' clients:

- **Reduced Downtime:** Clients have reported significant decreases in unexpected machine failures, allowing for smoother production cycles.
- **Cost Savings:** Predictive maintenance lowered overall maintenance expenses by reducing unnecessary interventions while preventing costly breakdowns.
- **Operational Efficiency:** Real-time insights improved production scheduling, enabling SMEs to increase throughput and reliability.
- **Scalability:** By making advanced AI accessible in modular form, Craftworks empowered SMEs to adopt solutions previously limited to larger corporations.

For Craftworks itself, these successes have strengthened its reputation as a trusted provider of industrial AI and opened opportunities for growth across Europe.

5. Lessons Learned





Craftworks' journey has highlighted several key lessons:

- **User Collaboration is Key:** Successful AI deployment requires active involvement of client teams in model development and system integration.
- **Organisational Readiness Matters:** Leadership commitment and workforce training are critical to overcoming cultural resistance and ensuring adoption.
- **Tailored Solutions Outperform Generic Tools:** Customising models to the unique conditions of each manufacturing environment delivers greater accuracy and impact.

6. Future Directions

Looking ahead, Craftworks plans to enhance Navio with **generative AI features** to support even more advanced industrial decision-making. The company also aims to expand its market reach across Europe, targeting sectors such as energy, logistics, and advanced materials. Additional priorities include:

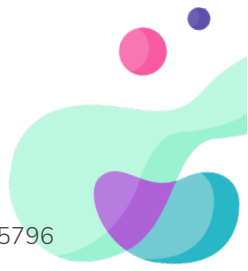
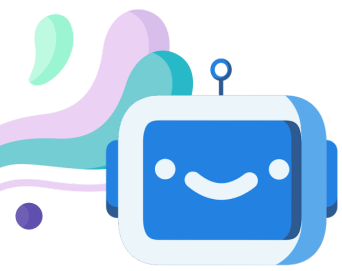
- **Sustainability Applications:** Using AI to optimise energy consumption and reduce carbon footprints in manufacturing.
- **Cross-Industry Adaptation:** Extending predictive AI applications beyond heavy industry into sectors like healthcare equipment and smart infrastructure.
- **Training Ecosystems:** Collaborating with vocational education and training (VET) providers to equip industrial workforces with the skills needed to use AI effectively.

Through these initiatives, Craftworks is positioning itself not just as a technology provider, but as a long-term innovation partner for European industry.

SME #2	CASE TITLE:	AI-Powered Knowledge Graphs for Enterprise Data Integration		
	SME Name:	Sematic Web Company		
	Number of employees:	50+	Years in operation:	16
	Sector:	Knowledge Management/Sematic Technologies		



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1. Overview and contents

Semantic Web Company (SWC), headquartered in Vienna, is one of Europe's leading providers of semantic technology solutions. Through its flagship platform, **PoolParty**, the company applies Artificial Intelligence (AI) and Natural Language Processing (NLP) to create **knowledge graphs** that unify fragmented organisational data. These technologies help large enterprises and SMEs alike overcome inefficiencies caused by disconnected systems, enabling smarter decision-making, faster reporting, and improved compliance. SWC's work illustrates how AI can transform knowledge management into a strategic asset.

2. Background

Founded in 2001, Semantic Web Company emerged at a time when businesses were struggling with rapidly growing volumes of data spread across multiple platforms and departments. Fragmented data limited visibility, slowed operations, and increased the risk of errors in reporting and compliance.

The problem became particularly acute for SMEs operating in regulated industries such as finance, healthcare, and public administration, where accurate and timely data management is essential. Austria, with its strong base of knowledge-intensive industries, provided fertile ground for SWC's expertise. Recognising that traditional IT solutions were insufficient, the company sought to develop tools that could bring together data from diverse sources and transform it into meaningful, actionable insights.

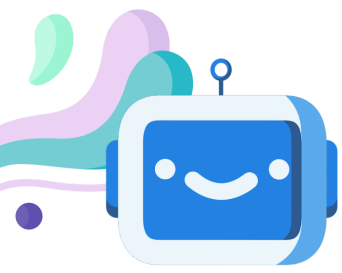
3. Approach and Implementation

Semantic Web Company developed **PoolParty**, a semantic AI platform designed to address complex data integration challenges. The platform leverages ontologies, taxonomies, and machine learning to build **knowledge graphs** that connect information across departments and systems.

Key features and implementation steps include:

1. **Data Unification:** AI and NLP technologies process and tag data from multiple sources, creating a centralised knowledge base.
2. **Automated Classification:** The system applies semantic rules to categorise documents, enabling faster retrieval and improved accuracy.
3. **Real-Time Compliance:** Knowledge graphs track changes in regulations, ensuring organisations can adapt policies and processes quickly.





4. **Custom Integration:** PoolParty integrates seamlessly with existing enterprise software, making adoption feasible for SMEs with limited IT resources.

Implementation is highly collaborative. SWC works closely with clients to design ontologies that reflect industry-specific needs, ensuring relevance and accuracy. Training programmes and workshops support end users in adopting the system and building internal capacity for long-term sustainability.

4. Results and Impact

The deployment of PoolParty has delivered significant outcomes for SMEs and larger enterprises:

- **Improved Access to Critical Data:** Users gain faster and more reliable access to essential information across organisational silos.
- **Streamlined Reporting:** Automated tagging and classification reduce the time required for preparing compliance documents and business reports.
- **Regulatory Confidence:** SMEs in heavily regulated sectors are better equipped to meet legal requirements, avoiding costly penalties.
- **Operational Efficiency:** By reducing duplication and manual data handling, organisations save time and resources.

Semantic Web Company itself has grown into a global leader, with clients across Europe, North America, and Asia. Its success demonstrates Austria's strength in developing exportable AI-driven knowledge management solutions.

5. Lessons Learned

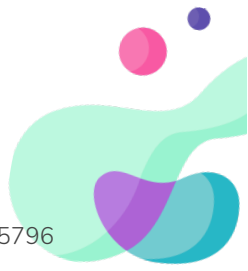
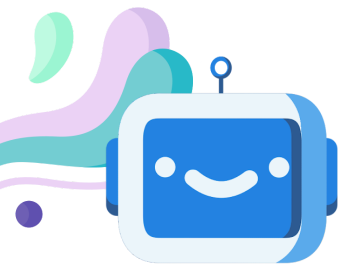
From its extensive work with SMEs and larger organisations, SWC has identified several important lessons:

- **Continuous Refinement is Essential:** Semantic AI requires ongoing development of ontologies and machine learning models to remain effective.
- **Client Engagement Ensures Relevance:** Close collaboration with clients is necessary to align knowledge graphs with real-world business needs.
- **Scalability Matters:** AI-driven knowledge management systems must be designed with scalability in mind, enabling SMEs to start small and expand usage as needs evolve.

6. Future Directions

Semantic Web Company plans to expand PoolParty's capabilities in several key areas:





- **Language Diversity:** Incorporating more multilingual features to serve international clients and cross-border enterprises.
- **Sector Expansion:** Targeting new industries such as healthcare, logistics, and public administration, where demand for real-time data integration is growing.
- **AI Augmentation:** Enhancing predictive analytics within knowledge graphs to provide not only descriptive but also forward-looking insights.
- **Educational Outreach:** Collaborating with universities and VET institutions to build digital literacy in semantic technologies, preparing the next generation of knowledge managers.

Through these initiatives, SWC continues to demonstrate how Austrian SMEs can compete globally by providing advanced, AI-powered solutions to some of the most pressing data challenges in modern business.

SME #3	CASE TITLE:	Transforming Guest Services through AI Innovation		
	SME Name:	Hotel Schani		
	Number of employees:	30	Years in operation:	10
	Sector:	Hospitality		

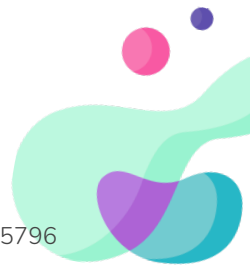
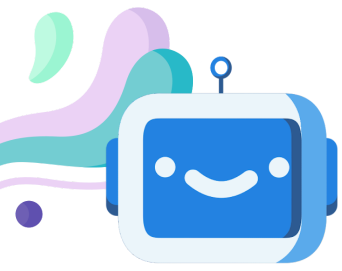
1. Overview and contents

Hotel Schani, located in Vienna, has become a model of digital transformation in the hospitality industry. By integrating Artificial Intelligence (AI) into both customer-facing and back-office operations, the hotel has developed innovative solutions to enhance guest experiences, optimise pricing strategies, and increase overall efficiency. This case highlights how even a relatively small, family-run hotel can leverage AI to remain competitive in a rapidly evolving industry while maintaining a personal, human touch.

2. Background

The Austrian hospitality sector is highly competitive, with small and medium-sized hotels competing against international chains and online booking platforms. Guests increasingly expect seamless





digital experiences, from booking to check-out, as well as personalised services tailored to their preferences.

Hotel Schani, established in 2014, recognised early on that relying solely on traditional hospitality practices would not be sufficient to maintain competitiveness. The hotel’s management identified AI as a strategic opportunity to differentiate itself through innovation, efficiency, and customer-centric services. With a strong focus on blending Viennese hospitality traditions with modern digital tools, Hotel Schani positioned itself as a pioneer in “smart hospitality.”

3. Approach and Implementation

Hotel Schani’s AI strategy has unfolded across multiple dimensions:

- AI Chatbots for Guest Interaction:** The hotel deployed chatbots on its website and booking platforms to provide 24/7 customer support. Guests can receive instant responses to inquiries, manage bookings, and request information before and during their stay.
- Dynamic Pricing Models:** Machine learning algorithms analyse market demand, seasonality, and competitor pricing to automatically adjust room rates in real time. This ensures both competitiveness and profitability.
- Smart Room Features:** AI technologies have been piloted in-room to personalise guest experiences, such as adjusting lighting, temperature, and entertainment options based on user preferences.
- Operational Efficiency:** AI systems help optimise housekeeping schedules, staff allocation, and energy consumption, reducing costs and environmental impact.

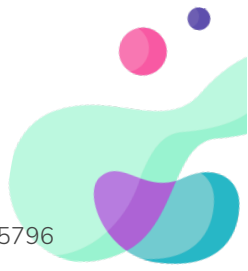
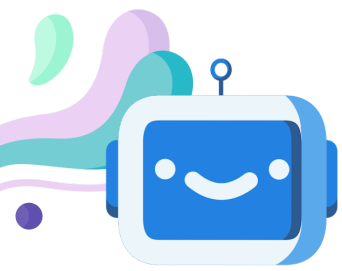
The implementation process was gradual, beginning with small-scale chatbot experiments and expanding to more advanced applications as staff and guests became familiar with the new tools.

4. Results and Impact

The integration of AI technologies has generated significant results for Hotel Schani:

- Enhanced Guest Experience:** Chatbots reduced waiting times and provided consistent service, boosting guest satisfaction.
- Revenue Growth:** Dynamic pricing models improved occupancy rates and revenue per available room (RevPAR), particularly during high-demand periods.
- Operational Savings:** AI-supported scheduling and energy management lowered operating costs without reducing service quality.





- **Brand Differentiation:** By positioning itself as a digital pioneer, Hotel Schani gained media attention and strengthened its reputation among tech-savvy travellers.

5. Lessons Learned

Hotel Schani's experience highlights several key insights:

- **Balance is Essential:** In hospitality, AI must complement—not replace—the human touch. Guests value efficiency but also expect warmth and personal interaction.
- **Transparency Builds Trust:** Explaining how AI tools (such as dynamic pricing) work helps avoid misunderstandings and builds customer confidence.
- **Staff Engagement Matters:** Successful AI adoption required training and open communication with staff, ensuring they saw technology as a support tool rather than a threat.

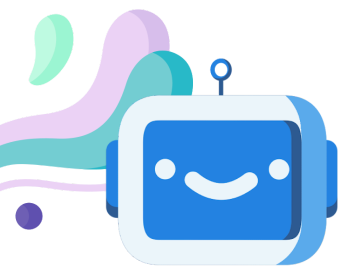
6. Future Directions

Hotel Schani plans to build on its success by expanding AI usage in new areas:

- **Personalised In-Room Experiences:** Developing more advanced smart room features, including voice-activated assistants and AI-driven entertainment recommendations.
- **Sustainability Innovations:** Leveraging AI to optimise energy and water usage, supporting Austria's broader sustainability goals in tourism.
- **Customer Insights:** Using AI-powered analytics to gain deeper insights into guest preferences, enabling even more tailored services.
- **Partnerships in Smart Tourism:** Collaborating with other hotels, tourism boards, and technology providers to promote Vienna as a hub for digital hospitality.

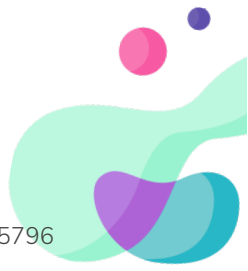
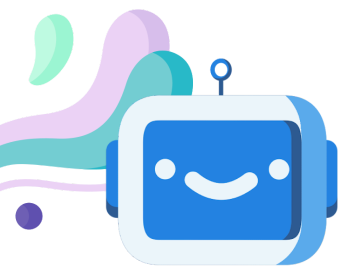
By combining tradition with innovation, Hotel Schani demonstrates how SMEs in the hospitality sector can use AI to improve competitiveness, sustainability, and customer engagement while staying true to their cultural identity.





SME #4	CASE TITLE:	AI Voice Technology in Language Learning		
	SME Name:	Speechocean (Finland)		
	Number of employees:	100+	Years in operation:	15
	Sector:	Speech and Language Technology		
1. Overview and contents				
<p>Speechocean is a Finland-based SME that develops AI-powered voice and speech technologies for education, research, and digital communication. By creating multilingual datasets, speech recognition tools, and adaptive training systems, the company enables more effective language learning and more natural human-computer interactions. Its work demonstrates how SMEs in the European edtech sector can harness AI to bridge linguistic divides and support both learners and technology developers in a rapidly globalising market.</p>				
2. Background				
<p>Founded in 2009, Speechocean emerged at a time when demand for digital language learning and voice-enabled technologies was increasing. The global rise of mobile learning apps, smart assistants, and online education platforms created opportunities for innovative speech solutions. However, the effectiveness of these tools depended heavily on the availability of high-quality speech data and robust AI models trained on diverse languages and accents.</p> <p>Speechocean identified this gap and set out to provide the data and technologies required to improve language learning outcomes and support AI development across multiple industries. For SMEs, educators, and tech companies alike, the ability to integrate voice interfaces and adaptive pronunciation training became a competitive advantage.</p>				
3. Approach and Implementation				
<p>Speechocean developed a comprehensive portfolio of AI-driven tools and resources designed to improve language acquisition and support the development of voice-based applications. Key aspects of their approach include:</p> <ol style="list-style-type: none">Speech Recognition for Learning: AI models analyse learners' pronunciation and provide instant corrective feedback, helping them improve fluency and accuracy.				





2. **Multilingual Speech Corpora:** The company produces large, culturally diverse datasets to train AI systems across dozens of languages and dialects.
3. **Natural Language Processing (NLP):** Advanced NLP techniques allow for more accurate parsing of learner input and better adaptation of exercises.
4. **Integration with EdTech Platforms:** Speechocean collaborates with language learning companies and educational institutions to embed its tools directly into learning environments.

Implementation combines internal R&D with external partnerships. The company works with edtech providers to ensure its tools address real classroom and learner needs, while also collaborating with AI developers seeking training data for voice-enabled systems.

4. Results and Impact

Speechocean's solutions have achieved significant results across education and technology sectors:

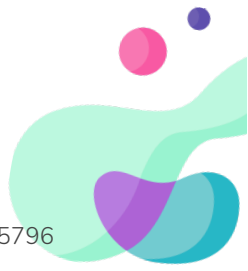
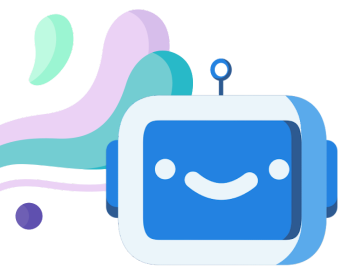
- **Improved Learning Outcomes:** Learners using AI-powered pronunciation training reported faster progress and higher retention rates compared to traditional methods.
- **Wider Accessibility:** The company's multilingual datasets support learners of underrepresented languages, expanding opportunities for global education.
- **Industry Adoption:** Speechocean's corpora and speech recognition technologies are widely used in AI research and product development, influencing both consumer apps and enterprise solutions.
- **Market Recognition:** The company has been acknowledged as a key European contributor to language AI, partnering with major edtech firms and research institutions.

5. Lessons Learned

Several lessons have emerged from Speechocean's work:

- **Diversity is Crucial:** Developing accurate AI voice systems requires datasets that reflect diverse cultural and linguistic backgrounds.
- **Partnerships Drive Adoption:** Collaborating with edtech companies ensured tools were effectively integrated into learning environments.
- **Continuous Validation:** AI models must be tested and updated regularly to maintain accuracy and usability as languages evolve.





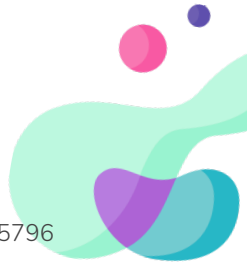
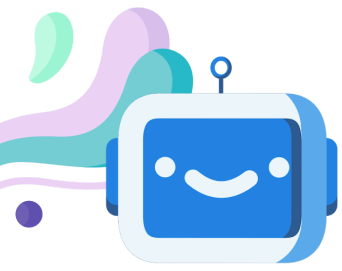
6. Future Directions

Looking forward, Speechocean aims to expand its influence in both education and technology sectors:

- **Underrepresented Languages:** Increasing coverage of lesser-taught languages to support inclusivity and preserve linguistic diversity.
- **Emotion Recognition:** Developing AI capable of detecting tone and emotion, allowing for more engaging and personalised learner interactions.
- **Voice Interfaces Beyond Education:** Applying its technologies to broader markets, including healthcare, customer service, and accessibility solutions for people with disabilities.
- **Cross-Border Collaboration:** Strengthening partnerships with European research projects to position itself as a leader in speech technology innovation.

By combining technical expertise with a strong commitment to education, Speechocean demonstrates how SMEs can use AI to transform language learning while contributing to wider developments in human-computer interaction.





Conclusion

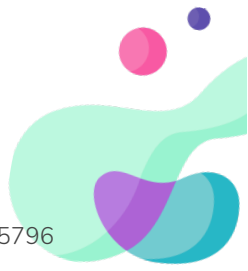
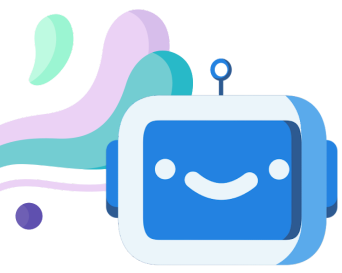
The analysis of AI adoption among Austrian SMEs shows a landscape shaped by both opportunity and complexity. Austria has benefited from strong national digitalisation strategies, advanced infrastructure, and proactive government initiatives such as the Austrian AI Mission. These efforts have positioned SMEs to experiment with AI in ways that enhance efficiency, competitiveness, and customer experience. Yet, the pace of adoption remains uneven, with gaps in skills, costs, and cultural readiness continuing to challenge many smaller businesses.

The four case studies illustrate diverse pathways to AI integration across multiple sectors:

- **Craftworks** demonstrates how predictive AI can transform manufacturing by minimising downtime, cutting costs, and enabling SMEs to access industrial-grade innovation traditionally dominated by large corporations.
- **Semantic Web Company** highlights the strategic value of AI-powered knowledge graphs, showing how SMEs can unify fragmented data systems and enhance compliance, especially in knowledge-intensive industries.
- **Hotel Schani** reveals the potential of AI in hospitality, where chatbots, dynamic pricing, and smart operations improve guest satisfaction while maintaining the balance between automation and human service.
- **Speechocean** provides a cross-border example of how AI in speech technology can enrich language learning and human-computer interaction, with lessons applicable to Austrian SMEs seeking to enter global markets.

Taken together, these cases reinforce several transferable lessons:

- **Clarity of Purpose:** SMEs succeed when they adopt AI with concrete goals, such as optimising workflows, improving customer engagement, or meeting regulatory needs.
- **Human-Centred Adoption:** Technology alone is insufficient; staff training, cultural change, and transparency are vital to ensure trust and long-term use.
- **Customisation is Key:** Off-the-shelf solutions rarely provide lasting value—tailored models and co-development with users drive better results.
- **Strategic Ecosystems:** Collaboration with public bodies, training providers, and industry networks accelerates adoption and reduces risks.

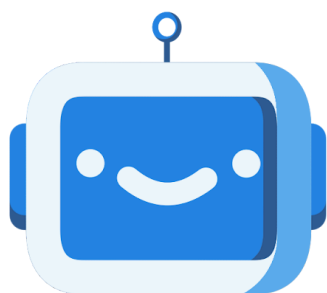


- **Sustainability and Scalability:** SMEs that design modular systems and plan for long-term integration are better positioned to grow and adapt.

Despite these successes, persistent barriers remain. Many SMEs struggle with the costs of initial investment, limited technical expertise, and uncertainty around ethical and regulatory frameworks. Austria's Training Needs Analyses (TNAs) underscore that future progress depends on flexible, sector-specific training formats, peer-to-peer learning opportunities, and stronger links between SMEs, academia, and policymakers.

Looking ahead, Austria has the potential to strengthen its role as a European leader in SME digital transformation. By promoting success stories like those of Craftworks, Semantic Web Company, Hotel Schani, and Speechocean, Austria can encourage wider adoption and inspire smaller firms to experiment with AI. Continued investment in digital skills, support structures, and collaborative innovation will be essential to ensure that AI does not remain the privilege of early adopters but becomes a driver of growth, inclusion, and sustainability across the Austrian SME sector.





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