

# University Academic Curriculum Vitae

---

## Personal Information

Name: Michaela Golser  
ORCID-ID  
Scopus-ID:

## Education since leaving school

2017 – 2020 | Bachelor of Science in Biology | University of Vienna  
Focus on Zoology  
Grade 2.9

Bachelor Thesis: Individual differences in the sounds of Passeier mountain goats

Unpublished research paper: The Post-ovipositional development of the head of the corn snake, *Pantheropsis Guttatus* (Serpentes: Colubridae)

2020 – 2022 | Master of Science in Engineering | University of Applied Sciences Technikum Wien)

Degree program: Ecotoxicology and Environmental Management  
Grade 2.0

Master Thesis: Environmentally friendly food packaging in the agricultural small-scale sector, using the example of direct marketing in South Tyrol

Unpublished research paper: Sustainability Report 2019 of the UAS Technikum Vienna

## Present appointment

Research Fellow – Sustainable Manufacturing Lab  
Industrial Engineering & Automation (IEA) Research Group  
Faculty of Engineering  
Start of Appointment: 14. January 2024 (contract duration 4 years until December 2027)  
First 4 months working on the EU project SME 5.0 “A Strategic Roadmap Towards the Next Level of Intelligent, Sustainable and Human-Centered SMEs”. Project in collaboration with 16 international partners worldwide.

Since May 2024 working in the EU-funded project EE4M (Engineering Excellence for the Mobility Value Chain) focusing on developing innovative solutions in engineering for fostering sustainability in the automotive value chain. Project in collaboration with academic and industry partners from Italy, Austria, Greece and Spain.

## Responsibilities:

Responsible for research activities focusing on sustainable manufacturing design within the automotive industry.  
Conduction of life cycle analysis (LCA) at both company and product

levels to identify areas for increased sustainability.

Develop innovative methods for sustainability monitoring in operations, aligning with CSRD guidelines and ESRS standards for sustainability reporting.

Participation in the planning, organization, and implementation of training courses to disseminate knowledge on sustainable production methods.

Document research findings through scientific papers, project reports, and project proposals.

## Professional Experience

Summer 2020 (3 months) | Laboratory Trainee | ARA Pustertal AG wastewater treatment plant

Responsible for: chamber filter press, equipment identification in the control cabinets and daily laboratory analysis of inlet and outlet analyses, such as: CSB, BSB5, TOX, pH-value, NH4-N, NO3-N, NO2-N, PO4-P

Summer 2021 (3 months) | Administrative employee | Healthcare enterprise Bruneck

Responsible for: Admission screening in pre-triage during the pandemic

Apr 2022 – Dec 2023 | Sustainability Manager for Environment, Energy, Waste and Quality Management Systems | GKN Driveline Bruneck

Responsible for: all business areas related to environment, sustainability, CO2 emissions, energy, waste management and quality management, carrying out Life Cycle Assessments (LCA), RADAR and system audits  
Achievements and responsibilities (selection):

- Successful completion of LCA projects (e.g. AWD Differential) in GaBi (thinkstep s.r.l.)
- Successful creation of the sustainability report
- Successful completion of Health, Safety and Environment (HSE) audits.
- Successfully supported various system audits such as IATF 16949 & ISO 9001.
- Successfully developed and published the ISO 50001 and ISO 14001 manual for GKN BRU.
- Successfully produced and published various energy, sustainability and health media (newsletters, newspaper articles, intranet postings, posters).
- Successful completion, documentation and status tracking of various projects concerning energy and environment
- Representative of GKN ePowertrain Bruneck at ISO-Circle
- Representative of GKN ePowertrain Bruneck in Automotive Excellence Südtirol (AES) Hub and Innovation Community and IN MOTION events (as environmental expert)
- Assuring/improving and enhancing environmental, energy, waste and QMS management
- Planning and execution of LCA's, RADAR and internal HSE Audits
- Training/supporting new employees in management systems, risk management, safety, environment and quality
- Customer Service regarding sustainability and environment (NQC, MMOG)

- Administration of the document management system (DMS/IMS)
- Responsible for the energy management team (GKNergy) as well as the environmental management team (GKN Green Team)

Aug 2023 – Dec 2023 | Management System Representative for the integrated management system (HSE + QM) | GKN Driveline Bruneck  
Responsible for: monitoring and ensuring compliance with quality, energy, environmental, health and safety and general management standards, facilitating audits, implementing continuous improvement initiatives, IATF 16949, ISO 50001, ISO 14001, ISO 45001, ISO 9001

**Participation in research projects**

Feasibility study for Live Carbon Footprint tracking (LG-14 project)  
Project in cooperation with Fraunhofer Italia Research AG and the Free University of Bolzano;  
Team member and representative of GKN Driveline.  
The aim was to create a structured and standardized method for LCAs for suppliers in the automotive industry, according to GRI standards and ISO standards (ISO 14040:2006, ISO 14044:2006 and 14067:2018). The duration of the project was one year.

**Experience in academic Teaching**

Assignment as 18 hrs Teaching assistant in the course “Technologies and Production Processes for Energy Engineering” in the Master Program for Energy Engineering (LM30) – Preparation and conduction of lab assignments for life cycle assessment and energy audit (ISO 50001)

**Other teaching**

Speaker and exercise responsible for the 2-day Seminar on “Life cycle assessment in production companies” at NOI Techpark Bruneck, 07.02.2024, organized in collaboration with the Chamber of Commerce of Bolzano. <https://www.handelskammer.bz.it/de/news/veranstaltungen/life-cycle-assessment>

**Research stays abroad**

February 2024 – April 2024 (2 months) – Research stay at Deakin University in Melbourne Australia working on environmental sustainability for small and medium sized enterprises. Collaboration with Prof. Andrea Trianni from University of Technology Sydney (UTS Tech Lab).

**Exhibitions/speeches**

Presentation of research works and demonstrators of Industry 4.0/5.0 at Tipworld fair 2024 in Bruneck (3 day event from 6-9 April 2024)

Keynote speech about sustainable packaging with Georg Grünbacher (Intercable slr.) during the IN MOTION Tech Festival 2023 in Bruneck (2 day event from 25-26. May 2023)

Radio interview on carbon footprint measurement in the automotive sector at Radio Holiday (April 2023)

**Publications**

Presentation of the poster “The carbon Footprint of an Austrian Institution of Higher Education” by Ursula Knaack, Manuel Della-Rosa, Michaela Golser, Romana Ransmayr, Calvin Szczur, Michael Schwingshackl, at the SETAC Conference 2023

Rauch, E., Bataleblu, A. A., Golser, M., Emer, A., & Matt, D. T. (2024).

Potential of Graph Database Visualization of the Supplier Network to Increase Resilience in Multi-tier Supply Chains. In International Scientific-Technical Conference MANUFACTURING (pp. 125-139). Cham: Springer Nature Switzerland. Scopus indexed.

Atarisharghi, E., Bataleblu, A. A., Emer, A., Golser, M., Rauch, E., & Matt, D. T. (2024). Application of Life Cycle Assessment (LCA) in the Fast-Moving Consumer Goods Sector. In International Scientific-Technical Conference MANUFACTURING (pp. 254-268). Cham: Springer Nature Switzerland. Scopus indexed.

Golser, M., Hofer, A., Kargruber, J. & Rauch, E. (2024). Integrating Stakeholder Engagement: Refining Engineering Education for the Mobility Value Chain. In ISM 2024 - International Conference of Industry 4.0 and Smart Manufacturing. Prague, November 2024. Submitted paper.

Kargruber, J., Golser, M., Hofer, A., & Rauch, E. (2024). Determining Training Requirements to Promote Circular Economy and Decarbonization in Production. In ISM 2024 - International Conference of Industry 4.0 and Smart Manufacturing. Prague, November 2024. Submitted paper.

## Qualifications

- Certification for Waste management officer according to GZ: BMLFUW-UW2.1.4/0004-VI/2008
- EBC\*I (International Business Competence) – Level C
- Certification for Environmental Officer according to GZ: BMLFUW-UW2.1.4/0004-VI/2008
- Internal Auditor for environmental management according to ISO 14001:2015
- QM-Basics / internal Auditor according ISO 19011:2018
- Automotive Core Tools for Process and System Auditors
- ADR Dangerous Goods Regulations Road Course
- Course “Come si sposa la sostenibilità con la gestione degli aspetti HSE”
- Training to become internal energy management system auditor and energy officer according to EnMs-TÜV®
- Energie Management System Specialist EnMS-TÜV

## Software/Hardware Skills:

### Software skills:

- GaBi, OpenLCA
- Provisus – occupational safety software
- Babtec – quality management software
- EcoRegs – waste management software
- Visual Shopfloor – manufacturing execution system (MES)
- ERPLn
- Oracle
- IBM SPSS Statistics 25
- MS Office
- MS Teams
- Analysesoftware Praat V. 6.1.03
- ClimCalc 2.0
- Vensim (Ventana systems) simulation software

- MAXQDA 2022
- Amira
- Grafana – energy monitoring software

Hardware Skills:

- Environmental and chemical Lab equipment
- HPLC High-performance liquid chromatography
- PCR
- Lab test equipment for water and soil analysis
- Gram staining
- Tissue staining
- Electronic Microscope
- Optical Microscope
- Micro-CT-scanner

Language Competencies

German	- C2 native language
Italian	- C1 (Certificate of bilingualism from the province of South Tyrol)
English	- C1