

March 23, 2018

A Letter from the West

Currently, the Chair of Industrial Logistics is actively involved in an international project, “SME 4.0 – Industry 4.0 for SMEs”, funded from the European Union’s Horizon 2020 programme. We are partner in a consortium including the University of Bolzano, Worcester Polytechnic Institute (WPI), Massachusetts Institute of Technology (MIT) and the University of Chiang Mai, Thailand, among others.

This is a project of high strategic importance, developing models and solutions for the implementation of Smart Production and Smart Logistics for SMEs. Industrial Logistics Leoben leads the work package on Smart Logistics.

An integral part of the project are secondments, the temporary transfer of researchers from their home university to assignments at one of the partner universities. Johannes Kapeller has been at Chiang Mai University in Thailand for two months, Susanne Altendorfer-Kaiser at the Technical University of Košice, Slovakia for one month.

Since February 1, I am at WPI (Worcester Polytechnic Institute), one of the oldest technical universities in the US. I work with Prof. Christopher Brown at the Department of Mechanical Engineering. Chris is one of the leading experts on Axiomatic Design (AD), a structured approach to develop products and systems. AD was created by Nam Pyo Suh at Massachusetts Institute of Technology (MIT), located just a few miles from here.

We are applying AD in the context of supply chain design (including Industry 4.0 methods), a rather novel approach.

Yesterday we had a workshop with local enterprises and graduate students. Until just before opening, this was threatened by another Nor'easter, one of the snowstorms that were quite frequent over the last weeks. The event was hosted by Prof. Chris Brown (WPI) and myself. Based on the results from a previous workshop, concepts and methods from supply chain design and axiomatic design were brought together in order to develop supply chains in a structured and systematic way.

A total of 11 people from small and medium sized enterprises and some graduate students participated in this workshop in the Sports & Recreation Center at WPI.

After introductory presentations, participants worked interactively on a decomposition of required functions and physical solutions. This approach produced good results and seems to offer much potential. It was a great experience.

Follow-up activities and several joint publications are in preparation.

My time in Worcester is near the end. I will be back in Leoben on 5th April. Looking forward to that!

Helmut Zsifkovits
Worcester, Massachusetts

Some impressions ...



Washburn Labs, my office is on the second floor.

Robert Goddard worked here, who is credited with creating and building the world's first liquid-fueled rocket, and had the idea of launching a rocket to the moon - in 1919. Rocket science.



Yesterday's workshop.



Stormy Weather.