CURRICULUM VITAE

Name: Mag. Dr. Gerald Spreitzhofer

Citizenship: Austria

Languages: German, English, Spanish, French

CEO of MetGIS GmbH

Education:

University:

1986 - 1992: Study of Meteorology and Geophysics at the University of Vienna,
master thesis: "Starkschneefälle in Österreich aus statistischer und synoptischer Sicht"
(severe snowstorms in Austria as seen from the statistical and synoptic points of view)
 Aug. 1992: Graduation ("Magister"-degree)
1993 - 1996: Ph.D.-dissertation (Boulder, USA); thesis: "The WELS weather prediction system–
adaptation and validation for the Alpine region"
 1994: Classes in mountain climatology and glaciology at the Univ. of Colorado in Boulder (USA)
 July 1996: Ph.D.-degree from the University of Vienna

Further Education and Certificates:

1995, 1996: Spanish courses in Boulder (USA) and Quito (Ecuador)
1997, 1998: advanced training classes at the ECMWF (UK): predictibility, parametrizations, data
assimilation and use of satellite data
1998, 2006: rhetorics classes at the Volkshochschule Wr. Neustadt and at University of Vienna
2001: Project management at the University of Zuerich (Switzerland)
2002: Satellites and meteorology, Oberpfaffenhofen (Germany)
2003: Data source Internet, University of Zuerich (Switzerland)
2006: Marketing class and economics crash course with life-science.at (Vienna, Austria),
acquisition of the "European Business Competence Licence" (EBCL)
2009: Spanish crash course (advanced level) at the LAI (Latin American Institute), Vienna (Austria),
Tutorial for the WRF atmospheric model in Cambridge (UK)
2010: Training class for EBCL, Level B, at VHS Simmering
Project Management Course at VHS Meidling, Vienna (Austria)
2011: International Project Management Certification (incl. oral exam and thesis), IPMA, Vienna (Austria)
2012: HTML and Web Design classes, University of Vienna (Austria)
2013: Expert Seminar "The optimal webshop", Web Direct, Vienna (Austria)

Work and Research Experience:

1994 - 2000: Work for the American *WELS Research Corporation* (since 1999 doing business as Alden Electronics, Inc.); partly at the University of Vienna, partly in Boulder, Colorado (1994-1995, 1997). Some of the major work tasks included the adaptation of the WELS mesoscale weather prediction computer model and graphical user interface to the European environment, data decoding and assimilation, model nesting, model verification, test of various parametrizations schemes, automation of the forecast processing for the operational employment, user

interface translation into German, French and Spanish; production of installation CDs, internal reports, user manuals and bids; customer training and support; organization of exhibitions and presentations.

2001 - 2003: Scientist position at the *Swiss Federal Institute for Snow and Avalanche Research (SLF)* in Davos, Switzerland. Major work tasks were the construction of an advanced Java-based GUI for the output of snowpack models and downscaling of the output of meteorological forecast models.

Aug. - Nov. 2003: Work as a consultant at the *Servicio Nacional de Meteorologia e Hidrologia (SENAMHI)* in Lima, Peru. The principal subject of the work was the design of a combined Java-based geographic and meteorological information system adjusted to the specific needs of the Peruvian Weather Service.

Mar. 2004 – Mar. 2005: Work for the Japanese *National Research Institute for Earth Science and Disaster Prevention (NIED)*, Nagaoka Institute of Snow and Ice Studies, partly as a visiting scientist in Japan, partly in Austria. Extension of the visualization system designed in Peru, development of a concept to integrate the Swiss snowpack visualization into the geographic and meteorological visualization.

July – Sept. 2005: Work at the *Instituto Argentino de Nivología, Glaciología y Ciencias Ambientales (CRYCIT/IANIGLA)* in Mendoza, Argentina, as a visiting scientist. Inclusion of high-resolution terrain and meteorological data of the Andes into the visualization system.

Oct. 2005: Start of work at the Institute of Meteorology and Geophysics, *University of Vienna.* Work included the design of high-resolution vector data bases, the coupling of meteorological and geographic information systems, the terrain-related representation of meteorological forecast parameters (focussing on snow) and the development of the operational forecast system MetGIS.

Jan./Feb. 2008: during a research stay at the **University of Chile** in Santiago de Chile work preparing the combination of MetGIS with the WRF model was processed

Sept. 2009 – Sept. 2012: Coordination of a project ("Optimization of GIS-based meteorological forecast systems") of the Austrian Science Foundation (FWF) and a number of smaller scale customer-oriented projects. Continuation of the development of MetGIS. Work focused on the improvement of the forecast of the snow line, of temperature inversions and of the distribution of precipitation, the issue of point and line forecasts and the extension of the forecast range to 7 days.

April 2013: founding **MetGIS GmbH**. Spreitzhofer is its CEO since the start of this company.

Dec. 2012 – Dec. 2014: Coordination of the FFG project "Optimization of innovative methods for the calculation and visualization of extremely high-resolution weather forecasts", processed jointly by the University of Vienna and MetGIS GmbH. Project work focused on land use data, the weather along vertical cross sections and on zoomable weather maps.

Sept. 2015 – Sept. 2016: Coordination of the AWS project "Hoch aufgelöstes Wetter: Schnittstellen und Design". Creation of smart Application Programming Interfaces (APIs) for meteorological forecast data.

Scientific conferences and papers:

More than 40 international scientific conferences have been attended, mostly giving oral or poster presentations. These meetings were related to topics such as road weather, climate change, snow, avalanches, mountain meteorology and geoinformatics and took place in the following countries: USA, Canada, Australia, India, Nepal, Japan, Brazil, Chile, Cuba, Austria, Germany, Italy, Belgium, France, Spain, Andorra, Switzerland, UK, Sweden and Slovakia.

As a lead author, around 50 scientific papers have been published in 4 languages (German, English, French and Spanish) in international journals and conference proceedings.