

CURRICULUM VITAE

1. **Family name:** WEIDENBACH
2. **First names:** Markus
3. **Date of birth:** 01.12.1964
4. **Nationality:** German
5. **Civil status:** Married
6. **Education:**



Institution	Ludwig-Maximilians-University Munich, Institute for Land Use Planning and Nature Conservation.
Date (month/year):	from 02/1995 to 02/1999
Degree(s) or Diploma(s) obtained:	PhD (Dr. rer. silv.), Thesis: Geographic Information Systems and New Digital Media in Land Use Planning (see: http://landconsult.de/markus/diss).

Institution	Ministry for Rural Development, Agriculture and Forestry, Baden-Wuerttemberg
Date (month/year):	from 06/1991 to 06/1993
Degree(s) or Diploma(s) obtained:	Superior State Examination in Forestry (Assessor des Forstdienstes)

Institution	Albert-Ludwigs-University Freiburg, Germany
Date (month/year):	from 10/1987 to 03/1991
Degree(s) or Diploma(s) obtained:	MSc in Forest Science and Land Use Planning

Institution	Albert-Ludwigs-University Freiburg, Germany
Date (month/year):	from 10/1985 to 10/1987
Degree(s) or Diploma(s) obtained:	BSc in Forest Science

Institution	High School of Economics in Freudenstadt, Germany
Date (month/year):	from 09/1981 to 09/1984
Degree(s) or Diploma(s) obtained:	Matriculation

7. **Language skills:** (increasing competence from 1 to 5)

Language	Reading	Speaking	Writing
German	5	5	5
English	5	5	5
French	4	3	3
Italian	3	2	2
Spanish	1	1	1

8. Membership of professional bodies:

German Association of Freelance Forestry Experts (Bundesverband Freiberuflicher Forstsachverständiger e.V.)
German Forest Association (Deutscher Forstverein e.V.)
Forestry Board of Baden-Wuerttemberg - Association of Forest Land Owners (Forstkammer Baden-Württemberg)
International Society of Photogrammetry and Remote Sensing, Working Group VIII/2

9. Other skills (Computer literacy):

- Operating Systems: Windows, Linux, Android, DOS
- GIS, LiDAR, Photogrammetry and Image Processing: QGIS, ArcGIS, SAGA-GIS, GRASS, Orfeo, Remote Sensing Graz (RSG Photogrammetry Suite), AgiSoft, LAsTools, FUSION, e.cognition.
- GNSS and Terrestrial Laser Scanning Systems: Trimble and Stones GNSS, FARO Focus 3D.
- Databases: PostgreSQL/PostGIS, MySQL, MSAccess, Spatial Lite.
- Server Applications: Microsoft Server IIS and Apache HTTP Server, QGIS Server and QGIS Webclient. CMS: Joomla and MS SharePoint
- Web Design, Internet Programming, Desktop Publishing: HTML, XML, KML, ASP, CSS and JavaScript, LibreOffice, MSOffice and Adobe Photoshop.

10. Present position: Owner of landConsult.de, Bureau for Environmental Planning, Geographic Information Management and Consulting in Bühl, Germany.

11. Key qualifications:

More than 25 years of professional experience in Geographic Information Management (including GIS, Remote Sensing, Photogrammetry, LiDAR and 3D modelling), in forest management, regional and land use planning, public administration, international research, project management and in public planning mediation.

Team Leader and short-term expert in several EU and UN funded projects. Technical Assistance to the tendering and procurement procedure, project identification and completion of projects, e.g. - to support the national GIS Infrastructure for a better land use policy in Albania, - to implement the EU Water Framework Directive in Poland, - to strengthen the Conservation of Biodiversity and the Management of Natural Resources in Romania, Bulgaria and Turkey, - to install a national Environmental Impact Assessment System (EIA/SEA) in Poland, - to develop Database and WebGIS for REDD+ project in Mongolia, or - to develop a European Forest Information System at the European Commissions’ Joint Research Centre in Ispra/Italy.

Lecturer at the University of Freiburg for the international MSc Environmental Governance Programme (MEG) and degree program MSc Environmental Science.

12. Specific Countries Work Experience:

Country	Date:
Germany	permanent since 1991
Mongolia	April 2015 – May 2015
Romania	Between Aug. 2005 – May 2006
Turkey	Between Dec. 2004 – July 2005
Bulgaria	Between Dec. 2004 – Oct. 2005
Poland	Between Jan. 2002 – May 2004
Albania	Jan. 2001 - March 2001
Italy	Nov. 1999 - June 2001
Argentina	Jan. 1996 – Feb. 1996
Nepal	July 1989 - Oct. 1989
Togo and Benin	June 1988 - Sept. 1988

13. Professional Experience Record:

Date: from	January 2001 to date
Location	Italy, Albania, Poland, Turkey, Bulgaria, Romania, Mongolia, Germany
Company	landConsult.de, Bureau for Environmental Planning and Geographic Information Management
Position	Managing Director and Owner
Description	<p><i>Projects and awarded contracts:</i></p> <p><i>since 2017: Teaching GIS/RS for regional and environmental studies at the Albert-Ludwigs-University of Freiburg (MSc Environmental Governance Programme and MSc Environmental Science).</i></p> <p><i>since 2009 – to date, 3D Forest Inventories, development of 3D GIS projects and management plans for several forest owners, managers and researchers based on Laser Scanning data (LiDAR), drone (UAS), aerial and satellite imagery and photogrammetrical 3D models.</i></p> <p><i>Giving GIS/RS training on-the-job for forest planners and managers.</i></p> <p><i>12/2016 – 05/2017 employed by University of Freiburg to develop a LiDAR and Aerial Photo based information system for a study area in the Black Forest National Park to monitor and control the dynamics of bark beetle populations.</i></p> <p><i>10/2014 – 11/2015 contracted by Österreichische Bundesforste for GIZ REDD+ National Forest Inventory Project in Mongolia. Key expert for Database Management and Forest Atlas (WebGIS) development.</i></p> <p><i>12/2013 – 10/2014 contracted by Forest Land Owner Association Northern Black Forest to co-ordinate and manage the EU- and Federal State funded Research Project “3D Forestry – Large Scale Digital Forest Inventory based on Aerial Stereomodels, CIR and LiDAR Data for Private and Community Forests” (see http://landconsult.de/wbv).</i></p> <p><i>10/2013 – 01/2014 contracted by Staatsbetrieb Sachsenforst for a Terrestrial Laserscanning (LiDAR) campaign on some 5 ha of Forest Research Sites in Saxony (see http://landconsult.de/tls).</i></p> <p><i>01/2013 – 07/2013 contracted by Unique Landuse GmbH to perform a computer automated Inventory of private Forest Land in Luxembourg based on Digital Crown Models processed from Aerial CIR Images.</i></p> <p><i>10/2012 – 01/2013 contracted by Staatsbetrieb Sachsenforst to combine Airborne with Terrestrial Laserdata and with Digital Stereomodels of Aerial Images to measure individual crown parameters on all forest research stands in Saxonia. Project title: Herleitung von Kronenparametern für Einzelbäume mit Methoden der Fernerkundung.</i></p> <p><i>10/2011 – 01/2012 contracted by Staatsbetrieb Sachsenforst to process LiDAR and digital Aerial Images to detect and measure individual crown parameters on selected forest research stands in Saxonia. Project title: Nutzung von Methoden der Fernerkundung auf ertragskundlichen Versuchsflächen.</i></p> <p><i>06/2011 – 08/2011 Photogrammetric Development and Application of 3D Tree Crown Models processed from ordinary digital Aerial Imagery. Awarded Innovation Project in co-operation with Joanneum Research Institute in Graz, co-financed by landConsult.de and the Ministry of</i></p>

Economics Baden-Württemberg (see <http://landconsult.de>).

10/2010 – 01/2011 application process for a research project in the scope of the 7th EU framework programme (FP7). Program activity 2.1: “Sustainable production and management of biological resources from land, forest and aquatic environments.- KBBE 2011.1.2-07: Preserving the multi-functionality of European Mountain Forest” together with 10 research partners from 8 countries.

06/2009 – 11/2009 contracted by the University of Freiburg to support the application process for a research project in the scope of the BMBF framework programme “Sustainable Land Management – Module B: Innovative Solutions for Sustainable Land Management Systems.”

09/2008 – 11/2008 contracted by South African Pulp and Paper Industries to process Quickbird Satellite Imagery in order to automatically detect and map individual trees and stand openings on 6.400 ha of eucalyptus and pine plantations.

01/2008 – 11/2008 study to analyse the fusion of Quickbird Satellite imagery with airborne LiDAR data for the inventory of selection forests in the northern Black Forest in Germany. Results presented on international conferences in Freudenstadt (<http://landConsult.de/ProSilva>), in Edinburgh (<http://landConsult.de/SilviLaser08>) and in Bucharest (<http://landConsult.de/ICAS08>).

06/2007 – 03/2008 contracted by the State Forest Administration Sachsenforst, Pirna, Germany. Study to process Color-Infrared Orthophotos and Airborne Laser Scanning Data to retrieve forest information on two different test sites in Saxony.

03/2006 – 12/2008, development and research work for [landConsult.de](http://landconsult.de) Airborne Laser Scanning and Satellite Imagery Applications for High Precision Automated Forest Inventories and Land Cover Analysis (see <http://landconsult.de/home/innovation>).

03/2006 – 08/2008, contracted by the University of Freiburg, Institute for Remote Sensing and Landscape Information Systems, Germany GIS/IT Consultant and Senior Scientist to support the research project "MatchWood - Optimizing the Forestry - Wood Chain to Strengthen Sustainable Forest Management". The contract is focusing practical applications of the latest Laser Scanning (LiDAR), RS and GIS technology for forestry.

*08/2005 – 05/2006 contracted by Montgomery Watson Harza (MWH), La Hulpe / Brussels, Belgium
Team Leader of an international experts team in Romania and Bulgaria. Technical Assistance to the Ministry of Agriculture, Forests and Rural Development and ROMSILVA in Bucharest and the Ministry of Agriculture and Forestry and the Ministry of Regional Development and Public Works in Sofia. Promotion of Sustainable Development and Conservation of Biodiversity in the Bulgarian-Romanian Cross Border Region on the Black Sea Coast (Dobrogea).*

*12/2004 - 07/2005 contracted by Montgomery Watson Harza (MWH), La Hulpe / Brussels, Belgium
Team Leader of an international planning team in Turkey and Bulgaria.*

Technical Assistance to the State Planning Organization and the Ministries of Agriculture and Forestry and the Ministry of Environment in Ankara and Sofia. Identifying Actions for the Protection and Sustainable Development of Natural Resources and Biodiversity in Bulgaria and Turkey - Planning of a Transboundary Biosphere Reserve in the Strandja / Istranca Mountains on the Black Sea Coast.

09/2004 - 10/2004 set up and co-ordination of a European forest research project proposal for the 6th European Framework Program including 8 European project partners, research institutes and universities.

05/2004 - 12/2004: work for the cities of Alpirsbach and Loßburg and the Black Forest Club.

Development of a database driven interactive Web Portal 'Man and the River' (Menschen am Fluss). A community project with public participation in co-operation with the working group 'Flößerpfad an der Kinzig'. See <http://landconsult.de/floesser>.

10/2003 –05/2004 contracted by GTZ, Berlin, Germany

Short Term Expert at the Ministry of Environment in Warsaw, Poland, for the EU/PHARE/Twinning Project “Implementation of the Water Framework Directive in Poland”. The project aims to support the implementation of the EU Water Framework Directive and the related European legislation in Poland and to facilitate the necessary adjustments of the legislative, administrative and technical framework conditions.

06/2003 - 07/2003 contracted by GTZ, Berlin, Germany

Development of a database driven, dynamic web presentation in English and Polish with documents of the project “Strengthening Environmental Impact Assessment (EIA) in Poland”. Production of a CD-ROM and the web page at <http://landconsult.de/twin>.

01/2002 - 06/2003 contracted by GTZ, Berlin, Germany

Project Consultant at the Ministry of Environment in Warsaw, Poland, for the EU/PHARE/Twinning Project “Strengthening Environmental Impact Assessment (EIA) in Poland”. Development of a nation wide EIA/SEA Information and Communication System in Poland.

10/2001 - 03/2002 contracted by Bureau for Land Use Planning, Landscape Ecology and Landscape Design, Etting-Polling, Germany.

Rural Planning, GIS Analysis and Development of Spatial Concepts for the new Black Forest Nature Park.

07/2001 - 09/2001 work for landConsult.de

Development of the interactive and Internet based Catalogue System “CyberCat” (Dublin Core Metadata standard). See <https://landconsult.de/login.asp>.

04/2001 - 06/2001 contracted by International Union of Forest Research Organisation (IUFRO) in Vienna and Food and Agricultural Organisation of the UN (FAO) in Rome

Preparation of a comprehensive technical system documentation for programmers and administrators of the Global Forest Information System (GFIS) to facilitate the implementation of prototypical GFIS nodes in Africa and Europe.

	<i>01/2001 - 03/2001 contracted by StoraEnso Forestry Consulting, Finland. Consultation for the European Commission to prepare a European tender for a land use policy project at the Ministry of Environment in Tirana, Albania. Implementation of a sustainable national land use policy and development of an adequate GIS infrastructure.</i>
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Date: from	November 1999 - November 2000
Location	Joint Research Centre in Ispra, Italy
Company	European Commission
Position	Senior Scientist
Description	<i>Consultation and technical development of a European Forest Information and Communication System (EFICS). Critical review of existing systems and evaluation of new information technologies like interactive web mapping tools and distributed warehousing components using international metadata standards. Support for the evaluation and specification process of an Invitation to Tender (ITT) for the further development of EFICS.</i>

Date: from	April 1994 – October 1999
Location	Freising, Munich
Company	Institute for Land Use Planning and Nature Conservation, Ludwig-Maximilians-University of Munich
Position	Scientist and Land Use Planer
Description	<p>Short list of selected projects:</p> <ul style="list-style-type: none"> - <i>Consultation and evaluation of the GTZ funded project: “Development of prototypes for sustainable land use in Tierra del Fuego, Argentina”.</i> - <i>Management and co-ordination of the international research project: “Detailed Visual and Amenity Design Guidelines for Forestry: Optimising Rural Resource Potential”.</i> - <i>Development study to optimise recreational and ecological functions of two wildlife parks in Munich.</i> - <i>PhD research studies and presentations about “Geographic Information Systems and New Digital Media in Land Use Planning”.</i> - <i>Design of a GIS project (ArcGIS) for the detailed ecological evaluation and statistical analysis of forest stands of the Nature Park Upper Danube (about 80.000 hectares)</i> - <i>Development of a Geographic Information System for forestry and ecological data of the Bavarian Alps.</i>

Date: from	September 1993 – April 1994
Location	Bavaria
Company	Bureau for Land Use Planning, Landscape Ecology and Landscape Design (AGL)
Position	Freelance Consultant
Description	<p>Planning and completion of the following projects:</p> <ul style="list-style-type: none"> - <i>Environmental Impact Assessment Study to plan alternative industrial sites on pasture and forest land of the city of Landsberg.</i> - <i>GIS based Risk-Analysis to support an Environmental Impact Assessment for a leisure park nearby Neuschwanstein.</i> - <i>Study of the ecological quality of an urban beech forest in Munich.</i>

Date: from	June 1991 – June 1993
Location	Heidelberg, Karlsruhe, Baden-Wuerttemberg
Company	Ministry for Rural Development, Agriculture and Forestry, Stuttgart
Position	Junior Forester
Description	<p>Selected tasks:</p> <ul style="list-style-type: none"> - <i>Completion of the ecological Forest Management Plan including the Soil Mapping for a community forest nearby Karlsruhe.</i> - <i>Completion of substantial management tasks and administrative functions at the forestry unit of the city of Heidelberg with 40 employees and an annual turnover of more than 1.5 million EURO, e.g.: Operational planning; economical calculations and timber sales; ecological and economical assessments and risk management; elaboration of statements and contracts in the context of the sovereign functions of the forestry unit and as a "lawyer" of public interests; co-operation with public authorities and interest groups; active public relations.</i> - <i>Planning of an Environmental Information Trail in the urban forest of the city of Heidelberg and conception of a corresponding information brochure.</i> - <i>Skill building in: biological production and plant protection; economy and marketing; ecology and land management; forest technology and management of human resources; legal administration and public law.</i>

Date: from	July 1989 – Oct. 1989
Location	Kathmandu, Nepal
Company	German Volunteer Service (ded, Berlin) and Department of Irrigation, Kathmandu
Position	Volunteer
Description	<i>Field studies in the Kathmandu Valley in the scope of the diploma thesis about river morphology in Nepal in co-operation with the German Volunteer Service (ded) and the River Training Project in Kathmandu.</i>

14. Other Relevant Information:

other professional country experience in Europe, Asia, North America and Africa:

Several scientific meetings, symposiums and excursions in Finland, Poland, Czechoslovakia, Spain, Portugal, Ireland, Scotland, Canada and the US focusing on GIS and remote sensing in forestry, forest ecology and amenity design. Spending three month as a Practical Trainee in Togo and Benin in the scope of the GIZ project: "Promotion of Sustainable Forest and Wood Policy in Western Africa".

More information like a list with links to all projects and publications and the latest version of the EU standardised CV can be downloaded from <http://landconsult.de/home>. My personal profile is also available on LinkedIn at <https://www.linkedin.com/>.

I own and manage (individual tree selection) a PEFC certified forest in the Black Forest mountain range in Southwest Germany.

15. Contact Address in the Member State

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16. List of References:

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