

EUROPEAN
CURRICULUM VITAE
FORMAT



PERSONAL INFORMATION

Name	WĘŻYK PIOTR
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E-mail	Wężyk.piotr@gmail.com
Nationality	Polish
Date of birth	12.01.1967

WORK EXPERIENCE

- Dates (from – to) **10.1991 – TO DATE**
- Name and address of employer Agriculture University in Krakow
Al. Mickiewicza 21, Krakow, Poland
- Type of business or sector Higher Education
- Occupation or position held **Adjunct** at the University of Agriculture, Faculty of Forestry,
Laboratory of Geomatics, Department of Forest Ecology
- Main activities and responsibilities Scientific work, lectures and seminars (Geoinformatics), EU Phare Projects

- Dates (from – to) **12.1992 – TO DATE**
- Name and address of employer ProGea Consulting, Krakow, Poland (<http://www.progea.pl>), CEO
- Type of business or sector Geoinformation technology/ application of GI in environmental projects : LiDAR (ALS, TLS, MLS), GIS, WebGIS, MobileGIS, spatial data bases, digital Photogrammetry, Remote Sensing (airborne and satellite; OBIA), GNSS, EIA/SEA, environmental monitoring

- Occupation or position held
- Main activities and responsibilities **07.2007 – 02.2008**
Main Office of Geodesy and Cartography (GUGiK) , Warsaw, Poland
Project: **GEOPORTAL.GOV.PL**

- Dates (from – to) **12.2010 – TO DATE**
- Name and address of employer European Association of Remote Sensing Laboratories (**EARSeL**)
- Type of business or sector Special Interest Group (SIG) Forestry Co- Chairman

EDUCATION AND TRAINING

- Dates (from – to) **1985-1991**
- Name and type of organization providing education and training Faculty of Forestry, Agriculture University in Krakow, Al. Mickiewicza 21, Krakow, Poland
- Principal subjects/occupational skills covered Forestry, nature protection, environment studies, landscape architecture / planning
Geoinformatics (GNSS, RS, Photogrammetry, GIS)

• Title of qualification awarded

06.1991 M.Sc. Forestry Eng.:

Thesis: "Using of Colour InfraRed aerial photographs (CIR) for deriving of the forest health condition"

03.1999 Ph.D. (Dr. Rer. Silv.)

Thesis: "Monitoring of heavy metals and sulphur spatial contamination of forest ecosystem (Las Wolski in Krakow, Poland) using Geographical Information Systems and Photogrammetry techniques"

• Dates (from – to)

02.1993-07.1993

• Name and type of organization providing education and training

University of Agriculture (BOKU), Vienna, Austria
Department of Photogrammetry and Survey

• Principal subjects/occupational skills covered

Postgraduate scholarship: digital Photogrammetry, Survey, Remote Sensing, Cadastre

• Title of qualification awarded

OAD scholarship for support Ph.D. study / References, certificate, curses

• Dates (from – to)

09.1993-02.1995

• Name and type of organization providing education and training

Ludwig-Maximilians University (LMU), Munich, Germany; Faculty of Forestry,
Department of Land use Planning and Nature Conservation

• Principal subjects/occupational skills covered

Postgraduate scholarship: Geographical Information Systems,
Digital Photogrammetry, Global Positioning System, Remote Sensing,
Nature conservation, Land Use planning

• Title of qualification awarded

DAAD scholarship for support Ph.D. study/ References, certificates of many university curses

PERSONAL SKILLS AND COMPETENCES

*Acquired in the course of life and career
but not necessarily covered by formal
certificates and diplomas.*

MOTHER TONGUE

POLISH

OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

GERMAN

excellent
excellent
excellent

- Reading skills
- Writing skills
- Verbal skills

ENGLISH

excellent
good
excellent

- Reading skills
- Writing skills
- Verbal skills

**STUDYING AND WORKING
EXPERIENCE IN MULTICULTURAL
ENVIRONMENT.**

RUSSIAN
good
good
excellent

Country: Date: from (month/year) to (month/year)

Austria	02.1993 – 07.1993, 1997, 2001-2011 (1 week)
Belgium	2000, 2001, 2002, 2003 (1 week)
Brazil	2012 (2 weeks)
China	2002 (1 week) Euro China 5FP UE
Finland	2000 5 FP EU, Terrasolid workshop 2008-2012 (1 week)
France	2002 (6FP Conference)
Germany	10.1993 – 02.1995, 1996-20012 (1-2 weeks LPP ERASMUS, EUREKA)
Italy	2000, 2001, 2011 (1 week) 5 FP EU
Norway	2000, 2002 (1 week) 5 FP EU
Portugal	2013 (1 week)
Slovakia	2003, 2006 (1 week)
Spain	2000 (1 week) 5FP EU
Sweden	02.1993/ 12.1998 (2 weeks)
Ukraine	2002 (1 week)
USA	1994 (4 weeks), 1995 (2 weeks)

**ORGANISATIONAL SKILLS
AND COMPETENCES**
*Coordination and administration of
people, projects and budgets.*

01.2000 - 12. 2002 5 FP EU (Information Society Technology)
Work Package Leader (WP4) of FOREMMS project (Forest Environmental Monitoring and Management System).
Project granted by European Commission (IST-1999-11227; IST-199-71228) RTD
(www.nr.no/foremms)

Almost 22 years of professional experience in national and international research and science on the: GIS, Digital Photogrammetry, Remote Sensing and LiDAR applications in forestry, nature protection and environmental management and monitoring.

Experience in several projects concerning nature protection and co-operation with several environmental bodies also Polish Ministry of Environment (GDOS, RDOS, NP).

Knowledge in: forestry, environmental planning, ecology, geoinformatics (GIS, GNSS InternetGIS, RS, IT, digital Photogrammetry, LiDAR: TLS, ALS, OBIA, DB etc).

Longstanding experience in international project management (like FOREMMS 5FP UE) and in public planning mediation.

Teaching at the Universities:

Lectures on: Geoinformatics application for Environment and Landscape Architecture (GIS, IT, digital photogrammetry, Remote Sensing, GNSS, LiDAR application in forestry and landscape ecology)

Honours and Awards:

2000 – First Prize of the Canadian Fanni and Theodor Blachut Foundation for the Doctor Thesis in Photogrammetry and GIS
2003 – First Price (for supervisor) of the Ministry of Environment in Poland for the best student MSc. Thesis
2013 – nomination to the Geoazimuth 2012 for the GIS DAY organisation

**TECHNICAL SKILLS
AND COMPETENCES**
With computers.

Global Navigation Satellite Systems (GNSS):

- Trimble receivers + Pathfinder Office (Trimble);
- Garmin receivers + others;
- Base/ reference Trimble station + dGPS Processing;
- Mobile GIS using GPS;
- Mobile GIS Husky feX21 and ArcPad (ESRI) application;
- CHC GPS receivers (RTK technology ASG-EUPOS)

Geographical Information Systems (GIS)

- ArcInfo ver. 8.x (ESRI).
- ArcGIS 10.1 (Esri)
- ArcView 3.2 (+ Extensions: Spatial Analyst, Network Analyst, 3D-Analyst, Image Analysis);
- Idrisi ;
- GeoMedia (basic);
- QGIS, fGIS

Knowledge in Remote Sensing and Image Processing

- ENVI 5,
- ER Mapper Professional ver. 7.1 (ERM);
- Image Web Server 8.0 (ERM);
- eCognition ver. 8.x (Trimble GeoSpatial);
- ERDAS Imagine
- ILWIS

Digital Photogrammetry and LiDAR:

- Video Stereo Digitizer (VSD-AGH);
- DEPHOS;
- ImageStation
- TerraScan, TerraModeller, TerraPhoto, TerraMatch (Terrasolid)
- LASEdit,
- FUSION, LAStools (Isenburg)
- FUGRO viewer
- LP360 (QCoherent)

Desktop Publishing

- MSWord, MSEXcel, MSAccess, MSPowerPoint
- Adobe Photoshop 5.5 and Corel Draw
- Multimedia Processing (VRML, Video, Sound)

Good knowledge of CAD (Bentley) , office packages and Internet

- Microstation V8i (Bentley)

SPECIFIC AREA OF ACTIVITY

10.2011-12.2012

Single tree detection and retrieving of the selected tree and stand taxation parameters based on the Airborne and Terrestrial Laser Scanning data – Sachsen Forst , Dresden, Germany (consortium with landConsult.de)

2011- To Date

LiDAR Projects:

INIK of ISOK Project (monitoring and controlling of ALS data campaign collected in Poland)

04.2009 – 05.2012

Project VS – Vistula Study

OBIA classification of the VHRS RapidEye imagery, digital aerial CIR photos and ALS data for the needs of the updated land-use map in central Poland.

Subcontracting of Ove ARUP Poland

2010-2012

UrbanSat – project (consortium: CBK, UJ, UR, InfoTerra, GeoVille, SmallGIS)

PACS project Co-financed by ESA

2009-2012

Application of ALS data in the: forestry, agriculture, nature protection and urban space.

Internal grants of AUK FF, Milicz District, Chojna, Staszów, Krakow City

07.2007 – 2008

Project INSPIRE

Implementation of SDI – Web based technology GEOPORTAL.GOV.PL

Main Office of Geodesy and Cartography, Warsaw, Poland

11.2006 - 02.2008

Applications of Terrestrial Laser Scanning (TLS) in Forestry

Founded by Polish State Forest National Holding (PGL LP), Milicz Forest District

2006-2008

Airborne Laser Scanning in High Tatra

PKL – Zakopane / PGC Krakow

2006-2007

Vegetation map of Krakow municipality (mapping of city vegetation, valuation of the vegetation types and cover classes; OBIA IKONOS-2, QuickBird imageries; aerial CIR photos, mobile GIS).

2006-2007

Airborne Laser Scanning as a new tool in forest inventory

Forest Research Institute (IBL) Warsaw – Chojna Forest District

11.2004-02.2005

EU Phare Twinning Project: Implementation of the European Ecological Natura 2000 Network in Poland PL/IB/2001/EN/02. Freelance expert

Information Internet Portal for Natura2000 in Poland and Internet Map Server based on the UMN and MySQL database. Warsaw, Poland. Ministry of Environment

Contracted by: Fédération des Parcs Naturels Régionaux en France

09.2003 – 06.2004

EU Phare Twinning Project: Implementation of the Water Frame Directive in Poland

Project PL 2002/IB/EN/01. XML and GIS based information system for WFD purpose

Warsaw, Poland . Ministry of Environment. Contracted by GTZ, Berlin, Germany

01.2002 – 30.06.2003

EU Phare Twinning Project: Strengthen Environmental Impact Assessment PL/2000/IB/EN/01. XML based information system for EIA/SEA purpose
Warsaw, Poland. Ministry of Environment. Contracted by GTZ, Berlin, Germany

01.2000 - 12. 2002

5 FP (Information Society Technology).

FOREMMS (Forest Environmental Monitoring and Management System).

Project granted by European Commission (IST-1999-11227; IST-199-71228) RTD
(www.nr.no/foremms; http://argis.les.ar.krakow.pl/IWS_page/index.htm)

09.2004-04.2005

Mapping of the windfall damage in the “Puszcza Piska” Primeval Forest based on CIR aerial photos. CIR aerial photo interpretation, DGPS measurements, orthorectification, GIS studies. Warsaw, Poland, Contracted by Forest Research Institute. Freelance Consultant

01.2003-09.2004

Consulting on several modules of the Geoinformation system dedicated for the Bieszczady National Park (BPN). Ustrzyki Dolne, Poland. Bieszczady National Park. Freelance Consultant

03. 2002 – 09.2002

Rural Planning and Development of Spatial Concepts for the Popradzki Landscape Park – GIS based concept of protection of Primula farinosa L. Stary Sacz, Poland
Popradzki Landscape Park Freelance Consultant. **Project granted by “Ekofundusz” – Poland.**

12. 1999 – 01. 2001

Project granted by NFOSiGW in Warsaw. Application of GIS, digital photogrammetry based on the archive aerial photographs and modern GPS techniques to establish a influence of skiing areas on the nature preserve area in the Tatra National Park
High Tatra, Zakopane, Poland. Tatra National Park. Project coordinator AUK

01. 1997 – to the date

Consulting of the Geographical Information System dedicated for the Gorce National Park (GPN). Over 100 digital maps, DTM, photogrammetry workout of CIR aerial photographs, GPS survey, database application etc. Poreba Wielka, Poland
Gorce National Park.

01.2000 – 12. 2000

Reviewer of the GIS prototype system created by OPGK Krakow for the BgPN
Zawoja, Poland. Babiogorski National Park (BgPN). Freelance Consultant

06.1996 – 16. 1998

Scientific grant of Polish Committee of Scientific Research (KBN) **NR 9 T12E 00811**
“Application of GIS and GPS in the Studies on the Spatial Deposition of Heavy Metal Dusts in Las Wolski in Krakow” – project manager: Geographical Information System, Geomatics (DEM, digital forest maps, interpolations, spatial analysis, DGPS survey)
Krakow, Poland. AUC. Scientist

01.1997 – 12. 1998

PHARE courses:

Land Information System PL.9206-02004/II – preparing of the courses program, teaching, author of part „Forestry“ of the courses manual Cracow / Sieradz, Poland
AGH / WOGK Sieradz Consortium. Freelance Consultant

11. 1993 – 03.1994

Using of radar data for detecting of damaged forest stand using radar data for forest mapping in Kalimantan. Freising, Munich. Institute for Land Use Planning and Nature Conservation, Ludwig-Maximilians-University of Munich
Scientist, postgraduate scholarship

List of selected publications:

- Chrustek P., Wężyk P., Kolecka N., Biskupic M., Buehler Y., Christen M. 2013. Using High Resolution LiDAR Data for Snow Avalanche Hazard Mapping. In: J. Kozak et al. (eds.), *The Carpathians: Integrating Nature and Society Towards Sustainability*, Environmental Science and Engineering, The Carpathians: Integrating Nature and Society Towards Sustainability, Part IV, pp 597 - 613, Springer Berlin Heidelberg, DOI: 10.1007/978-3-642-12725-0_42
- de Kok R., Wężyk P., 2008. Principles of full autonomy in image interpretation. The basic architectural design for a sequential process with image objects. In: *Object-Based Image Analysis*. Blaschke, Th., Lang S., Hay, G.J. (Eds.). Series: *Lecture Notes in Geoinformation and Cartography*. Springer Berlin Heidelberg, ISSN: 1863-2246, p. 697-710.
- de Kok R., Wężyk P., Weidenbach M., 2008. The role of edge objects in full autonomous image interpretation. In: Geoffrey J. Hay, Thomas Blaschke and Danielle Marceau (Eds.). *GEOBIA 2008. Pixels, Objects, Intelligence: Geo-Object Based Image Analysis for the 21st Century*. Calgary, Alberta, Canada. *International Archives of Photogrammetry, Remote Sensing and Spatial Information*. Vol. XXXVIII, Part 4/C1.
- Drzewiecki W., Wężyk P., Pierzchalski M., Szafrńska B., 2013 - Quantitative and Qualitative Assessment of Soil Erosion Risk in Małopolska (Poland), Supported by an Object-Based Analysis of High-Resolution Satellite Images. *Pure and Applied Geophysics*, Vol. 170, No. 4, DOI: 10.1007/s00024-013-0669-7.
- Socha J., Wężyk P. 2007. Allometric equations for estimating the foliage biomass of Scots pine. *Eur. J. Forest Res.* (2007), 126 (2): 263–270
- Szostak M., Wężyk P., Tompalski P., 2013 - Aerial Orthophoto and Airborne Laser Scanning as Monitoring Tools for Land Cover Dynamics: A Case Study from the Milicz Forest District (Poland). *Pure and Applied Geophysics*, Vol. 170, No. 4, DOI: 10.1007/s00024-013-0668-8.
- Tompalski P., Wężyk P., 2011. Urban Land Cover mapping with Object-Based Image Classification of integrated Airborne Laser Scanning data and GeoEye-1 images. *Annals of Geomatics*, Vol. 9, 2(46): 121-132, ISSN 1731-5522
- Tompalski P., Wężyk P., 2012. LiDAR and VHRS data for assessing living quality in cities - an approach based on 3D spatial indices. Editor(s): M. Shortis, M. Molenaar. XXII ISPRS Congress, Technical Commission VI, 25 August – 01 September 2012, Melbourne, Australia, 173-176.
- Wężyk P., Mlost J., Pierzchalski M., Wójtowicz-Nowakowska A., Szwed P., 2012 - Enhancing the OBIA classification of multispectral aerial orthoimages using Airborne Laser Scanning data. *Archive of Photogrammetry, Cartography and Remote Sensing*, 23: 467-476, ISSN 2083-2214.
- Wężyk P., de Kok R., 2005 - *Automatic mapping of the dynamics of forest succession on abandoned parcels in south Poland*. [In:] Strobl et al. (Eds.) *Angewandte Geoinformatik 2005* - Herbert Wichman Verlag. Heidelberg: 774-779, ISBN 3-87907-244-4
- Wężyk P., de Kok R., Koziol K., 2006 - *Application of the Object Based Image Analysis of VHR satellite images in land-use classification*. *Annals of Geomatics*, 4(3): 227-238, ISSN 1731-5522
- Wężyk P., de Kok R., Świąder A., 2005 - Empowered forest GIS – cross validation of SRTM and optical data. *Remote Sensing of Environment*. [In:] Olsson H. (Ed.) *Rapport 8b. ForestSat 2005 in Boras*. National Board of Forestry, Sweden: 91-96, ISSN 1100-0295

- Wężyk P., de Kok R., Zajączkowski G., 2004 - *The role of statistical and structural texture analysis in VHR image analysis for forest applications. A case study on QuickBird data in the Niepolomice Forest.* [In:] *Angewandte Geoinformatik 2004* - Herbert Wichmann Verlag, Heidelberg: 770-775, ISBN 3-87907406-2
- Wężyk P., Pierzchalski M., Szafrńska B., Korta G., 2012. Update of the Digital Soil Map using Object Based Image Analysis (OBIA) of Remote Sensing Data and GIS spatial analyses. *Archive of Photogrammetry, Cartography and Remote Sensing*, 23: 477-488, ISSN 2083-2214.
- Wężyk P., Szostak M., Tompalski P., 2013 - Use of Airborne Laser Scanning Data for a Revision and Update of a Digital Forest Map and its Descriptive Database: A Case Study from the Tatra National Park. In: J. Kozak et al. (eds.), *The Carpathians: Integrating Nature and Society Towards Sustainability, Environmental Science and Engineering, The Carpathians: Integrating Nature and Society Towards Sustainability, Part IV*, pp 615-627, Springer Berlin Heidelberg, DOI: 10.1007/978-3-642-12725-0_43
- Wężyk P., Wertz B., 2005 - Forest map revision using the hyperspectral scanner AISA images. [In:] *Imaging Spectroscopy. New Quality in Environmental Studies.* Zagajewski & Sobczak (Eds.), Warsaw University: 687-699
- Wężyk P., Wójtowicz-Nowakowska A., Pierzchalski M., Mlost. J., Szwed P., 2012. Land cover mapping based on OBIA of RapidEye satellite data. *Archive of Photogrammetry, Cartography and Remote Sensing*, 23: 489-500, ISSN 2083-2214.
- Wężyk, P., de Kok, R. 2007. Putting Research into Practice – Developing the Process Chain for Data Fusion in the Municipality of Krakow. In: *Geospatial Crossroads @ GI_Forum.* Car A., Griesebner G., Strobl J. (Eds.). Herbert Wichmann Verlag, Hüthig GmbH & Co. KG, Heidelberg. p. 176-181. ISBN 978-3-87907-461-7 .