

CV Stefan Fuchs

1. **Proposed Position:** Chief Executive Officer
2. **Name of Firm:** FUMINCO GmbH
3. **Name of Staff:** Dipl.-Ing. Dipl.-Ing. Stefan Fuchs, M.Sc. (Safety Engineering)
4. **Date of Birth:** April 30th, 1974 **Nationality:** German
5. **Education:**

1994 – 2003 RWTH Aachen University
Mining Engineering (Dipl.-Ing. – final grade: 1.3)
Thesis: “Development of an automatic classification method for material recognition during production of lignite, based on fluorescence signals”

1996 - 2006 RWTH Aachen University
Mine Surveying (Dipl.-Ing. – final grade: 1.0)
Thesis: “Spatial Information Systems in the mining industry”

2009 - 2010 Technische Fachhochschule Georg Agricola zu Bochum
Safety and Health Engineering (Sicherheitsingenieur/Safety Engineer)
Thesis: “IT workstation design“

2009 - 2011 Technische Fachhochschule Georg Agricola zu Bochum
“Operational Safety Management” (Master of Science)
Thesis “Quality and project management of mining projects”

Degrees or Diplomas in process

2004 - Present RWTH Aachen University, Institute of Mine Surveying (ifm)
Till 2006 scientific staff of institute, since then external (Dr.-Ing./Ph.D.)

Scientific Honours Springorum-Medaille (RWTH Aachen University),2007
Carl-Hellmut-Fritsche-Preis (VAB, RWTH Aachen University), 2007
Oskar-Niemczyk-Preis (Oskar-Niemczyk-Stiftung), 2007
Nominated for
Friedrich-Wilhelm-Preis (RWTH Aachen University), 2007
Helmuth Burckhardt-Preis (Wirtschaftsvereinigung Bergbau e.V., Berlin), 2007

6. Memberships of Professional Associations:

VAB Vereinigung Aachener Bergakademiker e.V. (Alumni Association of the RWTH Aachen University)

DMV Deutscher Markscheider-Verein e.V. (German Association of Mine Surveyors)

7. Key Qualifications

- Team leading and coordination,
- project management,
- knowledge of mining software (Surpac™, AutoCAD Civil 3D, several Geographical Information systems – Graduate of “ESRI-Graduate-Program”),
- familiarity with mining and mine surveying techniques,
- quality representative,
- fire safety engineer,
- operative data protection officer,
- waste management officer,
- specialist officer for water pollution control,
- emission protection representative,
- authorized representative for risk prevention,
- hazardous substances officer

8. Other Training:

2009 - 2011 Diverse seminars and lectures on macro-economics, Germany

2009 - 2011 Project Management seminars, Germany

9. Countries of Work Experience:

Columbia, Germany, India, Kazakhstan, Laos, Mauritania, Serbia, Turkey, Vietnam, Zimbabwe

10. Languages:

German: mother tongue

English: good in speaking, reading and writing

11. Employment Record

Date: from (year)	November 2006
to (year)	now
Location:	Aachen, Germany
Company:	FUMINCO GmbH Mining Consulting Engineers, HSEQ Management
Position:	Chief Executive Officer
Description:	Head of the consulting company specialised on mine planning, HSEQ Management and R&D projects in alternative energy. Project Management, Personnel Management, Acquisition and Finance Management of the company, Project Engineer
Date: from (year)	April 2004
to (year)	October 2006
Location:	Aachen, Germany
Company:	Institute of Mine Surveying, RWTH Aachen University
Position:	Scientific Assistant
Description:	Main activities <ul style="list-style-type: none">- Feasibility study: field test of Spatial Information Systems in connection with mining subsidence engineering- Treatment of geographical data of German coal mines- Lectures in Spatial Information Systems (GIS)

12. Selected Consultancies

Year	Name of the Project
	Country
	Main Project Features
	<i>As scientific staff of Institute for Mine-Surveying (ifm, RWTH Aachen University)</i>
2004 - 2005	Feasibility study: field test of Spatial Information Systems in connection with mining subsidence engineering
	Germany, Deutsche Steinkohle AG/DSK
	Investigation of an information system on the operational serviceability, including project management
2005 - 2006	Treatment of geographical data of German coal mines (I)
	Germany, DSK
	Treatment, digitization of mining areas, quality management, documentation, including project management
	<i>As staff of FUMINCO</i>
2006 - 2007	Planning engineer in different projects
	SST Prof. Stoll & Partner Ingenieurgesellschaft mbH
	3D deposit and mine modelling. Computer based reserve calculations and planning for open pit shovel/truck systems for:
	- German limestone pits
	- Turkish lignite pit
	- African ore pit (Mauritania)

- 2007 **Feasibility study: 3D deposit modelling**
- Germany, Department of Engineering Geology and Hydrogeology/LEK (RWTH Aachen University)
- 3D modelling of a geological barrier within a lignite deposit in the context of carbon capture and storage (CCS)
(RWE Power AG)
- 2007 - 2008 **Pre-Feasibility study: CBM Münsterland**
- Germany, Institute for Mine-Surveying (ifm, RWTH Aachen University)
- Investigation of technology for the production of gas from deep coal seams within the area of Münsterland, including project management
(Minegas GmbH, Mingas-Power GmbH, government of the federal state of North Rhine-Westphalia, Germany)
- 2008 **Mine Master Plan “Open Pit Hongsa”**
- Laos, RE GmbH (RWE Power International)
- Supportive activities in the special fields:
- scheduling open pit and dump
 - scheduling mine drainage
 - layout (mine surveyor aspects)
- 2008 **SurpacTM-Training**
- Vietnam, CBM GmbH
- Designing a SurpacTM-training course for VINACOMIN, ITE, IMSAT and IMCC
- Content:
- 3 Multimedia lessons geology/geological drillhole database/block modelling
 - 3 Multimedia lessons open pit design
 - 2 Multimedia lessons underground mine design

- 2009 **Special Operating Plan “Excavation”**
- Germany, Nivelsteiner Sandwerke und Sandsteinbrüche GmbH
- Supportive activities in the special fields:
- scheduling open pit
 - calculation of volumes and masses
 - layout (mine surveyor aspects)
- 2009 **R&D-Project “Haldengeothermie” (I)**
- Germany, Coking, Briquetting and Thermal Waste Treatment Group (TEER, RWTH Aachen University)
- Thermal use of smouldering fire inside old coal dumps, activities in the special fields:
- concept of a 3D fire simulation
 - supportive activities (R&D-Works)
 - graphical representation of the R&D-results
- 2009 **Statement for the mining/fiscal authorities**
- Germany, Nivelsteiner Sandwerke und Sandsteinbrüche GmbH
- Engineering opinion:
- scheduling open pit
 - calculation of volumes and masses
 - layout (mine surveyor aspects)
- 2009 **Feasibility study: “Eastern Europe”**
- Russia, Kazakhstan, RE GmbH (RWE Power International)
- Supportive activities in the special fields:
- scanning of analogue maps
 - digitalisation of scanned maps
- 2009 - 2010 **Feasibility study: “CBM Münsterland”, IIA**
- Germany, Institute for Mine-Surveying (ifm, RWTH Aachen University)
- Project phase IIA: Analysis of the financial risk of a CBM project in Germany (incl. Sensitivity analysis)
- (Minegas GmbH, Mingas-Power GmbH, government of the federal state of North Rhine-Westphalia, Germany)

2009 - 2010	R&D-Project “Haldengeothermie” (II) Germany, Unit of Technology of Fuels (TEER, RWTH Aachen University) Thermal use of smouldering fire inside old coal dumps, activities in the special fields: <ul style="list-style-type: none">- creation of sectional representations- implementation of a 3D fire simulation- installation of sensors on the dump- remote maintenance of the sensors signals
2010	Mine Master Plan “Carbones del Cerrejón Ltd.” Colombia, RE GmbH (RWE Power International) Feasibility Study about the technical and economic feasibility of an Inpit Crushing and Conveying (IPCC) System for three Open Pits: <ul style="list-style-type: none">- mine design- dump design- conveyor system geometry
2010 - 2011	Mine Master Plan “New Kovin“ Serbia, RE GmbH (RWE Power International) Mine design for the wet extraction of bituminous coal: <ul style="list-style-type: none">- geological modelling- mine design- dump design
2011	Feasibility Study Ekibastuz Kazakhstan, SST Prof. Stoll & Partner Ingenieurgesellschaft mbH 3D deposit and mine modelling. Computer based reserve calculations and planning for open pit shovel/truck systems: <ul style="list-style-type: none">- Ekibastuz coal field II- optimization of production (combination of field I and II)- documentation (report)
2011	Feasibility Study Kerendari Blocks C&D India, RE GmbH (RWE Power International) Feasibility Study about the technical and economic feasibility of an Inpit Crushing and Conveying (IPCC) System for an open coal pit: <ul style="list-style-type: none">- dump design- roadway optimization- crusher positioning and conveyor system planning

- 2011 - 2012 **Expert's report: Unconventional gas production**
- Germany, federal state government North Rhine-Westphalia
- Description and assessment of technical aspects (Coalbed Methane and shale gas):
- drilling techniques
 - stimulation techniques
 - production techniques
- 2011 - 2012 **Safety and Health Project (part I)**
- Germany, Open Grid Europe GmbH (E.ON AG)
- Preparation of instruction material:
- Globally Harmonized System (GHS)
 - optimization of workstations
 - working on gas pipelines
- 2011 - 2012 **Feasibility Report Neyveli Lignite Corporation Mine I & IA**
- India, RE GmbH (RWE Power International) – part I
- Feasibility Study about the technical and economic feasibility of an Inpit Crushing and Conveying (IPCC) System for two open coal pit:
- data management
 - data processing
 - creation of layouts
- 2012 **Feasibility Report Neyveli Lignite Corporation Mine I & IA**
- India, RE GmbH (RWE Power International) – part II
- Feasibility Study about the technical and economic feasibility of an Inpit Crushing and Conveying (IPCC) System for two open coal pit:
- data management
 - data processing
 - creation of layouts
- 2012 **Safety and Health Project (part II)**
- Germany, Open Grid Europe GmbH (E.ON AG)
- Preparation of instruction material:
- working on gas pipelines
 - development of an integrated safety concept
 - development of concepts for the IT- implementation of the safety concept

- 2012 **Feasibility Study “AMBERGER KAOLINWERKE”**
- Germany, SST Prof. Stoll & Partner Ingenieurgesellschaft mbH
- 3D deposit and mine modelling. Computer based reserve calculations and planning for open pit shovel/truck systems:
- mine design/optimization of production (western concessions)
 - waste and quality management
 - dump design
- 2013 **Safety and Health Project (part III)**
- Germany, Open Grid Europe GmbH
- Preparation of instruction material:
- 8 different topics (working with hand tools, handling of load etc.)
 - development of concepts for 3 prevention campaigns
- 2013 **Rehabilitation Plan Umzingwane River (Tapin Mining)**
- Zimbabwe, IfAB Mining Consultants (Pvt) Ltd.
- 3D deposit and mine modelling. Computer based reserve calculations for the Environment Management Authority (EMA):
- processing surveying data
 - creation of a “Mine Map”
 - development of a rehabilitation concept
 - creation of a “Rehabilitation Plan”
- 2013 **Safety and Health Project (part IV)**
- Germany, Open Grid Europe GmbH
- Preparation of instruction material:
- 8 different topics regarding working on gas pipelines
 - development of an integrated safety concept