

PERSONAL INFORMATION

Alex Zabeo



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Sex Male | Date of birth 17/07/1976 | Nationality Italian

WORK EXPERIENCE

01/06/2016–Present

Chief Technology Officer

Greendecision Srl, Venice (Italy)

www.greendecision.eu

Head of the ICT research and development area.

Head of the Decision Analysis group.

Head of the LCA development group.

I take care of mathematical models and software development for different projects mainly concerning environmental and human health risk and sustainability assessment.

Moreover I'm in charge of Life Cycle Assessment studies' development and reporting.

Mathematical models' main areas are: Multi/Criteria Decision Analysis, Fuzzy Logic, Value of Information and Artificial Intelligence.

Software development's main languages and frameworks: html, javascript, Node, React, Mongo, Meteor, php, R, Python, geonode, Django, Java, C#, Go, etc.

01/01/2006–04/04/2018

Senior researcher

Ca'Foscari University Venice, Venice (Italy)

www.unive.it

In these years I also collaborated with Consorzio Venezia Ricerche (CVR, <http://www.veneziaricerche.it/en/index.html>) and Euro-Mediterranean Center on Climate Change (CMCC, <http://www.cmcc.it/>) of which I'm currently affiliated.

My position is manifold:

- Study and development of Multi-Criteria Decision Analysis (MCDA) & Fuzzy logic based methodologies for risk assessment and decision making.
- Design and implementation of desktop and web based Intelligent Spatial Decision Support Systems (ISDSSs) software.
- Sensitivity analysis of the developed models and development of statistical models.
- Management of a small development unit.

Initially I take care of the problem analysis alongside with environmental experts, proposing solutions, eliciting inconsistencies and problems. Afterwards I define of the mathematical methodologies to be applied to row data in order to evaluate risk status indicators and perform complex Multi Attribute Value Theory (MAVT) assessments as well as statistical modelling when needed. In the following stage I manage all the software development aspects of the related software product from design to implementation.

In my practical experiences:

- Generation and writing of project proposals. Management of specific tasks inside Work packages. I've been the project manager for CVR in the European project AMORE and the coordinator of a European project submissions (project Web Desyco under Climate KIC action).
- Creation of Multi Attribute Value Theory (MAVT), Fuzzy logic and artificial intelligence based models used in different risk assessment projects.

- Analysis, design and development of intelligent geo-referenced decision support systems in different programming languages (Java, Eclipse RCP, C#, Python, Go, html, javascript, etc.) and of web based Decision Support Systems (DSSs) and expert systems with different frameworks and programming languages (html, php, javascript, geonode, Django, Meteor).
- Data management of plain and spatial data with different sql and no-sql database management systems (Postgres with PostGis extension, Access alone and as Arcgis geodatabase, mysql, mongodb).
- Analysis, Design and development of statistical models for human health and environmental probabilistic risk assessment into R packages.

13/01/2006–31/03/2014

Chief Technology Officer

Consorzio Venezia Ricerche, Venice (Italy)

Head of the ICT research and development area.

I take care of the mathematical models and software development for the different projects mainly concerning environmental and human health risk assessment.

Mathematical models main areas are: Multi/Criteria Decision Analysis, Fuzzy Logic, Value of Information and Artificial Intelligence.

Software development main languages: Java, C#, Python, Go, html, javascript, php, geonode, Django, Meteor.

EDUCATION AND TRAINING

01/02/2016–15/02/2016

Life Cycle Assessment & SimaPro

2B Srl, Mogliano (VE) (Italy)

Theoretical basis of Life Cycle Assessment and use of the SimaPro software which applies it

01/03/2012–31/03/2013

European Social Found Research fellowship

EQF level 7

Ca'Foscari University, Venice (Italy)

Development of the project "Integrated public mobility management, IP mobMan", consisting in the project and development of a composite software framework composed by web services, Google Maps APIs and an iOS App with the aim of guiding locals and tourists in planning their travels with public transport means.

01/11/2006–28/02/2011

PhD in informatics

EQF level 8

Ca'Foscari University, Venice (Italy)

Thesis: "A Decision Support System for the Assessment and Management of Surface Waters"

Geographical databases, GIS technology, decision support systems, geographical data integration, Multicriteria Decision Analysis, Fuzzy Logic

01/09/2004–31/10/2006

Master's degree in Informatics

EQF level 7

Ca'Foscari University, Venice (Italy)

Informatics, security, programming languages, mathematics, statistics, physics, databases, programming methodologies, etc.

Obtained with the valuation of 107 / 110

01/09/2001–31/10/2004

Bachelor's degree in Informatics

EQF level 6

Ca'Foscari University, Venice (Italy)

Informatics, security, programming languages, mathematics, statistics, physics, databases, programming methodologies, etc.

Obtained with the valuation of 110 / 110 cum laude.

01/09/1990–31/10/1995

High school

EQF level 5

Itis C. Zuccante, Venice (Italy)

Informatics, electronics and telecommunication.

Obtained with the valuation of 43 / 60

PERSONAL SKILLS

Mother tongue(s) Italian

Foreign language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English C1	C2	C1	C1	C2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills Good communication skills acquired in years of work team in European projects as well as in participation to several conferences

Organisational / managerial skills

I'm currently managing the Math & IT research line inside my research group. One employee and a PhD student are under my supervision.

I've been the person in charge for the European project AMORE plus several national projects for Consorzio Venezia Ricerche and the coordinator of a European project submissions (project Web Desyco under Climate KIC action) for Centro euro-Mediterraneo per i Cambiamenti Climatici

Job-related skills

I have a multi-disciplinary background as I started as computer scientist and gradually integrated environmental sciences, multi-criteria decision analysis and statistical notions. I have experience in writing European and national projects as well as managing work packages' tasks

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital skills - Self-assessment grid

- Operating systems: Windows, OsX and Linux
- Programming languages: C#, html, java, visual basic, php, sql, XML, latex, python, C, Go, R, html, javascript, css and others.
- Applications: Microsoft: Office (Word, Excel, Access, Publisher, Powerpoint), Adobe: Photoshop, Flash, Dreamweaver, Fireworks, Eclipse and others.

Driving licence A, B

ADDITIONAL INFORMATION

Participation in groups and societies

Member of the International Society on Multiple Criteria Decision Making since 2013.
<http://mcdmsociety.org/>

Member of the EURO Working Group Multicriteria Aid for Decisions since 2011.
<http://www.cs.put.poznan.pl/ewgmcda/>

Member of the EURO Working Group on Decision Support Systems since 2014.

<http://ewgdss.wordpress.com/>

Teaching and tutoring

Co-tutor of the PhD student Ginapietro Basei currently ongoing (since 2015) at Ca'Foscari university of Venice.

Co-tutor of the bachelor student Matteo Carisi currently ongoing (2016) at Ca'Foscari university of Venice

Co-tutor of the PhD student Panagiotis Isigoni for the thesis: A decision support system for probabilistic ecological risk assessment (PERA) of pollutants on aquatic ecosystems. 2015 Ca'Foscari university of Venice.

Co-tutor of the master student Lorenzo Donati for the research thesis: An application for supporting citizens and tourists in their mobility. 2014 Ca'Foscari university of Venice.

Co-tutor of the master student Marco Stefan for the research thesis: A Software for Probabilistic Ecological Risk Assessment. 2012 Ca'Foscari university of Venice.

Teacher in the MODELKEY DSS training course during SuWaMa conference 15-17 September, 2011. <http://www.igemportal.org/?Dil=1&SID=780>

Co-tutor of the master student Alberto Baruzzo for the research thesis: Un sistema di supporto alle decisioni geospaziale per la gestione di siti fluviali contaminati. 2009 Ca'Foscari university of Venice.

Teaching in pre-courses laboratory of informatics tutoring. From August 2008 to September 2008. Ca' Foscari University of Venice.

Teaching in pre-courses laboratory of informatics tutoring. From August 2007 to September 2007. Ca' Foscari University of Venice.

Teaching in operative Systems laboratory tutoring. From April 2007 to June 2007. Ca' Foscari University of Venice.

Participation in national & European projects

BIORIMA - BIOmaterial Risk Management

2017 – 2021 - www.biorima.eu

Total budget: 7,999,981€ Group budget: 121,713€

Project and development of a DSS implementing the operational framework for establishing the benefit/risk ratio of NanoBioMaterials used in medical devices (MD) and advanced therapy medicinal products (ATMP).

REFINE - Regulatory Science Framework for Nano(bio)material-based Medical Products and Devices

2017 – 2021 - refine-nanomed.com

Total budget: 7,967,941€ Group budget: 450,266€

Project and development of a DSS for application of the best Intelligent Testing Strategy in order to decide whether to further develop novel Nano(bio)material-based Medical Products and Devices.

GRACIOUS - Grouping, Read-Across, Characterisation and classification framework for regulatory risk assessment of manufactured nanomaterials and Safer design of nanoenabled products

2018 – 2021 - www.h2020gracious.eu

Total budget: 6,999,368€ Group budget: 379,375€

Project and development of novel Grouping and Read-Across methodologies.

calIBRAte - Performance testing, calibration and implementation of a next generation system-ofsystems

Risk Governance Framework for nanomaterials (H2020)

2016 – 2020 - <http://www.nanocalibrate.eu>

Total budget: 7,999,687€ Group budget: 338,155€

Calibration, testing and feature enhancement of the SUNDS web Decision Support System (DSS) coming from the SUN project.

Sun - Sustainable Nanotechnologies (FP7)2013 – 2017 - <http://www.sun-fp7.eu/>

Total budget: 10,249,962€ Group budget: 1,005,013€

Creation of Multi Attribute Value Theory (MAVT) methodology for relative risk assessment of environmental and health risks of nanomaterials in an integrated approach addressing the complete product lifecycle. Analysis Design and development of a web Decision Support System (DSS) for the implementation of the aforementioned methodology.

Complia – compliance process management system2013 – 2014 - <http://www.complia.com/it/>

Total budget: 297,000€ Group budget: 270,000€

Creation of a conversion algorithm to transform an xPath query parsed tree into the corresponding mongodb query basing on a repository of xsd to bson relations. Creation of a Fuzzy Rule Engine for the calculation of risk indices basing on Boolean queries related to enterprise compliance. Analysis Design and development of go language tools for the implementation of the above presented methodologies.

Ritmare – la ricerca italiana per il mare2012 – 2016 - <http://www.ritmare.it/en/>

Total budget: 450,000,000€ Group budget: 150,000€

Creation of a web based DSS for the calculation of risk indices related to sea water hazards to coastal zones developed as customization of a geonode.

4FUN - The FUture of FULLy integrated human exposure assessment of chemicals: Ensuring the long-term viability and technology transfer of the EU-FUNded 2-FUN tools as standardized solution (FP7)2012 – 2015 - <http://4funproject.eu/>

Total budget: 2.278.101€ Group budget: 97,451€

Application of the methodology and software developed in the Amore project for the evaluation of a MAVT and Fuzzy logic based reliability index of software models of chemical exposure assessment.

Kulturisk - knowledge-based approach to develop a culture of risk prevention (FP7)2011- 2014 - <http://www.kulturisk.eu/>

Total budget: 3,225,616.00€ Group budget: 768,757.00€

Creation of a MAVT methodology for the evaluation of hazard, vulnerability, risk and damage posed by natural hazards with spatial support taking into consideration also adaptation, mitigation and resilience.

Timbre – Tailored Improvement of Brownfield Regeneration in Europe (FP7)2011 – 2014 - <http://www.timbre-project.eu/>

Total budget: 4,650,820.03€ Group budget: 486,600.00€

Creation of an article ranking system based on Artificial Neural Networks (ANN) which improves reliability as users increase articles' evaluations in a web application. Analysis Design and development of the web based expert system which implements the aforementioned methodology.

Creation of a MAVT based prioritization methodology for brownfield regeneration. Analysis Design and development of a web based DSS which implements the aforementioned methodology.

DESYCO is a GIS-based Decision Support System (DSS)2010 – 2014 - <http://www.cmcc.it/it/models/desyco>

Creation of a MAVT methodology for the evaluation of hazard, vulnerability, risk and damage of different receptors and different hazards related to climate change. Analysis Design and development in Python and C# of a spatial DSS implementing the methodology.

Developed and applied in different projects:

- Cmcc-FISR Total budget: 39,000,000€ Group budget: 2,100,000€
- Gemina Total budget: 31,250,000.00€ Group budget: 360,000.00€
- Cantico Total budget: 215,668.00€ Group budget: 74,800.00€
- Salt Total budget: 1,100,444.00€ Group budget: 135,000.00€
- Trust Total budget: 904,951.00€ Group budget: 185,000.00€
- CLIM RUN Total budget: 4,279,661.00€ Group budget: 97,000.00€
- PEGASO Total budget: 8,883,358.00€ Group budget: 110,000.00€
- CLIMDAT Total budget: 62,500.00€ Group budget: 62,500.00€

Tot sum budget: 85,696,582 € Group sum budget: 3,124,300 €

Amore - Multi-Criteria Analysis for the Development of a Decision Support Tool for the Environmental Risks Prevention

2009 – 2012 – collaboration with French National Research Academy and EDF

Total budget: 200,000€ Group budget: 160,000€

Creation of a MAVT and Fuzzy logic based index for evaluation of chemical tests reliability on the light of a group of experts. Implementation of the above methodology into an Excel DSS made by Visual Basic for Applications (VBA) code.

Enpra - risk assessment of engineered nanoparticles (FP7)

2009 – 2012 - <http://www.enpra.eu/>

Total budget: 3,700,000.00€ Group budget: 286,025.00€

Creation of a MAVT methodology for nanomaterial risk assessment on the basis of physicochemical and toxicological properties of nanomaterials.

Foks - Focus on Key Sources of Environmental Risks

2008 – 2012 - http://www.central2013.eu/nc/central-projects/approved-projects/funded-projects/?tx_fundedprojects_pi1%5Bproject%5D=22

Total budget: 3,319,050.00€ Group budget: 22,500.00€

Creation of a Fuzzy logic based MAVT methodology for the calculation of an hazard index for sources of pollution in soil. Analysis Design and development of an Access database with Visual Basic for Applications (VBA) code. The tool includes a geo-database linked to a Geographic Information System (GIS) framework which support the visualization and management of spatial information.

2-FUN - Full-chain and UNcertainty Approaches for Assessing Health Risks in Future ENvironmental Scenarios (FP6)

2007 – 2011 - <http://www.2-fun.org/index.php>

Total budget: 1,630,000€ Group budget: 157,000€

Creation a Fuzzy logic based MAVT methodology for the calculation of an integrated risk index for ranking environmental chemical stressors at the regional scale. Analysis Design and development of an Access database with VBA code. The tool includes a geo-database linked to a GIS framework which support the visualization and management of spatial information.

SYRIADE - Spatial decision support sYstem for Regional risk Assessment of Degraded land

2007 – 2008 – collaboration with JRC

Total budget: 45,000€ Group budget 45,000€

Creation of a Fuzzy logic based MAVT methodology for the calculation of a vulnerability index for brownfield regeneration. Analysis Design and development of a geo-referenced system aimed at the evaluation of the environmental impact of pollution sources developed in Python as an ArcGis toolbox

Modelkey - Models for Assessing and Forecasting the Impact of Environmental Key Pollutants on

Marine and Freshwater Ecosystems and Biodiversity. (FP6)

2005 – 2010 - <http://www.modelkey.org/>

Total budget: 8,400,000.00€ Group budget: 420,200.00€

Creation of a Fuzzy logic based MAVT methodology for the calculation of an integrated risk index of fresh water status. Analysis, design and development of a geo-referenced decision support system in Java based on the Eclipse framework with a Postgres Data Base Management System (DBMS) with PostGis extension, aimed at evaluation of the above mentioned fresh water status index by the use of mathematical models supplied as external modules.

DECLARATIONS

The undersigned Alex Zabeo, aware that false declarations involve the application of sanctions penalties foreseen by the art. 76 of the D.P.R. 445/2000, declares that the information reported in the above curriculum vitae, correspond to truth.

I authorize the processing of personal data contained in my curriculum vitae according to art. 13 of Legislative Decree 196/2003 and art. 13 GDPR 679/16

ANNEXES

For a list of recent and relevant publications please check:
www.researchgate.net/profile/Alex_Zabeo/contributions