William Becker

Date of birth: 03/01/1983 | **Nationality:** British, Italian | **Email address:**

william.becker@bluefoxdata.eu | **Website:** https://www.willbecker.me/ | **LinkedIn:**

https://www.linkedin.com/in/webecker/ | **ResearchGate:**

https://www.researchgate.net/profile/William-Becker-7 | **GitHub:**

https://github.com/bluefoxr/

ABOUT ME

- Innovative data scientist, policy analyst and researcher with a PhD and 12+ years of experience leading research and consultancy projects for international policy organisations on topics ranging from sustainable development to globalisation.
- Statistical software developer and researcher with ~30 academic publications (~2000 citations).
- Excellent communicator, both written and verbal. I love working with other people but equally capable working alone.
- I love to solve practical problems with cutting edge methods. I'm a lifelong learner with an extremely broad skill-set who is eager to take on the next challenge.

WORK EXPERIENCE

01/10/2020 – CURRENT Ispra, Italy
DATA SCIENTIST VARIOUS INTERNATIONAL ORGANISATIONS AND CONSULTANCIES

Successful data scientist consultant working for international policy organisations and consultancies across a wide range of policy areas. Over the last three years, my projects have included:

- Research and update of the European Skills Index for CEDEFOP (via Fondazione Brodolini consultancy)
- Data consultancy on Quality Infrastructure for the Kingdom of Saudi Arabia
- Maintaining and uncertainty modelling of global GHG emissions database for European Commission (JRC, ongoing half-time position)
- Full stack development of web app for community-based protection data analysis for UNCHR Guatemala
- Statistical analysis of European impact assessments for JRC
- Senior lead expert on Quality Infrastructure for Sustainable Development, United Nations Industrial Development Organisation.
- Trend analysis and development of Bioeconomy monitoring framework for JRC
- Innovation modelling for the World Intellectual Property Organisation (multiple contracts over several years)
- Development of an R package for composite indicators for JRC
- Development of web/data app for prioritising interventions for the Foundation for innovative new [medical] diagnostics

I have led many of these projects and consistently delivered excellent results, which is evidenced by the high demand for my services and the fact that clients repeatedly offer me new contracts. I have excellent working relations with all of my clients. My typical tasks include:

- Client engagement and contract management
- Project management
- Data collection and mining, cleaning, analysis
- Application of machine learning and modelling techniques
- Software development and programming, especially in R although I have many years of experience of Matlab, and working knowledge of Python (can transition to the latter if needed)
- Version control and collaboration through Git, GitHub and implementation of CI/CD
- Data visualisation, including interactive visualisations with plotly and Shiny web-apps
- Reporting to clients via presentations, written reports

- Database management (SQL Server)
- Stakeholder management
- Organising workshops and events, including conferences

17/03/2014 – 15/03/2020 Ispra, Italy
SENIOR DATA/POLICY ANALYST (CONTRACT AGENT FGIV) EUROPEAN COMMISSION - JOINT RESEARCH CENTRE

Supporting the European Commission in international data analysis, indicator frameworks, and analysis of uncertainty and sensitivity/robustness. I was a senior researcher simultaneously in the European Commission's Competence Centre for Composite Indicators and Scoreboards, as well as the Competence Centre for Modelling, which are both cross-cutting groups supporting multiple policy areas. I worked extensively with many different departments of the European Commission (JRC, EEAS, BUDG, GROW, SG, RSB, REGIO, etc), leading and supporting projects and training colleagues, as well as with a wide range of international organisations.

My duties included:
- Collecting and analysing data to support policy-making
- Writing technical and policy reports, and policy briefs for senior management and politicians.
- Performing academic research, writing research papers, book chapters, presenting at conferences, etc.

Research topics include indicator methodology, econometric model selection (data mining), data modelling (linear and nonlinear regression and smoothing techniques), and Monte Carlo analysis.

Examples of projects:
- Lead researcher on multi-year project supporting DG-BUDG in monitoring performance of EU budget programs
- Lead researcher analysing sustainable connectivity (including trade, investment flows) between Europe and Asia (EEAS)
- Supporting the Regulatory Scrutiny Board in indicator guidance for EU budget programs
- Analysis of the Macroeconomic Imbalance Procedure
- Development of a regional index for monitoring progress to EU2020 targets in energy, employment, education etc. (DG REGIO)

16/02/2011 – 15/02/2014 Ispra, Italy
SCIENTIFIC / TECHNICAL PROJECT OFFICER GRANTHOLDER CAT. 30 (POST-DOC) EUROPEAN COMMISSION - JOINT RESEARCH CENTRE

I worked in the Econometrics and Applied Statistics unit of the JRC: my role was to provide statistical support to the rest of the European Commission, particularly regarding impact assessments, indicators and modelling.

Duties included: publishing peer reviewed articles and book chapters. Reviewing for journals. Organising and lecturing at training and seminars both internally (for JRC colleagues) and externally (summer schools and training for other departments of the European Commission).

Some specific projects included:
- Statistical quality control of EC impact assessments (for DG-SG)
- Analysis of price disparity across EU member states (DG-JUST)
- A Survey of Simulation Models of Long-Term Care Use and Expenditure
- Research into the uncertainty of economic impacts of climate change
- Research into novel approaches for econometric model selection
- Lead author of the modelling and sensitivity toolbox for the Better Regulation Guidelines for impact assessments

More generally my duties included:
- Providing scientific/economic evidence for policy making
- Analysis of economic data and reviewing models
- Drafting technical and policy reports
- Research into sensitivity analysis, modelling, statistics, econometrics, data mining, machine learning, Monte Carlo
- Drafting scientific articles
- Lecturing in training courses, summer schools
- Publishing peer reviewed articles, book chapters, attending conferences

EDUCATION AND TRAINING

13/11/2006 – 26/01/2011 Sheffield, United Kingdom
PHD IN MECHANICAL ENGINEERING University of Sheffield, Dept. Mechanical Engineering

Thesis title "Uncertainty Propagation Through Large Nonlinear Models". Uncertainty and sensitivity analysis, Bayesianstatistics, computer science and machine learning, computer modelling (finite element analysis), biomechanicalmodelling, computer programming.

Field of study Mechanical Engineering | **Thesis** Uncertainty Propagation Through Large Nonlinear Models

22/09/2002 – 23/06/2006 Sheffield, United Kingdom
MENG IN MECHANICAL ENGINEERING WITH SPANISH University of Sheffield, Dept. Mechanical Engineering

Including: Mathematics, Signal Processing, Condition Monitoring, Computer Modelling and Validation, Solar and WindEnergy, Nuclear Reactor Engineering and Spanish Foreign Languages at Work (FLAW) to level 4.

This included a year as an Erasmus student in Seville, Spain.

Field of study Mechanical Engineering | **Final grade** 2:1

04/09/1999 – 24/06/2001 Salisbury, United Kingdom
A LEVELS Bishop Wordsworth Grammar School

Final grade A (Maths); A (Physics); A (Geography)

LANGUAGE SKILLS

Mother tongue(s): **ENGLISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ITALIAN	C2	C2	C2	C2	C1
SPANISH	B1	B2	B1	B1	B1
FRENCH	B1	B2	B1	B1	B1
GERMAN	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Data Analysis

R | Microsoft Excel | MATLAB/Octave | Python

Data Visualisation

Plotly | Shiny | ggplot2 | Mapping (leaflet)

General IT/Software

Microsoft Office | SQL (SQL Server) | GitHub | Git | Unit testing | CI/CD

Drafting and reporting

Microsoft Powerpoint | Microsoft Word | LaTeX | Quarto | R Markdown

Web

HTML | CSS

ADDITIONAL INFORMATION

COMMUNICATION AND INTERPERSONAL SKILLS

Communication I am an excellent communicator: I am a strong advocate of clear writing and enjoy writing professionally and in my spare time. See examples of my writing styles:

- Technical report
- Academic article
- Blog post

I also a very good presenter, and have given numerous presentations in professional workshops, academic conferences (including keynote speeches) and in many training courses (many of which I have been the lead trainer).

Interpersonal
- Many years of experience in client engagement, stakeholder consultation (organising workshops and conferences)
- Excellent team player, either in a leadership role or otherwise

PUBLICATIONS

Complete list of publications

Please find my complete list of approx. 30 academic publications plus other reports at:

- Google Scholar
- Researchgate