c u r r i c u l u m v i t a e	

PERSONAL INFORMATION

Surname	Torreggiani
Name	Lorenzo
Address	Via circonvallazione sud, 11, 46041, Asola (MN), Italy
Telephone	+39 3316200875
E-mail	lor.torreggiani@gmail.com

Nationality	Italian

Date of birth	27/09/1996

Education and training

• Date (from-to)	November 2023 - Now
• Name and type of organisation providing education and training	Politecnico di Milano
Duration of the program of study	3 years
• Position	PhD Student
• Title of the PhD	Science, Technology and Policy for Sustainable Change

• Date (from-to)	Academic year 2020/2021- Academic year 2022/2023
• Name and type of organisation providing education and training	Università degli Studi di Brescia
Duration of the program of study	2 years
• Principal subjects/occupational skills covered	Management, Green Economy and Sustainability, Logistic
• Title of qualification awarded	Master's degree in management
Final mark obtained	100/110

Graduation thesis

Title	Industrial deep decarbonization: modelling and practice
Language	English
Supervisor	Prof. Nicola Pontarollo
Thesis Summary	This dissertation aims to describe the most common approaches to modelling industrial

emissions, focusing on the ability of available models to depict the different mitigation options available and relevant for energy-intensive industries. These options range from increasing energy efficiency to the development and deployment of novel negative-, zero-, or low-technologies. Importantly, the ability to produce quantitative forecasts of industrial energy (demand and) emissions strongly depends on the availability of past data for model calibration. Furthermore, different modelling approaches and methods are characterized by the ability to provide detailed scenarios in terms of geographical, sectoral, and technological detail. Understanding the strengths and weaknesses of available approaches and tools for industrial energy and emission modelling provides the basis to develop and interpret results that can be used to inform energy and climate-related policymaking. In this dissertation, I also describe the most promising deep decarbonization options in each sector and discuss if and how these options are represented in industrial energy models.

• Date (from-to)	Academic year 2016/2017 – Academic year 2020/2021
• Name and type of organisation providing education and training	Università degli studi di Brescia
Duration of the program of study	3 years
• Principal subjects/occupational skills covered	Finance, Economics, Statistics
• Title of qualification awarded	Degree in Banking and Finance
Final mark obtained	98/110

graduation thesis

Title	Il potenziale dell'energia eolica nel contesto della decarbonizzazione
Language	Italian
Supervisor	Prof. Rosella Levaggi
Thesis Summary	In this dissertation, the research has focused on studying the average wind speeds at a national level across the entire European area. In this context, the average wind speed is approximated to the wind potential of the country, in order to compare it with the actual installed wind capacity. The meteorological data chosen for this report are from the European Center for Medium-Range Weather Forecasts (ECMWF) ERA5 dataset recorded at an altitude of 100 meters. These data are presented in three dimensions: time, latitude, and longitude, with a resolution of 0.25°, and two variables, the "U" and "V" wind parameters. Once these variables were extracted, it was possible to calculate the wind speed in m/s using RStudio, utilizing the rWind functions Subsequently, the 9,998,040 observations were converted into a raster with 408 temporal layers, essentially a geographical grid composed of pixels with different colors according to the recorded value at a specific latitude and longitude. Using the raster, it was then possible to overlay the first temporal layer, containing the average wind speed for each geographic coordinate, onto a map in shapefile format. The data are then compared to the installed wind power capacity in Europe.

Publications and articles submitted

Author(s) and title	E. Verdolini, L. Torreggiani, S. Giarola, M. Tavoni, M. Hafstead, L. Anderson "Industrial Deep Decarbonization: Modeling Approaches and Data Challenges"
Language	English
Publication place	Resources For the Future, Washington DC
Date of publication	16/08/2023

Work experience

• Date (from-to)	2020 - Now
• Name and address of firm/university	Centro Euro-Mediterraneo sui Cambiamenti Climatici, via Marco Biagi 5 - 73100 Lecce, Italy
• Type of business or sector	Research
• Type of employment	Post-Degree Project name: 2D4D

		Supervisor: Elena Verdolini
• Main activities and responsibilities		• Research • Global power plant data gathering and manipulation with R studio.

• Date (from-to)	2022 - Now

• Name and address of firm/university	Centro Euro-Mediterraneo sui Cambiamenti Climatici, via Marco Biagi 5 - 73100 Lecce, Italy
• Type of business or sector	Research
• Type of employment	Post-Degree Project name: LOCALISED Supervisors: Elena Verdolini, Soheil Shayegh
• Main activities and responsibilities	• Creation and management of surveys with Qualtrics • Workshop with Assolombarda • Data gathering

Personal skills and competences

Mother tongue	**Italian**

Other language(s)	**English**
• reading	excellent
• writing	good
• speaking	good

Social skills and competencies	Empathy and a good understanding of social behaviours.

Organisational skills and competencies	Management skills and guide for new people

Technical skills and competencies	With software like R-Studio, Excel and Qualtrics

Date: 23/11/2023