

# **Prof. Eng. Francesco FATONE, PhD, IWA Fellow**

## **Università Politecnica delle Marche**

### **SHORT CV**

#### **PERSONAL and CONTACT DETAILS**

- Born in Venosa, Italy, in June 1978
- Google Scholar: <https://scholar.google.it/citations?user=8QJ-YXMAAAAJ&hl=it>
- SCOPUS AUTHOR PAGE: <https://www.scopus.com/authid/detail.uri?authorId=8585385700>
- ORCID ID: [orcid.org/0000-0003-0745-282X](https://orcid.org/0000-0003-0745-282X)
- LinkedIn: <https://it.linkedin.com/in/francesco-fatone-0662821>
- Twitter: @FFatone

#### **EDUCATION**

- 2007 Ph.D., Industrial and Environmental Biotechnology, University of Verona
- 2004 Interuniversity Master of Engineering (Master universitario di II livello - post-lauream), Chemical Engineering for Environment, University of Verona, Padua, Venice, Udine and Trieste
- 2003 Degree (Ciclo Unico (BS+MS)) cum laude, Environmental Engineering, Polytechnic University of Marche, Ancona

#### **ACADEMIC APPOINTMENTS**

- July 2019 - Present: *Full Professor* of Chemical-Environmental Engineering, Polytechnic University of Marche
- November 2018 - Present: Coordinator of the PhD Program in Civil, Environmental and Building Engineering and Architecture, Polytechnic University of Marche
- March 2017: Italian National Scientific Habilitation *Full Professor* of Chemical Plants
- Dec. 2014- June 2019: *Associate Professor* of Chemical-Environmental Engineering, University of Verona (up to Oct 2016) and Polytechnic University of Marche (from Nov 2016)
- 2008-2014: *Assistant Professor* of Chemical Plants and Processes, University of Verona
- 2003-2007: Research fellow, University of Verona, University of Venice "Cà Foscari", Marche Polytechnic University

#### **RESEARCH INTERESTS AND EXPERTISE**

Focuses his R&D&I activities mainly on sustainable and innovative treatments of wastewater and organic waste in order to deliver circular economy in cities, basins and industries The main research interests can be summarized as follows:

- Resource recovery (e.g. biopolymers, nutrients, cellulose, volatile fatty acids) from sewage sludge and organic waste
- Advanced processes for municipal and industrial wastewater treatment and safe reuse
- Biological nutrients, toxic and emerging contaminants removal processes for wastewater treatment
- Anaerobic co-digestion of sludge and solid organic waste
- Anaerobic fermentation of solid organic wastes for the production of valuable chemical compounds
- Biological and chemical/physical treatment of anaerobic digestate

- Resource recovery from solid waste

### **MAIN INTERNATIONAL PUBLICATIONS**

Since 2005 authored and co-authored **>160 SCOPUS-indexed papers**, more than 10 chapters of international edited book and more than 150 presentations at international and national congresses all dealing with the treatments and valorization of wastes and wastewaters ( **$H_{index} = 44$ ; Total citations > 5500; Average Impact Factor > 5 (source SCOPUS - updated May 2025)**).

### **SCIENTIFIC COORDINATION or LEADERSHIP in INTERNATIONAL R&D&I PROJECTS**

**Raised with his team more than 10 million € European R&D&I funding** within the following projects:

- EU-Horizon2020 "SMART-Plant" ([www.smart-plant.eu](http://www.smart-plant.eu)) **Coordinator**
- EU-Horizon2020 "HYDROUSA" ([www.hydrousa.org](http://www.hydrousa.org)) **Principal Investigator - WP Leader**
- EU-Horizon2020 "INTCATCH" ([www.intcatch.eu](http://www.intcatch.eu)) **Principal Investigator - WP Leader**
- EU-Horizon2020 "DWC" ([www.digital-water.city](http://www.digital-water.city)) **Principal Investigator - WP Leader**
- EU-Horizon2020 "ENERWATER" ([www.enerwater.eu](http://www.enerwater.eu)) **Principal Investigator - WP Leader**
- EU-Horizon2020 "ULTIMATE" ([www.ultimatewater.eu](http://www.ultimatewater.eu)) **Principal Investigator - Innovation Manager**
- EU-Horizon2020 "AquaSPICE" **Principal Investigator - Case Study Leader**
- EU-Horizon2020 "SEA2LAND" **Principal Investigator - Case Study Leader**
- EU-Horizon2020 (EU GREEN DEAL CALL) "PROMISCES" **Principal Investigator - Case Study Leader**
- EU-HorizonEurope "BIORECER" **Principal Investigator - Case Study Leader**
- EU-HorizonEurope "WATERUN" **Principal Investigator - WP Leader**
- EU-HorizonEurope MSCA "MICROALGAE 4.0" (P.I. Josué Gonzalez Camejo) **Coordinator**
- EU-HorizonEurope "SMART4ENV" **Principal Investigator - WP Leader**
- EU-HorizonEurope "FOLOU" **Principal Investigator - WP Leader**
- EU-HorizonEurope "VALZEO" **Principal Investigator - WP Leader**
- EU-HorizonEurope / MISSION "CARDIMED" **Principal Investigator - Case Study Leader**
- EU-HorizonEurope "CSSBoost" **Principal Investigator - WP Leader**
- EU-HorizonEurope / MISSION "SEACURE" **Principal Investigator - Case Study Leader**
- EU-HorizonEurope "ONE HEARTH" - **Local co-leader**
- EU-INTERREG ADRION "AMOCEAB" **Principal Investigator - Coordinator**
- EU-INTERREG ADRION "AIMPRESS" - **local co-leader**
- EU-PRIMA "FIT4REUSE" **Principal Investigator - WP Leader**
- EU-PRIMA "SURENEXUS" **Principal Investigator - WP Leader**
- EU-LIFE+ "BLUE LAKES" **Principal Investigator - WP Leader**
- EU-LIFE+ "LIFE LIVEWASTE" ([www.livewaste.org](http://www.livewaste.org)) **Principal Investigator - WP Leader**
- EU-LIFE+ "TURBINES" **Principal Investigator - WP Leader**
- EU-FP7 "LEF-BIOWASTE" ([www.lef-biowaste.org](http://www.lef-biowaste.org)) **Coordinator**
- EU-Water JPI WaterWorks2014 "Pioneer\_STP" **Principal Investigator - WP Leader**
- EU-Water JPI WaterWorks2017 "BLOWATER" **Principal Investigator - WP Leader**
- EU-WATER4ALL "TREASURE" **Principal Investigator - WP Leader**
- EU-ENI-CBC-MED "DECOST" **Principal Investigator - WP Leader**
- BODOSSAKI FOUNDATION "INNO4WATER" ([www.inno4water.com](http://www.inno4water.com)) **Coordinator**
- PI or Participation (Team Member) in additional 15-20 national and International research projects funded by the European Commission (Horizon2020, FP7, FP6, Life+), Ministry of University

and Research (PRIN), Ministry of Economic Development (Industria 2015), Veneto Region (ERDF), Fondazione Cariverona

#### **PATENTS AND SPIN-OFF**

- Co-authored n.2 national patents
- Co-founded the academic spin-off INNOVEN Srl ([www.innoven.it](http://www.innoven.it)) which he left in 2022.

#### **EDITOR OF INTERNATIONAL SCIENTIFIC JOURNALS**

- Editor-in-Chief the IWA H2Open Journal (IWA Publishing, United Kingdom)
- Guest Editor of Water Research (Elsevier) - Special Issue on "Resource Recovery" in 2019
- Editorial Board of Process Biochemistry (Elsevier)
- Editorial Board of Microbial Biotechnology (Wiley)
- Editorial Board of Urban Water Journal (Taylor and Francis)
- Editor of Water Science and Technology (IWA Publishing)
- Editor of Water Science and Technology: Water Supply (IWA Publishing)
- Editorial Board of Sustainability (MDPI)
- Editorial Board of Water (MDPI)
- Editorial Board of The Scientific World Journal - Chemical Engineering subject area (Hindawi Publishing)
- Editorial Board of Waste and Biomass Valorisation (Springer)
- Editor of the Journal of Water Sustainability (Editors in chief: H.H.Ngo, XC Wang)
- Editor of the Proceedings of the IWA specialized conference SSS4WATER (Venice, 18-22 April 2011)
- Editor of the Proceedings of the IWA specialized conference ecoSTP2014 (Verona, 23-27 June 2014)

#### **COORDINATION OF INTERNATIONAL CONFERENCES AND SPECIALIST GROUPS**

- Chair of the 3rd IWA Resource Recovery from Water (Venice, 08-11/September/2019)
- Chair of the 3rd European Nutrient Event (Rimini, 08-09/November/2018)
- Chair of the 2nd IWA Specialized Conference on "EcoTechnologies for Sewage Treatment Plants" (ecoSTP2014) [www.ecostp.org](http://www.ecostp.org) Co-chair of the Specialist Group on Small Water and Wastewater Systems (SWWS) - International Water Association (IWA)
- General Secretary of the IWA Resource Recovery from Water Cluster
- Leader of the Vision Leadership Team "Circular Water" in Water Europe
- Co-leader of the Cluster "Value in Water" in Water Europe
- Water JPI Management Board member - leader of task on alignment
- Member of the Body of Knowledge EIT Food Water Scarcity in Southern Europe
- Waste management expert for the application of the EU waste directives within the Italian Ministry of Environment
- Member of the Expert Group on "Circular Economy and Bioeconomy" within the Italian Ministry of Environment
- Member of the executive board of the technical-scientific committee of ECOMONDO
- Member of the coordination group of IWA Italia established within Utilitalia
- Member of the scientific committee of more than 30 international conferences, more than 20 invited as session chair, plenary or keynote speaker

#### **REFEREE**

Acts as reviewer for the following journals (list not complete):

Environmental Science and Technology (ACS), Water Research (Elsevier), Journal of Hazardous

Materials (Elsevier), Process Biochemistry (Elsevier), Asia-Pacific Journal of Chemical Engineering (Wiley Interscience), Chemical Engineering Journal (Elsevier), Journal of Membrane Science (Elsevier), Water Science and Technology (IWA Publishing), Desalination (Elsevier), Industrial Engineering and Chemistry Research (ACS), Bioresource Technology (Elsevier), Journal of Applied Electrochemistry (Springer), Desalination and Water Treatment (Desalination Publications), Environmental Technology (Taylor and Francis), Waste Management and Research (SAGE Journals), Chemosphere (Elsevier), The Science of the Total Environment (Elsevier), International Journal of Environmental Science and Technology (Springer), Water, Air, & Soil Pollution (Springer), Environmental Monitoring and Assessment (Springer), New Biotechnology (Elsevier), Waste Management (Elsevier), Journal of the Taiwan Institute of Chemical Engineers (Elsevier), Journal of Environmental Chemical Engineering (Elsevier), Frontiers of Environmental Science and Engineering (Taylor and Francis), Environmental Science and Pollution Research (Springer), Renewable Energy (Elsevier), International Biodeterioration and Biodegradation (Elsevier); Journal of Cleaner Production (Elsevier); Applied Microbiology and Biotechnology (Elsevier); FUEL (Elsevier); Food and Bioproducts Processing (Elsevier)

Acted as reviewer for international R&D proposals from South Africa, Israel, United Kingdom, Switzerland, Netherlands, New Zealand, Belgium, Chile, France, United States

#### **AWARDS**

- PhD Honoris Causa from "Gheorghe Asachi" Technical University of Iași (Romania)
- IWA (International Water Association) Fellow 2020-2025
- Best R&D&I project at iWater 2018 for Horizon2020 "SMART-Plant"
- SETTE (Corriere della Sera) Green Award 2015

#### **MAIN PROFESSIONAL MEMBERSHIP & SCIENTIFIC AFFILIATION**

- International Water Association (IWA), 2005 – present
- Gruppo Ricercatori di Ingegneria Chimica dell'Università (GRICU), 2008 - present
- Associazione Italiana di Ingegneria Chimica (AIDIC), 2008 - present
- International Scientific Research Network (ISRN) of 'NIREAS- International Water Research Center' located in Nicosia-Cyprus
- Board of Engineers of Ancona and Province

#### **TECHNICAL-SCIENTIFIC PRINCIPAL ADVISOR FOR FOLLOWING WATER AND/OR WASTE UTILITIES and INDUSTRIES**

**Raised more than 2 M€ for consultancy and R&D&I activities** from following private or public companies and utilities (**partial list**): CAP Holding SpA; HERA SpA; SMAT SpA; A2A SpA; IRETI; ALTO TREVIGIANO SERVIZI srl; SIDRA SpA; Servizi Porto Marghera Scarl; A.S.A. Azienda Servizi Anima s.r.l.; Servizi Idrici Sinistra Piave srl; AQUASPACE Srl; ZUEGG SpA; FIDIA Farmaceutici SpA; FUTURA Srl; ENEA; CIIP SpA; CAFC SpA

#### **ACADEMIC COURSES TAUGHT**

- Environmental Chemical Plants, Polytechnic University of Marche
- Process Optimization of Environmental Plants, Polytechnic University of Marche
- Bioreactors, University of Verona
- Environmental Biochemical Plants and Processes, University of Verona
- Bio-treatment of agro-food waste and wastewater, University of Verona
- Winery wastewater treatment, University of Verona
- Lab of Biochemical Plants and Processes, University of Verona

- Conventional and Advanced Biological Processes for Wastewater Treatment, School of Chemical Engineering for Environment, Universities of Verona, Padua, Venice, Trieste and Udine (at Treviso)
- Wastewater treatment and water management, post-lauream master University of Verona, University of Venice, Environmental Protection Agency of Veneto Region (ARPAV)

#### **MAIN INTERNATIONAL TEACHING AND NETWORK**

- Certified international teaching in UK, Spain, Greece, Brazil, Romania
- Responsible for more than 5 ERASMUS+ agreement
- Evaluator >10 International PhD candidates