



## Alma Mater Studiorum - Università di Bologna

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| <b>Name of the organisation:</b> | Alma Mater Studiorum - Università di Bologna   |  |
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### Description of the Organization

UNIBO is a prominent institution of higher education in Europe and the second largest university in Italy. Based in five campus (Bologna, Cesena, Forli, Ravenna, Rimini), with a branch in Buenos Aires, the University of Bologna offers more than 200-degree programmes among its 32 Departments and 5 Schools, attended by almost 90.000 students.

Through AlmaGoals, it is committed to the achievement of the Sustainable Development Goals of the UN2030 Agenda. From 2012 It is an active member of the European Institute of Innovation & Technology (EIT) and currently participates in EIT-Digital, EIT-Raw Material and EIT-Climate-KIC with 2 accredited curricula (ICT for Climate and Environmental Assessment and Management with the related Summer Schools) and a membership in the “e-circular” programme. Knowledge transfer to the third sector is ensured by Almacube, the University incubator, that supports the creation of spin-offs based on university patent (17 only in 2017).

With a constant and increasingly broad international perspective, University of Bologna is one of the most active universities leading and participating in European research and academic cooperation projects, with more than 100 projects running for internationalization of research/teaching activities and capacity buildings and 170 agreements with foreign companies. With regard to the Erasmus+ programme, UNIBO has so far been selected for 7 KA1 EMJMD, 6 KA1 Consortia, 49 KA2 Strategic Partnerships, 29 KA2 Capacity Building projects, 6 KA3 project, 14 Jean Monnet projects, 2 Sport projects. UNIBO’s international strategy is stated in the ECHER and in the “Alma Global 2020” document.

The Department of Statistics (Unibo) is one of the oldest-established faculties and has a multi-campus structure as it offers its teaching activities in Bologna and Rimini. In Rimini, there is also an international Master degree programme in Resource Economics and Sustainable Development that gives preparation in environmental economics and offers a view of the complex interactions among economic decisions, market





forces, governmental policies and the environment. The master in Quantitative Finance will play a key role in the project. It provides the most advanced techniques to measure risk in the financial and insurance industry and to design hedging and capital allocation policies. The Department of Statistics has set up numerous exchange programmes with other foreign universities and also agreements with national and international companies and institutions.

## Contributions that can be provided to the project

The University of Bologna will be in charge of the whole project coordination and implementation along with its financial monitoring and reporting. In addition, UNIBO will take part in all the activities of the project and, as project coordinator, UNIBO will play a role of supervision and will share with the partners the defined plan. The overall financial management will also be run by the University of Bologna, which has a long experience in the management of EU grants.

UNIBO will monitor also the activities that foresee multilateral cooperation among the partners and the creation of open environment for discussion and decision making.

Following the approval of the Amendment n.1 WP2 leadership is transferred from IMPA to UNIBO and involve as vice leaders the 3 SMEs P12, P13, P14 from Portugal, Spain and Greece.

These changes in the leaderships of WP2 intend mainly to exploit the experience in stakeholder's engagement, active participation and high commitment in GrEnFln of the SMEs in the partnership, particularly P12 PSE JF-Digital Energy (Portugal), P13 MIW Energia (Spain), P14 Speed Green (Greece), while solving the criticalities emerged relating WP2 coordination.

UNIBO is responsible of the preparation WP concerning the stakeholder's consultation and surveys (WP2) and strongly supports the dissemination and exploitation of results (WP11). For that concerns WP2 UNIBO is responsible the arrangement of a stakeholder's consultation survey, evaluation of the survey and first discussion of learning outcomes by a virtual meeting internal of the consortium, for planning of brainstorming activities and definition of the new educational methodologies to implement, for organizing a discussion about how to implement the novel educational methodologies and analysis of the requested technology (by a virtual conference).

Unibo will lead also WP3 and collaborate with Hera in order to collect the information coming from all the partners concerning the specific national programmes, existing double degrees among partners and the basic structure of the learning outcomes, mobility paths, ECTS provided. They will also collaborate to create a draft of a basic structure of learning outcomes and a draft of the consortium agreement.

Finally, in WP9 Unibo, supported by WU, will be responsible for the quality of the project. They will implement a quality control system (AQS) that will monitor the overall process both at the consortium and institutional level.

## Contact Person's Experience and Expertise

Silvia Romagnoli is associate professor of Mathematics for Economics, Actuarial Studies and Finance at the Department of Statistical Sciences of the University of Bologna. She currently serves as program director for the 2nd-cycle degree in Quantitative Finance – University of Bologna. Moreover, she has several official roles inside the UNIBO: she is member of the Council and the Research Commission of the Statistic's Department,





she is part of the Quality Assurance Commission and she is in the Board of the Double-degrees agreements of the Master in Quantitative Finance, she is actually the person in charge for the international exchange of the University of Bologna with Johannes Kepler Universit"at Linz e Karl-Franzens Universit"at Graz (Austria). Moreover, she has always been the supervisor of several research projects connecting the university and the industries as the Workshop in Energy Market (Bologna, April-May 2017) and the Intensive Programme in Energy Market that took place in Bologna in March 2018 as a Special Event of the INTQUANT Strategic Partnership, with Hera spa having the role of industrial partner. Among the managed project with industries we recall also the KRONOS project connecting the Department of Statistics and BetLab spa in a stable research group whose main goal is the development of an (high frequency data) optimal trading platform with dynamic programming models. Moreover, she worked as consultant for technical reports in support of CTU-CTP for derivatives valuation, anatocism and usury as long as actuarial consultant by the developing of a patent (S. Romagnoli, C. Muzzi: Mathematical model to evaluate TFR ex IAS19, Patent n.0601703, 11/4/2006).

Her educational activities involve the teaching in several courses of Applied Mathematics/Probability and Quantitative Finance at undergraduate/master and PhD level, along with the supervising of Master and PhD thesis also joint with foreign Institutes (inside the UNIBO programme called "Thesis abroad") and the writing of educational books on Mathematical Finance. She is also in charge of courses of Financial Markets Modelling and Big Data in Risk Management- Advanced Analytics Techniques inside the Master in Risk Management jointly launched by UNIBO and CRIF.

Silvia is a member of MIUR expert list for the Italian scientific evaluation (REPRISE) of research projects in the field of quantitative finance (SH1-Markets, Individuals and Institutions: Economics, Finance and Management) and she was official member of the VQR (2011-2014) reviewers in the same field. Moreover she is member of the Editorial Advisory Group (Applied Math field) and the Cambridge Scholar Publishing and referee of a number of scientific journals as American Mathematical Society, The European Journal of Finance, Journal of the European Economic Association, Journal of Future Markets, Statistics and Risk Modelling, Abstract and Applied Analysis, Scandinavian Journal of Statistics, Journal of Economics and Business, The Journal of Risk, International Review of Economics and Finance, Journal of Banking and Finance, Risks, Decisions in Economics and Finance, Econometrics and Statistics, IEEE Systems Journal, International Journal of Simulation and Process Modelling, International Journal of Accounting and Finance, Journal of Statistical Computation and Simulation, IEEE Transactions on Reliability. She is actually member of the specialized team in "DMC: Dependence Models and Copulas" of the ERCIM Working Group in Computational and Methodological Statistics (CMStatistics) and she was member of several international research project as RMI Credit Rating Research Grant- Advancing Risk Management for Singapore and Beyond (Program Director Dr Oliver Chen, National University of Singapore) and FIQUAM-Methodes Quantitatives en Finance CNRS-Credit risk.

Her fields of research are pricing and risk measures especially in multidimensional setting. A special focus is given to high dimensional problems which involve combinatoric algorithmic techniques and random matrices-codes. She has published extensively in international journals including top reviews and she's co-author of a scientific monography published by John Wiley & Sons. Silvia is usually invited as speaker in International Conferences and Seminar/Workshop in Italy and abroad.