



Europass Curriculum Vitae

Personal information

Diego Marazza

First name(s) / Surname(s) Circ. S.Gaetanino 24, 48123 Ravenna (Italy) Address + 39 0544 937334 Telephone(s) + 39 0544 937411 Fax(es) E-mail(s) diego.marazza@unibo.it Nationality Italian 25/01/1970 Date of birth Gender Male SYSTEM ANALYSIS AND SUSTAINABILITY IN THE BIOBASED CIRCULAR ECONOMY. **Desired employment / Occupational field** Adjunct professor, he works on models and system analysis applied to the soil carbon cycle, biomass treatment, regeneration, reuse and recycling of production waste for the development of new products, renewable energy and innovation, treatment of biomass, regeneration, reuse and recycling of production waste for the development of new products, renewable energy and innovation. Recent topics include the following topics: study of carbon sequestration capacity through the use of vegetable coals (biochar), advanced applications of renewable coals, study of methods for the mapping of residual biomass, industrial emissions and waste, long-term experiments for the agronomic application of biochar, soil quality indicators. Close collaboration with the Fraunhofer Institute Umsicht-Sulzbach Rosemberg.



Dates Employer27/09/2020- to dateBiological Geological and Environmental Department- University of Bologna https://bigea.unibo.it/en/index.html via S. Alberto 163, 48123 Ravenna (Italy)Occupation or position heldAdjunct professor for the course Environmental, Political and Economic Management Systems (Module 1 equivalent to 4 ECT) https://www.unibo.it/en/iteaching/course-unit-catalogue/course-unit/2020/350525Dates27/09/2017- 27/09/2020EmployerDepartment of Physics - University of Bologna http://www.fisica-astronomia.unibo.it/ https://www.fisica-astronomia.unibo.it/ http://www.sisca	Work experience	 Within the Environmental Management Research group of Interdepartmental Center of Research for Environmental Science (CIRSA) – Technopole of Ravenna and the Department of Physics of the University of Bologna, I have been actively working on the research line regarding system analysis and modelling of biorefining and industrial by-products and bioenergy and aimed to ensure an adequate knowledge of the system such value chains, players, flows, yields, social and environmental factors. The research field consist of understanding and representing the system, modelling it by adequate parameters and variables and measuring performances and changes through appropriate indicators. System analysis, in a life cycle thinking perspective, has been used to model the effect of new technologies and manufacturing systems at regional and national scale. In particular GHGs savings, resource and land use efficiency are key topics in my research field. I have been lecturing and teaching in the course on Environmental Management Systems, Environmental Policy and Economics within the master's degree on "Environmental analysis and management" of the University of Bologna. Subjects of my lectures were: sustainability principles, common pool resources, game theory and environmental economics. I supervise and co-supervise MSc and BSc thesis. The research has been applied to address industrial partners and to ensure an adequate uptake of biomass/waste treatment technologies such as the thermo-catalytic reforming, pyrolysis and anaerobic digestion. I have been assigned the role of innovation expert for the bioeconomy in the framework of the program Climate KIC and collaborated in the Hight Technology Aster and I am currently an European expert (EX2006C178283). My responsibilities range in the areas of project development and knowledge transfer in the bioeconomy and circular economy with special regard to bioenergy and biobased products. Activities and responsibilities include: research on syste
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	Research fellow - post PhD http://www.unibo.it/SitoWeb/default.aspx?UPN=diego.marazza@unibo.it https://www.researchgate.net/profile/Diego_Marazza						
	Coordinator: prof. Andrea Contin andrea.contin@unibo.it tel.: +39 0544 937333						
Main activities and responsibilities	Latest projects and achievements						
	WP leader in the project Star-Pro-Bio "Sustainability Transition Assessment and Research of Bio- based Products — STAR-ProBio" (Grant Agreement n. 727740). I actively contributed to the design and to the writing phase of the project and I have been appointed as WP leader of the ILUC risk assessment for bio-based products. Main output published here https://ec.europa.eu/info/funding- tenders/opportunities/portal/screen/opportunities/horizon-results-platform/20380 In the framework of this project, I have been tutoring the research fellowship Enrico Balugani and was the tutor of 2 scholarships concerning the development of the LANCA Model and a systemic dynamics and carbon accounting.						
	WP leader in the project To-Syn-Fuel "The Demonstration of Waste Biomass to Synthetic Fuels and Green Hydrogen" (H2020-LCE-2016-RES-IA, G.A. 745749). I actively contributed to the design and to the writing phase of the project and I am the Environmental and Health Officer of the project in charge of the risk analysis of the project consisting of the identification of risk sources and estimation of probability, impact and risk ownership. I have been also involved in the sustainability work package lead by University of Bologna. https://www.tosynfuel.eu						
	I actively participate the ERA-HDL-JPI-FACCE project "Systemic" a Knowledge Hub on Food and Nutrition Security to foster transnational and multidisciplinary collaboration and networking in order to accelerate, further characterize and to manage the impact of climate change on nutritional make-up of food, and to propose adaptive strategies/measures to ensure food and nutrition security.						
	 I had a contribution role in the writing of 4 currently running European and Regional projects: Interreg IT-HR PRIZEFISH concerning the valorisation of fish resources in the North Adriatic Interreg Italy-Croatia "MARine Litter cross-border awarenESS and innovation actions" MARLESS, concerning plastic recovery and recycling in the sea ERDF project "Sanificov" concerning sanitisation of working places from virus (with particular focus on Corona virus types) through an innovative combined cycle of heat and ozone in non-working hours. ERDF project "Value-CEIN" concerning phosphorous recovery from waste waters. 						
	 The Biorefineries in Emilia Romagna (BIOREFER Project) is an internal line of research aiming at setting up and studying a biorefining system in Emilia-Romagna. Several collaborations with research institutes, companies and the Emilia-Romagna Regional government and stemmed from this research line. Together with the company resitailia.org. I have been developing a biochar value chain to support a novel agro-ecology systems: by identifying, selecting and supporting a biochar 3200tonnes/y provider in the region (large scale) meeting Italian regulations; setting up an industrial lab analysis provider (up to 20 biochar samples/day); pursuing an industrial research activity to use biochar as compost improver. 						
	Senior researcher in Tapyro relating to the validation of the business model for a chemical free weed-control device that applies thermal energy as weed killing agent; the device is fuelled with renewable solid fuel such as agri-pellet or commercial pellet. My role is to supervise activities related to the environmental assessment especially related to the GHGs saving. The project is funded by Climate KIC						
	TERMOREF (2016-2018): Joint thermochemical process and reforming applied to residual biomass and zero-waste approach The project is aimed at developing 2 innovative processes and related prototypes to treat pruning, wine marc, tomato peels and agro-energy residues such as digestate, garden residues and the organic fraction of urban wastes. My role is addressing the organization and achievements of results for process and prototype (2) and I was involved in the sustainability assessment of the considered processes.						
	GoBioM (2016-2018): - Improving the biomethane technology and discovering novel opportunities at different nodes of the value chain, project funded by the Emilia-Romagna Region within the program European Regional Development Fund 2014-2020, proposes the technological optimization of regional / national chain of biomethane, with the overcoming of the major current problems, which are: the lack of Italian technology in the upgrading of biogas to biomethane, the need to use local residual biomass and the need to insert the biomethane plant in						

the biorefinery and green economy concepts. I have been assigned the task of mapping residues and wastes in the region in order to (i) determine the availability of substrates and agricultural and industrial sources (ii) to define the suitability of sources and to (ii) locate promising hotspots.

- The "Green Lab Valley" Project (2015-2017) financed by the Emilia-Romagna Region, led to the realization of a database of 90 companies including biomass providers, treatment companies and sites and to the development of specific indicators. The challenge is to design a versatile and attractive "biomass hub". A technological report concerning upstream biomass and biomass waste provisions have been published (http://www.ervet.it/ervet/wp-content/uploads/downloads/2015/10/Rapporto_ERVET_CIRI-CFR-DEF.pdf). This project is covering biomass availability and regulation barriers/opportunities.
- LOOP-Ports (2018-2020) Loop-Ports (Circular Economy Network of Ports) where I coordinated and supported the Italian activities: mapping and classification of the activities involved in circular economics in ports (e.g. <u>https://www.labelab.it/site/wp-content/uploads/sites/11/atti/W1-Marazza.pdf;</u>

http://www.erosionecostiera.isprambiente.it/files/eventi/41 GREGGIOEcomondoTNEC2020.pdf)

I am also initiating a research line: "From petrochemical poles to green chemistry poles. Development of a model of transition." The project consists of research and dissemination of transition models from the industrial configuration of the great centers of the petrochemical industry to a production model directed to green chemistry and the recycling and recovery of materials and related reorganization and conversion of industrial plants in "Eco Industrial Parks". The geographical area of the project reference is that of the so-called Quadrilateral chemistry (Ravenna, Ferrara, Mantova, Marghera), yet the scope of project is European. Up to now a master thesis has been realized addressing the circular economy index of tyres.

Following the BIOREFER Project, I have been named as the bioeconomy expert for Emilia-Romagna Region in the framework of the **Climate KIC projects**; participation in the activities of Climate KIC and in particular in bioeconomy platform activities.

In 2015-2016 I shared the responsibility of coordinating the preparation of the an European project related to call H2020-WASTE-2015-two-stage (proposal number: 688477) and collaborated to the preparation of the following projects: 4 ERDF projects (1 M€ each), an H2020- LCE-12-2015 project , an Innovative Training Network – European Industrial Doctorate (ITN-EID) – Marie Sklowdowska Curie Action – concerning Environmental Management of Ports and one project responding to the call H2020-LCE-2016-2017, topic LCE-08-2016- 2017; the preparation of an Expression of Interest for the **"Selection of six Model Demonstrator Regions to receive Advisory Support from the European Sustainable Chemicals Support Service"**, financed by the European Commission. Coordination and preparation of the **project SESTER** (sustainable and innovative esters from residual vegetable oils and byproducts from slaughterhouses), addressing the European Regional Development Funds (ERDFs) in collaboration with dealing with TEMIX OLEO a company dealing with ester synthesis. The project was key to initiate a long term business relationship with the company, which is now financing the R&D activities concerning the recovery of high-boiling residues.

I have been invited by Prof. Zichichi to contribute to the activities of the International Seminars on Planetary Emergencies at the Ettore Majorana International Foundation and Centre for Scientific Culture, in Erice, for the project **"The New Manhattan Project Science for Peace the World Over**"

I was an invited lecturer since 2013 in the course on Environmental Management Systems, Environmental Policy and Economics within the master's degree on "Environmental analysis and management" of the University of Bologna.

I was also co-tutoring some Master Thesis to flank and support the research activities, among which:

- Greenhouse gases (GHGs) balance related to the treatment of sewage sludge by an intermediate pyrolysis auger reactor combined with a reforming process, also known as Thermo-Catalytic Reforming (TCR).
- Retrofitting the chemical industrial district of Ravenna: the bioeconomy scenario.

Main achievements 2015-2004

I have been the senior researcher involved in an **environmental management** long-term project for the International Airport of Palermo management company (GESAP S.p.A.), which delivered, e.g., the technical analysis concerning the environmental indicators to be adopted and included in the "Regulated Tariff Contract" between GESAP S.p.A. and the Italian Government.

coordinated in a group of 5 and/or planned and/or executed all the following activities:

• Implementation of an Environmental Management System according to the ISO 14001:2004 Standard: implementation of the various parts of the environmental management system; - development and application of the procedures; resolution of non-conformities; adjustments to the internal structure. Maintenance of the system after obtaining the certification:

 implementation the IT platform: maintenance and updating of the contents of the site:

- maintenance of the regulatory compliance and implementation of the needed corrective / preventive actions;
- revision, integration and updating of the documentation of the EMS (manual, procedures, instructions, forms, etc.);
- definition of the best strategies to achieve objectives / goals / actions defined in the Environmental Program and their execution;
- communication with the public;
- identification of the training needs and assistance with preparing the training program;
- measurement of the environmental performance and of the performance of the system;
- revision of the system of internal auditing and assistance;
 - implementation of the changes to the system as a result of internal and external audits.
 - Energy certification of the office building.

Successful results in the Industrial Project **Sustainability Report - Unigrà Srl (2010-2013)**, commissioned by **Unigra S.p.A., Conselice** (Italy) active in the agri-food division. The challenge was to improve the biogas yields of an unconventional anaerobic digestion plant. I managed and oversaw the following activities: diagnosis, chemical analysis, experimental tests, data analysis and reports. This activity followed a three-year long collaboration with this company which led to the preparation of a report under the standard required by the Global Reporting Initiative (GRI).

Sustainability Report according to the GRI standard:

- creation of a consistent set of indicators as reported in the document "Guidelines for sustainability Reporting - version 3.0", prepared by the Global Reporting Initiative in 2006;
- verification, completion and organization of information;
- identification of the stakeholders;
- sharing of information with institutional bodies (municipality, province, region) and with the Industrial Associations;
- implementation of a dedicated software to maintain the indicator system
- elaboration of the Sustainability Report;
- drafting of a communication plan defining obstacles and opportunities with respect to the goals set by the Organization.

Collaboration agreement between the University of Bologna and Fraunhofer Gesellschaft Fraunhofer Umsicht - branch Sulzbach Rosemberg signed end of 2013. The agreement concerns the development of fast analytical methods for the characterization of pyrolysis oil and biochar, biological upgrading of pyrolysis slurry and obtainment of hydrocarbons, chemicals and coal substitutes, system analysis and market opportunities. I took care of activities and events to promote and implement the agreement, among which the organization of the event "Innovative products, New processes, Future markets - Meet Fraunhofer Umsicht ". Collaboration with the Fraunhofer Institute – Umsicht branch Sulzbach Rosemberg aimed at the development of joint research projects on energy storage and biomass reforming (biobattery concept). My role is to develop the system analysis of the selected technologies within the project "Market analysis of the Italian market potentiality in Emilia-Romagna for decentralized bioenergy systems based on the biobattery concept.".

Within the **Pioneer into Practice - Climate KIC** I developed an innovation project addressing bioenergy and innovation and put it into practice thanks to a placement at the Aston University, Birmingham UK, contributing to a project on the realization of a management scheme for the "Bioenergy Support Systems" in the Interreg Project BioenNW, and to the development of a business plan scheme aimed to support and score bioenergy projects. Successful completion of the following **Climate KIC pathfinder projects**:

 Biohorizon (2013-2014) - Horizon scanning the European Bioeconomy: mapping the bioeconomy industry to identify areas for growth, opportunity and innovation (<u>https://www.climatekic.org/projects/biohorizons/</u>) I have coordinated the Italian activities: Quantification and characterisation of bio-based businesses by using a "maxdiff" survey design; Identification of current and future key molecules, products and technologies and the potential direction for growth and innovation; Expand network contacts and create a European bio-based business directory and organized local dissemination.

<u>MuBiGen (Municipal Bioenergy Generation)</u> (2013-2014) in collaboration with IREN-Ambiente. I
have coordinated the Italian activities.

In 2011 I have been invited as an independent expert assisting the Emilia-Romagna in order to implement regional policies addressing new biomass plants. I in particular developed a GHGs saving index according to Dir. 2009/28/CE and other requirements and criteria in order to improve authorisation procedures. Since this appointment I have been involved in the following regional initiatives regarding bioenergy and biobased products

Completion in 2013 of the projects

- "Bioraffinerie, bioplastiche e filiere della biomassa in Emilia-Romagna" (2012-2013) (Biorefineries, bioplastics and value chains in region Emilia-Romagna) collaboration with ASTER, aiming to build three value chains: biodiesel from used fried oils, polyhydroxyalcanoates (PHA) from lignocellulosic sources, Polylactic Acid from the cheese industrial sector.
- (2011-2013) Participation to the industrial symbiosis project "GREEN Industrial Symbiosis" lead by the regional innovation agency ASTER. In 2012 bio-plastic innovation in Emilia Romagna: preparation of a short report within the Plastice project.
- (2011-2012) In 2012 I have been the rapporteur for the final document "Technological Scenarios for the Emilia-Romagna Region - section Green Economy" - Biorefinery expert. In 2011 I took part to a regional delegation and presented the regional policies and innovation activities in Hangzhou (China).

I participated to the project "**Coupled pyrolysis and anaerobic digestion**" (**PYDA**) regarding anaerobic digestion of pyrolysis oil and by-products. I took care of the mass-energy balance and GHGs savings. In collaboration with the chemistry research group, I prepared and managed the research industrial project "biopolymers from pyrolysis oil of residual by-products".

Ravenna Province Energy Plan (2008-2009) I have collaborated to the realization of the Energy Plan: of the Province of Ravenna aimed at energy planning in accordance with the regional and national energy policy:

- preparation of the documents to be presented to the municipalities and to the stakeholders;
- development of scenarios according to Business As Usual (BAU) and to the planned actions, using the LEAP software (Univ. of Lund, Sweden).

EMAS - Mountain Community Faenza Apennines (2004-2014) Municipalities of Riolo Terme, Casola Valsenio, Brisighella (Italy) and AmbienteFaenza Project (2002-2012)

coordinated in a group of 5 and/or planned and/or executed all the following activities:

- Implementation of an Environmental Management System according to the EMAS Regulation:
- drafting of the Initial Environmental Analysis;
- implementation of the various parts of the environmental management system;
- development and application of the procedures;
- resolution of non-conformities;

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adjustments to the internal structure.

• Maintenance of the system after obtaining the certification:

- implementation the IT platform: maintenance and updating of the contents of the site;
- maintenance of the regulatory compliance and implementation of the needed corrective / preventive actions;
- revision, integration and updating of the documentation of the EMS (manual, procedures, instructions, forms, etc.);
- definition of the best strategies to achieve objectives / goals / actions defined in the Environmental Program and their execution;
- o communication to the public;
- o identification of the training needs and assistance with preparing the training program;
- measurement of the environmental performance and of the performance of the system;
- revision of the system of internal auditing and assistance;
- o implementation of the changes to the system as a result of internal and external audits;
- assistance in drafting the annual Environmental Declaration.

In Faenza:

	 Agenda 21 process for the adoption of the Local Action Plan: drafting of the plan; drafting of guidelines for the monitoring of the plan; communication with the public and the institutional parts. Environmental Education Centre: connection with the regional system of the INFEA centers; training of operators and adaptation of the method; connection with the local system of information, communication and environmental education: schools, HARP, local associations, etc.; systematic link with the processes and tools within the Administration (EMAS, Agenda 21, Interreg, etc.); long-term planning and execution of specific activities Dashboard of sustainability: development of the communicative platform named "Dashboard of Sustainability", concerning air quality, waste management and water consumption Environment Web Portal: Creation of an "Environment Web Portal" where all the activities and news connected to the environment are presented and explained; link with the environmental management system of the Municipality of Faen- za and the Local Action Plan (Agenda 21). Web sites for EMSs (2004-2014) Setting up of a web site for the management of: documents environmental aspects - legal requirements action planning indicators deadlines related to the implementation of the Environmental Management Systems accord- ing to the ISO14001 scheme. Ihave contributed to the design of the "ontolo
Name and address of employer	interdepartmental centre for industrial research - University of Bologna via S. Alberto 163, 48123 Ravenna (Italy)
Type of business or sector	Education
Dates	01/09/2003 - 31/03/2011
Occupation or position held	research fellowship
Main activities and responsibilities	Collaboration in the project URAL RIVER PARK PROJECT URAL RIVER PARK PROJECT Unesco/MAB Biosphere. Logical framework project. State of the art reports. Mission to Kazakhstan- Almaty
	Independent expert of the European Commission acting as evaluator in the evaluation of research proposals in relation to FP7-2011-ECO-INNOVATION-Two Stages
	Index of sustainability in retail: publication of a work; presentation activities. Collaboration with Coop Adriatica.
	Project for the sustainability assessment of one of the largest Italian oils and fats company: carbon emission savings of palm oil
	Organization of a Fulbright Specialist Program in collaboration with Paolo Ricci from Amherst University
	Coordination of the Sustainability Education Center in Faenza
	Organization and scientific coordination of the University of Bologna summer school "Environmental risk management"

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	Tutor for an international internship in a project regarding environmental epidemiologic, air quality in the environmental management of the area of Faenza
	Sustainable Production and Consumption (PCS): responsible of the organization of a seminar in the Ecomondo fair with Barilla, Coop Italia, SCS consulting, Studio LCE.
	Organization and scientific coordination of the University of Bologna summer school "Sustainable patterns and lifestyles"
	Organization and scientific coordination of the University of Bologna summer school "Environmental risk management"
	Project management and scientific coordination: "dall'etica all'etichetta" ("ethic, etiquettes and bar codes") aimed at measuring sustainability consumption trends in the large-scale distribution funded by the Region Emilia-Romagna under the INFEA framework in partnership with Coop Adriatica
	Implementation and maintaining of environmental management system ISO14001 of international airport "Falcone-Borsellino" of Palermo
	Contribution in the project application to the EU 7th FP - COLLABORATIVE PROJECT - LARGE SCALE INTEGRATING PROJECT - ENV.2009.3.3.2.2 SUSTAINABLE BIOREFINERIES - proposed project name "BIOSUPPORT" (SUSTAINABLE USE OF PHOTOSYNTHESIS PRODUCTS FOR OPTIMUM RESOURCE TRANSFORM
	 Responsible for the italian environmental commission in the framework of the "Espace Rivière Europe"- E.R.E – InterregIIIC-SUD project, project devolopment – institutional implementation data collection and management; assistant for the scientific design; indicators setting; Development of a methodology for the classification of all the subjects, skills, sources of legislation, policy papers, studies, projects underway on the Lamone River. Description of the area trough indicators classified according to the Determinant- Pressure-State-Impact-Response (DPSIR) scheme: Development of a Decision Support System to analyse the modifications of land use needed to respond to critical elements, e.g. low water during summertime
Name and address of employer	University of Bologna - CIRSA (Inter-Department Center for the Environmental Research) Via S.Alberto 163, 48123 Ravenna (Italy)
Type of business or sector	Education
Dates	30/06/2004 - 31/01/2005
Occupation or position held	Education methods specialist
Main activities and responsibilities	adult training coordinator in the project "Piccoli Risparmiatori diEnergia" linked to the European funded project "Kids for Energy" (SAVE) – Fondazione Cariplo project implementation; educators selection; teacher of the educators (15 hours class; theory of the environmental communication ; organization of the training modules; steering committee ; reporting
Name and address of employer	AISA – Italian Association of Environmental Science 1 p.zza della Scienza, 20126 Milano (Italy)
Type of business or sector	Professional, scientific and technical activities
Education and training	
Dates	2003 - 2007
Title of qualification awarded	PhD in Environmental Science: Protection and Management of Natural Resources (DOTTORATO DI RICERCA IN SCIENZE AMBIENTALI : TUTELA E GESTIONE DELLE RISORSE NATURALI conseguito il 30/05/2007)
Principal subjects / occupational skills covered	Environmental management systems; environmental information systems; environmental data collection and management; environmental reporting and indicators.
Name and type of organisation providing education and training	ALMA MATER STUDIORUM – UNIVERSITA' DI BOLOGNA University of Bologna (Doctorate school in Earth and Environmental Sciences) Piazza di Porta San Donato, 1, 40126 Bologna (Italy)
Page 8 / 13 - Curriculum vitae of Diego Marazza	

Level in national or international classification	IS	CED	6									
Dates	July 2003											
Title of qualification awarded	July 2003 degree in environmental science (laurea in scienze ambientali indirizzo marino) - 104/110											
Principal subjects / occupational	geology, chemistry, physics, mathematics; economy and legislation; computer science, models											
skills covered Name and type of organisation	development and land representation											
providing education and training	ALMA MATER STUDIORUM – UNIVERSITA' DI BOLOGNA											
	University of Bologna (University) Via Zamboni, 33, 40126 Bologna (Italy)											
Level in national or international classification	ISCED 5											
Dates	1993											
Title of qualification awarded	Diplome d'étude approfondis (DEA) – mark: <i>passable</i>											
Principal subjects / occupational skills covered	Chimie Marine, Chimie Fine											
Name and type of organisation providing education and training	Université Bretagne Occidentale, Brest, France (University) avenue Le Gorgeu C.S, 20, 29285 CEDEX Brest (France)											
Level in national or international classification	IS	CED	5									
Personal skills and competences												
Mother tongue(s)	Italian											
Other language(s)												
Self-assessment			Unders	tand	ding		Spea	akin	g		Writing	
European level (*)	-		Listening		Reading	Sp	oken interaction	•				
English	-	C1	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	
French	-	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	B2	Independent user	
Spanish / Castilian	-	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User	
•	(*) Common European Framework of Reference (CEF) level											
Teaching skills and other competences	 Frontal and active teaching including: • integrate thought and practical activities; • enable varied learning styles; • enable a methodologically correct teaching of curriculum contents regarding single disciplines; • promote cognitive interaction with the others, whether adults or peers; • develop higher-level cognitive processes; • foster reflection and metacognitive activity; • support readiness to carry out tasks and motivation to learn; • enable observation and monitoring of students (e.g. their pre-knowledge and learning styles) My curriculum underpins the following competence statements: – research work 											
	Му _		riculum underpii esearch work	ns th	e following comp	eter	ice statements:					

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