

PERSONAL INFORMATIONS

Ledda Luigi

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PROFESSIONAL EXPERIENCE

CURRENT POSITION

01/07/2020 to date

Full professor (full-time) for the Scientific Disciplinary Sector AGR/02 (Agronomy and Herbaceous Crops) Department of Agricultural, Agri-food and Environmental Sciences, Polytechnic University of Marche, Ancona (Italy).

UNIVERSITY LEVEL
INSTITUTIONAL ROLES

13/12/2021 to date

By Rector's Decree no. 1527 of 20/12/2021, he is appointed Director of the Research and Service Center "SMART FARMING" (SFARM) of the Polytechnic University of Marche for the three-year academic period 2021/2024; elected by the Council of the Research and Service Center "SMART FARMING" (SFARM);

29/10/2021 to date

By Rector's Decree no. 1237 of 29/10/2021, he is appointed Member of the Board of the Educational-Experimental Agricultural Farm "Pasquale Rosati" of the Polytechnic University of Marche for the three-year academic period 2021/2024;

28/10/2011 – 30-06-2020

With Rector's Decree n. 3191 of 28 October 2019 he was appointed member of the Technical Scientific Committee of the Innovative Agriculture Center (IA) of the University of Sassari, (Italy);

01/11/2018–30-06-2020

Member of the Teaching Committee of the Bachelor's Degree Course in Forestry and Environmental Sciences and of the Master's Degree Course in Forestry and Environmental Systems, University of Sassari, Sassari (Italy);

01/11/2016–30-06-2020

Member of the commission for the Practical Applied Internship of the three-year Degree Courses in Agricultural Sciences and Technologies and of the Master's Degree Course in Agricultural Systems, University of Sassari, Sassari (Italy);

01/11/2012–30-06-2020

Member of the Research Committee of the Department of Agriculture, University of Sassari, Sassari (Italy);

01/11/2009–31/10/2017

Member of the Orientation Committee of the Department of Agriculture, University of Sassari, Sassari (Italy);

09/03/2007–30/04/2007

Member of the working group for the development of the "Coordinated program of interventions to promote the development of artichoke cultivation". Appointment of the Department of Agriculture and Agro-Pastoral Reform of the Sardinia Region, representing the University of Sassari;

01/09/2002 to date

Effective member of several Commissions for Degree Exams;

01/09/2002 to date

Effective member of several Commissions for Profit Examinations.

OTHER INSTITUTIONAL
ROLES

09/27/2023 to date

Coordinator of the CONAF Research and Innovation Transfer Department, CONAF resolution no. 355 of 09/27/2023;

12/09/2023 to date

Elected member of the Council of the National Order of Agronomists and Forestry Doctors (CONAF); from;

28/01/2020 to date

Member of the Regional Faunistic Committee of the Autonomous Region of Sardinia, designated by the Regional Council as an expert of the University of Sassari and established by Decree of the Council for Environmental Protection n. 688/3 of 01.28.2020;

25/11/2019 – 1/06/2023

Elected President of the Federation of the Orders of Agronomists and Forestry Doctors of Sardinia;

18/11/2019 – 1/06/2023

Elected President of the Order of Agronomists and Forestry Doctors of the province of Sassari;

08/09/2017 – 18/11/2019

Elected Vice President of the Order of Agronomists and Forestry Doctors of the province of Sassari;

2018/2019/2020

Effective member of the Commission for the State Examinations for the Qualification to practice the Liberal Profession of Doctor of Agronomy and Doctor of Forestry: I and II session 2018, I and II session

08/09/2017 – 18/11/2019 2019, I and II session 2020;
President of the Continuing Education Commission at the Order of Agronomists and Forestry Doctors of the Province of Sassari, pursuant to CONAF regulation 3/2013.

WORK EXPERIENCE

01/12/2019 – 30/06/2020 Full-time Associate Professor for the Scientific Disciplinary Sector AGR/02 (Agronomy and Herbaceous Crops), Department of Agriculture (formerly Faculty of Agriculture) of the University of Sassari, Sassari (Italy);

28/10/2019 – 30-06-2020 With Rectoral Decree n° 805 n. 3192 of 28 October 2019 it belongs to the Innovative Agriculture Center (IA) of the University of Sassari, Sassari (Italy);

06/05/2008 – 30-06-2020 With Rectoral Decree No. 805 of 6 May 2008, it belongs to the "Interdepartmental Center for the Conservation and Promotion of Plant Biodiversity", of the University of Sassari, Sassari (Italy);

13/03/2008 – 30-06-2020 With Rectoral Decree No. 430 of 13 March 2008, it belongs to the Interdepartmental University Center NRD (Desertification Research Unit), Sassari (Italy);

01/09/2005 – 30/11/2019 Full-time University Researcher confirmed in role with Rectoral Decree n°610 of 19 April 2006; Department of Agriculture (formerly Faculty of Agriculture) of the University of Sassari, (Italy);

01/09/2002 – 31/08/2005 University Researcher with an unconfirmed tenure for the Scientific Disciplinary Sector AGR/02 (Agronomy and Herbaceous Crops), appointed with Rectoral Decree no. 532/PD of 28/08/2002. In full-time service since 1 September 2002, he is affiliated with the Department of Agronomic Sciences and Agricultural Plant Genetics of the University of Sassari with Rectoral Decree no. 179 of 26/11/2002, Department of Agriculture (formerly Faculty of Agriculture) of the University of Sassari, Sassari (Italy);

21/12/1998–31/08/2002 Two-year research grant, renewed for a second two-year period, with a project entitled "Identification and characterization of the germplasm of traditional Sardinian horticultural species subjected to genetic erosion and evaluation of genetic variability in *Cynara cardunculus* var. *scolymus* L., *Solanum tuberosum* L., *Luffa cylindrica* L. and *Dactylis glomerata* L. in relation to the main cultivation problems encountered in Sardinia". Resignation submitted on 31 August 2002 as the winner of the comparative evaluation procedure for a university researcher position (SSD AGR/02) at the Faculty of Agriculture of the University of Sassari, Department of Agronomic Sciences and Agricultural Plant Genetics;

12/04/1997–31/12/1998 External collaboration assignment lasting 15 months, Awarded by the Department of Zootechnical Sciences of the University of Sassari, Sassari (Italy) for "floristic surveys on the monitored grass turfs, reorganization and processing of floristic and productive data collected in the experimental devices, processing of the historical series of available data", as part of the activities carried out in the MEDALUS III research project (MEDiterranean Desertification And Land USe) at the Desertification Research Unit of the University of Sassari;

05/08/1993–16/01/1994 External collaboration assignment lasting 15 months Awarded by the Institute of Zootechnics of the University of Sassari, Sassari (Italy) for "Identification of survey sites, execution of surveys on the phytomass offered and residual in the micro-basins, preparation of forage samples, determination of dry matter and floristic composition, execution of floristic surveys, reorganization and analysis of data collected within the EU research project MEDALUS II (MEDiterranean Desertification And Land USe)" at the Desertification Research Unit of the University of Sassari;

22/04/1993–30/07/1993 External collaboration assignment for 4 months, awarded by the Institute of Agronomy and Herbaceous Crops of the University of Sassari, Sassari (Italy) for "Determination of the potential production of seed and its components and of the qualitative characteristics of the seed in pastures improved with *Lolium rigidum* and *Trifolium brachycalycinum*";

RESPONSIBILITY FOR RESEARCH STUDIES AND PROJECTS FUNDED THROUGH COMPETITIVE CALLS WITH PEER REVIEW

20/06/2006 – 30/06/2010 Scientific responsible and fund holder of Research Unit No. 2 of the project "Climate Change and Agricultural and Forestry Production Systems: Impact on Carbon Reserves and Microbial Diversity of the Soil (SOILSINK)". Funded by the Special Supplementary Fund for Research (FISR), Ministries of Economy and Finance, University and Research, Environment, Land Protection, Agricultural and Forestry Policies, Project Coordinator Dr. Rosa Francaviglia CRA-ISNP Rome;

21/12/2006 – 30/06/2013 Scientific responsible and fund holder of the Sardinia Research Unit within the project "Energy from agricultural and forest biomass: improvement and integration of biofuel and fiber supply chains for the production of electrical and thermal energy (BIOENERGIE) - Subproject: Annual and perennial fuel and biomass crops in a hot arid Mediterranean environment" funded by the Ministry of Agricultural and

01/12/2010 – 01/12/2012	Forestry Policies, Coordinator of the subproject Dr. Sandro Palmieri CRA-CIN Bologna; Scientific Coordinator of the Project, Scientific Manager and Fund Holder of the Research Unit Department of Agronomic Sciences and Agricultural Plant Genetics of the project "Energy from photovoltaic in greenhouses: study of environmental parameters limiting tomato cultivation (ORTILUX)". Funded by the Sardinia Region (Regional Law 7 August 2007, No. 7: "Promotion of scientific research and technological innovation in Sardinia");
07/12/2012 – 30/06/2016	Scientific responsible and fund holder of Research Unit no. 3 Department of Agriculture - Sassari of the project "Interventions for the relaunch of the artichoke supply chain in Sardinia". Funded by the Autonomous Region of Sardinia, Regional Programming Center under the Regional Law of 7 August 2007, no. 7: "Promotion of scientific research and technological innovation in Sardinia", TENDER Projects. Project coordinator Dr. Barbara Pisano AGRIS Sardegna;
01/12/2014 – 30/09/2015	Scientific responsible and funder of the project "Innovation towards the sustainability of the artichoke cultivation system at a company scale: "Spinoso sardo" in organic regime (Ecocynara)". Funded under the POR FESR Sardinia 2007-2013 Axis VI – Competitiveness;
01/09/2016 – 31/08/2018	Scientific Responsible and Fund Holder at the Department of Agriculture of the University of Sassari of Partner No. 9 USASSARI - Department of Agriculture of Sassari - of the project "MARKet uptake of an innovative irrigation Solution based on LOW WATER-ENERgy consumption, MASLOWATEN " Funded by the European Commission under the project Horizon 2020-WATER-2014-2015/H2020-WATER-2014-two-stage, Grant Agreement number 640771. Project Coordinator: Prof. Luis Navarte, Polytechnic University of Madrid (Spain);
01/01/2017 – 01/04/2019	Scientific responsible and Fund Holder for the University of Sassari of the project "Innovative Sustainable Agriculture in the Mediterranean - IS@M". Funded by A.G. with prot. AAOGRT/0522795 /F.45.70 under the European Regional Development Fund INTERREG Marittimo-It Maritime-Fr, Priority Axis 1, OS 2, PI 3A, lot B1;
16/10/2017 – 30/06/2020	Scientific Coordinator and Fund Holder for the University of Sassari of the Cluster Top Down project "Organic artichoke: innovation and sustainability of the supply chain - CarBio". Funded by the POR Sardegna FESR 2014-2020 program - Action 1.1.4 Support for collaborative R&D activities for the development of new sustainable technologies, new products and services. Proposers: Department of Agriculture of the University of Sassari and Institute of Food Production Sciences of the National Research Council;
22/12/2017 – 30/06/2020	Scientific responsible and Fund Holder for the University of Sassari and Fund Holder of the Project "Wireless Sensor nETworks for soil analySis - WISELY". Funded by the Sardinia Region under the Call for Proposals "Aid for Research and Development Projects" - POR FESR Sardinia 2014 –2020 Axis 1 Action 1.1.3 Aid for Research and Development Projects (Pursuant to D.G.R. n. 40/09 of 06.07.2016 and D.G.R. n. 48/30 of 06.09.2016);
17/01/2018 – 30/06/2020	Scientific Manager of the project "Networked Intelligent Computing with Observation satelliTES for precision Agriculture Unified Sensing - NICOLAUS", Funded by POR FESR Sardinia 2014-2020, Axis I - Scientific Research, Technological Development and Innovation, Action 1.2.2 - Support for the implementation of complex projects of research and development activities on relevant thematic areas and the application of technological solutions functional to the implementation of S3 strategies, AEROSPACE specialization area, Research and development program; Holder of the funds for the University of Sassari;
30/04/2020– 30/06/2020	Scientific Responsible and Fund Holder at the Department of Agriculture of the University of Sassari of partner no. 6 - University of Sassari (UNISS) - of the project "Accessible, reliable and affordable solar irrigation for Europe and beyond (SolAqua)". Approved by the European Commission under the Horizon 2020 Framework Programme Call: H2020-LC-SC3-2020-RES-IA-CSA Project: 952879 — SolAqua, GAP; Project Coordinator: Prof. Luis Navarte, Polytechnic University of Madrid (Spain); Invitation letter received on 20.03.2020; Preparation of grant data & annexes: by 10 April 2020; Declaration of honour (DoH) by 30 April 2020;
07/28/2022 - 06/30/2023	Scientific responsible and fund holder for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the research agreement with the University of Sassari within the WP4 (Environmental monitoring for the differentiated management of crops) of the project "Advanced technologies for lands management and tools for innovative development of an eco-sustainable agriculture – ATLANTIDE" approved by the Autonomous Region of Sardinia (CUP J88D20000070002) within the Research and Development (R&D) projects in collaboration between companies and research organizations or research infrastructures (€75,000);
18/11/2022 - 1/06/2024	Scientific responsible of the Caddy Project, Digital Business Notebook: Calibration of satellite crop monitoring systems (remote sensing) on Sardinian meadows and pastures, for the development of an information system to support the agricultural company, financed by the Sardinia Region under the Rural Development Program 2014-2020 - Reg (EU) n. 1305/2013 - Sub-measure 16.2 "Support for pilot projects and the development of new products, practices, processes and technologies". (€150,000). From;
1/12/2022 to date	Scientific responsible and holder of funds for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the PSR REGIONE SARDEGNA TE-LO project,

	Grant of support to the company SPIVA S.R.L. with registered office in CAGLIARI CUAA 03606730921 No. of support application SIAN 04250180397, No. of rectification application SIAN 34250287579, Leader of the G.O. "TE.LO", CUP MASTER: H59J22002520009, PSR 2014/2020 sub-measure 16.1 – SECOND PHASE "Support for the establishment and management of the operational groups of the PEI in the field of agricultural productivity and sustainability" (XXX.XXX,00 €);
25/01/2023 to date	Scientific responsible and fund holder for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the Project 101084106 — FOLOU — HORIZON-CL6-2022-FARM2FORK-01 "Bringing knowledge and consensus to prevent and reduce FOod LOss at the primary production stage. Understanding, measuring, training and adopting";
01/09/2023 to date	Scientific responsible and fund holder for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the Project 101112731 — CARDIMED — HORIZON-MISS-2022-CLIMA-01 "Climate Adaptation and Resilience Demonstrated In the MEDiterranean region";
01/04/2024 to date	Scientific director and holder of funds for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the PSR REGIONE SARDEGNA EDEN-GO project Grant of support to the company SVILUPPO E TERRITORIO SOCIETA' COOPERATIVA SOCIALE With registered office in Villamassargia CUAA 03288090925 Support application no. 04250179936 Leader of the G.O. "EDEN-GO" - CUP: H31D23000080009 PSR 2014/2020 sub-measure 16.1 – SECOND PHASE "Support for the establishment and management of the operational groups of the PEI in the field of agricultural productivity and sustainability";
02/04/2025 to date	Coordinator of the PRIN 2022 project, Project code: 2022BWVWYZS "AVICS (Advanced Vertical Indoor Cultivation Systems) The Advanced Home Cultivator - Towards a sustainable indoor food self-production (Total cost €266,507.00);

RESPONSIBILITY FOR SCIENTIFIC STUDIES AND RESEARCH ENTRUSTED BY QUALIFIED PUBLIC OR PRIVATE INSTITUTIONS

04/07/1999 – 03/07/2000	Fund holder and Scientific Manager of the project "Identification, characterization and conservation of the germplasm of some traditional horticultural species of Sardinian agriculture subjected to genetic erosion", Funded by the University of Sassari as part of the projects presented by young researchers. Scientific-Technological Sectors (1-9);
11/09/2001 – 10/09/2002	Fund holder and Scientific Manager of the project "Post-harvest dormancy mechanisms and response to dormancy-breaking interventions in <i>Solanum tuberosum</i> L. tubers, intended for second-crop planting" Funded by the University of Sassari as part of the projects presented by young researchers. Scientific-Technological Sectors (1-10);
29/11/2005 – 29/11/2008	Fund holder and Scientific Manager of the external project assigned by UO. n. 7 (Council for Research and Experimentation in Agriculture, Center for the Study of Plant-Soil Relationships) within the research project "Agricultural systems and methods for improving the quality of plant production and the environment" – acronym SIMBIO-VEG". unded by the Special Supplementary Fund for Research (FISR), Ministries of Economy and Finance, University and Research, Environment, Land Protection, Agricultural and Forestry Policies. Manager UO 7 Dr. Stefano Canali CRA-Center for the Study of Plant-Soil Relationships (Rome), Project Coordinator Prof. Paolo Barberi Sant'Anna School of Advanced Studies and Specialization in Pisa;
05/10/2006 – 31/07/2007	Responsible for the Agreement with the Provincial Consortium for Fruit Growing of the Province of Sassari within the project "The cultivation of green asparagus in Sardinia and in the Southern regions with techniques with minimal environmental impact". Funded by the Regional Council of Sardinia;
10/10/2007 – 10/10/2010	Fund holder and Scientific Manager for the Department of Agronomic Sciences and Agricultural Plant Genetics (University of Sassari) for the research agreement as a subcontractor with CRAS – ERA Sardegna within the project "Evaluation of the production potential of herbaceous crops for the production of biofuels in Sardinia". Funded by the Regional Council of Sardinia;
07/05/2010 – 13/07/2012	Fund holder and Scientific Manager for the Department of Agronomic Sciences and Plant Genetics of the University of Sassari, of the agreement as subcontractor of the UO n. 3 CRA – RPS (Centre for the study of plant-soil relationships) within the project "Indirect methods for the management of weeds in organic horticulture-ORWEEDS". Funded by the Ministry of Agricultural, Food and Forestry Policies within the National Action Program for Organic Agriculture and Organic Products for the years 2008 and 2009 – Action 2.2. Manager of the UO n. 3 Dr. Fabio Tittarelli CRA – RPS (Centre for the study of plant-soil relationships), Rome. Project coordinator Dr. Stefano Canali CRA – RPS (Centre for the study of plant-soil relationships) Rome;
14/10/2010 – 30/10/2011	Fund holder and Scientific Manager for the Department of Agronomic Sciences and Agricultural Plant Genetics (University of Sassari) for the renewal of the research agreement as a subcontractor with

04/04/2016 – 30/06/2020	CRAS – ERA Sardegna within the project "Evaluation of the production potential of herbaceous crops for the production of biofuels in Sardinia". Funded by the Regional Council of Sardinia; Fund holder and Scientific Manager for the Department of Agriculture of the University of Sassari of the third-party agreement with A.R.P.O.S. Soc. Coop. a.r.l., Regional Association of Fruit and Vegetable Producers of Sardinia. Consultancy activity on open-field horticultural cultivation systems (processing tomato and artichoke);
01/11/2016 – 30/06/2020	Responsible for the agreement with the company Naturalis Società Cooperativa Agricola (San Nicolò D'Arcidano, OR). Activation of positions reserved for employees of companies engaged in highly qualified activities within the XXXII cycle of the PhD Courses of the University of Sassari, PhD Course in Agricultural Sciences, curriculum in "Productivity of Cultivated Plants";
31/05/2019 – 30/06/2020	Fund holder and Scientific Manager for the Department of Agriculture of the University of Sassari of the three-year third-party agreement with the company Agricultural Production Engineering S.r.l. Agronomic research and consultancy activities to be conducted for the design and validation of eco-sustainable functional food production systems;
09/10/2019 – 30/06/2020	Fund holder and Scientific Manager for the Department of Agriculture of the University of Sassari of the three-year third-party agreement with the Campidanese Agricultural Producers Organization. Research activities to be conducted through the setting up of open-field experiments aimed at developing innovative irrigation and fertilization systems in artichoke cultivation;
02/17/2021 - 11/27/2021	Fund holder and Scientific Manager for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the third-party agreement with GERMINA S.r.l for research and validation activities related to the patent enhancement process of the project called Serra Adattativa; 23,700 euros + VAT; from;
02/05/2022 - 31/07/2022	Fund holder and Scientific Manager for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the third-party agreement with Enerland Italia S.r.l.; €15,000;
16/06/2022 to date	Fund holder and Scientific Manager for the Interdepartmental Smart Farming Center of the Polytechnic University of Marche of the third-party agreement with Enerland Italia S.r.l. (€135,000);
23/09/2022 - 10/01/2025	Fund holder and Scientific Manager for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the consultancy agreement with Enereco S.p.A. tax code/VAT number 01099200410 Registered office in Fano (PU), Via Divisione Carpazi n. 14; (€30,000);
01/09/2022 to date	Scientific manager of Task 6.1.3 within the Project Agritech Project (CUP: I33C22001290007), presented within the MUR Notice - D.D. n. 3138/2021 - Innovation Ecosystems - PNRR - Mission 4 Education and Research - Component 2 From research to business - Investment 1.4, funded by the European Union - Next Generation EU - Spoke 6, coordinated by the University of Turin;

DIRECTION OR PARTICIPATION IN NATIONAL AND INTERNATIONAL RESEARCH GROUPS

05/08/1993 – 15/01/1995	Member of the UO NRD (Desertification Research Unit of the University of Sassari within the project "Mediterranean Desertification and Land Use - MEDALUS II). Funded by the European Commission - Environment and Climate Programme. UO Manager: Prof. Giuseppe Enne;
01/09/1993 – 31/10/1997	Member of the research group of the project "Improvement of forage crops for semi-arid areas". Funded by the European Commission CEE AIR CT 93 1031, Project Coordinator: Dr. Hippolito Medrano (Universitat de les Illes Balears);
16/01/1995 – 31/12/1996	Member of the UO Institute of General Agronomy and Herbaceous Crops of the University of Sassari within the project "Sustainable forage-zootechnical systems for dairy sheep in Sardinia", Project "Foraggicoltura Prativa II, 4th and 5th year of activity, sub-project "Pastures". Funded by the Ministry of Agricultural, Food and Forestry Resources. UO Manager: Prof. Pietro Bullitta;
20/05/1996 – 30/09/1998	Member of the UO Institute of General Agronomy and Herbaceous Crops Sassari within the project art. 65 D.P.R. 382/1980 (ex 40%) "Arboreal and herbaceous polycultural systems with the use of self-reseeding annual legumes and grasses". Funded by the Ministry of University and Scientific Research, UO Manager Prof. Salvatore Caredda, Project Coordinator Prof. Fabio Caporali;
01/01/1997 – 31/12/1999	Member of the UO Department of Agronomic Sciences and Plant Genetics of Agriculture Sassari within the project art. 65 D.P.R. 382/1980 (40% share) "Evaluation of strategic and anti-erosion forage species suitable for arid and semi-arid Mediterranean environments". Funded by the Ministry of University and Scientific and Technological Research, UO Manager Prof. Giuseppe Rivoira, Project Coordinator Prof. Concetta Vazzana;
21/03/2000 – 20/03/2003	Member of the UO Department of Agronomic Sciences and Agricultural Plant Genetics within the project "Agricultural Production in Environmental Defense (PANDA)". Funded by the Ministry of Agricultural and Forestry Policies, Head of the UO Prof. Salvatore Caredda;
27/03/2000 – 26/03/2003	Member of the UO Department of Agronomic Sciences and Agricultural Plant Genetics within the PRIN

	project "Artichoke (<i>Cynara scolymus</i> L.)". Funded by the Ministry of Agricultural and Forestry Policies, Head of UO Prof. Sergio Lanteri;
01/10/2003 – 21/05/2009	Member of the CNR Sassari UO in the project "Native perennial forage plants for sustainability of farming systems in the western Mediterranean (PERMED)". Funded by the European Commission VI Programma Marc. 2003-2006 01/01/2004, Contract No. INCO-CT-2004-509140) 2004, UO Manager Dr. Claudio Porqueddu, Project Coordinator Dr. Francois Lelievre INRA France;
30/11/2004 – 21/12/2006	Member of the Department of Agriculture of Sassari in the PRIN project "Role of nitrogen fixation of legumes and green manure for the management of soil fertility", Unit Manager Prof. Salvatore Caredda, Project Coordinator Prof. Luciano Cosentino;
20/02/2006 – 30/06/2010	Scientific responsible and fund holder of Research Unit No. 2 of the project "Climate Change and Agricultural and Forestry Production Systems: Impact on Carbon Reserves and Microbial Diversity of the Soil (SOILSINK)". Funded by the Special Supplementary Fund for Research (FISR), Ministries of Economy and Finance, University and Research, Environment, Land Protection, Agricultural and Forestry Policies, Project Coordinator Dr. Rosa Francaviglia CRA-ISNP Rome;
21/12/2006 – 30/06/2013	Scientific responsible and fund holder of the Sardinia Research Unit within the project "Energy from agricultural and forest biomass: improvement and integration of biofuel and fiber supply chains for the production of electrical and thermal energy (BIOENERGIE) - Subproject: Annual and perennial fuel and biomass crops in a hot arid Mediterranean environment" Funded by the Ministry of Agricultural and Forestry Policies, Coordinator of the subproject Dr. Sandro Palmieri CRA-CIN Bologna;
07/08/2008 – 30/06/2015	Member of the UO Interdepartmental Center of the University NRD within the project "Analysis of the impact of climate change on cropping systems, with particular reference to the main herbaceous crops. Line 2 of the national project "AGROSCENARI - Scenarios for the adaptation of Italian agriculture to climate change (2008-2013)". Funded by the Ministry of Agricultural, Food and Forestry Policies, UO Manager Prof. Pier Paolo Roggero, Project Coordinator Dr. Domenico Vento;
01/12/2010 – 01/12/2012	Scientific Coordinator of the Project, Scientific Manager and Fund Holder of the Research Unit Department of Agronomic Sciences and Agricultural Plant Genetics of the project "Energy from photovoltaic in greenhouses: study of environmental parameters limiting tomato cultivation (ORTILUX)". Funded by the Sardinia Region (Regional Law 7 August 2007, No. 7: "Promotion of scientific research and technological innovation in Sardinia");
07/12/2012 – 30/06/2016	Scientific responsible and fund holder of Research Unit no. 3 Department of Agriculture - Sassari of the project "Interventions for the relaunch of the artichoke supply chain in Sardinia". Funded by the Autonomous Region of Sardinia, Regional Programming Center under the Regional Law of 7 August 2007, no. 7: "Promotion of scientific research and technological innovation in Sardinia", TENDER Projects. Project coordinator Dr. Barbara Pisano AGRIS Sardinia;
01/02/2013 – 01/02/2016	Member of the Department of Agriculture, Sassari, UO within the PRIN project "IC-FAR: Evaluation of the uncertainty associated with climate change impact forecasts on Italian herbaceous cropping systems, through long-term observations and mathematical models of cropping systems, to support adaptation strategies", Head of the UO and Project Coordinator Prof. Pier Paolo Roggero;
21/03/2013 – 21/09/2016	Member of the Department of Agriculture Sassari UO within the FIRB project "Multidisciplinary and innovative methodologies for the sustainable management of agricultural systems", UO Manager Dr. Giovanna Seddaiu, Project Coordinator Dr. Anna Irene De Luca;
01/12/2014 – 30/09/2015	Scientific responsible and funder of the project "Innovation towards the sustainability of the artichoke cultivation system at a company scale: "Spinoso sardo" in organic regime (Ecocynara)". Funded under the POR FESR Sardinia 2007-2013 Axis VI – Competitiveness;
1/09/2016 – 31/08/2018	Scientific Responsible and Fund Holder at the Department of Agriculture of the University of Sassari of Partner No. 9 USASSARI - Department of Agriculture of Sassari - of the project "Market uptake of an innovative irrigation Solution based on LOW WATER-ENERGY consumption, MASLOWATEN ". Funded by the European Commission under the project Horizon 2020-WATER-2014-2015/H2020-WATER-2014-two-stage, Grant Agreement number 640771. Project Coordinator: Prof. Luis Navarte, Polytechnic University of Madrid (Spain);
01/01/2017 – 01/04/2019	Scientific responsible and Fund Holder for the University of Sassari of the project "Innovative Sustainable Agriculture in the Mediterranean - IS@M". Funded by A.G. with prot. AAOGR/ 0522795 /F.45.70 under the European Regional Development Fund INTERREG Marittimo-It Maritime-Fr, Priority Axis 1, OS 2, PI 3A, lot B1;
16/10/2017 – 30/06/2020	Scientific Coordinator and holder of funds for the University of Sassari of the Cluster Top Down project "Organic artichoke: innovation and sustainability of the supply chain - CarBio". Funded by the POR Sardegna FESR 2014-2020 program - Action 1.1.4 Support for collaborative R&D activities for the development of new sustainable technologies, new products and services. Proposers: Department of Agriculture of the University of Sassari and Institute of Food Production Sciences of the National Research Council;
22/12/2017 – 30/06/2020	Scientific responsible and Fund Holder for the University of Sassari and Fund Holder of the Project "Wireless Sensor nEtworks for soil anaLYsis - WISELY". Funded by the Sardinia Region under the Call for Proposals "Aid for Research and Development Projects" - POR FESR Sardinia 2014 –2020 Axis 1 Action 1.1.3 Aid for Research and Development Projects (Pursuant to D.G.R. n. 40/09 of 06.07.2016

17/01/2018 – 30/06/2020	and D.G.R. n. 48/30 of 06.09.2016); Scientific Coordinator of the project "Networked Intelligent Computing with Observation satelLites for precision Agriculture Unified Sensing - NICOLAUS". Funded by POR FESR Sardegna 2014-2020, Axis I - Scientific Research, Technological Development and Innovation, Action 1.2.2 - Support for the implementation of complex projects of research and development activities on relevant thematic areas and the application of technological solutions functional to the implementation of S3 strategies, AEROSPACE specialization area, Research and development program; Holder of the funds for the University of Sassari;
02/01/2019 – 01/01/2021	Member of the research group of the project "Quantitative and qualitative relationships of the selenium cycle in the dairy sheep chain in Sardinia: determination of pedological, floristic and animal variability SEL-OVIN-Sardegna". Funded by the Autonomous Region of Sardinia for the Thematic Area 07 basic research projects - Year 2017 - Development and Cohesion Fund 2014-2020 and Regional Law 7/2007; Project Coordinator Prof. Anna Nudda;
2020	Member of the research group within the agreement between the Department of Agriculture of the University of Sassari and the company San Marco Bioenergie S.p.A., aimed at developing a research project on the use of agricultural and forestry biomass. Scientific Coordinator Prof. Giuseppe Pulina.
30/04/2020-30/06/2020	Scientific Responsible and Fund Holder at the Department of Agriculture of the University of Sassari of Partner No. 6 - UNIVERSITA DEGLI STUDI DI SASSARI (UNISS) - of the project "Accessible, reliable and affordable solar irrigation for Europe and beyond (SolAqua)" approved by the European Commission under the Horizon 2020 Framework Programme Call: H2020-LC-SC3-2020-RES-IA-CSA Project: 952879 — SolAqua, GAP; Project Coordinator: Prof. Luis Navarte, Polytechnic University of Madrid (Spain); Invitation letter received on 20.03.2020; Preparation of grant data & annexes: by 10 April 2020; Declaration of honor (DoH) by 30 April 2020;
07/28/2022 - 06/30/2023	Scientific responsible and fund holder for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the research agreement with the University of Sassari within the WP4 (Environmental monitoring for the differentiated management of crops) of the project "Advanced technologies for lands management and tools for innovative development of an eco-sustainable agriculture – ATLANTIDE" approved by the Autonomous Region of Sardinia (CUP J88D20000070002) within the Research and Development (R&D) projects in collaboration between companies and research organizations or research infrastructures (€75,000);
18/11/2022 to 1/06/2024	Scientific responsible of the Caddy Project, Digital Business Notebook: Calibration of satellite crop monitoring systems (remote sensing) on Sardinian meadows and pastures, for the development of an information system to support the agricultural company, financed by the Sardinia Region under the Rural Development Program 2014-2020 - Reg (EU) n. 1305/2013 - Sub-measure 16.2 "Support for pilot projects and the development of new products, practices, processes and technologies". (€150,000). From;
01/04/2022 to date	Scientific manager of Task 6.1.3 within the Project AGRITECH Project (CUP: I33C22001290007), presented within the MUR Notice - D.D. n. 3138/2021 - Innovation Ecosystems - PNRR - Mission 4 Education and Research - Component 2 From research to business - Investment 1.4, funded by the European Union - Next Generation EU - Spoke 6, coordinated by the University of Turin;
01.07.2022 to date	Member of the research group of the Vitality Project (CUP: I33C22001330007), presented within the MUR Notice - D.D. n. 3277/2021 - Innovation Ecosystems - PNRR - Mission 4 Education and Research - Component 2 From research to business - Investment 1.5, funded by the European Union - Next Generation EU - From 01.07.2022 to date;
1/12/2022 to date	Scientific responsible and holder of funds for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the PSR REGIONE SARDEGNA TE-LO project, Grant of support to the company SPIVA S.R.L. with registered office in CAGLIARI CUA 03606730921 No. of support application SIAN 04250180397, No. of rectification application SIAN 34250287579, Leader of the G.O. "TE.LO", CUP MASTER: H59J22002520009, PSR 2014/2020 sub-measure 16.1 – SECOND PHASE "Support for the establishment and management of the operational groups of the PEI in the field of agricultural productivity and sustainability" (XXX.XXX,00 €);
25/01/2023 to date	Scientific responsible and fund holder for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the Project 101084106 — FOLOU — HORIZON-CL6-2022-FARM2FORK-01 "Bringing knowledge and consensus to prevent and reduce FOod LOss at the primary production stage. Understanding, measuring, training and adopting";
05/01/2023 to date	Member of the D3A research unit within the project "Beeflower - Innovative systems in the sunflower supply chain for the protection of biodiversity, ecosystem services and for the use of new protein sources". Funded by the Marche Region under the Rural Development Program 2014-2022 - Measure 16.1 – Year 2021 - Project ID 59430, principal investigator Prof. Paola Riolo (D3A, UNIVPM);
14/07/2023 to date	Member of the D3A research unit within the project "Innovative irrigation systems in organic viticulture as a climate change mitigation strategy (IRRVINE)". Funded by PSR Marche 2014/2022 Measure 16.2 a program - Support for pilot projects and the development of new products, practices, processes and technologies. Principal investigator prof. Paola Deligios (D3A, UNIVPM);
01/09/2023 to date	Scientific responsible and fund holder for the Department of Agricultural, Food and Environmental

01/04/2024 to date	Sciences of the Polytechnic University of Marche of the Project 101112731 — CARDIMED — HORIZON-MISS-2022-CLIMA-01 "Climate Adaptation and Resilience Demonstrated In the MEDiterranean region"; Scientific responsible and fund holder for the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche of the PSR REGIONE SARDEGNA EDEN-GO project Grant of support to the company SVILUPPO E TERRITORIO SOCIETA' COOPERATIVA SOCIALE With registered office in Villamassargia CUAA 03288090925 Support application no. 04250179936 Leader of the G.O. "EDEN-GO" - CUP: H31D23000080009 PSR 2014/2020 sub-measure 16.1 – SECOND PHASE "Support for the establishment and management of the operational groups of the PEI on agricultural productivity and sustainability";
02/04/2025 to date	Coordinator of the PRIN 2022 project, Project code: 2022BWWYZS "AVICS (Advanced Vertical Indoor Cultivation Systems) The Advanced Home Cultivator - Towards a sustainable indoor food self-production (Total cost €266,507.00);

**SCIENTIFIC RESPONSIBILITY
OF A RESEARCH GROUP
THROUGH THE ACTIVATION
AND FINANCING OF
OCCASIONAL CONTRACTS,
Co.Co.Co, SCHOLARSHIPS,
RESEARCH GRANTS, PhD
GRANTS, FIXED -TERM TYPE
A RESERACHERS**

2002 to date

- 08/04/2002-31/05/2002 Dr. Emma Rapposelli: Occasional work contract for the "Determination of the weight of plant samples and conducting analyses for the determination of hormone content with immunoenzymatic methodology. Presentation of data in tabular and graphic form" at the Department of Agronomic Sciences and Agricultural Plant Genetics of the University of Sassari;
- 02/2004-05/2004 Mr. Mauro Salis: Occasional work contract in the context of coordinated and continuous collaboration with the Department of Agronomic Sciences and Agricultural Plant Genetics of the Faculty of Agriculture of the University of Sassari with the following tasks: 1) data archiving and database management of the research program "interventions on the main agronomic problems of artichoke cultivation"; 2) basic and advanced statistical processing (SAS); 3) rendering of the documents in tabular and graphic form;
- 02/2004-05 2004 P.A. Luca Doro: Occasional work contract in the context of coordinated and continuous collaboration with the Department of Agronomic Sciences and Agricultural Plant Genetics of the Faculty of Agriculture of the University of Sassari with the following tasks: 1) monitoring of the physiological state of artichoke plants through the use of "gas analyzer" devices; 2) phytosanitary management and use of growth regulators in the field of cardoon plantation;
- 12/2005-11/2008 Dr. Giulia R. Urracci: Funding (100%) of a PhD scholarship within the project "Climate Change and Agricultural and Forestry Production Systems: Impact on Carbon Reserves and Microbial Diversity of the Soil (SOILSINK)". Doctoral School in Agricultural, Forestry and Food Production Systems Sciences, Specialization "Agrometeorology and Ecophysiology of Agricultural and Forestry Systems". Final dissertation entitled: "Climate Change and Carbon-Sinks: Evaluation of the Spatial Variation of Carbon Reserves in Soil in Extensive Cropping Systems Typical of Gallura (North-Eastern Sardinia)". Guided Lecturer Dr. Luigi Ledda;
- 12/2006-11/2009 Dr. Giovanna Porcu: Funding (100%) of a PhD scholarship within the project "Climate Change and Agricultural and Forestry Production Systems: Impact on Carbon Reserves and Microbial Diversity of the Soil (SOILSINK)". Doctoral School of Research in: Agricultural and Forestry Systems and Food Production Sciences. Specialization: Productivity of Cultivated Plants. Final dissertation entitled: "Carbon sink dynamics in a Mediterranean agro-forestry chronosequence: characterization of organic matter fractions. Guiding teacher Dr. Giovanna Seddaiu;
- 03/26/2007-04/20/2007 Dr. Emma Rapposelli: Occasional work contract within the project "FISR-SOILSINK" at the Department of Agronomic Sciences and Agricultural Plant Genetics of the University of Sassari, for the conduct of "Physical-chemical analyses on soil samples collected in experimental devices identified in grassed vineyards, worked vineyards, and grass pastures. Development of the database and processing of data in tabular and graphic form";
- 26/03/2007-20/04/2007 Dr. Cinzia Culurgioni: Occasional work contract within the project "FISR-SOILSINK" at the Department of Agronomic Sciences and Agricultural Plant Genetics of the University of Sassari, for the "Determination of residual biomass in experimental devices identified in grassed vineyards, worked vineyards, pastures and forage fields, the development of the database

and data processing and the return of data in both tabular and graphical form”;

- 03/26/2007-04/20/2007 Dr. Simona Muroni: Occasional work contract within the project “FISR-SOILSINK” at the Department of Agronomic Sciences and Agricultural Plant Genetics of the University of Sassari, for the preparation of soil samples collected in experimental devices identified in grassed vineyards, worked vineyards, pastures and forage fields, for the conduct of physical-chemical analyses and collaboration in conducting them, for the development of the database and data processing and the return of data in both tabular and graphic form;
- 28/04/2010-10/06/2010 Dr. Francesco Piras: Occasional work contract within the project “FIRS - SOILSINK” – Climate change and agricultural and forestry production systems: impact on carbon reserves and soil microbial diversity”, for the performance of the following activity: updating of the data set for the calibration and validation of simulation models of soil carbon dynamics (pedological, vegetation, agronomic and management data), conducting descriptive statistical analyses and returning the data in tabular and graphic form, aimed at drafting the final report;
- 02/2010-05/2012 Dott. Luca Doro: Borsa di studio (Bando L. 7/2007 “Borse di studio per giovani ricercatori” Regione Autonoma della Sardegna) presso la Sezione di Agronomia e Genetica Vegetale Agraria, Dipartimento di Agraria, Università degli Studi di Sassari. Titolo del progetto: “Dinamica della sostanza organica e degli elementi nutritivi nel sistema colturale carciofo”. Tutor Scientifico: Dott. Luigi Ledda;
- 05/31/2010-05/31/2011: Dr. Giulia R. Urracci: Scholarship (Call for proposals L. 7/2007 “Scholarships for young researchers” Autonomous Region of Sardinia) at the Section of Agronomy and Agricultural Plant Genetics, Department of Agriculture, University of Sassari. Project title: “Impact of changes in land use and management of agro-forestry systems on soil fertility in the Mediterranean environment”. Scientific Supervisor: Dr. Luigi Ledda;
- 06/01/2010-06/01/2012 Dr. Anna Paola Chergia: Scholarship (Call for proposals L. 7/2007 “Scholarships for young researchers” Autonomous Region of Sardinia) at the Section of Agronomy and Agricultural Plant Genetics, Department of Agriculture, University of Sassari. Project title: “The main factors responsible for the atrophy of the flower head in the artichoke (Spinoso Sardo)”. Scientific tutor: Dr. Luigi Ledda;
- 01/06/2010-01/06/2012 Dr. Paola A. Deligios: Scholarship (Call L. 7/2007 “Scholarships for young researchers” Autonomous Region of Sardinia) at the Section of Agronomy and Plant Genetics, Department of Agriculture, University of Sassari. Project title: “Influence of the main agrometeorological factors on phenology and production in Brassica napus v. oleifera DC: calibration of a simulation model”. Scientific tutor: Dr. Luigi Ledda;
- 15/06/2011-13/11/2013 Dr. Roberta Farci: Two-year research grant at the Department of Agriculture of the University of Sassari as part of the project “Energy from agricultural and forestry biomass: improvement and integration of the biofuel and fibre supply chains for the production of electrical and thermal energy, “CRA-BIOCAB” and evaluation of the production potential of herbaceous crops for the production of biofuels in Sardinia, Bioenergies;
- 06/2011-10/2011 Dr. Ester Spissu: Occasional work contract at the Department of Agriculture, University of Sassari. Experimental tests on weed control in corn cultivation in Arborea (OR) commissioned by Bayer CropScience S.r.l., aimed at testing the effects on the crop and the efficacy on weeds of a new active herbicide ingredient, before its commercialization; scientific director Dr. Luigi Ledda;
- 01/11/2012-01/02/2013 Dr. Anna Paola Chergia: Scholarship at the Department of Agriculture of the University of Sassari as part of the research project “Energy from photovoltaic in greenhouses: study of environmental parameters limiting tomato cultivation (ORTILUX)”, funded by the Autonomous Region of Sardinia regional law 7 August 2007, n.7” call 2008;
- 15/05/2013-15/05/2014 Dr. Paola A. Deligios: Annual research grant at the Department of Agriculture of the University of Sassari for the activity “Energy exploitation of residual artichoke biomass”, as part of the FIRB 2012 project (cap: F.S. 2.02.001 CUP J81J12000830001). Scientific director: Dr. Luigi Ledda;
- 05/05/2014-15/09/2014 Dr. Marco Cossu: Scholarship at the Department of Agriculture of the University of Sassari as part of the research project “Interventions for the relaunch of the artichoke supply chain in Sardinia”, financed by the Autonomous Region of Sardinia, Regional Programming Center as part of the Regional Law of 7 August 2007, n. 7: “Promotion of scientific research and technological innovation in Sardinia”, TENDER Projects;
- 01/06/2014-01/06/2016 Dr. Paola A. Deligios: Two-year research grant at the Department of Agriculture of the University of Sassari for the activity “Energy valorization of artichoke residual biomass”, within the FIRB 2012 project (cap: F.S. 2.02.001 CUP J81J12000830001). Scientific

director: Dr. Luigi Ledda;

- 01/2015-09/2015 Dr. Martina Buffa: Scholarship at the Agronomic Sciences, Herbaceous Crops and Genetics section of the Department of Agriculture of the University of Sassari within the research project: "Innovation towards the sustainability of the artichoke cultivation system at the farm scale: "Spinoso sardo" in organic regime - Ecocynara". Funded by the INNOVA.RE project (P.O.R. Sardegna 2007 - 2013);
- 01/2015-09/2015 Dr. Ester Spissu: Scholarship at the Agronomic Sciences, Herbaceous Crops and Genetics section of the Department of Agriculture of the University of Sassari as part of the research project: "Innovation towards the sustainability of the artichoke cultivation system at the farm scale: "Spinoso sardo" in organic regime - Ecocynara". Funded with the funds of the INNOVA.RE project (P.O.R. Sardinia 2007 - 2013);
- 10/2015-02/2016 Dr. Martina Buffa: Scholarship at the Agronomic Sciences, Herbaceous Crops and Genetics section of the Department of Agriculture of the University of Sassari as part of the research project: "Interventions for the relaunch of the artichoke supply chain in Sardinia";
- 21/10/2015-21/02/2016 Dr. Ester Spissu: Research grant at the Agronomic Sciences, Herbaceous Crops and Genetics section of the Department of Agriculture of the University of Sassari as part of the project "Interventions for the relaunch of the artichoke supply chain in Sardinia";
- 13/07/2013-12/11/2016 Dr. Stefania Solinas: Post-graduate scholarship at the Department of Agriculture of the University of Sassari for the "Evaluation of the environmental sustainability of crops intended for the production of biomass for energy purposes through the application of a Life Cycle Assessment (LCA) study" as part of the project "Evaluation of production potential for the production of biofuels (BIOCARLEDDA)";
- 15/09/2016-15/09/2018 Dr. Paola A. Deigios: Research grant at the Department of Agriculture of the University of Sassari for "Water balance and physiological, phenological and productive evaluation of the artichoke irrigated by sprinkling with air conditioning function" within the research project MASLOWATEN (Horizon 2020 research and innovation programme - No640771);
- 01/03/2017-28/02/2018 Dr. Stefania Solinas: Research grant at the Department of Agriculture of the University of Sassari for "Environmental assessment of the life cycle of Mediterranean cropping systems characterized by irrigation systems based on photopumping" within the project H2020-MASLOWATEN – HORIZON 2020 - Energy saving in agriculture. Alternative energies";
- 01/04/2017-31/03/2018 Dr. Gavino Sanna: Annual research grant at the Department of Agriculture of the University of Sassari for the "Quantification and characterization of residual biomass from agricultural crops grown at the Mauro Deidda Experimental Teaching Company of the University of Sassari", funded by the University of Sassari;
- 30/04/2017-30/12/2018 Dr. Andrea Piras: Post-graduate research grant at the Department of Agriculture of the University of Sassari for the research activity "Morpho-physiological and productive evaluation of the crops under investigation; evaluation of the health status and epidemiological risk of the crops under investigation; development, validation and optimization of a collaborative platform that brings together new innovative tools to support decision-making" to be carried out within the project PC IFM 2014-2020 IS@M "Innovative Sustainable Agriculture in Mediterranean" CUP F25I16000020003, using the funds of the same project (MARITTIMO17IS@M);
- 01/01/2018-31/08/2018 Dr. Stefania Solinas: Research grant at the Department of Agriculture of the University of Sassari for the "LCA evaluation of the cultivation systems of the artichoke grown in Sardinia through precision irrigation and climate control" within the project "MASLOWATEN - HORIZON 2020 - Energy saving in agriculture. Alternative energies";
- 14/09/2018-13/09/2020 Dr. Gavino Sanna: Annual research grant, renewed for a second year, at the Department of Agriculture of the University of Sassari, for the "Characterization of low-cost sensors for the detection of the chemical-physical characteristics of the soil and the cultivation environment", within the project "Wireless Sensor networks for soil analysis - WISELY" funded by the Sardinia Region under the Call for Proposals "Aid for Research and Development Projects" - POR FESR Sardinia 2014 –2020 Axis 1 Action 1.1.3 Aid for Research and Development Projects;
- 09/15/2018-09/18/2020 Dr. Maria Teresa Tiloca: Annual research grant, renewed for a second year, at the Department of Agriculture of the University of Sassari, for the activity on "Organic artichoke: innovation and sustainability of the supply chain" within the Cluster Top Down project "Organic artichoke: innovation and sustainability of the supply chain - CarBio" financed by the POR Sardegna FESR 2014-2020 program - Action 1.1.4 Support for collaborative R&D activities for the development of new sustainable technologies, new products and services;
- 01/11/2018-30/10/2020 Dr. Marco Cossu: Annual research grant, renewed for a second year, at the Department of Agriculture of the University of Sassari, for the "Calibration of decision-making and

forecasting support models in agriculture, through crop and land monitoring with satellite surveys, field sensor networks and precision agriculture techniques", as part of the project "Networked Intelligent Computing with Observation satelLites for precision Agriculture Unified Sensing - NICOLAUS" funded by the POR FESR Sardinia 2014-2020, Axis I - Scientific Research, Technological Development and Innovation, Action 1.2.2 - Support for the implementation of complex research and development projects on relevant thematic areas and the application of technological solutions functional to the implementation of the S3 strategies, AEROSPACE specialization area, Research and development program;

- 01/11/2018-30/10/2020 Dr. Stefania Solinas: Annual research grant, renewed for a second year, at the Department of Agriculture of the University of Sassari, for the "Analysis of the requirements of agricultural enterprises and definition of the chemical-physical quantities to be observed; carrying out preparatory and exemplary environmental sustainability analyses in order to detect the existence of a potential relationship between environmental impact indicators and indices identified on the basis of satellite images such as to allow the validation of the latter using representative companies for the main agricultural sectors as a reference; validation of the real use of the framework and its potential use by end users" within the project "NICOLAUS - Networked Intelligent Computing with Observation satelLites for precision Agriculture Unified Sensing", POR Sardegna FESR 2014-2020 – Axis I Scientific Research, Technological Development and Innovation, Action 1.2.2 – Support for the implementation of complex research and development projects on relevant thematic areas and the application of technological solutions functional to the implementation of S3 strategies, AEROSPACE Specialization Area, Research and Development Program;
- 01/11/2019-31/10/2022 Dr. Paola A. Deligios: Recruitment of a fixed-term researcher [art. 24, paragraph 3, letter a), L. 2010/240] for the S.S.D. AGR/02, at the Department of Agriculture of the University of Sassari. Full-cost financial coverage from the NICOLAUS project funds (POR FESR Sardinia 2014-2020). Scientific responsible Dr. Luigi Ledda;
- 07/01/2020-06/05/2020 Dr. Roberta Farci: Research grant at the Department of Agriculture of the University of Sassari for "Analysis of databases on herbaceous and horticultural cropping systems for the quantification of biomass from agricultural activity available in the regional territory" using the funds of the San Marco Bioenergie S.p.A. commercial agreement.
- 1/11/2021 – 31/10/2024 Dr. Marco Cossu: Recruitment of a fixed-term researcher [art. 24, paragraph 3, letter a), L. 2010/240] for the S.S.D. AGR/04 at the Department of Agriculture of the University of Sassari. Full-cost financial coverage from the RESTART project funds.
- 1/11/2021 – 31/10/2024 Dr. Marco Fiorentini: Agreement with the Council of the National Order of Agronomists and Forestry Doctors CONAF for the Co-financing (50%) of a PhD scholarship within the XXI cycle of the Doctoral School in AGRICULTURAL, FOOD AND ENVIRONMENTAL SCIENCES, Polytechnic University of MARCHE; Final dissertation entitled: "Implementation of photovoltaic irrigation with automatic, precision and climate-control irrigation techniques". Lead teacher Dr. Luigi Ledda;
- 01/02/2024-31/01/2026 Dr. Pier Franco Luigi Fraboni: Two-year research grant at the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche for activities on "Cropping systems, precision agriculture and digitalization".
- 01/04/2024 – 31/03/2027 Dr. Matteo Francioni: Recruitment of a fixed-term researcher [art. 24, paragraph 3, letter a), L. 2010/240] for the S.S.D. AGR/02 at the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche Full-cost financial coverage from the PNRR Agritech project funds and H2020 FOLOU from the PNNR AGRITECH and H2020 FOLOU project funds
- 01/02/2024 – 31/01/2025 Dr. Anna Maria Cuscianna: Annual research grant at the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche for activities on "Adoption of remote sensing techniques in the management of arable and horticultural crops" using the Atlantide project funds
- 01/05/2024- 30/04/2026 Dr. Marco Appicciutoli: Annual research grant at the Department of Agricultural, Food and Environmental Sciences of the Polytechnic University of Marche for activities on "Cultivation of horticultural species in innovative systems" using funds from the PNRR VITALITY project.
- 01/09/2023- 31.08.2025 Sig. Marco Fattorini: Activation at the AZIENDA AGRARIA UNIVPM of an annual contract, renewed for a second year, for Collaborators Area - Technical, scientific, technological, IT and general services sector, former Technical, scientific and data processing area - Category C1, full-time - on funded projects.
- 01.01.2025 - 31.12.2025 Dott. Stefano Zenobi: Annual research grant Sector s.d. AGRI-02/A - Agronomy and Herbaceous Crops, on the topic "Digital technologies and sustainable practices for

monitoring and optimizing Mediterranean cropping systems". pursuant to art. 22, paragraph 4, letter b) of Law no. 240 of 12.30.2010, at the Department of Agricultural, Food and Environmental Sciences, Polytechnic University of Marche.

- 4.02.2025 - 3.02.2026 Dott. Marco Fiorentini: Research grant Sector s.d. AGRI-02/A (Agronomy and Herbaceous Crops), on the topic "Development of advanced technologies for the control of microclimate and agronomic management in innovative cultivation systems", pursuant to art. 22, paragraph 4, letter b) of Law no. 240 of 12.30.2010, at the Department of Agricultural, Food and Environmental Sciences, Polytechnic University of Marche.

AWARDING OF PRIZES AND RECOGNITION FOR SCIENTIFIC ACTIVITY INCLUDING AFFILIATION TO ACCADEMIES OF RECOGNIZED PRESTIGE IN THE SECTOR

2002 to date

- Member of the Italian Society of Agronomy; from 20-11-2002 to date;
- Member of the Italian Society of Horticulture (SOI); from 19-06-2003 to date;
- Member of the International Society for Horticultural Science (ISHS); from 01-01-2004 to date;
- Award of the 2010 annual prize, equal to € 10,000.00, related to the success obtained in the evaluation of the project entitled "Irrasalt" – VII P.Q., prize awarded within the scope of the Award System for Scientific Research, pursuant to Art. 13, c. 2, of Regional Law no. 7 of 7 August 2007; from 08-08-2011 to date;
- Award of the University of Sassari prize for the year 2011 pursuant to art. 29 paragraph 19 of Law 240 of 2010; from 11-12-2014 to date;
- Award of the University of Sassari prize for the year 2013 pursuant to art. 29 paragraph 19 of Law 240 of 2010; from 11-12-2014 to date;
- In the VQR 2011-14 evaluation for Area 07 (Agricultural and Veterinary Sciences), contributes within the University of Sassari to the evaluation of its SSD by awarding two products both rated "Excellent, 1 point".

SPECIFIC PROFESSIONAL EXPERIENCES

2008 to date

- Proposer for the University of Sassari of a short-visit (10 days) of Dr. Florance Volaire (INRA, UMR SYSTEM, Montpellier, France) within the University Visiting Professor program, call 2008; from 26-10-2008 to 05-11-2008;
- Proposer for the University of Sassari of a short-visit (10 days) of Prof. Gerrit Hoogenboom (Director, AgWeatherNet, & Professor of Agrometeorology, Washington State University, Prosser, Washington, USA) within the University Visiting Professor program, call 2010; from 04-07-2011 to 09-07-2011
- Proposer for the University of Sassari of a short-visit (30 days) of Dr. Armen Kemanian (Pen State University, USA) within the University Visiting Professor program, 2011 call; from 10-05-2012 to 14-06-2012;
- "Ad hoc" reviewer of the following journals: Agronomy for Sustainable Development, Agronomy, European Journal of Agronomy, Field Crop Research, Catena, Solar Energy, Journal of Environmental Management, Scientia Agricola, Plants, Sustainability, Agriculture, Ecological Modelling, International Journal of Biometeorology, International Journal of Molecular Sciences, Grass and Forage Science, Hydrological Sciences Journal, Renewable Agriculture and Food Systems, Turkish Journal of Agriculture and Forestry; Archives of Agronomy and Soil Sciences, Land Degradation & Development; from 09.24.2013 to date;

- Proposer for the University of Sassari of a long-visit (3 months) of Prof. Sohby ElSohaimy (City of Scientific Research and Technological Applications, Universities and Research Centers District, New Borgel Arab, 21934 Alexandria, Egypt) as part of the University's Visiting Professor program, 2018 call. from 02-08-2018 to 05-06-2018.

ORGANIZATION OR PARTICIPATION AS A SPEAKER AT SCIENTIFIC CONFERENCES IN ITALY OR ABROAD

1998 to date

- Speaker at the XXXII Conference of the Italian Society of Agronomy, Ancona, 15-18 September 1998. Oral communication entitled: "Relationships between soil and vegetation characteristics of a hilly pasture area in Sardinia: effect of abandonment and grazing"; from 15-09-1998 to 18-09-1998;
- Member of the Organizing Committee of the 10th Meeting on "Legumes for Mediterranean forage crops and alternatives uses" of the FAO-CIHEAM, sub-network on Mediterranean Pastures and Fodder Crops, Sassari 4 - 9 April 2000; from 04-04-2000 to 09-04-2000;
 - Speaker at the conference "Pesticide control and quality of agricultural production in Sardinia", Cagliari, 25 February 2004. Invited oral communication entitled "Agronomy and quality of agricultural production"; from 25-02-2004 to 25-02-2004;
 - Speaker at the conference "Challenges and opportunities for sustainable rice-based production systems", Turin, Italy, 13-15 September 2004. Oral communication entitled "Crop coefficient (kc) determination in sprinkler irrigated rice"; from 13-09-2004 to 15-09-2004;
 - Speaker at the conference "Fifth international conference on alternatives to methyl bromide", Lisbon, Portugal, 27-30 September 2004. Oral communication entitled "Adoption of Methyl bromide alternatives in tomato and vegetable production in Sardinia"; from 27-09-2004 to 30-09-2004;
 - Member of the Organizing Committee of the VIII SOI Scientific Days, Sassari, 8-12 May 2007; from 08-05-2007 to 12-05-2007;
 - Speaker at the conference "The contribution of agronomic research to the innovation of Mediterranean cropping systems", XXXVII National Conference of the Italian Society of Agronomy, Catania, 13-14 September 2007. Oral communication entitled: "Agronomic and ecophysiological characterization of some perennial forage grasses in a dry Mediterranean environment"; from 13-09-2007 to 14-09-2007;
 - Speaker at the conference "Sustainable intensification of agricultural production and food security", XLII Conference of the Italian Society of Agronomy, Reggio Calabria, 18-20 September 2013. Oral communication entitled "Flower differentiation of the apical bud in artichoke: interaction between temperature and application of gibberellic acid"; from 18-09-2013 to 20-09-2013;
 - Speaker at the Workshop "Potential of micropropagation for quality artichoke cultivation in Sardinia", Cabras, 21-22 November 2013. Oral communication by invitation entitled "Interventions for the relaunch of the artichoke supply chain in Sardinia"; from 21-11-2013 to 22-11-2013;
 - Speaker at the conference "HortiModel2016: V International Symposium on Models for Plant Growth, Environment Control and Farming Management in Protected Cultivation", 19-22 September 2016, Avignon, France. Oral communication entitled "Modeling tomato growing and production in a photovoltaic greenhouse in Southern Italy"; from 19-09-2016 to 22-09-2016.

ORGANIZATION OR PARTICIPATION AS A SPEAKER IN PUBLIC CONFERENCES IN ITALY

2002 to date

- On 13 October 2002 he participated in Gavoi (NU) by invitation at the conference organized as part of the "Montagna produce" event. Title of the speech: "Problems and prospects of extra-seasonal potato cultivation in Sardinia";
- On 2 December 2005 he participated in Samassi (CA) by invitation at the technical conference "The artichoke recipe between medicine and cuisine: History, properties and uses of the artichoke in food", organized as part of the program of the XIX Samassi Artichoke Festival. Title of the speech: "The Violet" cultivated in Samassi";
- On 11 March 2006 he participated in URI (SS) by invitation at the conference organized as part of the XVI Uri artichoke festival. Title of the speech: "The cultivation of the spiny artichoke in the DOP area: cultivation problems";
- On November 30, 2006, in Lunamatrona (CA), he participated by invitation at the conference "Use of irrigated areas in the territory of Lunamatrona", organized by the Municipality of Lunamatrona. Title of the speech: "Irrigation development plan: agronomic aspects";
- On February 3, 2007, he participated by invitation at Barumini at the conference "Agriculture and bioenergy" organized by ERSAT (Regional Agency for Development and Technical Assistance in

Agriculture - Autonomous Region of Sardinia). Title of the speech: "Study on agronomic-economic opportunities for Sardinian companies in the field of biomass crops";

- On February 23, 2007, he participated by invitation at COSACER (Villasanta, CA) at the conference entitled "Main agronomic problems of artichoke cultivation". Title of the contribution: "Speech on the main agronomic problems of the cultivation of the Sardinian Violet artichoke – Sardinian Spiny – Theme";
- On 25 April 2009 he participated by invitation in the workshop "Alternative energies" organized by the Laore Agency at the hall of the Arborea (OR) exhibition center. Title of the contribution: "Agro-energy crops";
- On 19 May 2009 he participated at the Pardu Nou Center in the Course for technicians and agricultural entrepreneurs on "Energy saving and renewable energy in agriculture: the cultivation of biomass for alternative energy" organized by the Laore Agency (Regional Agency for Development in Agriculture). Title of the contribution: "Experiences in the field on biomass crops in Sardinia";
- On 24 October 2012 he participated in Uta (CA) by invitation in the conference "Agro-energy crops: an opportunity for agriculture?", organized by AGRIS. Title of the speech: "Rapeseed and carinata: main agronomic problems in northern Sardinia";
- On March 2, 2013, he participated by invitation in the conference "Mother Earth: food, agriculture and work" organized in Narbolia at the multipurpose center. Title of the speech: "Proposal for the recovery and development of agriculture in Sardinia in light of the results of the ORTILUX project";
- On 28 April 2013 he participated in Serrenti (VS) by invitation at the conference entitled "Production and marketing of asparagus" organized as part of the XVIII Serrenti asparagus festival, organized by the Pro Loco and the municipality of Serrenti. Title of the speech: "Cultural aspects of asparagus";
- On 22 February 2014 he participated in Oristano by invitation at the conference "PROGETTO 3T - Terra, Turismo, Tipicità - Il carciofo spinoso di Sardegna DOP: attualità e potenzia" organized by Consorzio1 of Oristano. Title of the speech: "Interventions for the relaunch of the artichoke supply chain in Sardinia";
- On June 5, 2014, he participated by invitation in Rome at the Library of the Research Center for the Study of Plant-Soil Relations in the activities of the SISS School of Biodiversity and Bioindication, VI cycle, with a speech entitled: "Impact of cropping systems on carbon reserves in the soil: the SOILSINK project in Sardinia";
- On March 5, 2015, he participated by invitation in Sassari in the workshop "Italy, a republic founded on work? First meeting: industry, work and territory, the case of the Porto Torres petrochemical plant" organized by the University of Sassari and the Department of Political Sciences and Communication Sciences;
- On March 7, 2015, he participated by invitation in Uri (SS) in the conference entitled "Diet and longevity in Sardinia - Expo 2015 the spiny artichoke DOP", organized as part of the XXV Artichoke Festival. Title of the speech: "Recent studies on the artichoke cultivation system in organic regime";
- On 6 June 2015 he participated by invitation in Badesi (SS) at the conference/debate on the value of agricultural production in the area, as part of the initiative "Stazzi and Cusogghi, excellences of the land". Title of the speech: "Organic artichoke: Return to the past or projection towards the future?";
- On 26 September 2015 he organized a Workshop in Cabras (OR) as part of the INNOVA.re project. Title of the speech: "Technological transfer between University and business: process and product innovation for the artichoke cultivation system";
- On 27 November 2015 he participated by invitation in the conference "Agriculture in Nurra Algherese: development prospects. What and how to produce", meeting room- Borgata Guardia Grande (Alghero, SS), organized by the Municipality of Alghero, Porto Conte Natural Park, Laore Sardegna Agency, University of Sassari. Presentation title: Alternative techniques for growing artichokes;
- On March 5, 2016, he participated in the conference organized as part of the Siamaggiore (OR) artichoke festival. Title of the speech: "The cultivation of the «Spinoso Sardo» artichoke: research activities and new perspectives";
- On March 11, 2016, by invitation, he participated in the conference "Process and product innovation of the Sardinian spiny artichoke" organized in Uri (SS) as part of the annual Artichoke Festival. Title of the speech: "Spinoso sardo" globe artichoke: process and product innovation";
- On 1 October 2016 he participated in Buddusò (OT) at the round table entitled "Su fumudeterra di Buddusò: perspectives for the future";
- On 14 October 2016, by invitation, he participated in Carbonia (CI) at the meeting with stakeholders within the FORBIO project "the sustainability of agroenergy crops: the case of the test area in Sardinia" organized by CREA. Title of the speech: "Cultivation of rapeseed and carinata in Sardinia: problems and perspectives";
- On 10 November 2016 he participated in Bologna at the "MASLOWATEN PROJECT" conference organized within the International Exhibition of Machinery for Agriculture and Gardening. Title of the speech: "From traditional to automatic precision irrigation - 40 kWp direct PV pumping at constant pressure through sprinkles: "Sarciofo" farm (Uri, Sardinia, Italy);

- On March 12, 2017, he participated by invitation in Uri, at the council chamber, at the conference organized as part of the XXVII Uri artichoke festival. Title of the speech: "Potential of photovoltaic systems for innovative management of artichoke irrigation";
- On June 15, 2017, he participated by invitation in Oristano at the conference "The new challenges of agri-food: from precision agriculture to innovation in transformation technologies, organized by Consorzio1. Title of the speech: "Automatic and precision irrigation: the H2020 MASLOWATEN project";
- On September 26, 2017, he participated by invitation in Nuoro at the conference "The wheat of the future: Cultivation, nutritional and health aspects of monococcum wheat (Small farro, Triticum monococcum L.) organized by UNINUORO. Title of the speech: "The cultivation technique";
- On October 24, 2017, he participated by invitation in the conference "Perspectives for increasing the efficiency of the productive use of greenhouses" organized at the conference room of the Mercato Agroalimentare della Sardegna in Sestu (CA) as part of the activities of the INTERREG FLORE3.0 project. Title of the speech: "Innovative tools and methods for crop management in greenhouses: the ORTILUX and IS@M projects";
- On 25 October 2017, at the Aula Magna of the Department of Agriculture of the University of Sassari, he organized, within the MASLOWATEN project, an informative Workshop entitled "Irrigation experiences in Sardinia and Spain". Title of the speech "Agriculture and Irrigation in Sardinia. Main features";
- On 24 January 2018, he participated by invitation at the Tanca Regia facility (Abbasanta, OR) in the round table entitled "WATER AND DROUGHT: management and governance of water resources. Critical issues, reflections and proposals in relation to climate change, needs and infrastructure provision", organized by the Regional Department of Agriculture and Agro-pastoral reform;
- On February 16, 2018, at the Aula Magna of the Department of Agriculture of the University of Sassari, he organizes, within the MASLOWATEN project, a "Technical Workshop and Technical visit to the Photovoltaic Irrigation System in Uri". Title of the speech: "Irrigation and energy in Sardinia";
- On February 27, 2018, at the prison in Alghero (SS), he holds a seminar entitled: "The extensive grazing systems of Sardinia";
- On March 2, 2018, he participates by invitation in Cortina at the WINTER SCHOOL NETVAL "Technology transfer in the agri-food sector. Innovation from research and experimentation". Title of the speech: "The Maslowaten project: a case of technology transfer in the agri-food sector (University of Sassari)";
- On March 9, 2018, he participated by invitation at the conference "The new challenges for sustainable agriculture between innovation, economy and tradition" organized by the Municipality of Uri (SS) as part of the XXVIII Uri artichoke festival. Title of the speech: "Photovoltaic, precision and automatic irrigation applied to the artichoke with an air conditioning function";
- On March 10, 2018, he participated by invitation in Siamaggiore (OR) at the conference "Agriculture 4.0, risks and opportunities of a new revolution". Title of the speech: "From tradition to automatic precision irrigation: 40 kWp of constant pressure PV pumping through micro-sprinklers";
- On April 13, 2018, he organized a technical workshop in Cabras (OR) at the multipurpose center as part of the MASLOWATEN project. Title of the speech: "Irrigation and Energy in Sardinia";
- On September 18, 2018, he participated by invitation in Bergamo at the conference entitled "NATURE-BASED SOLUTIONS FOR ANTHROPOCENE LANDSCAPES, organized by SIEP, the Italian Society of Landscape Ecology. Title of the speech: "Adaptation to climate change and water saving through innovative irrigation management";
- On 20 September 2018, at the Cagliari Exhibition Centre, he participated by invitation in the Workshop "Strategies for the development of agriculture in Sardinia", included in the plenary session on the first day of the programme of the 2018 General States of Agriculture "from the PSR 2014-2020 to the 2021-2027 programming, Management, implementation and prospects for the competitive growth of agriculture in Sardinia" organised by the Department of Agriculture and Agro-Pastoral Reform of Sardinia. Speech entitled: "Agriculture and climate change";
- On 26 October 2018 in Sassari, at the Piazza Tola library, he participated by invitation in the Climathon Sassari 2018 conference "Agriculture and sustainable management strategies of water resources in the territory of Sassari". Speech title: "Climate change and crop irrigation";
- On February 14, 2019, at the Aula Magna of the Dental Clinic in Cagliari, he organizes a joint Workshop of the Cluster projects financed by Sardegna Ricerche. Title of the speech: "The CarBio project – 6 months of activity";
- On March 9, 2019, at the Council Chamber of the Municipality of Uri (SS), he speaks by invitation at the conference "Sustainable and innovative agriculture for the Mediterranean" organized by the Municipality of Uri. Title of the speech. "The IS@M project (Interreg V-A Italy France – Maritime Cooperation Program 2014-2020)";
- On March 18, 2019, at the Polo Didattico di Giurisprudenza in Sassari, he speaks by invitation at the seminar entitled "Digital frontiers: how ICT can change the future of agriculture and guide project dynamics in international cooperation", organized by OSVIC (Sardinian Organization of International

Christian Volunteering). Title of the speech: "Digital cultivation. Adaptation to climate change: photovoltaic and precision irrigation with air conditioning function";

- On April 27, 2019, at the council chamber of the municipality of Tissi (SS), he participates by invitation at the conference organized as part of the XII Sagra dell'Asparago Selvatico. Title of the speech: "Adaptation of wild asparagus (*Asparagus acutifolius* L.) to cultivation";
- On April 29, 2019, at the meeting room of the Cagliari Oristano Interprovincial Agricultural Consortium in Cagliari, he participated by invitation in the conference "Agenda 2030: the Agronomy of the future", organized by the Council of the National Order of Agronomists and Forestry Doctors. Title of the speech: "Digital cultivation. Adaptation to climate change: photovoltaic and precision irrigation with air conditioning function";
- On July 20, 2019, at the conference room of the municipality of Viddalba (SS), he participated by invitation in the conference "Territorial research and development activities", organized by the municipalities of Viddalba (SS) and Santa Maria Coghinas (SS). Title of the speech: "Process and product innovation in the Sardinian Spinoso artichoke supply chain";
- On October 11, 2019, at the conference room of the Chamber of Commerce of Nuoro, he participated in the conference "Rural development in the programming of the new CAP 2021-2027: the role of civic lands", organized by the Sardinian Study Center on Civic Lands. Title of the speech: "Natural assets: tools to rationalize their use";
- On 17 October 2019, at the conference hall of the Ente Scuola Edile Province del Nord Sardegna (ESEP) in Sassari, he participated by invitation in the conference "Agenda 2030: future perspectives and challenges for sustainable development in Sardinia", organized by the Council of the National Order of Agronomists and Forestry Doctors. Title of the speech: models of technological innovation and rational use of resources from an environmental, agronomic and energy sustainability perspective";
- On 8 November 2019 in Matera, as part of the XVII national congress of Agronomists and Forestry Doctors "Objectives for sustainable development: 17 objectives to transform our world" organized by CONAF, he presented the report entitled "Models of technological innovation and rational use of resources from an environmental, agronomic and energy sustainability perspective" and the report entitled "Digital cultivation. Adaptation to climate change: photovoltaic and precision irrigation with air conditioning function";
- On 18 November 2019 in Nuoro, as part of the opening of the Forestry Year of Sardinia 2019/2020 – Agroforestry organized by the University Consortium of Nuoro/ RESTART Competence Center, Department of Agriculture UNISS, Forestry and Environmental Surveillance Corps (CFVA), FoReSTAS Agency and the Chamber of Commerce of Nuoro, he presents an institutional report entitled "The role of the agronomist and the forestry doctor in the Agroforestry of the future".
- On 19 November 2022 in Ancona, as part of the Internet Governance Forum, 2022 edition of the Marche, he held a speech entitled "Emerging technologies in the agri-food sector";
- On 30 January 2023, at the Department of Agriculture in Sassari, as part of the Conference Sardinian agriculture facing the climate challenge: technical aspects and opportunities in the new CAP organized by Coldiretti, he held a speech entitled "The cycle and carbon sequestration: carbon farms";

**PARTICIPATION IN THE
TEACHING STAFF OR
ASSIGNMENT OF TEACHING
DUTIES, WITHIN RESEARCH
DOCTORATES ACCREDITED
BY THE MINISTRY**

2003 to date

1. Member of the Teaching Staff of the National Doctorate in Earth Observation, University of Rome "La Sapienza", Cycles XXXVIII, XXXIX, from 1-11-2022 to date;
2. Member of the Teaching Staff of the Doctorate in AGRICULTURAL, FOOD AND ENVIRONMENTAL SCIENCES, Polytechnic University of MARCHE. Cycles XXXVII, XXXVIII, XXXIX from 01-11-2021 to date;
3. Member of the Teaching Staff of the Doctorate in Agricultural Sciences, Curriculum in "Productivity of Cultivated Plants", University of Sassari. Cycles XXIX, XXX, XXXI, XXXII, XXXIII, XXXIV, XXXV and XXXVI; from 01-11-2013 to 31-10-2023;
4. Member of the teaching staff of the "Productivity of Cultivated Plants" curriculum, Doctoral School in Sciences and Biotechnologies of Agricultural and Forestry Systems and Food Production; Cycles XXVII and XXVIII; from 01-11-2011 to 31-10-2015;
5. Member of the teaching staff of the "Productivity of Cultivated Plants" curriculum, Doctoral School in

Sciences of Agricultural, Forestry and Food Production Systems; Cycles XXV and XXVI; from 01-11-2009 to 31-10-2013;

6. Teacher of the Multivariate Statistics Course (3 CFU), curriculum "Productivity of Cultivated Plants", Doctoral School in Sciences of Agricultural, Forestry and Food Production Systems, University of Sassari; from 01-11-2008 to 31-10-2009;

7. Member of the Teaching Board of the "Agrometeorology and Ecophysiology of Agricultural and Forestry Systems" Program, Doctoral School in Agricultural, Forestry and Food Production Systems Sciences, University of Sassari; Cycles XXII, XXIII, XXIV; from 01-11-2006 to 31-10-2011;

8. Member of the Teaching Board of the Doctoral Course in "Agrometeorology and Ecophysiology of Agricultural and Forestry Systems", University of Sassari. Cycles XIX, XX and XXI; from 01-11-2003 to 30-10-2008;

EDUCATIONAL ACTIVITIES

Assignment of teaching activity at University level

2002 to date

1. Assignment of teaching activity at the Polytechnic University of Marche

AA 2023-24; 2024-25: Mountain Agronomy (6 CFU), Bachelor's Degree in Forestry and Environmental Sciences (SFA);

AA 2022-23, 2023-24; 2024-25: Agronomy and Herbaceous Crops (9 CFU), Bachelor's Degree in Innovative Agricultural Systems (SAI);

AA 2021-22, 2022-23, 2023-24; 2024-25: Herbaceous Cropping Systems (6 CFU), Master's Degree in Agricultural and Land Sciences (SAT);

AA 2021-22: Agroecology (6 CFU), Bachelor's Degree in Innovative Agricultural Systems (SAI);

AA 2020-21, 2021-22: Herbaceous Food Production (6 CFU), Bachelor's Degree in Food Science and Technology (STAL);

2. Assignment of teaching activity at the University of Sassari:

• AA 2018-19, 2019-20: Forage and Livestock Systems: Forage Systems and Wildlife Management module (6 CFU), Master's Degree in Forestry and Environmental Systems;

• AA 2011-12, 2012-13, 2013-14, 2014-15, 2015-2016, 2016-17, 2017-18, 2018-19, 2019-20: Herbaceous Crops II (7 CFU), Master's Degree in Agricultural Systems;

• A.A. 2010-2011: "Horticultural crops for industrial processing" (6 CFU), Bachelor's Degree in Food Technology;

• A.A. 2009-10: "Herbaceous crops" (7 CFU), Master's Degree in Agricultural Systems;

• A.A. 2006-07, 2007-08 and 2008-09: course in "Herbaceous crops" (7 CFU), Bachelor's Degree in Agricultural Sciences and Technologies;

• A.A. 2005-06: course in "Herbaceous crops" (5 CFU), Bachelor's Degree in Agricultural Sciences and Technologies;

• A.A. 2002-03, 2003-04, 2004-05 and 2005-06: course of "Horticulture" (2 CFU), Bachelor's Degree in Agricultural Sciences and Technologies;

• A.A. 2002-03, 2003-04 and 2004-05: course of "Horticulture" (5 CFU), Bachelor's Degree in Production and Protection of Agricultural Crops;

• A.A. 2002-03 and 2003-04: module of "Horticulture" (5 CFU), course of Herbaceous Crops II, Five-Year Degree in Agricultural Sciences and Technologies, professional profile Production of Industrial Vegetable Species;

3. Courses within the National PhD School in Earth Observation (DNOT) at La Sapienza University, Rome

• A.A. 2023_24 – "Remote and proximal sensing for precision agriculture" (4CFU);

Supervisor of PhD students

2004 to date

- 2004 Dr. Simona Muroi: "Study of the influence of meteorological factors on the phenology of the main open-field horticultural species and development of simplified models for the prediction of the duration of the crop cycle", within the XIX Cycle of the Doctorate in Agrometeorology and Ecophysiology of Agricultural and Forestry Systems, University of Sassari.
- 2005 Dr. Mauro Salis: "Study of the influence of meteorological factors on the phenology of industrial tomatoes and development of models for the prediction of the duration of the cycle", within the XX Cycle of the Doctorate in Agrometeorology and Ecophysiology of Agricultural and Forestry Systems, University of Sassari.
- 2006 Dr. Giulia R. Urracci: "Influence of climate on the carbon sink of forage-livestock cropping systems at different levels of intensity", within the XXI Cycle of the Doctorate in Agrometeorology and Ecophysiology of Agricultural and Forestry Systems, University of Sassari.
- 2006 Dr. Luca Doro: "The carbon sink of horticultural cropping systems in some microclimatic areas of Sardinia", within the XXI Cycle of the Doctorate in Agrometeorology and Ecophysiology of Agricultural and Forestry Systems, University of Sassari.
- 2007 Dr. Paola A. Deligos: "Influence of the main agrometeorological factors on the physiology and phenology of Brassica carinata Braun and Brassica napus var. oleifera Metz in Sardinia", within the XXII Cycle of the Doctorate, major in Agrometeorology and Ecophysiology of Agricultural and Forestry Systems, Doctoral School of Research in Sciences of Agricultural, Forestry and Food Production Systems, University of Sassari.
- 2008 Dr. Francesco Piras: "Dynamics of nutritional elements in the artichoke growing system", within the XXIV cycle of the doctorate, major in "Productivity of cultivated plants", Doctoral School in "Sciences of Agricultural, Forestry and Food Production Systems. University of Sassari
- 2011 Dr. Silvia Baralla: "Impact of climate change on dry systems in the Mediterranean environment", within the XXVI cycle of the doctorate, major in "Productivity of cultivated plants", Doctoral School in Sciences and biotechnologies of agricultural and forestry systems and food production. University of Sassari
- 2011 Dr. Laura Mula: "Adaptation strategies of Mediterranean livestock forage systems to climate change", as part of the XXVI cycle of the doctorate, major in "Productivity of cultivated plants", Doctoral School in Science and biotechnology of agricultural and forestry systems and food production. University of Sassari
- 2012 Dr. Anna Paola Chergia: "Study of the main factors that influence the onset of flower head atrophy in Sardinian Spiny artichoke", as part of the XXV cycle of the doctorate, major in "Productivity of cultivated plants", Doctoral School in Science and biotechnology of agricultural and forestry systems and food production. University of Sassari
- 2012 Dr. Ester Spissu: "Adaptation of the CROPGRO model (CSM-DSSAT), for the simulation of growth and development of Cynara cardunculus var. scolymus and Cynara cardunculus var. altilis grown for bioenergy purposes.", within the XXVII cycle of the doctorate, major in "Productivity of cultivated plants", Doctoral School in Science and biotechnology of agricultural and forestry systems and food production. University of Sassari
- 2013 Dr. Manuela Sapanu: "Influence of the cultivation method on functional compounds in artichoke "Spinoso sardo", within the XXVIII cycle of the doctorate, major in "Productivity of cultivated plants", Doctoral School in Science and biotechnology of agricultural and forestry systems and food production. University of Sassari
- 2013 Dr. Stefano Caraffini: "Organic cultivation of the Sardinian Spiny artichoke (Cynara scolymus): long-term dynamics of soil organic matter and nutrients", within the XXVIII cycle of the doctorate, major in "Productivity of cultivated plants", Doctoral School in Sciences and biotechnologies of agricultural and forestry systems and food production. University of Sassari
- 2014 Dr. Maria Teresa Tiloca: "Soil organic carbon dynamics and LAND USE CHANGE assessment in a no-food Mediterranean cropping system, within the XXX cycle of the doctorate, major in "Productivity of Cultivated Plants", Doctoral Course in Agricultural Sciences. University of Sassari
- 2018 Dr. Spezzigu Maddalena: "Impact of cultivation techniques on the physiology and quality of artichoke in post-harvest" in the XXXIV cycle, PhD Course in Agricultural Sciences, curriculum in plant productivity. University of Sassari
- 2019 Dr. Nour Jouni, Agricultural Engineer, Masters in Environment and Natural Resources: "Innovative irrigation strategies to improve field crops physiological status and water resources use". University of Sassari
- 2021 Dr. Marco Fiorentini "Implementation of photovoltaic irrigation with automatic, precision and climate-control irrigation techniques", XXIII cycle, Doctoral School in Agricultural, Food and Environmental Sciences, Polytechnic University of Marche

- 2021-22 Dr. Stefano Zenobi Agronomic strategies for the sustainable management of herbaceous cropping systems subjected to low levels of intensification, Polytechnic University of MARCHE
- 2022-23 Dr. Chiara Rivosecchi "Remote sensing for monitoring and innovative management of agricultural and forestry systems", Polytechnic University of Marche;
- 2023-24 Dr. Federico Mammarella "Remote sensing for monitoring and innovative management of agricultural and forestry systems" Polytechnic University of Marche;
- 2024-25 Dr. Alessio "Agricultural Sustainability in the Marche: Precision Agriculture, Ecosystem Services and Carbon Farming", Polytechnic University of Marche;

Supervisor of 74 experimental
five-year or master's degree
theses

2002 to date

- **2002-03 Carlo Maxia:** Variabilità delle caratteristiche biometriche e dell'incidenza dell'atrofia del capolino in popolazioni di carciofo "Spinoso sardo"
- **2002-03 Ettore Martometti:** Selezione clonale ed analisi della variabilità in *Cynara cardunculus* var. *scolymus* L. tipo varietale "Spinoso sardo"
- **2002-03 Davide Atzori:** Effetto dell'irrigazione climatizzante sull'atrofia del capolino in *Cynara cardunculus* L., var. *scolymus* (L.) FIORI cv "Spinoso sardo";
- **2003-04 Mauro Salis:** Valutazione di alcuni caratteri di arido-resistenza in specie graminacee foraggere perenni;
- **2003-04 Fabrizio Marroccu:** L'impiego della *Posidonia oceanica* (L.) Delile come substrato per la produzione vivaistica del pomodoro;
- **2003-04 Leonardo Oggiano:** L'impiego della *Posidonia oceanica* (L.) Delile come substrato per la produzione vivaistica della melanzana;
- **2003-04 Ottavio Biolchini:** L'impiego della *Posidonia oceanica* (L.) Delile come substrato per la produzione vivaistica del peperone;
- **2003-04 Giovanni Muroni:** Selezione clonale e confronto tra metodologie di propagazione in *Cynara cardunculus* L. var *scolymus* (L.) Fiori cv "Spinoso sardo";
- **2003-04 Luca Doro:** Qualità degli ovoli e moltiplicazione in carciofo "Spinoso sardo": confronto fra tecniche colturali;
- **2004-05 Pietro Lai:** Pomodoro da mensa: confronto fra standard di allevamento in coltura protetta;
- **2004/2005 Cinzia Culurgioni:** Tipologia e condizioni di formazione dell'ovolo: influenza su crescita e sviluppo dei nuovi impianti in carciofo "Spinoso sardo";
- **2004/2005 Tiziano Cogotti:** Pomodoro da mensa in piena aria: alcune cultivar a confronto;
- **2005/2006 Paola A. Deligios:** Valutazione di alcuni caratteri morfo-fisiologici in *Dactylis glomerata* L.;
- **2005/2006 Gavino Bellu:** Valutazione di alcune tecniche di produzione vivaistica in carciofo "Spinoso sardo";
- **2005/2006 Alessandro Budroni:** Modelli semplificati per la coltura del pomodoro da industria;
- **2005/2006 Anna Paola Chergia:** Atrofia del capolino in carciofo. Effetti dell'irrigazione climatizzante;
- **2005/2006 Romina Toro:** Modelli fenologici semplificati per la coltura del carciofo;
- **2006/2007 Roberto Lai:** Dinamiche della crescita e dello sviluppo nei principali tipi varietali di carciofo coltivati in Sardegna;
- **2006/2007 Raffaella Sardo:** Calibrazione del modello di simulazione EPIC in un sistema foraggero intensivo della Sardegna;
- **2006/2007 Roberta Farci:** Calibrazione di modelli fenologici semplificati basati sull'impiego della somma termica per la pianificazione del ciclo colturale nel pomodoro da industria in Sardegna;
- **2006/2007 Antonella Corda:** Le somme termiche nella previsione della durata delle principali fenofasi del pomodoro da industria in Sardegna;
- **2006/2007 Roberto Testoni:** Confronto multisito fra i principali tipi varietali di carciofo coltivati in Sardegna;
- **2006/2007 Paola Scano:** Valutazione di alcuni caratteri morfo-fisiologici in specie graminacee foraggere perenni;
- **2007/2008 Marcello Lizzeri:** Alcuni sistemi colturali a confronto per la coltivazione del carciofo in regime biologico;
- **2007/2008 Davide Onnis:** Graminacee foraggere perenni in ambiente mediterraneo: valutazione di alcuni caratteri morfo-fisiologici;
- **2007/2008 Luca O'Toole:** Valutazione "on farm" di colture energetiche (colza e carinata) in sistemi colturali della Sardegna centrale;

- **2007/2008 Francesco Piras:** Valutazione di alcune varietà di colza e carinata per il Nord Sardegna;
- **2009/2010 Maria Paola Pirino:** Valutazione morfo-fisiologica di graminacee foraggere perenni per l'ambiente mediterraneo;
- **2009/2010 Paola Conte:** Valutazione morfologica ed agronomica di alcune popolazioni di *Asparagus acutifolius* collezionate in Sardegna;
- **2009/2010 Gian Pasquale Dettori:** Aspetti quantitativi della produzione del carciofo in regime biologico;
- **2009/2010 Ester Spissu:** La gestione delle infestanti in colza nel Nord – Ovest della Sardegna;
- **2010/2011 Mario Stefano Murgia:** Studio dell'impatto dell'uso del suolo sulla fertilità in sistemi agroforestali mediterranei;
- **2011/2012 Spanu Leonardo:** Studio dei principali parametri fisiologici del pomodoro da mensa coltivato in serra fotovoltaica;
- **2011/2012 Collu Mirko:** La coltivazione del pomodoro da mensa in serra fotovoltaica: calibrazione di un modello di simulazione;
- **2011/2012 Mameli Giuseppe:** Studio delle relazioni tra parametri ambientali e fisiologici del pomodoro da mensa coltivato in serra fotovoltaica;
- **2011/2012 Cherchi Pierluigi:** Dinamica dell'assorbimento dei principali macronutrienti in carciofo;
- **2012/2013 Davide Murroccu:** Effetto della dose di N sulla coltura del colza in ambiente Mediterraneo;
- **2012/2013 Maria Teresa Tiloca:** Carciofo Spinoso sardo coltivato in regime biologico: Bilancio apparente dei macronutrienti in sistemi colturali a confronto;
- **2012/2013 Alice Spiga:** Evoluzione dei sistemi colturali in irriguo: le colture bioenergetiche;
- **2012/2013 Azzurra Collu:** Analisi dei principali indici di crescita e della produttività del pomodoro da mensa coltivato in serra fotovoltaica;
- **2012/2013 Annalisa Sanna:** Valutazione poliennale del ciclo produttivo del cardo da biomassa;
- **2012/2013 Martina Buffa:** Pascoli naturali in ambiente mediterraneo: modellizzazione in relazione agli andamenti termo-pluviometrici;
- **2012/2013 Veronica Coloru:** Caratteri morfo-qualitativi e commerciali in Carciofo Spinoso Sardo: confronto tra sistemi di coltivazione;
- **2012/2013 Valeria Musu:** Caratteri morfo-qualitativi e commerciali in Carciofo Spinoso Sardo: confronto tra sistemi di coltivazione;
- **2013/2014 Giuseppina Chidolu:** *Cynara cardunculus* var. *altilis* coltivato in ambiente mediterraneo: dinamica di crescita in tre genotipi a confronto;
- **2013/2014 Fabio Calamina:** Calibrazione Del Modello Epic Per Il Sistema Colturale Mais A Destinazione Energetica;
- **2014/2015 Giovanni Demuru:** Effetti della crescente concentrazione di CO₂ atmosferica sulla produzione e sulle malattie in cultivar di orzo scandinave (Effects of rising atmospheric CO₂ concentration on production and diseases in Scandinavian barley cultivars);
- **2015/2016 Roberto Arca:** L'approccio geostatistico per l'irrigazione automatica delle colture;
- **2015/2016 Antonello Serra:** Impiego di variabili fisiche e biometriche per la caratterizzazione della maturazione commerciale in differenti varietà di carciofo;
- **2015/2016 Andrea Piras:** Residui dell'industria agrumaria biostabilizzati con il metodo NPT, utilizzati come substrati di coltura per pomodoro (*Lycopersicon esculentum*). Aspetti agronomici e qualitativi;
- **2015/2016 Aloisa Gilda Deriu:** Applicazione del calcolo del bilancio idrico per la gestione dell'irrigazione automatica e di precisione;
- **2016/2017 Riccardo Serpi:** Confronto tra sistemi di coltivazione del carciofo in regime biologico;
- **2016/2017 Giovanni Bussu:** Coltivazione del carciofo spinoso sardo con irrigazione climatizzante: aspetti fisiologici;
- **2016/2017 Ester Raccimolo:** *Cynara cardunculus* var. *altilis*: effetto della gestione colturale sulla dinamica del carbonio del suolo;
- **2016/2017 Martina Dore:** Studio sulla dinamica del carbonio organico in un sistema colturale di cardo coltivato a fine energetici;
- **2016/2017 Daniela Merella:** Coltivazione del carciofo Spinoso sardo con irrigazione climatizzante: aspetti produttivi;
- **2017/2018 Alessandro Morittu:** Trigu Biancu bonoluesu: valutazione della coltivazione e confronto varietale in ambienti differenziati;
- **2017/2018 Samuele Sotgiu:** Valutazione della risposta alla piovosità primaverile in varietà di orzo coltivate in Sardegna;
- **2018/2019 Pamela Curreli:** Produttività delle principali specie orticole coltivate in serra fotovoltaica;
- **2018/2019 Laura Manca:** Studio preliminare sull'identificazione di indici vegetazionali a supporto dell'irrigazione

in carciofo;

- **2018/2019 Giovanna Calia:** Effetti dell'ombreggiamento sulla produttività del pomodoro all'interno di due serre fotovoltaiche in Francia;
- **2018/2019 Daniele Marceddu:** Gestione sostenibile dei sistemi colturali cinaricoli: calibrazione e validazione di un sistema di supporto alle decisioni DSS.
- **2018-19 Simone Bulla:** Valutazione di sensori a basso costo per la determinazione dell'umidità del suolo.
- **2021-22 Alessandro Tirabassi:** Influenza dei parametri ambientali sulla crescita delle specie orticole da foglia in Home Cultivator;
- **2022-23 Francesco Luzi:** Valutazione e influenza del fotoperiodo all'interno degli Urban Cultivator sulla crescita dei micro ortaggi
- **2022-23 Paolo Domenicone:** Effetto della combinazione di sesto di impianto e fotoperiodo sulla produzione di basilico CV "CLASSICO ITALIANO
- **2022-23 Alessio Gianvito:** Accrescimento e produzione in sistemi di coltivazione verticale: baby leaf a confronto
- **2022-23 Federico Mammarella:** Tecniche di agricoltura di precisione per ottimizzare la gestione della nutrizione in carciofo
- **2022-23 Anna Maria Cuscianna:** Concimazione di precisione in frumento duro (*Triticum turgidum* subsp. *durum* Desf): l'integrazione fra le mappe di prescrizione e bilancio dei nutrienti
- **2022-23 Magi Davide:** Analisi LCA e LCC applicata ad una vertical farm alimentata da uno small modular reactor
- **2023-24 Calabrini Carlo:** Impatto dell'azione di stress abiotici e biotici sulla resa di frumento duro e mais
- **2023-24 Ventorino Riccardo:** Effetto di diverse gestioni agronomiche del frumento duro: zero stress vs business as usual
- **2023-24 Arnaldo Marini:** Studio di nuovi modelli predittivi per il calcolo dell'irrigazione programmata
- **2023-24 Cristina Severini:** Azione ed interazione di EISENIA FETIDA sulla mineralizzazione di teli pacciamanti biodegradabili

Supervisor of 46 final undergraduate thesis

2005 to date

- **2005/2006 Francesco Piras:** La coltivazione del carciofo a Valledoria;
- **2005/2006 Marino Vargiu:** Evoluzione delle catene di foraggiamento in Sardegna con particolari aspetti riguardanti la coltura della sula;
- **2005/2006 Gianluca Castangia:** Impiego dei mezzi di difesa e forzatura nella coltura del melone in pieno campo;
- **2005/2006 Antonio Sussarellu:** Coltivazione della patata "Bisestile" nella valle dei Doria;
- **2005/2006 Francesco Deledda:** Coltivazione del carciofo "Spinoso sardo" in regime biologico;
- **2006/2007 Alessandro Fulghesu:** La coltivazione del pomodoro da mensa in pieno campo nel Sarcidano;
- **2006/2007 Davide Pisano:** La gestione della nutrizione minerale nelle aziende vivaistiche per l'orticoltura;
- **2006/2007 Ester Spissu:** La coltivazione del melone in pieno campo: gestione dell'irrigazione e della nutrizione;
- **2007/2008 Giuseppe Carta:** La coltivazione senza suolo: la gestione della nutrizione minerale in orticoltura;
- **2007/2008 Gian Pasquale Dettori:** La coltivazione di colza e carinata nella Sardegna centrale;
- **2007/2008 Hagassou Djangso:** Gestione dell'irrigazione e nutrizione delle colture fuori suolo;
- **2007/2008 Marco Sini:** La coltivazione del carciofo nella Valle dei Doria;
- **2008/2009 Giacomo Pisanu:** Sistemi foraggeri per ovini da latte: un esempio di evoluzione nella pianura irrigua della Nurra;
- **2008/2009 Antonella Saba:** La coltivazione del carciofo nell'area del Coros;
- **2008/2009 Mirko Collu:** Sistemi foraggeri irrigui per l'allevamento di bovini da latte: ruolo dell'erba medica;
- **2008/2009 Mario Stefano Murgia:** La coltivazione di colza e carinata nel nord-ovest della Sardegna;
- **2009/2010 Carlo Sardo:** Aspetti evolutivi della coltivazione del carciofo nella valle del Coghinias;
- **2010/ 2011 Giuseppe Manca:** Evoluzione dei sistemi foraggeri per aziende ovine da latte della Barbagia;
- **2010/2011 Martina Buffa:** Graminacee foraggere perenni in ambiente mediterraneo: valutazione di alcuni caratteri morfo-fisiologici in *Lolium perenne* L.;
- **2010/2011 Massimiliano Cocco:** Introduzione di colza (*Brassica napus* L. var. *oleifera* D.C.) e carinata (*Brassica carinata* A. Braun) nei sistemi colturali del nord Sardegna: scelta varietale e analisi energetica;
- **2010/2011 Veronica Coloru:** Introduzione della coltura del colza nei sistemi colturali del nord Sardegna: problematiche relative al controllo delle infestanti;
- **2010/2011 Valeria Musu:** Dinamica della nutrizione minerale in carciofo: determinazione della curva di crescita dei principali tipi varietali coltivati in Sardegna;

- **2010/2011 Valentina Carboni:** La coltivazione del carciofo "Spinoso sardo" in regime biologico;
- **2010/2011 Francesco Mattana:** La concimazione verde nella coltivazione del carciofo in regime biologico;
- **2010/2011 Andrea Pittalis:** Produzione di ortaggi da foglia per la quarta gamma;
- **2011/2012 Alessandro Masia:** La coltivazione dell'Eleagnus x Ebbingei: l'impiego di fertilizzanti organici ed inorganici;
- **2011/2012 Efisio Pau:** Composizione della seedbank della flora infestante in una coltura di carciofo in regime biologico;
- **2011/2012 Antonella Mula:** La coltivazione del colza nel Nord-Ovest della Sardegna: influenza della concimazione azotata su resa e sue componenti;
- **2011/2012 Budroni Antonio:** La coltivazione del carciofo (*Cynara Cardunculus* Var. *scolimus*) nella bassa valle del Coghinas;
- **2011/2012 Canu Francesca:** Miglioramento pascoli e potenzialità antropiche: valutazione di un terreno forestale in uso civico nel comune di Pattada;
- **2012/2013 Serra Antonello:** La gestione della flora infestante in sistemi colturali del carciofo in regime biologico;
- **2012/2013 Andrea Satta:** Analisi dei sistemi foraggero-zootecnici per l'allevamento del bovino da carne in regime biologico;
- **2013/2014 Ester Raccimolo:** Studio dei principali parametri produttivi, di sviluppo e accrescimento in 3 cultivar di cardo (*Cynara cardunculus* var. *altilis*) coltivato a scopo bioenergetico;
- **2013/2014 Martina Dore:** Valorizzazione energetica della Biomassa residua in carciofo;
- **2013/2014 Paolo Doccu:** Variabilità fenologica in *Cynara cardunculus* var. *altilis* coltivato in ambiente mediterraneo;
- **2016/2017 Mario Gaspa:** Confronto fra trattamenti con diverso inoculo azoto fissatore *Rhizobium sulae* su *Hedysarum coronarium* L.;
- **2016/2017 Bacciu Alessandro:** Effetti della differente intensità luminosa sulla produzione foraggera, sul valore nutritivo e sui flussi di CO₂ in cotiche erbacee di leguminose foraggere in sistemi agro-silvopastorali Mediterranei;
- **2017/2018 Matteo Bianco:** Irrigazione automatica e di precisione su carciofo;
- **2017/2018 Vincenzo Politano:** Carciofo Spinoso sardo DOP: gestione agronomica, tutela e prospettive future nella Bassa Valle del Coghinas;
- **2018-19 Riccardo Antonello Vargiu:** Prospettive future tra due realtà: La coltivazione dello zafferano (*Crocus sativus* L.) e l'industria casearia in Sardegna;
- **2018-19 Stefano Lupinu:** Applicazione dell'irrigazione automatica e di precisione al carciofo Spinoso Sardo;
- **2019-20 Maria Luisa Selis:** Sequestro di carbonio e servizi ecosistemici: confronto fra sistemi colturali ed opzioni gestionali;
- **2022-23 Leone Francesco:** Effetto dell'utilizzo di FRASS di insetto sulla produzione di basilico cv "Classico italiano" coltivato in vertical farm;
- **2023-24 Michele Urriani:** Influenza di intensità luminosa e fotoperiodo su crescita e produzione di tre specie di baby leaf in vertical farm;
- **2023-24 Alessandro Pennesi:** Caratterizzazione della variabilità del suolo in campi da Golf mediante sensori dielettrici;
- **2023-24 Nazzareno Sebastiani:** Caratterizzazione della variabilità del suolo mediante l'impiego di sensori dielettrici.

Co-supervisor of 17 experimental five-year or master's degree theses

2001 to date

- **2001-02 Michele Spano:** Variabilità morfo-fisiologica in alcune popolazioni naturali di *Dactylis glomerata* L. collezionate in Sardegna;
- **2001/2002 Paolo Messina:** Influenza del genotipo e del regime idrico su dormienza estiva e persistenza in *Dactylis glomerata* L.;
- **2001-02 Antonio Demontis:** Effetto di alcuni trattamenti fisici, meccanici ed ormonali sulla dormienza di tuberi seme in *Solanum tuberosum* L.;
- **2002-03 Elena Meloni:** Relazione fra caratteristiche biomorfologiche ed aridoresistenza in *Dactylis glomerata* L.;
- **2004-05 Marco Marini:** Influenza esercitata da differenti substrati di coltivazione sullo sviluppo degli apparati radicali e sulla produttività in 4 cv. di rosa da fiore reciso;
- **2004-05 Pierluigi Guiso:** Caratterizzazione agronomica e fisiologica di alcune graminacee foraggere perenni;
- **2009-10 Annalisa Guascari:** Graminacee foraggere perenni in ambiente mediterraneo: valutazione di alcuni caratteri morfo-fisiologici in *Festuca arundinacea* Schreb.;

- **2013-14 Marcella Carta:** Sistemi foraggeri sostenibili per gli allevamenti bovini da carne in Sardegna;
- **2019-20 Daniela Tolomeo:** Contributo degli assimilati prodotti in pre antesi alla resa me di due brassicacee coltivate nella piana di Ottana;
- **2019-20 Matteo Bianco:** Progettazione e verifica funzionale di un impianto di irrigazione fotovoltaico climatizzante persistemi orticoli Mediterranei;
- **2019-20 Matteo Muntoni:** Irrigazione di precisione: calibrazione di una rete di sensori per il monitoraggio continuo dell'umidità del suolo;
- **2019-20 UNISS Michela Pinna:** Coltivazione del carciofo Spinoso sardo (*Cynara scolymus*) in coltura forzata: dinamica della mineralizzazione nella fase di transizione verso il regime biologico;
- **2020-21 Vincenzo Politano:** Coltivazione di baby leaf di lattuga in vertical farm: effetti della radiazione artificiale cumula sui parametri agronomici;
- **2020-21 Maurizio Marteddu:** Interpretazione e utilizzo di immagini telerilevate per l'identificazione di stress idrico in carciofo;
- **2020-21 Giovanni Corrà:** Messa a punto della tecnica della fertilizzazione di precisione in carciofo;
- **2020-21 Emanuele Antero Serra:** Dinamica dei macronutrienti in carciofo coltivato in regime biologico;
- **2023-24 Virgen Caridad Martinez:** Effetto della scelta varietale sulla produzione del girasole coltivato in regime biologico;

Tutor teacher in the context of 24 practical application internships

2002 to date

- **2002-03 Luca Mercenaro:** Coltivazione del pomodoro in serra nel comprensorio del basso Sulcis;
- **2002-03 Manuele Saiu:** Coltivazione del carciofo nel comprensorio del basso Sulcis;
- **2003-04 Giulia Roberta Urracci:** Tecnica di coltivazione e calendario di produzione nel vivaismo orticolo, azienda agricola Mura Franco, Arborea (OR);
- **2003-04 Alessandro Mereu:** L'orticoltura protetta nel sassarese con particolare riferimento alla coltivazione del pomodoro fuori suolo;
- **2003-04 Valentina Deidda:** Tecnica di coltivazione dello zucchini;
- **2003-04 Elvira Lopez Gimenez:** Produzione del carciofo in pieno campo;
- **2003-04 M.Dolores Garcia Aranda:** Il vivaismo orticolo in ambiente protetto;
- **2003-04 Gabriele Pisanu:** Tecniche colturali per la produzione in serra della Stella di Natale;
- **2004-05 Cristian Prunas:** La coltivazione del carciofo nella Bassa Valle del Coghinas;
- **2005-06 Porcu Mauro:** Coltivazione in ambiente protetto del pomodoro da mensa;
- **2005-06 Schirru Stefano:** Tecniche vivaistiche;
- **2005-06 Saiu Gabriele:** Il ruolo dell'assistenza tecnica nel comparto delle colture protette;
- **2005-06 Gaspa Giustino:** La coltivazione del pomodoro in serra in coltura fuori suolo;
- **2006-07 Brundu Andrea:** Problematiche tecniche in colture senza suolo;
- **2006-07 Loi Stefano:** La coltivazione del pomodoro da mensa in ambiente protetto: il ciclo lungo;
- **2006-07 Coialbu Antonello:** La coltivazione biologica delle foraggere per la zootecnia;
- **2007-08 Massimo Casula:** Sistemi foraggeri nell'ambito del piano di sviluppo rurale;
- **2009-10 Rossella Delogu:** Sistemi foraggeri per aziende ovine da latte;
- **2009-10 Marco Zallu:** Coltivazione della Freesia in ambiente protetto;
- **2012-13 Gabriele Moro:** La coltivazione della lattuga in serra;
- **2012-13 Gian Marco Pintus:** Impianto di una coltura di colza nell'area della Nurra;
- **2020-21 Angelica Compagnoni:** RELAZIONE sul TIROCINIO svolto presso Az. Agr. Ambruosi & Viscardi nella sede di S. Elpidio a mare (FM);
- **2021-22 Andrea Verdinelli:** RELAZIONE sul TIROCINIO svolto presso l'azienda agricola Agricolt;
- **2022-23 Valentina Tronti :** RELAZIONE sul TIROCINIO svolto presso Azienda Agricola Dott. Agr. Elena Spinsantinella sede di Osimo (AN);

Referent of 4 students who

**have benefited from the
Erasmus+ programme, Key
Action 1 – Student Mobility for
Traineeship**

2015 to date

- **2015-16 Aloisa Deriu:** Evora University, Portogallo;
- **2016-17 Giovanni Bussu:** Università Politecnica di Valencia, Spagna;
- **2017-18 Giovanna Calia:** INRA Nice, Sophia Antipolis, Francia;
- **2017-18 Matteo Bianco:** Università Politecnica di Madrid, Spagna;

Other teaching activities

18/09/2006–07/12/2006

- Teaching assignment of Agricultural Ecology (28 hours) within the POR Sardinia 2000-2006 "Adaptation of the skills of the Public Administration". I.T.A.C.A project;

03/02/2007–03/02/2007

- Teaching assignment regarding "Study of agronomic-economic opportunities for Sardinian companies in the field of biomass crops", awarded by ERSAT (Regional Agency for Development and Technical Assistance in Agriculture - Autonomous Region of Sardinia);

01/09/2008–30/08/2009

- Teaching assignment for 21 training sessions (1h) as part of the training course for "Expert appraiser for damage caused by atmospheric adversities" organised by the Order of Agronomists and Forestry Doctors of the Province of Sassari;

25/04/2009–25/04/2009

- Teaching assignment at the Workshop (Alternative energies - development opportunity for Sardinian agriculture). Contribution entitled "Agro-energy crops". Organizational secretariat Agenzia Laore (Regional Agency for Development in Agriculture);

19/05/2009–19/05/2009

- Teaching assignment regarding "Field experiences on biomass crops in Sardinia", awarded by the Laore Agency (Regional Agency for Agricultural Development) as part of the Course for agricultural technicians and entrepreneurs on "Energy saving and renewable energy in agriculture: the cultivation of biomass for alternative energy";

14/01/2019–30/04/2019

- Teaching assignment for the paid course "From the past to the future: sustainable horticulture" awarded by the Rector of the University of Sassari as part of the UNISCO 2.0 project financed by the Autonomous Region of Sardinia under the POR FSE Regione Sardegna 2014-2020 Axis III Education and Training Action 10.5.1 – "Coordination actions between schools and university or equivalent education institutes for preparatory courses for university enrollment orientation";

20/01/2020

- Teaching assignment for the paid course "From the past to the future: sustainable horticulture" awarded by the Rector of the University of Sassari as part of the UNISCO 2.0 project financed by the Autonomous Region of Sardinia under the POR FSE Regione Sardegna 2014-2020 Axis III Education and Training Action 10.5.1 – "Coordination actions between schools and university or equivalent education institutes for preparatory courses for university enrollment orientation."

▪

SCIENTIFIC PRODUCTION

Author of 94 Articles published in WOS/Scopus indexed journals or volumes, one Abstract published in a WOS indexed journal, 13 Full-length peer-reviewed articles published in journals, 10 Full-length articles published in popular science journals, 19 Book chapters, 25 Full-length articles published in Conference Proceedings, 41 Abstracts published in Conference Proceedings.

Prof. Luigi Ledda is listed in the following databases:

- ORCID: <https://orcid.org/0000-0001-5337-5701>
- Web of Science ResearcherID: E-2649-2012
- Scopus Author ID: 6507429245
- Google Scholar: lledda@uniss.it
- Publons: <https://publons.com/researcher/1443636/luigi-ledda>

Bibliometric indices to date:

SCOPUS: Documents: 94; h-Index: 29; Total citations: 2367;

Articles published in WOS and/or SCOPUS indexed journals

2001 to date

- 1) Lanteri S., Di Leo I., **Ledda L.**, Mameli M.G. and Portis E., 2001. RAPD variation within and among populations of globe artichoke cultivar "Spinoso sardo". **Plant Breeding**, Volume 120, Issue 3, Pages 243-246; DOI: <https://doi.org/10.1046/j.1439-0523.2001.00605.x>;
- 2) **Ledda L.**, Rivoira G., 2003. Salt concentration of The Nutrient Solution: Effects on Transpiration Rate of Soilless Culture. **Acta Horticulture**, No. 609, p. 97-102; DOI: <https://doi.org/10.17660/ActaHortic.2003.609.11>;
- 3) **Ledda L.**, Mameli M.G., Milia M., Marras G.F., 2004. Influence of plant shading and ovoli typology on globe artichoke development, early production and head atrophy: preliminary results. **Acta Horticulture**, No. 660, p. 365-371; DOI: <https://doi.org/10.17660/ActaHortic.2004.660.53>;
- 4) Mameli M.G., **Ledda L.**, Milia M., 2005. Influence of Ovoli Typology on Globe Artichoke Development, Early Production and Head Atrophy: Preliminary Results. **Acta Horticulture**, No.681, p. 225- 232; DOI: <https://doi.org/10.17660/ActaHortic.2005.681.28>;
- 5) Lanteri S., **Ledda L.**, Di Leo I., Mameli M.G., Portis E., 2005. Molecular, morphological and yield variation among and within populations of globe artichoke, cv "Spinoso sardo". **Acta Horticulture**, No.681, p. 333-340; DOI: <https://doi.org/10.17660/ActaHortic.2005.681.44>;
- 6) Salis M., Farci R., Doro L., Urracci G.R., **Ledda L.**, 2008. Simplified Phenological Models for Open Field Tomato in Sardinia. **Italian Journal of Agronomy**, Volume 3, Issue 3, 2008, Pages 817-818;
- 7) Doro L., Urracci G.R., Salis M., Madrau S., Deroma M.A., **Ledda L.**, 2008. EPIC Model Simulation of a Central-West Sardinia Traditional Cropping System. **Italian Journal of Agronomy**, Volume 3, Issue 3, 2008, Pages 771-772;
- 8) Deligios P., Farci R., **Ledda L.**, Sulas L., Roggero P.P., 2008. Integration of Oil-Seed Crops in Mediterranean Agro-Pastoral System to Supply Bio-Fuels to Local Power Industry. **Italian Journal of Agronomy**, Volume 3, Issue 3, 2008, Pages 519-520;
- 9) Lazzeri L., D'Avino L., Mazzoncini M., Antichi D., Mosca G., Zanetti F., Del Gatto A., Pieri S., De Mastro G., Grassano N., Cosentino S., Copani V., **Ledda L.**, Farci R., Bezzi G., Lazzari A., Dainelli R., Spugnoli P., 2009. On Farm Agronomic and First Environmental Evaluation of Oil Crops for Sustainable Bioenergy Chains. **Italian Journal of Agronomy**, Vol. 4 No. 4, 171-180; DOI: 10.4081/ija.2009.4;
- 10) Florence Volaire, Giovanna Seddaiu, **Luigi Ledda** and François Lelievre, 2009. Water deficit and induction of summer dormancy in perennial Mediterranean grasses. **Annals of Botany**, Volume 103, Issue 8, Pages 1337-1346; DOI: 10.1093/aob/mcp080;
- 11) Alessandra Lagomarsino, Anna Benedetti, Sara Marinari, Letizia Pompili, M. Cristina Moscatelli, Pier Paolo Roggero, Roberto Lai, **Luigi Ledda** and Stefano Grego, 2011. Soil organic C variability and microbial functions in a Mediterranean agro-forest ecosystem. **Biology and Fertility of Soils**, Volume: 47, Issue 3, Pages 283-291; DOI: 10.1007/s00374-010-0530-4;
- 12) Lelièvre F., Seddaiu G., **Ledda L.**, Porqueddu C., Volaire F., 2011. Water use efficiency and drought survival in Mediterranean perennial forage grasses. **Field Crops Research**, Volume 121, Issue 3, Pages: 333-342; DOI: 10.1016/j.fcr.2010.12.023;
- 13) Gullás J., Seddaiu G., Cifre J., Salis M. and **Ledda L.**, 2012. Leaf and Plant Water Use Efficiency in Cocksfoot and Tall Fescue Accessions under Differing Soil Water Availability. **Crop Science**, 52: 2321–2331 (2012); DOI: 10.2135/cropsci2011.10.0579;
- 14) Rosa Francaviglia, Kevin Coleman, Andrew P. Whitmore, Luca Doro, Giulia Urracci, Mariateresa Rubino and **Luigi Ledda**, 2012. Changes in soil organic carbon and climate change - Application of the RothC model in agro-silvo-pastoral Mediterranean systems. **Agricultural Systems**, 112 (2012) 48–54; DOI: 10.1016/j.agsy.2012.07.001;
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- 30) Rosa Francaviglia, Luca Doro, Luigi Ledda, Luis Parras-Alcántara and Beatriz Lozano-García, 2016. Influence of soil sampling approaches in the evaluation of soil organic carbon stocks under different land uses in a Mediterranean area. Geophysical Research Abstracts Vol. 18, EGU2016-3719, EGU General Assembly 2016, Vienna, Austria, 17-22 April 2016;
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- 34) Paola A. Deligios, Anna Paola Chergia, Gavino Sanna, Stefania Solinas, Luigi Ledda, 2019. Leaf and plant water use efficiency in globe artichoke cv "Spinoso sardo" under different irrigation water managements, 2019. Book of Abstracts of ARTICHOKE 2019, X International Symposium, Orihuela, Spain, 12-15 October 2019;
- 35) Adriana Virdis, Angela Fadda, Antonio Barberis, Luigi Ledda, Sara Melito, 2019. Impact of different photoperiodic treatments on globe artichoke var. "Spinoso sardo" (*Cynara cardunculus* L., var *scolymus* Fiori) head traits and elementary composition. Book of Abstracts of ARTICHOKE 2019, X International Symposium, Orihuela, Spain, 12-15 October 2019;
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agronomic systems in response to global challenges", pp 131 - 132, Udine, 15 - 17 settembre 2021;

40) Michele Denora, Marco Fiorentini, Stefano Zenobi, Paola Deligios, Roberto Orsini, Luigi Ledda, Michele Perniola, 2022. Variable-rate fertilization of durum wheat (*Triticum durum* Desf.) based on geophysical mapping. III CONVEGNO AISSA# UNDER40. LA RICERCA SCIENTIFICA NEL PROCESSO DI TRANSIZIONE ECOLOGICA;

41) Fiorentini M, Schillaci C, Denora M, Zenobi S, Deligios PA, Orsini R, Santilocchi R, Perniola M, Montanarella L, Ledda L. 2022. A Machine learning modelling framework for durum wheat yield forecasting in Central- Southern Italy In Atti del 51° Convegno Nazionale Società Italiana di Agronomia, Padova, 19 - 21 settembre 2022;

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44) G Brunetti, M Appicciutoli, AMA Abulebda, AS Amici, D Appicciutoli, L Aquilanti, D Bentivoglio, M Bianchini, U Boaretto Rossa, A De Bernardi, B Di Tella, C Casucci, A Cuscianna, PA Deligios, P D'Ottavio, D Duca, M Fattorini, M Fiorentini, E Foppa Pedretti, A Finco, M Francioni, C Garofalo, A Ilari, E Lombi, A Marcelli, E Marini, V Milanovic, D Pacetti, M Pasquini, R Orsini, P Riolo, C Rivosecchi, F Tagliabue, G Toscano, MF Trombetta, C Vischetti, S Zenobi, L Ledda, 2024. Effect of different concentrations of black soldier fly (*hermetia illucens* L.) frass on basil and parsley grown in domestic farming appliances. Abstracts of 42th Convegno Nazionale Società Italiana di Chimica Agraria, pp. 60-60;

45) Rivosecchi, C., Amar, A., Deligios, P. A., Eeckhout, E., Francioni, M., Haesaert, G., Ledda, L., Mancini, A., and Maes, W. H., 2025: Leaf Area Index and Leaf Chlorophyll Content estimation from hyperspectral imaging using SCOPE model inversion, EGU General Assembly 2025, Vienna, Austria, 27 Apr–2 May 2025, EGU25-21604, <https://doi.org/10.5194/egusphere-egu25-21604>, 2025;

EDUCATION AND TRAINING

TITLES AND QUALIFICATIONS

22/10/2018	Qualified to perform the functions of full professor in the competitive sector 07/B1 Agronomy and herbaceous and horticultural cropping systems; National Scientific Qualification Announcement 2016 (DD n. 1532/2016). Qualification validity: from 22/10/2018 to 22/10/2027
04/04/2017	Qualified to perform as associate professor in the competitive sector 07/B1 Agronomy and herbaceous and horticultural cropping systems. National Scientific Qualification Announcement 2016 (DD n. 1532/2016). Qualification validity: from 04/04/2017 to 4/4/2026;
10/09/1997	PhD in "Productivity of Cultivated Plants" at the Faculty of Agriculture of the University of Sassari, IX cycle" presenting a final dissertation entitled "Effect of water stress on the production of dry matter and seed in <i>Lolium rigidum</i> Gaudin subjected to different intensities of use" Administrative headquarters: University of Sassari; consortium offices: University of Ancona and Palermo
17/06/1997	"Expert of the subject" of the "Agronomic disciplines group" University of Sassari, Sassari (Italy)
04/1993	Qualification to practice the Free Profession of Doctor of Agronomy at the University of Sassari and is registered in the Register of Doctors of Agronomy and Forestry of the province of Sassari with stamp no. 383
12/03/1993	Degree in Agricultural Sciences, with a grade of 110/110 cum laude and discussing an experimental thesis entitled "Genetic improvement of alfalfa and red clover: methodologies and first results" (Supervisor Prof. Pietro Bullitta, Co-supervisors Prof. Fabio Veronesi and Prof. Pier Paolo Roggero) Faculty of Agriculture of the University of Sassari, Sassari (Italy)
1985	Diploma in Agricultural Expert with a grade of 60/60; State Agricultural Technical Institute "N. Pellegrini", Sassari (Italy)

TRAINING AND ADVANCED EDUCATION

4-11-18/02/2019	Cartography laboratory "Essential GIS 2019: vector data; raster data; publication of GIS data, for a total of 15 hours overall. SPIVA srl (Loc. Scala Sa Perda, 87 – Sestu, Cagliari, Italy)
22/09/2003 – 27/09/2003	Cartography laboratory "Essential GIS 2019: vector data; raster data; publication of GIS data, for a total of 15 hours overall. SPIVA srl (Loc. Scala Sa Perda, 87 – Sestu, Cagliari, Italy)
18/11/2002 – 22/11/2002	Course "Introduction to simulation models" Faculty of Agriculture, University of Ancona, Ancona (Italy)
04/11/2000 – 15/11/2000	International course entitled "Désertification et développement durable: cas de Parcours" C.R.S.T.R.A (Centre de Recherche Scientifique et Technique sur les Régions Arides), Biskra (Algeria)
29/06/1998 – 01/07/1998	Course "Basic Elements of the SAS System" Held by Researchers of the C.N.U.C.E. Institute of the C.N.R. at the Sassari Research Area of the CNR, Sassari (Italy)
30/01/1998 – 31/01/1998	Seminar "Programming and management of agro-silvo-pastoral ecosystems, particularly in protected areas" Organized by the Order of Agronomists and Forestry Doctors of the Province of Nuoro, Lanusei (Nu) (Italy)
01/11/1997 – 20/12/1998	Annual scholarship for Post-Doctoral research activity, disciplinary area "Productivity of Cultivated Plants"; confirmable for a total of two years. Title of the research program: "Influence of the main climatic parameters on some phenological phases and growth mechanisms in <i>Cynara cardunculus</i> var. <i>scolymus</i> L., <i>Solanum tuberosum</i> L. and <i>Dactylis glomerata</i> L.". Renunciation presented on 20 December 1998 as winner of the comparative evaluation procedure for the assignment of a research grant funded by the University of Sassari. Faculty of Agriculture of the University of Sassari, Sassari (Italy)
06/11/1996 – 31/10/1997	Annual scholarship for the Agricultural Sciences disciplinary area, University of Ancona for attending courses or activities of improvement or specialization abroad. Institute of Environmental and Biological Sciences, Biological Sciences Division, Lancaster University (UK), Lancashire (England)
16/09/1996 – 05/10/1996	Attends 18th course of Statistical Methodology for Applied and Basic Research. Organized by the International Biometric Society, Italian Region, Cortona (Italy)
12/04/1996 – 18/05/1996	Attends the "Seminar of advanced training on urban greenery". Organized by the Order of Agronomists and Forestry Doctors of the province of Sassari, at the Faculty of Agriculture, Sassari (Italy)
17/10/1994 – 21/10/1994	Participate in the seminar entitled: "Modelling in Agrometeorology" Organized by the Regional Agrometeorological Service of Sardinia, Sassari (Italy)
17/01/1993 – 31/10/1996	Attends with a scholarship the Doctoral Course in "Productivity of Cultivated Plants" IX cycle. Administrative headquarters at the University of Sassari, Sassari (Italy)

Personal skills and competences

Native language **Italian**
Other(s) language(s) **English and French**

Self-assessment	Comprehension		Spoke		Written
European level (*)	Listen	Read	Oral interaction	Oral production	
English language	c2 advanced level	c2 advanced level	a2 elementary level	a2 elementary level	c2 advanced level
French language	a2 elementary level	a2 elementary level	a2 elementary level	a2 elementary level	a2 elementary level

(*) Quadro comune europeo di riferimento per le lingue

Computer skills Operating systems: Good knowledge aimed at professional use of the Windows operating system (in the most recent versions);

Generic “office automation” software: Excellent knowledge of the most common office automation software, such as, for example, Word processors, spreadsheets, etc.;

Statistics: good knowledge of SAS, basic notions of R on Windows platform.

Crop modeling software: expert in modeling of cropping systems (excellent knowledge of DSSAT software, basic knowledge of AQUACROP and CROPSYST).

The undersigned, Luigi Ledda, consents to the processing of personal data contained in this curriculum vitae et studiorum pursuant to Legislative Decree 30.6.2003 n. 196 and EU Regulation 2016/679.

Sassari May 20, 2025

Prof. Luigi Ledda

