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Place and date of birth	Viareggio (LU), 12 February 1982
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CURRENT POSITION

February 2022 Current	Fixed-term researcher type A, at the Plant Science Centre of the Scuola Superiore Sant'Anna in Pisa , sector AGR/02 " Optimisation of the use of planned biodiversity to increase the efficiency of resource use in agro-ecosystems through technology-digital transfer in farms ".
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QUALIFICATIONS

June 2023 – June 2034	National Scientific Accreditation (Italy) ASN 07/B1 - AGRONOMY AND CULTIVATION SYSTEMS FOR HERBACEOUS AND HORTICUTURAL CROPS (II Fascia).
January 2008 - June 2012	PhD in Plant Production Science at the University of Pisa. Thesis title: 'Maize weed communities composition dynamics under land abandonment and urbanisation trends at landscape level'. Qualification Achieved: PhD
September 2004 - October 2007	Ordinary second level student at the Scuola Superiore di Studi Universitari e Perfezionamento Sant'Anna in Pisa sector of Agricultural Sciences . Final dissertation: 'Alternative organic spinach cultivation systems in the Crespina area - effects on production and weed flora' . Qualification Achieved: Second Level Diploma with a mark of 98/100
September 2004 December 2006	University of Pisa, Faculty of Agriculture, Specialised Degree Course in Organic and Multifunctional Agriculture, specialising in organic farming. Thesis: 'Organic cultivation systems for durum wheat and alfalfa on the San Rossore estate: effects on production - and weed vegetation'. Title of qualification awarded: Master's Degree (110/110 cum laude)
September 2001 - October 2005	Ordinary first level student at the Scuola Superiore di Studi Universitari e Perfezionamento Sant'Anna in Pisa, field of Agricultural Sciences. Final dissertation: 'Alternative cropping systems for organic wheat: effects on production and weed vegetation' . Qualification Achieved: First level diploma with a mark of 100/100 cum laude
September 2001 - October 2004	University of Pisa, Faculty of Agriculture, agricultural sciences degree course in biological and multifunctional sciences Supported thesis: 'Monitoring of weed vegetation in agricultural crops on the Tenuta di San Rossore organic farm' . Qualification Achieved: Bachelor's degree with a mark of 110/110 cum laude

CAREER PATH

October 2019- February 2022	EP Technologist at the Life Sciences Institute of the Scuola Superiore Sant'Anna in Pisa
January 2019 - October 2019	Research Associate Institute of Life Sciences, Scuola Superiore Sant'Anna, Pisa "LEGVALUE -Diversification of cropping systems through the introduction of leguminous crops -quantification of ecosystem services "
November 2012 - December 2018	Research Fellow (Assegno di ricerca) Institute of Life Sciences, Scuola Superiore Sant'Anna, Pisa , "Management of organic and low-input cropping systems through the use of cover crops and reduced tillage: effects on the functional biodiversity of weed communities"
March 2011- September 2012	Postgraduate fellow, Land Lab of the Scuola Superiore Sant'Anna in Pisa 'Innovative systems for weed control in field and horticultural crops'
March - June 2008	Temporary contract for occasional services (Co.co.co.), Scuola Superiore Sant'Anna di Pisa "Assignment for the design and implementation of the experimental industrial tomato plant at the Colombini organic farm located in Crespina (PI), biomass and weed surveys, treatment of collected biomasses and related laboratory analyses concerning quantitative and qualitative product parameters, statistical data analysis and critical processing of collected data".
April 2007 - January 2008	Postgraduate Scholarship Holder, Scuola Superiore Sant'Anna 'Integrated fertilisation and weed management through cover crops in organic horticultural systems.

TEACHING ACTIVITIES AT UNIVERSITY LEVEL Lectures and seminars

From July 2023	In charge of the PhD Course in Agrobiodiversity at the Scuola Superiore Sant'Anna 'Methods to study and analyse biodiversity in Agroecosystems at species level' (20h)
From July 2023	In charge of the course for ordinary students of the Experimental Sciences class at the Scuola Superiore Sant'Anna in Pisa 'Tools for studying and analysing spontaneous biodiversity in agroecosystems' (20h)
November 2022-today	In charge of the course taught in English <i>Introduction to data analysis (Statistics) (2CFU)</i> at CIHEAM-MAIB'S MSc Degree "Sustainable IPM technologies for Mediterranean fruit and vegetable crops".
November 2014 - today	In charge of the course taught in English "Introduction to IPM - Weeds" (2CFU) at CIHEAMMAIB'S MSc Degree "Sustainable IPM technologies for Mediterranean fruit and vegetable crops".
April May 2019-present	Assistant for the course held in English "R for Data Analysis in Agrobiodiversity." (2CFU) by Prof. Matteo dall'Acqua at Scuola Superiore Sant'Anna of Pisa. For the PhD course in Agrobiodiversity at the Scuola Superiore Sant'Anna of Pisa
May 2020 - today	Annual seminar. Agro-ecological aspects of weeds. (4 h) Teaching of Agricultural Ecology, Master's Degree Course in Food Production and Agroecosystem Management at the University of Pisa held by Prof. Daniele Antichi
December 2019	In charge of the course taught in English "Organic weed management" (2CFU) at CIHEAMMAIB'S MSc Degree "Mediterranean Organic Agriculture".
July 2019	In charge of the English-language course 'Advanced statistics' (2CFU) at CIHEAM-MAIB'S MSc Degree 'Sustainable IPM technologies for Mediterranean fruit and vegetable crops'

October 2018 and October 2019	Contract lecturer of the module "Introduction to the use of biodiversity (genetic, species, digestion and habitat) in agroecological systems. Habitat diversity and management for agroecosystem services'. Within the permanent training course 'Models, policies and strategies for the development of organic agriculture-organised by the University of Urbino 'Carlo Bo'.
January 2018	In charge of the English-language course "Agro-biodiversity assessment and management" (2CFU) at MAICh-Chania (Greece)" post-graduate course for the Sustainable Agriculture
December 2017	Co-owner of the module "Transition to Agroecology, The use of functional diversity for preserving soil health" with Mariateresa Lazzaro. (2h) Organised at "Capsella boot camp" (Held in English)
February-March 2017	Assistant for the course "Advanced statistics/methods of field experiments held by Dr. Nevio Dubbini (3CFU) for the PhD course in Agrobiodiversity at the Scuola Superiore Sant'Anna in Pisa (Ita)
November 2014	Assistant for the course 'Spatial data analysis' (3CFU) held by researcher Anna Camilla Moonen for the PhD course in Agrobiodiversity at the Scuola Superiore Sant'Anna in Pisa.

Co-Tutoring of Doctoral Students

2022-today	Alessandro Triacca PhD course in Agrobiodiversity, with a project on modelling intercropping and weed interactions
2022-today	Massimo Sbrana PhD Programme in Agriculture, Food and Environment at the Department of Agriculture, Food and Environment - University of Pisa; project titled: Cropping systems and sustainability in agriculture: the contribution of long-term field experiments in the Mediterranean area'.
2021-2023	Elisa Lorenzetti PhD course in Agrobiodiversity at the Scuola Superiore Sant'Anna in Pisa, with a project entitled: 'Participatory design of lentils' cultivar mixtures'.
2017 - 2021	Federico Leoni, PhD course in Agrobiodiversity at the Scuola Superiore Sant'Anna in Pisa, with a project entitled: 'Legume selection for improving cover crop use in integrated weed management'.
2017 -2020	Guillaume Adeux, PhD course in Agrobiodiversity at the Scuola Superiore Sant'Anna in Pisa, with a project entitled 'Highlighting the role of biodiversity in driving weed community dynamics and weed crop interactions'.
2013 to 2017	Marzia Ranaldo, PhD course in Agrobiodiversity at the Scuola Superiore Sant'Anna in Pisa, with a project entitled: 'Functional biodiversity in green manure crops: effects on nitrogen dynamics and weed suppression'
2017 - 2018	Hailie Shiferaw, PhD course in Agrobiodiversity at the Scuola Superiore Sant'Anna in Pisa, with a project entitled: 'Functional biodiversity in Ethiopian Agroforestry systems: implications on soil fertility and livelihood strategy'.

Statistical and experimental support of doctoral projects

2017 - 2021	Dylan Warren Raffa PhD course in Agrobiodiversity at the Scuola Superiore Sant'Anna in Pisa, with a project entitled: 'Exploring the effect of soil management practices on soil-based ecosystem services in Chianti classico's Vineyard'.
2014 -2018	Fernando Pellegrini PhD course in Agrobiodiversity at the Scuola Superiore Sant'Anna in Pisa, with a project entitled: 'Use of intercropping for weed management and wheat production, using a Participatory Learning and Action Research approach'.

Tutoring international traineeships

2018	Clémence Penato, 'ENSA-Toulouse' project: 'Soil seedbank on the cover crop trial,Pisa (IT)',
2017	Baptiste Fajefet, École Supérieure d'Agricultures d'Angers, project: 'Diversité des -couverts végétaux et approvisionnement en azote sur culture biologique d'aubergines'.

IMPLEMENTATION OF PROJECT ACTIVITIES**Research activities in international projects**

2022-today	<p>PATH2DEA -HUE</p> <ul style="list-style-type: none"> • Project description: PATH2DEA is committed to unlocking digitalisation's catalysing power to foster European agriculture's transition towards enhanced sustainability. It builds on farmers' competences and views and match them with the rich repertoire of digital solutions already available for agriculture, aimed at tailoring digital technologies to users' needs and fostering wide range adoption of digital agroecological farming in the EU and associated countries. Strategic engagement by multiple actors includes early adopters of digital agroecological farming represented by six Showcase farms located in different pedoclimatic regions, with hands-on experience for solid consensus validation of the project's conclusions. • Activities carried out: collaborated in the writing of the project, deputy coordinator WP4, participating in the screening of existing technologies and indicators necessary for their evaluation, WP3. Collaborating with AEDIT, on the translation and administration of the survey, and on the creation of the local showcase.
2020-today	<p>IPMWORKS -- Horizon 2020</p> <ul style="list-style-type: none"> • Project description: The objective of IPMWORKS is to promote the adoption of advanced IPM strategies in a Europe-wide network of farmers who will further advance the implementation of IPM and at the same time demonstrate to other farmers that IPM 'works'. IPMWORKS supports a series of farm networks (hubs) coordinated by local advisors, but which extends to the European level. At the national level the Scuola Superiore Sant'Anna has built and coordinates two hubs one on orchards and one on field crops of about 20 farmers each. • Activities: Collaborated on the initial drafting of the project. National project leader (<i>National focal point</i>) for Italy. International <i>Orchard sector leader</i>. Scientific responsible for the activities of the Scuola Superiore Sant'Anna. Built two farmer hubs involving more than 25 farmers in Pisa, Lucca, Leghorn provinces. Developed multiple activities like arranging demonstrative field trials, demo events, training and technology transfer event, peer to peer exchange of knowledge meeting, hub coach training and coordination. Produced Video screen play, shooting, interviews. Translation and disseminating of training materials as technical surveys.

2022-2023	<p>'European Pesticide-Free Agriculture in 2050'- Foresight study led by INRAE.</p> <ul style="list-style-type: none"> • Project description: The aim of this foresight study was to help us look ahead and identify sound options and the knowledge needed to achieve the desired objectives. The 'European Pesticide-Free Agriculture in 2050' foresight study was conducted over two years by INRAE, at the request of the priority research programme 'Growing and protecting crops differently' (PPR-CPA). It explores disruptive solutions with an ambitious objective: to eliminate pesticides. Some 144 scientific experts worked together with the European Research Alliance ERA Pesticide Free (34 members, 20 countries) for the study. • Activities: I contributed with my expertise to the project's goals of achieving sustainable agriculture in Europe taking part to four expert meetings in Paris. Moreover, I served as the responsible Italian coordinator for the activities and organisation of the Regional Workshops on Pathways towards a pesticide-free agriculture in Europe by 2050. Invited to the final conference in Paris to give an oral presentation about the Italian Activities.
2021-2022	<p>'Green agriculture in Europe and Central Asia' - systematic review project by FAO</p> <ul style="list-style-type: none"> • Project description: The main objective and driving force for establishing a Regional Technical Platform on Green Agriculture in Europe and Central Asia is to facilitate the sharing of knowledge within the region and among other regions on the various areas of green agriculture, with the involvement of international, national and local development partners, building on good experiences and enhancing regional and interregional collaboration. • Activities: I contributed with my expertise to analyse over 2,000 papers and contributed to write, together with Group of Agroecology colleagues, a position paper in publication.
2017-today	<p>IWMPRICE- Horizon 2020</p> <ul style="list-style-type: none"> • Project description: The project Integrated Weed Control: Practical Implementation and Solutions for Europe aims to reduce the use of synthetic products by applying integrated pest management protocols to weed control. The objective is to minimise the use of chemical inputs in order to increase the sustainability -of cropping systems by making them more resilient to climate change and weather conditions without compromising farm profitability and food production. • Activities: Collaborated on the initial drafting of the project, in particular on the work package concerning the management of tillage and soil fertility of which the Scuola Superiore Sant'Anna is WP leader. Represented the School at the "kick-off meeting" and at all "National cluster meetings". Organised and managed "work package" meetings in Pisa. Participated in the design and implementation of experimental trials at the University of Pisa's experimental company -CiRAA- and in commercial companies. Coordinated the management of experimental trials, data collection, processing and presentation. Participated in the realisation of the project's demonstration and dissemination activities.

2018- 2023	<p>LEGVALUE - Horizon 2020</p> <ul style="list-style-type: none"> • Project description: The project aims to define change actions to increase the European Union's self-sufficiency in vegetable protein production. In particular: to identify opportunities for innovation, to add value to all actors in the supply chain and to identify opportunities to bring about change at the political, commercial and research levels. • Activities: Collaborated in meetings with farmers and in conducting field trials on commercial farms in order to test the cultivation of grain legumes combined with cereals on commercial farms.
2016-2018	<p>CAPSELLA- Horizon 2020</p> <ul style="list-style-type: none"> • Project description: Development of innovative ICT solutions to adapt to the needs of the different actors involved in food production, seed and field management. • Activities: Collaborated in the development of ICT tools for the evaluation of physical biological chemical soil fertility "soil app" and the realisation of the virtual "boot camp", as well as in the organisation of meeting days and dissemination of results to farmers, student, and civil society.
2015-2017	<p>FERTILCROP- Core Organic Plus - FP7</p> <ul style="list-style-type: none"> • Project description: Development of agricultural crop management techniques to optimise the relationship between soil, other crops, microorganisms and the carbon and nitrogen cycle. • Activities: <i>Deputy leader</i> of the work package on weed management, coordinated the seven international partners in order to carry out joint experimental trials, surveys, sampling and combined data analysis. Managed relations between the work package leader and partners. Coordinated the activities of the three work package tasks. Managed and led the work package activities During all international meetings and co-ordinated the activities of the three tasks. Contributed to the realisation of the project reports. Collected and analysed the data both in the MASCOT long-term trials at the University of Pisa's experimental company, CiRAA, and in the trials specifically carried out for the project in commercial companies.
2012-2016	<p>OSCAR - 7th Framework Programme of the European Union.</p> <ul style="list-style-type: none"> • Project description: Implementation of conservation agriculture systems and increasing soil fertility through the use of cover crops. • Activities: Management of relations with project partners as deputy representative of the working group of the Scuola Superiore Sant'Anna of Pisa. Collection and analysis of data in the long-term MASCOT and ,COVER CROP trials at the experimental company of the University of Pisa - CiRAA. Planning, implementation, data collection in the new trials set up at private farms in the Pisa Plain to test the use of cover crops in conservation systems. Presentation of data and drafting of reports at project deadlines and international meetings.

2011-2013	<p>TILMAN-ORG - Core Organic II - FP7</p> <ul style="list-style-type: none"> • Project description: Define crop systems that are optimised in terms of productivity, resource use efficiency, weed control, increasing biodiversity and reducing greenhouse gas emissions by introducing reduced tillage in an organic farming context. • Activities: Planning and management of experimental trials, field surveys. Statistical processing of collected data. Presentation of data at project conferences. Collaboration in the realisation of project reports, and representation of the Scuola Superiore Sant'Anna at international project meetings. Collaboration in the organisation of project meetings held in Pisa. Collaboration with the international partners of the Working Group on Weed Flora, in order to create a dataset concerning the functional characteristics of the weed flora of the project partners' farm trials.
2008-2013	<p>ENDURE - Network of Excellence</p> <ul style="list-style-type: none"> • Project description: Within the ENDURE network financed by the European Commission, a new four-year trial was developed at the University of Pisa's experimental farm to compare different weed management strategies on a two-year maize-wheat rotation. • Activities: Planning and management of the experimental trial, field surveys, realisation and management of two seed bank germination trials of annual duration at the beginning and end of the experiment. Statistical processing of the data collected.

Research activities in national projects

2020-today	<p>INSOLE - PSR Sicily Region</p> <ul style="list-style-type: none"> • Description of the project: The introduction of the cultivation of new official plants in the Sicilian project partner farms has the dual purpose of diversifying floricultural and horticultural production, and promoting the development of a more sustainable agriculture for the environment and local communities, through the introduction of innovative practices for the use of functional biodiversity. During this project, local essences will also be valorised, thus promoting the conservation of biodiversity. • Activities performed: deputy scientific coordinator of the project, farmer survey and design of experimental field trials in commercial horticultural and floricultural farms to optimise biotic and abiotic stresses to increase essential oil production by reducing the use of farm inputs.
2020-today	<p>TOMATRACK - RDP Sicily Region</p> <ul style="list-style-type: none"> • Project description: To apply the most innovative information technologies available for the traceability and sustainability of the tomato supply chain, in order to enhance and innovate the tomato chain. • Activity performed: deputy scientific coordinator, devising farmer survey and design of experimental field trials on commercial farms dedicated to tomato cultivation, combining the agro-ecosystem functions of planned biodiversity with the application of digital, electronic and computer technologies for the management and control of field-greenhouse environmental conditions.

2020-2022	<p>MEORBICO - MIPAF</p> <ul style="list-style-type: none"> • Description of the project: The objective of the MEORBICO project (mechanisation of organic and conservation horticulture) is to define agronomic strategies capable of combining the principles of organic and conservation agriculture based on the use of smart and innovative operating machines, specifically designed and built for this purpose • Activities: Collaboration in the implementation, management of experimental field trials on the Pasquini organic commercial farm with regard to the survey of weed flora and associated biodiversity; compiled and presented data on the trials developed.
2018-2021	<p>INVERSION- PSR Autonomous Province of Trento</p> <ul style="list-style-type: none"> • Project description: The objective of the INVERSION project (Agro-ecological innovations for the resilience and sustainability of mountain livestock farming) is to develop an innovative model of mountain livestock farming capable of responding to the needs of land conservation and its functionality, protection of biodiversity, animal welfare and socio-economic sustainability of agro-livestock farms. • Activities carried out: interviewing farmers, advising on the management of pasture meadows and crops related to livestock production; realisation, management of experimental field trials on mountain livestock farms; collected processed and presented data on the trials developed. Since January 2019 collaborated in the management of the participatory process of implementation of the DSS sustainability self-assessment tool on mountain livestock DexiInversion. Managed the implementation of the IT products supporting the DSS self-assessment of sustainability on mountain animal husbandry DexiInversion.
2010-2012	<p>COMPARABIMUS - MIPAF</p> <ul style="list-style-type: none"> • Project description: Project financed by MIPAF in order to study the agronomic and environmental effects of the application of quality compost produced from waste biomass from agricultural and agro-industrial activities, in an organic farming context. • Activities: Management of field trials in organic maize at the University of Pisa CiRAA experimental farm, collection, processing and presentation of the data produced.
2010-2012	<p>COFICO - MIPAF</p> <ul style="list-style-type: none"> • Project description: Project financed by MIPAF in order to identify and develop innovative strategies for the physical management of spontaneous flora in organic horticultural farms. The project experimented the <i>band steaming</i> technique in three commercial organic farms located in the Ferrara area, in the Syracuse area, in Rome and at the University of Pisa CiRAA experimental farm. • Activities performed: Management of field trials on commercial farms in Sicily, Emilia- Romagna, Tuscany and Lazio, collection, processing and presentation of the data produced.

2008-2011	<p>FRULUN - Tuscany Region</p> <ul style="list-style-type: none"> • Project description: Project financed by the Region of Tuscany and the Province of Massa Carrara in order to reintroduce the cultivation of soft wheat for the production of bakery products typical of Lunigiana. • Activities: Management of field trials in three commercial farms, collection, processing and presentation of the data produced. Data collection from farmers and trade associations in the area. Organisation of field demonstration days. Return of data and assistance to bakers for the agronomic and commercial management of cultivation contracts since the end of the project, collaboration still in progress (2021) with the "da Gambin" restaurant, which led to the production of "Farina del re".
2007-2011	<p>FERT.ORT.MED.BIO - MIPAF</p> <ul style="list-style-type: none"> • Project description: Ministerial project (MIPAF) for the improvement of weed management in organic horticulture through the use of innovative mechanical and cultural control methods. • Activity performed: Management of field trials on an organic commercial farm, collection, processing and presentation of the data produced, concerning floristic composition and biomass production.

PARTICIPATION AT NATIONAL AND INTERNATIONAL CONGRESSES

Participation as a speaker at scientific conferences

1. Poster rapporteur session 'Organic farming and weed research' of the XLIII Conference of the Italian Society of Agronomy, Pisa 17-19 September 2014
2. Carlesi S., Bigongiali F., Antichi D., Fontanelli M., Frasconi C., Lulli L., Sorelli F. & Bàrberi P. Effect of innovative crop and weed management systems on organic cauliflower in Central Italy. Proceedings 8th Workshop of the EWRS working group: physical and cultural weed control, Zaragoza, Spain 9-11 March 2009, p. 3.
3. Carlesi S, Bocci G, Moonen A C, Frumento P., Bàrberi P. Composition of spontaneous flora in maize cultivation in a highly anthropised territory. Oral communication BIODcultivare la biodiversità, Milan 10-11 June 2010.
4. Carlesi S, Bocci G, Moonen A C, Frumento P, Bàrberi P. Maize Weed communities composition in a highly anthropized landscape: which vegetation response variables and landscape descriptors? IOBC/wprs Bulletin, Voi. 56, 2010 Working Group 'Landscape Management for Functional Biodiversity'. Proceedings of the meeting at Cambridge (UK), 22 June - 1 July, 2010. p. 29-32
5. Bradley F, Carlesi S, Moonen A C, Bàrberi P. Knowing the landscape to understand the territory: A case study in agronomy education. Proceedings of the 9th European IFSA Symposium 2010. Vienna, Austria. p. 2191-2200.
6. Carlesi S, Bocci G, Moonen A C, Bàrberi P. May cross functional groups help explaining landscape effects on weed community composition?, 4th Workshop of the EWRS Working Group: Weeds and Biodiversity, PP. 23-23, Dijon (France), 2011
7. S. Carlesi, D. Antichi, M. Sbrana, P. Bàrberi. Hairy vetch cover crop affects weed diversity and composition in no-till sunflower 5th workshop of the EWRS working group: Weeds and biodiversity Pisa, Italy- 17-19 November 2014
8. Carlesi S., F. Bigongiali, D. Antichi, P. Bàrberi Does the integration of velvet vetch green manure with phosphorus-enriched compost increase the sustainability of an organic cropping system without

- animal production? Effects on maize and weed vegetation. XLIII Convegno della Società italiana di Agronomia, Pisa 17-19 September 2014
9. Carlesi S., Antichi D., Bigongiali F., Mazzoncini M., Bàrberi P. Long term effects of cover crops on weeds in Mediterranean low input arable management systems. 17th European Weed Research Society Symposium "Weed management in changing environments", 23-26 June 2015, Montpellier, France
 10. Ranaldo M, Carlesi S, Bàrberi P. Agroecological Innovations for Resilience and Sustainability of Alpine Livestock Farming Systems (INVERSION). First Agroecology Europe Forum 25-27 October 2017, Lyon, France
 11. Carlesi, S., Blanco-Moreno, J.M., Antichi, D., Barberi, P., Doltra, J., Fließbach, A., García-Méndez, E., Kadžiulienė, Z., Leonard, C., Šarūnaitė, L., Luik, A., Magnuski, E., Meier, J., Menegat, A., Mihelič, R., Peigne, J., Ranaldo, M., Sbrana, M., Suhadolc, M., Talgre, L., Thored, K., V, J.F.I., Bergkvist, G. Does the increased soil biological activity reduce weed seed survival rates? 7th meeting of the EWRS working group "Weeds and biodiversity". 17. - 19. June 2019, University of Hohenheim in Stuttgart, Germany
 12. Carlesi, S., Bàrberi P. Come sostenere la produzione agricola riducendo l'impiego di glifosato. 3rd CONGRESSO NAZIONALE DI AGROECOLOGIA, 31st March 2023. Sala Spazio Europa c/o Rappresentanza Commissione Europea e Parlamento Europeo. Rome.

Contributions in conference proceedings, abstracts and proceedings

1. Fontanelli M., Fiasconi C., Lulli L., Antichi D., Bigongiali F., Carlesi S., Bàrberi P., Peruzzi A., Innovative crop and weed management strategies in organic spinach: machine performances and cultivation costs, 2nd ISOFAR Scientific Conference Cultivating the Future Based on Science (I), Modena, 2008 p. 256-259
2. Bàrberi P., Bigongiali F., Antichi D., Carlesi S., Fontanelli M., Fiasconi C., Lulli L., Innovative crop and weed management strategies for organic spinach: crop yield and weed suppression, Proceedings 2nd ISOFAR Scientific Conference, Cultivating the Future Based on Science (I) Modena, 2008 p. 252-255
3. Carpi G., Antichi D., Mazzoncini M., Carlesi S. Bàrberi P. Temporary intercropping: a tool to improve durum wheat production. IV Workshop GRAB-IT: Organic Agriculture: production systems and marketing and consumption models, Palermo, Italy, October 26-27, 2009 p. 373-375.
4. Carlesi Stefano, Bigongiali Federica, Bàrberi Paolo. Effect of compost enriched in phosphorus and green manure application on maize weed density and composition. Proceedings of the 16th EWRS Symposium, Samsun, Turkey 24-27 June, 2013 p.
5. Sans FX, Armengot L, Blanco-Moreno JM, Bocci G, Carlesi S, Bàrberi P. Effect of conservation practices on functional diversity and assembly of weed communities: a database of functional traits. RAHMANN G & AKSOY U (Eds.) Proceedings of the 4th ISOFAR Scientific Conference. 'Building Organic Bridges', at the Organic World Congress 2014, 13-15 Oct., Istanbul, Turkey
6. Ranaldo M., Costanzo A., Carlesi S., Bàrberi P. Can weed management in vegetable systems be improved by cover crop species mixtures? Step 1: Screening of cover crop species and varieties. 17th European Weed Research Society Symposium "Weed management in changing environments", 23-26 June 2015, Montpellier, France (Poster)
7. Abou Chehade, L., Antichi, D., Martelloni, L., Peruzzi, A., Mazzoncini, M., & Carlesi, S. Tillage and cover crop effects on weed management and community changes in organic tomato cropping system. In JOINT WORKSHOP OF THE EWRS WORKING GROUPS PHYSICAL AND CULTURAL WEED CONTROL AND CROP-WEED INTERACTIONS. Physical and cultural weed control tools as moderators of crop weed interactions 2017 (pp. 20-20). European Weed Research Society.

8. Anna-Camilla Moonen, Federico Leoni, Stefano Carlesi, Mariateresa Lazzaro. Participatory selection of cover crop cultivars aimed at improving their capacity to cover the soil and their suitability to be destroyed in early spring. .First Agroecology Europe Forum 25-27 October 2017, Lyon
9. Pellegrini, F.; Antichi, D.; Carlesi, S.; Lazzaro, M.; Nardi, G.; Bàrberi, P. The use of Participatory Action and Learning for Agroecology: conducting research on living mulches in central Italy 105-105 Book of Abstracts, 1st Agroecology Europe Forum Agroecology Europe (2017)
10. Teresa Carvalho, Eugénia Andrade, Isabel M. Calha, Dragana Bozic, Sava Vrbnicanin, José Dorado, Jordi Izquierdo, Maja Scepanovic, Klara Barić, Stefano Carlesi, Robert Leskovsek, Dean Peterson, Andrea Veres, Vasileios Vasileiadis, Roberta Masin, Donato Loddo (2017). Morphological, and genetic characterization of *Abutilon theophrasti* accessions across a geographic gradient. XVI Congreso de la Sociedad Española de Malherbología: Actas. Pamplona-Iruña, 25-27 October, 2017.
11. Fontanelli M., Frascioni C., Lulli L., Sorelli F., Carlesi S., Bigongiali F., Antichi D. & Peruzzi A. Innovative operative machines for physical weed control on organic cauliflower in Central Ital. Proceedings 8th Workshop of the EWRS working group: physical and cultural weed control, Zaragoza, Spain 9-11 March 2009, p. 35-40
12. Bocci Gionata, Carlesi Stefano and Bàrberi Paolo. Vegetation mapping in Italy: an overview. 2nd workshop of the EWRS working group: "Weed mapping", Jokioinen, Finland 21-23 September 2011
13. Moonen A. C., S. Carlesi, P. Bàrberi Integrated weed management reduces seed bank density while increasing ecological sustainability and safeguarding productive sustainability. XLIII Convegno della Società italiana di Agronomia, Pisa 17-19 September 2014
14. Bigongiali F., S. Carlesi, D. Antichi, M. Fontanelli, C. Frascioni, A. Peruzzi, P. Bàrberi Innovative strategies for weed control in organic spinach and cauliflower organic crop systems. . XLIII Convegno della Società italiana di Agronomia, Pisa 17-19 September 2014
15. P. Bàrberi, R. Aendekerk, D. Antichi, L. Armengot, A. Berner, F. Bigongiali, J.M. Blanco-Moreno, S. Carlesi, F. Celette, L. Chamorro, O. Crowley, T. Döring, M. Grosse, T. Haase, J. Heß, H. Huiting, L. JoséMaría, S. Klaedtke, A. Kranzler, A. Luik, J. Peigné, W. Sukkel, A. Surböck, L. Talgre, F.X. Sans. Use of reduced tillage and cover crops in organic arable systems preserves weed diversity without jeopardizing crop yield. Proceedings of the 4th ISOFAR Scientific Conference. 'Building Organic Bridges', at the Organic World Congress 2014, 13-15 Oct., Istanbul, Turkey.
16. P. Bàrberi, L. Armengot, J.M. Blanco-Moreno, G. Bocci, S. Carlesi & F.X. Sans. Functional diversity of weed communities: a database of functional traits. 5th workshop of the EWRS working group: Weeds and biodiversity Pisa, Italy- 17-19 November 2014
17. Anna-Camilla Moonen, Stefano Carlesi, Zita Dorner, Mihály Zalai: Semi-natural habitat types provide different disservices in terms of weed infestations in European arable fields. 7th International weed science congress "Weed Science and Management to Feed the Planet" Prague, Czech republic June 19 - 25, 2016
18. Marzia Ranaldo, Stefano Carlesi, Ambrogio Costanzo, Paolo Bàrberi: Can weed management in vegetable systems be improved by cover crop species mixtures? Step 2: field implementation. 7TH International weed science congress "Weed Science and Management to Feed the Planet" Prague, Czech republic June 19 - 25, 2016
19. Marzia Ranaldo, Stefano Carlesi, Ambrogio Costanzo, Paolo Bàrberi. Designing cover crop mixtures to enhance potential weed suppression in organic no-till vegetable systems. The 14th Congress of the European Society for Agronomy, Edinburgh, Scotland UK, September 5 - 9 2016
20. Moonen A.C, F. Leoni, S. Carlesi and M. Lazzaro. 'Participatory selection of cover crop cultivars to improve agroecological weed management and soil fertility'. First Agroecology Europe Forum (Lyon), 25th - 27th October 2017.
21. Ranaldo M, Carlesi S, Bàrberi P. Mixtures. Legume Biological Nitrogen Fixation Rate is Increased by Functional Composition of Cover Crop Mixtures. XVth European Society for Agronomy Congress (ESA), Geneva (SWISS), August 27th-31st 2018.

22. Pellegrini, F., Carlesi, S., Barberi, P., 2018. Wheat/clover temporary intercropping for weed management. An on-farm study from Central Italy, in: Aspects of Applied Biology 138, Advances in Legume Science and Practice. Association of Applied Biologists conference proceedings. 49-55.
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24. Antichi D., Mazzoncini M., Barberi P., Carlesi S., Sbrana M. (2018). The re-design of the MASCOT longterm experiment: shifting towards a full system approach. In: Proceedings 2nd International GRABIT Workshop 'Organic farming and agro-ecology as a response to global challenges'. p. 1, Napoli:GRAB-IT, Capri (NA), 27-29 June
25. Mantino A, Antichi D, Coli A, Sbrana M, Pecchioni G, Bosco S, Cappucci A, Mezzalira G, Pelleri F, Chiarabaglio P, Carlesi S, Moonen C, Barberi P, Mazzoncini M, Ragaglini G, Mele M. Experiencing the transition towards agroforestry in the Mediterranean: a new Long Term Experiment in Central Italy. In: (ed.): Dupraz C Gosme M Lawson G, Book of Abstracts, 4th World Congress on Agroforestry. Agroforestry: strengthening links between science, society and policy. p. 373, Montpellier: CIRAD, INRA, World Agroforestry, Montpellier, 20-22 May 2019
26. Antichi, D., Mazzoncini, M., Tramacere, L. G., Sbrana, M., Bàrberi, P., Moonen, A.-C., Carlesi, S., Mantino, A., Ragaglini, G., & Mele, M. (2019). Agroforestry systems for adaptation to and mitigation of climate change: Effects on soil fertility. *Agrochimica*, 2019(Special Issue), 139-144.
27. Leoni F., M. Lazzaro, S. Carlesi, and A.C Moonen. " Screening of perennial and annual self-seeding legume cover crops for their potential application as permanent living mulch in organic vegetable system ". European Conference on Crop Diversification (Budapest).18th - 21st September 2019.
28. Leoni F., M. Lazzaro, S. Carlesi, and A.C Moonen. 'Selection of the best adapted legume types for relay intercropping in durum wheat'. European Conference on Crop Diversification (Budapest). 18th - 21st September 2019.
29. Leoni F., M. Lazzaro, S. Carlesi, and A.C Moonen. 'Selection of suitable legumes for relay intercropping with durum wheat in Mediterranean cereal-based cropping systems'. XVI European society of Agronomy (ESA) Congress (Seville), 1st - 4th September 2020.
30. Stefano Carlesi, Anna Camilla Moonen, Federico Leoni, Giovanni Pecchioni, Virginia Bagnoni, Paolo Bàrberi. Agroecological approaches to reduce farming chemical input dependency. Conference " What research to meet the pesticides reduction objectives embedded in the European Green Deal?", INRAE, Dijon, 2-3 June 2022

SCIENTIFIC PUBLICATIONS Articles in international indexed scientific journals

1. Adeux, G., Rodriguez, A., Penato, C., Antichi, D., Carlesi, S., Sbrana, M., Bàrberi, P. & Cordeau, S. (2023). Long-term cover cropping in tillage-based systems filters weed community phenology: A seedbank analysis. *Field Crops Research*, 291, 108769.
2. Lorenzetti, E., Carlesi, S. & Bàrberi, P. (2022). Mixtures of Commercial Lentil Cultivars Show Inconsistent Results on Agronomic Parameters but Positive Effects on Yield Stability. *Agronomy* 2022, 12, 2107 <https://doi.org/10.3390/agronomy12092107>
3. Antichi, D., Carlesi, S., Mazzoncini, M., & Bàrberi, P. (2022). Targeted timing of hairy vetch cover crop termination with roller crimper can eliminate glyphosate requirements in no-till sunflower. *Agronomy for Sustainable Development*, 42(5), 1-17.
4. Leoni, F., Lazzaro, M., Ruggeri, M., Carlesi, S., Meriggi, P., & Moonen, A. C. (2022). Relay intercropping can efficiently support weed management in cereal-based cropping systems when appropriate legume species are chosen. *Agronomy for Sustainable Development*, 42(4), 1-15.

5. Koskey, G., Leoni, F., Carlesi, S., Avio, L., & Bàrberi, P. (2022). Exploiting plant functional diversity in durum wheat-lentil relay intercropping to stabilise crop yields under contrasting climatic conditions. *Agronomy*, 12(1), 210.
6. Raffa, D. W., Antichi, D., Carlesi, S., Puig-Sirera, À., Rallo, G., & Bàrberi, P. (2022). Ground vegetation covers increase grape yield and must quality in Mediterranean organic vineyards despite variable effects on vine water deficit and nitrogen status. *European Journal of Agronomy*, 136, 126483.
7. Carlesi, S., Martelloni, L., Bigongiali, F., Frascioni, C., Fontanelli, M., & Bàrberi, P. (2021). Effects of band steaming on weed control, weed community diversity and composition and yield in organic carrot at three Mediterranean sites. *Weed Research*, 61(5), 385-395.
8. Pellegrini, F., Carlesi, S., Nardi, G., & Bàrberi, P. (2021). Wheat-clover temporary intercropping under Mediterranean conditions affects wheat biomass, plant nitrogen dynamics and grain quality. *European Journal of Agronomy*, 130, 126347.
9. Warren Raffa, D., Antichi, D., Carlesi, S., Frascioni, C., Marini, S., Priori, S., & Bàrberi, P. (2021). Groundcover Mulching in Mediterranean Vineyards Improves Soil Chemical, Physical and Biological Health Already in the Short Term. *Agronomy*, 11(4), 787.
10. Adeux, G., Cordeau, S., Antichi, D., Carlesi, S., Mazzoncini, M., Munier-Jolain, N., & Bàrberi, P. (2021). Cover crops promote crop productivity but do not enhance weed management in tillagebased cropping systems. *European Journal of Agronomy*, 123, 126221.
11. Carlesi, S., Bigongiali, F., Antichi, D., Ciaccia, C., Tittarelli, F., Canali, S., & Bàrberi, P. (2020). Green manure and phosphorus fertilisation affect weed community composition and crop/weed competition in organic maize. *Renewable Agriculture and Food Systems*, 35(5), 493-502.
12. Leoni, F., Lazzaro, M., Carlesi, S., & Moonen, A. C. (2020). Legume Ecotypes and Commercial Cultivars Differ in Performance and Potential Suitability for Use as Permanent Living Mulch in Mediterranean Vegetable Systems. *Agronomy*, 10(11), 1836.
13. Ranaldo, M., Carlesi, S., Costanzo, A., & Bàrberi, P. (2020). Functional diversity of cover crop mixtures enhances biomass yield and weed suppression in a Mediterranean agroecosystem. *Weed Research*, 60(1), 96-108.
14. Adeux, G., Munier-Jolain, N., Meunier, D., Farcy, P., Carlesi, S., Barberi, P., & Cordeau, S. (2019). Diversified grain-based cropping systems provide long-term weed control while limiting herbicide use and yield losses. *Agronomy for Sustainable Development*, 39(4), 1-13.
15. Adeux, G., Vieren, E., Carlesi, S., Bàrberi, P., Munier-Jolain, N., & Cordeau, S. (2019). Mitigating crop yield losses through weed diversity. *Nature Sustainability*, 2(11), 1018-1026.
16. Loddo, D., Bozic, D., Calha, I. M., Dorado, J., Izquierdo, J., Šćepanović, M., ... & Masin, R. (2019). Variability in seedling emergence for European and North American populations of *Abutilon theophrasti*. *Weed research*, 59(1), 15-27.
17. Loddo, D., Carlesi, S., & Pais da Cunha, A. T. (2019). Germination of *Chloris barbata*, *Cynodon dactylon*, and *Cyperus rotundus* from Angola at constant and alternate temperatures. *Agronomy*, 9(10), 615.
18. Bàrberi, P., Bocci, G., Carlesi, S., Armengot, L., Blanco-Moreno, J. M., & Sans, F. X. (2018). Linking species traits to agroecosystem services: a functional analysis of weed communities. *Weed Research*, 58(2), 76-88.
19. Ciaccia, C., Ceglie, F., Tittarelli, F., Antichi, D., Carlesi, S., Testani, E., & Canali, S. (2017). Green manure and compost effects on NP dynamics in Mediterranean organic stockless systems. *Journal of soil science and plant nutrition*, 17(3), 751-769.

20. Armengot, L., Blanco-Moreno, J. M., Bàrberi, P., Bocci, G., Carlesi, S., Aendekerk, R., ... & Sans, F. X. (2016). Tillage as a driver of change in weed communities: a functional perspective. *Agriculture, Ecosystems & Environment*, 222, 276-285.
21. Raffaelli, M., Martelloni, L., Frascioni, C., Fontanelli, M., Carlesi, S., & Peruzzi, A. (2016). A prototype band-steaming machine: Design and field application. *Biosystems Engineering*, 144, 61-71.
22. Carlesi, S., Bocci, G., Moonen, A. C., Frumento, P., & Bàrberi, P. (2013). Urban sprawl and land abandonment affect the functional response traits of maize weed communities in a heterogeneous landscape. *Agriculture, ecosystems & environment*, 166, 76-85.

Other Publications

1. Carlesi, S. & Barberi, P. Weeds as soil bioindicators: How to sample and use data. Research Institute of Organic Agriculture (FiBL). 2017
2. Wolle, H. S., Carlesi, S. & Bàrberi, P. (2021). EFFECT OF HOMEGARDEN AND PARKLAND AGROFORESTRY PRACTICES IN ETHIOPIA ON SELECTED SOIL PROPERTIES. *African Journal of Food, Agriculture, Nutrition and Development*, 21(5), 18115-18131.
3. Pisseri F., Robbiati G., Baronti S., Caporali F., Carlesi S., Carloni S., Cattafesta M., Cherotti O., Donati M., Maienza A., Pellegrini F., Pisoni L., Ranaldo M., Re M., Seppi B., Zanazzi S. & Bàrberi P. (2020). "Quanto è sostenibile la mia azienda"? DEXi-INVERSION Handbook for assessing the sustainability of livestock farms, 82 p., <http://www.progettoinversion.it/materiali-progetto/>, ISBN 978-88-901624-3-5
4. Barberi P., Carlesi S., Pisseri F., Re M., Robbiati G., Gionghi P. (2021). Practice abstracts: supporto tecnico alla gestione agroecologica della zootecnia di montagna. Edizioni Ecomuseo della Judicaria. <https://www.progettoinversion.it/materiali-progetto/>

REVIEW ACTIVITIES FOR SCIENTIFIC JOURNALS

1. Weed research, since 2016
2. Agronomy, since 2017
3. Spanish Journal of Agricultural Research, since 2018
4. Frontiers in Agronomy, since 2020
5. Scientific Reports, since 2020
6. Springer Nature, since 2021

PARTICIPATION IN SCIENTIFIC ASSOCIATIONS AND ALLIANCES

1. EWRS since 2012
2. Agroecology Europe since 2018
3. Deputy representative of Scuola Superiore Sant'Anna at 'European Research Alliance Towards a chemical-free pesticide agriculture' dl 2022
4. "Italian Society of Agronomy" from 2022

DISSEMINATION ACTIVITIES

Participation as an invited speaker at conferences

1. Cover crops in sistemi biologici e conservativi e contenimento della flora infestante - Risultati

- dei progetti Tilman e Oscar. In Agricoltura biologica e conservativa: problematiche a confronto. CIRAA Via Vecchia di Marina 6, San Piero a Grado, Pisa, Italy. 4 June 2014.
2. Carlesi S., Ranaldo M., Costanzo A., Bàrberi P. Servizi agroecosistemici per la gestione della flora spontanea: le colture di copertura. Le migliori pratiche di agricoltura biologica per la qualità dell'ambiente e dei prodotti. Teatro della terra Expo Milano, 7 October 2015.
 3. Carlesi S. I risultati del progetto europeo OSCAR "COVER CROP and living mulch tool box". In Colture di copertura e servizi ecosistemici per le aziende biologiche ed integrate. CIRAA Via Vecchia di Marina 6, San Piero a Grado, Pisa, Italy. 13 March 2016.
 4. Carlesi S. Come usare la diversità funzionale delle colture di copertura in orticoltura biologica. LA SALUTE DEL SUOLO, incontro di studio e approfondimento sulla fertilità del terreno. Az. agr. agrituristica Papaveri e Papere, S. Maria di Sala (VE) 26, 27 giugno 2017.
 5. Carlesi S. Gli esperimenti italiani di lungo termine (LTE) per l'agricoltura biologica: obiettivi, risultati, prospettive il dispositivo MASCOT. Reti in BIO: condivisione di percorsi, confronto e dialogo per la crescita dell'agricoltura biologica. CREA –Roma Eventi Fontana di Trevi, Roma. 13 March 2018.
 6. Carlesi S. La diversità al servizio dell'agricoltura. Terra, lavoro, cibo. Patrimonio culturale del Mediterraneo. Fondazione della cassa di risparmio di Fano, Fano 25 October 2018.
 7. Carlesi, S., Ranaldo M. Carloni S. "LIVING-MAIS - Verso la riduzione degli input chimici nella coltivazione del mais: la transizione agroecologica". Giornata di lancio del progetto INVERSION - Innovazioni Agroecologiche per la Resilienza e la Sostenibilità della Zootecnia di Montagna. Maso Pacomio – Fivè Trento. 15 September 2018.
 8. Carlesi, S., Antichi, D. Colture di copertura, strumento agroecologico per la gestione della flora spontanea. Le cover crop nei sistemi colturali erbacei Castello Morando Bolognini – Sant'Angelo Lodigiano (LO), 21 marzo 2019.
 9. S. Carlesi "Il suolo, crocevia di servizi ecosistemici. SoilApp: valutare il suolo con il test della vanga". Pratiche agro-ecologiche: La gestione del sistema foraggero. 7 - 8 June 2019. Azienda Agricola Boccea, Via di Boccea – Roma.
 10. Stefano Carlesi, Giovanni Pecchioni, Virginia Bagnoni. IPMWORKS: Farmers hubs to develop effective IPM (Integrated Pest Management) strategies. RustWatch CSR Workshop, 3rd may, 2022. University of Florence, Italy
 11. Stefano Carlesi, Giovanni Pecchioni, Virginia Bagnoni. IPMWORKS: Farmers hubs to develop effective IPM (Integrated Pest Management) strategies. NEFERTITI Workshop, 30th May 2022, Tuscany Region, Florence, Italy
 12. Stefano Carlesi, Giovanni Pecchioni, Federico Leoni "Agronomia della Canapa". CANAPA INDUSTRIALE da fibra tessile a pianta ecosostenibile. 24 February 2023. ACCADEMIA dei FISIOCRITICI - Siena, Piazzetta Silvio Gigli, 2 Siena
 13. Stefano Carlesi, Giovanni Pecchioni "Building transition pathways towards chemical pesticide-free agriculture in 2050, TUSCANY – DURUM WHEAT", Prospective Agriculture européenne sans pesticides chimiques en 2050, Grand amphithéâtre de la MGEN, Paris. 21 March 2023

Organisation of popular events

1. Since 2015 I co-supervised the organisation of a research demonstration area for the BRIGHT Night of Researchers event, of the Group of Agroecology. We created interactive games to engage elementary and middle school students with the themes of our agroecological research, and we organised three different photographic exhibits and activities to showcase our research initiatives for adults.
2. In 2018 and 2019 participated in two editions of the Internet Festival in Pisa. During these events, I led two workshops for middle school students, in which we presented an app developed by our research group in collaboration with the company. We created interactive and experiential presentations for the students, facilitated group activities, and provided

hands-on experience using the app on soil samples collected specifically for the demonstration days.

3. Organised 6 field days at CiRAA Enrico Avanzi in collaboration with the University of Pisa various Workshops concerning the agroecological management of agroecosystems like: "L'Agroecologia Al Centro" in 2016,2017,2018, 2019, 2022 and 2023
4. Organised three workshop-demo events at La Viola Farm of in 2018, 2019 and 2021 'Biodiversamente' to discuss with academics, researcher but also farmer and citizen that it is possible to use planned biodiversity to manage agroecosystem services . (IWM PRAISE project)
5. Organised two webinars in 2021 and 2023 as part of the MEORBICO (MIUR) project, which focused on promoting sustainable agricultural practices among farmers and general publics.
6. Organised 5 demo events in Pisa Province farms between 2022 and 2023 and a 3 day cross visit attended by more than 40 farmers from 5 different countries within the activities of IPMWORKS projects, to promote pesticide reduction techniques in open filed farms and Olive orchards.
7. Organised 2 demo events in Pisa Province in 2023 within the activities of PATH2DEA to present DSS and digital tools to Olive growers.

Video production

All videos are available on Youtube plattaform.

1. In 2014 colaborated to FIBL videos on cover crop techniques titled "Veccia vellutata: un'ottima coltura da sovescio per i sistemi colturali mediterranei' whitin the activities of TILMAN-ORG project.
2. In 2021, 2022 As a member of the Group of Agroecology, I participated in the production of six educational videos showcasing our activities during the 2020-2021 period.The titles of the videos are as follows:: " Selezione delle leguminose per la bulatura: effetti sul sorgo in successione - iwmpraise";"Bulatura in pieno campo: gestione sostenibile delle colture dal progetto H2020 IWM PRAISE";"Consociazione tra frumento e lenticchia: La sostenibilità insieme con il progetto H2020 IWM PRAISE";"La prova Micofix e le radici delle leguminose";"Miscugli varietali: una prova LEGVALUE sulle lenticchie italiane";"Varietà di lenticchie italiane: una prova LEGVALUE sulla biodiversità in campo".
3. 2023 in publication 4 videos within the activities of IPMWORKS to demonstrate effective strategy for the reduction of pesticide use in collaboration with CONSULAI (Portugal); 3 videos on Agroecological days held at CiRAA in 2023, in collaboration with UNIPI media office.

Relationship whit non-academic entities.

1. Since 2013 I developed the collaboration with the Municipality of Podenzana and cultural association of local bred producers to support the local cultivation of wheat, which brings to the creation of 'La Farina del Re', a locally produced wheat flour following a dedicated production regulation to reduce use of pesticide and allow a high quality product for local bread producers.
2. Since 2018 I am collaborating with CLT (Tuscan Vermiculture Centre) to develop the study on vermicompost application at filed scale. This collaboration in active development brined to the publication of one paper (Koskey, G., Avio, L., Turrini, A., Sbrana, C., & Bàrberi, P. (2022). Biostimulatory effect of vermicompost extract enhances soil mycorrhizal activity and selectively improves crop productivity. Plant and Soil, 1-17.) and development of multiple activities in open field still going on.
3. Since 2020 I developed a collaborative relationship with AEDIT a spinoff working on digitisation that binged to the development of a full collaboration in my RTDa projects and the creation of a

showcase to test digital solutions for agroecological management of olive grows in Tuscany, inside the Path2DEA HUE project.

4. Since 2020 inside the IPMWORKS H2020 consortium we developed a deep interaction with non academic institutions like Dephy network (France), LEAF (UK), DIPS (Germany), that brings to the creation of two farmer hubs in Tuscany. This demonstration activities have involved more than 25 farmers in direct action to reduce use of chemical pesticide to manage weed, pests and diseases.
5. Since 2021 I am collaborating with both 'Associazione dei Bianchi e dei Bosi' and 'Consorzio per la tutela e la valorizzazione della Canapa sativa tradizionale italiana', to develop textile hemp production in Tuscan agroecosystems, an open field trial was arranged in 2022 and in 2023 to host demo activities.

Il sottoscritto dichiara che tutto quanto dichiarato corrisponde a verità ai sensi delle norme in materia di dichiarazioni sostitutive di cui all'art. 46 e ss. Del D.P.R. 445/2000, rilascia il presente curriculum sotto forma di Dichiarazione Sostitutiva di Atto Notorio ai sensi dell'art. 47 del D.P.R.445/2000 e nella consapevolezza delle sanzioni penali previste dall'art. 76 del D.P.R. 445/2000, per ipotesi di falsità in atti e dichiarazioni mendaci ivi indicate, si assume ogni responsabilità sulla veridicità dei dati forniti.

Il sottoscritto in merito al trattamento dei dati personali esprime il proprio consenso al trattamento degli stessi nel rispetto delle finalità e modalità di cui al d.lgs. n. 196/2003.

Pisa, 22 agosto 2023