

ALL. B - AI FINI DELLA PUBBLICAZIONE

Decreto Rettore Università di Roma "La Sapienza" n 526/2021 del 22.02.2021

## LUCA FRACCASCIA

### Curriculum Vitae

Rome  
12/04/2021

#### Part I – General Information

Full Name	Luca Fraccascia
Date of Birth	
Place of Birth	
Citizenship	
Permanent Address	
Mobile Phone Number	
E-mail	
Spoken Languages	Italian, English

#### Part II – Education

Type	Year	Institution	Notes (Degree, Experience)
Bachelor's degree	2011	Polytechnic University of Bari	Bachelor's degree in Management Engineering
Master's degree	2013	Polytechnic University of Bari	Master's degree in Management Engineering
Ph.D.	2017	Polytechnic University of Bari	PhD in Mechanical and Management Engineering

#### Part III – Academic Appointments

Start	End	Institution	Position
2014	2017	Polytechnic University of di Bari	PhD Student
2017	2018	University of Twente	Postdoctoral researcher
2018	2019	University of Twente	Postdoctoral researcher (part time)
2018	2021	Sapienza University of Rome	Assistant Professor (part time)
2019	2021	University of Twente	Assistant Professor (part time)

#### Part IV – Teaching experience

Year	Institution	Course	Programme
2017	University of Twente	Sustainable Business Development	Master's degree programme in Industrial Engineering and Management
2018	University of	Bioresource Supply Chains	Master's degree programme in

Year	Institution	Course	Programme
	Twente		Sustainable Energy Technology
2018	University of Twente	Sustainable Business Development	Master's degree programme in Industrial Engineering and Management
2019	Sapienza University of Rome	Marketing and Innovation Management	Master's degree programme in Management Engineering
2019	University of Twente	Bioresource Supply Chains	Master's degree programme in Sustainable Energy Technology
2019	University of Twente	Circular Sustainable Business Development	Master's degree programme in Industrial Engineering and Management
2020	Sapienza University of Rome	Marketing and Innovation Management	Master's degree programme in Management Engineering
2020	Sapienza University of Rome	Project Management	Master's degree programme in Management Engineering
2020	Sapienza University of Rome	Environmental Economics	Master's degree programme in Environmental Engineering
2020	University of Twente	Circular Sustainable Business Development	Master's degree programme in Industrial Engineering and Management
2021	Sapienza University of Rome	Environmental Economics and Management	Master's degree programme in Management Engineering
2021	Sapienza University of Rome	Environmental Economics	Master's degree programme in Environmental Engineering

#### Part V - Society memberships, Awards and Honours

Year	Title
2015	Licensed as industrial engineer (after passing the governmental exam)
Since 2014	Member of the Associazione italiana di Ingegneria Gestionale (AiIG)
2014-2016	Member of the International Input-Output Association
2019	Winner of the AiIG "Giorgio Pagliarini Best Paper Award - 2019"
Since 2019	Qualified to the position of Associate Professor according to the Italian Ministry of Education, University and Research (MIUR)
Since 2020	Member of the International Society for Industrial Ecology (ISIE)
Since 2020	Member of the International Sustainable Development Research Society (ISDRS)
Since 2020	Member of the International Society for the Circular Economy

#### Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year(s)	Title	Program	Grant value
2017-2019	SHAREBOX [I]	Horizon 2020	€ 6M
2019-2021	Fattori critici di successo per lo sviluppo della simbiosi industriale in Italia: accelerare la transizione verso l'economia circolare [PI]	Grant provided by Sapienza University of Rome	€ 4k
2019-2021	The relationships between Industry 4.0 and sustainability [I]	Grant provided by Associazione italiana di Ingegneria Gestionale	€ 5k
2019-2021	ECORETE-GREEN [I]	Grant provided by Regione Lazio	€ 350k

Year(s)	Title	Program	Grant value
2020-2022	Il comportamento dei consumatori nei confronti dell'abbigliamento eco-sostenibile: uno studio su ampia scala relativo a preferenze, atteggiamenti, propensione all'acquisto e volontà di pagare un premium price [I]	Grant provided by Sapienza University of Rome	€ 4k
2019-2021	Designing an Industrial symbiosis business game for teaching purposes [I]	Grant provided by University of Twente	€ 30k
2020-2022	Serious Gaming for Circular Economy Transition [I]	Grant provided by University of Twente	€ 20k

## Part VII –Editorial Activities

Year	Activity
Since 2015	Reviewer the following journals: Agronomy Research, Applied Energy, Biomass & Bioenergy, BioResources, Cleaner Environmental Technologies, Cleaner Environmental Systems, Climatic Change, Complexity, Corporate Social Responsibility and Environmental Management, Economic Modelling, Energy Science & Engineering, Environment, Development and Sustainability, IEEE Transaction on Engineering Management, International Journal of Environmental Research and Public Health, International Journal of Production Economics, International Journal of Production Research, Journal of Cleaner Production, Journal of Industrial Ecology, Journal of Renewable and Sustainable Energy, Management Decision, Mathematical Problems in Engineering, Ocean and Coastal Management, Research Policy, Resources Conservation and Recycling, Simulation Modelling Practice and Theory, Social Sciences, Sustainable Production and Consumption, Sustainability, Technological Forecasting and Social Change, Technovation, Waste Biomass and Valorization, Waste Management
2019	Managing guest editor, special issue “Business Models for the Circular Economy: Opportunities and Challenges” of Business Strategy and the Environment
2019	Managing guest editor, special issue “Managing Supply Chain Operations for Industrial Symbiosis Networks” of Resources, Conservation and Recycling
2019	Organizer, special track “Business Ecosystems for Circular Economy: Theory and Practice”, 14 <sup>th</sup> International Forum on Knowledge Asset Dynamics, June 5-7, Matera
2019	Organizer, special track “Sustainable Business Models & Circular Economy”, XXX Riunione Scientifica Annuale dell’Associazione italiana di Ingegneria Gestionale, October 18-19, Turin
2020	Guest Editor, special issue “Developing Case Studies on Circular Economy for Business and Education Purposes” of Sustainability
2020	Member of the International technical Committee, 2020 International Conference of Recent Trends in Environmental Sustainability and Green Technologies, October 16-18, Ottawa
2021	Member of the Editorial Board of Journal of Business Research
2021	Guest Editor, special issue “Rethinking Food Systems: Circular Economy and Urban Agriculture” of Frontiers in Sustainability
2021	Organizer, special track “Circular Economy: the Role of Enabling Factors in Fostering the Transition and Facing the Adoption Hurdles Challenges”, 16 <sup>th</sup> International Forum on Knowledge Asset Dynamics, September 1-3, Rome



## Part VIII – Research Activities

### VIII A – Research topics

Keywords	Brief Description
Circular economy	Circular economy is a new economic paradigm based on slowing, closing, and narrowing natural resource loops. Luca Fraccascia addresses the operational practices that companies can adopt to support the transition towards the circular economy, focusing on industrial symbiosis and bioenergy production, as well as the circular business models.
Industrial symbiosis	Industrial symbiosis is one of the most effective strategies to support the transition towards the circular economy. It concerns the use of wastes produced by one company as primary inputs for other companies. Luca Fraccascia studies industrial symbiosis from the operational and business perspective, using the lenses of supply chain management and innovation management.
Business models	Luca Fraccascia studies the circular business models, i.e., the business models consistent with the principles of circular economy, that companies can implement to support the circular economy and favor the sustainable transition.
Agent-based modeling	Luca Fraccascia uses the agent-based simulation approach to study the industrial symbiosis operations.
Green consumer behavior	Luca Fraccascia investigates the drivers and barriers that consumer experience when (deciding to) purchase green products.

### VIII B – Research Groups

Year	Group
Since 2015	“Collective Intelligence”. Other members: Ilaria Giannoccaro, Vito Albino, Giuseppe Carbone, Giovanni Francesco Massari, Gioacchino Grimaldi (Polytechnic University of Bari)
Since 2015	“Innovation management”. Other members: Antonio Messeni Petruzzelli, Vito Albino, Angelo Natalicchio, Pierpaolo Pontrandolfo, Barbara Scozzi, Lorenzo Ardito (Polytechnic University of Bari), Daniele Rotolo (University of Sussex)
Since 2017	“Sustainable Circular Economy”. Other members: Devrim Murat Yazan, Henk Zijm (University of Twente), Vahid Yazdanpanah (University of Southampton), Guido van Capelleveen, Chintan Amrit (University of Amsterdam)
Since 2019	“Industry 4.0 and Sustainability”. Other members: Piera Centobelli (University of Naples Federico II) e Guido Orzes (Free University of Bozen)
Since 2020	“Circular Economy and Sustainability”. Other members: Rosa Maria Dangelico, Alberto Nastasi, Fabio Nonino, Riccardo Marzano, Alessandro Annarelli, Alessandro Pompei, Idiano D’Adamo, Francesca Di Pillo, Valerio Schiaroli, Gaia Ceccarelli (Sapienza University of Rome)

## Part IX Other Activities

Year	Activity
2017	Teacher – advance training course “Designing and managing intelligent cities and areas” (Polytechnic University of Bari)

Year	Activity
Since 2019	Teacher – postgraduate course “Logistics and communication services for complex systems” (Sapienza University of Rome, in collaboration with “Centro per la Formazione Logistica Interforze” – Italian Ministry of Defense)
Since 2019	Member of the Academic board of the postgraduate course “Logistics and communication services for complex systems” (Sapienza University of Rome, in collaboration with “Centro per la Formazione Logistica Interforze” – Italian Ministry of Defense)
Since 2019	Member of the Academic board of the PhD programme in Industrial and Management Engineering (Sapienza University of Rome)
Since 2020	Supervisor of Valerio Schiaroli, PhD student in Industrial and Management Engineering (Sapienza University of Rome)
Since 2020	Supervisor of Federico Petitti, PhD student in Industrial and Management Engineering, (Sapienza University of Rome)
Since 2021	Supervisor of Gaia Ceccarelli, research fellow, (Sapienza University of Rome)
2014	Speaker at "22nd International Input-Output Conference", July 15-18, Lisbon
2014	Speaker at "18th International Trade Fair of Material & Energy Recovery and Sustainable Development, ECOMONDO", November 5-8, Rimini
2015	Speaker at "10th International Forum on Knowledge Asset Dynamics", June 10-12, Bari
2015	Speaker at "International Conference on Sustainable Design, Engineering and Construction", May 10-13, Chicago
2015	Speaker at "19th International Trade Fair of Material & Energy Recovery and Sustainable Development, ECOMONDO", November 3-6, Rimini
2016	Speaker at "ISIE Americas 2016 meeting Industrial Ecology and Green Transformation", May 25-27, Bogota
2016	Invited speaker at "20th International Trade Fair of Material & Energy Recovery and Sustainable Development, ECOMONDO", November 8-11, Rimini
2017	Speaker at "1st Symbiosis User Networks Conference", October 25, Rome
2018	Invited speaker at "22nd International Trade Fair of Material & Energy Recovery and Sustainable Development, ECOMONDO", November 6-9, Rimini
2019	Speaker at "14th International Forum on Knowledge Asset Dynamics", June 5-7, Matera
2019	Speaker at “XXX Riunione Scientifica Annuale dell’Associazione italiana di Ingegneria Gestionale”, October 18-19, Turin
2020	Invited speaker at “24th International Trade Fair of Material & Energy Recovery and Sustainable Development, ECOMONDO”, November 3-6 2020, Rimini

#### Degree Theses supervised

1. Modelli emergenti di simbiosi industriale: teoria e applicazioni (Cacciapaglia V., Master’s Degree Programme in Management Engineering, a.y. 2013-2014, Polytechnic University of Bari).
2. Simbiosi industriale: modello di teoria dei giochi cooperativo (Valerio A., Master’s Degree Programme in Management Engineering, a.y. 2013-2014, Polytechnic University of Bari).
3. Social network analysis applicata alla simbiosi industriale: stato dell'arte e sviluppi (Di Mauro F. V., Master’s Degree Programme in Management Engineering, a.y. 2013-2014, Polytechnic University of Bari).
4. Misure di complessità dei network simbiotici (Falcetta N., Master’s Degree Programme in Management Engineering, a.y. 2013-2014, Polytechnic University of Bari).
5. Green product space: il caso Italia (Capozzi D., Master’s Degree Programme in Management Engineering, a.y. 2014-2015, Polytechnic University of Bari).
6. Impatto dei fattori comportamentali sull’emergenza dei network simbiotici: uno studio sperimentale (Fallacara F., Master’s Degree Programme in Management Engineering, a.y. 2014-2015, Polytechnic University of Bari).
7. Progettazione di uno studio sperimentale per l’analisi dell’impatto di propensione al rischio e al trust sull’emergenza dei network simbiotici (Botticella M. R., Master’s Degree Programme in Management Engineering, a.y. 2014-2015, Polytechnic University of Bari).



<b>Degree Theses supervised</b>
8. Spreco di cibo e sostenibilità: da expo 2015 le innovazioni per lo sviluppo pugliese (Camerino M., Master's Degree Programme in Management Engineering, a.y. 2014-2015, Polytechnic University of Bari).
9. Eventi innovativi generati da un'expo (Di Trani G., Innovation Economics and Management, Master's Degree Programme in Management Engineering, a.y. 2014-2015, Polytechnic University of Bari).
10. Sustainability of second generation biomass supply chain (Cafagna D., Master's Degree Programme in Management Engineering, a.y. 2014-2015, Polytechnic University of Bari).
11. Modelli di business sostenibili per l'approccio di simbiosi industriale (Magno M., Master's Degree Programme in Management Engineering, a.y. 2015-2016, Polytechnic University of Bari).
12. Modelli di simbiosi industriale: il caso Guitang Group (Papagni A., Bachelor's Degree Programme in Management Engineering, a.y. 2015-2016, Polytechnic University of Bari).
13. Modelli di circular economy: mappa dei casi (Digiario F., Bachelor's Degree Programme in Management Engineering, a.y. 2015-2016, Polytechnic University of Bari).
14. Modelli di economia circolare per la decarbonizzazione (Novielli F., Master's Degree Programme in Management Engineering, a.y. 2016- 2017, Polytechnic University of Bari).
15. Simbiosi industriale nel settore tessile: prospettive di business (Salvatori G., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome).
16. Applicazione della Linear Programming per la progettazione di una rete di Simbiosi Industriale come modello di business (Chicca D., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
17. Identifying the Economic Performance of Heat-Based Industrial Symbiosis Networks: A Simulation Study (Lok E., Bachelor's Degree in Industrial Engineering, a.y. 2018-2019, University of Twente)
18. Effects of stocking configurations in Industrial symbiotic networks: an agent-based simulation study (Harmsma W., Bachelor's Degree in Industrial Engineering, a.y. 2018-2019, University of Twente)
19. Progettazione del modello di business di una piattaforma di simbiosi industriale (Fornario M., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
20. Environmental and economic sustainability of zero-emission bus transport (Kara O., Tesi in Sustainable Business Development, Master's Degree in Industrial Engineering, a.y. 2018-2019, University of Twente)
21. Analisi di fattibilità tecnico-economica di bioraffinerie per la valorizzazione di scarti alimentari: il caso degli scarti di pomodoro in Emilia Romagna (Zagan A., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
22. L'impatto dell'effetto bullwhip nelle relazioni di simbiosi industrial (Valente F., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
23. Progettazione di un modello di stoccaggio dei rifiuti a supporto delle attività di simbiosi industrial (Gerardi L., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
24. Sviluppo di un Modello di Ottimizzazione per la Progettazione di un Parco Eco-Industriale (Filacchione L., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
25. Le barriere alla simbiosi industriale: aspetti teorici e analisi empirica (Taruffi F., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
26. Modelli di business per l'economia circolare: definizione di un framework teorico (Cisternino F., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
27. Simbiosi industriale e valorizzazione dello scarto nella filiera del biometano (Vella F., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
28. Designing a Business Game to experience Industrial Symbiosis (Sabato A., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
29. Analisi di fattibilità economica di impianti per la produzione di biometano da sottoprodotti agricoli per il settore dei trasporti (Volpi E., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
30. Piattaforme di supporto alla simbiosi industriale: aspetti teorici e analisi empirica (Paris G., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
31. Il biometano nell'economia circolare: valutazione di progetti d'investimento in impianti produttivi per il settore dei trasporti (Riccini L., Master's Degree Programme in Management Engineering, a.y. 2018-2019,



Degree Theses supervised
Sapienza University of Rome)
32. Applicazione della Simbiosi Industriale al settore delle costruzioni: analisi delle barriere e dei potenziali benefici (Berdondini M., Master's Degree Programme in Management Engineering, a.y. 2018-2019, Sapienza University of Rome)
33. La propensione dei consumatori verso il sustainable fashion: analisi della letteratura e progettazione di un questionario per l'indagine empirica (Corradi V., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
34. Da rifiuti urbani a risorsa: progettazione della filiera produttiva del biometano nella Regione Lazio (Bekhet Fahmi L., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
35. Modello ad agenti per valutare l'efficacia dei centri di raccolta degli scarti in un network di simbiosi industriale (Ferretti F., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
36. Global energy chains: un'applicazione allo studio dei consumi energetici del settore del fashion (Sperlonga M., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
37. Production line efficiency improvement (Cheret Q., Bachelor Programme in Industrial Engineering and Management, a.y. 2019-2020, University of Twente)
38. Setting up circularity objectives to structurally implement circular construction (van Galen J., Bachelor Programme in Industrial Engineering and Management, a.y. 2019-2020, University of Twente)
39. Leveraging the power of CSR: the impact of food waste treatment claims on packaged foods on consumer attitudes and behavioural intentions (Jonitz P., Master's Degree Programme in Business and Administration, a.y. 2019-2020, University of Twente, Master's Degree Programme in Entrepreneurship, Innovation & Strategy, a.y. 2019-2020, Technical University of Berlin)
40. From waste to premium: Consumers perception of value-added surplus products and their willingness to pay (Köpcke J., Master's Degree Programme in Business and Administration, a.y. 2019-2020, University of Twente, Master's Degree Programme in Entrepreneurship, Innovation & Strategy, a.y. 2019-2020, Technical University of Berlin)
41. Prodotti realizzati con materiali di scarto in legno derivanti da simbiosi industriale: analisi della propensione all'acquisto dei consumatori (De Simone F. Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
42. Economia circolare nella Regione Lazio: un approccio di simbiosi industriale per gli scarti di plastica e di legno (De Vincenzo R., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
43. Studio della propensione all'utilizzo di app contro lo spreco alimentare (Gobbi L., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
44. Prodotti realizzati da scarti di plastica derivanti da simbiosi industriale: studio della propensione all'acquisto (Lunghi M., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
45. Costruire un dizionario di Simbiosi Industriale: Analisi tecnica delle sinergie simbiotiche (Proietti A., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
46. La misura della sostenibilità negli Atenei italiani: approcci e strumenti per la definizione di metriche green (Battilocchi V., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
47. Un sistema di Valutazione per l'analisi di sostenibilità in Agricoltura e Zootecnia: sviluppo di un Framework innovativo (Grosso C., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
48. Barriere e facilitatori per la simbiosi industriale in Italia: uno studio empirico (Iannaccone C., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
49. L'influenza della pandemia da Covid-19 sul comportamento d'acquisto sostenibile per diverse categorie di prodotti: un'analisi dei consumatori italiani (Licameli F., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)
50. L'influenza della pandemia da Covid-19 sul comportamento d'acquisto sostenibile: un'analisi del ruolo



<b>Degree Theses supervised</b>
dei fattori socio-demografici sul comportamento dei consumatori italiani (Raduazzo E., Master's Degree Programme in Management Engineering, a.y. 2019-2020, Sapienza University of Rome)

## Part X – Summary of Scientific Achievements

Product type	Number	Database	Start	End
Papers [international]	28	Scopus	2015	2021

Total Impact factor	105.01
Total Citations	441
Average Citations per Product	15.75
Hirsch (H) index	14
Normalized H index*	14
Normalized H index**	2.33

\* computed according to Sidiropoulos A., Katsaros D., Manolopoulos Y. (2007). Generalized Hirsch h-index for disclosing latent facts in citation networks, *Scientometrics* volume 72, pages 253–280

\*\* H index divided by the academic seniority – 6 years of academic activity (the first paper was published in 2015)

## Part XI – Overall list of publications

<b>Papers published in international journals</b>
<b>Fraccascia L.</b> , Giannoccaro I., Albino V. (2021). Ecosystem indicators for measuring industrial symbiosis, <i>Ecological Economics</i> 183, 106944.
Dangelico R.M., <b>Fraccascia L.</b> , Nastasi A. (2020). National culture's influence on environmental performance of countries: A study of direct and indirect effects, <i>Sustainable Development</i> 28, 1773–1786.
<b>Fraccascia L.</b> , Yazdanpanah V., van Capelleveen G., Yazan D.M. (2020). Energy-based industrial symbiosis: a literature review for circular energy transition, <i>Environment, Development and Sustainability</i> , in press.
Yazan D.M., Yazdanpanah V., <b>Fraccascia L.</b> (2020). Learning strategic cooperative behavior in industrial symbiosis: A game-theoretic approach integrated with agent-based simulation, <i>Business Strategy and the Environment</i> 29, 2078-2091.
<b>Fraccascia L.</b> , Giannoccaro I. (2020). What, where, and how measuring industrial symbiosis: A reasoned taxonomy of relevant indicators, <i>Resources, Conservation and Recycling</i> 157, 104799.
<b>Fraccascia L.</b> (2020). Quantifying the direct network effect for online platforms supporting industrial symbiosis: an agent-based simulation study, <i>Ecological Economics</i> 170, 106587.
Yazan D.M., <b>Fraccascia L.</b> (2020). Sustainable Operations of Industrial Symbiosis: An Enterprise Input-Output Model Integrated by Agent-Based Simulation, <i>International Journal of Production Research</i> 58, 392-414.
<b>Fraccascia L.</b> , Yazan D.M., Albino V., Zijm E. (2019). The role of redundancy in industrial symbiotic business development: A theoretical framework explored by agent-based simulation, <i>International Journal of Production Economics</i> 221, 107471.
<b>Fraccascia L.</b> , Giannoccaro I. (2019). Analyzing CO <sub>2</sub> emissions flows in the world economy using Global Emission Chains and Global Emission Trees, <i>Journal of Cleaner Production</i> 234, 1399-1420
<b>Fraccascia L.</b> (2019). The impact of technical and economic disruptions in industrial symbiosis relationships: An Enterprise Input-Output approach, <i>International Journal of Production Economics</i> 213, 161-174.
<b>Fraccascia L.</b> , Giannoccaro I., Albino V. (2019). Business Models For Industrial Symbiosis: A Taxonomy Focused on the Form of Governance, <i>Resources, Conservation and Recycling</i> 146, 114-126.
<b>Fraccascia L.</b> , Giannoccaro I., Albino V. (2019). Response to: Comment on (Resilience of Complex Systems: State of the Art and Directions for Future Research), <i>Complexity</i> 2019, 8420453.
<b>Fraccascia L.</b> , Giannoccaro I., Agarwal A., Hansen E. (2019). Business models for the circular economy: Opportunities and challenges, <i>Business Strategy and the Environment</i> 28, 430-432
<b>Fraccascia L.</b> (2018). Industrial symbiosis and urban areas. A systematic literature review and future research directions,



<b>Papers published in international journals</b>
<i>Procedia Environmental Science, Engineering and Management</i> 5, 73-83.
<b>Fraccascia L., Yazan D.M.</b> (2018). The supply chain implications of industrial symbiosis, <i>Procedia Environmental Science, Engineering and Management</i> 5, 61-72.
<b>Fraccascia L., Giannoccaro I., Albino V.</b> (2018). Resilience of complex systems: State of art and directions for future research. <i>Complexity</i> 2018, Article ID 3421529.
<b>Fraccascia L., Yazan D.M.</b> (2018). The role of online information-sharing platforms on the performance of industrial symbiosis networks. <i>Resources, Conservation and Recycling</i> 136, 473-485.
<b>Yazan D.M., Cafagna D., Mes M., Fraccascia L., Pontrandolfo P., Zijm H.</b> (2018). Economic sustainability of biogas production from animal manure: a regional circular economy model. <i>Management Research Review</i> 41, 605-624.
<b>Yazan D.M., Fraccascia L., Mes M., Zijm H.</b> (2018). Cooperation in manure-based biogas production networks: An agent-based modeling approach. <i>Applied Energy</i> 212, 820-833.
<b>Fraccascia L., Giannoccaro I., Albino V.</b> (2018). Green product development: what does the country product space imply? <i>Journal of Cleaner Production</i> 170, 1076-1088.
<b>Fraccascia L., Giannoccaro I., Albino V.</b> (2017). Efficacy of landfill tax and subsidy policies for the emergence of industrial symbiosis networks: An agent-based simulation study, <i>Sustainability</i> 9, 521.
<b>Fraccascia L., Giannoccaro I., Albino V.</b> (2017). Rethinking Resilience in Industrial Symbiosis: Conceptualizations and Measurements, <i>Ecological Economics</i> 137, 148-162.
<b>Fraccascia L., Albino V., Garavelli A.C.</b> (2017). Technical efficiency measures of industrial symbiosis networks using enterprise input-output analysis, <i>International Journal of Production Economics</i> 183, 273-286.
<b>Albino V., Fraccascia L., Giannoccaro I.</b> (2016). Exploring the role of contracts to support the emergence of self-organized industrial symbiosis networks: an agent-based simulation study. <i>Journal of Cleaner Production</i> 112, 4353-4366.
<b>Fraccascia L., Magno M., Albino V.</b> (2016). Business models for industrial symbiosis: a guide for firms, <i>Procedia Environmental Science, Engineering and Management</i> 3, 83-93.
<b>Albino V., Fraccascia L., Savino T.</b> (2015). Industrial symbiosis for a sustainable city: technical, economical and organizational issues. <i>Procedia Engineering</i> 118, 950-957.
<b>Albino V., Fraccascia L.</b> (2015). The industrial symbiosis approach: a classification of business models. <i>Procedia Environmental Science, Engineering and Management</i> 2, 217-223.

<b>Papers published in national journals</b>
<b>Fraccascia L.</b> (2018). Il futuro dell'economia è circolare. Principi, modelli e nuove prassi. <i>Sistemi &amp; Impresa</i> 1-2018, 60-64
<b>Fraccascia L.</b> (2016). Modelli di produzione sostenibili: benefici ambientali e meno costi. <i>Sistemi &amp; Impresa</i> 9-2016, 38-43.
<b>Albino V., Fraccascia L.</b> (2014). La cooperazione per una produzione sostenibile: la simbiosi industriale. <i>Bari Economia &amp; Cultura</i> 2, 49-55.

<b>Papers presented (by Luca Fraccascia or co-authors) at international conferences</b>
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## Part XII – Selected Publications for the evaluation

N	Authors	Year	Title	Journal	IF	Scopus citations
1	Fraccascia L., Giannoccaro I., Albino V.	2021	Ecosystem indicators for measuring industrial symbiosis	<i>Ecological Economics</i> (vol. 183, article number 106944)	4.482	0
2	Yazan D.M., Yazdanpanah V., Fraccascia L.	2020	Learning strategic cooperative behavior in industrial symbiosis: A game-theoretic approach integrated with agent-based simulation	<i>Business Strategy and the Environment</i> (vol.29, pp. 2078-2091)	5.483	4
3	Fraccascia L.	2020	Quantifying the direct network effect for online platforms supporting industrial symbiosis: an agent-based simulation study	<i>Ecological Economics</i> (vol. 170, article number 106587)	4.482	5
4	Fraccascia L., Yazan D.M., Albino V., Zijm H.	2020	The role of redundancy in industrial symbiotic business development: A theoretical framework explored by agent-based simulation	<i>International Journal of Production Economics</i> (vol. 221, article number 107471)	5.134	14
5	Yazan D.M., Fraccascia L.	2020	Sustainable Operations of Industrial Symbiosis: An Enterprise Input-Output Model Integrated by Agent-Based Simulation	<i>International Journal of Production Research</i> (vol.58, pp. 392-414)	4.577	15
6	Fraccascia L.	2019	The impact of technical and economic disruptions in industrial symbiosis relationships: An Enterprise Input-Output approach	<i>International Journal of Production Economics</i> (vol. 213, pp. 161-174)	5.134	15
7	Fraccascia L., Giannoccaro I., Albino V.	2019	Business Models For Industrial Symbiosis: A Taxonomy Focused on the Form of Governance	<i>Resources, Conservation and Recycling</i> (vol. 146, pp. 114-126)	8.086	15
8	Fraccascia L., Yazan D.M.	2018	The role of online information-sharing platforms on the performance of industrial symbiosis networks	<i>Resources, Conservation and Recycling</i> (vol. 136, pp. 473-485)	7.044	47
9	Fraccascia L., Giannoccaro I., Albino V.	2018	Green product development: what does the country product space imply?	<i>Journal of Cleaner Production</i> (vol.170, pp. 1076-1088)	6.395	30
10	Fraccascia L., Giannoccaro I., Albino V.	2017	Rethinking Resilience in Industrial Symbiosis: Conceptualizations and Measurements	<i>Ecological Economics</i> (vol. 137, pp. 148-162)	3.895	35

N	Authors	Year	Title	Journal	IF	Scopus citations
11	<b>Fraccascia L.</b> , Albino V., Garavelli A.C.	2017	Technical efficiency measures of industrial symbiosis networks using enterprise input-output analysis	<i>International Journal of Production Economics</i> (vol. 183, pp. 273-286)	4.407	34
12	Albino V., <b>Fraccascia L.</b> , Giannoccaro I.	2016	Exploring the role of contracts to support the emergence of self-organized industrial symbiosis networks: an agent-based simulation study	<i>Journal of Cleaner Production</i> (vol. 112, pp. 4353-4366)	5.715	51

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