

JULIE METTA

PhD Candidate - Circular Economy

Faculty of Economics – KU Leuven, Belgium

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Education

PhD Candidate – Circular Economy and Human factors

Belgium 2019-Present

Faculty of Economics – KU Leuven

Thesis: Circular Economy & Human Factors – Pop-Machina, H2020 Project

Supervisor: Dr Kris Bachus and Dr Sandra Rousseau

M.Sc. Climate and Energy Engineering - Graduated with Honors

France 2014

Institut National des Sciences Appliquées (INSA)

Thesis: Water storage for biomass boilers and CHP systems

B.Sc. Climate and Energy Engineering – French Equivalent

France 2012

Institut National des Sciences Appliquées (INSA)

Thesis: Analyzing and modeling energy systems of ENSAT Tangier

Prep School Mathematics and Physics - Graduated with Honors

France 2011

Saint Rémi – Prep School (CPGE) MPSI/MP

Thesis: Analyzing and modeling GPS systems

Research Interests

Circular Economy, Climate and Resource Policy, Energy, Resource and Environment Economics

Selected Publication

“Potentials and opportunities towards the low carbon technologies – From literature review to new classification” -

with Y. An, H. Zheng, L. Zhang, 2019 Critical Reviews in Environmental Science and Technology DOI:

10.1080/10643389.2019.1642834

“Pop-Machina: The breakthrough of the circular maker movement in Europe” - with K. Bachus, 2020

OpenAccessGovernment ISSN 2516-3817 <https://www.openaccessgovernment.org/pop-machina-circular-maker-movement-in-europe/84803/>

“A Fair or a Fare Society” – with S. S. Chopra, 2018 HKU Asia Global Online, Asian perspectives, Global Issues

<https://www.asiaglobalonline.hku.hk/circular-economy-shared-platform/>

“Hong Kong’s Green Innovations Impact its Energy Market” – with J. Deller, 2018 International Association for

Energy Economics ISSN 1944-3188 <https://www.iaee.org/en/publications/newsletterdl.aspx?id=454>

“Waste management and circular economy in Hong Kong” – 2018 Tara Expeditions

<https://oceans.taraexpeditions.org/en/m/environment/mankind-the-ocean-pollution/vie-insulaire-et-economie-circulaire-a-hong-kong/>

Work in progress

“Discount scheme as nudge strategy to enhance environmental behaviour” Single author (Available upon request)

This paper presents the effects of nudging and of direct instruments on the consumer choice for reusable cups instead of disposable cups. The required conditions for the shop policy to be effective (i.e. induce a change in consumer behaviour through direct and indirect communication) are also evaluated. An original database was compiled from structured observations over 223 Hong Kong coffee shops. The research questions are answered using two strategies. First, logistic econometric approaches estimate the effects of the policies on consumer behaviour. Secondly, a qualitative comparative analysis identifies the required conditions for the consumers to use reusable cups. The results show that through effective communication about the “environment-friendly” shop policy, coffee shops affect the consumer behaviour towards reusable cups positively. I observe that nudges have higher effects than financial instruments on consumer behavioural change even when the settings account for strong conservative behaviours.

“How does recycling affect sustainable growth?” – with L. Zhang, (Available upon request)

This paper quantifies the effect of waste recycling on GDP in OECD countries from 2000 to 2012. Specifically, we examine the influence of labour, material flow and research and development (R&D) as drivers of this relationship. While R&D is often seen as key factor for a sustainable development, labour and material trades are of a higher importance for sustaining growth through recycling. Empirical results show a positive and statistically significant effect of waste recycling on the economy. An increase of 1% of the recycled waste raises GDP by up to 0.06%. Waste management, if well planned, can be a catalyst for a stagnating economy. Furthermore, our results show that the benefits of waste recycling are given rise through labour and resource channels.

“Labour in the Circular Economy: the catalyst towards sustainable growth” Single author (Research proposal available upon request)

Research Experiences

- Building Capacities and Strategies of Trade Union Involvement in shaping a Just Transition towards a Sustainable and Decarbonised Industry** *Belgium 2020-Present*
IndustriALL Project – HIVA, KU Leuven
- Pop-Machina: Circular Maker Movement** *Belgium 2019-Present*
H2020 Project – HIVA, KU Leuven
- Circular Economy – Modeling economic impacts of waste valorization** *Hong Kong, China 2017-2019*
School of Energy and Environment - The City University of Hong Kong
- Research stay at the ifo Center for Energy, Climate and Resources** *Germany 2019*
Center for Energy, Climate and Resources at ifo Institute - Munich
Semester exchange to develop a theoretical growth model on circular economy
- Climate Change Initiatives and Chinese Cities** *Hong Kong, Shenzhen, Wuhan and Guangzhou, China 2017*
Chinese University of Hong Kong - Sponsored by Hong Kong American Center
Summer school dedicated to address climate change impacts & solutions
- Water storage for biomass boilers and CHP systems** *France 2014*
COFELY Services (GDF SUEZ)
Analyzing and modeling heat storage and buffer systems for urban grids
- HVAC and energy efficiency building audit** *Morocco 2013*
ENSA Tanger– Ecole Nationale des Sciences Appliquées de Tanger
Analyzing & modeling HVAC systems and energy efficiency of buildings

Conferences/Seminars/Workshops Experiences

- Exploring Economics – Faculty of Economics, University of Rouen** *Rouen, France 2019*
Lecturer – Benefits and mechanisms of the French Circular Economy Policy
- 6th FAERE – Faculty of Economics, University of Rennes 1** *Rennes, France 2019*
Presenter and author – Sustainably growth by recycling
- Circular Economy Summer School – University Montreal / EDDEC Institute** *Editions 2018-2019*
Presenter – Circular Economy in China and Hong Kong
- Government & International Studies - Hong Kong Baptist University** *Hong Kong 2018*
Lecturer – Circular Economy in Hong Kong
- WCERE special session on Economics of Environmental Protection and Nature Conservation in China organized by CAERE** *Göteborg, Sweden 2018*
Presenter and author - Growing by recycling: Empirical evidences
- Governing Synergies: Pollution & Carbon Reduction in Emerging Economies** *Hong Kong 2018*
Presenter and author
Workshop for the very special edition: “synergies in green growth” of the Journal of Environmental Management (JEMA)
- Le Grand Paris Circulaire** *Paris, France 2017*
Presenter – Representing Hong Kong Scholars
Conference organized by Paris’ Government on circular economy policy
- UN Climate Change Conference Simulations – HKAC, HKUST, HKSCC** *Hong Kong 2016*
Advisor and Team Leader – Part of the organization of 4 UNCCC simulations co-organized with the Hong Kong Environment Protection Department

Scholarships/Awards

- Outstanding Academic Performance Award** **2018**
The City University of Hong Kong
Award academic and research excellence for students
- Hong Kong PhD Fellowship Scheme** **2017**
Research Grants Council, University Grants Committee
Award academic excellence for students to pursue their PhD in Hong Kong

Employment Records

Teaching Assistant - City University of Hong Kong •Urban Sustainability in Hong Kong joint course with Arizona State University •Writing Academics	<i>Hong Kong 2017-2019</i>
Scientific Officer - Development of scientific cooperation Consulate General of France in Hong Kong and Macau •Promote France-Hong Kong scientific partnerships •Creation and management of the consulate's science events (+300 events) •Scientific watch over France and Hong Kong (+400 articles)	<i>Hong Kong 2015-2017</i>
New Energy Project Engineer COFELY Services (GDF SUEZ) •Analyze and answer tenders •Feasibility study and designing of water storage systems	<i>France 2014</i>
Responsible affairs Engineer Groupe Environnement-Architecture-Urbanisme Responsible for affairs in the field of passive buildings and new energies	<i>France 2013</i>

Volunteering

Sous Les Dechets La Plage – Co-founder Organization of beach clean-ups with plastic recycled locally	<i>Hong Kong Since 2017</i>
Labdoo.org – Co-Manager Hong Kong Hub Collect, sanitize and provide 2 nd hand computers to communities in needs	<i>Hong Kong Since 2017</i>
MakeSense - Co-Manager Hong Kong Hub on Waste Event organization for social entrepreneur	<i>Hong Kong Since 2016</i>
Impact HK - Volunteer Food distribution for homeless people	<i>Hong Kong Since 2016</i>
Surfrider Foundation - Volunteer Donating and volunteering in this environmental association	<i>France & Hong Kong Since 2011</i>

Languages

Language	French: mother tongue	German: intermediate B1 Level
	English: bilingual C1 Level	Chinese (PuTongHua) & Cantonese: A1 Level
	Spanish: intermediate B1 Level	Nederlands: beginner A1 Level

Software & Cie Stata, Eviews, Matlab, GAMS, R, Julia, Latex, html/css/php, Inkscape, PléiadesComfie, AutoCad, etc.

Miscellaneous - Additional Education

Future of Waste Program Make Sense & Suez	<i>Online 2017</i>
Massive Open Online Courses Several courses on Resources Policy and Economy - <i>Please ask for more details</i>	<i>Since 2015</i>
Entrepreneurship Training Institut National des Sciences Appliquées (INSA)	<i>France 2013</i>

References

Dr Kris Bachus, PhD
Supervisor and PI of H2020
KU Leuven
Kris.bachus@kuleuven.be
More references available upon request

Dr Aude POMMERET, PhD
Full Professor at IREGE and Deep-HEC
Université de Savoie and Université de Lausanne
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