



**Institute for Climate Change and
Sustainable Development**

Annual Report 2021-2022

Introduction

The Institute for Climate Change and Sustainable Development was established in 2009. During 2021-2022 the Institute strengthened its research areas and continued with its research efforts to promote interdisciplinarity.

The Board of the Institute met regularly during this year where a number of key decisions were taken with respect to the work of the Institute and the development of programmes, projects and events.

This report outlines the work and achievements of the Institute for Climate Change and Sustainable Development during the period October 2021 and September 2022.

Board meetings were held on 6 December 2021, 21 February 2022, 23 May 2022, 1 September 2022

Aims of the Institute

- (a) to perform and promote interdisciplinary research on issues related to sustainable development, social sustainability, and climate change including mitigation and adaptation strategies;
- (b) to provide consultancy, advice and assistance on sustainable development and climate change including mitigation and adaptation strategies;
- (c) to provide continuous education, undergraduate, and postgraduate courses within the scope of the Institute subject to the Statutes and Regulations of the University;
- (d) to act as host institution for scholars, professors and chairs of international repute, as well as programmes, networks and fora, that aim to enhance the profile of the Institute within the regional and European research area, in areas related to sustainable development and climate change including mitigation and adaptation strategies;
- (e) to use telemetry, IT tools, intelligent systems, and modelling for monitoring, research, decision support and strategic planning;
- (f) to engage in knowledge transfer and awareness raising initiatives on sustainable development and climate change with companies, organisations and other institutions outside the University to promote best-practice (e.g. to promote the uptake of cleaner technologies; to mitigate and adapt to impacts of climate change on business operations and markets);
- (g) to network and liaise with similar or complementary, university institutions and centres for sustainable development or climate change; and
- (h) to disseminate acquired knowledge through online media, publications, seminars, conferences and teaching programmes.

THE BOARD OF THE INSTITUTE

Chairman **Prof. Simone Borg**
Vice-Chair **Prof. Maria Attard**

Members:

Prof. Richard Muscat

Mr Philip Sammut

Dr Philip Von Brockdorff

Dr Stefano Moncada

Prof. Alex Torpiano

Prof. Sandro Lanfranco

Prof. Adrian Muscat

Prof. John A. Schembri

Dr Thérèse Bajada

Dr Margaret Camilleri Fenech

Dr Anton Bartolo

Ms Karyn Scerri (student)

Student Information Numbers 2021-2022

Number of new entrants: 4 (MSc)	
Total number of students: 9	Female students: 5 Male students: 4
Number of Masters by research students: 6	Number of doctoral students: 3
Number of post-doctoral students NIL	Number of international students: 3
Number of students with disability NIL	Number of mature students NIL

The Administrative Office

During 2021-2022 the Institute was located in 45, Triq l-Esperanto, Msida and in Porta Cabins located in Car Park 6. The office housed the administrative as well as the academic staff, whilst the researchers, interns, students and project work was transferred to the Porta Cabins. The Director's Office was located in the Humanities. Although not ideal, work continued unabated throughout the years.

The Institute's Human Resources

Mr Carlos Cañas Sanz continued to work on a number of projects until June 2022. He also continued his work on his PhD at the Institute and presented his work at a number of conferences and a number of meetings locally and abroad.

Mr Stephen Joseph Giuliano and Dr Suzanne Maas worked as a Part-time Research Support Officer II to support the work of the Nudging Active Travel Project.

Mr Jurgen Ciantar was employed as a part-time research support officer to help with the institute data analytics requirements, whilst **Ms Karyn Scerri** was employed as part-time Research Support Officer II to support the Nudging Active Travel Project. She continued to work on her PhD looking at active travel and the concept of laziness in transport and mobility research.

Dr Thérèse Bajada, Lecturer continued servicing the Institute and several other departments within the University. She is also an Associate Member of the Institute for Sustainable Energy at the University. **Dr Margaret Camilleri Fenech**, Assistant Lecturer (TR4) support the growth in the Institute's teaching, research and administration.

Mr Raphael Mizzi has continued to work on the Green Travel.

Ms Romina Zammit, the Institute Administration Specialist has continued to manage and support the Institute, its staff and activities.

Community Outreach

The Institute on the WWW

The Institute website has continued to act as a medium for communication with the University community and the general public. The Institute's website contains reference to almost all the work that the Institute engaged in since its opening in 2009. This is complemented by a Facebook page where news and other items are regularly uploaded. Social media efforts have now also extended to the UM Instagram page.

The Institute in Newspoint and Media (selection)

Newsbook – 29 November 2021 Il-metro se jsovi l-problem tat-traffiku f'Malta? Prof. Maria Attard <https://newsbook.com.mt/il-metro-se-jsovi-l-problema-tat-traffiku-fmalta/?fbclid=IwAR2HomCD9U6yEclOI2E3dwXlc3c1nWjllfDpozxEImvYjM11zkn7bodtto>

maltatoday – 11 October 2021 Metro: 'Brave new Malta' or just talk? Interview with Prof. Maria Attard https://www.maltatoday.com.mt/news/national/112589/metro_brave_new_malta#.Y5B4dOzMJTZ

THINK Magazine – 9 November 2021 Timed Cities. The City Designed for its People. Interview with Bajada, T., Mifsud, W.J. and Scheiber, S. <https://www.um.edu.mt/think/timed-cities-the-city-designed-for-its-people/>

Newsbook – 18 October 2021 Metro f'20 sena jew trasport b'heffa f'xhur? Prof. Maria Attard <https://newsbook.com.mt/metro-f20-sena-jew-trasport-bheffa-fxhur/?fbclid=IwAR0peOZQmuL7NX17nokQS06Fxfjho9Uccre0aik1DJdHEgg7nvuMmuFh0F0>

Newspoint – 10 December 2021 Breakfast for Active Travellers. Green Travel Plan Coordinator <https://www.um.edu.mt/newspoint/notices/um/2021/12/breakfast-for-active-travellers>

Newspoint – 3 March 2022 Active Travel Workshop (Kunsill Reġjonali Lvant) <https://www.um.edu.mt/newspoint/events/um/2022/03/active-travel-workshop>



THINK Magazine – 23 March 2022 A Car-Country. Interview with Prof. Maria Attard and Mr Raphael Mizzi https://thinkmagazine.mt/a-car-country/?fbclid=IwAR2IG_HB8Nvwb_Az6zKTA6GTyuZo8NCUd9Wem434b8GShnbtUjF5jorDRXs

Newspoint – 5 July 2022 Webinar: Sustainable Urban Mobility Planning. Dr Suzanne Maas <https://www.um.edu.mt/newspoint/notices/opportunities/2022/07/webinar-sustainable-urban-mobility-planning>

Newspoint – 29 August 2022 Volvo Research and Education Foundation (VREF) Grant awarded to UM Doctoral Researcher. Mr Carlos Cañas <https://www.um.edu.mt/newspoint/news/2022/08/vref-grant-awarded-to-um-doctoral-researcher>

Newspoint – 22 September 2022 Micromobility and public transport - Prof. Maria Attard chairs workshop in Sydney <https://www.um.edu.mt/newspoint/news/2022/09/micromobility-and-public-transport-prof-maria-attard-chairs-workshop-in-sydney>

Newspoint – 28 September 2022 Prof. Maria Attard delivers keynote address on Active Travel at international conference in Rome <https://www.um.edu.mt/newspoint/news/2022/09/prof-maria-attard-delivers-keynote-address-on-active-travel-at-international-conference-in-rome>

TV and Radio Contributions

During the year Prof. Maria Attard contributed to a number of television and radio programmes to raise awareness and discuss issues related to sustainable mobility, climate change and sustainability and waste management. Programmes included Radju Malta (Il-Polz taċ-Ċittadin), Newsbook, Għandi X'Ngħid (103FM), NET Television.

Newsbook – 18 October 2021 A metro in decades of a bus rapid transit in months? 103 Malta's Heart Radio. Interview: Prof. Maria Attard

Newsbook – 25 June 2022 Il-klima titharbat u qisu mhux xejn, 103 Malta's Heart Radio. Interview: Prof. Maria Attard

Participation in conferences, invited lectures and other events

Dr Thérèse Bajada, Dr Wendy Jo Mifsud, Dr Sarah Scheiber presented at the THINK Soapbox "Timed Cities" 29 October 2021

Dr Thérèse Bajada participated in a podcast entitled "Sustainable Mobility and Transportation". Interviewed by Muñoz Abela, J.M., Bureau 105. Published 5 November, 2021 [<https://bureau105.studio/sustainable-mobility-and-transportation>]

Prof. Maria Attard was a contributor to the *Sustainable Mobility Forum* organised by The Malta Chamber on 16 November 2021. Prof. Attard serves as an expert on the Sustainable Mobility Committee of The Malta Chamber.

Prof. Maria Attard and **Mr Raphael Mizzi** presented at the THINK Soapbox "A car country" 11 March 2022

Prof. Maria Attard delivered the following keynotes and invited talks:

Active Travel: Achieving Sustainability, Resilience and Inclusivity Invited keynote at the AIIT 3rd International Conference TIS ROMA 2022, Automobile Club d'Italia (ACI), Rome, Italy. 15-16 September, 2022.

Innovative approaches to engage citizens in active travel in Malta Invited presentation (online) at THE PEP Partnership on Active Travel UNECE, WHO Meeting (Paris) 25 April, 2022.

The Importance of Measuring Urban Space Distribution Guest Lecture at Università Iuav di Venezia, Dipartimento di Culture del Progetto, Venice, Italy 3 May, 2022.

She was also invited as Visiting Professor at the University of Cyprus (November 2021), University of Perugia (December 2021) and University IUAV di Venezia (May 2022).

In May 2022, the Institute hosted a workshop in collaboration with UBO – Université de Bretagne Occidentale as part of the Cycle-EU Project funded under the SEA-EU Alliance. It was an excellent opportunity to exchange ideas about active travel and universities. The workshop uncovered common challenges and opportunities.



List of Conference Presentations

Cañas, C., Attard, M. (2022) Walking Malta. An innovative Pedestrian-Centred Walkability Assessment. Presented at Walk21 Ireland Conference, Dublin, Ireland, 19-23 September.

Scerri, K., Attard, M. (2022) Assessing Perceptions of Pedestrian-focused Intervention in a Car Dependent European Island. Presented at the TIS Roma 2022 Conference, Rome, Italy, 15-16 September.

Attard, M. (2022) Planning for Bus Rapid Transit in an island context. The challenges of implementing BRT in Malta. Presented at Thredbo 17 International Conference on Competition and Ownership in Land Passenger Transport, Sydney, Australia, 4-8 September.

Scerri, K., Attard, M. (2022) Stakeholders' perception of pedestrian-focused interventions to encourage walking as a mode of transport for short-distance trips. Presented at the RGS-IBG Annual Conference, Newcastle, UK, 30 August - 2 September.

Scerri, K., Attard, M. (2022) A participatory approach to implementing pedestrian infrastructure using a Virtual Urban Living Lab. Presented at the 16th International NECTAR Conference, Toronto, Canada, 20-22 July.

Vella, N., Attard, M. (2022) Teleworking, Commuting and Travel Behaviour. Presented at UGI-IGU Congress, Paris, France, 18-22 July.

Scerri, K., Attard, M. (2022) The impacts and perceptions of introducing pedestrian-focused intervention within the car-dependent context of the Maltese Islands. Presented at UGI-IGU Congress, Paris, France, 18-22 July.

Pace, A., Attard, M. (2022) Urban growth in a Mediterranean island-state: analysing development planning applications in Malta to determine different growth types. Presented at UGI-IGU Congress, Paris, France, 18-22 July.

Karyn Scerri was invited as a panellist on the YES-Europe webinar 'Energy and Sustainability in Malta' organised online, 6 May 2022.

Maas, S., Bajada, T. (2022) Cycling and trauma workshop "Barriers for current and potential cyclists in a starter cycling country: the case of Malta. Online Presentation at the Cycling and Society Research Group, 23 March.

New Research Activity

The Institute has continued to work on the projects awarded in the previous years. It has also succeeded to submit and participate in project proposals, both locally and abroad. Table below shows the projects and the outcome of the funding applications for 2021-2022.

Funding Programme	Title of Project	Project Partners	Outcome and Value
Environment and Resource Authority	Waste Characterisation Project	Dr Margaret Camilleri Fenech, Prof. Liberato Camilleri	AWARDED
ERASMUS+	HEIDI	Dr Wendy-Jo Mifsud, Prof. Maria Attard, Ms Heather McNamara	AWARDED
Regional Committees (North, Eastern)	Nudging Active Travel Project	Prof. Maria Attard, Carlos Cañas, Suzanne Maas, Karyn Scerri, Stephen J. Giuliano, Raphael Mizzi	AWARDED
Building Consultative Committee (BICC)	Recycling Construction Waste	Dr Margaret Camilleri Fenech	AWARDED
COST	TRANSFORMERS	Prof. Maria Attard	NOT AWARDED
COST	FREIGHT EU	Prof. Maria Attard	NOT AWARDED
HORIZON	reSAFE	Prof. Maria Attard	NOT AWARDED
HORIZON	PROTEA	Prof. Maria Attard	NOT AWARDED
Malta Resources Authority	Supporting the drafting of Malta's National Communication to the UN Framework Convention on Climate Change	Prof. Maria Attard, Prof. Paul Pace, Dr James Ciarlo and other contributors	AWARDED
European Research Council	EDII (UCL)	Prof. Maria Attard	AWAITING EVALUATION
INTERREG MED	GREENMO	Prof. Maria Attard	AWAITING EVALUATION
SEA-EU	CYCLE-EU (Brest)	Prof. Maria Attard with Univ. of Brest (coordinator)	AWARDED
PRIMA	Food Flows in the Mediterrean (FoodMed)	Dr Margaret Camilleri Fenech	NOT AWARDED
HSBC Foundation	Nature Based Solutions for Urban Resilience	Prof. Maria Attard	AWAITING EVALUATION

Travelling Smart – The Green Travel Plan Committee at the University of Malta



Prof. Maria Attard continues to chair the Green Travel Plan (GTP) Committee which aims to implement the University GTP approved in 2012. Mr Raphael Mizzi, the GTP Coordinator administrates the GTP work as well as acts as secretary to the GTP Committee.

The GTP Committee for 202 - 2022 was made up of:

Prof. Maria Attard (Chair)
Mr Raphael Mizzi (Secretary)
Perit Christopher Spiteri (Director Estate and Works)
Mr Clayton Xuereb (Precincts Officer)
Mr Neil Zahra (KSU President)
Ms Thérèse Bajada (Travel Plan Expert, ICCSD)
Ms Amanda Ciantar (Office of Human Resources)
Ms Nathalie Cauchi (UHM)
Mr Gianluca Grech (Precincts Office)
Prof. Luciano Mulé Stagno (UMASA)

During October 2021 – September 2022 a number of initiatives were undertaken by the GTP Committee and the GTP Coordinator in order to improve travel to the University.

The Website

In order to maintain communication lines open with the University community the GTP website is updated on a regular basis with useful information and links about green travel to and from University.

Further useful links and information is made available through this website and publicised from time to time internally within the University community.

<http://www.um.edu.mt/greentravel>

Facebook


Since 2015 the ICCSD created a Facebook page where all the news and events related to the Institute are posted on this page. The GTP coordinator uploads several weekly news to create awareness about green travel with UoM members and other visitors.

During the first week of semester, the Coordinator commuted from Tarxien to UM by bicycle, and a video showing his congestion-free commute along the Marsa bicycle lane (with standstill car traffic next to him) went viral on the Institute facebook page and reached almost 34,000 people.

Post details ×
ID: 525786139551196

UM Inst. for Climate Change & Sustainable Development - University of Malta
Published by Iccsd Malta · 6 October at 12:46 · 🌐

No traffic was reported this morning on Marsa bicycle lane.



No insights to show ⓘ Boost post

👍❤️ 149 20 comments 58 shares

33,666
People reached ⓘ
0% from boosted posts

33,666 organic 0 paid

6,687
Post engagements ⓘ

1,237 reactions	241 comments
151 on post	20 on post
1,086 on shares	221 on shares
43 shares	5,152 clicks
58 on post	0 photo clicks
0 on shares	0 link clicks
	410 clicks to play
	4,742 other clicks

UM Website – Travelling Smart

The GTP coordinator continues to maintain the website which gathers all the information related to sustainable mobility on Campus. The website entitled Travelling Smart (<https://www.um.edu.mt/iccsd/travellingsmart>) provides static and interactive information about travelling to the UM Campus. This is supported by the outreach and community projects of the Institute which support walking and cycling (see for example <https://www.um.edu.mt/iccsd/ourprojects/walkingandcyclingaroundumcampus>).

GettingtoUM web page update

Updates were made to the GettingtoUM web page to keep the information as accurate as possible. During the year under review the page was updated with KSU carpooling options and new ferry schedules.

During the start of the year 2022, discussion with KSU and UM IT department were held to link the GettingtoUM website on myKSU and My UM mobile applications. [um.edu.mt/GettingtoUM](https://www.um.edu.mt/GettingtoUM) can now be accessed from My UM (for UM staff) and from myKSU (for UM students) mobile app which can be downloaded on a smartphone.

Working with EIT Urban Mobility Hub Malta

Mr Raphael Mizzi, together with other participants from the local sector, was invited for a panel discussion 'As a place of work or education, what can you do to promote healthier travel habits?'. This event, entitled "Safe and Healthy with Sustainable Mobility in Malta", was organised by the EIT Urban Mobility Hub Malta in collaboration with Transport Malta. Following this discussion, Raphael met several times with members from the EIT Urban Mobility Hub, to assist them in drafting their first Green Travel Plan for Valletta Design Cluster.



Cycling Infrastructure Course

During the year under review Mr Raphael Mizzi followed a three day course: Cycling Infrastructure: From Concept to Design and Implementation. This programme focused on bicycle infrastructure design to promote leadership in developing sustainable mobility options for Malta, with specific attention for road safety in shared spaces and solutions for the Maltese context, building on good practices from other countries and cities. The training was delivered to Transport Malta by the EIT Urban Mobility Academy, with support by the EIT Urban Mobility RIS Hub Malta for the local organisation and delivery.



Active Travel Campaign

In October 2021 the Coordinator launched a new campaign entitled 'Active Travel', with brand new information, posters and leaflets, providing information to commuters wishing to travel to UM by sustainable means. Large posters were erected on Quadrangle with A3 posters attached to main notice boards and small leaflets distributed to Faculties, Institutes and Centres within Msida Campus.

UM Inst. for Climate Change & Sustainable Development - University of Malta
Published by Iccsd Malta · 20 September 2021 ·

We are starting the 2021 Active Travel Campaigns with brand new information posters, providing useful information for commuters wishing to travel to university. Be smart and travel actively, safeguarding the environment and benefiting your health!

University of Malta Komunità Rota - Bicycle Community Malta Campaign for Better Transport
European Mobility Actions Malta/EIT Urban Mobility Malta RIS hub/Rota.mt/Transport Malta/UM
Cycling Community/Urban Cycling Institute/Institute for Transport Studies - ITS/Pass Pass/Project
Aegle Foundation/Human Resources Support - University of Malta/KSU - Kunsill Studenti
Universtarij/Bumalift

ACTIVE TRAVEL
um.edu.mt/gettingtoUM #umgreentravelplan

on Foot
Take a shower on Campus

by Bicycle, eBike or Scooter
Where can I rent one?

by Bus
Find your fastest route home

by Car
Car sharing or car pooling?

L-Università ta' Malta
Institute for Climate Change & Sustainable Development

@um.iccsd
greentravel@um.edu.mt

Breakfast for Active Travellers

On the 15th December 2021, as part of the Active Travel Campaign, the Coordinator organised a breakfast for UM members who commute to/from UM on foot, bicycle & bus. A donation was collected and all proceedings from this activity went towards two beneficiaries, L-Istrina and id-Dar tal-Providenza as part of Christmas on Campus 2021.



15

WEDNESDAY, 15 DECEMBER 2021 FROM 08:00-10:00

Breakfast for Active Travellers



Active Travel Workshop

On the 16th March 2022, the Institute together with the Eastern Regional Council launched the first phase of the project entitled 'Nudging Active Travel'. This project, stemming from the work that the Institute is carrying out on active travel, includes the identification and mapping of a walking and cycling network within the Region and the setting up of information totems in each locality signalling useful information about walking and cycling



distances and travel times to a set of locations. The general public can therefore better appreciate the distance between places and the facility provided by walking and cycling. The routes are then accessible via smartphones and easily accessible online and on the go.

The Coordinator helped with the organisation and took part in this workshop as a walking leader with some of the participants in a short guided walk around the area to identify the barriers and opportunities for active mobility.

Article on Think Magazine

During March an article entitled A Car Country was published in Think Magazine. Raphael together with Prof. Attard spoke to Jonathan Firbank about the challenges we face while promoting walking and cycling in Malta's car-dominated infrastructure. We also discussed the schemes and initiatives we do at UM to encourage a sustainable and healthy lifestyle with individuals.



Bikeability Courses for UM staff

At the start of the year, the Coordinator liaised with Nextbike to provide beginner bicycle lessons for UM members of staff. Notices were sent to all members and a programme was drafted for the first group to undertake the training. Three one-hour sessions were delivered during lunch break distributed over three weeks. The group consisted of five UM participants, bicycle tutor and an assistant from Nextbike. Most of the participants at the end of their course managed to learn to balance on a bicycle, to pedal, to use the brakes as well as the basics of controlling a bicycle and they were given safety related items which they can use during their commute. This course was delivered three times over the course of three months.



Cycle EU Project Seminar - Biking Solutions to SEA-EU Campuses

During the month of May, the Coordinator shared his cycling experiences with University members of the University of Brest, as part of a project funded by the SEA-EU Erasmus Project, and helped in constructing and finding participants for a survey carried out at our University of Malta. On the 10th May a seminar was held where participants from University of Brest and Malta had the opportunity to discuss sustainable mobility on campus and view the results of the survey.

Blue Door English Cycling Activity

As part of our outreach activities, on the 13th June 2022 the Coordinatr helped Blue Door English in delivering bicycle lessons. For some of the students this was the first time ever to ride a bicycle, and those with rusty skills were able to reactivate them. Participants were given information about the Green Travel Plan together with some safety related items.



Participation in International Scientific Committees

Academic members of staff of the Institute have participated and contributed to a number of scientific committees and conferences during the period under review. Below is a list of contributions.

Prof. Maria Attard was a member of the International Scientific Committee of the CODATO XVIII Conference, Dakar, Senegal, 9th – 11th November 2021.

Prof. Maria Attard is a member of the International Scientific Committee of the 2023 World Conference on Transport Research Society (WCTRS) Montreal, Canada (postponed from 2021 due to COVID-19)

Prof. Maria Attard was a member of the Scientific Committee of the International NECTAR Conference 2022 Toronto, Canada.

Prof. Maria Attard was a member of the Scientific Committee for the AIIT 3rd International Conference TIS ROMA 2022 New scenarios for Transport Infrastructure and Systems. Transition to inclusivity, resilience and sustainability organised by the Italian Association of Traffic and Transport Engineering, Rome, 15th-16th September 2022.

Prof. Maria Attard was a member of the Scientific Committee for the XXV International Conference “Living and Walking in Cities”, Brescia, Italy, September 2022.

During the period under review **Prof. Maria Attard, Dr Thérèse Bajada** and **Dr Margaret Camilleri-Fenech** acted as paper reviewers to a number of academic journals including *Case Studies in Transport Policy* (Elsevier), *Journal of Transport Geography* (Elsevier), *Transportation and Research Part A: Policy and Practice* (Elsevier), *Case Studies of Transport Policy* (Elsevier), *European Transport Research Review*, *Journal of Transport and Health* (Elsevier), *Journal of Environment Science and Management* (Elsevier), *Research in Transportation Business and Management* (Elsevier).

During this term **Prof. Maria Attard** held positions of Editor of *Research in Transportation Business and Management*, Associate Editor of *Case Studies in Transport Policy*, and Editorial Board Member for *Journal of Transport Geography*; *Communications in Transportation Research*; *Sustainable Transport and Livability*. She is also a Co-Editor for the Emerald Transport and Sustainability Book Series.

Dr Margaret Camilleri Fenech participated in the COST Actions Circular City (CA17133) and Circul-A-bility (CA1924) with management committee meetings in May and September 2022.

Dr Thérèse Bajada participated in COST Action on The Geography of New Working Spaces and Impact on the Periphery (CA18214).

Other staff news

Dr Thérèse Bajada have continued to support the MATSEC Boards for Geography.

Prof. Maria Attard co-edited two Journal Special Issues:

- Oviedo Hernandez, D., Attard, M. (2022) Making Equity Work. Journal Special Issue in Research in Transportation Business and Management, Vol. 42.
- Nocera, S., Attard, M. (2021) Social and Health Implications of Active Travel Policies. Journal Special Issue in Research in Transportation Economics, Vol. 86.

The Director of the Institute **Prof. Maria Attard** continued to serve as member of a number of International Committees during this year. These included:

- Member of the Internal SEA-EU (European University of the Sea) Quality and Ethics sub-committee at the University of Malta.
- Advisory Board Member, EU Funded Project EU-Citizen.Science. Led by the Museum of Natural History, Leibniz Institute for Evolutionary and Biodiversity Research, Berlin, Germany.
- Chair of the Doctoral Committee for the examination of PhD thesis (Online) at the Università di Catania, Italy (Giovanni Calabro).
- Co-leader in NECTAR Research Cluster 2 (NECTAR is the European Transport Research Association).
- Co-leader in World Conference on Transport Research (WCTR) Special Interest Group G3 Steering Committee and Scientific Committee Member of the WCTRS
- Member and STSM Coordinator of COST Action CA16222 WISE-ACT
- Country Expert TEN-T ScanMED Corridor 5
- Advisory Board Member, ERA-NET Cofund Urban Transformation Capacities Scheme (ENUTC) project entitled Capacities for Resilient and Inclusive Urban Public Transport Infrastructure and Built Environment (CARIN-PT) led by Tallinn University, Estonia (2020-2022).
- Evaluator for the Italian Ministry for University and Research (MUR) 2020 PRIN call (d.d. 16-10-2020, n.1628). CINECA Work Programme 2020-2021.

Outreach and support provided locally by **Prof. Maria Attard** include:

- Member of the Malta Chamber of Commerce, Enterprise and Industry Sustainable Mobility Committee
- Board member of the HSBC Malta Foundation
- Advisor of Project Aegle, a non-governmental transport think-tank

Dr Margaret Camilleri Fenech was a member of the Platform for Mediterranean Foodways (coordinated by the Mediterranean Institute, UM) and the Smart and Sustainable Business Award (coordinated by the Ministry for the Economy and Industry).

Ms Karyn Scerri contributed to the KSU position paper entitled Conserve to Serve https://ksu.fra1.digitaloceanspaces.com/19389/KSU-Conserve-to-Serve---Policy-Paper---Final-March-2022.pdf?fbclid=IwAR34A22EVTJ7oBumaykGAMla8A4w4jllI3BkBNc7cW2FvwF_fwa2dRqEOy4

Together with Zhengyue Wan, **Karyn Scerri** organised two special sessions sponsored by the Transport Geography Research Group. The two special sessions were entitled: Current and Emerging Research in Transport. These were held at the RGS-IBG Annual International Conference, Newcastle, UK, 30 August - 2 September. Ms Scerri was elected as a postgraduate representative on the Transport Geography Research Group Committee at the TGRG AGM on 14 September 2022.

Ms Karyn Scerri, Ph.D. student and researcher at the Institute was awarded the IGU-UGI Transport and Geography Commission Travel Grant to attend the Paris 2022 UGI Centennial Congress.



Dr Thérèse Bajada (online) attended the National Audit Office focus group on Obesity. She also attended as panel member, the discussion on mass transport in Malta, organised by DawraMadwarna and EIT Urban Mobility Hub (Malta).

Dr Margaret Camilleri Fenech delivered a presentation on the 1 December 2021 as part of a project financed by the Building Industry Consultative Committee (BICC). The conference was titled "From waste to resource. Circular economy in construction".

Dr Margaret Camilleri Fenech and **Dr Thérèse Bajada** (online) attended the SEA-EU – Anti Fragility Think Tank on 1-2 September 2022 in Split, Croatia. The 2-day workshop aimed to give meaning to the anti-fragility term concerning universities and how these should react to crises, particularly following the experience with the Covid-19 pandemic. The setting of this think-tank as an advisory body and creating a plan of action for universities when a crisis emerges was discussed.



Ms Karyn Scerri secured Erasmus+ funding to visit the Active Modes and the Smart Public Transport Lab at TU Delft in The Netherlands for a 2-month period between April and June 2022. This work is linked to her PhD she is currently reading with the Institute.

During the summer **Ms Scerri** also participated in 'Remaking the Street', a hands-on summer school programme where students learn how street experiments can make small changes to public spaces that lead to big impacts on a citizen's quality of life. The summer school was

composed of a two-week online course followed by a two-week in person study tour in Rotterdam and Munich to experience real-life street experiments and design and implement a parklet. Ms Scerri was also awarded a travel grant from EIT KIC Urban Mobility to participate in this summer school.



Staff Publications for 2021-22

Bajada, T., Attard, M. (2022) A Decade Following the Malta Bus Reform: Attitudes Towards Service Quality. In Kotzebue, J.R. (ed.) *Towards Sustainable Transport and Mobility. Perspectives on Travelling and Commuting in Small Island States*. Hamburg University Press.

Attard, M., Maas, S., Cañas, C. (2022) The challenges of active travel in the islands of Malta. In Kotzebue, J.R. (ed.) *Towards Sustainable Transport and Mobility: Perspectives on travelling and commuting in small island states*. Hamburg University Press.

Satariano, B., Bajada, T. (2022). The emergent inequities and inequalities resulting from lockdown and social distancing measures taken to stop the spread of the COVID-19 pandemic within a Maltese scenario. *Symposia Melitensia*, 18, 65-88.

Bajada, T., Satariano, B., Camilleri Fenech, M., Radmilli, R. (2022) Food security in Malta, *The Round Table*, 111:2, 252-253.

Bajada, T., Satariano, B., Chavoshi, S.H. (2022). Presenting coworking spaces and chrono-urbanism as a policy package for sustainable mobility in post-pandemic Malta. In I. Mariotti, M. di Marino & P. Bednář (Eds.), *The COVID-19 Pandemic and the future of working spaces*. Routledge.

Attard, M., Dimitriou, L. (2022) Current trends in gender, work and transport: an island perspective. In Wright, T., Ison, S., Budd, L. (eds) *Gender, Work and Transport*. Emerald Publishing.

Thomopoulos, N., Attard, M. (2022) Autonomous Vehicles. In Buhalis, D., (ed), *Encyclopedia of Tourism Management and Marketing*, Edward Elgar Publishing.

Camilleri, R., Attard, M., Hickman, R. (2022) Future Low-Carbon Transport Scenarios: Practice Theory Based Visioning for Backcasting Studies. *Sustainability*, 14, 74.

Maas, S., Attard, M. (2022) Shared mobility services in Malta: user needs and perceptions. In Tsoutsos, T. (ed) *Sustainable Mobility for Island Destinations*, Springer Nature. https://link.springer.com/content/pdf/10.1007%2F978-3-030-73715-3_5.pdf

Bajada, T. and Satariano, B. 2022. "Narrations of the Countries in Eastern and Southern Europe: Malta" in Akhavan, M., Hölzel, M., Leducq, D. (Eds). (2022). Exploring effects of the Covid-19 Pandemic on New Working Spaces: Worldwide narratives by the academia and media. Working paper1/ Series n°001. COST ACTION – CA18214 The Geography of New Working Spaces and the Impact on the Periphery

Bajada, T. 2022. "The Value of Space in Urban Environments" in Dawra Madwarna. Available online [<https://dawramadwarna.org/activity/the-value-of-space-in-urban-environments/>].

STUDENT RESEARCH

Suzanne Maas M.Sc. (Wageningen University), Ph.D. (Melit.)

Bicycle sharing systems and their role in the promotion of cycling as a mode of transport in southern European island cities

Across the globe, the approach to transport planning is shifting towards sustainable urban mobility planning, in an effort to address traffic congestion, air pollution, and carbon emission reductions, and to promote a better quality of life for urban citizens. In this context, Bicycle Sharing Systems (BSS) have emerged as a transport innovation, allowing for multimodal travel, without having to own a private bicycle, while normalizing cycling in cities where this was not previously the norm. In the span of two decades, BSS have grown from just a handful to almost 3,000 systems worldwide. To understand which factors influence cycling, and BSS use specifically, this research used socio-ecological approaches to understand active travel behaviour. A framework was created to assess the influence of individual factors, social environment factors, and objective and perceived physical environment factors, as well as the policy environment shaping these. This research focuses on Southern European island cities, with their specific geographical and socio-cultural context, high population density and car-dependence, and a strong influence of tourists and visitors. The aim of this research is to analyse the use of BSS, and the role they play in promoting cycling as a mode of transport in Southern European island cities, as part of their ambition to promote sustainable urban mobility. A multiple-case study approach is used to analyse the introduction and use of the BSS in Limassol (Cyprus), Las Palmas de Gran Canaria (Spain) and the conurbation around Valletta (Malta). Self-reported usage data from a BSS user survey in the three sites was analysed through descriptive statistics, correlation analysis and binary logistic regression models. BSS trip data provided by the BSS operators, combined with external datasets, enabled the assessment of the influence of objective physical environment factors on observed BSS use in the case study cities through spatio-temporal regression modeling. The influence of individual, social environment and physical environment factors on shared bicycle use is analysed, looking at differences between frequent and infrequent BSS users, to get a better understanding of the motivators and barriers that influence BSS use. Results show that frequent BSS use is positively associated with frequent use of other 'alternative' transport modes, such as public transport use, as well as with shorter distances from respondents' residence and most frequent destinations to the nearest BSS station. Higher perceived safety of cycling was also associated with more frequent BSS use, as did a positive social norm, including support from friends and family, respect from other road users, and feeling that cycling is an accepted form of transport, confirming the importance of such factors in building a cycling culture. The influence of land use, socio-economic, network and temporal factors on BSS station use is examined through bivariate correlation analysis and the development of linear mixed models for each case study. The results showed a significant positive relationship with the number of cafes and restaurants, vicinity to the beach or promenade and the percentage of foreign population at the station locations in all cities. In Limassol and Las Palmas de Gran Canaria, a positive relation with cycling infrastructure was evident. This association was not found in Malta, as there is little to no cycling infrastructure in the island's conurbation, where most of the BSS stations are located. Elevation showed a negative

relationship with BSS use in all three cities. A positive effect of higher temperatures and a negative effect of rainfall were observed in Limassol and Malta, where seasonality in weather patterns is stronger than in Las Palmas de Gran Canaria. The findings and recommendations of this study contribute to a better understanding of BSS use and cycling in the context of 'starter' cycling cities, as well as suggestions for how to overcome the barriers and leverage the motivators for the promotion of cycling, towards the goal of making sustainable urban mobility a reality.



Suzanne Maas completed her doctoral research in 2021 under the supervision of Prof. Maria Attard and Prof. Loukas Dimitriou (University of Cyprus)

Ritianne Buhagiar B.A.(Hons) (Melit), M.Sc. (Melit.)

Free-range Children: Parental Barriers and Gateways for Children's Active and Independent Mobility in Malta

This study investigates children's active and independent mobility. Using school travel as an indicator, the factors influencing transport mode choice are analysed in the context of the Maltese Islands where the majority of children are driven to the primary school in their locality despite the proximity. In this scenario, there thus exists the potential for active transport where an understanding of the major determinants to mode choice can target a shift in the currently unsustainable transport to school. The role of the parents is central to this research due to the age of the subjects and this is studied to explore the influence parents have on children's transport mode and outdoor autonomy and the factors which in turn have an influence on parental choices. Taking a parent-centred approach in the collection of data, parents of children in Year 1 – Year 6 of the State Primary School of San Lawrenz (Gozo), Siggiewi and St Paul's Bay were invited to complete a survey collecting information on their child's mobility patterns and outdoor autonomy where the choice of localities is based on their contrasting geography, demographic, socio-economic and cultural factors with the results highlighting the diversity and differing parental concerns. Through the factors identified from this research, it is evident that interventions need to be designed with significant focus on addressing parental concerns of safety, security, and time. This study contributes to research in the area of children's mobility where children as transport users are under-researched in the local context and addresses the challenges of child obesity and transport emissions. Through a better understanding of the barriers and gateways to children's active transport and outdoor autonomy, this study aims to provide a background for informed guidance to policy and planning decisions in shifting school travel from driving to active modes of transport and more ambitiously to independent walking or cycling.



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