How can we ensure sustainable transport and mobility in the wider united Nicosia region by 2030?
**Current situation**

The transport sector in Cyprus represents approximately 50% of the final energy consumption of the country. Cyprus ranks amongst the first places of all European Union (EU) member states in the use of private car and ranks last in the use of bicycle, public transport and walking.

For a long period, the transport system in Cyprus developed in a one-dimensional manner, servicing the needs of car users, and not giving enough space to all other modes. The result of this policy was the rapid increase in car ownership and the decline of the use of public transport, cycling, and walking. The last five years, significant improvements were made with the introduction of public transport (buses) and basic infrastructure. However, only 2% of the locals use the buses. Some municipalities have developed bicycle lanes, but the lack of a bicycle network that would connect all areas of Nicosia, discourages people from using bicycles for their everyday tasks.

Furthermore, the introduction of Information Communication Technologies (ICT) and the usage of environmentally-friendly cars is very limited.

The Integrated Mobility Master Plan of Nicosia was developed in 2010, in order to promote sustainable transport and mobility, but it is progressing very slowly.

The division of Nicosia region and city centre in two by the buffer zone since 1974, unfortunately makes the implementation of an integrated transport strategy plan that will include the southern and northern section of Nicosia impossible.

**Cyprus Climate-KIC RIS**

Climate-KIC is the EU’s largest public-private partnership addressing climate change through innovation to build a zero-carbon economy. Climate-KIC’s activities cover four priority themes: urban areas, land use, production systems, and climate metrics and finance. Climate-KIC is supported by the European Institute of Innovation and Technology (EIT), a body of the European Union.

The Cyprus Climate-KIC Regional Innovation Scheme (Cyprus RIS) consortium consists of the Cyprus University of Technology, the Cyprus Energy Agency and Chrysalis LEAP, and aims in promoting green innovation in Cyprus and beyond, spanning from Greece to the Middle East and North Africa region. This will be achieved through targeted actions in postgraduate and professional education, clean-tech innovation and acceleration of green start-ups.
A multidisciplinary group of stakeholders share their vision

Cyprus RIS partners organized a two day ‘sandpit’ workshop on the 12th and 13th December 2016, where up to 25 participants of diverse background came together to seek an answer to the question ‘How can we ensure sustainable transport/mobility in the wider united Nicosia region by 2030?’.

The primary aim of the workshop was to engage key stakeholders in a process of identifying the existing urban transport challenges in Nicosia, shaping the desired future state of transport and mobility in a united Nicosia, and developing broad plans to overcome potential barriers. The workshop was addressed to citizens from all communities in Cyprus and to key stakeholders from the quadruple helix (academia, business, government, civil society).

A multidisciplinary group was formed with 25 key stakeholders from ministries, universities, NGOs, businesses, local authorities, politicians and citizens who many of them were involved previously with actual transport decisions and planning in Nicosia region, and shared their experience with other participants (see attendees list at the end of the document). The participants firstly identified and then grouped into clusters the transport/mobility challenges in Nicosia.

Each participant proposed recommendations to overcome these challenges. Then, multidisciplinary working groups were formed, in order to work on the proposed recommendations and generate ideas to overcome the identified challenges. The participants developed their policy recommendations, addressing the challenges for the Nicosia transport system to become sustainable by 2030 and beyond.
Our vision is...

The transition of Nicosia by 2030 to a unified, smart, vibrant city, where all citizens will have access to reliable, safe and sustainable transport means.

Our goal is...

To reduce $CO_2$ emissions by 40% from the transport sector by 2030, compared to 2017 levels

Specific goals...

- To reduce the need of mobility, by ensuring that available services and products are within walking or nearby distance from all citizens.

- To give priority and space to alternative transport means (bus, bicycle, walking), which should be more attractive to citizens.

- To reduce the use of private cars, by introducing stricter fees and redesigning the streets and areas that cars have access.

- To transform the city into a smart city, by introducing intelligent transportation systems.

- To encourage the use of environmental friendly private and public cars, which use cleaner or zero-carbon technologies.
**Policy recommendations**

1| Development of a shared sustainable transport vision and strategy

A strategic plan and vision for the transition of the unified wider Nicosia into a smart, sustainable region, in terms of transport and mobility needs to be developed. The success of developing and implementing this plan, relies at a great extent to the involvement of all stakeholders of the quadruple helix, from all communities of Cyprus from the beginning: government and local authorities, academic and research community, businesses and citizens.

Creating a shared vision and strategy means that opinions, concerns, ideas and recommendations of all stakeholders are taken into account. This increases the acceptance and ownership of the strategic plan and the proposed concrete actions, and gives to the procedure a sense of bottom-up incorporation. The creation of a shared vision, requires a variety of resources, tools and methodologies such as surveys, meetings, focus groups, open dialogue with stakeholders, and development of online platforms to share thoughts and ideas.

2| Development of a communication strategy and implementation of an awareness campaign

A communication strategy and an awareness campaign are necessary to raise awareness among citizens, businesses, schools, authorities, universities and others on the benefits of clean, sustainable and smart transport solutions. The campaign should send the message that sustainable transport will contribute to the protection of the environment, the mitigation of climate change and the improvement of the quality of life in Nicosia. The more aware the end users are, the more likely it is to accept changes in the transport system of Nicosia and use the proposed alternative transport solutions.

3| Development of a smart mobility strategy plan for Nicosia City Centre

In the last decade, activity in the divided city centre of Nicosia has suffered, triggered by the world economic crisis of 2008. Unlike the non-pedestrianized outside the wall areas (Makariou and Stasikratous Avenue etc.), the pedestrianized areas of the old town have lately recovered as a recreation destination. However, there is poor bus connectivity within the city and a lack of transport culture from the citizens. To overcome these challenges, a strategy plan for the development of smart infrastructure for multiple means of transport needs to be designed for the unified Nicosia city centre. This way, the Nicosia city centre will be transformed into a smarter and more efficient city, it terms of mobility and public transport, and the environment in and around the walled city of Nicosia will be enhanced.
4| Design and implementation of policies for the creation of multimodal transit spaces

The transport system in Nicosia needs to be overhauled, by rebalancing the use of all modes, shifting a large proportion of car users to sustainable modes. This can be achieved by designing and implementing a policy that reallocates road space and establishes multimodal interchange points to facilitate the change of modes within a single trip.

This must be done by evaluating the transport demand patterns of the city, with a view to optimise each network. Each network needs to be planned in a holistic way, considering the unification of Nicosia, and determining the points of interconnectivity among them, which shall be designated as interchange locations.

Two categories of interchange locations shall be defined: Primary and secondary interchange locations. Primary interchange locations or multimodal stations shall be designated at strategically located points within the city. These shall be designed and implemented on the principle of transit-oriented development and shall accommodate various other uses such as shops, offices, apartments, medical centres, educational centres, open public spaces, and parking spaces.

Secondary interchange locations will be designed as luxury bus stops, accommodating cycling facilities and small park and ride areas.

5| Implementation of a public movement prediction plan

The aim of the public movement prediction plan is to analyse the urban space of a unified Nicosia and construct models that predict the patterns of movement (e.g. pedestrians, vehicular).

Spatial model of unified Nicosia showing the integration of every street, helping to predict public movement (pedestrians and cars). (Reference: Constantinos Kypris, Department of Architecture, University of Cyprus)

By analysing and studying the public movement needs, state and local authorities will have the necessary knowledge to better design public spaces, stations, roads, buildings etc. The development of this plan requires a variety of resources, such as the use of software, knowledge of space Syntax theory and methods and scientific prediction models/analysis.

The basic idea of people moving into Urban Space (Space Syntax Theory).
6| Encouragement of research on innovative and alternative ways of car usage

The main transport mode that citizens use in Cyprus is the private car, even for small distances. This results to daily traffic jams in the streets, continuous demand for more public and private parking spaces and degradation of the air quality of the city. There are also many issues about the reliability, speed and comfort of existing public transport means.

Alternative ways of car transportation, aiming at reducing car mileage and private car numbers, should be considered, and research should be encouraged to identify and examine the development of the best viable solutions in implementing innovative car transportation modes.

For example, the development of a strategy regarding the car-on-demand concept could be examined, where the public has access to a reliable service that provides point-to-point transportation, using small environmentally-friendly vehicles. Another smart transport system that could be studied is the autonomous, modular system: The idea is to provide a public transport service of vehicles/capsules for individual passengers. These will be autonomous vehicles positioned on the existing road infrastructure. The reduced size means that by taking up one lane on the road there is possibility to have as many as three passengers (capsules along each other) taking up the same space as one driver of a normal car.

7| Implementation of “Road Diet” techniques

The per capita use of cars in Cyprus is one of the highest in the world. As a result, the country suffers from congestion, poor air quality, high accident rates and accessibility issues. The situation is no longer sustainable and therefore a shift to more sustainable modes of transport is necessary.

To achieve that, a “Road Diet” technique could be implemented to create infrastructure that would accommodate more pedestrians and cyclists: Reduction and redesigning of road space, wider footways, tree planting and creation of space for public transport infrastructure.

8| Encouragement of local authorities to implement sustainable energy and climate action plans

Local authorities should be supported to take strategic and integrated actions for the adaptation to and mitigation of climate change. For example, local authorities of Nicosia should be encouraged to join the Covenant of Mayors and/or Smart Islands initiative, or to develop joint sustainable transport action plans with concrete actions, aiming at giving priority to smart, innovative transport and mobility solutions, that will transform them into smart, sustainable and resilient cities.
9| Policy for the integration of renewable energy sources into transport system

The design of a strategic plan to integrate renewable energy sources into the transport system of Nicosia, such as charging stations for electric bicycles or cars powered by renewable energy sources, could contribute to the reduction of the environmental footprint of transportation in Nicosia, promote efficient and cleaner modes of transport and healthy living in the city.

This strategy should be accompanied by the development of necessary infrastructure (e.g. charging stations, parking spaces) and provision for incentives to use e-bikes or e-vehicles. All key stakeholders must be involved in the development of the plan: Electricity Authority of Cyprus could allow e-bikes or e-vehicles to be paid through electricity bills and all public-sector deliveries (post, intra-department etc) could be carried out by e-bikes or e-vehicles charged by renewable energy.

10| Allocation of funds and development of financing tools to support and trigger investments on sustainable transport

As a first step, a database of available and most suitable financial schemes and resources (European and national) that could finance research, design and implementation of transport and mobility projects should be created and circulated to all key stakeholders. This database can serve as an easy reference for local authorities and government when it comes to the identification of available ways and schemes to finance transport projects and actions.

It is also important that the State recognises the importance of sustainable transport in the wider area of Nicosia and allocate funds and develop financing tools to trigger investments in sustainable transport projects.
The workshop was part of the Cyprus Regional Innovation Scheme (RIS) activities, which is supported by Climate-KIC.

The attendees to the workshop were:


The workshop was co-financed by:

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