Building resilient coastal cities in Mediterranean Area. The 15-minute city approach.

Dr. Irene Voukkali
Lecturer at Open University of Cyprus
Environmental Engineer
Faculty of Pure and Applied Science

I Voukkali, I Papamichael, P Loizia, M Stylianou, And AA Zorpas
Laboratory Of Chemical Engineering And Engineering Sustainability, Faculty Of Pure And Applied Sciences, Open University Of Cyprus, Giannou Kranitiodi 33, 2220, Latsia, Nicosia, Cyprus
Statistics

- International arrivals have increased from 900 million to more than 1.4 billion in the last ten years,
- Expected to exceed 2.7 billion by 2027,
- 50% of all European tourist visits occurred in coastal regions (Mediterranean Region),
- 9.6% of global GDP,
- 333 million jobs.
Environmental Impacts

- Energy Consumption
- Water Consumption
- Waste Production
- Biodiversity Loss
- Air Emissions
The need for change
SDG 1. Tourism provide Income through job creation

SDG 2. Tourism can enhance sustainable agriculture by promoting hotel production and supplies

SDG 3. Tourism tax revenue can be reinvested in health care and services

SDG 4. Tourism has the potential to promote diversity

SDG 5. Tourism could empower women by providing direct jobs and revenue generation

SDG 6. Tourism investment requirements for utility provision could be critical in achieving water access and security

SDG 7. As an industry, which is energy intensive, tourism could speed up the transition to increased shares of renewable energy

SDG 8. Tourism, as a service trade, is one of the world’s top four export earners.

SDG 9. Tourism development is dependent on adequate both public and private infrastructure.

SDG 10. If native communities and all key stakeholders are involved, tourism can serve as a powerful tool for community development and reducing inequalities.

SDG 11. Tourism can contribute to improving urban infrastructure and accessibility, promote regeneration, and preserve cultural and natural heritage.

SDG 12. The tourism sector needs to adopt sustainable consumption and production modes.

SDG 13. Tourism contributes to and is affected by climate change.

SDG 14. Healthy marine ecosystems are essential for coastal and maritime tourism.

SDG 15. Tourists tend to visit a destination due to its rich biodiversity and natural heritage.

SDG 16. Tourism is built on billions of encounters between people from various cultural backgrounds.

SDG 17. Due to its cross-sectoral nature tourism has the ability to strengthen private/public partnerships.
An increasingly common strategic planning tool,

Refers to the development of comprehensive neighborhoods in which people can walk or cycle to places of interest within fifteen to twenty minutes of their home,

Provides an excellent, straightforward, adaptable, and widely accepted view of urban living,

The idea is to create vibrant and liveable communities, boost economic growth, promote social cohesion and sustainable development, and improve citizens' health and well-being.
Public schools, green spaces, libraries, super markets, department stores, employment locations, basic healthcare, and entertainment areas are just a few of the services available within a 15-20 minute
Barcelona: the “Superblock approach”

Modify roadways within 400 square meter blocks to increase the accessibility and quality of public space for leisure activities, as well as for pedestrian and bikes.

Bogotá: the “Vital neighborhoods”

It combines a network of green corridors with pedestrian and bike priority roadways, as well as traffic limitations, tactical city planning interventions, and other strategies to promote people-centered mobility and vibrant streets.

Milan

Streetscapes are being improved through open spaces and roadways programs, a sustainable urban mobility strategy, and the implementation of a 30 km/h city speed restriction (down from 50 km/h) on 60% of the transportation network.

Paris

Is transforming the city into a network of neighborhoods where residents can find all they need within a 15-minute walk or ride from their homes.

Portland: the “Complete neighbourhoods”

80% of inhabitants should be able to walk or bike to all of their fundamental daily, non-work needs, with adequate pedestrian or bicycle access to transport.

Buenos Aires: the “Human-scale city”

Bringing green spaces, local food markets, health facilities, recycling sites, and other facilities to each community, as well as enhancing walking and cycling infrastructure, particularly by establishing one of the world’s largest car-free zones.
15-minute city concept in a Coastal tourist destination

4 KEY CHARACTERISTICS:

Proximity: Destinations must be close to each other.

Diversity: Provision of a wide variety of urban amenities close to one another’s vicinity.

Density: There must be enough people to support a diversity of businesses in a compact area.

Ubiquity: The city should be affordable for anyone who wants to reside in it / visit.
15-minute city concept in a Coastal tourist destination

**BENEFITS:**

**Greater accessibility:** enhancing accessibility towards living, healthcare, and entertainment,

**Reduce vehicle dependency:** By bringing neighbourhoods closer, the approach aims to reduce car dependency. This also helps promote physical activity (walking and cycling),

**Improve air quality:** Less transport means reduced carbon emissions

**Better health and well-being:** There are numerous physical and mental health benefits of active travel, cleaner air, easy access to healthy food options, and quality green space.
15-minute city concept in a Coastal tourist destination

LIMITATIONS:

**Difficulty in implementation:** This is because the land-use patterns and infrastructure of established urban areas are already in place,

**Financing:** Funding for the switch to 15-minute neighbourhoods can be a considerable amount in the infrastructural budget, especially if they are to be built from scratch.
15-minute city concept in a Coastal tourist destination

A new approach for urban planning

Successful examples

Contribution to SDGs

Benefits and Limitations
THANK YOU

VOUKKALI IRENE

irene.voukkali1@ouc.ac.cy