

9th International Scientific Conference

**SUSTAINABLE GROWTH IN
SMALL OPEN ECONOMIES**

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and

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**GREEN ECONOMY AND VULNERABILITY OF ECONOMIC GROWTH:
ECONOMIC PILLAR**

**Investments in Sustainable Transport as a Green Economy Driver
- Case Study Boka Bay**

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SUSTAINABLE GROWTH IN SMALL OPEN
ECONOMIES

SDGs related with investments in sustainable transport



- **Goal 3 – To ensure healthy lives and promote well-being for all at all ages**
by encouraging walking



- **Goal 7 – To ensure access to affordable, reliable, sustainable and modern energy for all**
by encouraging new forms of transport



- **Goal 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**
by infrastructure investments



- **Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable**
by promoting better planning of development to encourage use of non motorised transport in local neighbourhoods.



- **Goal 13 - Take urgent action to combat climate change and its impacts**
by reducing reliance of motorised transport and carbon emissions



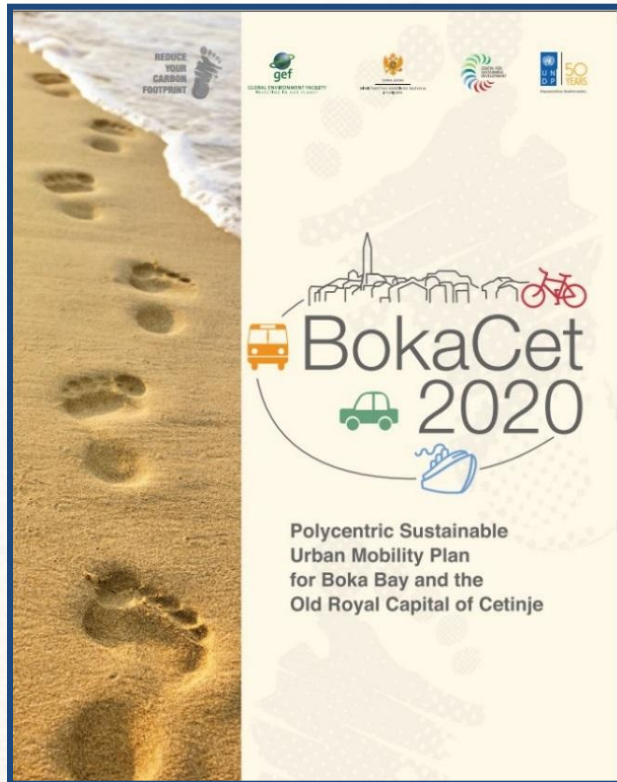
Sustainable measures defined by PolySUMP BokaCet 2020



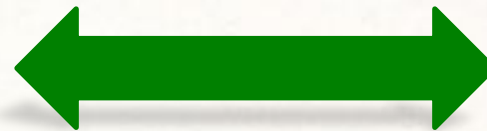
Boka Bay



Skadar Lake



Memorandum of Understanding for the implementation of SUMP measures



Smart infrastructure and equipment for monitoring of air pollution, economic aspects



- Ensures the **accessibility of jobs and services to all**;
- Improves safety and security;
- Reduces pollution, greenhouse gas emissions and **energy consumption**;
- Increases the efficiency and **cost-effectiveness of the transportation of persons and goods**;
- Enhances the **attractiveness and quality of the urban environment**.

PolySUMP measures for driving Green Economy

Proposed action/measure			Significance	Value (eur)
General measures	1	Development of new traffic studies and transportation models and/or updating of existing	R/L	Study H. Novi: around 100,000; Study Kotor: around 60,000; Study Tivat: around 45,000; Study Cetinje: around 65,000; Study Region: around 160,000;
	2	Educational programmes and promoting campaigns	N/R/L	Around 250,000 in planning period
Promotion of Public Transport and Introduction of new Public Transport Services	3	Development of an integrated public transport system in Boka Bay and Cetinje	R/L	Studies: 30,000-50,000; Projects: 15,000-25,000
	4	Provision of Passenger Information System (at bus stops, parking areas etc.)	R/L	Projects: around 8,000; Implementation: 10,000-20,000
	5	Provision of the public maritime passenger transport line for the bay: 3 regional lines that connect Herceg Novi, Kotor and Tivat as well as local lines within the each municipality	R/L	Projects: around 15,000; Boats and equipment cca 3,000,000
	6	Construction of parking spaces near bus stations and introduction of "Park and Ride" system	L	Development of the study: 30,000-50,000 Project development: 15,000-25,000
	7	Development of lake waterway public transport on Skadar Lake	L	Implementation: 2,500,000
Promoting non-motorized transport modes (cycling, walking)	8	Development of bicycle lanes	R/L	Projects around 10,000
	9	Promotion of the bike tourism - the realization Eurovelo Route 8	N/R/L	Study development: around 40,000 Implementation of project: around 100,000
	10	Development of pedestrian zones and construction of Promenade Lungo Mare	L	Lungo mare , Tivat: 180,000, Kotor: 185,000, H. Novi: 200,000, Underpass Kotor: - around 1,000,000
	11	Development of bike sharing	L	Location and research study: 5000-10,000 (per town); Implementation 100,000 - 120,000 (per each town)
Promoting a shift to new technologies and cleaner fuels and energy efficient use of fuels	12	Development of mountain bike networks and development of mountain bike centres (bed and bike)	N/R/L	Development of study around 10,000; Development of project for equipping: around 15,000; Construction of facilities: For facilities up to 200 m2 around 255,000 per property without equipping/furnishing
	13	Renewal of the bus fleet and the introduction of energy efficient vehicles	R/L	Development of the study: around 30,000
	14	Energy-efficient solutions for freight transport (electric vehicles etc.)	L	Development of the studies: around 8,000-15,000 (per town)
	15	The introduction of energy-efficient vessels for the ferry Kamenari-Lepetane as well as for the local maritime public transport lines	N/R/L	Development of the study: around 30,000
Construction of new and reconstruction of the existing transport infrastructure	16	Construction of the cable car Kotor-Cetinje	R/L	Implementation: around 46,300,000
	17	Modernization of technical and exploitation characteristics of the existing transport infrastructure	N/L	Depending on the investment will be defined
	18	Construction of the Adriatic-Ionian highway / construction of fast coastal road	N	Construction: around 1,000,000,000
	19	Construction of the road Cetinje -Nikšić	N	The main design and feasibility study: N/A
	20	Construction of bypass Tivat	L	The main design and feasibility study: around 200,000; Construction: around 5,500,000
	21	Construction of bypass Kotor	L	Construction: around 30,000,000 Project development: Around 40,000
	22	Construction of 39 km of local roads in Herceg Novi	L	Construction: Around 20,000,000
	23	Reconstruction of the road Kotor - Njeguši - Cetinje	N	Project development: around 15,000,000
24	Reconstruction of the old Austro-Hungarian road / Revival of cultural monuments in the hinterland	N/L	Development of the study: around 30,000 Project development: around 10,000	

52 L - local; R - regional; N - national, 1 - highest priority; 2 - medium priority; 3 - low priority

Sustainable measures defined by PolySUMP



“Transport is essential to economic growth and welfare as well as to the quality of life in urban areas, in terms of fostering social cohesion, addressing health problems and adapting to demographic developments.”



PolySUMP measures for driving Green Economy

Sustainable measures defined by PolySUMP

Sustainable Tourism

Bike and Train

One of the many benefits of cycle tourism is that it typically has very little impact on the environment. What impact it does have can be reduced even further if you travel to and from your cycle trip by public transport.

Taking your bike to your destination by train is the ideal combination for environmentally friendly mobility in both short-and long-distance traffic. Most locations in Europe are accessible by train and by booking in advance you may be able to find some cheaper fares. Many trains are now equipped with special bicycle areas but not all, so it is best to check with the rail operator before your journey. See also if you need to make reservation.

Some of the best websites for planning a train journey with your bike are:
 Deutsche Bahn: www.bahn.de
 Schweizer Bundesbahn: www.sbb.de
 Société nationale des chemins de fer français (SNCF): www.sncf.com

Route	8 EuroVelo 8 Mediterranean Route
Length	5,888 km 3,659 miles
Start/End point	Cádiz, Spain
End/End point	Cyprus
Countries passed through	Spain, France, Monaco, Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania, Greece, Cyprus

Sparkling emerald seas, kilometres of golden sand, mysterious islands, wonderful food, ancient cities ... it's not hard to find convincing reasons to travel along the Mediterranean! And what better way to do it than by bike along the **Mediterranean Route**?

Highlights:

- Admire the Alhambra, the remarkable Moorish palace and fortress complex in Granada, Spain.
- Dance late into the night in vibrant Barcelona (Spain) before exploring some of Gaudí's mind-blowing architecture.
- Hang out with the stars in France's film capital, Cannes.
- Join a masked ball in romantic Venice and check out some of the city's many galleries - it has the most artistic masterpieces per square km in the world.
- Cruise along Croatia's Adriatic Sea coastline where you'll be spoiled by transparent blue water, hundreds of islands and fish that tickle your feet!
- Kick back and relax on beautiful pristine beaches along the Ionian Coast in Albania and eat some delicious seafood in its charming towns and cities, such as Saranda and Vlorë.
- Enjoy beautiful sunsets from the Greek coast as you make your way to Europe's oldest city - Athens.
- Retreat to cooler climes in the Troodos Mountains of Cyprus and visit some of the painted churches and Byzantine monasteries.



EUROVELO 8 route passing through Boka Bay and Skadar Lake

The replacing a car with a bicycle would **save € 2,853** per inhabitant each year

Key facts about existing transport sector

- In 2012, transport was the largest **energy consuming sector** in **40 %** of countries worldwide
- Energy related **CO₂ emissions** are expected to grow by **40 %** between 2013 and 2040
- **Driving costs** can increase by an average of **50 %** in cases where congestion is serious
- The fuel consumption rises by **an average of 80 %** during periods of urban congestion
- The sector already contributes **23 % of global energy-related** greenhouse gas emissions and **18 %** of all man-made emissions in the **global economy**
- Physical inactivity is estimated to be responsible for more than 3 million deaths and **\$ 50 billion in economic losses**
- The average car driver in Belgium **lost 51 hours** in traffic jams in 2014, while **the time lost in congestion amounts to 96 hours** for the average car-driver in London

Further steps and recommendations

Theme	Measure	Strength of economic benefit
Clean vehicles and fuels	Electric Battery and Fuel Cell Vehicles	+
	Cleaner Vehicles	+++
Urban freight	Urban freight	+++
Demand management strategies	Access restrictions	+++
	Road space reallocation	++
	Environmental zones	++
	Congestion charges	++
	Parking	+++
Mobility management	Site-based travel plans	++
	Personalized travel planning	++
	Marketing and rewarding	+
Collective passenger transport	Public transport enhancements	+++
	New public transport systems	++++
	Integration of modes	+
Transport Telematics	e-ticketing	++
	Traffic management	+++
	Travel information	+
Less car dependent mobility options	New models of car use	++
	Walking	++
	Cycling	+++
	Bike sharing	+
	Inclusive urban design	++

Key:	++++ more substantial economic benefits	+++ stronger economic benefits	++ economic benefits clearly seen	+ some economic benefits identified
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What is often missing?

- **STRONG POLITICAL COMMITMENTS**
- **ECONOMIC EVALUATION OF THE PROJECTS**
- **MANAGEMENT SYSTEM and MONITORING**



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Thank you for your attention!

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