



## INTEGRATED MOBILITY SOLUTIONS FOR HEL PENINSULA

Puck district, Poland

June 2022

Gdańsk, Gdynia and Sopot Metropolitan Area







Obszar Metropolitalny Gdańsk Gdynia Sopot

#### URBACT RiConnect Integrated Action Plan

## Brief

#### **Reaching the Hel Peninsula**

Mobility plan for Hel Peninsula

June 2022

The aim of the RiConnect project implemented by OMGGS is to propose solutions that will improve public transport and support the mobility of metropolitan residents. As part of the project, a mobility plan for the Hel Peninsula is being developed. We want to find the best alternatives to car transport, use the already existing resources and develop them in such a way that reaching the Hel Peninsula and travelling around it is friendly to residents, tourists and the environment.

The Local Working Group is working on the plan, which consists of: representatives of local government representatives, among others from the poviats of Puck, Puck, Władysławowo, Hel, Jastarnia and representatives of the Pomeranian Regional Planning Office and InnoBaltica. Representatives of tourist organisations have also been invited to cooperate, and in the next stages we will want to involve road managers, public transport managers and operators, representatives of local business and, above all, residents.





#### On the network

RiConnect is a network of eight metropolises whose purpose is to rethink, transform and integrate mobility infrastructures in order to reconnect people, neighbourhoods, cities and natural spaces.

We will develop planning strategies, processes, instruments and partnerships to foster public transport and active mobility, reduce externalities and social segregation and unlock opportunities for urban regeneration.

Our long-term vision is a more sustainable, equitable and attractive metropolis for everyone. It is an URBACT project and is co-financed by the European Regional Development Fund.

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#### 1.1

# Relevance of RiConnect to the organization

#### BACKGROUND

RiConnect is an Action Planning Network of 8 metropolises which aim is to rethink, transform and integrate mobility infrastructures in order to reconnect people, neighbourhoods, cities and natural spaces.

We will develop planning strategies, processes, instruments and partnerships to foster public transport and active mobility, reduce externalities and social segregation and unlock opportunities for urban regeneration.

Our long-term vision is a more sustainable, equitable and attractive metropolis for all.

#### 1.2

#### Focus of the IAP

Hel Peninsula is a 35-km-long sand bar peninsula in northern Poland separating the Bay of Puck from the open Baltic Sea. It is located in Puck County of the Pomeranian Voivodeship.

The width of the peninsula varies from approximately 300 m near Jurata, through 100 m in the most narrow part to over 3 km at the tip. Since the peninsula was formed entirely of sand, it is frequently turned into an island by winter storms. Until the 17th century the peninsula was a chain of islands that formed a strip of land only during the summer.

The aim of the RiConnect project implemented by OMGGS is to propose solutions that will improve public transport and support the mobility of metropolitan residents.

As part of the project, a mobility plan for the Hel Peninsula is being developed. We want to find the best alternatives to car transport, use the already existing resources and develop them in such a way that reaching the Hel Peninsula and travelling around it is friendly to residents, tourists and the environment.



Image 1: Study area Source: OMGGS

1.3

#### City context

#### DEMOGRAPHIC/SOCIAL/ECONOMIC/ECOLOGICAL/MOBILITY

The area of analysis covers five communes located in the Puck district, i.e. the cities of Hel and Puck, and the communes of Jastarnia, Puck and Władysławowo. The entire analysed area covers over 310.5 km2 surface. The largest of the analysed territorial division units in terms of area is the rural commune of Puck, the area of which (237 km2) accounts for 76.3% of the entire analysis area. The smallest of the five discussed municipalities is Jastarnia (4.8 km2) and the city of Puck (7.8 km2). The analysed communes are located on the Baltic Sea and the Bay of Puck. The length of the coastline of all municipalities is approximately 111 km, including just over 50 km of the coastline of the Baltic Sea and about 60 km of the bay. In the east, the area borders on the Krokowa commune, in the south-east and on in the south with the rural commune of Wejherowo, with Rumia, Reda and Kosakowo. Further south is already the city of Gdynia, Sopot and Gdańsk - the core of the metropolitan area.

The above conditions are an important factor determining the need for appropriate solutions in the field of transport services and many barriers and limitations in this area. There are around 7800 inhabitants living in the peninsula (off season).



#### 2.1

#### Stakeholder mapping

#### ABOUT THE GROUP

The main objective of our ULG is to bring around the table the different interests at stake and different perspectives to frame problems and agree policy priorities, and design concrete solutions so as to address these problems in the most efficient way. We expect our ULG to work on an action plan that will be the most important element of the mobility plan. The goal is to develop a cooperation model that will also function after the end of the project.

ULG consists of representatives from different groups of stakeholders, strongly involved in the development of the IAP Area. The core group is composed of representatives of the local government of the project area. Moreover, the ULG includes representatives of the Pomeranian Regional Planning Office, transport experts, transport operators (public: bus and railway and private: mainly water transport operators). We also engage residents and representatives of local business (especially hotel business) in the work on the document.



Image 2: Stakeholder scheme Source: OMGGS

### 2.2

### Organization of ULG

#### **MEMBERS**

Members of the ULG Group

- Pomeranian Regional Planning Office
- Representatives of the municipalities authorities and administrative staff (Władysławowo, Jastarnia, Hel, Puck, puck poviat, Puck commune)
- Sustainable urban mobility exerts
- InnoBaltica a company implementing innovative communication solutions
- Inhabitants and local businesses representative (we involve them at some points of the process)
- Transport infrastructure authorities
- Public transport providers and operators
- NGO's

#### Organization scheme

*Table 1: Stakeholders* Source: OMGGS

Stakeholder	Stakeholder short name	Interest	Power
Mayor of the city of Hel - Mirosław Wądołowski	1A	2	6
Mayor of the city of Jastarnia – Tyberiusz Narkowicz	1B	6	6
Mayor of the city of Władysławowo – Kamil Pach	1C	6	6
Mayor of the city of Puck – Hanna Pruchniewska	1D	4	6
Mayor of the Puck Commune – Piotr Neubaer	1E	4	6
The starost of the Puck Poviat – Jarosław Białk	1F	4	6
PBPR Barbara Birr	2	6	5
Local government employees of the city of Hel	3A	2	3
Local government employees of the city of Jastarnia	3B	6	3
Local government employees of the city of Władysławowo	3C	6	3
Local government employees of the city of Puck	3D	4	3
Local government employees of the Puck Commune	3E	4	3
Local government employees of the Puck Poviat	3F	4	3
Media (Wyborcza press) Michał Jamroż	4	6	5
Innobaltica Paweł Rydzyński	5	3	2
Tourist organisations	6	1	5
РКР	7	0	6
PKS	8	2	6
NGO's	9	1	4
The inhabitants	10	5	5
Tourists	11	1	4



## 3.1 Definition of IAP area

#### THE IAP SITE

The Hel Peninsula is located within the Gdańsk Gdynia Sopot metropolitan area, in the Puck poviat. The Metropolitan Area Gdansk-Gdynia-Sopot (formerly: Gdansk Metropolitan Area) is an association of 59 communes, cities and counties with over 1.6 million inhabitants.



Image 3: Study area Source: OMGGS The most important goal of OMGGS is to take actions that improve the comfort and quality of life of the inhabitants. We want our metropolis to develop economically and socially and to be able to compete with other metropolitan areas in the country and in the world. We operate in areas such as: public transport, labour market and activation of residents, social economy, integration of migrants, culture and health promotion, development of local enterprises, environmental protection, spatial planning and promotion.

## 3.2

#### Diagnostic of planning area

#### ADMINISTRATIVE DIVISION

The area of analysis, spanning across the area of 344,4 km<sup>2</sup>, includes six municipalities (gminas): Jastarnia, Puck, Władysławowo, Towns of Hel, Puck and Reda. Among them, Gmina Puck is the biggest administrative division, covering 237 km<sup>2</sup>, which accounts for 68,95% of total area. On the other side of the scale is Gmina Jastarnia (7,83 km<sup>2</sup>) and the Town of Puck (4,78 km<sup>2</sup>). They are all coastal units, located either by the Baltic Sea or Bay of Puck. Their total shoreline length sums to around 111 km of which 50 km is the seashore and 60 km the shoreline of the bay. The area of influence borders Gmina Krokowa to the east, with Gmina and Town of Wejherowo, Rumia and Kosakowo to the south and south-east. Further down the south, the area indirectly links to the core of the metropolitan area which are Gdynia, Sopot and Gdańsk.

Gminas	Area (km²)	%
Reda	33,45	9,72
Puck (City)	4,78	1,39
Hel	21,7	6,3
Jastarnia	7,83	2,27
Puck Gmina	237,46	68,95
Władysławowo	39,18	11,37
TOTAL	344,43	100

Table 2: Areas and total percentages of the region Source: OMGGS

#### POPULATION

In order to plan, create and run an efficient infrastructure system which is able to sustain regional functionality, precise data regarding its inhabitants and visitors is needed. Due to the fact that the region is very specific, differences between seasons as well as between daytime and nighttime population may heavily impact the system (transport, power, water and sewage) and potentially overload it. Unfortunately the official demographic database is incomplete. It does not include local population mobility data such as daily commute and seasonal visitors (including owners of holiday homes), and focuses mainly on residence register data.

The isolation and to a certain degree remoteness of the area, results in the outflow of the working age population. This situation is directly linked to low transport accessibility which leads to low net migration rate. The highest emigration levels were noted in Hel and Jastarnia. a relatively small town, a suburbanisation process is present. Close proximity of rural areas makes them attractive and cheaper alternatives for settling than Puck Town itself. Inhabitants of the suburbs can still use the town's services and infrastructure as well as work there, and at the same time live on the outskirts.

The highest population growth (28% between 2010 and 2020) was in the Town of Reda. The reason behind this was the dynamic development of the metropolitan core including the improvement of the transportation system along SKM railway as well as construction of the S6 expressway which further increased available transfer options to Gdańsk, Gdynia and Sopot.

According to the Prognosis for Pomorskie Voivodeship 2030 population of the area will grow from 60.4k to 90.6k in 2030. This increase will be caused partly by the development of Gmina Puck. Its population is predicted to grow from 25.7k in 2016 to 30.5k in 2030 (at a total rate of 18%). Władysławowo is also said to increase the number of its inhabitants, however that growth will be pretty minimal, at around 2%. The other 3 municipalities (gminas) will decrease in their population. Town of Puck and Jastarnia at a rate of 6-7%. However, the biggest fall in population will affect the Town of Hel. The decrease is predicted to reach 700 people, from 3.2k to 2.5k. Again, the reason for it is its ageing population as well as job migration, due to the limited tourism-focused work market.



Image 4: Population density and changes in population Source: OMGGS

Gminas	2010	2015	2020	Change '10-'20
Reda	20653	24029	26535	28,48%
Puck (City)	11290	11329	11238	-0,47%
Hel	3750	3531	3240	-13,60%
Jastarnia	3921	3824	3684	-6,05%
Puck Gmina	23547	25443	26899	14,24%
Władysławowo	15104	15467	15332	1,53%

Table 3: Population changes in municipalities (gminas) between 2010 and 2020. Source: OMGGS

> Despite mostly grim demographic predictions, it may be concluded that around the Hel Peninsula area, besides tourist traffic there will be other visitors present such as those already mentioned, which are the owners of second homes/holiday homes. However they will not be included in the overall official demographic statistic database.

#### LAND USE

Forests cover almost 37.6 % of the area of interest shown on the map. They mostly stretch across western and northern parts of the area. However the evergreen forests (coniferous) are also heavily present on the Hel Peninsula, reaching over 50% of its total area. During the first half of the 20th century, those woods were planted there on dunes, in order to strengthen the seashores as well as to camouflage military facilities located at the tip of said cape.

Arable lands lie roughly in the centre of the area, covering around 34% of its territory. Whereas in the study area they are situated only around Władysławowo, and also they do not exceed 4 km2 which is not more than 10% of its area.

Pastures and meadows are located on wetlands and peat bogs around the mouth of Reda River which debouches into the Puck Bay, in the south of the defined zone of influence. They also stretch along the swamps of the northern coast as well as longitudinally following the valley of Czarna Woda to the south.

Built-up areas are concentrated mainly along the Regional (voivodeship) road No. 216, stretching from Reda in the south, surrounding Puck all the way to up Władysławowo, and then heading in the eastern direction through Hel Peninsula. Their share of the total land cover varies from almost 7% for the area of influence to over 10.5% for the area of study. The main urban centres of the study area are Władysławowo and Hel smaller towns on the peninsula are: Jurata, Chałupy and Jastarnia with a seaport.

Undoubtedly the most precious and distinctive elements of the coast are beaches and dunes. In the area of influence, their share in the total area barely exceeds 1%. Apart from the sandy coast, in the area of influence, there is a unique cliff coast in Jastrzębia Góra, where the beach is narrowed only to a few metres. Beaches and dunes cover more than 10% of the study area.

Land use	Study Area [km2]	%	Area of Influen- ce [km2]	%
Residential Area	2,806	6,572	17,252	5,009
Industrial and Commercial Area	1,787	4,185	6,303	1,830
Agriculture Area	4,079	9,552	119,451	34,681
Pastures	6,196	14,509	61,341	17,809
Forests	21,687	50,788	129,453	37,585
Lakes and Rivers	0,008	0,018	1,239	0,360
Beaches and Dunes	4,333	10,146	3,784	1,099
Barren	0,504	1,181	3,371	0,979
Transport	1,302	3,049	2,232	0,648
SUM	42,700	100%	344,427	100%

Table 4: Percentage of land use in study area and zone of influence. They both run along the Puck Bay and the open sea. Also a minor share of total area, display the inland dunes located at the end of the peninsula near the town of Hel.



Image 5: Land use Source: OMGGS



#### 4. Site Analysis

#### 4.1

# Natural environment and flood hazard

The Hel peninsula was formed sometime between 6000 to 8000 years ago. It is the result of constant erosion, transportation and accumulation processes powered by the sea in the form of currents and waves as well as predominantly western winds. Glacial sediments located to the west of the spit were redeposited eastwards, creating a long sandbank gradually emerging above the water level, subsequently being also transformed into dunes and beaches. Coastal sea current, after reaching the depth at the tip of the cape, diverges into two branches. First, runs to the east along the Vistula Spit, the second one heads towards the western part of Gdańsk Bay. Consequently, in time the peninsula became the widest at its end, around the town of Hel.

During the interwar period, building the harbor in Władysławowo successfully interrupted the flow of sediments along the peninsula. As a result, the sand began to accumulate on the western side of the port which further increased the erosion of the spit. Therefore, in order to stop that process, alongside the beach replenishment, there were groynes and seawalls provided.

The whole area of interest is at high risk of flooding, given the fact that severe storms were and still are present today. There are many historical records, backing the intensity of this recurring phenomenon. There is one from 1899 saying that during the hurricane the sea water overflowed the peninsula in 4 spots, of which the widest one measured more than 400 meters.

The area is also known for great wind conditions which serve local wind farms as well as sports tourism. The wind power plant currently produces electricity using 27 turbines located in Gmina Puck. They do however create controversies concerning their environmental impact, landscape impact and disturbing natural habitats.



Image 6: Flood hazards Source: OMGGS Sports tourism without the doubt makes the area flourish. Shallow waters of Puck Bay paired with excellent wind conditions established a regional trademark bringing lots of kite and windsurfers as well as regular sunbathers from all around the country each year. On the peninsula itself there are countless surfing schools and campsites providing services for the water sports enthusiasts.

The south western part of the area is rich in groundwater sources. However on the Hel Peninsula, they are severely vulnerable to salinization and degradation due to very limited aquifer recharge ability only with rain waters.

The Hel Peninsula has a typical oceanic climate. Winters there are milder and summers are far cooler than inland with July being the warmest month of the year. The autumn on average is long and pretty warm. Highest sea temperatures around the spit mostly appear in August. The average water temperatures around Hel in 1951-1985 reached 15.9°C. In the shallow waters of Puck Bay the temperature can easily exceed 20°C.

### 4.2

#### Nature protection

There are countless natural areas around the region which are included in the National Protected Areas system. The system covers 15719,27 ha which is 45,63% of total area, and is build with the following elements:

a) 7 Nature Reserves: Beka - (Puck gm.), Darżlubskie Buki (Puck gm.), Bielawa (Puck gm., Władysławowo), Słone Łąki (Władysławowo), Dolina Chłapowska (Władysławowo), Helskie Wydmy (Hel), Przylądek Rozewie (Hel) – 545,46 ha total area(1,58%).

b) 2 Landscape Parks: Nadmorski Park Krajobrazowy (covering gminas: Władysławowo, Jastarnia, Hel, Puck and Puck Bay) – 4617,23 ha total area (13,41%), and Tricity Landscape Park (City of Reda) 64,4 ha total (0,19%)

c) 2 Protected Landscape Areas: Nadmorski OChK (Puck gm., Władysławowo) i OChK Puszczy Darżlubskiej (Puck gm.) – 10492,18 ha total which is 30,46%,

d) more 6 Natura 2000 areas which are:

- 3 Special Areas of Conservation (Habitats Directive) - 5024,04 ha total, 14,58%:

- Bielawa i Bory Bażynowe (PLH220063)-(Puck, Władysławowo),
- Zatoka Pucka i Półwysep Helski kod (PLH220032),
- Kaszubskie Klify (PLH22007) (Władysławowo)

- 3 Special Protection Areas (Birds Directive) - 5873,49 ha total, which is 17,05%:

- Puszcza Darżlubska (PLB220007) (Puck)
- Bielawskie Błota kod PLB220010 (Puck, Władysławowo)
- Zatoka Pucka kod PLB220005 (Hel, Jastarnia, Puck, Władysławowo)

The Natura 2000 network greatly overlaps with the national system of protected areas for example with Nadmorski Landscape Park and two Protected Landscape Areas and most of the Nature Reserves.



Image 7: Nature protection Source: OMGGS

#### 4.3

# Hel Peninsula transportation system

#### ROAD SYSTEM

The most fundamental elements of Hel's route network consists of two regional (voivodeship) roads. First, road No. 216 which is the backbone of the whole local system, begins in Reda and runs through Puck and Władysławowo, reaching Hel after 56,7km. It is the main link between Puck County (Powiat) and Tricity. The second one, road No. 215, plays a crucial role especially during summer as it distributes holiday traffic westward, along the coast towards Karwia, deriving out of the link with road No. 216 in Władysławowo.

Considering the fact that both roads act as the accessways for holiday resorts, lodgings and beaches, traffic congestion levels during summer time worsen significantly. The highest peaks are usually reached daily in the second half of June, July and August (particularly during weekends) as well as in September and the first half of October.

In addition, the other important routes that need to be mentioned are the national road No. 6 and S6, which together create the Tricity ring road. The belt is the main artery of the region, due to the fact that it combines and streams all the traffic from A1 highway and S7 expressway towards the north.

#### RAILWAY SYSTEM

Northern part of the region in general lacks a well developed railway system, which is why the entire local rail transport operates on one single non-electrified track of the No. 213 line. The 213 line links Reda with Hel at a total distance of 62 kilometres. Along its length, there are seven train stations and seven passenger stops. The railway serves for passenger transportation as well as cargo, that is why in order to improve its capacity and operation fluency on the peninsula, there are four passing loops provided at Władysławowo, Kuźnica, Jastarnia and Hel stations. However, due to the maximum capacity being reached at around seventeen pairs of trains, the system gets bottlenecked, resulting in the average waiting time at passing loops extending even to forty minutes. Therefore, rail transport becomes an unfavourable travel option for passengers, particularly during high season.

Unfortunately, the Hel railway line also acts as an physical obstacle, especially for those wanting to reach the beaches. The reason being is that the pedestrian crossings are not situated along the main pathways leading to the sea, but around urban areas. This often forces dangerous behaviours such as trespassing.

As the railway network does not include northern coastal towns, there are five bus lines provided to Jastrzębia Góra from Władysławowo train station, and two from Gdynia to Jastrzębia Góra.



Image 8: Road infrastructure

#### MARITIME TRANSPORT AND INFRASTRUCTURE

Small ports and harbours which are located along the Hel Peninsula and the Coast of Gdańsk, play an important role especially in maritime tourism and at the same time provide facilities for the local fishing industry.

There are four small seaports in Hel, Jastarnia, Puck and Władysławowo which serve mainly as fishing ports, and eleven harbours: Chałupy I, Chałupy II, Chłapowo, Jastarnia I, Jastarnia II, Jastarnia III, Karwia, Kuźnica I, Kuźnica II, Osłonino, Swarzewo.

Additionally, during summer season, Żegluga Gdańska provides several ferry lines which link: Gdańsk and Hel, Gdynia and Hel, Sopot and Hel as well as Gdynia and Jastarnia. Ferries as a public mean of transport may become popular and favourable, provided that tickets are reasonably priced.

#### PUBLIC TRANSPORT

Northern part of the region in general lacks a well developed railway system, which is why the entire local rail transport operates on one single non-electrified track of the No. 213 line. The 213 line links Reda with Hel at a total distance of 62 kilometres. Along its length, there are seven train stations and seven passenger stops. The railway serves for passenger transportation as well as cargo, that is why in order to improve its capacity and operation fluency on the peninsula, there are four passing loops provided at Władysławowo, Kuźnica, Jastarnia and Hel stations.

As the railway network does not include northern coastal towns, there are five bus lines provided to Jastrzębia Góra from Władysławowo train station, and two from Gdynia to Jastrzębia Góra.

There are also two bus lines available, running from Gdynia to Jastrzębia Góra, which provide direct and easy access from Tricity to coastal towns and villages. The other lines connect: Puck - Łebcz - Strzelno - Jastrzębia Góra (- Karwia), Hel - Władysławowo - Jastrzębia Góra - Karwia – Dębki - Białogóra - Sasino – Łeba, Hel - Jurata - Jastarnia - Władysławowo - Jastrzębia Góra – Karwia (- Krokowa – Dębki).

Puck Town has one city bus line, which is provided by PKS Gdynia. The line also has a bus stop at the railway station, allowing the passengers to transfer to trains. The bus line runs six days a week, Monday to Saturday. On workdays there are eleven bus runs, on Saturday five.

Reda also has a city bus service available. It is run by MZK Wejherowo with five bus lines. Four of them, reach Wejherowo railway station. The lines connect Reda Dworzec PKP – Wejherowo Szpital, Reda Pieleszewo – Rumia Dworzec PKP, Reda Dworzec PKP – Reda Cmentarz oraz Reda Rekowo Aleja Lipowa – Reda Dworzec PKP.

Fun Fact:

All of the line buses, which are provided by PKS Gdynia, are numbered with three digits, beginning with number 6. The lines In Puck county are numbered from 650 to 669. Therefore one of the lines is numbered 666, which connects Dębki and surprise, surprise Hel Town.



Image 9: Public transport lines Source: OMGGS



#### Urban Strategy

#### 5.1

#### Vision of the project

Our vision for Hel Peninsula is to have a friendly, safe space with a good transport system. Achieving this goal is primarily a reduction in the use of a passenger car in favour of sustainable forms of transport - first of all in the season, because that's when we deal with the biggest transport problems. We also want to ensure that the inhabitants of the peninsula can travel freely, also after the end of the tourist season.

It sets out a strong commitment to provide a transport system which: supports sustainable economic growth and the efficient and effective movement of people, improves the quality of life for all by being integrated, affordable and reliable – all that with the protection of our biggest good – the environment.

The Mobility Plan for Hel Peninsula will be based on the following principles:

- Plan for sustainable mobility in the "functional urban area"
- Cooperate across institutional boundaries
- Involve citizens and stakeholders
- Assess current and future performance
- Define a long-term vision and a clear implementation plan
- Develop all transport modes in an integrated manner
- Arrange for monitoring and evaluation
- Ensure quality

#### 5.2

#### Project goals

The main goal is *the reduction of car use for journeys to the Hel Peninsula*. This can be achieved through the implementation of smaller goals, which are:

- To improve the conditions of walking and cycling (what in effect should lead to the greater number of trips made on foot or by bike)
- To improve safety of all road users (what in effect should lead to the reduction in the number of accidents and road collisions)
- To improve the accessibility to means of transport, alternative to cars used individually, for all travellers in all areas of the peninsula
- To increase in public transport use in order to achieve this, one must strive to improve infrastructure and accessibility (which in effect should

lead to the increase of the quality of transport links with pedestrians and bicycles, reduction of car use etc.)

- The redaction of the negative impact of transport on people, health and environment (what should lead to the reduction of gas emissions, noise, the use of space for transport, the appropriation of public space by parking vehicles, etc.)
- Increase the quality and accessibility of public spaces for all users



Image 10: Specific goals Source: OMGGS 5.3

Logical framework

EMERGINGING TOPICS GOALS ACTIONS Public transport TO IMPROVE THE Action #1: Optimalization CONDITIONS OF WALKING of Public Transport AND CYCLING Sustainable modes of TO IMPROVE SAFETY OF Action #2: Sustainable ALL ROAD USERS modes of transport transport (walking, cycling, micromobility & mobility infrastructure) Individual car traffic TO IMPROVE Action #3: Safety ACCESSIBILITY TO MEANS improvement (protecting OF TRANSPORT the rights of all space users) Mobility management TO INCREASE IN PUBLIC Action #4: Water transport TRANSPORT USE improvement THE REDUCTION OF THE Action #5: Individual car Public spaces NEGATIVE IMPACT OF traffic on the local level TRANSPORT ON PEOPLE, (parking policy, traffic HEALTH AND management) ENVIRONMENT INCREASE THE QUALITY Other (formal and legal Action #6: Education and AND ACCESSIBILITY OF issues, infrastructure and promotion (both: for PUBLIC SPACES FOR ALL tourists and residents) investments, etc.) USERS

Image 11: Logical framework Source: OMGGS

### Action 1 Conferences, lectures and workshops

6.1

#### Description

Discussions on the expansion of the railway infrastructure, increasing the freguency of trains, creating a transfer junction to integrate various means of transport, expanding the passenger shipping offer - these and many other ideas for improving communication on the Hel Peninsula were proposed by the participants of the #odkorkujMYHEL workshop, which took place on Wednesday, October 6 in Jastarnia . Based on the conclusions drawn up during the workshops, a Mobility Plan for the Hel Peninsula will be developed.

#### AGENDA

10:00 Welcome to the meeting participants by the major of Jastarnia

10:10 - 11:00 PRESENTATIONS

I. Project information and good practice in mobility planning for tourist areas

II. General conditions in the scope of transport services of the Hel Peninsula

III. Rail

Coffee break

11: 15-12: 45 WORKSHOPS

I. Water transport

II. Railway transport

III. Mobility / road transport

12:45 - 13:30 Refreshment









Image 12: Lectures and workshops on the 6th of October, 2011

Source: OMGGS

## Action 2

#### Description

- Who: architecture and urban planning students + transport students + representatives of local governments
- Where: online (zoom) + students' own work as part of the competition
- When: September November
- What: students who apply for the competition for the redesign of the indicated spaces will have the opportunity to talk with representatives of individual local governments; during the interview, they will be able to ask them about anything that will be useful for them during the competition work
- Tools: question and answer sessions
- Preparation: preparation of a Miro with marked places submitted by local governments to the redesign competition
- Outcome: to get answers for questions that will help to design resident-friendly space (redesigning the indicated areas)

Conducting a student competition for the best design works for the development of parts of the cities: Hel, Puck and Wladyslawowo, indicated by local governments, in the field of development projects for selected areas, public spaces and sustainable mobility systems.

The event includes a series of information, training and design workshops, a study visit to places submitted to the competition by local governments from the RiConnect project, consultancy at the stage of designing competition works, a competition (teams of students participating in the workshops may participate in the competition).

Nearly 70 students of the Gdańsk University of Technology participated in the workshops concluded with the competition, organised as part of the international RiConnect project, in which the Gdańsk-Gdynia-Sopot Metropolitan Area participates. The young people took a closer look at Hel, Puck and Władysławowo. Their task was to design selected parts of these cities so that they would become friendly to residents and tourists, well-connected, taking into account the principles of sustainable mobility. The competition will be resolved by the end of 2021. The prize pool is up to 15,000. zloty.

Ultimately, 17 works were submitted in the competition and their level was described by the jury as high.



Image 13: Collaboration with students from October to December

Source: OMGGS







Image 14: Selection of panels by the students Source: OMGGS



## General summary

ACTION	Intended result	Resources/assets	Lead Agency	Key partners	Time scale
1. Improvement of public transport (including modernization of 213 Reda- Hel railway line)	Achieving a functional (i.e. convenient, fre- quent, reliable, adjusted to users needs) public transport system to make it attractive for citizens and tourists.	Central government funds for financing the modernization of the 213 Reda-Hel railway line; local government funds to improve the func- tioning of municipal transport	Central government; marshals, county authorities, mayors and heads of individual self- governments	Polskie Koleje Państwowe (Polish Railway), public transport operators, private sector	Continuous operations, start of the process in 2022
2. Improving the conditions of sustainable modes of transport	Creation of a shared mobility system and im- provement of infrastruc- ture in order to encou- rage the residents and tourists to use walking and cycling routes more frequently every day.	Own resources, EU funds, private sector	County authorities, masrshals, mayors and heads of individual self- governments	private operators	2023 (Short-term actions (identifying process), mid- and long- term actions (preparation, financing and implemen- tation of the proposed so- lutions)
3. Safety improvement	The main goal concerns transforming Peninsula (all along) to a safe and comfortable place linking all destination points (towns, beaches, rest areas, public transport infrastructure. The goal is to identify the most dangerous places and improve the infrastructure so as to ensure safety for non- motorized road users.	Own resources, EU funds	County authorities, mayors and heads of individual self- governments	Road infrastructure offices, spatial planning offices	Short-term actions (identifying process), mid and long- term actions (preparation, financing and implemen- tation of the proposed so- lutions)
4. Water transport recovery	The primary goal of the action is to revive water transport as an alternative to road transport and to create an efficiently operating and affordable transport system (during the tourist season).	Funds of local governments, EU funds, national funds, private sector.	Voivodeship marshal, Pomeranian Regional Planning Office, OMGGS, local municipalities	Water transport operator, other municipalities (Gdańsk, Gdynia, Sopot, Elbląg etc.)	2023/2024 Mid-and long- term: imple- mentation of the proposed solutions

ACTION	Intended result	Resources/assets	Lead Agency	Key partners	Time scale
5. Actions to limit individual car traffic	Gradual reduction in the number of cars entering the Hel Peninsula. The main purpose of the activity is to limit the space used for parking, reduce congestion and the emission of air pollution and noise, which negatively impact on the quality of life in Peninsula (mainly during the tourist season).	EU funds, national funds, own resources	County atuthorities, mayors and heads of individual self- governments	Inhabitants and tourists, hotels owners	Start in 2022, the activity includes all kind (short-, mid- and long-term) actions – from preparation (including analysis) to implementation
6. Increasing the awareness of residents and tourists in the field of sustainable travel (through education and promotion)	The main goal of this action is to increase the level of information for residents and tourists about available mobility options but also increase awareness of transport choices and their impact on the environment.	EU funds, national funds, own resources	Marshal, county authorities, mayors and heads of individual self- governments	Shared mobility operators	Short-term and mid- term actions organised periodically

## Action 1

#### Modernization of the 213 Reda-Hel railway

## 7.1.1

#### Current situation

The northern part of the region in general lacks a well developed railway system, which is why the entire local rail transport operates on one single non-electrified track of the No. 213 line. The 213 line links Reda with Hel at a total distance of 62 kilometers. Along its length, there are seven train stations and seven passenger stops. The railway serves for passenger transportation as well as cargo, that is why in order to improve its capacity and operation fluency on the peninsula, there are four passing loops provided at Władysławowo, Kuźnica, Jastarnia and Hel stations.

However, due to the maximum capacity being reached at around seventeen pairs of trains, the system gets bottlenecked, resulting in the average waiting time at passing loops extending even to forty minutes. Therefore, rail transport becomes an unfavourable travel option for passengers, particularly during high season.

As the railway network does not include northern coastal towns, there are five bus lines.

There are also two bus lines available, running from Gdynia to Jastrzębia Góra, which provide direct and easy access from Tricity to coastal towns and villages. The other lines connect: Puck - Łebcz - Strzelno - Jastrzębia Góra (Karwia), Hel - Władysławowo - Jastrzębia Góra - Karwia – Dębki - Białogóra - Sasino – Łeba, Hel - Jurata - Jastarnia - Władysławowo - Jastrzębia Góra – Karwia (- Krokowa – Dębki).

Puck Town has one city bus line, which is provided by PKS Gdynia. The line also has a bus stop at the railway station, allowing the passengers to transfer to train. The bus line runs six days a week, Monday to Saturday. On workdays there are eleven bus runs, on Saturday five.

Reda also has a city bus service available. It is run by MZK Wejherowo with five bus lines. Four of them reach Wejherowo railway station. The lines connect Reda Dworzec PKP – Wejherowo Szpital, Reda Pieleszewo – Rumia Dworzec PKP, Reda Dworzec PKP – Reda Cmentarz oraz Reda Rekowo Aleja Lipowa – Reda Dworzec PKP.

## 7.1.2

#### Goals

The vision of public transport in the area assumes the functioning and development of modern and environmentally-friendly transport, meeting the expectations of passengers, in a way that creates a real alternative to travel carried out with its own passenger car.

The main goal of Action#1 is achieving the full functionality of the public transport system to make it attractive for citizens and tourists. That includes among others priority for public transport, better passenger information, full coordination, reduction of gas emission, elimination of barriers, safety etc.

### 7.1.3.

#### Description of action

The action will be a process and it will include most of all:

Railway modernization:

- Electrification of the entire route;
- Construction of a second track between Reda Ciechocino and Puck, Swarzewo and Władysławowo Port as well as Kuźnica and Jastarnia West;
- New stations: Chałupy, Hel Bór and new stops: Reda Ciechocino, Smolno, Władysławowo Południe, Chałupy Camping, Kuźnica East and Jastarnia East.
- Passing loops Puck, Władysławowo, Chałupy, Kuźnica, Jastarnia, Hel Bór, Hel

Synchronisation of timetables of different operators in order to provide seamless travel on selected routes.

## 7.2.4

#### Lead agency and schedule

Lead Agencies and mobilised resources:

• Central government (Ministry of Infrastructure), Voivodeship marshal, County authorities, Mayors and heads of individual self-governments

Schedule: At this point, PKP Polskie Linie Kolejowe is to develop the preparatory documentation for the project entitled "Improvement of the capacity on the line No. 213 Reda - Hel". Currently, the company is waiting for the decision of the Regional Protection Directorate of the Environment. Carrying out the modernization of the railway line is a long process related to the preparation and reconciliation of documentation with many entities, interruption and public consultations. At the moment when the Ministry of Infrastructure allocates a project for implementation, it can be hoped that the action will be implemented, but it should be taken into account that it will be a multi-stage, spread over time process.



## Action 2

#### Improving the conditions of sustainable modes of transport

## 7.2.1 Current situation

Traveling on the peninsula is in the vast majority of cases carried out by car (also for short distances). The conditions for walking and cycling leave a lot to be desired (especially in the context of intercommunal journeys). The lack of well designed shared mobility systems and complete infrastructure and a sense of security discourage both residents and tourists from choosing sustainable forms of travel.

### 7.2.2

#### Goals

Tourists who leave their car in the garage and come to the Hel Peninsula by train will want to be able to move around the area comfortably. The solution is a system of shared public bicycles and electric scooters, and in the case of tourists who come with heavy luggage, a system of light electric cars that will allow you to conveniently transport luggage from the train station to the selected hotel. The measure should be supplemented with the improvement of infrastructure, which will serve not only tourists, but also residents. The basic principle in the design of public spaces is to ensure accessibility, regardless of the type of disability, restrictions on mobility or perception. Pedestrian traffic should have priority when shaping the transport systems. The quality of space is impacted by the method of development, the type of materials and elements used, the elements of street furniture, lighting and the method it is used.

Organisational, creation of shared mobility systems, improvement of infrastructure and other solutions that encourage the residents and tourists to use walking and cycling routes more frequently every day.

## 7.2.3.

#### Description of action

Activities in the field of pedestrian, bicycle and micro-mobility, including:

• Creation of a commercial, seasonal shared mobility system, which included public bicycles, electric scooters and light electric cars. The system would operate during the tourist months, which could be successfully operated without additional funding from local governments. The system would be implemented in all towns of the peninsula, giving the possibility of comfortable movement between the main destinations: railway station, hotels and guesthouses, beach, local attractions. • At the same time, in Puck and Władysławowo, from 2023, the Mevo metropolitan public bike system will operate throughout the year, which is to be an additional means of transport for residents. Mevo operates in 16 municipalities of the metropolis.

The action is closely related to the creation of appropriate infrastructure and improvement of safety for non-motorized traffic participants, described in more detail in the next section.

- Improvement of pedestrian traffic conditions (infrastructure, connections, safety etc.)
- Improvement of cyclists traffic conditions (infrastructure, connections, safety etc.)
- Safety improvement program at pedestrian and bicycles crossings, improved conditions for pedestrian and bicycle traffic,
- Program of urban micro-changes in the street space,
- Protecting the rights of all users of space through effective enforcement of applicable law.

#### 7.2.4

#### Lead agency and schedule

Lead Agencies and mobilised resources::

 Mayors and heads of individual self-governments, private sector, county authorities, own funds and funds from projects (national and European).

Schedule: Short-term actions (identifying process), mid- and long-term actions (preparation, financing and implementation of the proposed solutions)



Image 16: Shared mobility systems Source: OMGGS 7.3.1

#### Current situation

The main activity aimed at changing the way of reaching the Hel Peninsula is the modernization of the railway line 213. The measure is aimed at a significant reduction in the number of passenger cars entering the Peninsula. Looking from the opposite side, it means that the vast majority of tourists, i.e. those who have decided to use the train, will move around the Peninsula on foot or possibly by bike or scooter. The key task will be to provide both them and the residents with a safe infrastructure for pedestrians, trench and pedestrian crossings.

The daily communication decisions are impacted by a number of factors: from economic, health, individual preferences to the route or type of transport, as well as, the terrain and distance from the destination. Undoubtedly, however, the basis of the decision about choosing the everyday means of transport involves an individual risk assessment and a sense of security during the journey. The participant of the road traffic, i.e. each person moving around the road, assumes that the planned route will defeat safely.

Safety problems in the context of transport increase mainly in the summer (tourist season).

### 7.3.2 Goals

The main goal concerns transformation Peninsula (all along) to a safe and comfortable place linking all destination points (towns, beaches, rest areas, public transport infrastructure, e.g. stations and stops)

#### 7.3.3.

#### Description of action

- Conducting an audit to identify deficiencies in the pedestrian and bicycle infrastructure and the most dangerous places in terms of road traffic.
- Ensuring the continuity of bicycle paths at the intersections with the road for cars;
- Ensuring continuity of promenades and main pedestrian routes at the intersection with the road for cars,
- A 30 km/h slow speed zone in the area of villages and towns located on the Hel Peninsula,
- Raised shields of selected intersections;
- Introducing pedestrian zones in selected areas.

### 7.3.4

#### Lead agency and schedule

Lead Agencies and mobilised resources:

• Mayors and heads of individual self-governments, county authorities, own funds and funds from projects (national and European)

Schedule: Short-term actions (identifying process), mid- and long-term actions (preparation, financing and implementation of the proposed solutions)

Image 17: Proposed changes to the street infrastructure increase safety Source: OMGGS



Action 4 Water transport recovery

7.4.1

#### Current situation

Small ports and harbours which are located along the Hel Peninsula and the Coast of Gdańsk, play an important role especially in maritime tourism and at the same time provide facilities for the local fishing industry. There are four small seaports in Hel, Jastarnia, Puck and Władysławowo which serve mainly as fishing ports, and eleven harbours: Chałupy I, Chałupy II, Chłapowo, Jastarnia I, Jastarnia II, Jastarnia III, Karwia, Kuźnica I, Kuźnica II, Osłonino, Swarzewo.

Additionally, during summer season, Żegluga Gdańska provides several ferry lines which link: Gdańsk and Hel, Gdynia and Hel, Sopot and Hel as well as Gdynia and Jastarnia. Ferries as a public means of transport may become popular and favourable, provided that tickets are reasonably priced. It should be noted that a trip to the Hel Peninsula by sea is a tourist attraction itself, it lasts much shorter than a trip by car. The largest ferries currently operating on the Bay of Gdańsk take about 500 people, which are a real complement to, for example, rail transport, in particular on routes from Gdańsk or Gdynia.

## 7.4.2

#### Goals

The primary goal of the action is to revive water transport as an alternative to road transport and to create an efficiently operating transport system (during the tourist season).

An area where it is possible to implement fast (less than 60 minutes / one way cruise) and frequent connections between opposite shores of the basin. Connections should be

sufficiently integrated with the timetables of rail and running buses shuttle on the Hel Peninsula on the route, for example, Hel-Puck-Hel with a minimum frequency after each when the ship is moored. The units used should be primarily suited to tourist demand in the summer, because the Hel peninsula itself is not a very high inhabited area (with an additional high negative net migration) and may not be present there need for public transport in low season.

### 7.4.3.

#### Description of action

Analysis of the concept of the navigation project in the Gulf of Gdańsk and the Vistula Lagoon as element of public transport in the Pomeranian Voivodeship

 Route Gdańsk-Hel-Gdańsk and Gdynia-Hel-Gdynia would require the use of 2 fast units (with a speed of 20 kn, travel time max. 50 min. due to the length of the route of ~ 30 km) with an estimated capacity of 100 passengers / ship. The connection should ensure a comfortable journey for passengers due to the fact that it is quite long the duration of the voyage, i.e. the vessel should have a small on-board cafe, mini square playground and toilets.

It is necessary to provide a place to store about 15-20 bikes during the journey, also places for travellers' luggage. 4 courses a day are proposed in the period from mid-June to mid-September, coordinated with other lines and other means of public transport. Other connections are also considered, including: Gdynia-Jastarnia, Sopot-Hel, Puck-Hel, Jastarnia-Hel, Gdańsk-Puck, Hel-Krynica Morska, Hel-Elbląg, Hel-Przegalina and even Hel-Malbork.

Implementation of the proposed solutions aimed at revitalising transport from the water (as an element of public transport and private transport).

### 7.4.4

#### Lead agency and schedule

Lead Agencies and mobilised resources:

 Voivodeship marshal, Pomeranian Regional Planning Office, OMGGS, local municipalities, private sector, own funds and funds from projects (national and European)

Schedule: Short-term: analysis, mid-and long-term: implementation of the proposed solutions



Image 18: Primary water lines Source: OMGGS

## Action 5

# Actions to limit individual car traffic

### 7.5.1

#### Current situation

The most fundamental elements of Hel's route network consists of two regional (voivodeship) roads. First, road No. 216 which is the backbone of the whole local system, begins in Reda and runs through Puck and Władysławowo, reaching Hel after 56,7km. It is the main link between Puck County (Powiat) and Tricity.

The second one, road No. 215, plays a crucial role especially during summer as it distributes holiday traffic westward, along the coast towards Karwia, deriving out of the link with road No. 216 in Władysławowo. Considering the fact that both roads act as the accessways for holiday resorts, lodgings and beaches, traffic congestion levels during summer time worsen significantly. The highest peaks are usually reached daily in the second half of June, July and August (particularly during weekends) as well as in September and the first half of October.

In addition, the other important routes that need to be mentioned are the national road No. 6 and S6, which together create the Tricity ring road. The belt is the main artery of the region, due to the fact that it combines and streams all the traffic from A1 highway and S7 expressway towards the north. The road infrastructure is extensively used due to the lack of alternatives, i.e. an inadequate railway line and the untapped potential of transport from the water side.

## 7.5.2 Goals

In accordance with the principle of sustainable transport development, it is assumed that the role of a car in the Peninsula will be gradually reduced. The main purpose of the activities is to limit the space used for parking, reduce congestion and the emission of air pollution and noise, which negatively impact on the quality of life in Peninsula (mainly during the tourist season). All means of transport influence each other, however, the individual movement of passenger cars significantly impacts on all other areas - pedestrian and bicycle traffic, quality of public spaces, parking, public transport and mobility management.

The scope of activities limiting the inflow of cars to the Hel Peninsula must be conducted in a way that will be aimed mainly at tourists, and not hinder the lives of residents of towns located on the Peninsula.

## 7.5.3. Description of action

The construction of the Władysławowo Południe integration hub, which will allow you to park several hundred cars before entering the Hel Peninsula will be a key activity in the field of direct reduction of car inflows. The investment will open the possibility of changing cars to a selected means of collective transport, e.g. a train or using shared mobility.

Regardless of the construction of the Władysławowo Południe junction, measures will be needed to further curb the inflow of cars, i.e.

- introduction of a common, sufficiently high parking tariff by all local governments located on the Hel Peninsula,
- limitation of the number of public car parks at the disposal of tourists, e.g. one car park per town,
- development of assumptions for parking management (during the tourist season and beyond)
- designation of pedestrian zones;

At a later stage, additional restrictions on the entry of tourists cars to the Hel Peninsula and moving around the Peninsula may be considered:

- authorization of entry for cars that do not meet certain exhaust emission standards,
- limiting the possibility of moving around the peninsula by car only on the day of entry and departure,
- in the most restrictive approach, it is possible to ban a passenger car from entering the Hel Peninsula - this action must be preceded by the modernization of the railway line 213, the construction of the Władysławowo Południe Integration Junction and the development of alternative ways of reaching the Peninsula.

### 7.5.4

#### Lead agency and schedule

Lead Agencies and mobilised resources:

 Mayors and heads of individual self-governments, county authorities, own funds and funds from projects (national and European)

Schedule: the activity includes all kind (short-, mid- and long-term) actions – from preparation (including analysis) to implementation

## Action 6

Increasing the awareness of residents and tourists in the field of sustainable travel (through education and promotion)

#### 7.6.1

#### Current situation

Changes in travel behaviour needs 2 important parts that are proper infrastructure and organization as well as education and promotion. What we want to achieve with the Peninsula will not be possible without clear and useful information for residents and tourists. We also need to strongly promote sustainable mobility.

## 7.6.2

#### Goals

The main goal of this action is to increase the level of information for residents and tourists about available mobility options but also increase awareness of transport choices and their impact on the environment.

## 7.6.3.

#### Description of action

- The aim of the activity is to show tourists the possibility of moving around the Hel Peninsula without a car. The aim is to install road signs showing how to quickly and comfortably reach selected places: train station, hotels, guesthouses, beach, main attractions are written or by bicycle or electric scooter. Measure, however, requires the complementary actions described above.
- Complex travel information (for residents and tourists) what options do we have and what does the choice of individual means of transport involve?
- Promotional and educational campaigns focused on active and sustainable mobility.

### 7.6.4

#### Lead agency and schedule

Lead Agencies and mobilised resources:

• Mayors and heads of individual self-governments, county authorities, OMGGS, own funds and funds from projects (national and European)

Schedule: short-term and mid-term actions organised periodically

Image 19: Travel information Source: OMGGS



### 7.7

#### Classification of activities

The above-described activities are key to improving mobility conditions on the way to the Hel Peninsula and on the peninsula itself. Their implementation will have the greatest impact, therefore these actions should be implemented first. The actions were selected by the ULG from the wide list of potential actions created as a result of workshops conducted with the residents and stakeholders of Puck County, which were conducted on May 18, 2021. Due to the large number of reported potential actions and the limited implementation possibilities, the most important tasks were included in the Integrated Action list. Nevertheless, the set of activities aimed at improving the conditions of mobility indicated during the workshindicated during the workshops by residents and stakeholders is much broader and covers more thematic areas. There are many important tasks that should also be completed in the future. Therefore, the full list of activities is provided below.

Area of Sub-area of activity activities		Actions
Public transport	I.1. Railway	I.1.1. Construction of passing loops on line 213 (Reda Rekowo, Swarzewo, Chałupy, Hel Bór)
		I.1.2. Construction of new stops on line 213 (Reda Ciechocino, Smolno, Chałupy Cam- ping, Kuźnica East, Jastarnia East, Hel Bór)
		I.1.3. Modernization of the railway line, trains every 20 minutes in the season and every 1 hour off-season
	I.2. Buses	I.2.1. Transport on demand
		I.2.2. Improvement of the stop infrastructure (construction of bus shelters)
	I.3. Water	I.3.1. Increasing the number of connections on the water side
	transport	I.3.2. An information campaign showing the real potential of the waterborne trans- port- not only a tourist attraction, but an alternative to a car
	I.4. Integration nodes	I.4.1. Improvement of bicycle traffic conditions at the access to junctions and stops / stations and development of high quality, safe bicycle infrastructure within junctions and stops / stations
		I.4.2. Adaptation of stops, rolling stock and accompanying infrastructure within hubs and stops / stations to the needs of people with disabilities
		I.4.3. Development of additional functions/services within integration hubs and stops / stations,
		I.4.4. Construction of P&R (Władysławowo Południe)
		I.4.5. Integration of rail and bus transport (timetables)
	I.5. other	I.5.1. comprehensive Passenger Information System
		I.5.2. common ticketing system for all means of transport
		I.5.3. light e-vehicles in high season (transporting to the beaches)
		I.5.4. Private carriers / buses with a high frequency of running
Sustainable	II.1. Walking	II.1.1. Modernization of sidewalks, construction of shortcuts, safe crossings
transport		II. 1.2. raised shields of selected intersections
modes	II.2. Cycling	II.2.1. Construction of a metropolitan bicycle system in the Hel Peninsula (MEVO) "last mile transport"
		II.2.2. Development of standards for the construction of bicycle paths for the entire Hel Peninsula
		II.2.3. Bicycle shelters, stands at schools and kindergartens
	II.3. Micromo- bility	II.3.1.Development of micromobility parking network in all towns of the peninsula.
	II.4. Other	II.4.1.Increasing the quality public spaces

Area of activity	Sub-area of activities	Actions
Individual	III.1. Parking	III.1.1. Unifying the parking policy and tariffs
car traffic	policy	III.1.2. Using scanning vehicle in Paid Parking Zones
		III.1.3. Introduction of parking information (car parks for coaches, P&R, PPZ)
		III.1.4. Improve parking restriction enforcement
		III.1.5. Counter of vehicles entering the Peninsula (showing CO2 production, how it negatively affects the environment)
		III.1.6. Introduction of no-parking zones
		III.1.7. Limiting the number of parking spaces on public roads
		III.1.8. Differentiation of toll rates in paid parking zones
	III.2. Traffic	III.2.1. Speed zoning (e.g. introduction of "30 km zones
	management	III.2.2. Limited access for cars to enter the Hel Peninsula
		III.2.3. Development of a traffic calming plan and its implementation
	III.3. Availabi- lity manage-	III.3.1. Detailed analysis of the possibility of restricting entry to the Peninsula by car (stakeholder analysis to learn about stakeholders' concerns)
	ment	III.3.2. Pilot closure of the entry to the Hel Peninsula for cars
		III.3.3. Introduction of tolls for entering the Hel Peninsula
	IV.1. bicycles in public trans- port	IV.1.1. Development of bike sharing system operating in the high season
	IV.2. electric vehicles	IV2.1. Development of light vehicles fleet (public or private) providing on demand transport for tourists
	IV.3. freight	IV.3.1. A plan for managing the transport of goods, e.g. time constraints in deliveries
	transport ma- nagement	IV.3.2. Adaptation of the unloading infrastructure, designation of unloading places
	IV.4. Educa-	IV.4.1. Promotion of moving without a car while visiting the Hel Peninsula
	tion and infor-	IV.4.2. Education, increasing the awareness of road users in the field of road safety
	mation	IV.4.3. Promoting the bicycle as a means of mobility among children and employers
		IV.4.4. P&R and B&R promotion
	IV.5. Other	IV.5.1. Construction of parking lots / installation of bicycle rack near to entry to the beaches.
organisa-		V.1. Creation of a joint budget for the implementation of the Sustainable Mobility Plan
tional acti- vities		V.2. Designating a person / unit responsible for coordinating the implementation of the plan and reporting
		V.3. Involvement of local residents in the implementation of the Plan
Other	VI.1. formal and legal is- sues	VI.1.1 Examination of the legal possibilities to significantly limit entry to the Hel Pe- ninsula for passenger cars
	VI.2. Invest- ments and infrastructure	VI.2.1. Construction of road infrastructure - Construction of an exit to the Peninsula, bypassing Władysławowo
	VI.3. Spatial planning	VI.3.1. Change of spatial development plans around railway stations to make them attractive to travellers
	VI.4. other	VI.4.1. Construction of public toilets at bicycle stops and beaches
		VI.4.2. Construction of lighting in particularly dangerous places (e.g. lighting of pe- destrian crossings)
		VI.4.3. Increasing green infrastructure in housing estates
		VI.4.4. Building friendly, illuminated and aesthetic public spaces, incl. shelters, places for a bonfire

## 7.8 Risk analysis

The above-described activities are key to improving mobility conditions on the Activities related to the improvement of transport accessibility and mobility conditions are characterised by typical risks. In the case of large investment activities carried out on supra-local sectables, the main risk is decision-making embedded in the central government. This risk is compounded by the availability of funds, the allocation of which may be variable in the face of unstable geopolitical situation, broken supply chains and limited resources. In the case of some activities, the implementation of which involves the private partners, there is a risk related to their plans and investment opportunities. The smallest risk is associated with activities for which local governments are responsible, although in this case the cost factor may have a significant impact on the implementation and activities, and the possibility of obtaining EU funds for their implementation will be of importance.

Area of activity	Sub-area of activities	Actions	Risk analysis
Public trans-	I.1. Railway	I.1.1. Construction of passing loops on line 213 (Reda Rekowo, Swarzewo, Chałupy, Hel Bór)	high (depends on mo- ney resources)
port		I.1.2. Construction of new stops on line 213 (Reda Ciechocino, Smolno, Chałupy Camping, Kuźnica East, Jastarnia East, Hel Bór)	high (depends on mo- ney resources)
		I.1.3. Modernization of the railway line, trains every 20 minutes in the season and every 1 hour off-season	high (depends on mo- ney resources)
	I.2. Buses	I.2.1. Transport on demand	high (no clear legal conditions)
		I.2.2. Improvement of the stop infrastructure (construction of bus shelters)	low
	I.3. Water transport	I.3.1. Increasing the number of connections on the water side	high (depends on money resources and cooperation of local governments, the mar- shal and the private sector)
		I.3.2. An information campaign showing that it is not only a tou- rist attraction, but an alternative to a car	low
	I.4. Integra- tion nodes	I.4.1. Improvement of bicycle traffic conditions at the access to junctions and stops / stations and development of bicycle in- frastructure within junctions and stops / stations	low
		I.4.2. Adaptation of stops, rolling stock and accompanying in- frastructure within nodes and stops / stations to the needs of people with disabilities	low
		I.4.3. Development of additional functions within integration nodes and stops / stations, making travelling more attractive	medium
		I.4.4. Construction of P&R (Władysławowo Południe)	high (depends on mo- ney resources)
		I.4.5. Integration of rail and bus transport (timetables)	low
	I.5. other	I.5.1. comprehensive Passenger Information System	low
		I.5.2. common ticket for all means of transport	high
		I.5.3. light e-vehicles in high season (transporting to the bea- ches)	medium
		I.5.4. Private carriers / buses with a high frequency of running	low

Area of activity	Sub-area of activities	Actions	Risk analysis
Sustai- nable	II.1. Walking	II.1.1. Modernization of sidewalks, construction of shortcuts, safe crossings	low
trans- port	II.2. Cycling	II.2.1. Construction of a metropolitan bicycle system in the Hel Peninsula (MEVO) "last mile transport"	low
modes		II.2.2. Development of standards for the construction of bicycle paths for the entire Hel Peninsula	low
		II.2.3. Bicycle shelters, stands at schools and kindergartens	low
	II.3. Micromo- bility	II.3.1.Development of micromobility parking network in all towns of the peninsula.	low
	II.4. Other	II.4.1. High quality public spaces	low
Indivi- dual car	III.1. Parking policy	III.1.1. Unifying the parking policy	medium (dependent on cooperation)
traffic		III.1.2. Using scanning vehicle in Paid Parking Zones	low
		III.1.3. Introduction of parking information (car parks for coa- ches, P&R, PPZ)	medium
		III.1.4. Improve parking enforcement	low
		III.1.5. Counter of vehicles entering the Peninsula (showing CO2 production, how it negatively affects the environment)	medium
		III.1.6. Introduction of no-parking zones	low
		III.1.7. Limiting the number of parking spaces on public roads	low
		III.1.8. Differentiation of toll rates in paid parking zones	low
	III.2. Traffic management	III.2.1. Speed zoning (e.g. introduction of "30 km zones" )	low
		III.2.2. Limited access for cars to enter the Hel Peninsula	High (lack of legal solutions)
		III.2.3. Development of a traffic calming plan and its implemen- tation	low
	III.3. Availabi- lity manage- ment	III.3.1. Detailed analysis of the possibility of restricting entry to the Peninsula by car (stakeholder analysis to learn about stake- holders' concerns)	high
		III.3.2. Pilot closure of the entry to the Hel Peninsula for cars, weekend	high (as a controver- sial topic)
	IV.1. bicycles in public transport	IV.1.1. Development of bike sharing system operating in the high season	medium (dependent on private sector)
	IV.2. electric vehicles	IV2.1. Development of light vehicles fleet (public or private) pro- viding on demand transport for tourists	medium (dependant on the private sector)
	IV.3. freight transport ma-	IV.3.1. a plan for managing the transport of goods, e.g. time constraints in deliveries	high
	nagement	IV.3.2. Adaptation of the unloading infrastructure, designation of unloading places	high
	IV.4. Educa-	IV.4.1. Information / education campaign	low
	tion and infor- mation	IV.4.2. Education, increasing the awareness of road users in the field of road safety	low
		IV.4.3. Promotion of sustainable transport	low
		IV.4.4. Promoting the bicycle as a means of mobility among children and employers	low
		IV.4.5. P&R and B&R promotion	low
	IV.5. Other	IV.5.1. Parking lots / bicycle stands at the beaches	low



#### 8.1

# Indicators and monitoring strategy

Monitoring and evaluation activities deliver data about the progress of the Sustainable Urban Mobility Plan (SUMP) development process and the impact of policy measures. They are carried out before, during and after the implementation of transport measures. Providing regular information to decision makers, potential funding bodies and local stakeholders can help to demonstrate that a SUMP has delivered, or will deliver, benefits to the community, provides value for money, is worth continuing or requires modifications to be successful.

Systematic monitoring and evaluation increases the efficiency of the planning process and implementation of measures, helps to optimise the use of resources and provides empirical evidence for future planning and appraisal of transport measures.

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Systematic monitoring and evaluation increases the efficiency of the planning process and implementation of measures, helps to optimise the use of resources and provides empirical evidence for future planning and appraisal of transport measures.

Typical challenges for the effective use of monitoring and evaluation are

- Lack of experience;
- Limited financial and staff resources;
- Gaps in technical knowledge with regard to defining performance indicators, the retrieval, collection, preparation and interpretation of data; and
- Inefficient monitoring and evaluation practices.

Objective	Indicator	Definition
Road Safety	Fatalities by all transport accidents in the urban area on a yearly basis.	Number of deaths within 30 days after the traffic accident as a corollary of the event per annum caused by urban transport per 100,000 inhabitants of the urban area.
Access to mobility services	Share of population with appropriate access to mobility services (public transport).	Percentage of population with appropriate access to public transport (bus, tram, metro, train).
Emissions of greenhouse gases (GHG)	Well-to-wheel GHG emissions by all urban area passenger and freight transport modes.	Greenhouse gas emission [tonnes CO2(eq.]/cap. per year].
Air quality	Air pollutant emissions of all passenger and freight transport modes (exhaust and non-exhaust for PM2.5) in the urban area.	Emission index (kg PM2.5 eq. per capita per year).

Image 20: Overview of important quantifiable strategic impact indicators, based on the European sustainable urban mobility indicator set (SUMI) and the international standard (MobiliseYourCity).

Source: Eltis.org

8.

#### ADDITIONAL URBAN MOBILITY INDICATORS

- Affordability of public transport for the lowest income group
- Accessibility for mobility-impaired groups
- Noise hindrance
- Congestion and delays
- Energy efficiency
- Opportunity for active mobility
- Multimodal integration
- Satisfaction with public transport
- Traffic safety for active modes

It is recommended to collect data every 2-3 years and after each high-volume project.

## 8.2 Gantt Chart

*Image 21: Gantt chart* Source: OMGGS

# 8.3 Funding strategy

The EU financial perspective for 2021-2027 is just entering the implementation phase. The new programming period is largely a continuation of the assumptions of the previous perspective (2014-2020). The main objectives of programming EU support are set out in the Partnership Agreement, i.e. a strategic document, which is the result of arrangements between the Polish Government and the European Commission regarding the use of European funds in the 2021-2027 perspective. The Partnership Agreement set the following objectives of the EU's cohesion policy for the current perspective:

Objective 1: A more competitive and smart Europe,

Objective 2: A greener, low-carbon Europe,

Objective 3: A better connected Europe,

Objective 4: a Europe with a stronger social dimension,

Objective 5: Europe closer to citizens,

Objective 6: Mitigating the effects of the transition to a climate neutral economy.

Under Objective 2, specific objective "Energy efficiency", indirectly linked to the Mobility Plan. Within Objective 2, the following challenges were identified as: Reducing greenhouse gas emissions, which is one of the highest in the European Union.

Another specific objective defined under Objective 2 is "Low-emission transport and urban mobility", significantly related to the provisions of the Mobility Plan. It defines in turn:

• Challenges: Providing better access to public transport for residents of urban areas; Development of low-emission or zero-emission transport;

• Planned measures: Development of infrastructure for cyclists and pedestrians as well as public transport: Investments in modern low and zero-emission rolling stock with infrastructure for its charging / refueling; Expansion of the rail infrastructure of public transport; Introducing modern traffic management systems and intelligent technologies; Promoting the use of low-emission collective transport and non-motorized traffic;

• Results: Better organization of collective transport in cities and improvement of its accessibility; Reduction of emissions from transport in cities.

Within Objective 3 (Better connected Europe), the specific objective "Transport" was defined - the key in the context of the provisions of this Mobility Plan - and within it:

• Challenges: Reducing deficits in the infrastructure of the transport network; Introduction of an integrated approach to planning and organization of transport; Ensuring the availability of transport; Reducing the number of casualties and casualties, especially in road accidents; Reducing CO2 emissions and the impact of transport on the environment;

• Planned measures: Development of land and water transport infrastructure (in Trans-European; Transport Network and beyond) with priority for rail development; Integration of different types of passenger and freight transport; Implementation of investment and educational activities in the field of security; Accelerating the introduction of digital solutions to the Polish transport system; • Results: Creation of a multimodal (connecting different modes of transport) transport system with a high level of safety and a lower environmental impact; Reducing disproportions in the transport accessibility of Polish voivodships; Increasing the share of rail transport in passenger and freight transport; Increasing the availability of transport points / nodes for people with reduced mobility and disabilities.

The possibilities of financing investments related to the development of mobility in the area of analysis should be sought in the following operational programs:

• European Funds for Infrastructure, Climate and Environment (FEnIKS);

• European Funds for Pomerania (FEP).

FEnIKS is the successor of the Infrastructure and Environment Program (POIiŚ). The program is to contribute to the development of a low-emission economy, environmental protection as well as counteracting and adapting to climate change. FEnIKS is also intended to support investments in the field of transport and environmental protection and the protection of cultural heritage. The planned budget is: over EUR 25 billion.

FENIKS is mainly focused on supporting large infrastructure projects with a supra-regional, or at least supra-local impact. However, the program also assumes, inter alia, supporting the development of investment projects in agglomerations. Under FEnIKS, a total of EUR 1.75 billion is earmarked for the implementation of projects under Integrated Territorial Investments (ITI). The idea behind the ITI functioning is the implementation of metropolitan projects that go beyond the boundaries of one local government. ITI projects are designed to develop metropolitan functions and tighten cooperation between LGUs located within the metropolis. The detailed scope of tasks under the ITI is specified in the ITI Strategy, which in the case of the Tri-City metropolis is prepared by OMGGS in consultation with the Managing Authority of the regional aid program (FEP) and the Ministry of Funds and Regional Policy. The funds for the implementation of ITI projects come from both the central program (FEnIKS) and the regional program (FEP).

FEP is a program which is the successor of the Regional Operational Program of the Pomeranian Voivodeship (RPO). The idea behind the FEP is primarily the implementation of regional and local projects. FEP is to meet, inter alia, such challenges as:

• The use of advanced digital solutions in public administration and business;

• Further development of road and rail connections;

• Improving the conditions for the professional development of the Pomeranian inhabitants of working and jobseekers and support for people at risk of social exclusion.

The detailed objectives to be achieved thanks to the FEP include, inter alia, following actions:

• Supporting sustainable multimodal urban mobility as part of the transformation towards a zero-carbon economy;

• Developing and enhancing sustainable, climate-resilient, smart and intermodal mobility at national, regional and local level, including improving access to TEN-T and cross-border mobility.



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