

NAUTIVIA, s.r.o., Cajlanská 1776/11, 902 01 PEZINOK, Slovak Republic

in cooperation with

Company Ferdinand Martinengo and City Pressburg s.r.o.



## BLUE-GREEN CONNECTIONS ON WATERWAYS OF THE CENTRAL EUROPEAN REGION CENTROPE



### PROPOSAL

for creating a system of transport – and touristic ship's connection

in combination ship – bicycle on rivers Danube, Rába, Váh a Morava on the territories of bordering regions of Austrian, Slovak, Hungarian and Czech Republics

as well as

integrating the floating Danube fountain MARTINENGO in Bratislava into the system of Blue-green connections

Water and waterways represent one of the most natural and most attractive arts of river passenger transport and at the same time an ideal possibility for development of tourist traffic. Utilizing of cyclopaths being built next to the waterways for regular cyclotraffic represent the healthiest and most ecological way for individual transport, as well as an opportunity for relaxation in the nature.

Utilizing of floating equipment on the Danube waters for interlocking of contacts between people and nations, mediating of cultural experiences, granting high quality services for tourists and propagating the ideas of spirit of humanity, help and friendship will bring a more valuable and richer life to all people in the surroundings of the Danube.

Connection of advantages and contributions of these phenomena will evoke by means of the blue-green connections on waterways new impulses for development of tourism and the passenger watertransport, for the inhabitants of the union CENTROPE further raising of the quality of life and for the visitors new interesting possibilities in the tourism.

### THE CHARACTERISTICS OF THE COMPANY NAUTIVIA

The company NAUTIVIA, s.r.o. was established for carrying out of activities in inland water transport. The main goal of the company has been preparing and realisation of projects in passenger shipping, especially by means of fast suburban and regional tourist and transport ships' lines on the Danube and adjacent waterways.

One of the first intents on which our company works within building up the new system „DUNAJBUS“, has been establishing of metropolitan and suburban lines of passenger transport within the region of the Capital city Bratislava.

Further subject of activities of the company NAUTIVIA has been granting of professional services by means of consulting within the inland water transport, in building of facilities designed for operation of vessels, mediating and sales of vessels and realisation of projects in river shipping.

### CHARACTERISTICS OF THE ASSOCIATION „Spoločnosť Ferdinanda Martinenga“

The company has been a non-profit association of people regardless the nationality, status, belief, or political orientation, being melted together by the tendency of building up and developing the humanistic traditions of European cultural heritage and the European fellowship.

The aims of the company are to help the handicapped persons and persons in need and emergency, to support the development of culture, revival and sustaining of historical traditions. The important task of the company is to present and evaluate the acts of human self-sacrifice and helping the others and contribution of personalities from all fields of life for propagation and promotion of spirit of tolerance, humanism and cooperation between people and nations.

### CHARACTERISTICS OF THE ASSOCIATION „CITY PRESSBURG“

The company CITY PRESSBURG s.r.o. was established with the aim to develop activities in the field of cultural, social and catering facilities with a strong emphasis to presentation, revival and development of the spirit of the old Bratislava, presentation of the Danube Region of the Bratislava District and Slovakia as a country. The company has been oriented on non-traditional and smaller forms of various public events, activities of galleries and providing of high quality services for citizens and visitors of Bratislava.

## SUBJECT OF THE PROJECT

The subject of the project is utilizing of the passenger transport in combination with existing and future cycloroutes in the vicinity of the Danube and its contributories with the aim of extending the transport possibilities and development of tourism in combination ship – bicycle, especially on territories of neighbouring regions of Austria, Slovakia, Hungary and the Czech Republic, cooperating within the association CENTROPE as well as on further stretches of the Danube waterway.

By means of establishing and operating of fast transport – and touristic ships' lines within the frame of Slovak – Austrian – Hungarian cooperation a new system of passenger ship's transport „the Danube ship's bus“ - DUNAJBUS will be introduced. For transport of passengers and bicycles a new type of fast passenger catamaran ships will be used, being designed and built specially for this purpose.

Within the connected field of touristic and travelling activities, the subject of the project has been building and operation of a great multipurpose facility on the Danube, intended for cultural, social, touristic and humanitarian exploitation as a special touristic attraction of overregional importance in Bratislava.

At the same time the floating fountain will represent a tribute to the Danube and its European importance as a symbol of cooperation and countries from West to East and to be a homage to all rescuers, firemen and policeman, who rescue and protect the lives regardless their own safety as well as volunteers, who help the others and improve their lives.

A big advantage has been the possibility of introducing the particular connection into operation without a need for building of demanding service buildings. Rather low investment fastidiousness of the particular projects as well as acceptable operational costs are a strongpoint especially regarding the proposed system of the fast regional touristic and service ships' lines DUNAJBUS.

In addition to a social and cultural importance, the Danube fountain MARTINENGO will offer on the blue-green connections providing of attractive services for cyclists on the international Danube cycloroute as well for the water tourists travelling on the Danube.

## STARTING POINT OF THE PROJECT

The river Danube and its contributories Morava, Rába and Váh are historical and natural transport ways connecting regions, residencies and centres on both rivers on the territory of Austria, Slovakia, Hungary and the Czech Republic.

Thanks the membership of all countries within the Schengen area and the free movement of inhabitants over the common borders it is possible to utilize these waterways for the shortest, very often fastest and most attractive touristic and transport connection and for a simple and uncomplicated movement of persons from one shore to another on behalf of personal, family-related, social and cultural connections, labour, business and tourist traffic.

Especially valuable appears the possibility of connection of the fast ships' lines in the healthiest and environmentally healthiest and friendly passenger transport, i.e. bicycle transports as well as a rapidly increasing development of leisure time bicycle activities on the cycloroutes on Danube banks and in the vicinity of rivers.

No one of the presently exploited means of transport on the proposed routes offers the possibility of combining the bicycle with ship's passenger transport as a priority, as it does the just mentioned created transport system DUNAJBUS.

At the same time just the development of cyclotransport has been due to generally known reasons one of the important priorities of transport policy of many European regions and agglomerations. From this view, a longer distance, e.g. between two to three kilometres from the particular habitations, or touristic traffic centres does not represent a problem.





## PREPARING AND REALISATION OF BLUE-GREEN CONNECTIONS REQUIRES :

Elaboration of studies, preparing and realisation of projects for establishing new types of fast metropolitan and suburban, regional lines and touristic ship's transport in cooperation with authorities of regional and local autonomous authorities of the association CENTROPE,

Sequentional establishing of local and regional and touristic transport lines and their operation including the transport of bicycles on the Danube and its contributories especially on the territory of neighbouring regions of Slovakia, Hungary and Austria, cooperating together within the association CENTROPE,

Next gradual extending of regional and touristic lines to the whole bordering Slovak-Hungarian Danube stretch, on the river Váh and to the lower stretch of the river Morava,

Establishing of fast touristic ships'lines connecting the Capital cities and regional centres Vienna, Bratislava, Győr and Budapest,

Cooperation with representatives and partners from the region of „South Bohemia“ (Jihomoravský kraj) in the Czech Republic in developing the leisure time and touristic shipping on the river Morava having a long-term aim of connecting the recreational waterway „Bařov kanál“ with the Danube waterway,

Partnership, coordination and cooperation with other transport systems and projects in the field of touristic traffic, culture and improvement of life, being prepared with the Danube region especially in frame of the Danube strategy , further programmes and also independant from them.

In our opinion, for extending the possibilities of the Blue-green interconnecting of waterways, regions and countries the most important partners are especially projects, tourist destinations and tourist centres

- the project of a cyclorute Via Danubiana on the central Danube flow from Bratislava to Beograd
- in Lower Austria the National Park Donau-Auen and the archeologic park Carnuntum
- in the territory of the Bratislava autonomous region the castle Devín, the Danube fountain Martinengo and the recreational centre Danubia Park in Čunovo being under construction
- in the territory of Trnava autonomous region the recreational centre in Šamorín, being under construction
- in the territory of Nitra autonomous region the wellness-recreational centres in Patince and Štúrovo
- in the Hungarian territory the cultural sightseeings in localities of Győr, Esztergom and Visegrád.

A good kind of accepting the idea of Blue-green connections by the partners of particular projects of systems in the field of transport and tourist traffic also by the public, will be also introducing of a generally known signing, or a logo, as for example:



Especially important intention has the building of a „Danube fountain Martinengo“ fulfilling in its social, cultural and human dimension not only the ideas of CENTROPE, but is has also the whole-European dimension.

For this reason in promoting and realisation of these goals we will cooperate with respective state authorities, all regional and local autonomous authorities and other public and non-public subjects in regions and countries in territory of which the intended ships'connections and activities in connection with the Danube fountain will be built and operated .

## THE PROCEDURE OF RELISATION OF BLUE-GREEN CONNECTIONS

The procedure of building od system of Blue-green connections counts with a sequential introduction and operation of new ship's connections for passenger also with bicycles between habitations, economic, cultural and tourist centres in regions situated on both river banks in the whole intended territory in the category of:

- Metropolitan and suburban transport- and tourist ship's lines in the region of Bratislava
- Regional and transport and touristship's lines on bordering stretches of the Danube and on the rivers Rába, Váh and Morava
- Fast touristic ship's lines connecting the capital cities and regional centres Vienna, Bratislava, Győr and Budapest.

The particular ship's connections will be introduced as fully operational and economic autonomous projects with their own technological hinderland. Interconnections between the particular lines in the new system of passenger transport DUNAJBUS will be organisatory guaranteed through the project author, i.e. the company NAUTIVIA, being their operator, or a possible coordinator between more chosen operators within the regional cooperation.





## THE NEW SHIP'S TRANSPORT SYTEM „DUNAJBUS“

In the time, when the pressure on throughputs of the road and railway corridors in all mentioned territory increaes and the waterways can be crossed only by means of existing bridges, connection of villages and centres on opposite, but also on the same river banks, by their air-distance being often very close to each other, it seems to be more advantageous taking into account the time and economic views, to solve the transport problems by means of a fast ship's connection rather than by means of road-or railway connection.

The purpose of the proposed new fast transport and tourist connections is, an addition to other aspects also unloading the road transport which has been on certain directions, especially in the area of big agglomerations, as for instance Bratislava at the edge or even behind the limits of possibilities.

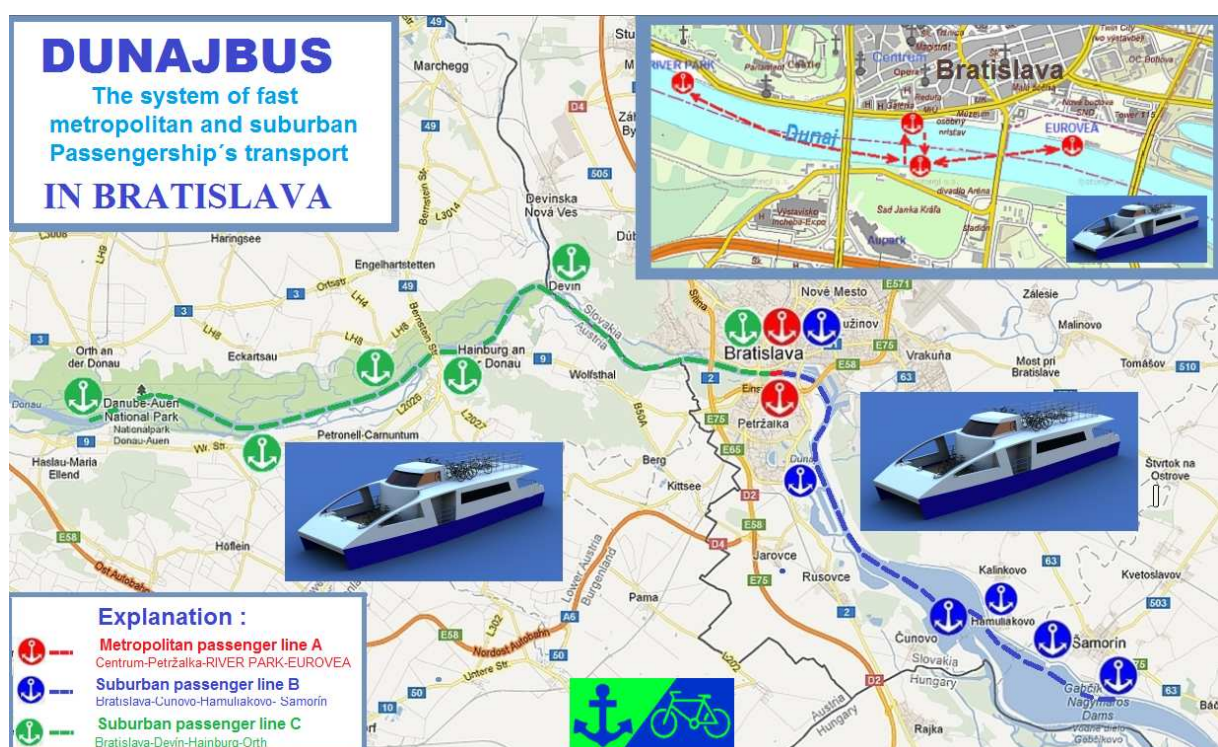
The basic advantage of the ship's fast passenger transport on the proposed stretches against land transport routes has been in addition to direct connection also in uninterrupted transport route not being unhindered by traffic jams.

In favour of the new transport type on the Danube and its contributories witness in addition to transport aspect also ecologic and economic aspects emphasizing the possiblity of shifting at least a part of individual car traffic to overstandard ships 'transport.

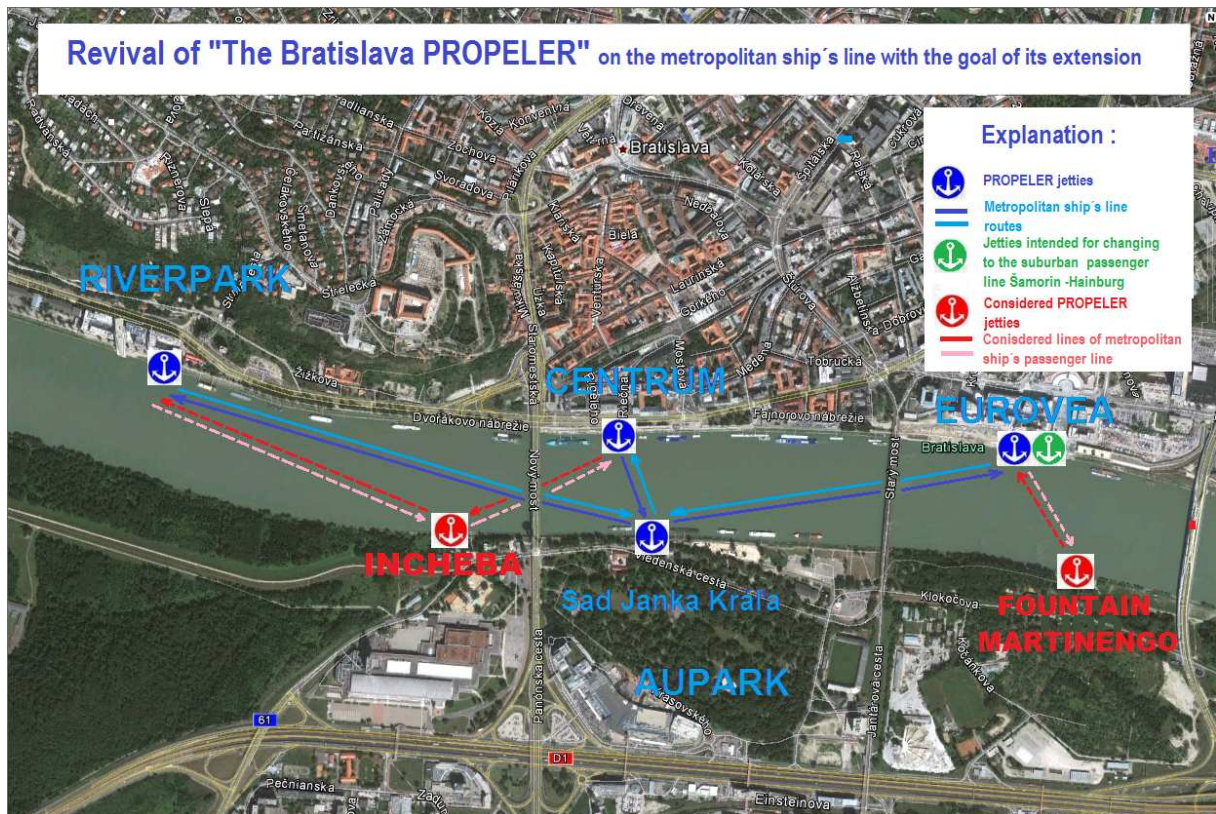
In case of building a sufficient parking areas at the most important landing facilities and regarding the high standard of the ship's passenger transport, it will be possible to count on the clients, presently using private cars, the number of which are one of the main reasons for collapsing suburban road traffic.

Increasing of effectiveness of the fast passenger transport and its advantageousness for the public is possible by the possibility of local bus traffic, transporting the passengers especially from the suburban terminal centres to the landing facilities. The project takes into account this fact of course, in cooperation with regional and local autonomous authorities.

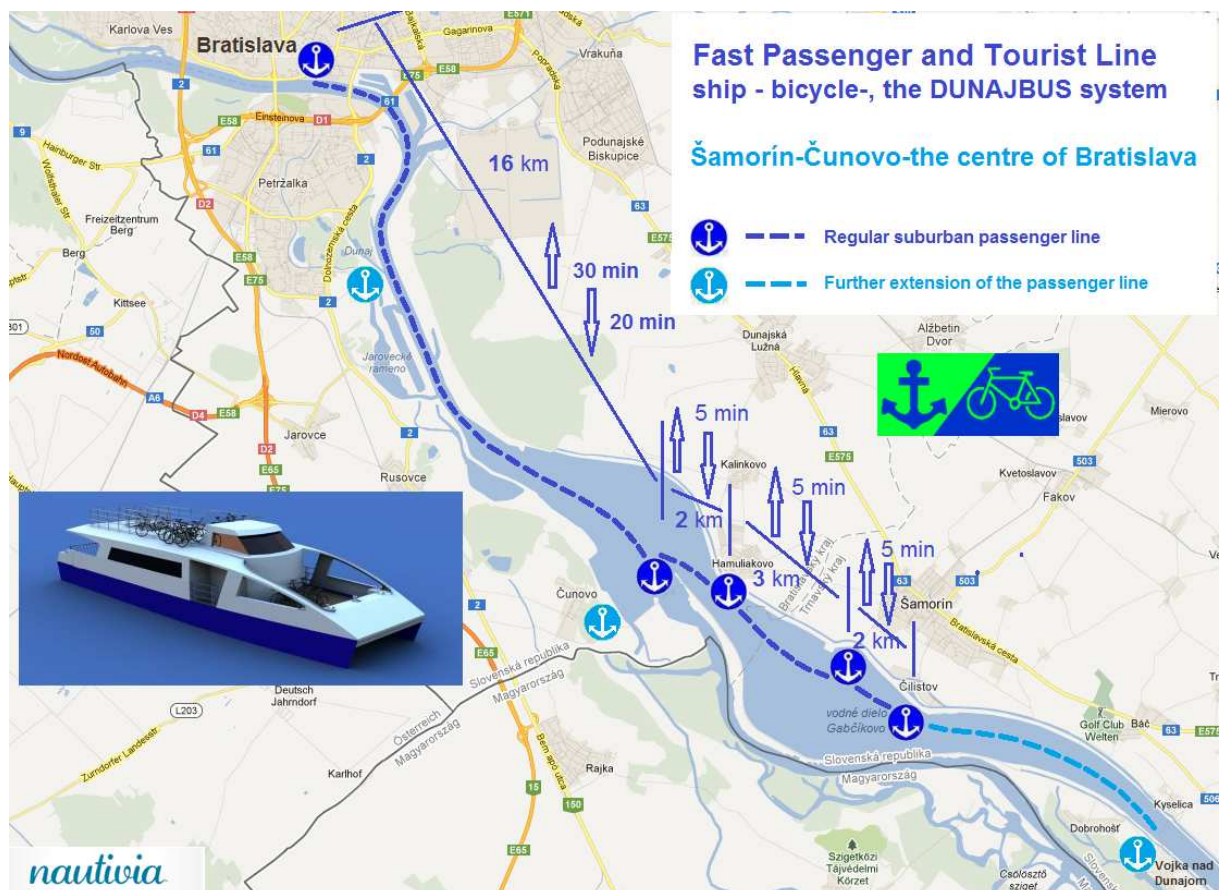
The pilot projects, being proceeded within the ship's transport system DUNAJBUS for the fast transport of passengers and bicycl es is the local and suburban ship's transport in Bratislava.







Fast suburban ship's line – and tourist connection of the marginal and suburban areas of Bratislava with the capital city centre : Šamorín – Hamuliakovo – Čunovo – centre of Bratislava.



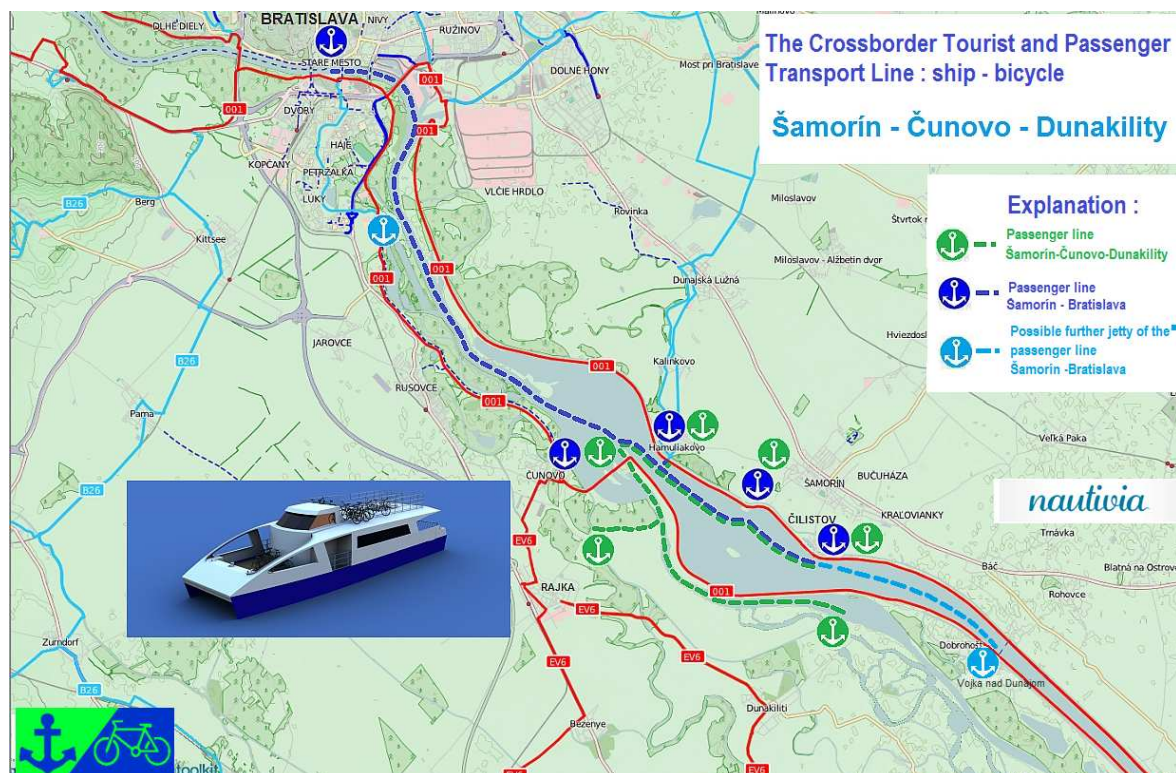
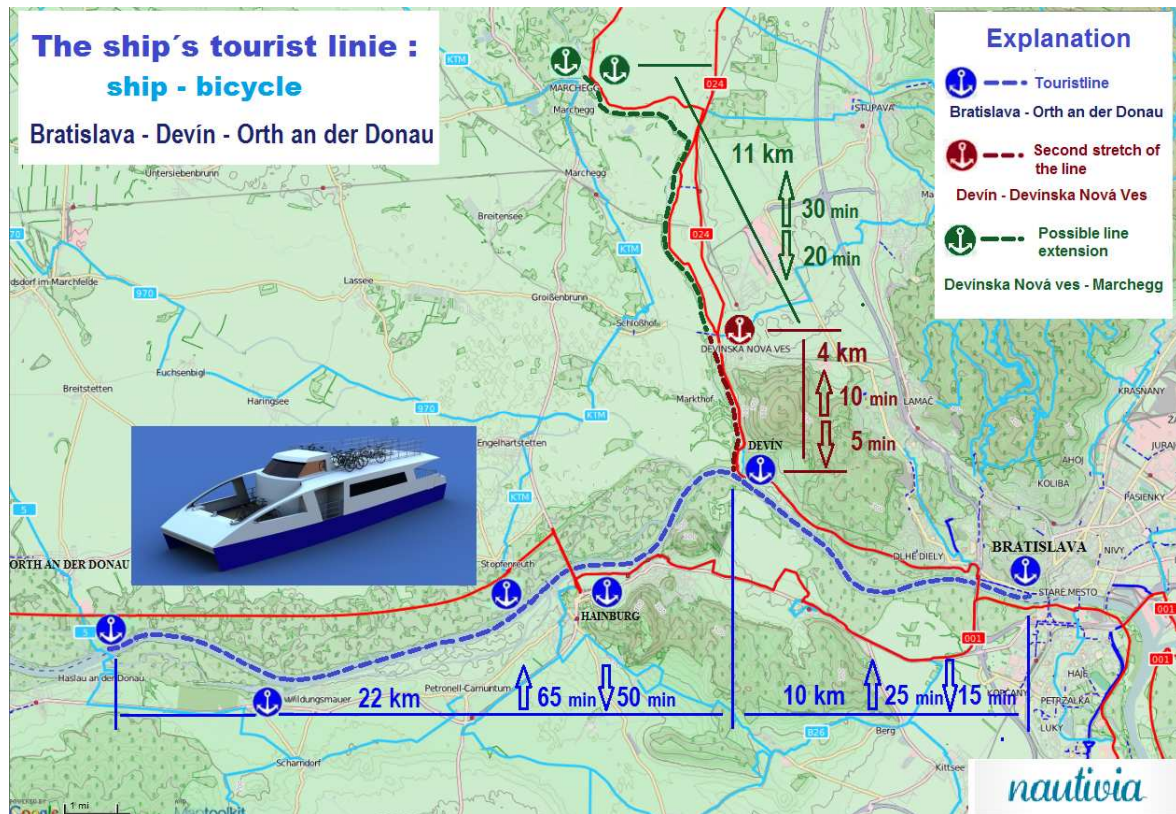


To the main suburban connection on the Danube in the region of Bratislava shorter Slovak-Hungarian border-crossing tourist ship's lines on the lower Morava and Danube will be connected:

- Devínska Nová Ves – Devín – Orth an der Donau to the centre of the National park Donau Auen.

The Slovak – Hungarian tourist border-crossing connection through the Hrušov retention plant of the Hrušov hydroelectric power plant, the navigational lock Čunovo and the old Danube riverbed.

Šamorín – Čunovo – Rajka – Dunakiliti into the area of the Hungarian river arms system





The fast ferry commuter lines will follow the DUNAIBUS other regional utilities and tourist boat traffic on shared connections Slovakia - Hungarian section of the Danube:

Šamorín – Gabčíkovo – Komárno – Komárom, Komárno, Štúrovo- Esztergom – Visegrád

Emphasising the fast connection of habitations and centres of tourism on the Slovak and Hungarian Danube banks.

Connecting the transport – and touristic ship's connections on the Danube through the port facility in Komárno, the systems considers further tourist and liner ships' connections on the Lower Váh on the stretch:

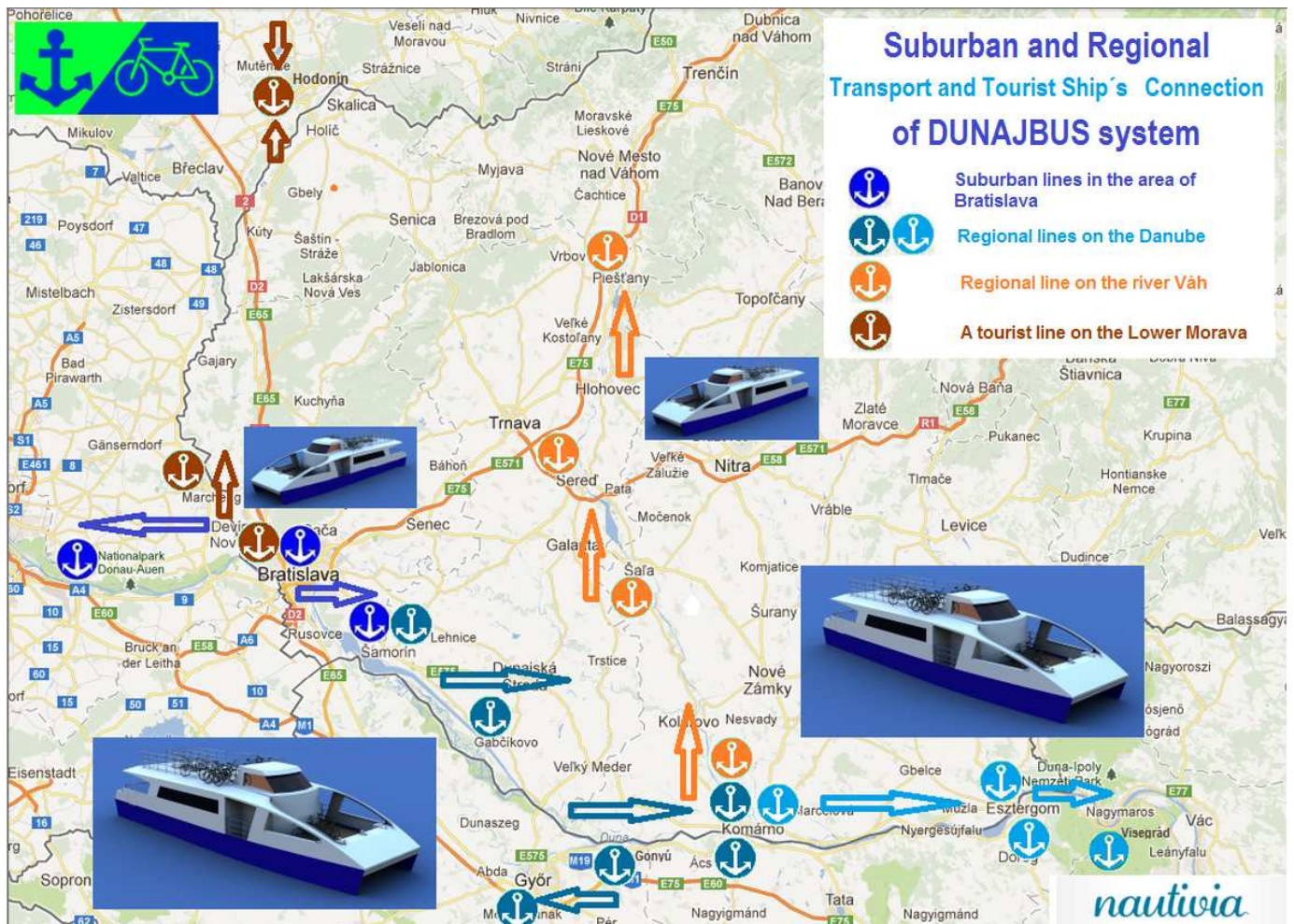
Komárno – Kolárovo – Šaľa – Sereď – considering the prolongation following replacing the river Nitra up to Nové Zámky.

After finishing the construction of the new waterplant on the Váh Sereď – Hlohovec also the line:

Sereď – Hlohovec – Piešťany considering also further extension of connections after canalisation of the whole river Váh.

Tourist ship's connection on the Lower Morava with connection to the Danube:

Devín – Devínska Nová Ves- Marchegg with an intended connection to the Baťa – channel.



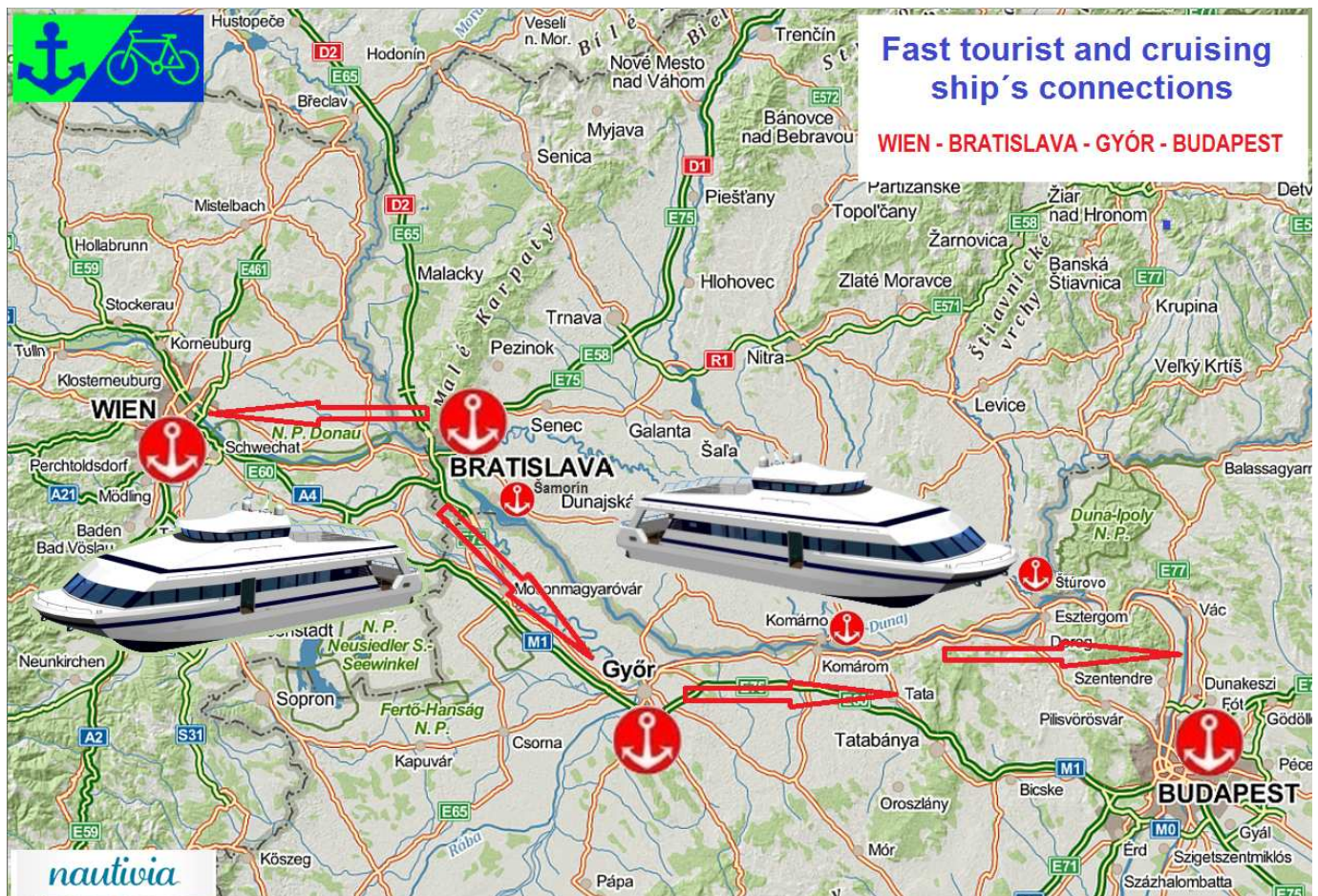


For an attractive tourist connection between the capital cities of the Austrian Republic Vienna, the Slovak Republic Bratislava, the regional centre and the seat of the district Győr – Mosony-Sopron, the town Győr in Hungary and its capital city Budapest, the project intends to establish fast and comfortable cruising tourist ships' connection on the Danube:

Bratislava – Hainburg – Orth an der Donau – Vienna

Bratislava- Šamorín – Gabčíkovo – Győr on the river Danube and on the lower Rába

Győr – Komárno/Komárom –Štúrovo / Esztergom – Budapest.



Involving the South Moravian region of the Czech Republic into the project of Blue-green connections will be carried out by means of construction of a passenger and recreational port on a common Slovak- Czech stretch of the river Morava in Hodonín.

This multipurpose port will be the new terminal point on the recreational waterway „Baťov kanál“ with possibility of connecting on the whole stretch:

Hodonín – Skalica – Veselí nad Moravou – Uherské Hradiště - Otrokovice.

The port in Hodonín will have a great importance also for continuing building the recreational waterway Morava up to its interconnection with the river Danube.

## DESIGNING OF LANDING FACILITIES FOR THE PASSENGER TRANSPORT CONNECTIONS AND THEIR INTERCONNECTIONS WITH CYCLO ROUTES

For achieving of possibly best transport effect and maintaining the advantages of a fast passenger transport on waterway, and creating of ideal conditions for a combination with cyclotransport and cyclo- tourism it is very important to apply a suitable conceptional and technical solution of landing facilities and a suitable access to them as well as with the possibility of changing to another means of transport in the particular territory.

For this purpose the project considers in addition to exploiting of existing landing facilities in the serviced stretches of waterways in a form of renting relations with their operators, building of new landing facilities and as a most suitable form, by building of so called „public landing facilities“ being operated by the local autonomous authorities in the particular area.

For the purpose of building of new landing facilities it will be possible to utilize floating pontoons – jetties, specially designed and properly equipped for this purpose, which can be built from new materials, being extraordinarily operationally, economically and ecologically suitable for this purpose as for instance plastics and concrete.

All landing facilities for the system of suburban and regional passenger ship's transport will be proposed on places already being equipped access roads and with possibility of changing to another means of transport in the said territory.

However, for their possible best transport service it will be necessary to accomplish building of regular reinforced roads, suitable also for public bus traffic, building of sufficient parking places at the most important landing facilities being suitable even for whole day parking of cars, cycloroutes, leading from habitations being properly marked up to the landing facilities.





## THE POSSIBILITY OF EXPLOITING THE LANDING PLACES FOR SERVICES FOR CYCLISTS AND WATER TRAVELLERS

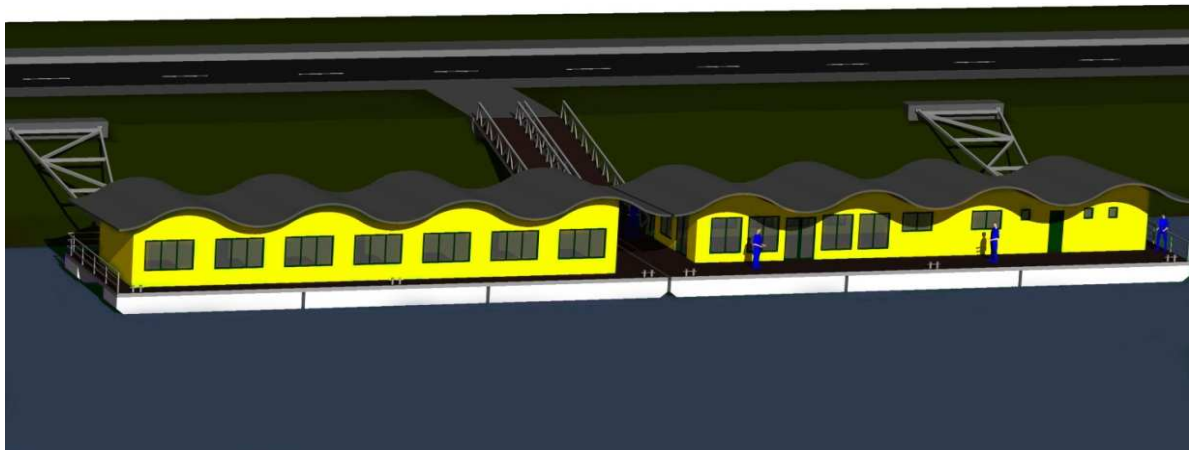
It is possible to exploit the completed facilities within the Blue-green connections in addition to the ships' operation also for waiting, embarkation and disembarkation of passengers to/from vessels, providing very advantageous services to cyclists and water travellers on crossing, or touching cycloroutes on the waterway.

Along with fulfillment of basic conditions for placing and operation of landing pontoons of the system DUNAJBUS it is rather simple to extend the services of landing facilities by means of another floating equipment designed for providing of so called „Stop-by“ services including accommodation and catering on the cyclo – and water tourist route.

For the purpose of quality of offered services, good informing and favour of tourists as well as for marketing purposes it is necessary to create for these services in the facilities within the Blue-green connections to create an uniform „Danube standard“ under a new own brand guaranting the quality.

The combined landing facilities for ship's connections as well as for services for tourists, using the proposed new types of floating equipment it will be possible to build further facilities by means of a module system for specific kind of services in varying capacities.

The basic modules in this solutions are the landing pontoons with dimensions 24 x 8 m as a boarding facility including waiting room, reception and catering and accommodation facility with dimensions 24 x 8 m with 7 accommodation units for 2+2 persons in „ship style“ cabin having its own entrance from the deck and toilet, all together with capacity of 28 beds. The bicycles or sports boats can be put aside /moored in front of the facility. The capacity of the facility can be extended by their prolonging by 8 m steps, or by increasing of their number.



## TECHNICAL REALISATION OF THE SYSTEM OF BLUE-GREEN CONNECTIONS

For the purpose of operating the fast ship's connections a new type of passenger vessels DUNAJBUS will be introduced. The ship will be built as a catamaran, being constructed from a special plastic material, with dimensions of approx. 22 x 6 m, capacity 85 passengers, or with dimensions 30 x 8 m with capacity of 150 passengers, operational speed of approx. 40 km/h and reaching a very high standard for transport of passengers and bicycles.

The ship's construction and used material for their building – a special plastic possessing a multiple UV-stabilisation, shockproof, resistant against growing of microorganisms, resists against chemicals, being lighter as water, will enable a fast and reliable, economical operation without restrictions except overflowing situation and intense ice drifting. Equipment of the vessels by modern navigational aids, will enable their operation in heavy duty conditions, including night sailing. Complete sound equipment and possibility of internet connection will be an indivisible part of providing a high service standard for the passengers.

Technical parameters of vessels, compact dimensions, very favourable maneuverability, low draught and powerful propulsion machinery will enable them to land on suitable landing facilities practically on all places, being interesting from view of transport and tourism on the operated routes.

The main advantage of the proposed new type of vessels against the slow, presently exploited sightseeing boats, is the transport speed on all stretches and connections. In comparison with faster ships, as e.g. the hydrofoils of VOSCHOD and METEOR type the above vessels can land also on places with low depths, what the hydrofoils cannot. A comparable type of vessels are only the vessels of TWIN CITY LINER type being operated by an Austrian operator. However, their utilization because of their high acquisition and operational costs has been neither probable, not suitable for the regional liner service.

For embarking and disembarking of passengers in the system DUNAJBUS landing pontoons with dimensions approx. 24 x 6 m being built from the same materials with the same outstanding operational properties as the ships of DUNAJBUS can be used, the project documentation of which was elaborated within the said project of the study regarding the cross-border accessibility of the Trnava autonomous district.

## TECHNICAL SOLUTION FOR THE FAST AND EXCLUSIVE CONNECTION BETWEEN THE CAPITAL CITIES AND REGIONAL CENTRES

The main means for attractive offer of new tourist ship's lines between the capital cities, regional and tourist centres situated on the Danube will be the new type of fast passenger catamaran vessel JB275 RIVERCAT with dimensions of approx. 28 x 7 m, being constructed from a special plastic. A fast passenger vessel designed for 107 passengers and a crew of 3, will reach a speed of 65 km/h, it will have an exclusive interior, including a bar, possessing a very good nautical features and manoeuvrability, favourable operational costs and minimum demands for maintenance and servicing of the ship's hull as well as of the whole vessel.

The main parameters, technical and overall design as well as its inner spaces was processed in accordance with a layout of an experienced operator of passenger transport on the Danube. In order to reach even higher attractiveness, this type of vessel can be further modified in accordance with demands of future partners in projects regarding introducing of these ship's connections.



## DESIGNING AND BUILDING OF SHIPS FOR NEW CONNECTIONS

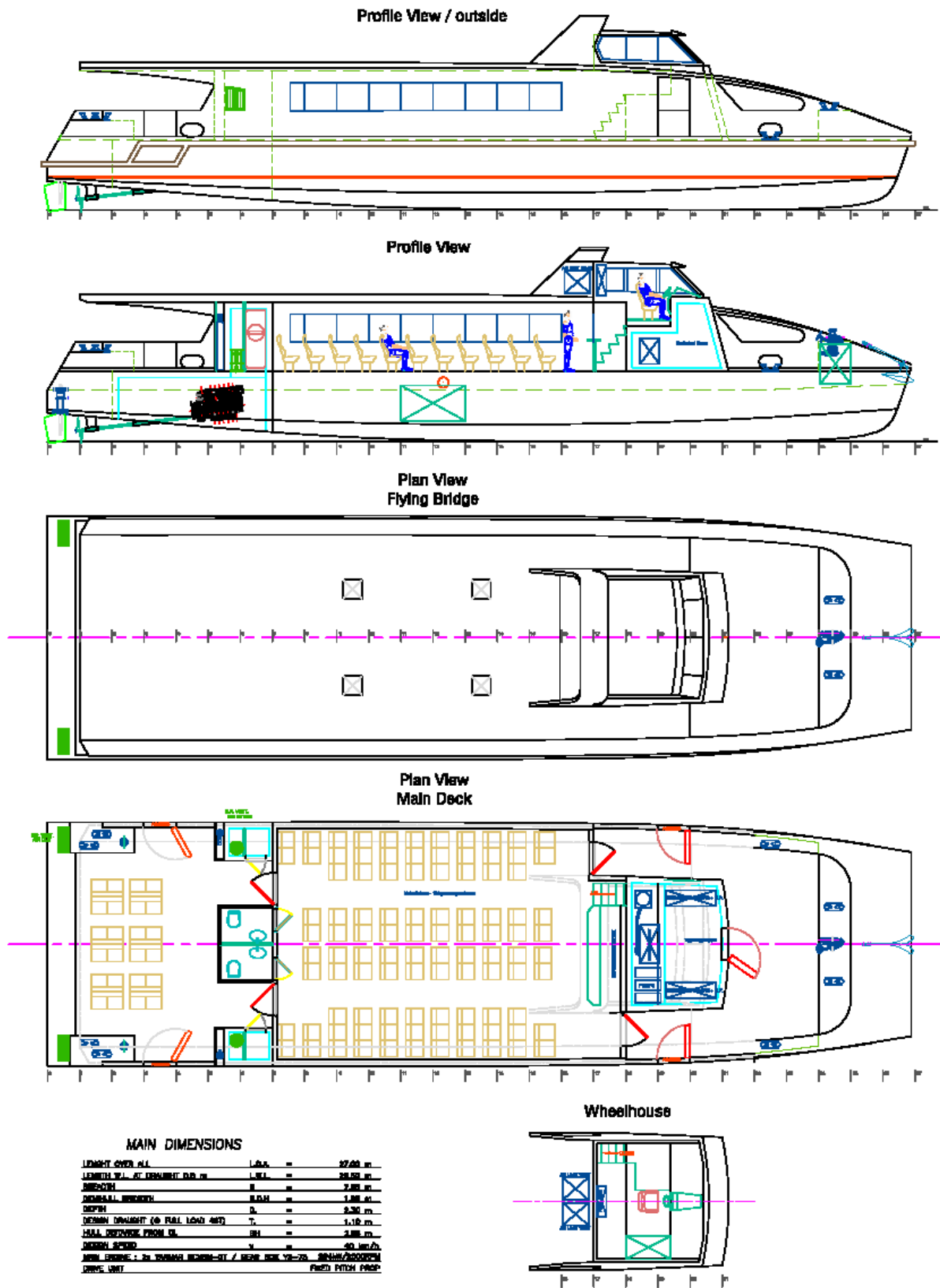
Pre-project preparation projection works on particular types of vessels for the proposed liner connections, as well as building of vessels will be carried out within the new Slovak shipbuilding company JAMES BOAT EUROPE, s.r.o. founded especially for this purpose in Bratislava having the goal of building ships especially from special plastics.

The high grade of workmanship and quality in shipbuilding not only for the purpose of the intended project, but also of further planned types of commercial, working, duty and leisure time ships has been guaranteed by means of connecting the potential of the Czech manufacturer of plastic ships, the company OFF-SEA Prague, which is probably a world leader in shipbuilding using this type of material, and the well-known manufacturer of superyachts, the company DMC Bratislava and our company NAUTIVIA, s.r.o.

The passenger ship – catamaran „DUNAJBUS 2“ built from a special plastic material with dimensions  $L=22\text{ m}$ ,  $B=6\text{ m}$ ,  $T=0,8\text{ m}$ , propulsion power  $2 \times 250\text{ kW}$ , speed  $40\text{ km/h}$  for 80 passengers and bicycles for liner – and tourist transport.



Passenger ship – catamaran „DUNAJBUS 3“ built from special plastics with dimensions  $L=30\text{ m}$ ,  $B=8\text{ m}$ ,  $T=0,8\text{ m}$  power  $2 \times 350\text{ kW}$ , speed  $40\text{ km/h}$  for 150 passengers + bicycles for liner – and tourist transport.





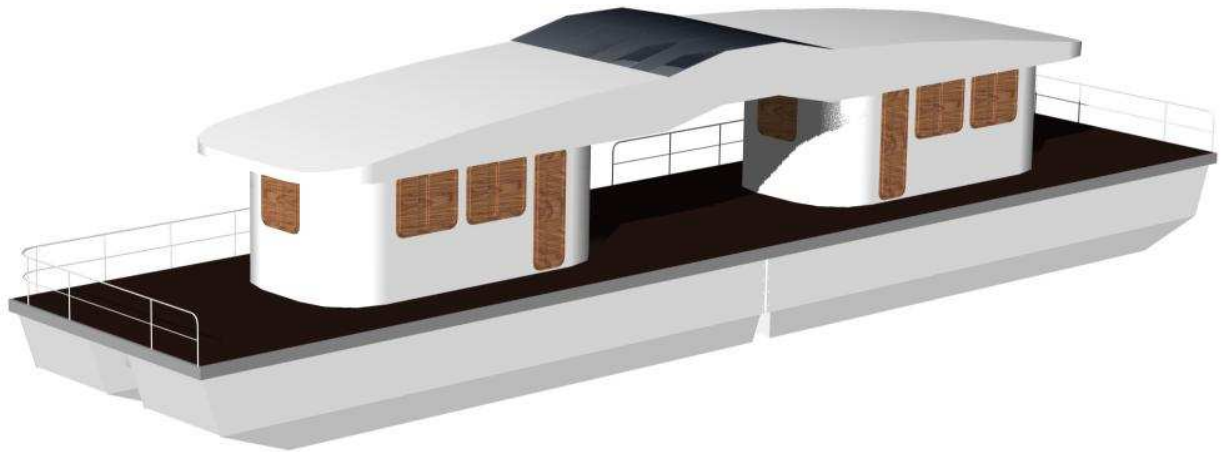
Fast passenger catamaran ship „DUNAJBUS 1“ built from a special plastic material with dimensions  $L=27$  m,  $B=7$  m,  $T=0,6$  m propelled by a Water Jet  $2 \times 350$  kW, speed 55 km/h for 85 passengers + bicycles, for regular liner – and tourist transport.



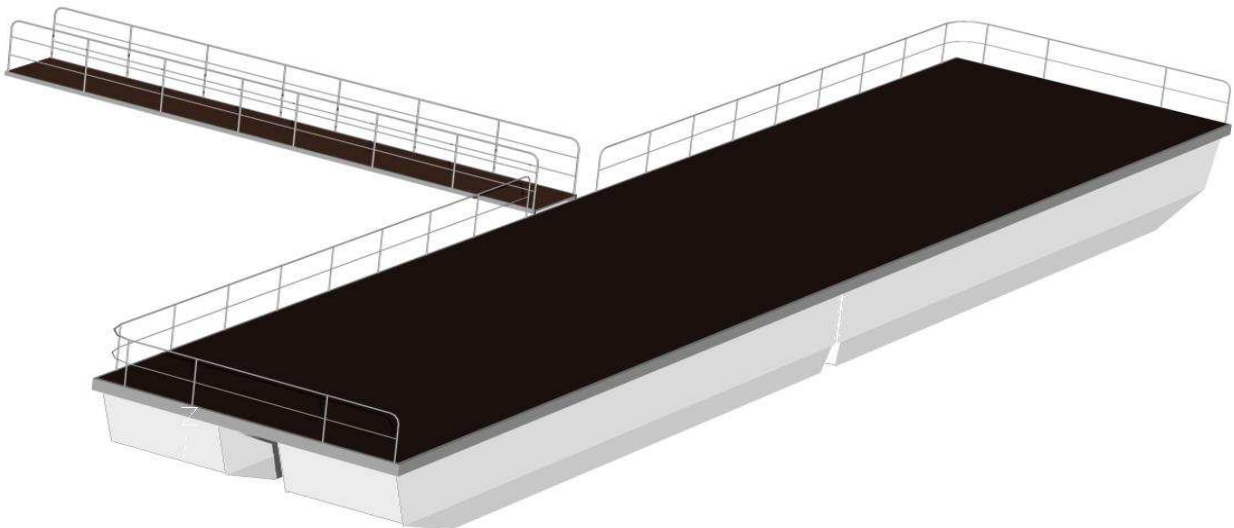
Exclusive fast catamaran JB275 RIVERCAT L=28 m, B=8 m, T= 0,8 m, propulsion machinery Arneson Surface Driver 2 x 450 kW, speed up to 65 km/h for 107 passengers + bicycles for tourist transport.



Base landing pontoon with floats from a special plastic material L=24 m, B=6 m with superstructure for passenger services designed for regional liner- and tourist transport.

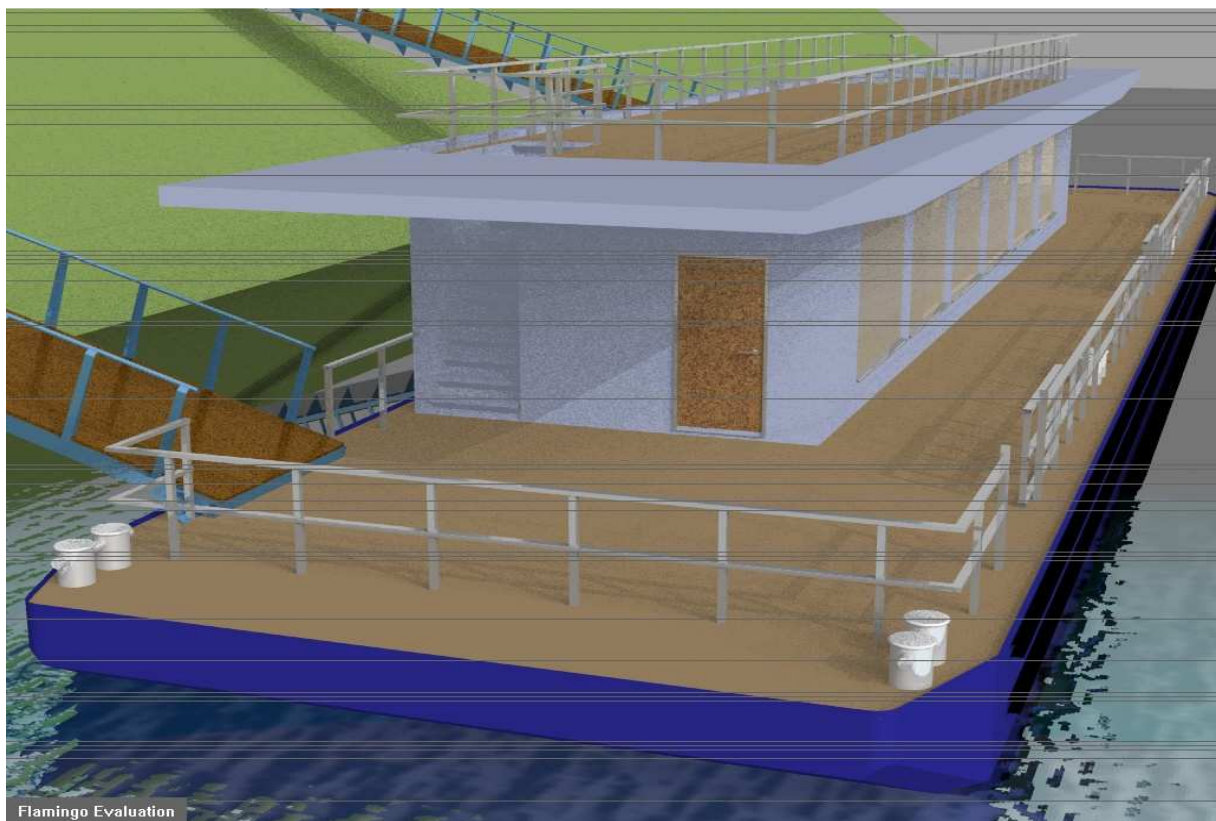
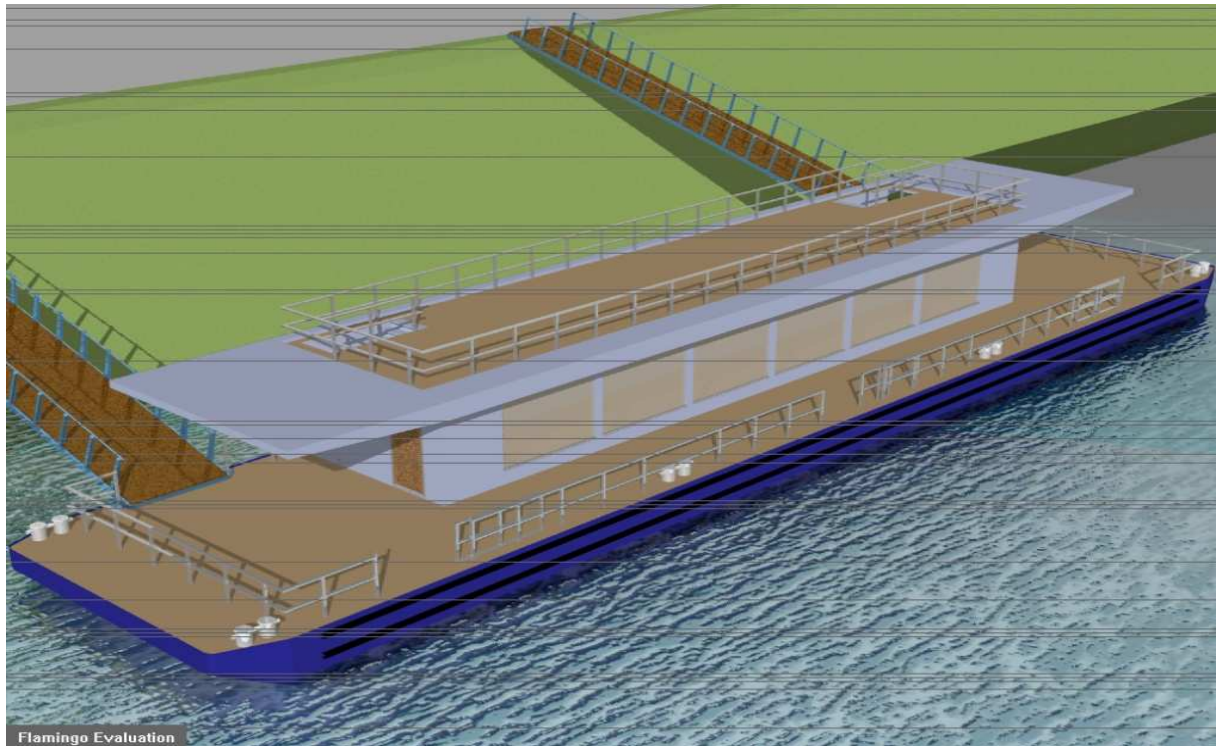


Operational landing pontoon with floats from special plastics L=24, B= 6 m for regional liner-and tourist transport.





Landing pontoon for metropolitan line PROPELER in Bratislava with floats from a special plastic material  $L = 36$  m,  $B = 8$  m with superstructure designed for passenger services.



## AN EXAMPLE OF OPERATIONAL SOLUTIONS AND ECONOMIC CALCULATIONS OF LINER – AND TOURIST CONNECTIONS

As an example and basic model for operational solutions and economic calculations of suburban and regional liner- and tourist connections it is possible to utilise the realised study of the Trnava autonomous district „Improvement of border-crossing accessibility in the area of Hrušov- accumulation reservoir of the water powerplant Gabčíkovo“ being promoted from the programme of border-crossing cooperation.

Within the mentioned study a detailed study and economic modules was elaborated together with a complete evaluation of all connectivities and a technical basic documentation for building a catamaran passenger ship „DUNAJBUS 1“ , as well as of two types of landing facilities.

A detailed economic analysis with evaluation of particular variations was elaborated taking into account the views of:

- The route
- Budgetary costs
- Investor
- Operator or subsidies into operation

By combination of particular views there were elaborated more than 30 alternatives. Some of them were from economic view infeasible. One of the most advantageous ones from the view of return of investment an alternative was chosen, which was intended for the liner connection on the route:

Šamorín – Hamuliakovo – Čunovo – Rajka – Dunakiliti – Bratislava – Hainburg and vice versa.

The mentioned ship's connection is intended to carry out the passenger transport for the period of 8 months in a year. Within 1 day the vessel would carry out 4 rounds. During this kind of transport in exploitation rate of average 27% the ship would be able to transport over 200.000 passengers yearly.

The mentioned alternative was based on budgetary costs amounting 1,555.000 EURO. On this route 4 kinds of time tickets are intended, whereby the basic price was calculated for 2 Euros and further types of time tickets would be a fold of the basic ticket. Also a reduced rate for certain groups of passengers were taken into account. Applying this price relation and planned exploitation the project would be paid back within 8 years.

From the view of realisation of the proposed ship's connection, for the projects feasibility there was evaluated as the most favourable form the cooperation between regional autonomous authorities of TTSK and BSK as the initial operators of these ship's connections and a private operational company, carrying out the operation itself and the coherent services. The local autonomous authorities can operate the landing facilities.



## THE FLOATING DANUBE FOUNTAIN MARTINENGO

The water phenomenon, as a basic condition for life and a great water flow, as for instance the Danube river, offers an excellent possibility for development of tourist trade and creating possibilities for special cultural and social experiences and for promoting of ideas of humanity by means of a new cultural and touristic floating facility on the Danube.

Placing of a floating fountain as a new dominant on the Danube directly in the centre of the capital city of Slovakia – Bratislava, will enable organizing of various forms of cultural and social life and presentation of the town as well as presentation of the capital city itself, region of Bratislava and the whole Slovakia and its exploiting as an important tourist facility for providing services for cyclists on the Danube cyclo route as well as for water travellers.

The monumentality and generosity of the floating vessel itself, as well as of water – and light effects being produced from its deck, will be an ideal form for paying tribute to the Danube, the ideas of Europeanship, cooperation, help and humanity not only in Bratislava and in Slovakia, but in a whole European dimension.

The Danube fountain Martinengo will be built up by rebuilding of a big Danube cargo motorship, being built in Slovakia, with dimensions 101 m x 14 m. The complete rebuilding will be carried out by Slovak shipbuilding companies.

The floating fountain as a non-propelled facility will be moored on the right hand bank of the Danube between the „Old Bridge“ and the „Apollo Bridge“ opposite the most beautiful part of the Danube river bank next to the new shopping, dwelling and social centre EUROVEA and at the same time opposite the New Slovak National Theatre.

The vessel will be equipped with systems designed for creating water – and light effects functioning in irregular intervals as let's say an „astronomical clock“, but in a special regime also for various occasions. The main and strongest jet of the fountain will symbolise the phenomenon of the Danube and 10 smaller jets will symbolise the Danube countries. Having in mind the presentation of Bratislava and Slovakia, but also a possible commercial purposes, by means of laser technology it will be possible to project on a „waterwall“ big static pictures, as well as a traditional and 3D video projection.

For cultural, social, convention - and presentation purposes there will be on the vessel in the former cargo holds spacious gallery – and convention halls, being equipped with all necessary technological equipment.

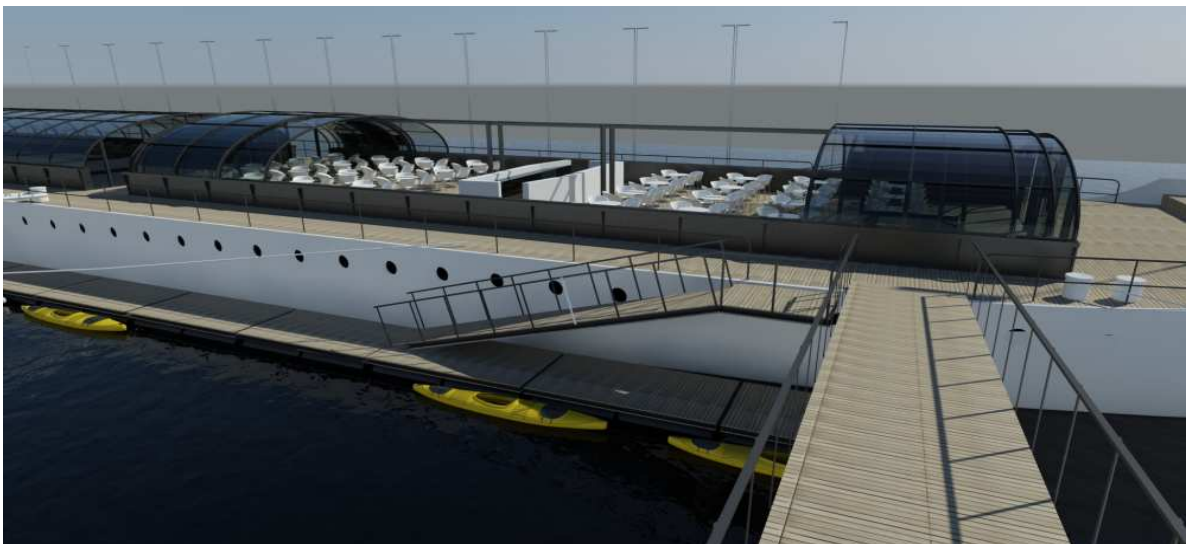
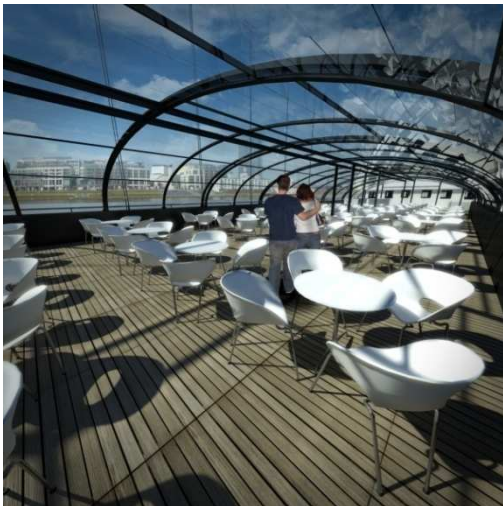
The gallery part will be oriented especially on the Danube themes, humanity, Slovak national artistic traditions, as for example wire binding etc. but also on history of fire fighting and rescue services, the founder of which in Bratislava was just Ferdinand Martinengo. On the vessel there will be also rooms for club activities of former and present members of firefighting and rescue services and the Police.

For purposes of providing services to tourists, water travellers, but also to all citizens of Bratislava, the proposed multipurpose floating equipment will be equipped by a catering facility offering services in the range from simple snacks till organizing banquets on the occasion of cultural, social and humanitarian events on board the vessel.

Of course, all these rooms will be equipped with barrierless entrances, access possibilities and toilets properly modified for using by handicapped persons.











## GLOBAL COSTS FOR VESSELS OF THE PLANNED SYSTEM OF BLUE-GREEN CONNECTIONS

Technological equipment of particular fast ship's connections on proposed waterways of countries being associated within the CENTROPE would require following numbers of vessels and landing facilities:

- For metropolitan, suburban and regional lines 10 vessels of DUNAJBUS 2 type with price amounting approx. 950.000 EUR
  - + 6 base pontoons with price amounting approx. 300.000 EUR
  - + unspecified number of operational landing facilities with price amounting approx. 150.000 EUR
- For fast tourist connections between the capital cities and regional centres - 3 vessels of JB275 RIVERCAT type with price approx. 1,800.000 EUR + 1 base pontoon with price of 300.000 EUR
- Construction of the floating facility „Danube fountain Martinengo with price amounting 2,500.000 EURO.

The scope of works and amount of financial means needed for building of necessary shore equipment of landing facilities, parking places, cyclopaths, tourist and traffic signs as well as means of information will be possible only based on discussions and cooperation with the municipal and district autonomous authorities.

## INFLUENCE ON ENVIRONMENT AND NEW EMPLOYMENT POSSIBILITIES

The material from which all transport vessels of DUNAJBUS and RIVERCAT will be built, possibly also the landing pontoons on the intended new landing facilities – i.e. a special plastic material, has been absolutely harmless toward the environment, there is no need for any coatings, as well as any aggressive cleaning substances. The mentioned material absorbs noise and vibration in a considerable way, i.e. the vessels being built from it don't mean any negative influence on the environment.

The propulsion engines on vessels will be of latest fuel-saving generation, fulfilling the most strict EU specifications. Extraordinary important contribution for environmental protection in the field of reduction of carbon pollution could be reached by means of using the liquified natural gas. At the same time, this possibility appears to be very interesting also for its innovative access and application of new progressive technologies from the production up to vessels' operation. Having in mind the extended scope of works and increased investments costs an important help would be granting of promotion for this project from the EU funds.

From the mentioned facts it is obvious that the vessels' operation on the new lines of Blue-green connections will have no harmful impact on the environment.

In connection with all intended new ship's connections there is a possibility to create approx. 80 new working positions in operation and servicing the vessels and approx. 40 new working positions in shipbuilding in the newly established shipyard. Another working position could be created in operation of the particular landing facilities especially in form of complementary and servicing activities for passengers and tourists.

## CONCLUSION

Finally it appears necessary to say that the metropolitan, suburban and regional liner service and the fast tourist ship's transport will be a considerable contribution for granting an attractive and ecologically harmless means of transport and tourists between particular habitations and centres on the Danube. The new Blue-green connections on the waterways will considerably contribute to extension of transport possibilities and development of tourism in the common Danube region, especially in the ideal combination with the rapidly developing cyclotravelling in the territory of all four countries and their regions being associated in CENTROPE.

Following the connection of Bat'a-Channel to the river Morava and building up the recreational port of Hodonín on this waterway also the possibility of future interconnection to the whole system of passenger and recreational shipping on the Danube waterway.

The intended system as a whole, but also through particular projects as for its scope and importance for development of water transport and tourism on the territory of four neighbouring countries could apply for necessary financial means from the European Union.

We are convinced that by this project we will succeed in drawing the attention not only of the representatives of the neighbouring regions and countries participating in CENTROPE, but also of all municipal autonomous authorities, interested branches from the field of touristic traffic and other partners having in mind the goal of introducing the new water connections in favour and welfare of inhabitants and visitors of Danube and Morava-regions all neighbouring countries in nearest future.

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