

PROVENTUS team

PROVENTUS is an association of designing and engineering companies. We are covering the whole process of construction design and also, where necessary, we cooperate and include executive companies for needed segments.

Members of Proventus Team:

Promico Ltd., BPI Ltd., IPSA Ltd., Arhitektura Ltd., Dia Ltd., Legada Ltd. and SPIT Ltd.

Lately saw majority of our consortium members focusing their efforts mostly on the motorway structures in Slovenia, where we prepared designs and carried out construction supervision.

We have always been actively involved in the design of the existing Slovenian primary road network reconstructions as well as with the design of the extension of the Slovenian railway infrastructure.

In the last years, we have been active also internationally, mostly in Bosnia and Herzegovina, Serbia, Croatia, Albania, Bulgaria, Romania, Italy and Libya, performing designs, design revisions, technical consulting and supervisions of all types of construction projects.

PROVENTUS team has more than 200 employees, among them there are more than 100 engineers who offer designs for road, motorway and railway sections as well as for all types of buildings, sports facilities and waste water treatment plants.

In PROVENTUS team we believe in logical-rational, innovative, and high-quality solutions. Pursuing those principles and the use of modern technology enables optimum execution of the structures and makes them sustainable as well as harmonious and visually appealing.

Seeking new challenges, we have tried our luck at engineering projects which we see as an upgrade and added value of our core services. Based on our previous experience with design & build projects, we are keenly aware that customers prefer to deal with a single provider of services.

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Co-manager: Milivoj Ročenovič, M.Sc.C.E.

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PROVENTUSteam

Arhitektura d.o.o.













BPI Ltd.



BPI Llc. (BPI d.o.o.) was established in Maribor, Republic of Slovenia in 1990. The founders were expert engineers who wanted to push the road and infrastructural design to a higher level. The company made a huge leap forward with the introduction of C-Plan road designing software; it was the first engineering company in Slovenia that used CAD software for road design.

In 1998 we made the 100 fastest growing companies of Slovenia list (Gazelle), as highest ranking civil engineering company that makes its revenue solemnly with project design, project management and auditing.

BPI Ltd. was among the first engineering companies in Slovenia to start using the roundabouts as a part of a solution to increase safety and reduce the number of conflict points at intersections. Years later, we are the pioneers in introducing improved 2 lane turbo roundabouts to Slovene public.

The BPI Ltd. currently employs 12 highly skilled civil engineers and administrative personnel, with additional 3 students of civil engineering employed as trainees. We work closely together with other renown engineering companies in Slovenia and abroad to provide best solutions for motorway, road, bridge, environmental and infrastructural design.

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Main References

Some of our larger reference projects:

- Motorway Maribor Hungarian border section Section Lenart – Cogetinci
 - subsection: Lenart Sp. Senarska
 - subsection: Sp. Senarska Cogetinci
- Motorway Koper Lendava, section Beltinci Pince,
 - subsection: Beltinci Lendava
 - subsection: Lendava Pince with expressway connection onto Dolga vas
- Motorway section Pesnica Slivnica
- Regional road R3-705
 - section : Ruše Puščava
 - subsection: Ruše
- Regional road R2-424
 - section : Boštanj Sevnica Planina
 - subsection: Sevnica Planina
- South and West Maribor main bypass road
- Road Koman-Fierze in Albania
- Electrification and reconstruction of railway Pragersko Hodoš
- Motorway section Draženci Gruškovje
- Roundabouts and turbo roundabouts

PROVENTUS team | BPI 05

Motorway section: Lenart - Cogetinci

The Maribor - Hungarian border Motorway is a part of the 5th European corridor and It is split into 7 sections : Maribor - Lenart, (7,8km),Lenart - Cogetinci (16,7km), Cogetinci - Vučja vas, Vučja vas - Beltinci , Beltinci - Lendava-Pince (25,3km) - Hungarian border.

The section Lenart – Sp.Senarska - Cogetinci with length of 16,7km includes 3 interchanges, deviation of 45 local roads, tunnel Cenkova (362m), 26 bridging structures, retaining structures in total length 2100m, noise barriers and a lot of regulations of watercourses.

Motorway: Maribor - Hungarian

border

Section: Lenart - Cogetinci

Subsections: Lenart - Sp. Senarska 7,2 km

Sp. Senarska - Cogetinci 9,5 km

Total lenght: 16,7 km

Design: Preliminary, main and

executive

Built: 2009

Client: DARS (Motorway

Company in the R.

Slovenia)

- •Motorway route, normal cross-section 21,20 m, length 16,7 km
- •interchanges Lenart, Senarska, Cerkvenjak
- •45 road deviations in total length of 20,5 km
- •noise barriers 740m
- •8 bridges, overall length of 125,00 m
- •6 underpasses, overall length of 183,40 m
- •4 overpasses, overall length of 579,76 m
- •2 wildlife crossing in length of 67,40 m
- •36 road culverts in overall length of 968 m
- •2 retaining constructions in overall length of 224,5 m and max. height of 10,5 m
- •1 cut and cover structure in length of 252,0 m
- •1 tunnel Cenkova in length of 362,0 m









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Motorway section: Beltinci – Pince

The Maribor - Hungarian border Motorway is a part of the 5th European corridor and It is split into 7 sections : Maribor - Lenart, (7.8km), Lenart - Cogetinci (16.7km), Cogetinci - Vučja vas, Vučja vas - Beltinci , Beltinci - Lendava-Pince (25.3km) - Hungarian border.

The section Beltinci – Lendava - Pince with length of 25.3 km, of which 3.0 km is expressway, includes 4 interchanges, deviation of 42 local roads, 32 bridging structures, retaining structures, noise barriers, barriers for amphibians and regulations of watercourses.

Motorway: Koper - Lendava Section: Beltinci - Pince

Subsections: Beltinci - Lendava 17,8 km,

Lendava - Pince 7,5 km

Section length: 25,3 km

Design: Preliminary, main and

executive

Client: DARS (Motorway Company in

the of Slovenia)

- •Motorway route, normal cross-section 21,20 m, length 22,3 km
- •Expressway 3,0 km
- •4 interchanges with roundabouts
- •2 motorway junctions
- •42 deviations in overall length of 41,5 km
- •9 bridges in overall length of 212,65 m
- •10 overpasses in overall length of 1037,77 m
- •3 wildlife overpasses in overall length of 180,0 m
- •1 overpass for livestock
- •9 underpasses for amphibians in overall length of 270,0 m
- •Toll station Banuta with 8 toll gates (lines)





Motorway section: Slivnica - Pesnica

Motorway Slivnica - Pesnica presents the city of Maribor's eastern bypass. Because of that role, there are several interchanges present on its route, one of the more notable is Pesnica interchange, constructed as a two lane roundabout with a viaduct over it. Due to demanding geological conditions, a lot of various retaining structures are included in this section.

Section: Slivnica - Pesnica

Section length: 17.2 km

Design: Preliminary, main and

executive

Built: 2010

Client: DARS (Motorway Company in

the of Slovenia)

- •5 interchanges
- •1 toll station
- •1 Tunnel (total length 225 m)

Structures:

- •7 Viaducts (total length 1631 m)
- •1 Gallery (total length 185 m)
- •3 Bridges (total length 800 m)
- •5 Overpasses (total length 250 m)
- •1 Railway overpass (total length 25 m)
- •7 Underpasses (total length 205 m)
- •13 Culverts (total length 242 m)
- •2 Anchored pile walls (total lenght 300 m)







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Main Bypass road MARIBOR SW

The western Maribor 4 lanes bypass was designed and built in three stages, with combined length of 5 km and with many interchanges and structures such as overpasses, underpasses, bridges and cut & covers. The construction started in 1994 and lasted till 2009.

Built:

Phase 1 – 1996

Phase 2 - 2005

Phase 3 - 2009

Phase 1:

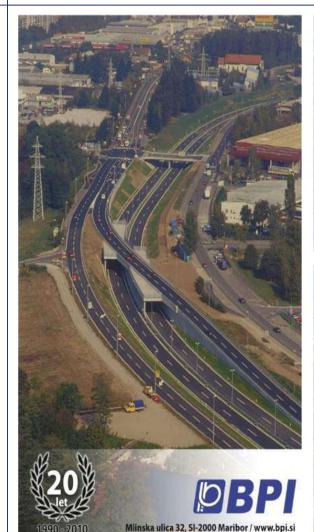
- •1,8 km main bypass road
- •1 roundabout
- •bridge Koroški most length 135m
- •1 overpass

Phase 2

- •1.6 km main bypass road
- •reconstructed city streets 1,6 km
- •5 roundabout
- •bridge Koroški most length 135m
- •2 interchanges
- •underpass Galerija Studenci
- •footbridge Iztokova ulica

Phase 3

- •1,0 km main bypass road
- •deviations 0,5 km
- •2 roundabouts
- •bridge over Pekarski potok
- •4 underpasses under Lackova c. roundabout







09

Regional road RUŠE

Regional road Ruše - Puščava also called Mariborska and Falska road is a connecting road. It passes through the centre of Ruše and its suburbs. It was built in 2 phases with total length of 2200 m.

Regional road R3-705

Section: Ruše - Puščava
Client: Municipality of Ruše

Reg. road: 2,2 km

Main and executive design for:

- •regional road route
- roundabouts
- deviations of categorized roads
- deviations of un-categorized roads
- traffic equipment
- bridges
- •overpasses
- underpasses
- retaining walls









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Roundabouts and turbo roundabouts

Roundabouts contribute a great deal to traffic fluidity and safety, but still the biggest problem of a regular two lane roundabouts are numerous conflict points of crossing traffic.

The turbo roundabout provides a spiral flow of traffic, thus requiring users to chose their direction before entering the roundabout. By eliminating many conflicting paths and choices on the roundabout itself, traffic safety is increased, as well as speed, and as a result, capacity.

Roundabout Ruška vrata

Turbo roundabout on Western Maribor bypass

Roundabout Rogaška

Two lane roundabout on Pesnica – Slivnica motorway









Koman – Fierza Nacional transit road Albania

This road is a part of the Monte Negro – Shkoder – Bushat – Tropoje - Kosove road and is an important artery of the national network, connecting a large region of touristic and economic potential, as well as the northeast regions of Albania with the northern neighbour, Monte Negro. The road is located in a mountainous area, just above the lake Koman. Because of the demanding morphological conditions a lot of bridges, viaducts and retaining structures must be built.

Preliminary design
From 3 variants, Red corridor was selected with total length of 55 km and estimated construction cost of 263 million €







PROMICO Ltd.



PROMICO Ltd. company was founded in 1992. The first decade of the 21 century saw the company focusing its efforts mostly on the motorway structures in Slovenia, where we prepared designs and carried out construction supervision.

We have always been actively involved in the structural design of new spanning and retaining structures as well as the reconstruction of existing bridges in the Slovenian primary road network. We have also worked on the extension of the Slovenian railway infrastructure designing new bridging structures. In the last five years, we have been active also internationally, mostly in Bosnia and Herzegovina and Libya, making designs, design revisions, technical consulting and supervisions of engineering structures.

We design and offer revisions, supervisions, technical consulting and engineering for all types of civil engineering structures. We specialize in the design of spanning structures such as bridges, viaducts, overpasses, footbridges, underpasses, galleries, cut&cover structures as well as various geotechnical and retaining structures. In cooperation with our partners, we offer the above mentioned services for the entire projects for road, motorway and railway sections as well as for all types of buildings and sports facilities.

In Promico, we believe in logical-rational, innovative, and high-quality solutions. Pursuing those principles and the use of modern technology enables optimum execution of the structures and makes them sustainable, easy to maintain as well as harmonious and visually appealing.

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Main References

- Reconstruction of railway junction Pragersko, JV leading partner, 2016
- Reconstruction of railway junction Pragersko, 6 underpasses, 15 bridges, 2016
- Reconstruction of viaduct Ravbarkomanda on MW section Unec-Postojna, 2016
- Structures on MW Jagodje-Lucija; viaduct, 2 overpasses, 2 underpass; 15 retaining structures; 2014-16
- Structures on Libyan primary road network; 4 footbridges, reconstruction of 4 viaducts; 2013
- Structures on MW Zviroviči –Kravice in BIH; 1 viaduct 2012-2013
- Bridges on railway section Pragersko Ormož; 5 railway bridges, 2 pedestrian underpasses; 2010-11
- City bridges over Ljubljanica in Ljubljana; 2 bridges, 2009-2011
- Review of Final designs for 30 structures on Slovenian primary road network 2009-2016
- Review of Final designs for 12 structures on Slovenian railway network 2009-2013
- Underpass on primary road in Kosovo, 2009
- Footbridge on principal road in Smlednik, 2009
- Review of Final designs for 70 bridging structures on corridor Vc MW project in BIH; 2008-2013
- Structures on MW section Pluska Ponikve; 2 viaducts, 4 overpasses; 4 retaining structures; 2008-2012
- Bridges on MW section Ponikve-Hrastje; 1 viaduct, overpass, 3 underpasses; 2008-2010
- Structures on MW section Lešnica-Kronovo; 2 viaducts, overpass, cut&cover; 2007-2009
- Retaining structures on MW section Zrkovska Pesnica; 2 Anchored pile walls; 2007-2009
- Structures on MW section Hrastje-Lešnica; viaduct, cut&cover, overpass, 5 anchored structures; 2006-2008
- Structures on MW section Cogetinci-Vučja vas; viaduct, 2 anchored pile walls; 2005-2007
- Bridges on MW section Korenitka-Pluska; overpass, underpass; 2005
- Bridges on Slovenian primary road network; 8 bridges, 1 overpass; 2004-2013
- Bridges on MW section Bič-Korenitka; overpass, cut&cover, 3 inundation structures; 2004-2005
- Bridges on MW section: Smednik-Krška vas; 4 bridges, overpass, 2 underpass; 2004-2005
- Bridges on MW section Klanec-Srmin; viaduct, footbridge, underpass; 2004

City bridges

Structure: Fabiani bridge Ljubljana

Design: Main&Executive

Total L/I/A: $150+50m/35m/2,800m^2$

Built: 2011

Designer: PROMICO Ltd.

Atelier arhitekti Ltd.

The Ljubljana inner city ring road was completed with the construction of two level Fabiani bridge. The lower integral superstructure, 50m in length and the span of 35m, is intended for connecting footpaths and bicycle lanes on the river banks of the Ljubljanica River. Vehicle traffic intended upper superstructure has 6 spans with lengths up to 35 m and with overall length of 150 m.







In the final couple of years Ljubjana has received quite a few new bridges on the Ljubljanica River. The old bridge was replaced by the new Maternity bridge, where the specific integral structure was built as shallow arch with span of 50 m in place of the old bridge.

Structure: *Maternity bridge, Lj*Design: *Main&Executive*Total L/I/A: 70m/50m/1,200m²

Built: 2010

Designer: PROMICO Ltd.

Atelier arhitekti Ltd.





Viaducts

MW Section: Pluska – Ponikve
Structure: Viaduct Ponikve
Design: Main&Executive

Built: 2011

Total L/I/A:

Designer: PROMICO Ltd.

MW Section: Lešnica-Kronovo
Structure: Viaduct Jelše
Design: Main&Executive
Total L/I/A: 2x340m/40m/9.300m²

2x310/42m/8.000m²

Built: 2009

Designer: PROMICO Ltd.

MW Section: Zviroviči-Kravice, BIH

Structure: Viaduct Pavlovići
Design: Main&Executive

Total L/l/A: 2x370m/43m/9,600m²

Built: 2013-14

Designer: PROMICO Ltd.

MW Section: Ponikve- Hrastje
Structure: Viaduct Dole
Design: Main&Executive

Total L/I/A: 2x305m/32m/8,500m²

Built: 2010

Designer: PROMICO Ltd., IPSA Ltd.

The viaducts Jelše, Ponikve and Dole are located on the Dolenjska MW in Slovenia and the viaduct Pavloviči is located on the south part of the corridor Vc in Bosnia and Herzegovina. All viaducts were built using the incremental launching technique. In viaducts Jelše and Ponikve a modified version of the technique was used due to unfavourable geometric elements of the carriageways. A modified technique has been used where the superstructures were launched on a centreline of substitute radius, which is not identical to the centreline of the MW.









Viaducts

MW Section: Lešnica-Kronovo
Structure: Viaduct Dobovo
Design: Main&Executive

Total L/I/A: 2x255m/29.3m/6,700m²

Built: 2009

Designer: PROMICO Ltd.

MW Section: Hrastje-Lešnica
Structure: Viaduct Mačkovec
Design: Main&Executive
Total L/l/A: 2x165/32m/4,700m²

Built: 2008

Designer: PROMICO Ltd.

MW Section: Pluska-Ponikve
Structure: Viaduct Trebnje
Design: Main&Executive
Total L/I/A: 180/26m/2,500m²

Built: 2012

Designer: PROMICO Ltd.

The viaducts Trebnje, Mačkovec and Dobovo are located on the Dolenjska motorway. All viaducts with the total lengths ranging from 170 – 255 m and spans between 25 and 32 m are constructed as semi-integral structures.

Unified steel falseworks were fixed underneath 3 spans of the viaducts Mačkovec and Trebnje superstructures and then moved to the following spans in the next building stage. The superstructure of the Dobovo viaduct was executed in a similar way but with span by span movement weekly.









Overpasses

MW Section: Korenitka-Pluska
Structure: Overpass Pluska
Design: Main&Executive
Total L/I/A: 72m/50m/630m²

Built: 2005

Designer: PROMICO Ltd.

MW Section: Lešnica-Kronovo
Structure: Overpass Lešnica
Design: Main&Executive
Total L/I/A: 47m/44m/425m²

Built: 2009

Designer: PROMICO Ltd.

MW Section: Ponikve-Hrastje
Structure: Overpass Ponikve 2
Design: Main&Executive
Total L/l/A: 85m/35m/1,100m²

Built: 2010

Designer: PROMICO Ltd.

MW Section: Pluska-Ponikve
Structure: Footbridge Bukovje
Design: Main&Executive
Total L/I/A: 58m/37m/220m²

Built: 2010

Designer: PROMICO Ltd.

The spanning structures over motorways are visually the most conspicuous parts of the road and therefore determine the overall impression a user gets. The pictures show three integral overpasses and a semi-integral footbridge, which are located on the Dolenjska motorway. They are all differently constructed depending on the purpose, morphological-geological conditions and road geometry. The awkward middle supports have been avoided making the structures visually appealing as well as enabling a comfortable underpass.









Cut & Cover

MW Section: Lešnica-Kronovo
Structure: Cut&Cover Dobrava
Design: Main&Executive
Total L/w/A: 40m/67m/2.100m²

Built: 2009

Designer: PROMICO Ltd.

MW Section: Bič-Korenitka

Structure: Cut&Cover Medvedjek1

Design: Main&Executive
Total L/w/A: 40m/100m/3,600m²

Built: 2005

Designer: PROMICO Ltd.

MW Section: Hrastje-Lešnica
Structure: Cut&Cover Doline
Design: Main&Executive
Total L/wA: 40m/58m/1,900m²

Built: 2008

Designer: PROMICO Ltd.

MW Section: Hrastje-Lešnica
Structure: Cut&Cover Karteljevo

Design: *Main&Executive*Total L/w/A: 40m/273m/10,500m²

Built: 2008

Designer: PROMICO Ltd.

Cut and cover structures are intended for the passing of wild animals. The chosen type of structure, cut & cover is common in the Dolenjska part of Slovenia for green bridges. There are four similar cut & cover structures with single arch spans of approximately 40.0 m and width ranging from 30 to 300 m. The solution is aesthetic and economical, and enables animal-friendly passing over the motorway and creates a pleasant impression on the users.









Retaining structures

Various types of retaining structures were used when constructing the Dolenjska MW and deviation of existing parallel principal road on Karteljevski slope hillside area such as anchored frame structures filled with stone covering or grassed, anchored beams and stone revetment of slopes.

Various types of geotechnical structures were used when executed the eastern bypass MW in Maribor with two anchored pile walls OZ-3 and OZ-4 among them.

MW Section: Hrastje-Lešnica

Structure: Anchored retaining

structures

Design: Main&Executive

Total A: 14,000m²

Built: 2008

Designer: PROMICO Ltd.

MW Section: Zrkovska c.-Pesnica

Structure: OZ-3, OZ-4

Design: Main&Executive

Total Length: 105m (OZ-3), 200m (OZ-4)

Built: 2009

Designer: PROMICO Ltd.









Footbridges - Libya

Various types of footbridges are under construction in Tripoli and Benghazi areas in Libya. The 180m long steel superstructure footbridge is curved in a horseshoe form. The other solution of pedestrian overpass "Bat-bridge" is designed as a steel girder bridging two spans up to 20 m long. The next design foresees a steel truss superstructure over two spans of 30 m. The specified solutions of footbridges are eye-catching and harmonious in appearance, of modern design and durable as well as economic throughout their period of use.

Footbridge: Horseshoe No1
Design: Main&Executive
Total L/I/A: 180/27m/550m²

Built: 2013-14

Designer: PROMICO Ltd., Arhitektura Ltd.

Footbridge: Horseshoe No2
Design: Main&Executive
Total L/I/A: 200/29m/600m²

Built: 2013-14

Designer: PROMICO Ltd.

Arhitektura Ltd.

Footbridge: BatBridge

Design: Main&Executive Design

Total L/I/A: 50/20m/400m²

Built: 2013-14

Designer: PROMICO Ltd., Arhitektura Ltd.

Footbridge: Truss

Design: Main&Executive

Built: 2013-14

Designer: PROMICO Ltd.

Arhitektura Ltd.







SPIT Ltd.



SPIT Ltd. was founded in 1989. The company has 20 employees, among them there are 13 engineers specialized in civil engineering, architecture, hydraulics, sewage, potable water supply, machinery and waste water treatment technologies.

We offer consulting services, project management, design, design revision, site survey management, client engineering services as well as representation of equipment producers and environmental technologies with supply engineering, installation of equipment and start up with trial operation.

We are focused on different fields of work:

Road and transport systems with design of roads, bridges and viaducts, tunnels and retaining structures. We are also specialized in hydraulic tasks and assessment of extreme flooding waters, hydraulic dimensioning of bridge openings and river stream arrangements and regulations. Beside this we also define rain water drainage systems with necessary pumping stations and sewage systems.

Public and industrial buildings made of different building materials such as reinforced concrete and prestressed concrete, steel and aluminum, stone, bricks, wood and other materials.

Special engineering structures as part of sport facilities or technological projects in the industrial production or environmental protection.

Very important field of work is represented by the design of sewage systems and potable water supply, connected with waste water treatment, using modern technologies such as Membrane Bio Reactors.

In SPIT we believe in providing prompt and high-quality level of services with special attention on coordination of all parties involved in the project. Realizing our tasks while considering the mentioned principles, we are able to ensure the optimal service for our clients.

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PROVENTUS team | SPIT

Main References

PUBLIC BUILDINGS:

- Pediatric clinic, Ljubljana
- Shopping centre Mercator, Nova Gorica (EuropeanCCS & GZSlovenia awards)
- Bussines & residential center EDA in Nova Gorica

MANUFACTURING BUILDINGS:

- Tower of heat exchanger in the Cement factory Salonit, Anhovo ROAD STRUCTURES:
- MW section Razdrto-Podnanos: viaduct Boršt II., 3 anchored pile walls
- MW Sv.Rok-Maslenica, Croatia; viaduct Božići
- Solkan road bypass: viaduct, gallery, 5 culverts, retaining walls
- Plateau Rogatec: Bridge over Sotla river
- Steel superstructure of Mesarski bridge in Ljubljana (ZJK Slovenia award)
- Bypass Škofja Loka: 3.7 km of road, tunel, 8 bridges, regulation of waterstreams

TEHNOLOGICAL STRUCTURES AND WASTE WATER TREATMENT PLANTS:

- Regional center CERO Nova Gorica for waste treatment
- Central Waste Treatment Plant in Ljubljana
- Waste Treatment Plant in the municipality of Balchik in Bulgaria
- Water distibution system (38km) in Brežice

STEEL ROOF STRUCTURES:

- Steel roof structure on Stožice Stadium ,Ljubljana
- Steel roof structures on road Border crossing MPP Obrežje

PROVENTUS team | SPIT

NEW Pediatric clinic, Ljubljana

Main and executive design of structure with electric and mechanical installations for NEW PEDIATRIC CLINIC in Ljubljana, built and put in use in 2005. With more than 24,000m2 of functional area it represents one of the most significant health centres in Slovenia

Project: Designs for PEDIATRIC

CLINIC Ljubljana

Area: 24,000 m²

Built: 2005

Designer: SPIT Ltd., Proing Ltd.

Contractor: SCT Plc

Investor: Republic of Slovenia,

Ministry for Health





MERCATOR CENTER Nova Gorica – design and execution of steel structure for TKB Block as a part of the new shopping center. The total amount of structural steel is 330 tons; investor was Mercator d.d. Ljubljana; the center was built in 2001. In 2003 it was awarded as one of the best steel structures in Europe erected between 2001 and 2003 by ECCS.

Mercator center Nova Gorica

Project: Design of steel structure

for TKB Block of Shooping center

Mercator Nova Gorica

Steel

structure: 330 tons

Built: 2001

Designer: SPIT Ltd.

Contractor: SPIT Ltd., Masel Ltd.

Investor: Mercator Plc





Stožice Stadium Ljubljana

The Stožice Football Stadium in Ljubljana has the capacity for 17,000 spectators. It was executed in the period from December 2009 to June 2010.

Project: Main & Executive designs

for steel roof structure of

Stožice Stadium in

Ljubljana

Total weight

of steel: 14,000 t

Built: 2010

Designer: Sadar+Vuga Ltd., SPIT

Ltd.

Contractor: Gradis skupina G Plc

Investor: Municipality of Ljubljana









PROVENTUS team | SPIT 25

Tower of heat exchanger Cement factory Salonit

Main and executive design of the steel structure for the Tower of heat exchanger in the cement factory Salonit, Anhovo, built in 2009. With its height of 109,1 m, it is the highest building in Slovenia; The height of steel part is 102,30 m.

Project: Designs Tower of heat

exchanger in the cement factory Salonit, Anhovo

Total height: 109,1 m Built: 2009

Designer: SPIT Ltd.

Contractor: TRIMO Plc, Montavar Ltd.

Investor: SALONIT Pcl





Roof structure on road border crossing Obrežje

Main and executive design of four steel roof structures on road border crossing MPP Obrežje.

Project: Designs for steel roof

structure on border crossin in Obrežje

Total weight

of steel: 600 t
Total area: 8,000m²
Built: 2004

Designer: SPIT Ltd.
Contractor: Meteorit Ltd.

Investor: R. Slovenia Ministry for

public management





PROVENTUS team | SPIT 26

Structures on MW Razdrto - Podnanos

Motorway Razdrto – Podnanos is regarded as the most difficult road section in Slovenia. Within this project there were elaborated main and executive designs for viaduct Borst II, 12 anchored retaining walls made of piles and wells, 2 cut and covers, 1 bridge and 4 underpasses.

MW Section: Razdrto - Podnanos

Design

projects: 1 viaduct, bridge, 4 underpasses, 2 cut&covers, 12 anchored

retaining walls

Built: 2008

Designer: SPIT d.d.

Contractor: *SCT Plc, Primorje Plc* Investor: *R. Slovenia, DARS Ltd.*

Structures on Solkan road bypass

Section: Solkan road bypass

Design

projects: 1 viaduct, 5 underpasses,1 gallery, 650m of retaining walls

Sewage pipe system

Built: 2001
Designer: SPIT Ltd.
Contractor: Primorje Plc.

Investor: R. Slovenia, DRSC





Main and executive design for structures on the Solkan road bypass. The project included the following structures: 1 viaduct, 5 underpasses, 1 gallery, 650 m of retaining walls and sewage pipe system. It was built up in 2001. The investor was Direction for statal roads in Slovenia.





Waste Treatment Plant, Ljubljana

The Central Waste Water Treatment Plant in Ljubljana is composed of a building which includes two prestressed cylindrical tanks of about 7,500m3 each, two prestressed cylindrical settlement tanks of about 3,500m³ each and aeration basin with dimensions 100x80x7m.

Project: Main & Executive designs

for Central Waste Treatment Plant in LJ

Capacity: *350,000 PE*

Built: 2004

Designer: SPIT Ltd.

Contractor: JV Aqua engienering Plc

& SCT Plc & ANDRITZ
Plc Investor: Municipality

of LJ





Waste Treatment Plant Balcik, Bulgaria

Main and executive design for waste water treatment plant in the municipality of Balchik in Bulgaria, close to Varna. The capacity of plant is 30,000 PE; plant was built in 2007.

Project: Designs for Central Waste

Treatment Plant, Balchik,

Bulgaria

Capacity: 30.000 PE

Built: 2007

Designer: SPIT Ltd.

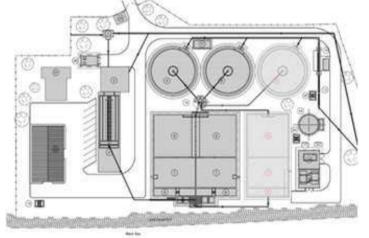
Contractor: Primorie Plc.

Hidroinženiring Ltd.

Investor: Bulgarian Ministry for

Environment





IPSA INSTITUT Ltd.



The primary focus of IPSA TRAN is transport infrastructure designing as well as transport planning and safety.

Over the past 55 years, IPSA TRAN has been involved in implementing numerous transport infrastructure projects in Bosnia and Herzegovina as well as in Croatia, Slovenia, Serbia, Macedonia, Montenegro, Kosovo, Libya, Italy and Germany.

Our transport infrastructure specialists have participated in the implementation of technical documents for:

- · over 5000 km of roads, high-speed roads and
- · over 3000 km of railway lines for passenger and freight transport;
- over 3000 km of road and railway bridges;
- 12 intermodal transport centres;
- · airports and 3 landing grounds;
- · supporting and ancillary facilities.

Transport infrastructure projects include all project levels and stages. Hence, IPSA Institute's work teams are interdisciplinary (surveyors, geomechanic engineers, civil engineers, structural engineers, hydraulic engineers, specialist in traffic signals and signs, spatial planning and supporting and ancillary facilities).

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Daughter companys:

- IPSA PODGORICA d.o.o., Montenegro
- IPSA ZAGREB d.o.o., Croatia
- CETEOR d.o.o., Bosnia and Herzegovina

Branch office in: Abu Dhabi, UAE

PROVENTUS team | IPSA institut

Main References

ROADS:

- Main Design of Corridor Vc Motorway, Section Tarčin Konjic L=11,1km
- Main Design of Motorway Lašva-Donji Vakuf, Section: Interchange Lašva-Interchange Nević polje L=23,7km
- Main Design of Corridor Vc Motorway LOT 3, Section Johovac Doboj jug L=16km
- Main Design of Corridor Vc Motorway, Section Svilaj Vukosavlje L=17km
- Main Design of Corridor Vc Motorway Zenica Sarajevo Mostar, Section Vlakovo Lepenica L=9,3km

RAILWAYS:

- Main Design for Overhaul Railway Rehabilitation M.Kolo Mojkovac, Station Mojkovac and Mijatovo Kolo L = 8,16 km, as well as Trebaljevo - Kolašin and Station Kolašin L = 9,5 km
- Main Design for Overhaul Railway Rehabilitation Šamac Doboj, km 21+800 84+100, L = 62,3 km
- Rehabilitation of the railway and substructure for section Samac Doboj
- Main Design for Overhaul railway rehabilitation Konjic Čapljina State Border
- Main Design for Overhaul railway rehabilitation S.Kostajnica Jošavka
- Main Design of overhaul of Railway Doboj-Bos.Novi (Novi Grad) section:Čelinac Vrbanja

BRIDGES AND STRUCTURES:

- · Main design of viaduct Počitelj on Motorway section Počitelj-Zviroviči
- Main Design for Structures along the Corridor Vc Motorway, Section Svilaj –Vukosavlje (LOT 1) Bridges M1
 M5; Overpasses NP1 NP4
- Main Design for Structures along the Corridor Vc Motorway, Section Johovac-Doboj jug(LOT 3) "Underpass Rudanka, Bridges Rudanka, Kraševo, Lukavička rijeka, Bosna, Usora 1,2,3, Viaduct Putnikovo brdo, and Overpass Prisade"
- Main Design of Viaducts "Zukići 1, Zukići 2. Podhrastovi, Pirići, Vrbljani 1, Vrbljani 2, Kanjina 1, Kanjina 2, Galjevo 1, Galjevo 2 and Donje Selo at Corridor Vc Motorway, section Tarčin Konjic

PROVENTUS team | IPSA institut 30

DIA Ltd.



The company DIA d.o.o. Ljubljana was founded in 1990 and since then it has been occupied with continuous work in the field of architecture, design and planning. The majority of our creative work represent social welfare facilities (schools, healthcare facilities, homes for retirement), residential and commercial buildings and banks.

The company consists of the owners, architects Gorazd and Andrej Ravnikar with coworkers architects Mojca Sterle, Janez Bizjak and Mojca Polh. Other fields (such as mechanical and electrical installations) are outsourced.

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Web: www.dia.si

Manager: Gorazd Ravnikar

Employees: 5

Main References

- Nursing Home of Trebnje (3,600 m2), completion of construction 1999
- Tourist complex in Strunjan (1,400m2), realization 1998
- Establishment of NLB Bank in Kočevje, realized 1998
- Establishment of NLB Bank in Ljubljana, realized 1998
- Residential housing in Zapuže near Bled realized 2000
- Establishment of NLB Bank in Litija realized, 2000
- Establishment of Commercebank in Sarajevo (BiH), realized 2001
- Headoffice for Kvarner Bank in Rijeka (CRO) (2,200m2),realization in 2002
- Kindergarten in Zadvor in Ljubljana (1,600 m2), realized in 2003
- Elementary school in Ljubljana Sostro (7,200m2), realized 2005
- Elementary school Kašelj near Ljubljana (3,200m2), realized 2008
- Education center NLB Ljubljana (1,200m2), realized, 2003
- Nursing Home Trebnje-extension, construction 2003
- Residential and educational Home in Trebnje (900 m2), realized 2008
- Elementary school and Kindergarten in Dragomelj (4,200m2), realized 2006
- Extension of the clinical center in Ljubljana (18,000 m2), Slovenia, project under construction
- Establishment of NLB Bank in Ivančna Gorica, the realization 2007
- Establishment of the Continental Bank in Belgrade (SRB), realization 2007
- Commercial building IMOS Litostroj (17,000 m2), project in 2009
- R. Jakopič elementary school in Ljubljana, reconstruction and extension, project in 2009
- The sun house in Trebnje, realized 2009
- Extension to the medical faculty in Ljubljana (3,300 m2), realization 2011
- The tobacco Museum in Ljubljana, carried out in 2011
- Commercial and Residential Complex "Tobačna city" in Ljubljana, 1. phase of project 2012
- Commercial Housing in Litostroj, Ljubljana (107,000 m2), design phase 2012

PROVENTUS team | DIA 32

Office building IMOS

The building B is planned as rectangular box with two RC cores, which connect individual floors with staircases and lifts.

Project: Main design

Office areas: 19,000m²

Parking

areas: 3,900m²
Designer: DIA Ltd.
Investor: IMOS Plc





With its transformation, the area of Tobačna enables the extension of Ljubljana's city center. It offers important development possibilities to Ljubljana, as a modern European capital.

The blocks that will cater to a mostly residential program will stand on a two-story platform, and there will be rooftop green space intended for the residents.

TOBAČNA CITY

Project: Main design for phase 1.1

of the project

Building

areas: *37,000m*²

Parking

areas: $43,000m^2$

Designer: DIA Ltd.

Investor: IMOS-G Plc





Kindergarten Zadvor

The reconstruction of the existing kindergarten premises, the enlargement of pavilion and a new west wing were carried out.

Project: Main & Executive designs

for extension and

reconstruction

Built: 2003

Surface: 1,600m² Designer: DIA Ltd.

Investor: Društvo Sožitje,

Municipality of Ljubljana





The construction of the new part of the primary school Kašelj was undertaken because of the growing need for more modern educational facilities. In the northern part of the annexe the library and specialized classrooms are located, while the southern part holds the standard classrooms and teacher cabinets.

Primary school Kašelj

Project: Main & Executive designs

for extension and

reconstruction

Built: 2008

Surface: *3,200m*²

Designer: DIA Ltd.

Investor: Primary school Polje





Primary school and kindergarten Dragomelj

The Dragomelj school and kindergarten are built on an exposed and sensitive location by the nearby road. The building complexes are relatively low and covered with green roofs which reach the ground at the lower side. In this way we have managed to retain grassy areas and a direct connection to the environment. Roof slopes enable children to do various outdoor recreational activities.

Project: Main & Executive designs

Built: 2006

Surface: 3,300m² primary school

660m² kindergarten

Designer: DIA Ltd.

Investor: Municipality of Ljubljana,

Municipality of Domžale







PROVENTUS team | DIA 35

The Sun house

Project: Main & Executive designs

Built: 2009

Surface: 1,900m²
Designer: DIA Ltd.

Investor: Society Sožitje,

Municipality of Trebnje

The building is intended for the society for social help. It is planned rationally with a clear separation of purpose ranging from public to group and private. The ground floor houses the education and training centre which is open for all users. The upper floor is intended for communal use of all tenants.





The spaces intended for elderly citizens have approximately the same number of sunlit common places and therapy areas and are, above all, functional. The designs of facades are rational and modest.

Nursing home Trebnje

Project: Main & Executive designs

Built: 1998, 2002, 2008 (3

phases)

Surface: 3,600m² Designer: DIA Ltd.

Investor: Municipality of Trebnje





Extension of Medical Faculty

The container architecture represents one of the alternative models of fast and affordable modular building with an emphasis on individuality and environmental friendliness. The prefabricated three floor annexe is made up of 21 ISO containers. The model has been chosen for the Faculty of Medicine in Ljubljana.

Project: Main & Executive designs

Built: 2011

Surface: 3,300 m². Designer: DIA Ltd.

Investor: Municipality of Ljubljana





Extension of Medical Clinic Ljubljana

Project: Main & Executive designs

Construction in progress

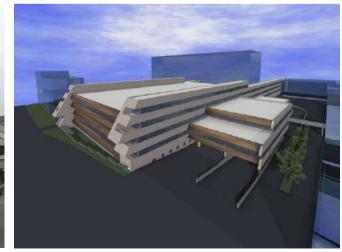
Surface: 18,000 m².

Designer: DIA Ltd.

Investor: Municipality of Ljubljana

The extension of medical clinic in Ljubljana will feature more than 18,000 m² of new areas, with the latest health-care equipment, which will significantly increase the quality of provided services. The clinic will also get a helipad which will be mounted on top of the extension.





LEGADA Ltd.



We create original, technologically perfected, superiorly designed, user and environment-friendly integrated solutions for all types of buildings. We are focused on reducing energy consumption, increasing comfort and amenities in residential, commercial and industrial buildings.

The company is aware of the importance of intellectual capital in people. We offer the knowledge wrapped in integrated solutions in the field of building automation. The company is distinguished by a highly skilled, multidisciplinary and young team.

Satisfying customers at a high level and maintaining a positive atmosphere among employees is a key factor in ensuring a successful business and creating a competitive advantage.

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Main References

SYMBOL LEGEND



Heating, cooling and ventilation



Lighting



Energy saving



Pool



Access



Audio



Video surveillance

- RESIDENTIAL BUILDINGS: Residence Park Lucija; Čatež; Dolenjska;
 Private Villa, Novo mesto
- HOTELS & SPAS: Life Class, Portorož; Hotel Boka
- SHOPPING CENTRES: C&A Velenje, Murska Sobota; Lama-Dakin, Koper;
 Takko, Koper
- SPORT HALLS: Bonifika Koper
- NURSING HOMES: Nursing home Mengeš; Lucija
- OFFICE BUILDINGS: Insurance house Tilia, Novo mesto; Norma 1, Novo mesto; Plan invest, Koper
- AIRPORTS: Pleso Zagreb
- CASINOS: Casino Budva
- MANUFACTURING BUILDINGS: Lama, Dekani
- WASTE WATER PLANTS: Waste water plant Trebnje; Jesenice;
 Brestanica; Čatež; Fructal Duplica; Tepanje

PROVENTUS team | LEDAGA 39

HOTEL & SPA

Life Class, Portorož































PROVENTUS team | LEDAGA 40

OFFICE BUILDING

Insurance house Tilia, NM





















ARHITEKTURA Ltd.

Arhitektura d.o.o.

Arhitektura Ltd. is a family company, where the experience and ideas of two generations converge in a common cultural motive: making good architecture. The architecture which is the result of a wider spatial, historical, technological and social context.

PETER GABRIJELČIČ was born in Maribor in 1947. He graduated in 1973 from the Faculty of Architecture in Ljubljana. As dean of the Faculty of Ljubljana and full professor of urban planning and architecture, he has won many awards such as the Borba Award, Prešern Foundation Award, Belgrade Salon of Architecture Award, Architecture Event of the Year Award in Belgrade, European Architectural Award in London, Trend award, the Golden Pencil and the Platinum Pencil awards of the Slovenian Chamber for Architecture and Space. He has co-authored numerous projects for international competitions.

BOŠTJAN GABRIJELČIČ was born in 1982 in Ljubljana; he graduated from the Faculty of Architecture in Ljubljana in 2007. He was a foreign exchange student in Vaduz, Lichtenstein 2005 and worked in Podrecca atelier in Vienna 2006. His major architectural projects include: Urban Parasite 2006, co-author of Magic Box 2009, co-author of Private House Suha 2012. He has exhibited at: Prague architecture week (2012); Ljubljana Gallery DESSA – exhibition 11 × 1 (2012); Zavod BIG – Houses of the World Exhibition (2012).

Awards: 2012 the Golden Pencil award of the Chamber of Architects for private house Suha (with Peter Gabrijelčič), shortlisted for Trimo architecture award 2008 for Urban Parasite, selection ECOLA award.

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Employees: 3

Main References

- Ada Bridge in Belgrade
- Puh's bridge
- Podpeč bridge
- Footbridge over Sava river at Bled
- Footbridge Ribja brv in Ljubljana
- The house behind the wall
- Suha private house
- Zois house studios
- Magic box
- Urban parasite
- Primary school, Lavrica
- Kindergarten, Ljubljana
- Sport Center, Velenje
- Shopping center Harvey Norman, Maribor
- Shopping center OBI, Ptuj

PROVENTUS team | ARHITEKTURA 43

Ada bridge in Belgrade

Project: Conceptual design

H-pylon: 210m
Total length: 950m
Max.span: 376m
Total width: 45m

Area: 42,000 m²

Built: 2012

Designers: Ponting, Arhitektura Ltd.

Contractor: PORR, SCT, DSD

Investor: Municipality of Belgrade

Puh's bridge in Ptuj

Project: Main & Executive design

Total length/

max span: 440m/100m

Total width: 19m

Area: 8.300m²

Built: 2007

Designers: *Ponting, Arhitektura Ltd.*Contractor: *SCT Plc, PORR AG Wien*Investor: *R. Slovenia, DARS Plc*

Spanning the Sava river at the tip of Ada Ciganlija, the new structure is a single-pylon cable stayed bridge. With its 210m high pylon and 950m length of superstructure as well as with main 376m long span, the bridge is a significant landmark in the City of Belgrade. The bridge deck is 45m wide, with 6 traffic lanes, two light railway rails and two pedestrian and cycling paths. This is the largest bridge surface in the world suspended by a single pylon.





In the architecture of a town, bridges are structures of the highest symbolic value, and comparable to a cathedral, opera house or museum. Such is also the innovatively constructed and designed 450-metre long 'Puh's Bridge' set low over the river and spanning in a wide curve the shores of the largest Slovene lake on the Drava River at Ptuj. It is a cable-stayed bridge, built as an extra dosed bridge.





Bridge over Sava river at Bled

Project: Main & Executive design

Total length. 45m

Total width: 3-6m

Area: 230m²

Built: 2007

Investor: R Slovenia, DRSC

Designers: *Arhitektura Ltd.*Contractor: *GP Tržič Lcd.*

Investor: R.Slovenia, DRSC

Footbridge "Ribja brv" in Ljubljana

Project: Conceptual design, Main

& Executive design

Total L/I: 31/25m

Total width: 3,7mArea: $115m^2$

Construction in progress

Investor: *Municipality of Ljubljana*Designers: *Ponting, Arhitektura Ltd.*

1st Award on competition, 2011

The footbridge built over the Sava canyon at Bled is intended for hikers to stop for a moment, experience new views, take in the gorgeous nature, breathe with the water, glance at the reflection of the moving stars at night and listen to the river murmuring.





The pictures shows "Ribja brv" footbridge over the Ljubljanica river in the historic centre of Ljubljana which was chosen as the most suitable for replacing the existing worn out footbridge. The footbridge has single span of 25 m bridging deep river-bed of the Ljubljanica river. The superstructure is made of a thin steel cassette girder and has fences made of glass, giving it a sleek and transparent appearance.





The house behind the wall

Project: Conceptual design, Main

& Executive design

Structure: Residential house Location: Lavrica, Ljubljana

Built: 2007

Designers: Arhitektura Ltd.

The house sits on a narrow parcel of land among typically Slovene suburban structures. On one side, there is a chaotic settlement; on the other, we find the marshy plain of the Barje park. The new longitudinal house is conceived as a wall - a fence forming a secure atrium in the midst of the existing built settlement. The house is turned outside in offering its residents' intimacy.





Suha private house

Project: Conceptual design, Main

& Executive design

Structure: Residential house

Location: Suha, Škofja Loka

Built: 2012

Designers: Arhitektura Ltd., Navor Ltd.

GOLDEN PENCIL Award, Slovenian Chamber of Architects, Slovenia 2012 The presented detached house is located in the village of Suha, in the suburbs of a famous medieval town, Škofja Loka. The building has been built as a replacement structure on the site of a former farm building.





Zois House studios

Ljubljana, the capital of Slovenia, boasts a picturesque historic centre which is home to the grand Zois Palace, situated on the riverbank of the Ljubljanica river. In the palace, Arhitektura Studio designed a small modern hotel with eight studio apartments and in this way rejuvenated and gave new purpose to the 18th century palace.

Project: Conceptual design, Main

& Executive design

Structure: Hotel, Apartment Multi

Unit Housing

Location: Ljubljana

Built: 2012

Designers: Arhitektura Ltd.













PROVENTUS team | ARHITEKTURA

47

Harvey Norman, Maribor

Structure: Shopping center Harvey

Norman

Location: *Maribor*Total area: *8,600 m*²

Built: 2012

Designers: Arhitektura Ltd.





Shopping center OBI, Ptuj

Structure: Shopping center OBI

Location: Ptuj

Total area: $21,000 \text{ m}^2$

Built: 2010

Designers: Arhitektura Ltd.

Investitor: HYPO Leasing Ltd.



