

#vozimzazagreb



More than fifteen years ago, we recognised the importance of bicycle transportation and, guided by trends in European metropoles, we began to build cycling infrastructure in the City of Zagreb. At the time, not many people used bikes for transportation; they were mostly used for recreation.

The first project was the lowering of kerbs at intersections; the first traffic light for cyclists was also put up around that time. Zagreb used to have 20 km of cycling lanes, and today it has 270 km! Progress is visible, but citizens have also changed. Awareness is different, and so are habits. Many citizens today use bicycles as the main means of transportation and we are proud to have provided them with the infrastructure to make that possible.

The EU Directorate-General for Environment recognised our efforts and years of work and, in 2012, we won an award at the European Mobility Week, a manifestation that welcomed all our measures (infrastructure, education, promotion) taken to increase the mobility of citizens in terms of cycling traffic.

Since we were aware, and still remain aware of the importance of systematically introducing cycling transportation throughout the city, all our strategic documents and operative plans include important points aimed precisely at cycling transportation. Of course, it is not only infrastructure that makes Zagreb a cycling city. We organise numerous sporting and recreational cycling events. We should be pleased with all that we have done so far, but we should continue to work on the realisation of our long-term plans.

Cycling transportation is becoming increasingly important, especially at this age of pollution and traffic congestion in the city. We are always prepared to facilitate free passage through the city for cyclists and, as they change, so shall we, always in step with the future needs of our citizens.

Mayor of the City of Zagreb Milan Bandić, MA in Political Science

## #vozimzazagreb







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# CYCLING INFRASTRUCTURE



### Cycling lanes / tracks

In March 2016, the Ministry of Maritime Affairs, Transport and Communications enacted the *Ordinance on Cycling Infrastructure (OG 28/16)*. Some of the existing sections are in line with the Ordinance, while the remaining ones will be brought into line with the Ordinance during the reconstruction of roads or lanes themselves.

In 2017, 3,020 meters of new cycling lanes/tracks were planned and constructed, while 13,555 meters were aligned with the new Ordinance.

Cycling lanes/tracks in the City of Zagreb are 269,550 meters in length (270 km/January 2018).



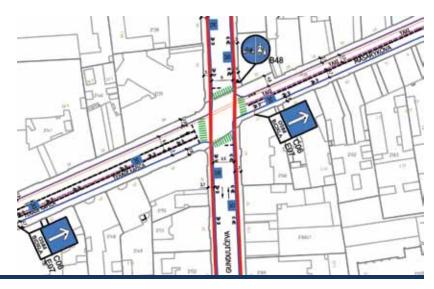
Section of a newly built two-way lane in Vatikanska Street (Podbrežje Settlement), December 2017

#### **Shared traffic spaces**

Shared road traffic spaces for bicycles and other vehicles were constructed in Gajeva and Katančićeva Street (720 m) and in the zone of calm traffic Držićeva/Vukovarska (1,080 m) in 2016. In 2017, work was completed in Primorska, Kranjčevićeva, Teslina, Kordunska, Berislavićeva and A. Kovačića Street, 2,410 meters in total. Horizontal signalling in Gajeva Street was refreshed.

As of 2017, Zagreb has 4,210 meters of roads for shared cycle and motor traffic.

A Traffic Study (detailed design) was developed to identify areas for shared cycle and motor traffic in the Lower Town. This is to be used in the course of introducing shared cycle and motor traffic in the reconstruction of roads in the area of the Lower City.



A detail from the Traffic Study identifying areas for shared cycle and motor traffic in the Lower Town quarter, December 2017



Safety instructions for shared traffic spaces included in the new traffic regulation scheme.



An example of the stop lane for cyclists, Kranjčevićeva Street, August 2017

#### **RECREATIONAL LANES**

In line with the project developed in 2016, 500 new meters were added to the cycling-rollerblading lane on Jarun, thus closing the circle. The project also included lighting and the setting-up of a bike service pillar alongside the lane, as well as the Petrine bus station that was covered with asphalt and furnished. The lane was also repaired along the total length of the circle of 6,250 meters.

Medvednica has 144,440 meters of cycling paths intended for recreation, including 6,100 meters of Enduro cycling paths, built in 2016. These were intended for recreation and tournaments, and are completely detached from walking and hiking trails. The path connects Sljeme and the City of Zagreb and is six kilometres in length. It contributed significantly to the popularisation of the sport. The path was made in co-operation with the City of Zagreb, Zagreb Tourist Board, Medvednica Park of Nature, Croatian Forests, and the "Opušteno" Bike Club. The medium difficulty-rated path requires good mountain bike riding skills.



The bike service / solar pillar alongside the cycling-rollerblading lane around the Jarun lake (near the Petrine station), with the basic set of tools, lighting, tire pump, cell phone charger, November 2017



Entrance to the Enduro cycling path on Sljeme, 2 April 2016



A detail of the newly-constructed junction of the cycling-rollerblading lane on Jarun, November 2017

#### Public bicycle parking in the City of Zagreb

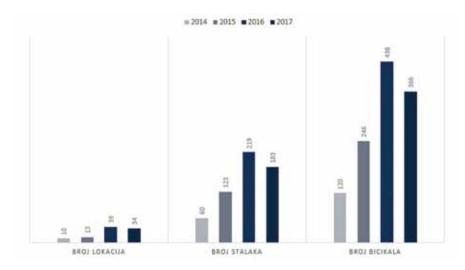
The public bicycle parking construction project has been in development in the City of Zagreb since 2014. In February 2015, a guide was sent to local committees to ensure alignment of different practices and maximum functionality for bicycle parking. In March 2016, the same model of public bicycle parking was included in the *Ordinance on Cycling Infrastructure*, so as of March 2016 our model is also a legal obligation.

In July 2016, we built a web (online) map on Google maps that shows public bicycle parking sites. New locations are added regularly, as soon as they are finished.

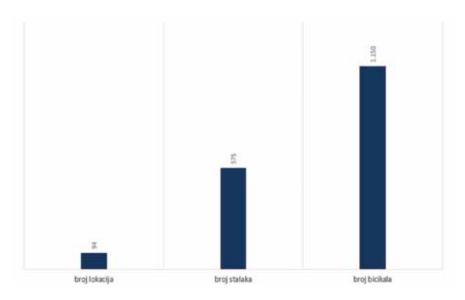
The City of Zagreb has 575 bicycle parking racks at 94 locations (including three public garages) that accommodate 1,150 bicycles.



The bicycle parking site in Gajeva Street, 2014



Graphical presentation of the number of bicycle parking sites in the City of Zagreb by year, 2014–2017



Graphical presentation of the total number of bicycle parking sites in the City of Zagreb, 2017

### Cycling traffic meter / Bike totem

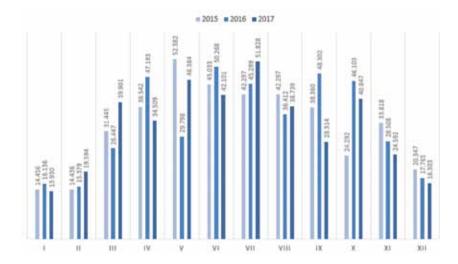
On 31 May 2014, a bicycle meter (bicycle totem) was installed at the Stjepana Radića Square. It was not designed and made only as a measuring instrument, but also as an excellent way of promoting cycling and raising awareness about bicycles as a means of transportation.

The cycling traffic meter shows the number of cyclists who pass through the section over a 24-hour period, so it is possible to determine the total number of cyclists in a year. The fixed cycling traffic meter (bike totem) consists of a bicycle sensor within the totem, which includes the daily numerical bicycle indicator and a display that shows annual bicycle traffic.

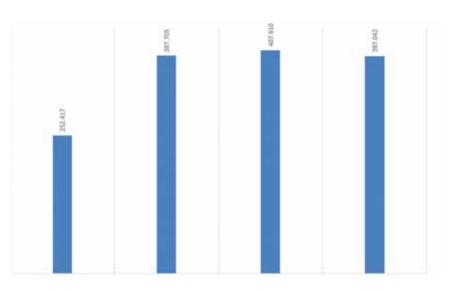


The cycling traffic meter — Bike totem, 12 June 2014\_\_\_\_

The charts show the number of bicycles by month as well as the total number of bicycles over the years. It is evident that the number of bicycles depends on the weather (it drops substantially in case of precipitation).



Graphical presentation of bicycle counts by month for 2015, 2016 and 2017

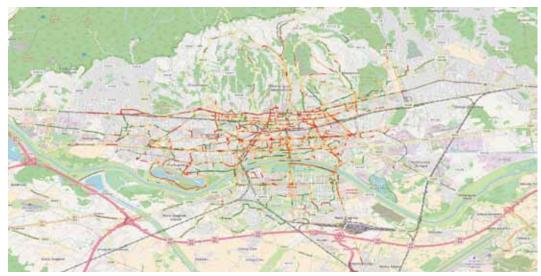


Graphical presentation of bicycle counts by year from 31 May 2014 to 1 January 2018  $\,$ 

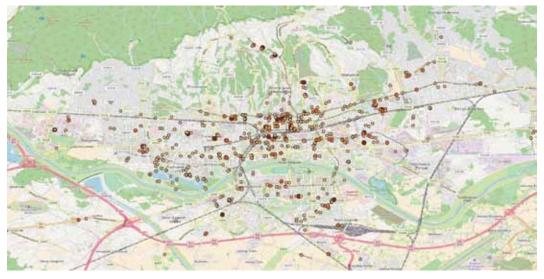
## Bicycle traffic in the City of Zagreb / heat maps



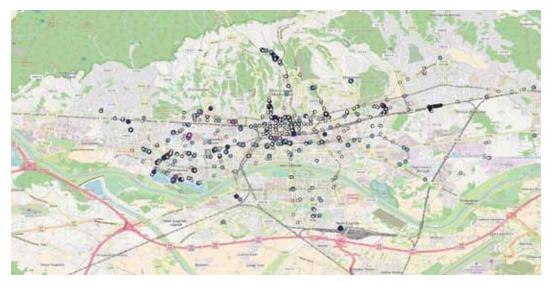
Bike trip counts, 11 May 2016



Average bike speed, 23 May 2016



Bike parkings, 24 May 2017



Bike wait times, 08 May 2017

#### Bicycle safety course for children

In order to improve traffic safety for children and youths, in November 2014 it was agreed to build an educational traffic safety course to help children and young people learn and practice situations they might encounter in traffic. The City of Zagreb owns the land where the course was built, ie, next to the Gustava Krkleca Primary School in Travno.

In co-operation with the school, MI, and the Croatian Auto Club (HAK), the city drew up project documents for the course. At the end of 2016, all permits were obtained on the basis of the project and the construction of the course was included in the budget for 2017. The course was opened on 15 September 2017.

Further, at the initiative of the mayor, a working group for traffic safety education of children and youths was formed in the City of Zagreb to include as many children as possible in traffic education in order for them to obtain bike riding licences and to be actively involved in school traffic units.

Of the total number of primary schools (108 owned by the City of Zagreb and six private schools), ten schools were involved in school traffic units (January 2018).



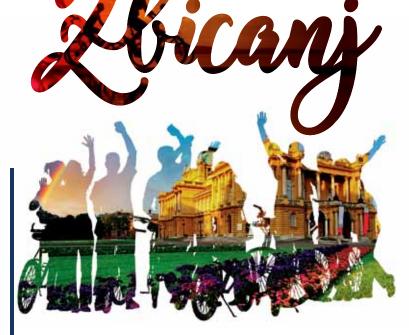
A detail of the educational traffic course near the Gustava Krkleca Primary School, September 2017

## Žbicanj #vozimzazagreb

On 21 March 2018, Mayor Milan Bandić pronounced the month of May as the month of cycling in Zagreb. The bicycle first arrived at Zagreb in 1867. Its popularity was greatly affected by social, political, social, and infrastructural circumstances in our city. The number of bikes has been constantly on the rise over the past ten years, while the city administrative bodies are doing all they can to follow up on this healthy trend with accompanying infrastructure.

Bikes are important for raising public ecological awareness and promoting healthy living habits, so the city administrative bodies promote it systematically. That is the reason they organised the programme "I Ride for Zagreb", now recognised in full by its citizens, for a fourth year in a row.

By pronouncing the month of May as the cycling month, the City of Zagreb continues to promote cycling and invites all participants to contribute to traffic safety with their own programmes. They also to invite citizens to use the bicycle as much as possible.



#### **BOB - Bike on Bus**

As a follow-up to our activities in the projects CIVITAS ELAN, Presto and Ch4llenge, and as part of comprehensive efforts to build cycling infrastructure in the City of Zagreb, a new service was introduced. This was the pilot project BoB—Bike on Bus. Bike racks were installed on four buses on three bus routes that connect the centre to the hilly parts of the city.

The project Bike on Bus offered an opportunity to examine the feasibility of the idea scientifically via research before introducing the service on other bus routes. The results provided robust support to the idea and its acceptance by bus users and cyclists.

Considering that the pilot project was a success, the city and the Zagreb Electric Tram (ZET) made a joint decision to introduce bike transport on buses as a regular service. It is currently provided on three routes in the period from 1 March to 1 November, and the transport is free.



A bus with bike racks at the Mihaljevac tram terminal

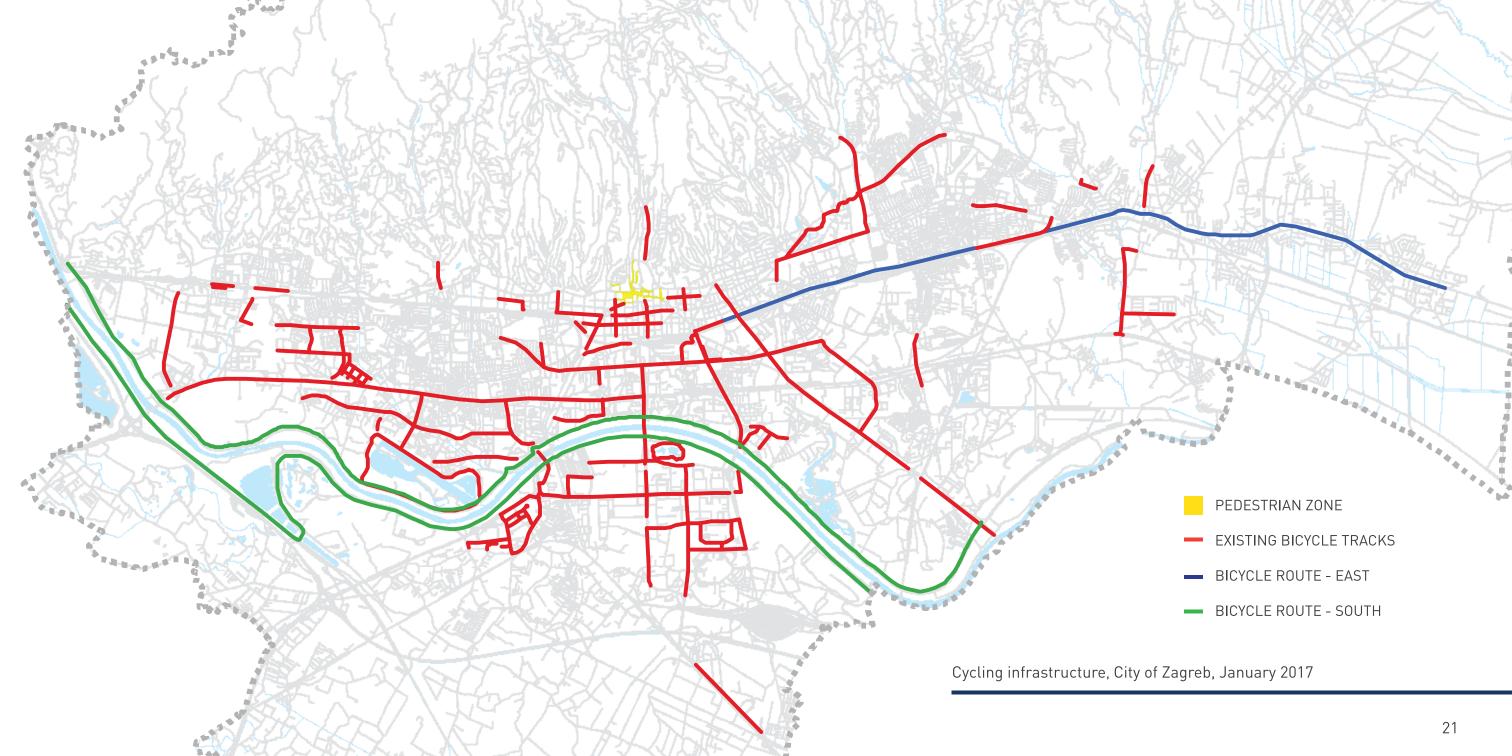
A leaflet with basic information concerning bus routes, stations, and the rules for those using the service Bike on Bus





**BICIKLOM NA AUTOBUS** 

BOB - Bike on bus





## **EDUCATION AND PROMOTION**



#### European Cycling Challenge 2015 - 2017 #vozimzazagreb

The European Cycling Challenge (ECC) is an urban cyclists' team competition aimed at promoting sustainable mobility and use of bikes as means of transportation.

The City of Zagreb participated in the project from 2015 to 2017 (www.cyclingchallenge.eu).

The European Cycling Challenge was promoted with the tag #vozimzazagreb.

The city implemented the project with local partners, such as the Embassy of the Kingdom of the Netherlands, AdriaMediaZagreb, Croatian Post Bank, and all interested individuals

and associations. Numerous events that contributed to the promotion of the use of bikes in everyday life were organised during the European Cycling Challenge.

At the annual CIVITAS Forum in 2016, the ECC project received an award in the category empowerment. The prize was awarded to the city of Bologna as the competent authority, but also equally to other ECC cities, including Zagreb. Thanks to an app that citizens used during their bike rides across the city, quality data on urban cycling was collected and is now used to further plan cycling infrastructure.

10 April 2017, ECC project partners: Hrvatska Poštanska banka:
Domagoj Karadjole, board member; City Office for Economy, Energetics
and Environment protection: Mirka Jozić, head of office;
AdriaMediaZagreb d.o.o.: Ivona Čulo, director, and Ellen Berends,
ambassador of the Kingdom of the Netherlands in Republic of Croatia.



















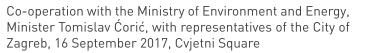


## European Mobillity Week #vozimzazagreb

The European Mobility Week (ETM) is an event that the European Commission organises every year from 16 to 22 September.

The City of Zagreb has been participating in the seven-day programme of activities for 11 years via the co-ordination of the City Office for Social Protection and People with Disabilities. In addition, other city offices and services, institutions, and numerous associations also take part. The City Office for Economy, Labour and Entrepreneurship takes care of the largest share of activities connected with cycling events by providing organisation, but also support to various organising associations.

As of the very first year of participation, based on the appraisals of a special panel of experts, the City of Zagreb consistently ranks amongst the top ten cities, and in 2012 it won the first place and was presented with the prestigious *Mobility Award 2012*.





#### **CIVITAS SATELLITE – Study visit on cycling**

CIVITAS selected the City of Zagreb as the host city for the project CIVITAS Satellite—Study visit on cycling infrastructure. This included representatives from the local administrations of European cities that are only beginning to introduce cycling transportation. During the three days of their visit, they had an opportunity to become acquainted with the cycling infrastructure in Zagreb and with overall processes introduced for their realisation. During interactive workshops, the participants discussed what they had seen in Zagreb and what they could include as cycling infrastructure in their own cities.

The participants rated the organisation of the workshop in the City of Zagreb with the highest marks. The city has once again positioned itself as a desirable place for an exchange of knowledge and experiences in the field of introducing cycling in the traffic system of the city.



Joint photo of the participants and lecturers after the workshop at KIC, Preradovićeva 5, 26 May 2017



The participants on a tour around the city, Model of the City of Zagreb in Cesarčeva, 25 May 2017

#### **Cycling to work**

The Sector for Communal and Traffic Constabulary of the City of Zagreb operates within the City Office for Physical Planning, Construction of the City, Utility Services and Transport. The sector supervises the implementation of rules passed by the City of Zagreb. In order to make the work of communal and traffic constables more effective, and in line with the principles of ecological mobility, there are two bikes with electric engines per office for all five regional offices that they use in their work.

Employees of the Sector for Communal and Traffic Constabulary of the City of Zagreb with their bicycles in front of the garage at the 1 S. Radića Square, on the Winter Bike to Work Day, February 2017.



Considering that said activities are often connected with work in the field, the staff has 16 bicycles (12 were acquired in 2017) at their disposal for field work.



An employee of the Sector for Traffic parks his official bike in front of the City Administration building after he returns from field work.

#### Police on bikes

As part of the pilot project "Police Bike Patrols in the City of Zagreb", the City of Zagreb acquired two bicycles and safety equipment per station for all police stations in the city area.

The project began in 2015 and it aims to strengthen public confidence in the police, increase the subjective feeling of safety amongst citizens, and provide for greater police presence in public areas. This at the same time serves to promote the project entitled "Police in the Local Community", cycling, healthy lifestyles, and environmental protection. Experiences to date show positive results that directly relate to better communication with citizens and their feeling of safety.



Police bike patrols in line at the Josip Ban Jelačić Square, 7 April 2016

#### Zagrebački Holding, Ltd., Waste Management Branch

The City of Zagreb is one of rare European cities that uses tricycles for cleaning streets and squares. Zagrebački Holding, Ltd., Waste Management Branch has 326 mechanically propelled tricycles and, as of 2017, it has six electric tricycles.

The use of tricycles enables the street-cleaning staff to perform their job of cleaning public areas more easily and simply, it promotes cycling culture, and reduces the negative environmental impact. They are regularly included in educational and promotional bike riding activities.



An unknown worker of "Roads" on Zagreb's roads, Photo: Pavao Cajzek, 1959

#### **Competitive cycling - Tour of Croatia**

The City of Zagreb invests in the development of sport and the inclusion of citizens in sport activities in the city, including competitive cycling. Citizens' interest in the sport is growing following the increased use of bicycles in everyday traffic. A large number of citizens and children use the bicycle recreationally, which leads to interest in sport.

Competitive cycling has an important place in the world promotion of the destination and Zagreb is particularly well recognised not only as an excellent co-organiser, but as a city in which cycling is an important link in the cyclotourism offer overall.



Tour of Croatia, 2015



Tour of Croatia, 2017



Tour of Croatia, 2016



Winner of the White shirt of Zagreb Michal Schlegel team CCC and Major of the City of Zagreb, Milan Bandić, 2017. g.



## **STRATEGIC PROJECTS**



### Greenway - National Bicycle Route No. 2

The project plans to build a bicycle path GREENWAY that will follow the Sava river from the border with Slovenia to the Lijevi Dubrovčak, 121.6 km in total length, with additional equipment that includes: lighting, e-bicycle chargers, rest areas, parking lots, info markings and traffic meters. It is also planned to perform works on access sites to bridges as well as to perform works on access points and junctions to the existing cycling and road infrastructure.

The project is part of sustainable urban and regional mobility projects that work to promote sustainable traffic, improve traffic safety, and ensure better connectedness of cycling roads in the City of Zagreb and the Zagrebačka County.

Between the Mladost Bridge and the Sava Bridge, there is a walking path with rest areas and parking for bicycles as well as lighting throughout the length of the embankment, May 2017.



#### **Cycling Highway - Zagreb East**

A group of students from the Faculty of Agriculture of the University in Zagreb, who study Landscaping Architecture, are the authors of a project idea to develop a cycling corridor from the Student Centre to the Borongaj Campus. This project served as the basis for drawing up the plan for developing the cycling corridor from the centre of the City of Zagreb to Dugo Selo, Cycling Highway—Zagreb East.

The result of co-operation with the Faculty is a preliminary landscaping design for the cycling corridor in the eastern part of the City of Zagreb, which was completed on 15 July 2016, and which will be used as the basis for drawing up project documents required to submit an application to the European funds for infrastructure development.

In order to proceed with further implementation of the project, the objective of which was to build cycling infrastructure in the railway belt, a co-operation agreement was signed with Croatian Railways Infrastructure, Ltd. Following the implementation of the project, the cycling lane will serve to connect the centre of the city with the eastern part of the city, ie, the neighbouring county.



Zagrebačka biciklijada to Prepuštevec, 2016



An excerpt from the study of the Eastern Cycling Highway, 2016





Publisher: City of Zagreb,

Mayor of the City of Zagreb Milan Bandić, MA in Political Science

Editor: Darinka Jug

City Office for Economy, Energetics and Environment protection

Design/dtp: Peron8

Print: Kerschoffset d.o.o.

Printed in 300 copies

www.zagreb.hr #vozimza zagreb

Zagreb, August 2018

ISBN 978-953-7479-86-2

