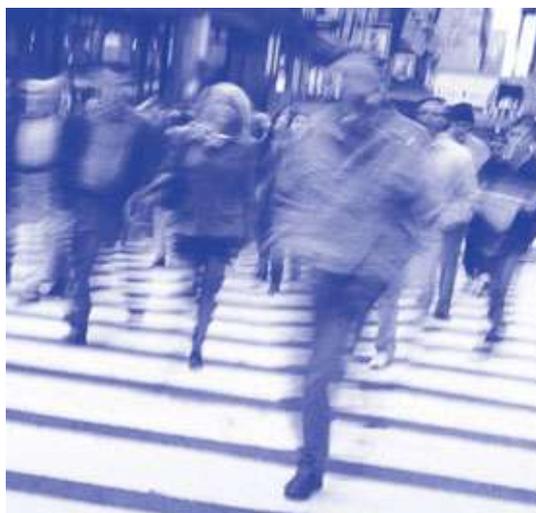


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**CiViTAS**  
Cleaner and better transport in cities

**CAPITAL**



## Implementation status report on safe routes to school NIKŠIĆ

Take-up city:	NIKSIC,MONTENEGRO
Population:	75,282
Area (km2):	2.065 km <sup>2</sup>
Take-up level:	Being inspired
Thematic Focus:	Safety and Security
Cooperating Pioneer City:	KOPRIVNICA, CROATIA
ResponsibleAuthor(s):	Natasa Miljanic
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Date:	28.01.2015.
Status:Final	Final
Dissemination level:	Public

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EUROPEAN UNION

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## Abstract

Quality of life of all citizens, among them children as the weakest participants, depends on the level of the traffic safety and the share of responsibility for a better safety in road traffic.

The **CIVITAS Activity Fund** supports the take-up of sustainable urban mobility measures in Europe through providing funding in a range of transport fields. Cities using this fund are encouraged to transfer successful measures from '**pioneer**' cities to '**take-up**' cities.

Municipality of Niksic successfully applied for funds from the first tender of the CIVITAS CAPITAL Action Fund with the project: "Improving the safety in school zones and raising the awareness of school children, parents and drivers". The project has been implemented in cooperation with Koprivnica from Croatia as the "pioneer city" which has already implemented different measures related to safety of school children and in this project supported the project activities through workshops and on-spot demonstration in school areas. They would also provide suggestions and guidelines regarding the future SUMP development for our city.

The measure had the objectives of increasing road safety in primary school areas, reducing the number of car trips and increasing of the number of walking-trips and trips by bicycle to primary schools. The objective was to create recognizable, safe school surroundings and increase the satisfaction with road safety in primary school areas among children, their parents and all users of road.

Although the measures aimed at improving safety and security, education and raising awareness activities are very important and were conducted during the project implementation.

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# 1 Introduction

## 1.1 Background CIVITAS

CIVITAS - cleaner and better transport in cities - stands for City-VITALity-Sustainability. With the CIVITAS Initiative, the EC aims to generate a decisive breakthrough by supporting and evaluating the implementation of ambitious integrated sustainable urban transport strategies that should make a real difference for the welfare of the European citizen.

**CIVITAS I** started in early 2002 (within the 5th Framework Research Programme);  
**CIVITAS II** started in early 2005 (within the 6th Framework Research Programme) and  
**CIVITAS PLUS** started in late 2008 (within the 7th Framework Research Programme).

### Key elements of CIVITAS

- CIVITAS is co-ordinated by cities: it is a programme“ of cities for cities”
- Cities are in the heart of local public private partnerships
- Political commitment is a basic requirement
- Cities are living 'Laboratories' for learning and evaluating

CIVITAS CAPITAL is supporting the take-up of sustainable urban mobility measures in Europe through an Activity Fund. This co-financing mechanism adopted with aim to encourage the transfer of successful measures from 'demonstration' cities to 'take-up' cities.

Demonstration city in the project is Koprivnica (Croatia) which experience and best-practice is transferred to Niksic (Montenegro) through common activities and interaction.

### Participant Cities

## 1.2 Niksic

Niksic is the second largest town in Montenegro, covers an area of 2065 km<sup>2</sup> and has more than 70 000 inhabitants. Favourable geographical position and natural conditions have made Niksic to be the crossroads and the junction point for the connection of the mountain, central and coastal region of Montenegro. It is about thirty kilometres of air distance far from the Adriatic Sea, and regarding the vicinity of airports in Tivat and Podgorica, Niksic presents an important point in linking the coastal and northern region of the country.



Image 1- City of Niksic

### 1.2.1. Transport infrastructure in Niksic

In the municipality of Niksic the public transport of passengers is provided as the bus suburban transport and the taxi service. Public transport in the city is not organized.

The system of footpaths consists of sidewalks along the road, paved surfaces outside buildings, as well as landscaped independent paths and squares.

Pedestrian street or pedestrian corridors are partially formed in the city centre, where the walking movement is most intense. The formation of pedestrian flows in the centre the greatest impact has location of public facilities (municipal building, hospital, hotel ...). one can concluded that in recent years the newly built roads achieved good continuity and quality of pedestrian traffic, but it is necessary to continuously work on improving the existing pavement (with special reference to the city core).

Infrastructure for conducting bicycle traffic in the municipality is not sufficiently developed, although there are initiatives for its introduction, especially for recreational purposes. Building bicycle paths and lanes requires detailed approach, which applies not only to cycling paths but also the construction of parking spaces for bikes; developing a system of renting, network development bicycle paths, training participants of this type of traffic and its promotion.

In recent years obvious problem is the lack of a sufficient number of parking spaces. The plan is to solve this problem by establishing a parking zones and charging parking in these zones, as well as the construction of new parking lots and garages in line with planning documentation.

### 1.3 Koprivnica

Koprivnica is the town of 33,700 people, situated in the north-west Croatia. It has had an important place at the crossroads of two major regional railway lines, one connecting Budapest with the port of Rijeka in the Adriatic and another connecting Osijek in eastern Croatia with Slovenian and Austrian cities. The sustainable development policies adopted by the city from 2003 and a strong support to cycling and, to a somewhat smaller degree - walking, have contributed to an improvement of modal split in the last decade. At this moment Koprivnica is considered a regional sustainable mobility leader with over 80km of cycling tracks/ pedestrian footpaths inside the city and over 70 km of scenic cycling routes in the surroundings.

## 2 Project description

Two thirds of general population in Montenegro (67%) uses car most frequently. One ninth of citizens most frequently use the bus (11%), and one ninth a taxi (9%). One out of ten citizens (11%) do not use any transport. Male citizens use car to a higher extent in contrast to female citizens who use taxi or go by foot to a higher extent.

For drivers an absolutely dominant vehicle is car (89%). Non-drivers are divided into  $\frac{1}{4}$  of those who usually use car,  $\frac{1}{4}$  who use bus,  $\frac{1}{4}$  of who use taxi and  $\frac{1}{4}$  who go by foot.

It is noticeable discrepancy between at least general knowledge about the regulations and positive attitude on one, and violating regulations on the other side. Citizens are aware of the danger and they know what they should do, but they still don't do that. For example, although 88% of citizens think that children's safety seats are efficient and that they contribute to safety, approximately one third of

parents don't use them, since they think that they don't need them, that they drive carefully or that it is safer to hold the child in their lap. Also, 73% of drivers think that using a phone while driving is dangerous, while 64% say that it is not a problem for them<sup>1</sup>.

Regarding the above, the Law on traffic security on the roads provided limit the speed of vehicles in the area of the school in the village at 30 km / h. In spite of the efforts being made by the traffic police, this restriction has been very poorly respected. Traffic signs at certain locations is not set, and somewhere is faint. Traffic culture is not sufficiently developed, the prevailing use of the car, while the use of alternative forms of transport and walking less prevalent. Transport is one of the main sources of air pollution in the city which often exceeds threshold limit values.

The measure implemented in Niksic had the objectives of increasing road safety in primary school areas, reducing the number of car trips and increasing of the number of walking-trips and trips by bicycle to primary schools. The objective was to create recognizable, safe school surroundings and increase the satisfaction with road safety in primary school areas among children, their parents and all road users. It is implemented by the Municipality of Niksic with support of City of Koprivnica as a "demonstration city", which provided support as experienced city in the area of sustainable mobility during the implementation of the project.

Additionally, project is aimed to raise awareness at least 3000 school children about safety in school surroundings and also to encourage drivers (including parents) to adopt a daily cleaner mode of transport by disseminating information on mobility alternatives and coordinated activities participants in this project.

The main objectives of the measure are:

High level objectives:

- Improvement of quality of life

Strategic level:

- Increase of cycling and walking
- Dissemination among citizen concept of sustainable mobility

Measure level:

- To establish and promote ' school zones' with limited speed up to 30km/h
- To promote sustainable mobility habits among citizens primarily on schoolchildren, parents and drivers
- Decrease of the average driving speed
- Improve the safety of pupils on the way to school and back home, especially for elementary school pupils
- Increase safety for cyclists and pedestrians in the city are

## 2.1 Schools included in the project

Nikšić is home to 40 educational institutions. Among those are 11 nurseries, 25 elementary schools of which one is elementary music school and 4 high schools. It is also home to two faculties of the [University of Montenegro: Faculty of Philosophy](#) and [Faculty of sports and physical education](#).

*The project included five (5) elementary schools:*

---

<sup>1</sup> Road Safety Survey in Montenegro, June 2010; Ipsos Strategic Marketing

<i>School</i>	<i>Address</i>
<i>OŠ "Olga Golović"</i>	<i>Skadarska 7, Nikšić</i>
<i>OŠ "Mileva Lajović Lalatović"</i>	<i>Vuka Karadžića 104, Nikšić</i>
<i>OŠ "Ratko Žarić"</i>	<i>Narodne omladine bb, Nikšić</i>
<i>OŠ "Luka Simonović"</i>	<i>Nikole Tesle bb, Nikšić</i>
<i>OŠ "Braća Labudović"</i>	<i>Bistrička bb, Nikšić</i>

Table 1 - List of elementary schools included in project

The measure was implemented through seven activities, which allowed hundreds of schoolchildren, their teachers, parents and drivers of all generations to be reached:

**Stage 1: Preparatory activities** (Jun 2014) were realized in order to present planned activities to all organizations involved in project

**Stage 2: Visiting City of Koprivnica** (CRO) The workshop "Safe traffic around schools" was organized from 17-18 July in Koprivnica. Representatives from Niksic were introduced with SUMP as a document that should emphasize the need to be harmonized and included into project documentation of the community. The second part of the visit was devoted to visiting schools that are implemented the school safe projects.

**Stage 3: Workshop for better planning** organized in Niksic in order to improve future plans for traffic safety in school zones at the local level. Participants on the workshop were representatives of municipality, schools, and police.

**Stage 4: Speed and Danger** Municipality in cooperation with the police were conducted marking the streets and installing traffic signs in school zones. This implies installing signalization which warns drivers about reducing the speed in these areas up to 30km/h and establishing "safe district".

**Stage 5: School Safety Campaign** Questionnaire was conducted among 100 children from 5 primary schools. Also was provided for the parents (200 in all schools) and drivers (150). Survey was conducted in two phases – at the beginning and in the end of the project.

**Stage 6: Safe and Clean Campaign.** Informing drivers about the rules and signs in school surroundings. Disseminating promotion material to drivers in school surroundings together with speed measurements conducted by the Police, aiming to familiarize them with innovative measure in Montenegro law and speed reduction in school zones

**Stage 7: Award for school**

## 2.2 Description of Activity

**Stage 1:** The first step in the project implementation consisted of the meetings team members with schools and representatives of the local police office in order to introduce them with planned activities. These meetings allowed both the school and the Municipality to agree the activities and actions to be carried out in the schools. The initiative of municipality team to establish mobility manager for each school was supported by the heads of each school. Mobility manager would be responsible to

promote sustainable mobility in their school and meet with other school in order to improve mobility in schools.

**Stage 2 (July 2014)** : In this project Niksic has an opportunity to learn from much experienced City of Koprivnica as the “demonstration city” who has already implemented different measures related to safety of school children. Two day workshop “Safe traffic around schools” was conducted on 17-18 July 2014 in Koprivnica. As important part of the workshop participants were introduced with Sustainable Urban Mobility Plan - SUMP, which could improve urban transport planning in the city for a long period of time. During the two day visit participants visited primary and secondary schools in Koprivnica, discussed the development of school travel plans and other measures that are conducted by school for many years in cooperation City of Koprivnica and police department. The workshop programme also included development of cooperation with other associations and organizations which have contributed to the significant increase of proportion of pedestrians and cyclists in the City of Koprivnica.



Image 2- Some pictures from the workshop held in Koprivnica

**Survey (September 2014-October 2014)** One of the activities predicted by the project was raising awareness for all mobility participants. In that aim project team conducted survey that was oriented towards the schoolchildren and parents from schools that participated in the project. The survey also included drivers from the city.

Survey was conducted for children from 5 primary schools (in total 443 children were involved), parents (196 in all schools) and drivers (153) in the first phase of the project. To gather a better insight amongst schoolchildren and their parents of their attitude towards the transport system and sustainable mobility issues, a survey was firstly conducted at the beginning of the project with aim to obtain several indicators such as:

- Types of transport most often used

- Participant's mobility and its habits
- Pedestrian habits
- Knowledge of the environmental issues...

The questionnaire for drivers has been developed during the European Mobility Week which was used as a background to promote and establish five 'school zones' and vehicle speed limit in it up to 30 km/h. The action took place near five elementary schools in period from 11 a.m. to 1 p.m., and involved the cooperation of police officers, school representatives and school children. Police conducted speed measurements and inform drivers with this innovative legal measure to help reduce speed. The initiative has the added advantages of reducing fuel consumption and encouraging people to walk or cycle instead of driving. In this phase a total of 153 drivers were interviewed. Pupils from five primary schools (a total of 40 kids) interviewed the drivers who gave the answers how they have seen current safety situation in traffic and access their habits. After fulfilling the questionnaire, every driver got a promotional flyer and sticker for car.



Image 3: Schoolchildren and police in common action during the European Mobility Week

It was concluded that the surroundings of many primary schools were not sufficiently safe and recognizable for road users. The activity carried out in the city confirmed that the private car was the main mode of transport used by citizens. The schoolchildren with their teachers and police officers advised drivers to decrease a vehicle speed in school zones and to adopt a daily cleaner mode of transport by disseminating information on mobility alternatives.

**Stage 3: Workshop for better planning** was organized on 14. November in order to improve future plans for traffic safety in school zones, at the local level. Participants on the workshop were representatives of municipality (transport planners, traffic engineers, environmental specialists...),

schools, police. Although it was planned that on the workshop participate representative from Koprivnica it was changed because of the costs and video conference were organized instead.



Image 4 – Pictures from the workshop organized in Niksic

The workshop put the focus on people, not cars where participants were introduced with examples from neighbouring countries. It was highlighted the need of adopted Sustainable Mobility Plans as an important tool for improving quality of life for all citizens. Via video conference participants had an opportunity to learn a lot about applicability of sustainable urban mobility solutions in Koprivnica and how it could improve quality of life.

**Stage 4: Speed and Danger** Municipality in cooperation with the police were conducted marking the streets and installing traffic signs in school zones. This implies installing signalization which warn drivers about reducing the speed in this areas up to 30km/h and establishing “safe district”. As any of the participated schools hasn't developed plan for school zone, with this project Municipality chose to improve horizontal and vertical signalization in school surroundings on the way to install in total 30 road signs which indicate ‘School zone’ (the sign was 600x900mm), ‘Zone 30’ (600x600) and ‘End of a 30 zone’ (the sign was 600x600).



Image 5- New road signs which are placed in the beginning and at the end of school zone

School zones are indicated by a yellow horizontal signalization on the road, with the word 'school' written in large letters. It was innovative for the city and positively accepted from all road passers. The yellow color was chosen because of the following reasons:

- it complied with new regulations on the national level
- yellow improve the visibility and the road safety
- school zones became recognizable with uniform color that are applied only in school zones in the city

Department for transport in Municipality of Niksic was in charge of creating school zones and administered them in line with current (new) national and local regulation.



Image 6- Situation in front the Primary school 'Braca Labudovic' before and after the marking the street





Image 7- Some pictures before and after implementation 'school zone' of Primary school 'Ratko Zaric'

### Stage 5: School Safety Campaign

After the installing traffic signalization both horizontal and vertical, a written questionnaire has been held among the pupils of the five schools involved in the project and their parents, too. These target groups were asked how they judge the school surroundings, if they think the safety improved or not and if they changed their behavior.

Despite the fact that 31% parents consider that vehicles don't drive slower, 38% of the parents think that the road safety is improved. 24% of the responding parents think that vehicles drive slower after the implementation whereas and 27% consider that safety in school zones is not improved or they are not sure (34%). A majority of interviewed parents is aware negative impact of traffic on the environment. In fact, 40% of them very often think of the air pollution caused by traffic and 51% think of it occasionally. A majority of them are (76%) ready to change their habits and think about cleaner mode of transport for healthier environment.

Additionally, some useful data obtained with this survey which could be used for future activities show a great number of parents supporting organized way of leading/following children to school. 69% of them consider that way useful and safe for schoolchildren. Also, 53% of them would like to be actively

involved in activities organized leading/following children to school and their back home. The opposite answer gave 24% of interviewed parents.

### **Stage 6: Safe and Clean Campaign. Informing drivers about the rules and signs in school surroundings.**

On December 24.12.2014. educational campaign was organized and was dedicated primarily to drivers. The campaign included teachers and children from five primary schools and local police officers. It was conducted in the central part of the city in the period from 11-13 a.m. with aim to inform drivers about innovative measure in Montenegro law regarding 30km/h zones while children communicate with drivers during the fulfilling the questionnaires. Also, children had got an opportunity to perform radar system measurement and heard explanation about it functions on the easy and understandable way.



Image 8 – Educational campaign and survey among drivers

Promotional materials were handed out to drivers and interested citizens during the activity.

### **Stage 7: Award for the most engaged and dedicated school**

The prize has been rewarded to the Primary school 'Mileva Lajovic Lalatovic' for their very enthusiastic approach and great interest in sustainable mobility issue. An awards are a wonderful bike and a parking for bikes which is from great importance for the pupils of this school according to the fact that majority of the pupils own a bike (88% from interviewed pupils) and that 34% of them recognize that mode of transport as most favourable. The previous values were bigger than the values obtained from the other schools included in project.

The bike will serve all pupils from the school for activities in schoolyard regarding the traffic behaviour which was planned by the management and mobility manager of the school in the future period.



Image 9 – Pictures from rewarding the school 'Mileva Lajovic Lalatovic'

### 3 Outcomes

It is hard to state measurable outcome within the short time period for evaluation. However, this measure targeted a schoolchildren from all grades in five elementary schools, their parents and drivers in the city.

The main outcomes and results are:

Key result 1 – Established five reduced speed zones

Speed reduction in the city area promote the concept of “safe district” and “30-km-zones” in order to increase road safety. Although the benefits from these measures will mostly rely on the schoolchildren from five elementary schools, it is expected that its effects will be extended to the habitants and visitors as well, since the measures are mostly implemented in the city centre area.

Key result 2 – Average vehicle speed in reduced speed zones is up to 30km/h. Before this project there were no signs that inform drivers that they are in school zone and they drove with the speed they felt was justifiable.

Key result 3 – The surroundings of primary schools has got recognizable road signs and markings

Key result 4 – Written questionnaires among parents (in total 326) of the schoolchildren and the schoolchildren ( in total 950) of the five primary schools. Also, survey was conducted for 277 drivers in the city

Key result 5 – gained knowledge during the two workshops organized in Koprivnica and Niksic where participants increase their knowledge of sustainable mobility issue and introduce themselves with examples of it in practice

Key result 6 - For parents and car drivers, perceived traffic safety is improved due to the new speed reduction zones for 38% and 82% respectively

Measure also indirectly reducing traffic pollution (noise and air pollution).

Encouraging data are on the existence of environmental awareness schoolchildren. For example, traffic is perceived as something that is not only threatens their security, but also for the environment in which they live. Also, significant percentage of parents express willingness to change their behaviour in order to improve the state of the environment (76%).

However, the behaviour is not always in line with the (preferred) way of thinking and it is necessary to continue to work to harmonize thinking and behaviour.

## 4 Evaluation

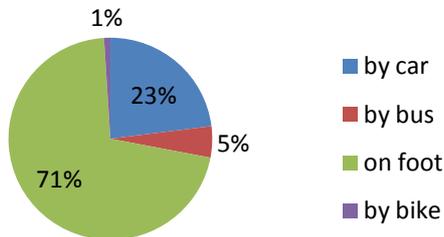
The survey is done in two phases – at the beginning of the project and at the end of project.

**Survey 1**-The questionnaires were submitted to pupils of five elementary schools (sample = 443children), parents (sample= 196) and drivers (sample= 153) at the beginning of the project.

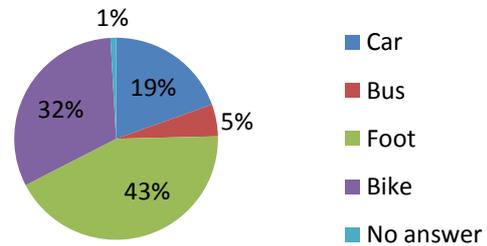
It is conducted in order to investigate mobility habits and behavior of school children, their parents and drivers and also to get necessary data about the mode of transport which was mostly used, distance covered, readiness to change habits, barriers to use alternative mobility modes (e.g. bike or walk). The possible difficulties (weather conditions, road markings, cycle infrastructure and safety of traffic infrastructure etc) encountered during the round trip were also investigated.

Data show that the most common mode of transport is walk (71% ). Most journeys are short in distance and short in duration. 64% of journey are less than 1km and 57% of them lasted less than 5 minutes by car.

**What is the most common mode of transport to school**



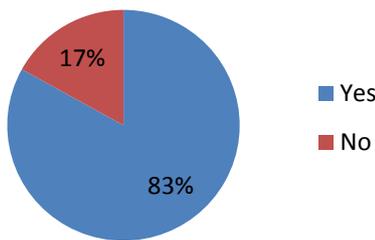
**What is your favourable mode of transport?**



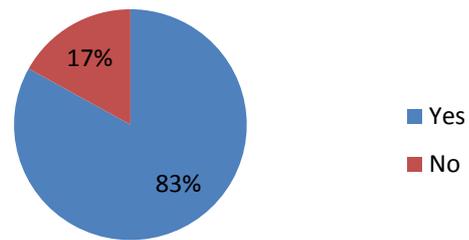
Graph 1 – Common and favorable mode of transport (schoolchildren)

The comparison between the number of children bikers and the number of children car passengers demonstrates the total not using the bicycle. Interestingly, the majority of school children own a bike (83%) and would like to be able to come to school by bike. Also, walking and biking were recognized as a favorable mode of transport (43% and 32%). The recognizable problem is the lack of parking for bicycles. No school does not have a parking space for bicycles.

**Do you own a bike?**



**Do you like the idea to rent a bike in your school?**

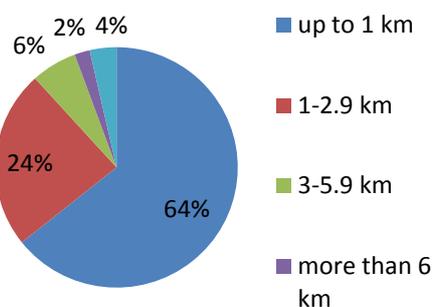


Graph 2 – Results from survey about using the bike

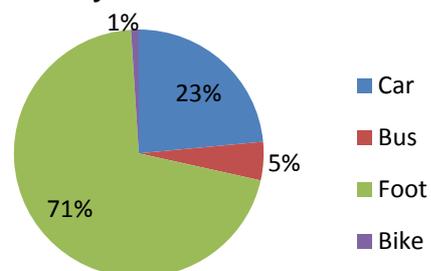
Data show a traffic dangerousness as an obstacles to the walking and biking mode of mobility to school. The majority of parents (84%) consider that current signalization (Survey 1) is not sufficient for children safety and need to be improved. The obtained results show that 16% of parents consider way to school completely sure, 28% neither safe or unsafe and 13% completely unsafe.

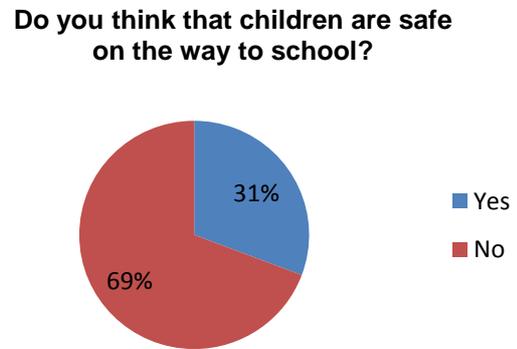
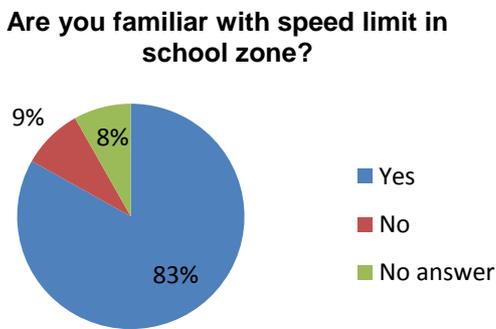
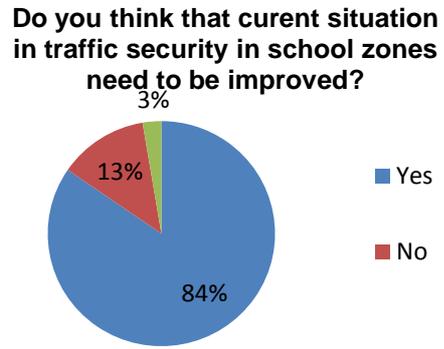
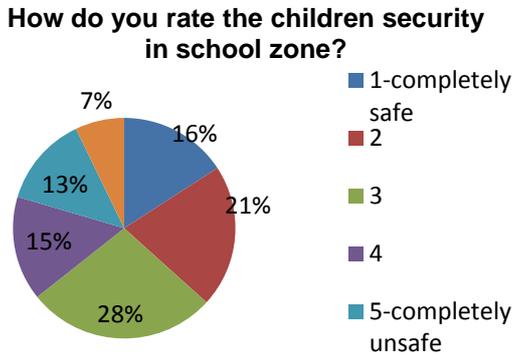
Some questions and results for parents:

**What is the distance from your home to school?**



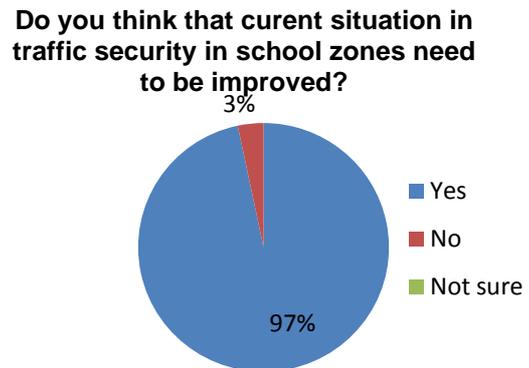
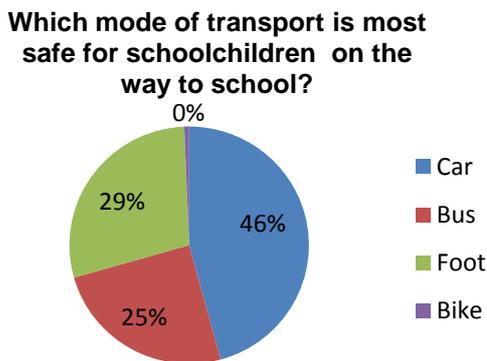
**What is the most common mode of transport for your child on the way to school?**



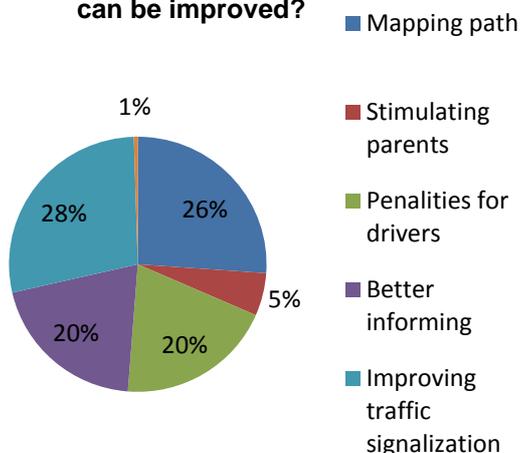


Graph 3 - some of the results of survey conducted among parents

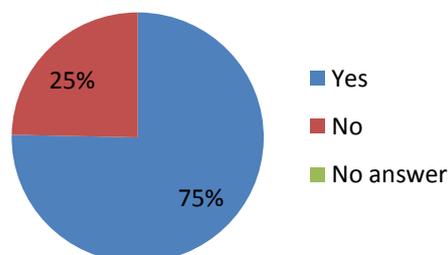
Some questions and results for drivers:



### How do you think security situation can be improved?



### Are you familiar with speed limit in school zone?



Graph 4 - Some of the results of survey conducted among drivers

**Survey 2** - Second survey was conducted at the end of the project and was addressed to different pupils and their parents of elementary schools and also to the drivers. In the survey participated 507 children and 130 parents. In this phase it was conducted for 124 drivers in Niksic.

Some questions and results for schoolchildren:

Q: What is the greatest danger on your way to school? (more than one answer is possible)

A:

- Traffic jams 14%
- Parked vehicles on sidewalks where provided for pedestrians 10%
- Drivers who do not stop in front of the pedestrian crossing or passing on a red light 31%
- The shortage of places for safe passage across the street 5%
- Driving too fast 26%
- Often not working traffic lights 9%
- Something else 5%

Q: Under what conditions would you bike to school and back? (more than one answer is possible)

A:

- If there were bike paths 35%
- If we had learned more about the traffic behaviour 4%
- When my parents allowed it 7%
- If the weather would allow 7%
- If everybody respect traffic regulations 16%
- If at school exist places where we can leave the bikes 28%
- Something else 3%

Q: Would you like to go to school by bike, with a group of children and/or accompanied by an adult at marked paths, rather than going as up to now?

A:

- I like that idea 53%
- I don't like that idea 24%
- I am not sure 23%

Q: Would you like to go to school on foot, with a group of children and/or accompanied by an adult at marked paths, rather than going as up to now?

A:

- I like that idea 54%
- I don't like that idea 23%
- I would go to help younger 23%

Q: How much do you know about the negative impact that traffic causes on the environment (air quality, health of the population)?

A:

- I know a lot about it 52%
- I know something about it 40%
- I don't think about it 8%

Q: Have you noticed an additional signalization near the school?

A:

- Yes 72%
- No 27%
- No answer 1%

Q: Do you pay more attention when you cross the street?

A:

- Yes 90%
- No 9%
- No answer 1%

Some questions and results for parents:

Q: Are you ready to join voluntary in school in order to make way from home to school and back safer?

A:

- Yes 44%
- No 15%
- Not sure 41%

Q: Under what conditions would you let your child to go to school by bike?

A:

- If there were marked bike paths 54%
- If the traffic was better regulated 34%
- If such mode of transport would be more acceptable 8%
- If a child express a wish to use such mode of transport 4%

Q: What do you think about the children to go to school in an organized manner, in a group with other children and/or accompanied by an adult, according to determined and marked paths?

A:

- I think it would be useful 69%
- I don't think it would be useful 23%
- I don't know 8%

Q: Would you like to be actively engaged in the case organizing guided/ monitoring group of children to school?

A:

- Support an action and involved 53%
- I would certainly be included 21%
- I wouldn't like to be included 24%
- No answer 2%

Q: Have you noticed an additional signalization near the school?

A:

- Yes 67%
- No 33%

Q: Do you think that additional signalization in school zones improved safety?

A:

- Yes 38%
- No 27%
- Not sure 24%
- No answer 1%

Q: Do you think that children/people pay more attention when they cross the street?

A:

- Yes 37%
- No 22%
- No answer 41%

Q: Do you think vehicles drive slower after the implementation of the school zones?

A:

- Yes 24%
- No 31%
- Not sure 45%

Q: Do you think about the negative impact that traffic causes on the environment (air quality, health of the population)?

A:

- Often 40%
- Sometimes 51%
- I don't think about it 9%

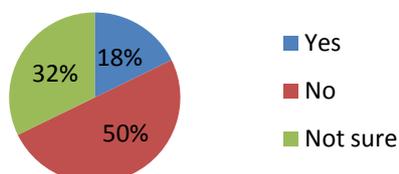
Q: Are you ready to change your habits and think about cleaner transport for healthier environment?

A:

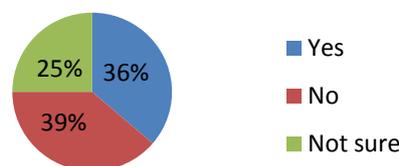
- Yes 76%
- No 5%
- Not sure 19%

Data obtained amongst drivers show that 72% of them are familiar with the project realized by Municipality of Nikšić and 85% noticed additional signalization in the school surroundings. 82% of them think that safety is improved in school zone but still great majority of them think that children are not safe in traffic on the way to school (Graph 5). Although, according to the results of the survey, 89% of the responders decreased vehicle speed after implementation school zones.

**Do you think that children are safe on the way to school?**



**Are you familiar with concept of urban mobility**



Graph 5 – Judgement of drivers about school safety after implementation the measure

Although almost half of interviewed drivers are familiar with negative impact of the traffic on the environment, a majority of them are not familiar (39%) or not sure about it (25%). Compared with the results obtained with parents, the similar percentage of drivers (77%) are ready to change their habits and think about cleaner mode of transport for healthier environment. It is indicated that majority of drivers don't know or not sure about sustainable mobility meaning.

## 5 Dissemination activities

In order to promote sustainable urban mobility among schoolchildren, parents and drivers educational leaflets were produced and presented in entertaining graphical format. They were designed separately for schoolchildren and parents and another one for drivers. Promotional material was design to introduce all participants in traffic to speed limit up to 30km/h in school zones and to help make school zones more safety for schoolchildren and all other traffic participants, to promote the concept of "safe district" in order to increase road safety by means of a reduction in the average speed of motorized vehicles and providing safe crossing points for pedestrians and cyclists. On the other side, they promote healthier modes of transport as walking and cycling and try to motivate kids to enjoy together on their way from home to school and back.

A total of 3000 leaflets were produced and given out to schoolchildren and their parents of 5 primary schools in 2(two)phases of the project, drivers and citizens during the actions. Response from drivers to this leaflets and also to the Questionnaires which were intended for them has been very positive.

**VOZAČI**  
zona škole-sigurne zone

**Vozači, oprez!**  
Smanjite brzinu u **ZONI ŠKOLE!**

Smanjenje brzine smanjuje i vrijeme potrebno da reagujete i zaustavite vozilo, što može spriječiti sudar. Ako se sudar ipak desi, dijete udareno pri brzini vozila od 50km/h ima svega 20% šanse da preživi. Pri brzini od 30km/h šanse se povećavaju na 95%.

**Budite oprezni**

Obratite pažnju na djecu koja mogu neočekivano istrčati na ulicu između automobila.

**DJECO I RODITELJI**  
zona škole-sigurne zone

**Roditelji, ohrabrite dijete da u školu ide pješice ili biciklom.** Odabirom zdravih načina prevoza doprinosite većoj bezbjednosti djece, njihovom zdravlju i zdravoj životnoj sredini. Budite svjesni da je okolina škole opasna za djecu zbog prevelikog broja roditeljskih automobila.

Sledeće jutro kada budete vozili vašeg malšana u školu sjetite se rezultata najnovijeg istraživanja: djeca koju roditelji voze u školu imaju slabiju koncentraciju od djece koja u školu idu biciklom ili pješice.

**Pješačenje, vozite biciklo ili zajedno putujte do škole!**

Pješačenje ili odlazak biciklom do škole je odličan način da budete aktivni, smanjite zagađenja vazduha, družite se sa drugim roditeljima i djecom. Takođe, to je dobar način da uštedite novac i zabavite se sa svojom djecom.

Upotrebom aktivnih vidova transporta smanjujete broj vozila u **ZONI ŠKOLE** a samim tim i rizik od udesa. Ukoliko odlazak vašeg djeteta u školu nije moguć pješice ili biciklom dogovorite se sa drugim roditeljima o zajedničkom prevozu.

**JAO!** Skoro je 3h. Kasnim kod frizera! Požurio!

U zoni škole smo. Spustio sam brzinu na 30km/h.

Tako sam sigurniji da mogu reagovati na vrijeme u slučaju neke rizične situacije. Moramo misliti na bezbjednost naše djece. Uostalom i ovako stižemo na vrijeme, vidječeš.

Marko sine, hoćeš da te odvezem do škole?

Hvala tate, ali već sam se dogovorio sa Ivanom i drugarima da pješačimo.

Hej, vidite Darko! Moramo ga ubijediti da od sutra i on ide sa nama. Mogu mu usput objasniti poslednje lekcije iz matematike.

Uvidječe da je propustao super druženje!

Uvijek prelazi ulicu na pješačkom prelazu. Šetao u grupi ili sa starijima kad god je to moguće. Vožnja biciklom ili pješačenje je uvijek ljepše i korisnije od vožnje automobilom. Razgovaraj sa roditeljima da ti se pridruže.

Image 10 - Leaflets for kids, parents and drivers

To further promote sustainable mobility among citizens, the Municipality produced more than 50 posters which were used for improvement campaigns in schools, and also presented wider public via local TV and other newspaper media. Despite the fact that it is difficult to assess the impact the

produced material had upon citizens, it definitely contributed to disseminate the project and sustainable mobility theme. During the implementation of the project, information about activities were spread in the media, both local and national and a lot of articles were published. Also, information about the project and activities has been spread via Municipality's website and websites of all schools involved in project.



Image 11- Local television interviewing the pupils



Image 12 – Promotion 'school zone' in the newspaper

## 6 Issues arising

### 6.1 Drivers

- Cooperation between the cities

Meetings and cooperation amongst demonstration city and take up city are from the great value especially for new CIVITAS members. In this project Niksic has an opportunity to learn from much experienced City of Koprivnica as the “demonstration city” who has already implemented different measures related to safety of school children.

- Continuous cooperation between local government, schools and police office
- Positive attitude of police and head of the school

### 6.2 Barriers

It was a complicated task to **motivate schools** to greater engagement. The educational program in schools is already quite filled. Also, schools are usually involved in some projects conducted by NGO or similar organizations and it is very difficult for teachers and children to actively participate in more activities.

**Motivation and involvement of the parents** is not sufficient. It could be seen on the unclear answers and less number of questionnaires return after they were asked for fulfilling. Despite the fact that the aim of the project is from the great value for pupils, it seemed that a number of them were not recognize it as a possibility of improving current security situation in school zone.

**Changes in mobility management.** Although the schools were introduced with intention of project team that every school should have one mobility manager as a person who will following all future activities, only one school has establish one person who followed the implementation of the project from the beginning. It was justified earlier undertaken obligations. Fortunately, that was not led to delay of planned activities.

**Lack of proper communications** between different sectors in local authority (financial, traffic, manager, procurement) which leading delays in the phase of implementation and unnecessary waste of time on administration responses.

**Insufficient budget.** The intended budget for the project were not sufficient in the way that form uniform school zones that would be more recognizable.

### 6.3 Risk assessment

The established initiatives and solutions will continue to exist as a part of the municipal planning for traffic safety. Speed reduction zone will continue to exist to increase safety for all road users especially vulnerable groups.

The recognizable problem has been current economic crisis and limitations to municipal budgets which put a strain on future plans in this area even though there could be significant benefits achieved in the environment and social sectors.

## 7 Conclusion

The conclusions of the evaluation were:

- The organizations involved consider that the school zones contribute to make primary schools more recognizable and safe
- Schoolchildren are (very) positive about the school zones.
- 38% of the responding parents thought that road safety increased, 27% thought that road safety did not increase and 25% are not sure.
- 82% of the responding drivers thought that road safety increased, but 50% still thought that children are not safe and 32% are not sure about it
- Additional budget is required for extension of the activities in school surroundings. In that case school zones would be uniform and recognizable and be an examples for other educational institutions in the city

### Recommendations

Dialogue is needed in defining priorities, planning and taking technical decisions. Problems can occur due to the different interests of the involved stakeholders. The group who most certainly could oppose restrictions for cars is car drivers and especially taxi drivers in the city.

Future actions should be focused on education of children, parents and drivers. Focus should be on improving conditions for pedestrians (especially children) and cyclists, by improving infrastructure and road side equipment, or by traffic calming and eliminating conflicts between motorised and non-motorised transport..

## 8 Reimbursement

### Applicant (CCPs) Bank account number

- IBAN: ME25535005010000049832
- Intermediary bank: DEUTSCHE BANK AG  
FRANKFURT AM MAIN  
SWIFT CODE: DEUTDEFF
- Account with institution : PRVA BANKA CRNE GORE  
PODGORICA  
SWIFT CODE: PRVAMEPG