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THE POSITIVE EFFECTS OF THE SAFETY PROGRAM “TRAIN IS ALWAYS FASTER”

**2014 Global Level Crossing
Safety & Trespass Prevention Symposium**

August 3 - 8, 2014 Urbana, IL

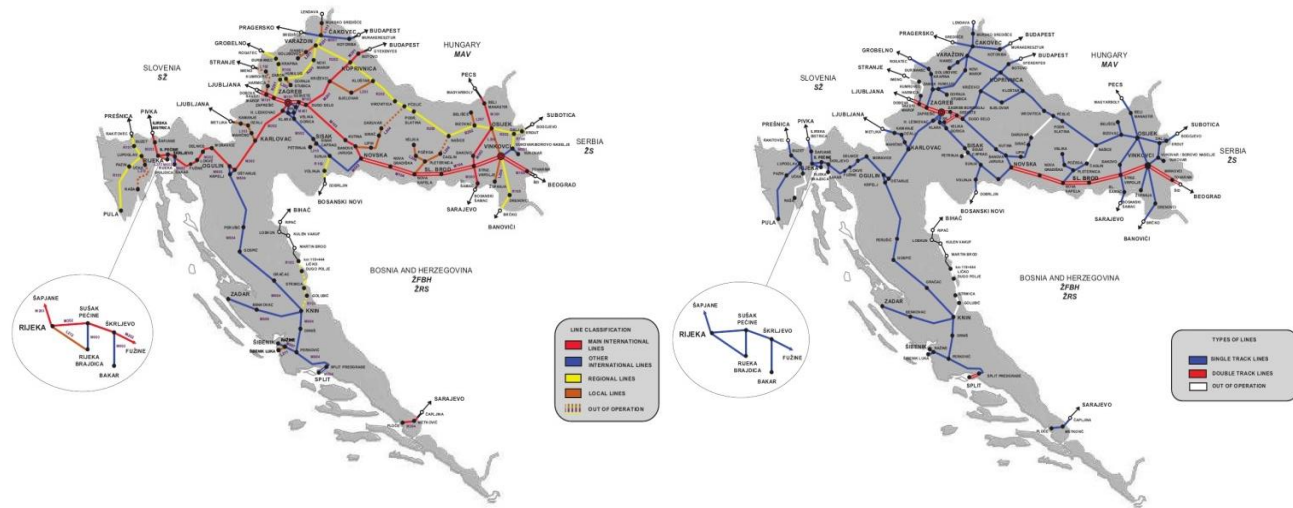
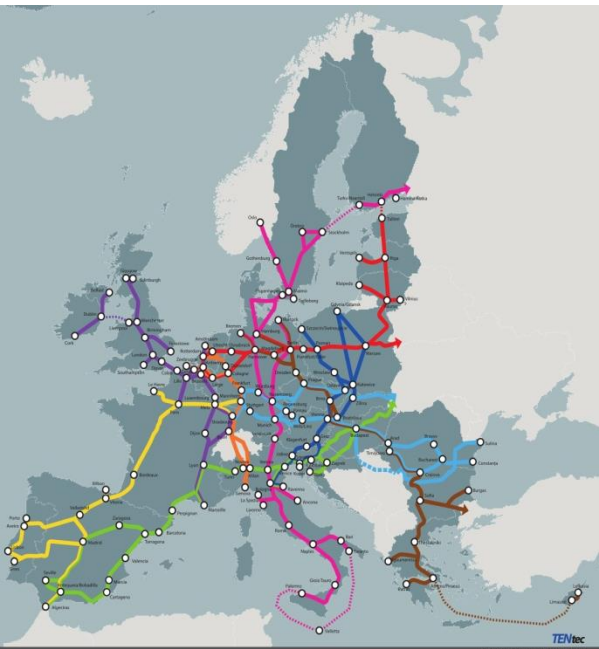


CONTENT

- Introduction
- Croatian railways network
- Safety on LC in Croatia
- Program “Train is always faster” (“Vlak je uvijek brži”)
- Remarks



CROATIAN RAILWAYS NETWORK



Croatian railways – part of integral Trans-European railway network (Mediterranean line).

Classification of the railway lines in the Republic of Croatia:

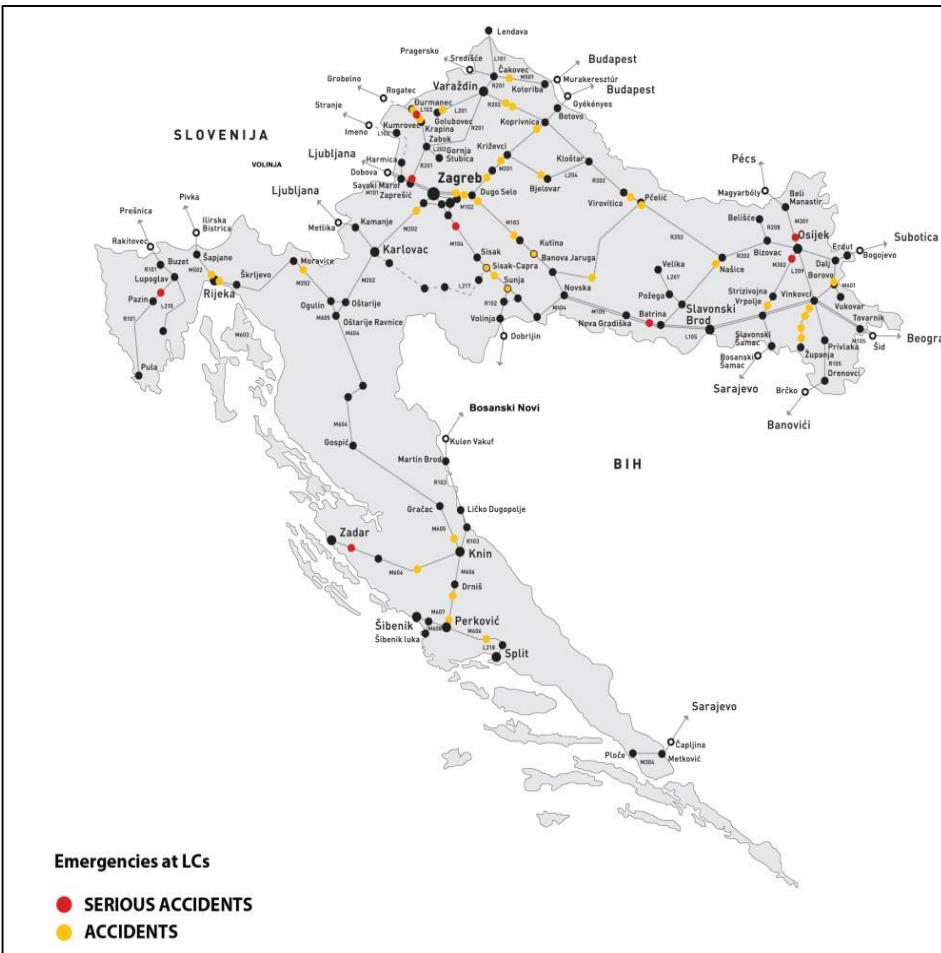
- International lines (main and others)
- Regional lines
- Local lines

- The total length of the railway lines: 2968 km
 - single track railway lines: 90.7%
 - double track railway lines: 9.3%
- Electrified lines: 980.07km (36.0%)
 - with single phase AC 25kV/50Hz system 824.37km (84.1%)
 - with DC 3kV system 137.70km (15.9%)

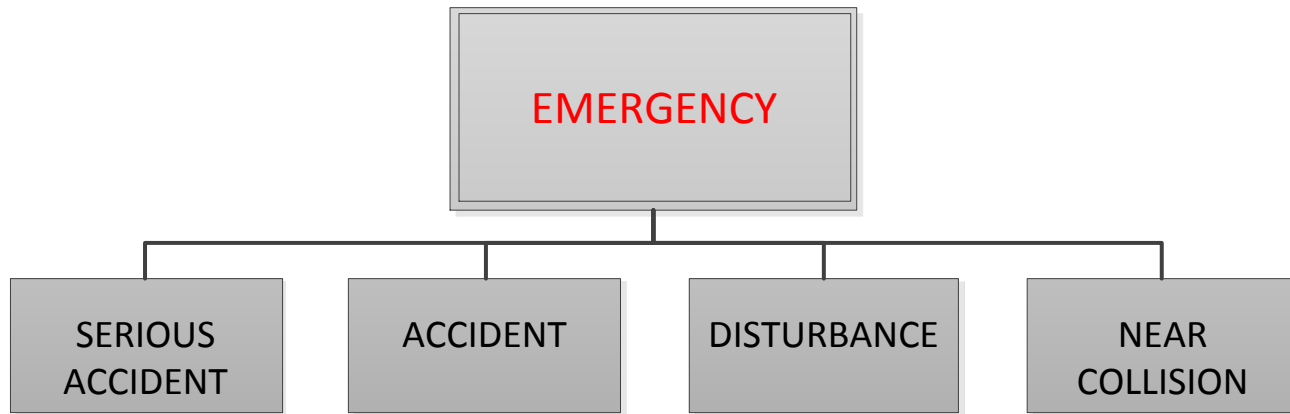
BASIC CHARACTERISTICS OF LCs ON THE CROATIAN RAILWAYS

- ✓ On the network of the Croatian railways there are no unprotected level crossings.
- ✓ There is a total of 1,514 LCs:
 - 68.4% are protected only by road traffic signs and visibility triangle (signs informing about the approach to the crossing, STOP sign and Andrew's cross),
 - 31.6% of LCs are protected by devices (light-audio signals, half-barriers, barriers)

LCs protected by traffic signs and triangle of visibility	Pedestrian crossings protected by pedestrian gates and triangle of visibility	LCs protected by automatic or mechanical devices			TOTAL
		Mechanical barriers with manual mechanism	Light-sound signals and half-barriers	Light-sound signals	
923	60	65	318	148	1,514



CLASSIFICATION OF EMERGENCIES ON LCs (2012)

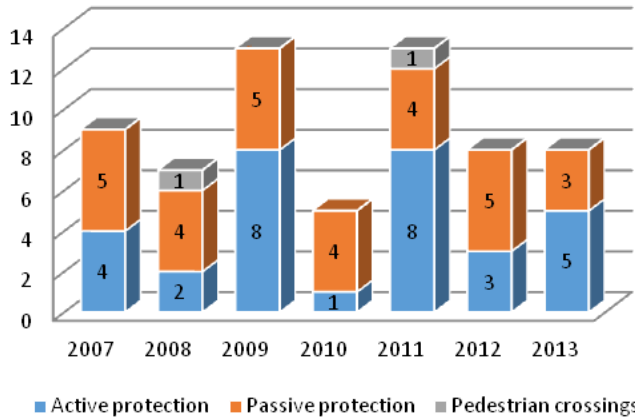


- ✓ **Serious accident** is an emergency which results in death of at least one person, and/or serious body injuries to five or more persons, and/or greater damage that may be immediately estimated at more than 5,000,000 kuna.
- ✓ **Accident** is an emergency with harmful consequences such as serious body injury of up to four persons, and/or damage which can be immediately estimated at up to 5,000,000 kuna.
- ✓ **Disturbance** is any event related to railway traffic which affects safe traffic flow, apart from serious accidents and accidents.
- ✓ **Near collision** is an emergency which could have resulted in serious body injury of at least one person and/or damage.

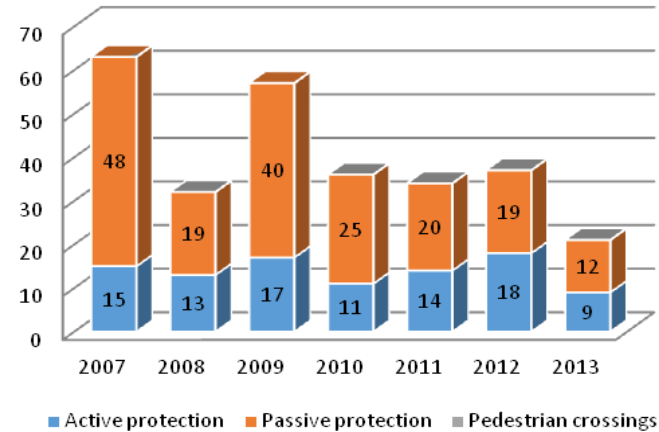


LC SAFETY STATISTICS (1)

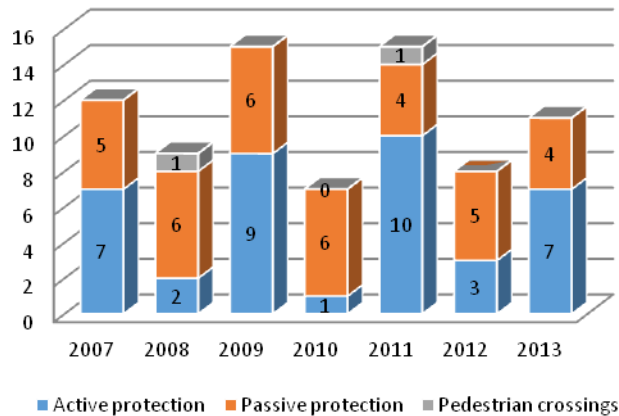
Serious Accidents



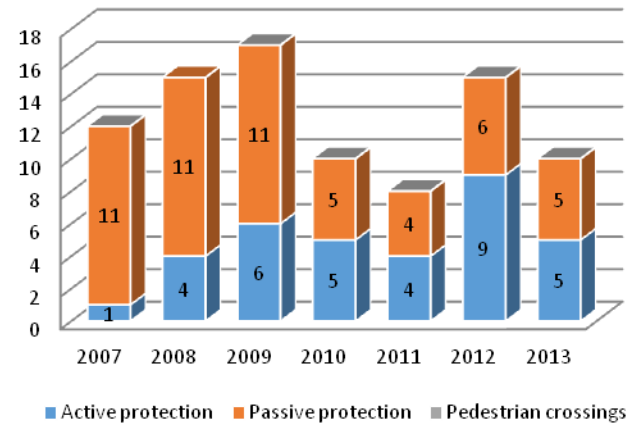
Accidents



Killed

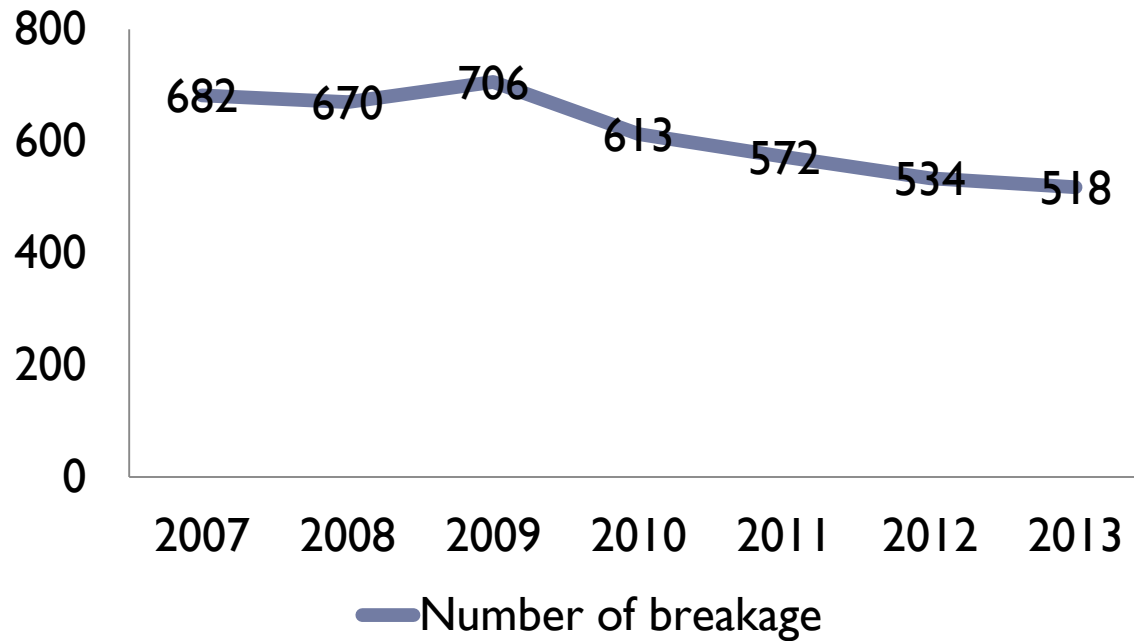


Seriously Injured



LC SAFETY STATISTICS (2)

Breakage of half-barriers/barriers



EVALUATION OF THE SAFETY CONDITION AT LCs IN CROATIA

- ✓ Main cause of collision at LCs is the behaviour of road user participants.
- ✓ Risky behaviour of drivers i.e. their lack of attention when driving a vehicle, disregard of traffic regulations and stress.
- ✓ For more than 90% of accidents at level crossings are responsible pedestrians and drivers of road vehicles



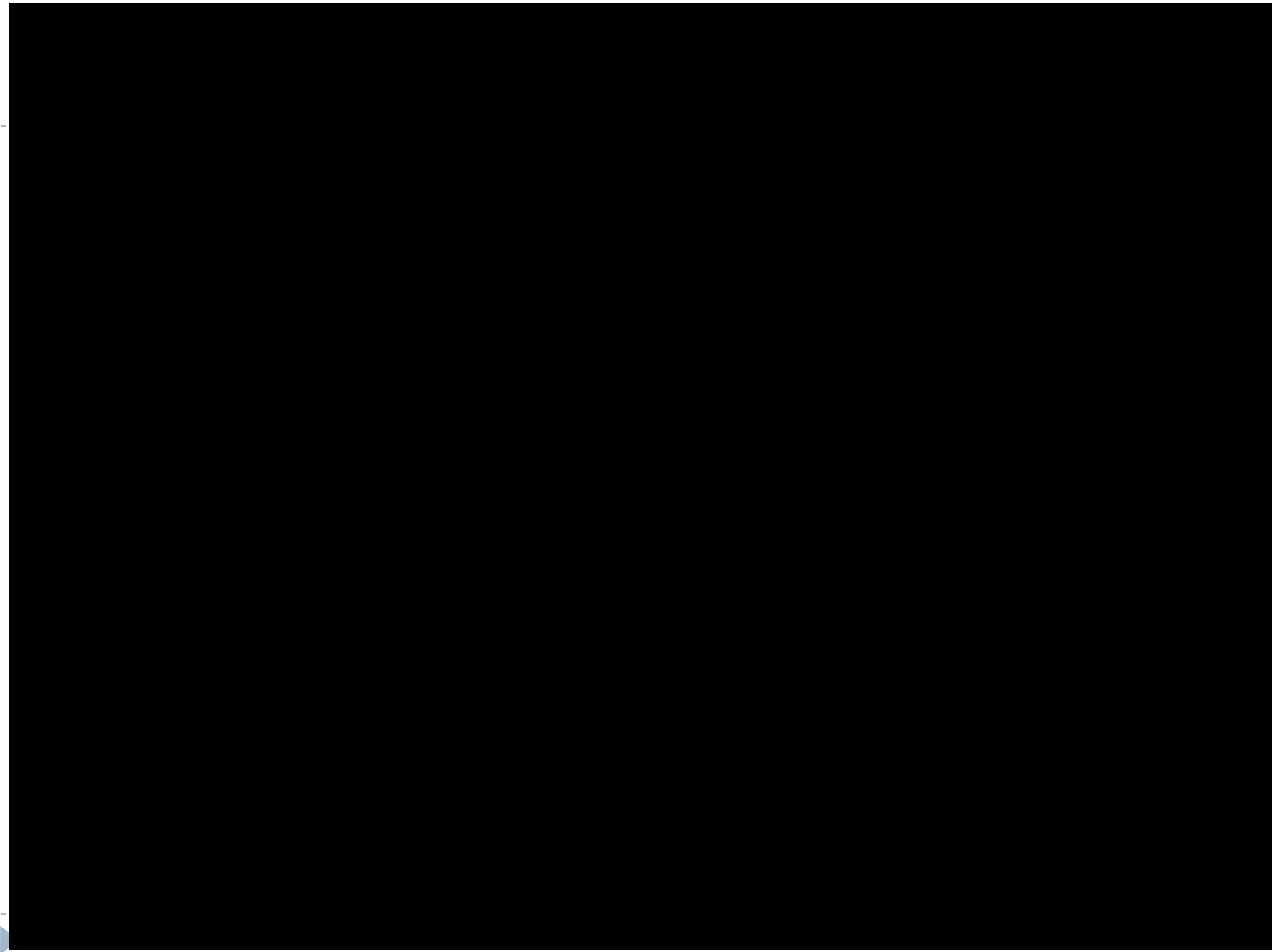


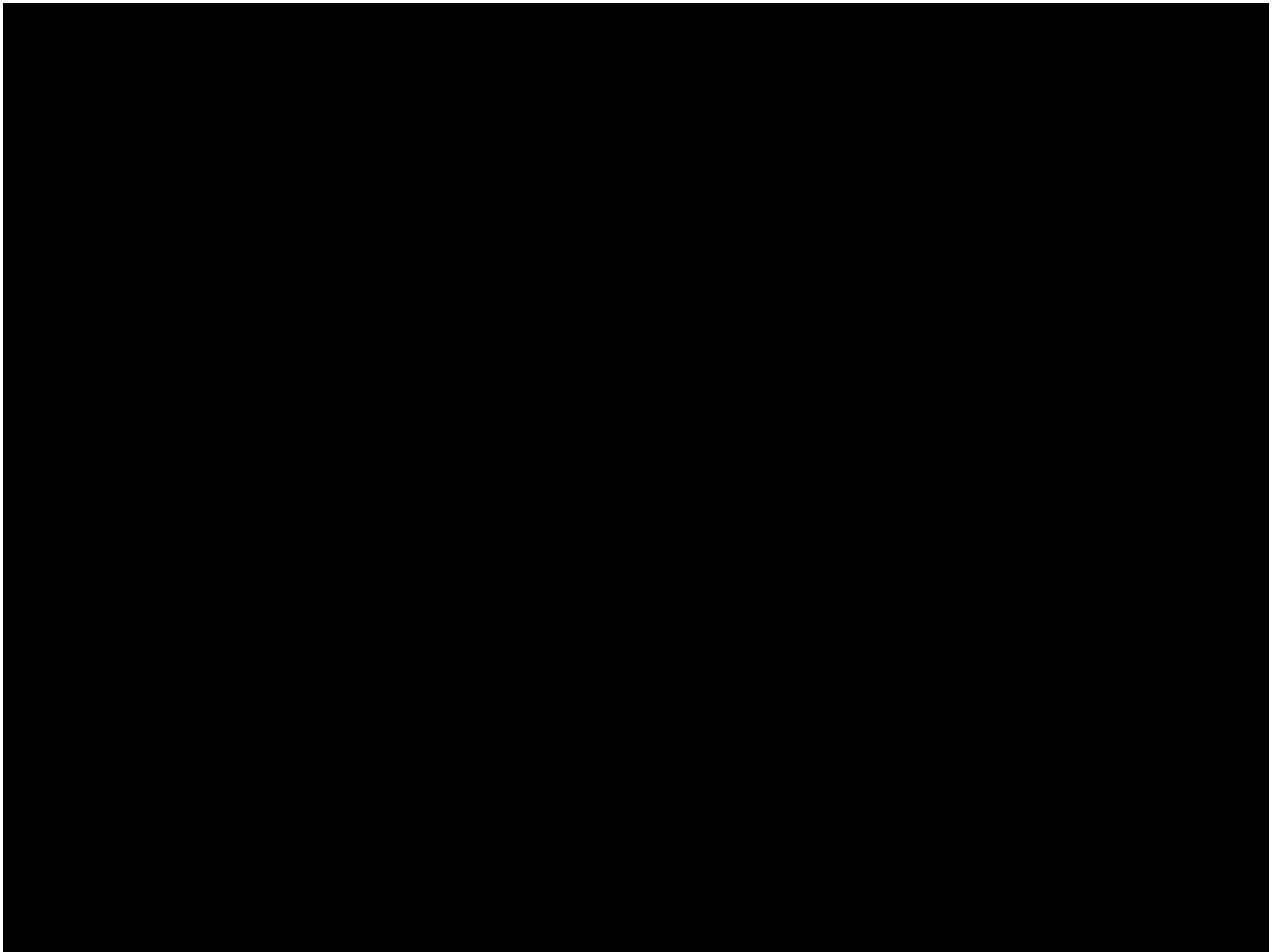






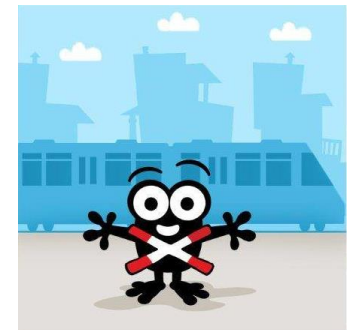






“TRAIN IS ALWAYS FASTER” (“VLAK JE UVIJEK BRŽI”)

- ✓ Croatian Railways launched in 2000 a preventive-educational action “Vlak je uvijek brži” (Train is always faster) which was at the beginning intended for only to children.
- ✓ Its aim was to warn the children about how to behave along the railway line, what threats lie in the games along the line and in crossing the line.
- ✓ Since 2007 target groups are all participants in traffic: drivers, motorcyclists, cyclists, pedestrians.
- ✓ Main goal of the program is to increase public awareness of dangerous at level crossings, and it had four main directions:
 - Warning of the dangers at railway crossing,
 - Warning of the danger of electric shock,
 - Warning of the dangers of wearing headphones on ears,
 - Appeal to the preservation of the common property and prevent vandalism in/on public spaces.
- ✓ Main activities are:
 - workshops and presentations in primary school,
 - activity at level-crossings,
 - media activity,
 - social media activity,
 - brochures and flyers,
 - celebrating ILCAD day.



“TRAIN IS ALWAYS FASTER” - Workshops in Primary School

- ✓ Presentations in primary school are intended for children in 3rd and 4th grade and 7th and 8th grade.
- ✓ In 2013 the program Train is always faster included workshops in 19 primary schools in 14 Croatian cities.
- ✓ Total of 1,117 children participated in workshops.
- ✓ To children in schools is during the action given promotional material and flyers that warn of the dangers along the railway line and during the crossing of the railroad.
- ✓ At the workshop, the children draw and write essays on the topic of level crossings and fill out a questionnaire.





“TRAIN IS ALWAYS FASTER” – Activities on LCs

As part of the campaign, Train is always faster safety team with law enforcement partners warns all road users, car drivers, motorists, bicyclists and pedestrians at extra caution when crossing railway.



“TRAIN IS ALWAYS FASTER” – Media activity

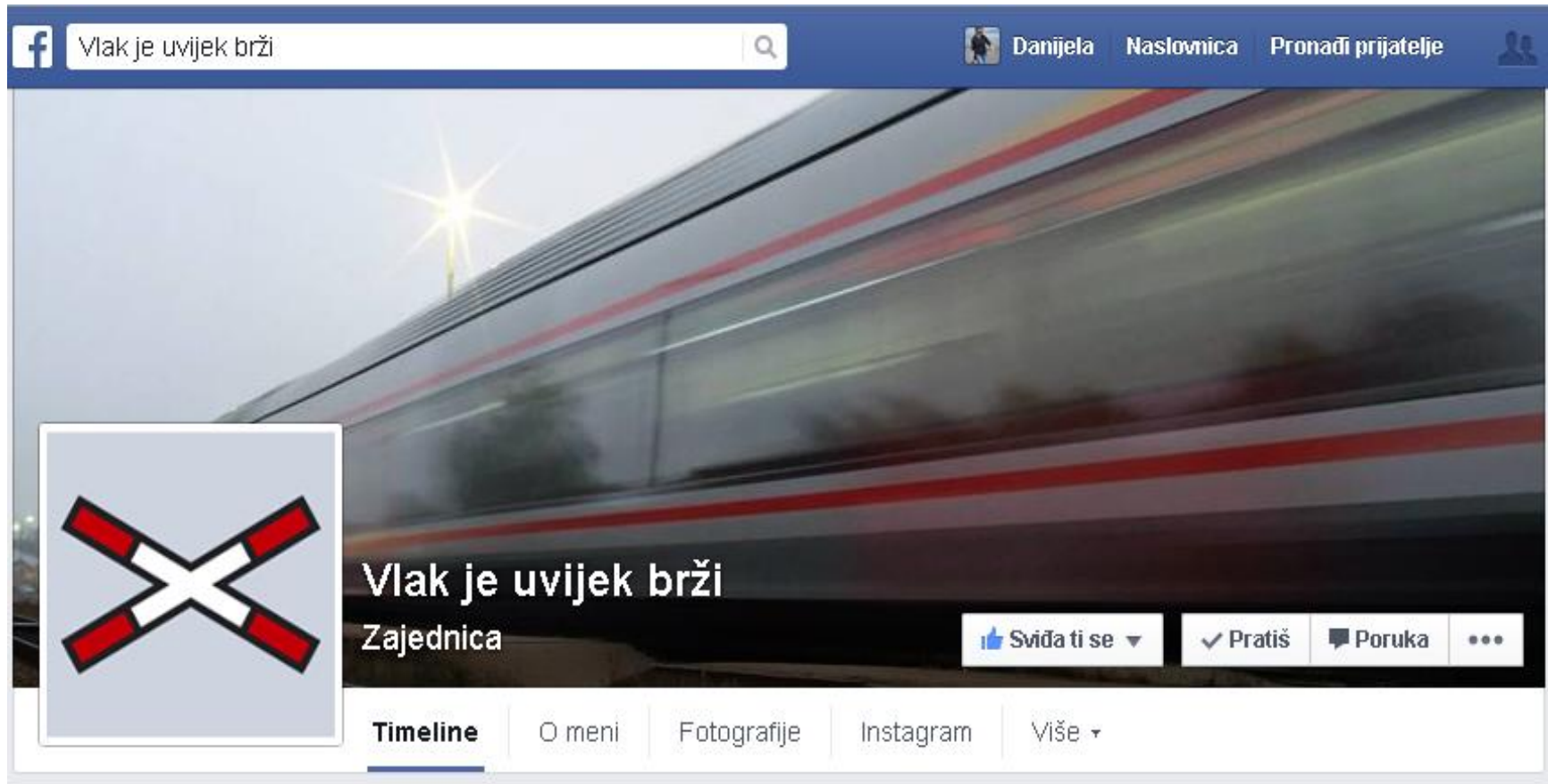
- ✓ Train is always faster is very active in media included TV, radio, internet and newspapers.
- ✓ In 2013 it was made three video clips and two reports that were broadcast on TV networks.
- ✓ Audio clips are published on nine radio stations.
- ✓ Articles have been published in various newspapers for children, teenagers and police newspapers as well.



“TRAIN IS ALWAYS FASTER” – Social Networks (1)

- ✓ In August 2013 a Facebook site “Train is always faster” was launched as a new communication channel, and later also on Twitter and Instagram.

<https://www.facebook.com/pages/Vlak-je-uvijek-brzi/211888768970864?ref=hl>



f Vlak je uvijek brži

Danijela Naslovnica Pronađi prijatelje

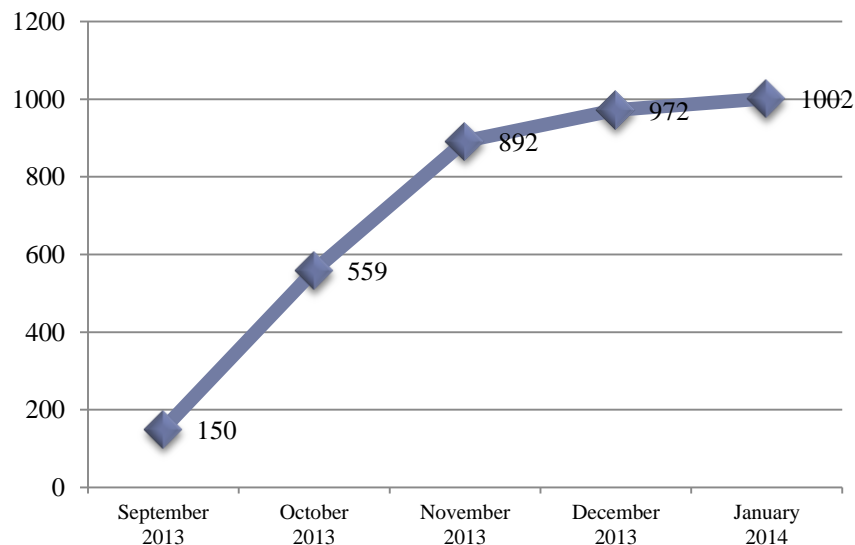
Vlak je uvijek brži
Zajednica

Sviđa ti se Pratiš Poruka

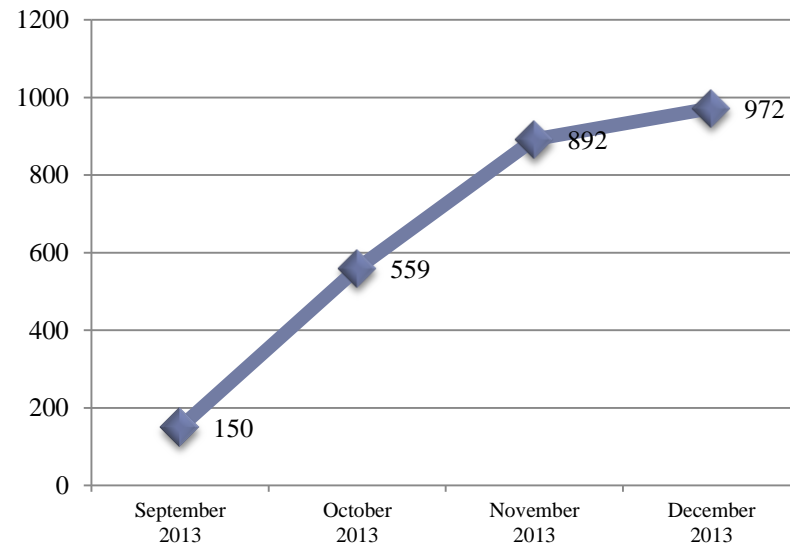
Timeline O meni Fotografije Instagram Više

“TRAIN IS ALWAYS FASTER” – Social Networks (2)

- ✓ The statistics of success of the Facebook site “Vlak je uvijek brži” during the five months following the launching of the site.
- ✓ Today, there is total of 1,358 fans on Facebook from 28 different countries.



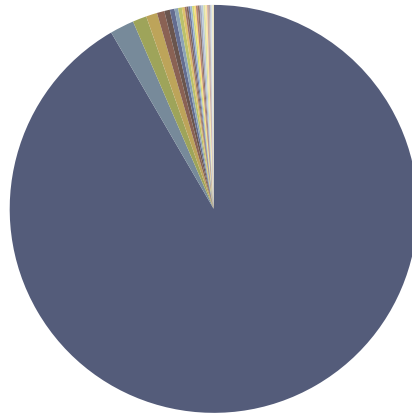
Number of persons who supported Facebook site “Train is always faster”



Number of persons who visited Facebook site “Train is always faster” (site access)

“TRAIN IS ALWAYS FASTER” – Social Networks (3)

- ✓ Presentation of geographical distribution of the members of Facebook site “Train is always faster” (28 countries).



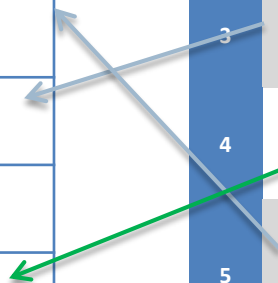
■ Croatia	■ Serbia	■ Bosnia and Herzegovina	■ Germany
■ United States	■ Macedonia	■ Thailand	■ Czech Republic
■ Montenegro	■ Italy	■ France	■ Estonia
■ Canada	■ Switzerland	■ Austria	■ Tunisia
■ Spain	■ Slovenia	■ Greece	■ Slovakia
■ Belgium	■ United Kingdom	■ Australia	■ Hungary
■ Sweden	■ Turkey	■ Poland	■ Algeria

Ord. No.	Group name	No. of likes“	Year of launching the project	Date of creating group on Facebook	Group description	Most frequent age group [years]	http location
1	Remember Alex Brown Foundation	154.208	2010	11.11. 2010.	Advocating raising of drivers' awareness about importance of following traffic while driving.	18-24	https://www.facebook.com/RememberAlexBrown?fref=pb&hc_location=profile_browser
2	I drive safely	150.602	1998	20.07. 2009.	Improvement of traffic safety through education and training of drivers.	18-24	https://www.facebook.com/idrivesafely?fref=pb&hc_location=profile_browser
3	Don't text and drive	144.581	2009	04.02. 2009.	Raising awareness about risk to which the drivers are exposed by typing on mobile phone while driving.	18-24	https://www.facebook.com/DontTextandDriveParkview
4	MoDPS QTS - Traffic Safety	19.227	1969	21.06. 2009.	Improving traffic safety and tendency to zero fatality rate.	18-24	https://www.facebook.com/DPSTrafficSafety
Group name	No. of „likes“	Year of launching the project	Date of creating group on Facebook	Group description	Most frequent age group [years]	http location	
Operation Lifesaver Inc	6,866	1972	24.07.2010.	Not-for-profit organisation with the aim of educating people about safety at level crossings.	35-44	https://www.facebook.com/operation.lifesaver?v=all	
Vlak je uvijek brži (Train is always safer)	1,114	2000	25.08.2013.	Raising the awareness of drivers and pedestrians about the dangers at level crossings.	25-44	https://www.facebook.com/pages/Vlak-je-uvijek-brži/211888768970864	
16	Poštujte naše znakove	349	2011	19.08. 2011.	Increase of safety of children in traffic.	25-34	https://www.facebook.com/pages/Po%C5%A1tujte-Na%C5%A1e-Znakove/178886868849352?fref=ts
17	Road Safety Greeting CARDS	86	2013	15.12. 2013.	Advocating greater safety in traffic.	35-44	https://www.facebook.com/roadsafetygreetingcards?fref=pb&hc_location=profile_browser
18	Fondacija za sigurnost i humanost u prometu	66	2005	18.08. 2011.	Education of traffic participants for the prevention of traffic accidents and reduction in the number of fatalities and injured in traffic.	25-34	https://www.facebook.com/pages/Fondacija-za-sigurnost-i-humanost-u-prometu/243639705675914
19	Rail and Road Safety	19	2014	06.03. 2014.	Advocating the increase of safety at level crossings, prevention with the aim of reducing the number of road-railway accidents.		https://www.facebook.com/pages/Rail-and-Road-Safety/513630058754751?fref=ts&fref=ts

TWITTER & FACEBOOK

Ord. No.	Group name	No. of „tweets“	No. of „followers“
1	I drive safely	2.707	9.176
2	MnDPS OTS – Traffic Safety	3.490	6.649
3	Safe Routes to School National Partnership	1.398	4.159
4	Operation Lifesaver	5.580	2.272
5	Yours- Youth for Road Safety	1.407	2.090
6	Traffic safety coalition	2.203	1.753
7	Traffic safety corp	437	441
8	Rail and Road Safety	174	46
9	Vlak je uvijek brži	20	39
10	Road Safety Greeting CARDS	318	10

R. br.	Group name	No. of likes“	Year of launching the project	Date of creating group on Facebook	Most frequent age group [years]
1	I drive safely	150.62	1998.	20.07.2009.	18-24
2	MnDPS OTS – Traffic Safety	19.327	1969.	21.06.2009	18-24
3	Operation Lifesaver Inc	6.866	1972.	24.07.2010.	35-44
4	Traffic safety coalition	5.878	2010.	24.02.2010.	18-24 i 35-44
5	Safe Routes to School National Partnership	4.057	2005.	01.09.2009.	35-44
6	Yours- Youth for Road Safety	3.938	2009.	14.03.2011.	18-24
7	Traffic safety corp	1.378	1995.	30.11.2009.	18-24
8	Vlak je uvijek brži	1.114	2000.	25.08.2013.	25-44
9	Road Safety Greeting CARDS	86	2013.	15.12.2013.	35-44
10	Rail and Road Safety	19	2014.	06.03.2014.	



“TRAIN IS ALWAYS FASTER” – Video clips

<http://www.hzinfra.hr/akcija-vlak-je-uvijek-brzi>

<http://www.youtube.com/watch?v=Rh-eoz5PQj8>



LCs DATA BASE DEVELOPED AT FACULTY OF TRANSPORT AND TRAFFIC SCIENCES

The screenshot displays the ArcMap interface with the following components:

- Table of Contents:** Lists various layers including ZCP_Pict, ZCP, Sluzbena_mjesta, DOF_oznake, Pruge, DOF_okvirii, Ceste, and several RGB raster files (e.g., 5-01-2-106-09-DOF.tif).
- Map View:** Shows an aerial photograph of a road intersection with red and green overlays.
- Identify Window:** Displays a raster image of a road intersection and a table of feature attributes.

Field	Value
Broj pruge	M201
ID_zcp	6
Lokalni naziv	Prikraj
Način osiguranja	Svjetlosno-zvučno osiguranje
Nesreće	2
OBJECTID	1332
Picture_1	<Raster>
Poginuli	1
Prekid_prometa__h_	10
Teže ozljeđeni	1

Identified 1 feature

485536,164 5076221,575 Unknown Units
HR 9:23



REMARKS

- ✓ Human behaviour is very difficult to predict, monitor and track. Raising of awareness about the behaviour of traffic participants is significant for the reduction of emergencies.
- ✓ There is no unique measure of preventing emergencies at level crossings.
- ✓ The systemic activities in terms of education of road motor vehicle drivers, cyclists and pedestrians is of extreme importance, with the aim of upgrading the level of their traffic discipline, culture and awareness about the causes and consequences of risk behaviour at level crossings.
- ✓ For the prevention of emergencies the educational programs and campaigns about traffic safety are of very big importance.
- ✓ Social networks contributes to greater safety in traffic with huge possibilities of spreading the message.
- ✓ Croatian Railways constantly invest in raising the level of security at railway crossings but through its educational and promotional campaign "The train is always faster" continually warn participants of road traffic caution while crossing the tracks as - the train is always faster.
- ✓ Program "Train is always faster" is every year enriched and expanded.





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Thank You For Your Attention!

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