



REPUBLIC OF CROATIA
Ministry of the Sea, Transport
and Infrastructure



ITS DIRECTIVE 2010/40/EU

PROGRESS REPORT ON IMPLEMENTATION OF THE ITS **DIRECTIVE 2010/40/EU**

2020

Directive 2010/40/EU Progress Report 2020 *The Republic of Croatia*

25 November 2020

Introduction

General overview of the national activities and projects

On 28 January 2020 the Ministry of the Sea, Transport and Infrastructure has provided European Commission with the Report on the measures undertaken to set up a National Access Point and the modalities of its functioning - Delegated Regulation (EU) No. 2017/1926.

On 10 September 2020 the Government of the Republic of Croatia has provided the European Commission with response to the Letter of Notification of the European Commission dated 15 May 2020, for non-compliance of the legislation with the provisions of the Commission Delegated Regulations (EU) no. 2015/962 and no. 886/2013, numbers 2020/2163 and 2020/2151.

General progress since 2017

This report is presenting progress of Croatia in implementing Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems (ITS) in the field of road transport and for interfaces with other modes of transport and accompanied strategic documents and delegated acts.

The following report provides an overview of the activities carried out by the Croatian administration in the field of road transport ITS and the implementation of the ITS directive. The ITS directive has been adopted into Croatian law by changing the Road act in 2013. With legislation harmonisation, Croatia started deployment of the Directive and correlated delegated acts and decisions.

According to the ITS Directive the following report highlights projects and activities, which are in line with defined priority areas:

- Optimal use of road, traffic and travel data,
- Continuity of traffic and freight management ITS services,

- ITS road safety and security applications,
- Linking the vehicle with the transport infrastructure.

This report was prepared according to Article 17 of the ITS Directive and includes insight into the status of national activities and ITS projects. The Report includes the current state of development of ITS in Croatia through the general overview of national activities and projects. The Ministry of the Sea, Transport and Infrastructure of Croatia has prepared this report.

Contact information

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Projects, activities and initiatives

Priority area I. *Optimal use of road, traffic and travel data*

Description of the national activities and projects

CEF Project - CROCODILE II CROATIA - Introduction of intelligent transport systems (ITS) on TEN-T roads

Objective: The Crocodile II Croatia project has been related to the implementation of the DATEX II protocol and establishment of the National Access Point (NPT).

Project progress on 30 June 2020: IT and network equipment, video walls have been procured. The server equipment for the establishment of the National Access Point (NPT) has been installed. The DATEX profile has been submitted to HAC and BINA, test website for NPT. In the forthcoming period, activities on installation and commissioning of IT and network equipment, installation of video walls, implementation of Datex II standards in the remaining Regional Traffic Control Centers, establishment of a central traffic control center and introduction of ITS Directive and Datex II are expected.

In September 2020, the extension of the contract duration has been requested. The signing of the addendum has been foreseen in December 2020.

CEF Project - SUPPORT IN THE DEVELOPMENT AND DISTRIBUTION OF EUROPEAN STANDARDS FOR THE PROVISION OF MULTIMODAL PASSENGER INFORMATION AT THE LEVEL OF THE EUROPEAN UNION

Objective: Alignment with Directive 2010/40 / EU concerning the development and implementation of European standards for the provision of multimodal travel information Transmodel, NeTEx and standards at the level of the European Union related to the TEN-T road network.

The project duration is until 31 December 2023.

CEF Project - SUPPORT TO MEMBER STATES IN COLLECTING DATA ON FILLING / ADDITION POINTS FOR ALTERNATIVE FUELS AND UNIQUE IDENTIFICATION CODES RELATED TO PARTICIPANTS

Objective: Alignment with Directive 2010/40 / EU concerning collection of data on alternative fuels infrastructure. Coordination and establishment of a database with unique identification codes for e-mobility participants, which are an essential part of the future harmonized development of e-mobility services in Europe.

Progress since 2017

Concerning the establishment of the National Access Point, our public company Croatian Roads Ltd. has been undertaken the following activities within the CEF project Crocodile II Croatia:

In May 2018, project documentation was prepared for the introduction of the ITS Directive and DATEX II standards in facilities for reporting, monitoring and traffic management on state roads and motorways in the Republic of Croatia.

In 2019, the building for the National Access Point was constructed in Karlovac, thus completing the most demanding part of the project related to the establishment of the National Access Point.

On 2 December 2019, the contract was signed for the delivery and installation of equipment related to the establishment of the National Access Point, implementation of the DATEX II protocol and integration of the ITS system. The implementation duration is 12 months. The commencement order was issued on 20 December 2019. Despite the difficult working conditions caused by the COVID-19 virus, the project implementation is in line with contracted period. A DATEX II profile and a test website have been created. The server equipment of the National Access Point has been installed. The commissioning for the National Access Point should be conducted in December 2020.

In accordance with the aforementioned, all activities related to the establishment of the National Access Point should be completed in December 2020.

Delegated Regulation (EU) 2017/1926 on the provision of EU-wide multimodal travel information services (priority action a)

Provision of EU-wide multimodal travel information services (MSTI);

Compliance with the Commission delegated regulation (EU) 2017/1926 of 31 May 2017 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide multimodal travel information services has started with CEF Programme Support Action (PSA) for the implementation of multimodal passenger information in the Union-wide TEN-T network. The PSA project has been finalised by an entity that was nominated for the establishment of the National access point in line with the delegated act – Croatian Roads Ltd. (Hrvatske Ceste d.o.o.). The result of the Project was Study for Providing Multimodal Traffic Information (MMTI). The Study, which was delivered to the EC, provides the basis for collecting interoperable travel information and services, based on the existing standards and technologies. Currently multimodal information services throughout Europe, and thus in the Republic of Croatia are generally not interoperable and are fragmented in terms of what they offer, including modal and geographical coverage, real-time information and quality levels, and therefore the subject study is a prerequisite for continuing and consistent dissemination of multimodal services in traffic. In line with the recommendations of the Study, the National Access Point for the provision of road and traffic information in road transport will be upgraded to provide multimodal travel information. Croatian Roads Ltd. (Hrvatske Ceste d.o.o.) are planning to start development of the main design for the establishment of the initial version of the National Access Point for Multimodal Traffic Information and the development of a route guide as part of the provision of multimodal traffic information services till the end of 2020. After the final design, the process of implementing the necessary systems in the National Access Point shall start, where it will be necessary to establish cooperation with many entities from all branches of transport.

Additionally, Croatia is participating in the Programme Support Action (PSA) in order to support Member States in the development and deployment of European public transport data standards Transmodel, NeTEx and SIRI for the provision of the Union-wide multimodal travel information services which apply to the TEN-T network. Objectives of the project is contribution to the achievements of the European transport policy objectives and the realisation of a robust and resource efficient European transport system including relevant European legislations and standards (i.e. the ITS Directive and its delegated Regulations, the standardisation request as regards ITS in urban areas).

The following Actions related to interoperability and continuity of ITS across Member States and operators should be implemented:

- Provision of technical assistance for the implementation of traffic and travel data specifications and standards;
- Expenditure linked to IT tools and networks focusing on exchanges of information and guidance to users;
- Specific studies for the further development of new or adaptation of existing specifications and standards (e.g. conceptual development and technical assessment, development and review of documentation, drafting of standardisation material);

Reporting obligation under Delegated Regulation (EU) 2015/962 on the provision of EU-wide real-time traffic information services (priority action b)

Provision of EU-wide real-time traffic information services (RTTI)

Compliance with the Commission delegated regulation (EU) 2015/962 of 18 December 2014 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide real-time traffic information services is carried out through CEF co-financed project Crocodile 2 Croatia (2015-HR-TM-0114-W).

National access point for Real time traffic information, including map on the web page that correlating National access point that integrated variable message speed sign real time information, will be available from December 2020. The public user interface for the services will be available via [https:// promet-info.hr](https://promet-info.hr). This will enable real time traffic restrictions, road works, detours, weight and height restrictions, obstructions, traffic volumes and jams, speed limits, Waze incidents, truck parking information and additional map data (including e.g. information from the road register, temperatures etc.). All data will be accessible through DATEX II.

Reporting obligation under Delegated Regulation (EU) No 886/2013 on data and procedures for the provision, where possible, of road safety-related minimum universal traffic information free of charge to users (priority action c)

Data and procedures for the provision, where possible, of road safety related minimum universal traffic information free of charge to users (SRTI)

Compliance with the Commission delegated regulation (EU) No 886/2013 of 15 May 2013 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to data and procedures for the provision, where possible, of road safety-related minimum universal traffic information free of charge to users is carried out through CEF co-financed projects Crocodile 2 Croatia (2015-HR-TM-0114-W) and project Crocodile 3 Croatia 2016-HR-TMC-0162-W.

Crocodile 2 Croatia project ensured establishment of National access point for Real time traffic information, including map on the web page that correlating National access point that

integrated variable message speed sign real time information, will be available from December 2020. The public user interface for the services will be available via <https://promet-info.hr>. This will enable data and procedures for the provision, where possible, of road safety related minimum universal traffic information free of charge to users. Free data include real time traffic restrictions, road works, detours, weight and height restrictions, obstructions, traffic volumes and jams, speed limits, Waze incidents, truck parking information and additional map data (including e.g. information from the road register, temperatures etc.). All data will be accessible through DATEX II.

Crocodile 3 Croatia project is the follow up of the projects Crocodile 2 Croatia, in which Member States worked together to improve cross-border transport by implementing ITS applications. The project contributes to the provision of free traffic information for users related to road safety. Additional benefit is closer cooperation of public authorities, road administrations and traffic information service providers from seven countries on the deployment of harmonised and synchronised ITS services.

Priority area II. *Continuity of traffic and freight management ITS services*

Description of the national activities and projects

CEF Project - CROCODILE II CROATIA - Introduction of intelligent transport systems (ITS) on TEN-T roads

Objective: The Crocodile II Croatia project has been related to the implementation of the DATEX II protocol and establishment of the National Access Point (NPT).

Project progress on 30 June 2020: IT and network equipment, video walls were procured, server equipment for the establishment of the National Access Point (NPT) was installed, the DATEX profile was submitted to HAC and BINA, test website for NPT. In the forthcoming period, activities on installation and commissioning of IT and network equipment, installation of video walls, implementation of Datex II standards in the remaining Regional Traffic Control Centers, establishment of a central traffic control center and introduction of ITS Directive and Datex II are expected. standard.

In September 2020, the extension of the contract duration has been requested. The signing of the addendum has been foreseen during December 2020.

CEF Project - SUPPORT IN THE DEVELOPMENT AND DISTRIBUTION OF EUROPEAN STANDARDS FOR THE PROVISION OF MULTIMODAL PASSENGER INFORMATION AT THE LEVEL OF THE EUROPEAN UNION

Objective: Alignment with Directive 2010/40 / EU concerning the development and implementation of European standards for the provision of multimodal travel information Transmodel, NeTEx and standards at the level of the European Union related to the TEN-T road network.

The project duration is until 31 December 2023.

Progress since 2017

The activities related to the establishment of National Access Point should be completed in December 2020.

Priority area III. ITS road safety and security applications

Description of the national activities and projects

No projects ongoing.

Progress since 2017

N/A

112 eCall (priority action d)

Harmonised provision for an interoperable EU-wide eCall

Commission delegated regulation (EU) No 305/2013 of 26 November 2012 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the harmonised provision for an interoperable EU-wide eCall and

Decision no 585/2014/EU of the European Parliament and of the Council of 15 May 2014 on the deployment of the interoperable EU-wide eCall service.

The installation of the technical solution required for accepting e-calls in one PSAP for the territory of the Republic of Croatia was completed in September 2017, and followed by testing of the e-call service to fully adapt the technical solution in PSAP for smooth reception e-Calls.

Following the tests, HAKOM, as the designated authorized body, performed the conformity assessment of the PSAP for receiving e-calls in accordance with the list of requirements referred to in Article 3 of Commission Delegated Regulation (EU) no. 305/2013. and an

assessment of the conformity of the description of the privacy and data protection protocols in accordance with the requirements set out in Article 6 of Commission Delegated Regulation (EU) No. 305/2013.

In January 2018, HAKOM informed the European Commission (DG MOVE, Unit B) about the conclusions of the conformity assessment. The conclusions state that the County Centre 112 Zagreb is designated for receiving and handling e-calls for the territory of the Republic of Croatia and that testing the functionality of e-calls in ŽC112 Zagreb confirmed compliance with the test scenario prescribed in EN 16464.

Statistics on e-calls

YEAR	IV-XII 2018	2019	I-X 2020
All calls	294	798	645
Automatically initiated	74	38	58
Manulay initiated	220	760	587
Non-purpose automatically initiated	63	37	*
Non-purpose manulay initiated	217	739	*

* available at the end of the calendar year

The Bulletin on Road Safety 2019, an official document of the Ministry of the interior, states that an average of 35,386 traffic accidents have occurred on Croatian roads in the last ten years. In 31.9 percent of accidents, people were died. An average of 15,652 people died in traffic annually. Of that number, 79.4 percent people passed with minor injuries. Fatal injuries suffered 18.4 percent of people, while 2.2 per cent of annual perished, as an annual average 351 persons. Compared to the stated figures, a very small number of traffic accidents reported via e-call is noticeable.

Of the automatic activated e-calls, which we received on 112, in most cases only police intervention was required. Of the large number of manually activated e-calls, only a few cases required the intervention of emergency services (mostly police). Compared to e-calls activated due to traffic accidents, there is an extremely large number of system activations due to testing by users or distributors, or random activations that most often occur during vehicle repairs or washing.

TPS e-calls

The 112 system in the Republic of Croatia also supports the receipt of e-calls through Third Party Service eCall (TPS). Cooperation for mediation with TPS eCall has been agreed with the following service providers:

- BOSCH,
- Europ Assistance Hungary,
- AWP Austria GmbH,

- TBS Team 24,
- OnStar service.

These TPSPs are familiar with other E.164 numbers of county centres 112 in the Republic of Croatia and immediately call the territorially competent ŽC 112 according to the location where the traffic accident occurred.

Reporting obligation under Delegated Regulation (EU) No 885/2013 on the provision of information services for safe and secure parking places for trucks and commercial vehicles (priority action e)

e. Provision of information services for safe and secure parking places for trucks and commercial vehicles (SSTP)

Compliance with the Commission delegated regulation (EU) No **885/2013** of 15 May 2013 supplementing ITS Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of information services for safe and secure parking places for trucks and commercial vehicles has been provided through several projects.

Project Crocodile 2 Croatia, within the activity number 4, the implementation of priority measure (e) is planned to provide information services on safe and protected parking spaces for trucks and commercial vehicles. The implementation of the traffic safety management system is planned through supplement of existing traffic signals and equipment and to increase the level of serviceability of the existing truck rest area "Vrata Jadrana". As part of the implementation of the Crocodile II Croatia project the highway operator Autocesta Rijeka-Zagreb d.d. has started the implementation of works on the implementation of a telematically controlled parking lot for trucks at the rest area "Adriatic Gate" on the A7 motorway (Mediterranean corridor). Information on parking spaces for trucks and commercial vehicles on the motorway network will be available through free general information.

Project "Zagreb safe and secure parking Žitnjak" (2019-HR-TMC-0152-W) will result with the creation of a new safe and secure parking at location Žitnjak for road freight vehicles. By implementing the Action, the **Urban Node Zagreb**, as the most important transport node on TEN-T corridor in Croatia, **will have two safe and secure parkings** (Jankomir and Žitnjak), one at the west (Jankomir – already certified) and one at the east entrance in Zagreb (Žitnjak). The Project main objective is reconstruction of the existing public parking into the safe and secure parking in accordance with all EU safety standards. That will contribute to the higher level in road safety (in particular by increasing the content and quality of service to truck drivers exposed to high levels of stress and fatigue) and reducing traffic jams in the narrower and wider area of the City of Zagreb (including motorways). The final goal is to certify the safe and secure Žitnjak parking with the highest security level ("platinum" level) for the safe and secure parking in accordance with EU security standards previously called European Secure Parking Organisation (ESPORG) standards. Parking will have a number of additional facilities such as sanitary facilities, showers with hygiene facilities, laundry facilities, dining and leisure facilities and driver's rest (inside the facility), leisure and driver's facilities (picnic tables; sun and rain shelter), vending machines, drinks and coffee, free WIFI

etc. Also, security box at entry/exit with toll booths. Therefore, Žitnjak parking contributes directly to more certified safe and secure parking places at the EU level.

f. Provision of reservation services for safe and secure parking places for trucks and commercial vehicles (SSTP)

According to the truck rest area and truck parking area occupancy, reservation of truck parking for trucks is still not necessary. Anyway, we are expecting that providers of truck parking services in the urban nodes will offer those services to attract customers. Truck parking Jankomir in Zagreb has already offering reservation through <https://www.truckparkingeurope.com/> platform.

Priority area IV. *Linking the vehicle with the transport infrastructure*

Description of the national activities and projects

No projects ongoing.

Progress since 2017

N/A

Other initiatives / highlights

Description of other national initiatives / highlights and projects not covered in priority areas 1-4:

N/A

Progress since 2017

N/A

Key Performance Indicators (KPIs)

Deployment KPIs

Information gathering infrastructures / equipment (road KPI)

- Preparation of information is ongoing.

Incident detection (road KPI)

- Preparation of information is ongoing.

Traffic management and traffic control measures (road KPI)

- Preparation of information is ongoing.

Cooperative-ITS services and applications (road KPI)

- Preparation of information is ongoing.

Real-time traffic information (road KPI)

- Preparation of information is ongoing.

Dynamic travel information (multimodal KPI)

- Preparation of information is ongoing.

Freight information (multimodal if possible or road KPI)

- Preparation of information is ongoing.

112 eCalls (road KPI)

- N.a. – will be provided through the COCOM 112 questionnaire

Benefits KPIs

Change in travel time (road KPI)

- Preparation of information is ongoing.

Change in road accident resulting in death or injuries numbers (road KPI)

- Preparation of information is ongoing.

Change in traffic-CO2 emissions (road KPI)

- Preparation of information is ongoing.

Financial KPIs

- Preparation of information is ongoing.