



This project is financed by
the European Union

CONNECTA

Technical Assistance for the Deployment of Smart and Sustainable Mobility in the Western Balkans

Component 2: Development of a strategic framework for the deployment of e-charging infrastructure in the Western Balkans

Deliverable 1: Current state of play in the Regional Partners (RPs) in relation to EVCS deployment

CONNECTA-TRA-CRM-REG-MOB-07

Workshop No. 2

06/07/2022

Structure of presentation

- Part I:

Project Component 2 “Develop strategic framework for deployment of e-charging infrastructure in the Western Balkans” – Progress and planning of implementation

- Part II:

Deliverable D1 of Component 2: Current state of play in the Regional Partners (RPs) in relation to EVCS deployment



This project is financed by
the European Union

Part I

Project Component 2 – Progress and planning of implementation



This project is financed by
the European Union

Component 2 - Strategic framework for e-charging infrastructure in WB

- Objective: **Coordinated** deployment of EVCS along WB TEN-T (2030, 2040 and 2050)
- Implementation progress:
 - Methodologies for the implementation of component stages, developed
 - Collection of data on state of play in the RPs in progress
 - Transport forecasting model under development.
 - Traffic data collection in progress
 - Collection of information about existing in each RP: (i) EVCS (incl. on TEN-T roads); (ii) relevant legal and institutional frameworks; and (iii) plans for the development of EVCS on the TEN-T roads. => 1st Deliverable.
- Next steps
 - Identification of locations and capacities of needed EVCS on the TEN-T
 - Identification of appropriate business models/ contracting modalities for the deployment of EVCS in each RP
 - Proposal of roadmap to be followed by each RP for EVCS deployment



This project is financed by
the European Union

Activities of the current period (July- August 2022)

- Collection of information:
 - Traffic data
 - Foreseen TEN-T roads improvements
 - Places by the TEN-T roads where EVCS could be located (existing/ planned: fuel stations, rest areas, etc, or places with electricity grid)
 - Business models/ contracting modalities already used in RPs (for EVCS and other similar installations)
 - Costs of EVCS development components
- Team work:
 - Analysis of the existing legal/ institutional frameworks
 - Identification of appropriate business models/ contracting modalities
 - Finalisation of the Transport model
 - Identification of needed EVCS (and capacities) (2030, 2040, 2050)



This project is financed by
the European Union

Targeted timeline of Component 2 Deliverables' production

- Inception Report: 31/May/2022 (Latest modification: ongoing)
- D1: Current state of play per RP: Just after the present Workshop
- D2: Locations and capacities of needed EVCS on TEN-T roads (2030, 2040, 2050): 31/August/2022
- D3: Proposed business models/ contracting modalities for EVCS deployment per RP: 31/July/2022
- D4: Roadmap for the deployment of EVCS on the TEN-T roads per RP: 31/October/2022
- D5: Component 2 Report: 30/November 2022



This project is financed by
the European Union

Part II

Deliverable C2/D1:

Current state of play in the Regional Partners
in relation to EVCS deployment



This project is financed by
the European Union

Overview of the current state of play concerning the EVCS in WB (D1)

- Approach – methodology followed
 - Preparation of templates for data collection
 - Collection of data/ information by the Team experts
 - Collection of data/ information from the competent National Authorities
 - Meetings with the competent National Authorities
 - Drafting of the report
- Difficulties encountered
 - Available data (not existing or not existing in one place)
 - Maps with EVCS (not existing or including part of the existing VCS)
 - Responses of the competent authorities (contribution of many authorities)



This project is financed by
the European Union

Current state of play – Existing EVCS

- The penetration of the Electric Vehicles (EVs) in the WB is still low:
 - By the end of 2011 less than 1,300 EVs were registered in all the RPs (in the EU member states (MS) there were 5,600,000 EVs).
 - EVs in the WB RPs constitute ~0.027% of the total registered fleet of vehicles (the average for the EU member states is ~1.00%)
- There are EVCS in all the RPs which:
 - Are located mostly in the urban areas (only 9 EVCS are on the TEN-T roads)
 - Are installed and operated mainly by private companies (many of these are not publicly available)
 - Are mostly equipped with 1-3 chargers; most are low-speed chargers (AC 22 kW)
 - Have electricity grid connections (very few have solar power, not on the TEN-T)
 - In some RPs provide EV charging free of charge.



This project is financed by
the European Union

Existing EVCS in the RPs

Regional Partner	Number of registered EVs	Number of existing EVCS	Number of EVCS per EV	Length of paved road network (km)	Number of EVCS per 100 km of roads
Albania	467	20	0.04	12,920	0.15
Bosnia & Herzegovina	69	93	1.35	19,426	0.48
Kosovo	N/A	N/A	N/A	(8,500)	N/A
Montenegro	400	49	0.12	7,141	0.69
North Macedonia	198	59	0.30	14,182	0.42
Serbia	148	86	0.58	30,171	0.29
Western Balkans	1,282	307	0.24	83,840	0.33
EU Member States	5,600,000	325,000	0.06	5,000,000	6.5

- The number of EVCS in the region is very low (0.15 – 0.69 EVCS per 100 km of paved roads), compared to the average of the EU which is 6.5 EVCS per 100 km of paved roads;
- The number of EVCS per registered EV in the region is bigger than the average of EU;
- Bosnia & Herzegovina has by far the biggest number of EVCS per registered EV while Montenegro has the biggest number of EVCS per 100 km of paved roads



This project is financed by the European Union

Existing Legal and Institutional frameworks in the RPs

- In general the legal and institutional frameworks in all RPs do not include specific legal acts or specific institutional entities (e.g. “One stop-shop”) for the deployment of EVCS.
- The existing legal framework and institutions (Ministries, agencies, etc) in all RPs provide –even indirectly- the legal/ institutional basis for the installation and operation of EVCS (both by the private and public sector).
- In several RPs there is ongoing activity for the development of specific legal Acts which would:
 - facilitate the ad hoc development of EVCS by private or public entities;
 - provide the legal basis for pricing of charging services by the state.
- In all RPs there are legal acts regulating the implementation of Public-Private Partnerships (PPPs)/ concessions. However they have not been utilised for the deployment of EVCS.



Existing plans for the deployment of EVCS on the TEN-T

- Among all WB RPs only in Serbia plans are being prepared by the competent public authorities for the deployment of ten (10) new EVCS on the TEN-T network.
- All other RPs do not have any plans for the development of EVCS on the TEN-T road network.
- In most of the RPs there is a lot of activity towards the improvement of the national context which would allow the competent authorities to install EVCS.
- It is also highlighted that :
 - Albania, based on the recently completed Interreg study on the development of EVCS, has decided to quickly proceed with EVCS development, but not specifically on its TEN-T roads.
 - Montenegro has also a study analysing all requirements for the deployment of EVCS, but not specifically on the TEN-T roads.



This project is financed by
the European Union

State of play of main EVCS related issues

RP	No. of exist. EVCS	Exist. EVCS/100km	Exist. EVCS on TEN-T	Planned EVCS on TEN-T	Plans for EVCS deploy.	Exist. techn. specs	Legal acts for EVCS	Payment methods	Incentives for EVs
ALB	20	0.15	0	0	Yes	Yes	No	Free	Yes
BiH	93	0.48	1	0	No	No	No	Free at state-owned EVCS	Yes
KOS	N/A	N/A	0	0	No	No	No	Free	No
MNE	49	0.69	0	0	No	No	No	Free 1 st year	Yes
MKD	59	0.42	0	0	No	No	No	Unknown	Only by Municip
SRB	86	0.29	8	10	Yes	No	No	Free at state-owned EVCS	Yes
WB	307	0.33	9	10	N/A	No	No	N/A	Not in all RPs



This project is financed by the European Union

Contact information

Danijel Vučković

Project Manager

email: danijel.vuckovic@connecta-ta.eu

mob. +381 60 63 555 00

skype: [vuckopk79](https://www.skype.com/people/vuckopk79)

Sarantis Pantelias

Component 2 Leader

Email: sarantis.pantelias@connecta-ta.eu

sarpantel@gmail.com

Mob.: +30 6974747689

Skype: [Sarantis Pantelias](https://www.skype.com/people/SarantisPantelias)



This project is financed by
the European Union

Questions and Discussions



Any comments/suggestions?



This project is financed by
the European Union



This project is financed by
the European Union

CONNECTA

Thank you!

CONNECTA Project team

Chris Germanacos, Team Leader; Transport Expert

chris.germanacos@connecta-ta.eu

Giorgos Xanthakos, Transport Key Expert, Deputy Team Leader

giorgos.xanthakos@connecta-ta.eu

Danijel Vuckovic, Project Manager

danijel.vuckovic@connecta-ta.eu