



**Republika Slovenija**  
**Ministrstvo za infrastrukturo**

# **Strategy on alternative fuels infrastructure in the Republic of Slovenia**

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# Directive 2014/94/EU

- In **September 2015**, the Government of the Republic of Slovenia set up **working group** for the preparation of the Strategy (MZI, MOP, MGRT, SVEZ, MF, MJU, Association of Municipalities of Slovenia)
- **Sustainable Mobility and Transport Policy Service** was founded in **2016**
- September 2016 - April 2017: a study was conducted to support the preparation of the Strategy - a consortium led by the Chemical Institute of RS
- **May 2017**: Draft of the Strategy was prepared
- **July 2017**: Directive 2014/94/EU was adopted by Government of RS
- **12. October 2017**: Strategy adopted by Government of RS

# State of the art – publicly accessible Charging Stations (CS)

Electricity	Charging stations	
	2016	
E-CS ≤ 3,7 kW	97	
E-CS ≤ 7,5–22 kW	92	
E-CS ≥ 43 kW	38	

Hydrogen	Charging stations	
	2017 (350 bar)	2017 (700 bar)
CS	1	0

LPG	Charging stations
CS	115

NG	Charging stations	
	2017	
Compressed NG	4	
Liquefied NG	1	

# No. of vehicles

Alternative fuels vehicles in RS	number
	31. 12. 2016
<b>e-Vs</b>	<b>449</b>
Plug-in hybrid	111
Electric light commercial vehicles	62
Electric heavy commercial vehicles	-
Electric buses	2
Electric motobikes	190
e- light and heavy quadricycles	128
SZP: avtomobili	122
SZP: lahka gospodarska vozila	73
SZP: težka gospodarska vozila	8
SZP: avtobusi	69
UZP: lahka gospodarska vozila	-
UZP: težka gospodarska vozila	-
UZP: avtobusi	-
Vodik: avtomobili	6*
Vodik: lahka gospodarska vozila	-
Vodik: težka gospodarska vozila	-
Vodik: avtobusi	-
UNP: avtomobili	8380
UNP: lahka gospodarska vozila	373
UNP: težka gospodarska vozila	9
UNP: avtobusi	-
Biogoriva: avtomobili	83
Biogoriva: lahka gospodarska vozila	56
Biogoriva: težka gospodarska vozila	2
Biogoriva: avtobusi	1

\* Vozila s klasičnimi motorji z notranjim zgorevanjem prirejenimi za uporabo vodika

# Measures

- Subsidies for purchase of e-Vs
- e-Vs are exempted from paying annual charges for the use of roads
- credit for the purchase of cars, motorcycles and bicycles with an electric or hybrid drive and with CO<sub>2</sub> emission not exceeding 110 g/km
- Low tax on EV (0,5 %) for vehicles with CO<sub>2</sub> emissions below 110g/km
- Free parking or/and charging (depending on Municipal rules...)

# Defining goals till 2030

- **3 scenarios:**
  - **Zero** → existing measures continue
  - **Basic** → the extension of measures that encourage the purchase and use of all vehicles on alternative fuels and biofuels (anticipated vehicle development, financial capabilities, ...)
  - **Intense** → most ambitious goals, expressed with higher number of zero emission vehicles (ECS)
- **Optimal scenario was chosen** (in between the basic and intense one)

# Optimal scenario

- Achieving Slovenia's environmental commitments in the field of transport:

Indicative goals of GHG reduction compared to Y 2005		
	Y 2020	Y 2030
Traffic	+27 %	+18 %

Obligation to reduce pollutants compared to 2005					
	SO <sub>2</sub>	NO <sub>x</sub>	NMVC	NH <sub>3</sub>	PM <sub>2,5</sub>
Period 2020 - 2029	63 %	39 %	23 %	1 %	25 %
From 2030 on	92 %	65 %	53 %	15 %	60 %

**What kind of fleet and charging infrastructure do we need till 2020, 2025 and 2030 in order to achieve these goals?**

# VISION

- Slovenia is going to:
  - limit the first registration of passenger cars and light-commercial vehicles of categories M1 and MG1 and N1, which, according to the manufacturer's declaration, have CO<sub>2</sub> emissions above 100 g/km → **after 2025;**
  - the limit will drop to **50 g/km → after 2030.**



# Objective – passenger vehicles

NUMBER		Optimal	Optimal	Optimal
Leto	2015	2020	2025	2030
OA-B	622.126	483.841	421.738	361.257
OA-D	501.305	613.445	622.775	550.622
OA-UNP	<b>8.782</b>	<b>32.789</b>	<b>38.932</b>	<b>31.374</b>
OA-SZP	<b>157</b>	<b>2.558</b>	<b>5.498</b>	<b>7.688</b>
OA-Hi	5.352	10.426	20.981	33.307
OA-PHEV	<b>70</b>	<b>6.033</b>	<b>26.591</b>	<b>71.664</b>
OA-BEV	<b>383</b>	<b>5.311</b>	<b>40.096</b>	<b>129.690</b>
OA-H2	<b>0</b>	<b>77</b>	<b>1.008</b>	<b>5.559</b>
	<b>1.138.175</b>	<b>1.154.479</b>	<b>1.177.619</b>	<b>1.191.161</b>

		Optimal	Optimal	Optimal
%	2015	2020	2025	2030
OA-B	55,71 %	41,91%	35,81%	30,33 %
OA-D	44,04 %	53,14%	52,88%	46,23 %
OA-UNP	<b>0,77 %</b>	<b>2,84%</b>	<b>3,31%</b>	<b>2,63 %</b>
OA-SZP	<b>0,01 %</b>	<b>0,22%</b>	<b>0,47%</b>	<b>0,66 %</b>
OA-Hi	0,47 %	0,90%	1,78%	2,80 %
OA-PHEV	<b>0,01 %</b>	<b>0,52%</b>	<b>2,26%</b>	<b>6,02 %</b>
OA-BEV	<b>0,03 %</b>	<b>0,46%</b>	<b>3,40%</b>	<b>10,89 %</b>
OA-H2	<b>0 %</b>	<b>0,01%</b>	<b>0,09%</b>	<b>0,47 %</b>

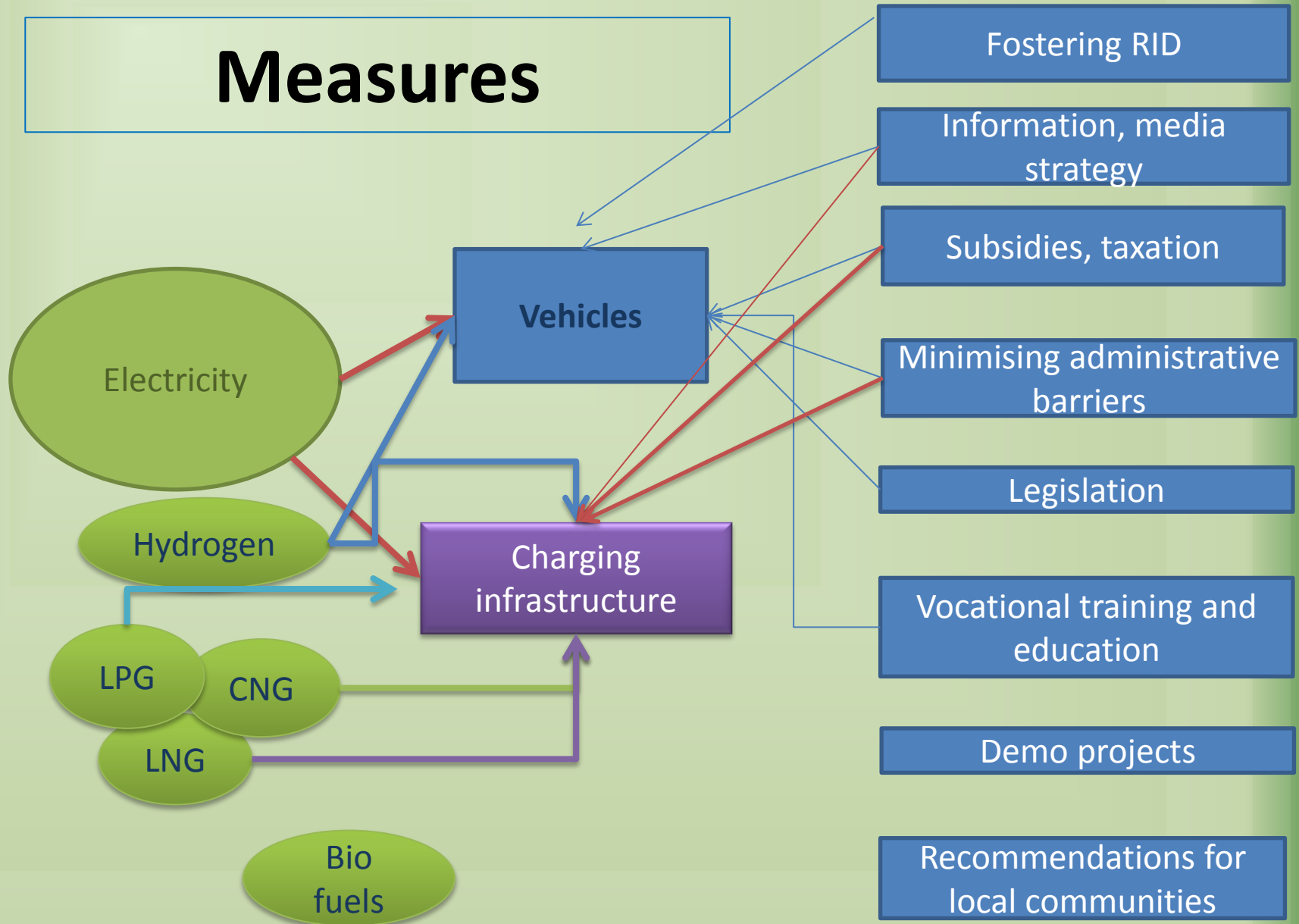
# Objectives in the field of charging infrastructure

	Necessary charging infrastructure to reach optimal scenario			
	2016	2020	2025	2030
CS for EV	227	1.200	7.000	22.300
CS for CNG	4	14 (12)	14 (12)	14 (12)
CS for LNP	0	3	4	4
CS for H2	1	1	5 - 9	5 - 9

# **MEASURES**

**IN ACCORDANCE WITH THE DIRECTIVE, THE STRATEGY SETS OUT MEASURES TO IMPLEMENT SLOVENIA'S STRATEGY. THE ACTION PLAN FOR THE IMPLEMENTATION OF THE STRATEGY WILL DEFINE THE DETAILED DEADLINES, RESPONSIBLE INSTITUTIONS AND FINANCIAL IMPLICATIONS. THE MEASURES ARE ENVISAGED AS A PACKAGE THAT ENABLES AND ENSURES THAT THE OBJECTIVES ARE ACHIEVED.**

# Measures



# MEASURES - electricity

- Public charging infrastructure - the provision of one public CS on seven vehicles
- Promote the use of smart chargers
- Change of legislation and elimination of administrative barriers:
  - the promotion of positive discrimination for e-Vs at parking regime, allowing use of certain traffic areas, special marks or license plates
  - online or user-friendly application for subsidizing the purchase of e-Vs
  - enabling the sale of the electric test vehicles as a new one for which the beneficiary could claim the subsidy
  - Arranged parking regime at places reserved for electrically powered vehicles
  - enabling the installation of a charging infrastructure for multiple dwellings.
- Continue subsidizing the purchase of vehicles
- Promotional activities
- Recommendations to local communities (provision of charging infrastructure and parking spaces, exemption from parking fees, public transport, driving on yellow bands)