



e-MOTICON

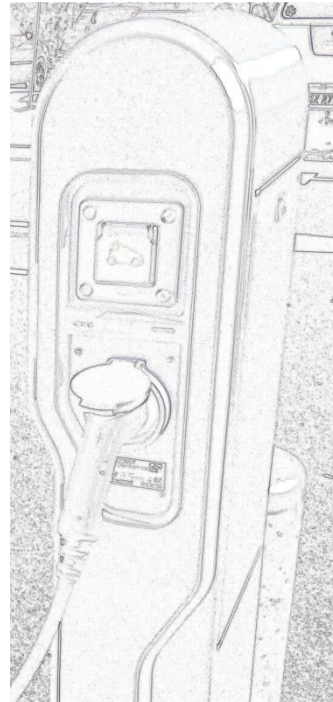
e-MObility Transnational strategy for
an Interoperable COmmunity and
Networking in the Alpine Space.

Training «Finance and Funding»



3 types of costs for E-CS:

1- **E-CS acquisition** (depending on power level, ability to resist degradation...)





3 types of costs for E-CS:

2- **E-CS installation** (depending on power level + specific location : can vary enormously + specific national / local administrative hurdles and authorization processes)

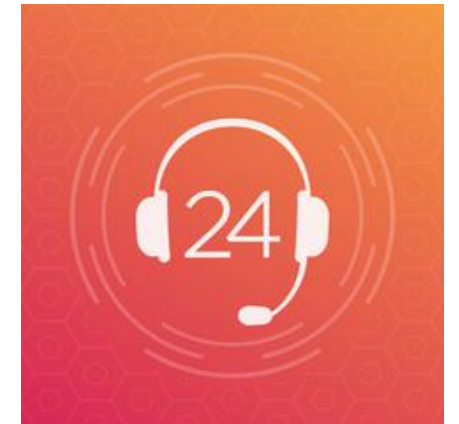




3 types of costs for E-CS:

3- Maintenance and operation

- Contract with electricity provider (depending on power level)
- Electricity
- Maintenance and repairs
- Recurring costs for payment means
- Interoperability costs
- Customer enquiries / hotline



How to fund them ?



- Generally speaking, depending on the location and time, public funding schemes may exist to partially cover **purchase** and **installation** costs
- **Maintenance** and **operation** costs are in most cases excluded.
- A fraction of the costs (marginal in most cases for the time being) may be retrieved through usage fees



Public fundings – Austria

National financing schemes for e-mobility by the Austrian Government^[1]:

- Purchase support for EVs for private persons, companies, municipalities and associations^[1]:
 - 3.000 € / BEV (1.500 € federal funding, 1.500 € bonus of the automobile importers)
 - 1.500 € / PHEV (50% federal, 50% importers), no funding for PHEV with diesel engine
 - min. full electric range = 50 km, gross list price max. 50.000 € (private persons), 60.000 € (companies)
 - further purchase support for e-busses and light e-commercial vehicles (only for companies, municipalities, associations) and for two-wheelers, including e-(cargo)bikes (also for individuals)
- Government support for the deployment of publicly accessible charging infrastructure:
 - 200€ for a wallbox,
 - 1.000€ for a charging station attached to the ground (up to 22kW),
 - 2.000€ for a charging station for accelerated charging (22kW to 43 kW) and
 - up to 10.000€ for quick chargers
- Government support for private ECS (only once with the simultaneous purchase of an e-car):
 - 200 € for a private wallbox or a smart charging cable
 - 600 € for an ECS compliant with OCPP in an apartment building



Public fundings – Austria

Regional funding and measures to promote e-Mobility by the Bundesländer

- Purchase of BEVs: Financial support granted by the Bundesländer for the purchases of BEVs by municipalities for their public fleets, by companies and by individuals (e.g. Styria^[2] and Lower Austria^[3])
- Installation of publicly accessible and private E-CS: the majority of the Bundesländer finance partially the purchase and / or the installation of charging stations, whether by municipalities, companies or individuals.

Additional measures on regional level:

- Promotion of e-mobility services such as e-car sharing.
- “Soft measures” like informing the citizens about the benefits of electric mobility.
- Efforts towards increasing the share of EVs in the overall vehicles fleet

[2] <https://www.umweltfoerderung.at/privatpersonen/lf-stmk-e-mobilitaet-fuer-private/navigator/fahrzeuge-1/landesfoerderung-steiermark-e-mobilitaet-fuer-private.html> (17/08/18)

[3] <https://www.umweltfoerderung.at/privatpersonen/e-mob-landesfoerderung-niederoesterreich/navigator/fahrzeuge-1/landesfoerderung-niederoesterreich-e-mobilitaet-fuer-private.html> (17/08/18)



Public fundings - France



- Bonus for electric car from the French Government : 6000 € for the purchase of a new electric vehicle + additional grant for the scrapping of a (very) old ICE car^[4]
- Financial incentives for E-CS installation thanks to the public eco-fund mechanism : Programme ADVENIR ^[5] -
 - Covers purchase and installation costs up to 40% for private companies and public administrations, and 50% for collective housing, depending on overall ceilings for each users target
 - Additional bonus of 360€ for E-CS with smart energy management

[4] <https://www.service-public.fr/particuliers/vosdroits/F34014>

[5] <http://advenir.mobi/>



Public fundings - Germany

National Financing Schemes

- **Federal buyer's premium for electric cars – “Umweltbonus”**
 - The premium is tiered at 4 000 € for fully electrically powered vehicles and 3 000 € for plug-in hybrids – with a total funding volume of 1.2 billion €. Half of the buyer's premium is financed by the automotive industry. Accordingly, between 300 000 and 400 000 new electric car purchases can be supported by the buyer's premium^[6].
- **Federal Government's charging infrastructure programme**
 - The German Federal Government has decided upon a 300 Mio. € funding programme for EV charging infrastructure (2017-2020; approximately 15 000 fast and regular charging points)^[7].
- **Tax regulatory framework**
 - For electric cars registered until the end of 2020 owners don't have to pay vehicle tax for up to 10 years. Also, until 2020 charging private electric cars is tax free at the employers charging stations^[8].

[6] <http://nationale-plattform-elektromobilitaet.de/en/anwendung/foerderung-fahrzeug/#tabs>

[7] <https://www.bmvi.de/SharedDocs/DE/Artikel/G/foerderrichtlinie-ladeinfrastruktur-elektrofahrzeuge.html>

[8] <http://nationale-plattform-elektromobilitaet.de/en/anwendung/foerderung-fahrzeug/#tabs>



Public fundings - Germany

National Financing Schemes

- **Federal programme for the electrification of the urban traffic and the expansion of public charging infrastructure – “Saubere Luft”**
 - The German Federal Government has decided upon a 1 billion € funding programme (until 2020) to promote a number of measures to improve the air quality in cities with high NOx emissions, including the electrification of the urban traffic (buses, taxis, carsharing vehicles), the deployment of a charging infrastructure and municipal electric mobility concepts ^[9].
- **Promotion of electric vehicles in public fleets**
 - The Federal Government aims to increase the share of electric vehicles purchased by the public hand to a minimum of 20 % until 2019. Funding volume: 100 million € ^[10]



Public fundings - Germany

Regional fundings

- **Bavaria**

- In addition to the national funding the state of Bavaria is financing its own state development programme for electromobility. The aim is to build 7.000 public accesible charging stations until 2020. Private individuals, legal entities and public authorities are eligible for a funding^[11].

- **Baden-Wuerttemberg**

- The ministry of transport in Baden-Wuerttemberg is financing electric vehicles for taxi companies driving schools, car sharing and car rental companies, nursing services as well as local and regional public authorities. For fully electric vehicles in regions with emissions over the EU limit the funding is 5.000 €, in other regions 3.000 € ^[12].

- **Additional funding**

- Additional funding may be available in different states or on the regional level.

[11] <https://www.stmwi.bayern.de/service/foerderprogramme/ladeinfrastruktur/>

[12] https://vm.baden-wuerttemberg.de/fileadmin/redaktion/m-mvi/intern/Elektromobilit%C3%A4t_Kampagne/Flyer_PDF/180313_F%C3%B6rderung_E-Fahrzeuge.pdf

Public fundings – Italy



Access to restricted traffic zones, reserved parking & environmental limitations

- **At municipal level:** reserved parking spaces, void of parking fees, access to limited traffic areas in some towns
- **Veneto:** permission to circulate during time periods with violation of pollution limits (CO, NOx, SOx, PM10, PM2,5)

Subsidies for the purchase of vehicles BEV

- **National:** approved 9.6 M€ for electric heavy truck (equal to or above 3.5 tons) purchasing and suitable devices buying for ICEs conversion to electric ones
- **Veneto:** approved bonuses up to 3.500 € to replace old vehicles with hybrid and electric cars
- **Friuli VG:** approved bonuses of up to 5.000 € to replace old vehicles with natural gas, LPG, hybrid and electric cars
- **South Tyrol:** approved bonuses up to 4.000 € (8.000 € for transport companies and taxis)

Regulatory approach

Market approach

Public procurement "green"

- **Piedmont:** co-financing up to 90%, the renewal of public transport fleet with BEV buses, thanks to funds of national Ministry of Environment for improvement of air quality
- **Friuli VG region:** All region owned vehicles will become electric since 2019 (NeMo project). The action will provide the installation of related 660 e-CS

Exemptions car taxes

In accordance with the national laws in force all over the national territory all cars, motorcycles and two-, three- or four-wheeled mopeds, powered by an electric motor, are **exempt from paying car taxes for five years** to starting from the date of first registration; at the end of this period, a tax equal to one quarter of the amount for ICE vehicles must be paid for e-vehicles. The exemption for 5 years and the **75% discount on future payments** have been applied in all regions except in **Lombardy and Piedmont** which have decided to extend the exemption from the payment of the car tax for electric vehicles to life.

Subsidies installations E-CS

- **National e-CS Plan:** call for tenders that finances 35% of projects for the construction of normal power systems and 50% for high-power systems. The government makes available 28 million euros by creating investments for 80-90 million euros about e-CS.
- **Lombardy:** calls for tenders about e-C infrastructures in large towns (~ 20M€)
- **Veneto:** call for tender supporting the realization of private (domestic) and public e-CS with contributions from 35 to 50%.
- **South Tyrol:** approved bonuses up to 1000 € for each private eCS (max 3)
- **Trentino:** Contribution of 60% of the expenditure with a maximum of 1500 euros for the purchase of charging stations for electric vehicles, within the limit of 5 stations for each applicant; The benefit is applied to a) persons and private bodies, resident in Trentino, with or without legal residence, among non-profit organizations of social utility (ONLUS); b) companies, consortia of companies, business networks, organizations and associations for business activities, as well as the trade associations.
- **At municipal level:** Municipality of Torino will soon launch a call where operators who wants to install public E-CS at their own expenses will be exempted from paying public space occupation tax for a certain number of years.



Public fundings – Slovenia



Existing measures committed to the promotion of electric mobility are of fiscal and political natures:

- On the fiscal level, EVs benefit from a lower tax rate on motor vehicles, whose amount is set at 0.5%;
- BEVs are exempted from the payment of the annual fees related to the use of roads (this tax depends on the volume of the motor), according to the “Annual Fee on the Use of Motor Vehicles Act”;
- The Slovenian Government is keen on allocating financial incentives for energy efficient vehicles thanks to the public eco-fund mechanism. The purchase incentive of the Government is of 7.500€ for a new passenger EV for **physical persons; subvention is available also for retrofitting**. The Government also grants municipalities, with subsidies in order to invest in E-CS that will be located in protected natural areas and labelled Natura 2000 areas: 3.000€ per AC E-CS and 5.000€ per DC E-CS. **Funding for the granting of non-refundable financial incentives is provided under the Decree on the Program for the use of the Fund for Climate Change funds in 2017 and 2018. The total amount of funds under this public invitation is EUR 400,000** ^[13].
- The Slovenian Government also created ecological loan schemes dedicated to individuals and companies that are willing to buy vehicles whose emissions levels do not exceed 110g CO₂/km.
- **Low interest rate loans are also available for the private sector for the purchase of e-vehicles.**



Public fundings - Switzerland

- To promote electric mobility, electric vehicles that are imported or bought in Switzerland are **freed from the federal tax on mineral oils** and are **not subject to the federal tax on vehicles' purchases** which represents 4% of the vehicle's value.
- Charging infrastructures: the **federal level is active as it plans and coordinates the deployment of the E-CS**; however, the federal authorities let the private hand installing and operating the E-CS. There is **no national public financing** for the deployment of a publicly accessible charging infrastructure.
- The Swiss **Cantons play an active role in the promotion** of electric mobility through several action means: several Cantons have decided to **fully exempt or to reduce the amount of the motor vehicle's tax** (following tax rates from 50, 75, 80 or 100%), whether for a couple of years or for the whole EVs' lifetime. Swiss Cantons are also keen on undertaking a "model role" by renewing the public fleets and the public transport fleets through the purchases of EVs



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