

Electromobility in Austria 2017/18 Highlights

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With „Electromobility in Austria 2017/18 - Highlights“ AustriaTech summarizes developments in the areas of integrated transport, vehicles, infrastructure, regulatory framework and subsidies in Austria for the year 2017 and for the first quarter of 2018. AustriaTech supports the Austrian Ministry for Transport, Innovation and Technology regarding the increasing activities in the field of Electromobility.

Life Cycle Assessment: According to a Life Cycle Assessment of the Environment Agency Austria electric cars (BEV) with green electricity cause about 80% less greenhouse gas emissions compared to cars with internal combustion engines.



E-Carsharing: E-Carsharing evolves particularly in rural areas. At the moment, there are more than 470 battery-electric carsharing vehicles along Austrian roads.



Facts and Figures: In November 2017 the worldwide electric vehicle population increased to more than three million (BEV and PHEV). Also in 2017 more than one million electric cars have been newly registered.

Public Procurement: 75 electric cars were purchased through the Umweltverband Vorarlberg in 2016/17; the federal state Lower Austria follows with a tender for over 100 electric cars. The Federal Procurement Agency has concluded for the first time a framework agreement for alternative fuel vehicles.



Public Transport: In Europe electric busses are gaining more and more importance, as well as in Austria: Wiener Linien procured seven big electric busses, Vorarlberg four more and Carinthia is testing an e-bus in rural areas.



Research and Industry: Kreisel Electric opened its R&D centre in Upper Austria; the Chinese automaker Great Wall Motors one in Lower Austria. Magna manufactures the plug-in hybrid version of the new 5 Series BMW and the electric Jaguar I-Pace in its factory in Graz.



Charging infrastructure: Wien Energie starts with the roll-out of public charging infrastructure in Vienna. Until summer 2018, 230 new charging points will be raised. By the end of 2018 ASFINAG will set up a total of 23 fast charging stations, on average every 100 kilometres.



Electric commercial vehicles: In Austria first e-trucks are already in operation.

The haulier Temmel operates two electric 18-tonners at Magna. MAN is manufacturing its first e-trucks in Steyr, which are subsequently sent to partner companies for testing.



E-Bikes: In Austria over 120,000 pedelecs were sold in 2017.

The market share of e-bikes in the overall bike market has grown from around 22% in 2016 to 29% in 2017.



Political objectives: From 2025, Norway intends to only allow emission-free cars. This plan is also followed by Ireland and the Netherlands as of 2030, Scotland and Flanders starting from 2032 and 2035 respectively, France and Great Britain from 2040 onwards.



Aviation: The Norwegian state-owned airport operator Avinor plans to operate short-haul flights up to 1.5 hours purely electrically from 2040 onwards. Likewise, the British airline Easyjet wants to offer purely electric short-haul flights in the future.

ELECTROMOBILITY HIGHLIGHTS 2017/18

In 2017 important decisions were taken for phasing out the age of fossil fuels. Some countries and cities have agreed from when on only emission-free cars will be newly registered. Norway will allow only zero emission cars from 2025 onwards; the Netherlands and Ireland as of 2030 and other states have set a deadline for 2032, 2035 or 2040.

Up to now, there are a lot of announcements on electrification strategies of major vehicle manufacturers, which, like Volvo or Smart, will only produce cars with electric power supply or want to launch a series of new e-models in the next few years.

Electromobility is conquering new areas. First experiences are gained with battery-electric busses and heavy trucks. Furthermore trains with fuel cells are driving on non-electrified railway lines. E-Carsharing is becoming more and more established in rural areas, unnoticed by many.

In 2017 Electromobility in Austria has again developed very dynamically. Compared to the previous year, new battery-electric vehicle registrations have increased by 42% and new plug-in-hybrids vehicle registrations by 39%.

If this growth continues, only e-vehicles will be sold in Austria towards the end of the next decade. The population of battery-electric vehicles has increased by 61% and plug-in-hybrids increased by 73% compared to the previous year.

The Austrian economy recognizes these trends and is increasingly investing in future-oriented technologies. Kreisel Electric, which was awarded with the Austrian Mobility State Award in 2017 in the category „Adding Value - Developing New Markets“, is working on making e-vehicles more suitable for everyday use by increasing the range and lifespan of batteries.

The fast charging network expansion is advancing very quickly, and because of the nationwide infrastructure, the battery-electric car is also becoming suitable for everyday use over longer distances. There are still massive challenges ahead of us. The increasing number of electric cars requires the development of the charging infrastructure in residential buildings, of renewable energy sources as well as the enlargement of network capacities. The federal government and the federal states of Austria support this with funding, studies and the continuous adjustment of the legislative framework.



Regulatory framework:

Green licence plates for electric vehicles were introduced for the classes L, M and N. The Road Traffic Regulation (StVO) allows the auxiliary sign „Parking, stopping and standing prohibited – except electric vehicles“.



Maritime Transport: At a meeting of the United Nations' International Maritime Organization (IMO) 173 states agreed upon CO₂ emission reduction by 50% until 2050. Norway wants to make its fjords to zero-emission zones from 2026.



Residual values:

Eurotax expects that electric vehicles (BEV and PHEV) will increase their residual value while the prices of used diesel cars will drop.



E-Vehicles:

Electrification is becoming more and more important for car manufacturers: Volvo plans to offer every newly introduced model as an electric or hybrid car. The compact Smart car is to be produced exclusively as an electric car as of 2020.



Subsidies in Austria: The federal government has launched a funding campaign for e-mobility; by May 2018 more than 9,000 registrations were received, of which about three-quarters were for battery-electric cars.

TAB. 1: NEW REGISTRATIONS BY VEHICLE TYPE, FUEL TYPE AND ENERGY SOURCE

Vehicle types, fuel types or energy source	2010	2011	2012	2013	2014	2015	2016	2017
Passenger Vehicle Class M1	328,563	356,145	336,010	319,035	303,318	308,555	329,604	353,320
Petrol incl. Flex Fuel	159,740	159,027	143,325	134,276	126,503	122,832	131,756	163,701
Diesel	167,130	194,721	189,622	180,901	172,381	179,822	188,820	175,458
Battery Electric Vehicle (BEV)	112	631	427	654	1,281	1,677	3,826	5,433
Compressed natural gas CNG (monovalent & bivalent)	333	444	460	628	788	703	484	435
Plug-In-Hybrid Electric Vehicle (PHEV)	N/A	N/A	N/A	184	434	1,101	1,237	1,721
Fuel Cell Electric Vehicle (FCEV)	N/A	N/A	N/A	N/A	3	9	5	0
New Electric Vehicle Registrations M1 (BEV, PHEV, FCEV)	112	631	427	838	1,718	2,787	5,068	7,154
Electric Vehicle Share in New Registrations M1	0.03%	0.18%	0.13%	0.26%	0.57%	0.90%	1.54%	2.02%
Further Electric Vehicles of the Classes L, M, N	1,225	979	1,400	791	876	930	1,949	1,910
Motorbikes/Tricycles/Quadricycles (Class L)	1,206	923	1,094	585	672	651	1,478	1,667
Busses Class M2 and M3	8	5	14	15	1	12	22	6
Duty Vehicle Class N1 (< 3.5 ton)	11	51	292	191	203	267	449	237
Duty Vehicle Class N2, N3 (> 3.5 ton)	0	0	0	0	0	0	0	0

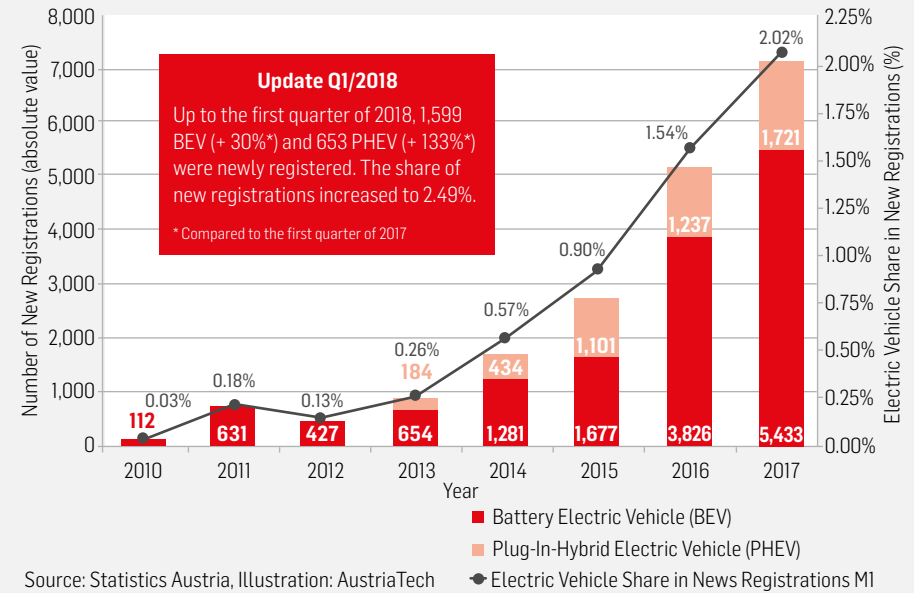
Source: Statistics Austria, Illustration: AustriaTech

TAB. 2: VEHICLE POPULATION BY VEHICLE TYPE, FUEL TYPE AND ENERGY SOURCE

Vehicle types, fuel types or energy source	2010	2011	2012	2013	2014	2015	2016	2017
Passenger Vehicle Class M1	4,441,027	4,513,421	4,584,202	4,641,308	4,694,921	4,748,048	4,821,557	4,898,578
Petrol incl. Flex Fuel	1,988,079	1,997,066	2,001,295	2,003,699	2,011,104	2,019,139	2,038,019	2,080,434
Diesel	2,445,506	2,506,511	2,570,124	2,621,133	2,663,063	2,702,922	2,749,046	2,770,470
Battery Electric Vehicle (BEV)	353	989	1,389	2,070	3,386	5,032	9,073	14,618
Compressed natural gas CNG (monovalent & bivalent)	N/A	2,670	3,109	3,651	4,262	4,775	5,031	5,206
Plug-In-Hybrid Electric Vehicle (PHEV)	N/A	N/A	N/A	408	776	1,512	2,287	3,948
Fuel Cell Electric Vehicle (FCEV)	N/A	N/A	N/A	N/A	3	6	13	19
Electric Vehicle Population M1 (BEV, PHEV, FCEV)	353	989	1,389	2,478	4,165	6,550	11,373	18,585
Electric Vehicle Population - Change on Previous Year	58.3%	180.2%	40.4%	78.4%	68.1%	57.3%	73.6%	63.4%
Electric Vehicle Share in Population M1	0.01%	0.02%	0.03%	0.05%	0.09%	0.14%	0.24%	0.38%
Further Electric Vehicles of the Classes L, M, N	3,217	4,024	5,120	5,594	6,067	6,532	7,524	8,912
Motorbikes/Tricycles/Quadricycles (Class L)	3,034	3,772	4,565	4,835	5,116	5,324	5,907	7,057
Busses Class M2 and M3	113	116	126	139	131	138	149	143
Duty Vehicle Class N1 (< 3.5 ton)	69	135	428	619	819	1,069	1,467	1,711
Duty Vehicle Class N2, N3 (> 3.5 ton)	1	1	1	1	1	1	1	1

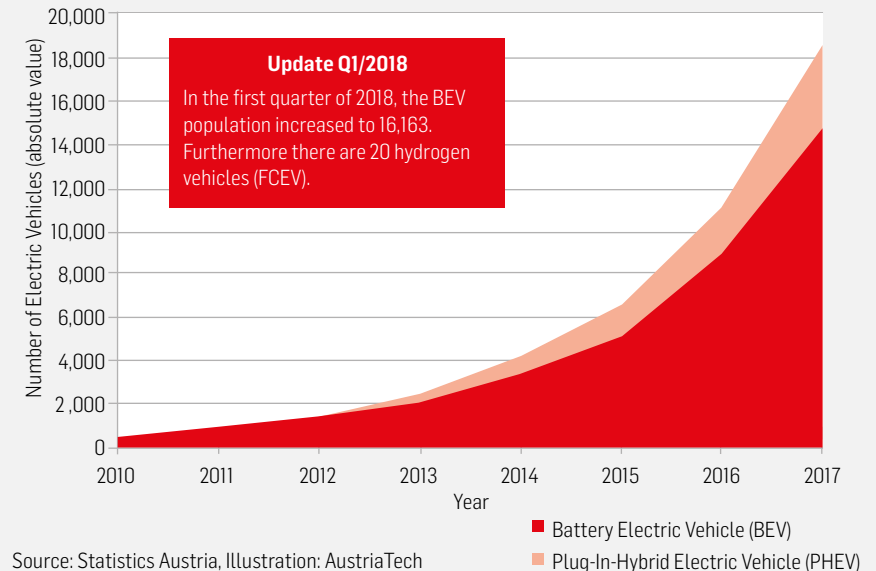
Source: Statistics Austria, Illustration: AustriaTech

FIG.1: NEW ELECTRIC VEHICLES REGISTRATIONS (PASSENGER VEHICLE - MI)



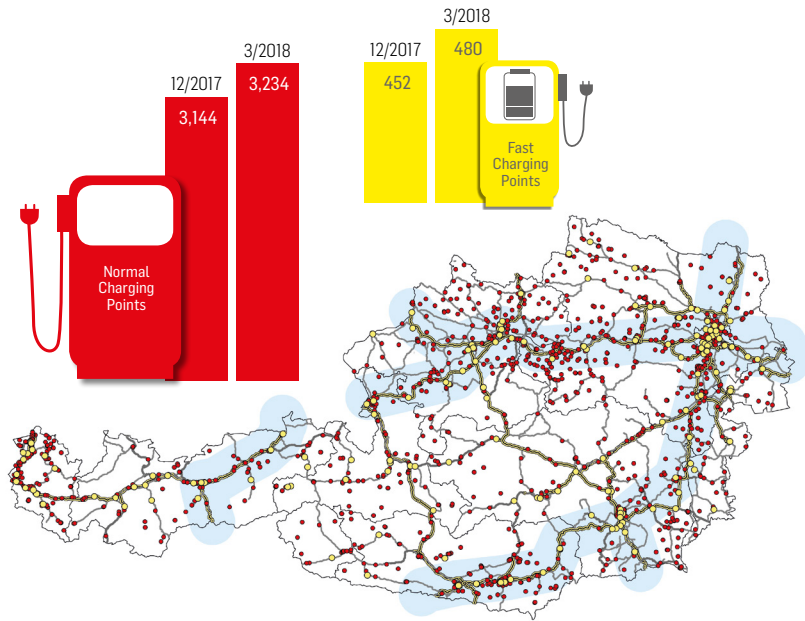
Source: Statistics Austria, Illustration: AustriaTech

FIG.2: ELECTRIC VEHICLE POPULATION (PASSENGER VEHICLE - MI)



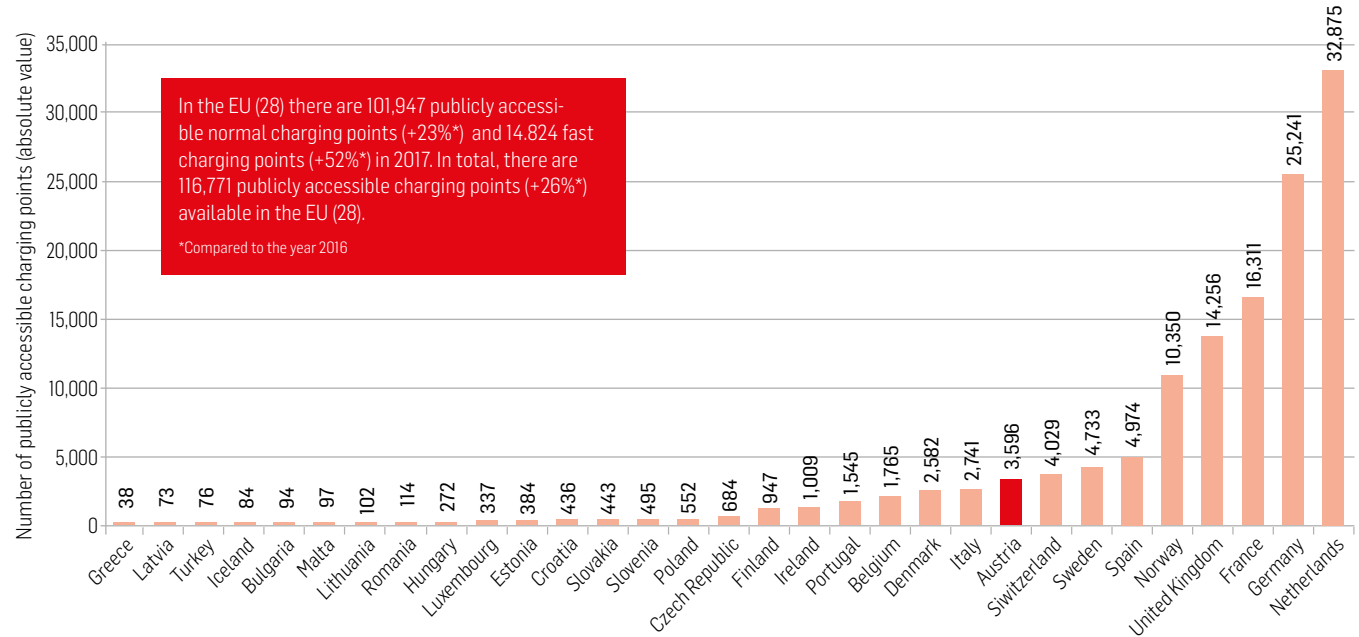
Source: Statistics Austria, Illustration: AustriaTech

FIG.3: PUBLICLY ACCESSIBLE CHARGING POINTS IN AUSTRIA



Source: KELAG (e-tankstellenfinder.com), Illustration: AustriaTech

FIG.4: PUBLICLY ACCESSIBLE CHARGING POINTS IN EUROPE



Source: www.eafo.eu, 2017, Illustration: AustriaTech

DEVELOPMENTS IN 2017 AND THE FIRST QUARTER OF 2018

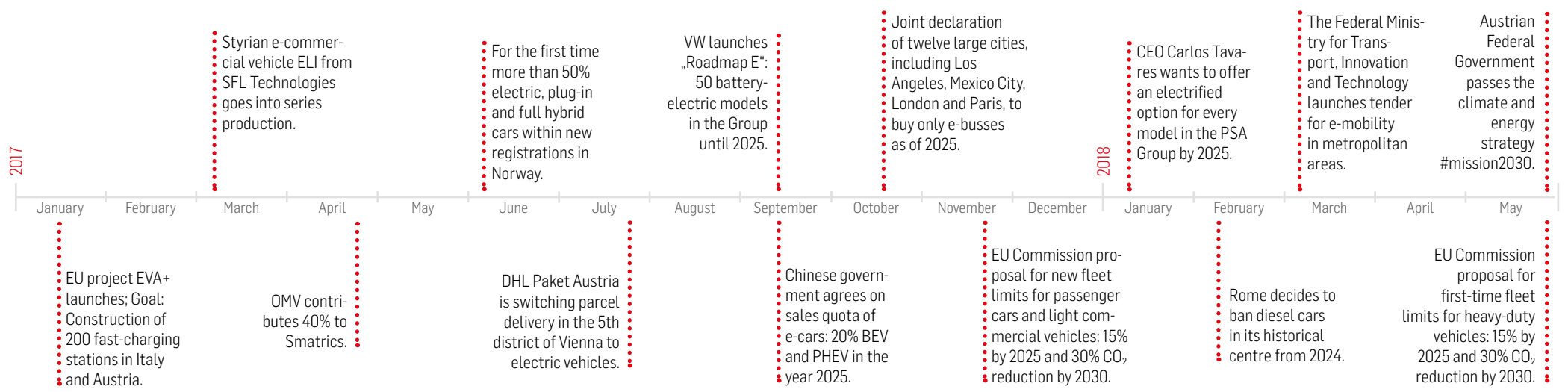


FIG.5: MARKET SHARES OF E-VEHICLES IN THE EUROPEAN UNION (EU) IN ANNUAL COMPARISON

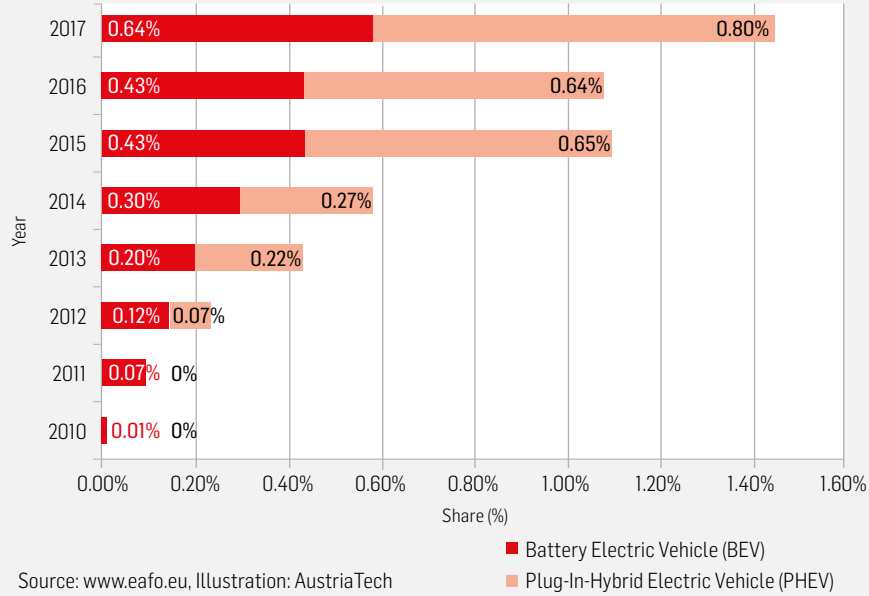


FIG.6: NEW ELECTRIC CAR REGISTRATIONS (BEV) BY AUSTRIAN FEDERAL STATES 2014-2017

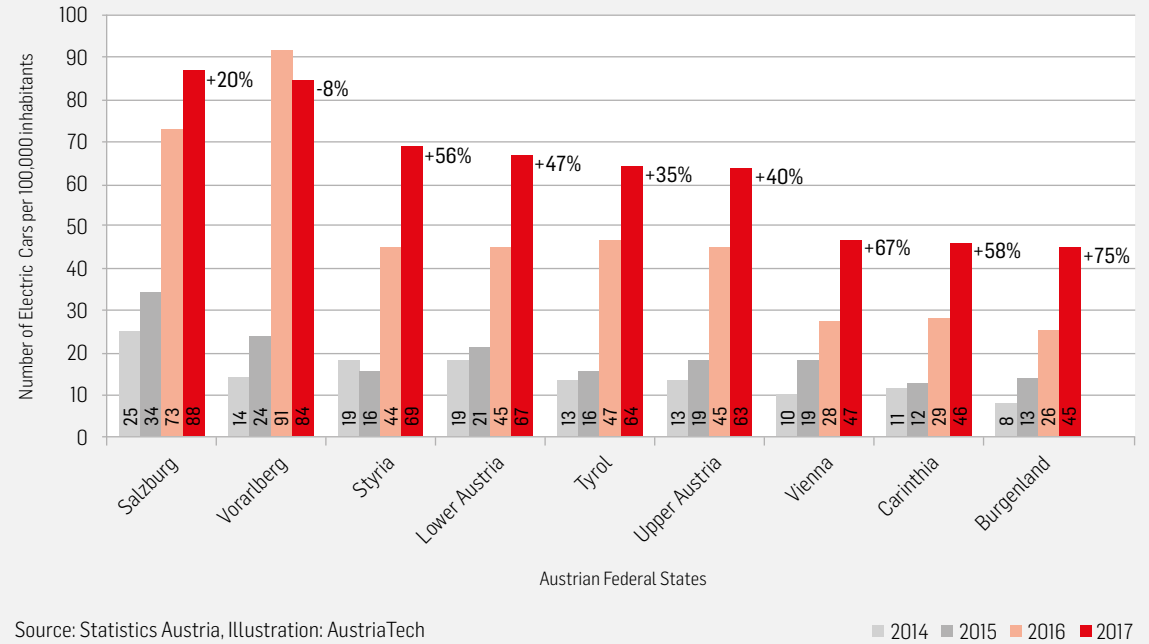


FIG.7: MARKET SHARES OF ELECTRIC VEHICLES IN COUNTRIES OF THE EUROPEAN UNION (EU) 2017

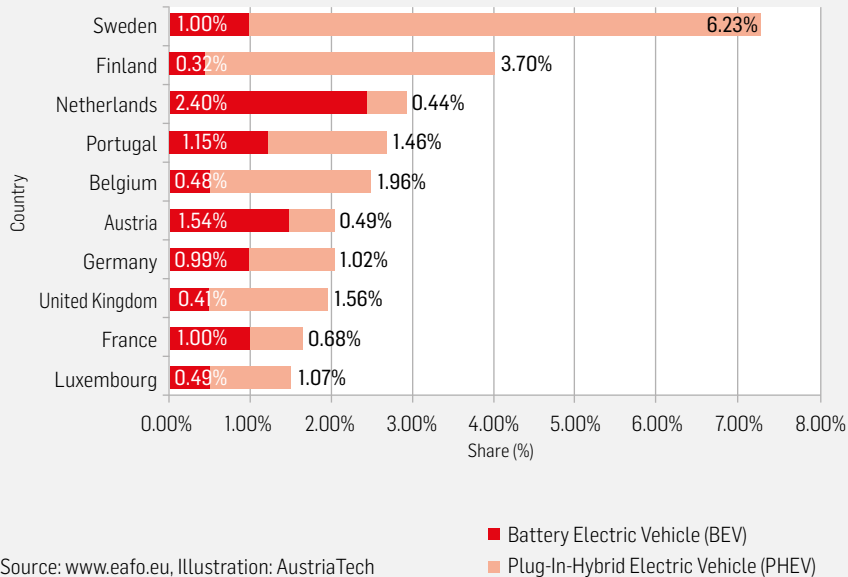
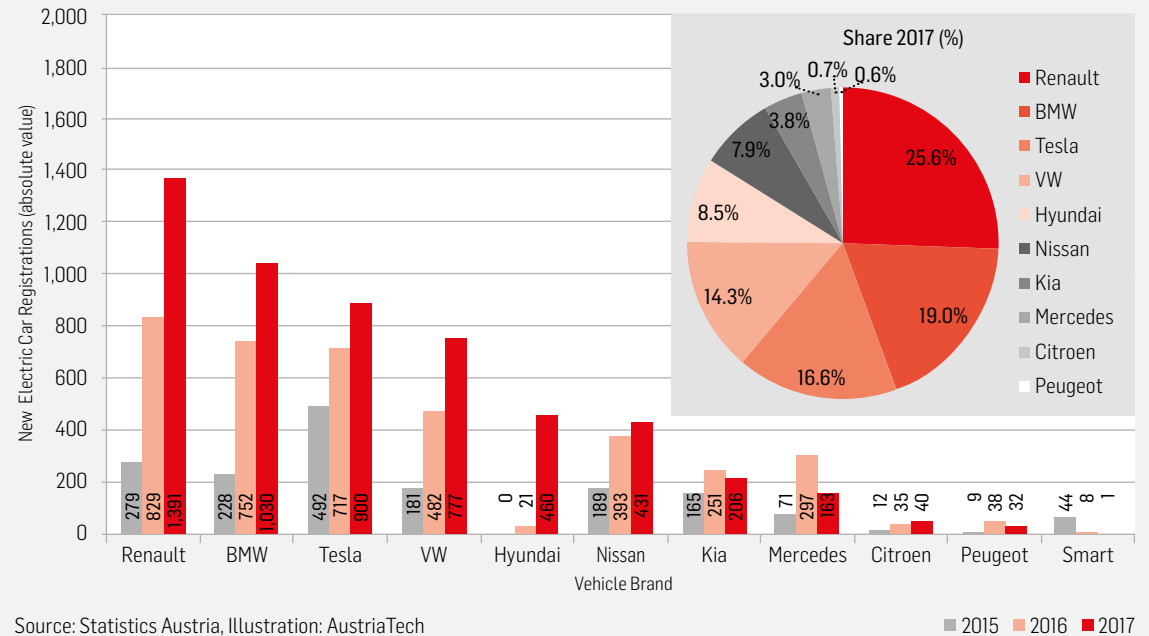


FIG. 8: NEW ELECTRIC CAR REGISTRATIONS (BEV) 2015 - 2017 BY BRAND IN AUSTRIA



ELECTROMOBILITY INITIATIVES AND PLATFORMS IN AUSTRIA

	Federal Ministry Transport, Innovation and Technology	Executive Department „Mobility Change and Decarbonisation“. Coordination and content-related supervision for the topics of Electromobility and Automated Driving in cooperation with other departments	www.bmvit.gv.at
	Federal Ministry Republic of Austria Sustainability and Tourism	Department IV / 2, Clean Mobility Department VI / 1, Energy Policy and Energy-Intensive Industries	www.bmnt.gv.at
	AustriaTech GmbH	Supports the Federal Ministry of Transport, Innovation and Technology (BMVIT) regarding the increasing activities in the field of Electromobility	www.austriatech.at
	A3PS – Austrian Association for Advanced Propulsion Systems	Public Private Partnership between industry, technology policy and scientific institutions on tech- nology development and launch of Electromobility	www.a3ps.at
	AMP – Austrian Mobile Power	Platform for the promotion of Electromobility within, and from, Austria	www.austrian-mobile-power.at
	BEÖ – Bundesverband Elektromobilität Österreich	Representation of interests of the Austrian energy suppliers in the field of Electromobility	www.beoe.at
	BieM - Bundesinitia- tive eMobility Austria	Independent Electromobility cluster for companies, experts and regional authorities in Austria	www.biem.at
	ÖVG working group on e-mobility	Independent association of personalities from politics, science and practice as well as private persons, on topics of passenger, goods and message traffic and logistics	www.oevg.at/ arbeitskreise/ e-mobility
	Climate and Energy Fund	Various funding programs for Electromobility in the research and market sector	www.klimafonds.gv.at

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INTERNATIONAL ELECTROMOBILITY INITIATIVES AND PLATFORMS

	AVERE	The European Association for Electromobility: Euro- pean network for the exchange of knowledge, expe- rience and ideas in Electromobility	www.averer.org
	EGVI	European Green Vehicles Initiative: Public-private partnership for the promotion of clean vehicles and mobility solutions	www.egvi.eu
	FCH JU	Fuel Cells and Hydrogen Joint Undertaking: Pub- lic-private partnership supporting fuel cell and hydrogen energy technologies in Europe	www.fch.europa.eu
	HyER	European Association for Hydrogen and fuel cells and Electromobility in European Regions: Initiative supporting hydrogen and Electromobility technol- ogies in Europe	www.hyer.eu
	ICCT	International Council on Clean Transportation: An independent nonprofit Organization founded to provide first-rate, unbiased research and techni- cal and scientific analysis. The aim is to improve the environmental performance and energy efficiency of transportation.	www.theicct.org
	IA-HEV	International Energy Agency Implementing Agree- ment for co-operation on Hybrid and Electric Tech- nologies and Programmes: Discuss respective needs, share key information and experience from the development of hybrid and electric vehicles.	www.ieahev.org
	EV4SCC	Electric Vehicles for Smart Cities and Communi- ties: A partnership acting within the framework of the European Innovation Partnership for Smart Cities and Communities with 76 institutions from 19 countries.	www.ev4scceu
	EAFO	European Alternative Fuels Observatory: A project to monitor relevant developments in Electromobi- lity; coordinated by AVERE and commissioned by DG MOVE in 2015.	www.eafo.eu
	Platform for Electro- mobility	European stakeholder platform founded in 2016; supports a sustainable electrification of the transport sector	www.platformelectromobility.eu
	ZEV ALLIANCE	International Zero-Emission Vehicle Alliance: Initia- tive launched in 2015 by the Netherlands, California and Québec with the aim that in 2050 all new cars will be zero emission.	www.zevalliance.org

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