More than 2.2 million electric vehicles were on the road worldwide in 2018. The sharp rise in the number of new vehicle registrations is, however, not the only reason why the year marked the dawn of a new era. Electric cars are now a common sight in many regions, towns and cities. The automotive industry is constantly launching new models on to the market. Charging infrastructure is being expanded considerably — by municipal authorities, utility companies and private investors alike — and many stakeholders are now investing in the clean mobility market. Householders are not alone in purchasing electric cars. Companies are also switching over their vehicle fleets and installing their own photovoltaic systems, safe in the knowledge that combining e-mobility with photovoltaics is a worthwhile investment. Solar installations not only help companies to charge their electric cars inexpensively, but also enable them to optimize their load profile and to avoid load peaks, thereby reducing costs. To support companies, the industry offers bidirectional charging stations and intelligent charge management. You can find out more about innovations and trends in this field at Power2Drive Europe in Munich. From boosters for high-speed charging stations to architecturally appealing carports and scalable charging infrastructure, the exhibition will present the rapidly growing range of solutions for the future of our mobility. You, too, can enter the new transportation world.
A guide produced in cooperation with Power2Drive Europe and The Mobility House includes a comprehensive overview of charging fleets, explains the basics of power grids, charging technologies and legal frameworks, and provides information on billing models, operating costs, procurement criteria and installation.

“The whitepaper helps fleet managers and entrepreneurs to get started with e-mobility. Using real-life examples, we show the added value of smart charging for fleets and provide participants with valuable tips for planning and implementing the right charging infrastructure,” explains Stefan Baumann, Key Account Manager at The Mobility House.

Watch the recording of the webinar on the whitepaper free of charge:

www.PowerToDrive.de

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Everyone is also invited to find out more about attractive e-fleet concepts at Power2Drive Europe, the international exhibition for charging infrastructure and e-mobility, taking place in Munich from June 17 to 19, 2020.

CHARGING YOUR ELECTRIC FLEET

The Climate Action Programme agreed in Germany has established a whole range of measures for the energy, building and transportation sectors as well as industry and agriculture. The core goal remains the same — to cut CO₂ emissions as they stood in 1990 by 55 percent by 2030. For passenger cars, the premium paid by the state to electric vehicle buyers will be increased significantly and extended further until 2030. The tax break for electric company cars will also be extended for battery electric vehicles (BEVs) and plug-in hybrids (PHEVs) and made more attractive for medium and small electric cars. Seven to ten million electric vehicles are expected to be on the road in Germany by 2030.

The commercial and private charging infrastructure is also set to receive subsidies over the coming decade. A charging infrastructure master plan has established a goal of one million charging stations by 2030. The German government also wants mandatory electric charging points to be made available at all gas stations in Germany.

For commercial vehicles, the government wants to encourage people to buy trucks powered by alternative means, including hydrogen technology, and will also fund the development of demand-oriented refueling and charging infrastructure. By 2030, “electricity or electricity-based fuels” must be used for around a third of total mileage in the heavy goods transportation sector. In the meantime, measures will be taken to make public transportation more climate-friendly. By 2030, 50 percent of all city buses should be electric.

CLIMATE ACTION PROGRAMME: SUBSIDIES FOR ELECTRIC VEHICLES AND CHARGING NETWORKS

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Europe’s Top 10 Countries

Public EV Charging Points¹ – roads and in public parking lots and can use bus lanes. In road tax. They also receive a 50 percent discount on toll incentives. For example, drivers who purchase or lease electric vehicles are not required to pay any VAT or electricity. Norway owes its success to a package of almost half of new cars sold there are powered using the greatest number of electric vehicles. According to the EU, there are more than 210,000 on the country’s roads. The Dutch government estimates that there will be around 12,000 electric cars on the road in Utrecht alone by next year, which means that the city will require more than 1,600 charging stations.

THE E-MOBILITY MARKET IS GROWING ACROSS EUROPE

"The framework conditions for e-mobility are better than ever before," Philippe Vangeel, General Secretary of the European Association for Electromobility (AVERE), has recorded significant increases in turnover in all European countries and reports that many regions have already set up good charging networks. "We’ve reached a stage where there aren’t really many obstacles standing in the way of the mass deployment of e-mobility.” This is particularly true in Norway, which is the country with the greatest number of electric vehicles. According to the EU, there are more than 210,000 on the country’s roads. Norway also has around 12,000 charging stations and almost half of new cars sold there are powered using electricity. Norway owes its success to a package of incentives. For example, drivers who purchase or lease an electric vehicle are not required to pay any VAT or road tax. They also receive a 50 percent discount on toll roads and in public parking lots and can use bus lanes. In the Netherlands, electric vehicles make up a tenth of all new vehicle registrations. With almost 44,000 charging stations for roughly 75,000 electric vehicles, the country has the most dense supply network in Europe. The government, municipal authorities and industry have contributed equally to expanding this infrastructure. The framework conditions have also improved, as anyone who purchases an electric car but who does not have their own parking space can submit an application to have a public charging station constructed in their immediate vicinity. In Germany, a significant number of people charge their cars at home (approx. 33,000 charging stations). Private PV system owners are making a considerable contribution to driving forward the demand for e-mobility in the country. More and more German citizens want to charge their electric vehicle batteries using solar power generated on their own roofs. As the first photovoltaic installations begin to lose their eligibility for EEG feed-in tariffs, powering an electric vehicle using electricity produced at home will become an even more obvious choice. E-mobility only makes sense if the batteries are charged using renewable sources of energy. This is a fact that has also not escaped the notice of industry players in France (approximately 30,000 charging stations). Here, the e-mobility association Avere-France and the solar association ENERPLAN have joined forces with the objective of increasing not only the number of electric vehicles on the road from its current figure of more than 150,000, but also the proportion of solar energy used to charge these vehicles. This is one of the key issues discussed at The smarter E Europe, which presents the latest solutions in the field. For background information on the top EU markets, please visit www.PowerToDrive.de -> News & Press -> Expert Interviews

INTELLIGENT EV CHARGING STATIONS FOR THE NETHERLANDS

The Dutch Ministry of Infrastructure and Water Management recently announced subsidies for vehicle-to-grid charging stations that could help to balance grid loads by providing electricity from electric vehicle batteries. The Ministry is making available 5 million euros of funding to support the construction of 472 intelligent charging stations with vehicle-to-grid functionality in more than 21 municipalities. The first smart charging stations for public use are due to be put into operation this year. The Ministry also proclaimed plans to make vehicle-to-grid functionality – which is currently only supported by the Nissan Leaf and Renault Zoe – available for a range of car models. Owners who make their electric car or its battery available when there is a high demand for energy are expected to receive long-term monetary rewards in return. Drivers should be able to determine for themselves what proportion of their battery capacity they wish to supply to the power grid so that they always have enough power in their batteries for their planned journeys. The Dutch government estimates that there will be around 12,000 electric cars on the road in Utrecht alone by next year, which means that the city will require more than 1,600 charging stations.

AVERE SUPPORTS POWER2DRIVE EUROPE

The European Association for Electromobility (AVERE) is joining forces with the Power2Drive Europe exhibition. “We have a shared responsibility to combat climate change. Unless we make transportation emission free, we will face catastrophic consequences,” explains Secretary General of AVERE, Philippe Vangeel, emphasizing why AVERE is strongly advocating the expansion of e-mobility and sustainable transportation in Europe. To this end, he is calling for the European Commission to put e-mobility at the heart of its agenda. He also believes that the EU should consider establishing a public-private partnership with the aim of developing a competitive and sustainable battery-manufacturing industry.

AVERE unites 17 national associations representing 1,000 members across Europe, including research centers, industrial companies, non-governmental organizations and consumer groups. Private companies can also join AVERE to help drive e-mobility.
INNOVATION PRIZE FOR THE BEST

It’s not without reason that the renewable energies market is booming. Innovations are propelling the modernization of our energy infrastructure worldwide, with the expansion of e-mobility making an essential contribution. The smarter E AWARD aims to honor these innovators on a very public platform. On June 17, 2020, the award will once again be presented to companies whose solutions are helping drive a smart, sustainable and affordable energy supply.

Innovations can be entered for consideration by March 31, 2020. It is worth taking part, as is clearly proven by the example of PION Technology, last year’s The smarter E AWARD finalist in the Smart Renewable Energy category. The company is still profiting from being nominated as a finalist for its modular AC charging station featuring a unique housing, which is essential for electric vehicle infrastructure from both an economic and an environmental point of view. Besides the Smart Renewable Energy award category, the Outstanding Projects category is also perfect for future-oriented industry players, SMEs and start-ups looking to shine a spotlight on their innovations. Examples of potential winners in this category include outstanding charging infrastructure and e-mobility projects that have already been completed and serve as an example of how to successfully shape the energy and mobility transition.

Lower PV system costs are making the idea of powering electric vehicles with solar power produced on site increasingly attractive to commercial enterprises. According to the “IFH-Energiewende-Barometer 2019” Chamber of Industry and Commerce report on the energy transition, 17 percent of all German companies have already purchased an electric vehicle. The consumer habits of businesses are evolving: "More and more modern companies are becoming consumers that are generating, storing and consuming their own solar energy," reports Carsten König, CEO of the German Solar Association.

Solar carports are also growing in popularity and are proving to be highly beneficial to companies, since they can be used to optimize load profiles, avoid peak loads and reduce costs. They also allow electric vehicles to be charged inexpensively directly during the day with PV power produced on site and at prices that are predictable in the long term.

Switching to a PV-powered vehicle fleet nevertheless presents a number of challenges that must be taken into account for the transition to be a success. The "How to Successfully Combine E-Mobility and Photovoltaics" guide, which was produced as a collaboration between The smarter E Europe, the German Solar Association and the Association of German Chambers of Commerce and Industry (DIHK), provides guidance on these two topics. The guide can be downloaded free of charge at → www.PowerToDrive.de → News & Press → Publications.

THE SMARTER E EUROPE – A MULTI-FACETED AND INNOVATIVE PLATFORM

The smarter E Europe, the continent’s largest platform for the energy industry, units four energy exhibitions under one roof. All the important topics concerning the energy transition, including the solar industry, batteries and energy storage systems, e-mobility and the intelligent use of energy in industry and buildings, are on the agenda of the four exhibitions – Intersolar Europe, ees Europe, Power2Drive Europe and EM-Power – and the accompanying conferences. The wide spectrum of the industry is covered, offering visitors a comprehensive overview of trends, technologies and innovative concepts for the new energy world. The smarter E Europe also offers webinars, studies and other publications exploring the latest issues and developments across the energy industry.

Power2Drive Europe – charging infrastructure and e-mobility in the limelight

Power2Drive Europe is the leading international exhibition focusing on e-mobility in the renewable energy system. The exhibition focuses on the successful transition in the transportation sector to renewable energies and demonstrates the opportunities and potential that a sustainable transportation sector has to offer. From batteries to fuel cells to charging infrastructure to electric vehicles, Power2Drive Europe presents the entire e-mobility system and provides a comprehensive market overview as well as market-ready solutions for fleet managers, building managers, utility companies, vehicle manufacturers and other stakeholders in this new form of mobility. From June 17 to 19, 2020, The smarter E Europe expects to welcome to Munich a total of 1,450 exhibitors and over 50,000 visitors from 160 countries, at least 250 of whom will be e-mobility solution suppliers. The aim of Power2Drive Europe is to support businesses in developing and distributing technologies and business models in the field of traction batteries, charging infrastructure and electric vehicles, and to drive a sustainable and future-oriented model of mobility. Numerous topical joint booths and country pavilions as well as exhibition forums will provide participants with ample opportunities for targeted networking. Charging the future of mobility!

Power2Drive Europe Conference

The Power2Drive Europe Conference taking place on June 16, one day prior to the exhibition, will offer a highly relevant program on the most important market and technological trends for e-mobility in the renewable energy system. Everything will center around exciting panel discussions on the industry’s business models and market potential as well as networking events taking place in an inviting and professional setting. Topics will range from the impact of hydrogen-based drivetrains to the current state of charging technologies to envisaged grid integration and best practice in the electrification of commercial fleets. Find out more at the Power2Drive Europe Conference!

www.PowerToDrive.de