

Insights from Europe

By: Jeff Allen, Executive Director of Drive Oregon

(January 27, 2016) – From its founding, Drive Oregon has built strong relationships with European companies and organizations in the electric mobility space to share lessons learned and explore common interests. In December, I was invited to speak at the [European Electric Vehicle Congress](#) in Brussels, and to attend several meetings with electric vehicle stakeholders in the Netherlands.

Here are a few of the trends and insights I saw during this trip:

Governments are driving innovation. Government funding for demonstration and pilot projects in the US largely dried up after stimulus funding ran out – but such projects are still being funded in large numbers in Europe. These projects, often focused on shared electric mobility solutions, planning, or modeling, can yield a number of interesting insights – though they often lack marketplace sustainability. By contrast, similar projects in the U.S. are less well funded, but tend to have more investment by participants, and higher likelihood of sustainability and scalability over time.

Markets are growing fast. Just a year or two ago, there was very little consumer adoption of electric vehicles outside of Norway. Now, the Netherlands is quickly reaching Norwegian sales levels, and other countries are catching up fast. Many European countries are now approaching the same sales levels as ZEV states in the US (circa 1% of new cars sold.)

Infrastructure is growing even faster. Charging networks are being built out even faster than markets are developing in many areas. [A Fall 2014 directive from the European Union](#) requires all member nations to submit plans by late 2016 for expanding charging infrastructure in their countries, and initial guidelines suggest at least two charging stations for every EV. As these plans are published and implemented, infrastructure will expand quickly. There is a lot of theoretical analysis of optimal charging network design underway. As in the US, I fear we may see overbuilding of some less than ideal stations in the initial rush.

Everyone wants a smarter grid. As in the United States, there is tremendous interest in smart charging and smart grid applications tied to electric vehicles. I met with Baerte de Brey at Stedin, a major Dutch grid operator, and one of the pioneers in this area. The Netherlands is conducting some of the largest solar/smart charging demonstration projects in the world, including a project with 65 Tesla taxis at

Amsterdam's Schiphol airport. As in the US, these pilots are developing quickly, and utility engagement is evolving rapidly – but for now, only a few pioneers are truly active in real world testing of such technologies.

Buses are bigger. There is increasing interest in electric buses in the U.S., but Europe may be a step ahead. Particularly notable is [ZeEUS](#), the “Zero Emission Urban Bus System,” a 22.5 million Euro project working in ten locations to evaluate technologies, address operational issues, and support decision makers as they consider and integrate new bus technologies.

Problematic PHEVs? There is a lot of discussion in Europe about plug in hybrid vehicles (PHEVs) and other extended-range electric vehicles, with the general “conventional wisdom” being that they are seldom charged or driven on electricity, and at best should be considered a “gateway” technology. I even heard a story about one local EV enthusiast club that nearly voted out their PHEV members because they’re “not really electric cars.” This stands in contrast to the US experience, where [research suggests Volt drivers log nearly as many electric miles as Leaf drivers](#).

Drive Oregon will continue to build strong international ties, both to identify lessons we can share and to seek opportunities for international partnerships among companies and organizations – in Europe and beyond. If you are interested in learning more, or seeking an international partnership, we'd be happy to help.