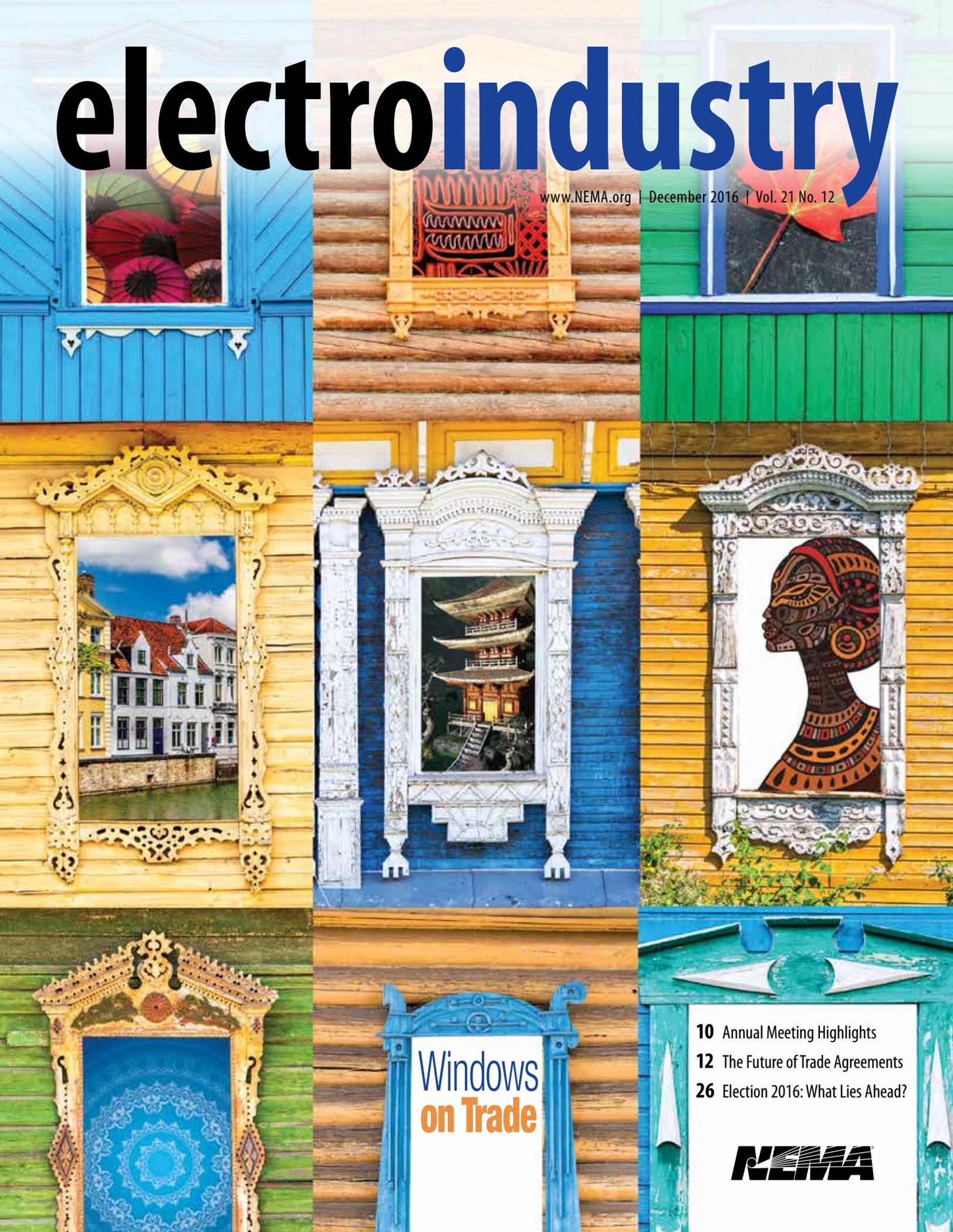


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www.NEMA.org | December 2016 | Vol. 21 No. 12



Windows  
on Trade

- 10 Annual Meeting Highlights
- 12 The Future of Trade Agreements
- 26 Election 2016: What Lies Ahead?

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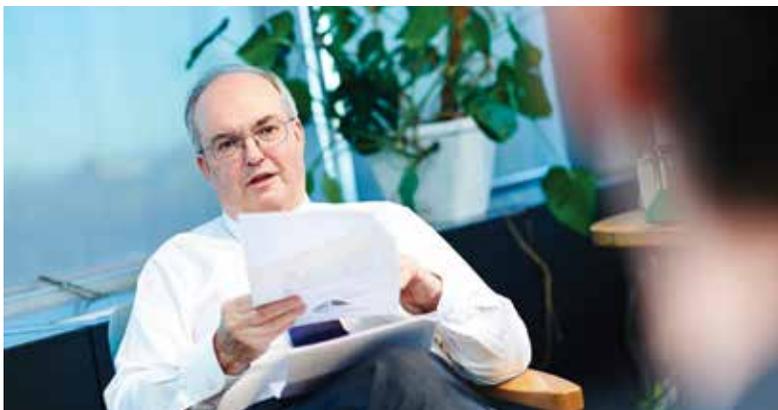
# From the Manufacturing Economy to the Data Economy

For many years, the word “manufacturing” was absent from the vocabulary of the European economy. We had the green economy and services (as if these could thrive without a manufacturing base) and the information and communications technology (ICT) industry, but this was considered a consumer industry.

**Adrian Harris,  
Secretary General,  
Orgalime,  
the European  
Engineering  
Industries  
Association**

Now manufacturing is rehabilitated and, for the engineering industry that Orgalime represents, growing in terms of output and employment. The core of this success lies in the new possibilities created by aligning manufacturing and digital technologies: productivity, efficiency, and, of course, new business models and markets. This is what we showed our colleagues from NEMA at Hannover Messe earlier this year.

In the early days of the Internet of Things, there was excitement about the simple possibility of connecting products and gathering data from them. As manufacturers have become more efficient at gathering and analyzing data, business opportunities have risen.



Adrian Harris, Orgalime Companies often start this trend internally, as energy and resource efficiency are core issues for manufacturers. On average, some 45 percent of costs in the Orgalime industries are related to raw material and energy. Therefore, companies that used to focus investment in new production capacity or staff are increasingly investing in improving their own energy and resource efficiency in manufacturing processes. They may offer the same and other services to their clients.

## Case Studies in Efficiency

This new effort provides clients with significant added value and savings. Here are a couple of examples:

- An Austrian skiing resort equipped its snow groomers with sensors. In combination with GPS and a resort map, this system, which is connected to the snow-generator system, measures the exact depth of the snow cover while working on the slopes at night. Transmitted data allows the ski resort to make less artificial snow, by doing so at the best moment and precisely where it is needed. In addition to saving on equipment and maintenance costs, the resort manages to save up to 25 percent in water and electricity use.
- A major European automobile manufacturer analyzed in detail where it used energy. A relatively minor part of their costs (about four percent) is for compressed air and vacuum. After studying sensor data, the company saved 37 percent on these costs in one plant. Now it is applying the solution to the group.

The challenge manufacturers now face is not how to get data from their products but how to design business models that will let them make money from the data. This they must do quickly: change is happening fast. Even well-established companies with solid brands need to adapt so as not to lose out to nimbler competitors.

This is normal in the consumer sector, but we now also see it in manufacturing: look at the automotive industry, where the traditional giants are being challenged by players such as Google and Tesla. The incumbents still have an advantage because of complex supply chains and manufacturing know how, but for how long?

At Orgalime, our challenge is to help regulators understand the changes that companies are undergoing and how the digitalization of manufacturing is different from that of the consumer sector, to encourage their support, and to not stymie this new area of growth through untimely or unnecessary regulation. ☺