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**O**ne year ago, Professor Ernst Ulrich von Weizsäcker and Anders Wijkman published their report for the Club of Rome entitled “Come On!” The title indicates the direction in which all of us should be moving. The authors argue that the size of the human footprint on the Earth is increasing fast, and that if this trend is not reversed it will eventually lead to a collapse of the global economy.

Profit maximization and the goal of saving the planet are inherently in conflict. There needs to be a vastly improved balance between human beings and nature, markets and the law, private consumption and public goods, short-term and long-term thinking, and between social justice and incentives for excellence. There is a need for an overhaul of the way that we all interact with our planet. We’re still not doing enough. The Intergovernmental Panel on Climate Change has also come to this conclusion. According to a special report published by the IPCC, if we go beyond a 1.5°C increase in global temperature, the impact will be dire.

So what do we need to do? There are many optimistic case studies and policy proposals that could put us on a trajectory towards achieving sustainability. For example, a move towards a circular economy could help to solve the problem of resource scarcity, significantly lower CO<sub>2</sub> emissions, and increase the number of jobs. Regenerative agriculture can stop soil erosion, enhance yields, and bind CO<sub>2</sub> in the soil. Using waste heat to generate electricity reduces the number of power plants needed to meet worldwide energy demand.

**There is no lack of political agendas** to get us back on track towards sustainability. Europe has developed, and continues to develop, a policy framework that is designed to achieve long-term goals. The EU is giving clear signals to all consumers and to industry that they must take effective action—starting now.

The climate and energy framework that was agreed on in 2014 for the period until 2030 sets binding key targets including further cuts in greenhouse-gas emissions, a rising share of renewable energy, and significant improvements in energy efficiency. In 2018 those targets were strengthened for energy efficiency and the use of renewable energy. In June, the European Commission, the European Parliament, and the European Council reached an agreement

which includes a target to improve energy efficiency in the European Union by 32.5% by 2030. The agreement includes a clause that permits an upward revision of this goal before 2023. The EU member states’ ministers of energy also agreed on a renewable energy target of at least 32% to be reached by 2030.

There is also a longer-term vision for decarbonization. The EU’s roadmap to a low-carbon economy suggests that by 2050 the EU’s member states should reduce their greenhouse gas emissions to 80% below 1990 levels. To reach these goals, all sectors need to contribute.

At the 2015 Paris climate conference, governments committed themselves to a long-term goal of keeping the increase in the global average temperature to well below 2°C compared to pre-industrial levels. The aim is to limit the increase to 1.5°C, since this would significantly reduce the impact of climate change. The politicians agreed on the need for global emissions to peak as soon as possible, recognizing that this will take longer for developing countries, and they promised to undertake rapid reductions in accordance with the best available technologies.

**These objectives apply to humanity as a whole**, and they affect all of us as individuals, businesses, and nations. Everybody must take action. But where should we begin? It’s never easy to answer this question. Fortunately, the EU recently instituted a requirement that large industrial companies conduct mandatory energy audits at regular intervals. That is a good starting point. The only way of avoiding the audit is to adopt the ISO 50001 certification standard, which specifies the requirements for setting up an energy management system in a company. This standard is essentially designed to change corporate culture, because it requires a commitment from all parts of a company, including its senior management. Among other things, the standard requires companies to reduce emissions by using modern production techniques, increase the share of recycled materials in the manufacturing process, and generate energy from waste heat.

Nevertheless, there have been severe political setbacks. The United States and Brazil are headed by presidents who deny climate change. President Emmanuel Macron of France, under pressure from the protesters wearing *gilets jaunes*, suspended plans to raise taxes on gasoline and diesel fuel. The results of the recent UN climate change conference in Katowice showed a lack of determination and also made it clear that there is no easy way to bundle the interests of industrial and developing countries.

**But there is reason for hope.** The oil crises of the 1970s were a shock to the global economic system, but we responded to them by making energy efficiency a political goal. The latest issue of the “World Energy Outlook” from the International Energy Agency (IEA) states that in the industrial sector worldwide there has been a 2.5% average annual increase of energy consumption since 2000. However, in its “New Policies Scenario” the IEA projects that this increase will slow down to 1.3% per year “as a result of energy efficiency gains and significantly lower growth rates for output from energy-intensive industries.”

Why is that? Well, we’ve learned a lot since the 1970s. We are now in much better shape to take effective action—if the will and the commitment to do so exist. On the downside, there are still obstacles hindering companies from pursuing energy-saving measures, such as financing problems and a lack of confidence in products and technologies. Some companies still do not regard an increase in energy efficiency as a strategic goal. We know that a lot of businesses are missing opportunities to save energy. Surveys show that there are still many low-cost, or even no-cost, opportunities to enhance efficiency on virtually every factory floor.

On the upside, there are more and more technologies available to help reduce energy consumption, and their prices are continuously sinking. Many innovations are making valuable contributions, and the growing number of energy service companies is making it easier to introduce new energy-saving measures. For example, today it’s much easier than it used to be to conduct energy audits.

## “Some companies do not regard an increase in energy efficiency as a strategic goal”

**The finance industry is working towards providing ways** to help companies finance energy-efficiency measures. These include efforts to “de-risk” energy-efficiency projects in order to encourage greater investor confidence. These efforts are directed towards energy-intensive and non-energy-intensive sectors alike. There are also efforts under way to improve the capacity of financial institutions to analyze energy-efficiency projects so that they can carry out the required underwriting activities and ensure that such projects can get the necessary funding. On the regulatory level, there have been improvements to the measures supporting energy efficiency, and these will accelerate in the future.

There are good reasons to believe that we can get back on track. The Energy Transitions Commission, a body that includes representatives from business as well as leaders from the public and social sectors, recently concluded that energy-intensive industries, given time, can completely decarbonize their business operations. Until now, no one had thought that this was technically possible.

Fortunately, most companies remain optimistic and are not slackening their efforts. No company wants to give up business or to lose its ability to compete. Improved energy efficiency does not solve all problems, but it does address many of them. So von Weizsäcker and Wijkman are quite right when they appeal to us: Come on! —

# We’ve Learned a Lot

Climate change seems to be inevitable. Nevertheless, despite many setbacks, an increase in energy efficiency is still the most viable way to limit the effects of global warming