Paris Agreement drives shift to green economy but huge challenges remain

When world leaders in Paris last December agreed on a landmark deal to cap global warming, it was hailed as the starting gun on an irreversible path to a low-carbon economy.

But keeping global warming to below two degrees will require nothing less than the complete overhaul of the extraction and consumption-led culture that has held sway since the Industrial Revolution.

“Look at us now,” the EU’s Energy Union chief Maroš Šefčovič told delegates at the Transition to the Green Economy conference in Bratislava last week.

“The transition to a green economy is omnipresent in our diplomacy, in our popular culture, in our evolving industries, led by innovative technologies,” he said.

What started as a pioneer movement has successfully won the hearts and minds of millions across the world.”

But once the party at the UN Climate Change Conference was over, it was time for policymakers to look closely at the magnitude of the undertaking the 195 countries had made.

Shifting from an infrastructure and economy based on the traditional 20th-century model to a new green society demands massive investment and huge disruption.

“For some of us,” said Šefčovič, “this new economy triggers the imagination and sense of adventure, for others it might seem intimidating.”

“But trust me – it is the only way forward. And it’s the only way for Europe to be a global growth engine.”

That goal appears a long way off after years of recession – which has helped lower emissions – and in a world where so much can be influenced by fluctuating oil prices, and which still relies heavily on fossil fuels.

“We need to talk about transformation not transition,” said Cristiana Pasca Palmer, the Romanian government’s environment chief, who was at the conference.

This transformation cuts across a huge range of emission creating sectors, such as transport, agriculture, energy and even financial services, and will need policy action at every level – from the United Nations to the local binman.

Renewables need to be integrated into existing grids interconnected across Europe – the Energy Union. The ultimate goal is that they will

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replace gas, which has been identified as the lower carbon ‘bridge’ fuel by the European Commission.

 Initiatives are needed in areas as diverse as landfill, building renovation, traffic light systems, municipal public procurement and social programs to soften the blow to those who will lose their jobs as polluting industries shut down.

 This year, 8 August was Earth Overshoot Day. Earth Overshoot Day is the point at which humanity’s consumption of the planet’s resources goes beyond what it can regenerate naturally.

 If we stay on this track – using annually the yearly resources of 1.4 planets – we will run out of these finite resources.

 Šefčovič told delegates that the consequences of failure to address climate change were already being felt in Europe and beyond.

 “In the last decade there have been too many weather-related disasters. So many hurricanes in the USA, typhoons in Asia and in Europe such devastating floods in almost every member state,” he said.

 “We have finally realised that climate change is here and poses an imminent danger.”

 The European Union must now bring forward a wave of legislation designed to drive the transition to the new green economy.

 The European Commission will propose the bills, which will be debated by the European Parliament and member states before ultimately becoming law.

 For the next six months, Slovakia will hold the rotating Presidency of the European Union, putting it in the driving seat on two key initiatives.

 Slovak diplomats will strive to get the agreement of all 28 to formally ratify the Paris Agreement at the same time.

 And they will drive efforts to reach a by no means certain consensus on the controversial Circular Economy package of waste and recycling rules.

 The package was withdrawn by the executive, when the Juncker Commission took over, before being re-tabled a year later, with a greater focus on creating effective markets, better product design but weaker landfill targets.

 The EU’s 2030 climate and energy goals, which push for emissions cuts and increases in energy efficiency and renewables need to be translated into EU legislation. The targets were the bedrock of the EU’s negotiating position in Paris.

 The EU’s Emissions Trading System – the world’s largest carbon market – needs reform. Current carbon prices are so low that there is no incentive for investors to turn their back on fossil fuels.

 Sectors that are not covered by the ETS – such as transport and agriculture – are also in the sights of EU regulators. Transport, for example, represents a quarter of all the EU’s greenhouse gas emissions.

 Even when the expected legislation follows the recent Commission communication on non-ETS sectors, there is still a huge amount of work to do.

 Resistance

 The European Parliament and Council must back each of these policies, which then must be implemented properly at national level.

 And each piece of regulation will face stiff resistance from those with vested interests in maintaining the unsustainable status quo.

 Accusations that green laws harm Europe’s international competitiveness can be damaging and sap political will.

 That is why the European Commission is so keen to win the economic argument – a stance that has led to accusations that it favours business over the environment.

 “The energy transition makes a very strong business case,” said Šefčovič, who said 9 million Europeans were working in green industries. That number is expected to double by 2030.

 “This transition is still disruptive,” he said, “not in the sense of slowing down our economic output but in the sense of transforming it, innovating it and smartening it.

 Private investment has stultified since the financial crisis. Convincing investors sitting on huge piles of ‘dry powder’ to loosen the purse strings is vital to get projects going, build confidence and mainstream the green economy.

 The Juncker Plan, offering public money as risk guarantees to private investors, has encouraged green projects and plans to expand it further are expected to be announced in this week’s State of the Union speech in Strasbourg.

 The European Commission can only do so much. It is dependent on global, European, national and local leaders. It needs the private sector to literally buy into the vision, and the willingness of citizens to change their behaviour.

 Political will, burgeoning since the Paris Agreement – recently signed by the world’s two largest emitters the US and China – must be sustained.

 “This transition requires each and every one of us to roll up our sleeves,” Šefčovič said.

 This week’s Special Report will investigate some of the many challenges faced by citizens, politicians and industry in making the change to a climate-safe economy.
Workers will lose jobs in green revolution, admits EU’s energy boss

Workers will lose their jobs as Europe shifts to a green economy, European Commission Vice-President Maroš Šefčovič has admitted, amid warnings the world faces political and economic turmoil not witnessed since the 1930s.

Šefčovič made an impassioned plea for national governments to make sure that no one was thrown on the scrapheap of the green revolution. But, he added, “climate change is here and it poses an imminent danger.”

“We should not create obstacles by not taking good care of people who may be intimidated by this transformation,” he said before calling for social programs such as retraining those made redundant as polluting industries were shut down.

Šefčovič, in charge of the EU’s Energy Union strategy, said this generation was the “transitional one from the old carbon economy to the new sustainable one.”

The change could be a goldmine for jobs and growth, he said, but “we do not want to see anyone left behind”.

Some 9 million Europeans work in green industries, with 18 million expected to by 2030, he added.

Failing to ensure what NGOs and trade unions call as “just transition” would sow the seeds for anger and extremism, delegates heard at the Transition to the Green Economy Conference in Bratislava, Slovakia, where Šefčovič was speaking last Tuesday (6 October).

Pier Vellinga, professor of climate change at Wageningen University in the Netherlands, said there was much in common between the present day and the 1930s, a period of economic depression that allowed extreme politics to flourish across Europe and ultimately led to war.

“There are many of the signals of the 1930s, such as xenophobia and unemployment,” Vellinga said.

Insecurity

The struggling economy, stubbornly high unemployment, the imperative to embrace new low carbon industries and fears caused by globalisation made people vulnerable to populist politics, much as they were after the Great Depression.

“Our society is facing different insecurities. How are our borders secure? How we protected from terrorism?” said Šefčovič, a Slovak. “Is my job at stake, what will happen to my region in new turbulent times, will my children have better life than me?”

“The increased pace of globalisation suddenly put every individual and company on global market to face global competition and we as society are grasping how to deal with this dramatic change.”

“The similarities with the 1930s are very large,” said Raffi Balian, of the US State Department who was speaking at the event in Bratislava.

New technologies in the 1930s, such as jet engines, magnetic recording and FM broadcasting, left many people feeling disenfranchised, he remarked. And populist politicians used that to their advantage, added Balian who is regional director for environmental, science, technology and health for central and eastern Europe.

“The same conversation is happening today,” he continued. “One side of the conversation is very organised and very disciplined, the other is not disciplined and not talking to people,” he said adding that voters would naturally reach back for the old vision of the economy unless they were encouraged to by government and industry.

Vidar Helgesen, Norway’s minister of climate and environment, concurred.

“Politicians reflect voters and voters are not always progressive,” he remarked, adding, “We have never seen a transformation so complex and so speedy as the one we are in today.

“The impact is far higher than anything we have seen before. We need to brace ourselves for much more uncertainty at level of individuals and households and much more uncertainty at the level of politics.”

“There are still government leaders in central and eastern Europe that

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believe 20th century model is right model and the 21st century model is not right for their citizens,” Balian said.

**Ultimate challenge**

But change has to come, said Han Bruyninckx, executive director of the European Environment Agency.

“This is the ultimate challenge of economy and society,” he said before reminding that humanity was using the equivalent of 1.4 planets’ resources every year.

Policymakers were trying to save the European steel industry, Vellinga added, but was protecting an energy intensive industry the right thing to do?

We need to talk about transformation not transition, said Cristiana Pasca Palmer, the Romanian government’s environment chief.

There was indeed a tension between business as usual and the needed transition to a greener production and consumption model, but not to the point where a comparison could be drawn with the 1930s, she said. “We don’t need a crisis to make the transition,” she affirmed.

Professor Vellinga continued drawing the parallel, however. He said that on top of insecurity and new technologies in the 1930s, there was a lot of money but little investment – much as there is now.

A major challenge for national and EU policymakers after the 2008 financial crisis has been to unlock these unused funds so they can be invested into the economy and spur growth.

He called for a programme of government investment blended with private investment to compete with economic giants such as China.

“We ask for investment by governments”, Vellinga said, admitting that this was “not popular in political circles” but that it was “gaining popularity in economic circles”.

The EU needed to loosen its fiscal rules. “Unleash budget constraints to unleash public investment,” he said.

The conference was hosted by the Slovakian Presidency of the EU. The Presidency has said it plans to deliver a deal on the circular economy package of waste and recycling rules and will try to drive member states to ratify the Paris Agreement on climate change during its six months at the helm of the bloc.

Both initiatives are crucial in the shift to the green economy.

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**Investors fear next financial crisis will be climate-related**

A rushed transition to clean energy triggered by extreme weather events linked to global warming “will be very expensive” to swallow for the economy, investors warned policymakers at an event in Bratislava last week.

“Does climate change pose a systemic risk? — I think the answer is yes,” said Annie Bersagel, responsible investment advisor at KLP, a Norwegian pension fund which is also the country’s largest life insurance company.

“But I would add that we don’t know yet what those risks will be,” Bersagel told a panel of policymakers at the Transition to the Green Economy (T2gE) conference in Bratislava last week (6 September).

KLP, she said, has chosen a prudent approach by divesting entirely from coal and launching an investment fund to develop renewable energy infrastructure in developing countries.

“I don’t think we have a choice” of moving towards a green economy, said Frido Kraanen, director of corporate responsibility at PGGM, a Dutch service provider in the field of pension administration, executive advice and asset management.

“There will be a transition. But if it is an unmanaged transition, it will be very, very expensive,” he warned delegates at the conference.

**Fossil fuel divestment**

Exposure to climate-related disasters such as floods, storms, or sea-
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level rise can have a huge impact on property and infrastructure, destroying value and raising insurance rates overnight.

Rintaro Tamaki, deputy secretary general of the Organisation for Economic Co-operation and Development (OECD), warned there would be no second chance when it comes to climate change.

"Unlike the financial crisis, we do not have any climate bailout option," Tamaki told the audience in Bratislava.

Things are evolving however and fund managers are increasingly looking for companies that offer safe returns on a long-term perspective, he said.

"The decarbonisation of portfolios and divestment from fossil fuel assets is happening," Tamaki remarked. "544 institutions with a combined valuation of 3.4 trillion US dollars have committed to divest" from fossil fuels entirely or partially, he pointed out, citing figures that were updated before the summer.

Disclosure

However, investors still lack reliable information to make decisions about the best companies on which to hedge their bets in the long run. Currently, there is indeed no obligation for corporations to report on their green strategies or exposure to climate risk.

15 OECD countries have already adopted “some climate-related financial disclosure” obligations on companies, Tamaki said, adding he hoped the practice will soon become mainstream. But those schemes vary widely, leading to “a multiplicity of reporting requirements” leading to “inconsistencies” and lack of comparability, he said.

This could change towards year end. An industry-led Task Force on Climate-related Financial Disclosures (TCFD), chaired by Michael Bloomberg, was set up by the G20 last December to develop voluntary climate-related financial risk disclosure for use by companies in their communication to lenders, insurers, investors and other stakeholders.

The task force is expected to issue its final report in December and make it available to the public in February 2017, adding fuel to calls for regulators to make the standard mandatory one day.

Winners and losers

As companies gradually move towards disclosing their exposure to climate risk, the most heavily-polluting industries are expected to come under growing pressure from investors.

And some are already feeling the heat. Just after global leaders signed the landmark Paris Agreement on climate change in December, the coal industry’s European lobbying association expressed worries that the sector “will be hated and vilified, in the same way that slave traders were once hated and vilified”.

Kraanen echoed this sentiment, saying investors were already perceiving these signals.

“Investing is very easy, it’s about avoiding the losers and backing the winners. And if we have companies with expiry dates, we don’t see the need of investing in them.”

But for other sectors, the picture is less simple.

Take the aluminium industry. Although carbon pricing is widely accepted as the best tool for steering the transition to greener production, aluminium makers feel unfairly penalised by CO2 prices that focus only on the industrial production process, without taking into account the environmental benefits of aluminium later in the life-cycle of products.

“Yes, it takes a lot of energy to produce aluminium first time,” admitted Arvid Moss, Executive Vice-President of Norsk Hydro, a Norwegian aluminium and renewable energy company.

“But after the first time, the accounting is purely positive from a climate perspective,” he pointed out, citing lighter cars that save fuel and buildings that are more energy efficient.

“And you can recycle the metal forever, without losing its properties,” Moss underlined, saying the recycling process absorbs twenty times less energy than production from virgin raw materials.

Regulators are broadly unfazed by pleas from the aluminium sector and seem to accept that the transition to a green economy will be costly for the heaviest polluters. CO2 pricing schemes for instance may “eliminate some industries” and represent “costs for consumers,” admitted the OECD’s Tamaki.

Still, he said carbon pricing was “the right way to select the future structure of the industry”.

Exclusive focus on carbon intensity ‘misguided’

Investors, for their part, are not sure that carbon pricing alone can do the trick.

“Focusing exclusively on carbon intensity as a measure of [the green economy] I think is misguided,” said Annie Bersagel, from the Norwegian pension fund KLP.

“It’s an indicator, a proxy. But the data that we have on carbon emissions is still not of sufficient quality to make a sound basis for informed decision-making,” she said.

Without naming aluminium, Bersagel said an example of this are industries which do emit high levels of carbon dioxide in the production process but whose products enable emission cuts further down the line elsewhere in the economy.

“We feel it would not be prudent to use [carbon intensity] data as sole basis for investment criteria,” she said.

Frido Kraanen, for his part, said regulators can help redefine “business as usual” by steering companies away from fossil fuels as the default option.

“Regulators are still subsidising the
James Nix: Brexit could pave the way for EU-wide carbon tax

Originally, the EU Emissions Trading Scheme (ETS) only came into place because the UK was opposed to using taxation as a policy instrument to reduce global warming. With Brexit, there is now an opportunity to look again at an EU-wide carbon tax, according to James Nix.

James Nix is the director of Green Budget Europe, a Brussels-based non-profit expert platform on environmental fiscal reform.

Nix spoke to EurActiv Czech Republic’s publisher Jan Vitásek at the T2gE conference in Bratislava.

The idea of shifting the tax burden from labour to materials use and pollution is not new, but there are few countries really applying this principle. Are there any good examples at all?

All over Europe, more than 50% of taxes are collected in the form of tax on labour, while environmental taxation makes up around 6%.
Can you recommend sectors where green taxation can be applied and provide estimates of how much revenue it could bring?

The aviation sector is chronically undertaxed. There is no VAT on airline tickets, no kerosene tax, and airports receive subsidies. In short, aviation does not pay its real costs but gets huge transfers from governments. The estimates for revenue on a European scale are high.

Two detailed studies have been done, one by Thomas Piketty and Lucas Chancel at the Paris school of Economics, and the other one by an Austrian think-tank. The Piketty – Chancel study estimates EU revenues of €16–22 billion out of a total global revenue of around €150 billion. And that’s with most passengers just paying €5 per flight. There is also very significant scope to better recover the real environmental costs of shipping.

A lot of this has to do with growth. When you look at aviation, the number of flights has doubled in the past twenty years and projections say that it will double again in 15 years if no action is taken to recover the real costs that are imposed on society, particularly in terms of changing the climate, polluting the air and lost sleep due to noise disturbance.

Taxation, on the other hand, offers a chance of transferring many journeys back to high-speed trains. Also, there may be more use of video conferences. Maybe we do not always need to travel.

All over Europe, there is a push for a shift towards a circular economy. How could green taxation contribute to these efforts?

If you are looking for an example from everyday life, take a look at how much plastic is used. Each time you buy a bottle of water, each time you use disposable cutlery, it adds to a significant cumulative environmental burden.

The question is should a levy be put on single use items? Should we be charged 5 or 10 cents each time we take them? There is a huge scope for these type of measures, especially because there is now also a widespread public acceptance of the circular economy idea.

You need politicians to decide on such changes, which may not always be popular. People usually care less about the environment than about their wallet. Some of them simply do not want or cannot afford to pay more.

According to IMF data, fossil fuel subsidies in countries such as Luxembourg, Poland, Bulgaria and Czech Republic amounted to over €1,000 per capita in 2015. Some of this is money that goes directly to coal, oil and gas companies. Another part of it is through higher healthcare costs due to illnesses prompted by air pollution.

Environmental tax reform is really about applying the true price at the point of use, instead of burdening the cost on – usually weaker – citizens, or pushing the bill on to the next generation, trying to make them pay for our pollution.

This really is a form of enslavement. So it’s a simple question: at what point will we say “this is wrong and we’re going to stop doing it; now it’s time to pay our own way instead of engaging in slavery”.

Countries can also look to green tax reform as a way to secure employment gains.

In terms of unemployment, the Czech Republic is actually doing quite well, especially in comparison with other European countries...

True. But even if you do not face any unemployment challenge at the moment, you should still think about the future position of your economy. How do we maintain good unemployment figures? How do we ensure we have a high number of patents in the low-
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carbon sector? This is about the future economic situation. Every country, the Czech Republic included, has to ask itself a question: Do we want to be a technology leader when it comes to low-carbon development or not?

You already mentioned road transport which contributes about one-fifth of the EU’s total emissions of carbon dioxide. It is also the greatest polluter in cities. What can be done both at national and the EU levels in terms of taxation?

The overall challenge for Europe is how we can move to electromobility. In Norway, which is not an EU member state, 24% of new car sales are electric or hybrid. In the EU, the average is less than 2% and the best country is the Netherlands with 10%.

Why are the EU figures not impressive? The answer is diesel taxation. We are undertaxing diesel and so about 50% of all new car sales in Europe are diesel vehicles. Europe is a diesel island. Nowhere else are so many new diesel cars being sold. Diesel accounts for less than 2% of new car sales in Japan and less than 5% in the US.

Looking at cities such as Paris, London, Milan, Madrid, Stuttgart etc., diesel is also a serious health problem as well as hindering electromobility.

What is your proposal? You already mentioned Belgium which is trying to close the gap between diesel and petrol taxation... Should other countries follow?

Yes, closing the diesel – petrol tax gap is the single most important measure. The United Kingdom has already done that and Belgium is moving in the right direction and will complete the work in 2018. France has also made significant changes since the Diesegate scandal was revealed last September.

People don’t change cars overnight, so the positive effects will take time to be felt. On the other hand, the immediate negative effect will be felt immediately by businesses and families who will have higher costs.

We have looked at how Ireland could bridge its 11 cents tax gap. According to the Irish finance ministry, Ireland can take five years to do this with a 2.2 cents increase each year. For diesel car owners, the annual cost increase would be €67, assuming a full tank of diesel per week, which is a fair price to pay to take Ireland away from 70% of new car sales being diesel.

There are costs, but you have to weigh that against the benefits: you have to look at the health issues such as higher asthma levels, resulting from air pollution in the cities, and the implications they have on families and quality of life, putting these impacts within their true economic frame.

And this in not only about air pollution, we are also failing to adequately internalise the costs of climate inaction. Let us think about the storms and floods of the early and mid-2000s which the whole of Europe had to face, and the heatwaves of the later part of that decade where you had up to 100,000 premature deaths.

If we examine these issues and count the costs of inaction, climate action suddenly starts to be very cheap and cost-effective.

Let us look at CO2 emissions from the point of view of industrial production and power generation. A reform of the EU ETS is currently underway but so far the carbon market has not been delivering incentives for the shift towards a low-carbon economy. What role do you see for taxation here? Should it come as a complement to the ETS, or as a tool that could replace it in the long run?

The EU ETS is not sending a real price signal anymore. The price of an allowance is around €4 – 5 a tonne while it needs to be higher than €30 to send a signal to the market.

I have followed the reforms proposed, and the projections estimate that it will be in 2020, maybe even 2025, when the price really begins to rise significantly. This is too far away and I think there is a huge scope for carbon taxation. Some countries are taking specific measures. France has just come up with a proposal, which hopefully it will improve upon, and be followed by others, maybe in Italy or Spain.

Originally, the EU ETS only came into place because the UK was unwilling to use taxation as a policy tool. In 1990-91, the German finance minister went to London and pleaded with John Major and Norman Lamont, the Chancellor of the Exchequer at the time, to embrace carbon taxation.

The UK refused. So I think if Brexit proceeds, maybe there is an opportunity to look again at a European-wide carbon tax because I do acknowledge that countries fear acting on their own.

France does not seem to fear moving ahead with carbon taxation on its own...

It depends on what French measures eventually materialise. Originally it was supposed to be a carbon price floor; now it looks more just like a coal exit plan, with no real carbon pricing element, so it is significantly weaker.

One of the reasons for this was a report prepared by a three-person expert group in France. That report basically said: we are worried about electricity imports. There are different arguments around it, and I think that the carbon price floor could be applied to imported electricity as well as power generated within France, and so create a level playing field for electricity producers, at home and abroad.

Getting back to the EU ETS, do you think it can be complemented or replaced by carbon taxation?
Norway minister: ‘Petrol and diesel engines in cars are a thing of the past’

Politicians should be less concerned with protecting the polluting industries of the past and invest instead in the future, said Vidar Helgesen, calling on policymakers to speed up the transition to a green economy with environmental taxation schemes.

Vidar Helgesen is Minister of Climate and Environment in Norway. Helgesen spoke to Radovan Geist, co-founder and publisher of EurActiv Slovakia, at the Transition to the Green Economy conference in Bratislava.

The UN climate summit in Paris last December was hailed as a landmark in global climate policy. But immediately after its closing ceremony, voices were heard saying it fell short. What is your view? Do you believe the Paris Agreement was ambitious enough?

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I think what could happen is that the ETS would be left in place and you would have a taxation system running in parallel.

**How do you think this can work?**

The fundamental problem with the EU ETS is that nobody expected the market to collapse, and nobody expected on faster-than-expected progress either.

In 2008, there was a huge downturn particularly affecting Spain, Ireland, Portugal and Greece with unwanted carbon credits washing back into the system and crashing the price of carbon. Also, with recent technological breakthroughs, we made some fast progress. We can be smart at times: suddenly, we develop new ways to produce things which are less carbon intensive, but the ETS does not account for this.

I think you could leave the ETS in place. You could have taxation alongside it and you could have a European-wide agreement to adjust the taxes based on reviews every two or three years. If the carbon price starts going up sharply, you could pause tax increases and so on.

**So you think it does not make sense to throw away the whole ETS system?**

Plans to replace the ETS can become quite complicated because of companies who bought ETS credits. What do you do with them? You would have to set up an extraordinarily complex system of compensating investors and that becomes challenging, and potentially messy. It is perhaps easier to simply leave it on its course.

You need to distinguish between ambition and commitment. The ambitions in Paris were indeed high. Not only in confirming the 2-degree target, but also in setting forth the 1.5-degree indicative limit.

But if you look at the ambitions in the national programmes, they’re not enough even for a 2-degree target. So what we need now after Paris is more countries to step up. We will have a global review in 2018, then a stocktaking in 2023, which will require countries to announce higher targets. And that will be the real test.

But that said, I think what we saw in Paris was extremely encouraging, not only because of the political commitment, but also business commitment. And now with the Americans and Chinese enacting the Paris Agreement nationally, this is really a landmark. We saw nothing of that after Kyoto, for example.

Large developing economies like China have become the biggest emitters of greenhouse gases. Some of them are reluctant to accept strict limits, fearing the effects on their economic development.

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It’s too simplistic to say that governments of developing countries are reluctant to accept strict emission limits. China is the biggest investor in solar energy, moving in five years from none, to being the world leader.

Of course, there are developing countries that are less ambitious, there are some that have coal investment plans on the table, which would be really detrimental to achieving the Paris goals.

So yes, there’s something that the developed countries could do – and that’s to mobilise climate finance. Indeed, the Paris Agreement was made possible partly thanks to the fact that climate financing was put on the table. We need more climate finance, both as public finance and private investment.

The EU positions itself as a strong advocate of effective global climate policy. However, this position is undermined not only by some member countries, but sometimes also other policies – for example its support for biofuels. How can environmental goals be streamlined into other policy areas?

We are at a crossroads. There’s been a tendency in the past to look at the environmental issues as an impediment to economic growth. Now some of the largest international companies are making very clear that sustainability is good for their business, and they want governments to put in place tax regimes that would stimulate green investments, they want regulations that would require sustainable behaviour.

What governments have to realise, and to some extent already are realising, is that in order to be winners in the future, they need to have policies for building the green economy. A very good example is the European car industry, which hasn’t really played a progressive role in the European climate policies and they have had probably an outsized influence on the European Commission.

Now, because they’re fearing a competition from the US and China on electric vehicles, they change strategy, launching new electric vehicles, and calling on the EU and member states to put in place incentive schemes for consumers to go green.

We’re seeing similar changes in the financial and energy sectors. If you couple that with digitalisation and automation, you’ll see the potential for a major shift towards the green economy.

Politicians have to realise that if you stick to the solutions of the past, you will be a future loser. We should be less concerned with protecting the polluting industries of the past, and more concerned with building for the future.

You mentioned that private investment plays an important role in the development of a green economy. However, investment in green tech is sometimes hindered by low, or long return rates. What could be the role of public authorities?

Each country will have to find its own way, and European policies will have to be shaped by countries coming together. What we can do as governments is put in place tax regimes that stimulate the right behaviour and penalise the wrong one, based on the “polluter pays” principle.

Tax incentives, such as the Norwegian electric cars policies, can really work. There, we can regulate. Tightening environmental regulations will benefit the companies that are greener. And we need incentives – support for R&D, innovation–where a lot is needed to bring solutions from the drawing boards, to the market.

All these things are needed, but when it comes to mobilising private investment, the way tax systems are designed is essential.

Electric cars already have a strong market penetration in Norway. Starting in 2025, your country has the goal of not selling any new fossil fuel cars anymore.

Which previous measures allowed you to adopt such ambitious targets?

By now, 28% of new cars in Norway are electric or hybrid, and this is going to increase.

As a starting point, we have high taxes on cars – registration taxes, VAT. Lowering those taxes for electric cars is a huge advantage. Then there’s free parking, free road-tolls, reduced tariffs on ferries, and other advantages.

If you couple those kinds of tax incentives with the fact that the prices of electric vehicles are decreasing, the rate of electric vehicles is going up.

We have indications that by 2023, electric vehicles might be outcompeting combustion engine vehicles by price. I think that target of 2025 is achievable.

To put it simply: petrol and diesel engines in cars are a thing of the past. Whoever has driven an electric vehicle would realise that it’s so much of a nicer driving experience than driving a combustion engine vehicle.

So the Norway example was about incentives, price, and the trend. Then, for those countries that have lower taxes on cars, they would have to put in place incentive systems, and adapt taxes on cars to fit the “polluter pays” principle.

We spoke about prices, taxes, etc. But the adoption of green technologies is also a matter of behavioural change on behalf of consumers...

We should facilitate initiatives that lead to conscious consumerism. The sharing economy, car-pooling – all this goes in that direction.

I have limited belief in what governments could to educate people, but we need to facilitate and support trends that are under way.

What has proven to be important in terms of public education, is the focus on children. School curriculums and actions taking in schools are important.
PVC boss: ‘We will not change our reputation in one day’

IKEA’s decision in the 1990s to ban PVC from its furniture and textile products had a devastating impact on the industry’s reputation. But 15 years after phasing out the most toxic chemicals, the PVC sector believes it is now ready to gain acceptance as a sustainable material, says Brigitte Dero.

Brigitte Dero is General Manager of VinylPlus, the voluntary sustainable development programme of the European PVC industry. Dero spoke to EurActiv’s publisher and editor, Frédéric Simon, ahead of the T2gE conference in Bratislava.

Improving recycling rates is a key objective for the EU’s circular economy package but a lack of incentives often hampers reaching this objective. What financial incentives work best in your view?

As far as I know, there is no existing incentive in place to boost recycling, to support small and medium-sized companies who invest in recycling plants and develop that sector. I am speaking about recycling generally, not just PVC.

Knowing how much we as the PVC industry have invested in recycling, I really believe this would help. Financial instruments could help recycling plants, improve collection schemes, invest in better recycling technologies and improve the traceability of waste.

An idea that has been raised recently is for recycled materials to be exempt from VAT for example. Do you support this?

I have not heard about this but I can fully support it.

Why do you think this is not already happening?

Because I do not believe that we value waste highly enough as a resource. There is a lot of valuable waste, and some of it is recycled in Europe, but not enough. There is much room for improvement, and progress could create a pull effect that would encourage companies to invest more in recycling.

The European Commission has taken an approach based on setting targets, for example to recycle a certain percentage from municipal waste. Do you see this more as an incentive or a punishment?

Speaking specifically for the PVC industry, targets can be extremely positive. VinylPlus has its own ambitious targets.

Also, when we talk about investment, we do not need to think about massive changes from one year to the other. But the direction must be set, because that is what is giving the investors and households predictability. You know what will pay off in the future.

When we say in Norway that in 2025 we want no fossil fuel cars, everybody knows that maybe it might not be very smart to buy a diesel car tomorrow. These are the signals that change behavioural patterns.
target of recycling 800,000 tonnes by 2020, which is enormous. Today we are already recycling 500,000 tonnes, up from virtually nothing in 2000.

Targets are important because they give us an objective to reach for.

Did you set this objective because regulators told you or were pushing for it?

We set this target ourselves because we realised we had to manage the waste issue that PVC raises. In the late 90s we had large amounts of PVC waste going into landfill, and we knew this kind of waste was valuable so we started recycling it.

But waste is managed by public authorities, not industry. You could have just decided to ignore it.

Yes but we in the PVC industry believe in behaving responsibly: managing the end of life of our products is important.

But it has a cost...

Indeed, we have invested quite a lot. When we started in 2000 we had to pay private incentives to equip the European industry to take back and recycle our PVC waste. So in the last 15 years, more or less, we have invested €100 million to develop recycling activity.

Have you recouped that investment by using recycled materials? Is it cheaper to collect and recycle than to produce from new materials?

We will never recover this investment. But we believe it does have a value, and we are very proud of what we have done because it demonstrates that PVC can be 100% recycled. It is such a durable material that it can be recycled several times without destroying the molecules - the properties remain the same.

So in the long term it is a durable thing to do, because we are increasing the value of the recycled material and the quality of this material is good. It can be used in a number of applications that do not necessarily need virgin PVC.

So from a business perspective, recycling really makes sense for the whole PVC value chain.

The Commission is preparing a “strategy on plastics” to improve recyclability and biodegradability, among other objectives. What can be the contribution of the vinyl industry to both these objectives?

The plastics strategy has not yet been issued, but we know that plastics are one of the priorities of the circular economy package.

And there are a number of things we have identified as critical. One is the question of support for recycling. If you look at the current legislation, you have REACH on one side and the Waste Framework Directive on the other side. The link between waste and chemicals legislation is very strong.

In other words, waste is considered as a mixture of chemicals. As soon as any product containing a legacy hazardous substance becomes waste, it has to go through the REACH authorisation process, and is then automatically considered as hazardous.

And this is the case even if the product has always been perfectly safe: it is not understandable that products with which consumers have been in contact for many years without reported harm are suddenly considered hazardous at the moment they become waste. Recycling hazardous waste is much more complicated; it is a burden for recyclers and generates a lot of extra cost.

So would you say REACH hampers recycling?

It is the interaction between the two pieces of legislation that hampers recycling, and the lack of consideration for secondary raw materials. These are materials which, although they contain hazardous chemicals, can be categorised as valuable materials that can be re-used after proper analysis on a case-by-case basis.

That is something we would like the Commission to look at. We need to accommodate these materials in order to maximise recycling in a responsible way, rather than automatically classifying them as hazardous waste.

This classification makes it more difficult to process these recycled materials and find a market for them afterwards.

How would you solve this issue? You can probably understand the desire to prevent, as much as possible, hazardous materials finding their way back into new products via recycling.

We all want to achieve a toxic-free environment. This is why in the PVC industry we completely substituted lead in PVC in 2015 and in 2001 we completely substituted cadmium. So we are really keen to get rid of hazardous chemicals in PVC.

But what do you do about the lead or cadmium that finds its way back into products via recycling? Is there a maximum amount that can be tolerated?

With cadmium it was solved with a case-by-case approach. There are a number of applications for which we are allowed to use recycled PVC containing a certain amount of cadmium.

But when we talk about hazardous chemicals, it should be put in perspective. Chemical additives in PVC are embedded in the polymer matrix of the material. That is why, despite our best efforts, we have been unable to remove these chemicals. They cannot be dissociated from the material. Extracting
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these molecules is simply not economic on an industrial scale.

When recycled PVC containing legacy materials is used in a new application, it can be sealed behind a layer of virgin PVC so these hazardous substances cannot leak out. In window frames for example, virgin PVC is used to give a white finish with UV resistance, and any recycled PVC is only used internally.

So you’re saying the PVC industry should be allowed to continue using these legacy materials, even though they may contain hazardous substances, as long as there are appropriate quality standards and safeguards?

Absolutely. With full risk assessment and on a case-by-case basis, depending on the application.

Can you give an example of an application in which this should not be allowed?

When we recycle the PVC from flexible products like hose-pipes, we use the PVC mainly in things like traffic cones or other road equipment. So this does not present a risk.

But in any case, in all applications for recycled PVC containing legacy chemicals, we carry out risk assessments to demonstrate that there is no risk. And this is also done for virgin materials in their first application. So the safety and quality of recycled PVC is of paramount importance to us.

But can you mention an example where recycling would not be acceptable or where it would present too many risks?

It is not always a question of risk. There are also applications we believe it does not make sense to recycle, so not all PVC can go through this process. For example, when PVC is mixed with other plastics, separating and cleaning the materials is too difficult, so it does not make economic sense.

So, as we confirmed in our commitment review in 2015, our preferred solution in such cases is energy recovery through incineration rather than landfill.

A recommendation we can provide as an input to the circular economy package and the Commission’s plastics strategy is that we would like to see a landfill ban on recyclable materials. We would also like to see more value placed on materials with a low carbon footprint over their full life-cycle. This is also important for the circular economy concept, for plastics in particular.

And also to develop the category of secondary raw material, with clear criteria to give certainty to the industry and investors to boost recycling.

Environmentalists are opposed to hazardous chemicals re-entering consumer products via the back door in the form of recycled products. ClientEarth called for an outright ban on the practice. What is your view?

You are probably referring to the case of DEHP, which is the first substance to go through REACH authorisation. A very small number of recyclers have applied for authorisation to use recycled materials containing DEHP in a very limited number of applications. They have followed the process in place: through ECHA and consultation with member states, the input of the Commission and so on.

So they have provided all the information they have been asked to provide. Then the decision was made to grant them an authorisation for a limited number of years, and they will have to provide all the details necessary to monitor the management of these recycled materials. So on the industry side, they have followed the process in place, and I cannot say more on that.

As the first case of an authorisation passing through the REACH process, of course this has attracted the attention of stakeholders, because it is a case study as well. I guess the member states did their homework. There was a very long consultation period, the Commission did its work as well, and in the end the decision was taken.

In its circular economy package, the Commission announced it will launch work to develop quality standards for secondary raw materials – in particular for plastics. What criteria do you think should apply?

The main principle, in our view, is to ensure the proper traceability of waste. We need traceability and certification to ensure quality, and also to secure investment in recycling in order to have the best technology in place. This will allow us to control what is coming into the plant and what is going out, and to know the content of the materials and which applications they will be useful for.

We already have a traceability system in place and we are pleased that the Commission has held us up as a good example on that, because we have already made 15 years of investment here and we have a good deal of experience. We call our system Recovinyl and it could even be improved, and used by recyclers of other plastics and other materials.

Improving traceability will help us to understand the composition of the waste, and eventually to create a huge database on the composition and applications of recycled and reused materials. We are thinking about using digital barcodes in order to automatise the tracing of the waste materials that we use, from collection to treatment and recycling.

This is something we have in the pipeline, and we hope that we can continue to work with the Commission and other authorities on further developing these ideas. But it all depends on how the circular economy...
And it has taken 15 years to get to this stage?

Yes, 15 years and a €100 million investment.

Earlier you mentioned energy recovery. Incineration is considered the least favoured option in the EU’s waste hierarchy. Incinerating PVC, in particular, is considered particularly dangerous for human health because it releases toxins into the atmosphere. So what measures does VinylPlus take to limit incineration? Is zero-incineration a target you see as desirable?

Not at all. We believe today that incineration is properly done, including for PVC waste. So we do not see zero-incineration as a desirable objective. Today, all waste is properly incinerated, including PVC waste. Today, all incinerators in Europe are equipped with mechanisms to contain the harmful emissions incineration can create. It is not at all like it was in the 90s or early 2000s.

But we do believe that, as almost all waste is recyclable, this should always be the first option. The second option is incineration, and we can say that the emissions are contained.

You say incineration is safe and emissions contained. But is this the case all over Europe or are there differences between countries or plants?

Waste incinerators all over Europe have to comply with the same stringent emission regulations. We are not concerned, and we have figures that show the level of dioxin emitted is well below regulatory limits.

But it wasn’t the case recently, you say?

No, because incinerators weren’t that good. Regarding PVC, the issue was really landfill, which is the worst-case scenario. Important sources of dioxin emissions today are landfill burning and forest fires, not energy recovery incineration.

Vinyl made a bad reputation for itself due to the presence in its composition of vinyl chloride, which is a known carcinogen. So what are the alternatives? Can the most hazardous substances in vinyl be substituted at all for safer ones? You mentioned cadmium and lead but are there more you’re planning to substitute in the future?

There are several questions here. First of all, VCM is the monomer of the PVC polymer. So for years PVC plants have been taking measures to avoid release of VCM into the atmosphere.

Now, we have decided to substitute some of the additives in PVC voluntarily, like cadmium and lead – we have never been legally bound to do this.

So it is one thing to phase out chemicals but we are also investing a lot, looking at the future. It is not always easy to substitute chemicals. This can lead to new problems if it is not properly researched. And we are working with the additive producers to proactively identify the critical substances and explore alternatives.

Under REACH, more and more chemicals will be put on the list of harmful chemicals, so we have to find safer alternatives. There are a lot of ongoing studies, particularly in flexible PVC, moving from classified phthalates to alternative plasticisers.

Do you have a phase-out plan for phthalates?

DEHP is mostly gone now. That is a chemical that is hardly used any more as a plasticiser. There are others that are used, like DINP, which is not classified and is safe. With any chemical, regulation can happen at any time depending on what studies come out. But the plan is certainly to move in the direction of safer additives for PVC in general.

How many substances are we talking about, and how many do you think can be substituted, very broadly speaking? Are we talking dozens, hundreds….?

I cannot answer that question because, for the time being, we have substituted all those of most concern, voluntarily. DEHP use decreased dramatically as soon as it was classified. It was very much the focus of the stakeholders.

But the market can change very quickly. When there are other safe chemicals available, this can also cause an automatic switch. It is interesting to look at this, especially to see the way this industry is evolving inside Europe. Outside Europe, DEHP is still widely used in some countries.

This means we still have to manage these chemicals so they do not find their way back into Europe in imported products. This is why traceability is so important in recycling.

One of the issues with REACH is the trade aspect, and DEHP may be a case in point. If these chemicals are not allowed in Europe, then I suppose products containing them cannot be imported?

REACH authorisation does not impose any import bans on articles, but importers have to provide notification of such chemicals.

If European producers can’t use those substances but they can still be imported, is this not unfair competition?

That is why it is important to do these substitutions in a proper way, in order to preserve business and give companies time to get properly equipped for the
This way companies in other countries can follow the European standard. But if bans are handed down too quickly there is no time for businesses to manage them.

Is this happening, as far as you can see? Is Europe setting the standard for the rest of the world?

For the time being, the rest of the world is not following our lead on DEHP. This chemical will disappear from the European market and then, of course, imports will also become questionable. Then maybe it will trickle down to other countries.

But it will not happen all at once. So we have to make sure our industry is prepared, including in the way it deals with end of life of products, to control this question.

Does the REACH label in Europe help your competitive position? If you go to a buyer and say that your products are now REACH certified, does it help on the sales side?

I cannot really say if there is a direct link for the industry between sales and REACH compliance.

REACH is a lot of effort for the industry. It helps industry to put its house in order, but it is really bureaucratic and it costs a lot of money. But I am sure that it is working and it will help to give us a clear understanding of what is used. And maybe it is a way to move to a toxic-free environment in the future, which is what we all wish to see.

IKEA claims it no longer using PVC in its furniture and textiles since the early 1990s. Others are following the example. Do you expect your market to shrink over time, in Europe at least?

We know that improving reputation takes years. Making the journey towards sustainability, which we in the PVC industry began 15 years ago, takes time and effort. We are making progress, but we will not change our reputation in one day.

So has this damaged your reputation?

Yes, and it is a shame that they [IKEA] seem so closed to the improvements we have made. But we believe this will change in the future and it is our objective to be fully accepted by retailers and consumers.

We have made extremely good progress, including a great step in 2012 at the London Olympics, which were called the “most sustainable games ever held”. I guess you know that PVC was banned at the Sydney games in 2000, so this was quite harmful to our reputation.

We had to work on that a lot, and we worked with the London authorities when they selected their building materials and their applications, and in the end they used quite a lot of PVC in London. It was used in the main stadium roofing, in flooring, also mainly in non-permanent buildings. The reason why they took the decision to use PVC again was because we were able to show the progress we had made in moving away from heavy metals and using alternative plasticisers to DEHP.

Also the way we were able to guarantee the take-back and re-use of a number of structures, like the flooring of the basketball arena, which was completely reclaimed and used in a number of school floors in the UK.

For us this was a great step. Since then, PVC has been used more and more in sports infrastructure. Most of the new sports stadiums in Europe now use more PVC. It is a question of safety, environmental performance, energy savings – the way we produce PVC today uses much less energy than it did in the past. And the architects that build these new sports stadiums look at these materials. PVC is already the most-used plastic material in construction but it is growing and gaining acceptance again.

This is a kind of rehabilitation process you’ve been going through. When do you think you will reach the end of that journey? Will it be years of will it be decades?

The next step is 2020, to reach our target of recycling 800,000 tonnes of PVC and to achieve our energy reduction goals. Then we have to consult stakeholders again, take their advice and criticism, consult other actors in industry and refine and improve the programme so we can gain full acceptance as a sustainable material for the future.

I cannot say it will be 2020 because it is really ambitious. We know from experience that to completely change a sector’s image takes a long time. If it’s 2025, then great. The most important thing is not the date but to get the industry working together to increase the sustainable performance of this material.

This is one of the very few voluntary industry commitments in Europe that are working, delivering success and being openly communicated.

This says a lot about the other voluntary industry commitments...

At least that’s what we’ve been told: we are open, transparent and credible. We accept criticism and we know we are not perfect, but we are moving towards our goal. We are very proud to have been recognised by the UN as an industry that is producing real results with voluntary targets.

Our voluntary commitment is registered under the UN sustainability commitment system, we are part of different UN bodies, like the Green Industry Platform, UNIDO and so on. And they use us as an example around the world of how it is possible to work together as a value chain, partner with others, to set and deliver targets in a credible and transparent way. It helps us to have this recognition.
Germany wants to scrap EU recycling targets

Germany, the EU’s most influential country and its leading recycler, has called for recycling targets in the European Commission’s Circular Economy package of green laws to be scrapped.

The executive wants to increase recycling rates of municipal waste across the EU to 60% by 2025, rising to 65% in 2030, as it tries to create an economy where as little as possible is wasted in a world with finite resources.

But, according to a document circulated among diplomats’ working groups and obtained by EurActiv.com, Germany wants to bin any recycling targets for at least three years.

Campaigners warned that if new targets were put forward 36 months after the package enters into force, they could be lower. Voluntary measures had failed in the past, they said, and any new targets would need a new bill, meaning a lengthy legislative process would start all over again.

Germany is Europe’s top recycler, according to Eurostat, and has already hit the 2030 target. But recycling rates vary widely across the EU.

Sources said that Cyprus, Latvia, Lithuania and Bulgaria support Berlin’s idea, while the UK, Italy, Finland and Greece, are open to considering it. That could not be independently confirmed.

There are fears Germany’s stance will have a chilling effect across other rules in the draft package of six bills on landfill, waste, packaging, end of life vehicles, batteries and accumulators, and waste electronic equipment.

Landfill reduction targets, for example, are controversial, facing opposition from some Eastern European member states.

Stephane Arditi, of the European Environmental Bureau said, “If it is confirmed that Germany is calling for no targets at all, then this would be a major mistake, depriving industry and the economy of the legal driver they need and sending a bad signal to other EU member states that are not at Germany’s level in terms of waste management.”

“Higher targets aren’t only an environmental need, but will certainly help bring a circular economy, meaning jobs and environmental protection,” said Ferran Rosa, of NGO Zero Waste Europe.

Industry groups support targets

Industry sources agree targets are essential to drive recycling rates, particularly in Eastern EU countries where there is little infrastructure for waste collection and treatment. In the PVC sector, a voluntary program has helped recycle 500,000 tonnes of PVC until now. The objective is to reach 800,000 tonnes by 2020.

“Targets are important because they give us an objective to reach for,” said Brigitte Dero from VinylPlus, a PVC industry coalition. “Targets can be extremely positive,” she told EurActiv in an interview.

Tetra Pak, a food packaging company from Sweden, also supports targets, and even wants a ban on landfill for recyclable products like beverage cartons.

“One should aim high as we look towards 2030,” said Erika Mink, Vice President for Public Affairs at Tetra Pak. “For us, that means implementing the waste hierarchy, meaning that no packaging should go to landfill,” she told EurActiv back in March.

However, she did admit that Eastern EU countries “may need a bit longer”.

“As producers, we face challenges to get enough collected in those countries. But they can also benefit from the experience of Germany or Belgium, which have a much higher recycling rate,” Mink said.

Where’s the ambition?

The Commission has already reduced the 2030 target by 5% from 70%, after withdrawing and rewriting an earlier version of the package, prepared under the previous Barroso administration.

It was controversially ditched in 2014 under the ‘better regulation’ strategy led by Commission First Vice-President Frans Timmermans. He promised the replacement bill, which was proposed in 2015, would be “more ambitious”.

The decision – opposed by national environment ministers – was partly made in a bid to get enough member...
state backing to get the package on national lawbooks.

The Council of Ministers and the European Parliament can amend the draft rules but must agree an identical text before the new Circular Economy package can become law.

MEPs are expected to amend the bill to restore the original 70% 2030 target, setting up tricky negotiations with the Council, if Germany gets its way.

Slovakia, which holds the sixth month rotating presidency of the EU, has said it will try to deliver a deal on the package before the end of its term in December. It has a municipal recycling rate of 6%.

Leaked paper

The German paper questions the calculation method favoured by Commission officials in the package, which must ultimately be agreed by both the Council of Ministers and the European Parliament.

Berlin backs a different method and calls for it to be used for at least three years but only for data collection.

Only after that should the Commission consider whether or not to introduce recycling targets, the paper says.

It read, “One possible solution regarding the question of specifying targets is to introduce the new calculation method, to initially evaluate this on the basis of existing provisions on targets and to collect data and experience to determine the current status in the member states.

“On the basis of the experience gained with the calculation method, the Commission shall present proposals for targets three years after entry into force of the amended directive.”

Germany and Denmark back a method where a standard loss rate is set by the recycler. That percentage, representing the waste lost in the process, is deducted from the recycling figure.

That rate will vary across member states but the Commission favours a harmonised way of measuring recycling, which is based on how much waste enters the recycling process.

“Europe’s top recycler calling against a target they have already reached raises questions about the validity of their own statistics,” said Zero Waste Europe’s Rosa.