Janez Potočnik European Commissioner for Environment, Any Future for the Plastic Industry in Europe? PolyTalk 2012 A major plastics industry summit "Plastics – An Intriguing Love Story? Wiesbaden, 21 September 2012

Ladies and Gentlemen,

The plastic industry's future in Europe is a fascinating topic. I would like to start by putting it in a very global context.

On 7th June this year a scientific article in the journal Nature stated that (and I quote):… "Human population growth and the per-capita consumption rate underlie all of the other present drivers for global change". I know that Jonathan (Porritt) has long argued for attention to population and family planning in relation to sustainability, particularly as patron of the "Population Matters" charity. But this was quite an astounding statement… I repeat; it would "underlie all of the other present drivers for global change."

It is striking that the world population has grown by a factor of 4 to 5 within just over one century from 1900 to 2010 to 7 billion today. According to most estimates, by 2050 world population will have grown to perhaps 9 billion. By 2030 we can also expect a further 3 million middle class consumers, wanting the goods and services that we in Europe take for granted today. Most of these goods are made entirely or partly from plastic.

During the 20th century, the world increased its fossil fuel use by a factor of 12, whilst extracting 34 times more material resources. It was called the "great acceleration" and we – a happy few in the rich world - enjoy the benefits of that acceleration. But I am afraid it would be simply disastrous for 9 billion people, or even 7 billion, to consume 16 tonnes of materials a year, as we do here in Europe; or to throw away 6 tonnes every year.

The "business as usual" scenario tells us that we will need three times more resources by 2050. But already 60 % of the world's major ecosystems on which these resources depend are degraded or are used unsustainably. So "Business as usual" is not an option. We need a different growth model.

The future of industry in Europe and world-wide depends on achieving sustainable resource use. As we don't have another planet, we have no other choice but to use the resources of planet Earth more efficiently. To recycle, to substitute, to reduce and to make resources go further.

We need to reduce the volume of virgin materials used by industry. But that does not mean we must just become service based economies and let industries in other regions of the world feed our needs: we need to de-materialise, not de-industrialise. We need to develop smarter products that do the same with fewer resources, or at least fewer virgin resources. And for the business community that means getting more added value – selling more associated services – on the back of less physical "stuff".

To get there we will not only need technological development and innovation; we will also need new business models that increase value added, decrease impact across the whole life cycle of products, and develop producer involvement throughout that

life-cycle. And we need to develop the financing tools and the skills to ensure that there are no bottlenecks to developing these approaches.

These ideas are not new. Michelin has been running its tyre leasing programme since the 1920s; Caterpillar founded its remanufacturing division in 1972; and Ricoh has its Green-line products which are leased, dismantled and then renewed[1]. But these are the exceptions. Out industrial model has developed on the back of progressively reducing natural resource and energy costs, and progressively increasing human resource costs. That is why our industry concentrated on increasing labour productivity.

It is the businesses that are most resource efficient and energy efficient that will get the competitive advantage in a world of increasing pressure on our natural resources and energy. So we will all have to learn from the lessons of the leaders. They have shown that it is possible and even profitable. Our task is to scale up those examples to the wider mainstream economy.

We need to achieve 'real and absolute decoupling' of economic growth from resource-use and pollution. That is the vision that the European Commission has integrated into its economic strategy – Europe 2020 – through the adoption of a Roadmap to a Resource-efficient Europe.

The plastic industry must play a full part in this process; plastic is present in all spheres of modern life. World-wide plastic production increased from 1.5 million tonnes in 1950 to 245 million tonnes per year in 2008, with around 60 million tonnes in Europe alone, and we see that this is expected to continue growing at 5 % a year[2]. Are these rates sustainable, especially when we throw away so many of these products, and often they end up as litter?

Yes, plastic has its problems. But it is also versatile, light and has a nearly unlimited attribution of specific properties through physical and chemical composition. So I believe that as we move away from a throw-away society, and towards a more circular economy, plastic has a future. It can be part of the solution, not just part of the problem. Here, I guess that I am coming quite close to some the arguments put forward by Susan Freinkel, but I will let her judge that later when we hear from her.
Using plastic bottles can give significant transport energy savings compared to glass bottles. Substitution of metal by plastic in the automotive industry can also help to reduce energy consumption. Plastic products are used as insulation material in buildings. Even in agriculture, plastic helps to increase crops yield.

To achieve the full potential of resource efficiency, we much depend on the industry's innovative power to improve production processes and products. I have never doubted the ability of European industry to innovate. But we must give the right signals, the right incentives, the right framework conditions for industry to get ahead of the curve and make the right investment decisions now, before we start hitting supply constraints and tipping points.

For me this is the new industrial policy. We must recognise that our future competitiveness will depend increasingly – perhaps overwhelmingly – on our ability to do more with less.

I will soon be launching a broad debate on plastic in the context of resource efficiency by issuing green paper on plastic waste in the environment. I want this to

trigger a reflection about what we must do to make full use of the benefits of plastic products while minimizing their potential negative impacts.

Unfortunately, even today, nearly 50 % of plastic in Europe goes to landfill; this is broadly the equivalent to 12 million tons of crude oil that we dump on landfills every year. I know that this is a situation that you in the plastics industry also deplore. The other half goes to recovery, mostly energy recovery, and to a lesser extent into recycling.

I know that we can – and we should - do better, because underneath those European figures there are 6 Member States that have virtually eliminated landfilling, recovering 90 % of plastic waste, while others still bury 80 to 90 %.

There are two major objectives we need to pursue. Obviously, landfill rates must go down as quickly as possible, but it is also important to switch from energy recovery to increased recycling. Plastic recycling rates are far too low across Europe with an average of just 24 %. Today, even in countries with high recovery rates there is simply not enough plastic available for recycling because most of it goes into energy recovery.

A dominance of energy recovery over recycling is not acceptable in the medium-term. Recyclers are mostly SMEs providing solid employment in Europe. Plastic recycling alone is expected to create around 160 00 additional jobs in the EU 27 assuming a recycling rate of 70 % by 2020. Recycling technology has moved forward quickly. But still has some way to go. Whereas – thanks to EU legislation – about 85 % of every car is now recycled, only about 25 % of every new car is built with recycled materials, and much of this difference is down to plastic. Too often plastic is down-cycled, not recycled.

Recycling truly starts when a product is made and this shows us that from a policy maker's point on view, product policy and waste policy go together. Looking at products and waste independently does not make much sense. A life cycle thinking means adopting a holistic view on all phases of a products life.

That is where we must rely on your industry's support to come up with plastic products that are repairable, updatable, dismantlable and durable. Plastic products that do not contain hazardous substances, like certain flame retardants and Bisphenol A. Products that are chemically and functionally designed from the outset to be fully recyclable from cradle to cradle.

"Throw away" consumption may be good for turnover in the short term, but I am sure that this is not the image that you want for your products and your industry. I know that you already discussed this issue in an earlier Poly-talk, so I know that you do care. But even if you did not; even if you were prepared just ignore the signals and drive down the road of ever more intensive and linear use of resources, we are not far from the moment when you would drive straight into a wall. When you would have no choice but to change.

Plastic bags and marine litter are two issues that came in the focus recently, posing major problems for you as an industry and for us as policy makers. We all agree that plastic should not be in the marine environment, and yet we find high sea waters with a concentration of microplastics 6 times higher than the concentration of plankton, ready to be ingested by sea fauna.

Pictures of turtles, sea mammals and birds tangled up in plastic or abandoned fishing gear, or dying from ingesting plastic, have shocked many and raised awareness of the problem.

On average around 80 % of marine plastic litter is land-based in origin. Much of the plastic that people throw away is not properly collected, sorted, treated, or even correctly landfilled.

Too often it ends up in the sea. Unfortunately, unregulated, fly-tipping of waste, prone to be a major source of plastic waste influx, is still a far too widespread a phenomenon in many parts of Europe, including in the Mediterranean and Baltic Sea regions.

The best waste is the waste that doesn't occur in the first place; which is why our Waste Framework Directive puts waste prevention at the top of the waste hierarchy. And the problems posed by plastic bags are very preventable problems.

In 2010 in Europe we used 85.3 billion plastic bags; that means nearly 200 bags per person in one year[3]. Several Member States have already significantly reduced the number of plastic bags through pricing measures, and these and other Member States have called on the Commission to investigate how to achieve a more rational use of plastic carrier bags on a Europe-wide level.

We are now finalising an impact assessment on different options for reducing the number of plastic carrier bags, and judging by previous examples, pricing measures combined with targets is likely to be the most attractive option.

At first glance, a quick fix solution for plastic litter may be the use of more bioplastics, including biodegradable and compostable plastic. There is certainly a rapidly-expanding market for bioplastics from a production base which is still very low[4]. Bioplastics, and in particular biodegradable plastic, certainly have their ideal applications, but at the moment it seems fairly unrealistic to assume that petro-olefin[5] based plastics could or should be replaced in the mid and long term by bioplastics.

There are indeed a number of significant problems linked to bioplastics. Let me give three examples:

- First, compostable bioplastics could contaminate the recycling cycle of conventional plastic, if not kept as a strictly separate waste stream, and this may require specific logistics such as specific separation or separate collection techniques.
- Second, biodegradable plastic requires specific technical composting conditions to decompose, means that they do not yet provide a solution to either land or marine littering.
- Last but not least, bioplastics made of starch extracted from maize, rice, sugar cane or potatoes are in competition with food production and has consequences for biodiversity.

Ladies and Gentlemen,

I believe in the future of the European plastic industry.

But time has come to be more critical about our habits of dealing with this material. We need to systematically assess the risks stemming from plastic and our way of handling it and we need to understand that it is not a cheap material, but a valuable and complex material made from finite natural resources that we need to preserve for future generations.

Not only should we make all plastic fully recyclable, we should also avoid excessive plastic production for applications that are not obviously useful. Without finger-pointing in any specific direction, we have to admit that we all have a responsibility to work closely together, producers, consumers, recyclers and waste operators, and of course policy makers. Plastic must be responsibly managed and produced, using the life-cycle assessment methodology. It must be responsibly used and recycled from cradle to cradle without escaping a closed loop of responsible treatment at its end of life phase.

In conclusion let me turn back to the global picture and the challenges we face together. Just few months ago we returned from the Rio+20 Conference. We discussed there "the future we want", the future which would be sustainable in the broadest sense of the meaning.

My good friend Achim Steiner, Executive Director of the United Nations Environment Programme, nicely summarised what was achieved there by saying([6]): "We have failed to turn things round in the past 20 years, but underneath that failure there is an extraordinary array of activity and innovation"…. "Twenty years ago, we agreed what to do, now we have the tools to do it. If we do not go into the heart of economic policy, we will meet here at Rio+40 even more culpable. Markets are social constructs. They are not a force like gravity. They can be governed."

Yes they can be governed and they must be governed. And for that we need also your help and your support. Your vision which goes beyond the short term interests and takes into account the unavoidable changes needed in our production and consumption patterns.

I'm afraid that one cannot govern the world of the 21st Century without taking into account the longer term picture and consequences. It would be simply self-destructive. We need industry and investors on board. Rather than fighting the power of capital, or trying to legislate away its environmental downsides, we need to harness market forces to turn economies onto a track that is sustainable economically, financially, socially and environmentally. We need green economics… also in the plastic industry.

Thank you for your attention.

[1] : Further details of these examples in annex.
[2] : Consultic Study 2012.
[3] : BIOIS (2011), assessment of impacts of options to reduce the use of single-use plastic carrier bags, p. 48.
[4] : 0.93 million tonnes in 2011.
[5] : Olefins are the basis for polymers and oligomers used in plastics;
[6] : reacting in The Guardian newspaper to some of the Rio+20 critics