Tell us a bit about the International Solid Waste Association (ISWA) and your work globally? ISWA is the only global network of people working in the waste industry whether they are government officials or professionals or whether they come from industry or researchers or scientists. It’s a network of about 30,000-40,000 people around the world in the waste industry all trying to make a contribution to make the planet a better place to live.

How important is legislation in facilitating changes in waste management? Where you look at really mature waste systems, these systems are being driven almost exclusively by legislation. Look at central and northern Europe, Japan, and Korea, where you see very high recycling rates, very high energy recovery rates: it’s almost always been because legislation has pushed that. Legislation is driven by the public desire for greater environmental quality and so is tied to the debate within open societies on the quality of life.

Is there any instance where legislation is a hindrance to progress? No, I think that this industry is driven by legislation. The problem is not legislation but there is another problem, if I may, and that’s financial resources. You see legislation goes hand in hand with increasingly expanding financial resources, so where you see mature waste systems they’re in very rich countries because rich countries can afford to pay for it. Therefore you see, in poorer countries, less legislation because there’s less financial capacity to be able to enforce it.

Part of ISWA’s vision is a world without waste. How realistic is that? Well my old father would say “how long is a piece of string”? It’s a very, very difficult question to answer. I think that we are going through a period the next 20-30 years where we will see a world with ever-greater quantities of waste and I don’t know when that will peak but I guess around 2050. That’s happening because developing countries are consuming, they’re urbanising and getting richer, and more waste is going into our environment. I think a world without waste is our objective and our mission but we’re a long, long way away from seeing that.

What’s the role of businesses in shaping consumer behaviour to shape change? Business plays an absolutely fundamental role, sometimes for good and sometimes not for good. We’ve seen in very mature economies with mature waste systems how industry has played a strategic role in getting those waste systems in place. But we also see industry, particularly consumer goods industries, trying not to allow forward thinking and positive environmental actions happen. So we see industries, for example in North America, fighting against Extended Producer Responsibility (EPR) schemes, which they’ve accepted in Europe and I find this ethically very, very difficult to understand.

You touched upon urbanisation and the rising middle class in Asia, to what extent are the challenges in Asia different to the challenges in other parts of the world? You have the mature economies of North America and Europe, where you have stable and rapidly aging populations, and of course in terms of our businesses, paradoxically, waste volumes are falling as people consume less as they get older. In Asia, you’re in the exact opposite paradigm: very young populations, fast growing, urbanising, consuming more, very westernised and heavily consumer orientated. Yet you don’t have the capacity at local level – especially in developing countries such as Indonesia, Malaysia, Philippines – to plan and budget for interventions to get things under control. So you have situations, like I saw in jakarta last year, where I was shocked at people burning waste all over the city, and canals and rivers full of waste and that comes down to lack of financial, technical capacity and the very, very rapid urbanisation. They haven’t had time to get to grips with it.

Singapore is often singled out when talking about Asia as a region. What can these other nations learn from Singapore’s experience? Singapore has really got fantastic examples, above all, its government. You have transparency, and honesty, and ethics in government and from there you can build a lot. And people are hardworking and conscientious. Where you have corruption and you don’t have ethics within the political class I think it’s difficult to build anything. Industry will not invest and private companies are deterred from coming to those countries. So firstly, it’s transparency of governments. Then you have a big technological industry here. Technology suppliers, engineering companies – some of the biggest in the world – so you can get together in places like CleanEnviro Summit because you have companies physically capable of doing that.

Thinking a bit further about technology, what are some examples of the most exciting advances in environmental technologies in the waste industry? Are there any disruptive technologies coming into play? The waste industry is technologically very slow. It’s the dinosaur of technology. The iPhone wasn’t around 20 years ago but the incinerator was around 100 years ago. Ok, they’ve become cleaner but the technology is essentially out that different. Computing and anaerobic digestion has been around a long time, we’re perfecting them but there is no technological change that I foresee over the coming years. What we can see however is up streaming of the waste industry, certain things that are changing, for example, compostable plastics are coming into play where we don’t need to recycle or burn them but we can compost them. And a lot of compostable packaging will come into the mainstream packaging industry over the next decade. That is a big change. Also we will see much more re-use of materials derived from recycling going back into industrial streams, it is happening widely already in northern Europe, it will become a norm worldwide over the next decades.

You mentioned that change is decades away on a big scale. Are there any other examples of shifts in the waste industry that we can expect in the next 20 years? The point about timeframes is that it does take a long time, even in the most advanced economies. Let’s take Germany for example: I think the first advances in waste in Germany were in the 1980s. Take Denmark today: the Danes were pumping waste (from sewage for example) into the North Sea until the eighties. In London, which is now an extraordinarily clean city and beginning to be a model for waste treatment, it was taking it into the North Sea until 1982. The message is, it has taken even the advanced, wealthy economies 30 years – and they still don’t have fully mature systems. The difference in Asia which wasn’t happening in Europe are three things: vast population growth, fast consumption and rapidly changing waste streams. Until the eighties, we had very mature waste systems and nineties we didn’t really have many plastics, and certainly not as much electrical waste as in Europe and North America. We’ve got all of that now and you’ve got to get to grips very quickly in Asia. It can’t go into the ocean like it did back then.

How does collaboration, through events like this, help ISWA and the waste industry progress? The value of an organisation like ISWA is we have members around the world and we can exchange information very quickly. We can learn from other people’s mistakes, their successes and there’s a network of information available. We do a lot of teaching and organise many events from places as far and wide as Angola to Singapore. ISWA is a member of ISWA and does a lot of good work. It’s this international collaboration that our organisation is excellent at doing.