I want to start with a cautionary tale. Many years ago in 1975 I took part in a yacht race from Portsmouth in England to Horta on the island of Fayal in the Azores. One of my crew was very keen on being environmentally responsible with waste so we dutifully collected all plastic and packaging material during the voyage. As I recall we felt that cans and bottles could be safely consigned to the deep. When we arrived we duly deposited our waste in the appropriate bin ashore. Later the same crew member told me he had seen the rubbish being transferred to a barge which was towed out to sea to be dumped. Experiences like that can rather dampen any enthusiasm for sorting and recycling.

In the course of making some research for this speech I have encountered what seems to be a cultural difference between the UK and the continent. Not for the first time you may well say! This conference is all about waste to energy or WtE which is how the rest of Europe describes this process that you have heard about from Jan Manders in his excellent presentation. Well, in the UK, as I have learned from a very good paper by the Institution of Mechanical Engineers on this subject, the process is described as Energy from Waste or EfW. This might explain my great anxiety

about getting it right and very occasionally talking about waste from energy, or could it be energy to waste, by mistake.

There is a serious point to make out of this potential confusion. Each description has something to recommend itself. Waste to Energy is a logical progression whereas Energy from Waste puts the positive aspect, the energy, up front. In either case we are engaged upon describing and explaining a process to put it in a positive light because it is possible, all too possible, for people to focus on the negative aspects of waste and how dirty it is to handle. In addition, in the UK there is a perception that extracting energy from waste means black clouds of smoke and particulates or smuts as we used to call them. This notion is misguided and out-of-date and does not appear to be the case elsewhere in Europe.

But it explains why the Institution of Mechanical Engineers, the IME, was at pains to describe waste as a valuable resource which would help the UK meet national and regional environmental targets and commitments. It explains why the IME emphasises that an Energy from Waste plant is not the same thing as an incinerator and that indeed it is misleading to so describe it,

whereas it should more correctly be described as a combustion system. Unfortunately, and I put my hand up here, it is fixed in most peoples minds as incineration. To be fair there is room for confusion at European level where we have the Waste Incineration Directive and the Large Combustion Plant Directive.

Waste to Energy is not rocket science nor is it particularly new as a concept. In a sense the open fire we enjoy in our home in Devon in the South West of England is a form of WtE because we use waste wood from our garden. Unfortunately it is not a proper WtE facility so we have to gather the non-recyclable waste that we can't put on the fire and put it out for collection by the local authority.

When I was first elected back in 1994 I was approached early on by the lead co-ordinator for a project in the remote north west of Devon in my then Euro-Constituency, to ask me to help advance the scheme. Part of this involved trying to smooth the path for funding from the EU because this was a pilot scheme for bio-waste treatment and energy recovery. This was an anaerobic digester of cattle slurry and food wastes. At that time the primary objective appeared to be to find a way to deal with cattle waste which conformed to the Nitrate Directive i.e. to prevent untreated waste

being spread on fields and polluting the water table! Once anaerobically treated the solid residue could be used as fertiliser while the gas produced could be used for generating electricity or, in their most optimistic scenario, run a district heating scheme in nearby Holsworthy.

The concept appealed to me as well worth supporting as indeed does WtE in general, because of the double output or win win outcome of both dealing with waste effectively and recovering energy. However in practice they had all sorts of difficulties with cost over-runs and officialdom so the plant has had a chequered history. Nevertheless it served to open my eyes to the potential of this technology.

My education in this field was significantly advanced when I participated in a committee delegation visit to Austria and we visited that extraordinary WtE plant at Spitellau in the middle of Vienna. Here was the real deal. Seemingly no problems with NIMBYISM thanks to cunning exterior design in art deco style and a proud record of negligible emissions thereby not trying to hide the plant and not emitting those dark clouds. Municipal solid wastes are trucked in, dumped in hoppers and fed into the furnace

in a continuous combustion process which yields electricity for the grid in the summer and heat for district heating in winter. A veritable double or even triple whammy of wastes dealt with plus two forms of energy produced. Ever since being there back in my second term I have sung its praises as a positive example of what can be done and I have urged my countrymen with a responsibility or special interest in waste management to go see for themselves why we really don't need landfill and what the alternative solution can look like.

During that Parliamentary term I recall debates with my Green colleagues and others who are signed up to what I call the modern religion of renewable energies as the answer to all our energy needs. The point at issue was the definition of renewable and whether it could be applied to wastes. The purists said no but my view was that we keep on producing waste and that was reason enough to call it a renewable source so that we could encourage WtE plants.

I think that, in addition to their instinctive opposition to anything a Conservative centre right politician like myself might suggest there may have been a misapprehension about my attitude toward

recycling. As it happens I respect the hierarchy of waste management and was only talking of the unrecyclable residue left after all possible recycling but perhaps did not make this clear. At any rate I failed then and it is only recently that the position has changed and a more sensible recognition of the merits of WtE has emerged at EU level.

This leads me to reflect upon the challenges facing the WtE industry, the challenges you have gathered here to debate and hopefully meet. There will always be technical issues and improvements to make so I take that as given that you will make progress n this respect. To me the big challenge is the one I see in my own country, namely the social, psychological and economic objections and the lack of knowledge behind them that need to be addressed so as to turn opinion round. I daresay you may think I am being a typical politician in saying the industry must work hard to promote itself but you are the ones who know the subject best so if not you who else? We politicians do have a responsibility and a role to play in this matter and I am happy to shoulder my share of the task but there is nothing better than an expert from the industry who can explain technical matters in terms the man in the street can understand. I can tell you that it must seem a relatively

straightforward job compared to another cause I have long championed, namely nuclear energy.

So let me reflect on a few arguments to be deployed in support of WtE.

First and foremost we have to deal with waste. However successful we may be in recycling, composting and the like there will always be an irreducible amount of waste which must be disposed of and which may no longer be dumped in a landfill site. In the UK this has presented us with a major challenge because we have relied in landfill far too much up to now and have not been that successful at re-cycling until recently.

The four main processes which are used in WtE plants are the solution to this problem. Whether it be combustion, gasification, pyrolysis or anaerobic digestion the effect is the same in converting waste into energy. And that is the second big benefit of WtE. Even if it seems rather obvious, it has to be said time and again that to virtually eliminate wastes and to produce energy in its place is a win win situation.

We can point to a third aspect which has come to the fore in the age of global warming, climate change and CO2 emissions. We can argue that a combination of regulation and technology is having a major impact on emission levels in incineration plants and WtE combustion plants such as I saw in the middle of Vienna or, more recently, at Linkoping in Sweden. I do not believe that the majority of people have fully grasped and accepted the facts about ultra low emissions from these plants, and that is crucial towards their acceptance of these modern technologies as environmentally sustainable.

Perhaps a part of the answer to this information gap lies in the evidence we have to hand about the effects of emissions, such as they are, from these plants. Let me share a couple of quotes with you. "The evolution conducted shows that currently operating Waste-To-Energy Plants, which conform to the technical standards, cause very marginal health risk which can therefore be classified as negligible health risk for the population living in the vicinity of Waste to Energy Plants": That quote is rather old dating from 1993 and came from the Scientific Advisory Council of the Federal Medical Association in Germany but in addition to emphasising that my respect for German scientific rigour is even

greater than my respect for German football I would make the point that standards of operation and safety have risen significantly since then.

Close to home for me is the UK Health Protection Agency which said last autumn that "the contribution made by waste incineration to national emissions of particles is low. Data provided by DEFRA show that 2006 national emissions of PM10 from waste incineration are 0.03% of the total compared with 27% and 25% for traffic and industry respectively". And finally I offer a quote from the UK Committee on Carcinogenicity that said "any potential risk of cancer due to residency near to municipal solid waste incinerators was exceedingly low and probably not measureable by the most modern epidemiological techniques":

Now, I recognise there is a risk of stirring up concerns rather than allaying them with this sort of quote. The risk of a no smoke without fire type of reaction which might draw the conclusion that there must be risks otherwise why go to such lengths to assert there are not. Yet we know that people do have fears about emissions from plants because they are regularly cited in aid of objections to proposals for building new plants so I think they must

be met head on. It serves to show how important it is to remind people of the very high standards imposed by regulations and achievable through modern technology. Even better to let them see modern WtE plants in operation because seeing is believing.

At this point I would like to pay credit to Ella Stengler and the team at CEWEP for the work they do to promote this industry. They have put in a series of dinner debates over the years under the auspices of the European Energy Forum which have effectively presented the case for WtE. Ella gave me a little wish list of things we should look for at both EU and national policy levels, in order to advance the cause of WtE. So, being a good boy I will share some of them with you. The first is to promote the classification of WtE as renewable energy by all Member States. Next, encourage Member States to set up support schemes for WtE or at the very least incorporate it into existing renewables support schemes. Third, set up a structure for the successful examples in countries like Sweden, Denmark, Germany and the Netherlands. And, finally, encourage member states to incorporate WtE in their National Waste Management Plans as a priority.

I see one potential cloud on the horizon. A colleague in local government in England put the suggestion to me that if all the strategies to encourage re-cycling prove successful we may find ourselves with an over capacity of plant and shortage of waste. My immediate response to that was to suggest that we could turn our attention to all the huge existing landfill sites and start tackling the old mountains of waste using said spare capacity. Indeed the IME paper suggested building new WtE plants close by the landfill sites. However my more reasoned, on second thoughts response, was that I will believe that level of successful re-cycling when I see it and I remain strongly of the view that there will be enough waste, that it is a constantly renewed resource and we will have to go on dealing with it without the landfill option that used to be available.

I seem to have placed a little too much emphasis on negative or defensive aspects. I have mentioned them because one must be aware of them and ready to deal with them if raised by anyone. Personally I remain strongly of the view that WtE is a very important and practical part of the solution to the two challenges of dealing with residue non-recyclable waste and generating renewable energy to contribute to security of supply and climate

change policy. I wish any doubters could see the latest technology in operation and be re-assured particularly my own countrymen.

Finally I would like to close with a rather blunt saying from the North of England which says "where there's muck there's brass" which being translated into modern English says you can make money out of waste even dirty waste. That seems good news to me and a good point to close on.