I'm very honored to be here at the European Institute to give some perspectives on how we can harness the knowledge in green economy for sustainable growth, from an Irish perspective. I wanted to start, if I maybe have 15, 20 minutes or so, and then turn to questions. I want to just start and set some background context in regards to the banking and budgetary issues in our own country and then give a sense of how I see the recovery coming out of those challenges, coming from a sustainable economic approach.

I wanted to start with the banking issue, because our country, as much as any other, has seen a very significant banking crisis. There are no other words for this. I'll just set some broad background as to where I see us now and where we are in the budgetary issue, before going into the more detailed content I wanted to talk about in my areas of responsibility, particularly in energy and ICT.

We had a good old-fashioned, pure vanilla, whatever you want to call it, property bubble. Our banking crisis wasn't subprime, it wasn't leveraged out of the hill; it was just a straight-down-the-line property bubble. We have very high interest and a very high level of home ownership. That combined with very strong growth in the years 1999 to 2000 onwards, which was a result of good strategic decisions that had been made in the preceding two or three decades, in opening up Ireland to international trade, in investing in education, in joining the European Union. We saw very significant growth in the year 2000 onwards, saw access to very large volumes of short funds as a member of the Euro, and the interbank funds just became bubbled as well. It was unfortunate that access to cash at the time of real growth was married to home ownership interest in our country, because we saw unsustainable forms of lending develop. Two banks, in particular, developed a very unsustainable form of banking to property developers to buy land to feed that growing property bubble.

And that birthed, just at the last minute. In the last two or three years before Lehman Brothers went, some of our other clearing banks came in, and as I'm often told by people who know about these things, it's often people who come in later and kind of hold back, hold back, hold back and then at the last minute say, oh no, that'll tarnish our banking model and maybe it doesn’t work and then come in. And as a result, our banking system was cut out when Lehman Brothers went down, when the interbank markets' access to short money was no longer readily available and
when the realization was there that the property values that it was built on were out of line and weren't sustainable.

I joined the government about three-and-a-half years ago, and I suppose two years ago, since then, we've been full out in the Irish government, managing that crisis. I was encouraged, I read Andrew Ross Sorkin's book, *Too Big to Fail*, recently, and it was a great relief to see well, firstly, we weren't the only ones doing it, that's happened throughout history. Property bubbles, asset bubbles are a fact of life, and also, that there's a standard operation procedure which we have actually followed; you have to guarantee deposits in your banks just to stabilize the situation, you have to manage the assets that are in a difficult situation and then you have to capitalize your banks. So that's what we've been doing.

It's been a difficult process. The approach we made would guarantee, initially, an asset management vehicle, which has been complex and has taken some time to work through. There were a number of other options one could have followed, like the UK government, where you have an insurance-type premium to try and cover the banks, but indeed, the Americans seemed to be reading that book of Andrew Sorkin. There was a lot of merger activity to help manage some of the banks that weren't sustainable, whose difficulties were in the lending books.

But neither of those two options would've been appropriate for us, primarily because I think we needed in our relatively small banking markets to get real clarity, very quickly, as to what the extent of the problem was. And our asset management agency, while it's taken a certain amount of time to do it, has been quite ruthless in going in and actually getting a real honest assessment of what the values are of those lending assets. And in many instances, certain classes of assets were discounting down, by the order of a 50, 60 percent mechanism; that was the nature of the overvaluation of the property market where we had a particular problem. That's been difficult, because it has taken a certain amount of time, but I think it was the right approach in terms of getting real clarity as to what the scale of the problem was and where it existed.

The third issue, in guaranteeing asset management and capital resolution, in terms of having done that with the National Asset Management Agency, we are now coming to the endgame in terms of the capitalization of our banks. The two primary banks that caused us this difficulty, in terms of their lending model, are being wound down, and the remaining clearing banks, through various methods, have had to be capitalized. Two of the three main ones are now fully capitalized, operating in the market, and the third, or largest bank, will be resolved in a similar fashion within a number of weeks. I think it's important that we do that quickly, because a certain amount of uncertainty, in this process, has raised questions in the international bond and international markets.

But from the inside, and having talked to the various people who are responsible for it, I am very confident that clarity will be delivered within a very short period and will show that while this is a horrible legacy and we wouldn't want to have to deal with this, it is, in the words of our central bank head who's a very good expert in this whole issue, manageable. It is an issue that we are going to have to learn from, but we can manage it, even though the losses have been very significant.
The second point and I'm sorry if I'm going into some detail on this, but I'm sure people are interested in the broad background to it, in terms of the very real consequences that the banking crisis had on our budget situation. As well as a problem with the property values rising, we also had a construction industry that grew in the background; up to about 22 to 23 percent of our economy was based on a very fast-growing construction industry, which was building new properties and new commercial and other developments. And so what happened when that funding no longer existed for the construction industry and there was a vague and swift fall in the purchasing of property, is our construction industry fell too and there was a very severe correction in the economy, as a result, at a time when the international global economy was also contracting.

So it was very severe in Ireland in comparison to other countries, particularly because our construction industry went through such a significant fall and led to a very significant fall in GDP in 2008 and 2009, as a consequence. There has also been a rise in unemployment; the forecast is up to about 13.3 percent at the end of this year, which is about 286,000 people, some 140,000 of whom come from the construction sector. We have had a real problem in the construction industry, in relation to an asset property bubble, which has caused our difficulties, and that, in turn, led to a significant fall in tax revenue, which had been over-reliant on capital taxes in some of those property transactions, leading to a rise in GDP borrowing and our debt as a percentage of GDP. So that's the problem, and the difficulty we face is a very real and significant challenge.

A number of points to show here, I believe again that we can manage this. It's difficult, but it's absolutely manageable, and I think there will be greater confidence in that in the coming months as we continue to manage it the way we have over the last two years.

We start with the certain benefits; in terms of the growth years, we put money aside. We had about 20 billion in a national pension reserve fund, so that was a useful backstop fund that we had, and we had also brought down our debt. Our debt was historically very, very low. It was 25 percent of GDP as we went into this crisis. So we were starting from a very, very low base of government borrowing.

We have also taken strong action. They are not easy, but we have taken the right action from July 2008 onwards, which has included a 12 billion euro adjustment in government spending, including both tax raising and spending cuts, and a 14-percent reduction in public sector pay levels. And, we have agreed with the European Commission and the central bank on a path to continue that over the next four years, which will be difficult but which is again manageable. It is not easy, but the fact that there is political agreement on that pathway, that regardless of the configuration of the Irish government, all main political parties have said yes, it is going to have to be three billion this year and next, one-half the year after, and one after that, means that regardless of the configuration of the government, there's political commitment and a deep commitment in the wider society. We've had a partnership model with unions and business leaders, which has existed for some 20 years, which has agreed on a similar pathway. The budgetary rhythm is difficult, but given the political commitments that have been made and the social civil society commitments that are also there, I believe it can be achieved. Those are the challenges.
The solution, as I see it, is to trade our way out of our difficulties, and that is why I wanted to come and speak and give some details to it. A couple of things just to set in context, this is a country of roughly just over four million people, about 1.8 million people in the workforce and a GDP of about 160 million. These figures are not to the exact cent but this just gives a sense of scale.

One of the things that gives me a certain confidence is that our competitiveness has come back. In those boom years in that fast-growing economy, our wages went up and our property prices were not too high. The reversal of that is actually helping to bring back competitiveness. I think that in the EU from 2008 to 2011, our average wages across the whole economy will drop something like nine percent. The harmonized index of competitiveness we saw in the last year improved by about six percent, compared to our neighboring countries or other countries. So in a very severe and difficult downturn, the one thing that has happened is that our competitiveness has improved quite significantly, which we needed it to do.

But I will just set out what the trading side is, and again, from my perspective, a government minister, when you look at the economy, the real economy that exists in Ireland, our position will help us recover quite quickly. Even in the heart of the downturn in the global crisis in 2009 when we saw the country trade drop by about 13.5 percent, our actual exports dropped merely about 1.8 percent. We have a strong trading sector that actually survived the deficit of the economic crisis and is now growing again quite significantly.

And if you look, I want to just divide up where the economy is, where the trade economy is and say what I think actually going green is presenting. The reality of Ireland being a country, which has lower emissions in its economic development, is actually more sustainable in the nature of the economic trading opportunities that we have. I want to set out how I see its trading attitude. There are about six areas where we trade, six things we sell if I broaden it. It's much wider, but I will bring them down to simplify it.

First of all is food. T.K. Whitaker, who did our first economic development plan all of 50 years ago, saw that we had a comparative advantage in grass-growing in mild climate, and we should turn that into food, and we've done that for over 50 years; it's about an eight-billion export industry; about 110,000 people are employed directly in it. It's less intense. Our cattle and sheep, if you've ever been out there, you will see them in the fields, they're not in lots. Our food structure is looking towards turning that lower intensity, as we see higher quality food output, into a competitive marketing opportunity to continue to expand that industry.

In tourism, it's about a five-billion euro trading industry. I worked in it, I used to run a cycling holiday business and bring people around. And again, it's a fairly low-density country, small population. I met the Japanese ambassador recently, he cites the simple case that Japan, a population of 130 million, Ireland with population of four million, their size is about five times ours but four-fifths of it is mountain. And so, we have a relatively small population density and people are, as a result, slightly curious about visitors in a friendly way. And also, it is an attractive-looking country. Having worked in the industry, I have seen this. I spent 15 years doing this, bringing people around. I know that it is ultimately something that people still actually enjoy and will visit, and so that industry will grow.
In energy, now, I'm breaking these down into the three land-based assets we have and the three people-based trading opportunities. In energy, we're in a different position. We need to actually cut out the imports in this instance. We have a six-billion euro fossil fuel import bill. We were one of the most fossil fuel-dependent countries in the world. It's from a green perspective, but it's true. And we have a huge opportunity to cut that bill by switching to our own natural resources. In the same way that Whitaker looked 50 years ago and said how would you turn that comparative advantage in grass-growing into an export industry, if you think about energy long-term, which is what you have to do, think two or three decades out, and think that this is a country with the strongest wind potential in the world, with an ocean which is 10 times the land mass and has the best wave energy resource in the world, and with one of the most benign growing climates in the world where we can double our forestry output. We have huge opportunities to switch away from oil, as all our countries need to do, and switch instead to our own indigenous resources and actually now to start exporting.

I was saying to Joëlle early on, one of my most enjoyable things the last three years as a member of the European Council of Ministers is looking to see what we've achieved in terms of our climate change package 20-20-20; 20 percent reduction in emissions, 20 percent renewables, 20 percent energy efficiency gains. What we're working out now, having achieved that very difficult legislative hurdle is actually thinking big. We're looking at Northwest Europe and saying how can we tap into our ocean energy resources in a way that makes us less dependent - and Europe as a whole, in Northwestern Europe - on imported fossil fuels? And we're looking in real detail now at developing offshore energy grids that we will be able to connect up with the European market in a much more integrated way and to power our system with green electricity. That's happening, it's real. It is at the top of the Council of Ministers' agenda. We have a special one-day heads of government meeting in February where it will be the first item on the agenda. And, we as a country out in the northwest, on the edge of Europe, I think the cutting edge of Europe, have the potential to tap into that power and over a two or three or four decade system sell it to the rest of Europe, as well as powering our own industry, other industries, digital, food and other industries, with cheap, clean, green secure power. So one of my tasks as a minister is to try and make that happen, to set up the regulatory system to make it happen.

We have benefited from being in the European Union in that it has set up a regulatory market system in energy which I believe works. It encourages competitive markets. It has allowed us to do a very difficult thing. We've combined the energy market in the north of Ireland with the south of Ireland. This is a historic achievement not just in the political sense, but in the ability to connect two energy markets. I see the Canadian ambassador here. I don't know how connected the northern markets are, north and south of the Canadian-U.S. border, but I'm sure you'll admit it's not an easy thing to do and we've done it.

I'm over here at this conference at the grid alliance meeting tomorrow, because of our experience in doing that, our experience in how we have to manage our renewable resources is actually increasingly valuable. Right now, we started from a very low base but, we're up to about 15 percent of our electricity coming from renewables, mainly wind. We're going to go to 40 percent within 10 years, probably the leading wind integration company in the world, and that's going to
require us to really manage our grid and manage our use in a very sophisticated way that gives us huge opportunities.

We are going to put green electricity into our transport system. We'll be one of the first countries next January to roll out a national power plug-in network for electric vehicles. We're probably one of the leading countries in Europe, if not the world, in retrofitting our buildings to try and make them more energy efficient, so we are actually doing it. And it creates huge economic opportunities that have high employment. I was talking earlier on about the title for economic strategies towards a smart economy and people rightly saying, what if I’m not smart, where's the job for me? Well, there are jobs in that, about 5,000 contractors are working at the moment in retrofitting buildings, which is about a 100 million euro program that we've introduced over the last three years in a way that's starting to work.

So energy, while it's not an export opportunity -- well, it is. First, energy is an import substitution opportunity for our country, but in the long run, thinking big, I see it as an export opportunity for our country in the same way that food has been over the past 40 or 50 years.

The three of those are land resources, and there are three people-based resources. In high-tech manufacturing, again, in the midst of the worst economic crisis, it held up. Our foreign direct investment in 2009 was 11 percent higher than it had been in 2008, the teeth of a very severe economic crisis. Very significant still, there are around 471 companies employing about 90,000 people. And it worked for those companies; return on investment is over 20 percent on average. So it's a successful strategy that we have followed for 40 or 50 years and one that we're still good at, particularly in medical devices, in chemicals, and in biopharmaceuticals. Those three areas make loans, accounting for about 43 billion euros in exports.

And in relation to all of this, all of these exports, just to mention it out because it's important in relation to the earlier budget challenges that I mentioned, is that we are now moving back into balance of trade surplus. Next year, net of all and any interest payments or any other bank payments and so on, we are actually in a surplus as a country, because we have that strength in the export and trading sector, which will help us get through what is a difficult period.

In financial services, we again have an opportunity. We're close to London, same time zone, same language, same resources and skills in many instances, but just cheaper. And we've developed a 25,000-employee Irish financial services center down at the central Dublin docks. We're looking to extend it now, particularly a new initiative called the green IFSC, which is looking to tap into that growth in the management of green funds, project financing, trading around carbon, the whole myriad of different financial instruments that are actually evolving as we develop carbon markets, as we develop the alternative renewable solutions that the world needs.

We believe that there's real opportunity to leverage what already exists there in Dublin in that area of expertise into a green international financial services center as one of our main economic opportunities in this difficult time. And again, the IFSC just gives you a sense of scale in these different areas. It's something like a 15-billion euro industry for the country.
Lastly and not least, in the area of services, traded services, we have traded about 44 billion in computer and business services since 2008 so it's a real scale. It's about two and a half percent of trade and services in the world in total carried out from Ireland, and it's the area where there's actually probably the biggest potential for growth, and an area, as well, where the growth is going to be green. Those ones I've just mentioned, all those areas of opportunity are fairly low carbon. We have in our trading economy managed to de-carbon or decouple the carbon content from the economic development side. Medical devices are low carbon; same with farming, same with financial services, same with the services sector that we're developing in ICT. And we've done it. We've kept each stage.

First, we got the companies in packing and assembly and manufacturing base. We got the high-tech manufacturing and manufacturing of chips or high tech devices. And now, we're attracting the social networking and internet companies like Google or FaceBook, all coming because they see a country that is flexible in its labor skills and as a small country, one where government works. It tries to pull people together fairly quickly and is international in its outlook.

One of the things that went well -- I mean a lot of things went wrong in the boom years, property pricing is one. But one of the things that went well is that we actually brought people into our country in a way that worked. Immigration work is at its highest, about 16 percent of the workforce. Now, we're still at about 13.5 percent and that's important. Google made a big investment there recently in Dublin. Head of Google Europe said that he thought Dublin is the multilingual internet capital of Europe. I said yes, because it is a place that's a good place to come to. It is actually welcoming to someone from a different country. Even in the deepest, darkest downturn that we've gone through, we haven’t shut our doors. We've realized that staying open to the world is actually a more positive and a more attractive way to develop the country.

I think there's a particular opportunity in the marrying of ICT and energy efficiency. I suppose the development of the internet, in terms of not just being a communications tool but to being a business management tool towards being a tool for energy efficiency, water management, is actually called the next big step in its progress, and we want to be close to the center of that. I'll be honest and say that the European Union regulatory system didn't quite serve us as well at the start of this process in that our telecommunications companies when they were liberalized in the early parts of 2000 didn’t make the investments they needed to make in the broadband networks, the infrastructure that powers this economy. We had a private equity model that was more interested in taking money out rather than putting money in.

But actually, even there, the European system of having a regulated competitive market is, in my mind, starting to work. We have real competition between the cable company, fixed line company and a myriad of other fixed, wireless, satellite, WiMax and wireless solutions that are actually starting to drive speeds up, improve customer service and starting to deliver the sort of access and core network we need to power this new green ICT economy.

Again, in 2009, at the worst downturn we’ve ever had in our country, employment in that area went up six percent, 75,000 people. In this scenario, we have skills; we're good at talking as you know hearing me, we're good at content, digital content, and we have good legal and other systems that actually can distribute that content. And that's our economic opportunity as a
country, it is in traded services and it's the one where there's real scale where we can increase employment activity very significantly.

I'm conscious of the time, and I'm conscious that people have busy days, although I could go into any one of those subjects and drill right down to it and why I think there's an opportunity in our country. I suppose I've been admittedly positive here in what I've said, but I think it's not a bad thing in these difficult times. I want to just broaden it out for a second if I can on a European context, again, just to give some of my experiences in that regard.

Firstly, not broad, to come back to that budgetary and banking issue, while there's been a lot of uncertainty, it's been slow, it's been difficult, the European system has worked. Their politicians may have taken a bit of time, but they have with the European Central Bank and with the European Commission set up an infrastructure that helped manage us through the financial crisis in a way that's suited the European Union. Even in countries, like our own, where it was very difficult, where it was a real challenge, it has worked. And I think that’s a sign of strength in the European Union that those of us involved in it see us there but maybe those outside don't quite see.

I think we're going to have to evolve the European Union model into two areas where I have real interests, in energy and ICT, towards a much more integrated market to recognize the financial integration that is there with the euro and with the common European Central Bank. So in energy, as I said, we're going in that direction. For a long, long time, there was protection of EU energy markets. It was every man and woman for themselves in their country. But actually, I think there has been realization that this doesn't work. If you don't have a fungible market in gas, you'd be picked off one at a time. So we are moving.

We're breaking down national barriers in the grids for both gas and electricity, which I believe is fundamentally important, and we now look to invest in the European Union in grid infrastructure that will join the Union together because it is the great next step. I mean a union which was founded on a coal and steel agreement, on an energy agreement needs to go to a common energy market. And I support that. I've seen from my perspective that it works.

Similarly, in ICT, you have a new commissioner, Kroes, who is going to drive an agenda towards a single European digital market and indeed work with our American and other colleagues, because I don't believe, again, the internet opportunities in cloud computing and traded content services and so on will evolve if it is every single European market or country with its own particular rules, particular property rights arrangements. And I believe that in that area as well, the European Union has now integrated towards a single digital market which is open to the rest of the world.

Thirdly, not quite lastly, I come back to what I said about being a member of the Council of Ministers and being proud of the political achievements in getting that climate change agreement. It was a superb bit of politics, superb architecture that was set up like a tent where even though some of the pegs were taken out of the tent at the side as we went through the negotiating process, the polls and the main architecture remained. It was a huge political achievement not only for Commissioner Dimas and Piebalgs, who I worked with, but also for the
heads of the European government. I recently read the book, The Climate Wars, which was following some of the legislative battles here to try and get a similar climate package through that failed - and I kind of said to myself, come on, we did it; you can do it, because we do need a global trade.

I'll finish with some thoughts from a green perspective. One of the people I met who really impressed me in the last three years was John Ashton. He was the UK climate change advisor to Dave Miliband. On just a simple thought, we were talking about how the scale of the problem is so great, the sense of urgency is so strong that time is of the essence. The technology transfer we need to cut out the carbon and, indeed, to prepare ourselves for oil being less available is so significant, as the International Energy Agency says the existing system is patently unsustainable, that governments need to act now.

Given that urgency, we need technology transfer between America, Europe and Asia. We're going to need a global trade arrangement around this to make it work in all different areas: in ICT technology, which can leverage efficiencies in end-use energy, in renewable technology, and in grid technology. It's going to be traded if we're going to make it happen. And that's why I'm very glad to be in Washington. As a member of the European Union Council of Ministers as well as an Irish minister, I'm saying let's work together on this and make it happen. Thank you.