Mandeville Lecture by Allard Castelein

Wednesday, 27 May 2015

Introduction

I feel very honoured to be given the opportunity to share some ideas and thoughts with you this evening, particularly since I was only appointed as CEO of the Port of Rotterdam Authority a mere 16 months ago.

As many of you know my roots lie in Rotterdam, but I suspect I don’t owe this invitation to the fact that I spent the first three decades of my life in this city. Rather, I see it as a confirmation of the importance of the relationship we are building with the University. Which is a wonderful and necessary development. Closer collaboration is vital and success in this area will set us apart from other universities and ports around the world.

In 1913 the Nederlandse Handels-Hoogeschool was founded by representatives of Rotterdam’s business community who believed in the importance of higher education in economics and business for society. These thoughts still hold today. I do believe academia should support society at large in addressing the complex issues that we are currently up against. I do believe our society will need to welcome the change of an era. And several of the transitions that are needed, that are imminent, that have or should have been started will require a close interaction between the private and public sector, or if you like between science, businesses and if I may add the various stakeholder groups. It’s fascinating to be a part of this transition, and throughout this speech I will try to touch upon some of them to highlight the point I am trying to make. I am slightly envious of the students who have joined us here this evening. Because you will have front-row seats during this watershed period. Indeed, you will be helping to shape it.

The Port in 2015

The port of Rotterdam provides employment for some 180,000 people, and is responsible for between 3.5% and 6% of the Netherlands’ GDP, depending on which definitions you care to use.

I am inclined to think that without its port, Rotterdam would be a big Dordrecht or Gouda: a regional, provincial town, likely with a low profile. Without its port, Rotterdam wouldn’t have Museum Boijmans Van Beuningen; there would be no Rotterdam Philharmonic; the city wouldn’t have three professional football clubs, and it wouldn’t have a university. The port also has a strong impact on the city’s distinctive culture. It’s a culture of pragmatism, can do, and straight talk. The city is a mix of people from different cultural backgrounds, and the associated dynamic environment. Rotterdam’s outlook is the future, and based on the world’s stage, certainly not local or regional.

Even though the port plays a decisive role in the development of Rotterdam’s physical landscape and local culture, this is not immediately apparent for everyone. You could argue that for most, with the exception of a the occasional arrival of a cruise liner, like today, the port related activities have moved out of sight, away from the city. As a result, the casual visitor has no idea of just how unique this area actually is. This relatively small area is home to Europe’s largest port, Europe’s largest industrial cluster and an impressively dynamic urban environment, with some world class institutions and people. Quite special, I’d say.
This port area stretches out for some 50 kilometres. Rotterdam is the entry point for a market of some 350 million people. The port is dominated by two key sectors: logistics and industry. And both sectors are on the eve of major changes. Allow me to go into these developments in more detail.

**Developments in logistics**

The transport sector has grown hugely, on the back of an ever more globalising world, and the end of this growth is by no means in sight. Around the world, container transport is growing three times faster than GDP. The logistics sector has to deal with many links. Clothing that needs to get from a manufacturing facility in Indonesia to a shop in Prague can be shipped via a variety of routes and modes of transport. And the answer to the question which of these alternatives is the best is constantly changing – even while the shipment is on its way.

According to research published by the World Economic Forum, Rotterdam has the best port infrastructure in the world. But of course, this is not a guarantee that this infrastructure is used efficiently. The key challenge in this era is to ensure that in terms of efficiency and sustainability, logistics via Rotterdam outperform alternative players and journeys.

Optimisation, thru better use of data and information, can be a tremendously challenging process. Not only from a, say more IT-technical perspective, but more importantly a far greater challenge is presented by the disruptive nature of this innovation process. At this point in time many companies view data as proprietary and sensitive information that they do not intend to share with competitors. They are therefore reluctant to seize the moment and to embrace new business models, based on leveraging data and optimisation.

The complexity is daunting and the opportunity exciting. Progress will need involvement of many disciplines. Not only do we need new business models and new partnerships, we will also need complex IT systems that will facilitate decisions with regard to itineraries, modes of transport, environmental footprint and pricing. The complexity of this challenge should mean that this also gets the appropriate attention from academia.

The Port Authority believes that it has a key role to play in strengthening Rotterdam’s innovation ecosystem. Innovation is of vital importance. Innovations hardly ever appear like a bolt out of the blue and not likely on the back of a brainstorm session on a late Friday afternoon.

I believe you need to cultivate a culture of innovation. In this context we should ask our students and professors to help address aforementioned challenge, thru research, post docs, thesis work etc. On this we already collaborate with local businesses, the Municipality, Erasmus University, Delft University of Technology and others. One example is SmartPort, in which we work together to develop and strengthen Rotterdam’s port innovation ecosystem. And another example is our partnership with YesDelft!, in which we support start-up companies associated with Delft University of Technology. I would imagine that for start-ups by university alumni with a Business Administration background, logistics is a highly exciting business to focus on. I believe that we will welcome similar developments in the logistics sector as in various other markets, where companies like Booking.com, Airbnb and Uber have made quite an impact by creating transparency.

I do not agree with Bernard Mandeville’s view that the pursuit of personal gain is always good for society, – that there is a ‘need for greed to drive prosperity. But I can see a link here. In the logistics sector efficient logistics equal sustainable logistics. Increasing efficiency in transport reduces the burden on the environment, and consequently contributes to the public good.
After having addressed some of the challenges in logistics, let me switch to **the industrial sector**

Around 60% of the volume throughput in Rotterdam is related to hydrocarbons: crude oil, petroleum products or coal. A significant volume is processed in refineries, chemical plants and power plants. Rotterdam’s petrochemical cluster is by far the largest of its kind in Europe. But this cluster is faced with considerable challenges. Whereas the competition in logistics is other ports in NW Europe, refineries are part of a global market environment. If refineries in for instance the Middle East or the US are able to produce at a lower cost - because they are close to the source – and start exporting to Europe, our facilities in Rotterdam will feel the impact.

Longer term, of course, the situation is even more complex due to challenges related to the energy transition. Oil, coal and gas will continue to play an important role in our society, but the International Energy Agency also expects that in 25 years’ time, 25% of our energy will be coming from renewable sources – and this is nothing less than revolutionary. In this context, the Port Authority aims to continue to facilitate, or better still embrace the existing petrochemical cluster in order to make sure that Rotterdam is the last place in Europe where refineries will close. While at the same time, we are wholeheartedly committed to welcome renewable energy, bioenergy and biobased chemistry and the circular economy. By being a pioneer in these fields, Rotterdam can continue to maintain its leading position in the fields of energy and petro chemical manufacturing.

While this transition will take a number of decades, it does involve enormous challenges. We are already Europe’s No1 production location of biofuels. Some 5% of the fuel sold at the filling station is a compulsory, biobased component. This compulsory percentage is expected to grow, however this development will require targeted government regulation, since at this point, biofuels are still more expensive than fuel from fossil sources.

Some similar principles apply in the biobased chemical sector. Fossil is cheaper than biobased, and if government does not set any requirements in this area, the biobased chemical sector will have difficulty getting off the ground. Likewise, the circular economy hasn’t really taken off yet. But sooner or later, oil will simply become too expensive, or its consumption will be subject to restrictions in an effort to meet climate change targets. And then developments in the biobased sector and the circular economy will get into full swing. We need to ensure that at that point Rotterdam is the most attractive choice of location for these companies. Whether that will be tomorrow, or in a few years’ time.

And like in the logistics sector, we will need to apply new business models. As the Port Authority, we strive to make our own contributions in this area. In the biobased chemical sector, we have lowered the hurdle for new companies by offering a so called plug & play concept. This means that companies don’t have to invest in common infrastructure like utilities, waste, water treatment or a power supply – allowing them to focus on their core activities.

We are also looking into projects that can give a boost to the biobased sector. For example, we are currently developing plans to use sugar from sugar beets as a feedstock for this industry. In 2017, the EU will be abolishing the existing quota for sugar beet production. This is expected to lead to a larger supply of beet sugar.

In other words: we’re examining a wide range of options when it comes to strengthening the port’s competitive position. By not only offering top-quality infrastructure; but above all, through new
innovations. Innovations that are intended to create a more efficient logistics chain and a more sustainable industrial sector. And the same rule applies to both logistics and industry: innovations have the best chance of succeeding in an environment that stimulates and facilitates new ideas and approaches.

**Broader range**

In addition to what I have just mentioned, we also intend to broaden the range of activities undertaken in the port. We are not just interested in the volume of cargo throughput, we are also interested in added value, and in the port’s value to society as a whole through, for instance, employment opportunities.

This is why we are actively pursuing opportunities in the offshore sector. Even though the port is already home to a great many companies active in this sector, in recent years it is also a sector that has been somewhat neglected in the port’s plans. Indeed, taken simply in terms of tonnes of throughput, you could hardly call offshore one of the port’s premier sectors. But the jobs and spin-off this industry is responsible for should not be underestimated. And offshore has a bright future ahead of it. In laying new pipelines and installing new oil rigs, but also decommissioning of redundant facilities and the industrial activities related to the installation of offshore wind farms will provide opportunities for Rotterdam.

Our colleagues from SmartPort once said that Rotterdam’s Third Maasvlakte can actually be found in the city centre. They meant to say that Rotterdam’s business services industry is another important sector that deserves far more attention than it generally receives. As said, I think that the Port Authority was primarily interested in volume rather than the added value for the city and the region, at the same time the city did not pay enough attention to attract businesses which could provide services to the marine sector. I am keen to play my part in changing this attitude, and let’s hope that the recent announcement by the major Chinese crane manufacturer ZPMC to establish its European headquarters in Rotterdam will be the first of many to come.

From my perspective, the key word to use is the word ‘and’. It’s all about logistics and industry and new activities. We need to cherish what we have and stimulate new developments. Give established businesses the room they need to flourish and encourage start-up ventures. Ensure that Rotterdam is a healthy operational environment in financial terms and a frontrunner in the area of sustainability. In each case, our focus will be and-and, since as a port, we are in the midst of a major transition.

**The role of the universities and the private sector**

The question is how the universities and the private sector can support each other best. I believe our future is one where we need each other possibly more than ever. I believe that the university’s role starts with impartial, critical reflection, to produce high quality research, develop leading edge theories and students, to support society and business in addressing the great challenges we are faced with. The very idea, in other words, that inspired the founders of Erasmus University’s predecessor. The university should embrace the complexity of this challenge. It should not in my view train its students, nor focus its research with a single minded approach. Yes, we need good people to address basic and fundamental challenges. But I genuinely believe that universities have not placed enough attention on the complexity I have tried to paint. The new era will need the multi-disciplinary, more systems thinking approach. Crossing existing competencies, models, businesses, believes etc.
Students should appreciate they have a huge responsibility to shape society through their contribution, which should be more than an optimisation of just one part of the value chain. Let me use one final example to illustrate the challenge. Using residual heat from manufacturing processes in the port, and supply this to residential areas seems like a no brainer. Yet it is hardly ever applied to scale. We have identified an opportunity which will deliver 20% of the energy savings target set by the Government. Many parties both in the public as well as the private sector need to be involved. This initiative can only succeed if leaders appreciate that they will have to look beyond the optimisation of their own value chain, and feel the moral obligation to contribute to the well-being of society as a whole. Businesses can embrace this aspiration, but universities need to profile this approach just as much as the traditional, more linear thinking.

And that is why I'm delighted with SmartPort. Right now, the partners are developing road maps for each of the fields I outlined earlier, in which the private sector and the universities share responsibility for a cohesive set of research and graduation programmes. I have high hopes for this initiative – specifically because it gives companies and universities joint responsibility for the programme, and because they will be entering into a long-term partnership with one another.

**Mandeville – final words**

Ladies and Gentlemen,

Mandeville argued that individual greed is a prerequisite for society’s ongoing development. Supposedly vices are to stimulate society into action and progress. In some sectors, this may be the case to a certain extent, with increased efficiency in logistics being a good example. But in other sectors, this idea does not appeal at all.

I believe that not only serving your own interests, but also contributing to society is a strong source of motivation. The knowledge that you’re contributing to a necessary transition. This is certainly my approach to my role and the role of the Port. We are faced with the change of an era and this transition will have a major impact on our society. Public and private sector will need to collaborate to address these challenges. For students, these are exciting times. The more we can expose them to our challenges, the more they will appreciate the port is not an old fashioned, traditional business, but instead a tremendously exciting business environment with huge opportunities.

I hope you would agree with me that it is tremendously energising to realise that we all can contribute to this development. Whether you’re the CEO of the Port Authority, a decision-maker in Rotterdam’s business community, a professor or a student.

Thank you for your attention.