



Photo: Rohde Nielsen

## An indispensable, unknown industry

**Dredging is vital to social and economic development, in particular, to the construction and maintenance of much of the infrastructure upon which our economic prosperity as well as social and environmental well-being depends.**

**W**hen in January 2010 I assumed the reins as secretary general at the International Association of Dredging Companies, I had no idea how challenging the dredging industry actually could be. It's a wide open, pioneering business, filled with so many surprises, continually re-inventing itself. If you ask me what has struck me the most as I work myself into the dredging industry,

the IADC and its members, it is how little the general public knows about the importance of dredging. Tea and coffee from Malaysia and Indonesia, fruits and vegetables from South America, shoes and clothes from China, hi-tech products from Japan – we take it all for granted, not to mention petrol for our cars and gas heating in the winter. These things just appear in our homes and we hardly ever stop to think about the route they have taken to arrive on our doorsteps. We hardly think about the

elaborate ports and harbours as well as complex airports that make this possible. Without dredging, none of this would exist.

### What does dredging actually do?

The world's population depends heavily on dredging solutions for global trade, coastal defence, urban development, energy supplies

*continued on page 30*

and leisure/tourism. Let's take the first for instance: global trade has increased steadily between 2000 and 2008 regardless of business cycles in the global economy. In 2009 its volume decreased by 11.3%; for 2010 and 2011 the International Monetary Fund predicts a growth of 9% and 6.3%, respectively. Container ships are getting larger and faster, putting increased demand on the capacity and efficiency of ports. From 2000 to 2008, seaborne trade increased by 36.5%, measured in tonnes. Dredging solutions support ports in meeting this challenge by maintaining and deepening channels as well as supplying dredged material for building berths, quay walls and hinterland infrastructure. And, since ships will only get bigger, ports will have to accommodate this growth.

Then there is the question of demography and climate, urban development and coastal defence. The world's population is growing, especially in coastal areas. According to the United Nations, three billion people are living along thousands of kilometres

of coastal zones. In 2008 more people were living in urban areas than rural areas, and this number will reach nearly 70% by 2050. Eight out of the ten largest cities in the world are located along a coast. People living there need space and safety. Along these coasts people are confronted with strong fluctuations in atmospheric conditions and a predicted rise in sea levels. According to International Panel on Climate Change data, the frequency and intensity of storms is increasing, raising the need for effective and sustainable coastal defence. The dredging industry plays a significant role in providing safety for these growing population centres by reinforcing dikes and coastal barriers; it creates opportunities for further urban expansion through land reclamation.

And, then there is the subject of energy: despite attempts to find alternative energy sources, fossil fuels still dominate. Offshore resources need dredging to prepare the seabed and dig trenches for pipelines, and then protect these pipelines by backfilling with sand, gravel and rock. The strong increased demand for liquefied natural gas (LNG), frequently being exported from remote locations, creates a demand of maritime infrastructure suitable for this purpose. On the sustainable side, more and more wind farms are being placed at sea. Just observe the coastlines of Denmark, The Netherlands, Belgium or Germany.

And last, but certainly not least, dredging supports tourism and leisure activities, an important source of national income for many countries. Although the economic recession has had a slightly negative effect on this sector – international tourism declined by 5% in 2009 – the long-term perspectives remain very positive. Sometimes dredging for recreation and tourist attractions has been a spin-off of coastal defence activities. Other times, as in beach replenishment projects from the Wadden Islands in the North Sea, via the Gulf of Mexico to the Mediterranean Sea, from the United Arab Emirates to Australia's Gold Coast, dredging is a purposeful choice in re-establishing beaches and providing tourism in or near water. In the end, let us not forget marinas and cruise terminals, theme parks and resorts as well as all airports built in the sea (like Hong Kong, Singapore, Sydney and Tokyo), thanks to dredging companies which construct airport platforms.

### **The question of environment**

One area where the power and importance of dredging is often overlooked, and which deserves extra emphasis, is its role in

environmental remediation and sustainability. This includes cleaning up old industrial areas where contaminated soil would otherwise prohibit re-development of the land, as it happened in Dublin (Ireland), Avilés (Spain), or Lake of Tunis (Tunisia). We call it making the post-industrial world cleaner. In fact, in recent years, the IADC companies have developed a new concept called 'building with nature'. This means understanding the integration of projects with the environment, incorporating working methods to mitigate adverse effects as an integrated part of every dredging project. The work methods related to such environmental aspects cannot be isolated from the totality of the project. Sometimes creating additional nature or habitats is not only a compensation measure, but enhances tourism and urban development. In the right hands and done properly, dredging creates a positive synergy between ecology and socio-economic development.

### **Bridging the communication gap**

Although many of the above-mentioned activities are well known, their dependence on dredging as the underlying support system is often invisible and unrecognized. Actually, in the dredging industry we don't feel the need to be pat on the back. We know what we do and that is good enough. Problems arise when the public confuses the issue and thinks that we are the source of pollution and uncaring about the environment. As I've tried to explain, our role is quite the opposite. We clean up the waste that other industries produce. To counteract some of the negative reactions to dredging and to encourage others to look more closely at our industry, we are assembling more statistical information on our work and trying to communicate to a broader public. Recently, the IADC published a document called *Dredging in Figures 2009*, with carefully collected data on this worldwide industry. It is available at [www.iadc-dredging.com](http://www.iadc-dredging.com) free of charge. The IADC website is in fact a great source of information for anyone interested in this sector.

It sounds a bit overblown perhaps, but without dredging, our modern way of life would slowly grind to a halt. Rivers and harbours would silt up and stifle transportation of goods, gas and oil pipelines could not be laid safely, our beaches would be endangered to continuous erosion and flooding. Thanks to the technology of dredging, our lives are richer and our environment cleaner and safer. ■

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