

# New ways to build structures on water

People are naturally attracted to water and there is often a higher price to pay for coastal, lakeside or riverfront property. Building close to water carries its own risks, however, and with 'global warming' now a factor to be considered, it makes sense to capitalise on unused water space by utilising new construction techniques that allow homes, offices and leisure facilities to provide safe, reliable accommodation. Four companies involved in new ways to live, work and play on water have recently come to the attention of Euromarina Review. These are as follows:

### Adamant Ltd

The construction of the modern shipbuilding complex of Adamant Ltd in the heart of Eastern Europe on the bank of the Dnieper River 40 km South of Kiev, the Ukraine's principal city, was completed in 2009. The first stage of the complex is 12,500m<sup>2</sup> on a land area of 13 hectares and the next stage provides for the construction of three new production buildings with a total area of 14,200m<sup>2</sup> in 2011-2012.

The manufacture of reinforced concrete pontoons, wooden landing stages, floating houses based on concrete platforms and other floating constructions has become the fastest growing activity of the company since 2008. Adamant can offer marina developers a wide range of services, including conceptual studies and design, together with the manufacture and installation of a wide range of equipment.



Special floating structures produced by the company have included floating helipads, floating garages for watercraft, floating fuel stations and others. It can also provide a self-propelled catamaran for use in maintaining coastal structures, installing anchors, mooring fingers and service equipment, raising items from the seabed, transportation of loads, septic pump-out from houseboats and moored craft, and vessel maintenance.

The production capacities of the Adamant shipyard enable the realisation of joint manufacturing programs for floating concrete structures, as well as collaboration in the application of composite materials and reinforced concrete.



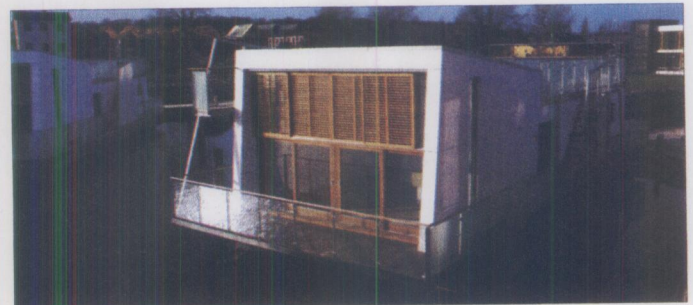
### Floating Concepts Ltd

At a time when many property companies are only just keeping their heads above water, niche developer Floating Concepts Ltd is going against the tide by making two new senior appointments to strengthen its existing team.

American architect Jonathan Baker (40) joins the Board to oversee design issues and to develop and expand the company's own design concepts. These include its floating homes, hotels, offices, student houseboats and affordable 'buy-to-let' concepts.

Baker, who cut his teeth on designing floating structures in Denmark, is one of the world's elite group of 'aquatects' – architects who have not only designed floating structures, but have seen them built, floated and occupied. "I am looking forward to applying the wealth of experience I have amassed in designing residential floating communities in Denmark to the UK," says Baker, who has 19 to his name so far. "I see enormous opportunities both for the regeneration of the UK's many redundant docks and harbours as well as bringing forward imaginative, but realistic solutions to the flood threat arising from climate change."

Jane Wilby-Palmer (28), who holds a law degree and has a legal and commercial property background, will head administration with particular responsibility for legal matters. A passionate advocate for eco-living, Jane sees her appointment as "an exciting opportunity to be involved with a company with an environmental conscience producing low-impact, sustainable floating structures, as well as pioneering innovative solutions to deal with the consequences of climate change".



Floating Concepts CEO David Beard is up-beat about his unique property venture despite the downturn in the economy. "The recession has been a fantastic opportunity for us to take up the lead position in a new emerging market," says Beard. "Blue-field sites - once a hitherto unrecognised, national resource, are as valid a development medium as their brown and green-field sisters. Jonathan will bring

# Floating Structures

a global perspective to the company's activities whilst Jane will co-ordinate all aspects of the business. These latest appointments will take our management resources up to the next level when I expect to recapitalise the company to achieve the sort of explosive growth that will guarantee market dominance from a 2010/2013 recovery onwards."

Beard has over 30 years experience in property development in the UK and was part of the syndicate of investors involved in the early regeneration of Liverpool South Docks in the 1980s. He now owns the 350-berth Liverpool Marina and his last land-based project was the £60 million Citygate complex in Manchester.

## International Marine Floatation Systems Inc

One of the most important innovations in waterfront development emerged in the 19180s when International Marine Floatation Systems Inc (IMF) demonstrated that the surface of the water can be transformed into living space.

The company believed that traditional land-based development concepts failed to consider the specific nature of the waterfront. At the same time, public demand for access to the waterfront was continuing to grow. In combination, these factors indicated that there was a great deal of unrecognised development potential in waterfront sites.

IMF's platform and marine dock systems enable it to design and create waterfront projects throughout the world, either directly or through a licensing agreement. By applying its concepts, new facilities can be built and existing harbours revitalised to expand their role to include accommodation as well as recreation.

Its award-winning technology has been used for many successful projects, including residential communities, clubhouses, yachts shelters, hotels restaurants and retail outlets.



An early example is Canoe Pass Village in Ladner, British Columbia. This 43-floating home complex saw its first home in 1985 and remains a five-star development more than 20 years later. Developer Dan Wittenberg, President of IMF, established this first legally zoned floating home community in Canada. The houses have all the modern comforts of any land-based development, but they float on tidal waters of 16 ft each day.

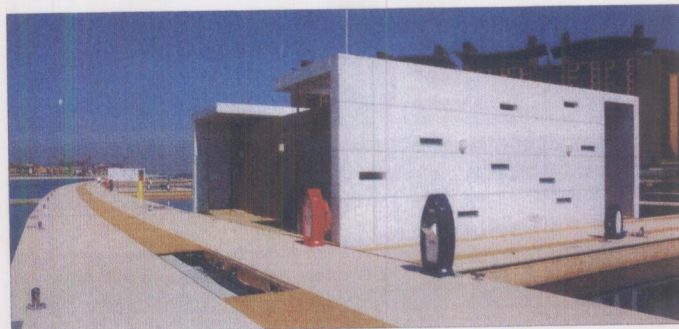
The development attracted the attention of the Dutch construction company Ooms Bouwmaatschappij, which now licenses and produces the IMF positive floatation platforms in The Netherlands.

## Marina Housing Ltd

The main business area of Finnish company Marina Housing Ltd is to design and construct unique floating housing and other floating structures. Its customers consist mainly of home buyers, who have a strong preference for individuality and high quality, along with developers and international financiers investing in holiday homes and various hotel chains. Apart from marina village residential communities, Marina Housing is able to design and deliver individually tailored floating restaurants, hotels, apartments, office buildings, spas, swimming pools/centres and clubhouses.

Anchor Marina in Dubai Palm Jumeirah features four floating utility buildings built by Marina Housing. These are placed on both sides of

the palm, East and West, providing male/female restroom facilities and other services for users of the marina. Each building floats on four concrete/EPS heavy duty pontoons manufactured by Marinetek, the parent company of Marina Housing, and the building structure itself is lightweight steel. The pontoons are moored using the Seaflex anchoring system that allows the buildings to rise and fall with the water level.



Only highly corrosion resistant materials were used to withstand the harsh environment. All the lightweight steel frame profiles were hot-dip galvanised and epoxy painted and screws are top quality AISI 316 stainless. The bathroom modules and the supplementary parts of the buildings were prefabricated in the company's factory in Estonia from where they were shipped to Dubai in containers.

The architecture of the floating utility buildings is modern, clean and simple according to the client's wishes. The wing-style roofs cover the rooftop cooling units and provide a canopy to restroom entrances. Side walls are covered with fibre-cement sheets installed on site with small opaque windows. Wood composite grills were used to make the front and back walls.

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