SPACE CRUNCH IN MEGA-CITIES ARE FORCING US TO SEA

At the same time as urban areas are recording an immense population growth, several cities all over the world are struggling with major flooding every year.

Bangkok in Thailand is actually sinking and island nations like the Maldives are fighting the increasing sea level caused by climate change. There are many incentives for communities to investigate the possibility to utilize the sea space for living and production.

Brisbane via Skype.

PROFESSOR C.M. WANG

— Building floating cities is inevitable because of the space crunch in many of our megacities as the rural population migrate to the cities for better life, work and education, says Professor Wang.

— One of the key advantages is that we can build floating structures at a much faster pace than land based cities, Professor Wang explains. Because the different structures and systems can be constructed simultaneously, and you can use the buoyant force to move the components easily around. Also the constructions can be very large.

According to C.M. Wang, floating constructions can be monetized much more rapidly than land based constructions.

Wang also claims that the floating cities will have less impact on environment than land reclaiming projects.

— You know, when you do land reclamation, you end up with a lot of soil pollution. Floating structures are very, very eco-friendly, and it's very transparent in the way that it does not block any water currents.

Also cities can take any plan shapes and cutouts. Because the ocean is so spacious you can make very complicated shapes, he says. Therefore it's possible to construct the cutout in a way that you let light pass on down to the ocean bottom so that sea life is unaffected, or even affect it in a positive way. Actually sea life can

ONE OF THE KEY ADVANTAGES IS THAT WE CAN BUILD FLOATING STRUCTURES AT A MUCH FASTER PACE THAN LAND BASED CITIES, SAYS PROFESSOR WANG

Built for growth

— Floating cities can be constructed in a modular form, and therefore they can easily be extended. You don't have to completely destroy and demolish a floating asset. The asset can be moved to another location if needed, says Wang. He also mentions the security benefits of having floating structures in seismic active areas and areas plagued with regular flooding. Even crime gets more difficult on floating structures as it is more difficult to enter or escape the island without getting noticed.

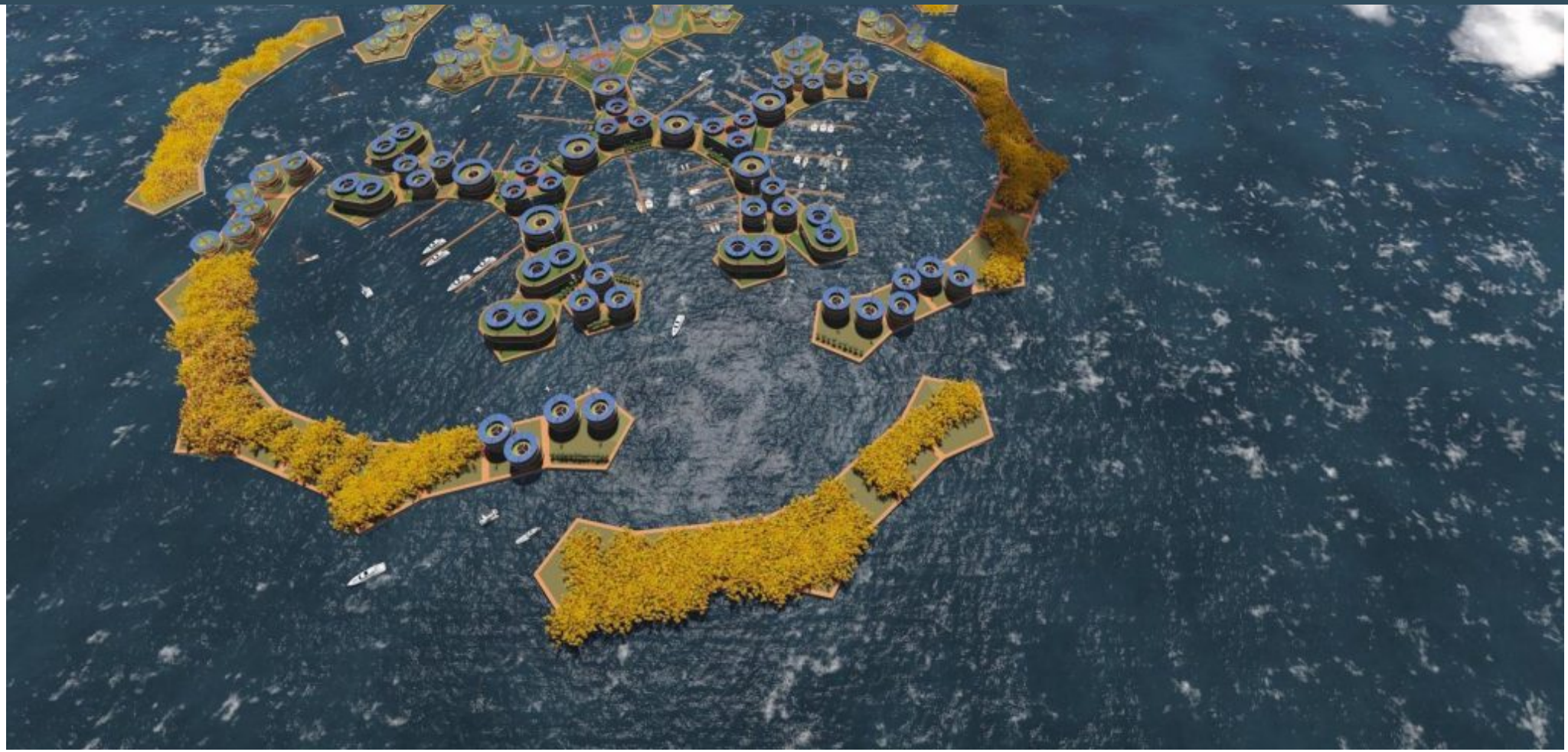
Floating mega-structures along the shore can also be constructed in a way that they serve as breakwater and therefore have a positive effect on facilities and buildings at shore.

Floating Island Project www.blue-frontiers.com

to build the platform of our floating cities, Wang says. In his opinion the hexagonal shape would be the best possible shape which give multiple options for connecting the modules.

— Another challenge is that floating cities would need to be self-sustaining as much as possible. If they are very far from the shore, they must be self-sustaining in that sense that they should produce their own water, food, energy and they must process their waste in a eco-friendly manner.

Legislation is not in place for floating cities yet. So getting sea space for floating cities today will be very difficult, Wang points out. An open question now is whether you can create your own country by building a floating city out in international sea space.



Artist Concept: Storm Makes Sense of Shelter
Credit The Seasteading Institute and Simon Nummy

Equinors role

Norway has a leading edge in floating constructions and underground technology. Thus there is a possibility that Equinor could have a role in shaping the future of floating smart cities, according to vice president of Equinor Innovation Team,

of them are floating. I think we have about 4-5000 hotel rooms only at the Norwegian continental shelf. We have massive marine operations, and we are world leader in areas like subsea and floating wind turbines. And we are also increasing our competence in energy storage, Hærland says.

— I think it is the combination of topics here that makes this relevant for Equinor.

This was the third workshop in a series of workshops initiated by Equinor to investigate new business application that appears as floating cities emerge. The first workshop was kickstarted with speaker Koen Olthuis, the Dutch visionary architect specialized in floating city development. The following workshop investigated how to produce and deliver energy to the future floating smart cities where introduced by Chris McConville, General Manager in Floating Power Plant, a UK based company that develops floating power plants.

In December Oslo will be the scene for a ground-breaking exhibition and conference Evolve Arena on the theme of shaping the future of our cities. Equinor will host ”Floating Cities” workshop at the Evolve Arena Conference and Expo.

WORKSHOP 1: ARE BLUE CITIES A FUTURE OF URBAN LIFE?

WORKSHOP 2: BRINGING BLUE ENERGY TO SMART CITIES

WOULD YOU LIKE TO ATTEND ”FLOATING CITY” WORKSHOP IN DECEMBER, BOOK YOUR EXPO PASS TODAY!

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