

WORLD CITIES SUMMIT

Ideas to promote walking and cycling in Singapore

Study suggests ways to improve mobility, which is key to well-being

By ROYSTON SIM

GIVING priority to street-level crossings, providing protected bike lanes and setting lower speed limits for motorists are ways to promote walking and cycling in Singapore, said a new study to make tropical cities more liveable.

The study released yesterday by the Centre for Liveable Cities (CLC) here and the US-based Urban Land Institute said cities where citizens are most mobile have the lowest obesity rates.

Mobility is also important for well-being. For instance, the great emphasis given to walking and cycling is essential to the high quality of life experienced by residents in Copenhagen, which was named the most liveable city by Monocle magazine last year.

To promote mobility, pedestrian and cycling networks must be made convenient and efficient, integrated with public transport or else "people won't use (them)", said CLC director Hee Limin.

Among the 10 recommendations for improving mobility, one was to have dedicated infrastructure to minimise conflict with other users and enhance safety.

It flagged road junctions as a hot spot for accidents, and said these should be designed so motorists are able to look out for pedestrians and cyclists when turning. Painted cycling lanes, like those in Copenhagen, also raise visibility.

Given the tropical climate, infrastructure should be designed to promote continuity of movement for pedestrians and cyclists.

For instance, sidewalks should

be level with the road instead of being separated by a kerb so cars are made to stop and watch out for pedestrians and cyclists, instead of the other way round.

Other recommendations include setting low speed limits in areas with high pedestrian traffic and having more street-level crossings instead of overhead bridges. End-of-trip amenities like shower facilities and bicycle parking should also be provided.

Said Dr Hee: "In Singapore, cycling is still seen as a less desired form of mobility. This is something that needs to change."

The study, which roped in renowned Danish architect Jan Gehl, looked at Ang Mo Kio estate as an example of the challenges to walking and cycling. It found that roads are generally quite wide, so cars tend to travel faster. Overhead bridges facilitate these "mini highways", while junction design and inadequate bicycle parking were flagged as issues that made

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walking and cycling undesirable.

Former Land Transport Authority traffic planner Gopinath Menon said planners could have been "more lax" in deciding when to use overhead bridges. He noted they were hard on the elderly and disabled, while ramps and lifts take time and money to put in.

Melbourne Lord Mayor Robert Doyle, one of four panellists who commented on the study at the summit, said much planning is needed to create a coherent, connected cycling network: "In the end, human life and preventing serious injury comes a long way ahead of motorists' convenience."

Looking ahead, Dr Hee said transportation infrastructure has to be reviewed, to determine how to allocate space. "It's not a bad trade to give more space to people, rather than cars."

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S'pore has 'cost-efficient transport network'

SINGAPORE has one of the most cost-efficient public transport networks in the world, according to a study released yesterday.

The study by London consulting firm Credo sought to calculate the economic cost of inefficient transport to 35 cities, as well as the benefits of investing in transport.

It derived the cost of commuting using factors such as journey time, fares, crowding levels, and ease of using the network. The more efficient a transport network, the lower the impact on productivity.

The study found that in Singapore, the economic cost of transport to a commuter is 8.9 per cent of gross domestic product per capita.

Mr Chris Malloy, a partner at Credo, described the rating as the proportion of a person's time that is unproductive due to transport.

The study divided the 35 cities into three groups. Singapore was ranked first in the high density compact centres group, slightly ahead of Hong Kong (9.2 per cent), and other cities such as Seoul, Shanghai, Tokyo and Beijing. Copenhagen (8.6 per cent)

topped the well-established cities group, while Santiago in Chile (11 per cent) was first in the emerging cities group.

The study praised Singapore for its high capacity system that meets current demand and "highly integrated governance" which has created sufficient plans for future demand. It saw the upcoming Downtown Line as another plus, and listed high "reliability and punctuality levels" as a strength.

However, it cited a relatively low network density that leaves some areas poorly connected and an ageing bus fleet as challenges.

There may be scope for more investment to improve Singapore's rail network density, it said, and stressed continuous investment to maintain standards.

However, at least one transport academic cautioned against setting too much stock in the study. Said Professor Lee Der Horng from the National University of Singapore: "Knowing our standing with other countries is important, but at the end of the day we still have local issues to be addressed."

ROYSTON SIM

Tracking commuter movement for faster emergency response

By DAVID EE

A PLAN dreamt up by computer geeks could make your train or bus ride a lot smoother.

By crunching huge amounts of data to make sense of commuters' movements and travel patterns, agencies here believe that they will be able to respond better to breakdowns, emergencies or other unplanned events.

This is the aim of a research collaboration that technology firm IBM signed yesterday with the Land Transport Authority (LTA), transport operator SMRT and telecommunications company StarHub, to help improve the management of incidents on the public transport network.

Called Fusion Analytics for public Transport Emergency Response, or Faster, the two-year tie-up will see data from SMRT and StarHub combined and studied using IBM data analytics.

SMRT will provide video feeds from selected train stations, while StarHub will share anonymised location-based data of its mobile subscribers.

Should there be a surge in people at train stations, for instance, IBM's system could predict what commuters would do next, and assess how best for agencies to react. And people could also be evacuated faster in an emergency if their movement patterns were known.

The announcement of the project comes amid lingering dissatisfaction over public transport here due to overcrowding and

breakdowns.

President and chief executive officer of SMRT Desmond Kuek, speaking at the signing ceremony at the World Cities Summit at Marina Bay Sands, called the tie-up "a potential game-changer" in preparing the company for any eventuality on its train and bus networks.

"All of this, we hope, will allow us to better predict and to assess how commuters might react, and move, upstream and downstream of any particular transport incident," he said.

StarHub CEO Tan Tong Hai, commenting on the telco's involvement, said that issues like these require partners. "There's no way a single agency has all the information," he said.

He stressed that StarHub would abide by the law and "respect the privacy of every individual" as it shares data with IBM.

IBM Singapore managing director Janet Ang said yesterday that its smart technologies are aimed at improving lives.

"It's not data for data's sake," she said.

LTA CEO Chew Hock Yong added that exploring data analytics would "help us do our jobs better, so that we can serve commuters even better".

The LTA has also been working with IBM to explore the feasibility of a satellite-based electronic road pricing system. This would use an on-board monitor to charge vehicles according to distance travelled.

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Pedestrians sit on the side of the harbour canal opposite residential buildings in the Christians Havn district of Copenhagen. In the 1970s, the Scandinavian country's rivers were so polluted that they teemed with dead fish. PHOTO: BLOOMBERG

Lessons from a top green country

By CHEONG SUK-WAI and GRACE CHUA

DENMARK, which has a population roughly the size of Singapore's, was in the spotlight at yesterday's World Cities Summit and CleanEnviro Summit Singapore for its green-growth successes.

The Scandinavian nation has ambitious renewable-energy targets and the world's happiest city dwellers.

So it was no wonder that Ms Kirsten Brosbol, the country's 37-year-old Environment Minister, fielded several questions on how it got to where it is today.

Denmark's rivers in the early 1970s, however, were so polluted that they teemed with dead fish,

said Ms Brosbol at the World Cities Summit's opening plenary session yesterday. Faced with that and a serious oil shortage, Danish mayors finally bit the bullet and found ways to, among other things, use less fuel and improve air quality by switching from driving cars to cycling.

Ms Brosbol said three other things helped Denmark sustain its efforts to live better: First, it showed how easy it could be to live responsibly, by installing water-saving taps in supermarket toilets for instance.

Then, it let people get as close to nature as possible so they would learn to love their surroundings. It also tried to solve as many problems as it could at once, such

as by managing heavier and more frequent rainfall by building reservoirs that doubled up as water parks that everyone could enjoy.

At the CleanEnviro Summit's leaders' plenary in the afternoon, Ms Brosbol explained that Danish businesses are now able to sell their environmental solutions.

"Ten per cent of total exports from Denmark are green exports; 20 per cent of our companies provide green solutions," she said. "We have made the business case that business is growing within the green industry."

The Danish government's clear policies, such as strong environmental regulations, pricing water and resources correctly, and green public procurement, have al-

so reassured firms of its stance. Denmark now aims to go entirely fossil-fuel free by 2050, by switching to a diverse cocktail of clean energy sources like wind, solar and biomass.

It is also tackling food waste, by working with supermarkets to sell smaller portions to match changing household sizes, and by working with a Danish civil society movement called Stop Wasting Food, said Ms Brosbol.

To change everyone's behaviour for the better, however, the stick worked better than the carrot, she said. "Strong regulation is the key, otherwise we would not have made any progress."

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Lee Kuan Yew Prize winners receive awards

(From left) Singapore Millennium Foundation (SMF) chairman Lim Pin; Orange County Water District Board of Directors vice-president Cathy Green; President Tony Tan Keng Yam; Suzhou Mayor Zhou Naixiang; and Keppel Corporation's chairman Lee Boon Yang and chief executive Loh Chin Hua.

The Lee Kuan Yew World City Prize 2014 was presented to Suzhou while Orange County Water District received the Lee Kuan Yew Water Prize. Keppel Corporation is the sponsor for the World City Prize and SMF is the sponsor for the Water Prize.



ST PHOTO: SEAH KWANG PENG

CLEANENVIRO SUMMIT SINGAPORE

Robot cleaners to push up productivity

YOU may soon see grey machines trundling along - on their own - down the walkways of Changi Airport, cleaning up.

These robotic cleaning machines, which cost \$70,000 each, will be tested at the airport, as Singapore tries to find new ways to boost the productivity of its cleaning sector amid a labour crunch.

The machine uses sonar to detect obstacles, and will stop when someone walks into its path.

It can be operated manually or pushed in the right direction to trundle along automatically.

Yesterday, Second Minister for the Environment and Water Resources Grace Fu launched the machine, called IntelliBot, at the

CleanMET Asia exhibition, which was part of the CleanEnviro Summit Singapore, at Marina Bay Sands.

At yesterday's event, she was shown a demonstration of the robotic machine, which was imported from the United States by local firm Clean Solutions.

GRACE CHUA

SINGAPORE INTERNATIONAL WATER WEEK

'Impressive' pitches by water entrepreneurs to woo investors

By FENG ZHENGKUN
ENVIRONMENT CORRESPONDENT

IT WAS a trial by fire for several water entrepreneurs yesterday as they wooed investors at Singapore International Water Week's first Hydro Pitch Day.

Given three minutes to present their ideas and five minutes to field questions, six teams had to interest eight venture capitalists and 30 water firms in the audience and, in one team's case, even handle slide projector hiccups.

"I'm here to talk about disasters," said Mr Melvin Tang - as a technical glitch briefly froze the slides on his group's work.

His WaterROAM team was pitching a mobile water filtration device for natural disaster victims to get clean water quickly. It will also donate filters to rural villages in Bintan and Cambodia, partly to collect data on their efficiency.

The teams had been selected from 17 groups put through a new nine-week programme to help them commercialise their ideas and set up their own firms.

The HydroPreneur Programme's partners are the National University of Singapore and training company Founder Institute, which trains aspiring entrepreneurs in areas like recruitment and legal work.

About 100 people had applied. About 60 - half of whom were Singaporeans and the other half foreigners - were selected and matchmade into the 17 teams.

Yesterday, the top six teams handled questions probing their expertise and business plans.

Mr Chen Bo's Hydro-CLEAR Tech team had created a material that absorbs up to 190 times its weight in oil and organic solvents. This could help clean up spills in rivers and seas and remove oil contaminants in waste water. "You can even squeeze it to recover the oil and reuse the material five to 10 times," said Mr Bo, 27.

When an audience member pointed out its reusability would limit sales, a teammate replied: "We intend to sell business services to the customers. If you squeeze it, you may damage the

material, so we will do it for you."

Mr Henri Lambert, 35, a partner at London-based Apsara Capital, said he was impressed by the pitches. "They were very structured and clear about how much funding they needed and what their business plans were."

The other teams' ideas included a more cost-effective device to detect toxic pollutants in water, and a product to let divers use messaging apps like WhatsApp and Twitter underwater.

On Sunday, five local water firms which had commercialised products but were seeking more funding and partnerships also pitched to investors and firms at the TechXchange programme.

Opening Hydro Pitch Day, PUB chief Chew Men Leong said the start-ups could help cut water production costs and develop new treatment methods to meet global need. "The creation of water start-ups and ventures will also help to contribute to the vibrancy of the ecosystem here, growing Singapore as a global hydrohub."

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