

15-17 SEPTEMBER 2016

# SUSTAINABLE LIVING SUSTAINING LIVES

Ecosperity Young Leaders' Dialogue provides a platform to connect youth leaders of tomorrow with industry experts to discuss and discover latest issues and solutions on sustainable living.





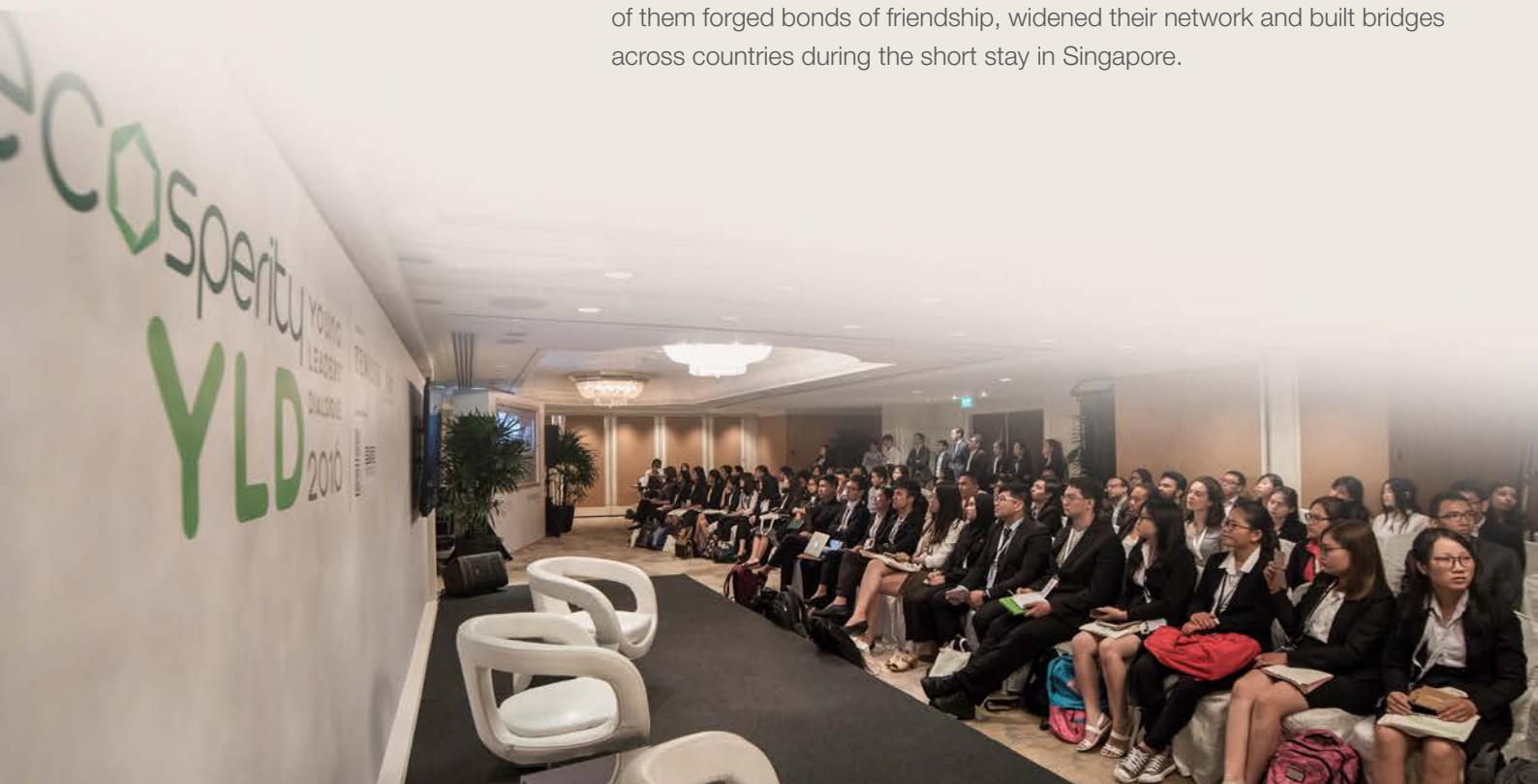
ecosperity YOUNG LEADERS' DIALOGUE  
**YLD** 2016

**Ecosperity Young Leaders' Dialogue (YLD) 2016** is a three-day event for young leaders organised by the Singapore Technologies Endowment Programme (STEP) in partnership with the Lee Kuan Yew Centre for Innovative Cities and Singapore University of Technology and Design.

Ecosperity YLD is a parallel student track organised under the broad umbrella of Ecosperity, which is meant to provide a platform to connect youth leaders of tomorrow with industry experts to discuss and discover latest issues and solutions on sustainable living. Ecosperity is an annual conference organised by Temasek, who is also a sponsor of the Ecosperity YLD event.

The event, held over three days from 15 to 17 September 2016, gathered young leaders from around the world to discuss key issues facing the future. The 2016 edition saw young leaders grapple with the twin themes of medicine and technology – how each field impacts the other and, more importantly, how they will shape humankind in the years ahead. They discussed solutions to build environmentally sustainable homes, debated the meaning of identity and diversity, studied how technology can both help and hurt us, and imagined the city of the future.

In between the sessions, they soaked in the warm tropical climate on the island while enjoying the taste of Singaporean food. More importantly, many of them forged bonds of friendship, widened their network and built bridges across countries during the short stay in Singapore.



# HAVE NO FEAR, BE 'WILDLY OPTIMISTIC' For The Future

The youth today should be celebrating because the future looks as bright as it has ever been, said two panellists at a conversation with young leaders.



Mr Poon King Wang, Dr Fidah Alsagoff and Dr Stephen Osterle (left to right) listen to participants at the lively In-Conversation session.

“What’s got value?  
The ability to connect the  
dots and turn information  
into intelligence.  
**It’s all about  
stringing together  
inferences  
and seeing the  
patterns within.”**

**Dr Fidah Alsagoff**  
Senior Managing Director,  
Temasek International

Technology is on the cusp of solving many of the big issues that have plagued the world in the past hundred years, including global warming and chronic diseases.

“How can you not be optimistic? You should be wildly optimistic,” said Dr Stephen Osterle, Temasek Corporate Advisor, at the Ecosperity YLD 2016.

Dr Osterle, who was formerly the senior vice president for medicine and technology at medical devices giant Medtronic, was responding to the theme of the In-Conversation segment, that posed the question: **Should the youth of today be optimistic or pessimistic about the future of technology and people?**

At the start of the conversation, held on Sept 16 at the Shangri-La Hotel in Singapore and moderated by Lee Kuan Yew Centre for Innovative Cities Director Poon King Wang, several students put up their hands to say they were not optimistic, for several reasons.

One main problem highlighted was the inequality of the distribution of such technologies. University of the Philippines computer science undergraduate Cid Azcarraga was worried that emerging economies would not get the same access to the technology as his peers in developed economies.

Massachusetts Institute of Technology student Eric Lujan agreed, saying that while the debate for developed economies was how technology could add “life to life”, the issue for emerging countries was “life or death”.

That sparked a lively response from Dr Osterle, who was surprised that the youth of today did not feel more hopeful.

He believed that technological breakthroughs in the near future will solve many of the biggest problems faced by the world today, provided people were willing to make changes to the way they lived.

Global warming - caused by the burning of fossil fuels - will be solved by the rapid development of solar energy, which will provide boundless clean energy, he said.

With an abundance of energy, many of the other problems such as the shortage of water and food will be solved.

“About 98.9 per cent of the world is water but most of that is saltwater. You need energy to desalinate and if there is enough energy, you can do that. You can see why everything else will fall in place,” he said.



His fellow panellist, Temasek International Senior Managing Director Dr Fidah Alsagoff, agreed that the next generation should be looking forward to the future with the numerous technological breakthroughs on the rise.

He cited the development of the brain-computer interface, where the brain can directly control the computer, a technology which is getting better every year.

Medical technology, including personalised medicine, will enable people to beat the big diseases of today and allow them to live longer, Dr Alsagoff added.

“The issue isn’t technology. It is the trade-offs that we have to make,” he said.

Dr Osterle agreed, noting that if the optimism is to be sustained, people must change.

For instance, people will have to change their diets and eat less meat such as beef. Raising livestock is one of the biggest contributors to the greenhouse gases in the world today.

“Things are going to have to change in your generation and your children’s generation if you want this world to be liveable,” he said.

The topics discussed at the dialogue echoed themes explored in the wider Ecosperity 2016 conference that was held earlier that same morning.

Speakers debated what technology would do for health and ageing in one panel discussion, while another session took a deep look at the impact of big data on people’s lives and their health.

One theme that ran through was clear in the morning sessions: Change. Everyone from industries, to companies, doctors and individuals would have to manage it.

Participants then spent a session after lunch with Dr Osterle and Dr Alsagoff, who were both moderating the earlier panel discussions.

Building on the point on change, Dr Osterle said that business models will have to adapt, and that there will be winners and losers.

But even on this, he sounded a note of optimism, observing that there was one prime example of a country which has adapted and succeeded against all odds: Singapore.

A tiny country with no resources and having been ejected from Malaysia, the island has become a model for

success around the world, building a world-class smart city from scratch, he said.

“This (Singapore) is such a great lesson at how you can look at stuff and instead of saying we are screwed, say ‘let’s get busy’,” he said.

The uplifting session changed the minds of several leaders, including Myo Min Khant, 20, a medical student from Myanmar.

“I was pessimistic before the session but after it, I think it really is up to us. And I believe the next generation has what it takes to make the right decision,” he said.

The In-Conversation segment with the young leaders was the main highlight of Ecosperity YLD 2016.



**“Things are going to have to change in your generation and your children’s generation if you want this world to be liveable”**

**Dr Stephen Osterle**  
*Temasek Corporate Advisor*



# YOUNG LEADERS TACKLE KEY CHALLENGES for the future

Technology has allowed to people travel faster, widen their horizons and do more with less.

But will the long-term use of technology also dull people's memory, weaken their navigational ability and make them less sociable?

That was one of the key questions young leaders grappled with at the workshops facilitated by research fellows from the Lee Kuan Yew Centre for Innovative Cities at the Ecosperity Young Leaders' Dialogue (YLD) 2016 on Sept 16.

After a morning of stimulating discussions at the main Ecosperity YLD conference, the young leaders from 16 countries went to work on five key challenges for the future.

These included living with technology; participating in the data economy; diversity and identity formation in societies; creating environmentally sustainable homes; and imagining the city of the future.

The participants broke out into smaller groups at the RELC International Hotel to tackle these challenges in the two-hour workshops, as they stretched their minds and focused on the future.

One workshop tackled the issue of the impact that technology has on people's lives, from GPS software to spell-checks used extensively by people every day.

These have made it easier for people to do their jobs but over-reliance on them could impair peoples' capabilities, such as their ability to navigate routes on their own, the participants learnt.

At the workshop, participants were asked to discuss if tweaks to these technologies would be useful.

For instance, instead of automatically giving the correct answer, spell-check could display a list of words for the user to pick as the correct one.

"I think it will help people retain their spelling ability and could even lead to them learning new words. I think a tweak like this makes sense," said 24 year-old Singapore Management University accountancy student, Soh Jie Qi.

Other participants were tasked to take a stab imagining the city of the future and how different it would be from where they currently live.

Many of the participants in this workshop offered suggestions on how to improve their cities and transform them into the utopia of tomorrow.



This included using new technologies such as LiFi – the use of light to transmit data – to improve connectivity and embarking on proper and structured city planning to reduce overcrowding.

Participants were also challenged to question the basis of identity formation and what it means to have a diverse society.

Accountancy undergraduate Nguyen Le Hahn Tam, 21, said the session forced her to think harder about race in Vietnam.

“I do read about it but the session made me think about what makes me, me - whether it is which region I am from or my gender,” she said.

Likewise, participants in the sustainable homes workshop were tasked to develop solutions for sustainable living in their own homes.

“We do not expect them to come up with an answer straightaway. Instead, the purpose of the exercise is to get them to work as a team, across multi-disciplines,” said Quek Ri An, a facilitator for the sustainable homes workshop.

Another workshop tackled the use of big data in people’s lives today. The young leaders learnt that big data now pervades the wider economy, from manufacturing to services and online shopping.

The young leaders in the various workshops also had to work together, brainstorm and present their ideas in their various groups, an experience many enjoyed.

“I thought the sessions really **brought to life some of the panel discussions on technology and how it will be used in the future**”

**Myo Min Khant**  
*Medical student from University of Medicine, Yangon*



# STUDENT PROFILES

When **Amanda Chia** saw that her application to the medical school at the National University of Singapore had been accepted, she cried.

Competition for a place in medicine is stiff with many top students vying for a place, and the Singapore Polytechnic nutrition graduate did not think she had a chance.

"I was really humbled because I didn't think I would get it," said Amanda, who won the Toh Chin Chye Gold medal, given to top students at the polytechnic.

Now the second year medical student, whose mother is a travel agent and father is an electrician, wants to specialise in geriatric medicine, after working with the elderly at volunteer welfare groups.

She believes that the ageing population is the biggest challenge facing Singapore today.

"For Singapore, even as we struggle with a low birth rate, the ageing population is upon us. As young people, I think we should all be concerned," she said.

"I think we can do more for elderly care and I hope to be able to contribute to the field."

She is also interested in the intersection between medicine and technology, a key theme for Ecosperity YLD 2016.

"I think medical technology will help in new forms of preventive medicine, which is something I've always believed in – which is how we can prevent health problems before they even happen," she said.



First year university students **Cid Azcarraga & Paulo Joquino** want to start a revolution in the Philippines – a scientific one.

The duo want to spread the culture of science among youth all across the country by making science accessible to the regular young person on the street, who are not that into the subject.

"Part of the problem is the culture in the Philippines. We are emotional and

personal but science is like impersonal and it does not get a lot of attention," said computer science undergraduate Cid, 19.

They hatched an elaborate plan soon after they graduated from high school to spread the word of science through camps and social media by setting up an organization called Integrating Science in the Philippines (ISIP).

To date, the group has organised two science camps over the past two years.

The first in 2014 saw 30 kids from different parts of the country sign up, while last year's saw 60 registered.

ISIP also has a YouTube channel, with about six videos, each explaining scientific concepts in simple and easy-to-understand Tagalog.

"The goal is to bring science into everyday life and to show them why science makes things easier for all of us," said Cid.

ISIP started with three co-founders but now has 80 members all fired up about the mission of science.

"We believe it's not just enough to train a small group of scientists – we want to create a community of youth interested in science. That's our goal: To spread science to everyone," said Paulo, 18.



# STUDENT PROFILES

For **Oi Sokhim**, his first ever trip on an airplane was a dizzying one.

“My ears popped when the plane kept going higher and higher,” said the 22 year-old student from the Cambodian Royal University of Agriculture who flew to Singapore for the Ecosperity Young Leaders’ Dialogue 2016.

“No, I didn’t like it (the flying experience) very much,” he added, with a wry smile. And even though the flight from Phnom Penh to Singapore is only about two hours, Sokhim has come a long way.

The second youngest of seven children, Sokhim was the only one among his siblings to have made it to university.

“My family is poor, like many Cambodians. We have a small farm and I had to raise chickens when I was younger to help my parents out,” he said.

Apart from taking agricultural studies, Sokhim is also taking a second degree in English Literature, “the only way for me to improve my English,” he said.

He hopes to study overseas, provided he can get a scholarship, but Sokhim’s eventual goal is to set up his own high-tech farm.

Said Sokhim: “When I graduate, I will have to work for other people. But my goal is to eventually open my own farm. This way, I not only make money from raising livestock but also help create jobs in my community.”



**Jorglamaa Suvdmaa** pays attention to the small things, the very small things.

Jorglamaa, 20, is studying nano-engineering at the New Mongol Institute of Technology and is drawn to its multi-disciplinary approach.

Nano-engineering is the practice of engineering at the nano-scale. A nanometer is one billionth of a metre and the field has expanded rapidly over the past few years.

“The course draws from physics, chemistry, and other sciences. It’s really interesting,” she said, adding that she hopes to eventually set up her own start-up in nano-technology in the US.

In fact, Ecosperity YLD 2016 also drew from the fields of technology, medicine and data science, a multi-disciplinary theme that she appreciates.

“The conference is very good. There is so much information and knowledge that I am trying to absorb,” she said.

Her trip to Singapore for the conference was also her first to the country. She appreciates the food, the efficiency and cleanliness but has not quite taken to the weather.

“We are different. We eat a lot of meat in Mongolia. Singapore is also very hot, but I think I still like it,” she said.





# AN INCREDIBLE EXPERIENCE FILLED WITH MEMORIES

If there was one thing that (Ms) Hui Zehua will take away from the Ecosperity YLD 2016, it is the friends from the region she made over three days.

“I think it is the first time I added so many friends to my Facebook in such a short period of time,” said the 21-year-old Tsinghua University accountancy student with a laugh.

“The conference was an amazing experience.” It was a sentiment shared by Massachusetts Institute of Technology computer science undergrad Eric Lujan, who said the conference was “incredibly useful”.

“The best part? Just being able to talk to so many people from all over the world and to have so many great conversations,” said Eric, 19.

Indeed, after a visit to the Singapore City Gallery at the URA Centre on Saturday morning (Sept 17), many continued to mingle and add each other to their social networks.

The participants then presented the discussions from the workshops they attended the day before to their peers and facilitators from the Lee Kuan Yew Centre for Innovative Cities.

The five groups put up skits, injected with large doses of humour, to illustrate the main takeaways from the workshop sessions.

But in the end it was a thoughtful presentation by the group which looked at diversity and the formation of identity that won the best presentation.

**“There will be reasons to be optimistic and pessimistic but I think we will adjust.”**

**Poon King Wang**  
Director of Lee Kuan Yew Centre for Innovative Cities

In just seven minutes, they summarised their workshop findings and concluded that diversity can be both a force for good or bad. What matters at the end is how people themselves treat and see diversity and not what policies governments put in place, the group concluded.

The proceedings were summarised by two illustrators who captured the main points of the presentations in a colourful piece of art.

YLD participants, visiting the URA Centre, discover how Singapore manages to maximise its limited land area through careful planning.



Wrapping up the three days, Lee Kuan Yew Centre for Innovative Cities director Poon King Wang said that he and his staff had three wishes for Ecosperity YLD 2016 before the conference began, and all of them were granted.

The first was that the Ecosperity YLD 2016 was not just a dialogue but also a session which would see keen participation. Participants did more – they helped co-create solutions and ideas, said Mr Poon.

The second wish was that they would learn from the participants. On this front, they did and more.

The last wish was one he reserved for the participants themselves. Reading out a passage from *Maximum City: Bombay Lost and Found* by Suketu Mehta, he described a scene which showed how humanity can be found in the most inhumane of places, and that people have a generous capacity to give.

Said Mr Poon: “There are going to be differences, hardship and challenges. There will be reasons to be optimistic and pessimistic but I think we will adjust. My wish for you is I hope all of you find your cities of gold.”

Chairman of the Singapore Technologies Endowment Programme, Professor Leo Tan, also lauded the success of the three-day event, saying that there was 100 per cent participation from all the young leaders.

“You got together in just three short days and you have shown that you can gel, coming up with great ideas and suggestions,” he said.

“You have proven that you are young leaders.”

**“The conference was an amazing experience.”**

**Eric Lujan**

*Computer Science Undergrad from  
Massachusetts Institute of Technology*



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