

SCIENCE AND TECHNOLOGY LEADERSHIP ASSOCIATION

# STeLA International Leadership Forum 2016, Okinawa, Japan

"The Future of Science & Technology"

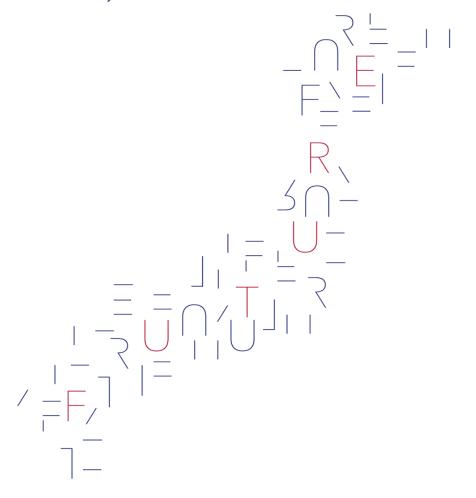
## **STeLA International Leadership Forum 2016 Okinawa, Japan**



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## STeLA International Forum 2016 Okinawa, JAPAN









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#### **Vision**

Inspire and enable potential student leaders from science and technology to make

a positive change in the world by allowing them to experience distributed

leadership, expose them to global problems and facilitate personal growth in an

intercultural environment.



## **Messages from STeLA**

#### Eriko Kamiki - President STeLA JP

On behalf of all the STeLA members of the 2016 forum I am honored to announce that we have successfully closed off the event this year. It was a forum worthy of celebrating STeLA's 10<sup>th</sup> anniversary with the full support of Okinawa Institute of Science and Technology. In the past years, we have had specific themes to unify the activities in the forum. However, to better prospect the forthcoming years of STeLA, and to reflect upon its past for improving the future, the 2016 forum was held under the comprehensive theme of "The Future of Science and Technology"

In addition to our signature distributed leadership model originally inspired by MIT's Sloan School of Management, the contents of this year's forum also shed light on the participants' ability to apply what we learned to real life problems and to acquire leadership skills and exercise them in real world contexts. After the participants have established their understanding and familiarity with the four player model (mover, oppose, bystander, and follower) and the key skills in leadership involving visioning inventing, sensemaking relating, and understanding cultural issues, they were then faced with case studies from current events ranging from new advancements in biological techniques such as CrisprCas system to ethics underlying automated driving cars and how they differ from autopilot aircrafts.

To follow up each of these individual skills , each year, STeLA assigns a group project to all of its participant groups. This year, the group project had been centralized on the axis of Sustainable Development Goals (SDGs) which had been addressed by the United Nations Development Program . There are sixteen major goals that are called for in the SDGs campaign and each of the participant groups were to carry out various tasks based on one of them. The tasks involved developing an educational program as well as prototyping to tackle the issues at hand, and their final project goal was to create a workshop which would educate and disseminate knowledge of each of these SDGs addressed.

Enhancing the understanding of how leadership ties into science and technology, we had the honor of inviting guest speakers from OIST, all of them who are leading researchers in their professional field in addition to Dr. Jonathan Dorfan, the CEO of Okinawa Institute of Science and Technology who has generously welcomed us to the institute. Furthermore, to enrich our scientific and technological horizons, OIST has kindly offered us a lab tour for all of our participants, which involved opportunities to have a peek at what kind of state of art and cutting edge research they are involved in.

Finally, I would like to extend our most sincere appreciation to all of our supporters, sponsors and alumni of STeLA, as without them, this year's forum had not been possible. Especially we would like to thank OIST for providing us with a fabulous venue and for the generosity the institute has extended to us. Without their full back up, we would not have been able to hold the 2016 forum in Japan. It has been ten years since STeLA first set its

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footstep in becoming an international organization which aims to nurture students who can face and tackle the challenges, which threaten our society today. However, this is only our first milestone, the beginning of what this organization has envisioned to be. We therefore would like to ask for continuous support and to be involved in the future we hope to contribute as an organization.

#### Alexander van Geel - President STeLA EU

The 2016 STeLA forum in Okinawa was an event that I believe many will hold fond memories of for the rest of their lives. The vastly multinational and multicultural environment that STeLA offers has inspired new connections between people, and new insights in individuals. Multiple participants have told me this was definitely a life changing experience.

By bringing people together from these vastly different backgrounds, we are forcefully creating a lot of tension in the groups of participants. What characterized this STeLA forum as much as those of previous years is the intense setting that forces groups to quickly come together and communicate. This leap in interpersonal and intrapersonal development is noticeable in all members of STeLA, and will benefit them in their later careers.

I would like to thank OIST and recognise the dedication of all hardworking staff to make this forum possible. Finally, I would like to welcome all new members of the STeLA community to our global network of future leaders.

#### Zhenxuan Li - President STeLA CN

Having been a stuff in STeLA for three years, I believe that the most characteristic trait of STeLA is its ability to really change our participants' personality. In the 2016 STeLA forum in Okinawa, we were proud to witness changes, gradually or drastically, on our participants.

During the forum, these participants with hugely different backgrounds and distinct characteristics cooperate to complete demanding tasks. In such an intensive environment, conflicts within groups like misunderstandings or differences in personal visions aroused quickly and appeared more challenging than usual. In early stages, some of the groups had a frustrating experience, while we were glad to see that at last they forced themselves to quickly go through stages of group dynamics and employed all tools they learned in the forum to deal with those conflictions. Most inspiringly, we saw our participants learned to appreciate differences among cultures, to understand people by communication, to value cooperation instead of domination, and to build a shared vision instead of blaming others of being seemingly indolent. Such a transformation, like years before, gave us confidence that STeLA, having been there for 10 years since its foundation, is still meaningful.

Here, I sincerely appreciate the efforts of all stuff in three branches this year. The whole preparation this year was tough, but we still managed to make it and presented a forum with highly level content and a satisfactory experience. I would like to thank OIST for their great support and dedication to the forum. At last, wish that STeLA could bring inspiration and growth to more and more future leaders.



## **Message from President Dorfan of OIST**

Dear Participants in the 2016 STeLA Forum at OIST Graduate University:

As President of OIST Graduate University, it is my pleasure and honor to welcome you to our campus as you engage in this special opportunity to foster globally-savvy leadership skills, while building an international network of fellow future leaders.

The pursuit of science and technology (S&T) and its applications has, and will continue to be, one of the critical pillars that drive the growth and security of our civilization. New knowledge underpins innovation: innovation is critical for economic growth and security. Innovation is also essential for enabling sustainable and global solutions to earth-threatening issues like climate change; the excessive reliance on fossil fuels; environmental degradation; disease; food and water shortages, to name but a few. Protecting and nourishing this precious future is in the hands of the young! Preparing future leaders to engage these important challenges, through culturally conscious, globally-sensitive training, is of the utmost importance. In doing so, we must also be keenly aware of the high relevance of the social scientists and the essential role of policy-makers.

The STeLA Forum brings together young people from across the globe. This provides a special opportunity to establish relationships that connect disparate regions of our world. But it is also an opportunity to share and develop a deeper appreciation for differing cultures.

OIST is an ideal environment for the Forum. The University is possibly the most diverse campus in the world, with employees coming from over 40 nations/regions and students coming from over thirty nations/regions, spread across 6 continents. Our students are especially given a lot of freedom to develop their scientific identity and independence early in their careers. Our goal is to mentor them to be outstanding researchers, who have the training and skills to become future leaders in global S&T.

Once again, welcome to our campus. I wish you a fruitful and enjoyable Forum on this beautiful island of Okinawa

Jonethan Dorfan

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## **Time Schedule of Forum 2016**

Day	Time	Activities				
Day 0 (Check in)	15:00-15:30	Welcome Speech				
August 20 (Sat)	15:30 - 17:30	Ice Breaking				
	17:30 - 20:00	Grab your dinner box / OIST Summer Festival (Potluck)				
	20:00 - 21:00	Move to Seaside				
Day 1	7:30 - 8:30	Breakfast				
August 21 (Sun)	8:30 - 9:00	Move to OIST (Bus)				
	9:00 - 12:00	Leadership Session				
	12:00 - 13:00	Lunch				
	13:00 - 16:00	Leadership Session				
	16:00 - 17:00	Introduction of SDGs				
	17:00 - 17:30	Introduction to Reflection				
	17:30 - 18:00	Individual Reflection				
	18:00 - 19:00	Group Reflection				
	19:00 - 20:00	Dinner				
	20:00 - 20:30	Move to Seaside				
Day 2	7:30 - 8:30	Breakfast				
August 22 (Mon)	8:30 - 9:00	Move to OIST				
	9:00 - 12:00	Thematic Session				
	12:00 - 13:00	Lunch				
	13:00 - 17:00	Thematic Session				
	17:00-17:30	Closing				
	17:30 - 18:00	Individual Reflection				
	18:00 - 19:00	Group Reflection				
	19:00 - 20:00	Dinner				
	20:00 - 20:30	Move to Seaside				
	7:30 - 8:30	Breakfast				
	8:30 - 9:00	Move to OIST				
Day 3	9:00 - 11:00	Leadership Session				
August 23 (Tue)	11:00 - 12:00	Keynote: Dr. Machi Dilworth				
	12:00 - 13:00	Lunch				
	13:00 - 16:00	Thematic Session				

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	16:00 - 16:30	Closing
	16:30 - 17:00	Individual Reflection
	17:00 - 18:00	Group Reflection
	18:00 - 18:30	Move to Seaside
	18:30 - 21:30	BBQ
Day 4	7:30 - 8:30	Breakfast
August 24 (Wed)	8:30 - 9:00	Move to OIST
	9:00 - 10:30	Leadership Session
	10:30 - 11:00	Individual Reflection
	11:00 - 11:30	Group Reflection
	11:30 - 12:00	Group Project Intro.
	12:00 - 13:00	Lunch
	13:00 - 14:00	Keynote: Dr. Jonathan Dorfan
	14:00 - 19:00	FREE TIME!
	19:00 - 20:00	Dinner (Optional)
	20:00 - 20:30	Move to Seaside (Be at OIST before 20:00)
Day 5	7:30 - 8:30	Breakfast
August 25 (Thu)	8:30 - 9:00	Move to OIST
	9:00 - 10:30	Leadership Session
	10:30 - 12:00	Keynote: Dr. Kitano Hiroaki
	12:00 - 13:00	Lunch
	13:00 - 18:00	Site Visit: Open Energy System & Lab Tour
	18:00 - 18:30	Individual Reflection
	18:30 - 19:00	Group Reflection
	19:00 - 20:00	Dinner
	20:00 - 20:30	Move to Seaside
	7:30 - 8:30	Breakfast
	8:30 - 9:00	Move to OIST
	9:00 - 10:30	GP: First Presentation
	10:30 - 12:00	Leadership Session
Day 6	12:00 - 13:00	Lunch
August 26 (Fri)	13:00 - 17:00	Group Project
	17:00 - 17:30	Closing
	17:30 - 18:00	Individual Reflection
	18:00 - 19:00	Group Reflection
	19:00 - 20:00	Dinner

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	20:00 - 20:30	Move to Seaside					
Day 7	7:30 - 8:30	Breakfast					
August 27 (Sat)	8:30 - 9:00	Move to OIST					
	9:00 - 10:30	Group Project					
	10:30 - 12:00	GP: Mid-Presentation					
	12:00 - 13:00	Lunch					
	13:00 - 17:00	Group Project					
	17:00 - 17:30	Closing					
	17:30 - 18:00	Individual Reflection					
	18:00 - 19:00	Group Reflection					
	19:00 - 20:00	Dinner					
	20:00 - 20:30	Move to Seaside					
Day 8	7:30 - 8:30	Breakfast					
August 28 (Sun)	8:30 - 9:00	Move to OIST					
	9:00 - 12:00	Group Project					
	12:00 - 13:00	Lunch					
	13:00 - 17:00	Group Project					
	17:00 - 17:30	Closing					
	17:30 - 18:00	Individual Reflection					
	18:00 - 19:00	Group Reflection					
	19:00 - 20:00	Dinner					
	20:00 - 20:30	Move to Seaside					
Day 9	7:30 - 8:30	Breakfast					
August 29 (Mon)	8:30 - 9:00	Move to OIST					
	9:00 - 12:00	Group Project: Final Presentation					
	12:00 - 13:00	Lunch					
	13:00 - 16:30	Group Project: Final Presentation					
	16:30 - 17:00	Results					
	17:00 - 18:00	Buffet Party					
	18:00 - 18:30	Move to Seaside					
	18:30 - 19:00	Individual Reflection					
	19:00 - 20:30	Group Reflection					
	20:30 -	Farewell Party					



## **Forum Contents Overview**

This chapter gives an overview of contents presented during the 2016 STeLA forum. Some new contents are created yearly, but the core of what STeLA teaches remains the same: to operate as a leader in a multinational, multicultural environment, using this network together with science and technology to solve global issues. More information on the specific sessions given at the 2016 STeLA forum can be found in later chapters of this conference report.

During the forum a total of five session-types were held. **Leadership sessions** teach participants about the core abilities of STeLA's leadership theory. During the **Thematic sessions** invoke discussions or serious games regarding science and technology, and put the leadership sessions into perspective by connecting them to the forum theme. The thematic sessions are accompanied by three keynote speakers.

Halfway during the forum the **Site Visit** gave participants the opportunity to view OIST's project as well as research lab units. The forum has been concluded by a 4-day **Group Project**, where participants have applied their newly gained knowledge on science, leadership and teamwork to work on a large project together with their multidisciplinary, multinational team. Each day is ended with a **Reflection session** where first individuals are asked to reflect on their own performance during the day, and afterwards the group will give and receive feedback from each other and their facilitators.





## **Leadership Sessions**

The core of the STeLA leadership theory that is taught during the forum is based on the Distributed Leadership Model, developed at the MTI Sloan School of Management by Professor Deborah Ancona. Over the years this model has been updated by various sources:

- The book "The Fifth Discipline" by Peter Senge, director of the Center for Organizational Learning at the MTI Sloan School of Management
- The Cultural Dimensions model by Geert Hofstede, Professor Emeritus of Organizational Anthropology at Maastricht University
- The Design Thinking model developed at the Stanford University d.school (Design School) concerning rapid prototyping and brainstorming

To put this distributed leadership model into context, the first session gave an overview of the **Field of Leadership Research and Past Leadership Theories**. At the end of this session the distributed leadership model is introduced, which consists of 4 kinds of abilities: **Relating, Sensemaking, Visioning** and **Inventing**. Each of these disciplines will also be treated by at least one thematic session, linking it to the field of science and technology. More information can be found in the chapter on Leadership Sessions.

Distributed leadership is based on the following two principles:

- 1) Every leadership organization/team needs to possess the four abilities.
- 2) These capabilities should be shared amongst the group, as one person cannot master all of these by themselves to the fullest extent.

By the end of the leadership sessions, the knowledge from the lectures, the experience from the activities and the conceptual strengthening from the reflection sessions will help you to join or lead a distributed team.

## **Leadership History and Background**

To start the forum, participants are asked to define leadership for themselves, and briefly discussed how the field of leadership research has vastly grown over the past 150 years. Participants are introduced to concepts including the Trait Theory (Cowley, 1931; Stogdill, 1984), Behavioral Theories such as the Leadership Grid (Blake & Mouton, 1964), Situational Leadership (Fiedler, 1967) and multiple modern leadership theories. Finally the Distributed Leadership model is introduced and explained, which will be the main leadership model for the rest of the forum.

The aforementioned concepts aren't all easy to grasp, which is why multiple exercises are included to clarify the theories and to create a starting point for personal reflection.



#### Personal Traits, Strengths and Weaknesses

Every person has his or her unique set of personality characteristics. These characteristics, in combination with experiences, will give a person a set of personality traits, which can be expressed in strengths and weaknesses. Knowledge of one's own strengths and weaknesses is essential for good teamwork, as it allows team members to support each other effectively.



To get to know your strengths, it is best to ask yourself: "What do I excel at compared to my peers?" and "What traits would best describe me and my style of working?". Then, rather than thinking about your own weaknesses, take inspiration from the strengths of others. This



immediately shows you that within the same room there is someone who is good at something you are not, thus you can learn from one-another.

This final list of strengths and weaknesses also forms a good basis for the personal and group reflections with which the day are concluded, as it shows how group members can learn from each other.

#### Distributed Leadership: The Four Player Model

Distributed Leadership promotes an idea in which there is no real leader in a team, and all team members are simply leaders in the fields where they excel at. This means that roles within the group are constantly changing depending on the topic of discussion, actions being taken and other external factors.

The model used to reflect on distributed leadership and team roles during STeLA is the **Four Player Model**. This model states that there are four general roles in a team:

- **Mover**: taking initiative, proposing an idea

Follower: supporting the mover

- **Opposer**: critically reflect on ideas, add realism

- **Bystander**: observe process, keep direction

Within a team all four roles are rapidly changing amongst members, but must be balanced to keep the team moving forward. If one of the roles is lacking the team could suffer from a lack of ideas, direction or output quality. Participants are encouraged to practice all roles throughout



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the duration of the forum so they are able to adjust to any team situation they encounter in their future careers.

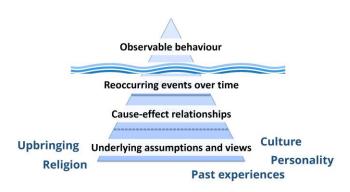
### Relating

Relating is the foundation upon which strong relationships are built: connecting with people and having fruitful dialogues. The basis is the ability to understand and respect others' opinions, which is taught by using the principles of Advocacy and Inquiry, and applying these to the Iceberg Model.

#### **Advocacy and Inquiry**

In dialogue there is both talking and listening, for effective communication it is necessary to master both. **Advocacy** is the ability to take a stand and influence others of merits of an idea while also being open for alternative views. This requires the advocator to know how to appeal to the reasoning of the person or crowd he is advocating to. This is where inquiry comes in: **Inquiry** is the ability to listen and understand what others are feeling and thinking. By asking the correct questions it is possible to see the situation from the viewpoint of the other person, creating a connection that can form the basis for better understanding one another.





#### The Iceberg Model

People often only see certain behaviours or pieces of an event, and react to draw conclusions based on that information. However, quite often people's behaviour is only the tip of the iceberg, and the giant mass of ice underneath the water hides all the critical information and reasoning behind it. The bottom layer goes all the way down to ones' norms and values.

The lesson here is to recognize the presence of this iceberg, and to 'go down the iceberg' in case a strong disagreement occurs. By correctly applying inquiry it is possible to learn a lot about the norms and values of another, rather than to make quick judgements of others based on observable behaviour alone.



### **Sensemaking**

Sensemaking is the first ability people use when they run into any problem, project or trouble. Its main focus is identifying structure underneath complex systems. We could also call sensemaking a logical analysis. Once the relationships between elements of the structure are apparent, it will be easier to influence the system by influencing one of the elements.



The theory behind sensemaking is preceded by the Beer Distribution Game, a well-known simulation game developed at the MIT Sloan School of Management. In approximately 2 hours of buying and selling beer in a heavily simplified version of a process chain, participants have experienced how a seemingly mundane system can become catastrophic with no apparent reason whatsoever.

After having seen a complex system in action, theory for analyzing these systems is treated. A few more simple systems are analyzed to practice this theory, and as a final exercise participants have tried to make a system map for the Beer Distribution Game. These maps are then discussed publicly to show that there might be multiple correct ways to map a system, and thus there might be multiple ways to take action based on your viewpoint.





### **Visioning**

A vision is something that acts as a force in people's hearts. It may be based on ideas or values, and will build further upon them. A vision usually answers the question "What do I want to create?", either in the world or in my own life. By thinking about visioning, we are mainly working on inspiring ourselves and others to take action by being intrinsically motivated.



Visioning is possible at every scale: personal, group, corporate, global, etc. In this visioning session, both personal visioning and shared visioning have been discussed and trained.

#### **Personal Visioning**

When writing a personal vision, it is important to think about (at least) these three aspects:

- **Specific vs Abstract** Making your vision too specific will define it more as a goal, and might prevent you from considering alternative approaches.
- **Near future vs Far future** Defining your vision for the near future might place you under stress to reach it, but not defining any time might not motivate you.
- **Realistic vs Unreachable** As in the previous two, you should be able to reach a vision, but not easily. Monitor your progress through regular self-reflection.

By thinking about what you would want to reach when you are 40, or what you are remembered for when you are 80, you can find out about your own norms and values. These will also be the core for shared visioning.

#### Shared Visioning

A shared vision is based on the shared norms and values of members in its team. This means it is both necessary to know your own values, as well as to be able to discuss them. Shared visions are often based on a few core values, to feel intrinsically motivated working in this team these will have to align with your own values.

Shared visioning is not an easy process, and coming up with a vision is an iterative process



that might take multiple sessions of reviews. This should be a recurring process: both personal and shared visions should be reflected upon and updated regularly to stay relevant to modern day society.



## **Inventing**

Inventing is the fourth and last component in the Distributed Leadership model. It means the skills and ways to realise the shared and individual vision throughout group dynamics. To excel at inventing, participants are encouraged to get out of their comfort zones and express their creative confidence.

Inventing is taught using the **Design Thinking** methodology as developed in the Stanford University d.school, supplemented with theories from the book "Start With Why" by leadership analyst Simon Sinek. The Design Thinking method states that inventing involves three dimensions:

- Conceive → What should we achieve?
- Design → How could we achieve it?
- Organize → Why should we achieve it?

The total design process covers steps from brainstorming to rapid prototyping, with the goal of building on each other's ideas to harness the total creative power of the team.









## **Thematic Sessions**

Among assigned teams, participants to the 2016 STeLA forum have discussed a variety of contents related to the theme of this year's forum: 'Future of Science and Technology'. These are meant not only to put the leadership material into practice, but also to get the participants thinking about the aspects of technology as a tool to our future society.

#### **Robot Game**

One of the largest contributors to shaping the world over the last 100 years has been the rise of robotics. What does the future of robotics hold for the global population? This session consisted of two parts, each appealing to different aspects of the distributed leadership model taught throughout the STeLA forum.

The first part of the session required participants to design, construct and sell robots with limited monetary resources. Players represented robot companies, aiming to develop

electronic parts and assemble the best robot ever. As in reality, robots are divided into two categories: industrial and service robots. Groups were overloaded with information on both, which required them to make quick decisions under stress. To be successful in this simulation it was necessary to apply **sensemaking** and quickly see the connections within this complex system.

The second half of this session appealed to the creative aspect of the group, as they were tasked to design, draw and present the robots they had built. Teams must create an open atmosphere where they build on each other's ideas, which is a core part of the **inventing** methodology. Finally, all robots were presented and a winner of the Robot Cup 2050 elected.

In the post-game discussion, we tried to figure out the system map of the whole game, resulting in three maps with combined loop structures. Participants came up with questions about which factors to focus on in the system map, and the relationship between iceberg model and system map.







### **A New Community for Science and Technology Development**

Information technology (IT) has changed the ways in which we share information, both in our private life and in the world of science and technology research. IT also has the potential to provide these communities with more efficiency and innovation in their research, and might help in avoiding research misconducts by sharing information amongst scientists.

In this session each team was tasked to find a new platform to organize the scientific community, using technology to contribute to solving issues such as unreliable peer reviews or overworked PhD students. This was done by analysing the current available platforms and forecasting the trend of the future science community.

#### **Medical Innovation in Okinawa**

Being an island hundreds of kilometres away from the mainland of Japan, Okinawa is not able to offer the full range of healthcare services that is available within the Japanese community. This session was focused on a roleplay concerning one of the latest innovations in medical science: the Da Vinci surgeon machine.

Playing the roles of a surgeon doctor, a hospital chief, government officials and inhabitants of Okinawa, participants are tasked to discuss the introduction of this surgery technology into the medical environment of Okinawa by 2025. All stakeholders have widely varying merits and demerits, thus a high level of relating is required to form a consensus for all parties. The goal in this is to create a medical plan, detailing the rules and regulations for the medical environment of Okinawa up to the year 2025. After the discussion, all groups reflect on the system through sensemaking to see why drafting this medical plan was so difficult.





#### The Ethics of Automation

When asked about the future of technology and society, many people will start talking about robots and automation. This field has many concerns, as technologies such as self-driving cars are on the brink of becoming commonplace in modern communities. Concerns that arise with this development are understandable, but can be interesting when compared to technology that is widely accepted in our society: aircraft autopilots.

This session encouraged discussion amongst participants about the ethics of automated technology. What should and shouldn't technology be allowed to do? And who would be to blame if things go wrong? By discussing with people from other backgrounds and opinions, participants have trained their **relating** skill and gained more insights in their own thoughts.

#### Think Extreme!

"The people who are crazy enough to think they can change the world, are the ones who do."

- Dr. Hiroaki Kitano

Based on the inspiring talk given by Dr. Hiroaki Kitano, professor at OIST and founder of RoboCup, this session on Think Extreme aimed to put his lecture into practice. The essence of his lesson: be creative, be ambitious, and above all, be courageous.





Participants were tasked in their **inventing** as well as their **visioning** skills, by having to create a vision for their own 'extreme' product. This product was thought of through collaborative brainstorming, and the vision presented using a slogan on an A4 sized poster. By observing and commenting on each other's visions, participants could reflect on what makes a good 'extreme' vision, and practice selling their ideas to a larger crowd.



## **Site Visit**

During the site visit for the 2016 STeLA forum, participants and staff were shown around inside and outside the Okinawa Institute for Science and Technology. The lab tour split the group up into three sub-groups, rotating between the Open Energy System and the OIST laboratories.

### **OIST Campus Open Energy System**

The Direct Current-based Open Energy System (DCOES) showed us a whole new type of energy grid, built from the bottom up. It is an alternative way of exchanging energy inbetween energy subsystems in order to manage energy fluctuations within the community. OIST is testing DCOES concepts and implementation at the platform in Okinawa where 19 inhabited houses are equipped with individual microgrids and interconnected using DC power bus. Supply and demand are balanced autonomously without impacting the utility grid and thus energy autonomy is increased with minimal infrastructure costs. The concept and feasibility of an OES have been demonstrated in this decentralized, peer-to-peer system in Okinawa. On 2-3 February 2015, the project members held the 2nd International Symposium of Open Energy System where they first demonstrated the autonomous power exchange on the full-scale system. A visualization for monitoring the power flows and the power exchanges in real time has been implemented.





#### **OIST Lab Tour**



The OIST research program aims to be at the leading edge of science and technology, encompassing the life sciences, the physical sciences, the environmental sciences, and mathematics.

OIST's mandate of collaborative, boundary-free research is built into every element of the campus design and layout. Flexible workspaces and shared equipment keep disciplines from clustering, while grouping major research instruments helps maintain equal access.

The laboratory units of the following professors have been visited during the site visit:

#### Hiroaki Kitano PhD (Integrated Open Systems Unit)

Hiroaki Kitano is a professor at OIST, best known as a founder of RoboCup and a creator of AIBO. He was awarded the IJCAI Computers and Thought Award in 1993 and the Nature Award for Creative Mentoring in Science in 2009.

#### Ichiro Masai PhD (Developmental Neurobiology Unit)

Ichiro Masai is an assistant professor at OIST. His unit aims to elucidate the mechanisms that control cell fate decisions and tissue pattern formation during the development of multicellular organisms.



#### Yohei Yokobayashi Ph.D (Nucleic Acid Chemistry and Engineering Unit)

Yohei Yokobayashi is an assistant professor at OIST. His primary interest is in understanding nucleic acid chemistry and their applications in chemistry and biological systems. At OIST he plans to expand his research to other classes of nucleic acids including DNA in an effort to find more applications in both Chemistry and Biology.



### Keshav M. Dani Ph.D (Femtosecond Spectroscopy Unit)

Keshav Dani is an assistant professor at OIST. Using the ability to synthesize, engineer & observe materials on the nanometer length scale and modern lasers, his unit observe the interaction of electrons and atoms on the femtosecond timescale. He received prizes including Steven Chu Award in 2005 and Director's Postdoctoral Fellowship in 2007.

#### Ye Zhang Ph.D (Bioinspired Soft Matter Unit)

Ye Zhang is an assistant professor at OIST. Her primary interest is researching on new materials inspired by naturally occurring biological structures and her current research

revolves around active and soft matter, specifically hydrogels, material which has properties similar to natural tissues. She received awards including Excellent Oral Presentation Prize, Materials Research Society (MRS) Spring Meeting, San Francisco (2011) and Best Poster Award, Materials Research Society (MRS) Fall Meeting, Boston (2012). Zhang has a patent about polymeric materials with active cross-linkers.





## **Forum Speakers**

## **Keynote Speaker Dr. Jonathan Dorfan**



Dr. Jonathan Dorfan is CEO of the Okinawa Institute of Science and Technology (OIST) School Corporation and President of OIST Graduate University. Prior to joining OIST in 2010, Dr. Dorfan was at Stanford University or 34 years. He began at the Stanford Linear Accelerator Center (SLAC) as a postdoctoral fellow, was appointed Associate Professor of Physics in 1984 and Professor in 1989. In 1994 he became Associate Director of SLAC and served as Director of SLAC from 1999 to 2007. Dr Dorfan was Dean and member of the Executive Cabinet at Stanford from 1999 to 2007. In 2008, he served as a Special Assistant to Stanford's President, John Hennessy. Dr. Dorfan received his B. Sc. in Applied Mathematics and Physics in 1969 from the University of Cape Town and his Ph. D. in Experimental Particle Physics from University at California, Irvine in 1976. He is a Fellow of the American Association of Arts and Science and the American Physical Society. He holds honorary doctorates from The University of Cape Town, TU Dresden and University of Maryland University College.



#### **Dr. Machi Dilworth**



Dr. Machi Dilworth is the Vice President for Gender Equality and Human Resource Development of the Okinawa Institute of Science and Technology (OIST) Graduate University. Prior to joining OIST, she had a long career in science administration having worked for 24 years at the U.S. National Science Foundation and 9 years at the U.S. Department of Agriculture. While at NSF, she held a number of positions, including Director of the Division of Biological Infrastructure from 1997 to 2007, Director of NSF's Tokyo Regional Office (concurrently as Scientific and Technical Attaché at the U.S. Embassy in Tokyo) from 2007 to 2010, Deputy Assistant Director (Acting) for Mathematical and Physical Sciences from 2010 to 2011, and Director of the Office of International Science and Engineering from 2011 to 2012. Immediately prior to joining OIST, she served as the Senior Advisor in the Office of the Chancellor at the University of Hawaii at Hilo. She received her B.A. in Natural Sciences from International Christian University in Tokyo and her Ph.D. in Plant Biochemistry and Physiology from the University of California at Los Angeles.



#### Dr. Hiroaki Kitano: "Think Extreme"



Dr. Hiroaki Kitano is a Professor at Okinawa Institute of Science and Technology Graduate University. Dr. Kitano is best known as a founder of RoboCup, a global grand challenge program on robotics & AI, for creation Sony's AIBO robot, as well as a pioneer of Systems Biology. He is also a President & CEO at Sony Computer Science Laboratories, Inc., Corporate Executive at Sony Corporation, a President at The Systems Biology Institute, a group director for Laboratory for Disease Systems Modeling at RIKEN Center for Integrative Medical Sciences, President and CEO of SBX Corporation, and Sir Louis Matheson Professor at Australian Regenerative Medicine Institute. He received a B.A. in physics from the International Christian University and a Ph.D. in computer science from Kyoto University. He has been a visiting researcher at the Center for Machine Translation at Carnegie Mellon University during 1988-1993. Kitano served and is currently serving as scientific advisor for numerous companies and research institutions internationally including ALSTOM, Mitsubishi Chemical Holdings, European Molecular Biology Laboratory (EMBL), Imperial College London, Univ. Manchester, and Swiss Systems-X Program. Currently, he is serving as Editor-in-Chief of nature partner journal npj Systems Biology and Applications published from Nature Publishing Group.

Dr. Kitano received The Computers and Thought Award from the IJCAI in 1993 and Nature Award for Creative Mentoring in Science 2009, and was an invited artist for La Biennale di Venezia 2000 and for Museum of Modern Art (MoMA) New York at Worksphere Exhibition in 2001. He is an active member of Global Agenda Council (Future of Electricity) of The World Economic Forum.



## **Group Project**

As each year, the forum is concluded with a group project spanning multiple days. The group project will test the leadership capabilities of each group, and encourage discussion over issues the world as a collective is facing. This fits very well within the goal of STeLA, which involves exposing participants to distributed leadership and global problems.

The group project was focused around the Sustainable Development Goals (SDGs), and the ability of the groups to contribute to one of them by using Science and Technology. This was concluded by a poster presentation including a prototype, a workshop and a Massive Online Open Courseware (MOOC).

## **Sustainable Development Goals**

The SDG's are an initiative of the United Nations and state 17 goals for the world to attain by 2030, consisting of many more smaller targets. Goals cover topics as ending poverty, making water available to everyone and preserving all forms of aquatic and land-based lifeforms. As the forum theme was 'The Future of Science and Technology', they would be looking into these SDG's and finding ways in which science and technology can be a benefit to the global population.









































### **Solution Prototype**

Groups were put under pressure to create many different deliverables in a short period of time, which tests their ability to organize themselves and utilize the strengths of team members. For one of the main deliverables, the solution prototype, groups were given a set of materials they were allowed to use. These materials included stationaries like paper, scissors, cardboard and glue, but also some more advanced materials such as programmable Arduino-minicontroller computer platform and solar panels.

To stimulate groups to step out of their comfort zone, concepts as originality and innovativeness were deemed more important than feasibility, as long as they were confident that a working version of the product could be produced within their lifespan.





Prototypes created by the groups were progressive, innovative ideas that showcased creativity within a scientific mindset. Examples of these are shown above: to the left a projector-dome that enables people to see life of the perspective of others and gain understanding, to the right a concept for trees equipped with lights that produce electricity through photosynthesis, thus a sustainable way to (re)place streetlights anywhere.

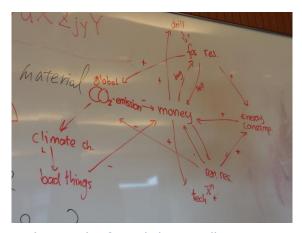
During the final day of the forum, groups were asked to present their prototypes in a walkaround fair, where they were graded by attendees from OIST graduate university.

## **Workshop and Presentation**

The other activity that took place on the final day were the group project workshops. To inspire not only themselves but also others to take action, participants created one-hour workshops regarding their SDG topic. Workshops were held in two rounds, and in each round 5 to 7 participants and staff members would attend a workshop.

#### **STeLA International Leadership Forum 2016 Okinawa, Japan**





Many participants drew inspiration from the workshops and materials that were presented by STeLA throughout the forum, whereas others created their own style of organizing their workshop. Generally workshops involved complex systems, that participants slowly got insight into as the game progressed.

The insights and lessons learnt by workshop attendees were passed on to the other participants by means of a presentation. After

each round of workshops, all participants were asked to create a poster presentation together with the other attendees. Presenting the workshop material to others forced them to distil the core message from what they have learnt, and increased the spread of awareness amongst all STeLA members. Finally, time pressure was purposefully made a continuous factor throughout the entire process, which forced all involved to show their best leadership in making the final day of STeLA a success.





## **Massive Online Open Courseware – Midway Crisis**

Under relaxed circumstances, participants were well able to communicate well and organize themselves. However, stress induces many behavioural changes in individuals and teams. The *Midway Crisis* is included in group projects at STeLA to experience these moments where a different form of leadership is necessary, and to remind participants that reality is never predictable. In real life, the rules of the game often change while playing.

In this spirit, halfway into the group project participants were unexpectedly given an additional task: record a 20 to 30 minute MOOC to make your topic accessible to the outside world. No further requirements were given, as a high-quality deliverable was not the main goal. After the initial shock groups quickly got to work, and by showing strong will and dedication they were able to reflect on incredible growth as a group.



## **Reflection Sessions**

Reflection is one of the core principles within STeLA that allows participants to grow individually and as a group in a very short period of time. At the end of each day all participants are asked to perform an individual reflection, after which they gather in their groups (consisting of 7-8 participants and 2 facilitators) for a group reflection.

#### **Individual Reflection**

Often we experience many things during our daily lives that contain lessons we can use to grow as a person, but most of these go unnoticed. Especially in an environment such as STeLA, where each day offers countless new challenges and experiences, it is necessary to take some time to reflect upon all that has happened during the day.

The first days during individual reflection, participants are given an individual reflection sheet, which asks some simple, open questions to give an idea of what it is to reflect. These questions encourage the participant to think critically about their own actions and to set goals for what they would like to practice the next day.

### **Group Reflection**

Within their groups, consisting of 7-8 participants mixed from all branches and disciplines, groups spend one hour every day reflecting on their individual and team performance. Group reflections are led by the two group facilitators, which are STeLA staff members with special facilitation training.

Group reflection is critical to successful teamwork and team growth, and requires high levels of relating. By commenting on themselves and each other teams can set their goal for the next day, which they can then evaluate and adjust during the next group reflection. A lot of attention is given to the process of continuous reflection, as reinforcing this process will allow participants to keep learning once they return home after the STeLA forum is over.





## **Logistics Information**

## **Transportation**

Busses and Taxis are essential for transportation in Okinawa, and thus STeLA will provide basic transportation during the forum from the Seaside House to OIST and back. However, during the forum participants are allowed to walk from OIST back to the Seaside House at the end of a forum day. The walk will go downhill and take roughly 20-30 minutes.

#### **Addresses**

#### Okinawa Institute of Science and Technology (Forum Venue)

沖縄県国頭部恩納村 1919-1 (1919-1 Tancha, Onna-son, Kunigami, Okinawa 904-0495) 沖縄科学技術大学院大学 (Okinawa Institute of Science & Technology)

#### Seaside House (Participant Housing)

沖縄県国頭郡恩納村恩納 7542 (7542 Onna Onnason Kunigamigun Okinawa) OIST シーサイドハウス (OIST Seaside House)

#### Getting to OIST from Naha Airport (OKA)

There are basically two options for you to get to OIST Seaside House (Forum Residential venue) from Naha airport: Limousine Bus or Local Bus.

#### 1. Limousine Bus

We strongly recommend all participants to hop on the Limousine Bus, which will bring you to OIST within 1 hour and 15 minutes. If you are using the Limousine Bus, you must buy your ticket beforehand at Naha Airport. You can find the Limousine Bus ticket counter only at the Domestic Terminal!

#### 2. Local Bus

The local bus is a slightly cheaper alternative to the Limousine bus. Take the Route Number 120 bus which heads to NAG (名護). It takes about 2 hours until you make it to Daigakuin Daigaku mae (大学院大学前 - In front of OIST) or Seaside House MAE (シーサイドハウス前 - In front of Seaside House), and you will need walk the last 15 minutes to reach OIST.





## **Registration (Check-IN)**

Participants are asked to arrive at OIST Campus C209 Center Building to check in to the STeLA 2016 forum on August  $20^{th}$  by 3 p.m. Though the participant accommodation is the Seaside House, we would like all participants to participate in the icebreaking session hosted at OIST in the afternoon of the  $20^{th}$ , as well as the OIST Summer Festival which will be held from 6 p.m. to 8 p.m.

All the luggage will be kept secure in C209 until 8 p.m., at which time a bus will take us from OIST to the Seaside House. At the Seaside House all participants will be appointed a room and a roommate for the entire duration of the forum.

#### **Internet Access**

There will be free internet at the Seaside house. The forum will provide the information once you arrive at the Seaside House on August 20<sup>th</sup>. At the OIST campus, you can connect to the internet by Eduroam.

#### What to Wear

We recommend you to bring casual summer cloths during the stay in Japan. We also ask you to bring business casual or business formal for the final presentation day of the forum. There will also be one free afternoon during the forum, if you are considering going to the beach then swimwear is mandatory.



## **Participants and Staff Statistics**

## **Universities**

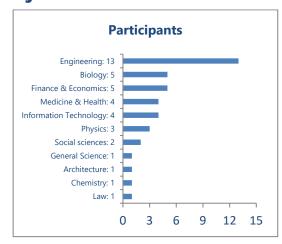
### **Participants**

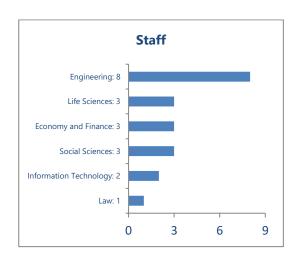
Japan		China		Europe / Middle East		Other	
Hokkaido University	1	Beijing Institude of Technology	6	Delft University of Technology	2	Monash University	1
Kindai University	1	Ocean University of China	1	Ecole Centrale Marseille	1		
Kyushu University	1	Peking University	2	German Jordanian University	1		
Nara Institute of Science and Technology	1	Tsinghua University	2	Heriot Watt University	2		
Soka University	1			Masdar Institute of Science and Technology	1		
Sun Yat-Sen University	1			The Petroleum Institute	2		
Tokyo Institute of Technology	1			UAE University	1		
Tokyo Metropolitan University	1			University of Amsterdam	2		
Tsukuba University	2			Vrije Universiteit Amsterdam	1		
University of Tokyo	5						
	15		11		13		1

#### Staff

Japan		China		Europe / Middle East		
International Christian University	1	Beijing Institute of Technology	1	Delft University of Technology	2	
Keio University	1	Peking University	4	UAE University	1	
Kyoto Prefectural University	1	Tsinghua University	1			
Meiji University	1					
University of Tokyo	5					
Waseda University	1					
	10		6		3	

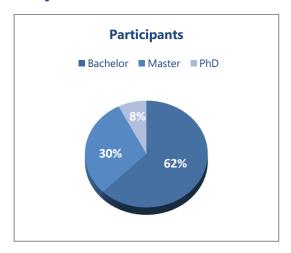
## **Majors**

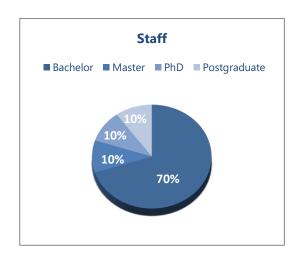




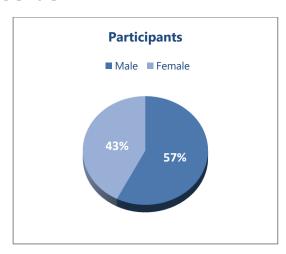


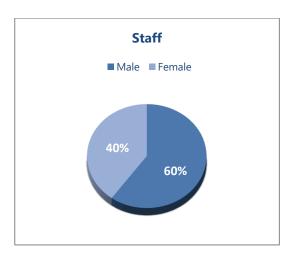
## **Study level**



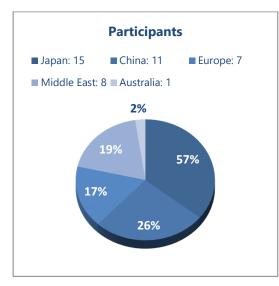


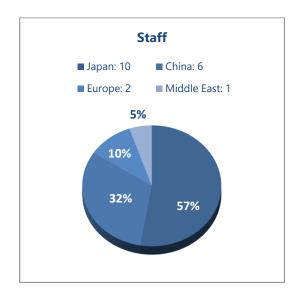
## Gender





## **Regions of Origin**







## **Accounting report**

## **Expenses**

	JPY	USD	Proportion
Accommodations	2,538,151	24,214	69%
Housing	985,200	9,399	
Food (lunch+dinner)	1,101,600	10,509	
Breakfast	72,000	687	
Final Party	54,802	523	
Food (Fruits)	82,339	786	
Food (plates)	29,250	279	
Food (tart)	2,560	24	
Foor-After party (Kuffu)	194,400	1,855	
Shower	16,000	153	
Transportation	823,430	7,856	22%
Transportation (bus)	796,570	7,599	
Transportation (taxi)	26,860	256	
Forum	176,945	1,688	5%
Group project	168,419	1,607	
Name Cards/ ID cards	2,600	25	
materials	5,280	50	
medicine	646	6	
Others	135,989	1,297	4%
t-shirts	125,780	1,200	
Food (potluck cultural festival)	10,209	97	
TOTAL EXPENSES	3,674,515	35,055	100%

#### **Revenues**

	JPY	USD	
Participant fee+Staff fee+ Fundraising-China	1,140,000	10875.60	
Participant fee+Staff fee- Europe	984,473	9391.80	
Fundraising – Europe	125,000	1192.50	
Participant fee- Japan	770,000	7345.80	
Staff fee- Japan	460,000	4388.40	
Participant fee-Australia	52,500	500.85	
TOTAL REVENUES	4,974,473	47,456	

Note: superfluous funding will be used by JP branch to host local events and to support international students in their airfare.



## **Voice of participants**

### Sarah Strugnell – Participant form Australia

Being involved in STeLA provided me with an enriching and exciting environment to meet like-minded leaders. STeLA's carefully planned leadership sessions were explained clearly, run smoothly, and contained exciting activities that helped me to build rapport with my team members. These various activities created the foundation we needed to work cohesively during the group tasks. Of these tasks, I particularly enjoyed The Beer Game, as well as the game that allowed our group to design our own robot. These challenged me and helped me to understand not only others and how they thought, but how I articulated my own thinking processes. One of the things that impressed me the most about STeLA was the way each branch contributed interesting content to the Forum. It was intriguing see what other

branches had dedicated their time to in the proceeding weeks and months to STeLA 2016.

I thoroughly enjoyed nightly group briefings and discussions. I fully believe that the STeLA staff were great facilitators and leaders that allowed each of us to freely talk and share our thoughts. One of the best things about this program was having this at the end of the day. Although some

"These [games] challenged me and helped me to understand not only others and how they thought, but how I articulated my own thinking processes."

of the questions we had to discuss where a little repetitive, the time to talk together without judgement was exactly what we needed.

One of my most memorable moments was the afternoon when STeLA staff surprised us with the additional project. Our group was so on track that we had planned a beach day on that Sunday because we thought we would not have anything to do. Oh how wrong we were.



Despite being in a fairly quiet location, OIST's facilities were fantastic. The rooms were clean, modern and well equipped with spaces for us to focus on group work in the evenings. The food provided to us was excellent during our entire time at OIST, however, if I had never been to Japan before, I would have found it quite strange that I was not eating inherently Japanese things. This was one of the only downfalls of the Forum. I am seriously considering applying to be one of the STeLA Staff in the future, however, I would be worried about travelling to a country and having limited opportunities to see it.

I hope that many other Australians have the opportunity to attend STeLA. I have already started to contact Australian universities about my experience and I look forward to them using their social media channels next year to share deadlines and student voices.



## Kenji Tanaka - Participant from Japan



I enjoyed STeLA in this summer. The intensive schedule improved my leadership skills, and I acquired the skill to see how the dynamics of a group work. In addition to the challenging and informative Leadership Sessions and Thematic Sessions, in the Forum, we had BBQ, fireworks, night party, and in the free time our team went to beach and sushi restaurant. I wanted to mention here to the most precious two things in this forum to me: Forum Keynote Speech and friendship with STeLAers.

One of the most interesting event for me in the forum is Forum Speeches. All speeches were so informative and changed my mind. Especially in the final speech presented by Dr. Hiroaki Kitano about projects he concerned in such as robocup, I acquired the habit to look at the world with the perspective that which field of

science and technology will influence and change the new world. Moreover, I was impressed by hearing his word that crazy creates the new world. I could feel that the science and technology had great possibility.

The reason why I wanted to join the forum is to make friends with the students from all over the world who are familiar with science and technology, and I was satisfied with having the best friends in STeLA. All participants are so creative and high-motivated. I feel STeLAers have feeling to improve their societies. My group members are accommodating so when I could not join the discussion, they waited to hear my opinion and encouraged me to join the group work. I was thankful for the kindness of the members. Also, our members respect

each other so the conflict rarely happened and after every group work, we discussed how we could improve the team work. I believe that in the future, our STeLAers improve the situation of the world and lead each country.

"The intensive schedule improved my leadership skills, and I acquired the skill to see how the dynamics of a group work."

I am proud of being a member of the STeLAers, and being a member of Team Sushi, the name of our team, including students from China, Nederland, UAE, France, and Japan. After the forum, our group members gathered and talked about when we would meet and promised to meet again in the next STeLA. The friendship that we made in this forum will help each other when we tackle with the complicated problems such as environmental problems which require knowledge in various fields.



### Yuanyuan Hu - Participant from China

The days in STeLA were really unforgettable for me. I really appreciate your effort and hard work to hold such amazing forum and bring us wonderful memories. STeLA provides students in science and technology fields a platform to express their opinions and exchange important ideas. And it's also an opportunity for students to communicate with outstanding peers, even build lifelong connection.

The cooperation consciousness and team spirit which I learnt from massive group projects in STeLA inspire me a lot. I start to try different roles like in a team, not just want to be a follower anymore. The most impressive part for me in the forum is group and individual reflection, which I have never tried before. The reflection encourages us to think about the

"The most impressive part for me in the forum is the group and individual reflection, which I have never tried before."

strength and weakness in the previous group projects, and try to figure out how to improve ourselves and then perform better in the next day. We can conclude strategy from success and learn lesson from failure. And I will keep reflecting both individual and team performance in my following work.

As for the difficulty, the hardest part for me is trying to embrace diversity in the beginning Because our team members are from different countries with different cultures, different personality and even different accents. Someone in the team is aggressive, having strong emotion and attempting to control all, while someone is very conservative, acting like

listener. It is challenging to have good team atmosphere and achieve agreement at first since we rarely understand each other, but once easy only if we try to respect others make some change to really blend into the team.

So, I'm grateful that STeLA provides us the opportunity to work with people in diverse backgrounds. Idea collision among young people determines the future world.





### **Ivo Knottnerus – Participant from The Netherlands**

It was my friend and colleague Alex who told me: "Do you want to be taught about being a leader? In Okinawa, Japan?" Before I really knew it, I had already applied. Luckily, I got accepted and off I went on what was going to be a very inspiring journey.

At STeLA, we got the expected courses on aspects of leadership. This was of course very helpful and even fun, but moreover, we participated in all kinds of games/case studies in our

own very diverse group. And it wasn't until the last big group project that we managed to create a really harmonious team through intense reflection sessions. Achieving that with 7 intelligent, kind, funny, but - most of all - completely unknown students was incredibly satisfying!

"I think STeLA really made a difference in the way I approach group projects and working in a team."

In the end, I think STeLA really made a difference in the way I approach group projects and



working in a team, as well as having a clear view of my own performance in teams. It is exactly those experiences that I take from STeLA and that encourage me in doing all kinds of new out-of-the-box challenges! Finally, I think it wouldn't be half as great without all the brilliant people from all around the world, I am now very honoured to call my friends. Thanks!

## **Paolo – Participant from The Philippines**

I have to say that participating in STeLA 2016 Leadership Forum was one of the best decisions I made so far. This was not just another general leadership workshop. One of my future career goals is to be a global leader on energy management and innovation. STeLA 2016 did not betray my expectations on how this forum could help me improve further. When we talk about being a global player, exposure to a pool of scientists, engineers, economists and lawyers with diverse backgrounds, cultures and train of thought definitely gave me another jolt on how it feels to be playing in the global level. It was amazing how like-minded people who desire personal leadership development gather in one place.

The leadership trainings we experienced were new for me. Trust me that these programs will develop your critical thinking, creativity, values, productivity and decision-making. I hope I could say more about these trainings without spoiling the surprise factor! What I can say is that it was not just aimed at collective development, but also personal development. I also loved that we had to stay in groups, me and my group enjoyed together and endured together. Thinking out-of-the-box was an understatement.

#### STeLA International Leadership Forum 2016 Okinawa, Japan



Putting play on words aside, I hope you can feel that ideas during the workshop were out-of-the-box, I mean out-of-this-world! I still sometimes cringe at the ideas we generated during the forum. My way of thinking was definitely freed from previous limitations I had imposed upon myself.

I should also say that the forum was forward-looking. I enjoyed the visioning sessions very well. It still rings to me now that we should envision the future we wish to create. I loved how my team discussed, debated, and worked on the programs, simulations and games. My

"My way of thinking was definitely freed from previous limitations I had imposed upon myself."

values were tested on to what extent I could compromise. My decision-making ability was further ironed out in time-bound simulations. Furthermore, this forum stilled in me more the beauty of team play. I understand that being in a team has its ebb and flow. However, it is also clear that from I what I

experienced here, it was impossible to complete the tasks and things-to-do apart from being in a team. Needless to say, the global pool plays in teams. I may not be sure on what bases the coordinators grouped us, but I believe it was as diverse as it could get. I will always remember that team play is a leadership attribute. It was just cool that there were group reflections conducted every after sessions. These group

reflections sure make you grow up.

Moving on to the personal level, I loved the way how the programs deal with my personal development. Again, I hope I could say more on how critical thinking, patience, letting go and positivity were put on test without spoiling the surprise part. Moreover, I believe the personal reflections part encouraged me to actually spend more time and focus on my own point for improvements. More than development in leadership and all the skills, personally, character building was what made me be drenched further in the forum.

At this point, leaving the technical and career aspects aside,

I should say I had fun, an awesome time! I hope that I won't miss the most important point: I was able to forge new relationships in a span of 10 days in this forum. Especially those in my team, we schedule meet-ups when we are geographically close! Nothing can be more fun when you get reunited with friends! More than the global network built, I believe making friends was the most fun part. And, besides, they are going to be the same persons we will see in the same field in the future!

Awesome job STeLAers!





### **Mohammed Ghassan – Participant from Syria**

Initially, I applied to STeLA because I lacked confidence in my ability to manage people. I always found myself depending on someone else to conduct the team I am working with in order to achieve the required goals. That skill was my definition of leadership at that time. Thus, the outcome I was expecting from my participation was improved leadership skills.

The forum aims to teach leadership by introducing a simplified team dynamics model called the four-player model. Following that, the participants are given a series of tasks to allow them to practice and observe the model presented and to understand the factors required for a team to yield positive results. By



understanding the four-player model and defining the requirements for effective teamwork I was able to define the factors that constitute an effective leader. Thus, this changed my definition of leadership to become "using effective communication in order to establish common grounds which allow a team to be productive". This decentralizes my initial concept of leadership since anyone who contributes to the establishment of a common vision is doing the job of an effective leader.

Moreover, while learning about STeLA I realized that one of the forum's main features was its multicultural environment. I believed that since I am living in a country with a diverse population I would be familiar with a variety of cultures. However, I realized during the forum that the dominant ideologies in every region shape the culture of the people living in that area. This means that, even though I interacted daily with people from different countries, we have adapted to the culture of the region we have been living in for so long.

"... the forum introduced me to some of the most unique and interesting cultures in the world." My interactions with most participants during the forum was a unique experience for me since the forum introduced me to some the most unique and interesting cultures in the world. Furthermore, I realized through the time I spent with my team that when an interest is

present reaching common grounds is not affected by the cultural differences of the members of the work group.

Finally, the people I met during this forum represent some of the brightest, most colourful and resolute individuals I know. Thus, in addition to teaching me several important things, this forum was really pleasant and I cannot think of a better way I could have spent my summer.



## **Alexandre Person – Participant from France**

STeLA is about inspiring leaders. The staff, the alumni, the board, the guest speakers are all great leaders who have inspired me before, during and after the forum. Yet the most powerful assets of the STeLA Leadership Forum are the participants themselves. In some

extend, as a participant of the 2016 edition in Okinawa Japan, I was both inspired by numerous brilliant minds and inspiring for others. Then **each person is a leader for somebody else: that is the magic of STeLA**. The forum was indeed an incredible human experience. I have met several bright

"Each person is a leader for somebody else: that is the magic of STeLA."

students from the leading universities all over the world and spent both hard work and funny time with them. Let me summarize my story in three short questions (thank you Simon Senek!).



Why did I join STeLA? As I participated in 2012 in a STeLA two-day workshop in Lille (France) and I particularly enjoyed it, I wanted to experience the 10-day forum. Moreover, I wanted to learn more about leadership as I am looking for launching a startup in the Fintech industry within five years.

How did I come to Okinawa? I was travelling in Asia during two months through the Transsiberian railway; Japan was the perfect end of my journey.

What is exactly the STeLA Leadership Forum? It is about friends, teamwork, thematic and leadership sessions, individual and collective reflection sessions, games, parties...

To me, STeLA is a real inspiring organization because it encourages each person to discover one's personal ways to become a leader. STeLA direct talks to the heart: it leverages your strengths and pushes you outside your comfort zone. Thus, STeLA upsets and makes you grow at the same time. This magic happens because STeLA is a community based on values such as empathy and courage. It gathers young ambitious minds who want to tackle the future global challenges of our planet with appetite. You learn, you listen, you lead, you try, you invent, you share, you fail and mainly you act. All in all, I strongly recommend you to apply to the next STeLA Leadership Forum!



## **Sponsors**

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#### Fund Support by Individuals

We have accepted donations from various individuals and alumni.

#### Venue Support



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## **Acknowledgements**

On behalf of all the participants, staffs and alumni, hereby we would like to show our sincere appreciation to those who supported the 2016 STeLA Leadership Forum at OIST.

#### **Advisors**

Advisors are the most appreciated supporter of STeLA. It is impossible to hold the STeLA Forum without advisors; we are proud of the following advisors for the 2016 forum. Professor Hideyuki Horii from The University of Tokyo, Professor Peter Wieringa from the Technical University of Delft.

### **Speakers**

Impressive speakers are necessarily important for an effective and fruitful forum. The following persons are the very speakers who made the 2016 STeLA Forum unreplaceable. We fortunately got great lectures from three keynote speakers; Dr. Jonathan Dorfan, Dr. Machi Dilworth and Dr. Hiroaki Kitano from OIST.

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We sincerely appreciate our sponsors shown in the report, and supporting universities for their cooperation.

### **Catering**

Special thanks to Cafe Grano, cafeteria located in OIST.

## **Group Project**

We give our great thanks to Mr. Morita, Ms. Higashionna, Mr. Guzman, Ms. Maneva and Okinawa Institute of Science and Technology for supporting our group project.