

# ENVIM-SCAPES

A travelling diary from 2007 to 2017



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# Preface

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EnvIM, a unique Master's between China and France, where everyone benefits from each other differences. EnvIM unifies two cultures, two ways to work, but also two ways to be and to think one's relation to the world, to nature, and to the environment. Its ambition is to open onto a new vision, built on our encounters. Through projects between China and France, we do provide ways to offer to see, discover, feel, giving precedence to fieldtrips, where you come into contact with another culture. The environment is us too, together with the other.

In Tsinghua University, in Beijing, students discover the environmental conundrums and technical solutions developed in this country to face the pollutions that strongly impact it, as well as its population and ecosystems. In France, whether in Fontainebleau or at INSA, in Lyon, we like to train our students through real-life professional situation, supervised by specialists from different backgrounds, who have become experts in their fields.

Things evolve fast and in dissimilar dynamics... and through these we have a common interest to learn from each other.



*MINES ParisTech, Campus of Fontainebleau*

# 10 years of international partnership

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In 1783, MINES ParisTech has been created to prepare high potential young scholars to manage the future of the country, to acquire skills and knowledge to develop the industry as a response to the challenges for the new era to come. Ever since, the activity of the Ecole des Mines, both in research and in the pedagogic field, has been oriented towards the future and the challenges of development of the society, both with regard to scientific and technical questions and in line with human and social sciences. In the field of energy, material science, applied mathematics, data science, MINES ParisTech has participated as a pioneer in the evolution of the societies, in France, Europe and on an international level. The new global challenges, for example in energy and the environment, are amongst its main fields of expertise.

Around ten years ago, creating the first double degree programme between China and France was in direct line with the commitment to develop international expertise for the challenges of the future. We are fiercely convinced that global challenges require strong and ambitious partnerships between institutions recognised for their research and teaching expertise at the international level. This is why we are very proud of this multi-national programme and partnership with China (University of Tsinghua), in collaboration with the USA (University of Pennsylvania) and INSA Lyon. The first ten years of collaboration have demonstrated that this ambitious program can offer expanded expertise for young and talented international scholars as well as for the participating institutes and for the society as a whole. After a decade of collaboration, we can nothing but confirm the pleasure to collaborate at this international level and our interest to continue this journey for some more decades.

**Vincent Laflèche**  
Director, MINES ParisTech





*Tsinghua University*

A shared view of the environmental challenges led to the creation of this joint program with our French friends and partners. Focusing on the development of sustainable solutions that minimize the impact of human activities on the environment, the International Advanced Master Program in Environmental Management covers the areas of environmental engineering, and environmental management and planning. EnvIM Students have the opportunity to discover and study in China and in France, to work on common projects, gaining in expertise through a 6-month internship, and get two Master degrees, from academic institutions of excellence.

Established in 1911, Tsinghua University has 14 schools and 56 departments with faculties in science, engineering, humanities, law, medicine, history, philosophy, economics, management, education and art. The University has now over 25,900 students. As one of China's most renowned universities, Tsinghua has become an important institution for fostering talent and scientific research. The School of Environment of Tsinghua University is one of the earliest Chinese institutions dedicated to environmental higher education and research, Each year hundreds of the most talented students are welcome, many of them become outstanding figures in the environmental field.

The EnvIM program is designed to train international students with solid theoretical and professional knowledge and skills in the field of environmental management, and to be at the forefront of environmental transitions.

**MING Zhao**

Assistant Dean of the School of Environment, Tsinghua University



In 2002, I went to Beijing for the first time in the framework of the the Sino-French Center in Environment and Energy at Tsinghua University. 5 years later, supported by the European Union AsiaLink program, two double degrees in Environment (EnvIM) and Energy (ALEF) were launched. During these years, Tsinghua University, MINES ParisTech and INSA Lyon teams really have got to know each other in order to co-build an original program that meets the needs of industrials partners and gives students in-depth knowledge in the interdisciplinary field of environment and a global management approach with international vision. So many topics and obstacles have been addressed and overcome such as accreditation, teaching approaches, academic requirements, calendars, construction of relevant case studies and field trips, industrial partnership, professional thesis organization and supervision,... In 2008, the University of Pennsylvania joined the agreement to offer its students the possibility to enroll this double degree, confirming the strong multicultural vocation of this program. 10 years later, 151 students from 18 nationalities have read the Envim programme, building a family and demonstrating that environment has no border.

Long life to EnvIM...

**Frédérique Vincent**

Co-founder of the EnvIM program, ISIGE Director (2000-2015)





This Year in 2017, INSA Lyon is celebrating its 60th anniversary. International partnership, Human values and cultural exchange have always been strong pillars of the INSA foundation. Within this particular experience with Tsinghua University and Mines Paristech, we achieve one of our best examples of development both in the field of high level training and collaborative research. One particular memory dear to my heart...the party we organized in 2007 all together for the final meeting of ASIALINK with the students of the first promotion with traditional music from France and songs from China ... Thousands of good memories and the best is to come ...

**Jacques Méhu**

Co-founder of the EnvIM program, Professor at INSA Lyon

Dr. Yvette Bordeaux and I have led the University of Pennsylvania's participation in the EnvIM Program since its inception in 2007. I lectured on topics such as Sustainable Development, Managing Urban Sprawl, and American Strategies for Reducing Environmental Pollution. The first cohort of three Penn students enrolled in the fall of 2008, and since then nine more have either received their degrees or are currently enrolled. They benefited immensely from the EnvIM experience and have worked in challenging positions at firms ranging from CertiNergy and AREVA in France to InnoCSR Co. in Shanghai.

**John Keene**

Professor of City Planning at the University of Pennsylvania



# 10 years of human adventure

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*Fieldtrip in Guizhou, a mountainous province in the southwestern part of China*



*Jie, Chaoling, Agnès, Siting, Yan, Pengkai, Fangcun*

## *“It was a beautiful, and above all, a human adventure”*

Before entering the workforce, I wanted to broaden my knowledge of my field of study (Energy and Environmental Engineering) and to travel abroad and discover new things.

My first memory of the Chinese students was inviting them for a “French” breakfast when they arrived for their first taste of a French baguette! It turned out to be a disappointment because it was nothing like what they had imagined... That was the beginning of eight months of surprises, exchanges, and discoveries of our respective cultures.

Little by little, I forged sincere bonds of friendship, and once we established a rapport based on trust, we would discuss all sorts of subjects, even the most sensitive.

Agnès Leroy

Process Engineer, ADISSEO

## *“These 4 years will remain forever in my memory”*

The birth of the 1st EnvIM students class, in 2007, is the visible result of several years of work. My 4-year experience of the coordination of the program, punctuated with moments of an extreme richness, both personally and intellectually speaking, will remain forever in my memory.

Anne Roué Le Gall

Pedagogic coordinator EnvIM (2007-2010)

>>   *Photo album : [bit.ly/envim2007](http://bit.ly/envim2007)*





*Guizhou province (May 2008) : environmental impacts from old cinnabar mining for mercury production to local economic development*



Cinnabar from Guizhou province is the main ore resource for mercury production, which can account for 78% of national reserves. Historical exploitation and production of mercury causes both high contamination of local area and international atmospheric emission. Although big mining activities have been completely stopped by government in 2004, illegal mining is still going on.







*Mont Saint Michel (September 2007): the ecosystem, preservation of natural resources, architectural and social heritages, and restoration of the Bay*







*The European Parliament, in charge of the legislative function of the EU, in Brussels*



*Stéphanie, Yao, Antoine, Javier, Shu, Veronica, Marta, Jared, Cameron, Natacha, Aurélie, Ying, Thomas, Hongming*

## *“The worst and the best were cohabitating in a constant frenzy way”*

I think back on that night at the end of September 2008, at the beginning of the EnvIM, when the ISIGE team took us out into the middle of the forest by the light of headlamps to listen to the squall of the deer. I think that our 4 favorite Chinese colleagues were really wondering where they were being taken!

All of the visits, the steel and aluminum factories, the landfills, the sorting centres, the power plants, the micro-hydro plants, the Three Gorges Dam, the “natural reserves” and even the pandas! The worst and the best were cohabitating in a constant frenzy way.

It would be difficult get more everlasting experiences in a whole year and a half.

Thomas Vandenberghe

Head of Australia Pacific, Freelog Consulting



Huludao (March 2009) : a coastal town on the shores of the Yellow Sea about 350 kilometres north-east of Beijing, in the province of Liaoning. The city has a very large number of factories and in particular China's largest zinc production complex, as well as several petrochemical plants. The whole urban area and its outskirts are facing pollutions and are heavily contaminated. This city of 2.7 million people in 2009, which will grow by another million in a near future, is to become the centre of Northeast China.







*The Yangtze river and the Three gorges dam (May 2009)*





*The Etang de Berre, one of the biggest lagoon in Europe, suffered from pollution related to industrial and urban discharges, close to Marseille*



*Flora, Charline, Edouard, Yuan, Michael, Edouard, Cécile, Charlotte, Sarra Zoé, Hao, Josépha*



## *“Living together, mixing cultures and trainings, experiences and characters”*

For a year, as a river that we rode up, we explored the shores of sustainable development, grasped the environmental issues of today and tomorrow, understood the connection of these subjects in a single ecosystem.

Our journey was paced by halts, to leave the ship and go to the field. Over the meanders, the boat finally docks in Beijing: China, which offers us surprises at each stage!

At the end of the journey aboard the EnvIM boat, we leave with two certainties: we learned as much by looking overboard, going exploring distant lands, as by living on this boat. Living together, mixing cultures and trainings, experiences and characters are all elements that have enriched our stay on board.

Charline Froitier

Development Manager, Efficacy



*Fieldtrip in Cao Lanh (April 2010, Vietnam)*

Cao Lanh (April 2010) : This new Vietnamese city of 170,000 inhabitants, administrative centre of the Dong That province, located in the Mekong Delta, has exceptional natural resources: soil fertility for rice growing and the presence of the Mekong for fish breeding. The Vietnamese authorities wish to develop the city economically; a strong population growth is expected by 2020. However, the location of Cao Lanh makes it very vulnerable in terms of climate change, onto which are superimposed the problems related to agricultural intensification. This workshop enabled students to discover and study the issues related to urban development in an ecosystem which is both sensitive and strategic as far as food production and consumption are concerned.









*The Stone forest of Shilin is a notable set of limestone formations  
on 500 km<sup>2</sup> in the Yunnan province*



*Jennifer, Jamil, Laure, Julia, Meili, Shuo, Jing, Li, Juliana, Beatriz, Samuel, Kevin, Jing*

## *“A human experience which transformed me and deeply affected me”*

The EnvIM Masters was a cultural, an academic and a professional challenge. But it was above all a human experience which transformed me and deeply affected me.

I now realize the intensity of the moments experienced during the journey from Paris to Beijing on the Transsiberian. This trip – with three fellow graduates – still holds a special place in my memory. I still think of Jamil, whose adventurous spirit led us from Moscow to the Mongolian steppes, passing by Lake Baikal.

I'm now pursuing my career, keeping in mind the values and skills developed at ISIGE: the integrity, perseverance and openness necessary to integrate environmental considerations into the development of human activities.

Samuel Vigier-Picard

Technical Support & Optimization Manager, SUEZ

## *“More than a programme, a human adventure”*

Incredible meetings and discoveries across France and China have allowed me to enjoy life and the world with another view, through two cultures, so different but paradoxically so close at the same time.

Monzen Tzen,

Pedagogic coordinator EnvIM (2010-2012)

>> ●● *Photo album : [bit.ly/envim2010](http://bit.ly/envim2010)*





*Ningxia desert (May 2011)*





Champagne field trip, sustainable viticulture its concept and how to implement it: beyond implementing environmentally best practices, this means taking into account the probable evolution of the climate, and the adaptation of viticultural and oenological technical itineraries, from the grape to the bottle. But alongside this expertise i.e. the optimal organization of the vineyards and the cellar, the collective dynamics is also indispensable for a concrete transcription of the concept.





*Ningxia is composed of 60% of mountainous plateaus. Local government requires wind power plants to contribute 60% of their revenues to coal-fired power plants*



*Fei, Ugo, Ludovic, Ru, Anh-Ha, Zheng, Lorelei, Nicolas, Lucas, Ding, Yixiong, Simon, Ann, Franck, Hui, Laure, Roselyne, Emilie, Enrique, Yuanyuan*



## *“I was fascinated in discovering such a different culture”*

I like to compare the ISIGE to a charming and friendly inn. Ingredients are mixed from all backgrounds and from all over the world in order to create dishes of varied flavours and unforgettable aromas. My EnvIM year was a great year, because : I too loved geology to the point where the midday sun gave me sunburn, because I too paid quite some drinks at the Glasgow's in Fontainebleau, because I too thought I would never speak Chinese, but was fascinated in discovering such a different culture from my own, because I too wondered if it was really necessary to visit another twelfth wastewater treatment plant, because I too wished I had not drunk those glasses of Baijiu, because I too thought I wouldn't get a work assignment, because I too had some dark days and sleepless nights working on my thesis., and finally, because I too believe that if we keep training people in sustainable development issues, we may have a chance to make a difference... someday.

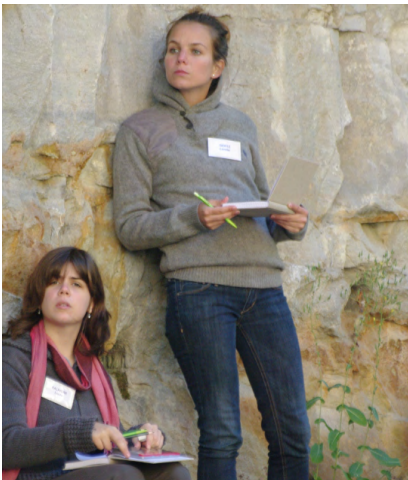
Franck Lupescu

Research Engineer, TTK



*A PV solar farm in the middle of a remote place (May 2012)  
Ningxia suffers of land desertification, through water erosion, wind erosion, dryness and evaporation,  
but holds large coal resources and has enormous solar and wind power potential.*





Induction week in the Alps in september 2011, studying environment and changes through the ages. Experts and geologists teach us how to read the transformation of the landscape in scenics and we all feel very small ! This amazing geological formation is named "the Velodrome". Close to Digne area the Velodrome shows in a limited sector, a summary of the Alps historical formation.







*Dianchi Lake has suffered of a high loss of biodiversity over the last decades, endangering endemic species specific to this basin.*



*David, Antoine, Romain, Gwendal, Laure, Benjamin, Jieqiong, Claire, Nikita, Elsa, Sandrine, Candice, Miaomiao, Yun, Delon*



*“ My own dream is that alumnis keep their heart strong and their values high ”*

Each year I learn so much from EnvIM, a real amazing living and evolving process. A new year first means a new group of students, with their own different potentialities, skills to develop, assets, from various backgrounds, cultures from all over the world, and sometimes with so many experiences to share already. Each year, I am eager to discover the new identity of the group, a group with its own collective intelligence, but each one having a goal, a common purpose. I am imagining every year how they may participate to build a better future. This dream is to follow an aspiration, to make it real, and I am convinced that this is possible to make the dream come true ! At the end of the program, everyone finds his/her own place in the professional world. My own dream then is that alumnis keep their heart strong and their values high, and that we share it together again and celebrate. Each year creates a new beautiful group of fresh energies ready and curious to experiment through projects, case studies, to learn together, to share time abroad and field trips together, all of us driven by green values.

Students, lecturers, experts, partners from Beijing, Lyon, Philadelphia, Paris and Fontainebleau are all co-creating EnvIM as a collective work, rich of 10 years of experience

Cathy Descamps-Large,

Pedagogic coordinator EnvIM (2012-present)



*Trip to Nantes to visit a methanization plant (January 2013)*



Green growth ! a territory at the core of energy transition. We visited an infrastructure of anaerobic digestion which constitutes a methanisation plant providing green energy at the local level in the area of Nantes. The system produces heat and power as well as fertilisers.







*Mountain Forest park of Kunming (May 2013), on the shore of the Dian Lake, renowned for its numerous historic sites from the Yuan Dynasty and with a wonderful view over the lake.*





*The Ming Dynasty imperial tombs is a collection of mausoleums built by emperors of the Ming dynasty.*



*Azim, Hannibal, Blandine, Yan, Pia-Maria, Mingming, Ulysse, Clarisse, Alice, Xinyao, Alaric, Xuanyi, Jérémy, Grégoire*



*“Even though we had different mother languages, we became good friends”*

There are many differences in terms of culture between China and France. In France, you might find that people like drinking coffee and red wine, and that supermarkets normally do not open on Sunday, and that rich people normally live in the countryside. When I first came to France, one thing I felt surprised about was that drivers always gave you the priority when crossing roads. I always tried to cross the road after the cars passing, and it turned out that they were waiting for me all the time.

We had 15 students from France, China, USA and Lebanon. Even though we had different mother tongues, personalities and religion, we became good friends. The international vision, solid environmental knowledge, and good friends are three most important things I gained from this program.

Mingming Li

Management Trainee, SUEZ



Each year is an opportunity to develop a subject and to share together as a project team, to organize a workshop in Beijing. 2013 topic was "CO2 reuse, a new business for China" with Air Liquide, a collective intense work that led to an ebook discussing this idea.







*Two flat boats in Hyacinths, Dianchi Lake (May 2014).  
Purple rooted hyacinth sequestering large amounts of nitrogen and phosphorous pollutants, are harvested from the lake, dried, and turned into fertilizer or animal feed.*





*The Main gate of Tsinghua University, during the first and sunny days in Beijing.*



*Caroline, Alice, Matthieu, Geoffrey, Claire, Marie, James, Alexandre, Imane, Mélodie, Mahamadou, Victoire, Clément, Yuwei, Yuqiao, Liuhanzi, Ufoma, Ekaterina*



*“It was an amazing program, with exceptional people”*

Our class bonded exceptionally well. Without the trust we developed over the duration of the year, divergence elicited from different cultural backgrounds and personality dispositions would have curtailed our ability to succeed as a group. It was an amazing program, with exceptional people. This extends beyond merely the professors and students. It includes the tireless efforts of the many support staff behind the scenes, from the administrative personnel to the media designers. Without their often unheralded energy, students would be unable to concentrate on academic endeavors. It was one of the most enjoyable, culturally enriching, and challenging experiences of my life. I would never trade this experience and would advocate for any prospective participants to apply and hopefully accept this excursion of discovery.

James Manning

Project Manager, Ministry of Mines and Industrial Development of Niger

*“The powerful network of the programme will help me to build lifelong connections”*

I believe that the powerful worldwide network of the program as well as its intensive multicultural curriculum will help me to build life-long connections and pursue my career at the international level, no matter whether I decide to work in another country after my studies or get back to Russia with a brand new insight and a profound cross-cultural awareness. I really enjoyed our field trips, they were very well organized and gave us a lot of valuable knowledge and experience. In addition to that, it was a great possibility for all the students to get to know each other better and become real friends!

Ekaterina Lizhina

Consultant, WWF Australia

>> ●● Photo album : [bit.ly/envim2014](http://bit.ly/envim2014)



*Visit of Le Havre port infrastructure (April 2015)*

Greening Industrial park through the concepts of Circular Economy Project, from TEDA, one of the first Chinese EIPs close to Tianjin, to the Grand Port du Havre... a unique experience of team work







*Hainan Island (December 2014), the very southern chinese island a few days of warm weather in the midst of winter*







*Ecology Quality Assessment for regional development around Beijing*



*Kathleen, Claire, Yong, Louise, Suzan, Clément, Shuyi, Louis,  
Axel, Nicolas, Gildas, Renaud, Nan, Milena, Manuel*



## *“One of the greatest presents throughout the year*

For me, to be part of the EnvIM family is one of the greatest presents throughout the year. EnvIM is a well-designed program that offers students with deep insight into sustainability career, integrated with courses, projects and field trips.

I not only learned a lot during the program, which benefits me so much in my sustainability career, but more importantly, I had a wonderful time with all my French and Chinese friends. The moments we had together are like yesterday when I look back. Best wishes for EnvIM's 10th anniversary. And all the best for my fellow friends, and also for all the dear staff that help the students so much throughout the program!

Shuyi Li

Engineer, EDF Climate Corps



Fieldtrip in Chongqing, along the Yangtze River, and visit of the Sino-French Water Limited (Suez joint venture in China), waste water treatment plant, before a few days in Hainan Island.











*Wudaokou, district located near Tsinghua University, attracts many bars, restaurants and nightclubs for the national and international students living nearby.*



*Marie, Céline, Iris, Sériane, Kristen, Kévin, Joseph, Sirui, Vincent, Géraldine, Xingfan, Karim, Joshua, Zi, Bowen, Ruli, Rafet, Rayan, Xin, Maria Yanina, Judith, Georges*



## *“First thing to do : to buy a bicycle”*

When we first arrived at Tsinghua University, we were all amazed by this huge American-style campus: 400 hectares for tens of thousands of students, teachers, administrative staff and so on. The first thing to do was buying and of course bargaining for a bike, then the adventure on the campus could begin.

What about the night life then? There are no places on the campus where you can have a drink at night. However, it will only take a 15-minute ride by cycle to get to Wudaoku, the nearest metro station, where you may find several bars. Many students meet there with their friends so the atmosphere is very friendly. And if it is still not enough, you can still take the subway to go downtown and find some other places!

Joseph Lemoine

Assistant Engineer in eco-materials, Renault



*October holidays, a week to discover China freely before the Tsinghua academic program.  
In 2016, students visited the Gobi desert.*





Stroll through the forest of Fontainebleau to discover its many characteristics: biodiversity, history, geology, geography ... The forest has been managed by men for centuries, as a royal hunting grounds or to grow trees. Nowadays, one can still feel the impact of men activities on its shape.



*Visit of the Forêt de Fontainebleau (September 2016)*







# EnvIM towards the future

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## *A World in motion*

I remember my first discussion with the Envim team this year. Each one of us was coming from its own part of the world and I had trouble realizing that we were all going to start a new journey altogether. I had somewhat and outdated vision of China, but I was entering a fast-growing, dusty and profoundly diverse country with slightly kitsch urban landscapes and flashy colors.

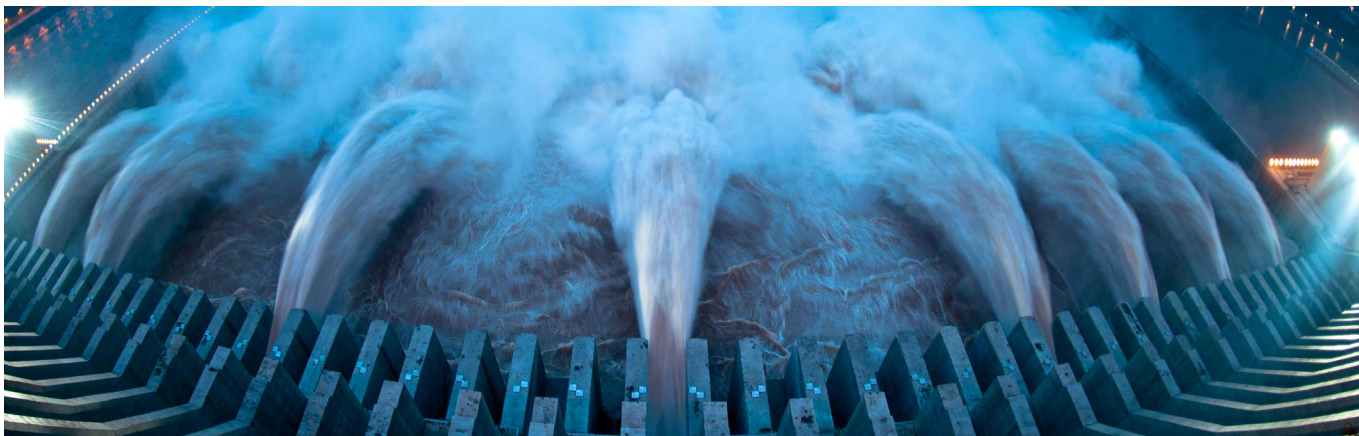
China is probably one of the countries in the world where new social, economic and environmental trends are the most visible and compounded: climate change impacts on water resources, contamination of underground water and soils from waste landfilling, food security challenges due to population growth, elevation of life standards and urbanization. But it is also a country of opportunities, where the people are mitigating the risks arising from economic development, and adapting to the changes and challenges they live, through an incomparable momentum towards sustainable development. I found out there among the most promising ideas of technologies, the most ambitious projects and the most resilient mindset I have ever met. Between 2014 and 2017, within SUEZ, I coordinated the Business Alliance for Water and Climate. In a world

facing growing scarcity of resources, reducing our environmental footprint and optimizing our consumption of natural resources are major priorities. Companies are taking commitments to fight against climate change through corporate water stewardship and to implement circular economy solutions through improved waste and wastewater management. This new economic model can reconcile growth with environmental performance and I am convinced that it will be crucial for private sector companies in the future in order to safeguard their reputation and maintain their sustainable development through time.

The discovery of China and the extensive learnings provided by the Envim pedagogical team from MINES ParisTech, Tsinghua and INSA Lyon changed the way I perceive my environment and the people around me. I am still today dedicated to living my life in keeping with the environmental values I learnt during this period, while working at the Sustainable Development Department of SUEZ in Spain.

Sébastien Pellion (EnvIM 2013)  
Suez - Spain





### *Future large projects, the environment and the Human*

After I spent several years of professional experience managing development projects funded by international donors in Africa, EnvIM was for me the opportunity to focus my career on environmental and social impact assessments (ESIA).

After a challenging professional mission in Niger as an independent consultant for a dam project, - to coordinate a census and socio-demographic survey of the population to be resettled - I was hired to implement the next steps of the resettlement plan, carry out the consultations with the population, set up of the resettlement sites and the implementation of the compensation mechanisms to the population. My new position in an engineering consultancy company which has a worldwide expertise in energy, water and infrastructure projects, allows me to collaborate with engineers so that social and environmental aspects can be taken into account while designing and implementing the infrastructure projects.

ESIA experts intervene in hydrological projects, mining activities, urbanization plans, construction of communication networks, agricultural expansion, the creation of national parks and other protected areas, etc.

Moreover, ESIA practitioners' profiles are diverse and can cover different disciplines, or can specialize.

Contemporary economic development dynamics show that nowadays the construction of large scale infrastructures is particularly taking place in Asia and Sub-Saharan Africa, where the investment is essential to provide clean and safe water or affordable energy, among other services. Resettlement is one of the most complex issues and experts need to take into account all possible impacts to foresee adequate compensation for property losses, active participation of local communities, respect of human rights, provision of water and sanitation facilities, ensure food security and adapted agriculture schemes, etc.

Regardless of the urgent need for developing countries to provide these services, these projects largely depend on foreign investment to build the adequate infrastructure. Population awareness of the impacts of these projects is increasing as well as the involvement of civil society organizations in developing countries. Therefore, ESIA experts, and social specialists in particular, play a relevant role.

**Manuel Brito, (EnvIM 2015)**  
Tractebel ENGIE - France



## *The cycles of resources*

I am from a French island located in the middle of the Pacific Ocean, where the main source of revenue is based on tourism, and the environment is the capital that needs to be preserved. However, as an isolated island, the resources are scarce and insufficient to support the needs of the population hence most of the daily life products were imported

The EnvIM program has introduced me to the circular economy concept and this was so appealing to me, that after my internship with Pr. Tian, one of the researchers in greening industrial sector at Tsinghua, I have been working in that field. Currently I am a scientist in Singapore at the National Research Agency name A\*STAR. Singapore is an island of about 700 km<sup>2</sup>, its economic development is quite impressive considering that this city-state has a considerable lack of resources of any kinds, i.e. water, energy, food and even land: 40% of water is imported from Malaysia while the remaining share is provided through desalination (15%), reused water (30%) and artificial water catchment (15%).

Our challenge is that end-of-life treatment activities do not exhibit enough profitability to convince the country to dedicate and invest enough space and

efforts towards implementing resource efficiency measures. As a result, most of the waste is either incinerated or exported overseas.

One enabler to overcome this barrier is to be able to articulate and to expose the holistic benefits of sustainability measures, i.e. not only accounting for the direct but also the indirect benefits in regards to jobs creation, improving resource independence, promoting innovation, increasing competitiveness, etc.

I believe that the EnvIM program provides the background and the knowledge foundation to start understanding the sustainability challenge in a relatively short period of time. But, ultimately, it is up to us, alumni and current students to practice, to promote, to deepen and hopefully to develop the knowledge and the models applicable to the real-world.

**Jérémy Yune (EnvIM 2013)**  
A\*STAR - Singapour





## *Looking for a green international development*

EnVIM program is a very well structured program that digs deep into issues of Environment management and is a double degree programme. It permits you to interact with the experts in the field of Environmental management and the beauty with it is that they are very well selected from both within and without France and they feed the students with an important basis, giving them ample time to digest the issues. The lectures are always followed by field visits to have hands on and test how it feels out there in the field.

At my work place I used to have a lot of challenges in contributing to technical issues pertaining to Environmental projects in my country. As of 2016, I have so far worked with two local consultants on Gravity flow schemes, two on EIA for the Road construction and one on the development of the paddy rice cultivation guideline. With more focus on wetlands and water resources, I have worked with international consultants from Japan in the Japanese International Cooperation Agency project in my Department of wetlands management, especially in the area of catchment/Frame work management plan development for two big critical wetlands systems. This project had many components, but all in

all aspects of sustainability and livelihood options for community was a great pillar and we developed many livelihood projects for the communities around these systems.

This programme augmented a lot my knowledge base on EIA, Water resources management. With my country economic status where there are so many development projects coming in, the course was very timely, because industrialization comes in with a lot of environmental challenges. The knowledge of industrial ecology and EIA is consequently more wanted than before, and not only for my country but worldwide. So EIA practitioners are therefore desired to mitigate these ever emanating challenges accruing from developments and all these are satisfactorily addressed in EnVIM program.

**Geoffrey Gokaka (EnvIM 2014)**  
Ministry of Environment- Uganda



## *Breathing and moving in the city of tomorrow*

I'm a Chinese student from ENVIM 2014 and I graduated from Tsinghua University in 2016. Now I'm working at the International Council on Clean Transportation (ICCT) in Beijing, China as a researcher. ICCT is an independent non-profit research organization that provides technical and scientific analysis to environmental regulators around the world. Our mission is to improve the environmental performance and energy efficiency of road, marine, and air transportation, in order to benefit public health and mitigate climate change.

In some megacities in China, air pollution is becoming one of the most serious environmental problems, and vehicle emissions are one of the largest contributors to urban air quality problem. Although new vehicle standards get tightened over the past few decades, studies have shown that the real-world emissions from in-use vehicles can be substantially higher than the values certified in the laboratory. Therefore, effective in-use compliance and enforcement programs are very important and necessary to mitigate emissions from light- and heavy-duty vehicles. My job is to design and conduct research projects on vehicle emissions standards, real-world emissions testing, emission control

technologies and relevant policies, with the aim of supporting the government authorities to enhance vehicle emissions standards and establish a robust in-use compliance and enforcement program and contributing to addressing the severe air pollutions in China.

I am very interested in air pollution control and have been learning about this field for several years. At Tsinghua, I learnt the technical and scientific basis of air pollution. At the ENVIM program, I learnt more about the environmental management, and realized how regulations can play an important role in air pollution control. Besides, the ENVIM program equipped me with not only a deeper knowledge of environmental management, but also a broader international perspective, which definitely benefits my further career!

Happy 10-year anniversary to ENVIM, and wish ENVIM better and better!

**Liuhanzi Yang (EnvIM 2014)**  
ICCT- China





## *Cities of Tomorrow*

Energy transition in cities is both a challenge and an amazing opportunity. Between 2000 and 2020, the urban population will have doubled and caused an explosion of energy needs, impacting both the access to natural resources and the environment. Decarbonised environments and societies are more than ever an emergency!

To solve the equation, creativity and innovation become decisive factors. Innovations, «high tech» or «low tech», should integrate the evolution of uses, management models, and services: sustainable urban projects need an innovative approach.

As in trade, transport and banking, the urban sector deals with «disruptive technology» and uberization. New actors and new means can, in some months, question 10 to 20 years investments projects, without any visibility on the long-term effects. Today, some start-ups aim at identifying priority zones for the expansion of energy networks, at proposing new forms of energy transactions in neighborhood communities (through block chains for instance), lifetime of batteries considered to be too costly for urban uses can be doubled in a few months ... The whole urban value chain is potentially concerned.

To anticipate breaking innovations is literally not possible. But it is essential to prepare the future urban project, its design and management processes and its technical and organizational components, so that it is permeable and conducive to change. An evolution of practices towards agile development and anchored in open innovation is possible. This will pave the way for a rapid but balanced and resilient transition of the city and its services to city dwellers.

Antoine Daval (EnvIM 2011)  
Efficacity - France

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Our institutional partners, who made possible the achievement of one of the first double degree program between 2 institutions of excellence, Our industrial partners, who have always trusted us and offer us every year a various panel of innovative missions, Our professors and speakers, who passionately transmit their sectoral expertise, Our alumnis, who succeed brilliantly in transmitting the torch of sustainable development in through the companies they work in, The ISIGE staff, former and actual employees, who devote their efforts into creating a vivid program







After 10 years of crossing countries and cultures, EnvIM delivers us a testimony from its institutional partners and its alumnis, offering a broader view of its roots and what environmental management should be, in a more human and sustainable world.