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SPACE2015

# Open Innovation, human capital and the commercial space industry

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ICAO / UNOOSA Aerospace Symposium

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## And it all started with... SSP14-ISU



**MONTREAL 2014**  
**SPACE STUDIES PROGRAM**

**INTERNATIONAL SPACE UNIVERSITY**  
JUNE 9 - AUGUST 8, 2014

The International Space University provides graduate-level training to the future leaders of the emerging global space community.

The 27<sup>th</sup> Space Studies Program is a nine-week immersion in the study of humankind's evolving experience of space.

International Space University  
1, rue Jean-Dominique Cassini  
63400 Marché-Graffenhuden  
France  
[www.isu.net.edu](http://www.isu.net.edu)

 **HEC MONTRÉAL** 

## Introduction

- New space
- Globalization
- New technologies



**Competitive business environment**

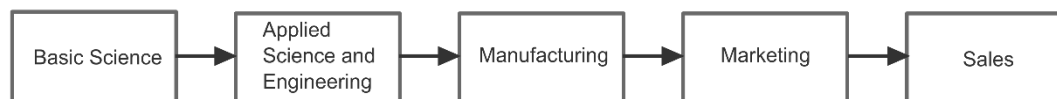
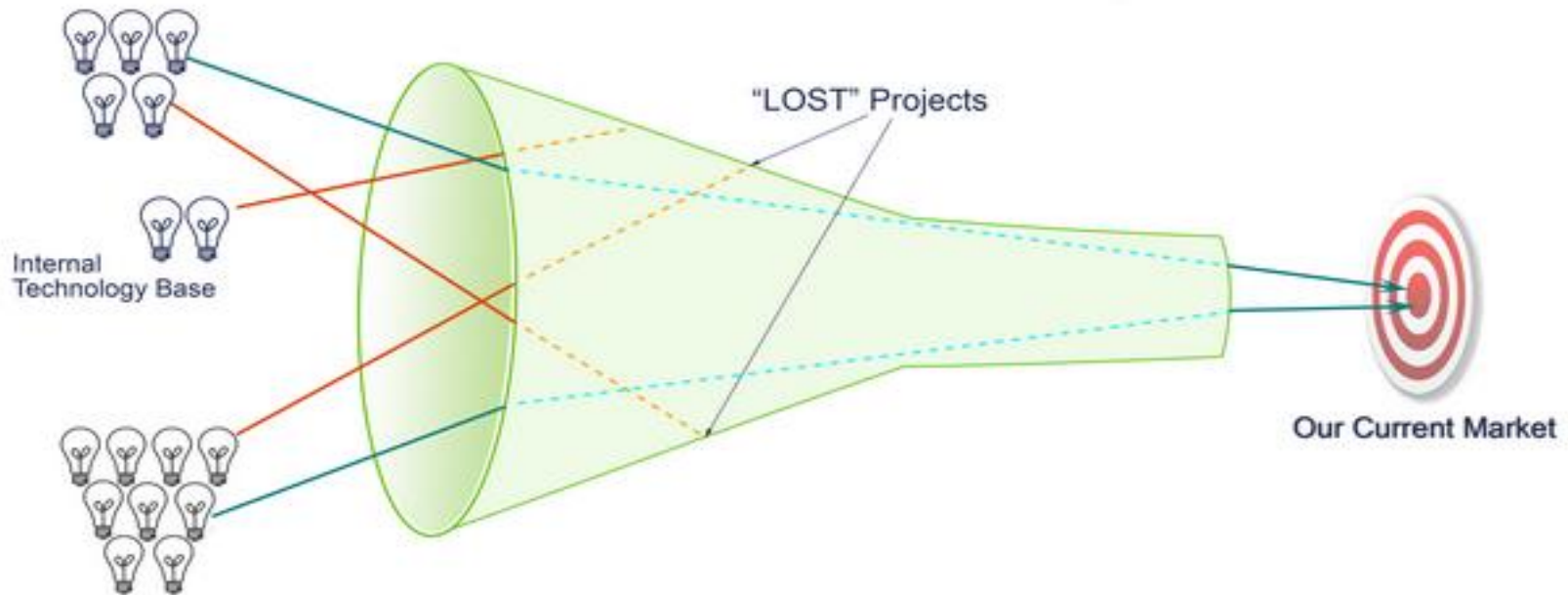


# Innovation from growth tool to a survival condition

**“ INNOVATION  
DISTINGUISHES  
BETWEEN A LEADER  
AND A FOLLOWER. ”**

—Steve Jobs

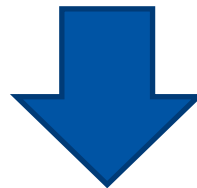
## Closed model of innovation





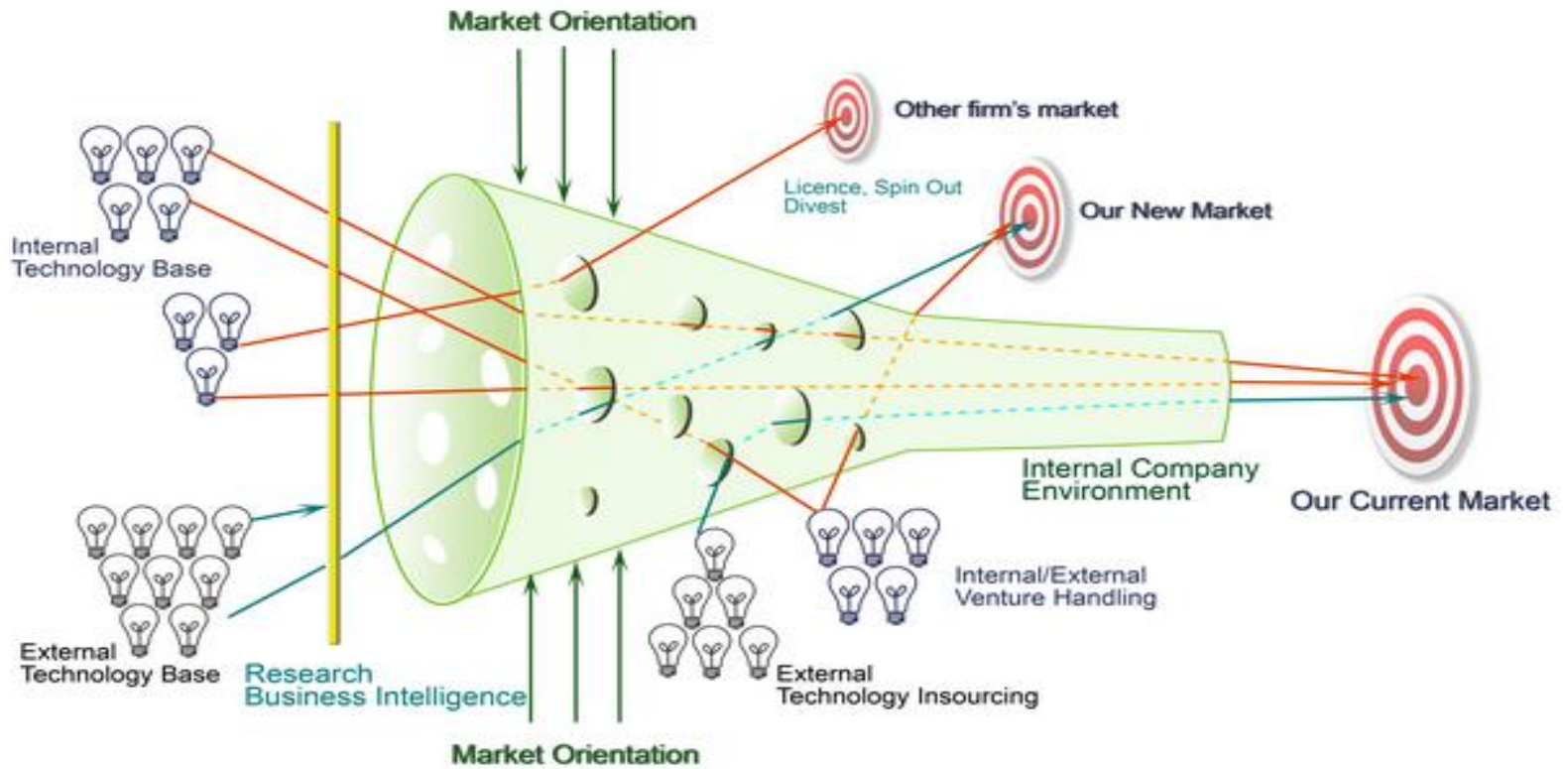
## Open Innovation? Why?

**“Open innovation is the process of strategically managing the sharing of ideas and resources among entities to co-create value.”** (TP OI in space, SSP14, ISU)

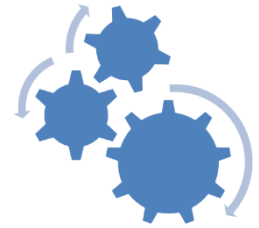


Best ideas, practices, knowledge are not necessarily within the boundaries of the firm

## Open Innovation model



## Multiple levels of openness





# Why OI for the commercial space industry?

1. COST SHARING
2. RISK SHARING
3. DECREASING TIME-TO-MARKET
4. VISIBILITY/ MARKETING



## More resources

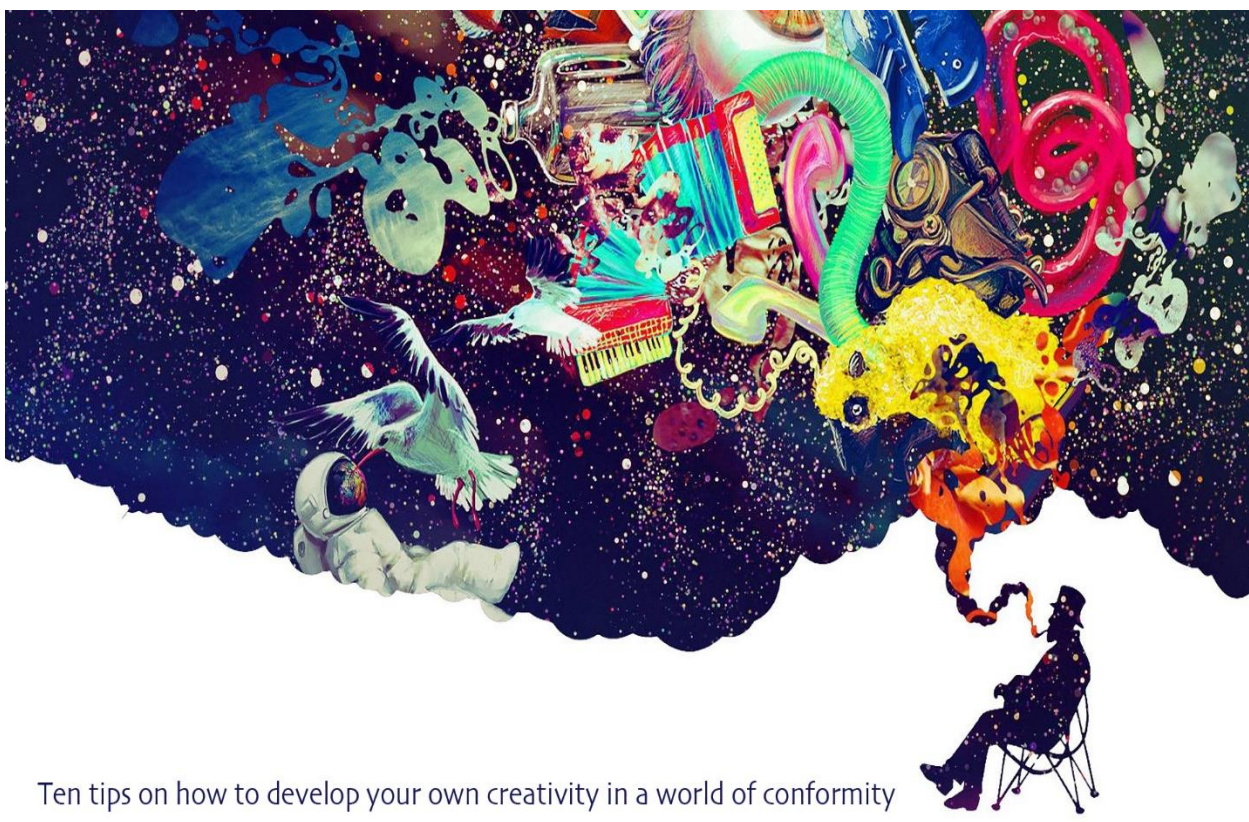


## In practice?

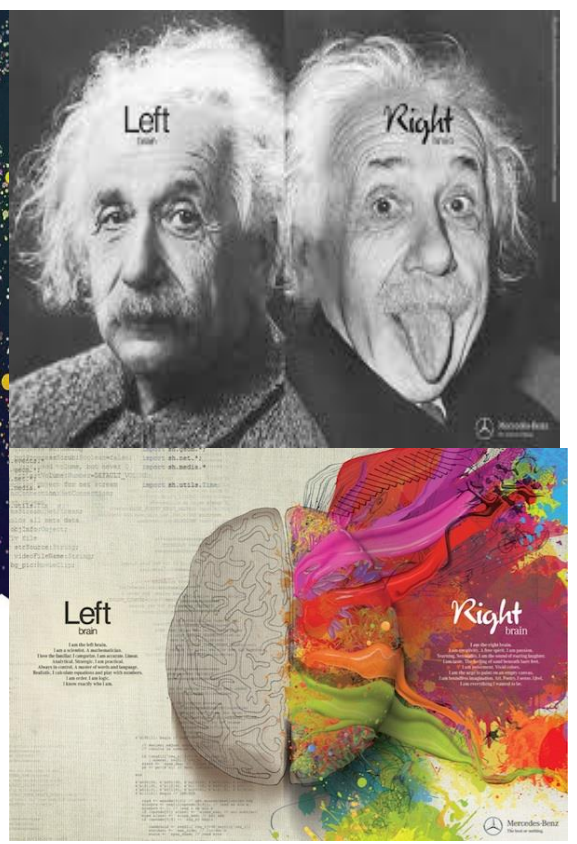




## Creative problem solving approach



Ten tips on how to develop your own creativity in a world of conformity



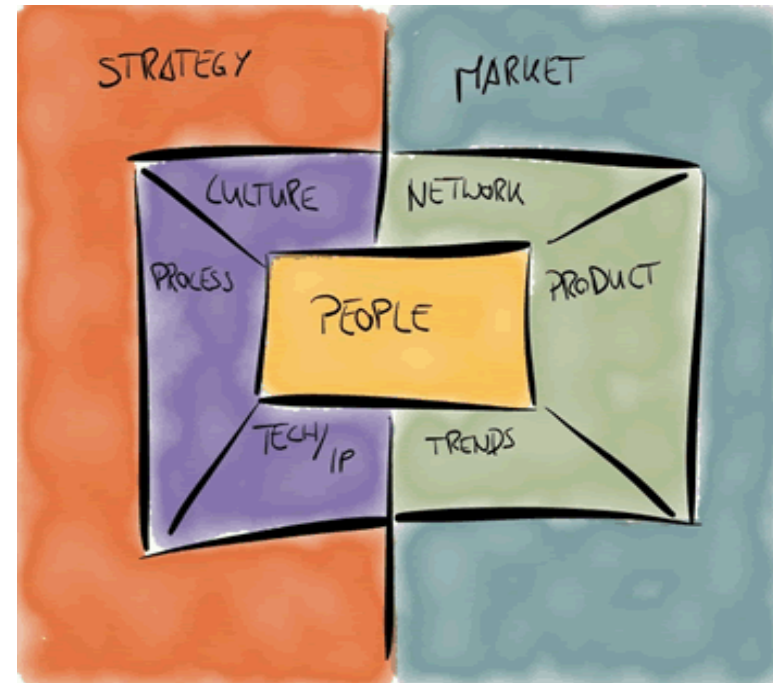
## Collaboration and co-creation





## Corporate culture

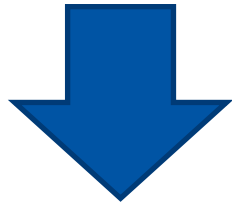
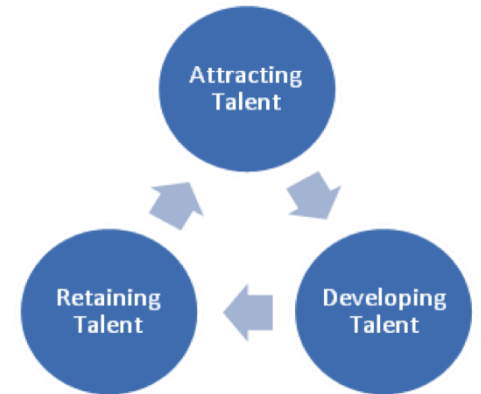
- Organizational structure
- Leadership style
- Business Model
- Knowledge management



***“...technology is only 20% of the picture. The remaining 80% is people. You have to get the culture right“.*** David and Fahey (2000:13)

## Human capital is **KEY**

- Talents
- Multidisciplinary teams
- International/ Intercultural perspective



**Education and Training**



# International Space University



Since its founding in 1987, ISU has graduated more than **3900 students** from over **100 countries**. Together with hundreds of ISU faculty and lecturers from around the world, ISU alumni comprise an **extremely effective network** of space professionals and leaders that actively facilitates **individual career growth, professional activities** and **international space cooperation**.

## 3I'S: International, Intercultural and Interdisciplinary

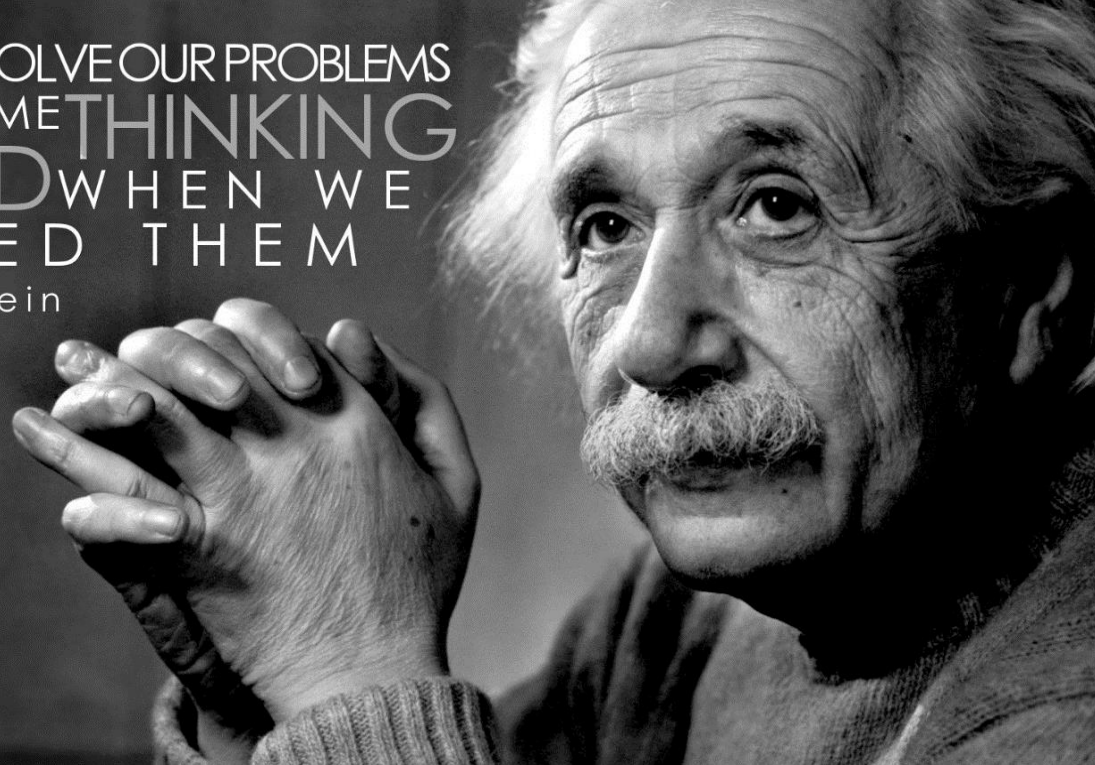


Space Studies Program 2014  
SSP14, Montreal, Canada



## Conclusion: “a different approach for different challenges”

WE CANNOT SOLVE OUR PROBLEMS  
WITH THE SAME THINKING  
WE USED WHEN WE  
CREATED THEM  
-Albert Einstein

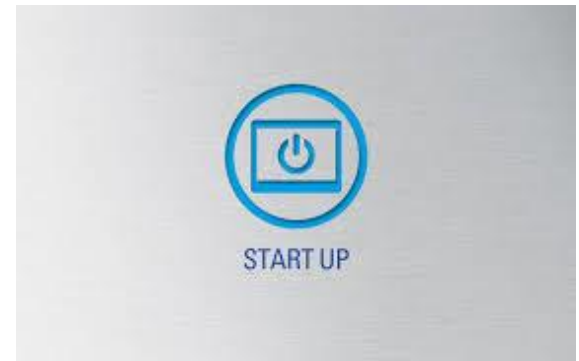




## Motivating the next generation it is about...

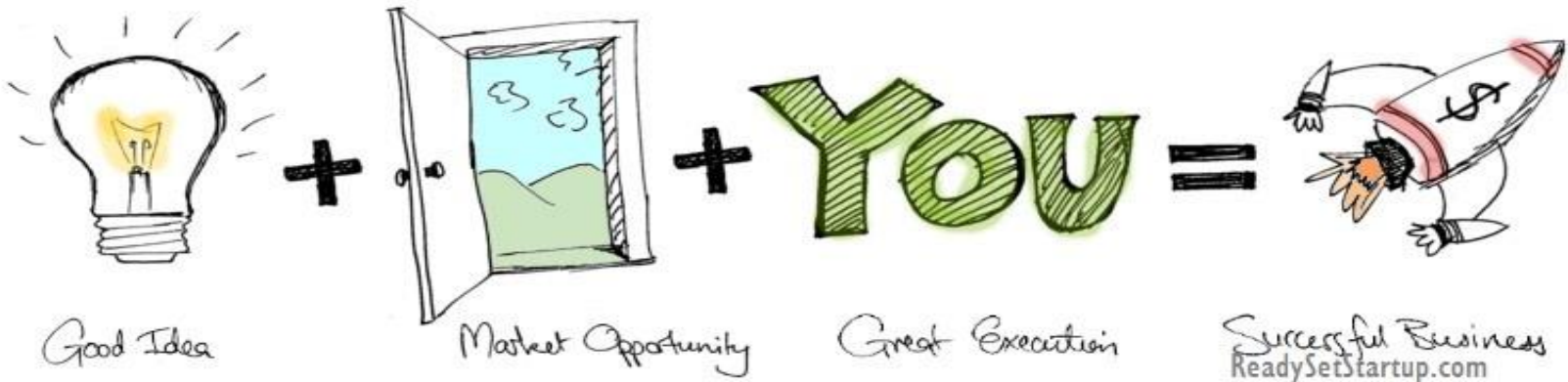
- **Dreams**
- **Open Innovation and collaboration**
- **Education and training**

Motivating, **inspiring** and **empowering**



# The future of the Commercial Space industry

***Pixar CEO's Ed Catmull (Hill et al. 2014) : innovation in space is “not just about making up how to do [rockets, but about] making up how to run [organizations] of really diverse people who can make something together that no one could do alone”***





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# THANK YOU

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