

# Innovation @ Berkeley



## What is a Moonshot?

Professor Chesbrough's new MBA course explores Organizational Moonshots

Henry Chesbrough's new moonshot course looks at organizations who intentionally set extremely ambitious innovation objectives, where incremental innovation cannot get the job done. This process of creating and executing a non-incremental, radical project is called an "organizational moonshot". The process is examined against a backdrop of how society transforms new science into new progress, and how it looks at organizations in private, public and non-profit contexts. The course looks at both successful and unsuccessful cases, and discusses the internal organization of each initiatives, as well as their external objectives. Instead of looking at how firms can unlock incremental or radical innovation, the class aims to understand how and why firms pursue and implement moonshots.



Berkeley Innovation Forum, Fall 2017

## Challenges In Transitioning To New Business Models



In the rapidly changing landscape, companies require a new way of thinking— in today's digital world, it is almost impossible to hold on to the old business model. The driver for these changes is understanding customer behavior. At the Berkeley Innovation Forum, managers of leading companies shared their challenges in transitioning to new business models. Companies like Fujitsu, Wipro, Standard Chartered Bank, IBM and Renault-Nissan talked about the lessons learned and the biases to overcoming barriers for innovation. Corporate executives expressed the importance of Open Innovation, and how the open innovation ecosystem helps facilitate innovation and business model breakthrough.

## Newsletter Content

What is a Moonshot?	1
WOIC 2017 Industry Challenges	2
Henry's Corner - Open Innovation Research	3
Open Innovation, Global Impact	4
Garwood Highlights	6
Open Innovation in India	7
Upcoming Events	8





# WOIC 2017

4<sup>th</sup> ANNUAL  
WORLD OPEN INNOVATION CONFERENCE

GARWOOD CENTER FOR CORPORATE INNOVATION  
HAAS SCHOOL OF BUSINESS, UC BERKELEY



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## World Open Innovation Conference: Reflections Strategic and Public Policies for Open Innovation

At the 4th annual World Open Innovation Conference, we learned that open innovation in practice needs to leverage effective policymaking. Effective policymaking can harness the value-added of openness in science, and promote investment to transform open initiatives into new technologies and new business models. Digitalization is one of the multiple drivers of change. Digitalization changes the status quo of multiple industries by creating a nonstop volatile, uncertain, complex and ambiguous environment. Firms want to understand digitalization, which within most companies is often considered a threat or a source of discomfort.

At WOIC 2017, nine companies presented at least one digitalization challenge within their company and asked academic and industry experts to provide feedback and solutions for their digitalization process. The common question for all these challenges was: how can my company successfully navigate in a digital changing world?



### We found the following common challenges among all firms:

**There is not a lot of time to think about how a company can adapt to the digital world.**  
Technology is already there, but can a firm take advantage of its current technology?  
What can be the relevant business model to capture value from it?

### All industries encounter similar obstacles.

Practitioners from very different firms and industries have faced the same challenges (i.e. threat of digitalization and difficulties to capture value from it).

### Each challenge can be a source of inspiration.

Challenges can consist of use-cases to frame their thinking and identify opportunities to leverage or rethink their business model and their use of digitalization.

### Build on the dominant business model with digitalization opportunities.

Lack of experimentation and a constant changing business model results in too many unused ideas; this often leads to the pursuit of wrong innovation projects.

# What is Open Innovation?

Open Innovation is “the antithesis of a model of vertical integration or self-reliance . . . [it] is about a distributed landscape where there’s a lot of useful information.” - *Henry Chesbrough*

*Interview with Innovationleader*

Professor Chesbrough was interviewed by Scott Kirsner from Innovation Leader as a part of the sites Live Series in February 2018. During the interview Chesbrough discussed his definition of open innovation, the outside-in versus inside-out flow of information, digitizing open innovation, and the barriers to spreading the practice. Chesbrough also acknowledged two significant cultural barriers that slow its implementation. First, he recognized that established organizational support, whether it is legal or brand procurement, can slow the process because new internal procedures are often required to use open innovation to collaborate with the outside world. Companies often operate in silos, failing to circulate open flows of information internally. He noted that this cultural shift in internal organizational structure is mandatory to reap the full benefits of an open innovation system.

Interview Source: <https://www.innovationleader.com/expert-henry-chesbrough-talks-open-innovation-with-il/>



## Open Innovation Research

### Open Banking Forcing Traditional Banks to Evolve

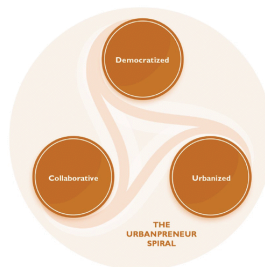


“Open innovation ascertains that companies need to become less insular & look beyond their own house to cultivate new innovations that will grow their business & enhance their services for end-users.”

Traditionally, banks served as the gatekeeper for people’s financial data and facilitated almost all exchanges of money. However, “disruptors” that include a multitude of fintech startups have pierced the market, challenging banks, payment platforms, and monetary policies with the proliferation of cryptocurrencies and alternative payment methods. Companies like these have created a strong consumer demand for a holistic banking experience and increased access to third-party consumers. This demand is driving the market towards a future of transacting more directly through an ‘extended ecosystem’ of banks and third party vendors, or as Professor Chesbrough has coined it, open banking. Committing to Chesbrough’s ideal of openness – particularly with competitors - is novel territory for banks who have historically kept their strategies close to pocket. Companies in Europe and the UK have begun to lead the charge in this evolving space.

### The City as a Lab

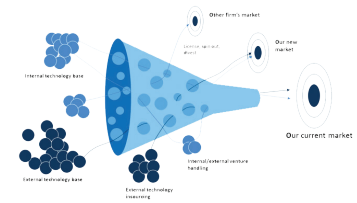
Open Innovation Meets the Collaborative Economy



Professor Chesbrough co-authored “The City as a Lab: Open Innovation Meets the Collaborative Economy”, an article that introduces the special issue on the increasing role of cities as a driver for open innovation and entrepreneurship.<sup>1</sup> Chesbrough and his co-authors suggest that innovation ecosystems are migrating from suburban areas and tech parks, like Silicon Valley, to more vibrant urban locations to leverage the value of entrepreneurial ecosystems and the intensity of different economic activities in dense urban spaces. The pronounced growth of business models such as Airbnb and Uber demonstrate the breadth and prominence of how sharing economies manifest today. Acknowledging that this progression towards a collaborative economy presents tensions between local governments, regulators and citizens, they suggest that municipalities might develop a special division or office to deal with urban innovation challenges.

<sup>1</sup>“The City as a Lab: Open Innovation Meets the Collaborative Economy,” published in California Management Review Volume 59, Issue 1, was one of the Top 10 most requested articles published in the past year. A recent report examined the overall volume of downloads from January 2017 to June 2017. Chesbrough’s research represents an important contribution to the journal.

### The Adoption of Open Innovation Practices in Large Firms



Sabine Brunswicker and Professor Henry Chesbrough conducted a large-sample survey of the adoption of Open Innovation and management in large firms. The goal was to give answers to questions pertaining to the types of practices that firms use across different project activities. *How openly do firms share knowledge? Have firms matured and began managing open innovation projects in a formalized and structured way?*

The selected takeaways showed promising research opportunities :

1. Nearly 80% of large firms practice at least some parts of Open Innovation.
2. Project Teams consider the consumer the primary external partner, yet when the amount of time spent is assessed, the consumer no longer dominates, instead most of the time spent is with entrepreneurs and start-ups.
3. Inside-out practices are used less often than outside-in practices.
4. Firms selectively manage knowledge flows into and out of projects.
5. Open Innovation processes are formalized as firms move from defining the problem to execution.

Being open, selective, or closed is an important research theme. The decision with any of these requires different conscious efforts to balance the tension between knowledge sharing and knowledge protection.

To know more about the results read Sabine Brunswicker & Henry Chesbrough (2018) The Adoption of Open Innovation in Large Firms, Research-Technology Management, 61:1, 35-45,

# Open Innovation Global Impact

## Thailand



Chesbrough believes that through the use of open innovation, Thailand is in an optimal geographic location to become an important partner to the US, Japan and China firms. Chesbrough encouraged the country to invest in R&D to generate revenue through innovative products with new business models.

## India



India's interest to implement Open Innovation continues to increase, thus the government seeks advice on how the established Open Innovation ecosystem works within smart villages. Professor Darwin and the Smart Village Team spoke about their learnings, their success stories, and the overall progress and impact of Smart Villages. To build on that, Srikanth Nandiraju of PayPal presented the Village Digital Mall platform, which allows an easy product transaction between the business owner and consumer.

## Spain

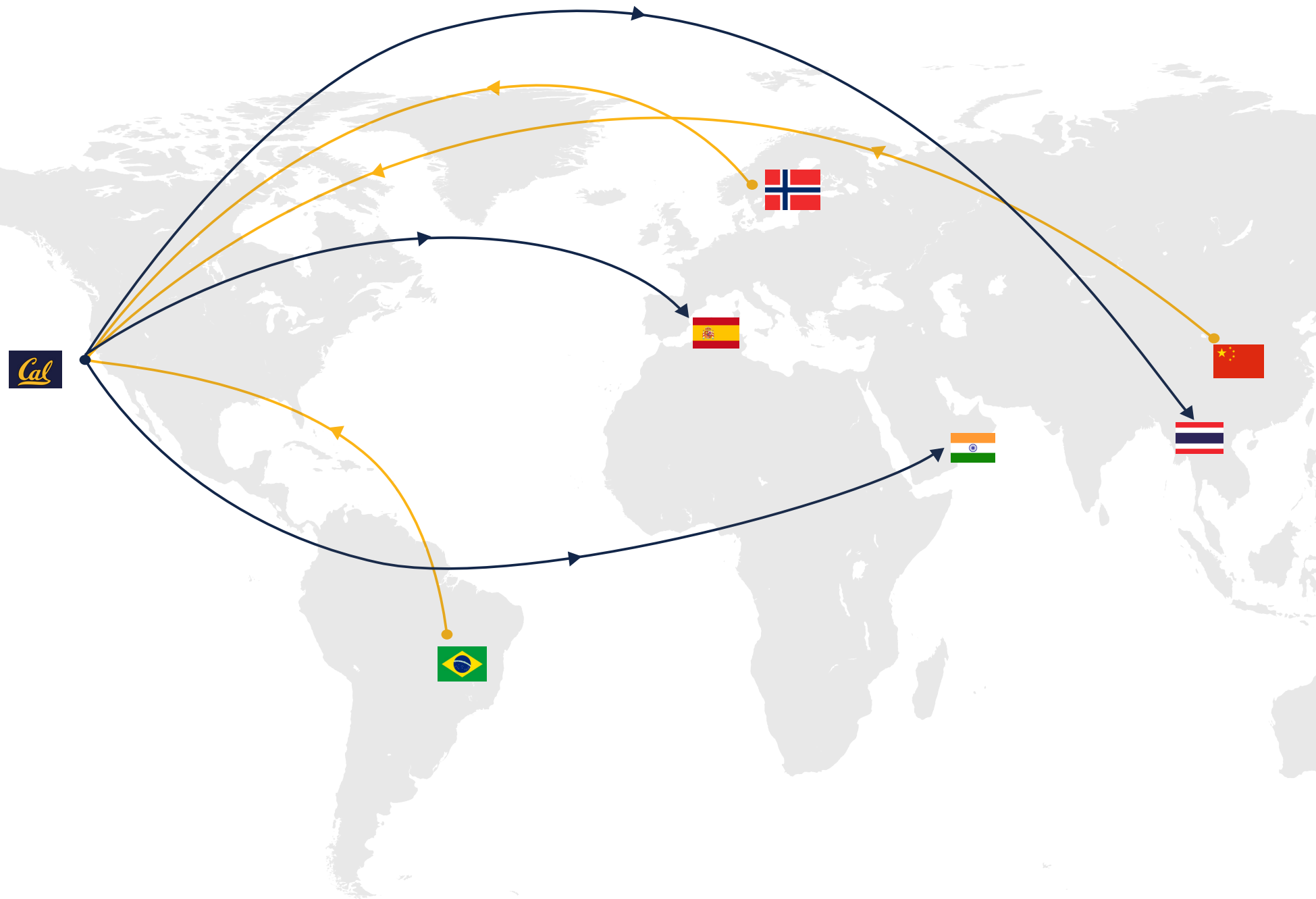


Professor Chesbrough led an exclusive master class at ESADE Creapolis in Sant Cugat Barcelona. The class entitled, Lean Start-Up and Open Innovation focused on exploring how technological companies can transform and reduce risk as large enterprises become leaner and cooperate more with start-ups.

### Garwood Faculty Visits to International Corporations



### International Corporations Visits to Garwood Center



## Norway



Every year, executives from Norway visit the Haas School of Business to learn about the latest research and findings in the field of Open Innovation. Professor Darwin's work in India continues to spark interest for people around the world, and now, Norwegian executives are looking for opportunities to partner with the Smart Village Open Innovation ecosystem in India.

## Brazil



Human resources executives from Brazilian companies visited UC Berkeley to learn about Open Innovation from Professor Henry Chesbrough. Human resources plays a key role in either promoting or restraining open innovation practices within a company. The dialogue among executives focused on how the current Human Resources system impacts the exploration of new business models.

## China



Students from Beihang University in China attended a one-day Intensive seminar on Open Innovation with Professor Solomon Darwin, and Post-Doc, Sea Matilda Bez. The seminar focused on the value of Open Innovation within firms, and also highlighted the good, the bad, and the ugly of Open Innovation between competitors.

## Garwood Innovation Fellow Andy Zhou

Senior Vice President, Goodbaby



**Goodbaby**  
INTERNATIONAL

Dr. Andy Yunlong Zhu is a Garwood Innovation Fellow during Spring 2018. Dr. Zhu comes to the Garwood Center as a Senior Vice President of Goodbaby International Holdings Ltd., a world leading company in juvenile products. Zhu is the CEO of Eqotek Testing Services Co., Ltd, the Co-Chairman of ISO/PC 310 (a technical committee to establish international standards for juvenile products), and an adjunct professor at the Nanjing University and Jiangsu Science and Technology University. He earned his DBA from Grenoble Ecole de Management, MBA from Southern Illinois University Carbondale and B Sc. from Shanghai Jiaotong University. He has held various executive leadership positions in MNCs in different industries in R&D, quality, operations and general management. His research focuses on innovation management and quality/safety management. He has published papers in academic and practitioner journals such as the International Journal of Production Economics, and a book, “Responsible Product Innovation – Putting Safety First”.



## Sea Matilda Bez

Post-Doctoral Fellow

Sea Matilda Bez began her postdoctoral researcher at UC Berkeley on open innovation between competitors after she completed her Ph.D on “Strategizing and Managing Coopetition”.

Her goal is to understand the boundary conditions that makes open innovation between competitors possible. She aims to understand what actors are necessary for the development of disruptive innovation, the business model in collaboration between competitors, and how to structure collaborations between several competitors. To answer this question, she will examine Open Innovation and the partnership on AI (artificial intelligence), within major technology rivals, such as, Microsoft, Amazon, DeepMind/Alphabet, Facebook, Microsoft, IBM.

## Academic Impact

### A Lifetime Achievement Award

Dr. Ikujiro Nonaka



Dr. Ikujiro Nonaka received the Berkeley Haas Lifetime Achievement Award, the school’s highest honor, on November 3, 2017. The school recognized Dr. Nonaka as a pioneer in creating the field of knowledge management and studying the impact of knowledge creation on product development and innovation. Most notably, Dr. Nonaka created the Socialization-Externalization-Combination- Internalization (SECI) model which rejects the linear model of idea creation and adopts a spiral method that describes a ceaseless flow of cyclical interaction between tacit and explicit knowledge among groups and individuals. Nonaka’s novel approach to knowledge management has influenced academics worldwide, including David Teece and Henry Chesbrough.

## The Future of Academic Research

With David Teece, Henry Chesbrough & Legendary Academics at the 25th Annual CCC

The 25th Consortium for Competitiveness and Cooperation (CCC) conference was held at The University of California, Berkeley. Professor David Teece, received a lifetime achievement award from the CCC, in appreciation for his role in providing the initial funding grant for the organization. Professor Henry Chesbrough, a panelist at the conference spoke on the business model implemented at the Berkeley Innovation Forum. He used the example of Open Innovation in practice within firms, and affirmed that Open Innovation academic research can indeed create a virtuous spiral of knowledge across firms and across industries.





## THE ROAD TO MORI

SMART VILLAGES OF TOMORROW

### The Road to Mori

“Mori is not a place, it’s an idea; it’s not a location, it’s a destination – the Road to Mori has pivoted what is possible.” - Solomon Darwin

The Road to Mori, a book by Solomon Darwin is a manuscript of how digital technologies can transform a village. In his book, it is clear that in order to have a global impact, innovation must take place with those at the bottom of the pyramid. Professor Darwin outlines a process that speaks of the effort that companies are making to provide the village with their optimal technology destination, much of which is yet to be uncovered. The Smart Village Movement began by empowering the marginalized people and accessing a village’s untapped resources. Professor Darwin and the Smart Village team developed scalable business models that support rural village markets by aligning global brands, start-ups, and local industries to form a better future. Darwin has worked with the Government of India in Andhra Pradesh and with many Silicon Valley startups and global corporations including Google, IBM, Ericsson, PayPal, and Cisco to make the Smart Village Movement a reality.

Join the Smart Village Movement! Find out more at: [www.smartvillagemovement.org](http://www.smartvillagemovement.org)

### Village Digital Mall

An Open Innovation Platform



PayPal, a digital disruptor, is breaking ground with Open Innovation strategies in emerging economies. PayPal has created an Open Innovation platform, a Village Digital Mall, that provides villagers in India access to global markets.

Similarly, Google’s Free Space Optical Communication (FSOC), a technology that uses beams of light for internet connectivity was piloted in Mori Village. The technology delivered a high-speed, high-capacity connectivity, and was made accessible to villagers across districts. Google’s technology improved connectivity and the need for laborious work within the village. The FSOC innovation saves on expenditure, maintenance, and time. Most importantly, Google’s improved internet connectivity delivered high-quality signals for businesses to easily promote their products and services for a faster speed to market. Thanks to Google’s communication system, digital Open Innovation platforms like that of PayPal can become beneficiaries of this technology. Together they create an Open Innovation ecosystem that benefits remote villages and global platforms. As a result of a more established ecosystem, remote villages have an opportunity to become leaders in disruptive technologies.

“Financial inclusion and improved financial health and participation for everyone is PayPal’s personal core value. By collaborating with UC Berkeley’s Smart Village project, PayPal Innovation Labs + Hardware team enabled an e-commerce platform for local Indian village artisans to sell their arts and crafts in the global market with PayPal’s simple and secure payments technology. This e-commerce platform will create both merchant and consumer ecosystems, enable commerce, and has the potential to become a viable path to economic inclusion for underserved villages around the world.” -Sathish Govindarajan, Director, Mobile Strategic Initiatives, PayPal

### Bill Gates Awards Smart Village Start-Up on Open Innovation Platform



Chief Minister Naidu, BigHaat team, & Bill Gates

The Smart Village Team’s objective is to develop scalable and sustainable business models for global brands, for aspiring firms to expand markets, and to ultimately enhance the happiness of people in rural villages. From these efforts, many unicorn start-ups have been established in the villages of India. During the Agritech 2017 Summit conducted by Andhra Pradesh Government and the Gates Foundation, Bill Gates carefully reviewed the agricultural prototypes within Smart Villages. Gates was impressed with the Open Innovation ecosystem approach that is exclusively driven by corporate business models to promote local entrepreneurship. Among the 250 AgTech start-up competitors, BigHaat, an e-commerce platform was selected among the top 5 award recipients in recognition for the impact made on the local agricultural landscape.

### Co-Innovation, an Open Innovation Strategy

Recognition & New Partnership with the World Bank



Professor Solomon Darwin met the Chief Minister of Andhra Pradesh, Chandrababu Naidu in Washington D.C. to present him with a special agriculture award from the Vice Chancellor of the University of California, Berkeley, Carol T. Christ. Chief Minister Naidu was recognized for his contribution to society and for his work on Open Innovation in India. Naidu has given Professor Solomon Darwin a platform to pivot the smart village project and has been intentional about involving his people and bringing in resources to co-innovate within their villages. In fact, the World Bank has joined as a scaling partner with Smart Villages in India. As a result of these partnerships, the state of Andhra Pradesh is becoming more open to outside resources, networks, technology, and knowledge flows.



# WOIC 2018

5<sup>TH</sup> ANNUAL WORLD OPEN INNOVATION CONFERENCE

December 12-14, 2018 | San Francisco, CA

## Digital Transformation for Sustainability

The world is currently facing major trends that fundamentally change the ways in which organizations must innovate. We currently face grand challenges in the areas of climate change, traffic safety, food ecologies and life expectancy that need to be addressed through an integrative, collaborative and global perspective. Accordingly, the Sustainable Development Goals (SDGs) have raised a lot of interest of managers and academics alike. At the same time, the digitalization of the economy and society at large keeps growing tremendously, with major implications for how individuals, organizations and governments operate.

This year's conference theme, "Digital Transformation for Sustainability", aims at creating a more inclusive and collaborative approach to understand and cope with the underlying uncertainty of the problems and what the possible solutions may be.

### Important Dates:

Registration Opens

**MAY 15**

Conference logistics & registration details will be available May 15th!

For more information, please visit:  
[woic.corporateinnovation.berkeley.edu](http://woic.corporateinnovation.berkeley.edu)

Call for Papers

**AUGUST 15**

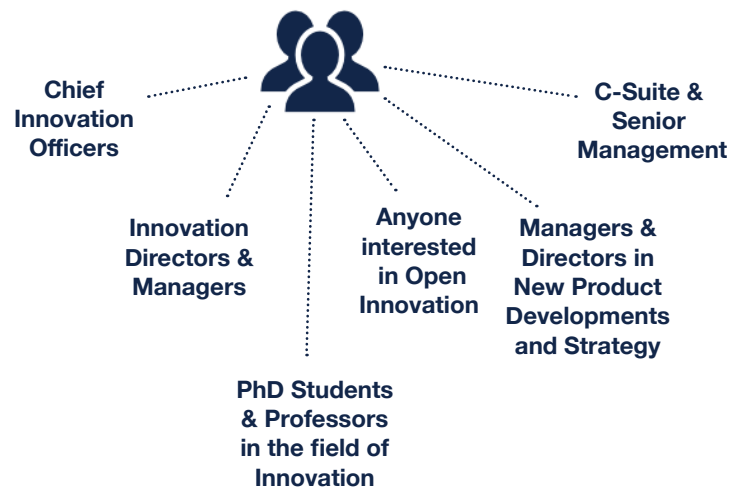
We invite submissions of either extended abstracts or full papers for empirical or conceptual papers – with theoretical and/or managerial implications. Papers related to the conference theme are encouraged but this is not a requirement.

Call for Challenges

**SEPTEMBER 30**

Firms are encouraged to submit a challenge on managing open innovation within their organization. Each challenge will be evaluated based on the applicant's ability to articulate an important open innovation challenge that other organizations are also likely to experience.

### Who should attend?



## BERKELEY INNOVATION FORUM

APRIL 10 - 13, 2018

"Learning from AI Led Business Models Across Industries: Use Cases, Challenges, Opportunities"

Hosts:



Members of the Berkeley Innovation Forum

