

“Open Innovation Journey” Webinar

25th Nov 2015

Lucia Chierchia

Open Innovation Director - Electrolux Group

University of Rome “Tor Vergata”

Laurea Magistrale in Economia e Management

Corso di Economia e Gestione dell’Innovazione Aziendale



“Open Innovation Journey” Webinar

What is open
innovation?
Why do we need it?
How does it work?

“Open Innovation Journey” Webinar

Which are the proper methodologies & tools?

How can the model be translated into a strategy?

“Open Innovation Journey” Webinar

Which are the parameters to evaluate innovations?
How to create alliances with non-traditional players?

Do you feel
an innovator?



What is innovation?

(send notes in the platform)



A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations: $2 \times 6 =$, $12 \div 3 =$, and $17 + 3 =$. The text "What is innovation?" is overlaid in white on the right side of the image.

What is
innovation?

Innovation is
a new value
for

consumers:

new product,
new service,
new experience



...new value
for which
customers
are willing to
pay
a premium
price





Innovation is
new business:
the transformation of
the consumer value
into
economic
value.

Is a new
technology
...an innovation?





**“don’t fall in love
with Technology..
fall in love with Business!”**

Is a new
invention
...an innovation?



“we don’t have
to control our IP
to create Innovation...”



A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised with the index finger pointing up. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard has some faint, illegible writing on it. The text "How is open innovation born?" is overlaid in white on the right side of the image.

How is
open innovation
born?



In the beginning of the twentieth century,
companies created their R&D “**castles**”...



availability
and mobility
of workers



growth of VC market

...4 factors emerged and prepared the way for
open innovation paradigm...


ideas on the shelf



increased capability
of suppliers

today knowledge
is not anymore
locally concentrated,
not anymore enclosed
within the walls
of a company,
but diffused
and distributed,
a global product.



A portrait of Bill Joy, a man with grey hair, smiling. He is wearing a grey shirt and a colorful beaded necklace. The background is a blurred green and yellow bokeh, suggesting an outdoor setting with sunlight filtering through trees.

Joy's Law:
"No matter
who you are,
most of the
smartest
people
work for
someone
else."

Bill Joy
Sun Microsystems cofounder

open innovation
paradigm
“The boundaries
btw a firm
and its environment
have become more
permeable.”

A close-up portrait of Henry Chesbrough, a man with brown hair and glasses, wearing a brown suit jacket, a light blue shirt, and a patterned tie. He is looking slightly to the left with a thoughtful expression.

Henry Chesbrough
Director of the Center
for Open Innovation
at Berkeley University

open innovation is a world with new principles

Closed Innovation Principles

The smart people in the field work for us.

To profit from R&D, we must discover it, develop it, and ship it ourselves.

If we discover it ourselves, we will get it to the market first.

The company that gets an innovation to the market first will win.

If we create the most and the best ideas in the industry, we will win.

We should control our IP, so that our competitors don't profit from our ideas.

Open Innovation Principles

Not all the smart people in the field work for us. We need to work with smart people inside and outside the company.

External R&D can create significant value: internal R&D is needed to claim some portion of that value.

We don't have to originate the research to profit from it.

Building a better business model is better than getting to the market first.

If we make the best use of internal and external ideas, we will win.

We should profit from others' use of our IP, and we should buy others' IP whenever it advances our business model.

A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations, including $2 \times 6 =$, $12 \div 3 =$, and $17 + 3 =$. The text "What is open innovation?" is overlaid in white on the right side of the image.

What is
open innovation?



open Innovation is a new way to do business,
through the synergy between internal and
external networks



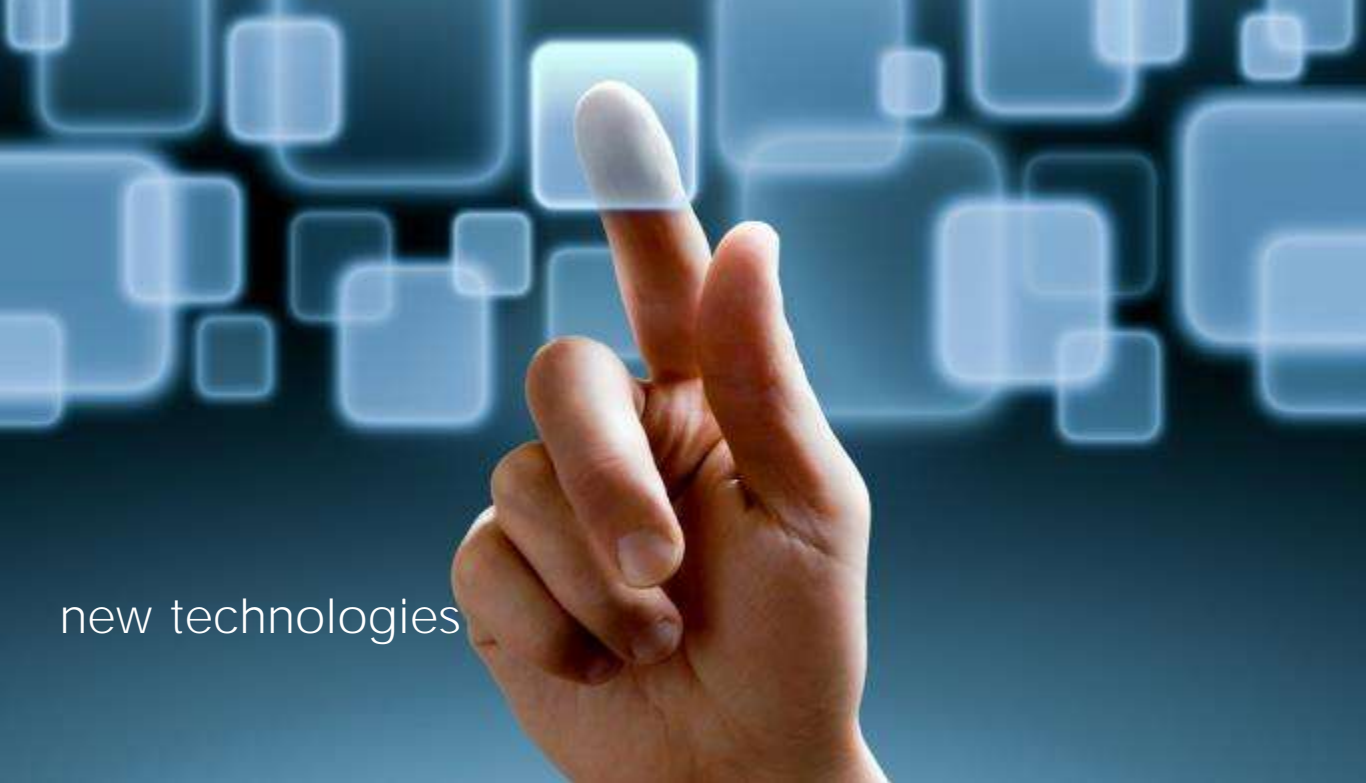
open innovation is
about people

A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations: $2 \times 6 =$, $12 \div 3 =$, and $17 + 3 =$.

Why do we need
open innovation?

A silhouette of a person with their hair in a bun, wearing a dark sweater, is shown in profile reading a book. They are standing in a library or bookstore, with tall bookshelves filled with books visible in the background. The lighting is warm and soft, creating a cozy atmosphere. The text is overlaid on the right side of the image.

if we
don't use
global
knowledge,
someone
else
will do!



new technologies



additional
competencies



new
ideas



new & other markets



TTM
reduction



flexibility
of skills

- ☐ YES
- ☐ NO
- ☐ MAYBE



access to
vital information for
decision making

influencing innovation
in an ecosystem





open innovation
to double
innovation power

A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations, including $2 \times 6 =$, $12 \div 3 =$, and $17 - 3 =$.

How to discover
and implement
open innovation
model?



open
innovation
is
everybody

learn by doing.
“Let’s Drive the Car
while Building it!”



Have you ever
met
a startup?



Do you have friends
who build
prototypes
in the garage?



A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, illegible writing and some mathematical equations like $2 \times 6 =$ and $12 \div 3 =$. The text "Which is open innovation role & responsibility?" is overlaid in white on the right side of the image.

Which is
open innovation
role &
responsibility?



Role:

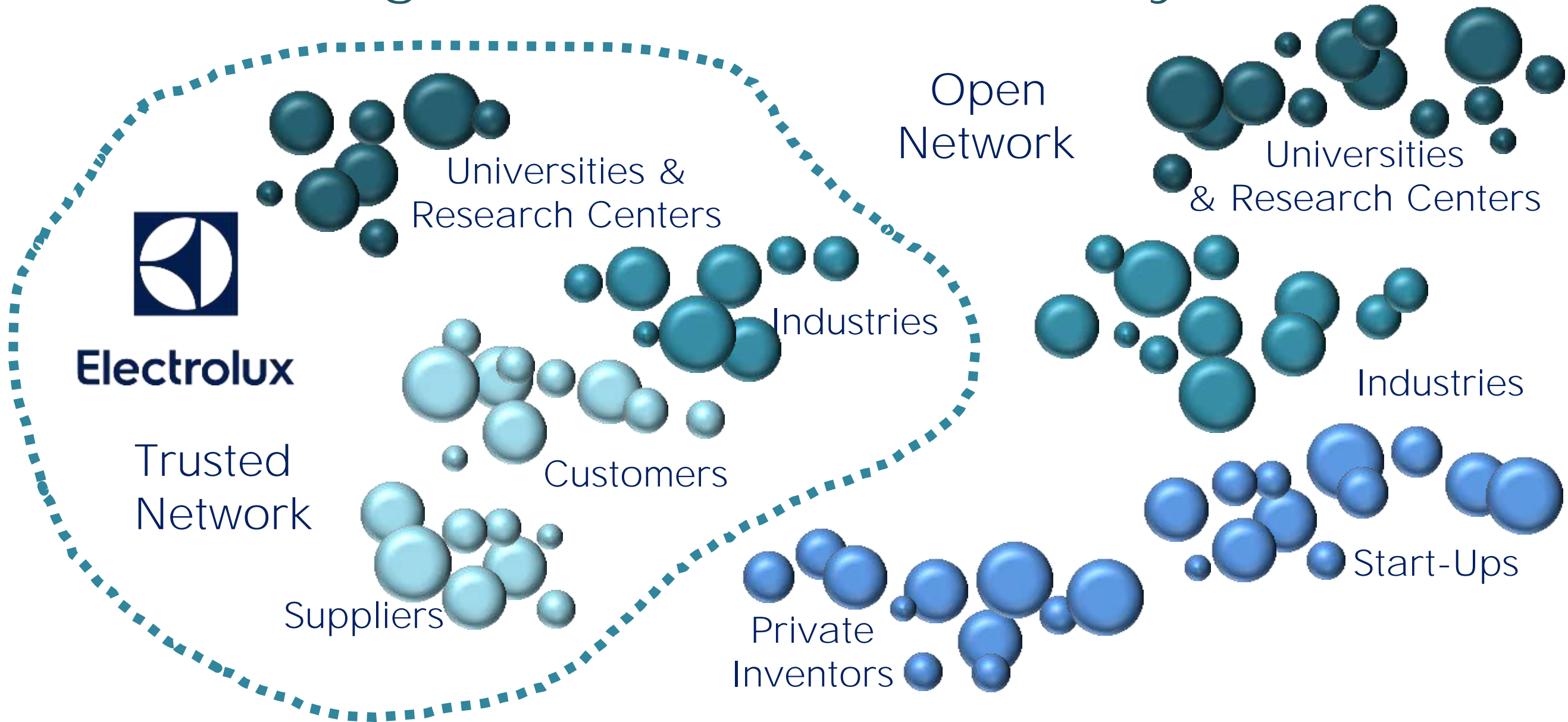
Bridge btw external network of Innovators and company stakeholders.

Responsibility:

Capture new innovative business solutions outside the company and promote internally.

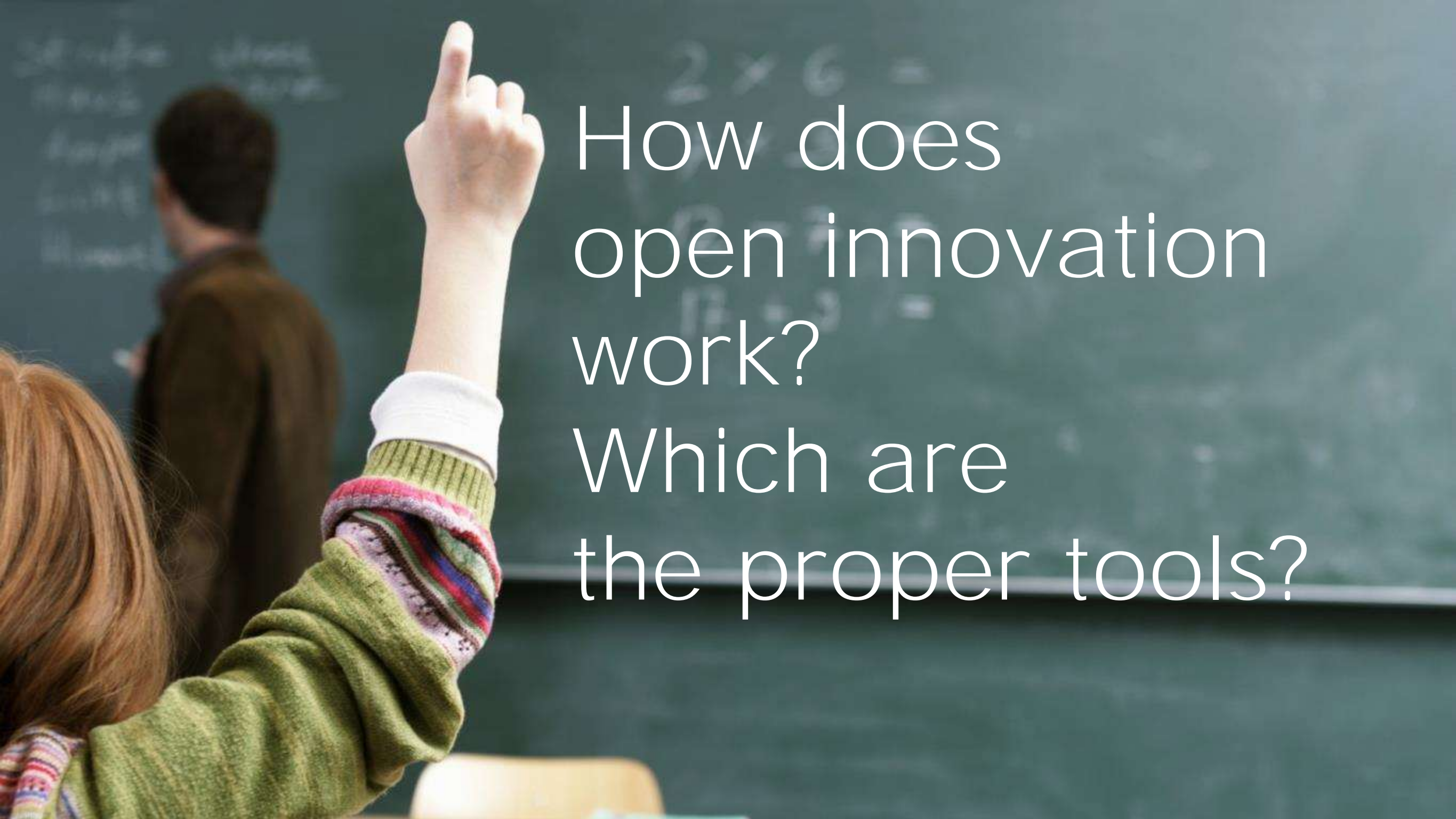


Move beyond the trusted network,
reaching innovators in new ecosystems.




Identify new business opportunities
along the overall value chain of the company...



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How does
open innovation
work?
Which are
the proper tools?

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How can
open innovation
model
be translated into
a strategy?



The 3 Pillars Strategy



Challenges

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How to find
an answer to
a specific company
request?

from targeted challenges...



example

Wireless Sensor Temperature Measurement

RESPONSE DUE DATE: 9th November 2014 MANAGER: Oliver Worsfold, Ph.D.

Opportunity

licensing, product acquisition, proof of concept leading to scale-up to manufacturing, supplier agreement, R&D collaboration.

Timeline

Phase 1: Proof of concept of the System (System performance test)

Phase 2: Demonstrator of the System (Acquisition of a unit)

Phase 3: Industrialization Development (Co R&D for the system application)

Financials

Costs to be defined at each phase by negotiation

Keywords: Wireless, Temperature, sensor, household appliances



Targeted challenge - example



Licensing Selective Metal Separation Technology

example

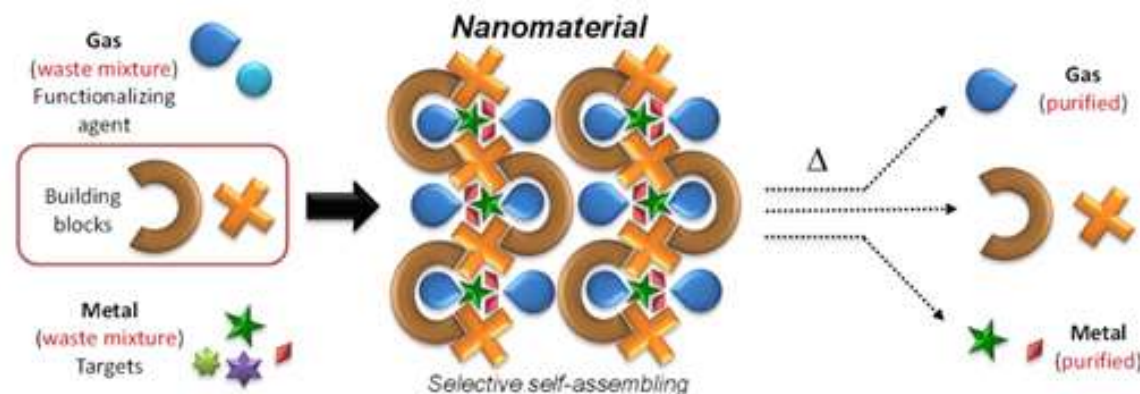
Detailed Solution Description

This technology process is forming a spontaneous molecular network, whose formation and dissociation (reversible) is triggered by **introducing and expelling CO₂ respectively, leading to a cyclic capture and release system.**

CO₂ can spontaneously functionalize polyamines into polyanionic and thermoreversible chelating agents. In the presence of cationic partners such as metals, supramolecular materials can be obtained (see illustration below).

This self-assembling process into a dispersed organized solid or liquid requires an extremely high degree of complementarity between molecular building blocks. It is possible to **precisely define** (tailor) which element to retain from the mixtures.

This selectivity was demonstrated during fundamental studies and lead to the selective incorporation and capture of the building blocks from the starting mixture.




It was successfully demonstrated that:

- The yield of capture, or % of captured metal, can reach 99% in a single step on monometallic effluents.
- Selective capture can be performed on bimetallic mixtures with 95% of captured metal and 95 % purity (several orders of magnitude higher than the initial metal concentration).
- Selective capture can be performed on tetrametallic mixtures with 99% of captured metal and 99 % purity (several orders of magnitude higher than the initial metal concentration).

Targeted challenge - example



A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations, including $2 \times 6 =$, $12 \div 3 =$, and $17 \div 3 =$.

How to capture
solutions
ready in the pocket
of inventors?

...to inspired challenges





example

ZANUSSI

AEG

GRAND CUISINE

FRIGIDAIRE



TOMORROW'S KITCHEN NEEDS

The future role of the kitchen will be a complete experience embracing all senses and fully integrating kitchen appliances, food and entertainment.



TOMORROW'S HEALTHY HOME NEEDS

Innovation is at the heart of a healthy home. Tomorrows appliances will utilise intelligence to manage the environment and so are we!



TOMORROW'S LAUNDRY NEEDS

Thinking beyond the routine: Truly innovative concepts of treating fabrics and water management.

Inspired challenge - example

NineSights®



REDUCING OUR ENVIRONMENTAL IMPACT



We're committed to reducing the impacts on the environment associated with the production and use of our products.

DRIVING SUSTAINABILITY, CREATING CHANGE

This is a huge challenge – and one we can't achieve alone. For example, we want to halve the water use and greenhouse gas emissions associated with our laundry products. But most of the water and more than half the greenhouse gas emissions associated with laundry product use come, not in our factories, but when the consumer does a wash. Similar challenges apply to our soaps, shampoos, and other home care and personal care products.



But though the challenges are great, so are the opportunities for innovation. Our laundry products are used 125 billion times a year. Small improvements – designing detergents that wash better at lower temperatures, and use less water to rinse - make a big difference.

Inspired challenge - example
We're seeking a partner to work with us to improve sustainability in the following fields:



**CAN YOU HELP US BRING
COST-EFFECTIVE ENERGY
TO MILLIONS?**

> Storing renewable energy

**DO YOU HAVE A TECHNICAL
SOLUTION FOR
SUSTAINABLE WASHING?**

> Sustainable washing

**BE PART OF THE
PACKAGING SOLUTION**

> Better packaging



Are the next ones
targeted
or inspired
challenges?



Mens shaving and grooming innovations

As a world leader in shaving and grooming products, we aim to give men quality, control and precision for the perfect shave and self-expression.

We are constantly looking for innovative ideas, solutions and proposals for our men shaving and grooming products. We are eager to hear from you how to:

- Improve precision and guidance while styling hair and beard
- Enhance our users' experience by means of sensors and accessories
- Aim at better performance by using our products closer and closer, while being safer for the skin
- Pre-treat skin before shaving
- Take care of your skin along the day, and also after shaving
- Connect our devices with apps and sensors

We value all suggestions. Every proposal is explored and assessed for its potential – we hope to collaborate with you!

example



PHILIPS

← Processed Food Stabilizers

example

Respond

« Back

Request Number: N619377

Author:

Need details



Description:

ICL Innovation seeks technologies for controlling and improving the stability of processed food.

Background:

ICL's business unit Food Specialties produces and sells phosphate specialties, chopping or brine additives, emulsifying salts and leavening acids, and a big variety of complex blends of various ingredients to the food processing industry. Our expertise is to create synergistic effects for our customers. Our products provide indispensable functions to the processing industry. They e.g. act as emulsion and color stabilizers, maturing agents, texture and taste improvers, freshness retainer, etc. We are mainly serving the following



Electrolux Healthy Homes Challenge

Propose solutions that help add value to home-based experiences around cooking/eating, laundry, washing and air quality.

[Learn More](#)

 [Submit Now](#)

Challenges

[About Electrolux](#)

[OI Guidelines](#)

[Frequently Asked Questions](#)

[Download Idea Product Proposal](#)

[Download Idea System Proposal](#)



Magnificent Coffee



Effortless Ironing



Food Processor



Fast & Efficient Cooking



example

ABOUT UNILEVER

On any given day, two billion people use Unilever products to look good, feel good and get more out of life. With more than 400 brands focused on health and wellbeing, no company touches so many people's lives in so many different ways. Our portfolio ranges from nutritionally balanced foods to indulgent ice creams, affordable soaps, luxurious shampoos and everyday household care products. We produce world-leading brands including Lipton, Knorr, Dove, Axe, Hellmann's and Omo, alongside trusted local names such as Blue Band, Pureit and Suave.

For us, sustainability is integral to how we do business. With 7 billion people on our planet, the earth's resources can be strained. This means sustainable growth is the only acceptable model of growth for our business.

Unilever Foundry is on a mission to collaborate with innovators to make sustainable living commonplace. Whether you're an established startup ready to scale-up, a creative, designer, or inventor there are many ways for us to collaborate. Partner with Unilever brands and functions to help solve some exciting business challenges. Our objective is to build and cultivate strategic partners for the future, with Unilever as a partner of choice.



We know that the world is full of brilliant people, with brilliant ideas – and we are constantly looking for new ways to work with potential partners through Open Innovation. We want good ideas to become reality quickly, whoever thought of them first. If you are working on a project that could match our ambitions, why not consider a partnership with us - so that we can build success together?

Small and Fast Switching or Controlling Device for Inert Gas Flows

example

RFP Title:

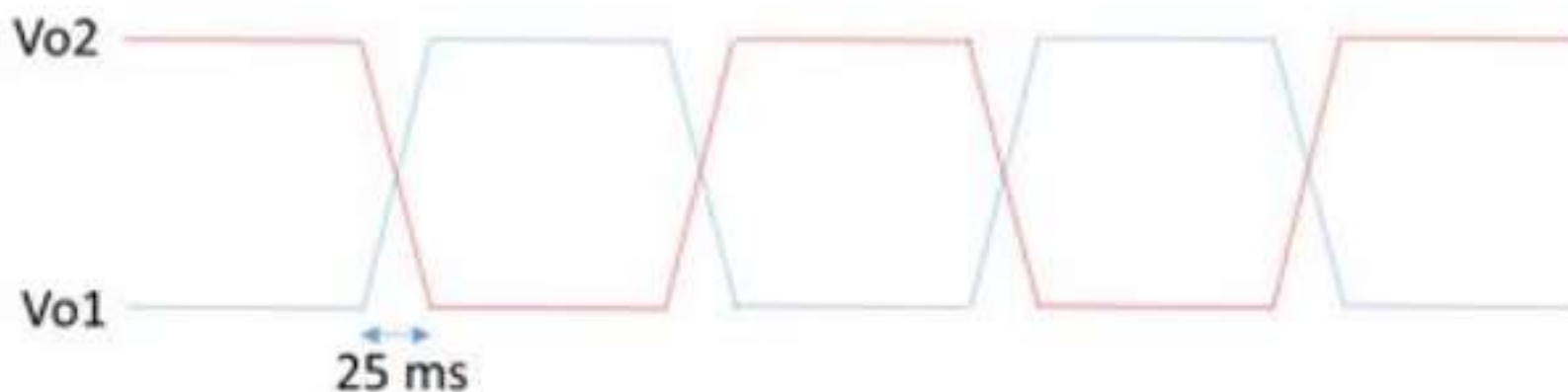
Small and Fast Switching or Controlling Device for Inert Gas Flows

RFP Description:

NineSigma, representing a global multi-billion manufacturing company, invites proposals for a small volume or mass flow control and switch device for purified inert gas.

Background:

NineSigma's client aims to control and the flow of an inert purified gas (Ar, N, CO₂,...) in two lines (T1 and T2). The ideal solution will be able to control two flow rates in an alternating fashion between 2 previously determined flow rates Vo1 and Vo2, as depicted in the next figure. The switchover from one flow rate to 95% of the next flow rate should be achieved within 25 ms.



The next figure shows several architectures that can be followed to achieve the objectives in order of preference. Approach (a) consists of 2 controlling/switching devices, approach (b) 3 controlling and 1 switching device, and approach (c) 2 controlling and 1 switching device. Alternative architectures providing the same functionality are also welcome.

← Surface Treatment Technology for Parts Used in Harsh Environments

example



Parts appearance
(Surface treatment
should be applied
in colored portion)

RFP Title:

Surface Treatment Technology for Parts Used in Harsh Environments

RFP Description:

NineSigma, representing a leading manufacturer, seeks technology for significantly improving the durability (wear resistance, heat resistance, acids and alkalis resistance, etc.) of the surface of drilling components used in mechanically harsh environments, for the purpose of extending their operating lifespan. Of interest are breakthrough surface treatment technologies based on new principles, in addition to discontinuous improvements of existing technologies such as thermal spraying, carburizing and nitriding.

Background:

The leading manufacturer, or the client of NineSigma, is engaged in the development of drilling components. In order to extend their lifespan, the client is seeking a surface treatment technology that enhances wear resistance and heat resistance. Incremental improvements on existing technologies would not provide sufficient performance. The client expects a discontinuous improvement to an existing technology or a breakthrough technology based on a new principle.

Developments of surface-treatment technologies are carried out for the purpose of realizing more functional materials. Intended applications are not only drilling parts, but also jet engine compressor blades and bearings. Therefore, the client has issued this open request to seek useful methods for fulfilling their goal from various fields around the world.

Smart Home Hackathon

Give life to your ideas and prototypes for
the Smart Home and the Energy Efficiency



**21st - 23rd
November**

<http://www.energy-home.it>

Join us at I3P,
Via Pier Carlo Boggio, 59, Torino

Information and Registration at:
<http://gnammo.com/events/1657/smart-home-hackathon>

← Patented puncture-resistant tires

example

FIRST PUNCTURE-RESISTANT

"TUBELESS" TIRE *

Passenger car
SUV tires



Motorcycle
tires

Truck-LCV-HV
tires



OTR
agricultural
quad tires

I am seeking companies interested in manufacturing and marketing an innovative and genuine puncture-resistant tire (and/or the other applications enclosed in my patents) and exploit the corresponding patents according to conditions which have to be negotiated and which could even be, for instance, a joint-venture.

It is intended for sale on the following markets : all sizes of tires (tubeless and/or tube type tires), either used or new, for both the worldwide used vehicles rolling stock and for the OEM.

Therefore it is a serious and profitable business opportunity for instance for both the tires manufacturers who want to add - as a variant - this new concept of puncture-resistant tires to their current products range and/or the companies involved in the manufacture and marketing of auto parts. Thus, these tires can be fitted on all vehicles : passenger cars, SUV, LCV, trucks, buses, OTR vehicles : 4 X 4, agricultural, quads, civil engineering, mining, military vehicles, and also aircrafts, 2 wheels, etc. : In that way it must be considered as **an all-purpose puncture-resistant tire system** ! On the other hand, this system being independent from the tires - i.e. not included in their casing - **it does not modify their road holding and their original comfort**. Finally and considering also a very good side of the proposal, it provides a secured profitable business thanks to the exclusivity supplied by the corresponding patents.

" It is a real and exceptional business opportunity concerning both a major innovation and a new category of tires and accessories ! "

Partnering with Pfizer Worldwide R&D

example

At Pfizer Worldwide Research & Development (WRD), strategic partnerships are at the heart of fulfilling our purpose as we work to translate advanced science and technologies into innovative therapies and vaccines that significantly improve patients' lives.

Our External Research & Development Innovation (ERDI) team seeks to identify innovative science that forms the basis of new therapies and drives related collaborations that deliver value to Pfizer, our partners and patients.

ERDI is actively working to establish new partnerships with leading academic and biotechnology companies around the globe. As one of the world's premier biopharmaceutical companies, Pfizer is proud to offer our partners access to our world-class research scientists, cutting-edge capabilities in medicine and vaccine design, global network of external collaborations, and industry-leading manufacturing and commercial capabilities. We are confident that you will find Pfizer to be a great partner in developing high-impact medicines and vaccines that improve human health.

Within the Pfizer Gallery you will find specific needs that we hope to address by establishing new partnerships. For more information and areas of interest, please visit www.pfizer.com/wrdpartnering.



Contest #9170187

example



Converting *in situ* Materials on a Planet to Support Exploration

[Challenge Summary](#)

[Terms & Conditions](#)

[Challenge Forum](#)

The U.S. National Aeronautics and Space Administration (NASA) seeks proposals for systems that will convert *in situ* materials into interlocking structural elements for construction that can support exploration on a planet. NASA's focus is to support extra-terrestrial exploration on the Moon or on Mars, but the technology could also be useful on Earth.

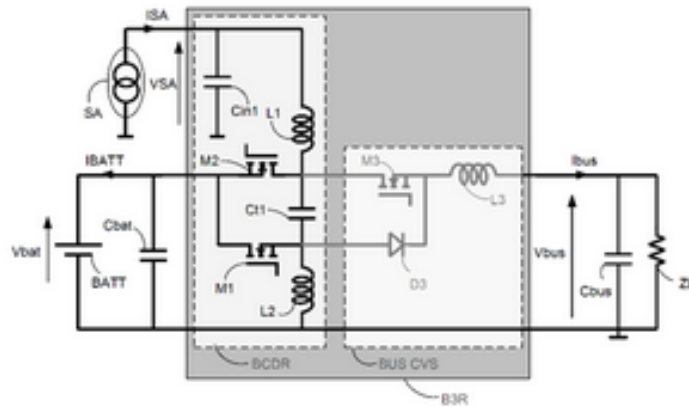
Electrical Power Conditioning Unit And System

Posted on: 29/09/2015 Deadline : 17/06/2016 Active users : 200

example

Summary of the technology

Electrical power conditioning Unit (PCU), in particular for regulated solar bus, to manage the energy from the power sources (e.g. solar arrays or batteries) and provide energy. This technology is able to continuously deliver power to the users in an appropriate form. This technology provides reduced complexity, greater flexibility, increased efficiency and/or reduced mass compared to common architectures.




Applications

The invention benefits the solar energy sector, and in particular systems with DC/DC solar array power conversion and battery required. It can be useful for all, but not limited to, devices that cannot be connected to the electric grid. The system could be used with other types of energy (ex. wind energy). Example of applications are: Solar energy powered vehicle, outdoor lighting/signals, meteorological and telecommunication stations, building, uninterruptible Power Supply (UPS) systems. The solutions provided by this technology can be complemented or extended with PAT_550 and PAT_585





A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a chalkboard. The chalkboard contains faint, handwritten mathematical equations: $2 \times 6 =$, $12 \div 3 =$, and $17 + 3 =$.

Which are
the elements to
support challenges?
Is there a process
to manage
challenges?



Challenges

- Elements -

How. The Triangle.

Decision Makers

- Steering Committees to filter & manage ideas



Decision Makers

Competences

Competences

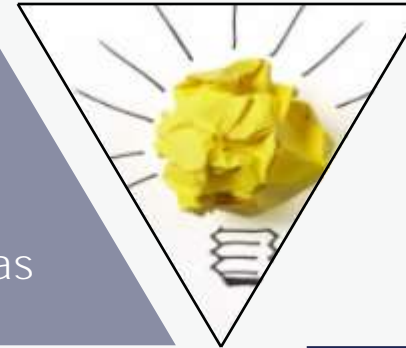
- Network of competences to understand & pre-filter ideas



OI Ideas

OI Ideas

- Proposals from external non-trusted networks





Challenges

- Process -



- Specifications
- Strategic Areas



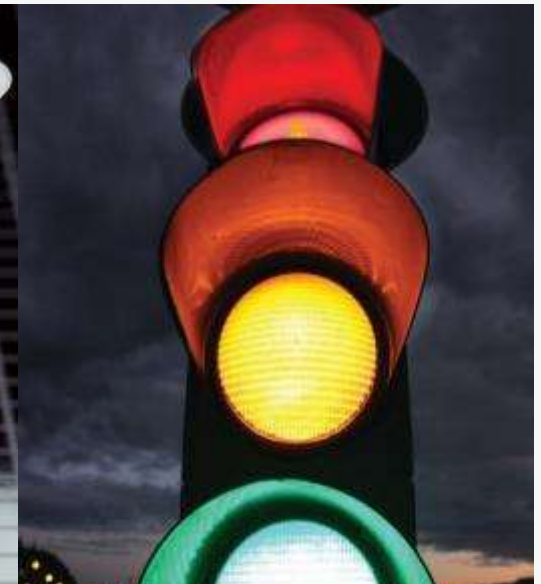
- Networks Selection
- Challenges Launch



- Ideas Identification
- Ideas Clustering
- Data Collection



- Deliverables Analysis
- One-Page Preparation



- Promotion to internal stakeholders




Challenges

- Process -




Output:
OI Ideas Portfolio

Output of «Challenges» process is
the OI Ideas Portfolio

A person with long brown hair, wearing a green sweater with a colorful striped cuff, is raising their right hand with the index finger pointing up. In the background, a man in a brown jacket is standing near a chalkboard. The chalkboard has some faint, illegible writing and a few mathematical equations like $2 \times 6 =$ and $12 \div 3 =$.

How to align with
my internal
departments about
their expectations?

A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations, including $2 \times 6 =$ and $17 - 3 =$.

How to translate
their needs into
guidelines to drive
challenges?

The Challenges Process

«Focus» Step

Focus

Launch


Scout

Screen

OIB



Pacs Request



Fields marked with an asterisk are required

Title *
Click here to enter text.

Name [Name of the requestor]
Click here to enter text.

Company function [R&D, MKTG, IndOp, etc...]
Click here to enter text.

REQUEST DESCRIPTION

Product/Service Description:
Explain the basic product attributes that characterize the new functionalities.
Click here to enter text.


Consumer segments:
Explain which type of consumers (consumer habits, consumer needs) can be interested in buying this product.
Click here to enter text.

CONSUMER OPPORTUNITY


Problem solved:
Explain what problem it solves.
Click here to enter text.

Consumer benefits:
Explain which new operations and functionalities are offered and the key product specifications (performance, cost, quality, etc) that can be reached.
Click here to enter text.

USP:
Identify the novelty elements or elements of differentiation vs other solutions on the market.
Click here to enter text.

 Electrolux


Open Innovation



BUSINESS OPPORTUNITY

Existing markets:
Describe the existing solutions in the market, that perform the same or a similar function and identify alternative solutions & competitor solutions.
Click here to enter text.

New potential markets:
Identify new consumer and market segments created by this solution.
Click here to enter text.

 Electrolux

Open Innovation

tool

Ideas Request Forms →

[REQUEST

Transparent easy-to-clean solution for Stainless Steel

RE8PON8E DUE DATE: [4 weeks after launch]

MANAGER:

SOLUTION PROVIDER HELP

EMAIL: workfold@ninesigma.com

PHONE: +1-216-283-3801

Opportunity

licensing, product acquisition, proof of concept leading to scale-up to manufacturing, supplier agreement, R&D collaboration.

Timeline

Phase 1 – Proof of concept description 2-3 months

Phase 2 – Supply of a demonstrator 6 months

Financials

Both phases to be negotiated based on technology status

Keywords: easy-to-clean; scratch resistance; coating; stainless steel; surface treatment; passivation; hydrophobic; hydrophilic;



REQUEST FOR PROPOSAL DESCRIPTION

NineSigma, representing a Global leader in household appliances invites proposals for a technology to apply an easy-to-clean solution on stainless steel (SS) gas hobs having the following capabilities:

- scratch resistance improved vs non-treated SS;
- resistance to yellowing improved vs non-treated SS;
- transparent so to keep a metallic look;
- easy-to-clean vs non-treated SS;
- corrosion resistant;
- food grade material.

The successful technology should:

- * be compatible with conventional burner layout and design of gas hobs:
 - minimum dimensions: 400mm x 520mm
 - maximum dimensions: 920mm x 550mm
- * be applicable to common stainless steel grades at different thicknesses:
 - AISI 430, brush Scotch Brite
 - AISI 430, brush #4
 - AISI 304, brush #4
 - AISI 201, brush #4
- * be highly temperature resistant:
 - withstand 300°C max temperatures

- withstand mechanical stresses caused by up to 200°C temperature differential between two points on the hob surface

* be robust:

- resist impact: as measured by a hammer test (for example IEC 60060-2-75)
- scratch resistant: as shown by a pencil test hardness of 9H
- anti-fingerprint

* be reliable:

- no yellowing for long time exposure to 300°C
- should cover the entire hob surface

- * allow full removal of heated, burned, or carbonized grease or organic spills by simply wiping with mild detergents:

- no stain should be left after cleaning
- no stain should be left when cleaning food burned on for 30 minutes at 300°C

* durability:

- maintain full easy clean performance for at least 10 years in normal use
- maintenance free

* food contact compliance:

- the material has to fulfill the Standards for Materials in Contact with Food: the European Directive EC 1935/2004 and the American FDA (Food and drugs administration)

* have a proper cost for a commercial environment:

- target cost on a 600mm x 520mm component should be less than €10/unit

- Investment for an in-house application plant should be less than 1M€, including all the equipment required for stainless steel transformation from sheets (protected by a plastic foil) to the final component ready for the assembly

NOT LOOKING FOR

- Electrochemical, galvanic treatment
- PVD, CVD treatment

CRITERIA FOR MOVING FROM PHASE 1 TO PHASE 2

A demonstration of the proposed solution highlighting how the technology meets the specifications. Dedicated samples may be required to run the feasibility analysis.

APPROPRIATE RESPONSES TO THIS REQUEST

Responses from companies (small to large), academic researchers, other research institutes, consultants, venture capitalists, entrepreneurs, or inventors are welcome.

For example:

- Representatives of companies with theoretical and practical expertise in gas mixing or software / hardware development (algorithms) technologies
- Companies or researchers with a pump, mixer or other technology that can provide a solution ready for testing and transfer to commercial use.
- Academic or industrial researchers with theoretical and practical expertise in the field of modelling, refrigeration and /or heat pump systems for example.

Appropriate responses will use the proposal template and address the following:

- Description of technology / technical solution
- Supporting data as required.
- Proximity to market
- IP / freedom to operate situation.
- Short profile of organization.

SUBMITTING A RESPONSE

All proposals should be submitted online at [NineSigma](https://ninesigma.com), the NineSigma open innovation community, according to the instructions in the Proposal Template. Supplemental files may be submitted in addition to the proposal document.

For assistance, please contact the
Provider Help Desk (PhD@ninesigma.com)

REQUEST GUIDELINES

Non-Confidential Disclosure

By submitting a response you represent that the response does not and will not be deemed to contain any confidential information of any kind whatsoever.

Response Evaluation

NineSigma's client will evaluate the response using the following criteria:

- Overall scientific and technical merit of the proposed approach
- Approach to proof of concept or performance
- Potential for proprietary position (i.e., is the technology novel or protectable)
- Economic potential of concept
- Respondent's capabilities and related experience
- Realism of the proposed plan and cost estimates

Response Selection

By submitting a response, you acknowledge that [NineSigma's](https://ninesigma.com) client reserves the sole and absolute right and discretion to select for award all, some, or none of the responses received for this announcement. [NineSigma's](https://ninesigma.com) client also may choose to select only specific tasks within a proposal for award. [NineSigma's](https://ninesigma.com) client has the sole and absolute discretion to determine all award amounts. [NineSigma](https://ninesigma.com) will contact respondents with highly responsive proposals for next steps, or the client may contact respondents directly.

example

→ Specs for Targeted Challenges



Product Portfolio Road Map →



7. Water treatment

- No major appliances



4. Instant Chilling

- Solutions to quick chill food & beverage

14. Sanitization

- Solutions to improve sanitization system (e.g. food)




2. Food Sensor Freshness

Any solutions to detect the food freshness

- Invasive Solution
- Non-Invasive Solution

→ Focus Areas

A person with long brown hair, wearing a green sweater with a colorful striped cuff, is raising their right hand with the index finger pointing up. In the background, a man in a brown jacket is standing near a chalkboard. The chalkboard has some faint, illegible writing and a few mathematical equations like $2 \times 6 =$ and $12 \div 3 =$.

How to launch
the right message
to external
networks?

The Challenges Process

«Launch» Step

Focus

Launch

Scout

Screen

OIB





Electrolux is today a recognized **global leader** in home and professional appliances, selling more than 50 million products to customers in 150 markets around the world every year.

Electrolux has been doing business **since 1919** and had sales of SEK 109 billion in 2013, employing over 61,000 people.

Electrolux develops and designs its products based on extensive **consumer insight** and the **expertise** of professional users.

ZANUSSI

AEG

 **GRAND CUISINE**

FRIGIDAIRE



Tomorrow's Kitchen Needs

The future role of the kitchen will be a complete experience embracing all senses and fully integrating kitchen appliances, food and entertainment.




Tomorrow's Healthy Home Needs

Innovation is at the heart of a healthy home. Tomorrows appliances will utilise intelligence to manage the environment and so are we!



Tomorrow's Laundry Needs

Thinking beyond the routine: Truly innovative concepts of treating fabrics and water management.

A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations, including $2 \times 6 =$, $12 \div 3 =$, and $17 \div 3 =$.

How to
understand
value of ideas?

The Challenges Process

«Launch» Step

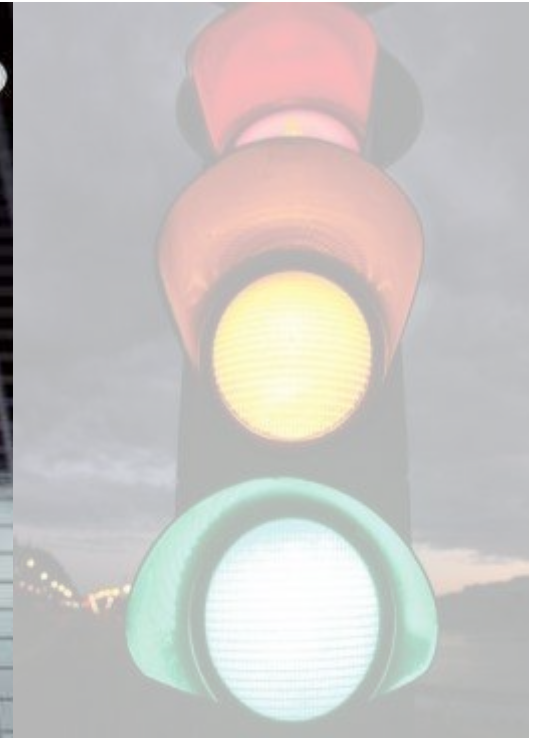
Focus

Launch

Scout

Screen

OIB





Challenges

- Process -



Focus

Launch

Scout

Screen

OIB

HOW - Activities: PACS Ideas - Filtering Deliverables - The Circular Process

Offer Description

- What it is
- Who it is for
- What problem it solves

Alliance Viability

- Partner Objectives
- Capabilities
- IP Model
- Alliance Model



Consumer Opportunity

- Consumer Benefits
- USP

Business Opportunity

- Market Opportunity
- Strategic Fit
- Business Model

- Offer Description



Example: Multifunctional Toaster

Offer description

Innovative toaster with different functions



Do you understand
what it is about?



- Offer Description



✓ Example: Multifunctional Toaster

Offer description

“ American Breakfast” is a new toaster that prepares egg and sliced bread in only 4 minutes providing a complete breakfast for those consumers that have limited time in the **morning**”



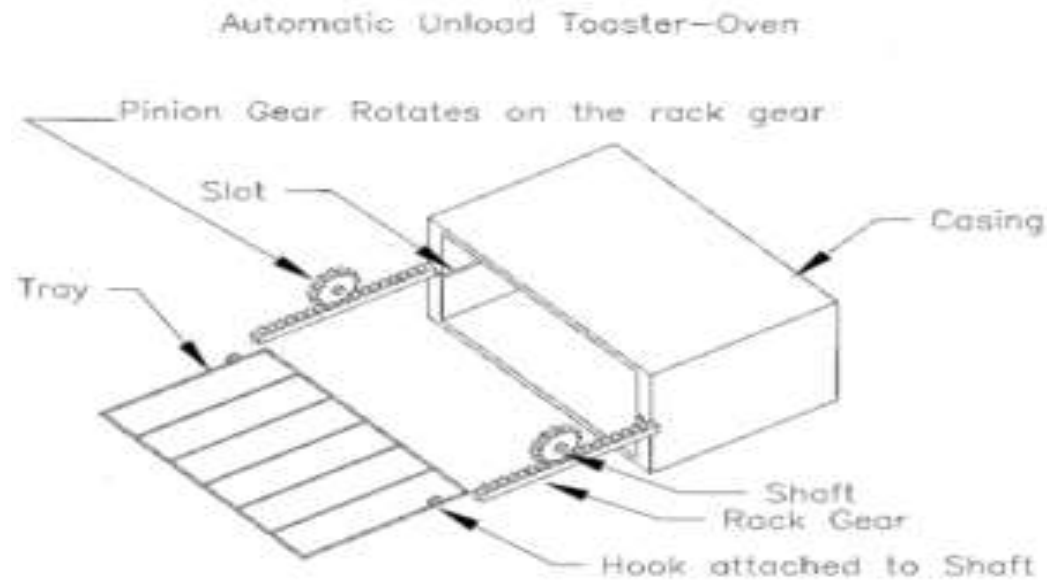
- Consumer Opportunity



Example: Innovative Toaster

USP

“the innovative automatic toaster”



Consumer Benefits

- Efficient
- Compact
- Nice design

Do you see
the value
for consumer?



• Consumer Opportunity



✓
Example: Multifunctional Toaster

USP

short cut the breakfast preparation having one product serving more food

“a complete Breakfast in one go”



Consumer Benefits

Rational Benefits

- Serve breakfast in 4 minutes only
- 2 accessories in 1 product

Emotional Benefits

- Easy to use also for Children
- Tasty and nutrients breakfast
- Toast & Egg are served contemporarily

• Business Opportunity



Example: Multifunctional Toaster

Market Opportunity

- Mature market for Traditional Toaster
- Blue Ocean for Multifunctional Devices



Strategic Fit

- Culinary enjoyment
- Compact living
- Effortless living
- Multifunctional objects

Business Model
traditional



Challenges

- Value Creation -

Value is created through alliances with new innovators
in non-trusted network



Consumer Value



Business Value



Alliance Value



Challenges

- Value Creation -

To deliver innovation with non traditional partners.

- Co-development
- Joint ventures
- Mergers & acquisitions
- Informal relationship
- Research Contract
- In-licensing
- Out-licensing
- Co-branding
- Incubation of start-up
- Spin-off business



Challenges

- Value Creation -

To deliver complex alliances, crucial is to understand the elements of Alliance Viability

Partner Objectives

IP Model

Capabilities

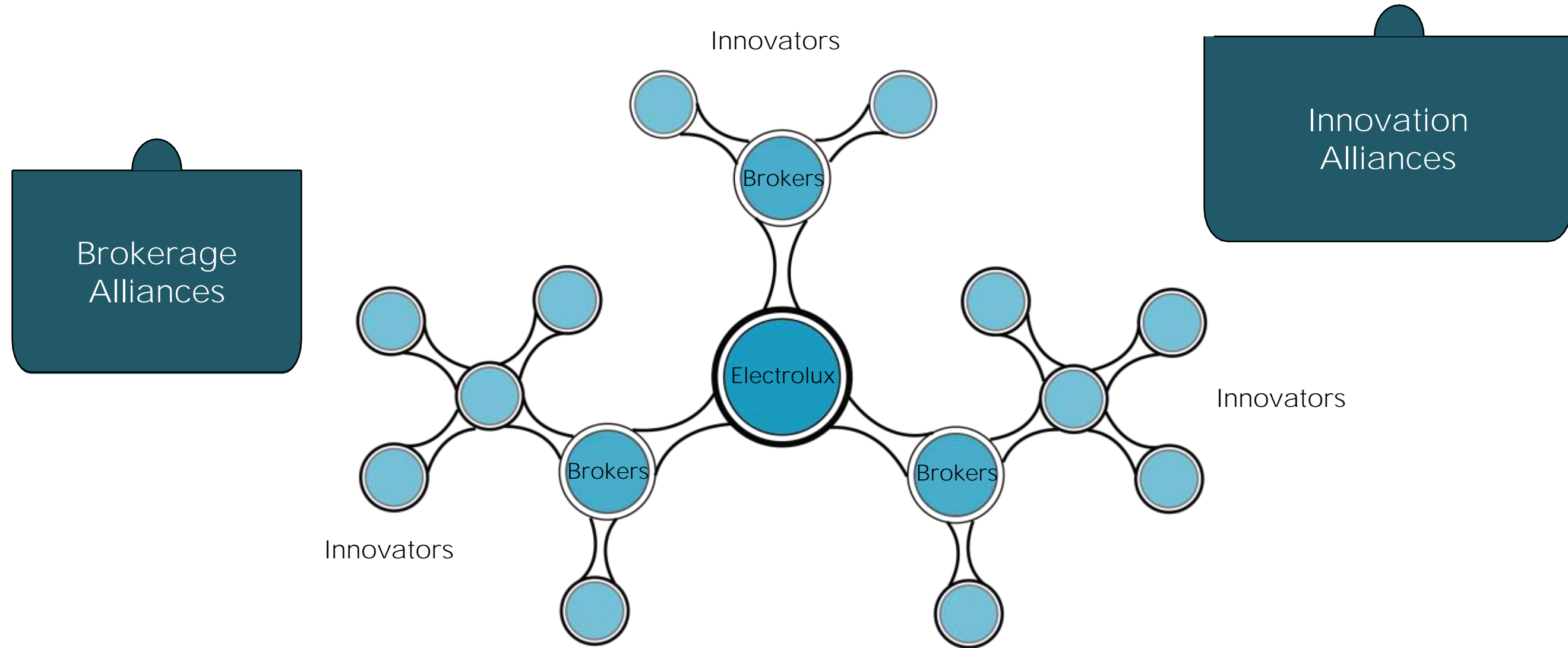
Alliance Model





Network

Build alliances with intermediate partners to reach innovators.



from OI platforms...





Platforms – example: scouting companies





...to OI interfaces



EARLYBIRD

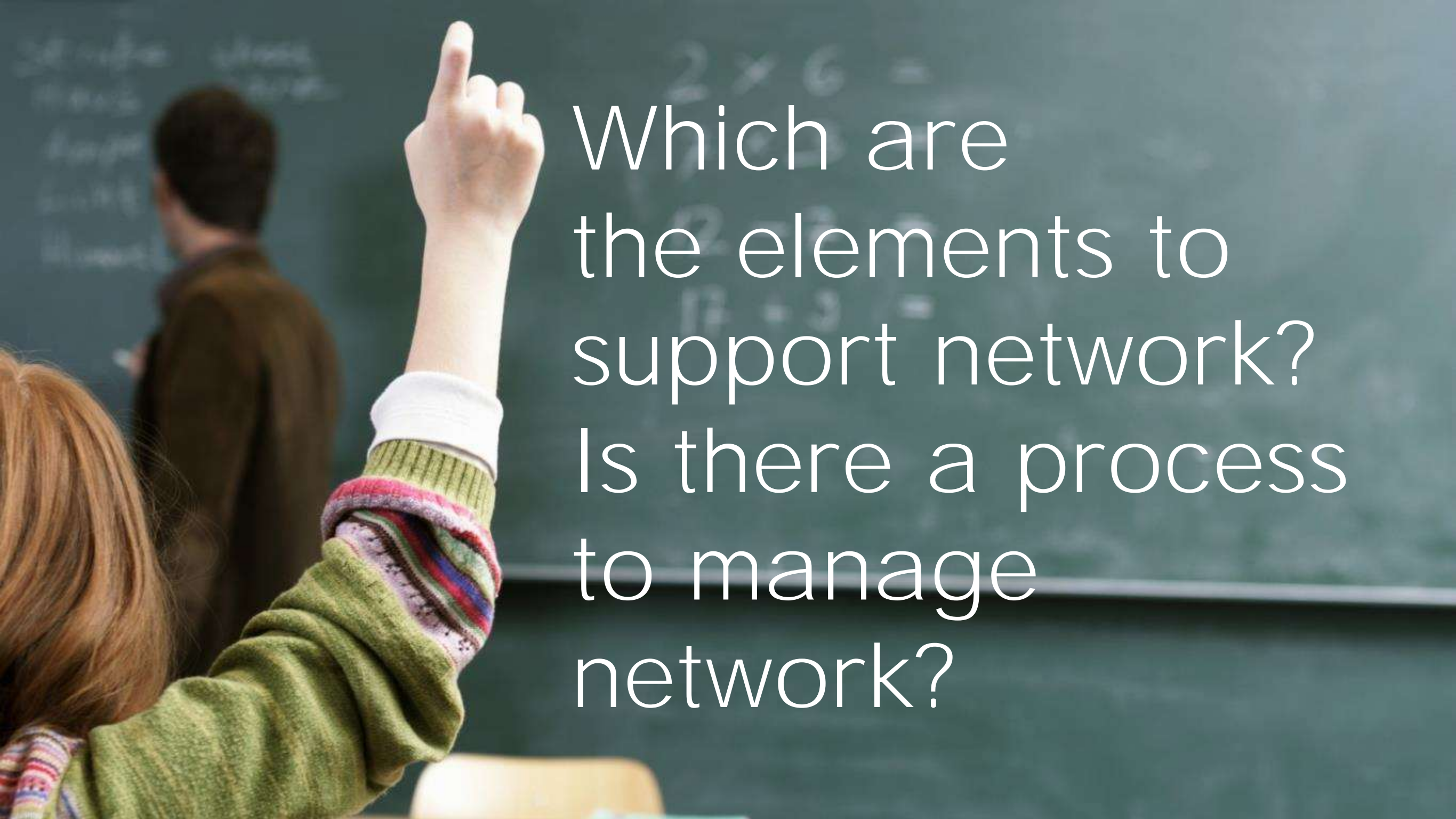
e.ven

example



Interfaces – example: banks & investors



A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male student in a brown jacket is standing and looking at a chalkboard. The chalkboard contains faint, handwritten mathematical equations: $2 \times 6 =$, $12 \div 3 =$, and $17 + 3 =$.

Which are
the elements to
support network?
Is there a process
to manage
network?



Network

- Elements -

How. The Triangle.

Internal OI Network

- Company Departments who propose ideas from internal or external creativity



Internal
OI
Network

External OI Network

- New Innovators who propose ideas for existing and new businesses



External
OI
Network

External Trusted Network

- Trusted Innovators (*) who propose ideas from running and new collaboration



External
Trusted
Network

(*) Suppliers Innovation is the most important element of this network



Network

- Process -

Creation of Brokers Portfolio

Challenges

Focus

Launch

Scout

Screen

OIB



- Evolutions
- Strategic Areas



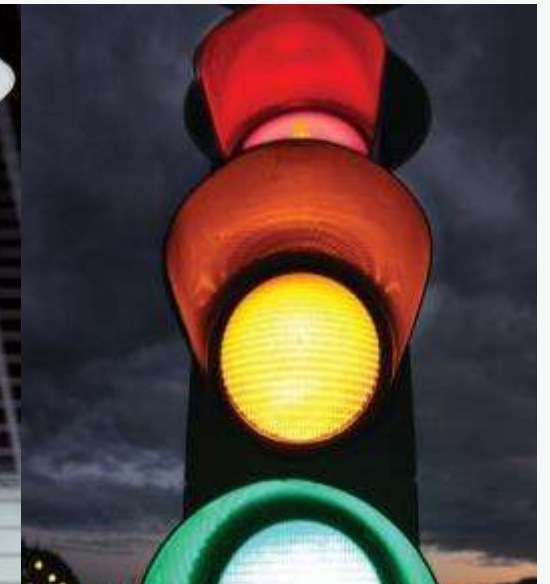
- Networks Selection
- Research Plan



- Brokers Identification
- Brokers Clustering
- Data Collection



- Deliverables Analysis
- One-Page Preparation



- Promotion to OI Team



Network

- Process -

Creation of Brokers Portfolio

Challenges

Focus

Launch

Scout

Screen

OIB



Output:
OI Brokers Portfolio

Output of «Network» process is
the OI Brokers Portfolio



Network

- Process -

Focus

Launch

Scout

Screen

OIB

HOW - Activities: Brokers – Filtering Deliverables – The Circular Process

Who: Ecosystem

- Industrial
- Academic
- StartUps
- People
- Investors
- Institutions
- Media
- OI Partners

How: Mechanism

- Communication with innovator
- Interaction with network

How: Business Model

- Flat Fee
- Success Fee



What: Challenges

- Targeted
- Inspired

How: Services

- Web
- Communities
- Databases
- Pitches
- Scouting
- Workshops
- Speed Dates
- Crowdsourcing
- Education
- Fairs
- Crowdfunding
- Word of mouth

A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations, including $2 \times 6 =$, $12 \div 3 =$, and $17 \div 3 =$.

Who are
open innovation
brokers?



Network

- Elements -

How. The Typologies.

Brokers can have different DNAs



Industrial



Academic



R&D



Start up



Financial



Media



People




Entrepreneur



Institutions



OI Players

A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations: $2 \times 6 =$, $12 - 3 =$, and $17 + 3 =$.

Which services
they can offer?



Network

- Value Creation -



Who:

Value is represented by the access to new innovative ecosystems





Network

- Value Creation -



What:
Value is represented by the opportunity to launch both types of challenges



Targeted challenges



Inspired challenges

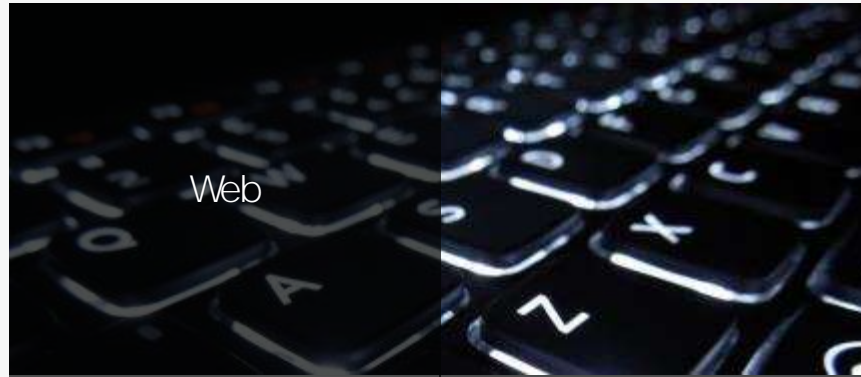


Network

- Value Creation -



How:
Value is represented by a differentiated offer of services





Network

- Value Creation -



How:

Value is represented by a differentiated offer of services



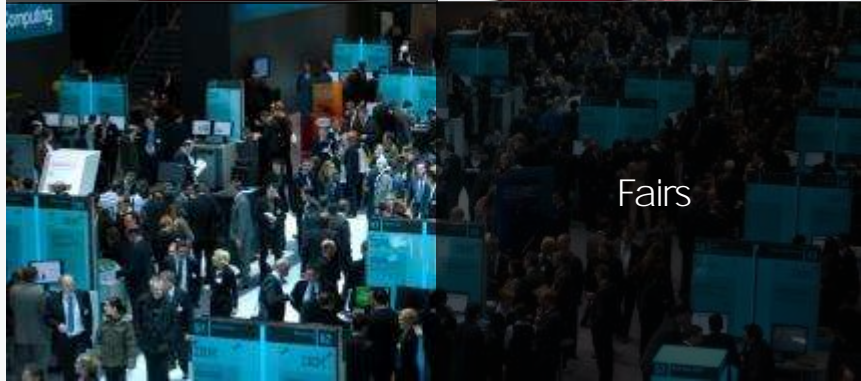
Speed Dates



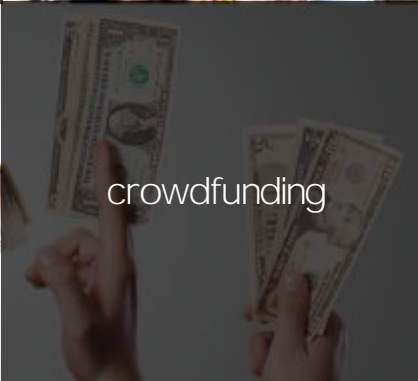
Crowdsourcing



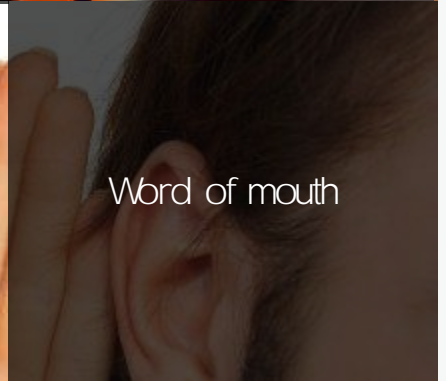
Education



Fairs



crowdfunding



Word of mouth

Any
examples?





Network

- Value Creation -



How:
Value is represented by a differentiated offer of services



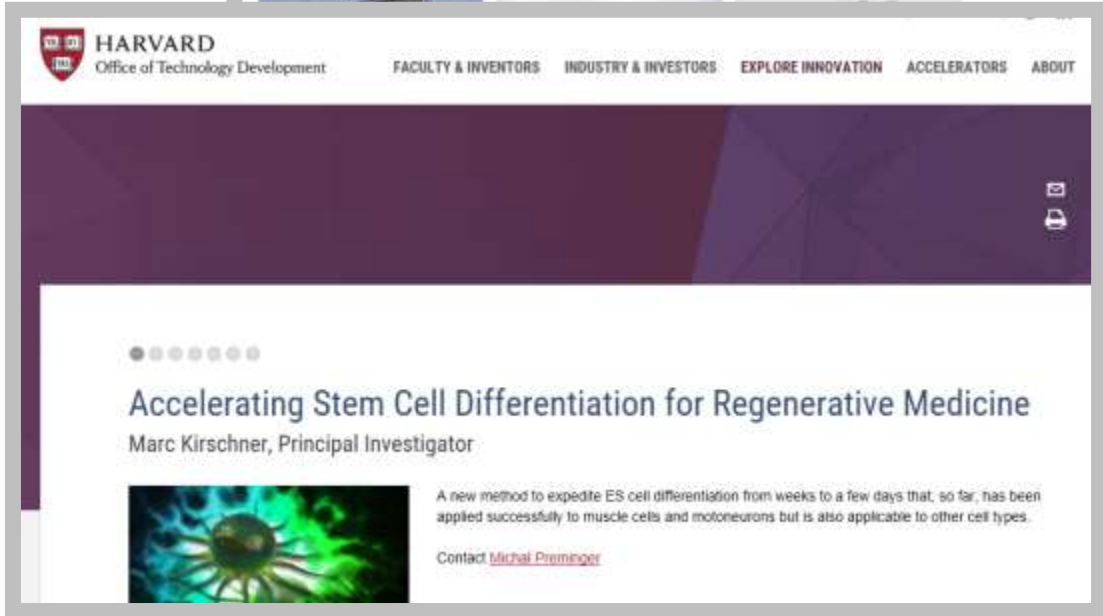
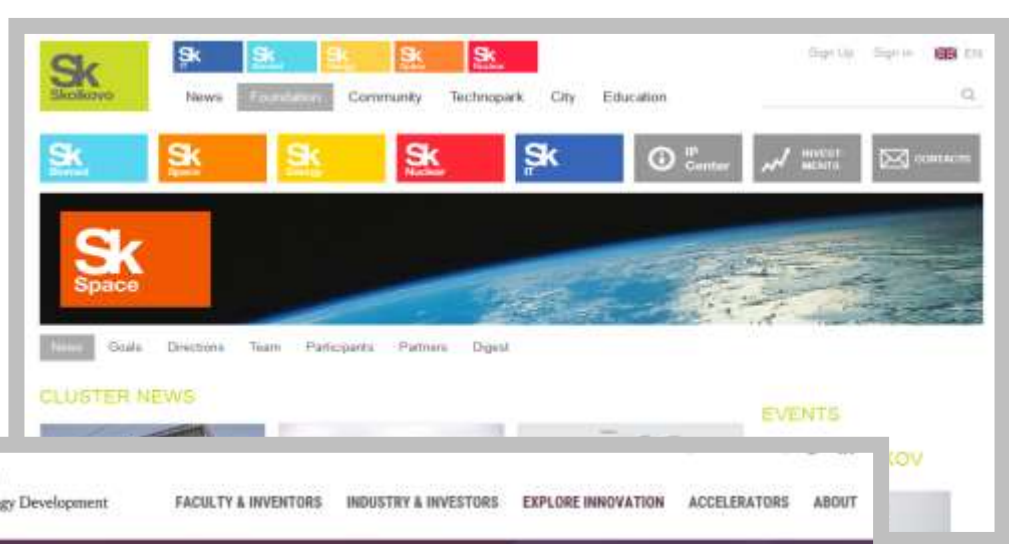
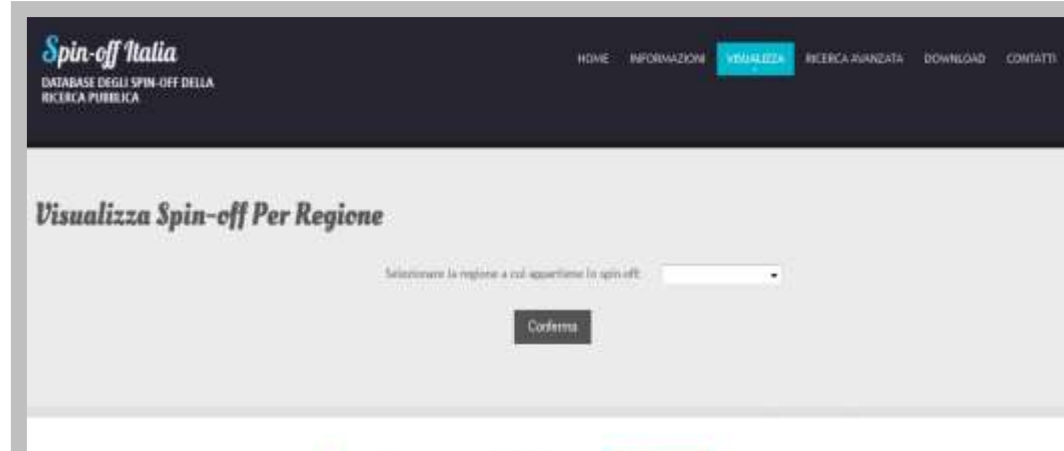
Pitches

Scouting

Workshops

Have you ever used
University DBs
created by TTOs?





Academic



Have you ever
visited
a business
incubator?





创新工场

INNOVATION
WORKS

Investing in China's top entrepreneurs

AngelPad

2013.3

Ad Tech

HelloSponsor



HelloSponsor

Modernizing the sponsorship industry
(AngelPad #8)

HelloSponsor is a platform enabling brand advertisers to find, buy and track offline sponsorships at scale. Brands spend billions of dollars annually on consumer events without any technical... read more

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Boarel Dreams

Start-ups
Gründungsideen werden geboren,
Unternehmen entstehen - eine
Übersicht

B!
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Gründungsjahr Fachgebiet Hochschule



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Jahr	Firma	Fachbereich
2008	123 skins	Sonstiges
2011	3D-berlin	Multimedia-Anwendungen
2014	3YOURMIND	
2005	acuros GmbH	Medizintechnik
2009	aeroix GmbH	Luft- und Raumfahrt
2010	Agora Internet GmbH	Internetportale
2012	AiDrones	Luft- und Raumfahrt

Databases

Accelerators





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The Innovation Network that Drives Sustainability

The online platform where corporates meet
start-ups driving innovation in a resource
constrained world.



For
Start-ups



For
Corporates



For
Investors &
Service Providers

A few of our top i3 users:



Databases

Financial





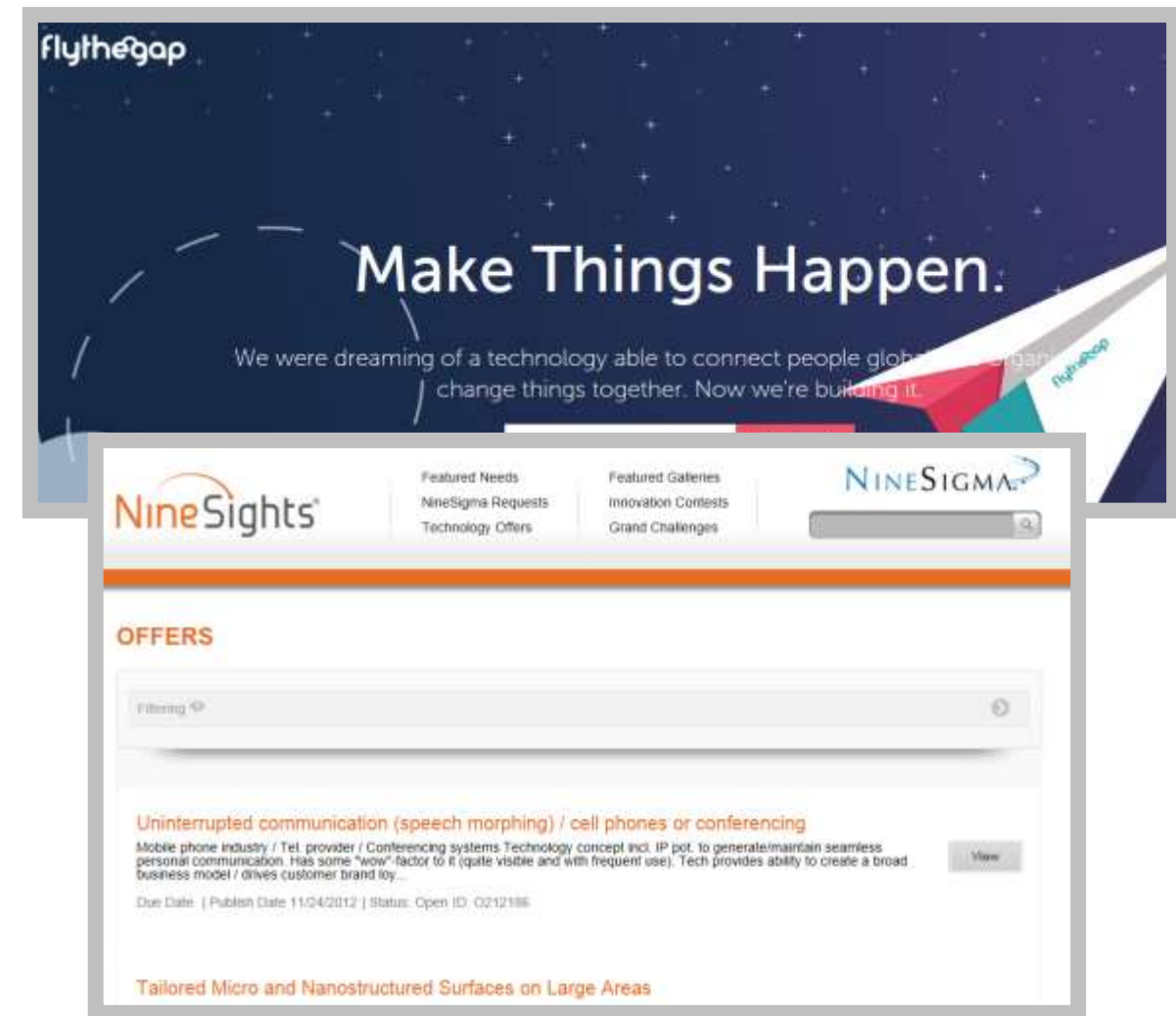
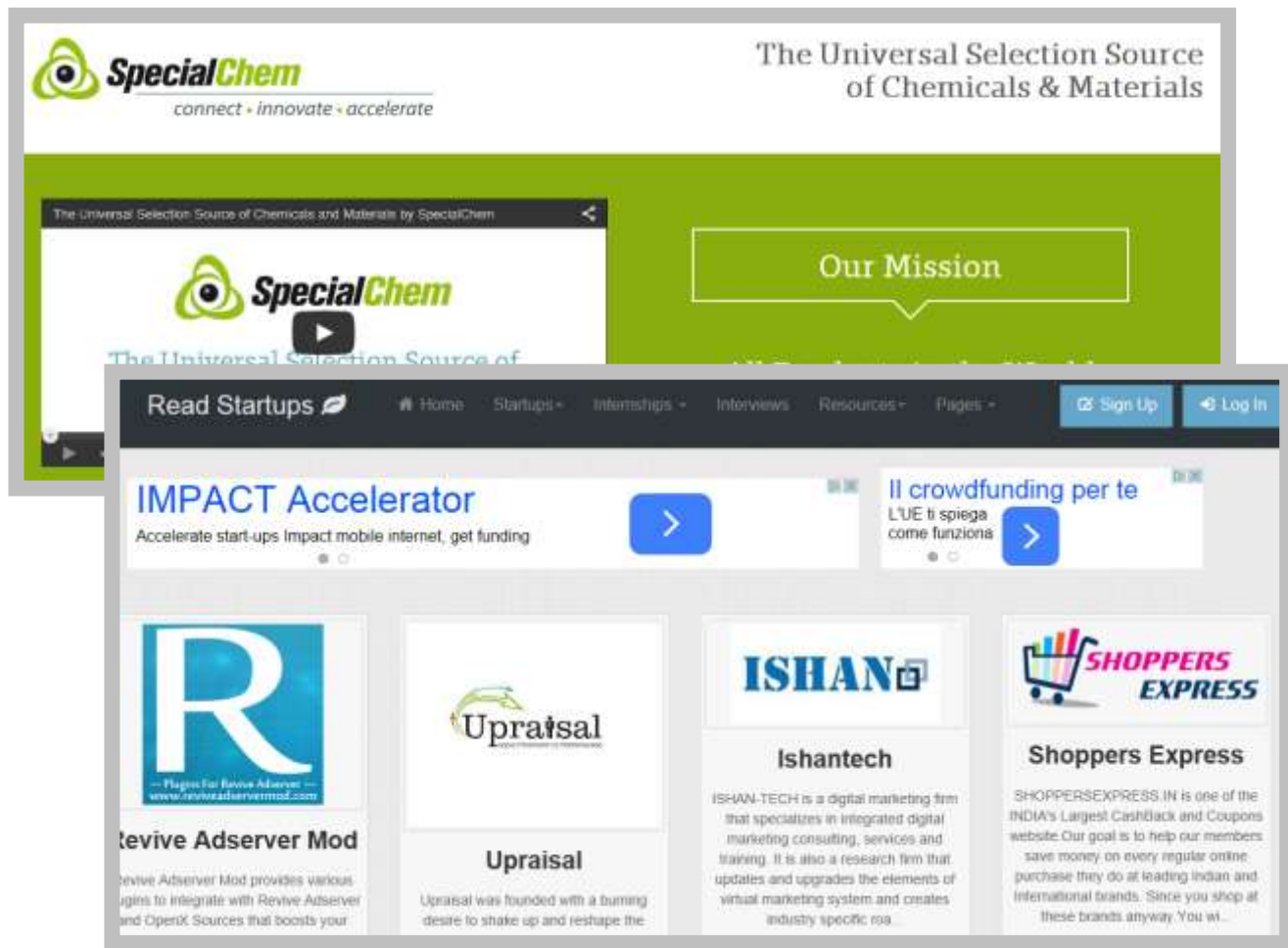
Business Support on Your Doorstep

The Network helps small and medium-sized enterprises (SMEs) make the most of business opportunities in the EU and beyond. Have a look at the many services offered free of charge by around 600 member organisations, including chambers of commerce and industry, technology centres, universities and development agencies. Use our map to find the branch closest to you: our doors are open!



Institutions





OI Players



Have you ever
attended
an investor pitch?



...and on tv???





Network

- Value Creation -



How:

Value is represented by a differentiated offer of services



e-unlimited.com



INNOVATION
PROGRAMMES



EMERGING
COMPANIES



GROWTH
COMPANIES



INV

Internat
Vent

ABOUT US WHAT'S NEW PARTNERS

INTESA SANPAOLO

Forgot password? Submit Idea Login e-mail

What's **NEW**

INTESA SANPAOLO START UP INITIATIVE



WHAT we do

WHO we work with

SUBMIT your idea ▶

Think **Big. Start Small. Scale Fast.**

Competence: learn the ropes from tutors & mentors and improve your business plan

Connections: network with incubators, accelerators, research centers & science parks

Capital: engage with committed venture capitals, business angels & corporate investors



Pitches

Financial



Do you know
the meaning of term
«crowdfunding»?



Do you know
«Kickstarter»?



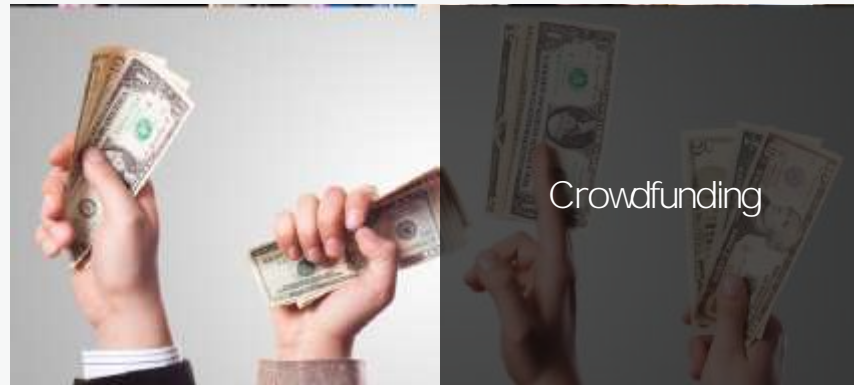


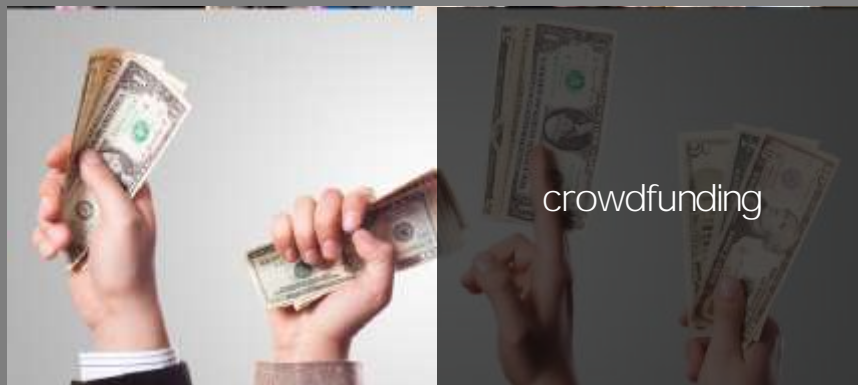
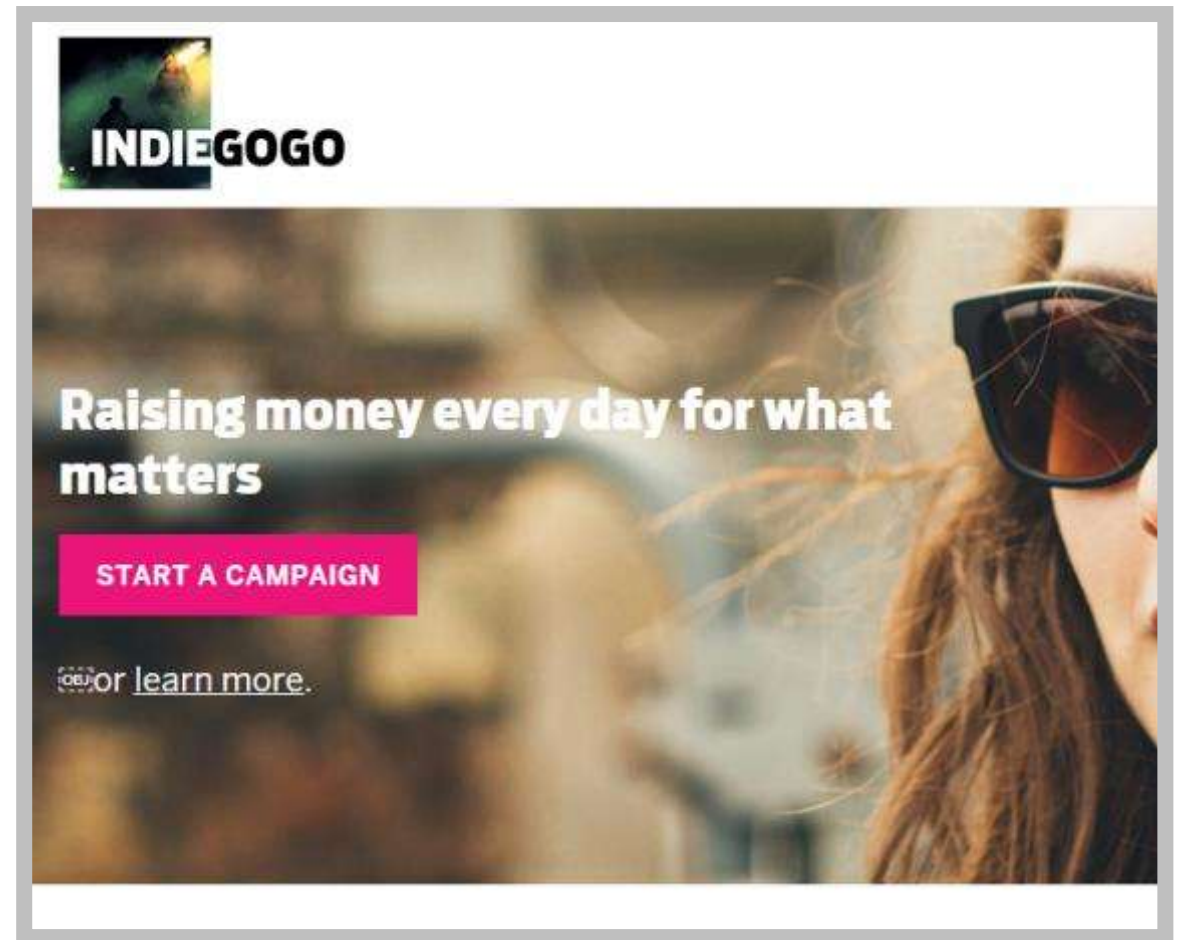
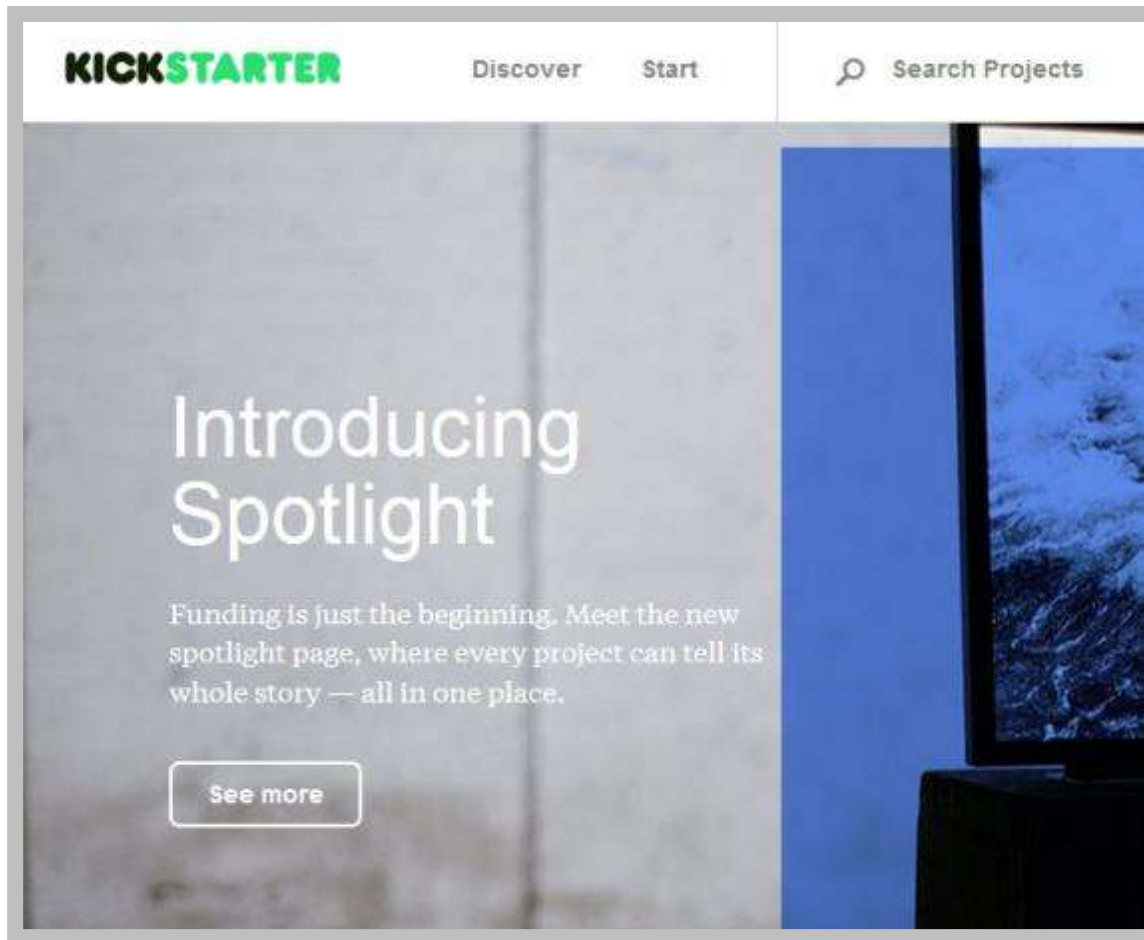
Network

- Value Creation -



How:
Value is represented by a differentiated offer of services





crowdfunding

OI Players

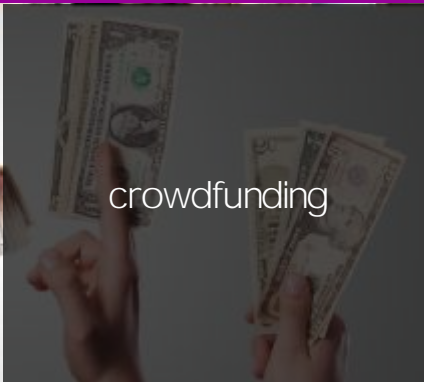




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crowdfunding

Financial



Do you know
what speed dates
are?

;-)))





Network

- Value Creation -



How:
Value is represented by a differentiated offer of services





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PROGRAMMES**



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COMPANIES**



**GROWTH
COMPANIES**



INVESTORS



Speed Dates

Financial





Borsa della Ricerca

La borsa | Le iniziative | Il network | Media relations | Contatti

Il Progetto - A chi si rivolge - I numeri del 2014 - Il Promotore -

Il Progetto



La **Borsa della Ricerca** è un'iniziativa ideata per costruire un **network tra i ricercatori** (gruppi, dottori di ricerca o spin-off) e **R&D managers**, attraverso un format di interazione originale in grado di favorire concretamente il **trasferimento di tecnologia ed innovazione**. L'iniziativa nasce all'interno del Progetto Desmo, l'incubatore di progetti ideato per realizzare iniziative in grado di avvicinare il mondo accademico e quello delle imprese.

Attraverso **strumenti innovativi** online e offline, incontri, progetti che sfruttano format originali, networking e condivisione, tutti i partecipanti alla Borsa della Ricerca possono ottenere con rapidità ed efficacia un risultato concreto.

Il portale della Borsa ha l'obiettivo di stimolare e supportare la nascita di **connessioni costanti tra università ed aziende**.

Attraverso il portale si crea una continuità di relazione durante tutto l'anno, fornendo **informazioni e servizi** e promuovendo **eventi fisici e virtuali** che mantengono vivo il network del progetto.

La Borsa della Ricerca è quindi un **progetto multicanale** in continua evoluzione che accoglie le diverse sollecitazioni di tutti gli interlocutori coinvolti e cresce continuamente grazie all'interazione ed ai contributi dei partecipanti.



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ENGAGING MINDS AND ENRICHING LIVES

SINGAPORE PRESS HOLDINGS

SPH Plug & Play Accelerator is a Media and Technology-themed accelerator program to be launched in Singapore in 2015 with a goal of investing in promising Start-Ups

Speed Dates

OI Players





Network

- Value Creation -



How:

Value is represented by a differentiated offer of services



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Scouting

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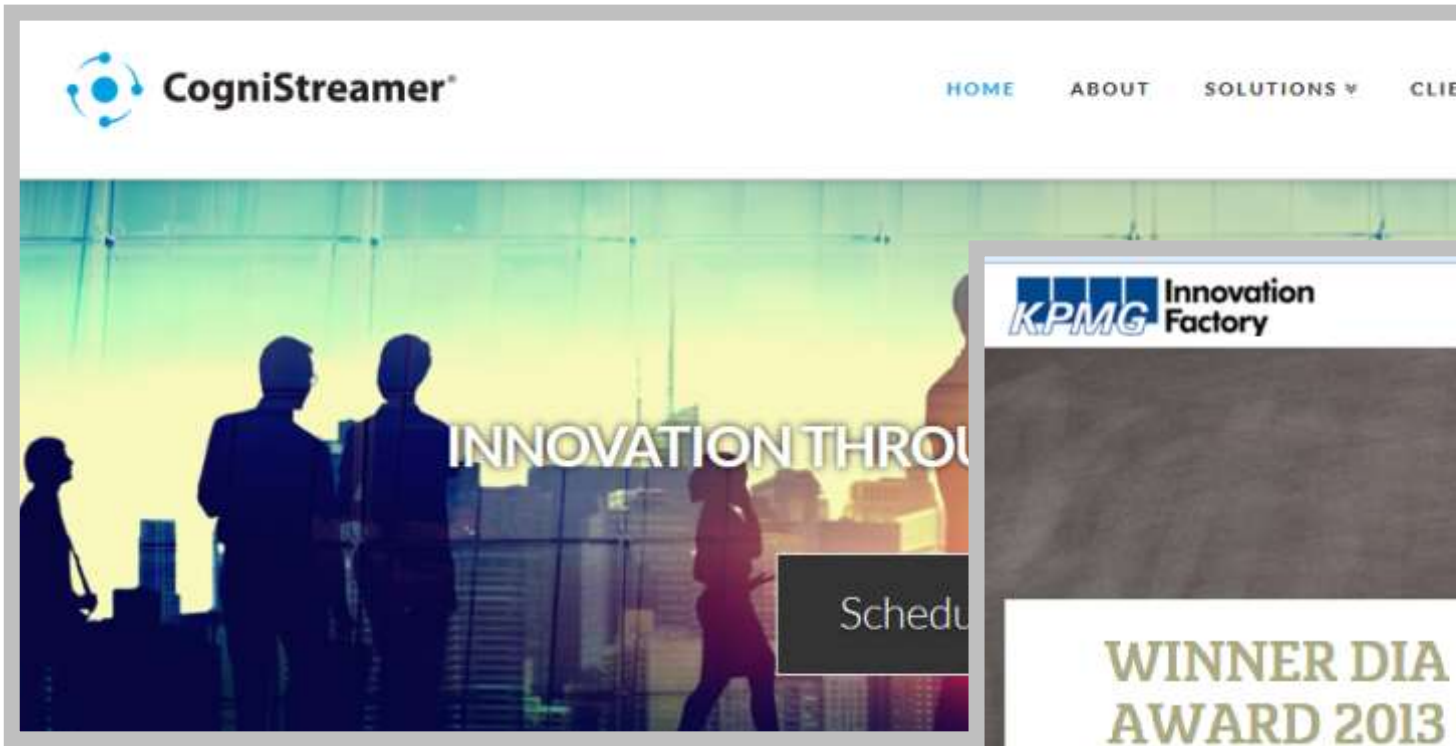
Network

- Value Creation -




How:
Value is represented by a differentiated offer of services





OI Players



A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations: $2 \times 6 =$, $12 \div 2 =$, and $12 \div 3 =$.

Which is
their
business model?

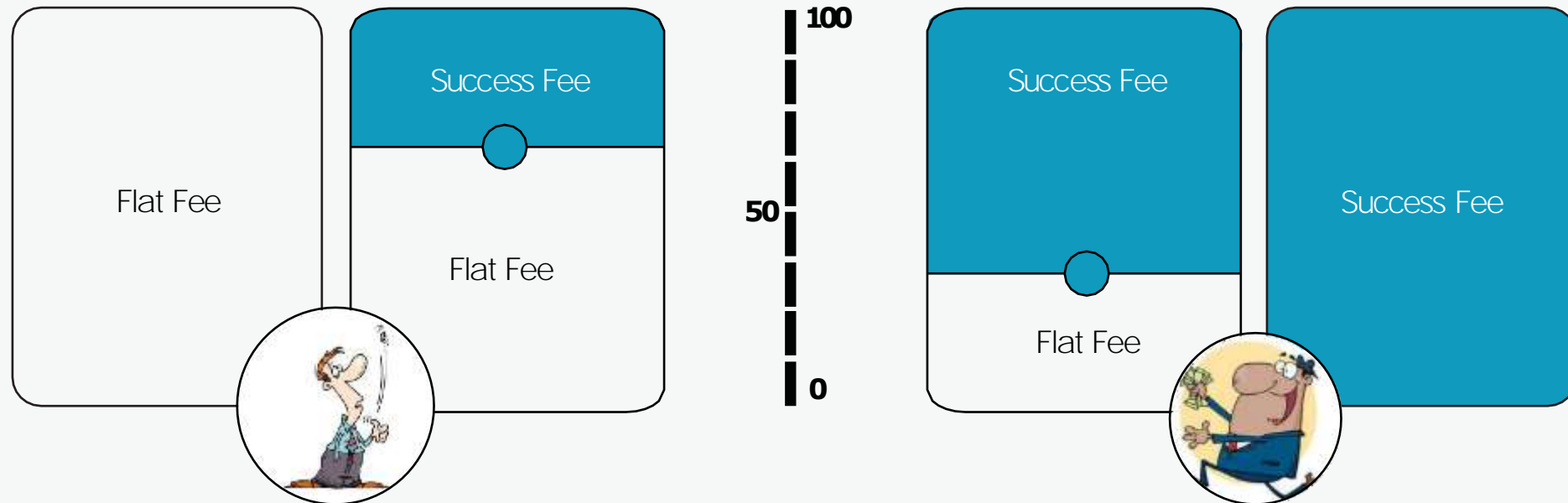


Network

- Value Creation -



How:
Value exchange is driven by a calibrated business model



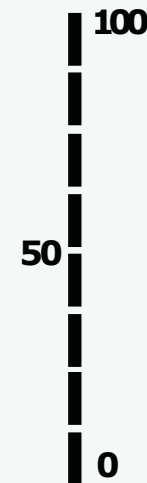
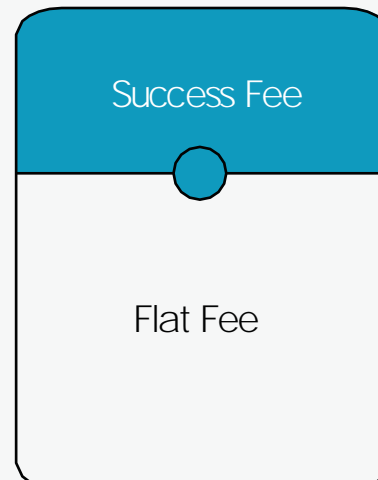
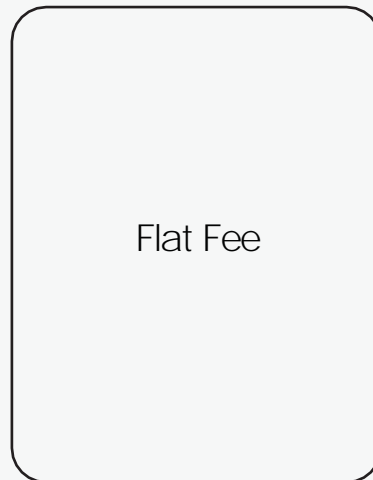


Network

- Value Creation -



How:
Value exchange is driven by a calibrated business model



- Flat Fee is required to
- Activate access to innovative networks, where value of innovators is clear & strong
 - Implement specific activities required by my company to launch OI challenge



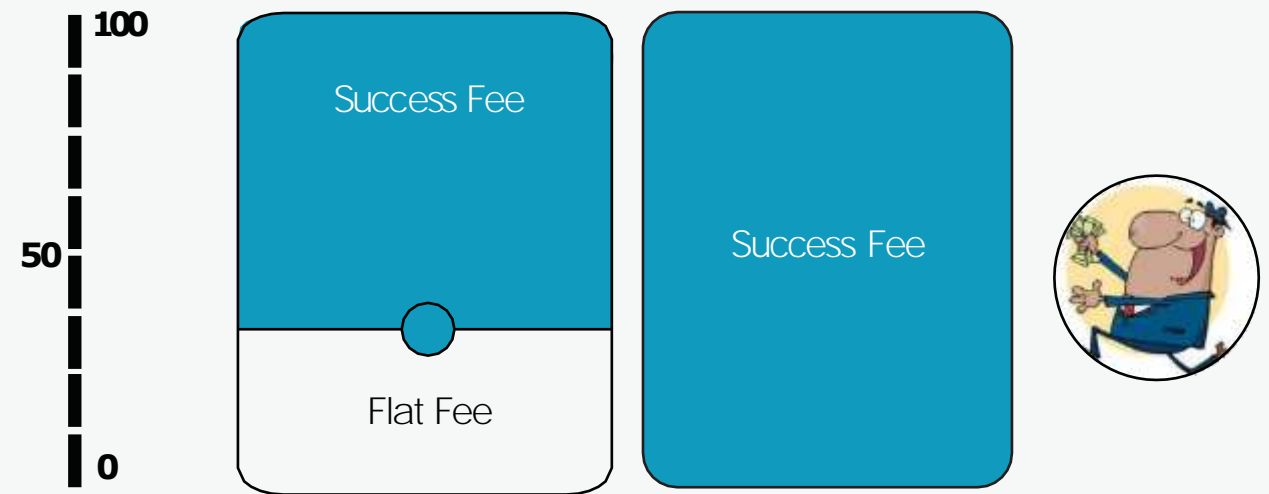
Network

- Value Creation -



How:
Value exchange is driven by a calibrated business model

- Success Fee can be driven by
- o Money Deal with 3rd parties (innovators)
 - o Project activation in my company prj mngt process
 - o Project financials (sales)



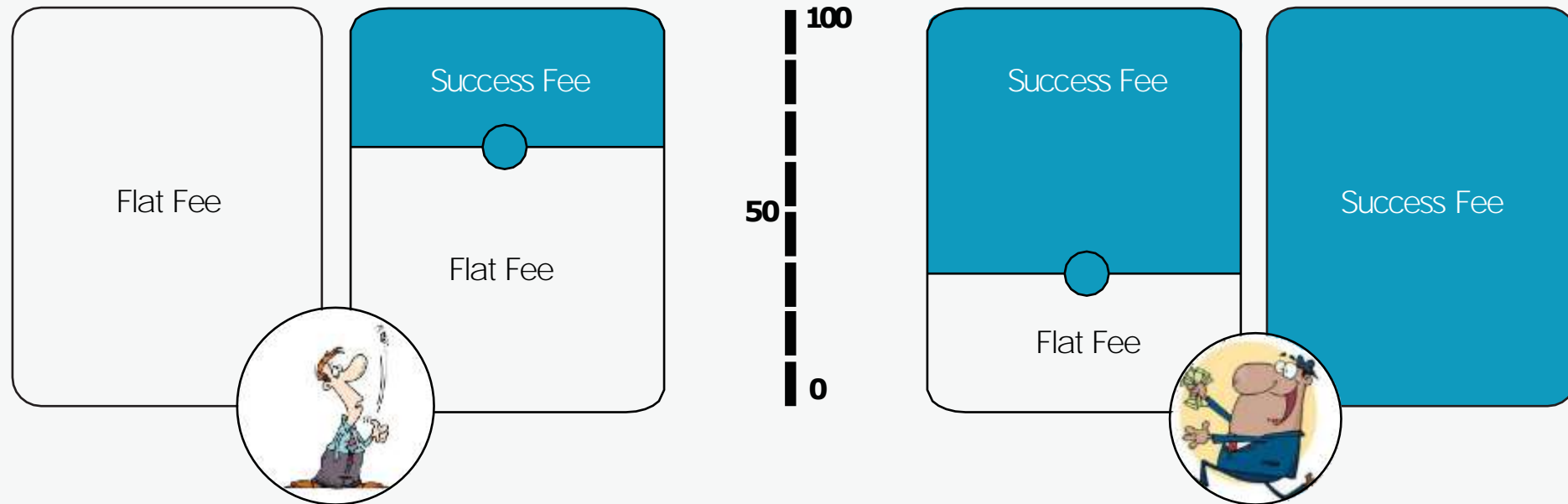


Network

- Value Creation -



How:
Value exchange is driven by a calibrated business model



Traditional OI Business Models

Trend

New OI Business Models

Do you think
open innovation
is a change?



Do you
expect
barriers?





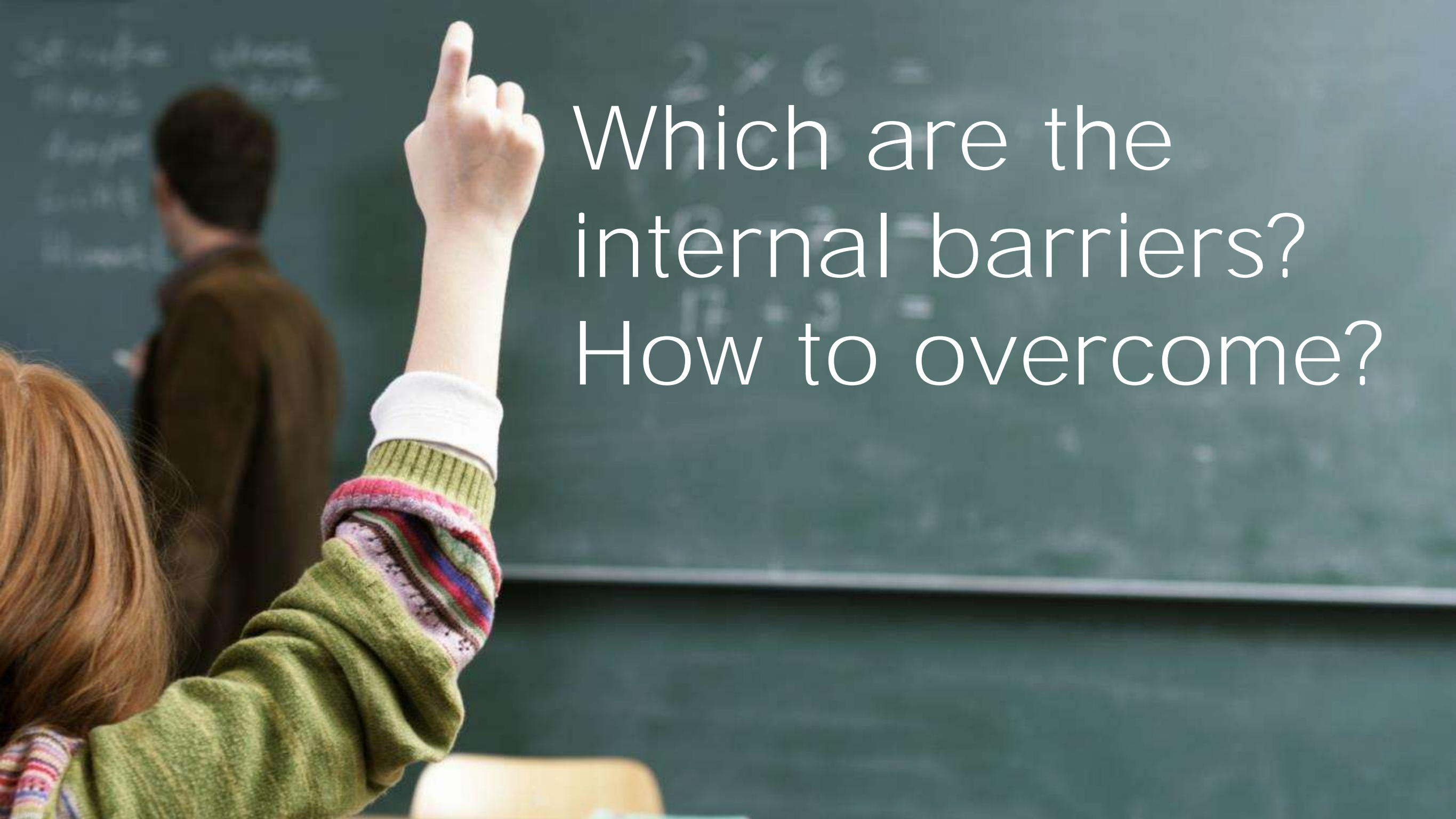
Mindset

from Ol experiences...



to OI ambassadors...



A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised, pointing their index finger upwards. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations: $2 \times 6 =$, $12 \div 3 =$, and $17 + 3 =$.

Which are the
internal barriers?
How to overcome?



Mindset

- Elements -

How. The Triangle.

NIH Syndrome

- Everything coming from outside is suspicious and not reliable
- **We're the best, only what we do create** is good enough for our customers.



NIH
Syndrome

OI challenge requires a cultural shift,
to **break some syndromes/paradigms...**

Fearing Diversity

- Different opinions, cultures, vision are a barrier.



IP
Paradigm

Fearing
Diversity

IP Paradigm

- A great portfolio of Patents is key for success.
- We have to control and own IP to deliver innovation





Mindset

- Elements -

How. The Triangle.

Synergy

- Innovation comes from synergy between people inside and outside the company.



Synergy

...**and** build new interactions to support OI Model

Valuing Diversity

- Diversity is a value to find new horizons and capture new opportunities beyond traditional frames.



Valuing
Diversity

IP Usage

- **We don't have to control our IP** to create innovation...
- It is the use of IP that enables innovation.



IP Usage

A photograph of a classroom scene. In the foreground, a person with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised with the index finger pointing up. In the background, a man in a brown jacket stands facing a chalkboard. The chalkboard contains faint, illegible writing and some mathematical equations like $2 \times 6 =$ and $12 \div 3 =$.

How to facilitate
the dialogue
with **innovators...**



...even with
non-traditional
players?

- 
- A man with short brown hair and glasses, wearing a dark suit, is riding a red go-kart. He is leaning forward in a racing posture. The background is a blurred, light-colored surface, suggesting motion. The go-kart is red with black wheels and a black steering wheel.
1. Create Trust
 2. Follow Deliverables
 3. Focus on Value

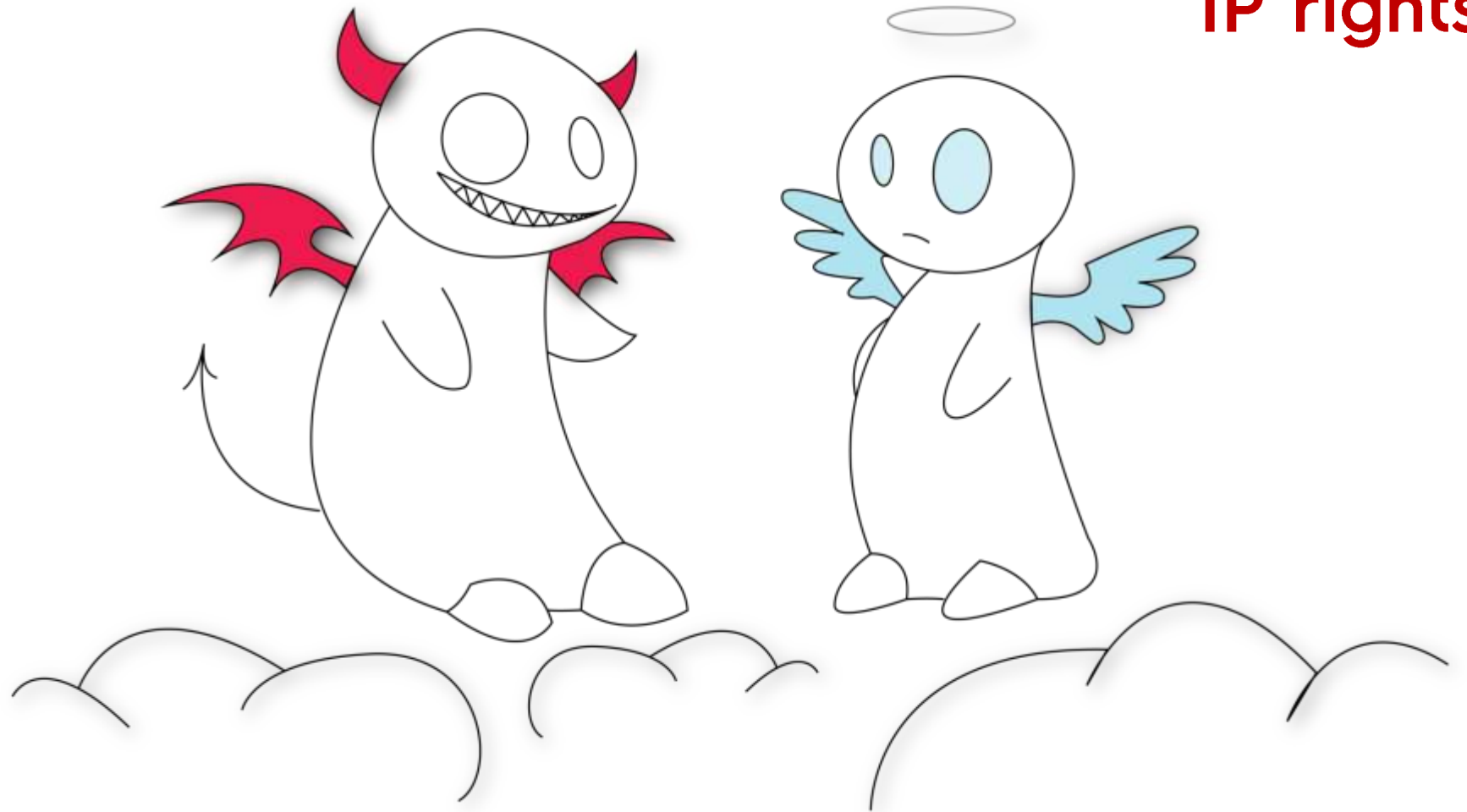
The Driving Rules

A person with long brown hair, wearing a green sweater with a colorful striped cuff, is raising their right hand with the index finger pointing up. In the background, a man in a brown jacket is standing near a chalkboard. The chalkboard has some faint, illegible writing and a few mathematical equations like $2 \times 6 =$ and $17 + 3 =$.

How to interact
with innovators
in a safe **way**...

...even w/out
a public patent?

**“Sold my soul to the
devil, but held on to the
IP rights...”**



The Onion Approach

1. Focus on distinctive elements
2. Start from non-confidential data
3. Share data layer by layer

A close-up photograph of two sliced red onions. The onion on the left is partially cut, showing several concentric rings of red and white layers. The onion on the right is more fully sliced, revealing a bright yellow center surrounded by many layers of red and white. The lighting is soft, highlighting the texture of the onion skin and the moistness of the inner layers.

The Onion Approach

A photograph of a classroom scene. In the foreground, a student with long brown hair, wearing a green sweater with a colorful striped cuff, has their right hand raised with the index finger pointing up. In the background, a male teacher in a brown jacket stands with his back to the camera, facing a large green chalkboard. The chalkboard contains faint, handwritten mathematical equations: $2 \times 6 =$, $12 \div 3 =$, and $17 + 3 =$.

Any
OI stories?

Timer Knob



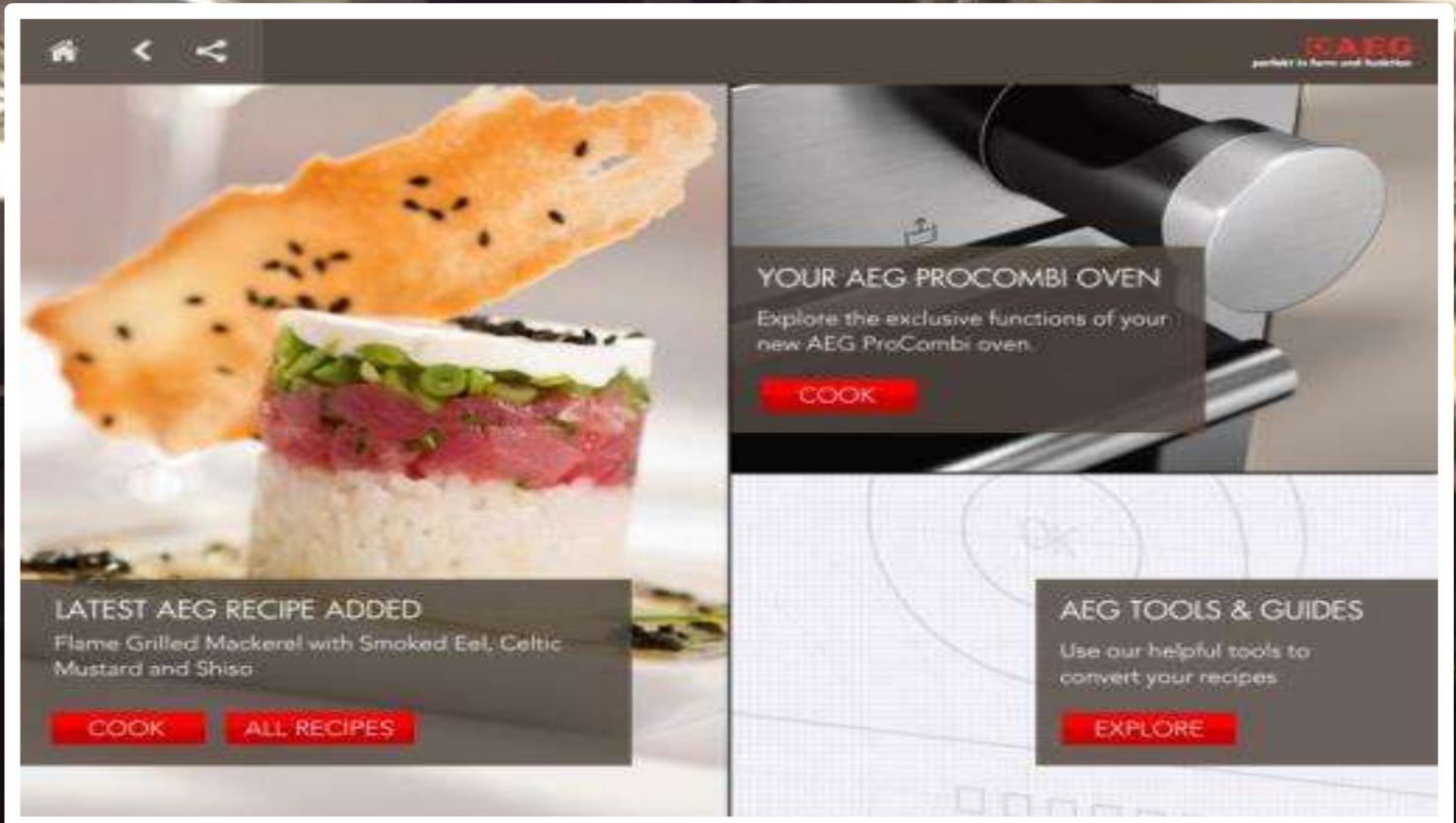
Herbs Garden



Electrolux

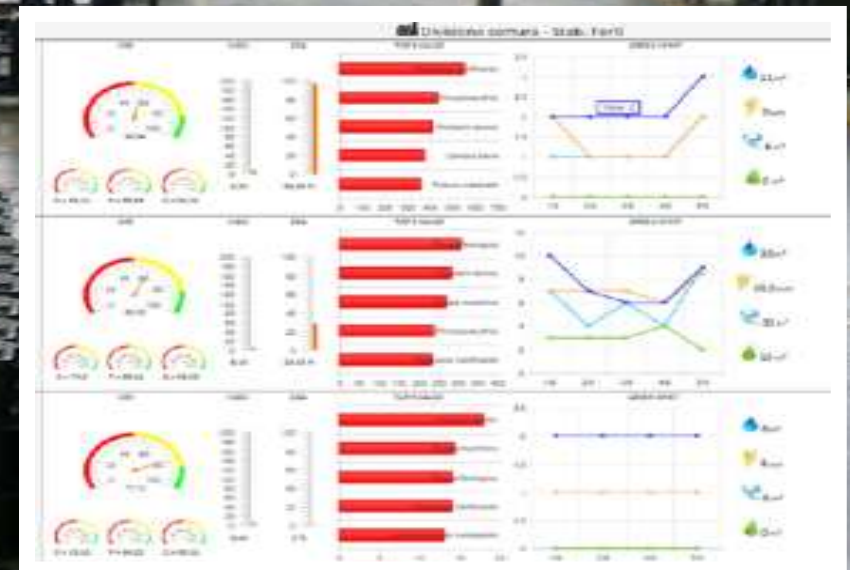


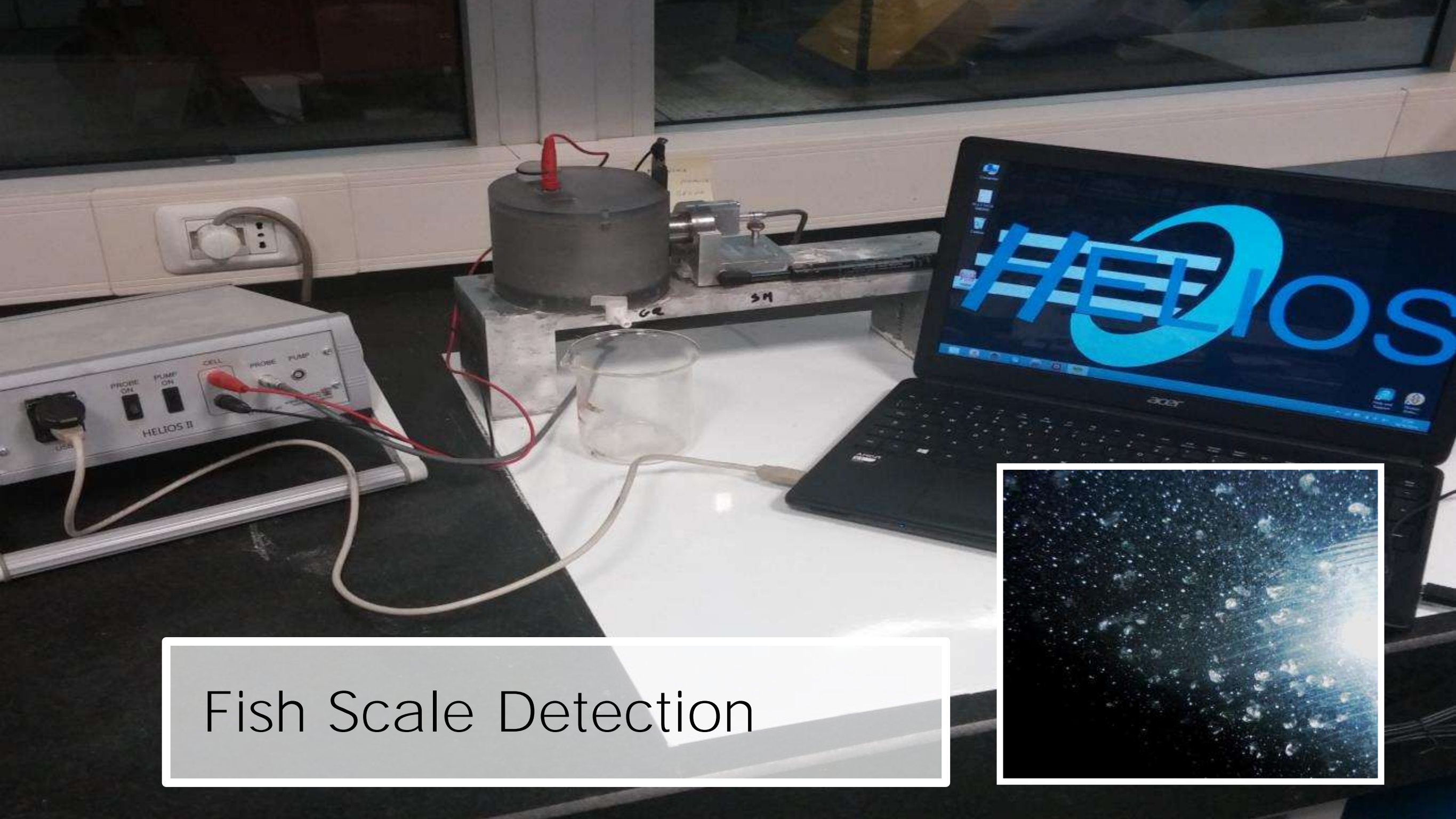
Recipe Generator in **Let's Taste** app





Assy Lines calibration





Fish Scale Detection



BI Indoor BBQ



Don't let storms
scare you.

Let them
teach you
how to
sail your ship.



Are you ready
to change
the rules of the
game?



Moving Forward Q&A Session



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