



# ALMACUBE

EMPOWERING INNOVATORS

Alma Mater Studiorum - Università di Bologna



**smart**

*Study Visit*

*October 6th, 2022*

*Bologna*



# Who we are

**Foundation**

**A new business partner**

**Two business units**

**New acceleration model**



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA



**CONFINDUSTRIA EMILIA  
AREA CENTRO**  
Le imprese di Bologna,  
Ferrara e Modena



**Open  
Innovation  
Unit**



**Startup  
& spinoff  
Unit**

**Venture clienting  
Startup taste  
Manager up  
...**





# Ecosystem





## A global community of talents, startups and spinoffs, corporates and research centres.



**300+**

Served startups and spinoffs

**5000+**

Startups & spinoffs in our network



CONFINDUSTRIA EMILIA  
AREA CENTRO  
Le imprese di Bologna,  
Ferrara e Modena

**3.500+**

Companies

**20**

Value chain clusters



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

**80.000+**

University students

**12.000+**

Fresh graduates every year

**30**

International Universities

**470**

Patents and technologies



# Universities and research centres



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA



École des Ponts  
ParisTech  
d.school Paris



UNIVERSITÀ  
DEGLI STUDI DI BARI  
ALDO MORO



Stanford  
University



UNIMORE  
UNIVERSITÀ DEGLI STUDI DI  
MODENA E REGGIO EMILIA



BOLOGNA BUSINESS SCHOOL



ISTITUTO ITALIANO  
DI TECNOLOGIA



UNIVERSITÉ  
CÔTE D'AZUR



Karlsruher Institut für Technologie



Università  
degli Studi  
di Ferrara



Instituto  
Politécnico  
Portalegre



Istituto Nazionale di Fisica Nucleare



UNIVERSITY of INFORMATION  
TECHNOLOGY and MANAGEMENT  
in Rzeszow, POLAND



# Industries and collaborations

Agriculture

Automotive

Digital

Education

Facility

Finance

Food

Healthcare

Hospitality

Logistics

Manufacturing

Mechanics

Mobility

Packaging

Pharma

Retail

Societal

Utilities



ISTITUTO ITALIANO  
DI TECNOLOGIA

Barilla

The Italian Food Company. Since 1877.



Together to the next level



Sustain Ability



legacoop bologna



Forever Forward



BPER:  
Banca



CIHEAM



INTESA SANPAOLO



PHILIP MORRIS  
ITALIA S.R.L.



Nestlé



# Team



**Alessandro Grandi**  
President



**Andrea Barzetti**  
C.E.O.



**Nicole Monti**  
Head of  
Startup & Spinoff Unit



**Francesco D'Onghia**  
Head of  
Open Innovation Unit



**Mario  
Di Nauta**



**Alberto  
Miti**



**Eleonora  
Musca**



**Michael  
Oggioni**



**Susanna  
De Besi**



**Sergio  
Pirrone**



**Lucia  
Monti**



**Elena  
Colombo**



**Alessandro  
Cacace**



**Michele  
Lorubio**



**Alexandru  
Nicolae  
Cublesan**



**Giampaolo  
Pagliuca**



**Silvia  
Magni**



**Stefania  
Fanti**



**Riccardo  
Maistrello**



**Paola  
Ferrara**



**Federico  
Fattori**



**Rachele  
Gallorini**



**Sergio  
Bertolucci**



**Shiva Loccisano**  
Tech Transfer  
Expert



**Filippo  
Forni**

## UNIVERSITY RESEARCH GROUP



**Matteo  
Vignoli**



**Nicolò  
Cocchi**



**Clio  
Dosi**

# Startup & Spinoff Unit







# Startup and Spinoff Unit



**Startup  
& spinoff  
Unit**

**Pre-incubation**

**Incubation**

**Acceleration**





# Services

## INCUBATION



- Workshops with experts
- 
- Consultancy perks
- 
- Coaching & Monitoring
- 
- Networking events
- 
- Scouting Calls, Funding & Tenders
- 
- Private Web Area
- 
- Erasmus For Young Entrepreneurs

## ACCELERATION



- Mentoring with experts
- 
- Matchmaking with investors & corporates
- 
- Preferential access to exhibitions and events

## ON DEMAND



- Office Space
- 
- Grant Desk
- 
- Startup taste
- 
- Manager Up
- 
- Prototyping Space
- 
- Personal coaching



# Services that strengthen the ecosystem

## INCUBATION



- Workshops with experts
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- Consultancy perks
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- Coaching & Monitoring
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# Open Innovation Unit





## Programs overview

Where  
problems/opportunities  
are explored  
and new solutions  
are developed

*INNOVATION COACHING*

*DESIGN THINKING EMBEDDED*

*BETA BUSINESS*

Where specific needs  
meet existing  
innovative solutions

*VENTURE CLIENTING*

Where organizations  
meet young talents

*TALENT ACQUISITION PROGRAMS*

Where young talents  
challenge their  
entrepreneurial  
mindset

*OPEN INNOVATION PROGRAMS*





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# Innovation development programs

## RESOURCES



Students

-

Fresh graduates

-

Young professionals

-

Startuppers

-

Researchers

-

Company employees

## MODEL + COACHING



Design thinking

-

3-to-8 month process

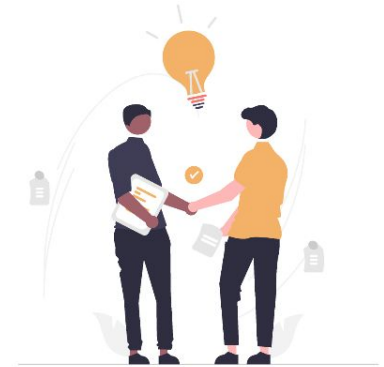
-

Full time or part time

-

Market-pull or  
technology-push

## OUTPUT



New products/services  
that match  
the company's  
innovation needs





# Innovate with design thinking



## Discover

**(WHAT IS)**

Explore context and people



## Design

**(WHAT IF)**

Identify & build opportunities



## Develop

**(WHAT WORKS)**

Bring solution to life

## Mindset

Problem Setting  
Naive & Curious  
Exploratory  
Observe & Listen  
Empathize

## Mindset

Problem Solving  
Envisioning  
Solutionize  
Imagination  
Iterate

## Mindset

Decision-making  
Strategic  
Realistic  
Pragmatic  
Evaluate





# INNOVATION COACHING

*BECOME A PROTAGONIST*

*PERSONALIZED PROCESS*

*SUPPORTING CULTURAL  
TRANSFORMATION*

*Pic: Coaching @CREDEM*

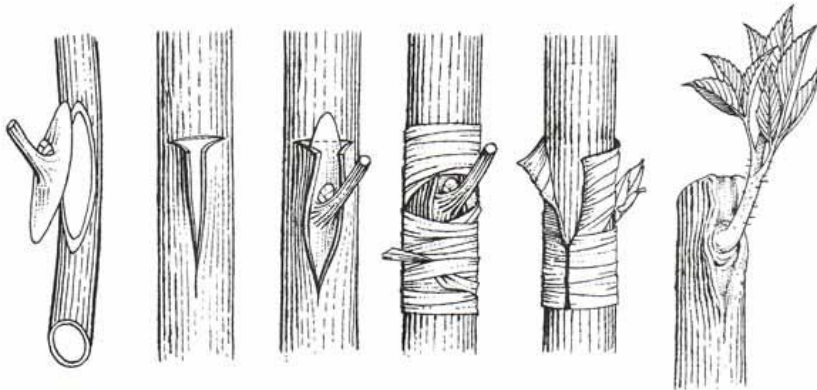


# DESIGN THINKING EMBEDDED

*EMBED CREATIVE ENERGY  
AND ENTHUSIASM*

*HIGH EXPOSURE TO INNOVATION CULTURE*

*QUICK DEVELOPMENT OF AN INNOVATIVE  
SOLUTION*



# BETA BUSINESS

*DEVELOP SOLUTIONS IN NEW  
NO-CORE BUSINESSES*

*APPLY AGILE, STARTUP-LIKE  
METHODOLOGIES*

*TEST INNOVATIVE BUSINESS MODELS*





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*INNOVATION* **COACHING**

*DESIGN THINKING* **EMBEDDED**

*BETA* **BUSINESS**

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*VENTURE* **CLIENTING**

Where organizations  
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*TALENT ACQUISITION* **PROGRAMS**

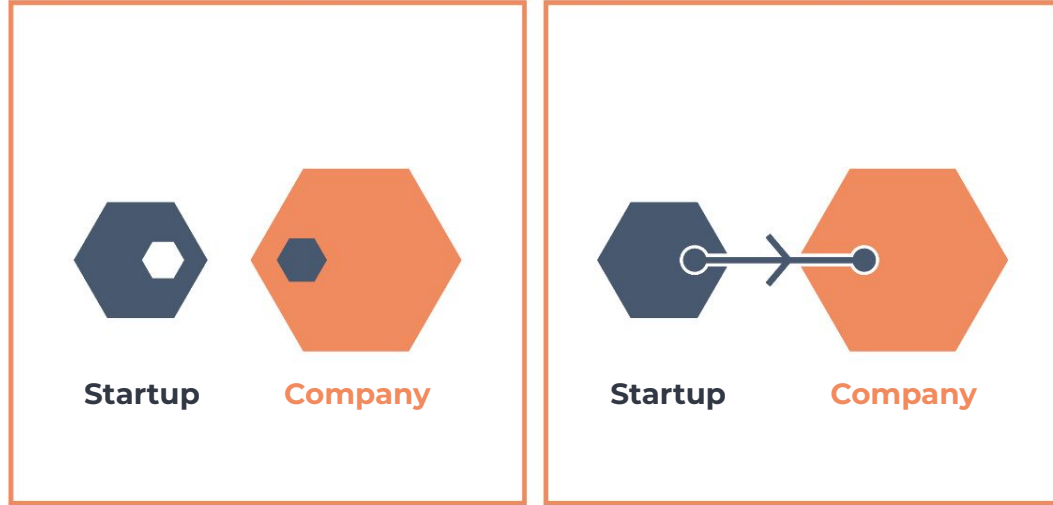
Where young talents  
challenge their  
entrepreneurial  
mindset

*OPEN INNOVATION* **PROGRAMS**





# Venture Clienting: Client, not investor



The corporate acquires equity stake of the startup.

The corporate buys the startup product.

# VENTURE CLIENTING

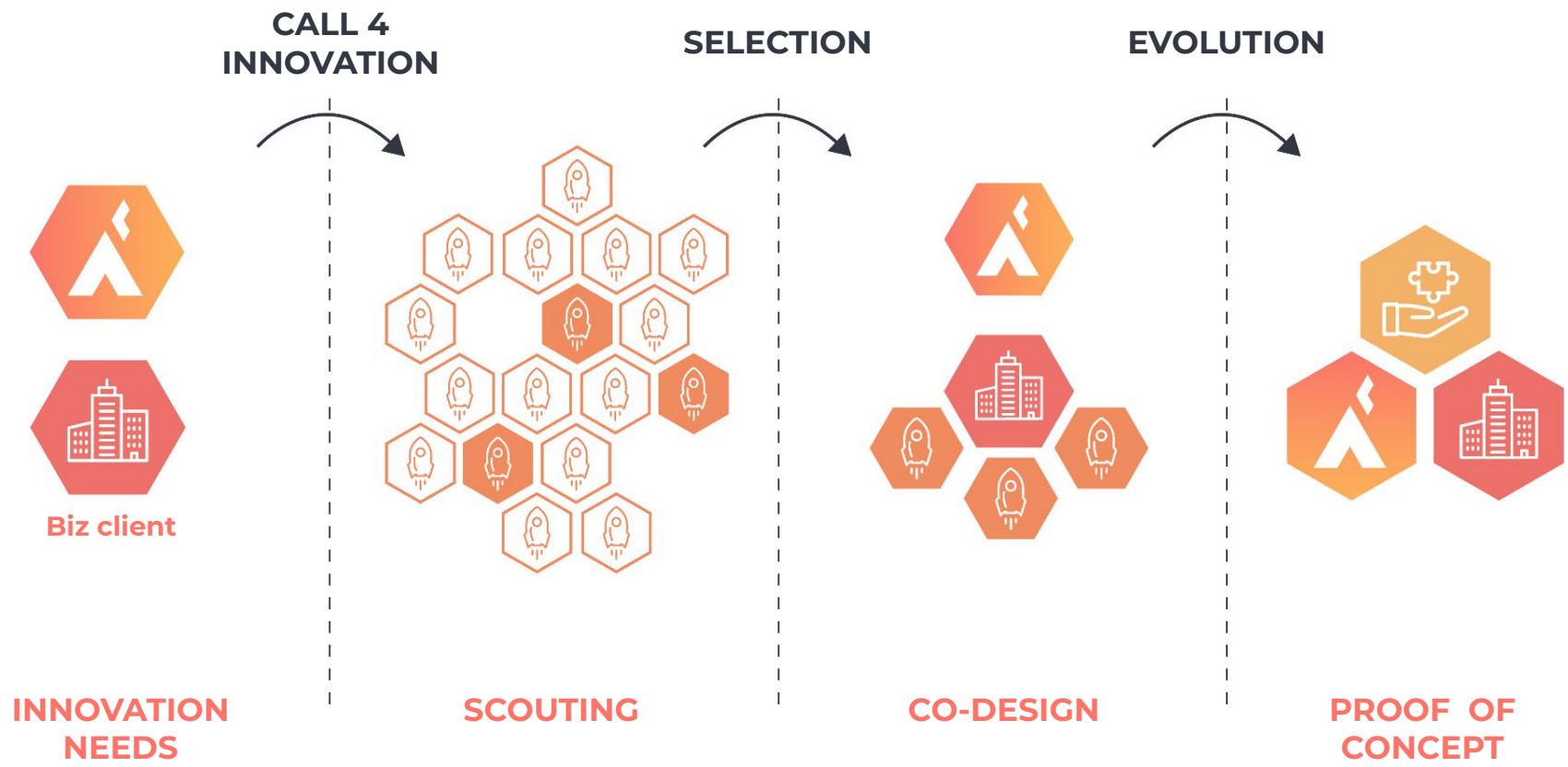
*MEET INNOVATIVE AND IMPACTFUL  
SOLUTIONS FOR YOUR FIELD*

*CO-DESIGN WITH STARTUPS FOR  
THE BEST FIT POSSIBLE*





# Venture Clienting





— PHILIP MORRIS ITALIA

# BELEAF: BE THE FUTURE

Diventa Innovation Partner di Philip Morris Italia



**BeLeaf**  
Be the future







## PARTECIPA A ORGANIC ECOSYSTEM INNOVATION PROGRAM

PARTECIPA



ORGANIC ECOSYSTEM





## Programs Overview

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Where young talents  
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*OPEN INNOVATION* **PROGRAMS**



# TALENT ACQUISITION **PROGRAM**

*CONNECT ORGANIZATIONS  
AND TALENTS*

*TRAIN YOUR FUTURE TALENTS  
INNOVATION MINDSET*

*EXPERIENTIAL RECRUITING*



# Talent Acquisition Program: an Example



**4**

**Local organization**  
in need of fresh resources

**20**

**Young Talents**  
from all over Italy

**4**

**Innovation challenges**  
given by the companies

**3**

**Weeks of Innovation Residency**  
to co-design and meet the city





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# Methodological and operational support for other organizations and Universities



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA



UNIMORE  
UNIVERSITÀ DEGLI STUDI DI  
MODENA E REGGIO EMILIA

BBS  
BOLOGNA BUSINESS SCHOOL



UNIVERSITÀ DEGLI STUDI  
DI GENOVA

bi-REX  
Big Data Innovation & Research Excellence



UNIVERSITÉ  
CÔTE D'AZUR



UNIVERSITÀ  
DEGLI STUDI DI BARI  
ALDO MORO





ALMA MATER STUDIORUM  
UNIVERSITA DI BOLOGNA



**oper.SUGAR**

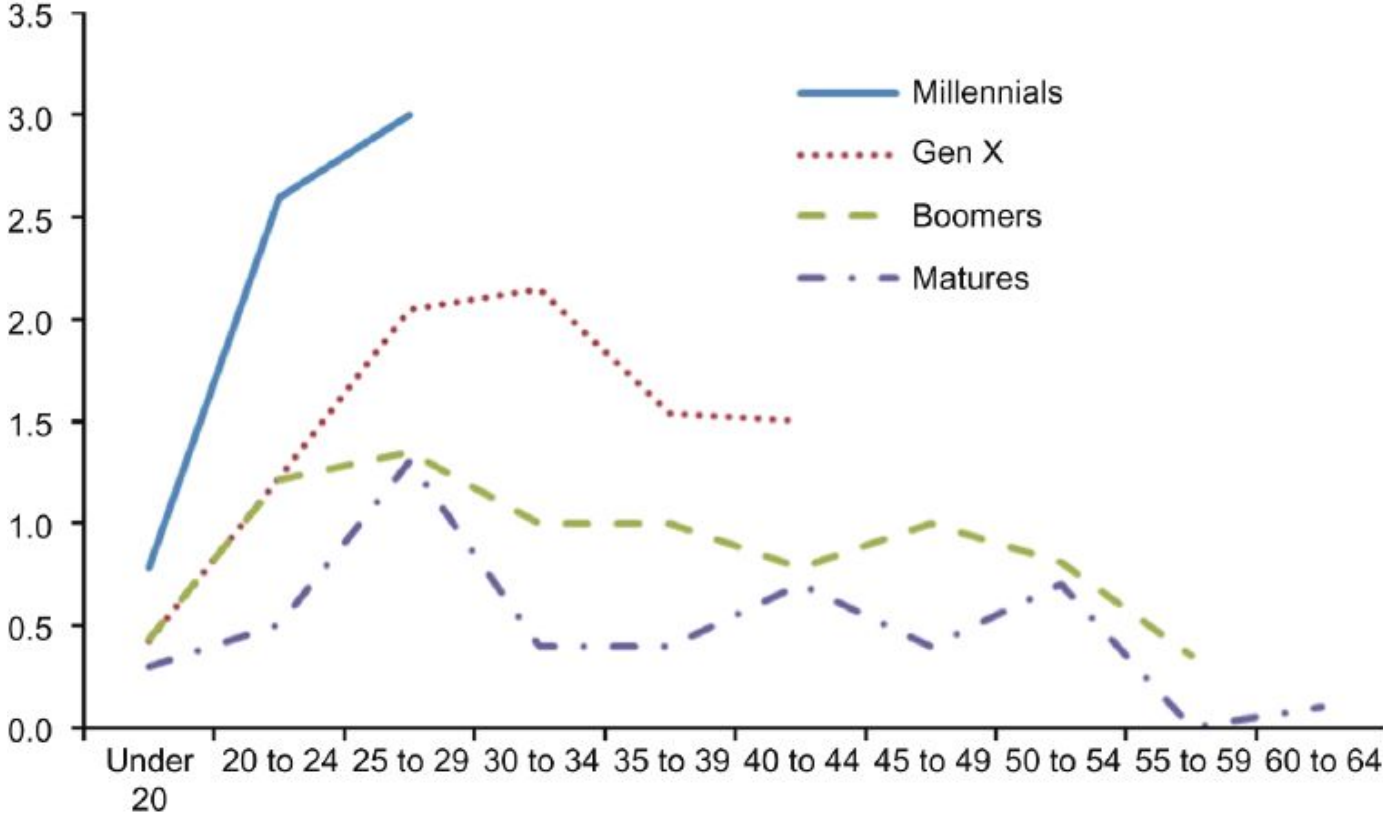
OPENING INNOVATION



**oper.CBI**

OPENING INNOVATION

# Inter-generation comparison of job changes across career stages





# Supporting the changemakers of tomorrow



+



=



**Academic Path**

**Extracurricular  
activities,  
innovation and  
entrepreneurship  
programs**

**Innovation Talent**

Creativity

Curiosity

Empathy

Communication

Critical thinking

Teamwork

...

## **1. A (Real) Problem**

The learning experience should be centered around finding an answer or a solution to a problem that exists in the real world.

This is typically a non-technical problem, and must pertain to either strategic or tactical-based scenarios or issues. Within an action learning set there may be one problem or many.

## **2. A Client**

This is the entity who set forth the problem, it is interested in its solution, and gives concerned and informed feedback. This may be an outside organization, a corporate, a public administration, a no-profit org, investors, specific target users, ecc...

### **3. A Set Adviser**

This is the individual who facilitates the set and presents the guidelines for the problem solving process.

It may be a professor, a teaching assistant, an external coach/mentor...

## **4. A Process**

this involves an assessment and analysis of the problem, reflection, the formulation of a possible solution or hypothesis.



## Action Learning Programs: key ingredients

1. **A problem** (the challenge)
2. **A client** (the organization issuing it)
3. **A set adviser** (coach, mentors, etc.)
4. **A process** (Design Thinking)



## Action Learning Programs: key ingredients

1. **A problem** (the challenge)
  2. **A client** (the organization issuing it)
  3. **A set adviser** (coach, mentors, etc.)
  4. **A process** (Design Thinking)
- +
5. **An enabling workspace** (makerspace, lab, openspace...)



Sugar is a **global network** that brings together **28 international universities**. Sugar program is an **international collaboration** program aimed at addressing an innovation challenge proposed by a partner company, through the collaboration between two multidisciplinary teams of selected students from two universities in the network.







Connecting industry and students to create real, global impact.





250+

Multicultural  
Multidisciplinary  
Students

20

Global Partner  
Universities

15

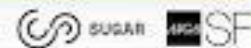
Different  
Counties



26 Sponsor  
companies /  
Projects

50+ Professors &  
Coaches

200+ Past collaboration  
with companies &  
entrepresises



**Link**

[https://www.youtube.com/watch?v=HLE4sRIFYnQ&ab\\_channel=SUGARNetwork](https://www.youtube.com/watch?v=HLE4sRIFYnQ&ab_channel=SUGARNetwork)

A global community...



24-30  
Oct.  
2018

开



# SUGAR's process:



## Discover WHAT IS

- Understand what are the needs to design around.
- Understand what is really striking you in the context
- Understand what are the areas of opportunity

Challenge



## Ideate WHAT IF

- Explore the solution space
- Generate several concepts
- Create value for the users
- Envision solution concepts

Redefined  
challenge



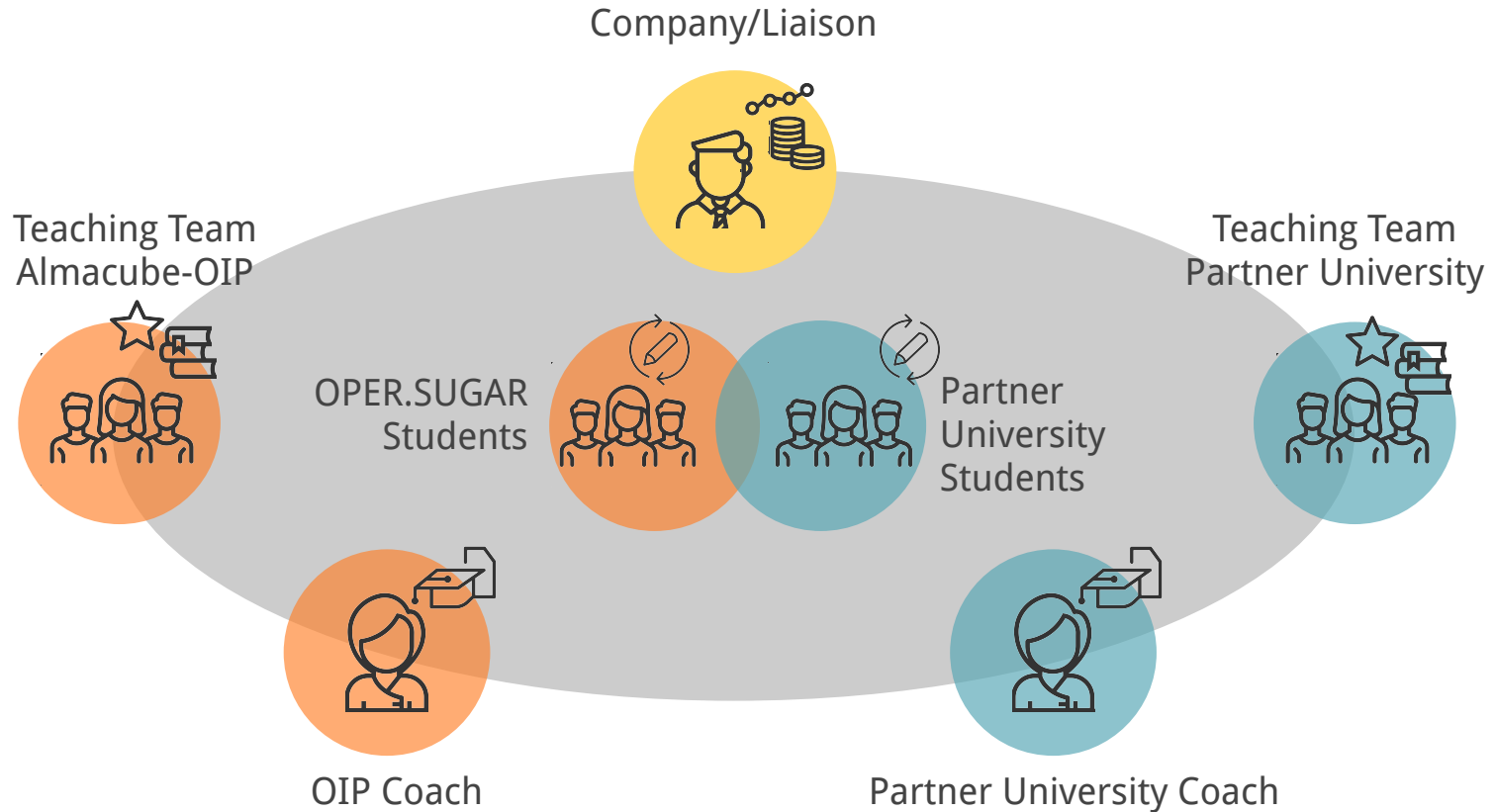
## Develop WHAT WORKS

- Prototype a proof-of-concept
- Design its viability and feasibility
- Build the network in the company

Design Vision  
and Design Principles

Final Solution

# Project Support Structure





# Final Expo in Silicon Valley





**Kinect Vision System**

for human joint  
detection

**UWB System**

indoor localization

**Wearable Device (+UWB)**

a vibration/light alert system  
and indoor localization

## Some SUGAR stories

### Stevie - the robot

- **Stevie** is as a socially assistive **robot**. It's designed to help users by engaging with them socially as well as physically.
- List of 2019 Top 100 Innovation from TIME
- Cover feature on TIME magazine



Coláiste na Tríonóide, Baile Átha Cliath  
Trinity College Dublin

Ollscoil Átha Cliath | The University of Dublin

TCD: Ana Vieira, Bobby Gilham, Jack Lynam, Victor Muniz  
USP: Bernardo Bichucher, Luiz Sol, Mariana Tamashiro



HEALTH  
INNOVATION  
ISSUE

### WHO GETS TO BE HEALTHY

by Francis S. Collins • Raj Panjabi  
Jennifer Doudna • Bernard J. Tyson

WHAT WOMEN NEED

by Angelina Jolie

## THE ROBOT WILL SEE YOU NOW

by Corinne Purtill

SOLVING SUICIDE

by Mandy Oaklander

A HISTORIC  
FACE TRANSPLANT

by Jamie Ducharme

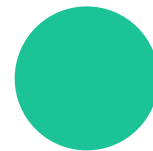
ELECTRIFYING  
MEDICINE

by Alice Park





## 9 months of dedication lead to...



### Ghisallo

- A bicycle for the inexperienced, older, or users who need more safety on the road
- Won an Innovation Award in SONAE



oper.CBI

OPENING INNOVATION

OPER.CBI was born at CERN with the aim of **transferring technologies and knowledge developed by CERN to society** through Human-Centered Innovation approaches. The program invites companies to provide market-related challenges and engages multidisciplinary teams of students and researchers to find innovative solutions inspired by CERN technologies and mindset.



Idea<sup>s</sup>



Challenge  
Based  
Innovation



# Challenge Based Innovation

The CBI-ER is a multidisciplinary innovation experiment for teams of students of Emilia Romagna to help companies to tackle local challenges inspired by CERN technologies.

CERN

Idea<sup>s</sup>





# CBI - A Human Collider

From Open Science to Open Innovation







Markus Norberg

IdeaSquare, CERN

in una prospettiva di lungo periodo

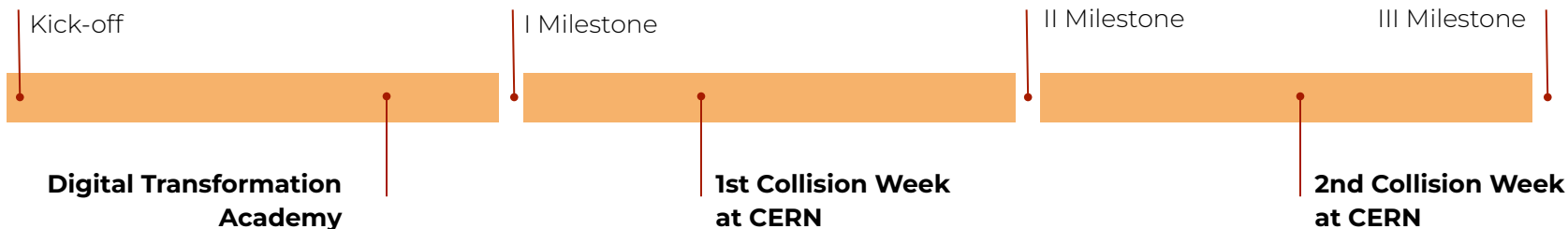
**Link**

[https://drive.google.com/file/d/1V2JnOHRHOKEZij\\_x-lv1oB2Erv6Vq\\_WtL/view?usp=sharing](https://drive.google.com/file/d/1V2JnOHRHOKEZij_x-lv1oB2Erv6Vq_WtL/view?usp=sharing)



# CBI process:

Compared to the standard structure of DT, OPER.CBI provides specific activities to manage the technological component.



## *Needfinding*

Goal: Identification of needs  
Development of technological scenarios to manage the association between a technology and the need to be satisfied.

## *Ideation*

Goal: Design of three solution concepts and identification of the technological level applicable to the challenge in line with the strategic objectives of the company.

## *Definition*

Goal: Technology test to be applied to the selected solution concept.  
Development of a prototype





# Team's support network



Coaching &  
Teaching team



Company  
Liaison Team



University  
Professors,  
Researchers, KTO



CERN  
Knowledge Transfer  
Office KT



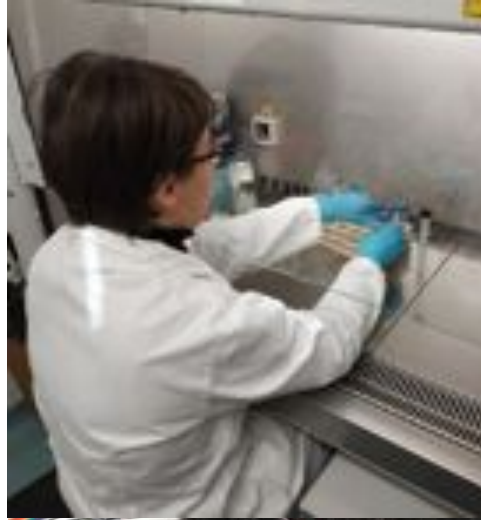
CERN  
Researchers



# Why CBI - CASE

## **Cell Culture & Granarolo:**

Explore different angles of the problem and discover unexpected opportunities.





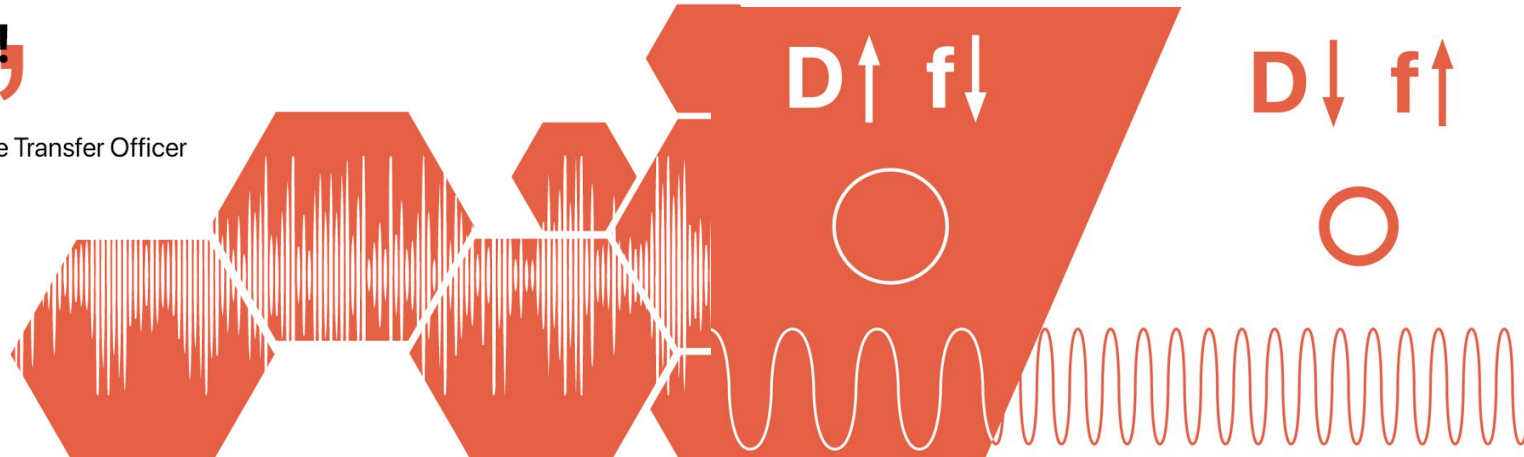
# Why CBI - CASE

## Kyphi & Sanofi:

Look at your business-as-usual from a new perspective.

“**Change your medical point of view, look at physics!**”

CERN Knowledge Transfer Officer





**11th IOT/WT INNOVATION WORLD CUP®**

**TOP 16 HEALTHCARE IOT SOLUTIONS 2019**

HALL 13, STAND D45  
MEDICA DÜSSELDORF

**NOVEMBER 18, 2019**

INNOVATION WORLD CUP® SERIES

MEDICA®



oper.CBI

OPENING INNOVATION

an inside story



Born in the beautiful Naples

Graduated in Philosophical  
Sciences at Alma Mater  
Studiorum

Participated in the CBI  
program

Excited by everything







Reunion B  
↑



**The Philosopher**



**The Designers**





**The Chemist**

## The business experts





Reunion B  
↑



## THE CHALLENGE



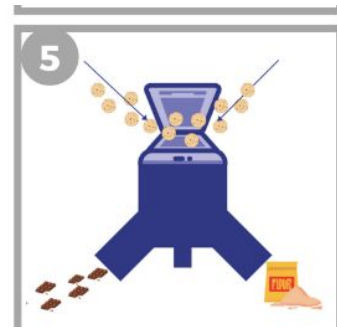
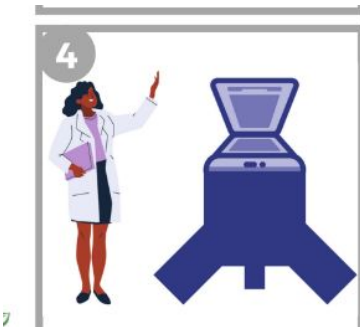
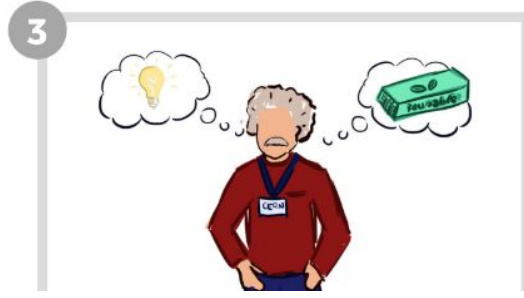
How might we **enhance-save and/or reduce the food waste** (scraps) generated by the production of baked goods (sweet and salty), in particular in the production of biscuits and croutons, **finding a relevant industrial application that valorizes them?**



# THE VISIT TO THE COMPANY

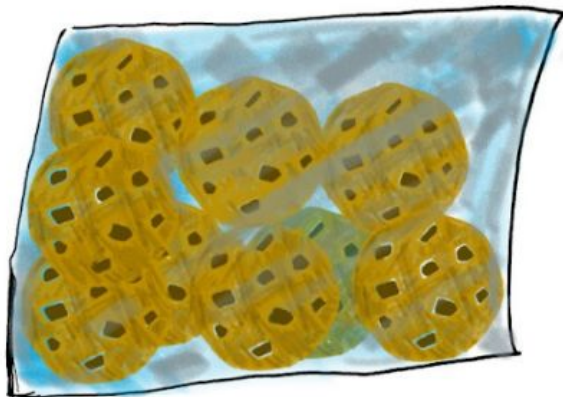


# TALKING WITH RESEARCHERS ABOUT...



... SOCIAL IMPACT

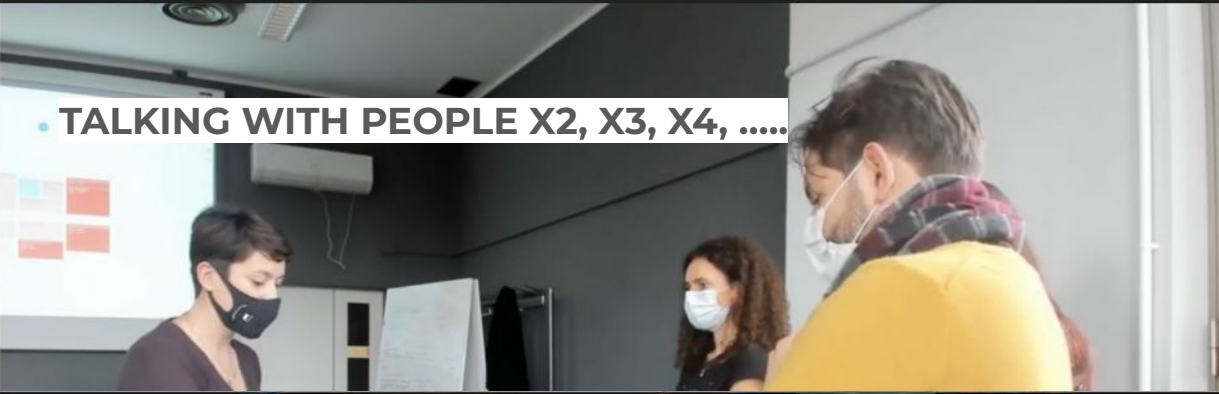
NON SONO BELLO  
MA PIACCIO  
ALLE PERSONE E ALL'AMBIENTE



I biscotti  
contenuti in questa busta  
sono 100% salati dal  
destino di essere sprecati.  
Vi auguro acartati perché non  
rispondono ai canoni estetici,  
ma rimangono deliziosi come  
i biscotti "normali".  
Acquistali e aiutaci ad evitare  
un inutile spreco.



TALKING WITH PEOPLE X2, X3, X4, .....



Piero Eccolini

# CBI ENVIRONMENT AND EXTENDED NETWORK



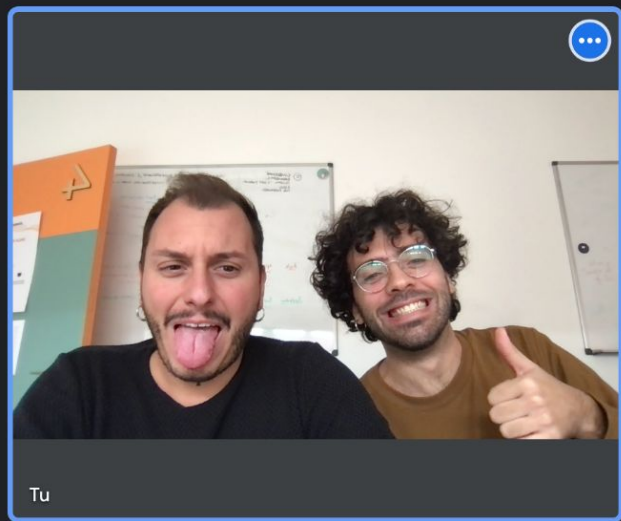
# OPEN DOORS AND OPPORTUNITIES



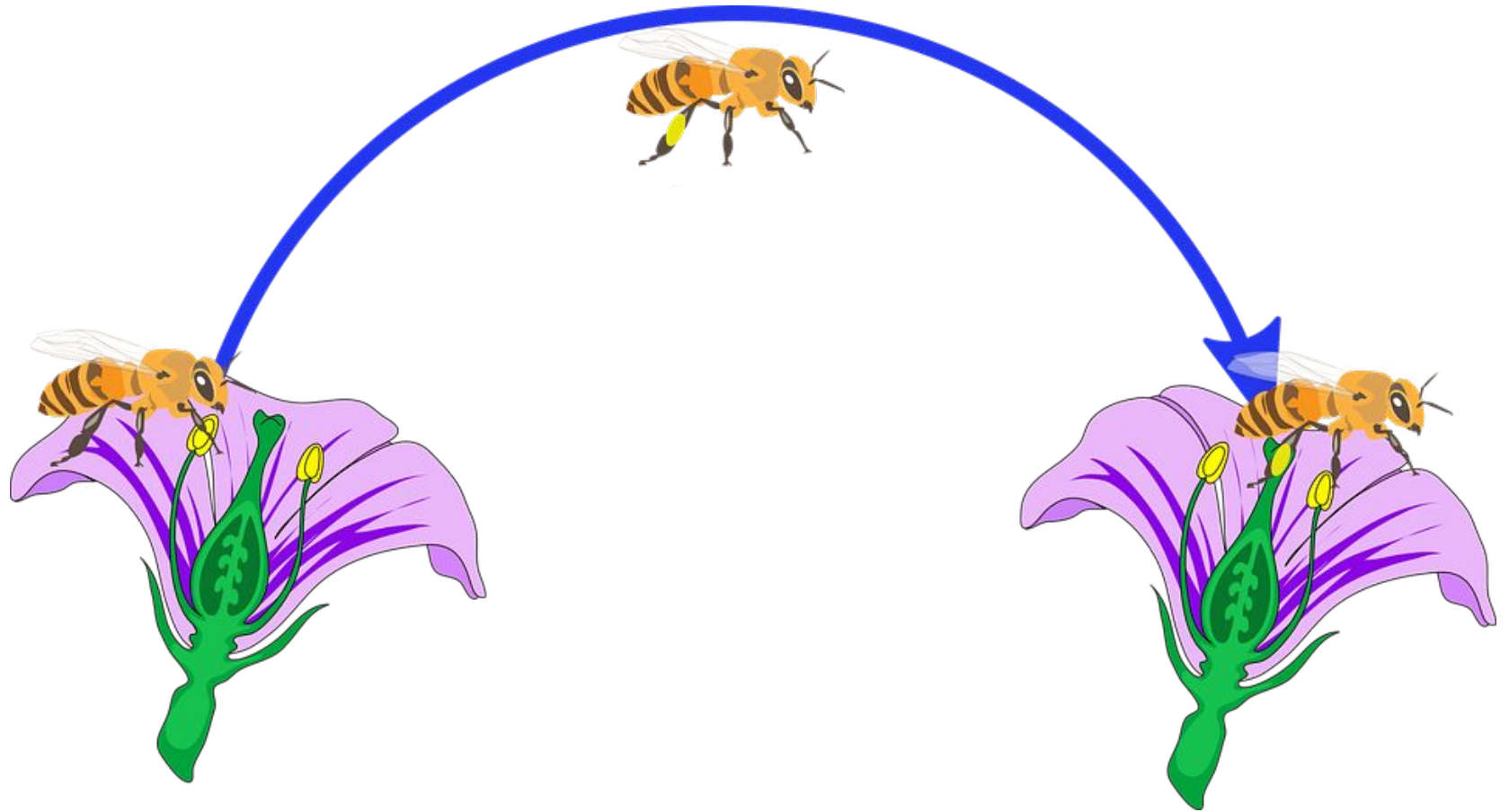
Francesco D'Onghia



Mario Di Nauta



Tu





Thank You!



# THANK YOU!

**Eleonora Musca** | Open Innovation Manager  
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