

# *On-Line Innovation Lab*



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[maltainnovationhub.org](http://maltainnovationhub.org)



**MULTI  
DISCIPLINARY  
INNOVATION  
FOR SOCIAL  
CHANGE**



**Funded by  
the European Union**





1. Alvogen Development Ltd
2. Baxter
3. The BioArte Ltd
4. BioDNA Laboratory Services Ltd
5. Bioscint Engineering Ltd
6. Boston Biopharma Ltd
7. Concentric Data Services Malta Ltd
8. CrEMa Laboratories – University of Malta
9. DR Studios Ltd
10. Enterprise Europe Network
11. Eunoia Ltd
12. European Forensic Institute Ltd
13. Hab Gov Strategics Applied Technologies Ltd
14. Hornetsecurity
15. Implantica Group of Companies
16. Institute of Technology, Humanities, Arts, Medicine and the Sciences (ITHAMS)
17. Malta Institute for Medical Education (MIME)
18. Malta Enterprise EMBO EMBL NCP
19. Malta Innovation Hub
20. Malta Lab Network
21. Malta Life Sciences Network
22. Malta Medicines Authority
23. Malta National Poisons Centre
24. The Materia Company Ltd
25. MedicalTree Patents Ltd
26. Melissa Medi Ltd
27. Misom Labs Ltd
28. New Life Bio-Science (Tech) Ltd
29. Real Regulatory Ltd
30. Scope Solutions



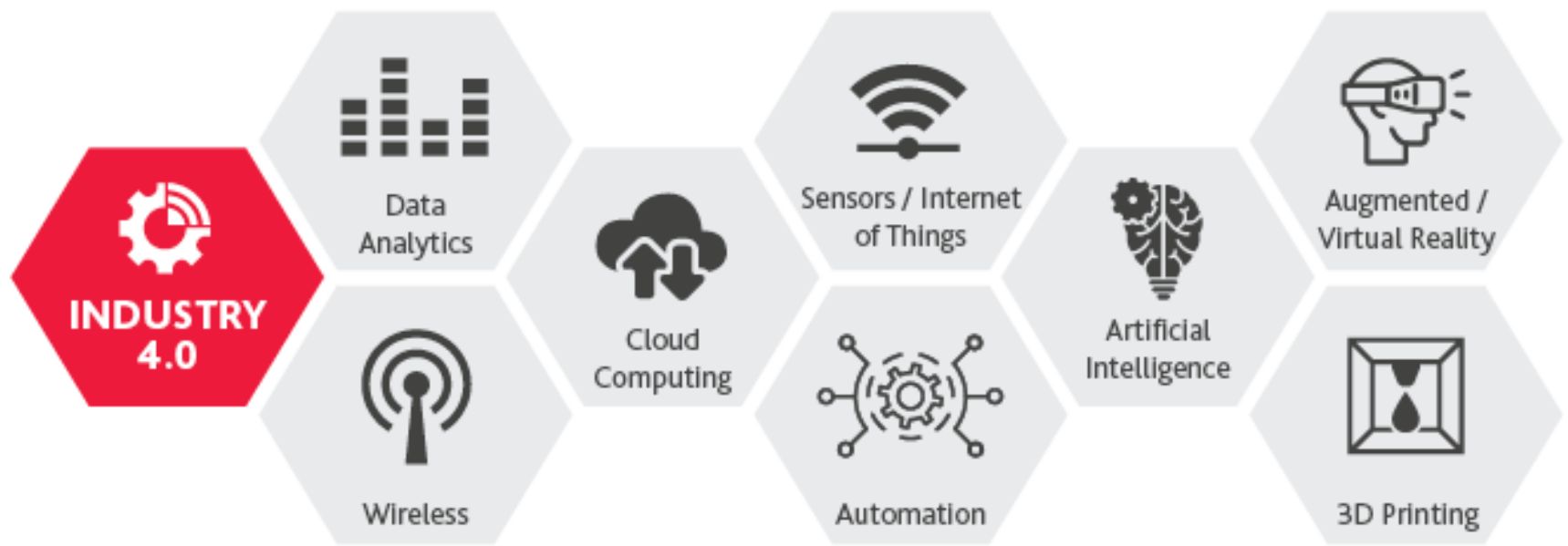
# Malta Innovation Hub.

Meeting the Objectives of  
ERDF 199 Setting up Life Sciences Centre

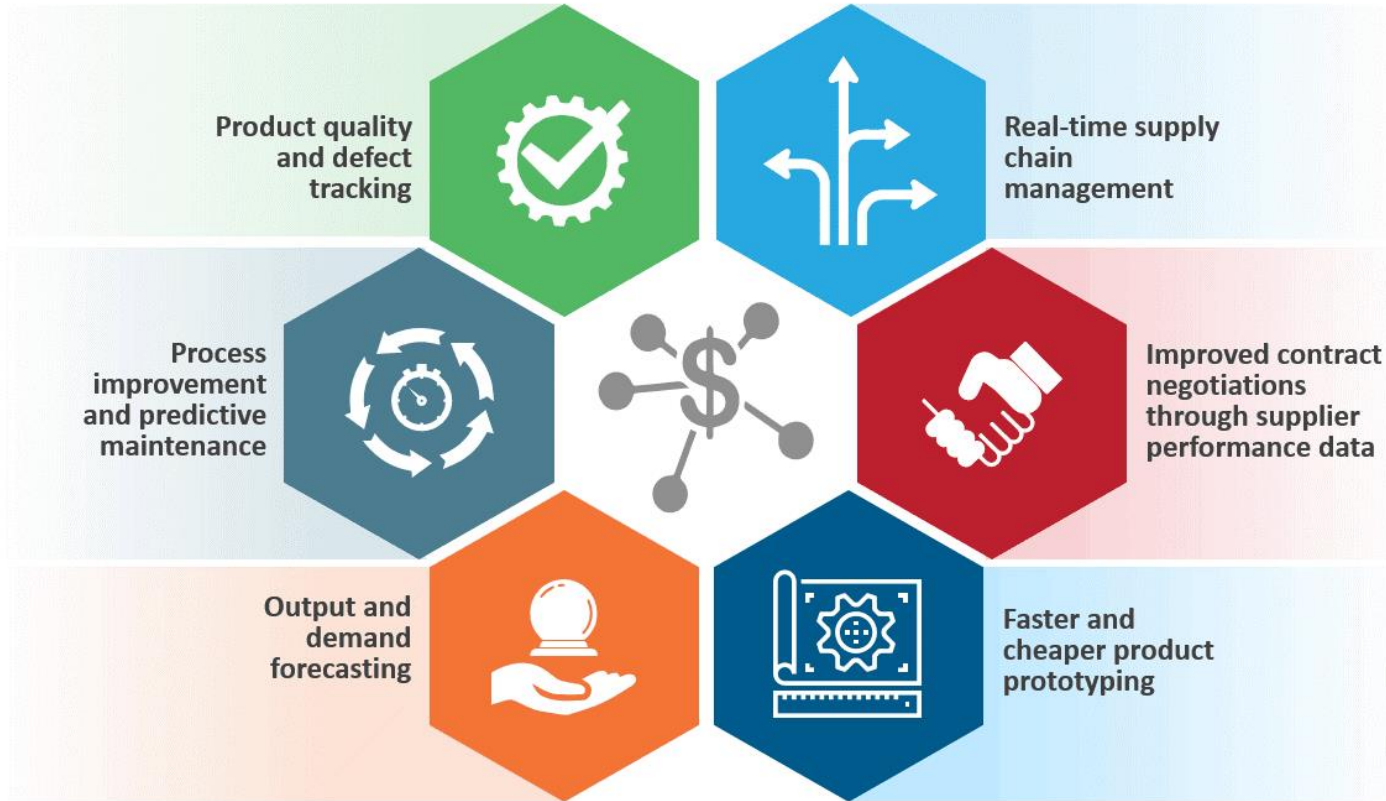


- **Business Development Support**
- **Focal Point**
- **Business and Research Networking**
- **Support Open Innovation**
- **Promote Smart Specialisation**
- **Assist Internationalisation**

# Challenges



# Challenges



*Support also applicable for start-up offering these services to industry*

# The Role of Hackathons in the Innovation Process

Hackathons are part of tech culture. They are a playground for exploring possibilities.

Done over for a fixed period of time (typically 24 to 48 hours) and have them use design and technology creatively to “hack” a new idea or a solution to a customer problem.

The premise of a hackathon is to bring together anyone interested in product development ..... developers, engineers, product managers, software specialists and .....

## CASE STUDY : PET Bottles Industry



- Invented by Nathaniel C. Wyeth, the Polyethylene terephthalate (PET) was aimed at bottling pressurised soda water.
- Approved in the 70's by Food Safety authorities
- Massive supply chain savings displacing glass and aluminium
- In 1978, Coca-Cola and PEPSI introduced the world's first PET bottle of 2 litres volume, making it accessible globally almost instantly.



<https://theroundup.org/plastic-waste-statistics/>

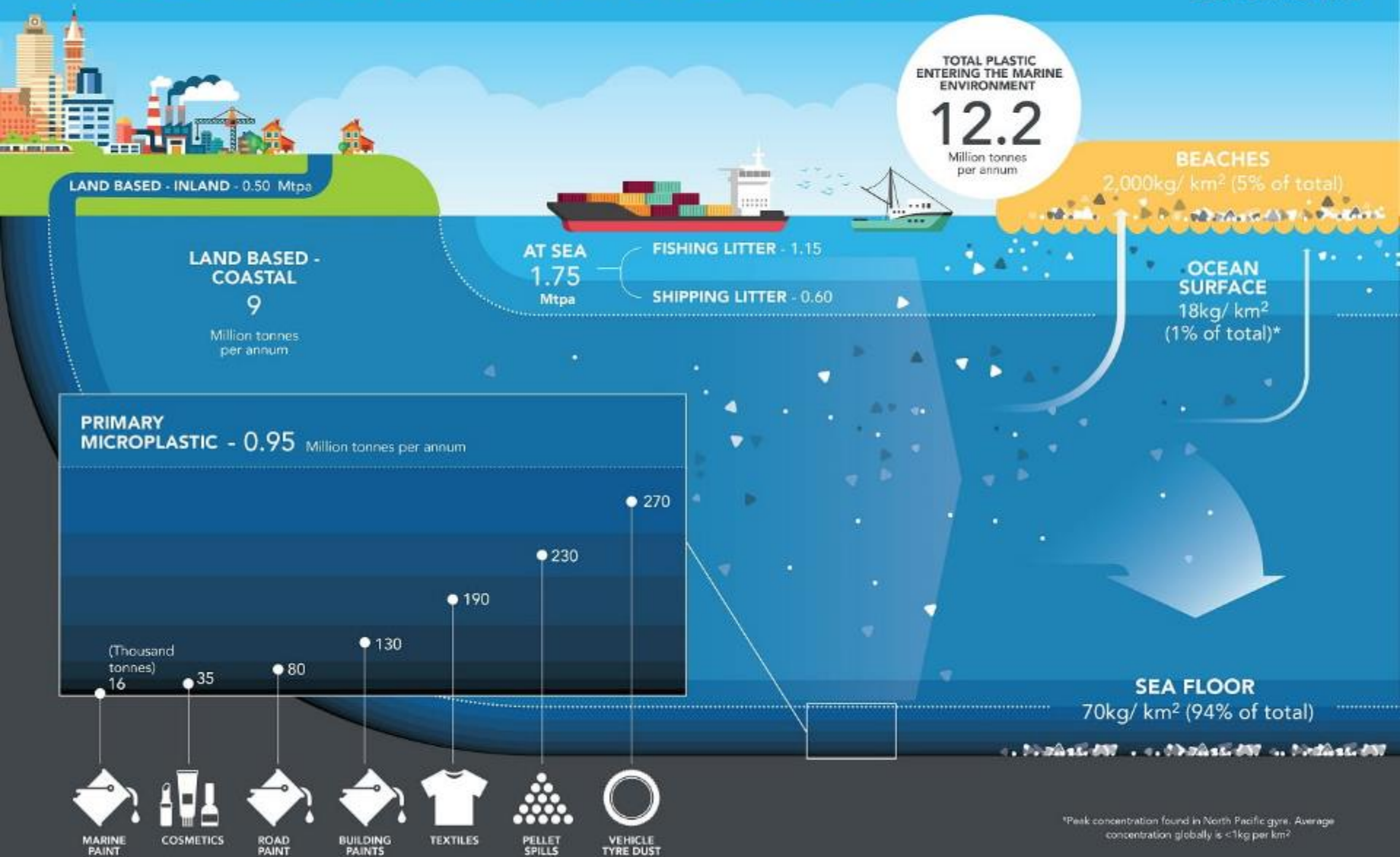
Which Individual Companies Use The Most Plastic Each Year?

The **Coca-Cola company** has the largest plastic footprint on earth, using an eye watering **2.9 million metric tonnes of plastic packaging annually**.

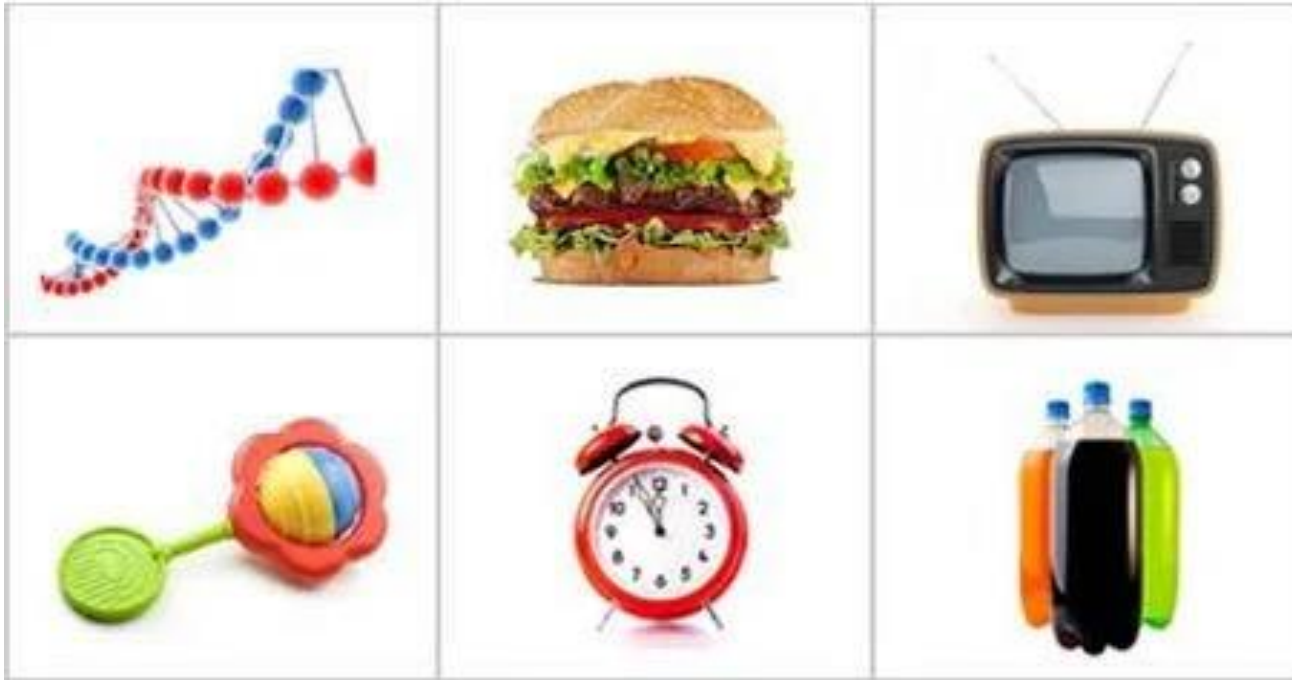
**PepsiCo (2.3 million)** and **Nestle (1.7 million)** make up the rest of the top 3, while **Danone, Proctor & Gamble** and **Unilever** are also major contributors.

So that's something to think about next time you're thirsty and fancy a soft drink. Are you comfortable with buying from companies that make such significant contributions to the plastic pollution crisis?

# PLASTICS IN THE MARINE ENVIRONMENT: WHERE DO THEY COME FROM? WHERE DO THEY GO?



\*Peak concentration found in North Pacific gyre. Average concentration globally is <1kg per km<sup>2</sup>



*Eating and drinking too many calories, including from soft drinks, can contribute to weight gain and obesity. The key to successful weight management is a balanced lifestyle*

<https://www.coca-cola.co.uk/our-business/faqs/do-your-drinks-contribute-to-obesity#>

Many factors influence body weight—genes, though the effect is small, and heredity is not destiny; prenatal and early life influences; **poor diets**; too much television watching; too little physical activity and sleep; and our food and physical activity environment.

# Coca-Cola Collaborates with Tech Partners to Create Bottle Prototype Made from 100% Plant-Based Sources

10-22-2021



*PlantBottle™ debuted as the world's first recyclable PET plastic bottle made with up to 30% plant-based material. A limited run of approximately 900 of the prototype bottles have been produced.*

<https://www.coca-colacompany.com/media-center/100-percent-plant-based-plastic-bottle>

[maltainnovationhub.org](http://maltainnovationhub.org)

# CERTIFIED COMPOSTABLE BOTTLES AND CAPS

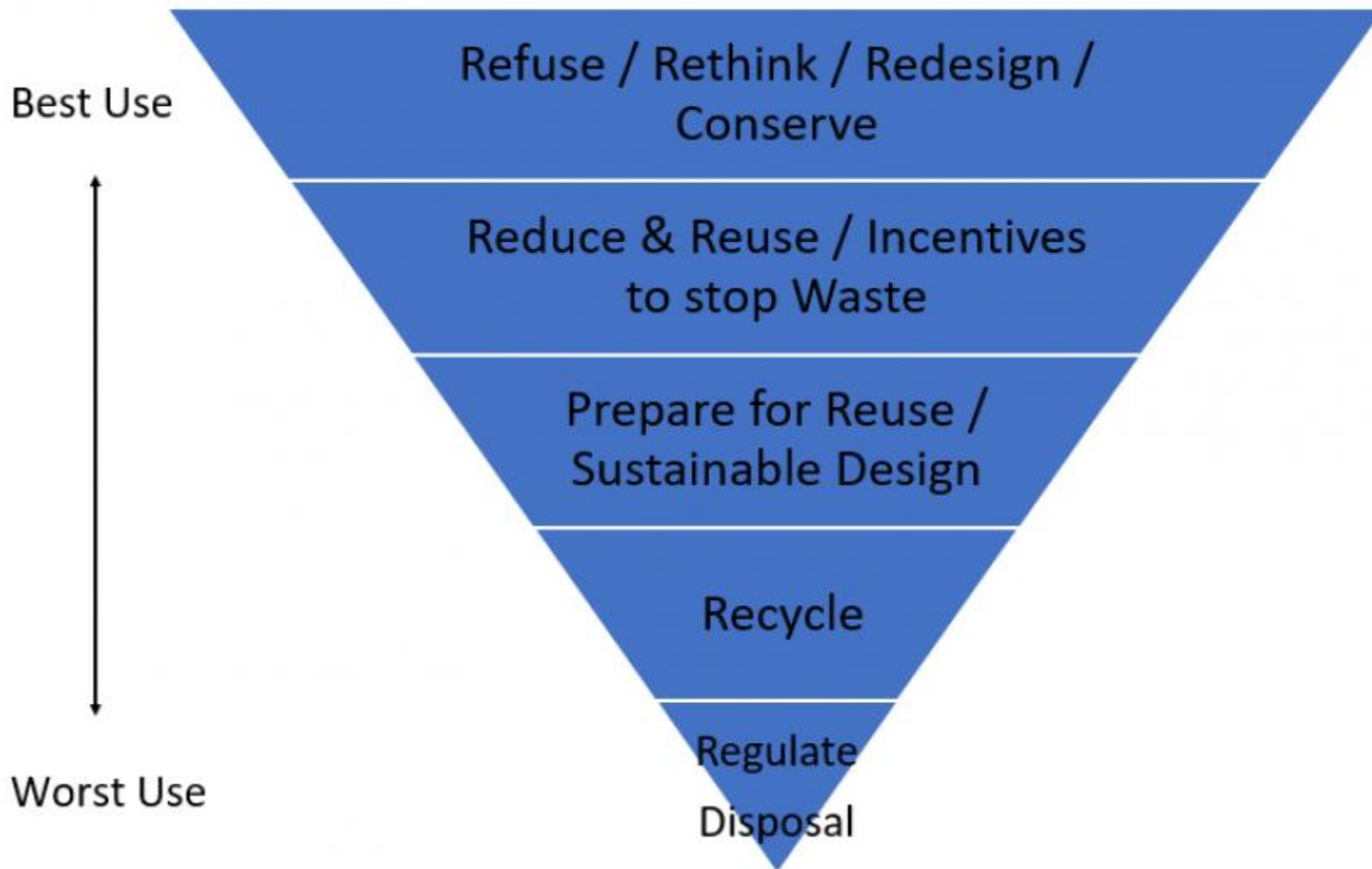
The world's first fully compostable bottle and cap on the market.



## BEYOND RECYCLABLE BOTTLES

We're introducing our new compostable premium juice bottles and caps that are made from plants, not petroleum. Our bottles and caps are made from a plant-based material, rather than the harmful petroleum-base that is used for traditional plastic bottles.

Our bottles are also certified for industrial (commercial) compost by TUV Austria.



# Vote of confidence for recovery scheme as three in four bottles get recycled (???)



BCRS recovers 76% of drinks containers in first quarter: 'scheme clears environment of practically every errant beverage container that normally litter beaches, countryside and seas'

<https://timesofmalta.com/articles/view/recycle-empty-bottles-make-money.993044>

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***REPRESENTATIVES FROM THE MARKETS,  
COMMUNITIES, REGULATORS  
For SOCIAL INNOVATION COMPONENT***



# Challenges

## UN Sustainable Development Goals



1. *Good Health and Well-being*

2. *Affordable and Clean Energy*

3. *Decent Work and Economic Growth*

4. *Industry, Innovation, and Infrastructure*

5. *Sustainable Cities and Communities*

6. *Responsible Consumption and Production*

7. *Climate Action*

ENISIE supports micro-small and medium enterprises with a social vocation to maintain the balance between “business” and “social” through *co-design/ co-working tools*



**INTERREG V-A Italy-Malta Programme**  
Programme part financed by the European Union  
European Regional Development Fund (ERDF)  
Co-financing rate: 85% EU Funds; 15% National Funds



# Resources

## Access

## The Latest Social Innovation Tools

To Stimulate your Community & Workforce  
To Co-Create and Co-Design  
Innovative Products, Services and Processes.

- *Asset Based Community Mapping*
- *Chaordic Planning*
- *Circle Practice*
- *Co-Design*
- *Developing a Co-Design Workshop*
- *Empathy Map*
- *Generative Interviews*
- *Pro-action Café*
- *Triads*



# Resources

# Group Innovation Co-Design Toolkit

Organise innovation co-design Workshops for freelancers, community leaders enterprises and public sector to innovation established products, services and processes

**OSBORN CHECKLIST**  
65 people clipped this slide  
Divergence  
How to use: Individual / group Open / closed problem Products / services  
Description: The inventor of brainstorming, Alex Osborn, developed "Checklists". It's used to develop new ideas.  
Steps: Whatever idea comes to you.  
Adapt? Modify? Substitute? Magnify/Maximize? Minimize/Eliminate? Rearrange? Reverse? Combine? Other use?  
Example: Other use: printers as photo  
More information: <http://www.osbornchecklist.com>

**REDEFINITION**  
49 people clipped this slide  
Divergence  
How to use: Individual / group Open / closed problem Products / services  
Description: The Redefinition Tool is a way of clarifying the problem. It is based on the questions "Why?" and "What's stopping?" repeated several times. It is a hierarchical process that is repeated to broaden or narrow the problem.  
Steps:  
1. Original problem - The text box with the "Problem", where you enter the original problem.  
2. Narrower problem - The narrower aspect of the problem.  
3. Broader problem - The broader aspects of the problem.  
4. Why do I want to solve this problem? Why enter the reasons as to why you are trying to solve this, you will be broadening the problem, the more you will approach the macro-scale of the problem.  
5. What's stopping me solving this problem? Why often, the problem we start off with solving, turns out we should be actually solving. Therefore, this is to think of, and enter the hindrances that you face.  
More information: <http://www.creativitytoday.net>

**COCD-Box**  
24  
Convergence  
How to use: Individual / group Open / closed problem Products / services  
Description: The COCD (Centre for development of creative thinking) has developed a very handy tool to select ideas and prevent loss. We must remember that at the cradle of practically every paradigm shift stood an "impossible" or seemingly "unsuitable" idea. The COCD-box helps you to prevent the "Crea-Box": You think of nice new ideas, yet you go for the old ones (known solutions). To prevent that, a classification can be made using a matrix: the COCD-box. The matrix has 2 axes:  
1. Originality  
2. Ease of implementation  
Steps:  
• Every member of the brainstorming group gets a few coloured little adhesives, e.g. for 100 ideas you get 10 blue, 10 red and 10 yellow adhesives. Blue stands for a common and feasible idea, red for innovative and feasible ideas, yellow for original, new but not (yet) feasible now.  
• The unique feature of this tool is that you are also helped to consider innovative and feasible ideas, yellow for original, new but not (yet) feasible now.  
• The yellow ideas, the dreams, the ideas that stimulate your brain and body to move on, the ideas of the future.  
• Everybody sticks his coloured adhesives in front of the ideas (keep in mind the numbering of your ideas while brainstorming).  
• Remember to only start sticking after evaluating (write down the idea number on the adhesive) to ensure "non group influenced" behaviour.  
• The ideas with the most votes are put in the COCD-Box. That way, you'll end up with 10 to 20 ideas in the COCD-Box.  
More information: <http://www.creativitytoday.net>

	improbable to implement	<b>YELLOW Ideas</b> - ideas for the future - dream, challenges - alternative for the brain - tomorrow's red ideas
easy to implement	<b>BLUE Ideas</b> - easy to implement - low risks - high acceptability - done before	<b>RED Ideas</b> - innovative ideas - breakthrough - exciting ideas - can be implemented
	Normal ideas	Original ideas

<https://www.slideshare.net/ramonvullings/27-creativity-innovation-tools-final>

# Living labs

Living labs are **organisations involving stakeholders from the quadruple helix to create a shared vision, mission and strategic goals** with/for their stakeholders and define multiple different innovation projects existing out of co-creation activities.

**European  
Network of  
Living Labs**

- Real Open innovation ecosystems
- Iterative feedback processes throughout a lifecycle approach of an innovation to create sustainable impact.
- Operate as intermediaries among citizens, research organisations, companies and government agencies



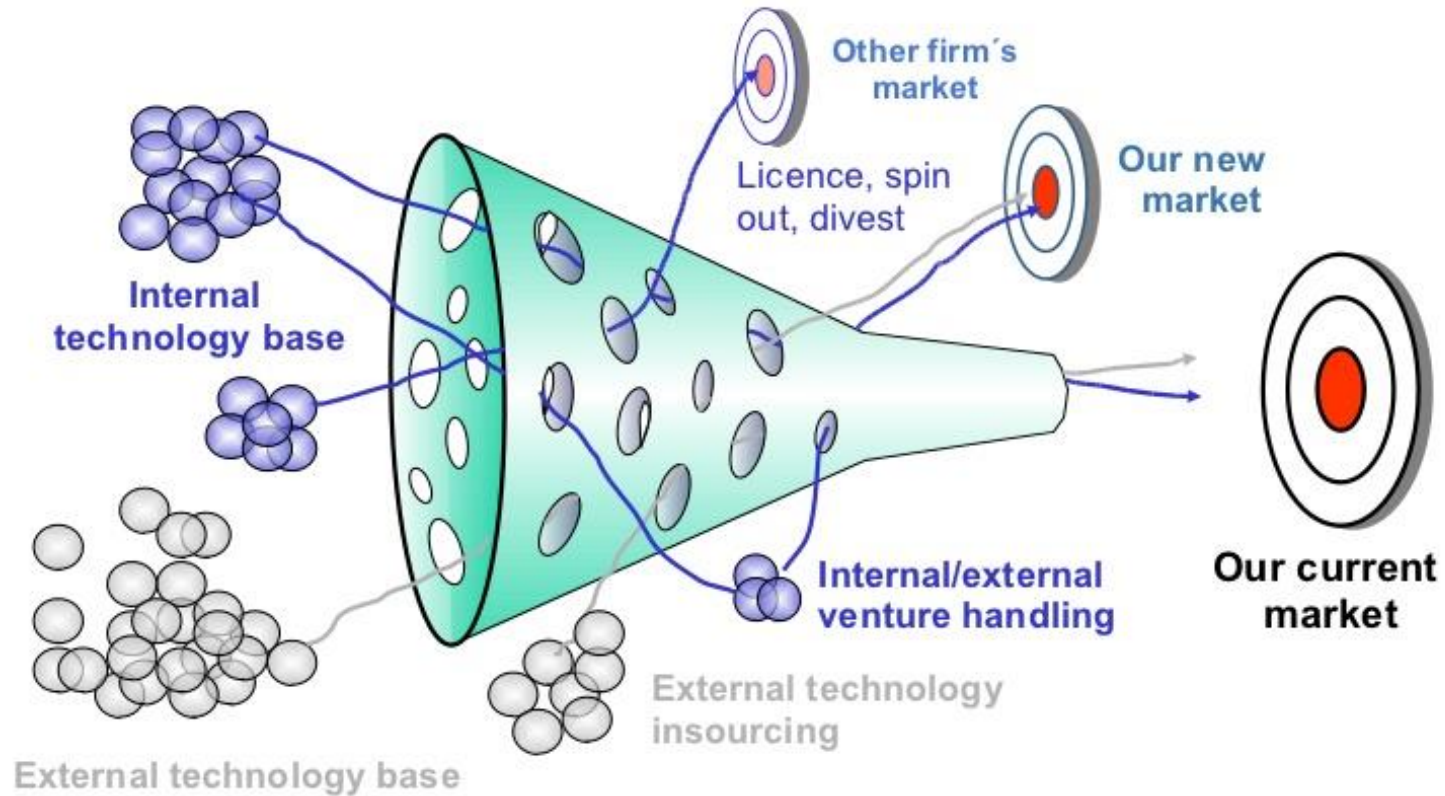
# Open Innovation

*Open innovation is the alternative that allows big businesses to work with each other, start-up companies, and academia to create truly fundamental innovations to the challenges they face.*

*Open innovation ecosystems allow these parties to pool their strengths, budgets and practices together to invent new solutions to the challenge of creating ground-breaking, inspirational technology.*

Professor Eugene A. Fitzgerald  
May 17<sup>th</sup>, 2015, *The Telegraph*

# Open innovation



Henry Chesbrough, 2004

# Companies actively leveraging Open Innovation





# Closed Innovation

Most of the smart people in our field work for us

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

If we discover it, we will get it to market first

If we are the first to commercialize we will win

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

We should control our intellectual property (IP) so  
that our competitors don't profit from our ideas

# Open Innovation

Not all of the smart people work for us, so we must find and tap into the knowledge and expertise of bright individuals outside our 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 in order to profit from it

Building a better business model is better than getting to 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 own business model

- **User innovation**
- **Co-development**
- **Innovation Tournaments-Contests**
- **Lead user methodologies**
- **User co-creation**
- **Crowdsourcing**
- **Innovation Ecosystems**
- **Short-term non-equity alliances**
- **Crowdfunding**
- **Platform innovation models**
- **Collaborative Innovation**
- **Distributed Innovation**
- **Bilateral Collaboration**

- **Joint R&D Agreements**
- **Cumulative Innovation**
- **Know-How Trading**
- **Mass Innovation**
- **Mass Customization**
- **Supplier Innovation**
- **Early Supplier Involvement**
- **Open Source**
- **User-centered innovation**
- **Customer Integration**
- **Democratized Innovation**
- **Structural Innovation**
- **Embedded Innovation**
- **Out-licensing**
- **Cross-licencing**
- **In-licensing**

Overlapping terminologies to describe a trend towards more open business models and a closer collaboration with customers

# The value of open innovation

- Shorter time to market with less costs and risk
- More innovations over the long run
- Increased quality of products and services
- Exploitation of new market opportunities
- More flexibility
- Improved absorptive capacity and innovation processes
- Monetized spillovers
- Firms can push the technological frontier outward more quickly
- Complementary non-core business expertise in the realms of commercialization
- Empowerment of connectivity
- Generation of opportunities
- Non-commercial actors can leverage new engagement opportunities



# UNIQUEST

**Formed an “open innovation” program to support academic research that holds promise of new therapeutic drugs**

*The collaboration will help foster medical innovation by bringing together complementary skills. This initiative is another important step in the new era of medical discovery via open innovation and public-private collaboration. UniQuest is delighted to be partnering with AstraZeneca in this exciting approach towards the development of new treatments for patients and the advancement of medical science in Australia.*

Dr. Dean Moss, CEO, UniQuest

*By giving globally leading academic research institutions such as UQ access to our compounds and expertise, we are opening doors to unexplored areas of pre-clinical and clinical research to help find the next generation of medical breakthroughs*

Dr Ajay Gautam, AstraZeneca’s Executive Director  
Scientific Partnering and Alliances for Asia Pacific and Emerging Markets

# Peugeot Design Contest Open Design



- More than 4 million page views
- 5 demonstration models exhibited at automotive marketing events
- Designers of around 100 nationalities
- € 10.000 prizes
- 5th year of the contest



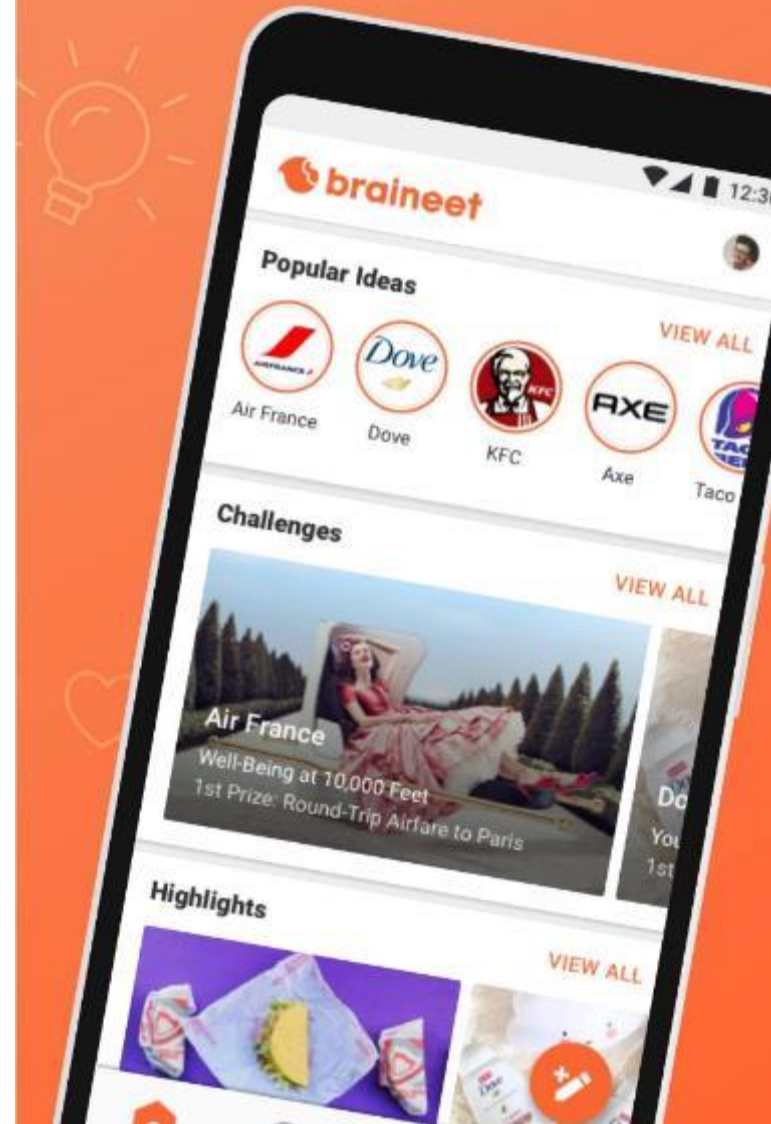
### **Airbus Group to open innovation centre in Silicon Valley**

Airbus Group announced the creation of a \$150 million venture capital fund and said it had hired a Google executive to run a new centre in Silicon Valley as it seeks to wave a digital wand over its heavy-manufacturing culture. The plane maker said that Airbus Group Ventures would invest in "*disruptive and innovative*" technologies worldwide.

*The aerospace industry must work more closely with high-tech companies -- some of which, like Google, are encroaching on its turf through drone projects*

Tom Enders, CEO, Airbus Group  
*Reuters, May 30<sup>th</sup>, 2015*

Share Your Ideas With Your  
Favorite Brands



[maltainnovationhub.org](http://maltainnovationhub.org)



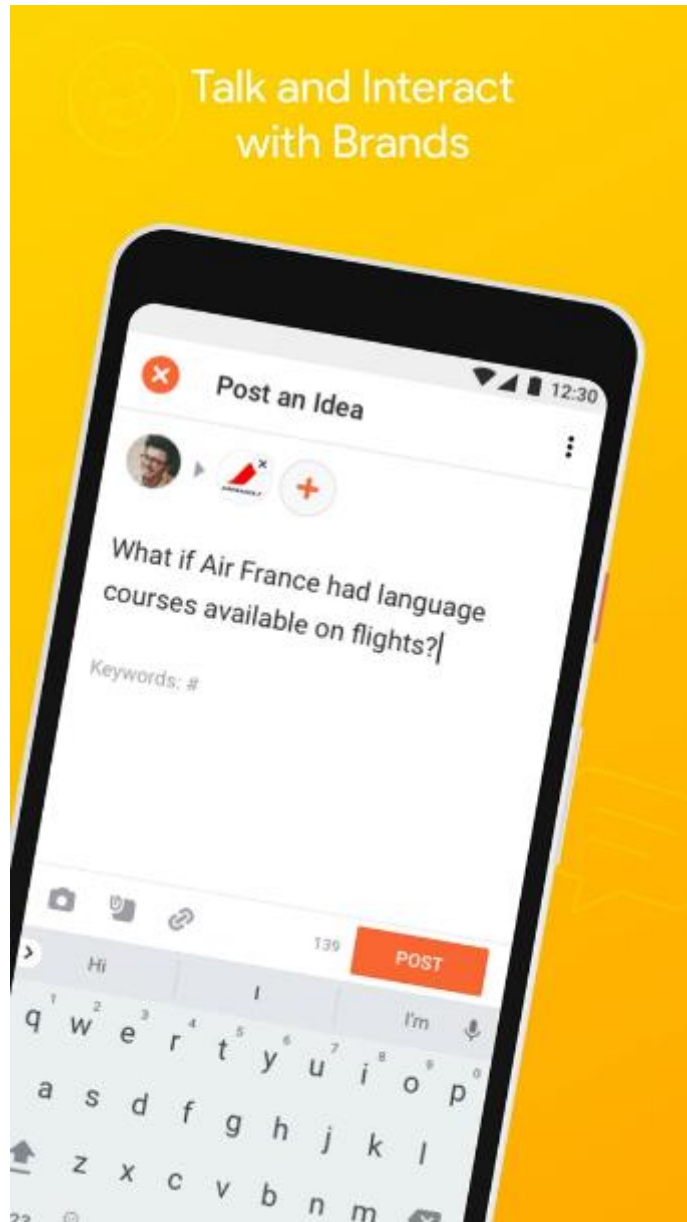
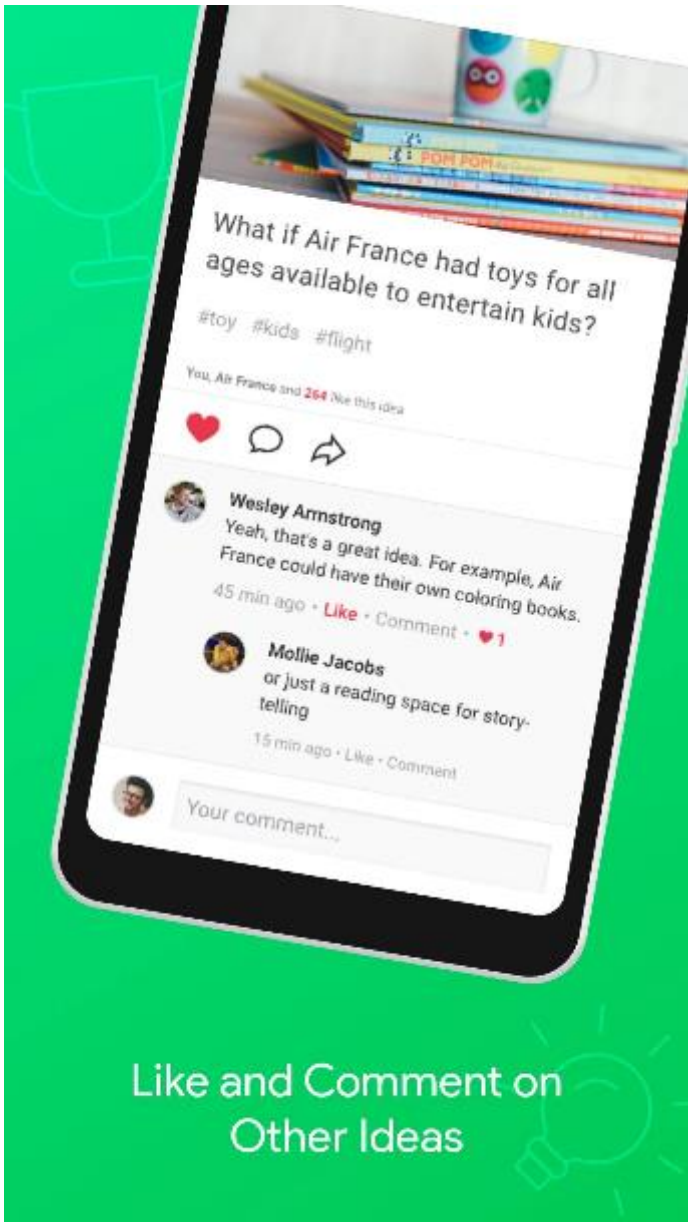
**Braineet ...**

is the first co-creation platform that allows you to share your ideas with your favorite brands!

Help them to improve their products and services and co-create the innovations of tomorrow!

Bring your ideas to life!





Turn Ideas Into Success with  
**innovation!**

TEST NOW

THE IDEATION MANAGEMENT PLATFORM

21

LANGUAGES

5000+

ORGANIZATIONS

45

COUNTRIES



# TURN IDEAS TO SUCCESS

with endless possibilities

[CONTACT US](#)

## 4 CASES

Examples of  
Ideation360<sup>®</sup>  
usability



*Innovation Sprint*

[Read More](#)



*Fix The Planet*

[Read More](#)



*Engaging Customers*

[Read More](#)



*Extreme Tech*

[Read More](#)



# CLIENTS



Polestar



VOLVO



imitera



Rapid Images



SEMCON

SIILI AUTO



TACTOTEK

TeXtreme



Lammhults Design Group

Wingårdhs

ICONOVO  
Breathazing Innovation

IndustriLás  
WILMUNDOS.COM LTD



<https://optiphasedrive.com>

# Fix the Planet

## – A Global Ideation Campaign for a Sustainable World

- 2019 campaign launched to **Fix the Planet** on the **Ideation360** platform.
- Focus was on four goals taken from the **UN’s 2030 Agenda for Sustainable Development**
- Gather and evaluate the best ideas from all over the world.
- **Experts and non-experts** would engage in coming up with solutions
- A total of **2,000 individuals from over 65 countries participated in this global environmental ideation campaign, submitting 282 ideas.**
- A team of leading licensed practitioners and data scientists were engaged to evaluate the results using **AI-enhanced tools.**
- **A report was generated created and presented to the United Nations.**

The “open ideation” approach is particularly effective when it is concentrated on large challenges and systemic issues.

This online technology has shown great potential in providing solutions to major environmental problems we are facing.

<https://appathon21.devpost.com/>

Overview My projects Participants (236) Resources Rules Project gallery Updates Discussions

## APP-A-THON (Virtual Hackathon)

The APPATHON is essentially a hackathon, with a twist!

This hackathon has ended

[Find more hackathons](#)

[View the winners](#)

**Who can participate**

- Above legal age of majority in country of residence
- All countries/territories, excluding [standard exceptions](#)

[View full rules](#)

[View schedule](#)

Oct 2, 2021

Online Public

\$2,000 in prizes 236 participants

HCC/TIE/JST

Beginner Friendly Education Social Good

### PROGRAM SCHEDULE

(subject to change)

ZOOM: <https://bit.ly/AppathonZoom>

8:30 am (CDT)  
Check-in & Orientation

- Orientation with Director [Ravi Brahmabhatt](#) (Student Innovation & Entrepreneurship), [Samir Saber](#) (Continuing Education - Digital and Information Technology)
- Video Welcome by Vice-Chancellor & College President [Madeline Burillo-Hopkins](#) and International Services Director [Nithy Sevanthinathan](#)
- Remarks by Director of McNair at the University of St. Thomas [Dr. Patrick Woock](#)
- Remarks by Associate Vice Chancellor [Dr. Maya Durnovo](#) (Entrepreneurial Initiatives)

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Beginner Friendly Education Social Good

Online

\$2,000 in prizes

Public

236 participants

# Join the world's best online and in-person hackathons

Showing 21 hackathons



Sort:

Most relevant

Submission date

Recently added

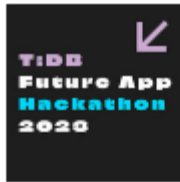
Prize amount

FEATURED		<h2>Fantom Hackathon Q2 2023</h2> <p>• 2 days left</p> <p>Online</p> <p>\$306,000 in prizes   1055 participants</p>	<p>Fantom Foundation</p> <p>May 08 - Jul 03, 2023</p> <p>Beginner Friendly</p> <p>Blockchain</p> <p>Open Ended</p>
FEATURED		<h2>Atlas Madness</h2> <p>• 10 days left</p> <p>Online</p> <p>\$10,000 in prizes   951 participants</p>	<p>Google Inc</p> <p>May 18 - Jul 11, 2023</p> <p>Databases   DevOps</p> <p>Productivity</p>

<https://devpost.com/>



FEATURED



## TiDB Future App Hackathon 2023

• 27 days left

Online

\$36,000 in prizes

938 participants

PingCAP

Jun 06 - Jul 28, 2023

Beginner Friendly

Machine Learning/AI

Web

FEATURED



## Ripple CBDC Innovate

• about 2 months left

Online

\$200,000 in prizes

522 participants

Ripple

May 15 - Aug 18, 2023

Blockchain Fintech

Social Good



## Bunnyshell Stack Jam Hackathon

• 9 days left

Online

\$28,000 in prizes

708 participants

bunnyshell

Apr 14 - Jul 10, 2023

DevOps

Productivity

Web



## Coda's AI at Work Challenge

• 16 days left

Online

\$40,000 in prizes

666 participants

Coda

Jun 13 - Jul 17, 2023

Low/No Code

Machine Learning/AI

Productivity

# *On-Line Innovation Lab*



## *QUESTIONS*

*Ing JP Sammut  
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Founder Malta Life Sciences Park  
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*[maltainnovationhub.org](http://maltainnovationhub.org)*



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