



A programme of



Copernicus Incubation Programme

Supporting promising businesses working with Earth Observation data



About

Earth observation and big data from the Copernicus programme offer unique insights into life on Earth, its environment and people. The **Copernicus Incubation Programme** launched by the European Commission supports European entrepreneurs and start-ups working with this data to create innovative, commercially viable products and services.

THE INCUBATION PROGRAMME

This initiative invests in the start-up phase and international growth of Copernicus-based businesses in Europe. The goal is to support European innovative, commercially promising businesses that make use of Copernicus data and services. It will boost the use of this data and services, which prove valuable globally in many domains: industry 4.0, mobile and digital services, environment protection, urban management, regional and local planning, agriculture, forestry, fishery, health, transport, climate change, sustainable development, civil protection, tourism and many more.

Verhaert Masters in Innovation implements the **Copernicus Incubation Programme** on behalf of the European Commission.

This initiative is part of the Copernicus Start-up Programme.

PROGRAMME ADVANTAGES

- Equity free funding
- Lean application procedure
- Rapid evaluation and contract procedure
- Attractive payment scheme
- Eligible salary costs
- Complimentary with other support programmes

WHAT IS COPERNICUS?

Copernicus is the European system for monitoring the Earth, coordinated and managed by the European Commission. It consists of a complex set of systems which collect data from multiple sources: Earth observation satellites and local sensors on the continent, in the air and at sea. Copernicus combines and processes these data and provides users with reliable and nearly real-time information through a set of services related to environmental and security issues.

The services address 6 thematic areas:

- Atmosphere
- Marine
- Land
- Climate change
- Emergency management
- Security

Find out more at www.copernicus.eu



Supporting rise and international growth of Copernicus data and services based start-ups in Europe

The Copernicus Incubation Programme



Pitch & business design tools



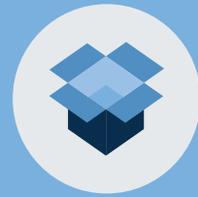
Network via programme activities



50k per start up
Max. 85% co-funding



20 start-ups per year



New data application brainstorming tools



START-UPS



SUPPORT PROGRAMMES

(ACCELERATORS & INCUBATORS)



Programme

The **Copernicus Incubation Programme** supports the most innovative and commercially promising business applications based on Copernicus data and services. The programme awards 50,000 EUR to 20 European start-ups every year. The investment goes toward their incubation or acceleration in a programme or organisation of their choice.

WHY SHOULD YOU APPLY?

Start-ups who receive the grant get equity-free funding to support their incubation. Furthermore, they get access to new networks, tools and promotion opportunities.

For start-ups at an early incubation stage, this support can help to achieve a first working product.

For scale-ups, the programme can be used to accelerate a business launch, improve an existing Copernicus-based product or service or increase its competitive advantage.

WHO CAN APPLY?

You are either a start-up or a team of entrepreneurs with a maximum of five years of operational history since the registration of your business. You may be at the early incubation stage or preparing for launch and scaling. Applicants should set up a company in any EU28 country, Iceland or Norway before receiving any funding from the programme (but not necessarily before applying).

This programme accepts **joint applications**: the start-up is required to apply together with a support programme that agrees to incubate the start-up if it receives the funding. The start-up must be the lead applicant and sole beneficiary.

Requirements, conditions and eligibility

REQUIREMENTS AND CONDITIONS

- Start-ups receive **up to 50,000 EUR and up to 85% of the total costs** described in their application to the programme.
- **Co-funding is required for at least 15% of the total costs.** Any co-funding source is eligible, such as business angels, subsidy programmes, investors, another incubation programme or the start-up itself. In-kind contributions such as office space or coaching hours cannot be admitted as part of the required co-funding.
- The funding covers costs **up to 1 year.**
- Selected start-ups receive **50% of the total grant as pre-financing.** The remaining payment happens at final delivery (based on accountancy statements to prove costs).
- **Lead time** for the incubation support is approximately **4 weeks** after the announcement of selection results.

ELIGIBLE START-UPS

- Teams of entrepreneurs (at least 2 complementary profiles).
- Legally established start-ups.
- University and research institute spin-outs.
- Corporate spin-outs.
- Venturing teams within corporate venture programs with an intention to spin out.

ELIGIBLE SUPPORT PROGRAMS

- Governmental business incubators and accelerators.
- University incubators and accelerators.
- Incubators and accelerators at private and governmental research institutes.
- Corporate business incubators.
- Corporate venturing programmes.
- Other support programmes aimed at providing support to start-ups.

Support programmes must be run in Europe and have proven business expertise and a track record of launching successful start-ups. Experience or technical expertise in space or Earth Observation businesses is not a requirement.

ELIGIBLE COSTS

- Prototyping and research expenses.
- Company setup, insurance, license and permit fees.
- Equipment and supplies, particularly IT equipment (hardware or software), and other technological expenses.
- Office space.
- Expenses related to intellectual property rights.
- Advertising, promotion, communication and visits to clients.
- Website and email domain, analytics services.
- Accounting, consulting or legal expertise.
- Borrowing costs.
- Employee-related costs, including recruiting expenses.

NON-ELIGIBLE COSTS

- Benefits provided by the support programme (such as office space).
- Return on capital.
- Debt and debt service charges.
- Provisions for losses or debts.
- Interest owed.
- Exchange losses.
- Deducible VAT.

Costs paid to the support programme (e.g. office space) are not eligible as part of the grant.

Application guidelines

Applications must include the following:



Information about the start-up

- 1 Application and compliancy checklist
- 2 Start-up pitch in video or slide deck format.
 - Video: no longer than 5 minutes; may be filmed with a smartphone or any other device.
 - Slide presentation: up to 10 content slides.
- 3 Funding request application, containing:
 - Background info, summary of business pitch, explanation of the use of Copernicus data and/or services;
 - Description of objectives, tasks, expected outcomes, projected budget.
- 4 Supporting documents:
 - CVs of each team member;
 - Any other relevant documents.

For the evaluation criteria, see 'Evaluation and selection'



Information about the support programme

(if applicable):

- 1 Application and compliancy checklist
- 2 Presentation and/or material to prove the eligibility of the partnering support programme:
 - Available incubation services and scope thereof.
 - Track record and achievements.
 - Operational model.
 - Size and location.

How to apply? Upload your application on copernicus-incubation.eu

Application deadlines and selection board meetings

The programme runs until 2020 and will evaluate applications 3 times a year.



Evaluation

EVALUATION AND SELECTION MODEL

Every application for the Copernicus Incubation Programme is thoroughly screened and evaluated in two rounds. All applications are judged by a team of experts in venture capital investment, Copernicus and Earth observation data, and business and start-up development or incubation.

The first round includes assessment of each applicant's compliancy and a pre-screening to judge the quality of the application. The best projects proceed to the second round, where applicants are invited to present their project in person or in a video interview. The team of experts assesses each start-up's business proposition, team and funding request in more detail.

The entire application process, from submission deadline to final decision, takes about one month. Winning start-ups may expect the first payment of their funding within four weeks after that.

EVALUATION STAGES

STAGE 1

2 weeks after application deadline

Compliance check and pre-screening

All applications are evaluated by a group of experts on:

- 1 Overall compliancy as defined in the programme**
- 2 First qualification screening**
 - Use of Copernicus data or services
 - Strength of business proposition (pitch)
 - Partnership with an incubator or incubation support programme

Evaluated materials: application and compliancy templates by start-up and support programme, start-up pitch, support programme info material.

GO/NO-GO

STAGE 2

4 weeks after application deadline

Interview with experts

Successful applicants are invited for a web video interview with experts to evaluate the start-up's potential.

- Use of Copernicus data or services
- Strength of business pitch and team
- Funding request

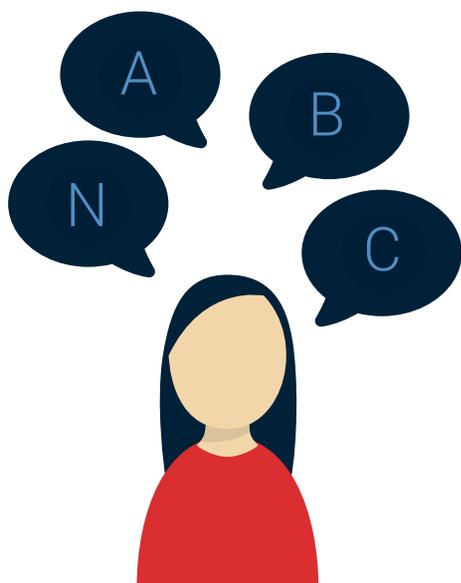
Evaluated materials: start-up pitch, funding request application, CVs, interview results.

GO/NO-GO

EVALUATION TOPIC	CRITERIA
Use of Copernicus data and services (1/3)	<ul style="list-style-type: none"> • Relevancy of Copernicus data or services to the business proposition. • Team's experience and ability to work with Copernicus data or services. • Relevance and importance of Copernicus data or services to the success of the project.
Commercial interest and financial outlook of the start-up (1/3)	<ul style="list-style-type: none"> • Qualities of the team (knowledge of subject matter, business drive, motivation and ambitions). • NABC business pitch (see below).
Business expertise of the supporting incubation or acceleration programme (1/3)	<ul style="list-style-type: none"> • Scope and strengths of support services available to start-ups. • Track record of success in incubation performance. • Ability and motivation to support the applicant.

WHICH QUESTIONS SHOULD YOU ADDRESS IN A BUSINESS PITCH?

Follow the NABC structure:



Need

Customer problem and market opportunity. How big is your market? Is there proof that your product or service is needed? How will you access the market?

Approach

Solution and go2market. What is your value proposition and how does it fulfil your customers' needs? How feasible is your approach? What are chances and risks for the adoption of your product or service?

Benefit

Added value to customers and business results. How will your customers benefit? How will you make a profit? What are your ambitions and potential for growth?

Competition

Competitiveness. What makes you stand out from the competition? How will you secure an advantage?

Meet the first winners

VULTUS

www.dronesarpilot.com

Swedish company Vultus AB uses space technology for **waste-free farming**. Vultus AB is using satellite data and prescriptive analytics to give farmers worldwide actionable recommendations regarding the **nutrient needs** and **varying conditions** of their fields. They recommend certain amounts of nitrogen use to combat over-fertilization and **reduce fertilizer usage by up to 40%**. This, in turn, improves crop health and soil quality and **reduces the environmental costs of farming**.

Vultus AB applied for the Copernicus Incubation because they want to **internationally expand**. They consider the partnership a great opportunity to **reach new networks, build strong business relationships** and, ultimately, **grow their business on a global scale**. They want the partnership with Copernicus to **strengthen their competitive edge in a global marketplace** and they hope the Copernicus Incubation Programme will **assist them in their continuous journey of innovation and development**. Vultus AB will be incubated by ESA BIC at Innovatum AB.

MOBYGIS

www.mysnowmaps.com

Water is the source of life, but water is also unpredictable. Due to climate change, water resources are becoming discontinuous, creating hazardous situations. Based on mathematical modelling Italian start-up MobyGIS has developed a **new technology** that **predicts snow presence and the availability of water resources** at large scale. It processes different sources of data, ranging from ground sensors, satellite data and weather forecast. MobyGIS' results can be applied in **many sectors**. In tourism for instance, MobyGIS has developed the application 'Mysnowmaps', which allows off-piste snow explorers to plan their detailed excursion. In civil protection, MobyGIS provides a service of high resolution snow monitoring to improve avalanche prevention. In hydro-power, MobyGIS predicts water inflow in production plants to improve energy trading.

MobyGIS applied to Copernicus Incubation to use Copernicus satellite data to **improve the accuracy** of their technology and to **scale the system worldwide**. They want to integrate Copernicus satellite data into their modelling scheme and eventually test the procedure to EU mountain chains, like the Pyrenees or the Carpathians, which would be the prelude to scale the system worldwide. MobyGIS will be incubated by Trentino Sviluppo.

DRONESAR

www.dronesarpilot.com

Irish start-up DroneSAR wants to provide all drone users with **up to date satellite imagery** from the Copernicus Emergency Management Service. DroneSAR has developed a software that **enables commercially available drones with rescue specific functions**. It allows fully autonomous flight patterns, shares locations, allows live stream to any internet browser and very soon DroneSAR will be able to automatically detect persons.

With the Copernicus Incubation Programme, DroneSAR wants to **engage with experts** in the relevant areas and allow them to **integrate up to date drone images and video** as layers on top of post-disaster satellite imagery. Through events, conferences and webinars DroneSAR wants to learn and make their vision a reality. ESA BIC Ireland will incubate DroneSAR.



LIVE-EO

www.live-eo.com

German LiveEO is helping infrastructure companies to **monitor their infrastructure networks** in the domains of oil & gas, electricity and railways. With the data of earth observation satellites, LiveEO **analyses the situation alongside the grids** of these infrastructure networks, based on **completely automated methods in the cloud**.

LiveEO has been supported by the Copernicus Programme since the beginning. They have won the Copernicus Masters, they're part of the Copernicus Acceleration Programme and they are using the data of Copernicus as the core of their analytics. The Copernicus Incubation Programme is enabling them to **accelerate their development progress, improve their technology** and **bring their solutions to the market**. LiveEO will get the support of the Technical University Berlin.

UNISPHERE

www.unisphere.de

Unisphere is a German start-up, closing the gap between traditional aviation and space, focusing on **high altitude pseudo satellites**. It develops **mission simulation software to operate high altitude pseudo satellites (HAPS)**. They are made of very light-weight structures, operate at altitudes of up to 20km for several months at a time and travel with the speed of a bicycle. With Unisphere's integrated simulation software, they **use nature as a friend**, not as an enemy. Unisphere includes the HAPS performance, payload characteristics, weather forecasts, air traffic control, airspace structures and many more inputs into one software. Copernicus satellite data will provide Unisphere with additional information to improve their mission simulation software free of charge.

Near real-time pictures from space, as well as **the Copernicus early warning component**, are added value to HAPS flight planning. Easy access to the data through the Open Telekom Cloud was another reason for Unisphere to apply for Copernicus Incubation. While **implementing near real-time satellite imagery and the early warning component into their mission planning software**, Unisphere hopes to discover even more elements of Copernicus. ESA BIC Bavaria will incubate Unisphere.

GEOMATIC VENTURES

www.geomaticventures.com

Geomatic Ventures Limited is a British start-up operating in **environmental safety and security**. They possess a system that can **identify and monitor very precise surface ground movements** as an early warning system for industries like infrastructure management, natural environment, rail & road, mineral extraction and energy extraction and storage.

Geomatic Ventures wants to establish itself as **a supplier of land-deformation data to the European rail industry**. Copernicus Incubation Programme will **support their market and business development**. Geomatic Ventures wants to reach out to the European rail industry through the provision of funding to cover the traveling to meetings, the creation of marketing materials, the equipment for data processing and the support for producing legal agreements, accountant reports and contracts. GVL gets the support of the University of Nottingham.

COLOMBOSKY

www.aquaexploration.com

Based in Italy, ColomboSky provides to aquaculture companies a novel solution to **monitor water quality** and to protect their farming sites from harmful water threats. Differently from standard in-water sensors, the **combined use of the newest Copernicus satellite data** (Sentinel 2 and 3) and Copernicus Marine Environment Monitoring Service, enables a wider range of observation and the development of **novel early detection algorithms**. In addition to this, in-situ ground-truth and theoretical models are integrated to **create daily risk maps** of the presence of Harmful Algal Blooms, Jellyfishes and Oil spills. Presented on an **online portal, called AquaX**, they provide actionable insights to **support the understanding of the water quality status** on aquaculture farming locations.

With the Copernicus Incubation Programme, **ColomboSky will further consolidate its modelling and forecasting capability**, accelerating the product catalogue growth and the market reach. We will also expand our network, build strong key partnerships and **grow the business** with global scalability in mind. ESA BIC Lazio will incubate ColomboSky.

E-ODYN

www.eodyn.com

e-Odyn is a French maritime industry and ocean observation start-up. It operates in oceanography and massive data analysis. Thanks to **geolocation data transmitted by ships**, the start-up is using machine learning and big datasets to **measure real-time ocean surface currents**. All of this at a global scale.

The Copernicus marine products fit well with e-Odyn's Omni-Situ ocean observation technology and that's why e-Odyn applied for the incubation. E-Odyn is planning to design **high potential added value services** requiring to use both Omni-Situ surface currents and Copernicus products. The Incubation Programme and the proposed support is the perfect occasion to develop and test these new services. Through visibility provided by the Programme and key information from Copernicus experts, e-Odyn will **engage with its audience in a better way**, gain early feedback and iterate quickly to enhance its commercial products. E-Odyn gets the support of incubation-cooperative 'The Village' by CA Finestère.

DEEP BLUE GLOBE

www.deepblueglobe.eu

Deep Blue Globe is a start-up based in Darmstadt (Germany) developing **artificial intelligence solutions for the maritime industry based on Earth observation data** and satellite navigation and communications services. Deep Blue Globe has developed POSEIDON, a solution that uses Sentinels satellite data and Copernicus services to **optimise the journey of ships saving them time, fuel and money** on any kind of route from regional to international journeys. The solution can be offered to all kinds of fleet operators shipping cargo, including tankers, consumer goods, plus fishing fleets, ferries, and cruise liners and also small maritime operators and sailors.

The participation in the Copernicus Incubation Programme allow them to speed up the development phase, support customer outreach and consolidate the business strategy to achieve their long term goal: **Establish maritime autonomous navigation powered by artificial intelligence considering real time maritime traffic and weather conditions**. For this purpose, DBG is supported by ESA BIC Darmstadt.

GMATICS

www.gmatics.eu

GMATICS applies the newest **deep learning architectures** and remote sensing techniques to automatically process massive amounts of Earth Observation satellites data and generate **timely alerts and rich data visualization** for large infrastructure operators. The NetMoA (Network Monitoring and Alert) service is conceived to be fully integrated within customers' operational work-flow **to support their field workforce in managing planned maintenance and emergency situations**.

Copernicus will be a key enabler of NetMoA and of its up-scaling at world-wide level through high frequency free data, contributing mission data and "pay per use" DIAS services. The Copernicus Incubation Programme will **speed up GMATICS activities** for the integration and validation of the new service work-flow as well as for marketing the service in Italy and in Europe. GMATICS is an Italian start-up incubated at ESA BIC Lazio, hosted by LAZIO INNOVA.

KERMAP

www.kermap.com

KERMAP provides **environmental insights to cities and support their ecological transition**. Based on earth observation data, KERMAP develops monitoring, modelling and forecasting products on key indexes such as **urban sprawl, biodiversity, urban climate and carbon storage**. KERMAP is a spin-off of an academic laboratory and mainly uses technology transfer on **machine learning and geography**. It benefits from incubation support of IMT Atlantique and IGN, the French Institute of Geographic and Forest Information. KERMAP started to

DEEP PLANET

www.deeplanet.ai

British start-up, Deep Planet's mission is to **boost global sustainability goals**. The company aims to **empower businesses with actionable insights** derived from satellites and machine learning. Deep Planet is led by an **experienced team** of research and business professionals – Natalia, Sushma and Dave who met at Oxford University. The company specializes in **computer vision for satellite imagery**. It has developed a **state-of-the-art AI system** that can detect and track changes by leveraging satellite data, complementary sensors, economic indicators and human intelligence. Some of Deep Planet's products include **vineyard monitoring, soil moisture monitoring, gas Leak monitoring**, etc.

Copernicus data will strengthen Deep Planet's product portfolio and improve customer cost benefits. With the Copernicus Incubation Programme, the company **will speed up its development progress** and ability to bring solutions to market. Deep Planet is supported by ESA BIC UK.

GREENSENSE

www.greensense.at

GreenSense is an Austrian start-up specialized in **remote sensing for agriculture**. Their vision is to close the technological and cultural gap between farmers and readily available satellite products, sensor data and models. Using **advanced data visualization techniques** of satellite-derived information, they enable the farmer to interact with site-specific information in a cost-efficient and intuitive way. Such an application **will serve the 1.5 million European farms** who are not able to invest in more expensive equipment for precision farming. It will not cost more than a good smartphone.

Thanks to Copernicus data, they want to create an **innovative and intuitive vision experience** to improve access to information for the farmers in the field and for other professionals in the future. The Copernicus Incubation will give them the opportunity to **develop a prototype** and to attract investments to bring the uptake of Copernicus data to a new level.

collaborate with Copernicus since 2016: KERMAP was selected in the 2016 Copernicus Masters and followed the Accelerator Program in 2017.

The Copernicus Incubation program will **boost the industrialization** of several proofs of concepts relying on Copernicus products. Sentinel constellations and Copernicus Land and Atmosphere products **deliver global, homogeneous and continuous data** and are suitable to deploy its solutions on an international scale and structuring its commercial offer.

TERRAMONITOR

www.terramonitor.com

Terramonitor is the world's most up-to-date and **comprehensive map of the globe**, which is created by Finnish start-up Satello. Terramonitor makes **space data maps reachable to anyone**. Smart space data means that it is easy to use and access by anyone via browsing web interface or integration to any GIS (Geographic Information System). Their technology is based on **artificial intelligence and machine learning processes**, which combines satellite data to multi-source data. The processes use Copernicus data (Sentinel-2) as the primary satellite data source.

Copernicus satellites provide frequent data updates with **high spatial and radiometric resolution**, which is suitable for **monitoring the forests**. With the help of the Copernicus Incubation Programme they are able to develop their services further for forestry and scale the service globally. ESA BIC Finland will incubate Terramonitor.

TICINUM AEROSPACE

www.ticinumaerospace.com

Ticinum Aerospace is a spin-off company of the University of Pavia, sprung from the experience earned along almost **two decades of scientific and technical activity** of the research group at the Remote Sensing Lab. Its team took part in several projects worldwide, always proposing high-level, high-quality products. Among those projects, **Saturnalia** commands a prominent position. The Saturnalia service **collects, aggregates, and analyses data related to vine and grape growth** and it uses this data to **forecast wine quality**. At its core lies a system for **automated retrieval and analysis of Copernicus satellite data**, plus data from a network of tailored, technologically advanced weather stations distributed over the areas of interest. The system can then leverage such data to **predict the characteristics of the upcoming vintage**, and the future wine obtained from it.

Ticinum Aerospace applied to Copernicus Incubator to take a **leap forward in expanding its network** of contacts, in increasing the momentum of the project, plus getting tailored tutoring to tune the business idea. Last but not least, Ticinum believes that operating under the hat of an initiative from the European Commission helps **enhancing its credibility with investors** and future customers.

SUSTAINABILL

sustainabill.io

The German start-up sustainabill GmbH offers a **cloud platform helping manufacturing companies** and retailers to discover their **supply chain** all the way to the farm or mine and **analyse the sustainability** of products and suppliers. The sustainability assessment is based on self-information from suppliers enriched with other data sources. Self-information, however, is exhaustive to validate. Currently, mainly on-site audits by 3rd-parties are conducted to validate those data. This is expensive and susceptible for fraud.

Facing this, sustainabill develops an open interface to **integrate satellite data for remote data analysis**. Via the interface, Copernicus data and processed satellite data from other start-ups and organisations can be integrated directly into the sustainabill platform. Using those data, the sustainabill platform can **automatically validate supplier information** helping customers to assess supply risks and achieve their sustainability goals.

VIRIDIAN RAVEN

viridian-raven.com

Viridian Raven brings **space to forestry**. Using Sentinel-data and data from the forests, we aim to **predict outbreaks of bark beetles**, a destructive insect that lives inside trees. With this data, foresters in the field can take **prevention measures in an early stage**, to prevent large scale forest loss. This saves timber, and thus money, and helps **keep the vital ecosystem balanced**. In their online portal, customers can access the risk maps against these outbreaks. In these maps, they can see areas with either high or low risks for forest damage.

Copernicus-data, especially Sentinel-2, gives them a much **higher resolution** than other available data. The additional red-edge band enables them to observe changes in **vegetation health**. With the help of the Copernicus Incubation Programme they will **improve their algorithms**, decreasing inaccuracies around forest borders, provide accurate risk maps concerning storm damages, and completely atomize their application.

Visit copernicus-incubation.eu
for more winners.

Media

Download these documents and supporting materials to help you through the application process.

- **Programme information brochure**
Read more about the application procedure, evaluation criteria and eligible costs to be funded with support from the Copernicus Incubation Programme.
- **Programme presentation material (long and short version)**
This material may be useful when presenting the Copernicus Incubation Programme opportunity at seminars and other occasions.
- **NABC pitch methodology booklet**
More on the NABC methodology for business pitches. Use this booklet as a guideline or inspiration when preparing your business pitch.

WEBINARS/QUESTIONS

The Copernicus Incubation Programme holds open webinars to answer questions and explain the programme further. Please check the website for dates.

NEWSLETTER

Visit the Copernicus Incubation website to subscribe to our newsletter.

Contact

The Copernicus Incubation Programme management team is here to help.

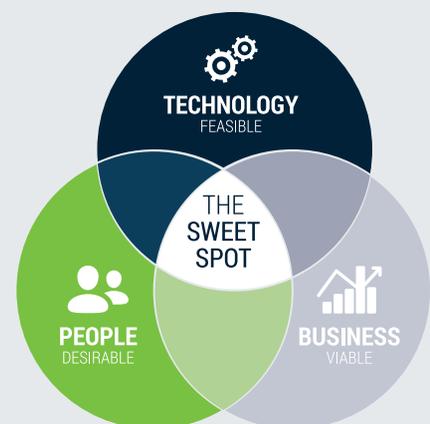
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WHO IS VERHAERT?

Verhaert Masters in Innovation is a leading integrated innovation group helping companies and entrepreneurs to innovate, create new products, businesses and services. Verhaert is able to manage you towards the **'sweet spot of innovation'**: the symbiosis of business and technology innovation with user centered design in an integrated process that delivers value add products for different markets.

Find out more at www.verhaert.com



www.copernicus-incubation.eu

Implemented by

