

Building a Green Industrial Ecosystem

Asier Rufino, Co-founder and CEO Technalia Ventures





tecnal:a
ventures
Technology Value for Growth



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Innovation
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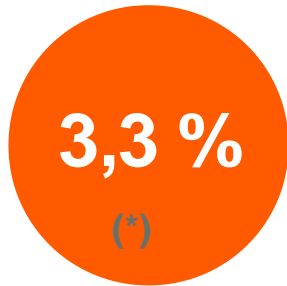
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Unibertsitatea



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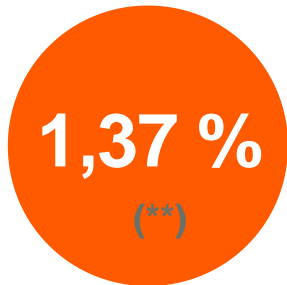
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tecnal:a ventures
Technology Value for Growth



Market share of Spanish scientific publications in the World.

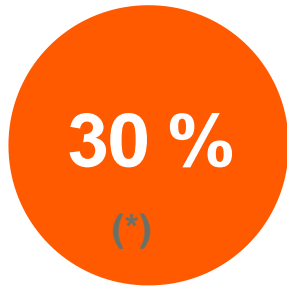
VS.



Market share of Spanish GDP in the World.

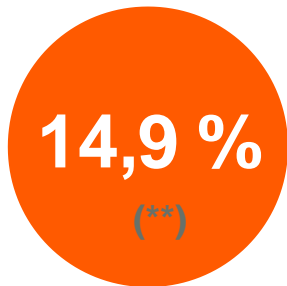
(*) España se sitúa en la 11ª posición en el ranking de países del mundo con mayor número de publicaciones científicas. Fuente Ministerio de Ciencia e Innovación FECYT

(**) Purchasing Power Adjusted (PPA) Statista.com



Market share of European scientific publications in the World.

VS.



Market share of European GDP in the World.

(*) Bruegel based on data from SCImago 2019

(**) Purchasing Power Adjusted (PPA) Statista.com

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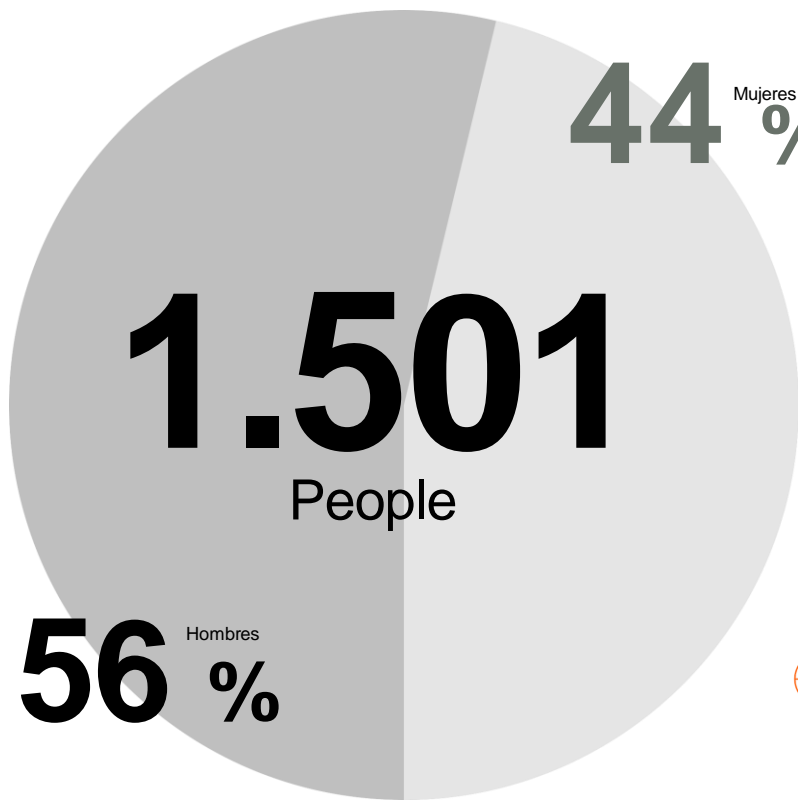
MEMBER OF BASQUE RESEARCH
& TECHNOLOGY ALLIANCE

Mission

**Transform
Technology into
Prosperity.**



People at TECNALIA



1.501
People



56 %
Hombres



44 %
Mujeres

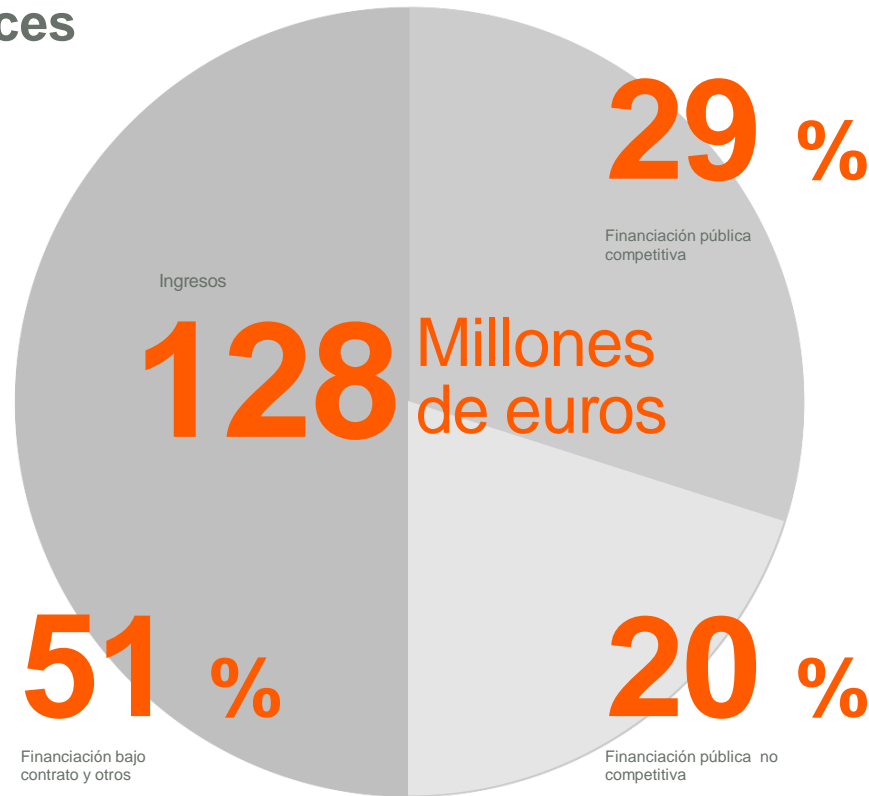


306 PhDs



30 Nationalities

Funding Sources



128 Millones de euros

1^a

Spanish Private Organization in Contracting EU Projects.

Bloomberg

Europe Edition

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- Green**

Green
Cleaner Tech

Bill Gates-Led Fund Backs Startup With Cheaper Way to Move Hydrogen

Moving the tiny molecules of hydrogen is no small feat.



H2SITE primera inversión del Fondo de Bill Gates, Breakthrough Energy Ventures en España liderando una ronda de 12,5MM€

Noticias 20 septiembre, 2022 Digitalización

La guipuzcoana Vixion, incluida en la 'vendor list' de Ford

La plataforma de IoT industrial lleva cinco años ayudando a las empresas a sacar el máximo provecho a sus máquinas. Vixion, cuyo sector se ha visto impulsado tras la pandemia, permite acceder a un completo ecosistema de aplicaciones para mejorar la eficiencia de los procesos productivos.



Vixion, incluida en el vendor list" de Ford



LA VANGUARDIA

Ingeniería para hernias

• Neos Surgery gana el programa EIC Accelerator de la UE



NEOS Surgery una de las 32 empresas (sobre + 4000 aplicantes a nivel europeo) que ha conseguido EIC Accelerator Funds. Sólo 2 españolas.

OelDiario.es

Hazte soci

Euskadi

COVID-19: ÚLTIMA HORA Secciones Territorios Opinión y blogs Firms ¡Hazte soci

Noticia servida automáticamente por la Agencia Europa Press

ETS gana el Quality Innovation Award Euskadi por una minibarrera acústica para líneas ferroviarias de baja velocidad



Producto de Acustrain ganador QIA Europa 2020



H2SITE premios nacionales e internacionales incluido El Español junto con Tecnalia en I+D Innovation Awards y ser "Deep tech Pioneer" Hellow Tomorrow.

EL PAÍS

NEGOCIOS



'Umiles New Concept by Tecnalia', el primer aerotaxi 100% español. SHUTTERSTOCK

El primer aerotaxi español.



Ingredialia ganador de los Premios Ingenia.



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Subsea 7 to take lion's share in floating wind foundation developer Nautilus

August 2 (Renewables Now) - Offshore contractor Subsea 7 SA (OSL:SUBC) said today it has agreed to buy a 59.12% stake in Nautilus Floating Solutions SL, a Spanish developer of floating wind foundations.

Bilbao-headquartered Nautilus is the developer of a concept for a floating wind foundation based on a semi-submersible steel structure that supports a



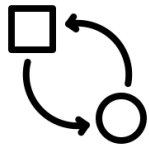
Operación de primer nivel internacional para dotar a Nautilus de recursos para ser líder mundial en plataformas de eólica flotante offshore.

H2SITE – Ammonia cracking

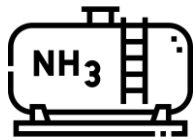
Solving the hydrogen transport problem using European technology



Europe will have to import **10Mtons of hydrogen in 2030 out of the 25Mtons we need**. Most of it in form of ammonia.



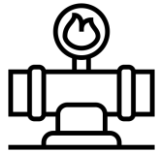
Converting imported ammonia back into hydrogen is an enabling technology for the hydrogen economy. Making hydrogen available where it is required.



H2SITE has **developed an ammonia cracker with the highest efficiency in the market**.

H2SITE – Deblending

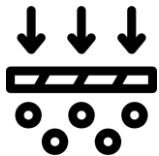
Solving the hydrogen transport problem using European technology



Europe has **200 000 km of gas transport network, and 2 million km of gas distribution network.** It is one of the greatest assets we have built.



H2 generation centers are far away from hydrogen consumption centers. The gas network is a connection readily available.



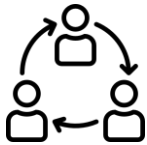
Up to 10 / 20% of H2 can be blended with methane. **H2SITE can deblend the hydrogen from the natural gas infrastructure** where the pure hydrogen is required.

Tech for Europe

Unique production facilities thanks to long standing R&D EU collaboration



Europe is a frontrunner in the energy transition and in the hydrogen economy, but we need technology.



H2SITE is an example of how **20 years of European R&D collaboration can lead to a world unique technology.**



We have created a **unique facility where we build our membranes,** and we are a **unique player in the midstream H2 value chain with manufacturing facilities in Spain.**



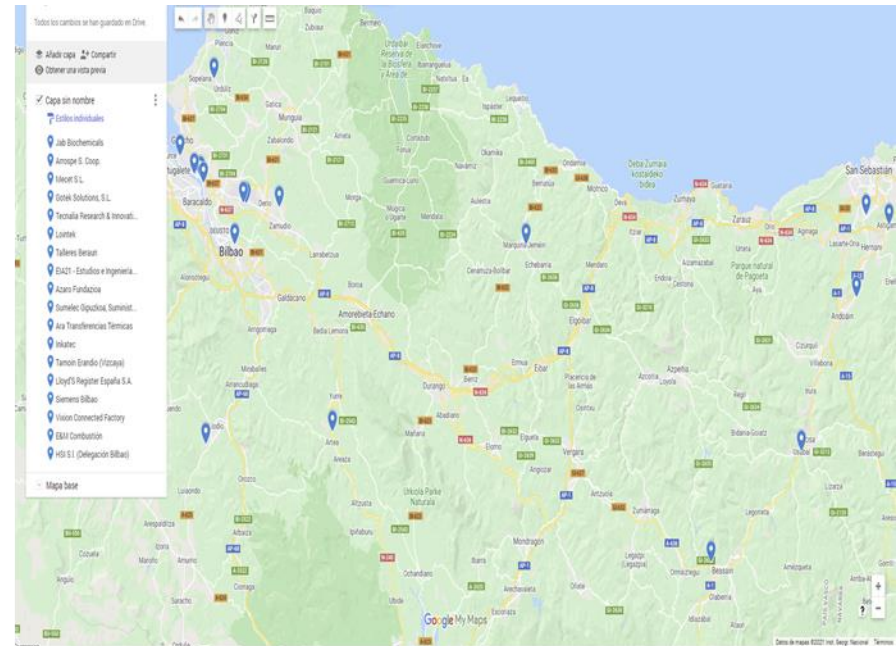
H2SITE: Development of a Local Industrial Supply Chain

Nuestro modelo de negocio se apoya en un ecosistema local de fabricación fuerte.

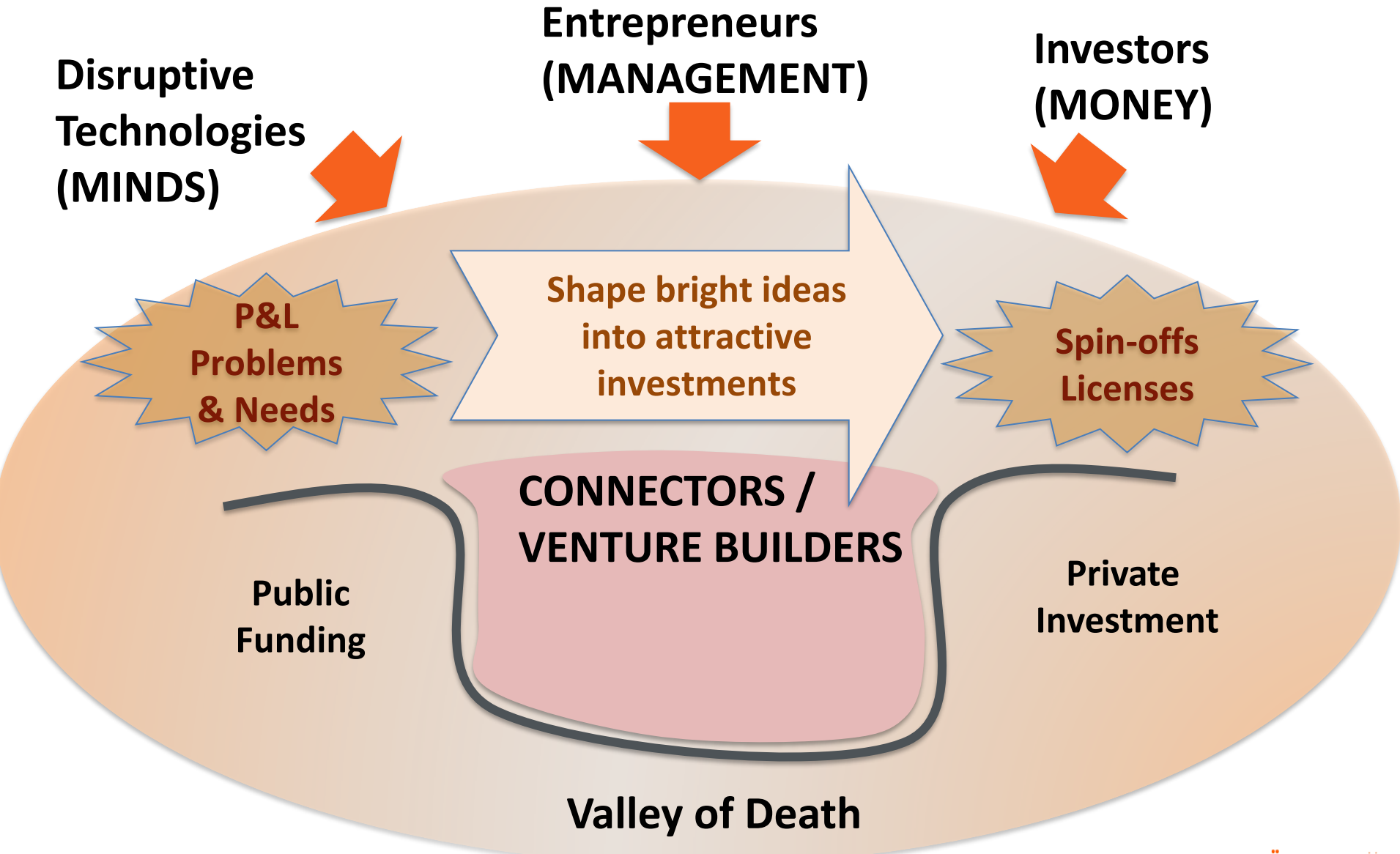
Activamos 17 partners industriales vascos por cada reactor que fabricamos. Muchos de ellos PYMES.

Invertiremos ca. 20M€ (producción de 30 reactores) en el ecosistema industrial vasco hasta 2024, con un impacto de entre 100 y 200 empleos indirectos

H2 SITE
Membrane reactors for H₂ generation



1. ECOSYSTEM VISION



Technology Transfer



Venture Transfer

Venture Building

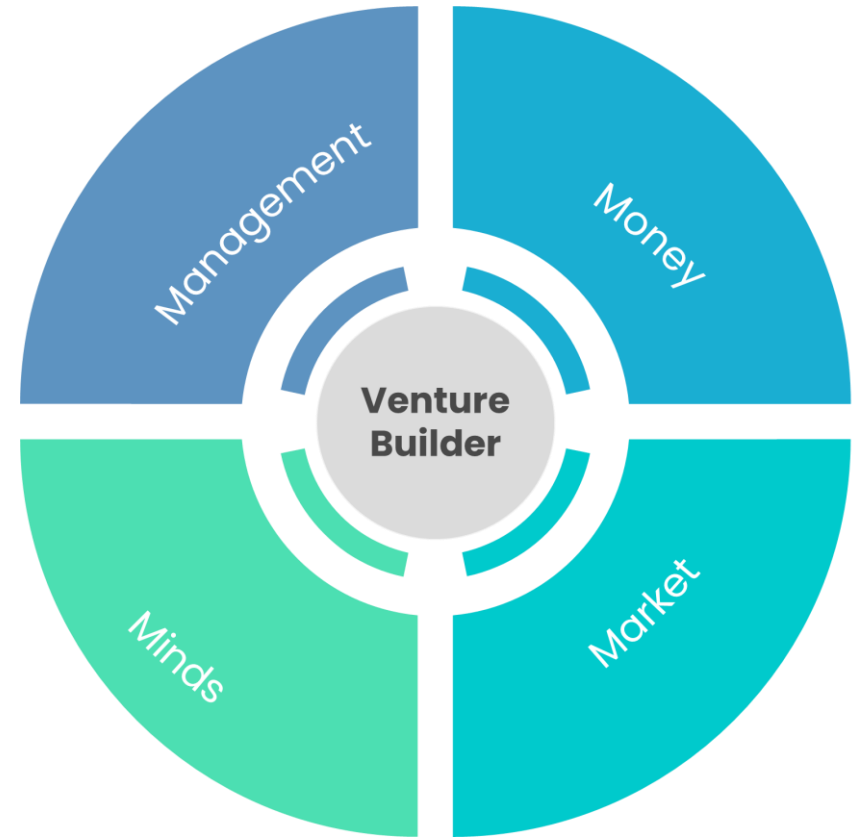
2. REDEFINE TTOs INTO TOP TALENTED VENTURE BUILDERS

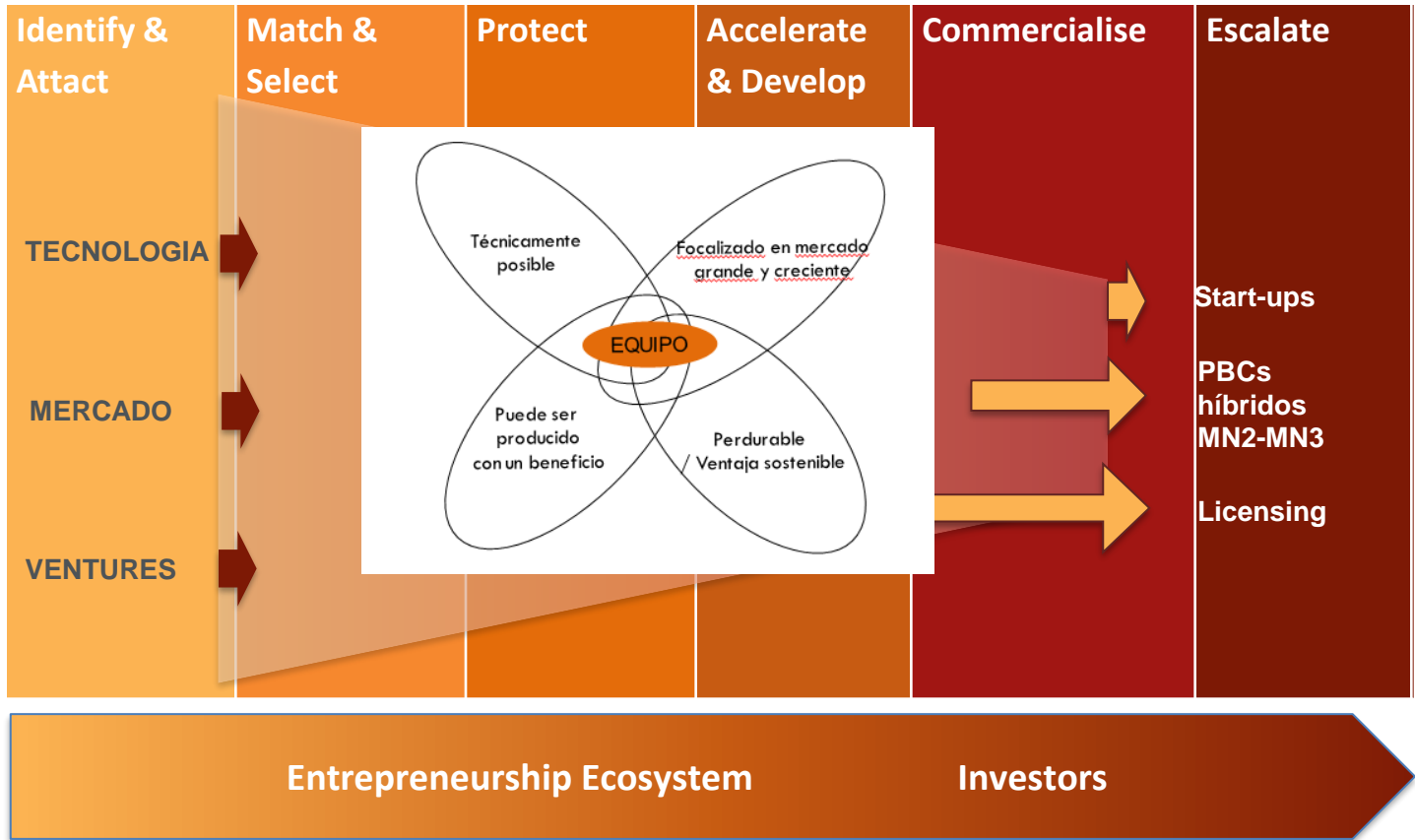
Management: Team
Well-rounded teams
Entrepreneurial spirit
Mentoring

Minds: Technology & IP
Analyze competitive landscape, feasibility, upscale, produce....

Money: Investors
Private/public
Dilutive/non-dilutive
In-kind

Go-to-Market Strategy
Define product, market need, manufacturing, regulatory, customers...



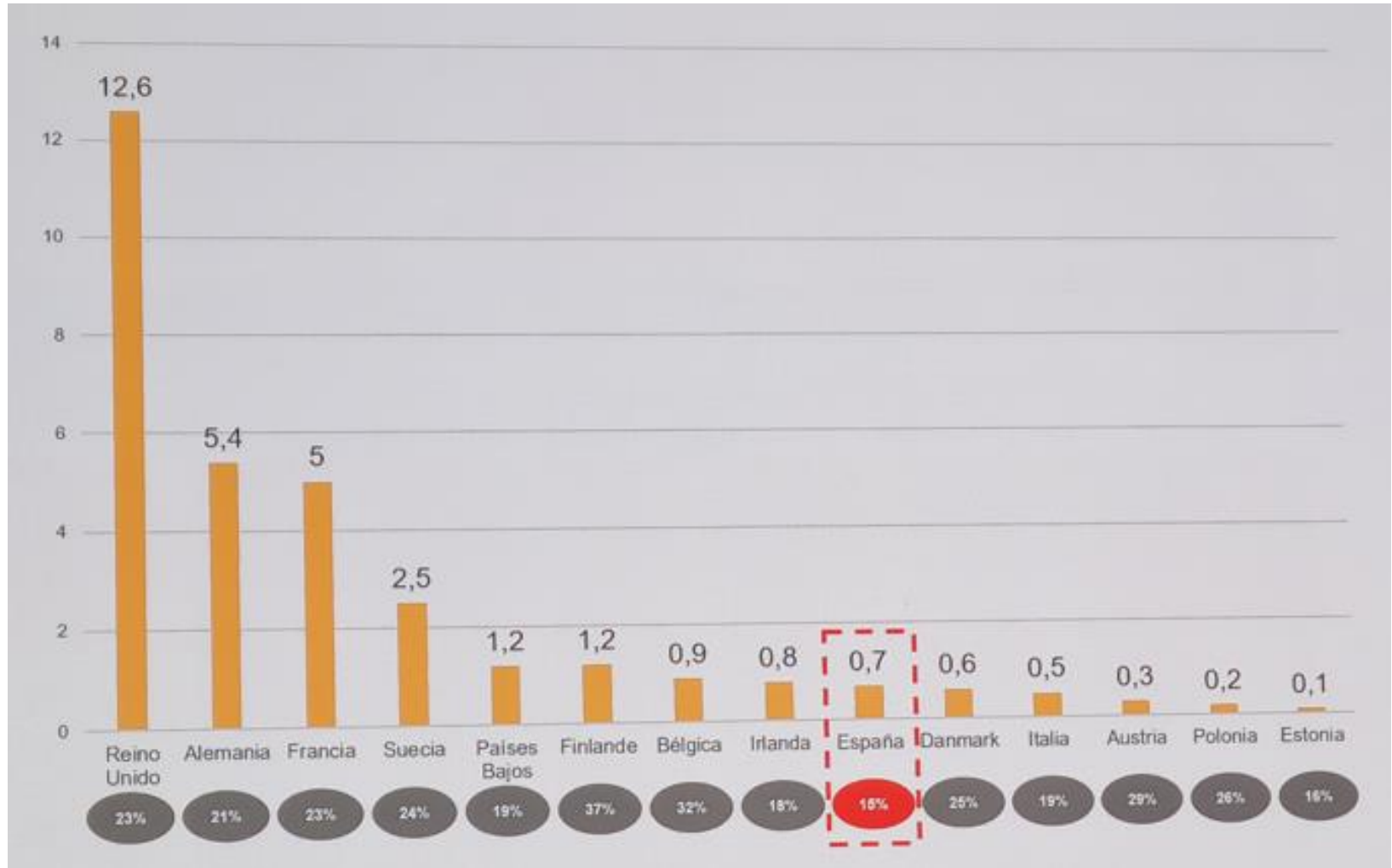


3. NEED TO SOURCE WELL ROUNDED TEAMS!



4. FUNDING FROM SMART CAPITAL SOURCES

Investments in Deep Tech (2015-20 en BB€) vs. % Deep Tech investments over total VC by Country

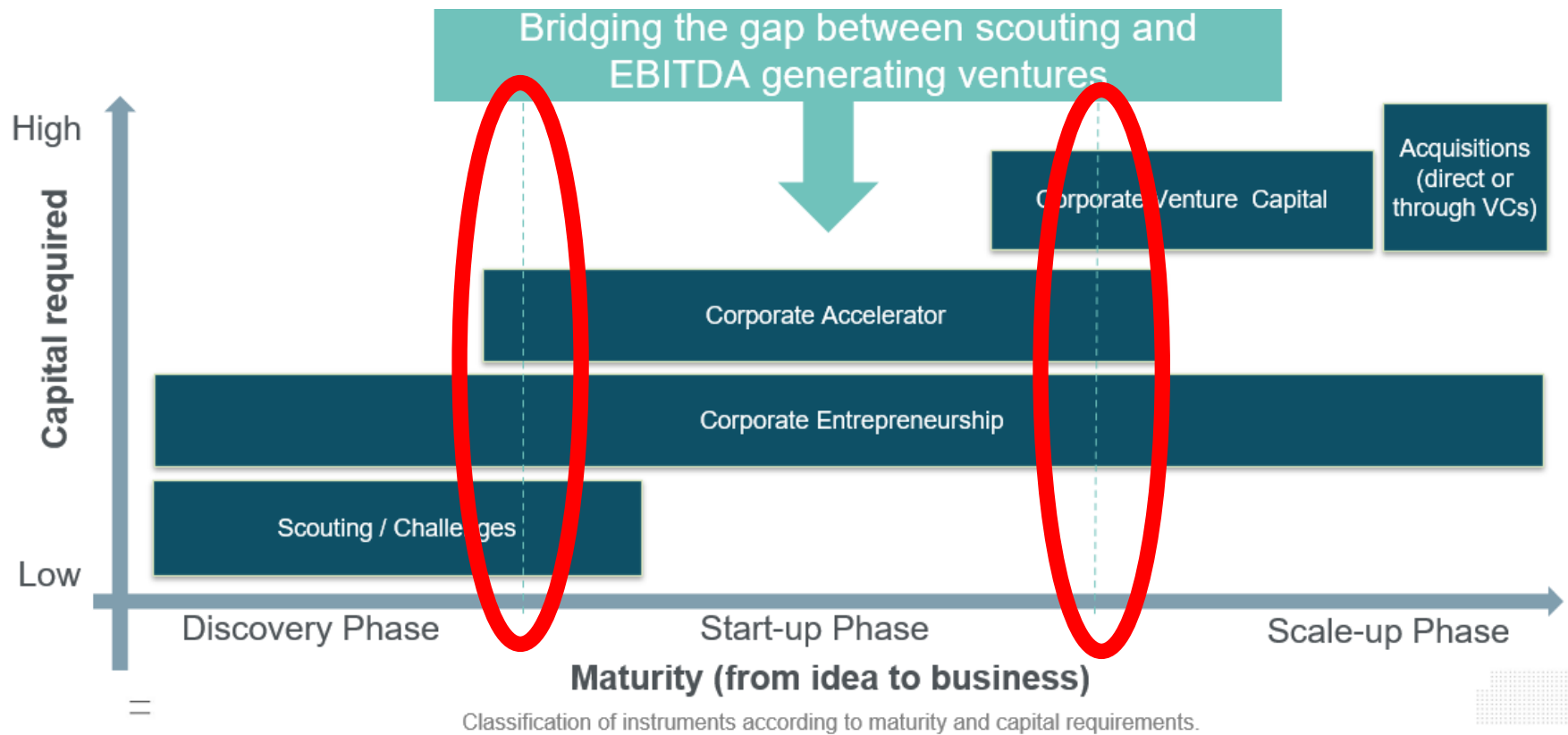


Source: Informe "Deep Tech en España" Real Instituto Elcano

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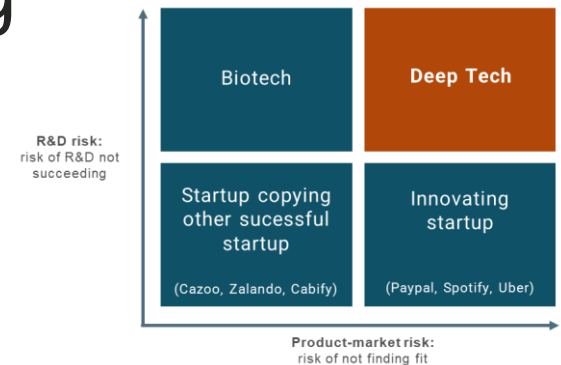
4. FUNDING FROM SMART CAPITAL SOURCES

Corporate Venturing “Valley of Death



5. PUBLIC SUPPORT

- National and European Deep Tech Strategy
- Foster Paneuropean Critical Mass
- Leadership to create Venture Builders with public-private funding
- Help create initial market traction: innovative public purchasing



OUR HISTORY



2009



2018

2019



2020



2021

Product Launch



Prototypes development

1. PARTNERSHIP UNIVERSITY (BASIC RESEARCH) – RTO (APPLIED RESEARCH)

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& TECHNOLOGY ALLIANCE



TU/e

2. SMART USE OF EUROPEAN FUNDING TO PRODUCE “MINDS”

- European project´s consortia help create potential value chains.
- European funding revenue isn´t an end in itself but should be deemed as a source of Investment aimed at producing valuable / technological excellence IP assets.

3. WELL ROUNDED TEAM OF “MANAGEMENT”

- Top researchers from TU/e and Tecnalia moving from Lab to join the spin-off in Basque Country.
- Top CEO based in Paris enticed by the idea of transforming a deep tech start-up into a fast growing and impactful SME.

4. SMART CAPITAL “MONEY” JOINING FORCES

- Founding round led by Engie New Ventures (France).
- “A Series” of 12,5M€ led by Breakthrough Energy Ventures (USA), first investment in Europe of their USA fund; Equinor Ventures (Norway); follow on by ENV and Capital Riesgo País Vasco; Seed Capital Bizkaia (Basque sovereign funds).

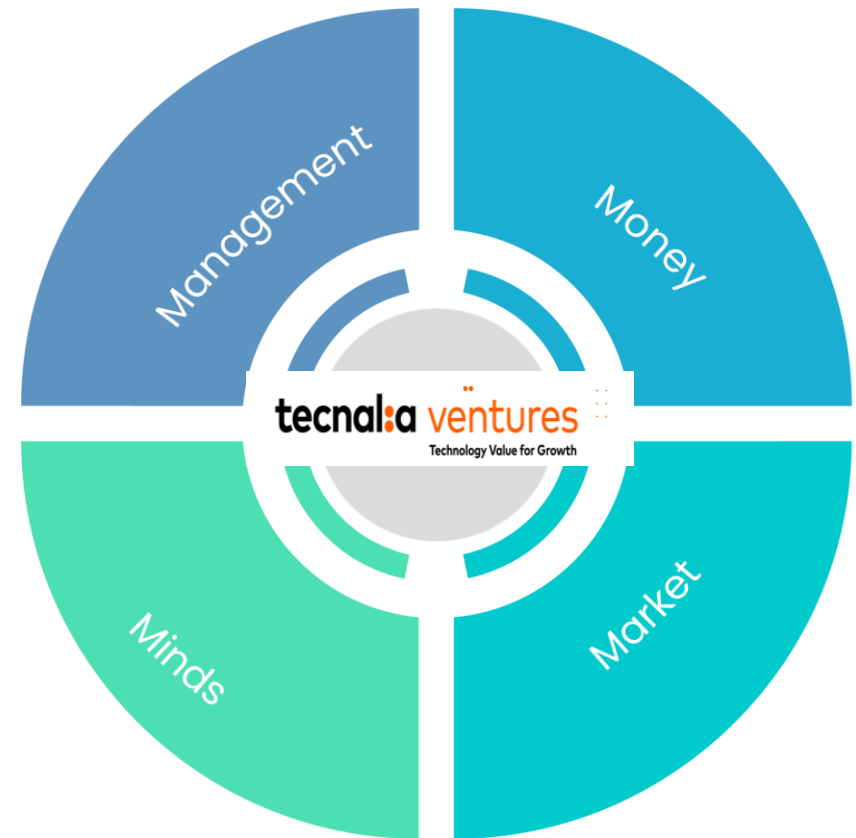
5. DEEP TECH VENTURE BUILDERS PLAY A KEY ROLE

Management: Team
Well-rounded teams
Entrepreneurial spirit
Mentoring

Minds: Technology & IP
Analyze competitive
landscape, feasibility,
upscale, produce....

Money: Investors
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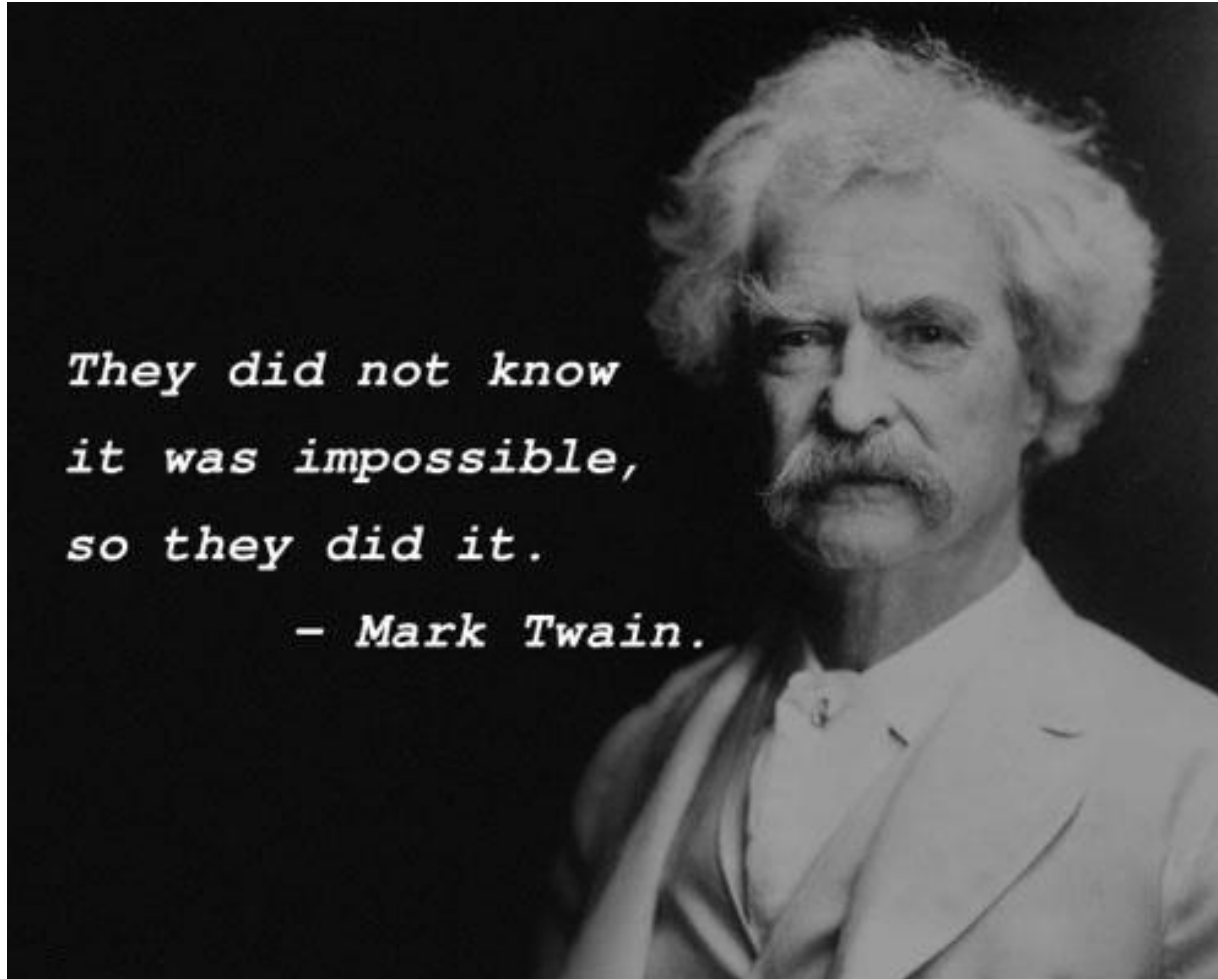
Go-to-Market Strategy
Define product, market
need, manufacturing,
regulatory, customers...



6. IMPACT: A REINDUSTRIALIZATION EXAMPLE

- Deep tech start-up aimed at tackling the global H2 transportation cost issue.
- 30 top profiles (scientists; engineers; “C” level) coming from all over Europe moving to 60 people this year.
- Order book of several MM€.
- Create a new value chain, mostly local, helping diversify 17 SMEs thus creating around 150 additional jobs.
- Tecnalia and TU/e growing their researcher teams and R&D expertise in this field.

7. WE NEED TO DREAM BIG!

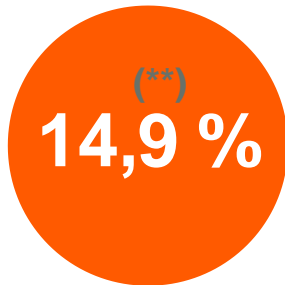


FUTURE PROSPERITY IN EUROPE GREATLY DEPENDS ON DEEP TECH VENTURE BUILDING HELPING REINDUSTRIALIZE REGIONS BY LEVERAGING THE GREEN AND DIGITAL TRANSITIONS



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