

The European Research Council



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The background of the slide is a photograph of a modern, curved glass building with a blue sky and trees. In the foreground, a large fountain sprays water into the air, creating a rainbow. The scene is set in a park-like area with green grass and trees.

**ERC Proof of Concept:
supporting leading
academics translate
research to market**

**Laura Pontiggia
ERC Executive Agency
Support to the Scientific Council**

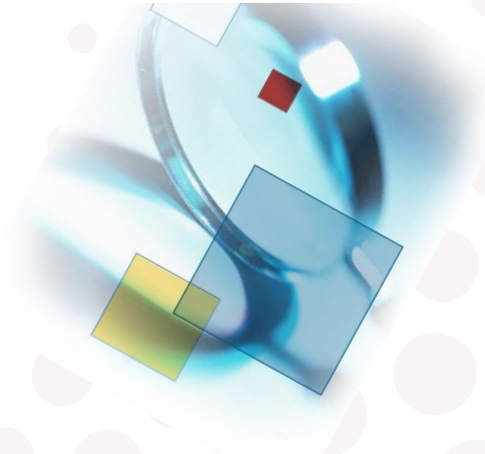
Athens, 29 September 2014

ERC Proof of Concept

Who can apply: Holders of an ERC grant with an idea substantially drawn from an ERC-funded project



What for: establish the innovation potential of the idea: technical validation, market research, clarifying IPR strategy, investigating business opportunities



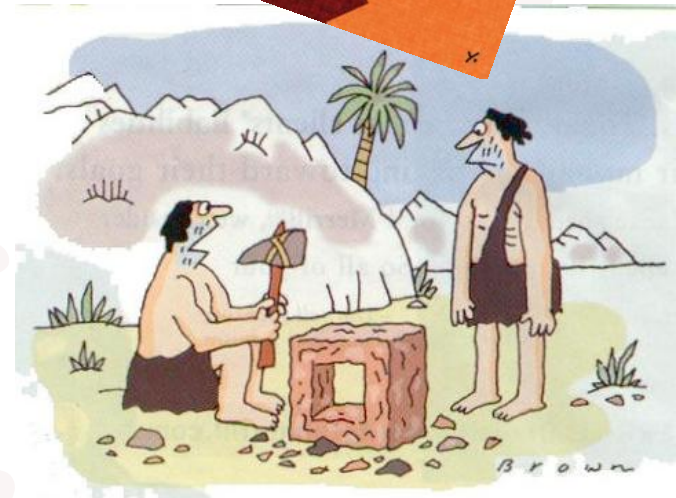
Amount: up to €150,000 per grant (18 months)
Total budget for 2014: €15 mil (€20 mil in 2015)

ERC Proof of Concept

Evaluation: External experts check innovation potential of idea and quality of PoC plan
❖ No scientific evaluation



Outcome: A "package" to be presented to potential investors



"I call my invention 'The Wheel,' but so far I've been unable to attract any venture capital."

Evaluation criteria



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1. Excellence (Innovation potential)

move the output of research towards the initial steps of pre-commercialisation

2. Impact

- 2.1 Economic and/or societal benefits
- 2.2 Commercialisation / exploitation
- 2.3 Plans for testing, technical reports
- 2.4 Competitive analysis
- 2.5 Clarification of IPR position/strategy
- 2.6 Industry/sector contacts

3. Quality & efficiency of implementation (Quality of the proof of concept plan)

- 3.1 sound approach for establishing technical and commercial feasibility
- 3.2 reasonable, acceptable plan of activities
- 3.3. sound project-management plan
- 3.4 team well qualified for the purpose
- 3.5 budget requested necessary & justified

PoC Evaluation results - Summary

2011 (first and second deadline)

- 139 Eligible submissions
- 55 Retained for funding
- 40% success rate

2012 (first and second deadline)

- 120 Eligible submissions
- 60 Retained for funding
- 50% success rate

2013 (first and second deadline)

- 279 Eligible submissions
- 67 Retained for funding
- 24% success rate

2014 (first deadline)

- 182 Eligible submissions
- 50 Retained for funding
- 27 % success rate

PoC applications as a share of ERC signed grants



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	Signed ERC grants as of 3/10/13	PoC applications	PIs applying for PoC
Tot LS	1277	208 (16%)	151 (12%)
Tot PE	1680	269 (16%)	204 (12%)
Tot SH	662	61 (9%)	47 (7%)
Grand TOT	3619	538 (15%)	402 (11%)

PoC grants as a share of ERC signed grants



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	PoC grants	Signed ERC grants as of 3/10/13	PoC grants /signed ERC grants
Tot LS	56 (31%)	1277	4%
Tot PE	110 (62%)	1680	7%
Tot SH	12 (7%)	662	2%
Grand TOT	178	3619	5%

11% of ERC grants generated at least one idea to take to PoC
5% of ERC grants have been granted a PoC

Share of ERC grants vs share of PoC grants per country of Host Institution

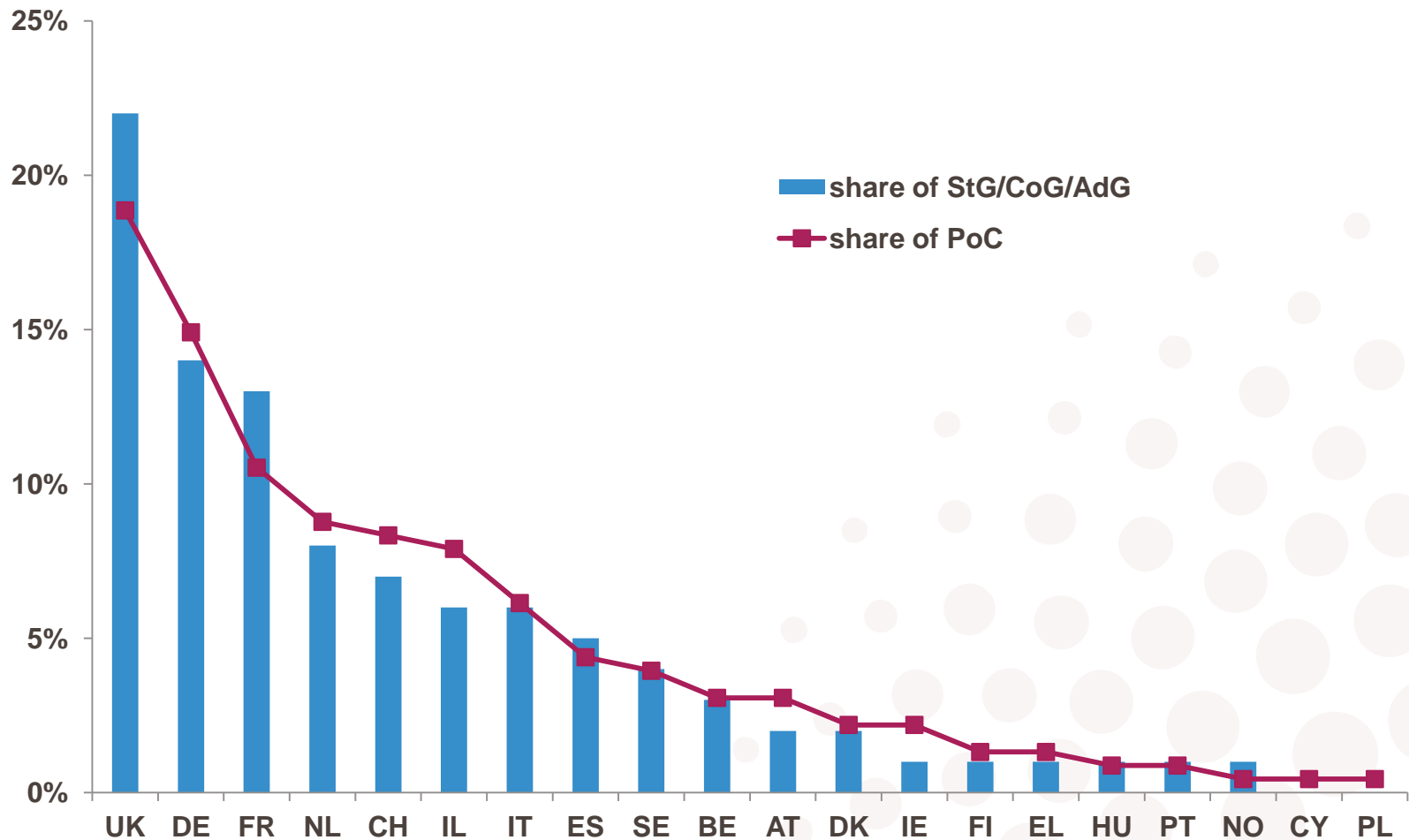
(Total PoC: 228)

(Total StG/CoG/AdG: 4354)



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ERC PoC grants – measuring the impact



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- ERC PoC launched in 2011
- First PoC grants started beginning 2012
- Around 70 "final reports" delivered so far

**It is time to start measuring the impact
of the programme**

Quantitative analysis



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We can say that the programme has:

- Reviewed more than 700 grant proposals
- Funded around 230 projects with over EUR 33 mil
- Supported the work of 228 PIs, plus graduate students and post-doc researchers in their teams
- Seen x% of funded projects spin out a new venture

Qualitative analysis, based on Final Reports



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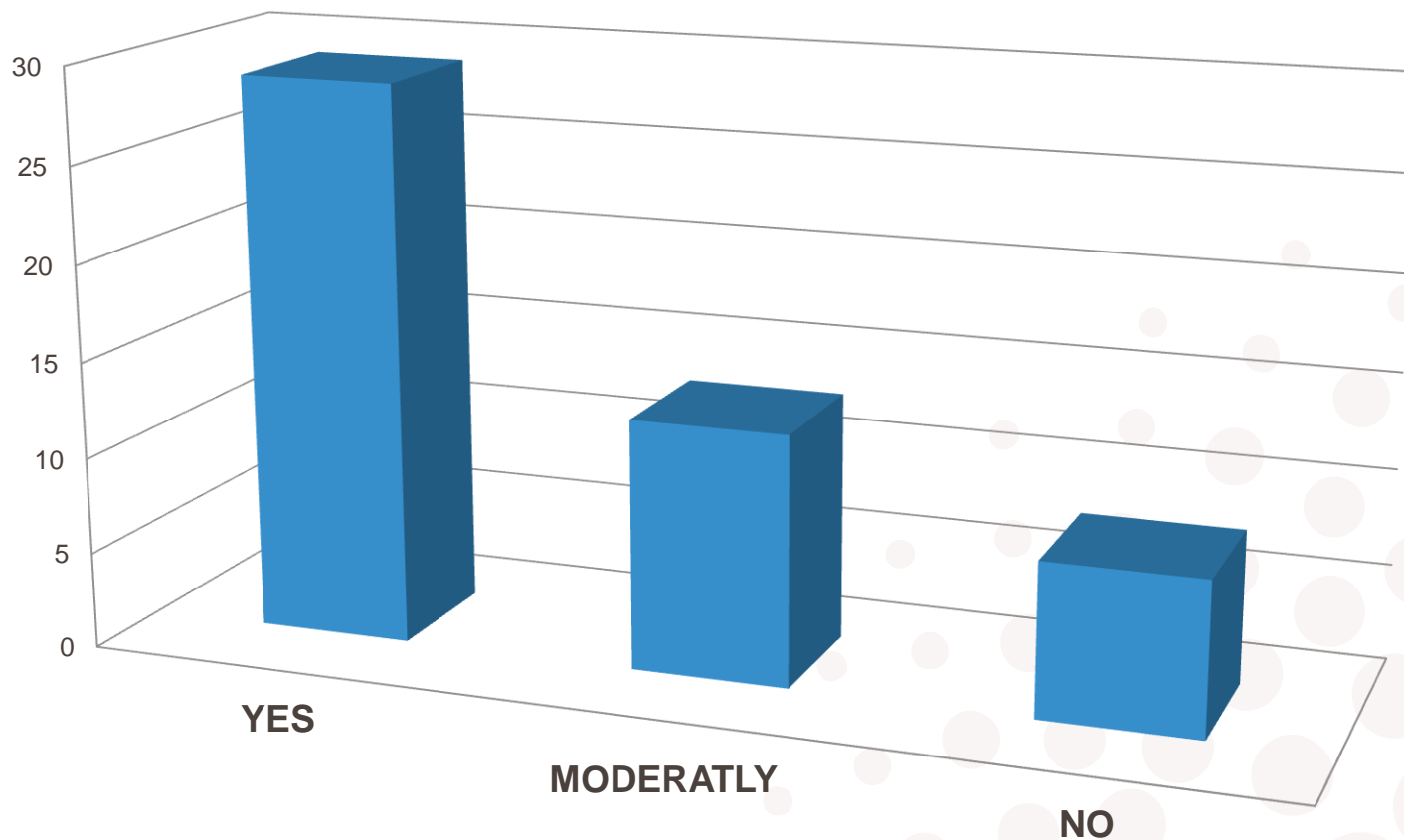
TOPIC	CONTENT
Problem	Description of the pain that the project aims to alleviate
Solution	Explanation of how the PoC project alleviates this pain and the meaning that it makes
Underlying Magic	Description of the technology, secret sauce or magic behind the PoC solution
How far did the PoC take the idea?	Explanation of how far did the PoC project take the initial ideas (milestones reached, results in terms of technology validation, industrial contacts, business / commercialisation plan...)
Commercialisation / Valorisation route	Description of the plans for commercialisation or valorisation of results
Was a spin-out created?	Was a spin-off created (or will it be) as a result of the PoC? Or did it already exist? Will be used to commercialise the results of the PoC?
Current Status, Accomplishments to Date, Timeline	Explanation of the current status of the project, what the near future looks like and how the PI intends to use the additional money that the project tries to raise

Did the PoC achieve its goals? – 50 Final Reports



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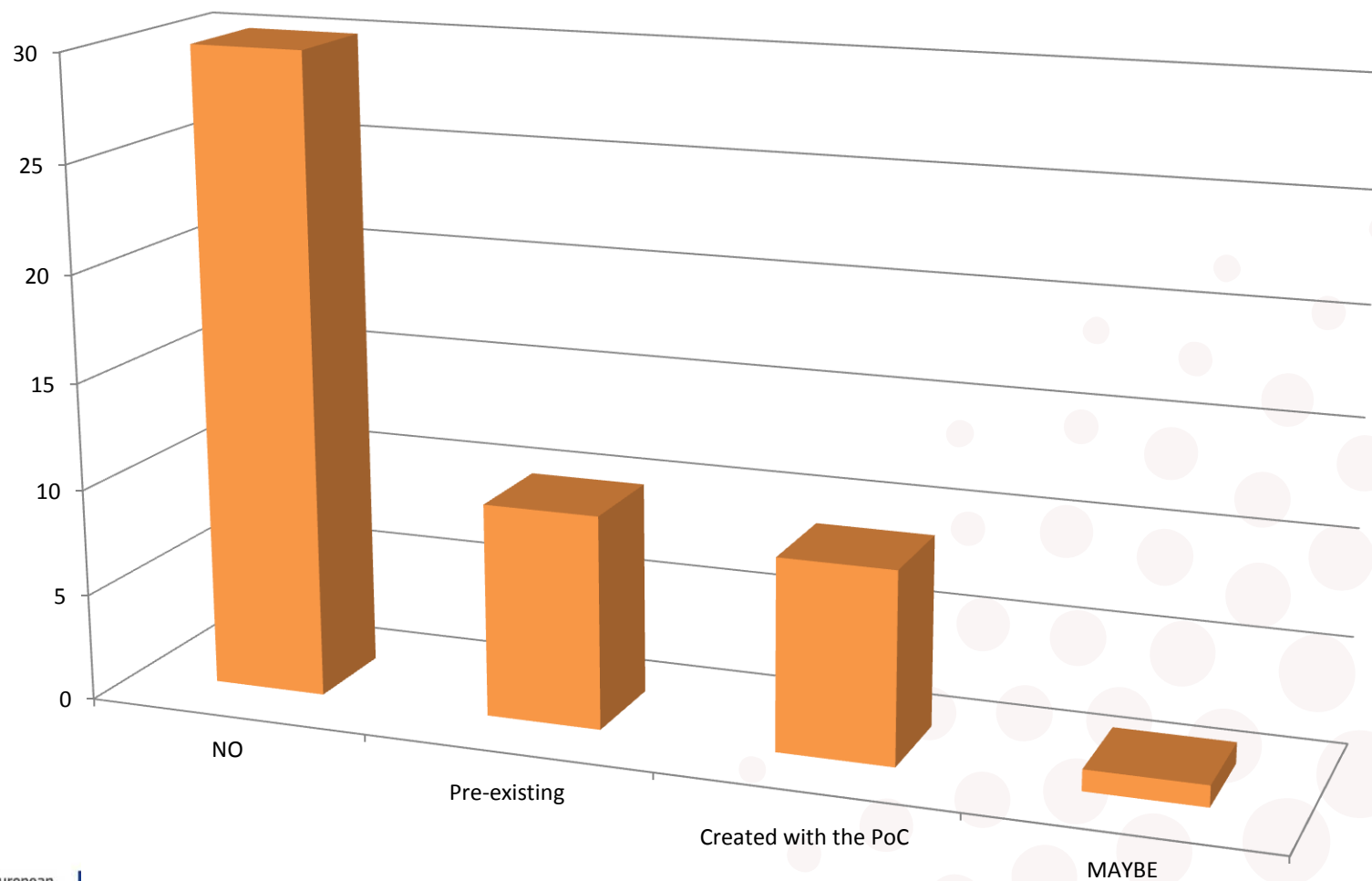
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Spin-out creation - 50 Final Reports



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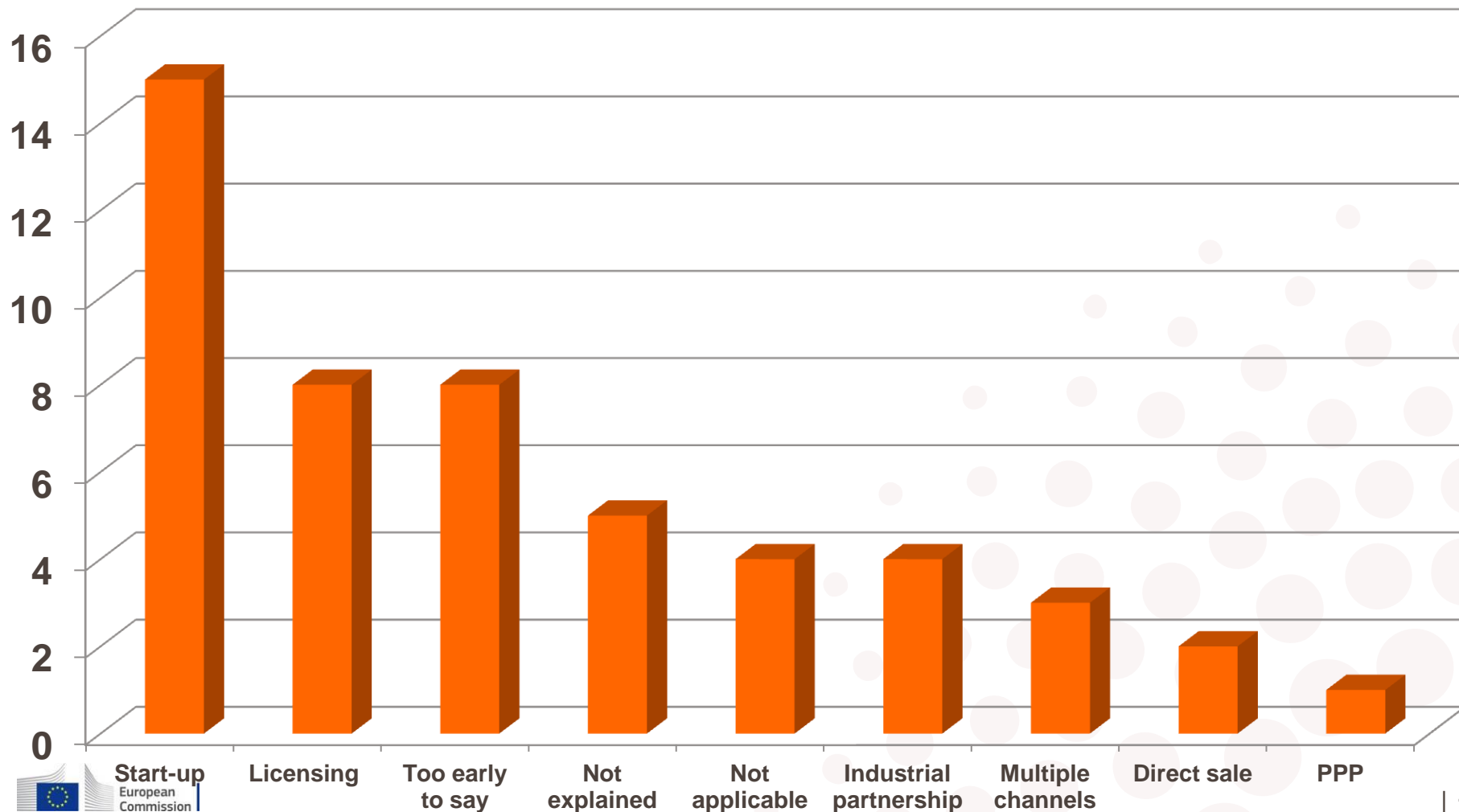


Commercialisation / Valorisation plan - 50 Final Reports



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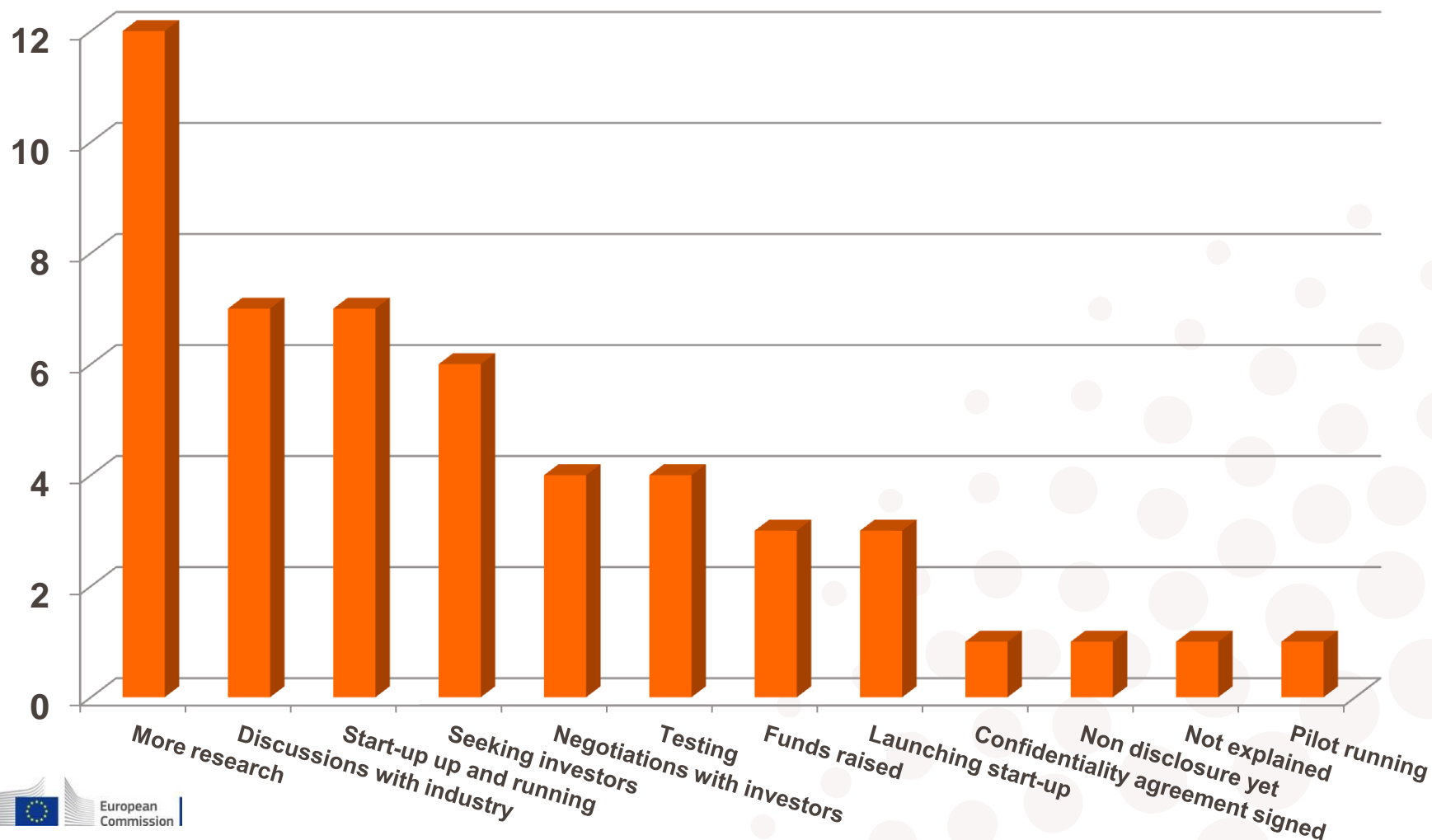
Current status of the project

- 50 Final Reports

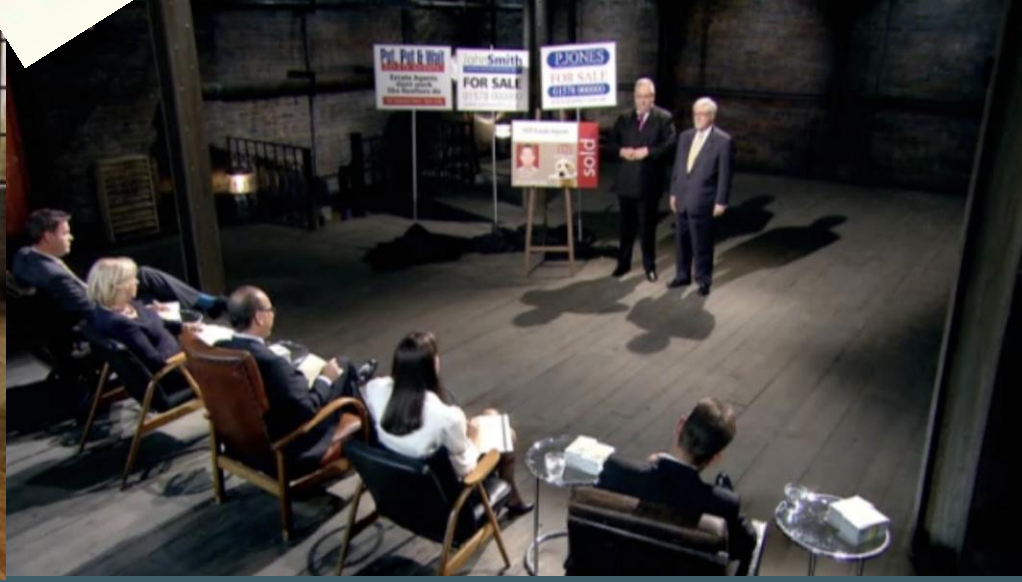


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ERC PoC grantees meeting industry





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CASE STUDIES

CMS (University of Vienna)



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TOPIC	CONTENT
Underlying Magic	Game-changing mirror technology that is redefining laser-based precision measurement. Monocrystalline coatings that eliminate the excess noise generated by sputtered multilayers
How far did the PoC take the idea?	<ul style="list-style-type: none">• Demonstration of the expected performance of the new mirror technology• Submission of international patents on the proprietary technology• Creation a spin-out company
Commercialisation / Valorisation route	Spin-out, in partnership with a company
Was a spin-out created?	YES, Crystalline Mirror Solutions (CMS) founded in January 2012
Current Status, Accomplishments to Date, Timeline	Pilot production line up and running at the external production partner
Did the PoC achieve its goals?	Yes, very successfully



Crystalline Mirror Solutions GmbH

Crystalline Mirror Solutions, or CMS, was founded as an Offene Gesellschaft (OG) in January 2012 and transitioned to a limited liability corporation (or Gesellschaft mit beschränkter Haftung, GmbH) in August 2013, as a spin-off of ongoing research within the [Faculty of Physics](#) at the [University of Vienna](#) and the [Vienna Center for Quantum Science and Technology \(VCQ\)](#).

Our crystalline coating technology emerged as an off-shoot from research focused on [macroscopic quantum phenomena](#) in [microfabricated mechanical systems](#). After consulting by [INiTS](#) (a Viennese business incubator of the City Vienna, the University of Vienna and the Technical University of Vienna), CMS received initial financing both by the [AWS](#)-operated [JITU pre-seed program](#) of the [BMWfJ](#) and by the newly established [Proof of Concept](#) initiative of the [European Research Council \(ERC\)](#). With prototypes constructed and successfully demonstrated via a collaborative effort with partners from the University of Vienna and [JILA](#), the joint institute of the [University of Colorado at Boulder](#) and the [National Institute of Standards and Technology \(NIST\)](#), we began taking initial orders in late summer 2013.

SniffControl (Weizmann Institute of Science)



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TOPIC	CONTENT
Underlying Magic	Harness the mechanism of sniffing towards non-olfactory functions. A small device can measure sniff parameters at the nose and convert them into electrical signals to control external devices.
How far did the PoC take the idea?	<ul style="list-style-type: none">• Filed patent on the device.• Launched a web site devoted to the project.• Improved ergonomics of device and software.• Patients testing.• Identified a novel application for the device.
Commercialisation / Valorisation route	Direct sales (via web site)
Was a spin-out created?	NO
Current Status, Accomplishments to Date, Timeline	Actively seeking interest of potential investors. Recently entered into final stage negotiations to license the sniff-controller technology to entrepreneur
Did the PoC achieve its goals?	Yes, extremely successful



HOME

WHO WE ARE

WHAT WE DO

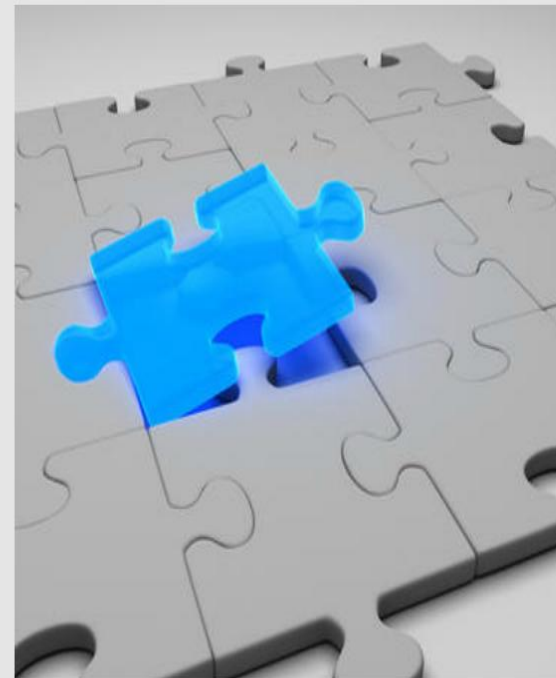
OBTAIN A CONTROLLER

INVEST/SUPPORT

IN THE PRESS

DIY

The power to inspire



*This project is funded by the
"ERC Ideas Proof of Concept"
program*



HOME	WHO WE ARE	WHAT WE DO	OBTAIN A CONTROLLER	INVEST/SUPPORT	IN THE PRESS	DIY
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INVEST

SniffLogic is the result of an ERC proof of concept grant. This mechanism aims to bring SniffLogic to a stage where it is attractive for investors. If you would like to investigate the possibility of a major investment in SniffLogic, please contact us.

ERC proof of concept



FOR INVESTORS

SUPPORT

We would like to build a community of developers who are willing to contribute to the generation of better interfaces, GUIs, etc. for the benefit of all. If you would like to investigate the possibility of contributing to SniffLogic, please contact us.

FOR DEVELOPERS

VERTICAL (CNRS)



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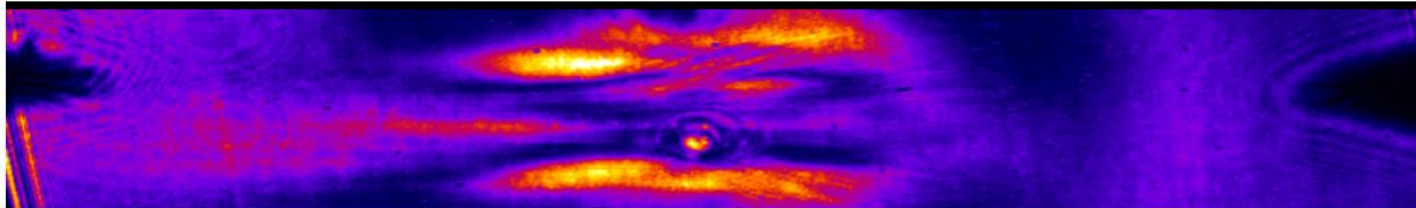
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TOPIC	CONTENT
Underlying Magic	Laser-driven gamma ray radiography to answer to identified industrial probing needs of rapidity, compactness and safety
How far did the PoC take the idea?	<ul style="list-style-type: none">• Achieved full market study of laser-based non-destructive testing• Design of ray sources specific for non-destructive testing• Creation of commercial venture (Sourcelab SAS)
Commercialisation / Valorisation route	Through the spin-out
Was a spin-out created?	YES - Sourcelab SAS
Current Status, Accomplishments to Date, Timeline	The spin-out is now up and running and already selling products
Did the PoC achieve its goals?	Yes, very successfully



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Fondation Norbert Ségard

...encourages innovative entrepreneurship of young engineers and researchers.



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...encourages high quality research in Europe through competitive funding.

Upcoming Events

20-22 May 2014

[COFREND Days 2014](#)

[Programme](#)

French Confederation for NDT
Palais des Congrès, Bordeaux, France

23 May 2014

[Séminaire SourceLAB](#)

Multimermaid (CNRS)



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TOPIC	CONTENT
Underlying Magic	Use the glass spheres commonly employed in ocean bottom seismometers as floats, instead of anchoring them to the seafloor, with increased battery capacity and expected lifetime of an active float
How far did the PoC take the idea?	<ul style="list-style-type: none">• In collaboration with a small engineering firm the spheres were equipped with a pump and a valve system• tested in a pressure chamber• three prototypes assembled and tested in open sea
Commercialisation / Valorisation route	Via the small engineering company with which team collaborates
Was a spin-out created?	NO
Current Status, Accomplishments to Date, Timeline	Industrial partner to develop the prototype into marketable instrument and requested loans to help commercialisation
Did the PoC achieve its goals?	YES, successfully



Accueil du site | Actualités scientifiques

Rechercher

- Présentation du laboratoire
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- Equipes de recherche
- Projets transversaux
- Publications
- Séminaires
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- CULTURE SCIENTIFIQUE**
- Actualités scientifiques
- Enseignements
- Education
- Evénements
- ET AUSSI...**
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Le projet Multimermaid de Géoazur continue de faire des vagues !

mercredi 12 mars 2014 par Corinne Nicolas-Cabane

Après Mermaid, hydrophone marin capable d'enregistrer les ondes acoustiques émises lors de séismes, les scientifiques de l'équipe de Guust Nolet de Géoazur (UNS-CNRS-OCA-IRD) développent leur instrument à travers le projet Multimermaid avec support d'un **ERC Proof-of-Concept**. Aujourd'hui, l'objectif est de rendre l'instrument utilisable pour de multiples disciplines qui utilisent le champ acoustique en milieu aquatique (biologie, météorologie...).



Guust Nolet, Yann Hello et Sébastien Bonnieux de Géoazur, prévoient de déployer à terme, grâce à des collaborations internationales, plus de **600 nouveaux instruments dans tous les océans du globe**. Les données ainsi récupérées seront une source précieuse de renseignements pour imaginer la Terre interne dans des zones peu instrumentées jusqu'à présent, particulièrement dans l'hémisphère sud.

L'information qui a déjà rencontré un franc succès auprès des médias lors de l'AGU de San Francisco fin 2013, continue de faire des vagues au-delà des frontières à travers un nouveau reportage de **Julian Lopez sur Euronews**.

Photo : copyright Julian Lopez

Contacts Géoazur (UNS-CNRS-OCA-IRD)

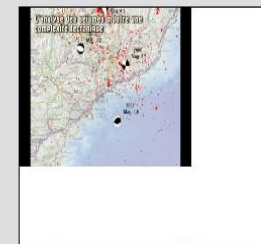
Contact **chercheur** : Guust Nolet, Tomographe, nolet@geoazur.unice.fr
tél : 04 83 61 86 32

Contact communication : Corinne Nicolas-Cabane, nicolasc@geoazur.unice.fr

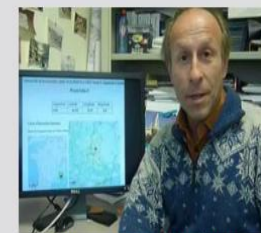
Consulter EN DIRECT la sismicité sur le Sud-Est de la France



via SISMOAZUR



Sismicité sur la côte Ligure
[Voir la vidéo](#)



Réponses sur la sismicité régionale
[Voir la vidéo](#)

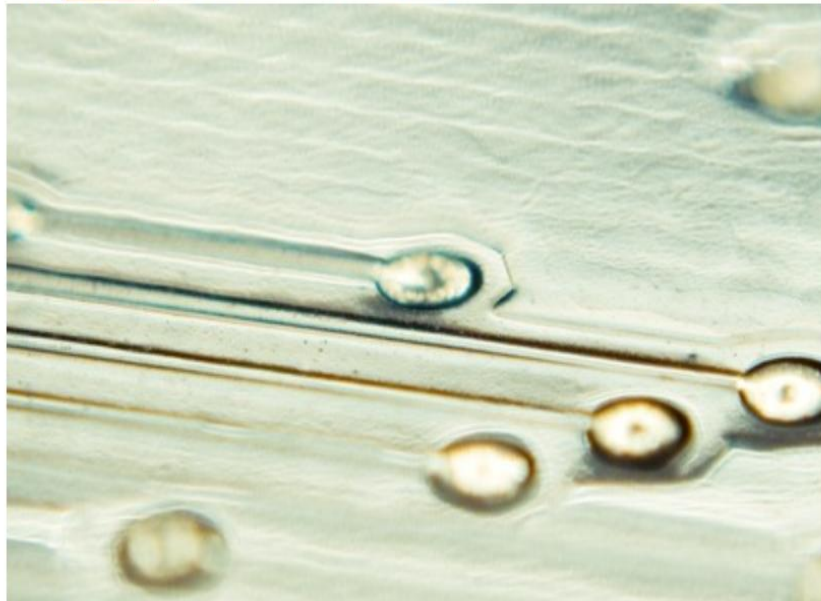
Hivesign (EPFL – Lausanne)



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TOPIC	CONTENT
Underlying Magic	New breed of chip-to-chip communication schemes that simultaneously increase speed and lower consumed power
How far did the PoC take the idea?	Showing that “Hadamard signalling works, is easy to build, and is commercially viable.”
Commercialisation / Valorisation route	Via Kandou Bus, a start-up co-funded by the PI before the PoC
Was a spin-out created?	Pre-existing (co-founded by the PI)
Current Status, Accomplishments to Date, Timeline	Results of PoC being used by Kandou Bus for a successful use of a communications scheme (Hadamard-4 signalling) in mainstream devices
Did the PoC achieve its goals?	YES, beyond expectations



KANDOU BUS

We make electronic devices run faster and consume less power

Kandou Bus is a semiconductor company specializing in the design of high-speed, pin-efficient, energy-efficient serial links, SerDes, and associated technologies. Our team of scientists and engineers, based in Switzerland and the UK, is pushing the boundaries of hardware.

Demand for bandwidth in serial links has increased as industries require both high-quantity and high-quality information. Kandou Bus has developed a unique approach to serial link design that increases the bit-rate and the reach for a given physical communications link and reduces the power consumption. As a result, more



Suprenix (Eindhoven University of Technology)

TOPIC	CONTENT
Underlying Magic	Supramolecular polymers for biomaterials beyond state-of-the art
How far did the PoC take the idea?	<ul style="list-style-type: none">• Screening and selection of high potential medical applications, overall commercial assessment• IP position strengthened• Technical feasibility <u>not achieved</u> in the two tested applications -> no package for industrial partners/stakeholders
Commercialisation / Valorisation route	N/A
Was a spin-out created?	NO
Current Status, Accomplishments to Date, Timeline	The group will continue to work on the "failed" technical issues
Did the PoC achieve its goals?	NO

TJMAP (GOLDSMITHS' COLLEGE, UK)



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TOPIC	CONTENT
Underlying Magic	<ul style="list-style-type: none"> • Methodological roadmap for how to collect, collate and analyse systematic interventions into post-conflict situations • Unique intervention into the understanding and assessment of third sector activities and strategies in the aftermath of wartime atrocity • New instrument to inform ‘the peace-building industry’
How far did the PoC take the idea?	Product development and completion
Commercialisation / Valorisation route	Given the nature of the project and target audience (third sector), there is no commercialisation strategy
Was a spin-out created?	NO
Current Status, Accomplishments to Date, Timeline	Hope and expectations that Toolkit will be evaluated by International Centre for Transitional Justice to decide its efficacy for wider application across post-conflict contexts
Did the PoC achieve its goals?	Moderately

IMPACTTRACER (King's College, London)



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TOPIC	CONTENT
Underlying Magic	<ul style="list-style-type: none">• Web-based application to automatically trace and understand the impact of a single text, upon a large number of subsequent texts over time.
How far did the PoC take the idea?	<ul style="list-style-type: none">• Development and completion of the web-application• Business plan aimed at attracting further investment
Commercialisation / Valorisation route	Launch the application as a stand-alone service to organisations and companies interested in measuring the impact of their publications
Was a spin-out created?	NO
Current Status, Accomplishments to Date, Timeline	<ul style="list-style-type: none">• Web-based application well-integrated with the visualisation component• But before launching it commercially need further improvements in<ul style="list-style-type: none">➤ the impact algorithm against human benchmarks functionality➤ autonomous access to content
Did the PoC achieve its goals?	Moderately