The role of Programme Managers

Backing visionary entrepreneurs

Antonio Marco Pantaleo, Francesco Matteucci EISMEA Programme Managers Politecnico di Torino – 4 April 2022



European Innovation Council

Summary

- The role of Programme Manager in EIC: policy and implementation
- Strategic intelligence: approach for selection of topics and EIC WP 2022
- Implementing the portfolio concept: green H2 pathfinder challenge
- Proactive management: portfolios, tools and action plan
- Interservice and stakeholders consultations: the innovation deal
- Lessons learnt and strategies to increase success rate in EIC
- Italian participation to EIC and role of academia to foster innovation

PM Roles: mix of policy and implementation



Building strategic intelligence, selection of topics and definition of scope of calls, chair of evaluation panel (pathfinder) and portfolio implementation

Clustering projects in thematic portfolios, enhance cross-sectorial contaminations and serendipity

Scientific knowledge + networking + entrepreneurial vision to transform research into innovation

Scientific intelligence and Proactive Management

Outreach to R&I stakeholders, links to other EU programmes and engagement with innovation ecosystem community

Guiding principles and methodology for topics selection



Guiding principles

High innovation potential recognized industrial interest/market needs

Relevance for EU technological autonomy and economic/societal impact – alignment with strategic policy targets Synergies/complementarity with other funding programmes (HEU, EIT, Missions etc)

niche areas -

Pathfinder

Non incremental research

Vision gained from funded and not funded projects

Structured interviews with scientists

Data mining, EPO, JRC foresight

Programmes

Transition

Evidence from eligible projects (ERC PoC and PT)

Accelerator

critical mass of EU stakeholders/researchers/innovators Venture Capitalists – Venture Corporate strategies -

EIC calls in 2022 - overview



Accelerator - Open	Short applications - Apply any time	~ €623m (~grant/equity)
Accelerator – Challenges • Technologies for Open Strategic Autonomy	Cut offs for full applications: • 23 March 2022 • 15 June 2022	~ €537m (~grant/equity)
• Technologies for 'Fit for 55'	• 5 October 2022	(grant/equity)
Pathfinder - Open	Deadline 4 May 2022	~€183m
 Pathfinder - Challenges Carbon dioxide & nitrogen management and valorisation; Mid-long term, systems-integrated energy storage; Cardiogenomics; Healthcare continuum technologies; DNA-based digital data storage; Alternative quantum information processing, communication, and sensing 	Deadline 19 October 2022	~€167m
Transition – Open	Short applications - Apply any time	~€70.5m
 Transition – Challenges Green digital devices for the future; Process and system integration of clean energy technologies; RNA-based therapies and diagnostics for complex or rare genetic diseases 	Cut offs for full applications: • 4 May 2022 • 28 September 2022	~€60.5m

Proposals evaluation and portfolio approach in the pathfinder challenge

- a coherent set of projects aligned to the topic guide with competing or complementary technologies and research approaches;
- multidisciplinary interactions and exchanges for synergies and serendipity;
- contributing to an overarching medium to long-term market vision and strategic plan
- Projects funded on the basis of the portfolio criteria defined by the evaluation panel after the remote evaluation
- Projects will participate in relevant portfolio activities, driven by the PM

The Pathfinder Challenge on green hydrogen generation

Scope of the call

novel processes and technologies to produce green H2 and capturing cross sectorial coupling and system integration opportunities, entirely based on (i) renewable sources and (ii) non-toxic, non-critical raw materials. new biological, chemical, and physical routes possibly including the co-production of decarbonised chemicals.

Portfolio criteria

Broad range of technologies, system integration opportunities, circularity approaches, non critical row materials, coproduction of H2 and chemicals/materials

Evaluation process

<u>Step 1 (remote evaluation with 3 experts + 1 cross reader)</u>

50 proposals over 104 received above threshold to produce the final score (after cross-reading)

Step 2 (evaluation panel with 9 experts + 2 PMs)

projects ranked in 6 technological categories (electrolyzers, AEM electrolyzers, photocatalysis, thermoch, biological, hybrid) In each category, projects were further evaluated according to circularity, systems integration, raw materials criteria Priority list in each category is defined, considering the final score and the further portfolio criteria evaluation Selection of the first project in each category according to priority list





Specific aims of PM proactive management

- follow-up projects more closely, from scientifical and technological sides
- support, re-orient, suspend or terminate projects
- enforce collaboration between thematically related projects within portfolios
- stimulate serendipity, research and knowledge contamination for new applications
- share results, facilitate innovation ecosystems and facilitate networking
- address and overcome legislative bottlenecks
- exploitation first, instead of publication
- address the rights for inventors to do something with 'their' results
- Identify, nurture and catalyse innovations in EIC beneficiaries

Tools and actions for proactive management



- Chair evaluation panel (PF): implement vision and strategies of the challenge guide
- Package of BAS to beneficiaries: booster grant (ad hoc grant 50 kEur), fast track to innovation (access to accelerator step 2), coaching and mentoring support
- Scientific experts support: assessment of innovation/market uptake potential, high level report on state of art of research and innovation, patenting assessment, etc

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/work-as-an-expert

- Launching innovation deals to address regulatory, legislative and standardization issues to mobilize market uptake and innovation potential of specific technologies
- Support to technical due diligence for the equity component of EIC accelerator

Portfolios approach

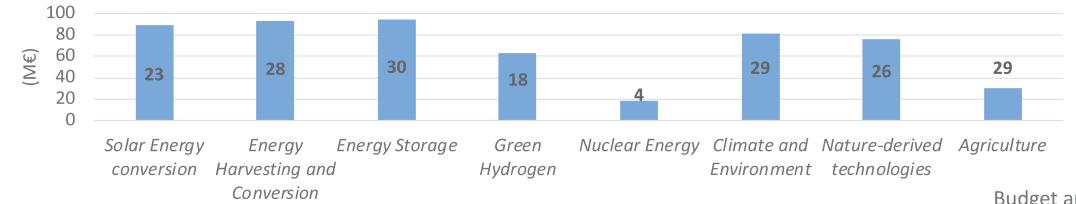


Renewable Hydrogen (production, storage, logistics, end use) **Energy storage** (electrical, thermal, chemical, mechanical and electrochemical) **Solar conversion technologies** (solar-to: thermal, fuel, electricity) Thematic portfolios Pathfinder and **Energy harvesting and conversion Transition Nature-derived technologies Agriculture** Climate and Environment (air/water/soil monitoring/depolluting, environmental intelligence)

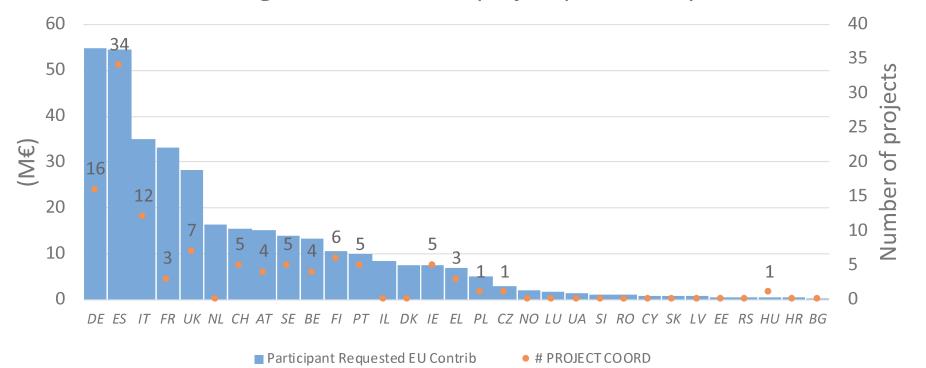
Portfolios approach: key figures for pathfinder in green tech

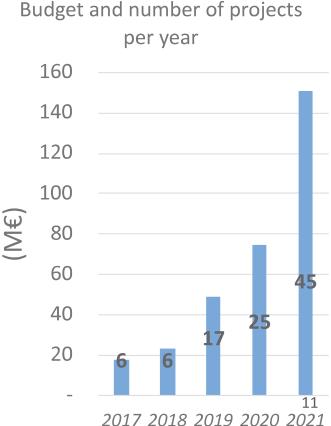






Budget and number of project per Country





Portfolios approach



Hydrogen technologies (generation, storage, logistics, end use)

Energy storage (thermal, chemical, mechanical and electrochemical)

Accelerator Thematic portfolios Ocean Energies (wave, tidal, offshore floating wind,..)

Water treatment technologies

Circular economy approach

Sustainable agriculture (farm to fork)

Under final clustering also based on different requests



- BIOCHAR is the most cost-competitive NET at large scale
 - √ Biochar is a form of BioCCS/U. It can cost 200-500 €/tC
 - √ ICAO for Sustainable Aviation is already introducing offsetting through BioCCS/U
- Extension of ETS to incorporate a share of Nature-based solutions is key, but not yet possible as indirect offsetting
- ETSmarket must however be regulated to balance offer-demand and to maintain commitment of obligated companies

European

Key factors to increase success rate

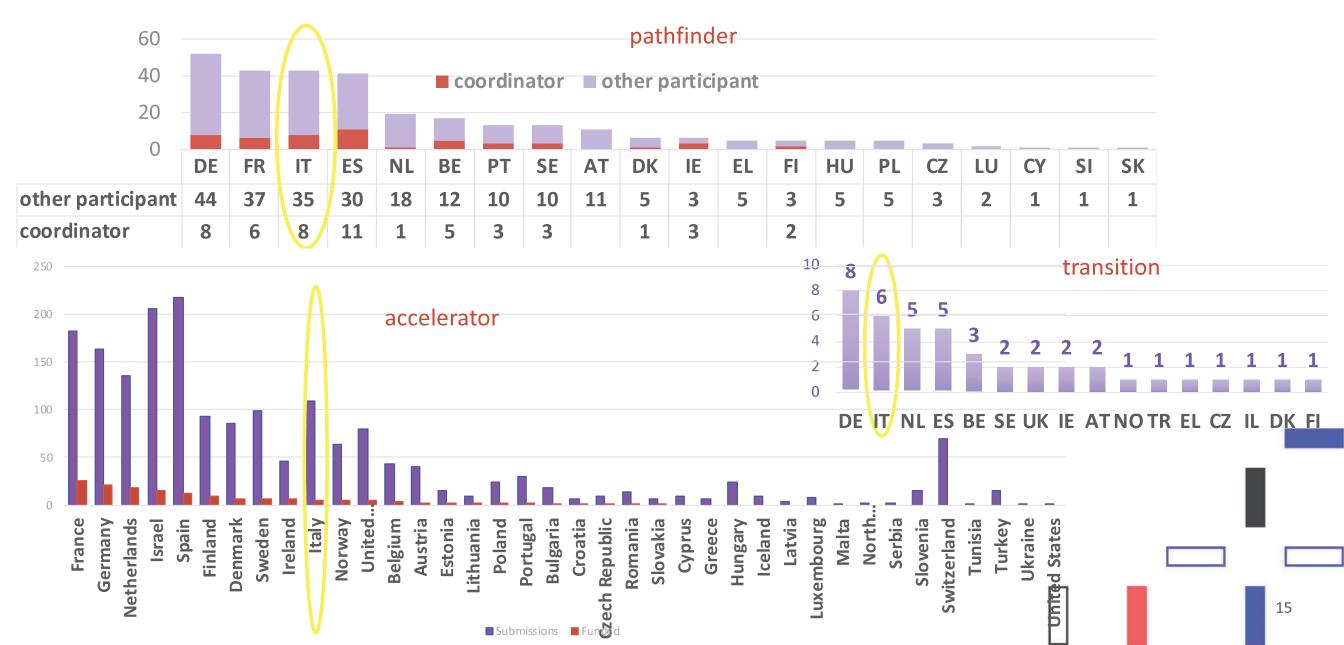


- Knowledge of policy background: connection of proposals to EU strategies, SET plan
- Alignment with topic guide: full understanding of scope of call (for top down calls)
- Write up of proposal: support from grant offices to submit proposal without technical shortcomings and complete in all sections
- Multidisciplinariety (PT), communication plan, dissemination, exploitation, IP management:
- Interaction with POs and PMs: not 'last minute'; experience as evaluator to submit successful proposals (high quality experts and evaluators needed!)
- **EIC accelerator**: gender parity, team expertise (CEO, CTO, CFO), market assessment and competitors, pilot ready (technical maturity), try several times!

Italian participation in EIC 2021

Number of proposals retained for funding

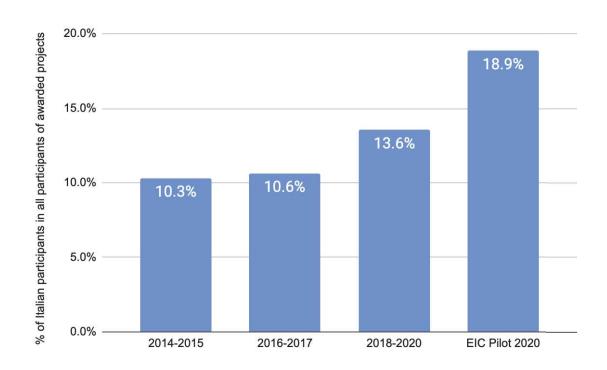




Success rate in FET OPEN, FET Proactive, Pathfinder

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	Italy	Germany	France	UK	Spain
2014-2015	49	84	70	68	37
2016-2017	87	99	120	100	81
2018-2020	285	281	273	159	254
EIC Pilot year 2020	56	37	18	15	21
EIC 2021 challenge					
-Coordinators	6	2	6	-	6
EIC 2021 Open -					
Coordinators	8	8	6	1	11

Italy has been very successful in FET and Pathfinder



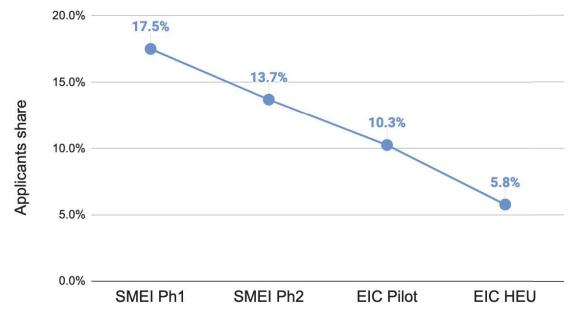
Success rate for Accelerator

	SMEI	SMEI Ph1		SMEI		EIC pilot	EIC	EIC
	Ph1	SR	SMEI Ph2	Ph2 SR	EIC pilot	SR	Accelerator	Accelerator SR
Italy	8441	6.8%	3626	3.0%	1415	0.6%	110	4.6%
Spain	7768	10.0%	4162	5.6%	1382	1.7%	218	6.4%
UK	3521	10.4%	2492	4.0%	734	1.6%	80	6.3%
Germany	2716	9.9%	1979	5.3%	1217	2.5%	162	14.2%
France	2237	11.5%	2133	4.2%	967	3.8%	181	15.5%

Italy submitted the highest number of applications, however, the success rate was always the lowest.

Big drop of submissions in the last year under HEU but success rate «increased».

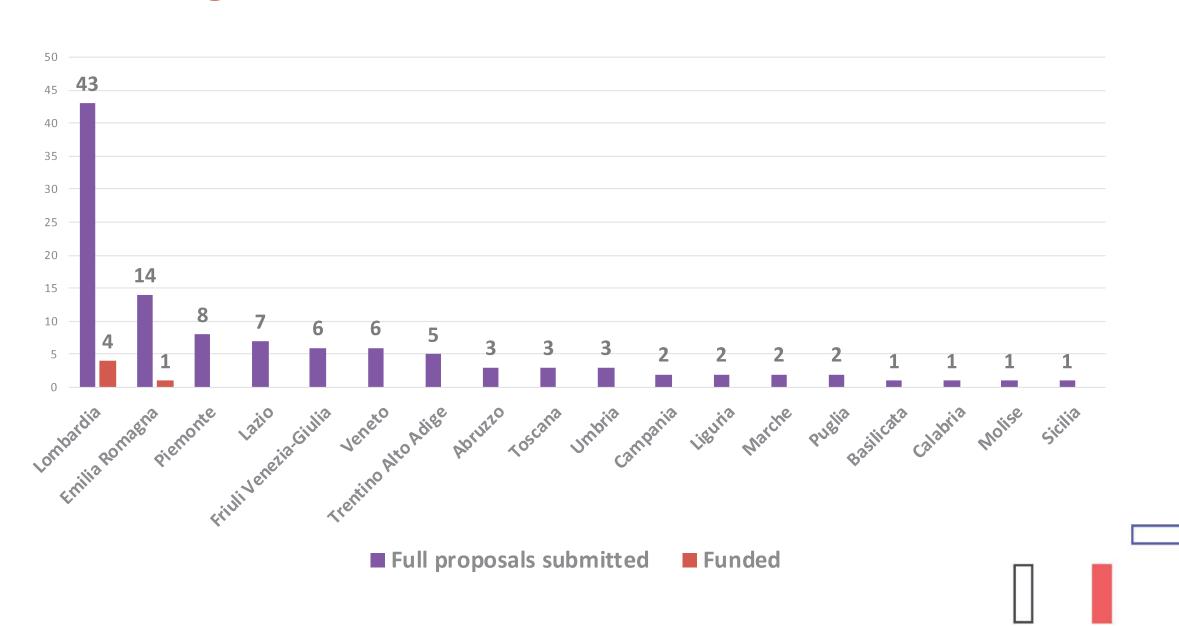
Italian Applicants share



EIC Accelerator 2021 results - Italy

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Italian Regions



Italy

excellent research not transferred into innovation and market opportunities



- Empowerment of innovation ecosystem for start ups, networking and tech transfer
- Increase investment readiness of applicants: poor financial literacy, lack of private investors on board, family-owned companies not interested in equity
- Most Accelerator winners are already generating revenues with solid organizational structure and team, ready to scale-up. This is rare in Italian startups.
- Improve Pitching, project idea selling, IP management, awareness of position in the global market and trends
- Venture studios: a fast spreading phenomen, to scout in the research/academic field for entrepreneurial projects
- Role of academia:

'scientist entrepreuners', innovation management in PhD programmes outreach of private investors by startups to learn how to pitch and receive valuable feedback, pitch events and competitions to stimulate entrepreneurial attitude



Thank you!

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