

Proposal Evaluation Form

	<p>EUROPEAN COMMISSION</p> <p>Horizon 2020 - Research and Innovation Framework Programme</p>	<p>Evaluation Summary Report - step 2</p>
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Call: H2020-EIC-SMEInst-2018-2020-3
Type of action: SME-2b
Proposal number: 947084
Proposal acronym: BeCrop
Duration (months): 18
Proposal title: SMART MICROBIOME-BASED PLATFORM FOR THE EARLY DETECTION OF BIOLOGICAL THREATS IN AGRICULTURE
Activity: EIC

N.	Proposer name	Country	Total Cost	%	Grant Requested	%
1	BIOME MAKERS SPAIN SL	ES	2,442,726.25	100.00%	1,709,908.38	100.00%
Total:			2,442,726.25		1,709,908.38	

Abstract:

Biome Makers is an innovative biotech company founded in 2015 by two well-recognized Spanish entrepreneurs, based in both Spain (14 employees) and U.S. (6 employees). We were named one of the Most Innovative Startups at the AgFunder Innovation Awards and Worldwide Agripreneur of 2019 in the future Agro Challenge. By combining DNA Sequencing technologies to profile the whole spectrum of microbes populating in the soils and proprietary Artificial Intelligence, we are using ecological computing algorithms to understand this complex network of microorganisms. The final goal is to provide insights and innovative metrics measuring soil bioactivity to improve agricultural yields and lower its environmental impact. Biome Makers have developed the first patented smart soil microbiome-based platform with a unique database of more than 5,000 soil samples from 20 different countries worldwide. In this context, BeCrop® rises as an innovative product that will provide a detailed snapshot of the health status of crop soils, by giving metrics about crop diseases risks, general biodiversity, an nutritional shortcomings, through the identification of the whole soil microbiome (the known +67K microbial species but also the unknown) with only a soil sample per ha. BeCrop® is the direct evolution of our system WineSeq®, developed by Biome Makers. WineSeq® is the first and the only intelligent platform designed for the wine sector for the characterization and comparison of the microbial communities that influence the quality and the organoleptic properties of wine, through a genomic NGS tool. In this context, the development of BeCrop® relies on the need to develop a complete soil microbiome diagnosis and microbial interactions understanding to identify potential microbial biomarkers to measure the health and quality of soils and, thus, to predict disease threats, functional bioactivity, as well as providing practical ag-input recommendations into a near future.

Evaluation Summary Report

Evaluation Result

Status: A

Form information

Evaluation Result:
 - Status A = Funded
 - Status B = Not Funded

Indicative Appraisal Scale per Sub-Criterion:
 - Very Good to Excellent (4.5 - 5)
 - Good to Very Good (3.5 - 4.49)
 - Fair to Good (2.5 - 3.49)
 - Insufficient to Fair (1.5 - 2.49)
 - Insufficient (0-1.49)
 * mandatory fields

Step-2 Jury Score

Status: A

Disclaimer: The comments below refer to the jury's assessment based on the interview.

Implementation: Team and financing

**Does the team have the capability and motivation to implement the innovation proposal and bring it to the market?
 Is the company faced with the impossibility to leverage sufficient investment from the market due to the level of financial risks or existing market failure? In addition, for blended finance request, is the company deemed 'non-bankable' by the market in view of the activities to be developed?**

*The team is motivated, experienced, knowledgeable and ambitious yet also realistic.
 The stock option for employees is in place to motivate the team.
 Even though the company has raised equity investment for the first product, the grant is needed to bridge the gap to unlock the next funding round.*

Impact: Commercial strategy and scale-up

Are the business model and commercialization strategy well thought through? How sound are the financial planning and projections?

Has the innovation the potential to scale-up the applicant company? Have the financial needs to ensure the company's success adequately assessed?

The financial planning is ambitious and backed by evidence of conservative market penetration. The company could also consider technology licensing as a commercial strategy option. The chosen commercial strategy is coherent with the planned reinforcement of the sales team. The business is highly scalable.

Excellence: The feasibility of the idea

Does the innovation – through its degree of novelty or disruptiveness – have the potential to create a new market or significant impact in existing ones? Is the timing right for this innovation (i.e. feasibility, market readiness)?

The company is digitalising the soil biology, which is an innovative approach to soil management and sustainable agriculture at large. The timing is right to disrupt the market and stay ahead of US competitors.

Technology Readiness Level (TRL):

Does any of the Work Packages contain any activity above TRL 8?

Pursuant to the eligibility criteria for the EIC Accelerator Pilot, proposals with a TRL (or its equivalent for non-technological innovation) above 8 will only be funded by blended finance option. Grant component will only apply to the activities with a TRL (or its equivalent for non-technological innovation) of 6 to 8.

Work Packages financed by grant that includes activities above TRL8 in the proposal are:

Work Package 1

No

Work Package 2

No

Work Package 3

No

Work Package 4

No

Work Package 5

No

Financial Proposal

Grant Funding:

Requested

1709908.38

Proposed (enter digits only without commas or periods, i.e. 200000 not 200.000,00)

1709908.38

Equity Funding:

Requested

Not provided

Proposed (enter digits only without commas or periods, i.e. 200000 not 200.000,00)

Not provided

Please provide justification for the final amount including reasoning for any changes from the requested to the proposed amounts:

Not provided

Step-1 Overall Consensus Score (Threshold 13/15):

Score:

13.75

Operational Capacity

Status: **Operational Capacity: Yes**

Criterion 1 - Impact

Score: **4.65** (Threshold: 4/5.00 , Weight: -)

The following aspects have been taken into account:

Convincing description of substantial demand (including willingness to pay) for the innovation; demand generated by new ideas, with the potential to create new markets, is particularly sought after.

Total market size envisaged.

Very Good to Excellent (4.5 – 5)

Convincing description of targeted users or customers of the innovation, how their needs have been addressed, why the users or customers identified will want to use or buy the product, service or business model, including compared to what is currently available if anything at all.

Very Good to Excellent (4.5 – 5)

Realistic and relevant analysis of market conditions and growth-rate, competitors and competitive offerings, key stakeholders, clear identification of opportunities for market introduction, market creation or disruption (e.g. via new value-chains).

Good to Very Good (3.5 – 4.49)

Realistic and relevant description of how the innovation has the potential to scale-up the applicant company (or companies). This should be underpinned by a convincing business plan with a clear timeline, and complemented, where possible, by a track-record that includes financial data.

Good to Very Good (3.5 – 4.49)

Alignment of proposal with overall strategy of applicant SME (or SMEs) and commitment of the team behind them. Demonstration of need for commercial and management experience, including understanding of the financial and organisational requirements for commercial exploitation and scaling up (and - Phase 2 only) as well as key third parties needed.

Very Good to Excellent (4.5 – 5)

Realistic and relevant strategic plan for commercialisation, including approximate time-to-market or deployment. Activities to be undertaken after the project.

Very Good to Excellent (4.5 – 5)

European/global dimension of innovation with respect to both commercialisation and assessment of competitors and competitive offerings.

Very Good to Excellent (4.5 – 5)

Evidence of or realistic measures to ensure 'freedom to operate' (i.e., possibility of commercial exploitation), convincing knowledge-protection strategy, including current IPR filing status, IPR ownership and licensing issues. Regulatory and/or standards requirements addressed.

Very Good to Excellent (4.5 – 5)

Overall assessment of the Impact criterion:

Taken as a whole, to what extent are the above elements coherent and plausible

Very Good to Excellent (4.5 – 5)

Criterion 2 - Excellence

Score: **4.60** (Threshold: 4/5.00 , Weight: -)

The following aspects have to be taken into account.

High-risk/high-potential innovation idea that has something that nobody else has. It should be better and/or significantly different to any alternative. Game-changing ideas or breakthrough innovations are particularly sought after. Its high degree of novelty comes with a high chance of either success or failure.

Good to Very Good (3.5 – 4.49)

Realistic description of the current stage of development (TRL 6 or something analogous for non-technological innovations) and clear outline of the steps planned to take this innovation to market.

Note: Please see [part G of the General Annexes](#)

Very Good to Excellent (4.5 – 5)

Highly innovative solution that goes beyond the state of the art in comparison with existing or competing solutions, including on the basis of costs, ease of use and other relevant features as well as issues related to climate change or the environment, the gender dimension, any other benefits for society.

Very Good to Excellent (4.5 – 5)

Very good understanding of both risks and opportunities related to successful market introduction of the innovation from both a technical and commercial points of view. Documentation on the technological, practical and economic feasibility of the innovation.

Very Good to Excellent (4.5 – 5)

Objectives for the innovation proposal as well as the approach and activities to be developed are consistent with the expected impact (i.e. commercialisation or deployment resulting in company growth). Appropriate definition provided of specifications for outcome of project and criteria for success.

Very Good to Excellent (4.5 – 5)

Overall assessment of the Excellence criterion:

Taken as a whole, to what extent are the above elements coherent and plausible.

Very Good to Excellent (4.5 – 5)

Criterion 3 - Quality and efficiency of implementation

Score: **4.50** (Threshold: 4/5.00 , Weight: -)

Technical/business experience of the team, including management capacity to lead a growing team. If relevant, the proposal includes a plan to acquire missing competences, namely through partnerships and/or subcontracting*, and explains why and how they are selected (subcontractors must be selected using 'best value-for-money' principles).

Very Good to Excellent (4.5 - 5)

Availability of resources required (personnel, facilities, networks, etc.) to develop project activities in the most suitable conditions.

Where relevant, complementarity of participants in a consortium.

Where relevant, realistic description of how key stakeholders / partners / subcontractors could be involved* (subcontractors must be selected using 'best value-for-money' principles).

Where relevant, the estimated budget and the procedure planned for selecting the subcontractors are appropriate*.

NOTE: *Subcontracting is acceptable to the extent required for the implementation of the proposed activities. Subcontracting may be an essential part of the implementation of the project, but should not be a disproportionate part of the total estimated eligible costs. Subcontractors must be selected using 'best value-for-money' principles.

Very Good to Excellent (4.5 - 5)

Realistic timeframe and comprehensive description of implementation (work-packages, major deliverables and milestones, risk management) taking the company's or applicant's innovation ambitions and objectives into account.

Very Good to Excellent (4.5 - 5)

Overall assessment of the Quality and Efficiency of Implementation Criterion

Taken as a whole, to what extent are the above elements coherent and plausible.

Very Good to Excellent (4.5 - 5)

Subcontracting

N.B.: A blank section means either a positive assessment of all your subcontracting tasks or that your proposal does not foresee any subcontracting activities.

Use of human embryonic stem cells (hESC)

Does this proposal involve the use of hESC?

No

If yes, please state whether the use of hESC is, or is not, in your opinion, necessary to achieve the scientific objectives of the proposal and the reasons why. Alternatively, please also state if it cannot be assessed whether the use of hESC is necessary or not because of a lack of information.

Not provided

Scope of the proposal

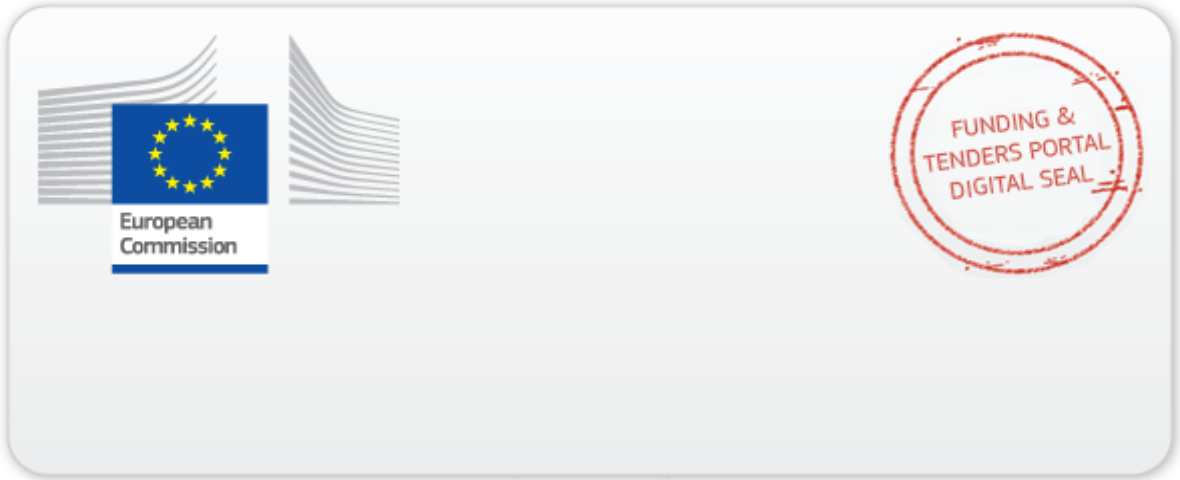
Status: **Yes**

Comments (in case the proposal is out of scope)

Not provided

Overall comments

Not provided



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