



This project is co-financed by the
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finanse edilmektedir



Technical Assistance for Turkey in Horizon 2020 Phase-II
EuropeAid/139098/IH/SER/TR

Turkey in Horizon 2020 II

Horizon 2020 SME Instrument (EIC Accelerator) –
Project Writing Camp for SMEs

Section 2: Impact

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Training Coordinator

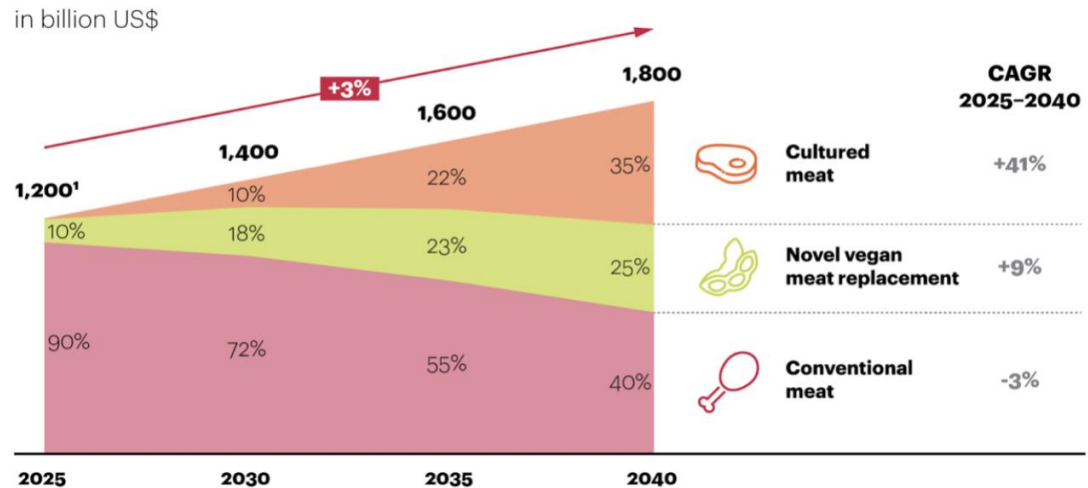


REPUBLIC OF TURKEY
MINISTRY OF INDUSTRY
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MARKET AND CUSTOMERS

- Market assessment (inc. conditions and growth rate)
- Potential customers
- Unique Selling Points
- Differentiators



MARKET ASSESSMENT: TAM SAM SOM

TAM: Total Available Market

Focus on: Total market / size

Example: **Total Agricultural Robotics Market**

SAM: Serviceable Addressable Market

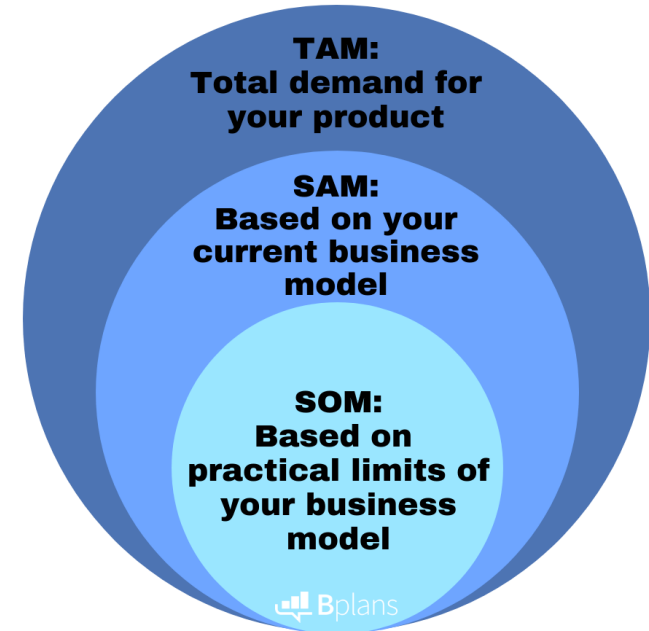
Focus on: Your own technology/ services

Example: **Total market for spraying robots** (Segment of total agricultural robotics market)

SOM: Serviceable Obtainable Market

Focus on: Which realistic market share can be obtained by myself considering: competition, trends, expected demand/forecast, countries, my sales/distribution channels and other market influences?)

Example: **My realistic goal** to sell spraying robots to farmers.



POTENTIAL CUSTOMERS

MARKET SIZE

	Avg Farm Size	Number of farm holdings			Utilised agricultural area in ha			Standard output (EUR)			Livestock units on holdings with livestock		
		All Farms	Very small & Small Farms	Large Farms	All Farms	Very small & Small Farms	Large Farms	All Farms	Very small & Small Farms	Large Farms	All Farms	Very small & Small Farms	Large Farms
Spain	24,1	965.000	758.000	52.000	23.300.000	3.559.000	12.939.000	35.979.000	16.129.000	9.049.000	14.502.000	7.409.000	3.051.000
Ireland	35,5	140.000	60.000	5.000	4.959.000	658.000	1.152.000	5.013.000	652.000	887.000	5.929.000	899.000	795.000
Serbia	4,5	650.000						5.300.000			1.800.000		
France	58,7	472.000	202.000	98.000	27.739.000	1.164.000	17.170.000	56.914.000	10.977.000	24.481.000	21.871.000	2.787.000	9.741.000
Germany	58,6	285.000	128.000	35.000	16.700.000	1.257.000	9.514.000	46.252.000	7.301.000	20.440.000	18.407.000	3.938.000	6.802.000
Italy	12	1.010.000	880.000	15.000	12.099.000	4.171.000	3.259.000	43.794.000	20.066.000	7.608.000	9.374.000	3.340.000	1.991.000
The Netherlands	27,4	67.000	38.000	2.000	1.848.000	255.000	369.000	20.498.000	9.216.000	2.066.000	6.602.000	2.983.000	446.000
EU-28	16	10.841.000	9.353.000	337.000	174.614.000	32.276.000	90.966.000	331.105.000	107.887.000	110.792.000	130.174.000	40.046.000	40.609.000

Note: Very small and small farms are defined by a utilised agricultural area <20 ha; large farms are defined by a utilized agricultural area with over 100ha

Figure 5 Market Size Statistics

MARKET SEGMENTATION

Customer Segment	Solution	Functionality	Pricing Policy	
CS-A1: small dairy farms	Stand-alone device & IT Platform	Test Milk Quality Instantly & Remotely	Device € 250	Platform € 100 Yearly Subscription
CS-A2: Medium and large-sized farms	Stand-alone device & IT Platform	Test Milk Quality Instantly & Remotely	Device € 250	Platform € 100 Yearly Subscription
CS-A2: Medium and large-sized farms	Live measurement Unit & IT Platform	Integrate to milking system	Device € 350	Platform € 150 Yearly Subscription
CS-B: Dairy industry	Stand-alone device & IT Platform	Test Milk Quality Instantly & Remotely	Device € 250	Platform € 1.500 Yearly Subscription
CS-C: Milking Systems Industry (AMS)	Live measurement Unit & IT Platform	Integrate to their milking systems and resale	Device € 300	Platform € 100 Yearly Subscription



UNIQUE SELLING POINTS AND DIFFERENTIATORS

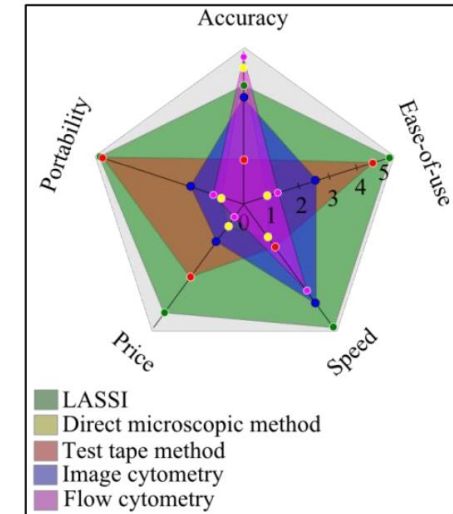
“A unique selling proposition or point (USP) refers to the **unique benefit** exhibited by a company, service, product or brand that **enables it to stand out from competitors**. The unique selling proposition must be a feature that highlights product benefits that are **meaningful to consumers**.

Unique value proposition of LASSI:

LASSI combines the advantages of the state-of-the-art solutions into a disruptive innovative solution. **High accuracy and high speed** are accomplished by using fluorescent flow cytometry, the fastest and alongside direct microscopy, the most accurate method for determining the SCC. **Ease-of-use** is achieved by automation of the sample preparation and cleaning processes. **Low price** is achieved with innovative design and use of readily available components to create a novel device. Additionally, LASSI handheld SC counter is **portable** due to its small size and it is the first handheld SC counter based on flow cytometry.

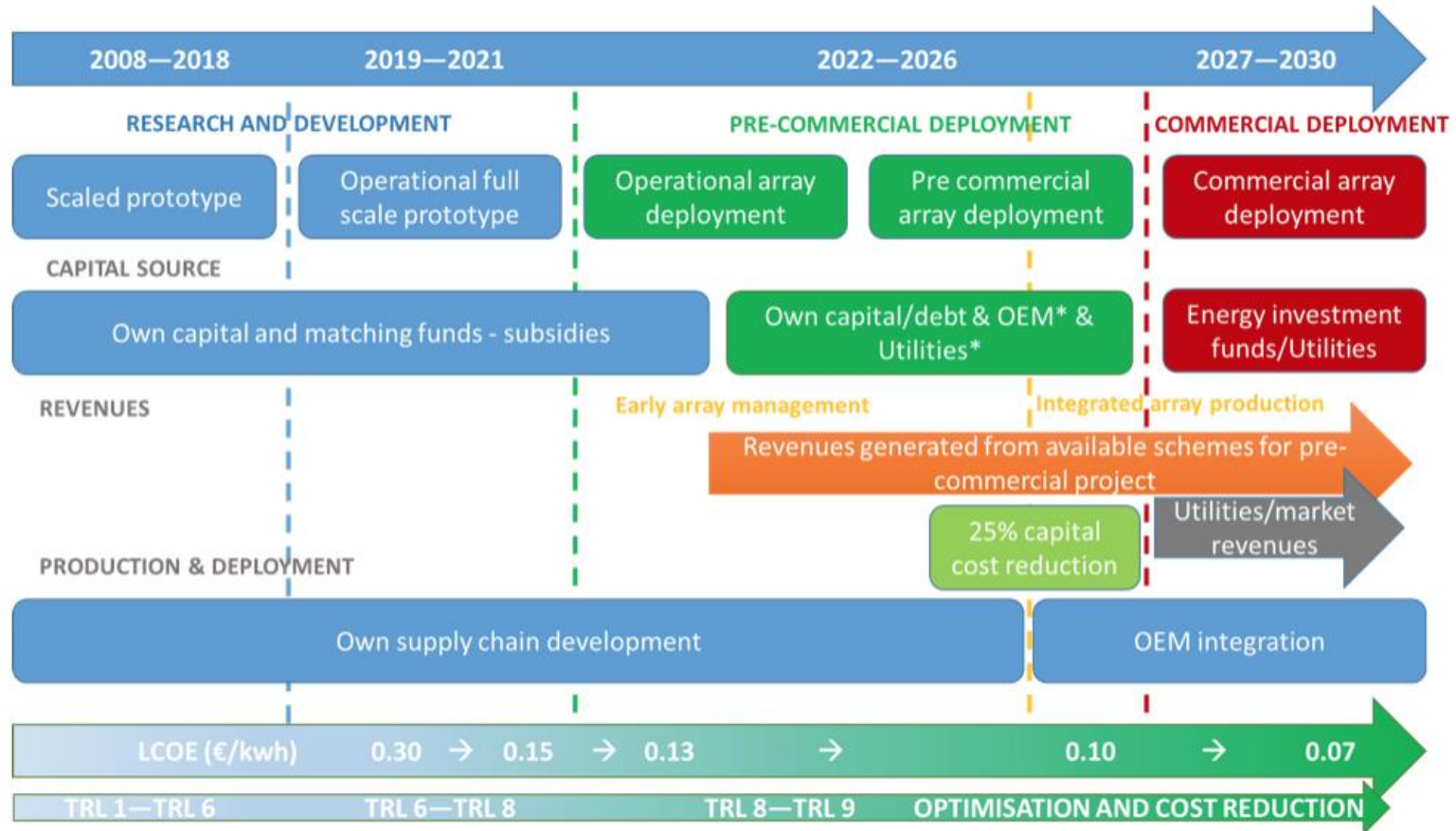
Table 4: Overall characteristics of existing solutions

	Accuracy	Ease-of-use	Speed	Price	Portability
Test tape method	Low	Yes	Slow	Low	Yes
California Mastitis Test (CMT)	Low	Yes	Slow	High	Yes
Automatic counting based on image cytometry technology	High	Moderate	Fast	High	Yes
Automatic counting based on flow cytometry technology	High	No	Fast	High	No
LASSI	High	Yes	Fast	Low	Yes



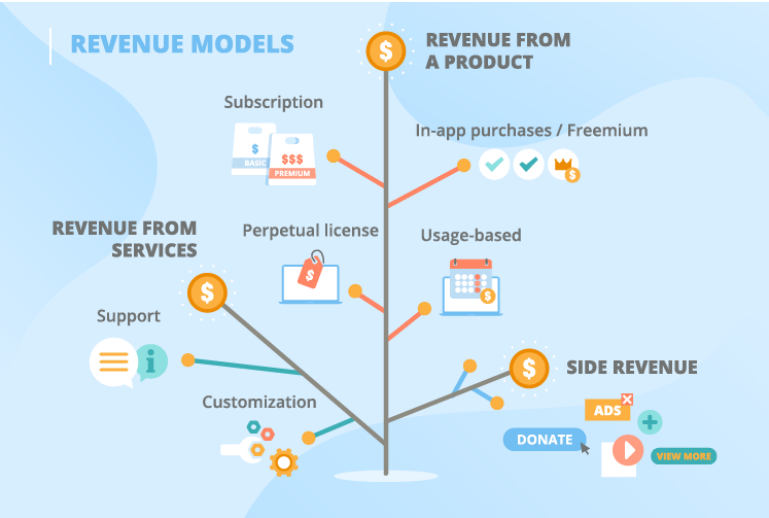
- Strategy for commercialization
- Regulatory approvals/compliance needed
- Time to market/deployment
- Revenue model

COMMERCIALIZATION STRATEGY



REVENUE MODEL

A revenue model is a framework for generating revenues. It identifies which **revenue source** to pursue, what **value** to offer, how to **price** the value, and **who pays** for the value.



SALES	Year 1
CS-A1: Small farmers	
P1: Stand Alone Device & IT Platform (Sales)	180.000,00 €
Number of new customers	300
Number of stand alone devices sold	600
Number of IT Platform Subscriptions	300
CS-A2: Medium and large-sized farms	
P1: Stand Alone Device & IT Platform	337.500,00 €
Number of new customers	250
Number of stand alone devices sold	1.250
Number of IT Platform Subscriptions	250

REVENUE MODEL – THE CASE FOR HARDWARE STARTUPS

HARDWARE AS A SERVICE

Sale or lease of a device that only works when a recurring fee is paid



Meraki (acquired by Cisco)
“IT guy in a box”

HARDWARE-ENABLED SERVICES

Same as previous, but service is optional



Meural
Digital art frame

CONSUMABLES

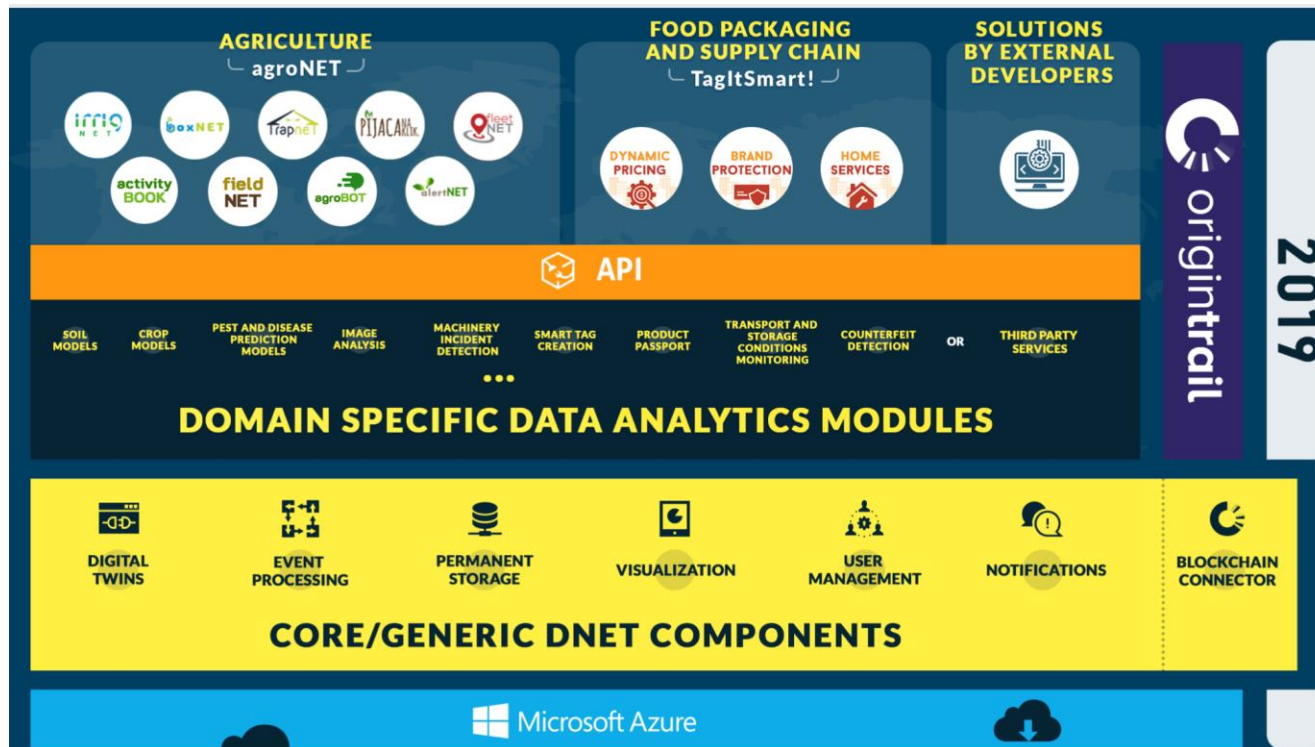
One-time sale of hardware, continual sale of consumables



Kindle
Amazon earning from content

EXTERNAL STRATEGIC PARTNERS

- Key partners required to develop and commercialise your innovation,
- What their roles/competences are
- To what extent they are already committed and incentivized



LETTERS OF INTENT

From relevant organizations
Custom (explain their interest in the letter)
Signed by decision makers
Scanned copy in Annex 3



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26th February 2018

To Whom It May Concern:

As a Head of Department for insurance in Agriculture at Generali Osiguranje Srbija ADO, I am greatly interested in the activities undertaken by the BEACON project submitted by KARAVIAS, in response to the topic DT-SPACE-01-EO-2018-2020 – "Digitising and transforming European industry and services (DT)" of the Horizon 2020 Programme.

The proposal aims to deliver agricultural insurance services into a commercial service package that will enable insurance companies to alleviate the effect of weather uncertainty when estimating risk for Agricultural Insurance products, reduce the number of on-site visits for claim verification, reduce operational and administrative costs for monitoring of insured indexes and contract handling, and design more accurate and personalised contracts by using Earth Observation data and weather intelligence, matching them with Blockchain technology and Smart Contracts applications.

As we are interested to supplement our services with advanced insurance solutions, BEACON will give us the opportunity to use current, historical and forecast EO and meteorological data, so that we enhance the estimation of the undertaken risks and crop losses and design the premiums with greater accuracy.

For the reasons above I am writing to confirm our interest in collaborating with BEACON, helping to define requirements, test and validate the proposed solution as well as being able to make use of the envisaged solution.

Best regards,


Mr. Nenad Petrovski
General Osiguranje Srbija ADO

Aktuelna adresa društva za osiguranje GENERALI OSIGURANJE SRBIJA, Beograd, Vladimira Popovića 8
Matični broj 11108319
PIB 100001175
Društvo pripada Generali grupi osiguranja u Registar osiguravajućih grupa Italije koj vodi IFASS



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INTELLECTUAL PROPERTY

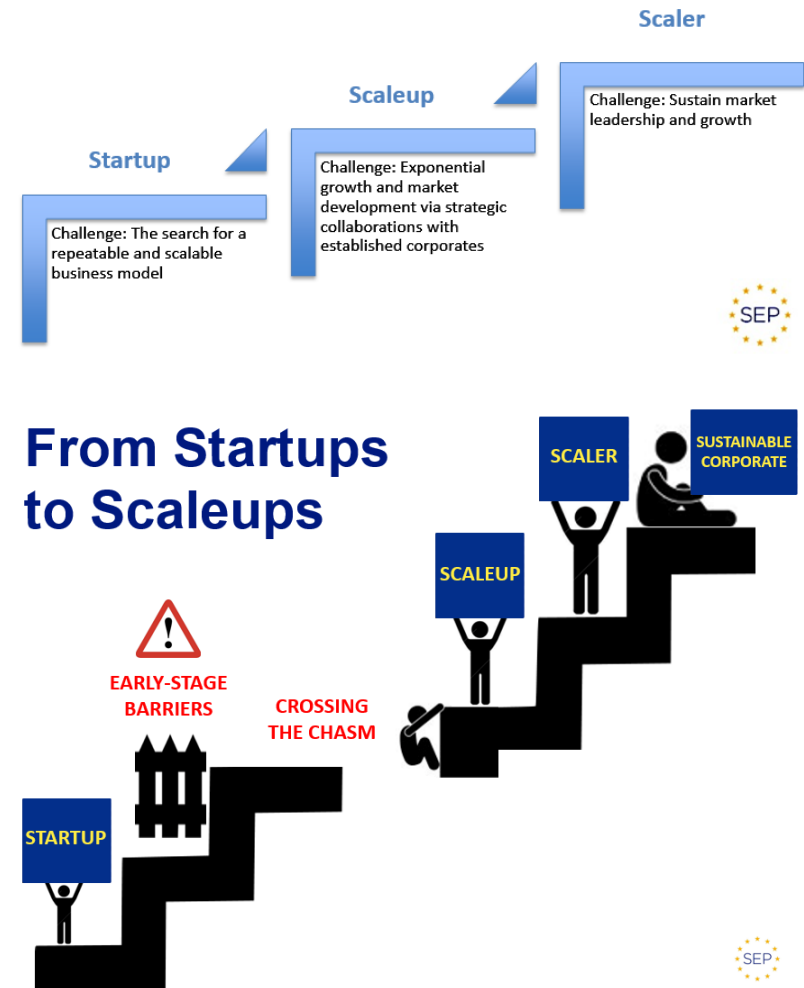
- Specify your Intellectual Property Rights in relation to your innovation.
- What are the key assumptions
- What measures are needed to ensure freedom to operate (e.g. IP, etc.)?

Broader area	Patent	Description
SCC detectors	US2015253302 (A1)	Based on microflow cytometry and impedance measurement. Static microchannels suffer from clogging and fabrication tolerances. Market potential questionable.
	US2014139834 (A1)	Approximation based on two-variable equation. Not very precise.
	CN102819765 (A)	Image cytometry based counter.
	US2012310541 (A1)	Apparatus for dielectric spectroscopy of milk. Not ideal for determining SSC.
	CN1789983 (A)	Colorimetric method of detecting somatic cells in liquid phase. Cumbersome sample preparation.
	US6307362 (B1)	Somatic cell analyser based on detection of sodium ions. Unreliable technique.
Methods for detection	NZ608803 (A)	A method for discrimination of cells, no device is discussed.
	NZ580123 (A)	An indirect method, based on detection of oxygen levels in milk.
	JP2010230363	A method based on active oxygen detection. Market take-up unlikely.
	WO2010079469 (A1)	Method based on CMT. There are commercially available solutions using this method. Accuracy is not very high.
	WO2005018414 (A2)	A method based on detection of nucleic acid in milk.
	US2008057596 (A1)	Colorimetric method of detecting somatic cells, similar to PortaSCC, but in liquid phase.

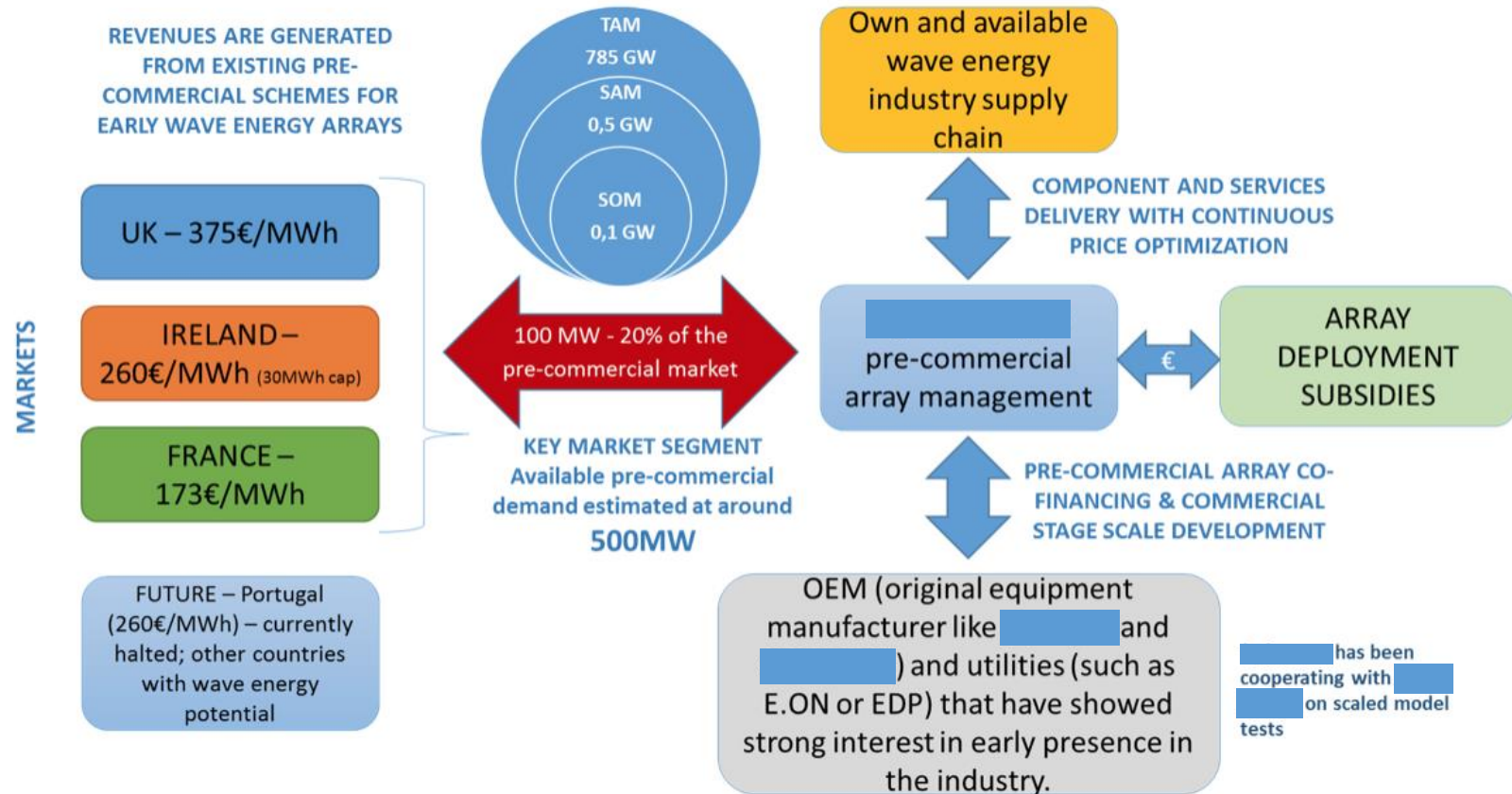


SCALE UP POTENTIAL

- How you intend to scale up your innovation, including the potential to develop new markets
- What the impact of the innovation on the growth of the company will be.



SCALE UP POTENTIAL - NEW MARKETS



IMPACT ON GROWTH OF THE COMPANY



	Current Situation	After KATANA
Market Share	<1% of Serbian market	3% of Serbian market 1 st marketplace for PA solutions in Europe
Customer base	Private companies: Delta Agrar, Plantaže, Victoria Group and MK Group Public sector organizations: Regional Government of Vojvodina (Dept. Of Agriculture) and the Waters of Vojvodina organization	PA solutions providers from all over Europe (500+ customers)
Local Business Portfolio	4 paying customers, all in Serbia	+10 paying customers in Serbia
International Business Portfolio	None	500 paying customers in Europe
No. of Employees	3	12
Business Activities	ICT Technologies for Agriculture	ICT Technologies for Agriculture
Potential Turnover Increase (%) and (k€)	-	+150% +750k EUR



KEY PERFORMANCE INDICATORS

KPIs for the expected outcomes and the related success criteria for the innovation (i.e. the technological, practical, economic, market)

Current values and the target values at specified dates (breakeven point, etc.).

Key Performance Indicators (KPIs)	Target values
Project Success Indicators	
% of outage due to changes (planned unavailability)	<3%
% of actual uptime	>97%
AgI Process cycle-time decrease (%)	60%
BEACON market readiness	
% of automation workflow achieved on AgI company level	90%
% of automation workflow achieved on AgI supply chain level	80%



BROADER IMPACT

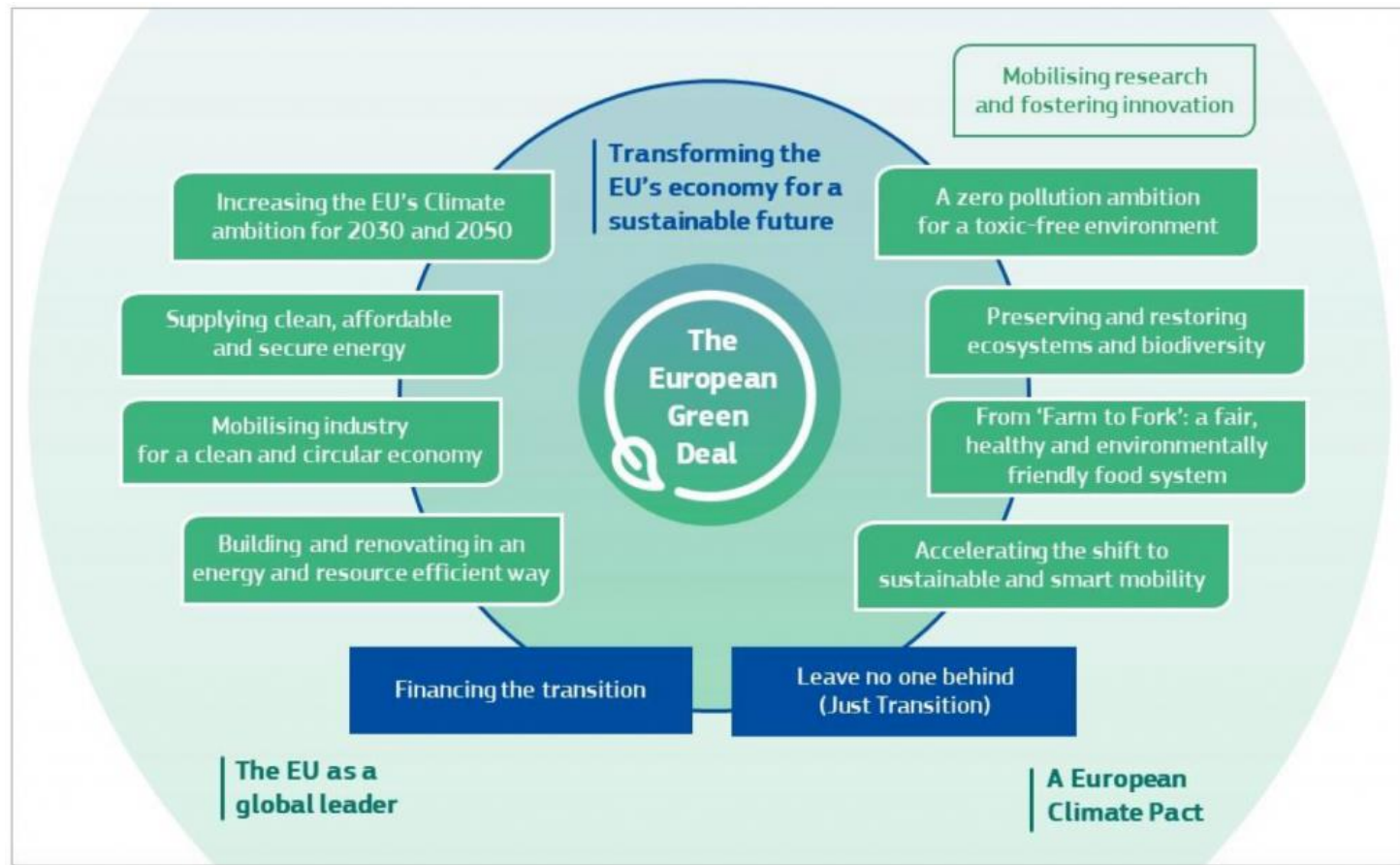
- Societal,
- Economic,
- Environmental
- Climate impacts

be if your innovation if successfully commercialised?

Under this framework MOZART contributes in high priority issues in the EU Environmental Agenda related to agriculture, as reflected in various legislative documents such as the **Framework Directive on the Sustainable Use of Pesticides (2009/128/EC)**, which demands all Member States to adopt National Action Plans setting quantitative objectives, targets, measures and timetables to reduce risks and impacts of pesticide use on human health and the environment. Other relative EU legislative and/or institutional initiatives in the field include **Directive (2009/127/EC) with regard to machinery for pesticide application** (for the first time, the Directive will also cover certain environmental protection requirements) and of course the **Common Agricultural Policy (CAP)** and more specifically the cross compliance scheme that couples subsidies to farmers with environmental criteria.



GOOD FOR BUSINESS = GOOD FOR ENVIRONMENT



CRITERIA

Convincing specification of the potential to create new markets or create market disruption together with a convincing specification of the **substantial demand** (including willingness to pay) for the innovation. The total **market size** envisaged.

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 **comparison with what is currently available, if anything at all.**

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).



CRITERIA

A realistic and relevant description of how the innovation has the **potential to scale-up the applicant company**. 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. *The 'potential to scale-up' aspect and associated financial needs are closely examined if you are invited to present your proposal*

Alignment of proposal with overall strategy of applicant SME 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** as well as key third parties needed.

Realistic and relevant **strategic plan for commercialisation**, including approximate time-to-market or deployment. Activities to be undertaken after the project. *The 'commercial strategy' aspect is closely examined if you are invited to present your proposal.*



CRITERIA

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

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.

Taken as whole, to what extent the 'Impact' elements are **coherent and plausible**.





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Teşekkür ederim!
Thank you!



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COMPETITIVE
SECTORS
PROGRAMME



TÜBİTAK