Smart Anything Everywhere Initiative

Area 3: Advanced micro-electronics components and Smart System Integration Project: H2020–No 761809

diatomic

Digital Innovation Hubs boosting European Microelectronics Industry

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Open Calls Report (final version)

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Abstract:

The deliverable D4.5 – Open Calls Report (final version) is a public report on the second DIATOMIC Open Call for Application Experiments, with the following important dates: published 1st November > closed 31st January > evaluation until 30th March > contracting until 30th April.

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The DIATOMIC Consortium is the following:

Participant number	Participant organisation name	Short name	Country
01	INTRASOFT International S.A.	INTRA	BE
02	F6S NETWORK LIMITED	F6S	UK
03	BioSense	BIOS	SRB
04	Synelixis Solutions	SYN	EL
05	Instituto Pedro Nunes	IPN	PT
06	Fraunhofer IPA	IPA	DE
07	InoSens	INO	SRB
08	Libelium Comunicaciones Distribuidas SL	LIB	ES
09	FastTrack	FASTT	PT

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Date	Issue	Author/Editor/Contributor	Summary of main changes
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16/04/2019	FF	Charalampos Ipektsidis (INTRA)	Final version

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List of Abbreviations

AME/SSI	Advanced Microelectronics and Smart Integration Systems
CC	Competence Centres
CPPS	Cyber Physical Production System
DIH	Digital Innovation Hub
EC	European Commission
EU	European Union
I4MS	ICT Innovation for Manufacturing SMEs
RTD	Research and Technological Development
RTO	Research and Technology Organization
SAE	Smart Anything Everywhere
SME	Small and Medium-sized enterprises (including also mid-caps)
TRL	Technology Readiness Level

Executive Summary

This document provides a full set of information regarding the second Open Call for Proposals run by the DIATOMIC project – from the publication date of the call until the final selection/contract with third-parties. At the same time it presents the updates compared to Open Call #1, which were based on the projects experience and EC Review recommendations.

1 Introduction

DIATOMIC seeks to fund and accelerate solutions that apply electronic components, sensors, smart objects and systems across health, agrifood and manufacturing sectors. Based on the DIATOMIC Open Call #2 Guide for applicants, DIATOMIC targets applications from small consortia (2-3 partners) from H2020 eligible countries and offers up to €200.000 equity free funding, advanced technology testbeds, as well as experts providing mentoring and coaching.

The goal is for applicants to propose the development of novel products/processes along with relevant experiments making use of AME and SSI technologies, quantifying the benefits of digitization to further stimulate digital thinking.

The innovation, inspiration and productivity of tech adopter/user will be used as an evaluation criterion to ensure bottom-up application design. Proposals with cross-border aspects or bringing private funding to reduce the DIATOMIC funding rate are favoured.

As compared to Open Call #1, and based on our experience and EC Review recommendations, the following changes have been made:

1. In order to further push the involvement of Competence Centres (CC) in DIATOMIC Digital Innovation Hubs (DIH) and in the selected projects, the inclusion of at least one CC in each sub-project consortium has been included as eligibility criterion.
2. Industrial organizations or research institutions that have been already awarded a subcontract in Open Call #1 were automatically excluded from participating in an Open Call #2 proposal
3. There has been a request of EC to increase the number of beneficiaries across H2020 I4MS (ICT Innovation for Manufacturing SMEs) and SAE (Smart Anything Everywhere) and enlarge the ecosystem with new members. As such, a new eligibility criterion has been inserted ensuring that the maximum funding that may be allocated to any individual legal entity via open calls from any H2020 I4MS or SAE project should not exceed the €100.000. To achieve this evaluation check, DIATOMIC has received assistant from the EC to cross check if an organization that has been shortlisted for getting funding under the DIATOMIC open call #2 has already received funding via an open call from any H2020 I4MS and SAE project. The aim is to ensure that no funding is allocated to a subproject in case an entity (coordinator or member of the consortium) exceeds the above threshold (including any DIATOMIC potential award).
4. There has been no private funding request in DIATOMIC Open Call #2. As it has been shown in Open Call #1 many participants were claiming that experiments are partially funded by their own funds. However, this claim was lowering the possibility a start-up to enter the DIATOMIC ecosystem.

The full process of the DIATOMIC Open call #2 is presented in the following picture:

Figure 1 DIATOMIC Open Call #2 Timeline

This document presents the implemented activities and outcomes along the full process.

The DIATOMIC Open Call #2 has been published on the 1st of November 2018 and was closed on the 31st January 2019 at 17:00 CEST (Brussels time), lasting in total three months. In total 175 proposal have been submitted to the call. From them 18 proposals have been selected for on-line interviews and 9 have been finally selected for funding.

The selected applications will receive a total funding of 1,610k EUROs. The consortia consist of 26 legal entities: 14 SMEs and 12 Competence Centres/Research Institutions (one of them being also an SME) from 10 countries. In total 46 legal entities (31 SMEs and 14 CCs) and 17 experiments have been selected via the Open Calls #1 and #2.
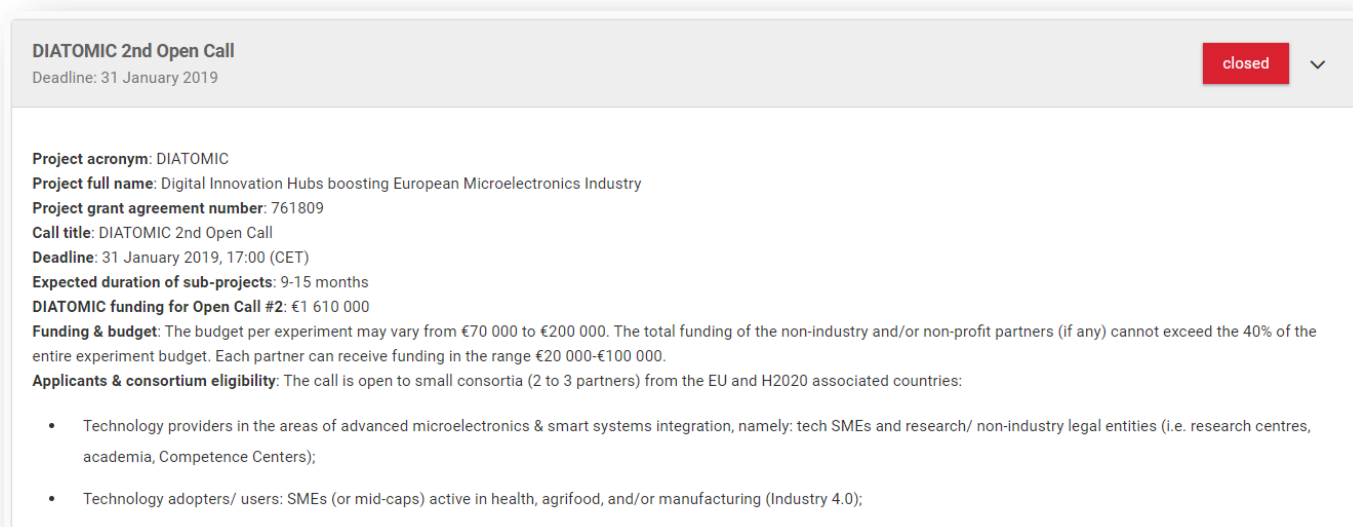
This document presents the implemented activities and outcomes along the full process.

2 Open Calls

2.1 Publication and Communication

The DIATOMIC Open Call #2 was officially announced on DIATOMIC website and F6S platform on November 1st, 2018. A dedicated page was set-up on F6S with the application form for DIATOMIC Open Call #2. Previously, an online discussion group[1] was started on F6S in order to provide a forum for the exchange of information.

Further information regarding the call, and documentation were available on the DIATOMIC website[2] and European Commission portal[3] (tab: *Open Competitive calls and calls for third parties*).

DIATOMIC 2nd Open Call
Deadline: 31 January 2019   closed

Project acronym: DIATOMIC
Project full name: Digital Innovation Hubs boosting European Microelectronics Industry
Project grant agreement number: 761809
Call title: DIATOMIC 2nd Open Call
Deadline: 31 January 2019, 17:00 (CET)
Expected duration of sub-projects: 9-15 months
DIATOMIC funding for Open Call #2: €1 610 000
Funding & budget: The budget per experiment may vary from €70 000 to €200 000. The total funding of the non-industry and/or non-profit partners (if any) cannot exceed the 40% of the entire experiment budget. Each partner can receive funding in the range €20 000-€100 000.
Applicants & consortium eligibility: The call is open to small consortia (2 to 3 partners) from the EU and H2020 associated countries:

- Technology providers in the areas of advanced microelectronics & smart systems integration, namely: tech SMEs and research/ non-industry legal entities (i.e. research centres, academia, Competence Centers);

- Technology adopters/ users: SMEs (or mid-caps) active in health, agrifood, and/or manufacturing (Industry 4.0);

Figure 2 DIATOMIC Open Call #2 Publication at EC portal

To support individual entities to find potential partners (other SMEs and competence centers) to work on a common application, we have set up the Brokerage service and application on F6S[4].

In parallel, DIATOMIC one-stop portal, has been serving as an online marketplace for innovation in microelectronics & smart system integration technologies. Namely, through the portal, startups/SMEs could look for potential partners (Competence Centers) for their application experiment based on lacking competencies – both technological and business related. The one-stop shop platform was promoted through DIATOMIC online channels, SAE Newsletter[5], CORDIS, as well as through partners' networks.

Ever since Open Call #1, DIATOMIC has been engaged in **a heavy online campaign** to promote funding opportunities and engage SMEs/ midcaps as well as Competence Centers in our DIHs ecosystem. Until April 9th 2019, more than **433 Competence Centres and SMEs/MidCaps** have joined DIATOMIC DIHs via our one-stop shop platform, namely: 159 at the Health DIH, 137 at the Advanced Manufacturing DIH and 137 at the Agrifood DIH.

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1 https://www.f6s.com/diatomicopencall2/discuss

2 https://diatomic.eu/index.php/open-calls/

3 http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/other/competitive.html#collapseNinety

4 https://www.f6s.com/diatomicsmesbrokerageapplication/about

5 https://smartanythingeverywhere.eu/2018/03/23/diatomic-launches-a-pan-european-one-stop-shop-to-facilitate-microelectronics-based-innovation-in-health-agrifood-and-manufacturing/
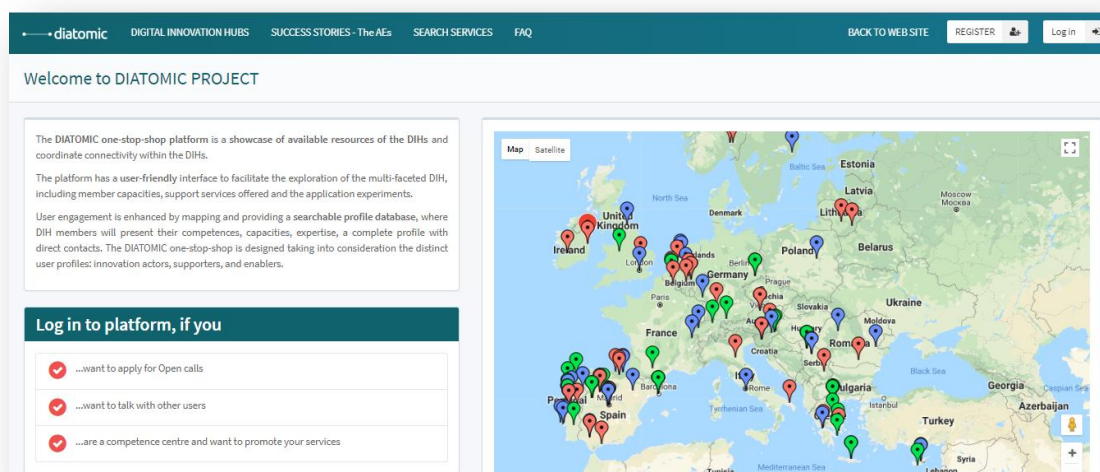
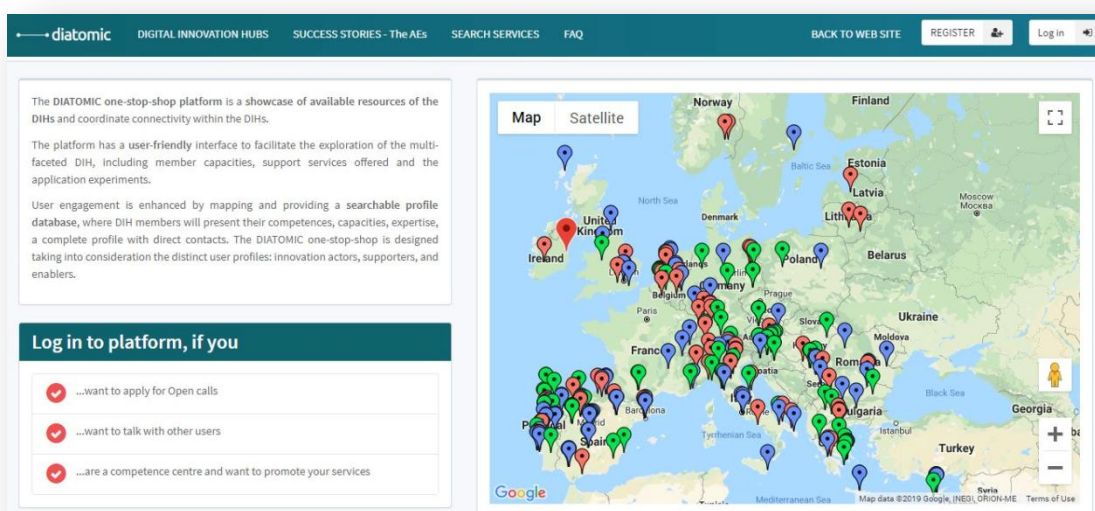**Figure 3 DIATOMIC one-stop shop portal after open Call #1**

Figure 4 DIATOMIC one-stop shop portal after open Call #2 (available at https://diatomic.eu/DiatomicPortal/)

Following best practices established during Open Call #1, DIATOMIC continued with PR outreach/ link building activities in the frame of Open Call #2 as well. Relevant channels include (yet, not limited to):

- SAE & DIATOMIC 'sister projects' within SAE; I4MS;
- EEN – incl. local Network contact points (e.g. EEN Hamburg/ Schleswig-Holstein, EEN Latvija LIAA, EEN Noord-Nederland, EEN Portugal, EEN Serbia, Enterprise SIPH) as well as NCPs (e.g. NCP Bosnia & Herzegovina);
- Professional networks, e.g. INSME, InnovateUK, Ideal-ist, FFG;
- Tech startup portals and business magazines such as startupper.gr, epixeiro.gr, eKapija, startit, Startupitalia, Businessin.hr, The Startup Canvas, Superfounders, etc.
- Cluster organizations and industry associations in health, agrifood, manufacturing and ICT sectors, starting from the European Cluster Collaboration Platform: AAL Forum, CAP Digital, Creating Health, Systematic ParisRegion, Vojvodina ICT Cluster, Cool Silicon e.v, Minalogic;

- Past/ongoing FP7/H2020 accelerator projects, including H2020 KATANA, IOF2020, IRSUS (Startup Europe for Growth and Innovation Radar), IoT4Industry, Hub4Manuval, PULSE.

With respect to **event marketing/ promotion**, highlights during DIATOMIC Open Call #2 include:

- DIATOMIC & IRSUS Training Webinar: Cascade funding (August 2018), DIATOMIC has been invited to present its funding opportunities for microelectronics-based smart innovations at a webinar organized by H2020 IRSUS project. This event also allowed us to network with parallel EU projects and explore synergies (Soft-Landing Missions, Synchronicity, 5GINFIRE).
- Cascading Grant Arena – Paris, an H2020 info-session organized jointly by Pôle Systematic, Minalogic, Cap Digital, and Pôle EMC2. The event allowed us to build bridges with the French digital ecosystem. The full recording of the session is available here.
- DIATOMIC Roadshow, hosted by IPN (September, October, November) – *a series of networking sessions* **across Portugal and Spain**. IPN engaged with some of the best incubators and business centers.
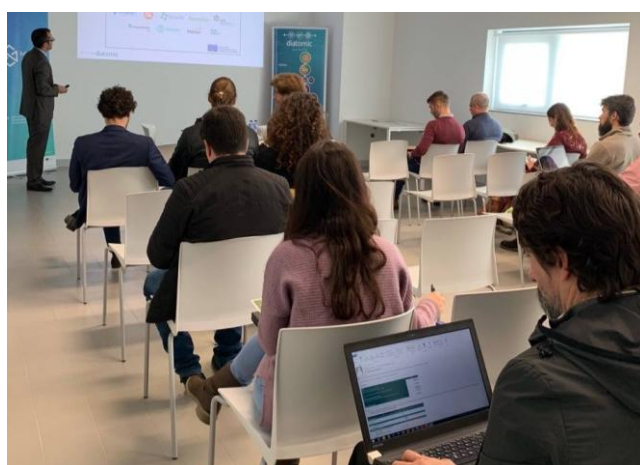
Figure 5 DIATOMIC Roadshow (hosted by IPN)

- EFECS 2018, DIATOMIC organized a joint booth with the SAE initiative. The central feature of the booth was the eHealth testbed. During the event, DIATOMIC representatives (F6S, IPN, FASTT) facilitated a number of matchmaking/ brokerage sessions. Our team was actively helping interested SMEs to fill in their brokerage application form on f6s.com as well as providing guidance on the following steps with respect to brokerage.

Figure 6 DIATOMIC booth at EFECS2018

Figure 7 SAE Speakers' corner (EFECS 2018)

- ICT 2018 (Vienna, Austria) active presence of DIATOMIC project partners at the SAE/ I4MS booth, with the main goal being Open Call #2 dissemination. In addition, our team was also heavily engaged in matchmaking sessions hosted by EEN at the venue.

Figure 8 DIATOMIC at ICT2018 event in Vienna

- Meetups/ networking sessions A number of meetups was organized in Spain (LIB) and Serbia (BIOS/ INO) with the biggest startup ecosystems in these countries – Impact HUB (ES) and Startit (RS). These meetups allowed us to network with the most promising members of these ecosystems and engage them in our DIHs.
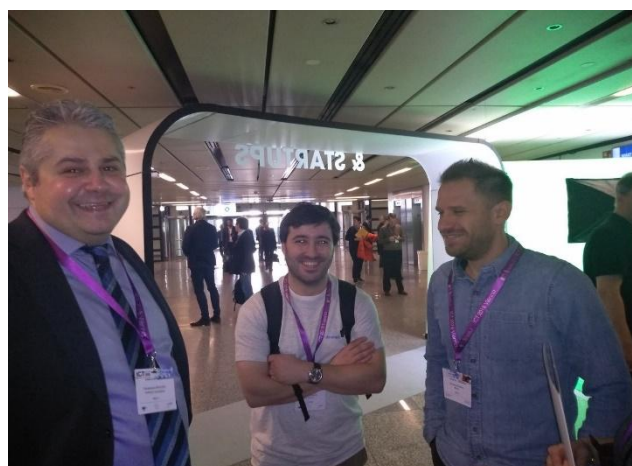

Figure 9 DIATOMIC Metup at Startit Center Belgrade

In the frame of Open Call #2, a series of online events were organized – all aimed at the demystifying DIATOMIC to startups/ SMEs and Competence Centers.

During our first webinar (***What you need to know about DIATOMIC***) we did a deep dive into eligibility requirements and the application/ evaluation process. We also guided interested startups/ SMEs (> 40 webinar attendees) through the program details. For those who have missed the session, DIATOMIC put up a recording on the website.

On January 8th 2019, our second webinar (***DIATOMIC A Step-by-Step Guide***) took place. The event attracted nearly 70 participants. Given the high number of participants, the team dedicated plenty of time for Q&A.

Last, but not least, DIATOMIC organized an ***Online Meet&Match Session with F6S***. The purpose of this session was to build bridges between the 'two worlds', namely startups/ SMEs and Competence Centers, allowing them to explore complementarities. In 2-3 minutes each Competence Center had the chance to present itself, its previous experience/ background, services/ competences being offered, and the type of partner they were looking for the Call #2. This online event attracted more than 40 participants (both SMEs and Competence Centers) from across Europe.

2.2 Open call statistics

The first DIATOMIC Open Call for consortium application experiments was closed on Thursday, January 31st, 2018.

2.3 Brokerage service call

The Brokerage Service Call has been set up to support SMEs and CCs to connect towards the establishment of a consortium to apply to DIATOMIC Calls. For this purpose, the brokerage service call has always been open.

The graph below shows an overview of brokerage service applications (created vs. finalized) in the frame of DIATOMIC Open Calls:
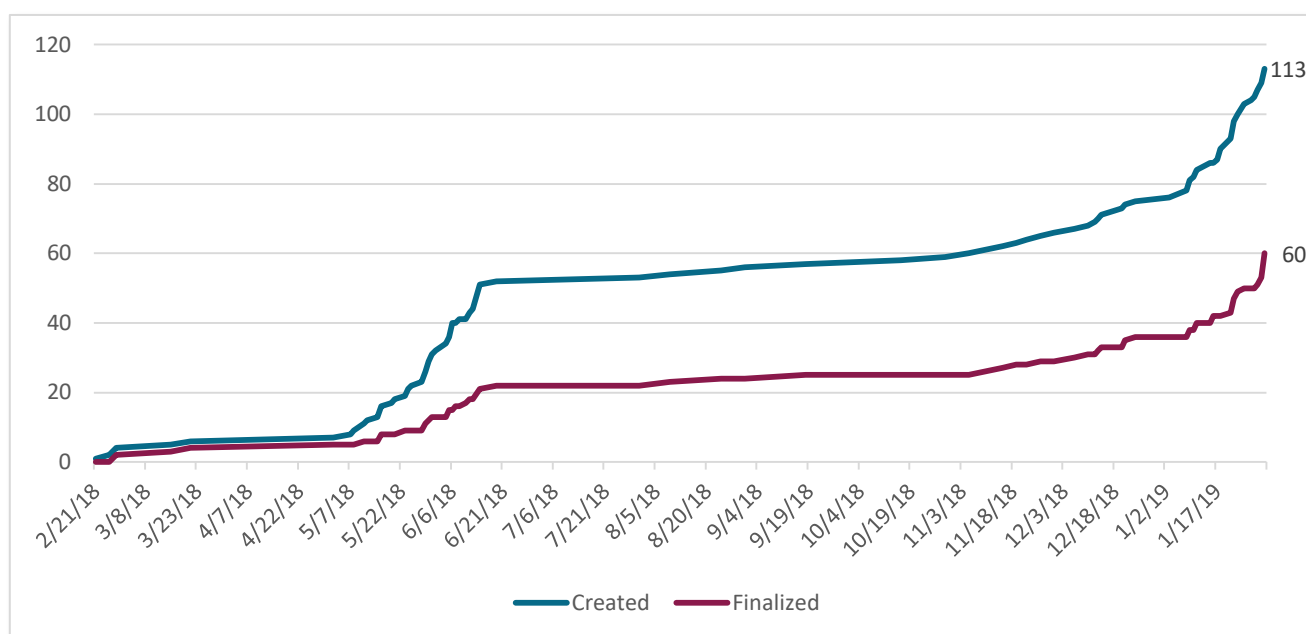
Figure 10 Brokerage applications: created vs. finalized

How did they hear about the program (finalized applications only)?
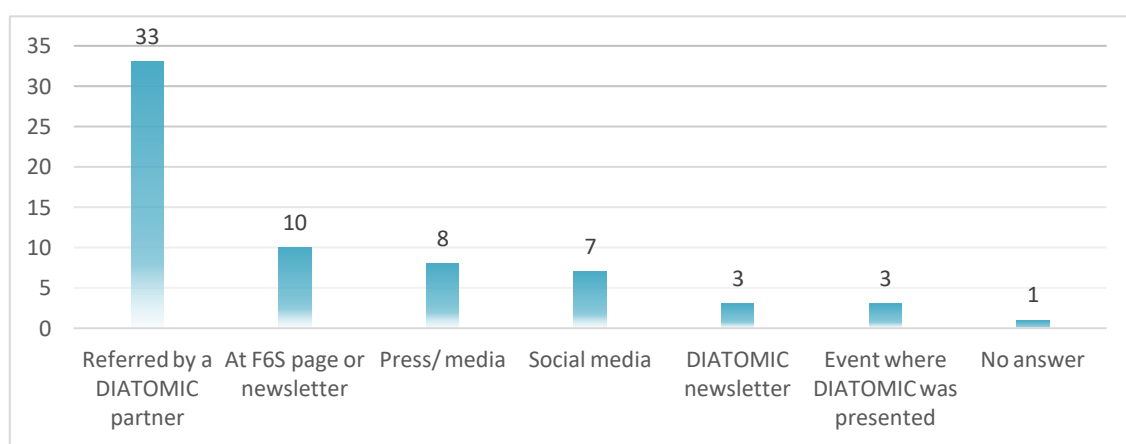
Figure 11 How did they hear about the program?

Finalized brokerage service applications by country:
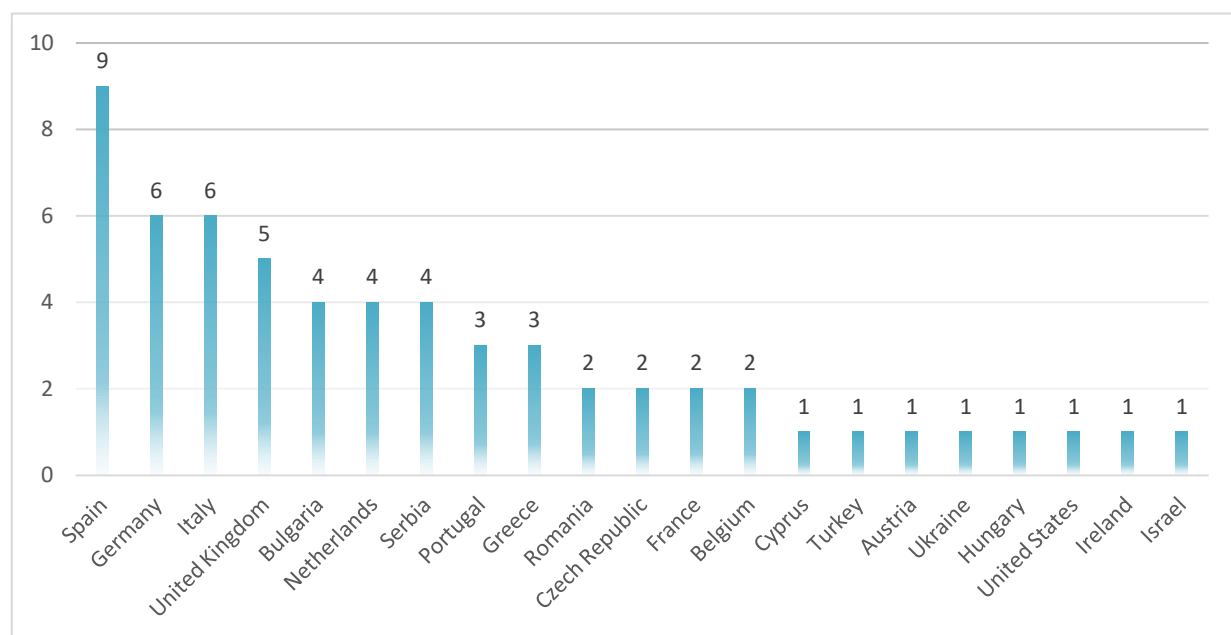
Figure 12 Brokerage applications finalized by country

2.4 Open Call #2

The DIATOMIC Open Call #2 has been published on the 1st of November 2018 and was closed on the 31st of January 2019 at 17:00 CEST (Brussels time), lasting in total three months.

In total 369 proposals were started and 175 were finally submitted (47,4%). As it is shown in Figure 13, the wide majority of the applications were submitted the last couple of days. As such we believe that a large number of the potential applicants underestimated the time needed to finalize the application and decided not to submit an incomplete application.
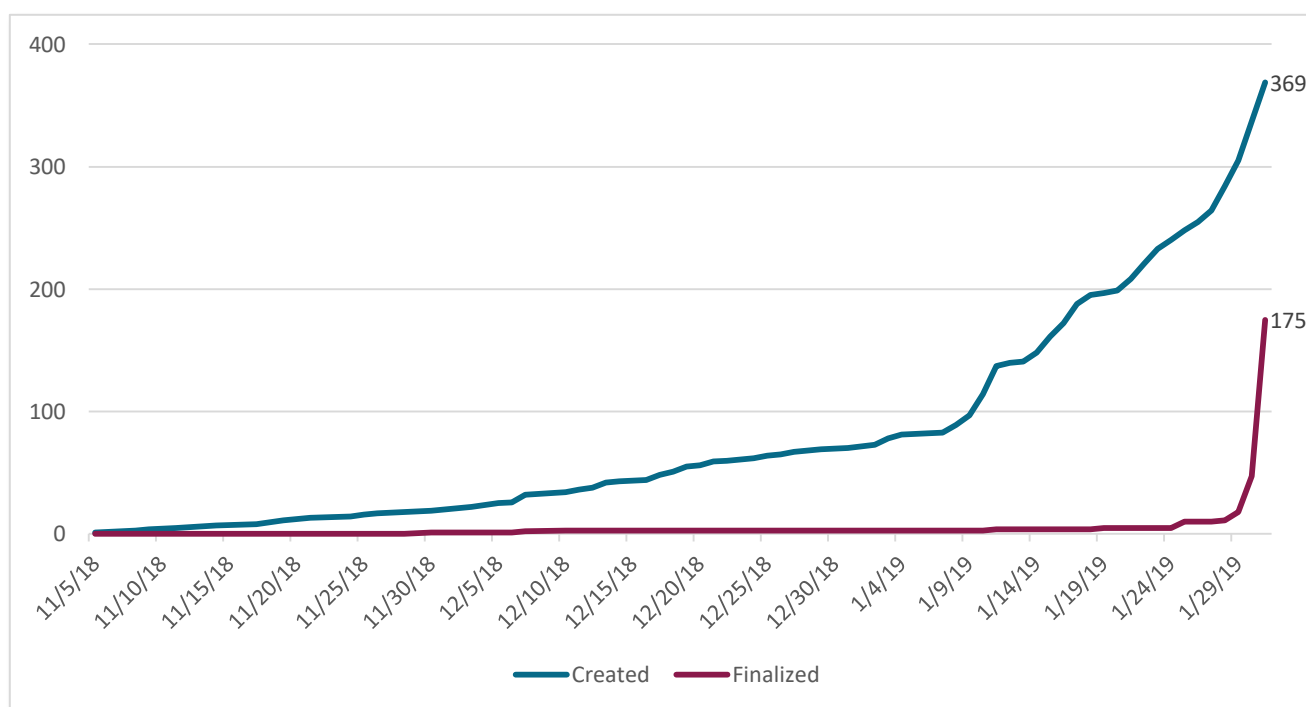
Figure 13 Number of applications: created vs. finalized

The geographical distribution of the coordinating partner of the finally submitted applications is shown in Figure 14. The top 5 countries have been: Spain, which submitted the maximum number of proposals (32), followed by Italy (23), Portugal (20), and finally Germany and Serbia (15). In total, the finally submitted applications were coordinated by 24 countries, achieving a significant geographical distribution.
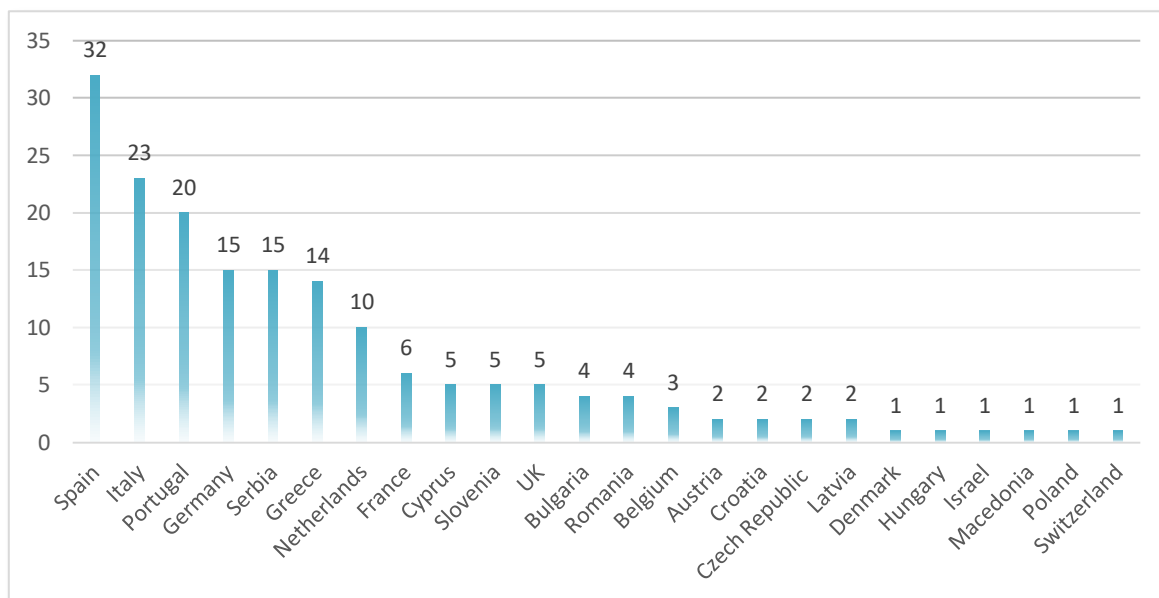
Figure 14 DIATOMIC Open Call #2: Geographic distribution of applications' coordinators

The geographic distribution becomes even more impressive (27 countries) if we consider the participating countries and not only the coordinating ones. In that case, Spain is still leading (83 participants), followed by Italy (72), Portugal (49), Greece (42), Germany (37), Serbia (31). Though strong participation from Spain, Greece, Portugal and Italy was rather expected, it is worth to notice the relevant large number of applicants from Germany, Serbia, Netherlands, France, Romania, Slovenia, Bulgaria and UK, showing that the open call had a very good penetration. We can even notice that 4 companies from USA, Armenia and Russia have participated in consortia.
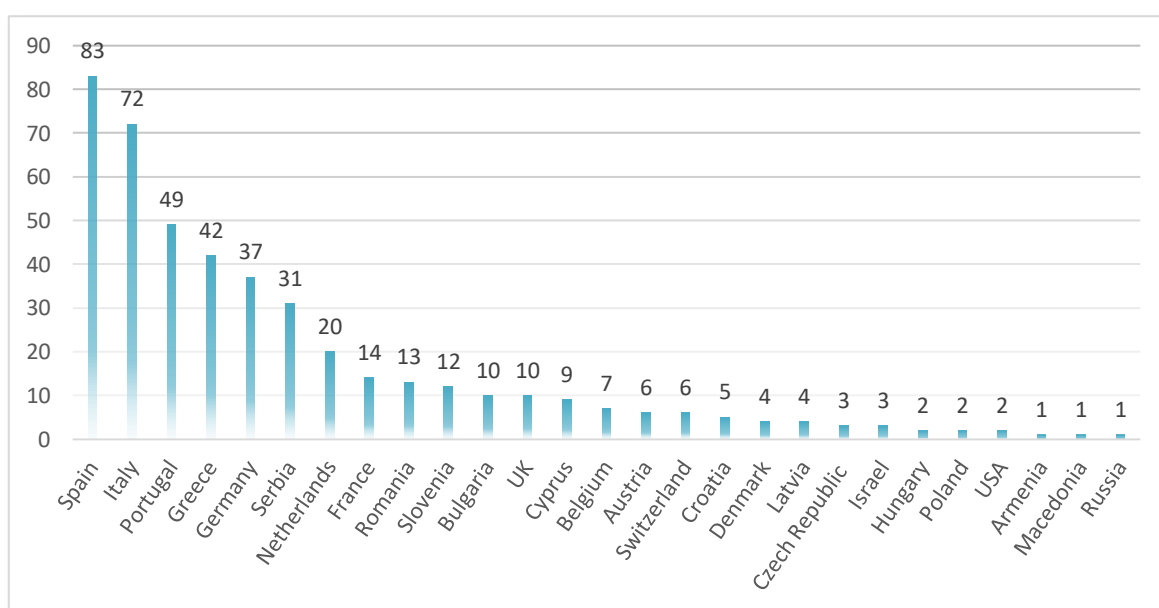
Figure 15 DIATOMIC Open Call #2: Geographic distribution of applications' partners

As shown in Figure 16, the Agrifood and eHealth domains are well covered, represented by 66 and 62 proposals respectively (38% for Agrifood and 35% for Health respectively). Manufacturing domain is slightly lacking behind in Open Call #2 (42 finalised proposals, 24%). Nonetheless, even so it is better represented compared to Open Call #1 (only 11 finalized proposals, 13%).
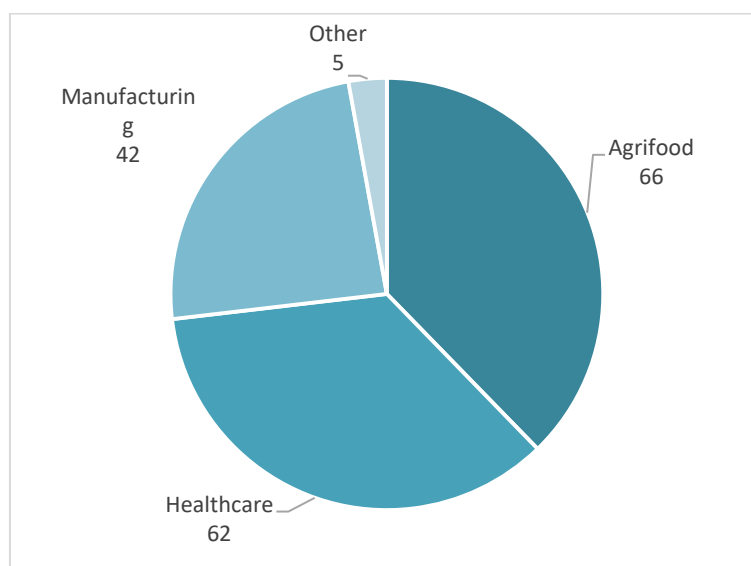
Figure 16 Applications finalized by sector

Finally, we have noticed that the majority of submitted proposal (56.5%) had consortia composed by 3 partners (Figure 17), whereas 72 (41%) had only two partners. The consortia compositions were nearly equally distributed between SMEs (47%) and Competence Centres (43%) Non-Tech SMSs represented only 10% as shown in Figure 18. As a result, 449 legal entities participated at the final submitted proposals; 254 SMEs and 195 Competence Centres.
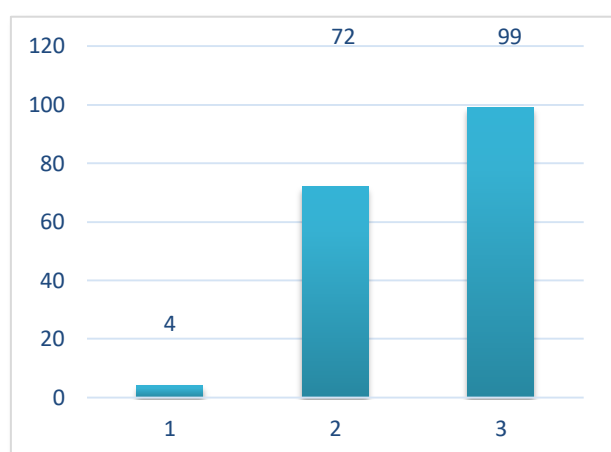
Figure 17 Number of partners per consortium
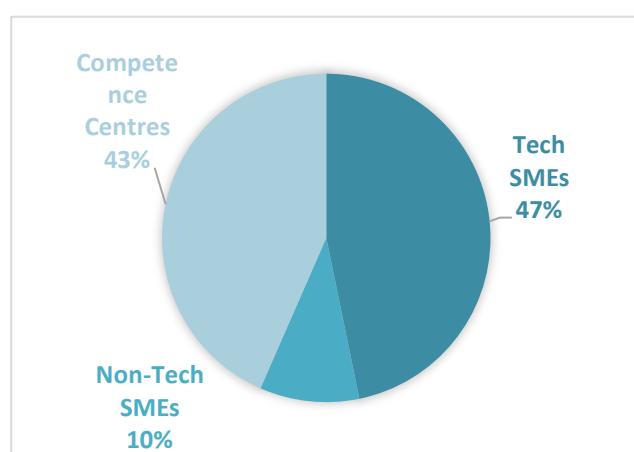
Figure 18 Consortia composition

Figure 19 provides the consortia composition per sector of the finalized proposals.
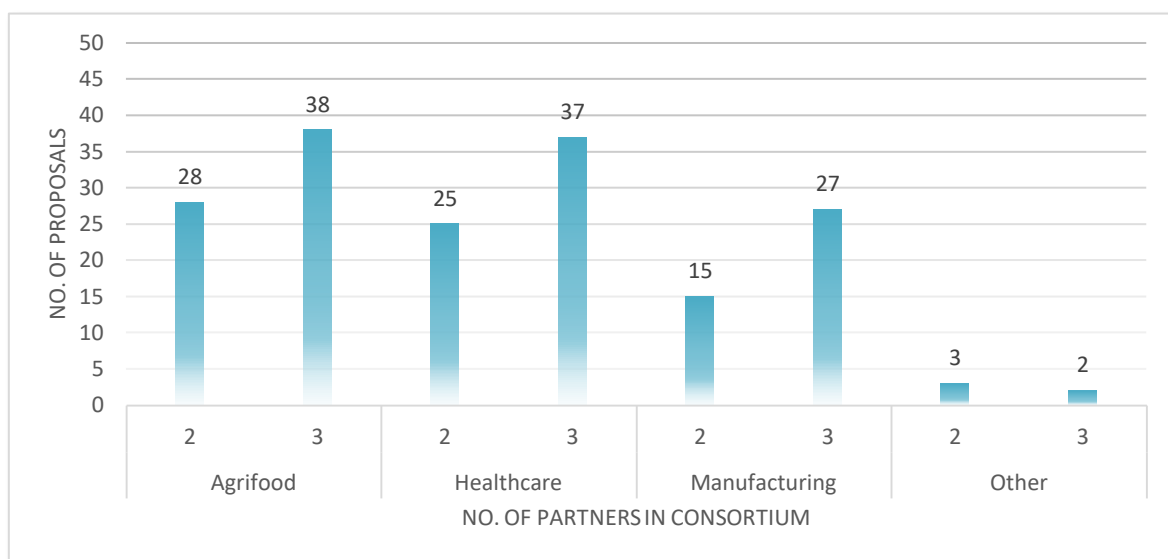
Figure 19 Consortium composition by sector

Finally, it is worth mentioning that most of the applicants that participated in the finalized (submitted) proposals heard about the DIATOMIC open call by a DIATOMIC partner, showing the effectiveness of the DIATOMIC dissemination activities. Peer-to-peer promotional activities had also a huge impact, though they are (as expected) bounded by the Open Call #1 and the various contacts made with different opinion/ community leaders.
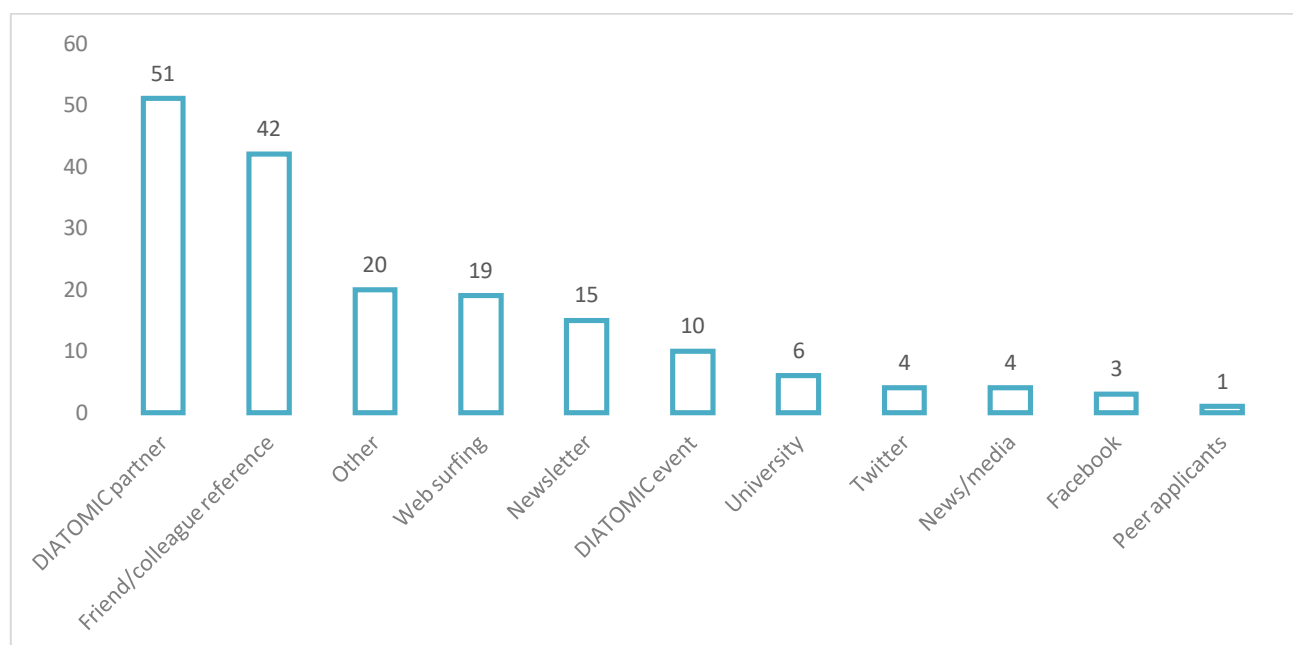
Figure 20 How did they hear about the program

3 Evaluation & Selection

The evaluation process of DIATOMIC was designed based on previous project members experience on issuing open calls to third-parties, and it had the following 3 stages:

- Stage 1: Eligibility
- Stage 2: Remote evaluation
- Stage 3: Interview & consensus

The 3 stages have been performed between the 1 February 2019 and 1 March 2019.

3.1 Eligibility

Initially, a filtering process was applied to select the eligible proposal. The eligibility criteria have been:

a) All consortium entities are eligible for EC funding under the rules of H2020;

b) The consortium has minimum 2 and maximum 3 partners;

c) All consortium members are SMEs (or midcaps) or research/non-industrial legal entities, either AME/SSI Technology providers or technology adopters/users in the AME/SSI sector or provide innovation in the health, agrifood and manufacturing sectors;

d) The total funding of the non-industry and/or non-profit partners (if any) cannot exceed the 40% of the entire experiment budget;

e) Each partner can receive funding in the range of €20.000-€100.000;

f) The budget per experiment may vary from €70.000 to €200.000;

g) Proposals being marked as non-eligible will get a rejection letter including the reasons (a to f) for being catalogued as non-eligible. No further feedback on the process will be given.

Out of the 175 submitted proposals, 25 proposals have been considered not eligible. All 25 applicants have received a rejection letter explaining the reasons why they have been considered non-eligible (below table of eligibility criteria and number of non-eligible proposals).
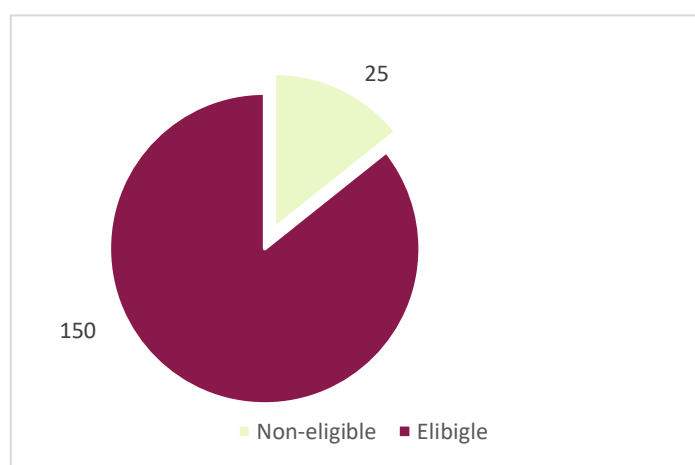
Figure 21 Eligible vs. non-eligible proposals

The reason for non-eligibility is shown in the next table:

Criteria	Number of applications
One of the consortium entities is not eligible for EC funding under the H2020 rules	3
The application consortium has either less than 2 or more than 3 partners	3
The same industrial consortium member participates in more than one application	0
The experiment budget is not in the range of €70.000 to €200.000	1
The total funding of the non-industry partner exceeds the 40% of the total budget	7
A partner requests funding which is not in the range of €20.000 to €100.000	12

A list of the 175 received proposals is presented in **Appendix I – Information on received applications**, with particular information on target sector and evaluation in terms of above/below threshold and non-eligible.

3.2 Remote evaluation

The second stage of the evaluation procedure is performed by external experts, who are selected based on their experience, knowledge and competences. A total of 16 experts have evaluated the 175 proposals that have proceed to this stage.

The remote evaluation was done on F6S platform. Each application was reviewed by 2 external evaluators, who scored and commented each proposal according to the following evaluation criteria:

- *Experiment [1-5; min.3]:* design, reliability, feasibility, novelty of the experiment concept.
- *Technology [1-5; min.3]:* innovation, integration with DIATOMIC expertise, technical capacity to achieve TRL 6-9 (to cross the valley of death), technical milestones.
- *Consortium [1-5; min.3]:* capacity to perform; knowledge, technological and business expertise; commitment.
- *Impact [1-5; min.3]:* experiment output, business scalability, exploitation plan, commercial milestones.

3.2.1 Evaluation experts

A group of 32 experts was originally formed. Due to the number of proposals (150 eligible), from this group a total of 16 experts were finally selected in order to perform the evaluation. The selection has been based on criteria such as expertise, geographic distribution, profession type and gender. As it is shown in Figure 22, emphasis was given at the industrial background/profession with 44% of the overall experts (7 experts). In addition, 31% have been from the research/academic domain and 25% have represented the financial/business angels/accelerators domains. The call category expertise distribution was slightly more on the eHealth domain, having many experts covering more than one area (Figure 23).
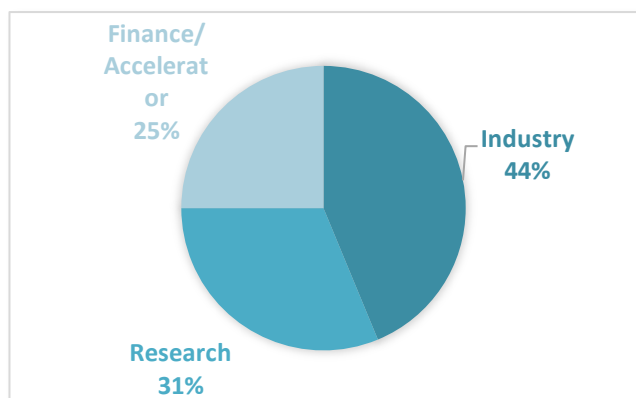
Figure 22 Selected Experts by profession type
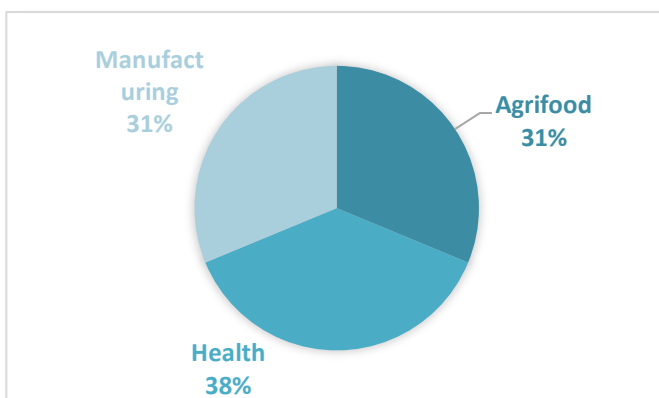
Figure 23 Selected Experts by call category expertise

Finally, looking at the gender, we had slightly more male (10) than female (6) as shown in Figure 24.
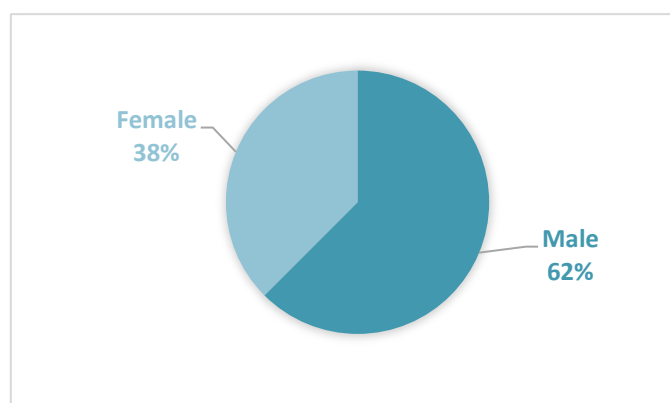
Figure 24 Selected Experts by Gender

The geographic distribution of the experts is shown in Figure 25. From 8 to 24 proposals were assigned to each expert, ensuring that no expert had to evaluate a proposal from the country that the expert is located. In order to conclude with the remote evaluations beyond individual evaluation, consensus phone calls took place at the majority of the evaluated proposals. In each case, one of the two assigned evaluators had to play also the role of rapporteur.
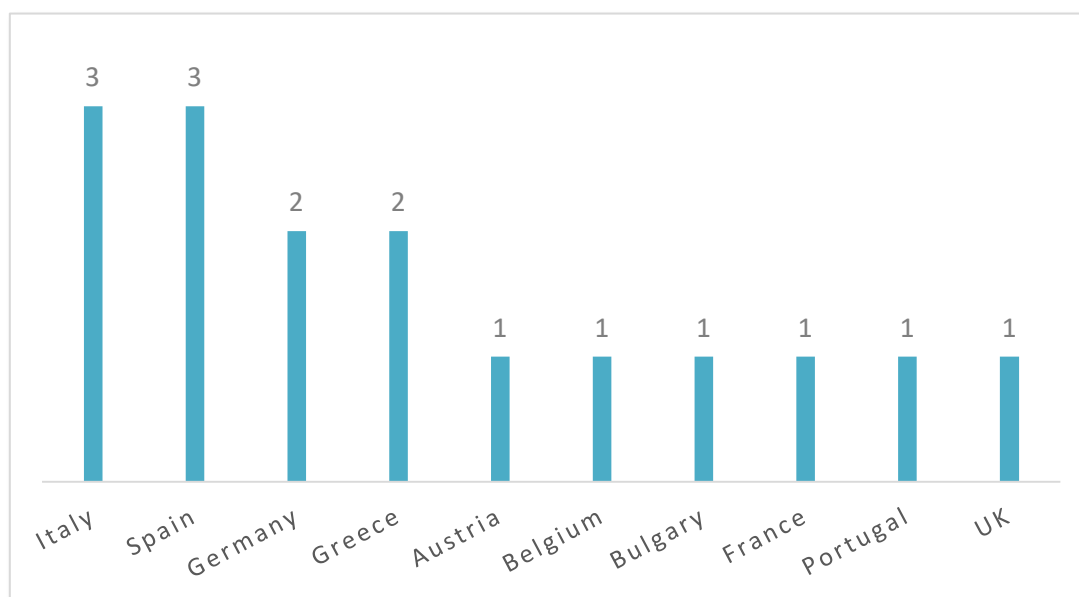
Figure 25 Geographic distribution of the selected experts

At the end of the remote evaluation the proposals were ranked in order to select the top ones that could go through stage 3 of the evaluation. Only the top proposals (double number of expected proposals to be selected) had access the stage 3 of the evaluation process.

3.3 Online interview and consensus

The final stage of the evaluation process aimed to deeply understand project concept, team skills & competence, capacity and wiliness to exploit Application Experiment results. The interviews were carried out by 2 evaluation board members and 1 DIATOMIC partner member (moderator/ observer), whom evaluated the following criteria:

- *Concept & Technology (40%) [1-5; min.3]* - confirmation of proposed targets and technology fit;
- *Business (30%) [1-5; min.3]* - the viability of the proposed business model;
- *Exploitation (30%) [1-5; min.3]* - reliability to reach milestones; readiness to present to investors & corporates.

After the online interview, the evaluators had a consensus meeting to finalize their evaluation reports. Two of the applicants did not answer to our emails with proposed schedule. The not selected applicants have been put in a reserve list, in case any of the selected proposals do not effectively sign the third-party contract with DIATOMIC project.

3.4 Final selection and awarded teams

At the end, all received applications have been informed about their scores by receiving an evaluation summary from each stage. For the on-line interviews one female expert from research located in Bulgaria and two male experts from industry located in Belgium and one located in UK were selected.

As shown in Figure 26 the result is balanced, having the coordinator of the selected application distributed in 7 countries, while participants come from 10 countries (Figure 27). As it is shown in Figure 27, we have in some countries such as Spain, Italy and France more applicants, which is quite normal given the number of applicants submitted from these countries.
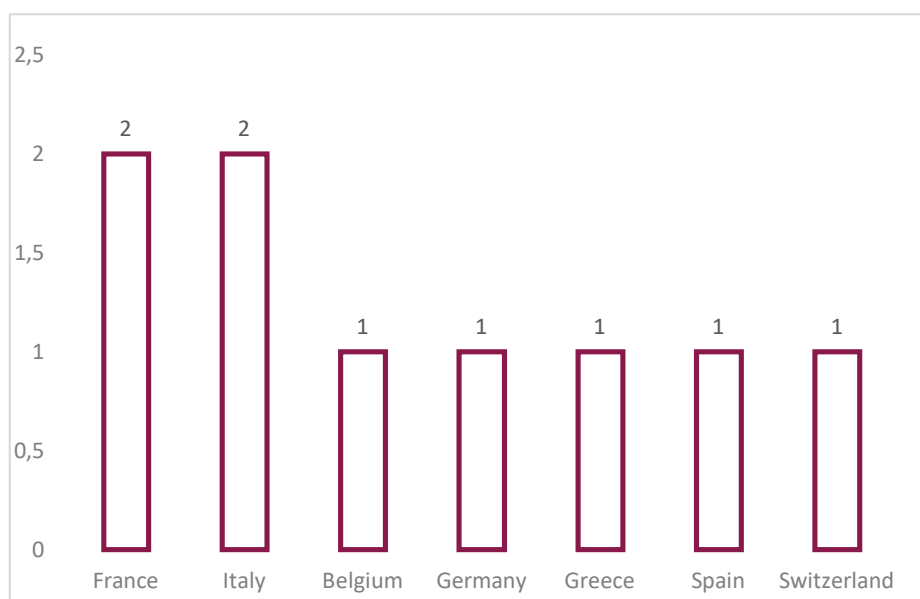
Figure 26 Final selected applications' coordinator per country
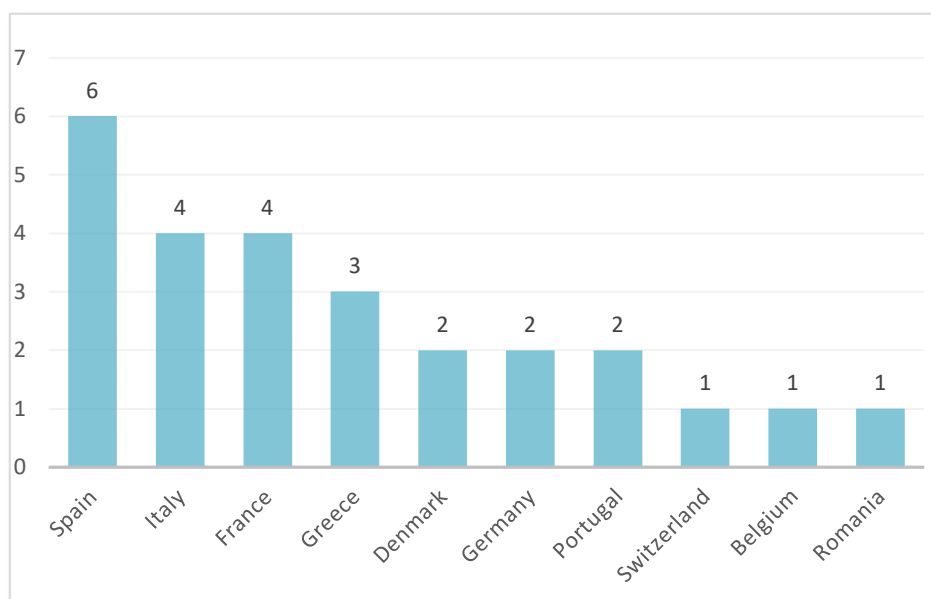
Figure 27 Final selected applicants per country

As shown in Figure 28 each domain has 3 finally selected applications.
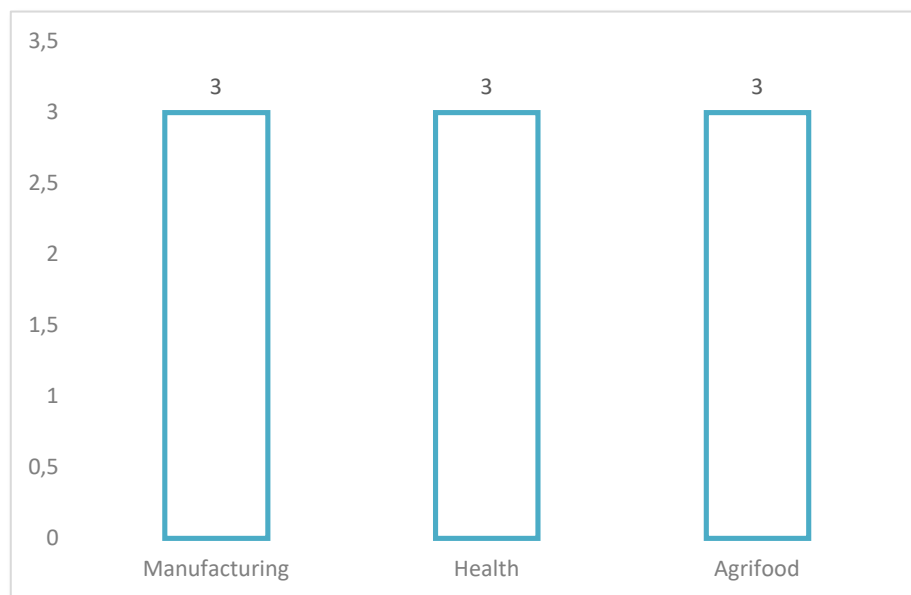
Figure 28 Final selected applicants per category
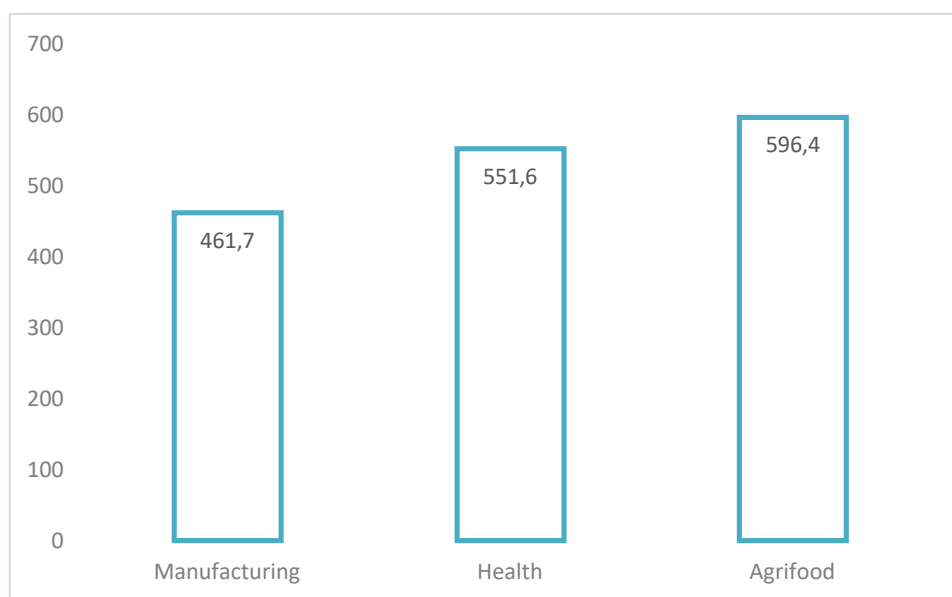
Figure 29 Budget/Funding per category (in kEUROs)

As a final statistical information, one may note that from the 9 selected proposals 8 had a consortium of 3 members and 1 a consortium of 2 members. Finally (Figure 30), from the 26 legal entities that participate at the consortia, 14 are SMEs and 12 Competence Centres (while one CC is also an SME).
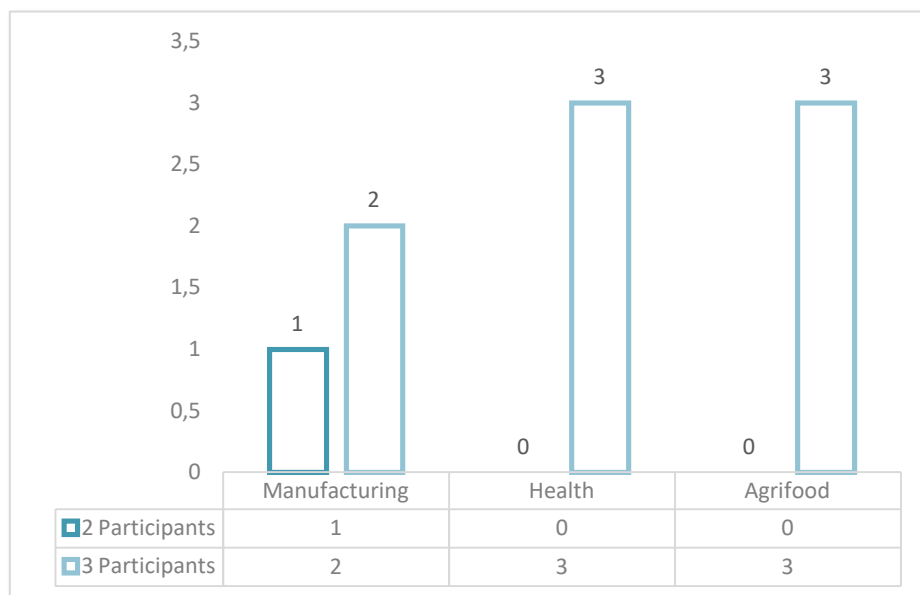
Figure 30 Consortium Composition of the selected applications
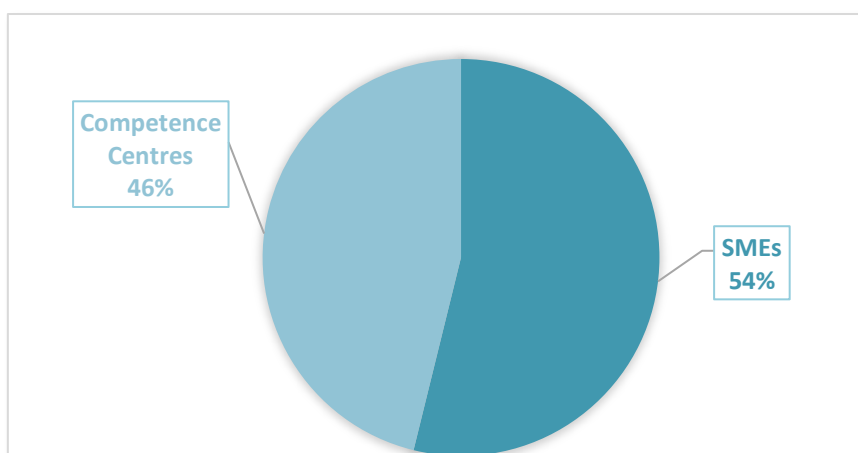
Figure 31 Consortium Composition type of the selected applications

Information about the 9 selected proposals is presented in **Appendix II – Information on selected applications**.

4 Contract preparation with third parties

During the months of March and April 2019, all the awarded applicants have been contacted with the goal of signing a Sub-grant Agreement with DIATOMIC project.

During this time the DIATOMIC coordinator had negotiated with the proposals' coordinator for an administrative and financial checking (and potentially into technical negotiations) based on evaluators comments. On a case by case approach, a face to face meeting in coordinator's premises have been needed for clarification.

The objective of the negotiations was to fulfil the legal requirements between DIATOMIC consortium and every beneficiary of the call. The items covered were:

- Inclusion of the comments in the Evaluation Summary Report of the proposals and mapping to the Sub-grant agreement (contract).
- Status information of the **SMEs beneficiaries** the following documents were required to prove the organisations existence and the status as SME:
    - **SMEs declaration:** signed and stamped. In the event the applicant declares being non-autonomous, the balance sheet and profit and loss account (with annexes) for the last period for upstream and downstream organizations should also be provided
    - **Status Information Form**. In case this is not a start-up, it includes the headcount (AWU), balance, profit & loss accounts of the latest closed financial year and the relation, upstream and downstream, of any linked or partner company. In case it is a start-up, legal document of the official founding date.
    - **Legal existence**. Company Register, Official Gazette or other official document per country showing the name of the organisation, the legal address and registration number and, if applicable, a copy of a document proving VAT registration (in case the VAT number does not show on the registration extract or its equivalent)
    - In cases where the **number of employees and/or the ownership is not clearly identified**: any other supporting documents which demonstrate headcount and ownership such as payroll details, annual reports, national regional, association records, etc. In case it is a start-up, legal document of the official founding date and declaration of ownership.
- **Bank account information:** The account where the funds will be transferred is indicated via form signed by the SME, individuals and the bank owners. The holder of the account is the SME or all the individuals (the coordinator of the group on its own if allowed by the other team members).
- **Sub-grantee funding agreement:** Signed between the DIATOMIC Consortium represented by its coordinator (INTRASOFT) and the Budget Holder (BIOSENSE) and the beneficiary(ies).

All documentation requests will be associated with specific deadlines, failing to meet these will directly end the negotiation process and projects within the reserve list will substitute the failing applicants. Each of the substitutes will have the same time to complete the above requests; like the first beneficiaries selected.

5 DIATOMIC Programme

The kick-off of the DIATOMIC DESIGN > DEVELOP > MARKET programme is planned for the 1st May 2019.
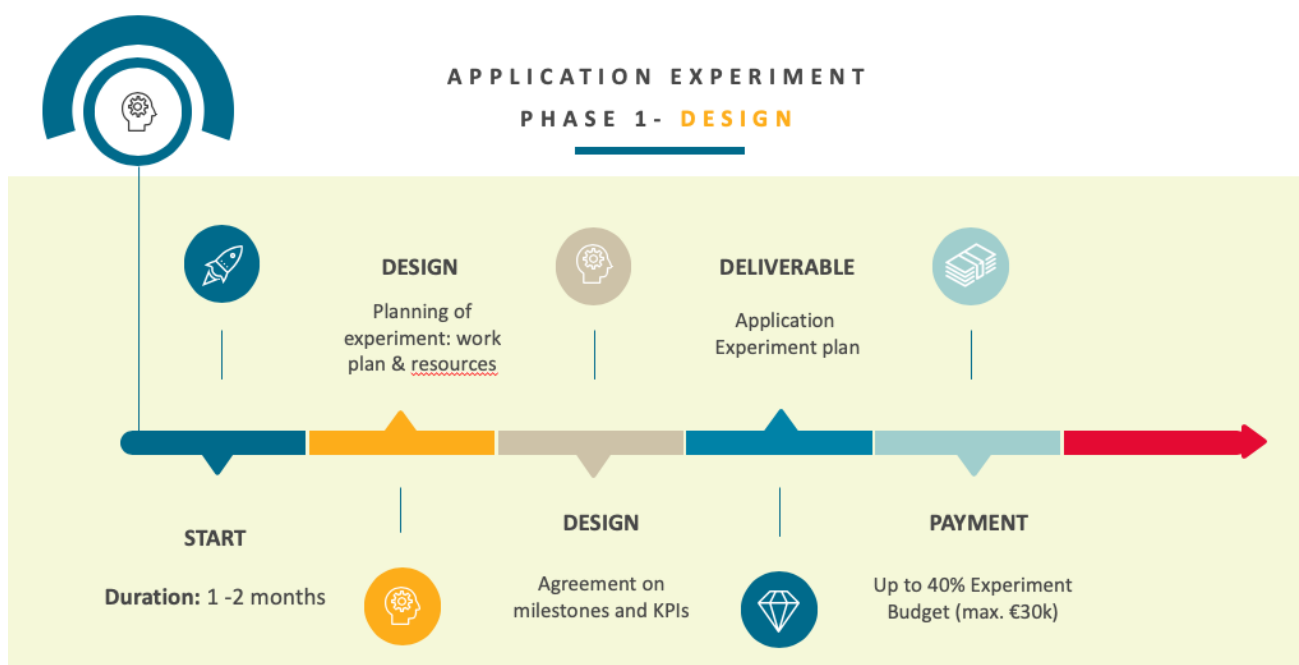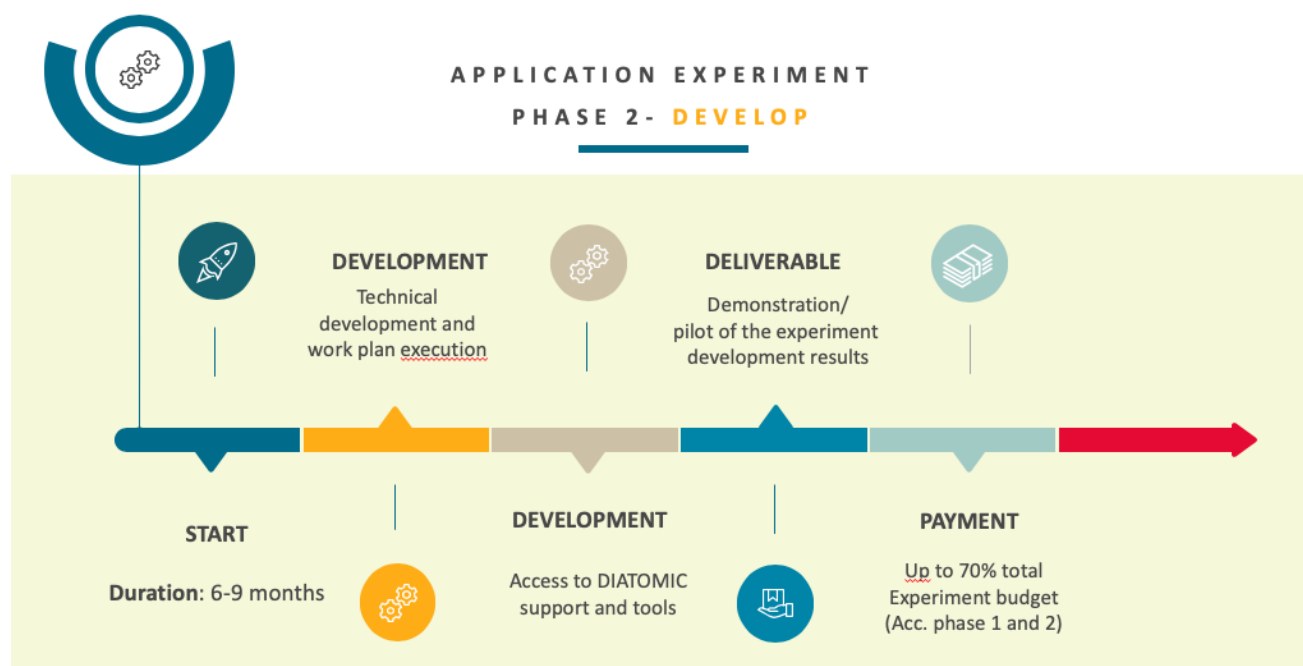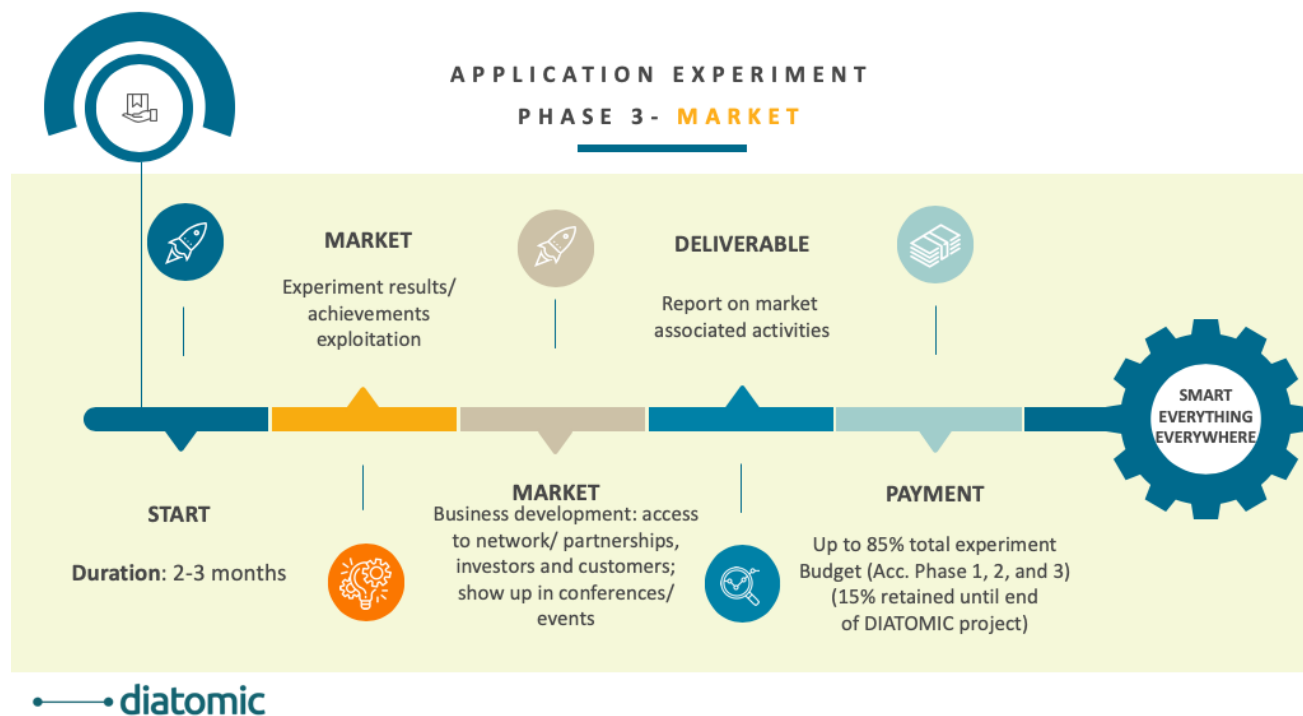
6 Conclusions

DIATOMIC Open Call #1 was able to attract a total of 175 applicants. A transparent, rigorous and step-by-step evaluation process has enabled to select the 9 most promising experiment propositions (success rate of 5.0%), consuming a total budget of € 1,610K.

The selected experiments are divided in the 3 sectors: Agriculture (3 projects), Health (3 projects) and Manufacturing (3 projects).

DIATOMIC Call #2 was the last call, there will be no further open calls.

Appendix I – Information on received applications

Acronym	Title	Domain	Criteria thresholds
3D TOOTH	3D Printed implant-/tooth- supported prosthetic restorations for the dental market	Manufacturing	Below threshold
ACES	Aeroponic Culture Enhanced by Spectroscopy	Agrifood	Above threshold
AcID	Active Ingredient Detector	Agrifood	Above threshold
Aerial Insights	Aerial Insights: Challenging the status-quo in drone data for precision farming	Agrifood	Above threshold
AGRIOBOT	Robots and Mobile IoT Support for Precision Agriculture Applications	Agrifood	Below threshold
AI-Caring	Applying cyber-bio-physical system modelling and AI-driven digital transformation for eHealth management	Health	Below threshold
AI4bees	Augmented Senses and Artificial Intelligence for Beekeepers and Bees	Agrifood	Below threshold
AINAD	Artificial intelligence and nutrition against disease.	Health	Below threshold
AirLIVE	Novel air quality solutions to alleviate air pollution-triggered health conditions	Health	Above threshold
Alco-detector	Smart Alco-detector for general and personalized use	Manufacturing	Below threshold
AOT	AOT - Automatic Operator Training system / FACTORY 4.0	Manufacturing	Below threshold
AquaDig	Digital platform for shellfish inshore maintenance based on microelectronic environmental sensors and IoT devices	Agrifood	Above threshold
ARCHIVE	Advance Remote Connected HIVE for beekeeping	Agrifood	Above threshold
ARGON	Accurate GNSS Crop Navigation	Agrifood	Below threshold
ArraySPack	Integrated Sensor Array Platform for Next-Generation Smart Packaging	Agrifood	Below threshold
ARTURO	Automated Product Quality Assurance in logistics	Other	Above threshold
AsthmaFit	Healthy living with asthma	Health	Above threshold
AstroPlant	AstroPlant	Agrifood	Not Eligible
Atargatis	Atargatis - A safety pregnancy	Health	Above threshold
Atomic Lean	Advanced smart object development to enhance Lean tools application	Manufacturing	Above threshold
AutoClimate Fishbond	Climate-proof full automated precision aquaculture monitoring system	Agrifood	Not Eligible
Autonomous At Home	Enhancing Autonomous Ageing by Real-life Comprehensive Geriatric	Health	Below

	Assessment leading to a continuum of integrated care at home		threshold
B.O.C.A.	BOCAhealth. The first personalized body composition assistant.	Health	Above threshold
BALANCE	BALANCE ASSESSMENT in daily LIFE ACTIVITIES using NOVEL CYBER EQUIPMENT	Health	Above threshold
BAQA	Better Air Quality for Animal Agriculture: Smart System for the monitoring and control of hazardous substances in pig barns	Agrifood	Below threshold
BEDsense	BEDsense	Health	Above threshold
BeeQSafe	Incident Response Beekeeping Safety and Quality system	Agrifood	Not Eligible
BIO2CHP v2.0	Smart Embedded Control, Telemetry and Optimization System for Bio-Waste to Power Conversion	Agrifood	Above threshold
Biofeedback4ADHD	Biofeedback Aid for ADHD by BiofeedCloud	Health	Below threshold
BISEM	Biodegradable Sensors for high resolution Monitoring in precision agriculture	Agrifood	Above threshold
blockchain language	blockchain language	Other	Not Eligible
BOLTSENS	Bolt Shaped VIS-NIR Wireless Sensor for Industrial Fluid Monitoring	Manufacturing	Above threshold
cloneIT	Development of a machine that scans, transforms and copies objects, combining 3D scanning and other technologies	Manufacturing	Not Eligible
CogniTwin as a Service	Cognitive Digital Twin as an affordable Service for SMEs -Retrofitting SME Shop floor with Cognition for resolving unpredicted un	Manufacturing	Above threshold
Concierge	Personal concierge for stroke survivors to enable long term independence and quality of life	Health	Below threshold
CoSMeT	CoSMeT; Clinical Studies Monitoring Tool	Health	Above threshold
DamageFreeFRUIT	Advanced Electronic System to Prevent Fruit Damage in Real-time	Agrifood	Above threshold
DEHARE	Development of EMG signal processing sensor to use in Direct Force Control for hand rehabilitation in people with neuromotor disabilities	Health	Not Eligible
DEWEVA	Development of multiparameter wireless sensors for edaphic variables	Agrifood	Not Eligible
DIAFOSC	Digitizing Food Safety Controls	Agrifood	Above threshold
DIATOMIC	Digital Innovation Hubs boosting European Microelectronics Industry	Manufacturing	Below threshold
DiCART	Development of a digital and non-invasive diagnostic tool to measure capillary refill time on patient with severe circulatory failure	Health	Above threshold
DoseOK	Manual Bolus Monitor for correct Dosages of Intravenous Medication	Health	Below threshold
DPINNOS	Detection and Prevention of nosocomial infections	Health	Below threshold
dreaMS	A telehealth tool for monitoring and treatment of Multiple Sclerosis patients	Health	Above threshold
DuraSense	Integration of Innovative Sensors to an IoT System for the Agri-Food Sector, Enabling Food Safety, Traceability, and Sustainable Practices	Agrifood	Above threshold
EBASI	iot-based Emotion and Behaviour recognition Against elderly people Social Isolation	Health	Above threshold

EMBRACE+	AN INTELLIGENT SYSTEM FOR PERSONAL SAFETY AND BEHAVIOUR ANALYSIS OF SENIORS	Health	Above threshold
EMOVIGO	Enhanced Rehabilitation and Emotional Recovery System for Stroke Survivors	Health	Below threshold
ENCAPLED18	Encapsulated LED technology for use in large and flexible displays	Manufacturing	Below threshold
EPIDERMIS	non-invasive glycEmia monitoring with a PoInt-of-care, tattoo plastic electronic DevicE opeRating on skin for biocheMIcal analysis of Sweat	Health	Above threshold
EsoSense	EsoSense - Sensorised Exoskeleton for sternum and thorax stabilization	Health	Above threshold
FASST	Farming Autonomous Selective Spraying Tool	Agrifood	Above threshold
FiberSensor	Distributed Smart System for Monitoring and Precise Control of Relative Humidity and Temperature	Manufacturing	Above threshold
FISH	Feeding Intelligent System for Helping aquaculture farmers	Agrifood	Not Eligible
FleeMaS	Fleet Maintenance System	Manufacturing	Above threshold
FlexoPatch	FlexoPatch - Remote monitoring of symptoms in Parkinson's disease using flexible piezo patches	Health	Above threshold
Flywheel CPPS	Smart System Integration for a Flywheel and industrial Ring Cyber Physical Production System	Manufacturing	Below threshold
FMOW	Farm Management with an Online Webportal	Agrifood	Above threshold
Food Life (FL)	A platform to innovate the perishable foods supply chain through real-time food quality monitoring	Agrifood	Below threshold
FRAME	FactoRy Analytics and Monitoring engine for improving operational Efficiency	Manufacturing	Below threshold
GAIT TUTOR	Feedback for optimizing posture and gait based on smart insoles	Health	Above threshold
GAITKeeper	Developing a diagnostic device for targeted lower limb rehabilitation	Health	Above threshold
GAUSS	Greenhouse Automation System for Strawberries	Agrifood	Above threshold
GKWZT	GREEN KILLER WEEDS ZERO TOXICS	Agrifood	Not Eligible
GRASS	Gamma spectRometer for A Smart irrigation Scheduling	Agrifood	Above threshold
GRASSy	novel GSM RAinfall monitoring System for riSk management	Agrifood	Below threshold
green3D	3D printed bottles for oil from biodegradable materials	Agrifood	Below threshold
GRIPWISE	Gripwise: A Revolutionary Smart Solution for Muscular Force and Energy Screening	Health	Above threshold
Health-ID	Low-Power Bracelet-Shape RFID Sensor-Tag for Medical Applications	Health	Below threshold
Healthier Adherence Plus	Healthier Adherence Plus: integrated Personal Assistant for health management and monitoring with voice-enabled Smart Pillbox	Health	Below threshold
HealthSpa	Smart Health Platform to support health status monitoring at spa centres	Health	Below threshold

HealthTronix	Smart textiles to promote the active ageing, well-being and safety.	Health	Above threshold
HIDiMoV	Hyperspectral Imaging for Disease Monitoring in Vineyards	Agrifood	Above threshold
HomeBalance	Balance Rehabilitation assisted at home	Health	Above threshold
Hydra	Hydra: textile wearable biosensors system to monitor athletes dehydration from their sweat analisys	Health	Below threshold
Hypoclock	Hypoclock	Health	Above threshold
IAMHERE	SMART INDOOR MINIATURISED LOCATION SYSTEM	Health	Above threshold
iCONIC	Integrated management and control system for greenhouse clusters	Agrifood	Above threshold
IIP	Industrial Internet Playground: A Co-creation process and IoT Toolbox for serious Industry 4.0 piloting	Manufacturing	Above threshold
IMilQ Nav	IMilQ Nav: An IoT Integrated Logistics Platform for Transport Optimisation and Quality Assurance in the Dairy Industry	Agrifood	Below threshold
ImmersiveNeuroRehab	Immersive mind driven neuro-rehabilitation: a testbed experiment for stroke survivors	Health	Above threshold
INEMS	INDUSTRIAL NOISE EXPOSURE MANAGEMENT SYSTEM	Manufacturing	Above threshold
INFORMAT	Intelligent Forest Management Technologies	Agrifood	Below threshold
IntelliSTEM	IntelliSTEM, intelligent probe for monitoring of vertical soil moisture profile	Agrifood	Above threshold
Kinetikos4PD	Towards digitalization of Parkinson's Disease management and care: precision person-centred care of people with Parkinson's Disease	Health	Not Eligible
LAN of Things IOT Gateway	MobilFlex - Making the PC a PDC (Personal Data Center)	Other	Not Eligible
LICARTS	Lift Control Production Augmented Reality Training System	Manufacturing	Above threshold
LinKi	Linked Kiwi	Agrifood	Below threshold
LittleCare	Monitoring solution for the little ones	Health	Below threshold
LIZA	LIZA - IoT based personalized food supplementary system	Agrifood	Above threshold
LOCAPICKER	Location-sensitive Picking in Manufacturing powered by Ultrasound Sensors	Manufacturing	Above threshold
LoRaTAP	LoRaWan health monitoring for free breeding animals	Agrifood	Not Eligible
Manuback	A connected T-shirt to help improve Safety and Health	Other	Above threshold
MARS	Modular Autonomous Robot System (MARS) with Multi-tool Capabilities	Manufacturing	Above threshold
MDSSD	Mobile Decision Support Solution for Depression	Health	Above threshold
MeDiTwIST	Medical Digital Twin for In SilicoTrials	Health	Above

			threshold
MESIC	SMart passivE Sensor for optimization of Individual plant produCtion	Agrifood	Above threshold
MESSDA	Modular Embedded Hard- and Software Platform for Multivariate Sensor Data Analysis, Interpretation and Feedback Control	Manufacturing	Below threshold
MicroMed	Microelectronics sensor data to support Medical digitalization	Health	Above threshold
MicroPrint	Micro-printed Electronics for Health, 3D Printed Electronics, Textile and HMIs Through Printing Sinter-free Stretchable Conductive Inks	Manufacturing	Above threshold
MIMS	Modular Irrigation Mapping System	Agrifood	Above threshold
MISSION	Smart Integrated System for Industrial Process Optimisation	Manufacturing	Below threshold
MiVaRI - Pivot	Microelectronics for Variable Rate Irrigation: realspace application on a Center Pivot irrigation system	Agrifood	Above threshold
Momentum GWSS	Industry specific asset maintenance management system with real-time location tracking and analytics for healthcare service providers	Health	Below threshold
MONITORED	Smart data acquisition modules for OptOSS MONITORED AI	Agrifood	Above threshold
MPFCA	Digital system based on optical sensors and AI for functional quality assurance of injection molded products like in vitro diagnostics	Manufacturing	Above threshold
Muvone	Wearable technology for osteoporosis prevention	Health	Above threshold
MYCOWOT	Multiplex biosensing of mycotoxins in food with organic electronics transistors	Agrifood	Below threshold
myNEUREHAB	Precision Neurorehabilitation	Health	Below threshold
Myo-ARt	Smart wearable system to evaluate and facilitate enhanced muscle activation in Augmented Reality	Health	Above threshold
mySUO	mySUO: AI and sensors to improve vegetables production in citizen urban orchards	Agrifood	Above threshold
NANODIAGNOSIS	Combining a Novel AFM Method with Neural Networks for Optimum-Accuracy Automatic Cancer DIAGNOSIS	Health	Above threshold
NanoPrint	NanoPrint	Manufacturing	Not Eligible
Naweglifa	Development of a network of sensors to improve animal welfare by studying the gaseous environment in intensive livestock farms	Agrifood	Not Eligible
NSN (Nitrogen-Sensing-Network)	Smart nitrogen sensing network to maximise crop yields	Agrifood	Above threshold
OP_AUTOMATA	Olok Power AUtimaToc isOmetric Muscular AsymmeTry meAasurement	Health	Above threshold
OptiShroom	Smart System Integration to Optimize European Specialty Mushroom Production	Agrifood	Above threshold
OSMOSIS	Smart Systems Integration for Distributed Coordination of Machine Shops	Manufacturing	Below threshold
ParkinsonAI	Parkinson decision support system for remote disease diagnosis and prognosis based on Artificial Intelligence	Health	Above threshold
PAXChain	Passenger event Chain platform for predictive connectivity	Other	Above threshold

PIM	Patronus - Industrial Maintenance	Manufacturing	Not Eligible
PLASM4FOOD	SMART COLD PLASMA GENERATOR DEVICE FOR SUSTAINABLE AND EFFICIENT FOOD PRESERVATION	Agrifood	Above threshold
PROTECT	Digitization of optical biosensors for smart bacterial infections control	Health	Above threshold
PVHSM	Precision Vine Harvest determination via Spatial Modeling	Agrifood	Above threshold
Raise'UP - the shoe that grows	GROW UP SANDAL - Kid shoe - Raise Up Sandal with 5 sizes asjustment in 1 shoe.	Manufacturing	Not Eligible
REPRIS2E	Rotomoulding Product Enhancement through Smart System Integration	Manufacturing	Below threshold
RTPP	Real-time planning of production	Manufacturing	Above threshold
S-DEPOC	Scientific Data Exploitation Platform for Olive Crop	Agrifood	Below threshold
S.E.D.	Intelligent triage system for hospital emergency departments based on wearable biosensors.	Health	Below threshold
S3-DF	Seamless Simple Smart Data-Fusion (for managing intra-logistic processes on Industry 4.0 FoF using material-handling vehicles)	Manufacturing	Above threshold
SA	Smart Agriculture	Agrifood	Not Eligible
SAFEAGRO	Development of Intelligent System for Disease Warning and Management of Pesticide in Agro-biodiversity Environments	Agrifood	Above threshold
SAM	Smart on-board Analysis of Multispectral aerial imagery for precision viticulture	Agrifood	Above threshold
SCONOPI	A smart and connected food box order picking machine	Manufacturing	Below threshold
SCOPE	Smart Crops Plant-e : Self-sustaining sensors with electricity from living plants	Agrifood	Above threshold
Sense&Mine4.0	Context Aware Platform for Ventilation on Demand in Mining	Manufacturing	Above threshold
sensorstripes	Sensor stripes (smart baseboards) for discreet room monitoring to support nurses and residents of nursing facilities	Health	Above threshold
SF1000	SMART PRODUCT WHICH MEASURES EVERY DROP OF PESTICIDE, WHILE PROTECTING HEALTH AND ENVIRONMENT AND PROVIDE A BIG DATA FOR PESTICIDE INDUSTRY	Agrifood	Above threshold
siBOKK	SUSTAINABLE AND SELF MANAGED PUBLIC SANITARY INSTALLATION	Health	Not Eligible
SILVERLINE	SILVERLINE - an integrated Active Assisted Living Platform (Smart Fall Sensor + Trigger & Monitoring System + Keyless Remote Access Control)	Health	Above threshold
SIMEDS	Smart Integrated Micro-Electronic Dopamina Sensor	Health	Below threshold
SIMOS	Smart injection moulding optimization system	Manufacturing	Above threshold
SITALED	Smart, integrated technology of advanced LED lighting for food production in greenhouses	Agrifood	Above threshold
SMairT	Smart Air Conditioning Toolkit	Manufacturing	Above threshold
SMART-IND	Smart Sensing for Structural health Monitoring in Water Treatment systems	Manufacturing	Below threshold

SMART-MICRO	SOL-GEL based fabrication processes for reliable and cost effective manufacturing of complex and highly integrated smart microfluidics	Manufacturing	Below threshold
SmartBeehive	Smart Beehive solution for digitalization and higher productivity in beekeeping	Agrifood	Below threshold
SmartBeeMS	Smart BeeHive Monitoring System	Agrifood	Below threshold
SMARTCHAMP	SMART TECHNOLOGIES FOR ELECTRIC RACE CARS IN HILLCLIMBING CHAMPIONSHIPS	Manufacturing	Not Eligible
smartglasses	Safety AR Glasses	Manufacturing	Below threshold
SmartOliveMill	Design, Development & Market Validation of Smart Sensor Technology for Direct, Real-Time Analysis of Olive Oil Quality at the Mill	Agrifood	Above threshold
SMARTRAP	Smart system to automate the surveillance, prevention and control of vector-borne diseases	Health	Above threshold
SocIOTy	Social Channel for Smart Cities	Health	Below threshold
Solarvibes	AgriSpyder- Autonomous Solar Powered Farm Robot	Agrifood	Not Eligible
SONO-IQ	Sound based system for industrial monitoring of DC motors	Manufacturing	Below threshold
SSY4FPE	Smart System for Health and Performance Monitoring of Advanced Food Processing Equipment	Manufacturing	Above threshold
STAND-E	Sensor sysTem iN fAll Detection and prEvention	Health	Above threshold
STAYWILD	Aerial smart system to drive ungulates away from agricultural crops	Agrifood	Above threshold
STEPsAHEAD	production proceSs daTa drivEn optimization for PolyurethAne HEat-sensitive ADhesives	Manufacturing	Below threshold
STRATA	Smart system based on disTributed ledgeRs technologies (DLTs) for the vAlorization of daTa in the Agrifood value chain	Agrifood	Above threshold
SWESDiMo	Smart Wearable Efficient System for Sleep Disorder Monitoring	Health	Below threshold
TERRAIN	Autonomous irrigation control system with embedded soil sensors and aerial crops monitoring	Agrifood	Above threshold
TESTEMDEP	A smart system to improve the efficiency of manufacturing and testing of wiring harnesses in the automotive industry	Manufacturing	Above threshold
Thingtale	Thingtale	Health	Below threshold
Trapview AURA	Trapview AURA - automated pest monitoring system for monitoring European corn borer	Agrifood	Above threshold
TRAZAWINE	Application of complete and smart traceability system for wine cooperatives	Agrifood	Above threshold
TULLY	Wearable and Therapeutic Personal Assistant - Tully	Health	Not Eligible
uSapFlow	Advanced vine water stress monitoring system	Agrifood	Above threshold
V7LV	Lab Vision	Health	Not Eligible
VC-SFAP	Smart fertilizing and application of efficient plant protection	Agrifood	Not Eligible
VELYTICS	VELYTICS - Next Generation Intelligent Senior Care	Health	Above threshold

VOICE-FLOW	Smart Connected Repair Platform System Integration	Manufacturing	Not Eligible
Weedspotr	WeedSpotr- Precision Weedsprayer	Agrifood	Below threshold
Zack	Mr	Health	Not Eligible

Appendix II – Information on selected applications

Acronym	Title	Partner 1		Partner 2		Partner 3		Sector	Total Budget	Total Funding
		Name	Country	Name	Country	Name	Country			
dreaMS	A telehealth tool for monitoring and treatment of Multiple Sclerosis patients	Healios LLC	Switzerland	IMIBIC	SPAIN	University of Cordoba	Spain	Health	174,7	174,7
EBASI	iot-based Emotion and Behaviour recognition Against elderly people Social Isolation	DS TECH	Italy	SEIDES	Italy	UNIVERSITAT POLITECNICA DE VALENCIA	Spain	Health	180,9	180,9
Sense&Mine4.0	Context Aware Platform for Ventilation on Demand in Mining	Emphasis Telematics	Greece	Laboratory for Manufacturing Systems & Automation	Greece	DELPHI-DISTOMON S.A	Greece	Manufacturing	195,4	195,4
ARCHIVE	Advance Remote Connected HIVE for beekeeping	Easy Global Market	France	Drompy	France	Institutul de Cercetare-Dezvoltare pentru Apicultu	ROMANIA	Agrifood	200	200
BISEM	Biodegradable Sensors for high resolution Monitoring in precision agriculture	SUPERELECTRIC srl	Italy	CNR - IMM - CONSIGLIO NAZIONALE DELLE RICERCHE	Italy	AGROPECUARIA MORATILLA	Spain	Agrifood	198	198
AquaDig	Digital platform for shellfish inshore maintenance based on microelectronic environmental sensors and IoT devices	Inova DE GmbH	Germany	Go Limpets Lda	Portugal	Instituto de Sistemas e Róbotica - ISR	Portugal	Agrifood	198,4	198,4
DiCART	Development of a digital and non-invasive diagnostic tool to measure capillary refill time on patient with severe circulatory failure	Dicartech SAS	France	Emka-Medical GmbH	Germany	MIA Lab LaRochelle	FRANCE	Health	196	196
IIP	Industrial Internet Playground: A Co-creation process and IoT Toolbox for serious Industry 4.0 piloting	Pulselabs BVBA Belgium	BLGIUM	Troldtekt A/S Denmark	DENMARK	Aarhus University Denmark	DENMARK	Manufacturing	180	130
BOLTSENS	Bolt Shaped VIS-NIR Wireless Sensor for Industrial Fluid Monitoring	Atten2	Spain	IK4-Tekniker	Spain			Manufacturing	136,3	136,3