DIY4U

Open Innovation Digital Platform and Fablabs for Collaborative Design and Production of personalised/customised FMCG

DT-FOF-05-2019 (870148)

Deliverable Report

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Executive Summary

This deliverable provides the package of the necessary documents for the successful execution of DIY4U Open Innovation Competition, based on the requirements agreed by the consortium and in alignment with EC rules for providing financial support to third parties.

The package includes 4 documents:

1. Call Announcement (CA): an overview on Open Calls' structure, eligibility criteria, summary of the evaluation process and support to applicants. This is a reference document for the European Commission that can be used to disseminate the call on proper websites.

2. Guide for Applicants (GfA): a guide with detailed information on the application process. In the document are presented, in addition to the general project's description, the call's specific scope and challenges, eligibility criteria, preparation and submission guidelines, timeline, as well as the evaluation process.

3. Application Form (AF): a document presenting all questions and disclaimers that the Applicants need to complete in order to submit their proposals for DIY4U Open Call. The information is collected online.

4. Frequently Asked Questions (FAQs): a list of the most popular and probable questions, available in a form of a repository of knowledge, supporting the Applicants during the application process.

All documents in the package are public and published on the DIY4U Open Call web page.
The deliver explains also the deadline amendment done during the Open Call period.

Deadline amendment

During the Open Call the deadline, previously set on the 31th March 2021, has been postponed to the 30th April 2021.

The deadline for the Open Call expressed in the initial version of the Call Announcements and Guide for Applicants was the 31th March 2021 but after the deadline extension approval from the project officer on the 12th March 2021 a new version of the documents was published on the DIY4U Open Call web page with the updated date.

The deadline change was announced on the DIY4U Open Call web page.

Annexe 1: Call Announcement

Call title: DIY4U First Open Call - Innovative digital solutions to support decentralized customer-centric production of personalised FMCG products

Project full name: Open Innovation Digital Platform and Fablabs for Collaborative Design and Production of personalised Fast Moving Consumer Goods

Project acronym: DIY4U

Project grant agreement number: 870148

Publication date: 15th February 2021

Deadline: 30th of April 2021

Expected duration of participation: 6 months

Total EU funding available: 200 000 € is available for DIY4U First Open Innovation Call

Maximum amount of financial support for each third party: 50 000 €

Submission & evaluation process: SMEs are invited to submit proposals for this open innovation call. Project proposals are submitted through the Submittable application form https://digitalcatapult.submittable.com/submit/186889/diy4u-open-innovation-competition.

The submission and evaluation process are described in more detail in Guide for applicants https://www.sintef.no/globalassets/project/diy4u/diy4u-oic1-guide-for-applicants.pdf

Further information:

DIY4U project webpage: https://www.sintef.no/DIY4U-OIC/

Task description:

The DIY4U Open Innovation Call is an opportunity to be involved in an innovative project to develop and promote decentralised customer-centric product design & production approaches for Fast Moving Consumer Goods (FMCGs). The DIY4U project enables consumers to collaborate with manufacturers to design and create personalised FMCGs, though the DIY4U digital platform and Fablabs (small scale manufacturing demonstration facilities).

This Open Innovation Call aims to select and fund suitable proposals covering the development of additional digital functionalities for the DIY4U platform. These additional functionalities will enhance and extend the existing platform, supporting the innovative nature of the DIY4U approach. The project team have identified four topics looking for applications:

- Sales virtual assistant
- Decentralized payment
- Supply chain planning
- Monitoring performance

Annexe 2: Guide for Applicants

DIY4U First Open Call - Innovative digital solutions to support decentralized customer-centric production of personalised FMCG products

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Abstract

The DIY4U Open Innovation Call is an opportunity to be involved in an innovative project to develop and promote decentralised customer-centric product design & production approaches for Fast Moving Consumer Goods (FMCGs). The DIY4U project enables consumers to collaborate with manufacturers to design and create personalised FMCGs, through the DIY4U Digital Platform and Fablabs (small scale manufacturing demonstration facilities).

This Open Innovation Call aims to select and fund suitable proposals covering the development of additional digital functionalities for the DIY4U platform. These additional functionalities will enhance and extend the existing platform, supporting the innovative nature of the DIY4U approach.

Introduction

The objective of the DIY4U project is to deliver an end to end digitally supported supply chain, enabling personalization of FMCG products through an Open Innovation (OI) Digital B2B/B2C Platform & Fablab.

The purpose of this Open Call is to improve the DIY4U ecosystem by adding several extensions that can increase the innovation level of the project and help the consortium to deliver a product that is closer to the market. These extensions will enhance the Open Innovation Digital Platform through two dimensions:

- Make stakeholders' interactions smoother and easier by using AI and DLT technologies.
- Improve efficiency of processes by adding planning and monitoring layers.

The project team have identified four topics looking for applications:

- Sales Virtual Assistant
- Decentralized Payment
- Supply Chain Planning
- Monitoring Performance

Why should you get involved?

The Open Innovation Call is open for SMEs who are working within the FMCG field. Applying for this call will provide you with an opportunity to develop and demonstrate your technology / product. Additionally, the call will give you the chance to work with other technology providers demonstrating real life applications of key innovative digital technologies such as DLT, digital twins & simulation, machine learning and many more.

The opportunity will provide the winner and runners up of the call, exposure for your organisation to be recognised within other EU consortia, digital companies and major FMCG companies.

Being part of the DIY4U call allows you to be part of this exciting innovative project exploring the capacity and competitiveness through decentralized customer-centric production approaches, by promoting the adoption of Open Innovation (OI) digital platform.

Who should apply?

The applicant organisation must comply with the Small and Medium-sized Enterprises (SME) criteria defined by European Commission (EC).

For further detail of SME Definitions of EC: https://ec.europa.eu/growth/smes/sme-definition_en

Applicants must be based in one of the EU Member States (MS), UK (MS for H2020), one of the Overseas Countries and Territories (OCT) linked to the MS of the EU, an H2020 Associated Country (AC) or one of the other countries listed in the General Annex A of the Horizon 2020 Work Programme 2018-2020.

Applications will not be accepted from persons or organisations that are partners in the DIY4U consortium or are formally linked in any way to the DIY4U consortium partners.

Description of the Calls

Open call scope

The DIY4U Ecosystem has the following components:

- **DIY4U Platform** - The core set of functionalities that are available for the end user via a single secure entry point. The platform is being built using a micro-service oriented framework.

- **DIY4U Data-Transfer layer** - A critical component that acts as a data router between the services available to the user and an enterprise blockchain infrastructure.

- **DIY4U Decentralized Infrastructure** - Blockchain based infrastructure to deal with the decision-making process, information storage, traceability, protected intellectual property, etc.

- **DIY4U Extensions** - Simulations, carbon footprint calculator, price calculation, analytics, connectors for external service providers, etc.

List of challenges

Through this first Open Call, we aim to add the following four items to the list of extensions:

1. **Sales Virtual Assistant**
2. **Decentralized Payment**
3. **Supply Chain Planning**
4. **Monitoring Performance**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 870148

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Call 1: Sales Virtual Assistant

Business description

As of April 2021, the Open Innovation Digital Platform manages main interactions with customers within the sales process:

- Identification of the customer and understanding of her/his context.
- Definition of her/his needs for detergents. A quiz of closed questions is used to determine relevant existing formulations.
- Agreement and follow-up on delivery or pick-up.
- Payment and receipt.
- Evaluation of customer satisfaction. An online questionnaire is used to assess overall experience and specific operations.

All interactions are performed through the platform website on a transactional mode.

At the platform level, it is expected that the virtual assistant will involve the following areas:

- Follow a seamless sales process, from awareness to delivery and after-sales. Selling a customised product requires more involvement from the customer's side and more steps in the sales process. Therefore, customers would take benefit of interactions follow-up.

- Enhance usability of the quiz. In most cases, we consider customers will need a few questions to specify their needs in terms of washing powder, sustainability and price. As this format is quite new for consumers, a friendly way to interact makes sense. Furthermore, whenever a customer faces a specific need, answering a large series of questions may be boring.

- Propose an innovative channel to digital natives.

Technical description

From a technical perspective, the Sales Virtual Assistant extension should have at least the following mandatory components:
- Dynamic chatbot.
- Natural language processing capabilities.
- Image processing capabilities.
- Flexible scenarios (configuration, training, evaluation).
- Automatic detection of unknown scenarios via machine learning techniques.

Call 2: Decentralized Payment

Business description

The Open Innovation Digital Platform can be used as an e-commerce website where a brand or a retailer sells products to customers, defines value distribution rules and proceeds payments to suppliers and service providers. With such a traditional business model, ensuring a large range of customised products requires several big ecosystems of formulation providers, Fablab operators, feedstock suppliers, packaging suppliers and huge efforts for managing these ecosystems.

Decentralization is a key component of the DIY4U Ecosystem. With so many stakeholders that are involved in the process, a traditional payment system that is controlled by a single entity would definitely slow down the system and create the need for a financial governance model. The DIY4U consortium believes that a more transparent model has to be implemented. Such a model would allow the establishment of some high-level rules and convert a payment into multiple micro payments; as such, these payments are to be automatically managed by a smart system that can divide the value according to the already established rules. The decentralized payment extension is seen as a replacement for a traditional payment system that can process the payment from the end user via certified traditional payment providers (card, bank, etc), apply the internal logic of supply chain revenue distribution model and execute a multitude of output transactions to the stakeholders via certified traditional methods.

Technical description

From a technical perspective, the decentralized payment extension should have at least the following mandatory components:

- Integration with a traditional payment processing platform for input and output transactions.

- Supply chain revenue distribution model that is a set of rules that can be defined by the stakeholders of a process.

- A decentralized infrastructure (decentralized ledger technologies, blockchain or distributed smart agents) that can ensure communication, transaction processing and rules management.

- A traceability system that allows auditing and transaction monitoring.

Call 3: Supply Chain Planning

Business Description

The DIY4U solution already manages on-demand manufacturing, i.e. manufacturing orders are sent to Fablabs according to sales, and purchasing orders are sent to suppliers according to stock levels. To ensure that Fablabs own the right level of feedstocks and packaging stocks at the right time, demand forecasting functionalities should estimate formulations required quantities for each location and each period. This estimation should be based at least on Fablab manager inputs, sales history seasonality and production planning. Ideally, this estimation could also take into account weather forecast, market evolution, competition and possibly customer feedback.

The Open Innovation Digital Platform also needs supply forecasting functionalities in order to estimate the required feedstocks and packaging quantities for each location, and each time period. This estimation should be based at least on Fablab manager inputs, formulation demand, inventory level, production planning and purchasing conditions. Ideally, supply forecasting could also estimate deliveries per period.

However, manufacturing customised products within a network of distributed Fablabs requires a fine-tuned management of feedstocks and packaging stocks. Thus, the Open Innovation Digital Platform needs supply chain planning capabilities.

Technical description

With an ecosystem that aims to use different supply chain management tools, the need for a common structure that offers an easily accessible view over the entire chain is an absolute necessity. The Supply Chain Planning extension should have at least the following mandatory components:

- Supply chain management tools.
- Analysis of internal and external parameters or factors.
- Prediction and anticipation mechanisms and algorithms.
- Open data analysis support.

Call 4: Monitoring Performance

Business description

Selling customised FMCGs is a new business that needs to address these questions:

- Is the business model sustainable enough?
- Are the marketing, sales, manufacturing, delivery and purchasing operations integrated enough to ensure on-demand answers to customers?

Due to the many points of uncertainty of this kind of business, it is important to monitor the performances using a dashboard of key performance indicators. The main goal here is to have a detailed view over the following:

- Economic and financial indicators: margin, turnover, shopping cart, sales, conversion rate, splitted by customer segment, revenue stream, period.

- Customer relationship indicators: customers, purchasing frequency, customer satisfaction, retention rate, churn rate, splitted by customer segment, product, period, channel / touchpoint.

- Activity indicators: influencers' posts, followers, visits on website or store, home deliveries and click & collect, production orders, ingredients purchases, Fablabs failures.

- Resources indicators: number of stores, Fablabs, influencers, delivery companies.

Technical description

The Monitoring Performance extension should add an easily accessible view over the performance of the ecosystem, and should have at least the following mandatory components:

- Data analytics.
- Data visualization.
- Business intelligence.
- Predetermined templates populated with dummy data.

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Overall technical details

All extensions are expected to run on their own infrastructure and communicate with the DIY4U Ecosystem via secure API calls.

All extensions are expected to start from a high TRL and adapt the already-existing technology components to the needs of the DIY4U Software Ecosystem. Explanations about the structure of the datasets will be given during the preparatory workshops and access to datasets will be provided only after the contract has been signed.

Background Information – the DIY4U EU project

DIY4U aims to develop and promote adoption of collaborative production approaches through Digital Platform & Fablabs in the FMCG sector. The current landscape of relevant digital infrastructure and efficient small-scale manufacturing facilities limits FMCG product personalisation/customisation. DIY4U aims to address the blockers of product customisation and small-scale manufacturing through Open Innovation (OI) Digital B2B/B2C Platforms & Fablabs and deliver an end to end digitally supported supply chain. By enabling personalisation of FMCG, DIY4U aims to enhance the innovation capacity and competitiveness of the EU FMCG sector via decentralized customer-centric production.

The Fablabs (developed and hosted at manufacturing demonstration facilities) will be used for on-demand production of new personalised or customised soft matter FMCG designed using the DIY4U digital platform.

DIY4U consortium partners

The Project is performed by the following companies:

- SINTEF AS (SINTEF), established in STRINDVEGEN 4, TRONDHEIM 7034, Norway, VAT number: NO919303808MVA, (the "Coordinator").
- PROCTER & GAMBLE TECHNICAL CENTRES LIMITED (PGUK), established in THE HEIGHTS, WEYBRIDGE KT13 0XP, United Kingdom,
- CENTRE FOR PROCESS INNOVATION LIMITED LBG (CPI), established in WILTON CENTRE WILTON, REDCAR CLEVELAND TS10 4RF, United Kingdom, VAT number: GB888933743,
- Teknologian tutkimuskeskus VTT Oy (VTT), established in VUORIMIEHENTIE 3, Espoo 02150, Finland, VAT number: FI26473754,
- FUNDACION CENTRO TECNOLOGICO METALMECANICA Y DEL TRANSPORTE (CETEMET) (CETEMET), established in AVENIDA PRIMERO DE MAYO S/N, LINARES 23700, Spain, VAT number: ESG23596240,
- IRIS TECHNOLOGY SOLUTIONS, SOCIEDAD LIMITADA (IRIS), established in CALLE VELAZQUEZ, NO 94 PRIMERA PLANTA, MADRID 28006, Spain, VAT number: ESB64446123,
- DIGITAL CATAPULT (DCC), established in LEVEL 9 101 EUSTON ROAD, LONDON NW1 2RA, United Kingdom, VAT number: GB172793185,
- INDUSTRIES DU COMMERCE (PICOM), established in 40 RUE EUGENE JACQUET, MARCQ EN BAROEUL 59700, France, VAT number: FR54488226622,
- CODY AS (Cody AS), established in RODMYRJORDET 7, SKIEN 3735, Norway, VAT number: NO996658163MVA,
- RDIUP (RDI'UP), established in 2 RUE LOUIS BLERIOT, LES MUREAUX 78130, France, VAT number: FR45832813299,

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- STELAR SECURITY TECHNOLOGY LAW RESEARCH UG (STELAR), established in FANNY-LEWALD-RING 110, HAMBURG 21035, Germany,
- EFFECTIVE DECISIONS SRL (EFF), established in STR. PROF. DR. IOAN MOGA NR.2A AP.12, SIBIU 550077, Romania, VAT number: RO16844901,
- DYNAMIC & SECURITY COMPUTATIONS SL (ANALISIS-DSC), established in CALLE NUESTRA SENORA DE LA LUZ 21 LOCAL IZQ, MADRID 28025, Spain, VAT number: ESB83446633,

Digital Platform

The DIY4U Ecosystem has the following components:

- **DIY4U Platform** – This represents the core set of functionalities that are available for the end user via a single and secure entry point. The platform is being built using a micro-service-oriented framework and incorporates basic e-commerce functions, customized processes, dashboards and specific actions for all user types.

- **DIY4U Data-Transfer layer** - A critical component that acts as a data router between the services available to the user and an enterprise blockchain infrastructure. This layer is composed of a multiple of oracle type entry points that are connected to the decentralized infrastructure but are open to receive requests for data transfer from and towards the platform. In order to match the scalability requirements of the overall ecosystem, this layer can be seen as a network of dynamic smart agents.

- **DIY4U Decentralized Infrastructure** - Blockchain based infrastructure to deal with the decision-making process, information storage, file storage, traceability, protected intellectual property. Each of the components is served by a dedicated network of nodes that are controlled and managed by the DIY4U consortium etc. The network of Fablabs is connected to the platform through this infrastructure.

- **DIY4U Extensions** - Simulations, carbon footprint calculator, price calculation, analytics, connectors for external service providers, etc. Due to the modular design of the ecosystem, the possibilities to develop extensions are endless.

Fablabs

Overview

Two Fablabs (digitally enabled small-scale manufacturing machines/factories) are being designed and built as part of the DIY4U project. These machines will take chemical feedstocks and process them into customised laundry detergents under the direction of the DIY4U Digital Platform, based on a user's customisation requests into the Platform. The Fablabs will take typically five feedstocks and use them to manufacture a customised detergent at a 0.5 – 1 Litre scale. SINTEF and CPI will host the developed Fablabs in their innovation laboratories and act as open access Manufacturing Demonstration Facilities (MDF), offering Fablab manufacturing services to individuals and companies (especially SMEs) using the DIY4U Digital Platform to design new customised/personalised products. There will be a Fablab for producing powder laundry detergents to be based at SINTEF and a Fablab for liquid laundry detergents based at CPI. The MDFs will also offer training to companies and individuals looking to adopt the new DIY formulation design and manufacturing approach.

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The Fablabs will accept the designed recipe from the Digital Platform, dose in the required powders / liquids, mix components in the appropriate conditions, check composition using specialised measurement techniques (Process Analytic Technology, PAT) and dispense into a final package for the consumer. This package will be labelled as required. Production data as required will be fed back to the Digital Platform.

Fablab manufacturing will be in accordance with the relevant EC machinery and EMC directives, and operated according to EC and national safety, health and environmental (SHE) requirements. The physical design is highly modular and extendable as described further in the next section. The Fablabs shall have a visual operator interface, informing the operator of its status, required actions and maintenance plan. The operator shall be able to perform maintenance, add or change feedstock, add or remove unit operations and confirm these actions through the operator interface. (For the duration of the project it is expected that the Fablabs will be operated by trained operators, not end-users / consumers). Each Fablab will connect to the DIY4U Digital Platform, which will be the main user / consumer-facing interface. Through the platform, users will be able to design customised laundry detergents, order them and send the orders to the appropriate liquid or powder Fablab.

Overall, the project aims to achieve demonstration of the DIY4U Digital Platform and Fablabs at Technology Readiness Level (TRL) 6 – "technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)".

Machine Design

The design has a strong focus on modularity. It consists of sections of uniform width stacked together. The number of sections needed depends on the number of unit operations that should be available in the machine. A unit operation can be, for example, adding a given amount of an ingredient, mixing, or putting on a lid. Below is an example sketch of a powder Fablab: that for liquids will look quite similar to this, although the detail of the feedstock dosing and mixing may be different.

The main sections of the design are described below.

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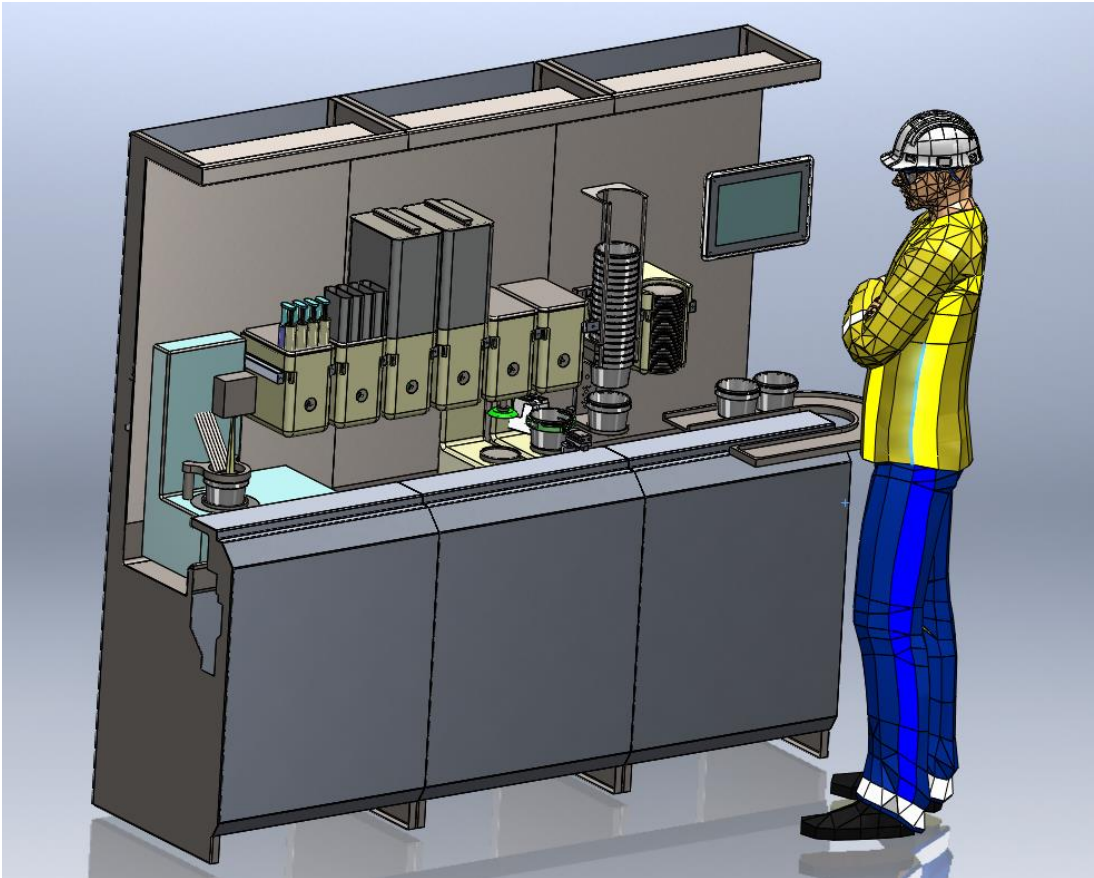
Figure 1 - Sketch of powder Fablab

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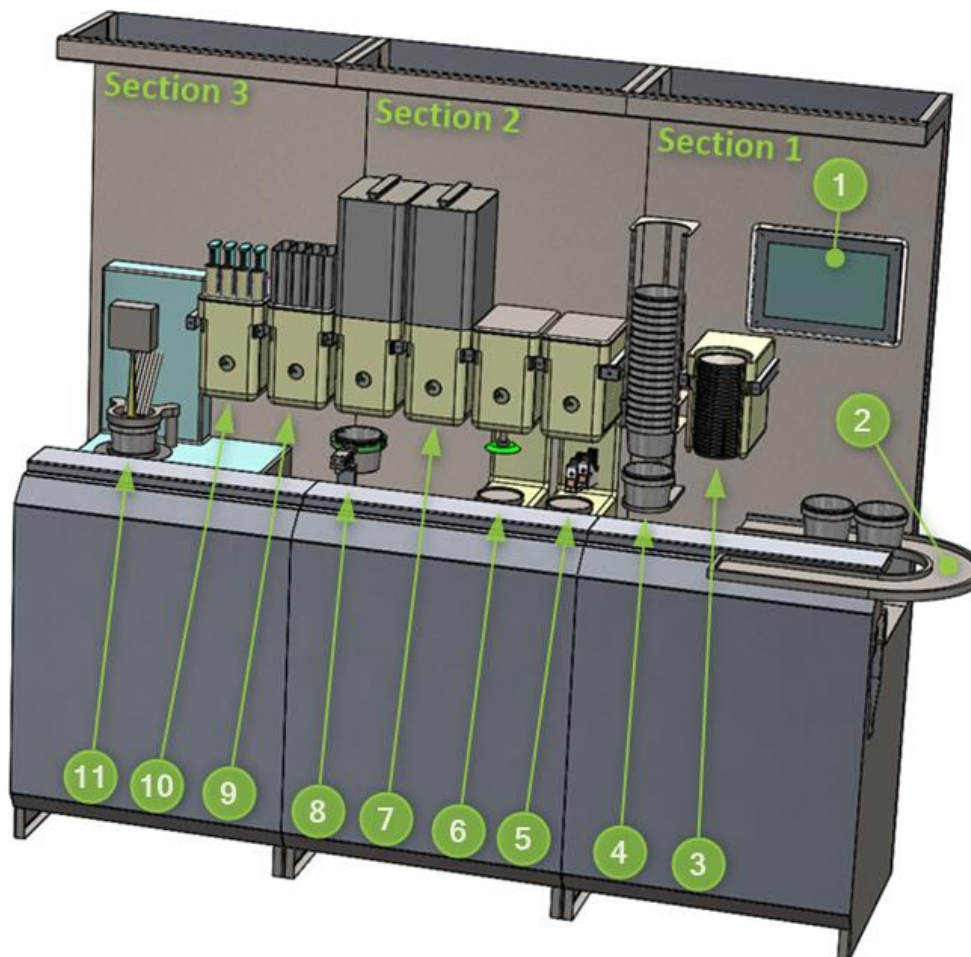
Figure 2 - Overview of powder Fablab

#	Type	Description
1	HMI	Setup, messages, alarms etc.
2	Outlet	Table for finished products.
3	Lid dispenser	Automatic release of one lid.
4	Cup dispenser	Automatic release of one cup.
5	Printer	Cup is rotated to print around the cup. IncJet is applied directly onto the outer surface of the cup.
6	Lid on/off	Pneumatic cylinder with vacuum gripper. Open and close the lid.
7	Powder, 7 liter	Container with screw to feed out powder/granulates.
8	Manipulator	Gripper with x and z movement. Load cell to measure the cup weight.
9	Powder, 4 x 500ml	Container with 4 screws to feed out powder/granulates.
10	Spray, 4 x 50ml	Container with 4 piston pumps and 4 spray nozzles.
11	Mixer	Mixing unit. Cup, without lid, is shaken to mix the ingredients. Liquids can be sprayed directly into the cup during mixing.

		Product can be scanned during mixing.

The main section will contain the control system hardware and a touch screen with the graphical user interface. All external connections to the machine, like power, ethernet and compressed air will connect through this module. The main section will also provide connections for power and communication to the neighbour section. The section will require a single phase 16A 240V power supply. The sections are planned to be about 600 mm deep, 800 mm wide and 1700 mm high. Module sections consist of four module slots with universal interface connections located in the rear wall. Any module can be plugged into any slot. The module will identify itself, what type of service it offers, its position and status to the control system. Each module has a standardized connector in the back for connecting it to the machine. The module itself can be advanced with multiple operations or very simple with a single operation, but it will communicate with the machine control system using a common interface on a common protocol.

Open Innovation Competition overview

Timeline

The Open Innovation Call starts with the announcement on the EU participant portal and on the EU DIY4U project website.

The OIC is **open from 15th of February to 30th of April 2021**.

Evaluation (incl. signature of Sub-Grant Agreement) is expected to be completed by 11th of June 2021.

Funded Open Innovation Projects (OIPs) are expected to start 14th of June and completed by 14th of December 2021.

Funding

The aim of DIY4U's Open Innovation Call is to fund **up to four winners**.

Each winner will be funded up to 50 000 € for running one Open Innovation Project.

Only **one proposal per applicant** may be selected for funding under the OIC.

Applicants selected under the OIPC call will carry out their proposed project and deliver a Final Project Report, before receiving the lump sum payment of € 50000 (maximum) to be paid by DIY4U upon reception and approval of the report. Two cost categories are foreseen as eligible:

A.   Direct & Indirect cost

Purchase of a service by a knowledge provider on a daily fee basis and at reasonable market rates. The indirect costs charged by a knowledge provider shall not exceed twenty-five percent (25%).

B.   Travel costs up to 10% of the total amount.

In case the delivered final project, report is not approved by the DIY4U consortium, based on objective circumstances and with the appropriate motivations, no payment will be effected and the applicant can decide to resubmit a new version of the Final Project Report or simply withdraw from the contractual relationship with DIY4U. Sub-grants are fully funded by European Union's Horizon 2020 Research and Innovation Programme - grant agreement No. 870148. It is not possible to accumulate this sub-grant with any other public aid.

Submission process

Submission of applications

To submit an application to the OIC, the application form at this site must be filled out:
https://digitalcatapult.submittable.com/submit/186889/diy4u-open-innovation-competition

In the application form, the applicants will answer eligibility criteria questions and provide more detailed information on their proposed solution and background.

Only NON-CONFIDENTIAL MATERIAL shall be included in the application.

Evaluation process

Evaluation of proposals

The information provided in this submittable form will be used to evaluate the prospective applicants.

Proposals which do not fulfil the eligibility criteria will not be further considered.

Proposals whose technical feasibility is rated > 3, will be further evaluated externally (by experts who are independent from the organisations involved in the Consortium and from the OIC applicants) based on the Evaluation Criteria detailed below. The final score will be calculated as an average of the individual assessments provided by the Evaluators.

The highest rated proposals will be invited to pitch their Open Innovation Projects and give a more detailed description of their proposals. A List of Finalists and Reserve List will be drawn up at a Consensus meeting of the Evaluation Committee.

A report on the OIC and its outcome will be sent to the European Commission. A public summary of the report will be published on the project website within 30 days after the end of the evaluation.

Evaluation Criteria

Applications will be evaluated according to the following criteria with equal weights in each:

Relevance to the challenge
Do the applicants understand the challenge being faced by the challenge owner? Do the applicants strongly demonstrate their relevance to the challenge against several or all of the following key aspects: market, technology, context, timing / state of maturity, value alignment / aims and vision?

Technical Feasibility
Technical maturity - are they ready to run? Have the applicants stated clearly enough their technical needs - what do they need to run, what don't they have, and is that easily accessible? How easy is it to maintain the technology, what roadblocks do they foresee and how will they tackle them? Time of development and implementation?

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Team Quality

Who's in the team? What are their different expertise areas? What is their availability / capacity during the time of the program? Does the applicant demonstrate good enough expertise and complementary skills in terms of backgrounds?

Novelty and Innovation

How new is this project compared to existing ones? Are the applicants able to identify competing existing offers/solutions? Are they also able to demonstrate how their application/approach is unique / different? Can the applicants explain novelty beyond just technical, and tell us how innovative their approach/project is socially, environmentally, economically, legally, ethically? Rate of adoption - how novel is the applicants' solution user engagement process? Do they know / can they inform on their rate of adoption?

Scoring

The proposals will get a score between 1 and 6 for each of the four evaluation criteria, where the scale is defined as follows:

1 – Poor
2 – Fair
3 – Average
4 – Good
5 – Great
6 – Outstanding

Open Innovation Projects

Sub-Grant Agreement

Before starting any Open Innovation Project (OIP) activity, the project coordinator (SINTEF AS) will sign a Sub-Grant Agreement with each winner, on behalf of the DIY4U consortium.

Deliverables in the OIPs

- Software extensions (demonstrators) as proposed and in compliance with the technical descriptions of the relevant call
- A final project report

Support to the winners during the Open Innovation Projects

The relevant DIY4U partners shall provide with reasonable assistance in order to ease use of DIY4U resources, review deliverables and results and monitor overall. In particular, the partners will organize and provide:
- Welcome event within four weeks following the signature of the sub grant agreement
- Clustering workshop for linking the OIPs and the overall DIY4U approach
- The technical partners in DIY4U will provide technical mentorship during the OIPs and the mentors will also evaluate the OIPs and their performance

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Additional information

Reservations and amendments

Substantial reservation and amendments to the Sub-Grant Agreement will lead to rejection of the application.

Reservations and amendments shall be precise and clear, making it unnecessary for the partners in the DIY4U project to seek clarification regarding these elements during the evaluation process.

Reservations and amendments shall clearly and unambiguously refer to the relevant annex and section of Sub-Grant Agreement.

Reservations and amendments shall be clearly listed in a "Reservations and amendments log" together with the consequences such reservations and amendments may have on the performance or any other elements of the application.

Change and cancellation of the competition and rejection of applications

The DIY4U consortium partners have the right to modify the provisions of this OIC at any time prior to submission due date.

Clarifications and additional requirements can be added. Notification of such changes will be provided on the Project web site.

The DIY4U consortium partners have the right to cancel the competition or to reject any or all applications, at no cost and at their own discretion.

IPR

The following Intellectual Property Rights (IPR) conditions must be adhered to:

1. The application shall only include NON-CONFIDENTIAL material.
2. The application must be solely based on original works of the applicants and their foreseen developments must be free from infringement of third-party rights. Any limitation to freedom to operate must be clearly stated in the application.
3. All background provided by the funded applicant is and shall at all times remain the property of the funded applicant.
4. All results (incl. any related intellectual property rights) created by the funded applicant solely and/or in collaboration with the DIY4U consortium partners, will be owned by the DIY4U consortium partners which shall be free to exploit such results without obtaining any consent from, paying additional compensation to, or otherwise accounting to the funded applicant.
5. Any results solely developed by the funded applicant can be exploited by the funded applicant (and its Affiliates) after the termination of the action, within the funded applicant's normal operations.
6. Any marketing activities, and approved publication by the funded applicant shall clearly indicate that the project / result has received funding from the European Union, the DIY4U project and Horizon 2020 displaying the EU logo on all printed and digital material, including websites and press releases.

Intellectual Property Rights (IPR) conditions, confidentiality and publication are further detailed in the Sub-Grant Agreement.

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Annexe 3: Application Form

Application Form in the online "Submittable form" hosted by DIY4U partner Digital Catapult (DCC)

Page 2-5: Screen shots of how the application form will appear for the applicants when following the link on EC Participant Portal and the DIY4U Website.

Page 6-7: Screen shots of reviewer instructions available for the External evaluators (not for applicants).

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Follow

Welcome to the DIY4U Open Innovation Competition Application Form

Please fill this out to be considered for the next stage of the selection process.

Many thanks and good luck!

DIY4U - Open Innovation Competition Submission *

Enter a title for your submission

DIY4U - Eligibility Criteria *

☐ I hereby confirm that my organisation, to the best of my knowledge, complies with the Small and Medium-sized Enterprises (SME) criteria defined by European Commission (EC).

☐ My organisation, to the best of my knowledge, has no affiliation or previous history with DIY4U and its consortium partners.

☐ There are no ethical issues to indicate

01. What is the formal name of your organisation / application (include acronyms or other identifiers if relevant). *

Limit: 20 words

9-digit Participant Identification Code (PIC) of your organization:

SMEs intending to submit a proposal must register their SME status in the Participant Register on the Funding & Tenders Portal by completing an SME self-assessment questionnaire guiding the applicant through the EU SME definition.

02. Please provide your full name *

Limit: 20 words

Please provide an email address so we can contact you *

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03. What challenge do you intend to see your application considered for? *

You may only apply for one of the challenges mentioned.

04. Please describe the solution you intend to develop to address the selected challenge. *

Limit: 700 words

05. Please provide details on the technical aspect of your project / solution idea, and its current technical maturity / readiness. Please also state here what technical requirements from your end will need to be filled for your project to be success *

06. What data do you currently use and what data do you think you would need to demonstrate the value of your project in response to the challenge? *

Limit: 200 words

07. Who will form the team to join the programme and develop your project with the challenge owner? Highlight here technical and business skills and experience, relevant sector experience, programme commitment capacity / availability, etc. *

Limit: 250 words

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08. Please tell us how your approach to the challenge and your proposed project for it stands out and differentiates. What is novel and unique about it and why the evaluators and DIY4U consortium should select you. *

Limit: 250 words

09. Please add anything else you think will make your application stronger, and that has not been covered in the answers to the other questions (links to websites, demos, or online documentation allowed, if relevant). *

Limit: 250 words

GDPR Consent

By completing this application form, you confirm your consent for your data to be processed and stored only for the purpose of assessing this application by the DIY4U Consortium and for the DIY4U Consortium to undertake research for the purpose of assessing the DIY4U Competition. The personal data you provide will be kept for the duration of the DIY4U competition, that is, until November 2021. Any time during the process you have the right to access and erasure your data as well as any right attributed to you by the GDPR and all other applicable rules and regulations. Once that time comes, we will keep the data securely stored for the time that is legally required.

Submit   Save Draft

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Reviewer Instructions

Please review each application and score accordingly with the information you have seen relevant to the criteria.

Relevance to challenge (Q4) *

○ Poor - 1	(+1)	
○ Fair - 2	(+2)	
○ Average - 3	(+3)	
○ Good - 4	(+4)	
○ Great - 5	(+5)	
○ Outstanding - 6	(+6)	

Do the applicants understand the challenge being faced by the challenge owner? Do the applicants strongly demonstrate their relevance to the

Relevance to challenge (Q4)

Reviewers notes & comments

Technical feasibility (Q5 & 6) *   Edit   🗑

○ Poor - 1	(+1)	
○ Fair - 2	(+2)	
○ Average - 3	(+3)	
○ Good - 4	(+4)	
○ Great - 5	(+5)	
○ Outstanding - 6	(+6)	

Technical maturity - are they ready to run? Have the applicants stated clearly enough their technical needs - what do they need to run, what don't they

Technical feasibility (Q5 & 6)

Reviewers notes & comments

Team quality (Q7) *   Edit   🗑

○ Poor - 1	(+1)	Who's in the team? What are their different expertise
○ Fair - 2	(+2)	areas? What is their availability / capacity during the
○ Average - 3	(+3)	time of the program? What is the gender
○ Good - 4	(+4)	
○ Great - 5	(+5)	
○ Outstanding - 6	(+6)	

Team quality (Q7)

Reviewers notes & comments

Novelty and Innovation (Q8) *

○ Poor - 1	(+1)	How new is this project compared to existing ones?
○ Fair - 2	(+2)	Have the applicants shown that they have done a
○ Average - 3	(+3)	
○ Good - 4	(+4)	
○ Great - 5	(+5)	
○ Outstanding - 6	(+6)	

Novelty and Innovation (Q8)   Edit   🗑

Reviewers notes & comments

Annexe 4: Frequently Asked Questions

Frequently Asked Questions (FAQ)

DIY4U First Open Innovation Competition

ABOUT THE PROGRAMME

- **What is DIY4U?**

DIY4U is an innovative project to develop and promote decentralised customer-centric product design & production approaches for Fast Moving Consumer Goods (FMCGs). The DIY4U project enables consumers to collaborate with manufacturers to design and create personalised FMCGs, though the DIY4U digital platform and Fablabs (small scale manufacturing demonstration facilities).

- **What are the objectives of DIY4U?**

The main objective of DIY4U is to develop and promote the adoption of collaborative production engineering approaches (B2B/B2C digital platform & Fablabs) in the FMCG sector, spurring rapid production and commercialisation of new/innovative personalised or customised products for the benefit of consumers.

- **What are the benefits of DIY4U?**

DIY4U will help in digitalizing and transforming European industries and services involved in the formulation, production and supply of particulate and liquid based Fast-Moving Consumer Goods (FMCG), enhancing the innovation capacity and competitiveness through decentralized customer-centric production approaches.

- **Who is DIY4U developed by?**

Coordinated by SINTEF, DIY4U is developed together by thirteen expert partners from seven European countries with a world class reputation in the industry.

SINTEF (Norway) Coordinator
Procter & Gamble Company (UK)
Centre for Process Innovation Limited (UK)
VTT (Finland)
Technology Centre of Metal-mechanical and Transport (Spain)
IRIS Technology Group (Spain)
Digital Catapult Centre (UK)

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Cap Digital, (FR)
CODY AS (Norway)
RDIUP (France)
Stelar Security Technology Law Research UG (Germany)
Effective Decisions (Romania)
Dynamic & Security Computations (Spain)

● **What are the key dates for the competition?**

The Open Innovation Call is open from 15th of February to 30th of April 2021.
Evaluation will be finished by early June and contracts is expected to be signed by 11th of June 2021.
Funded projects will start 14th of June and will be finished within 14th of December 2021.

DIY4U APPLICATION PROCESS

● **Who can apply?**

The applicant organisation should comply with the Small and Medium-sized Enterprises (SME) criteria defined by European Commission (EC).
For further detail of SME Definitions of EC: https://ec.europa.eu/growth/smes/sme-definition_en
Applications will not be accepted from persons or organisations that are partners in the DIY4U consortium or are formally linked in any way to consortium partners.

● **How do I apply?**

Fill in the application form: https://digitalcatapult.submittable.com/submit/186889/diy4u-open-innovation-competition

● **What are the judging criteria?**

The applications will be judged according to the following criteria:

1) Relevance to the challenge

Do the applicants understand the challenge being faced by the challenge owner? Do the applicants strongly demonstrate their relevance to the challenge against several or all the following key aspects: market, technology, context, timing / state of maturity, value alignment / aims and vision?

2) Technical Feasibility

Technical maturity - are they ready to run? Have the applicants stated clearly enough their technical needs - what do they need to run, what don't they have, and is that easily accessible? How easy is it to maintain the technology, what roadblocks do they foresee and how will they tackle them? Time of development and implementation?

3) Team Quality

Who's in the team? What are their different expertise areas? What is their availability / capacity during the time of the program? Does the applicant demonstrate good enough expertise and complementary skills in terms of backgrounds?

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4) Novelty and Innovation

How new is this project compared to existing ones? Are the applicants able to identify competing existing offers/solutions? Are they also able to demonstrate how their application/approach is unique / different? Can the applicants explain novelty beyond just technical, and tell us how innovative their approach/project is socially, environmentally, economically, legally, ethically? Rate of adoption - how novel is the applicants' solution user engagement process? Do they know / can they inform on their rate of adoption?

● **Who will my application data be shared with?**

The DIY4U consortium commits to handling personal data confidentially, except for the call results.

Additional information

For additional information please refer to the Guide for Applicant
https://www.sintef.no/globalassets/project/diy4u/diy4u-oic1-guide-for-applicants.pdf

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