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# DELIVERABLE 8.1

## Dissemination & Exploitation plan 1

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## List of Acronyms

<b>ASRM</b>	American Society of Reproductive Medicine	<b>GRL</b>	Wellcome Sanger Institute	<b>IP</b>	Intellectual property
<b>BAHIA</b>	Bahia Software, SL.	<b>H2020</b>	Horizon 2020	<b>IPR</b>	Intellectual Property Rights
<b>CA</b>	Consortium Agreement	<b>HCA</b>	Human Cell Atlas	<b>KPI</b>	Key performance indicator
<b>C&amp;D</b>	Communication and Dissemination	<b>HCA-DCP</b>	Human Cell Atlas Data Coordination Platform	<b>R&amp;D</b>	Research and development
<b>C&amp;D-M</b>	Communication and dissemination Manager	<b>HPA</b>	Human Protein Atlas	<b>RNA</b>	Ribonucleic Acid
<b>CCHT</b>	Competence Centre on Health Technologies	<b>HUTER</b>	Human Uterus Cell Atlas Project	<b>SME</b>	Small and Medium enterprise
<b>EC</b>	European Commission	<b>IAB</b>	Industry Advisory Board	<b>UPPSALA</b>	Uppsala University
<b>EMBL-EBI</b>	European Bioinformatic institute of the European Molecular Biology Laboratory	<b>IC</b>	Innovation Committee	<b>UEA</b>	University of East Anglia
<b>ESHRE</b>	European Society of Human Reproduction	<b>ICT</b>	Information and Communication Technologies	<b>WP</b>	Work Package
<b>EU</b>	European Union	<b>IM</b>	Innovation Manager		
<b>GA</b>	Grant Agreement	<b>INCLIVA</b>	Fundación para la Investigación del Hospital Clínico de la Comunidad Valenciana		

## Purpose of this document

The purpose of this report is to present the Plan for the Communication, Dissemination and Exploitation of the HUTER's project results. It aims to draw an overview of the actions and procedures that the HUTER consortium must follow.

According to the Fact sheet of the IPR Helpdesk about the plan for the exploitation and dissemination of the results, this should be a strategic document in which the consortium partners define the bases for the



management of the results and which would be the actions that are going to be taken. In order to adapt the strategy to the new events that may arise during project development, it is foreseen a new deliverable named *D8.2\_Dissemination & Exploitation Plan 2* with due date month 12. Such document will be an update of this document after first year of the project to better respond to the HUTER project necessities.

This document has been developed by INCLIVA as lead of the Work package 8 (WP8): Communication, Dissemination & Exploitation Plan, in close collaboration with BAHIA partner. Then, it is shared to the rest of the partners for the revision and comments, so all members of the consortium are aware about the processes and procedures.

**Related documents:**

*D8.2\_Dissemination & Exploitation Plan 2*

*D8.3\_HUTER workshop*

*D8.4\_Record on the Dissemination & Exploitation*

*D9.2\_Data Management Plan*



## EXECUTIVE SUMMARY

HUTER project is aimed to create the reference cellular map of the human uterus, being involved in the international Human Cell Atlas (HCA) initiative. HUTER consortium is committed to performing communication, dissemination and exploitation activities as described in work package 8 and stated in the Grant Agreement signed. Main topics covered in this document are the basic communication, dissemination and exploitation concepts and its key messages and strategies established in HUTER project. The document is divided in three main sections: 1. Introduction to the HUTER project, 2. Communication and dissemination (C&D) plan, and 3. Exploitation plan.

For the communication and dissemination plan, the main objective, target audience and key messages are defined. It is also described the tools and channels already created or planned (toolkit1), as well as other already existing channels to be used in order to achieve our communication and dissemination objectives. Responsibilities and procedures are also described. Finally, how we are going to evaluate and report the achievements in this area are written.

In the last section 3, it is outlined an “Initial Exploitation Plan” that primarily approach the exploitation objectives and strategy for the HUTER project that will be enforced during the project lifetime. The exploitation plan is defined how the results (any tangible or intangible output) are going to be available for partners own, scientific, social or economic purposes. It is established as well how to evaluate them as protectable or not, and which will be the best strategy to follow. The Innovation Committee oversees the exploitation tasks and shall assist the Steering Committee when taken decisions related to intellectual property rights (IPR) and exploitation, as defined in section 3.3.1

## 1. INTRODUCTION

### 1.1 About the HUTER project

The HUTER consortium was created to respond to the call “Pilot actions to build the foundations of a human cell atlas” of the Horizon 2020 programme and is foreseen to contribute to the Human Cell Atlas initiative (HCA).

The HCA is an international, collaborative initiative aimed to define all human cell types in terms of their distinctive patterns of gene expression, physiological states, developmental trajectories, and location.

HUTER consortium is formed by 6 partners from 4 European countries (Spain, United Kingdom, Sweden, Estonia) and consists of Hospital foundations, R&D Centres, universities and enterprises (SME):

Fundación para la Investigación del Hospital Clínico de la Comunidad Valenciana (INCLIVA), Spain, [www.incliva.es](http://www.incliva.es)



Wellcome Sanger Institute (GRI), UK, [www.sanger.ac.uk/](http://www.sanger.ac.uk/)



Uppsala University (UPPSALA), Sweden, [www.uu.se](http://www.uu.se)



Competence Centre on Health Technologies (CCHT), Estonia, [www.ccht.ee](http://www.ccht.ee)



University of East Anglia (UEA), United Kingdom, [www.uea.ac.uk](http://www.uea.ac.uk)



Bahia Software SLU (BAHIA), Spain, [www.bahiasoftware.es](http://www.bahiasoftware.es)



The HUTER consortium focusses in human uterus as this main reproductive organ has profound implications not only in reproduction but also in women’s health and their newborns.

The primary aim of the HUTER project is to create the reference map of the human uterus, as a crucial resource for the scientific community to define the cellular basis of health and disease of this important organ.

The secondary aims of this project are to:

- To ensure a tight coordination with HCA during the whole project in order to be able to share research data and analysis results as early as possible. HUTER is aligned with HCA standards, and it is also integrable/interoperable with other human organs' cell atlas to be delivered in other projects of this call (namely Atlas Projects, from now on). We will also establish plan for ethical and legal compliance of all project activities and deliver a plan of actions for HUTER sustainability after project end.
- To secure access to the organs and tissues to be used in HUTER project in compliance with ethics and data management issues.
- To achieve molecular characterisation at single cell resolution in endometrium and myometrium tissues across lifespan and during the menstrual cycle in order to identify cell types and states, methylation profiles and high-resolution spatial maps (transcriptomics and proteomics).
- To implement and validate an HUTER platform for data sharing among HUTER partners and for share results with the other Atlas Projects and the HCA initiative.
- In addition to HUTER core activities devoted to undertaking the cellular resolution mapping of the healthy human uterus, this project will also perform a comparison with a pathological status, as a demonstration of how HUTER can also lay the groundwork for improving diagnosis and treatment of disease

HUTER project results will allow a better understand of the human uterus in order to more effectively address uterine diseases that might contribute to infertility, infant and maternal mortality and morbidity, as well as women's health.

## 1.2. Background and justification in HUTER project

To better understand the concepts behind communication, dissemination and exploitation, the following table 1, extracted from European IPR Helpdesk<sup>1</sup> compares the different definitions, objectives, focus and main target audiences for each of these concepts.

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<sup>1</sup> Source: [https://www.iprhelpdesk.eu/sites/default/files/EU-IPR-Brochure-Boosting-Impact-C-D-E\\_0.pdf](https://www.iprhelpdesk.eu/sites/default/files/EU-IPR-Brochure-Boosting-Impact-C-D-E_0.pdf)



Table 1. Central definitions, source: [IPR helpdesk](#)

Communication	Dissemination	Exploitation	
<p>"Communication on projects is a strategically planned process that starts at the outset of the action and continues throughout its entire lifetime, aimed at promoting the action and its results. It requires strategic and targeted measures for communicating about (i) the action and (ii) its results to a multitude of audiences, including the media and the public and possibly engaging in a two-way exchange."</p> <p>(Source: EC Research &amp; Innovation Participant Portal Glossary/Reference Terms)</p>	<p>"The public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium."</p> <p>(Source: EC Research &amp; Innovation Participant Portal Glossary/Reference Terms)</p>	<p>"The utilisation of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation activities."</p> <p>(Source: EC Research &amp; Innovation Participant Portal Glossary/Reference Terms)</p>	 <b>Definition</b>
<p><b>Reach out to society and show the impact and benefits</b> of EU-funded R&amp;I activities, e.g. by addressing and providing possible solutions to fundamental societal challenges.</p>	<p><b>Transfer knowledge &amp; results</b> with the aim to enable others to use and take up results, thus maximising the impact of EU-funded research.</p>	<p><b>Effectively use project results</b> through scientific, economic, political or societal exploitation routes aiming to turn R&amp;I actions into concrete value and impact for society.</p>	 <b>Objective</b>
<p><b>Inform</b> about and <b>promote</b> the project AND its results/success.</p>	<p><b>Describe</b> and <b>ensure results available</b> for others to <b>USE</b> → focus on results only!</p>	<p><b>Make concrete use</b> of research results (not restricted to commercial use.)</p>	 <b>Focus</b>
<p>Multiple audiences beyond the project's own community incl. media and the broad public.</p>	<p>Audiences that may take an interest in the potential <b>USE</b> of the results (e.g. scientific community, industrial partner, policymakers).</p>	<p>People/organisations including project partners themselves that make concrete use of the project results, as well as user groups outside the project.</p>	 <b>Target Audience</b>
<ul style="list-style-type: none"> <li>• Rules for Participants</li> <li>• RIA &amp; IA Proposal Template 2.2 b)</li> <li>• Grant Agreement Art. 38.1</li> </ul>	<ul style="list-style-type: none"> <li>• Rules for Participants</li> <li>• RIA &amp; IA Proposal Template 2.2 a)</li> <li>• Grant Agreement Art. 29</li> </ul>	<ul style="list-style-type: none"> <li>• Rules for Participants</li> <li>• RIA &amp; IA Proposal Template 1.1, 2.1, 2.2 a)</li> <li>• Grant Agreement Art. 28</li> </ul>	 <b>Formal Obligations</b>

Therefore, a central goal of a communication, dissemination and exploitation plan is to maximise opportunities to promote, communicate and disseminate research results throughout the lifetime of an action (project), and beyond.

HUTER project shall contribute to the HCA not only in a timely fashion but also in the long term. Our sustainability plans correspond to a scenario where HUTER platform (biological and technological) continues to grow by incorporating new data sets and images from international scientific contributors, in a cooperative effort to expand the human uterus cellular map.

HUTER project is expected to have an impact on contributing to enhance the European role in the HCA, by delivering the first cell atlas of the human uterus, exhibiting to the international community how European researchers contribute to set excellent foundations for the global human cell atlas.

To effectively publicise and exploit HUTER's findings, we are going to perform communication, dissemination and exploitation activities as described in Work package 8 of HUTER work plan, with the following main objectives: 1) to raise interest and awareness around research in human reproduction health and disease, 2) to encourage stakeholders in Europe to actively engage with their areas of action, 3) to identify expectations among stakeholders and policy-makers, and 4) to disseminate results in strategic and targeted ways.

Finally, it is important to highlight that HUTER consortium is also committed to fulfill the legal requirements regarding these activities, described in Art. 28 on Exploitation, Art 29 on Dissemination and Art. 38. on Communication of the Grant Agreement (GA).

## 2. DISSEMINATION AND COMMUNICATION PLAN

According to the above definitions we can summarize the main differences between communication and dissemination as:

- **Communication** is about project and its results. It shows the impact and benefits and it is targeted to multiple audiences, including media and society. Websites and social media are some examples of communication tools
- Dissemination is about results only; it describes and ensures results are available for others to use; it aims to transfer knowledge and results to audiences with an interest in the potential use, such as the scientific community, industry or policy makers. Some examples are peer-reviewed papers, books and book chapters, presentations on scientific conferences and social events.

It should be mentioned that communication and dissemination (C&D) actions can sometimes overlap.

### 2.1 C&D objectives and strategy

Our main objective of the planned C&D activities is to increase the **visibility** of the HUTER project itself, and of its achievements and outputs, on selected communities and target groups in European and International level. A tight collaboration with the HCA initiative will further facilitate to maximise such visibility as well as the expected impact in a wider population.

The specific objectives pursued in our C&D plan are:

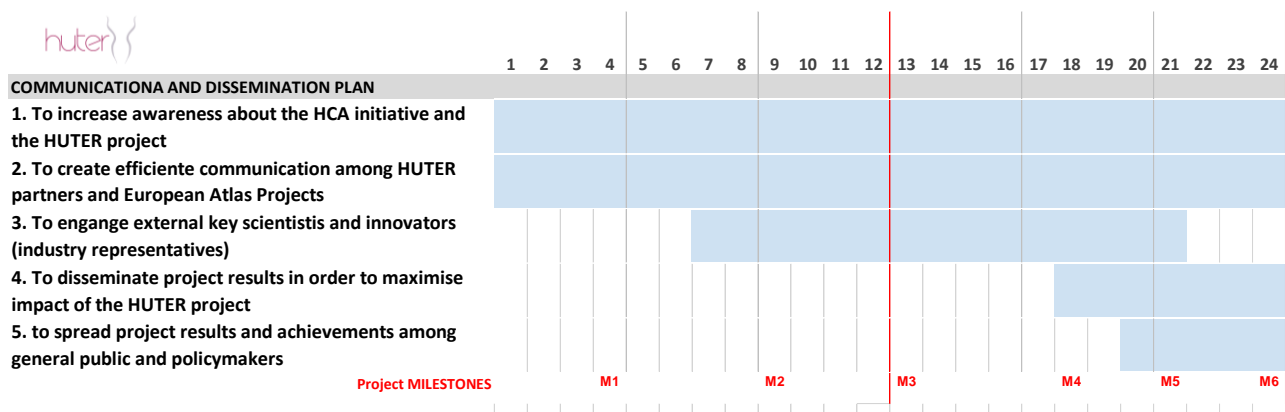
1. To **raise awareness** about the Human Cell Atlas initiative and more specifically about HUTER project, its expected results and progress using effective communication means and tools.
2. To **create efficient communication among project partners** and **exchange experience** with other international HCA projects and above all with the six European Atlas Projects working in the field in order to join efforts, minimize duplications and maximize potential.
3. To **engage** external key scientistis and innovators (industry representatives) mainly from Europe, in order to **increase european competitiveness in the field**.
4. To **disseminate** the fundamental knowledge, the methodologies (protocols) and technologies (HUTER platform) developed during the project in order **to enable others to use and take up results, thus maximising the impact of HUTER project**.
5. To spread the **project results and achievements** among general public and policymakers aiming to **influence future research** in human reproduction and women's health fields.

To achieve these objectives, we will follow a strategy based on the EC Guidelines for effective dissemination:

- An effective **network** with the other 6 European Atlas projects and the HCA initiative: attend meetings and relevant events, and joint efforts in C&D activities will maximise their impact.
- All research results/reports will be duly **reviewed**, and a copy will be sent to all partners involved in the project before these are published or disseminated. When appropriate, the reports will refer to other research projects and build on the existing results and literature.
- Research will be conducted following sound analysis and scientific practice **principles**, taking into account as much as possible policy requirements and needs.
- All partners who will contribute to the project activities will be **duly informed** about the final outcomes and the implications stemming from project results.
- All public results will be **accessible** from the project website and usable from all parties and collaborators who may benefit from them. The definition of the dissemination strategy is based on the identification of the following milestones: a) the subject of dissemination (what will be disseminated), b) the identification of target audience (who will most benefit from the project results and who would be interested in learning about the project findings), c) the timing (when dissemination will take place), d) the dissemination management and policy (who is responsible of and how dissemination is ruled).

## 2.2 Timeline

The C&D objectives stated before have been assigned to a period in accordance with HUTER Gantt and its main milestones. Although a number of dissemination activities will take place during the first 12 months of the project, the most significant dissemination activities will be performed during the last 6 months when research results will be available.



**Figure 1.** Phases of the C&D plan for HUTER project. Milestones of the HUTER project are: M1-started tissue procurement, M2-HUTER platform architecture designed, M3-HUTER raw data available and HUTER platform architecture finalised, M4-Recruitment of research participants and donors finalised, M5-finalised the high resolution spatial maps and epigenomics maps, finalised visualization tools.

## 2.3 Targeted audiences

### 2.3.1 Internal

Ensuring effective internal C&D among the Consortium partners represents a key success element for the HUTER Project. This not only will facilitate to achieve the C&D objectives, but also because they are potential end-users of project results themselves.

Consortium’s support network is also relevant since they represent relevant experts in the main areas of the project and are members of associations, initiatives or organizations in the field, such as the HCA, the Human Protein Atlas (HPA), European Society of Human Reproduction (ESHRE), the American Society of Reproductive Medicine (ASRM), etc. Thus, HUTER partners play an important role in communicating to the scientific community and should therefore exploit opportunities to present the project and its results.

### 2.3.2 Collaborators: Human Cell Atlas initiative and European Atlas Projects

As described in Workpackage 1, HUTER consortium is committed to network with the HCA and the 6 other European Atlas Projects that address the creation of cell atlas in other key human organs. Also, GA at Article 42 establishes the *obligation to conclude a “written collaboration” agreement to coordinate the work (create and participate in common boards and advisory structures to decide on collaboration and synchronization of activities, including on management of outcomes, common approaches towards standardisation...and commonly shared dissemination and awareness raising activities.*

Other collaborations with relevant initiatives such as the HPA are foreseen within HUTER project: for example, some high resolution images generated in this project could be disseminated in the HPA portal, in order to maximise its target audience.

### 2.3.3. External

Several target groups have been identified (Table 2) to address the different C&D actions.

**Table 2.** *The identified type of external audience and the motivation to include them as target group for the C&D activities of the HUTER project.*

Target group	Motivation
<b>Academic, clinical and research community</b>	This group targets all research communities interested in the Human Uterus Cell Atlas due to its potential to provide comprehensive cellular references to scientists, from basic research of uterine biology to clinically relevant applications in uterus health and diseases. Scientific contributions of the project are particularly interesting for researchers/clinicians working in reproductive medicine, gynaecology, and obstetrics, as well as regenerative medicine in other fields, for their own research activities. Data and new knowledge generated in HUTER project have enormous potential to better understand women’s genotypic and phenotypic affecting several women’s diseases and/or efficacy of Assisted Reproductive Techniques.
<b>Innovation community: SMEs and large enterprises</b>	Industry could benefit in the mid-long term from curated data and the tools to facilitate their usability (technological platform) made accessible in HUTER, in many new clinical products and software tools (e.g. new software products using HUTER

	<p>data to deliver developmental cellular modelling, cellular safety for new drugs studies, algorithm to predict new biomarkers, etc.). Furthermore, industrial sector in lab equipment and consumables for High resolution and single cell characterization can find in the HUTER and HCA project a highly visible framework for early adoption of their solutions, testing and validation of their innovations. Reaching this target group will be also relevant to leverage interest from private investors. We also identify in this target group the private foundations with founding programmes for biomedicine projects. Our objective is to increase awareness among philanthropic private funders in the reproductive medicine field since Europe is still lagging in offer this type of funds.</p>
<p><b>Patients and patients' organizations</b></p>	<p>Women of any age as gynecological patients, women of reproductive age as obstetrics and gynecology patients, and infertile patients are important as they will be main beneficiaries of the projects results, not immediately, but in the near future. Besides that, it is important that the message arrive clearly to this audience, and they could be an instrument to transmit the relevance and necessity of this research. As an example, we will first direct our communication efforts to <b>Fertility Europe</b> (<a href="http://www.fertilityeurope.eu/">http://www.fertilityeurope.eu/</a>) as it is an european umbrella organization that represents patient associations in the field of (in)fertility in more than 20 european countries.</p>
<p><b>General public and students</b></p>	<p>Students from all levels and general public.</p>
<p><b>Government bodies and policy makers</b></p>	<p>This is a wide group encompassing health local, regional authorities, representatives and associations, Ministries, parliaments, and Public Administrations at national and international level. There are several significant goals that can be promoted. For instance: the women's health prevention by information or early prevention detection by genomics screenings; the promotion of national funding schemes to support reproductive medicine or HCA initiative.</p>

### 2.3 Key messages

The following general messages have been defined:

1. HUTER project itself: general scope, aims, concept and milestones and plans to reach them.
  - ✓ *The Human Uterus Cell Atlas (HUTER) project is aimed to create the reference map of the human uterus, as a crucial resource for the scientific community to define the cellular basis of health and disease, allowing the uterus healthcare, the rapid development of new diagnosis and prognosis tools and therapeutic advancements.*
  - ✓ *HUTER will use advanced characterisation methodologies based on some of the latest technological advancements in single cell resolution measurements, together with the use of advanced data integration and analysis proprietary methodologies by our world-class partners.*
  - ✓ *HUTER project will lay the groundwork for enabling improvements towards more personalised therapies and highly precise and less invasive diagnosis procedures.*

2. Scientific results: reached objectives and achievements:

- ✓ *HUTER project aims to derive single-cell and spatial maps of the healthy female uterus across the whole lifespan. These maps will provide an unprecedented insight into the location and identity of cells in developing endometrial and myometrial tissues, the remodelling of these tissues during the menstrual cycle in adult donors and transcriptional, morphological and genomics changes during ageing.*
- ✓ *HUTER will make available to the international research community on biomedicine, the first atlas of the human uterus, including:*
  - *Datasets on single-cell RNA sequencing and single-cell methylation and transcriptome*
  - *High resolution images of cells analysed in their histological context*
  - *Generated knowledge on new cell types and states, their spatial localization in tissues*

3. Protocols and technological platform (in respect of IPR issues)

- *HUTER is aligned with the HCA guidelines, standards and protocols for: Data platform, sampling approach, level of single-cell resolution, characterisation approaches.*

4. Sustainability assessment results

- ✓ *This project will deliver a platform design that promotes its usability (user interfaces, guidelines, use cases) and ensures its scalability.*
- ✓ *The Human Uterus Cell Atlas will be applied to a use case to demonstrate its potency as a discovery tool: the early diagnosis of preeclampsia, the disease with the highest incidence during pregnancy.*

## 2.4 Actions and tools

All partners will contribute to that effort and will strive to maximize use the defined dissemination tools and channels. In the Table 3 is shown the C&D activities planned and their analysis of: Why – the purpose of the action, channel or tools; What will be communicated – the message; To whom – the audience; How – the method; When – the timing. It is also mentioned some main indicators for the evaluation of their progress. The key performance indicators (KPIs) will be considered more fully at section 2.6.1.

**Table 3.** Main C&D activities and why, to whom, what, when analysis and main indicators for their evaluation.

How (Method)	Why (objectives)	To whom (target audience)	What (key message)	When	Evaluation
<b>HUTER Brand guideline and templates</b>	to create and maintain a consistent and recognisable visual identity	All audiences	1, 2, 3, 4, 5.	Already launched at month 1. Ongoing throughout project and post-project	Usage logs and templates

<b>Website and joint landing page for Atlas projects</b>	Awareness, Inform, Engage, Promote	All audiences	1, 2, 4	Already launched at month 2. Ongoing throughout project and post-project	number of visits
<b>Social networks</b>	Awareness, Inform, Engage, Promote	All audiences	All	Launched at month 5. Ongoing throughout project and post-project	Number of followers
<b>Press Releases</b>	Awareness	General public	1, 5	At the beginning and at the end of the project.	No. of of media that have published the press releases
<b>Brochure and video</b>	Awareness	All external	1, 2	Available from from month 5 or 6.	No. of copies distributed. No. of visualizations on YouTube
<b>Industry consultations (HUTER questionnaire)</b>	To engage external key scientistis and innovators	External: Innovation community.	1, 3, 4	To be first launched at month 5 or 6.	No. of completed questionnaires collected
<b>Reports and other project documents</b>	communicate and disseminate HUTER project and its results	All audiences	All	Upon completion, according to the deliverables list	No. of downloads
<b>workshop and case studies</b>	disseminate HUTER project and its results	External: academic, clinical and innovation community	3, 4	Scheduled at month 22.	No. of attendees
<b>Attend HCA/ EC-H2020 Consortia (Atlas Projects)</b>	To ensure coherence and communication between both HCA and projects funded under this topic	Collaborators	2, 3, 4	Throughout the project period	No. of attended meetings
<b>Industry Advisory Board (IAB)</b>	To engage	External: Innovation community.	3, 4	Throughout the project period	No. of people participating
<b>Conferences Presentations /posters</b>	To disseminate project results	External: academic, clinical and innovation community	3, 4	throughout the project period*, but expected mainly during last 6 months when results will be available	No. of attended conferences and kind of participation
<b>Per-review articles in open access</b>	To disseminate project results	Research community	1, 2, 3, 4	Scientific Journals (open access)	No. of citations
<b>Participation in key policy makers forums</b>	Awareness	policymakers	1, 4	Throughout the project period*,	At least 1 per year At least 1 per partner

\*Due the outbreak COVID-19 (caused by new coronavirus SARS-CoV-2), that was declared as pandemic by the WHO on March 11, 2020, conferences and meeting and all kind of face-to-face events worldwide in any field have been canceled. The forecasts to resume this activity are at the end of 2020.



### 2.4.1 HUTER C&D Toolkit 1

#### LOGOS AND TEMPLATES:

A corporate style, including logos and standard templates, has been developed to create and maintain a consistent and recognisable visual identity of the project and consortium. Templates include a standard PowerPoint presentation and Word documents. The project partners are required to use the logo, colours of the HUTER visual identity guide (Annex I) and templates (Annex II) developed in the framework of the WP8 for all C&D internal and external activities.



**Figure 2.** HUTER logo

Partners must also make use of the EU emblem and the accompanying text (Fig. 3), in all internal and external communication and dissemination materials:



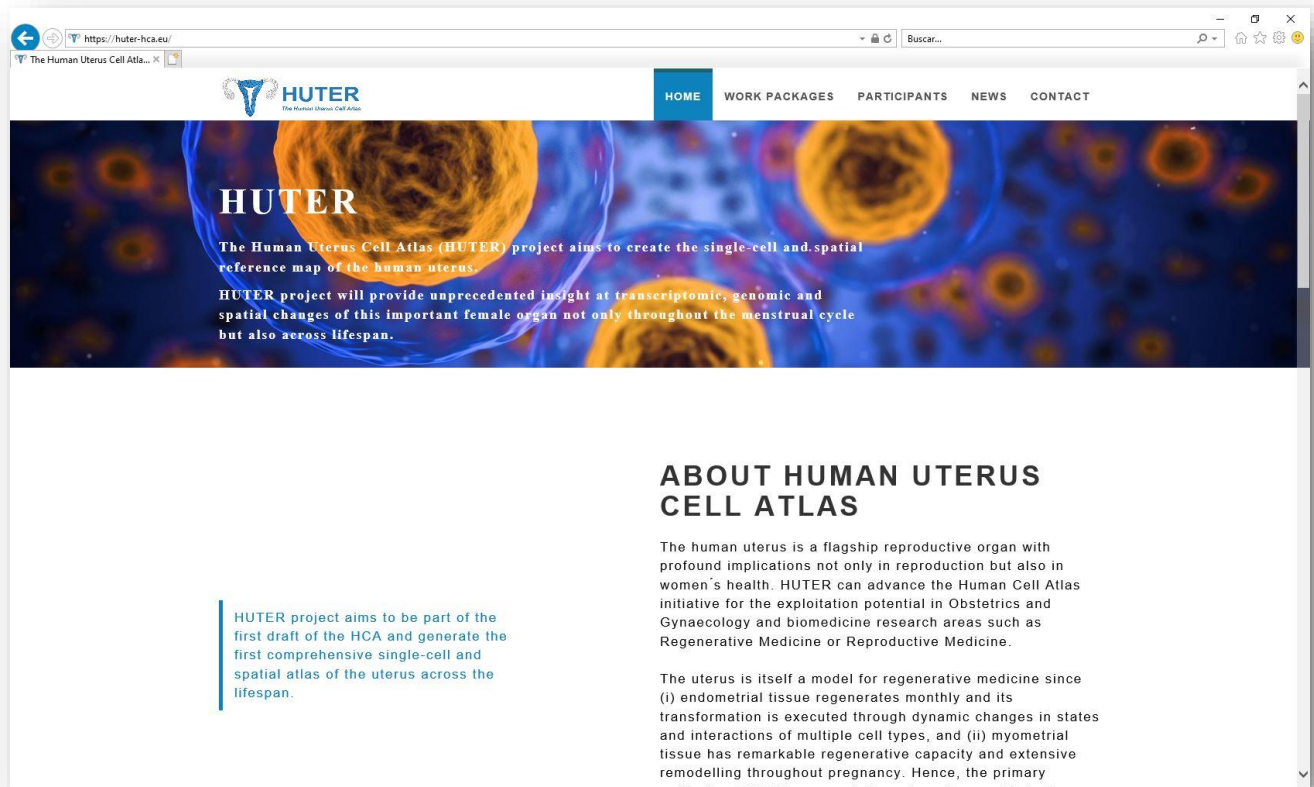
*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 874867.*

**Figure 3.** EU logo and accompanying text to be used in internal and external communication and dissemination materials.

#### PROJECT WEBSITE:

This HUTER official website (<https://huter-hca.eu/>) will become in the core of digital communication and dissemination activities of research results throughout the lifetime of the HUTER project. The first version has been developed using the open-source framework HUGO. It has been designed as a modern, static, and modular website which allows visitors to navigate through the main areas of interest through tabs (Home, Work Packages, Participants, News and Contact). The second version of the HUTER website will additionally include a unique access point for all HUTER digital solutions, such as HUTER data platform, intranet, electronic

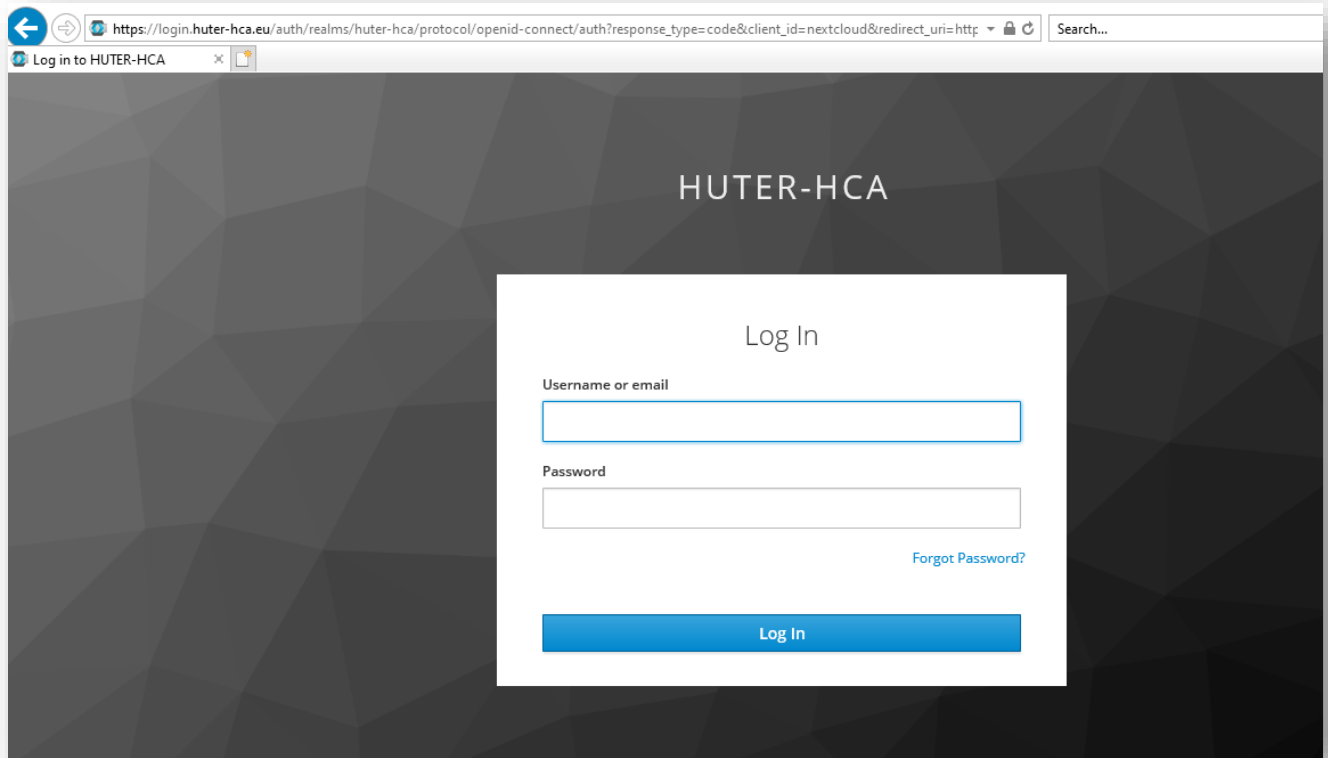
case report form (eCRF), etc. To ensure privacy and security of data, all HUTER users will have exclusive personal credentials to access to this private area that links with all HUTER digital solutions. The HUTER website is hosted on AWS server and it will be managed by INCLIVA and BAHIA to ensure that it will remain online, updated, and accessible during the entire project period. Each partner can upload their contributions or messages by contacting INCLIVA or BAHIA.



*Figure 4. HUTER webpage*

Since HUTER website is focused above all on general public, an accessible but professional language will be used as well as impacting images and visual appeal.

**Internal communication** between partners is facilitated with the **HUTER intranet platform**. Documents and files for management and C&D such as templates, deliverables, procedures, guides for C&D, and documents related to the C&D activities undertaken (press release, publications, photos from events, ect) can be uploaded on this project collaborative space created with limited access to partners. So that, all partners are fully informed about planning and work in progress.



**Figure 5.** HUTER access to the intranet for internal communication between partners purposes.

Internal communication is also achieved through partners participation in internal meetings, both face-to-face and online.

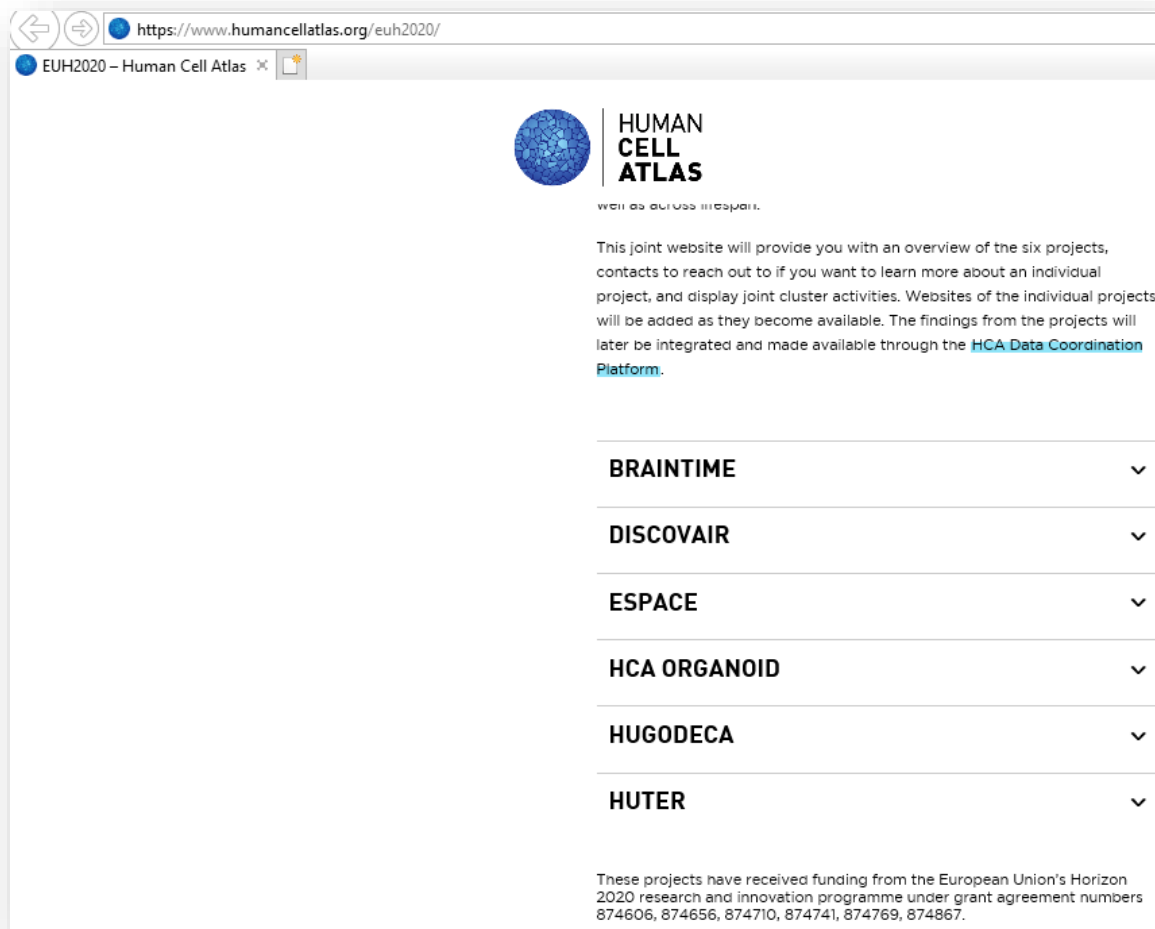
- **Kick-off meeting in Valencia, January 9th and 10th 2020:** In this first project meeting, HUTER consortium defined the activities that will be developed during first six months and we established the required collaboration framework between partners.



**Figure 6.** Photograph of the HUTER kick-off meeting.

### JOINT LANDING PAGE FOR ATLAS PROJECTS

According to recommendations of European Commission (EC), we have been collaborating with other Atlas Projects (Braintime, Discovair, Espace, HCA organoid and Hugodeca) to create a joint landing page in the Human Cell Atlas global website for all European Atlas Projects ([www.humancellatlas.org/euh2020/](http://www.humancellatlas.org/euh2020/)). The joint landing page will allow HCA global website visitors ([www.humancellatlas.org/](http://www.humancellatlas.org/)) to connect and access directly to HUTER project website (and also to other Atlas Projects) which will improve visibility and impact of our project activities globally. The development of this page is currently being coordinated by partner LINQ of ESPACE project. It will be totally defined and available when all Atlas Projects release their own official websites.



**Figure 7.** Joint landing page for the 6 European atlas projects.

### SOCIAL NETWORKS:

Twitter and Instagram accounts have been created to further disseminate the latest news about the HUTER project or HCA initiative, follow discussions in the field such as retweeting from HCA account (<https://twitter.com/humancellatlas>), participation in events, the workshop or webinars organized, etc. The

partners are encouraged to tag the project (@HUTER-hca) when they attend an event in order to centralise the conversation.

- Twitter: @Huter\_HCA

- Instagram: @Huter\_HCA

Use of social media contributes to public engagement with the project. BAHIA and INCLIVA partners will manage these accounts, but other partners are also welcomed to contribute to their content.

#### PRESS RELEASES:

A press release was launched after the HUTER kick off meeting, to communicate the project's aims and objectives and introducing the consortium to society (see Annex III) in the different local languages of partner's countries. A good impact in written and digital press was obtained in the following days.

Another press release will be disseminated at the end of the project to highlight the project's results and recommendations.

#### BROCHURE & VIDEO:

A brochure and video (in progress) aimed at informing the general public about HUTER project and its expected impacts will be created during first year, to be used mainly during second year of the project, when is expected to most actively participate in events and for the workshop scheduled in month 22.

#### HUTER CONSULTATIONS:

Besides the two SMEs in the HUTER consortium, we plan to involve enterprises (SMEs and large companies) in the development, implementation and mostly, use of HUTER platform to foster the european role in the HCA beyond the availability of public funding, through the online consultations (see draft questionnaire in Annex IV) and inviting them to participate in our Industry Advisory Board (IAB) as explained later in Exploitation section. The final objective is to create a private network which could invest resourcers in subsequent stages of development. HUTER workshop (described below) will serve as well for this purpose.

We have therefore initiated industry consultations to get feedback from a variety of stakeholders that might be interested in the technologies and tools that will be developed in the framework of the HUTER project. This feedback could help us to get a real understanding of user needs as well as to improve some of the proposed platform features. Their vision, preferences could also be an asset to better address future user needs and to accelerate the impact of cell sequencing technologies and related ICT technologies in the market and particularly in the healthcare sector.

Accordingly, HUTER consultations will provide us with a market landscape and they will serve us to improve the adaptability, usability and exploitability of the future HUTER Platform to other scenarios beyond the uterus and reproductive medicine field and sectors, such as the pharma and drug development industry, the medical device-diagnostic industry, the clinical trials industry, and particularly the healthcare sector as a whole.

Along the following months the HUTER team will approach several companies from different companies to perform the proposed consultations. To facilitate the work, we have designed and implemented online questionnaires. Respondents will have direct and easy access to the questions and the results will be easily obtained and exploited by the HUTER team. A pdf version of the questionnaires has been also elaborated to share by direct email communication (see draft questionnaire in annex IV).

#### HUTER WORKSHOP:

HUTER workshop is scheduled in month 22. Approximately 50 researchers (including PhD students) from academic institutions and technological enterprises will be invited. The objective of the workshop is to raise awareness of the Uter Cell Atlas as essential resource for further research and developments, and to disseminate its results and to get first-hand feedback on their initial impressions on usefulness, usability, intended use and main difficulties in their early learning curve.

HUTER workshop falls as well into the category of **exploitation channel** since it will serve to recognize stakeholders that can “make use of the results”.

#### REPORTS AND OTHER PROJECT DOCUMENTS:

A total of 24 public deliverables will be issued within HUTER framework. These deliverables contribute to communicate and disseminate HUTER project and its results.

#### 2.4.2 Other C&D channels

To maximise our communication and disseminate objectives in a targeted manner, we will make use of already available and effective dissemination channels and/or platforms such as:

#### PARTNERS AND COLLABORATORS WEBS:

Besides the HUTER official website and social networks that will play a key role in communication and dissemination activities, the HUTER partners and external collaborators which are directly or indirectly involved in the project must create a link from their websites to the HUTER’s one. These linkages will further

increase visibility among the external targeted audiences as well as dissemination of the results among international scientific community. Our initial analysis of external collaborators leads us to explore linkages with the following websites:

The Human Cell Atlas ([www.humancellatlas.org](http://www.humancellatlas.org)): the global Human Cell Atlas initiative will harbor a joint landing page ([www.humancellatlas.org/euh2020/](http://www.humancellatlas.org/euh2020/)) which links with HUTER website and other Atlas Projects. This tight collaboration with the HCA initiative will further facilitate to maximise such visibility as well as the expected impact in a wider population.

The Human Protein Atlas (<https://www.proteinatlas.org/>): one of our partners (UPPSALA) is actively involved in The Human Protein Atlas initiative. This initiative aims to map of all human proteins in cells and tissues by integrating results from various technologies, such as advanced microscopy images, sharing a similar concept to Human Cell Atlas Initiative. HUTER project can collaborate with its own protein images of uterus cells to Protein Atlas thus both websites could be linked to share and disseminate these data. Furthermore, Human Protein Atlas is already a well-known initiative among scientific community (started on 2003) whose linkage to HUTER might give us more visibility among external audiences.

Other websites: consortium will keep exploring new potential collaborators in order further to increase visibility and dissemination of HUTER project achievements.

#### SCIENTIFIC PUBLICATIONS AND PARTICIPATION IN SECTOR CONFERENCES AND MEETINGS:

All partners should disclose the project results in peer-reviewed scientific publications, ensuring open access<sup>2</sup> (free of charge online access for any user) either by publishing in an open access journal (gold open access) or by self-archiving their journal articles in an open access repository (green open access), and deposit the research data needed to validate the results presented in the deposited scientific publications. Main journals in the field are Nature, Human Reproduction, Stem Cells, J. Clin Endocrinol Metab, Fertility & Sterility, etc.

Most HUTER partners are members of medical and scientific associations such as European Society of Human Reproduction and Embryology (ESHRE); American Society for Reproductive Medicine (ASRM); Society for Reproductive Investigation (SRI), International Society for Stem Cell Research (ISSCR), Preimplantation Genetics Diagnosis International Society (PGDIS). Then, partners are also encouraged to take advantage to their participation in such associations and their events for disseminate the HUTER project itself and its results. Conferences and events in the field of Human Reproduction are: ASRM October 2020 in Oregon (USA), ESHRE: July 2020 in Copenhagen, SRI, in Vancouver March 2020. Participation is also planned in Conferences on Single

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<sup>2</sup> Jeffery, Keith G. 2006. "Open Access: An Introduction". Ercim News, 64, January 2006.

Cell characterization technologies, and frontier research in cellular biology. Also conferences and events on use of Open Clouds in Science, computational advancements and bioinformatics.

Finally, HUTER partners, mainly WP leaders, are encouraged to participate in **coordination meetings with the HCA and other Atlas projects (EC-H2020 Consortia: Pilot actions to build the foundations of a human cell atlas)**. This mechanism will ensure coherence and communication between both HCA and projects funded under this topic. The EC is in charge of organizing and ensuring this overall coordination between projects. In this respect, HUTER partners has participated so far in the following meetings:

- **European HCA networking meeting in Brussels, January 13<sup>rd</sup> and 14<sup>th</sup> 2020:** it was a network meeting between all European Atlas Projects partners and EC. Each project coordinator was able to share a presentation of his Atlas Project to foster discussion about potential synergias in relevant aspects, such as communication and etical approaches, among Atlas Projects partners. Furthermore, this meeting was opened to external stakeholders and technology experts to analyze the potential technology transfer between Atlas Projects' results and other markets, particularly in healthcare sector.



*Figure 8. photograph of the Project Coordinator Prof. Carlos Simón presenting HUTER project, during the HCA networking meeting in Brussels, jan 13<sup>th</sup>.*



### OPEN ACCESS RESPOSITORIES:

Besides publishing our results and findings in high impact open-access journals, we will also deposit research data needed to validate results submitted in scientific publications after the project ends. These data will be gathered in open-access repositories following article 29 rules and in compliance with GDPR law. This open data deposit will not only guarantee the validation of published results by scientific community but will also ensure dissemination and exploitation of these data that could contribute to achieving new findings beyond HUTER project context.

Human Cell Atlas Data Coordination Platform (HCA DCP) will be the main repository of HUTER data after the project ends. HCA DCP is an open source, cloud-based platform developed to organize, standardize, and make accessible the data that constitute the Human Cell Atlas. All relevant data considered by HUTER partners will be transferred from HUTER platform to HCA DCP. This will guarantee the data persistence once the project ends and it will also allow external users to find and download these data. We will not only use HCA DCP but also other open repositories for different data types. ELIXIR (intergovernmental organisation that brings together life science resources from across Europe) offers other european open-data repositories for different data types, settling a data sharing support for H2020 pilot projects. We are planning the use of:

- Array Express (EMBL-EBI): is one of the repositories recommended by major scientific journals to archive functional genomics data from microarray and sequencing platforms to support reproducible research. For high-throughput sequencing based experiments the raw data is brokered to the European Nucleotide Archive, while the experiment descriptions and processed data are archived in ArrayExpress.
- Single Cell Expression Atlas (EMBL-EBI): is an open science resource that gives users a powerful way to find information about gene and protein expression. It provides freely available information on the abundance and localisation of RNA (and proteins) across species and biological conditions such as different tissues, cell types, developmental stages and diseases among others. Datasets are manually curated, re-processed and loaded into this resource, adding the value of testing for data quality.
- HPA: it contains information for a large majority of all human protein-coding genes regarding the expression and localization of the corresponding proteins based on both RNA and protein data.
- SpatialDB: a database for spatially resolved transcriptomes. SpatialDB is the first public database that specifically curates spatially resolved transcriptomic data from published papers, aiming to provide a comprehensive and accurate resource of spatial gene expression profiles in tissues. Currently, SpatialDB contains detailed information of datasets generated by 8 spatially resolved transcriptomic techniques (Spatial Transcriptomics, Slide-seq, LCM-seq, seqFISH, MERFISH, Liver single cell zonation, Geo-seq and Tomo-seq).

The list of open repositories will be further discussed in deliverables focused on data management (Deliverables numbers D9.2 and D9.3).

**NEWSLETTERS:**

Although not specific HUTER newsletter will be created, this channel will be used through the newsletters of the partner institutions to inform about the developments of the project.

**PUBLIC AUTHORITIES EVENTS:**

In order to better reach policymakers target audience, it is recommended to participate in events at any regional, national or European level organized by public authorities in the field of healthcare and national medical systems.

As an example, the HUTER coordinator participated in a health event in the Valencian region of Spain, where HUTER was recognized as a project with a gender perspective (<https://www.incliva.es/actualidad/noticias/incliva-acoge-la-iv-jornada-de-investigacion-sanitaria-con-perspectiva-de-genero>):



**Figura 9.** Prof. Carlos Simón (HUTER project coordinator) receives the recognition of “project with gender perspective” for HUTER project, in the ‘IV Conference on clinical research with a gender perspective’ organized by the Conselleria de Sanitat Universal i Salut Pública.

## 2.5 Procedures and management

### 2.5.1. Responsibilities

All partners of the HUTER consortium must contribute to the communication and dissemination according to their foreseen role and effort and using all available tools and channels described before.

As leaders of the WP8, representatives of INCLIVA and BAHIA as stated in Table 4 will be in charge of Dissemination and Communications activities. The Communication and Dissemination Manager (C&D-M) is the central contact point for all partners to address C&D issues.

**Table 4.** Detailed information about the internal contact points for communication and dissemination issues related to HUTER project.

Partner short name	Role	Responsibilities	Appointed person*	Contact info
INCLIVA	Project Coordinator	Review content of draft academic publications, press releases and others	Dr. Carlos Simón	Carlos.simon@uv.es
	Communication and Dissemination (C&D) Manager	Main contact point to centralise all C&D issues	Dra. Leslie Atkinson	Latkinson@incliva.es
	Science Communication (Comunicación Científica) Área Científica	Manage press releases and social media tools	Anna Isabel Juan Roch	aijuan@incliva.es
BAHIA	Innovation Project Manager	Manage general HUTER website and HCA landing page	Dr. Cristóbal Bernardo-Castiñeira	cristobal.bernardo@bahiasoftware.es
	Innovation Manager	Launch and manage industry consultations. Lead and constitute the IAB	Sergio Figueiras	sergio.figueiras@bahiasoftware.es

\*Note: With the exception of the HUTER coordinator, the listed persons here may be replaced by others due to internal restructuring needs of the entities.

### 2.5.2. HUTER C&D policies and rules

All HUTER partners will follow this general policies and rules with respect communication and dissemination activities they undergo:

- *Dissemination of results governed by procedure of Article 29.1 of the GA:* “Unless it goes against their legitimate interests, each beneficiary must — as soon as possible — ‘disseminate’ its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium)”.

- Dissemination of own results: as stated in article 8.4.2 of the CA, during the project and for a period of 1 year after the end of the HUTER project, the dissemination of own Results by one or several Parties including but not restricted to publications and presentations, shall be governed by the procedure of Article 29.1 of the Grant Agreement subject to the following provisions. Prior notice of any planned publication shall be given to the other Parties at least **45 calendar days** before the publication. Any objection to the planned publication shall be made in accordance with the Grant Agreement in writing to the Coordinator and to the Party or Parties proposing the dissemination within **30 calendar days** after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted.

- Dissemination of another partner's unpublished results or background: (Art. 8.4.3 of the CA) a partner shall not include in any own dissemination activity another partner's results or background without obtaining **partner's prior written approval**, unless they are already published.

- Articled 29.2 and 29.3 of GA regarding the open access: Each beneficiary must ensure open access (free of charge, online access for any user) to all peer-reviewed scientific publications relating to its results" and "Regarding the digital research data generated in the action ('data'), the beneficiaries must: (a) deposit in a research data repository and take measures to make it possible for third parties to access, mine, exploit, reproduce and disseminate — free of charge for any user; (b) provide information — via the repository — about tools and instruments at the disposal of the beneficiaries and necessary for validating the results (and — where possible — provide the tools and instruments themselves)". Therefore, the consortium partners will abide by these rules in relation to project results.

- Article 39: obligation to protect personal data: The beneficiaries must process personal data under the Agreement in compliance with applicable EU and national law on data protection.

- Funding publicity: All publications must mention that the project has received funding from EU using the EU emblem and the information and disclaimer text:



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 874867.*

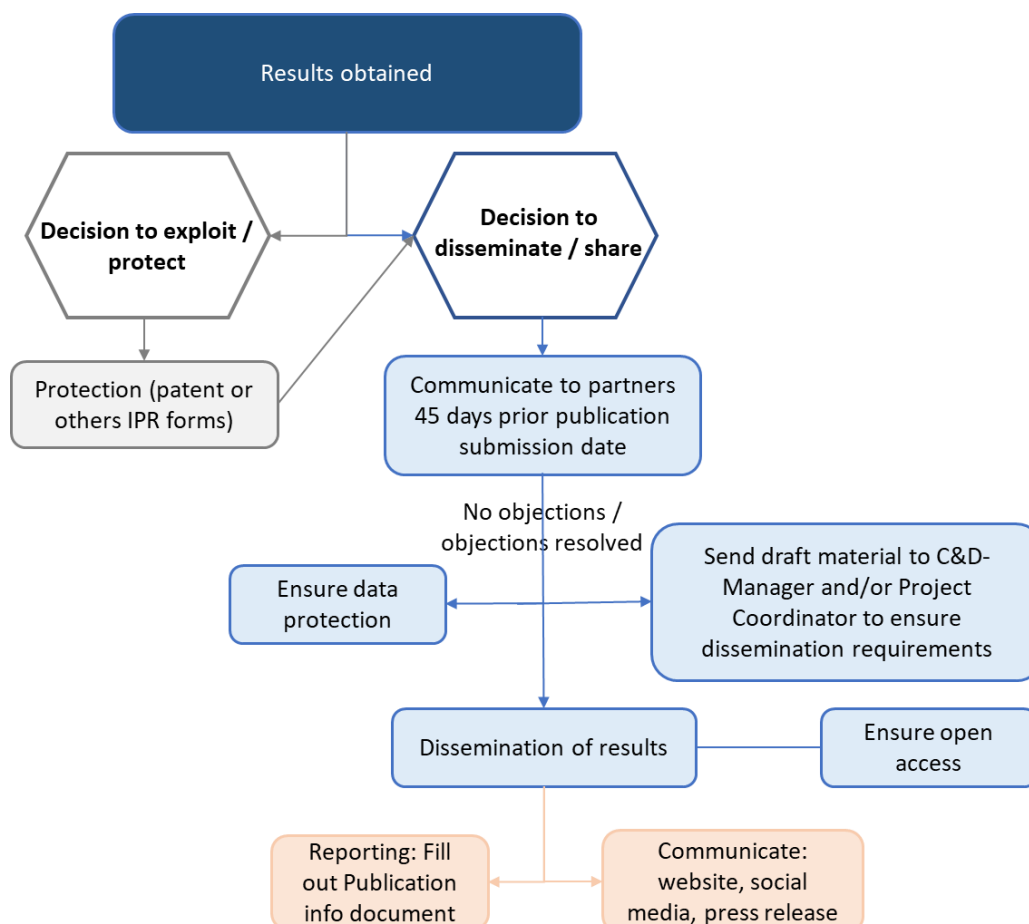
- Cooperation obligations: as agreed in the CA (art. 8.4.4), partners undertake to cooperate to allow the timely submission examination, publication and and defence of any dissertation or thesis for a degree that includes their results or background subject to the confidentiality and publication provisions agreed.

2.5.2. HUTER C&D procedures

Use of logos and templates: all partners should follow and use the HUTER brand guideline and templates created and deposited in the HUTER intranet → Diss&Comm folder → templates folder. However, for the use of the name of the partners or any of their logos or trademarks it is required the written approval as stated in the CA (art 8.4.5).

Report to the C&D Manager and upload files to the common repository: All partners shall communicate to the C&D Manager their dissemination and communication activities and upload the material on the HUTER intranet (papers, conference presentation, an audio file of an interview, etc.).

For all dissemination activities: notify all partners minimum 45 days prior to publication submission date or a presentation on a conference. Other parties have 30 days to object. The general overview for dissemination procedure is provided in Figure 10.



**Figure 10.** Dissemination procedure

Academic publications: All draft articles must be sent to the consortium partners involved in obtaining the results that are going to be disseminated and to the Project Coordinator and C&D Manager before publication for reporting and archiving purposes. This will allow checking if they fulfil the dissemination requirements or whether they conflict with other existing papers.

Congress contributions: partner or partners who intent to make congress contributions, should send the material to the C&D Manager in order to ensure homogenous identity.

Press release protocol: several press releases are expected to be launched at least at the beginning and at the end of HUTER project. The draft content can be prepared by any partner or in collaboration by several of them but final draft should be centralised by the C&D Manager who will send to all partner and the project Coordinator for revision and final approval before publication. Each partner will be responsible for translation to its local languages.

Personal photographs of people: protection of personal rights is important. Thus all consortium members are required to ask for the consent of people they wish to take photographs of all the time at all events during the course of the project. A consent form template is provided in Annex V to use during the HUTER workshop and other occasions.

## 2.6 Evaluation

### 2.6.1. Reporting

For monitoring purposes, the communication and dissemination activities will be reported every 6 or 8 months to the C&D-M using a specific template for gathering the following information:

**Table 5.** Data to be reported regarding communication and other dissemination activities

Partner	Name of the activity	Dates of the activity	Country of the activity	Target group	Kind of material used	Link of the material	KPIs reached
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For the **scientific publications** it will be reported the following information (Table 6):

**Table 6.** Data to be reported regarding scientific publications

Scientific publications	Choose one or insert
<b>Type of scientific publication</b>	Article in journal
	Publication in conference proceeding/workshop
	Number of pages visited per session
	Books/monographs
	Chapters in books
	Thesis/dissertation
<b>Title of the scientific publication</b>	
<b>DOI reference</b>	
<b>ISSN or Essn number</b>	
<b>Authors</b>	
<b>Title of the journal or equivalent</b>	
<b>Number, date</b>	
<b>Publisher</b>	
<b>Place of publication</b>	
<b>Year of publication</b>	
<b>Relevant pages</b>	
<b>Public &amp; private publication</b>	YES
	NO
<b>Peer-review</b>	YES
	NO
<b>Is/Will open access provided to this publication</b>	YES – Green OA
	YES – Gold OA
	NO

The information compiled will be reported in the *D8.2\_Dissemination & Exploitation Plan 2* and during the interim correspondent report and Final Report to be delivered to the EC as scheduled in following table 7

**Table 7. Scheduled periodic reports**

Report	Period covered	Template ready and uploaded to intranet by C&D-M.	Deadline to send to Project Coordinator.	By whom?	Finalised & submitted to EC.
Periodic Report 1	Jan 2020 - Dec 2020 (M01 – M12)	Dec 2020 (M12)	Jan 2021 (M13)	All partners	Feb 2021
Periodic Report 2	Jan 2021 - Dec 2021 (M13 – M24)	Dec 2021 (M24)	Jan 2022 (M25)	All partners	Feb 2022

### 2.6.1. Metrics and key performance indicators (KPIs)

For the purposes of measure the progress and impact of HUTER communication and dissemination activities, quantitative/qualitative indicators as initial KPIs have been identify (Table 8)

**Table 8. The main communication channels/tools that are going to be used in communication and dissemination plan and the ways to measure their impact.**

Communication tool/channel	KPI
Website	Number of users
	Number of visits
	Number of pages visited per session
	Number of sessions through external URLs
Press releases	Number of media that have published the press releases
Social Media:	Number of members
	Number of followers
	Number of clicks
Brochure	Number of brochures distributed
Video	Number of visualizations on YouTube
Per-review Publications	Number of submitted scientific papers
	Number of articles accepted





	Impact Factor of the journals (average and accumulated)
	Number of citations
	Views
	Downloads
Attendance of conferences or professional events	Number of attended conferences with presentations of posters
	Number of attended congresses - oral communications
HUTER consultations	Number of questionnaires sent
	Number of completed questionnaires collected
	Number of questionnaires collected per sector
HUTER workshop	Number of registered people in the workshop
	Number of external audiences attending
	Type of external audience attending (by target groups)

### 3 EXPLOITATION

By signing the GA (Art. 28) the partners agreed to “take measures to ensure exploitation of the results (either directly or indirectly, in particular through transfer or licensing) up to four years after the end of the project – by using them in further research activities; developing, creating or marketing a product or process; creating and providing a service, or using them in standardization activities.

Therefore, **exploitation** recognizes own partners and stakeholders that can “make use of the results” and “concretise the value and impact of the R&D activity. Datasets, HUTER platform architecture, standards software and results business cases fall into this category.

To better understand, it is important to remember that **results** are defined as “any tangible or intangible output of the action (project), such as data, knowledge and information whatever their form or nature, whether or not they can be protected”.

It is important to highlight here that participation in Open Access

In this sense and in accordance with the requirements of Grant Agreement – Art. 28, we have established the strategy in the HUTER project framework, to promote the major benefits from the results obtained.

#### 3.1 Objectives and strategy

This exploitation plan aims to primarily approach to the project exploitation by representing an initial exploitation strategy that will be enforced during the project lifetime. enable an actual impact on future research and applications to human reproduction and women’s health, thanks to the utilization of some of HUTER results for the development of products or services that will benefit patients and physicians.

Specific objectives of the exploitation plan are:

1. To define a strategy to **identify which HUTER results are suitable for exploitation**
2. To **pave the way for** a successful commercial and non-commercial **exploitation** of the project outcomes, buy:
  - definition of a valorisation plan
  - to engage stakeholders in order to maximise target market awareness through dissemination and exploitation activities such as, journals and participation in conferences, organization of the HUTER workshop and the industry Advisory Board.

The HUTER exploitation plan will enable an actual impact on future research and applications to human reproduction and women's health, thanks to the utilization of some of HUTER results for the development of products or services that will benefit patients and physicians.

### **3.2 Exploitation activities**

Some activities used for exploitation purposes are already covered in the Dissemination section such as project website, press releases, HUTER workshop, Industry consultations (HUTER questionnaires), scientific papers and participation in conferences. All these activities are mainly used to increase awareness and engage main stakeholders that can make use of the project results. Additionally, the use of standard or common laboratory procedures and methods between partners and collaborators such as HCA will facilitate the exploitation of results.

Other specific exploitation activities are described below:

#### 3.2.1. Identification of exploitation results

Before disclosing any result, partners must assess their potential for exploitation and/or protection (see fig. 10). This evaluation will be carried out by the Innovation Committee (see section 3.3.1.) starting from the information reported by partners in the Results Evaluation Form (Annex VI). Final revision will be taken by the Steering Committee with the partners involved in the results, and decisions about protection and dissemination will be taken.

#### 3.2.2. Industry Advisory Board (IAB)

Key stakeholders will be involved in the HUTER project by means of creating the IAB, which is a non-executive body constituted by representatives of innovative biotech, genetic, clinics and IT companies (both SMEs and large enterprises), interested in the HUTER platform.

Industry representatives will be carefully selected, then they will be asked to complete the HUTER questionnaire (Industry consultations – Annex IV. About month 6, some of these representatives will be invited to become part of the IAB by the Innovation Committee and finally approved by the Steering Committee. As members of the IAB they will participate in some consortium meetings as experts in technology and scientific advisors. They will also participate in business cases activities or/and HUTER workshop. A separate non-disclosure agreement will be executed between HUTER partners and each IAB member.

### 3.2.2. Promotion

For highly exploitable results identified, the rout for carrying out further exploitation will be outlined. It will include the type of intellectual property strategy, further activities and investments needed to reach the market or potential end users and the potential partners who will be in charge of its exploitation. The owner (or co-owners when it applies) is responsible for drafting the valorisation plan.

It will be strongly recommended to first promote the results to be exploited among the industrial members of the HUTER consortium (BAHIA and CCHT partners), always that these results are related to the market sectors where these companies operate.

The owner will be the first responsible for the implementation of promotion actions regarding its results and using its own resources.

Regarding the protection of results, the owner will follow its internal rules and procedures according to its national intellectual property law. Where possible, a patent application will be filed in first term at the European Patent Office, using the national patent office of the European applicant filing office. Additionally, in case of joint ownership, co-owners shall agree the corresponding joint ownership agreement according to article 8.2 of the HUTER CA where it is strongly recommended to appoint one representative for negotiations with third parties.

## **3.3 Exploitation Management**

### 3.3.1. Innovation Committee (IC)

The last step in decision-making process will be always the Steering Committee (ST). However, as their knowledge in IPR management could be limited, they would be assisted by the IAB formed by experts in these issues and leaded by the Innovation Manager (IM).

**Dr. Sergio Figueiras (BAHIA)** as IM will lead the partners in effective management of the project innovations. IC consists of a qualified representative from each partner/ beneficiary. This Committee assumes the role of Innovation Management in the project, managing the identification and implementation of the innovations, and the feedback linkages to the research. It will evaluate the knowledge as it is generated in line with its market impacts and ensure that the project results are effectively protected and exploited to the full for future industrial growth and competitiveness. The IC will also ensure that the data management plan is seamlessly executed and decide on all matters related to IPR and exploitation, IPR protection mechanisms, IPR sharing and routes to exploitation, and project Dissemination Plan and Business Plan. Decisions will be taken by **simple majority**, with **each beneficiary being assigned a vote**. In the event of a tie situation the Project Coordinator will have the final vote. IC will also act as a driver for defining post-project exploitation strategy, both in the

framework of the global HCA initiative and the engagement of additional actors, especially with SMEs and industry representatives, acting also as main connection with the IAB members for future sustainability and exploitation matters. Dr. Figueiras will be supported, work closely and coordinate with the C&D-M.

### 3.3.2. Exploitation rules and procedures

Identification of exploitable/protectable results: any results will be reviewed by the Innovation committee before being disclosed. Accordingly, any planned publication will be notified to all partners at least **45 calendar days** before the publication as mentioned in section 2.5.2.

Internal disclosure of results: Any deliverable generated during the project with a dissemination level classified as “Confidential” according to the list of deliverables of HUTER (GA number 874867 — Annex 1 (part A) section 1.3.2. WT2 list of deliverables) will be reported to the Steering Committee for revision and approval before submitting.

- Article 26 of the GA and Article 8 of the Consortium Agreement (CA) regarding ownership of results and intellectual property (IP) rights protection: results are owned by the partner that generates them of, if generated by a third party, the partner on whose behalf such results have been generate. Joint ownership is governed by GA article 26.2 with the following additions:

- Where Results are generated from work carried out jointly by two or more Parties and where their respective contribution to the joint Results cannot be ascertained or it is not possible to separate such joint Results for the purpose of applying for, obtaining or maintaining the relevant intellectual property rights protection, they shall have joint ownership of those Results.
- Following the generation of a joint Result, the joint owners shall agree, in a joint ownership agreement, on (i) the allocation of ownership, (ii) the protection measures to be taken, (iii) the division of related costs and (iv) the Exploitation of such jointly owned Result.
- However, until a joint ownership agreement has been concluded:
  - a. Results shall be jointly owned according to their share of contribution (such share to be determined by taking into account in particular, but not limited to, the contribution of a joint owner to an inventive step, the person months or costs spent on the respective work, etc.) to the Results by the joint owners concerned.
  - b. Except for any priority application(s), in the event that any of the Results may be protected as registered intellectual and/or industrial property rights or by any other means, the Parties shall decide by mutual agreement to implement/apply for such protection in the manner they deem most convenient.

- c. All costs related to application(s) for Intellectual Property Rights, or other means of protection, in joint Results and the Intellectual Property Rights resulting from such application(s)/protection shall be shared between the joint owners in accordance with their share of contribution
- d. Each of the joint owners shall be entitled to use their jointly owned Results for non-commercial research activities, including publicly funded projects, on a royalty free-basis, and without requiring the prior consent of the other joint owners, and each of the joint owners shall be entitled to otherwise Exploit the jointly owned Results and to grant non-exclusive licenses to third parties (without any right to sub-license), if the other joint owners are given:
  - (a) at least 45 calendar days advance notice; and
  - (b) Fair and Reasonable compensation

- Article 30 of the GA and Article 8.3 of the CA about transfer of Results:

- Each partner may transfer ownership of its own Results following the procedures of the Grant Agreement Article 30.
  - It may identify specific third parties it intends to transfer the ownership of its own Results and the other partners waive their right to prior notice and their right to object to a transfer to listed third parties according to the Grant Agreement Article 30.1.
  - The transferring partner shall, however, at the time of the transfer, inform the other partners of such transfer and shall ensure that the rights of the other partners will not be affected by such transfer.
  - The partners recognize that in the framework of a merger or an acquisition of an important part of its assets, it may be impossible under applicable EU and national laws on mergers and acquisitions for a partner to give the full 45 calendar days prior notice for the transfer as foreseen in the Grant Agreement.
  - The obligations above apply only for as long as other partners still have - or still may request - Access Rights to the Results.
  - In case a partner that jointly owns Results with another, wishes to transfer its share of the jointly owned Results, it shall first give 45 calendar days prior notice to the other joint owners as foreseen in the Grant Agreement and shall, in any case, at the time of the transfer, inform the other Parties of such transfer and shall ensure that the rights of the other Parties will not be affected by such transfer
- Article 9 of the CA refers to acces rights and identification of the background for the project identified by the partners, and where relevant, informed each other that access rights to specific background is subject to legal restrictions or limits.



### **3.4 Evaluation / Promotion**

Although quantity and quality of peer-reviewed publications, presentations at international conferences, data and methods are the most important outputs in terms of dissemination and scientific impact, the project should not be evaluated using bibliometric and academic methods only, but also using indicators like “reports or white papers, forecasts, workshops, business cases, etc.”


ANNEXES

I. HUTER Brand Guideline


**BRAND FOR HUTER**  
HOW TO USE IT CORRECTLY

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**SYMBOL COLOUR**




**SYMBOL AND LOGO COLOUR**



**SYMBOL BLACK**



**SYMBOL AND LOGO BLACK**





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**TYPOGRAPHY LOGO**

<p><b>ARIAL BOLD</b></p> <p>ASBCDEFGHIJKL MNOPQRSTUW WXYZ abcdefghijklmn opqrstuvwxyz 0123456789</p>	<p><b>ARIAL BOLD ITALIC</b></p> <p>ASBCDEFGHIJKL MNOPQRSTUW WXYZ abcdefghijklmn opqrstuvwxyz 0123456789</p>
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<p><b>PRIMARY COLOUR</b></p> <p>#2478BB</p> 	<p><b>BLACK PRIMARY COLOUR</b></p> <p>#404040</p> 
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## II. HUTER templates

### Deliverable cover page:


		Deliverable 3.1			
					
<b>Project Acronym:</b>	HUTER				
<b>Project Full Name:</b>	Human Uterus Cell Atlas				
<b>Call identifier:</b>	H2020-SC1-2019-Single-Stage-RTD				
<b>Topic:</b>	SC1-BHC-31-2019				
<b>Grant Agreement No:</b>	874867				
<b>Start date of Project:</b>	01/01/2020				
<b>Project Duration</b>	2 years				
<b>Document due date:</b>	xx/xx/202X				
<b>Submission Date</b>	Xx/xx/202x				
<b>Leader of this report:</b>	XXXXX				
<b>Deliverable no:</b>	XX.X				
<b>Deliverable name:</b>	XXXXX				
<b>Contact name:</b>	xxx				
<b>Dissemination level:</b>	Confidential, only for members of the consortium (including the Commission Services)				

### Version History

Version	Date	Details
1.0	Xx/xx/202x	XXXXXXXXXXXX

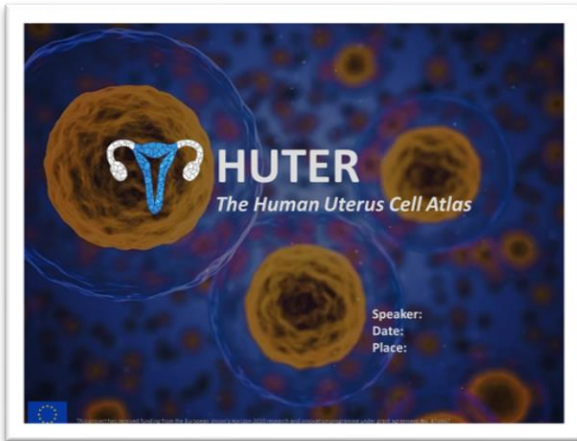
  



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 874867.*

*The opinions expressed in this document reflect only the author's view and in no way reflect the European Commission's opinions. The European Commission is not responsible for any use that may be made of the information it contains.*

Powerpoint template:



**HUTER**  
The Human Uterus Cell Atlas

Speaker:  
Date:  
Place:


Institution Speaker logo

**ABOUT US**  
**Welcome to HUTER**

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit.

**HUTER: The Human Uterus Cell Atlas**

Coordination  
Data Platform  
Characterisation  
Ethics



**HUTER Timeline**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

A note on the activities carried out in this period

**Partners**

INCLIVA | VLC  
Instituto de Investigación Sanitaria

wellcome sanger institute

UEA  
University of East Anglia

UPPSALA UNIVERSITET

Competence Centre on Health Technologies

bahia software



**Thank you**

Speaker:  
Email:  
Institution:

### III. HUTER Kick-off meeting Press release (original language)



**INCLIVA | VLC**  
Instituto de Investigación Sanitaria

#### NOTA DE PRENSA

## **INCLIVA impulsa el proyecto HUTER, financiado por la Unión Europea, con el objetivo de crear el mapa celular del útero humano**

**HUTER, dirigido por el profesor Carlos Simón, surge de la necesidad de mejorar el conocimiento del útero humano para aumentar la eficacia de los tratamientos de reproducción asistida y evitar la mortalidad y la morbilidad materna e infantil**

**Valencia, 14 de enero de 2020.** El Instituto de Investigación Sanitaria INCLIVA, del Hospital Clínico de Valencia, ha impulsado el proyecto internacional HUTER (Human Uterus Cell Atlas), que tiene como objetivo crear el mapa celular del útero humano para proporcionar una visión sin precedentes, célula a célula, de los cambios genéticos y proteómicos, a nivel espacial, de este importante órgano, no solo durante el ciclo menstrual sino también a lo largo de toda la vida de la mujer.

Las investigaciones en las que se centran este proyecto, coordinado por INCLIVA y que dirige el profesor Carlos Simón –Catedrático de la Universidad de Valencia e Investigador Principal del Área de Medicina Reproductiva de INCLIVA y Fundación Igenomix- parte de la consideración del útero humano como un órgano fundamental no solo para la reproducción, ya que es donde se va a gestar el nuevo ser, sino también por sus implicaciones en la salud de la propia mujer y de sus hijos.

HUTER se enmarca en la iniciativa internacional Human Cell Atlas (HCA), integrada por investigadores de todo el mundo que pretenden redefinir la anatomía humana a nivel de célula única en todos los órganos vitales del cuerpo humano.

HUTER es el único proyecto que trabajará en el útero de la mujer para aumentar su conocimiento y traslación clínica en medicina reproductiva, obstetricia, ginecología y medicina regenerativa. El útero es en sí mismo un modelo en medicina regenerativa, ya que el tejido endometrial se regenera mensualmente y su transformación se ejecuta a través de cambios dinámicos e interacciones de múltiples tipos celulares.

En este sentido, la principal motivación de HUTER surge de la necesidad de comprender mejor el útero humano para abordar de manera más efectiva las enfermedades uterinas que afectan a la salud de la mujer, como los miomas o la



**INCLIVA | VLC**  
Instituto de Investigación Sanitaria

endometriosis, y pueden contribuir a la infertilidad, la mortalidad y la morbilidad materna e infantil.

INCLIVA es la entidad coordinadora de este proyecto, financiado por la Unión Europea, en coordinación con Wellcome Sanger Institute (UK), uno de los centros genómicos líderes en el mundo, que colabora activamente con la iniciativa HCA; Uppsala University (Suecia), una institución internacionalmente destacada y una de las sedes de la iniciativa Human Protein Atlas, iniciada en 2003 con el objetivo de mapear todas las proteínas humanas en células, tejidos y órganos; Competence Centre on Health Technologies (Estonia), una mediana empresa establecida en 2009, que realiza investigaciones de alto nivel orientadas al cliente y desarrolla productos y tecnologías principalmente para la medicina reproductiva y fetal; University of East Anglia (UK), clasificada en el puesto 15 por The Times Good University Guide 2019; y Bahía Software (España), una empresa de tecnología fundada en 1999 y especializada en el sector de la salud, cuyo catálogo de servicios y productos cubre todo el ciclo de vida del desarrollo de software y consultoría en tecnologías específicas.

HUTER, cuya reunión de inicio tuvo lugar en la sede de INCLIVA los pasados días 9 y 10 de enero, es un proyecto que tiene un horizonte temporal de dos años (2020 y 2021). Está financiado por el programa H2020 de la Comisión Europea, con un total de 4,118 millones de euros.

Este es el segundo proyecto internacional de INCLIVA, que también coordina LEGACy, un proyecto internacional y multicéntrico -liderado por el Dr. Andrés Cervantes, director de INCLIVA y coordinador del Grupo de Investigación en Cáncer Colorrectal y Nuevos Desarrollos Terapéuticos en Tumores Sólidos, y la Dra. Tania Fleitas, investigadora Joan Rodés del grupo mencionado-, que tiene como objetivo mejorar el abordaje del cáncer gástrico aplicando la medicina personalizada.

Below is shown the press clip on January 15<sup>th</sup>, reflecting the impact in the media of the press release:



Navigation bar: < Enero Febrero Marzo Abril Mayo Junio Julio Agosto Septiembre Octubre Noviembre Diciembre > 2020

Calendar: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Miércoles, 15 enero 2020  
RESUMEN 08:00

2 ÚLTIMAS NOTICIAS (14:30)

56 TOTAL MEDIOS

- 3 IMPRESO
- 53 DIGITAL

56 INCLIVA

- 21 INCLIVA
- 33 Hospital Clínico de Valencia

**56** INCLIVA

3 Impreso 53 Digital

**3** Impreso

**LAS PROVINCIAS** Las Provincias

**El Clínico impulsa el mapa celular del útero humano**

R. V. VALENCIA. El Instituto de Investigación Sanitaria **INCLIVA**, del Hospital Clínico, impulsa el proyecto Internacional HUTER (Human Uterus Cell Atlas). Su objetivo, crear el mapa celular del útero para proporcionar una visión célula a célula de los cambios genéticos y proteómicos de este órgano a lo largo de la vida de la mujer. Las investigaciones, dirigidas por el catedrático Carlos Simón y financiadas por la UE, parten de...

**LAS PROVINCIAS** Las Provincias

**La AECC beca cinco trabajos contra el cáncer**

... Estas líneas de investigación se desarrollarán en tres centros valencianos de referencia: la Fundación para la Investigación del Hospital La Fe de la Comunitat Valenciana, la Fundación para la Investigación del Hospital Clínico de Valencia y el ...

**LAS PROVINCIAS** Las Provincias

**El Soro recibe el alta tras su hospitalización por sufrir repetidas anginas de pecho**

J. L. B. VALENCIA. El torero valenciano Vicente Rùiz 'B Soro' recibió ayer el alta tras pasar casi una semana ingresando en el Hospital Clínico de Valencia por una recaída de su enfermedad cardíaca. Tras sufrir, mientras dormía, un fuerte dolor en el pecho el pasado miércoles y no remitir con el tratamiento habitual, el SAMU le trasladó al hospital, donde ingresó de urgencia. El jueves los cirujanos cardiovasculares del equipo del doctor Bodi, le practicaron un cateterismo para evaluar daños y...

**53** Digital

**ABC** ABC

**El INCLIVA impulsa un proyecto para crear el mapa celular del útero humano**

... e infantil, según un comunicado de la entidad científica. El proyecto está dirigido por Carlos Simón, catedrático de la Universitat de València (UV) e investigador principal del Área de Medicina Reproductiva de **INCLIVA** y Fundación Igenómik. El objetivo del proyecto HUTER (Human Uterus Cell Atlas) es crear el mapa celular del útero humano para proporcionar una visión sin precedentes, célula a célula, de los cambios genéticos y proteómicos, a nivel espacial, de este importante órgano, no solo durante el ciclo menstrual sino también a lo largo de toda la vida de la ...

**20** Minutos

**AECC Valencia beca a cinco jóvenes investigadores para avanzar frente al cáncer de mama, estómago, próstata e infantil**

... de referencia en el ámbito de la Investigación oncológica: la Fundación para la Investigación del Hospital La Fe de la Comunidad Valenciana, la Fundación para la Investigación del Hospital Clínico de Valencia (**Incliva**) y el Instituto Valenciano de Oncología (IVO), detalla la organización en un comunicado. "Las becas doctorales que otorgamos son, sin duda, un estímulo para la ciencia, pero también son una oportunidad para dar salida al talento de los jóvenes en la fase predoctoral, un momento crítico en el que existe menos ayuda y financiación pública para continuar ...


Version 1.0

Page 45 of 57

Month 05, 2020

#### IV. HUTER questionnaire

Display of the online form that will be launched to industry target group:



# HUTER

The Human Uterus Cell Atlas

## Industry Consultations

HUTER platform will be an integrative digital platform for molecular data, advanced images and research management of Human Uterus Cell Atlas project ([huter-hca.eu](http://huter-hca.eu)). This questionnaire aims to get information from industry companies about functionalities and technical features which will be considered for HUTER platform design.

*\*Obligatorio*

**Contact information**

Company name \*

Tu respuesta

---

Sector

Tu respuesta

---

Contact name \*

The draft content of the questionnaire is shown below:

## Industry Consultations

**Company name:**

**Sector:**

**Contact name:**

**Email address:**

**Summary:** HUTER platform will be an integrative digital platform for molecular data, advanced images and research management of Human Uterus Cell Atlas project (huter-hca.eu). This questionnaire aims to get information from industry companies about functionalities and technical features which will be considered for HUTER platform design.

**Answer these questions on behalf of your company:**

1. About Human Cell Atlas (<https://www.humancellatlas.org/>)
    - a) Do you know the Human Cell Atlas initiative? (yes/no)
    - b) Do you think that a common repository with cellular maps of all tissues could help to improve the understanding, diagnostic and treatment of diseases? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
    - c) Could an integrative platform of advanced images and OMICS data allow transfer this complex knowledge to industry sector and human health (clinical practice)? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
    - d) Among OMICS data, are you familiar with Single Cell Sequencing technologies and their potential to diagnose and understand diseases? (yes/no)
  2. About HUTER (huter-hca.eu):
    - a) Do you know HUTER (Human Uterus Cell Atlas project)? (yes/no)
    - b) Do you think that a common repository with cellular maps of all tissues could help to improve the understanding, diagnostic and treatment of diseases related to reproductive medicine? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
  3. Single cell sequencing technologies already enable researchers to perform a complete molecular characterization of tissues at the resolution of individual cells (<https://rdcu.be/b3nNY>).
- **By sectors:**
    - a. Do you think that these technologies will be relevant for human health sector soon?
      - High probably
      - Medium probably
      - Low probably
      - Never
      - Don't Know/No Answer
    - b. Do you think that these technologies will be relevant for pharma industry soon?

- High probably
  - Medium probably
  - Low probably
  - Never
  - Don't Know/No Answer
- c. Do you think that these technologies will be relevant for agricultural biotech industry soon?
- High probably
  - Medium probably
  - Low probably
  - Never
  - Don't Know/No Answer
- d. Do you think that these technologies will be relevant for animal biotech industry soon?
- High probably
  - Medium probably
  - Low probably
  - Never
  - Don't Know/No Answer
- By technology:
- e. Do you think that these technologies will be relevant for drug development soon?
- High probably
  - Medium probably
  - Low probably
  - Never
  - Don't Know/No Answer
- f. Do you think that these technologies will be relevant for medical device and diagnostic technologies soon?
- High probably
  - Medium probably
  - Low probably
  - Never
  - Don't Know/No Answer
4. Regarding cell sequencing technologies:
- a. What will be the most interesting molecular approaches in the next 1-5 years for the human health sector? (rate from 1 to 10)
- Single-cell sequencing (NGS)
  - Single-cell epigenomics
  - Single-cell RNAseq (transcriptomics)
  - Spatial/In Situ RNAseq (transcriptomics)
  - Spatial proteomics
  - Others (write)
  - None of them, this technology will not reach clinicians in that period
  - Don't Know/No Answer
- b. What will be the most interesting molecular approaches in the next 1-5 years for the pharma industry-drug development? (rate from 1 to 10)
- Single-cell sequencing (NGS)



- Single-cell epigenomics
  - Single-cell RNAseq (transcriptomics)
  - Spatial/In Situ RNAseq (transcriptomics)
  - Spatial proteomics
  - Others (write)
  - None of them, this technology will not reach pharma industry-drug development
  - Don't Know/No Answer
- c. What will be the most interesting molecular approaches in the next 1-5 years for the medical device and diagnostic technologies? (rate from 1 to 10)
- Single-cell sequencing (NGS)
  - Single-cell epigenomics
  - Single-cell RNAseq (transcriptomics)
  - Spatial/In Situ RNAseq (transcriptomics)
  - Spatial proteomics
  - Others (write)
  - None of them, this technology will not reach medical device and diagnostic technologies
  - Don't Know/No Answer
- d. What will be the most interesting molecular approaches in the next 1-5 years for the clinical trials industry? (rate from 1 to 10)
- Single-cell sequencing (NGS)
  - Single-cell epigenomics
  - Single-cell RNAseq (transcriptomics)
  - Spatial/In Situ RNAseq (transcriptomics)
  - Spatial proteomics
  - Others (write)
  - None of them, this technology will not reach clinical trials industry
  - Don't Know/No Answer
5. What is in your opinion the potential impact of digital platforms on hospitals and clinical practice that? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- Analyze, exploit and visualize molecular (OMICS)
  - Analyze, exploit and visualize advanced microscopy images
6. What is in your opinion the potential impact of digital platforms on the pharma industry-drug development that? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- Analyze, exploit and visualize molecular (OMICS) data
  - Analyze, exploit and visualize advanced microscopy images
7. What is in your opinion the potential impact of digital platforms on the medical device and diagnostic technologies that? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- Analyze, exploit and visualize molecular (OMICS) data
  - Analyze, exploit and visualize advanced microscopy images
8. Do you think that digital platforms for analyzing, hosting and visualizing molecular data and advanced microscopy images will be prioritized in some clinical areas within the next 5 years? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- Cardiology
  - Endocrinology

- Oncology
  - Pediatric diseases
  - Rare diseases
  - Reproductive medicine
  - Rheumatology
  - Urology
  - Others (specify)
9. What will be the most interesting cellular imaging generation techniques for human health sector in the next 1-5 years? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- Spatial transcriptomics techniques based on probe hybridization and RNA-seq (such as 10x technologies and similar)
  - Spatial transcriptomics techniques based on multiplex in situ hybridization (such as smFISH, MERFISH, RNAScope and similar)
  - Proteomics techniques combined with immunofluorescence microscopy
  - Proteomics based on immunohistochemical methodologies (microtissue array, immunohistochemical whole slide and similar)
  - Others (specify)
10. What will be the most interesting cellular imaging generation techniques for pharma industry-drug development in the next 1-5 years? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- Spatial transcriptomics techniques based on probe hybridization and RNA-seq (such as 10x technologies and similar)
  - Spatial transcriptomics techniques based on multiplex in situ hybridization (such as smFISH, MERFISH, RNAScope and similar)
  - Proteomics techniques combined with immunofluorescence microscopy
  - Proteomics based on immunohistochemical methodologies (microtissue array, immunohistochemical whole slide and similar)
  - Others (specify)
11. What will be the most interesting cellular imaging generation techniques for medical device and diagnostic technologies in the next 1-5 years? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- Spatial transcriptomics techniques based on probe hybridization and RNA-seq (such as 10x technologies and similar)
  - Spatial transcriptomics techniques based on multiplex in situ hybridization (such as smFISH, MERFISH, RNAScope and similar)
  - Proteomics techniques combined with immunofluorescence microscopy
  - Proteomics based on immunohistochemical methodologies (microtissue array, immunohistochemical whole slide and similar)
  - Others (specify)
12. What will be the most interesting cellular imaging generation techniques for clinical trials industry in the next 1-5 years? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- Spatial transcriptomics techniques based on probe hybridization and RNA-seq (such as 10x technologies and similar)
  - Spatial transcriptomics techniques based on multiplex in situ hybridization (such as smFISH, MERFISH, RNAScope and similar)
  - Proteomics techniques combined with immunofluorescence microscopy

- Proteomics based on immunohistochemical methodologies (microtissue array, immunohistochemical whole slide and similar)
  - Others (specify)
13. Do you think that digital platforms for single cell technologies and in particular those platforms that serve to analyze, exploit and visualize molecular data and advanced microscopy images could be useful for clinical trials of advanced therapies (such as immunotherapy or gene therapy)? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
14. International Standards and open formats in digital platforms could facilitate the integration of collaborative functionalities due to the use of common file formats. Do you think that standard formats for molecular and imaging data will be necessary to facilitate the adoption by clinicians? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
15. Do you think that algorithms which automatically transform data from private formats from single-cell equipment manufacturers to open international standards would be useful in this platform? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
16. Do you know the following standards? (yes/no/No Answer)
- DICOM® (Digital Imaging and Communications in Medicine)
  - HL7 standard (Health Level Seven)
  - SNOMED (Systematized Nomenclature of Medicine)
  - LOINC (Logical Observation Identifiers Names and Codes)
  - CDA (Clinical Document Architecture)
  - CCR (Continuity of Care Record)
  - GELLO
  - GEM (Guideline Elements Model)
17. Do you consider DICOM as the optimal international standard to transmit, store, retrieve, print, process, and display medical imaging information? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
18. Would be DICOM a good standard to deploy and implement new advanced research microscopy images in clinical practice? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
19. If not, could you specify other formats which could be good candidates to be standards for new advanced research images? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- BIGTIFF
  - MRXS
  - SWS
  - NDPi
  - OMETIFF
  - BMP
  - JPG
  - TIFF
  - Others (specify)

20. Do you think that other tools used by researchers in the field of microscopy (OMERO, Bioformats, etc) have the potential to reach hospitals, pharma industry, at a global scale? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
21. Which of these applications related with imaging field should be integrated in a digital platform that will serve both researchers and clinicians? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- ImageJ
  - OMERO
  - Others (specify)
22. Do you know portals to analyze, exploit and visualize OMICS data from research databases? Please, write the name of the portal or the website.
23. What of these portals related with OMICS data should be integrated in a digital platform that will serve both researchers and clinicians? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- Single Cell expression atlas (EBI-EMBL)
  - Single Cell Portal (Broad Institute)
  - Terra
  - UCSC Xena Single Cell Browser
  - Others (specify)
24. Do you think that these analysis tools could help clinicians during their daily clinical practice? (yes/no or Don't Know/No Answer)
25. Do you think that automatic algorithms which perform analyses on images would be useful in this platform? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
- Interest regions identification
  - Cell counting
  - Customized macros
  - Others (specify)
26. Would be useful to interchange molecular and image data (e.g. from rare diseases) to receive feedback using standards such as DICOM and HL7 between clinical and research sectors? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
27. Molecular data results obtained by advanced molecular techniques can have descriptive associated metadata. Do you think that standardized terminology for molecular metadata (like SNOMED in medical field) could be exploited by big data, AI and other technologies? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
28. Would be useful online co-collaborative work capabilities on advanced images with tele-diagnostic purposes (such as co-diagnostics between several professionals from different centers)? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)
29. EU patient's data are considered private data that must be have restricted access to compliance with GDPR law. Which importance do you give to the security/data privacy protocols that must be



implemented in digital platforms that manage Omics data and advance microscopy images from patients? (rate from 1 to 10 or rate 0 for Don't Know/No Answer)



30. Under your point of view, what of the following features would be interesting for HUTER platform? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)

- Management tools
- Chat
- Videoconference
- Advanced visualization tools
- Online co-working functionalities
- Electronic case report format
- Genomic visor
- Transcriptomic visor
- Command line interface
- User-friendly web interface
- High-throughput data analysis online
- Conversion algorithms (to standard formats)
- Synchronized data store
- Dynamic storage
- Special transfer protocols for heavy file
- Compatible with third-party portals via APIs
- Export/import data tools
- Virtual reality tools
- Others (specify)

31. Do you think that digital platforms solution that integrate OMICS data and advanced microscopy images should be integrated in Laboratory Information Systems (LIS)? (rate from 1 to 10, or rate 0 for Don't Know/No Answer)

- From Research labs (genomics, epigenomics, transcriptomics, proteomics, etc.)
- From Hospital departments (Anatomy Pathology, Genomic services, Radiology unit, etc.)

V. “Consent Form” – template for using personal photographs of project participants for project purposes.



**Consent form**

**Yes, I want to be informed about the HUTER project**

**Name:**

**Address:**

**Phone:**


**E-mail:**

**Consent:**

I hereby declare my consent that personal data including video and pictures taken during the HUTER project workshop/event may be processed and stored by the HUTER consortium for the organization and execution of the research project HUTER, particularly for communication purposes to a wider public. Pictures/videos may appear on HUTER website, consortium partners websites, social media and similar media. HUTER consortium will not use the data for any other purpose. This consent may be revoked at any time by contacting at [contac@huter-hca.eu](mailto:contac@huter-hca.eu).

Signature

Date



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## VI. Results Evaluation Form



### RESULTS EVALUATION FORM

**Objective:** To classify the results from HUTER according to their potential for exploitation, avoiding the disclosure of those suitable to be protected before its dissemination or exploitation.

The following form should be filled by the partner/s that generates the result and reviewed by the Innovation Committee and finally approved by the Steering Committee. Results should remain confidential (out of public disclosure) until the approval by the Steering Committee.

#### TITLE (TENTATIVE) OF THE RESULT

#### SHORT DESCRIPTION

*(Type of result: new product (good or service), new method, new process, software, etc.)*

#### THE RESULT HAS BEEN PUBLICLY DISCLOSED (YES / NO)

#### WHAT AREA OR FIELD OF APPLICATION IS IT DIRECTED TO?

#### HUTER PARTNER/S WHO HAS OBTAINED THE RESULT



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**OTHER CONSORTIUM MEMBERS WHO HAVE CONTRIBUTE TO THE RESULT**

**OTHER THIRD PARTIES WHO HAVE CONTRIBUTE TO THE RESULT**

**FIELD OF APPLICATION, MARKET OPPORTUNITY AND TIME TO MARKET**

**RESULT STAGE OF DEVELOPMENT (TRL) AND JUSTIFY**

**NOVELTY**



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**RESULT STAGE OF DEVELOPMENT (TRL) AND JUSTIFY**

**TYPE OF IP RIGHTS IF PROTECTION IS POSSIBLE**

*(Patent, Trademark, registered design, utility model, other)*

**FIRST APPROACH TO EXPLOITATION**

**ADDITIONAL COMMENTS (if needed)**



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