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	Reference	D7.5	Date	29-11-2024


FINAL DISSEMINATION AND EXPLOITATION PLAN

Project Number: 965044

Project Acronym: B-CRATOS

Project Title: Wireless Brain-Connect interfAce TO machines




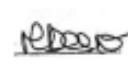
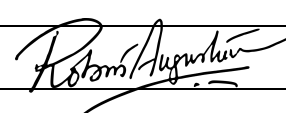
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	Reference	D7.5	Date	29-11-2024

Deliverable Information


Project Title:	Wireless Brain-Connect interRfAce TO machineS (B-CRATOS)
Project Number:	965044
Deliverable Number:	D7.5 Final Dissemination and Exploitation Plan
Responsible Partner:	Blackrock Microsystems Europe GmbH (BRME)
Work Package Number and Title:	WP7 Exploitation, Communication and Dissemination
Version:	3.0
Revision Date:	29-11-2024

Dissemination Level: Public

Approvals

Name, Org.	Role	Signature	Date
Paul Wanda, BRME	Co-Author, WP7 Leader		29/11/2024
Martina Desio, SINANO	Co-Author		29/11/2024
Pascale Caulier, SINANO	Co-Author		29/11/2024
Robin Augustine, UU	Project Coordinator		29/11/2024



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Executive Summary

This deliverable is the final Dissemination and Exploitation Plan for the B-CRATOS project, reporting the planned and completed series of dissemination, communication, and exploitation activities in the 45 months preceding and continuing after the end of the project.

This plan outlines the strategy that enables the B-CRATOS consortium to effectively pursue dissemination and exploitation activities: focus is given to the undertaken actions to reach the public and key industry stakeholders and intellectual property development and rights management, setting the stage for future development of business plans to guide the consortium towards effective exploitation of project results and translation to a real world societal and health impact through product development and commercialization.

This document is an updated version of the previous deliverable D7.4 completed and submitted in M28 (*Dissemination and Updated Dissemination and Exploitation Plan including Quantified analyses of impact of diss./comm. Measures*). B-CRATOS is currently a 45 month old project and, although many actions have already been implemented, the deliverable includes a detailed action plan for expected activities in the final project months.






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1 Overview

1.1 Purpose

The Final B-CRATOS Dissemination and Exploitation Plan (DEP) describes the activities performed, the planned ones and the channels used to promote and disseminate the project and its outputs, and to exploit the project results for concrete purposes.

The goal of dissemination is to circulate project knowledge and results to those who can make the best use of them, both broadening and strengthening the impact of the project. This document aims to support this goal by updating the previous Dissemination plans to effectively communicate the results of the B-CRATOS project to the public through multiple channels.


The goal of exploitation activities is to make effective use of project results to develop new technologies, products, or services by project Partners or by others. This document includes an Exploitation Plan to guide the B-CRATOS Partners in developing and submitting IP applications for patentable results, participate in EIC program support, and create business plan strategies to bring the exploitable technologies nearer to market and pursue funding for future projects.

This document is developed under the Legal obligations outlined in Articles 28 and 29 of the Horizon 2020 Model Grant Agreement.

1.2 B-CRATOS Partners

Short Name	Full Name
UU	Uppsala Universitet
SINANO	SINANO Institute
SSSA	Scuola Superiore di Studi Universitari e di Perfezionamento S'Anna
BRME	Blackrock Microsystems Europe GmbH
LINKS	Fondazione LINKS – Leading Innovation & Knowledge for Society
DPZ	Deutsches Primatenzentrum GmbH
NTNU	Norges Teknisk-Naturvitenskapelige Universitet NTNU



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1.3 Responsibilities

BRME is the lead beneficiary responsible for WP7 Exploitation, Communication and Dissemination and is the lead Partner responsible for coordinating exploitation activities.

SINANO is the beneficiary responsible for internal and external communication and dissemination coordination and activities.


UU is the beneficiary responsible for dissemination through publications validation and coordinating the filing of patents.

Prof. Robin Augustine (UU) is the scientific coordinator assuming overall scientific, and technical responsibility of the project. As B-CRATOS coordinator, Prof. Augustine reviews, approves, and submits deliverables and reports.

1.4 Definitions

Term	Description
B-CRATOS	The Wireless Brain-Connect interRfAce TO machineS project
Commercialization	The process of bringing new products or services to the market, covering such topics as marketing, sales, production, distribution, and other broad functions
Communication	Using generalized language to promote the project and its results through engagement with the general public
Dissemination	Sharing research results with potential users – peers in the research field, industry, other commercial players, and policymakers, often through public disclosure in scientific or technical language
Exploitation	The use of results for commercial purposes or in public policymaking
Intellectual property	A creation or invention to which one has rights and may apply for a patent or other legal protection/right; also referred to as “IP”
KPI	Key performance indicator, a metric used to evaluate progress towards an objective or result
Patent	The exclusive legal right to exclude others from exploiting an invention (IP) for a limited period of years, in exchange for public disclosure of the invention (IP)




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WP	Work Package
----	--------------

1.5 References

1. Grant Agreement number 965044, B-CRATOS, H2020-FETOPEN-2018-2020 / H2020-FETOPEN-2018-2019-2020-01, Annex 1 (part A), Research and Innovation action, *unpublished*
2. B-CRATOS Consortium Agreement, version V5, 2021-02-26. *Unpublished*
3. B-CRATOS Pre-revenue Business Plan, version V1, 2023-11-01. *Unpublished. Submitted to EC as Optional Deliverable.*



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2 Dissemination and Communication strategy

As B-CRATOS is in its final phase, it is necessary to emphasise the difference between communication and dissemination activities. The former focused on the broad promotion of any project action and its results to a multitude of target audiences. They are not yet concluded and will not be until the end of the project, but at this stage further emphasis will be placed on the latter. Dissemination activities, in effect, are crucial now since they focus on disseminating the results of specific actions mainly to the target groups that will make optimal use of them.


At this stage, dissemination activities form the backbone of networking and establishment of credibility with potential research, industry, and entrepreneurial partners to enable more effective exploitation and eventual development of project results into future products with commercial potential.

2.1 Strategy

The B-CRATOS consortium targeted specific audiences and groups through different communication and dissemination channels. The following two tables below show the overall strategy, covering different target groups, dissemination channels and the types of information, specific for each target group, which can be shared. In addition, the focus on period 3 and the planned activities is emphasized.

Target Groups	Dissemination channels	Type of information
Policy Makers, European Commission, and stakeholders	Press Releases, Newsletters, Website EU-wide events such as EFECTS Social Media Stakeholders' seminar	Impact of B-CRATOS Ethic Committee review report: implications on society and technology Position paper (e.g., clinical economics and societal impact)
Research community (academic and industry)	Press Releases, Newsletters, Website, Flyers, Workshop Social Media engagement via LinkedIn, Twitter Presentations at conferences, Webinars Publications, PhD and master's theses	Project results in the different areas of B-CRATOS: neurotechnology, wireless communications, bionics, biomechatronics, materials science, artificial intelligence, and machine learning
Students	Lectures, online courses, tutorials, webinars	Topics: neurotechnology, wireless communications, bionics, biomechatronics,




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	PhD and master's Theses	materials science, health care business, artificial intelligence, and machine learning
	Summer School	
General Public and citizens	Website, Social Media	Holistic, broad project view and understanding
	Participation at public events, public talks	Summary of ethic committee review report
End users, General stakeholders: Chamber of commerce, Patient groups, Technology stakeholders	Press Releases, Newsletters, Website	Marketing articles
	Local events with Presentations, Exhibits, Realisations of demos, Videos	Clinical articles
	Targeted meetings in life sciences, Patient organizations, Partners network, Early adoption network	Early customer value Thought leadership articles

Table 1. Dissemination target groups, dissemination channels, and type of information


Dissemination / Communication tool channel	How to measure	Target	Total done in P3	Planned	Contingency plan if target not being met
Website	Number of monthly visits	300 visits per month	400 visits/month on average		Promote the website in social media
	Duration of time spent on site	Duration: 90 seconds	Duration: 72 s		Publish additional project news and updates Partners will have links from their institutional websites to the B-CRATOS website. Promote the website in public events, talks.



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Newsletters	Number of Newsletters	1 newsletter per year	1	1	Print the e-Newsletter and bring to workshops and booths. Sent to target groups.
	Number of downloads viewed per issue	50 downloads per issue			
Events organised 1- Workshops /Conferences 2- Webinars	Number of events	1: 2 total, at least 25 attendees per event	1:0	1:2	Additional relevant guest lectures Publicise webinars and workshops more extensively through network
	Number of attendees per event	2: 2 per year, at least 30 attendees per event	2:10	2:0	
Publications	Number	15	10	13	Discussions within the consortium at WP7 meetings
Conferences Proceedings	Number	16	8	10	Discussions within the consortium at WP7 meetings
Presentations at conferences	Number	25	15	10	Discussions within the consortium at WP7 meetings
Social media: 1- LinkedIn	Number of followers; Number of articles; Number of engagements (views, likes, retweets)	100 followers per year; 1 article post per Month; 200 engagements per post	111 last year; always more than 1 article per month; on average 727 engagements per post		Partners will create and send content for media articles and posts. Partners will foster B-CRATOS project within their social media networks.



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Press releases	Number	3	4	1	Press releases to include language emphasizing impact, applications, potential of technology.
Videos	Number	6	18	0	Emphasize the interest of these videos within the Consortium
Booths at conferences, tradeshows, exhibition	Number	2	2	0	
Event for the general public	Number	2	2	0	
Thesis	Number	6 Thesis/ dissertations	2	2	
1 Stakeholders Seminar	Attendance	25			Position Paper


Table 2. Dissemination & Communication channels and KPIs

2.2 Monitoring

The Planned values for the Key Performance Indicators (KPIs) are monitored regularly. The Consortium organised - and will continue to hold until the end of the project - monthly Work Package 7 (WP7) meetings between all representatives of the project partners involved in WP7, with a standing agenda item, to regularly monitor the above-mentioned channels and plan the next activities. In addition, monitoring spreadsheets are maintained on a shared drive, where partners update their activities regarding the calendar of events and publications, both past and future. Feedback from interested parties is encouraged through the above interactions, with such information collected, with appropriate consent, and analysed to guide the effectiveness of dissemination and exploitation activities.

As far as the completed communication and dissemination activities are concerned, further details will be added within the Deliverable 7.7 “Quantified analyses of the impact of dissemination/communication measures”.



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2.3 Project identity and public image

The B-CRATOS project identity and the dissemination instruments, which are very significant for the image of the project, are defined through:

- The creation of an Official Project Logo adopted at the beginning of the project. It is included in well visible positions on all dissemination materials, internal and external documents, and webpages, press releases or other publications as well as on all deliverables, milestones and reports produced during the project up to now and it will continue to be used until the end of the project and after.
- The creation and adoption of standard templates for the deliverables, presentations, reports. They are used by B-CRATOS Partners for every oral or written project communication, and at conference presentations acting as Dissemination instruments.

The establishment of the project website, which is regularly updated and expanded, and project social media accounts. The B-CRATOS website is at the core of B-CRATOS communications, and as such, is a critical hub for both communication and dissemination. It includes a basic description of the project's objectives, contains general information about the project, but is also always up-to-date with regard to upcoming B-CRATOS events, news, videos, etc.

2.4 Project presentation


2.4.1 Project description

A general project description can be found on the website on the Homepage and on the *What is B-CRATOS* page.

2.4.2 The B-CRATOS latest animation

Conventional Brain-Computer Interface (BCI) and Brain-Machine Interface (BMI) systems rely on extensive cabling and bulky hardware, significantly restricting patient mobility and usability. Through the B-CRATOS project, a cutting-edge solution was envisioned: a seamless, wireless system that integrates a low-profile implant with wearable technology. This innovative approach ensures high-speed, high-data-rate bi-directional closed loop communication between the brain and mechatronic prosthetics, enabling advanced dexterity in bionic extremities controlled directly by the user's thoughts. Our design prioritizes user comfort, reliability, and the highest standards of security and privacy,



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redefining the future of neuroprosthetics.

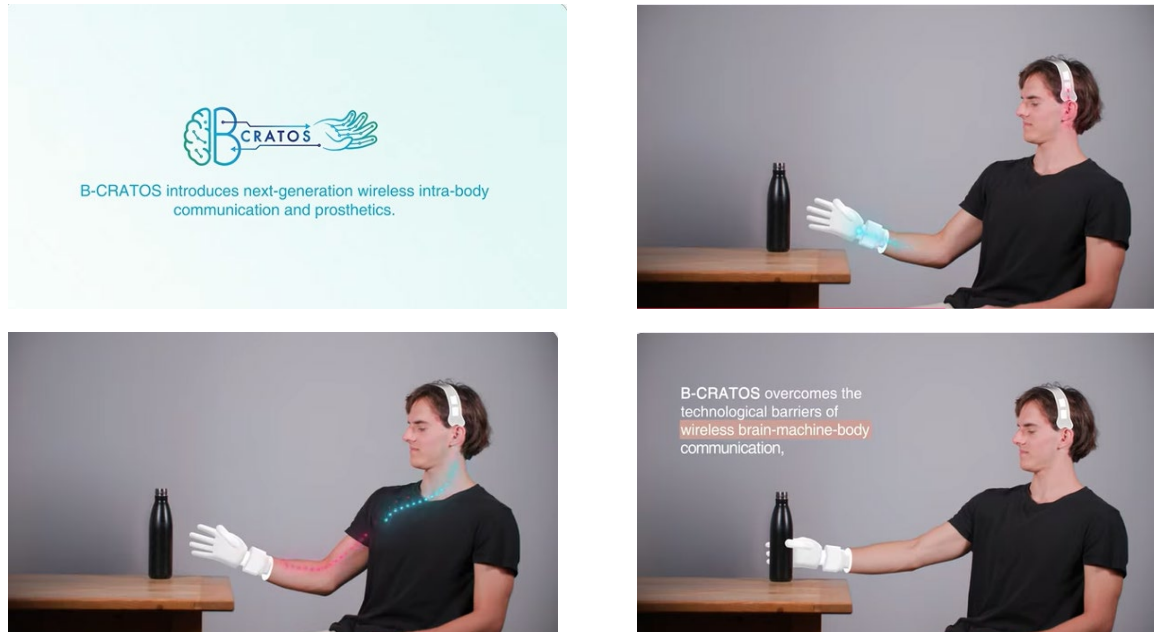


Figure 1 - Discover the disruptive B-CRATOS approach

Based on that idea and following several internal discussion also on the advice of the Advisory Board, was created an animation that represents the crucial steps involved within the fully implanted, wireless direct communication between brain-body-machine, capable of bidirectional closed-loop control. You can have a look at the entire animation [here](#).

2.4.3 Sliders for a general overview of the different Work Packages

In an effort to vulgarise the key concepts of the B-CRATOS project and reach a wider audience, the core concepts of the technical Work Packages were explained and represented in various sliders. They were shared on social media, which helped attract a broader audience and gain new followers. All the sliders can all be found on our website's page [Workpackages - B-CRATOS](#)




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Figure 2 – The 4 sliders and a more concrete example on Fat-IBC

2.4.4 Project overview

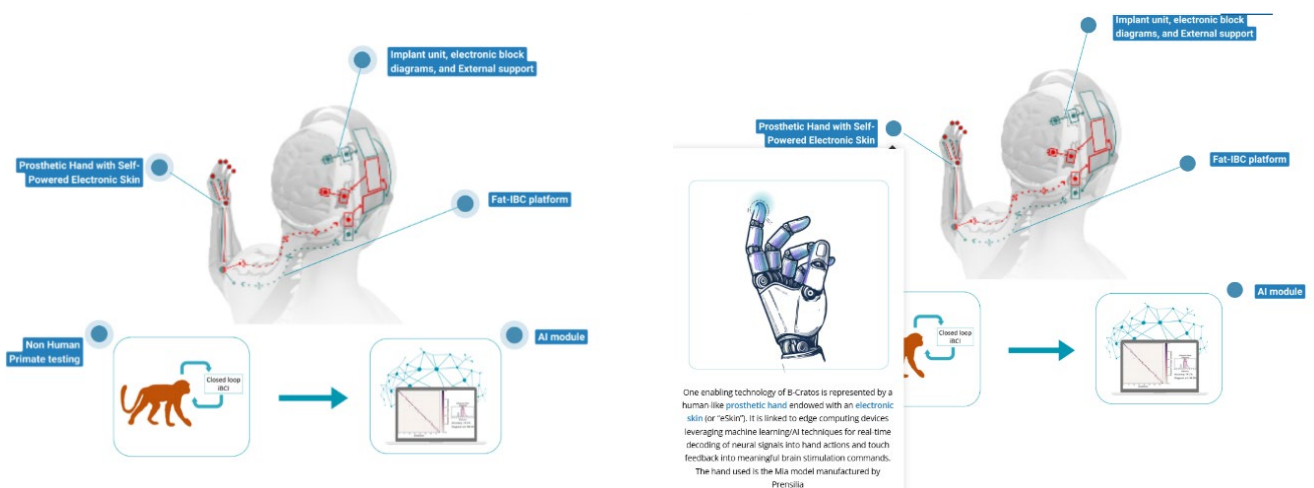



Figure 3 - B-CRATOS interactive map and a focus on the section “Prosthetic Hand with Self-Powered Electronic Skin”. When a topic is clicked on the left, a pop-up window with more information appears (right).

In order to better navigate through the B-CRATOS project, an interactive map has been created with a particular focus on the parts and technologies involved. Each circle represents



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a key component within the project framework. By clicking on these circles, an overview of the functioning of a section can be obtained.

This interactive map serves as an engaging tool to explore the B-CRATOS project and understand its main components and their relationships. You can discover the interactive sections [here](#).

2.4.5 Press Releases

In addition to the initial Press Release, the Consortium published additional ones at the completion of each major milestone and a final Press Release at the end of the project is planned (M48). Each Press Release is communicated through the project website, project social media, and by the consortium partners' media platforms as well.

In particular, after the initial one, two press releases have been published in November 2023 and May 2024. The first one followed the achievement of two critical milestones for the continuation of B-CRATOS project: the development of a Functional stim/read implant, which was tested in the lab as a wireless cortex readout and stimulation and the development of a ready prototype of Wireless Power Transmission (WPT) for stim/read, which proved efficient in the lab. Such a press release wanted to mark those two years into the B-CRATOS project, in which the teams led by NTNU and BRME have reached key results.

The second press release followed Uppsala University and Deutsches Primatenzentrum GmbH achieving a significant milestone in the B-CRATOS project by developing Fat-Intra Body Communication (Fat-IBC). This innovative technology uses human subdermal fat to transmit data at high speeds and in large quantities, offering secure communication within the body. Fat-IBC was successfully demonstrated in a primate, enabling real-time control of a robotic hand and providing sensory feedback through neuronal signals.

Since we are in the final phase of the project, various elements will be taken into consideration for the final press release.

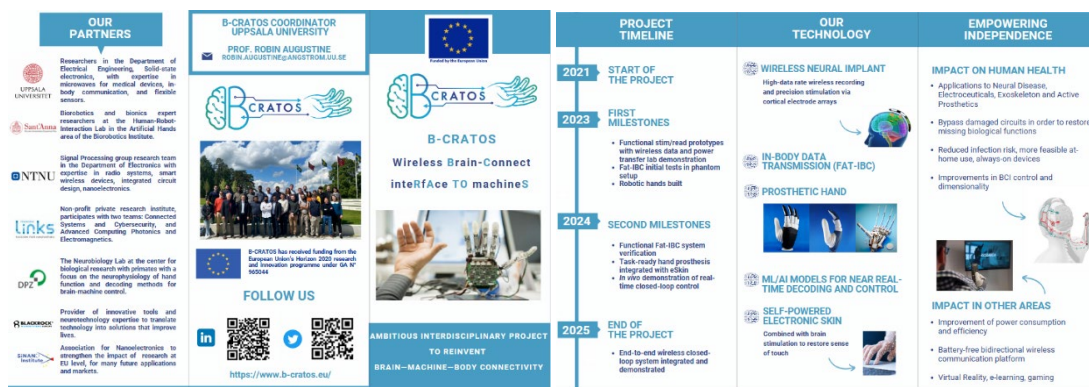



Figure 4 - Example of flyers



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2.4.6 Flyers

A first version of the B-CRATOS flyer was created and widely distributed at various events. After 18 months, the flyer was updated following the need of the events held at that time and new versions will be prepared in the future taking into account the project developments and results with the new pictures of it.

2.4.7 Posters

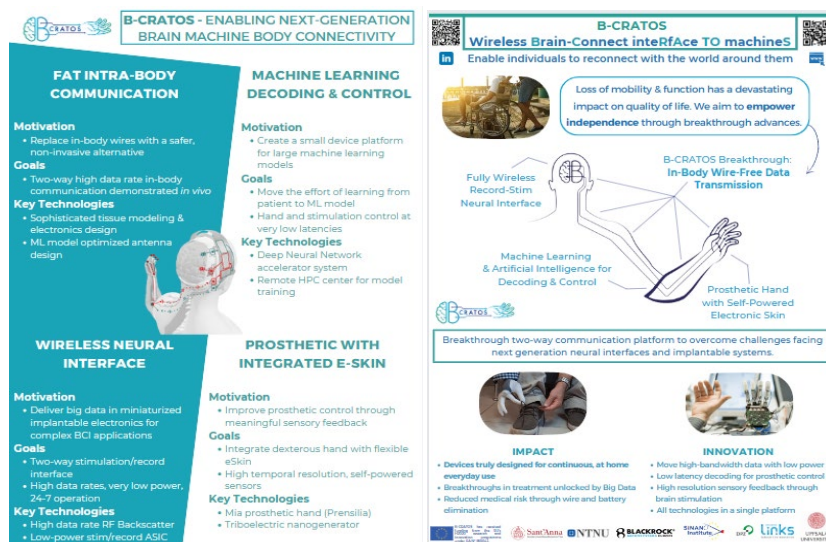


Figure 5 - Example of posters

Several posters were created, according to the objectives of the initial Dissemination and Exploitation plan. They have also benefited from updates thanks to the new advances of the projects and obtained pictures.


2.4.8 Newsletters

B-CRATOS provides a yearly newsletter which highlights the main outputs and potential applications of the project.

After the two initial editions, covering key developments and introducing the people and teams behind B-CRATOS, a third newsletter has been published in April 2024. Special focus has been given to the fourth in-person consortium meeting in LINKS Foundation, Turin, in which the progress and objectives of each Work Package, as well as the next perspectives for B-CRATOS were presented.

The newsletters are sent to the Consortium mailing list, subscribers via the website or webinars, and all project partners. They are also available online and promoted on social



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media. The last newsletter of the B-CRATOS project is scheduled for the end of the project.

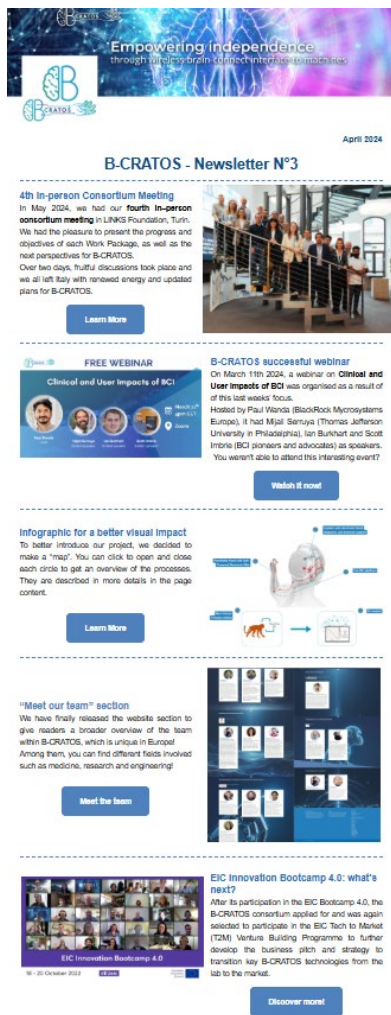


Figure 6 – Last Newsletter published

2.4.9 Business and Social Networks profiles

- B-CRATOS on LinkedIn (641 followers)

B-CRATOS has a LinkedIn presence here: <https://www.linkedin.com/company/b-cratos/>. LinkedIn is a social media platform popular and frequented by the business community, corporations, working professionals, and researchers.

The LinkedIn page for the B-CRATOS project is highly active, with 641 followers and strong community interaction. It serves as a key platform for engaging researchers, but also medical manufacturers, and health industry professionals, crucial for the project's exploitation.

For the last months, a more specific audience target on LinkedIn for direct campaigns regarding the exploitation plan should be defined. Although the list of stakeholders can be found in the exploitation part (Section 3.6), it is important to emphasise that in this last phase of the project, stakeholders will be followed on LinkedIn and an interaction with them will be established when relevant.

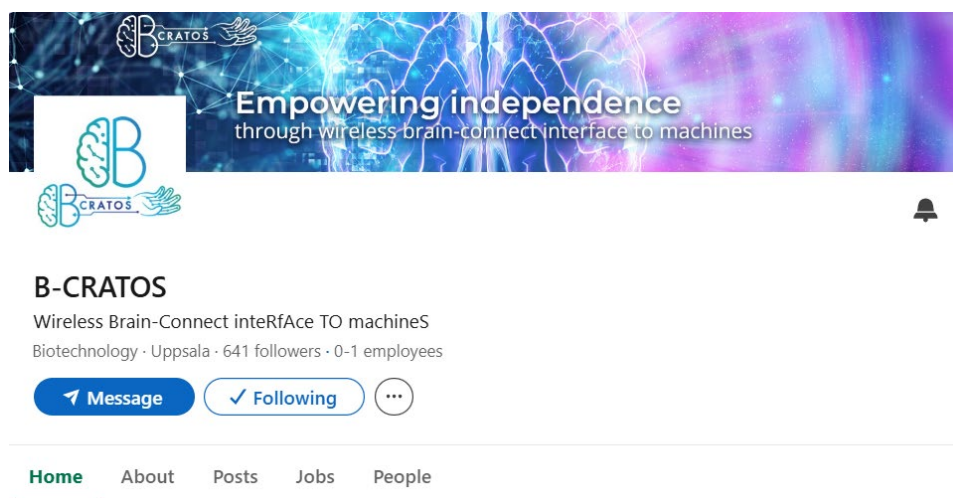



Figure 7 - The B-CRATOS LinkedIn homepage



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- B-CRATOS on Youtube (35 followers)

The B-CRATOS YouTube Channel can be found here:

<https://www.youtube.com/channel/UCIQBt8uMxS9UkX3Pn7b1MDA> (currently 35 followers).

The YouTube channel hosts publicly released promotional videos, webinar replays, interviews, etc. that can be embedded into the website and other social media accounts. Aside from hosting public media, YouTube itself has a very broad userbase (the Google user network) that can be leveraged to effectively disseminate B-CRATOS video media such as talks, live webinar recordings, demonstration videos, and educational materials.

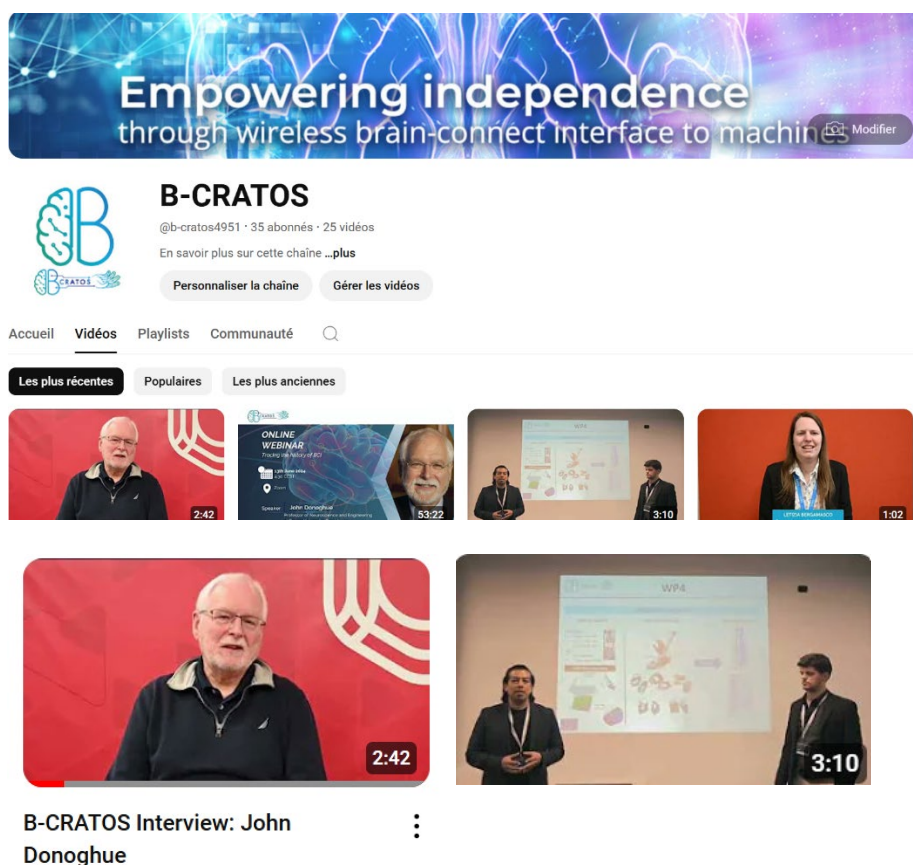



Figure 8 - The B-CRATOS YouTube homepage

Although Youtube is more used as a storage base for videos we promote on social networks and on the website, it still marks interesting results and could be used for live streams on demo or videos with more technical content once it will be possible to publicly release any.

2.4.10 Campaigns on Social Medias and key contents

To enhance project visibility and detail the project context while introducing team members,



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several social media campaigns were launched:

- Interviews Campaign:

Several interviews were conducted during the in-person Consortium Meetings in Trondheim (September 2023), Turin (April 2024) and Lyon (October 2024) to present team members' roles and the current B-CRATOS' evolutions. More such videos are planned to engage the B-CRATOS audience at the final meetings involving all project partners.

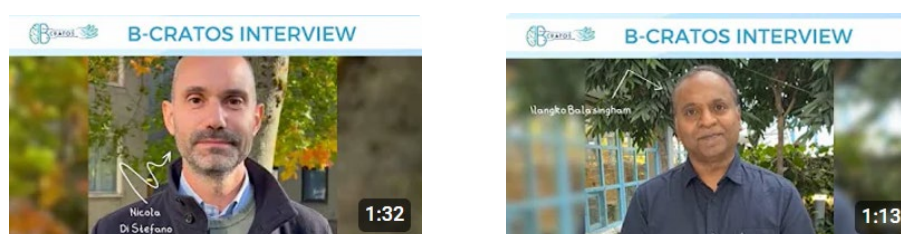


Figure 9 – Examples of some of the published interviews

As an example, in Turin we had the great honour of interviewing John Donoghue, Professor of Neuroscience and Professor of Engineering at Brown University and a member of B-CRATOS Advisory Board. Moreover, our colleagues Burim Kabashi and Robinson Guachi were enthusiastic to tell and popularise their work around the Mia Hand with the help of some explanatory slides.

In a general way, various topics were addressed and our colleagues explained their involvement in the project and at what stage they were in the process.


The interviews were also a way of highlighting the collaboration between the various workpackages, for example if one thinks of the interview with Paolo Viviani and Marco Controzzi, in which both explained the main results of their collaboration within B-CRATOS and the MIA Hand being able to perform different grips.

You can find all our interviews on our website: [Video - B-Cratos](#).

- Monthly focus campaign:

The initial idea of the Monthly focus is to present the B-CRATOS key topics and work packages one at a time by first introducing a broader context through the existing literature. The monthly focus is in practice lasting more than a month and usually is concluded by a webinar. It consists in linking the B-CRATOS work with connected open-access articles on the covered topic. For example, publishing literature on hand prosthetic, grips, integration of bionic hands etc. and pointing out the relevance of the paper's conclusion or assertion with the current work of B-CRATOS, then concluding this focus with a webinar on hands



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prosthetic.

The objective is to give more context on each of the B-CRATOS WP to a broader audience (introducing the article in such a way that at least the abstract is made accessible to a non-scientific audience) and to bring attention on existing literature of quality that deserves to be read and will help better understand today's B-CRATOS challenges.

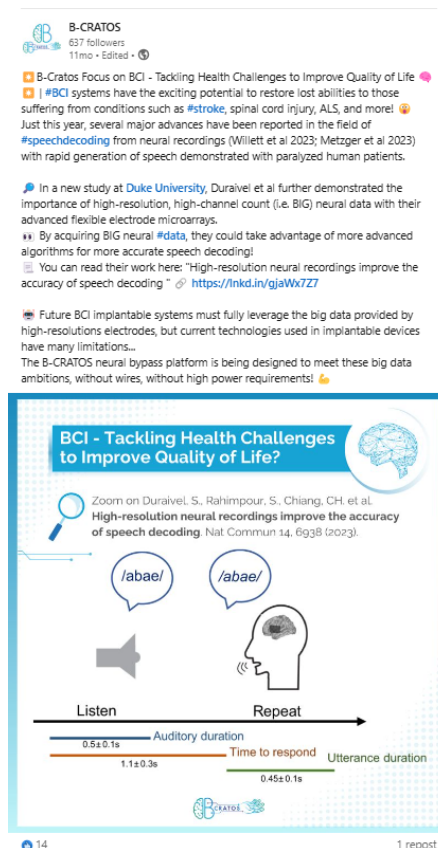



Figure 10 - Example of a "Monthly focus on Brain Computer Interfaces" post on LinkedIn

For example, in the 3rd period three monthly focus have been organised - respectively on Ethics, Brain Computer Interfaces and Fat-Intrabody Communication - followed by two webinars.

2.5 Planned dissemination activities

Achievements and knowledge gathered within the B-CRATOS project have been and still are widely disseminated through publications in major international journals and participation of B-CRATOS Partners in international conferences and workshops. Only publications and presentations which clearly acknowledged the B-CRATOS project will be listed. Once again, as B-CRATOS is in its final phase, a major focus will be put on planned activities which will continue also after the end of the project.



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2.5.1 Publications


The scientific findings and technological advances made possible by the B-CRATOS project are publicly disclosed in peer-reviewed scientific journals. In the following table, we include example journals where the consortium plans to submit manuscripts for publication. This list may not include every journal in which B-CRATOS results are ultimately published following the peer-review process. The targeted journals cover a broad range of topics in wireless signalling, prosthetics, physics, neuroengineering, machine learning, computational techniques, and some of the targeted ones are listed (non-exhaustive) below, organized by topic:

Topic	Journal	Open Access?
Wireless Technologies: Wireless Implant Technologies, Fat-IBC (WP2, WP3)	IEEE Transactions on Antennas and Propagation	Open Access with extra fee
	IEEE Transactions on Biomedical Circuits and Systems	Open Access with extra fee
	IEEE Transactions on Biomedical Engineering	Open Access with extra fee
	IEEE Transactions on Microwave Theory and Techniques	Open Access with extra fee
	IEEE Access	Fully Open Access
	Nature: Scientific Reports	Fully Open Access
Machine Learning and Artificial Intelligence (WP4)	IEEE Transactions on Pattern Analysis and Machine Intelligence	Open Access with extra fee
	Nature: Machine Intelligence	Open Access with extra fee
Robotics, Prosthetics (WP4)	Journal of Neuroengineering and Rehabilitation	Fully Open Access
	IEEE Transactions on Neural Systems and Rehabilitation Engineering	Fully Open Access
Electronic Skin and Sensors (WP4)	Nano Energy	Open Access with extra fee
Neuroengineering, Neuroscience (WP6)	Journal of Neuroengineering	Open Access with extra fee
	Journal of Neuroscience	Open Access with extra fee
	eLife	Fully Open Access
B-CRATOS System (all WP)	IEEE Communications Magazine	Subscription Required

Open access to publications is ensured, either by publishing in open-access journals or by choosing the open access option for specific articles in traditional subscription journals. The Consortium will use the “green access” model; creating a self-archived version of any article published by the Partners and the B-CRATOS users in any journal for free public use, in a repository accessed through the B-CRATOS Portal within 6 months of publication.

The B-CRATOS project follows the guidance found on OpenAire (<https://www.openaire.eu/find-trustworthy-data-repository>) regarding trusted repositories. In most cases, one of the following will be used: topic-relevant arXiv site, institutional



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repositories through a B-CRATOS partner, or Zenodo. Open-access versions of publications are linked and available via the B-CRATOS website.

2.5.2 Project presentations at conferences


B-CRATOS partners regularly attend scientific conferences and give presentations of B-CRATOS results, including the presentation of keynote speeches. Where present as programme committee members, and hence in a position to address this, partners strive to participate in tutorials or short courses of selected conferences. A selection of targeted conferences that partners attended during period 3 is given below. Other relevant regional and national conferences are targeted. Moreover, at the end of the dissemination and communication strategy, some KPIs will be presented in order to highlight in how many conferences partners are planning to attend.

Attended events

Oral Presentations:

IMBioC 2023 (Leuven, Belgium) – September 11-13 rd 2023	Oral presentation by Aminolah Hasanvand (NTNU): "Wireless Brain Interface"
Workshop organised by the International University of Ecuador (Quito, Ecuador) – December 14 th , 2023	Oral presentation by Robinson Guachi (SSSA): Guiding the Mechanical Design and Integration of a Sensorized Artificial Skin for a Bionic Hand
DALIDA Seasonal School (Pisa, Italy) – March 6 th 2024	Oral presentation by Marco Controzzi (SSSA): Artificial hands for functional substitution, within the module "Technology innovation and new opportunities for the injured persons"
EUCAP 2024 (Glasgow, Scotland) – March 21 st 2024	Oral presentation by Rossella Gaffoglio (LINKS): "Compact Antenna Solutions for Data Transmission Using Fat-Intrabody Communication (Fat-IBC)"
Neurotechschool: Grenoble Neurotech School 2024 (Aussois, France) – April 2-5 th 2024	Oral presentation by Andres Agudelo-Toro (DPZ): "Restoring grasp with BCIs and deep learning: Preclinical studies"
International Centre for Theoretical Physics (Trieste, Italy) – May 27 th 2024	Oral presentation by Paolo Viviani (LINKS)
Workshop Assistive Systems - ICRA-24 (Yokohama, Japan) – May 13 th 2024	Oral presentation by Marco Controzzi (SSSA): "The Journey of Mia Hand from Lab to Prosthetic Market"
Summer 2024 Boot Camp (Online) – July 22-26 th 2024	Oral presentation by Paul Wanda (BlackRock) on Modern BCI and Neural Engineering Career Paths



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International Conference on Electromagnetics in Advanced Applications (Lisboa, Portugal) – September 2-6 th 2024	Oral presentation by Ali Khaleghi (NTNU): “Design and Modeling of Magnetoelectric Microparticles for Neuromodulation”
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Posters presented:

- Poster by Hunaid Hameed (DPZ): “Training of real-time robotic grasp decoding from neuronal population activity in macaque motor cortex (M1)” : Primate Cognitive Neuroscience Summer School 2024 (Bad Bevensen, Germany) – July 28th– August 9th 2024
- Poster by Hans Scherberger (DPZ): “Training of real-time robotic grasp decoding from neuronal population activity in macaque motor cortex (M1)” : Society For Neuroscience Conference (Chicago, United States) – October 5-9th 2024
- Poster by Rossella Gaffoglio (LINKS): “Topology Optimization of Antennas in COMSOL Multiphysics: Considerations and Preliminary Results”: COMSOL Conference 2024 (Florence, Italy) – October 22-24th 2024
- Poster by Hunaid Hameed (DPZ): “Training of real-time robotic grasp decoding from neuronal population activity in macaque motor cortex (M1)” : Third Göttingen Neural Networking Day (Göttingen, Germany) – November 8th 2024

2.5.3 Invited Lectures and Talks

Invited lectures and talks are also very important for the visibility of the B-CRATOS project.

During this period, three of our colleagues had the honour of being invited as invited speakers at international conferences.

- In particular, in May 2024 Marco Controzzi of SSSA was invited to Yokohama - Japan to the Workshop Assistive Systems: Lab to Patient Care to give a presentation: "The Journey of Mia Hand from Lab to Prosthetic Market"
- Furthermore, Paul Wanda of BRME attended as invited speaker at Neural Engineering Summer Bootcamp in July 2024 with his Invited Talk on ‘Modern BCI and Neural Engineering Career Paths’
- And the last inherent event was in November 2024, when Robin Augustin from Uppsala University was invited to the 2024 International Conference on Big Data Analytics in Bioinformatics (DABCon) in Kolkata - India as a Keynote speaker “Fat – Intra Body Communication: A new paradigm for intra-body communication technology enabling reinstatement of lost functionalities in human”




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Figure 11 – B-CRATOS at DABCon 2024


2.5.4 Public events

The B-CRATOS team also attended public events, such as the Culture Night at Uppsala University. Indeed, in September 2024, Robin Augustine was present at the Anatomical Theatre in Museum Gustavianum where he explained, among other things, 3D-printed implants, organ-on-a-chip and the B-CRATOS project. It was a great opportunity to discuss about such cutting-edge topics in an historic setting like the Anatomical



Figure 12 -B-CRATOS at Culture Night, Uppsala University



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2.5.5 Workshops/ Schools

- On the 19th February 2025, B-CRATOS is organising a Workshop as a Satellite event of the Braincoder -conference on “Brain- Machine Interfaces and Neurotechnologies for transmitting information to the brain” at the Ecole des Mines – Gardanne France and invite CEA- Clnatec and Institut Pasteur to participate as they are leading experts in the field of BCI and funded by European grants, respectively with the Nemo-BMI and the Hearlight projects.

The workshop, entitled ‘**Neural Horizons: Future Panorama within Brain-Machine Interfaces**’ will be divided into three main sessions, each one followed by a specific Panel Session to enhance further discussions on the domains:

1. Innovation within Brain Implants: Pioneerings BMIs

The first session will delve into the latest advancements in brain implant technologies, highlighting their current state, their clinical applications, and future innovations.

As speakers, it will have Brice Bathellier from Institut Pasteur, Hans Scherberger from Deutsches Primatenzentrum GmbH, Fabien Sauter from CEA Grenoble-Clnatec, Paul Wanda from Blackrock Neurotech - Blackrock Microsystems Europe and Paul Le Floch from Axoft. We are glad to welcome Tania Rinaldi Barkat from Basel University as moderator of the corresponding panel session.

2. Mind meets Machine: evolutions within communication


This session will feature insights on how BMIs are enhancing communication methods, particularly for individuals with disabilities, and what the future holds for these technologies. The main speakers will be Robin Augustine Kachiramattam from Uppsala University, Charles Rezaei-Mazinani from Institut Pasteur and Ali Khaleghi from Norwegian University of Science and Technology.

The panel session will be moderated by Fabien Sauter-Starace from CEA-Clnatec.

3. Prospects about the Machine-Humans Interactions

This session will focus on the intersection of BMIs and machine technologies. Discussions will cover how BMIs can enhance machine control, the integration of AI with neural interfaces, and future applications in various fields. The main speakers will be Marco Controzzi from Scuola Superiore Sant’Anna, Guillaume Charvet from CEA DTIS and Henri Lorach from UNIL. The moderator of the following panel session will be Paul Wanda.



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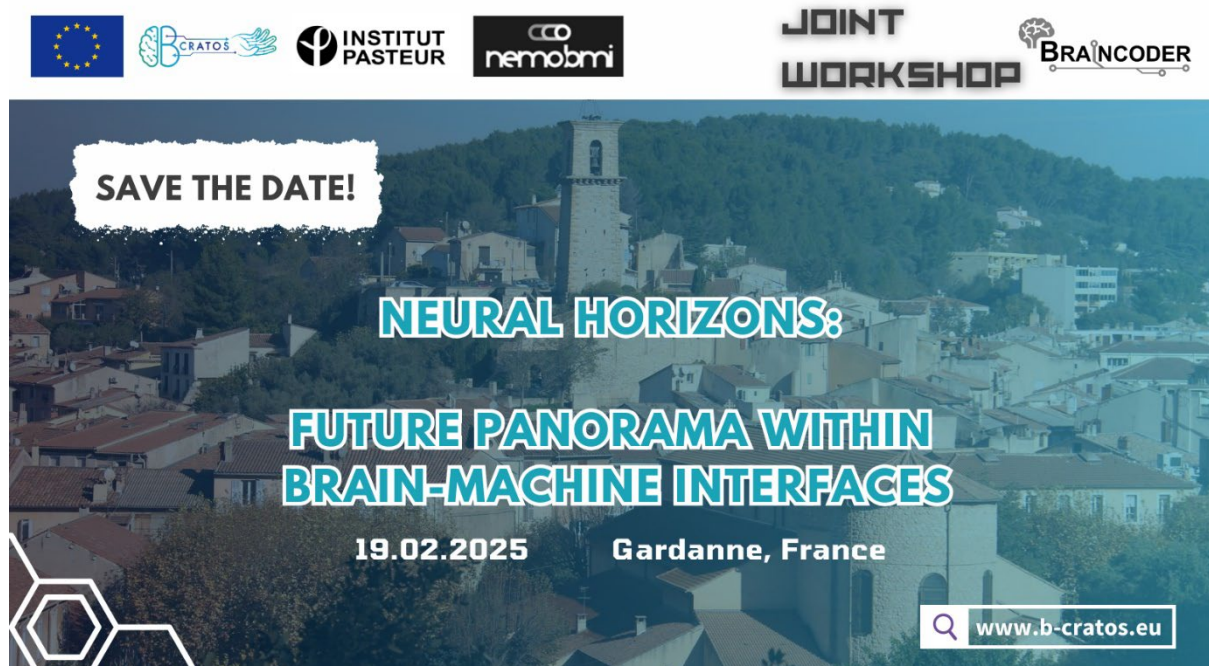


Figure 13 - Visual to advertise the B-CRATOS workshop on February


- Moreover, a special B-CRATOS session will be organised at the 16th German Microwave Conference (GeMiC), hosted by Dresden University of Technology in March 2025.

This special session - **Body Area Communications: Recent Advancements and Experimental Results** - is organised and chaired by Ilangko Balasingham from NTNU, Norway and Robin Augustine from Uppsala University, Sweden.

The session will focus on Body Area Communication, which encompasses advanced technologies enabling seamless interaction between devices in or on the human body, such as wearables and implants. These systems leverage wireless power transfer and innovative techniques like backscatter communication to optimize energy efficiency. Emerging methods, such as fat intra-body communication, exploit human tissue properties to enhance signal transmission.

BAC supports two-way communication for stimulation and sensing, allowing applications in health monitoring, therapeutic interventions, and augmented human capabilities. Experimental platforms have demonstrated promising results, paving the way for more reliable, efficient, and integrated body-area networks. These advancements represent a significant leap in merging human physiology with cutting-edge wireless technologies.



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The session will feature results from the Project B-CRATOS.

2.5.6 Webinars

Two webinars per year are planned to explain the different domains of research covered by B-CRATOS, the videoconference format will be envisioned to reach a broader audience. Recordings of the webinars will also be available on the B-CRATOS website.

As planned in the initial dissemination plan, about two webinars were organised each year on the various topics covered by B-CRATOS. Until now, 10 webinars have taken place and are available both on YouTube and on the website. The possibility to watch it in replay was also widely spread on social networks.


Webinars are announced through the B-CRATOS communication channels and throughout the consortium members. They usually are planned early and gather about 30 to 50 participants on Zoom.



Figure 14 - Examples of B-CRATOS webinar announcements

Among the last webinars, topics such as Neuroethics, FAT-IBC, Clinical and User Impacts on BCI and BCI's history have been discussed.



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3 Exploitation plan

The following section details the preliminary exploitation plan for the B-CRATOS project. In the early stage, the primary goals of the B-CRATOS exploitation activities are to develop a strategy to successfully identify project results requiring protection as intellectual property (IP) and to coordinate the development and submission of patent applications. Following the IP development phase, future exploitation activities will focus on developing IP management, licensing, and business strategies for the B-CRATOS platform and core technologies.

3.1 Purpose


Under Article 28 of the B-CRATOS Grant Agreement, each Partner is obligated to take measures to exploit the results in further research activities, products or processes, services, or standardisation activities for up to 4 years after the project period (48 months from 1 March 2021).

The exploitation plan addresses the following related tasking and deliverables (Appendix A of the B-CRATOS Grant Agreement):

- T7.4 *Filing of patents* for relevant technologies (Months 1-48):
 - Wireless neural interface
 - Fat IBC
 - Robotic arm control and sensation
- T7.5 *B-CRATOS technology exploitation for research* (Months 28-48)
- T7.6 *Licensing agreements for high-bandwidth wireless communication system* (Months 30-48)
- D7.6 *Three PCT patent applications and licensing agreements* (M48)

A major objective of the B-CRATOS project is to develop and execute a strategy to exploit the technology platform in the animal and human research markets, and critically, to apply B-CRATOS technologies to clinical medical device applications through the pursuit and formation of partnerships, joint ventures, and licensing agreements. While successful demonstration of project results and dissemination will establish the scientific and technological rigor and validity of the B-CRATOS platform technologies, the exploitation plan established in this document serves to guide the Consortium Partners' actions when pursuing the above goals through careful protection and exploitation of the knowledge developed during the project. Importantly, the exploitation plan presents procedures and plans for action to smooth the transition from research and development to intellectual property protection and to ensure effective coordination, cooperation, and collaboration among the Partners.



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The exploitation plan is a living document and will be expanded and adapted as project needs evolve. The first iteration of the exploitation plan focuses upon the intellectual property development and protection strategy and describes potential applications and market impacts of the technologies, laying a foundation for future development of business plans and eventual commercialization activities as the intellectual property domains are realised.

3.2 Governing agreements

The provisions in the B-CRATOS Grant Agreement and Consortium Agreement are the governing documents laying down the rules for participation and dissemination, specifying and supplementing binding commitments among the Partners.

Critical rules and policies impacting the exploitation process are found in the Grant Agreement especially in (but not limited to) Section 3, Rights and Obligations related to Background and Results:


- Article 23: Management of intellectual property,
- Article 24: Agreement on background,
- Article 25: Access rights to background,
- Article 26: Ownership of results,
- Article 27: Protection of results,
- Article 28: Exploitation of results,
- Article 30: Transfer and licensing of results,
- Article 31: Access rights to results,
- Article 36: Confidentiality,

with additional obligations laid out in the Consortium Agreement in (but not limited to):

- Section 8 (Results): ownership, transfer, dissemination of results,
- Section 9 (Access Rights): access rights to results and background,
- Section 10 (Non-disclosure of information): policies regarding the identification and disclosure of Confidential Information, and
- Section 11 (Miscellaneous): miscellaneous rights and clarifications, settlement of disputes.

3.3 Exploitation vision and timeline



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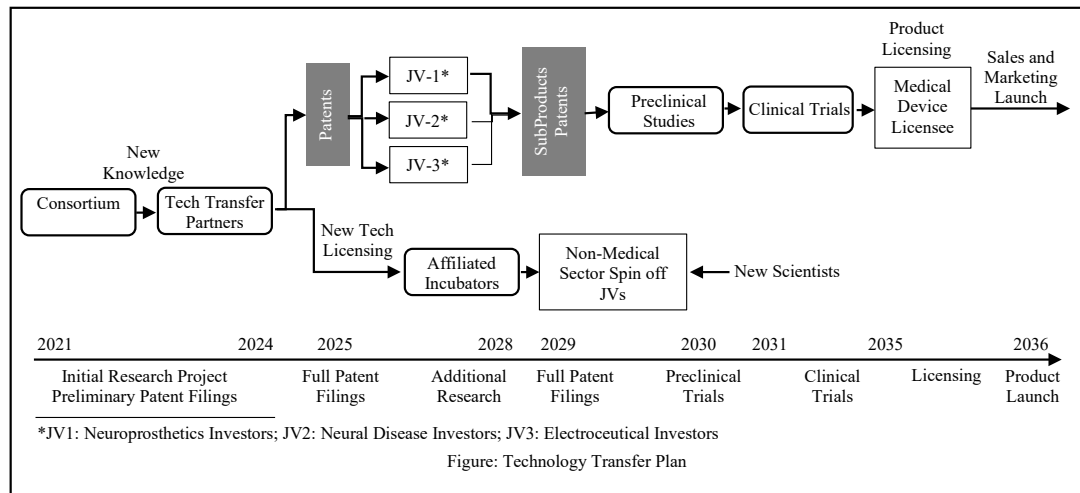


Figure 15. The B-CRATOS long-term exploitation vision.

The B-CRATOS vision for exploitation of results relies upon ensuring the “freedom to operate” and transfer the primary result of an in-body wireless communications platform in medical (and non-medical) devices from bench to bedside through management and protection of project knowledge in the form of **patented intellectual property (IP)**. The technology transfer plan is divided into eight primary phases, of which two phases fall within the B-CRATOS project period and are the focus of this initial plan:


1. Initial Research Project, Preliminary Patent Filings
2. Full Patent Filings
3. Additional Research
4. Additional Full Patent Filings
5. Preclinical Trials
6. Clinical Trials
7. Licensing
8. Product Launch

As new knowledge is developed during the project period, project Partners will author and submit international patent applications. Patent protection will be targeted in key international regions: European, North American, and Asian states with large markets and active biotechnology industries.

Through the acquisition of protected IP, the B-CRATOS Consortium anticipates pursuing technology transfer of the B-CRATOS platform to the biomedical industry through Partner affiliates and new strategic associates encountered through dissemination channels and outreach. Additionally, newly developed IP will be licensed into other non-medical sectors and markets through individual consortium partners and new joint ventures.

The overall exploitation strategy will be further refined and updated in future versions of this



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plan, as patentable inventions are developed and clearly identified.

3.4 Identified IP areas

Patent protection is planned to be sought for core technologies and project results developed within and across the three technical work packages that form the basis of the B-CRATOS platform:

- Work Package 2 (WP2): Brain interface: Wireless powering and communications
 - Patent for novelties surrounding the integration between the wireless communications system and neural interface are in consideration between NTNU and BRME pending upcoming results from system integration and testing.
- Work Package 3 (WP3): Fat-Intra Body Communication
 - Patent for novelties surrounding “Fat-IBC” is filed on July 26, 2024, with the Swedish Intellectual Property Office (PRV), Application No. 2450823-6. Primary filer is Robin Augustine.
- Work Package 4 (WP4): Design and integration of the biomechatronic prosthetic upper limb
 - Patent for novelties surrounding the “eSkin” is being prepared through partner UU. A Disclosure of Invention has been filed with the UU Innovation Office (UUI) to being preparation. Financial support will be requested from the UUI. Primary filers are Zhibin Zhang and Libo Chen.

3.5 Potential Markets & Use Cases


The primary product of the B-CRATOS project is an in-body wireless communications subsystem that can enable bidirectional closed-loop control of prosthetics or other medical devices.

The annual cost of treatment for neurological disorders is €1.4B globally with a medical device market of over €335B, expected to more than double in the coming decade.

The technologies developed the B-CRATOS platform are innovative in many regards, but critically offer the following advantages over brain-computer interface (BCI) and brain-machine interface (BMI) products available on the market today:

- High channel count, high bandwidth data
- Novel secure, wireless communication
- Two-way low-latency communication



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- Closed-loop control of external devices, prosthetics, robotics

3.6 Key Stakeholders

Here, we maintain a list of key European stakeholders for the B-CRATOS project results and technologies. The B-CRATOS business team will seek opportunities at conferences, meetings, or invited seminars to engage with these stakeholders. An invited presentation summarizing project results and proposal for future support and collaboration will be planned with international partner Blackrock Neurotech at project end.

University Alliances and Research Institutions

- NeurotechEU: Alliance of 8 leading universities and 250+ partners
- European Stroke Research Foundation (ESRF)
- Riksstroke (Swedish national quality register for stroke care)

EU Institutions

- European Commission
- European Parliament
- Council of the European Union

Regulatory Bodies

- European Medicines Agency (EMA)
- European Data Protection Board (EDPB)
- FDA (USA)

Research and Innovation Networks

- Horizon Europe program participants
- European Research Council (ERC) grantees


Patient and Support Organizations

- European Federation of Neurological Associations (EFNA)
- European Brain Council
- Stroke Alliance for Europe (SAFE)
- National Stroke Support Organizations
- European Alliance for Cardiovascular Health

Professional Societies and Associations

- European Academy of Neurology
- European Psychiatric Association



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- European Stroke Organisation (ESO)
- Federation of European Neuroscience Societies (FENS)
- Various National Neurological Societies
- Society for Neuroscience (global)
- BCI Society (global)

Ethics Committees

- European Group on Ethics in Science and New Technologies (EGE)
- National ethics committees of EU member states

Industry Partners (more detail included in B-CRATOS business plan)

- European medical device manufacturers
- European pharmaceutical companies
- European technology companies specializing in neurotechnology

Healthcare Systems and Providers

- National health services of EU member states
- European hospitals and research centers specializing in neurology and neurotechnology
- Stroke Units in hospitals
- Emergency Medical Services

Funding Bodies

- European Research Council (ERC)
- European Innovation Council (EIC)
- National research funding agencies of EU member states
- National Institutes of Health (USA)

Policy and Legal Experts


- European Parliament's Panel for the Future of Science and Technology (STOA)
- European academics specializing in neurolaw and neuroethics
- National Stroke Coordinators

Public and Patient Involvement (PPI) Organizations

- European Patient Forum
- National PPI organizations in EU member states

Media and Communication Specialists



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- Science journalists from European news outlets
- European science communication networks

Societal Representatives

- General public across EU member states
- Stroke survivors and their families
- Caregivers and caregiver organizations

Healthcare Professionals

- Neurosurgeons
- Neurologists
- Stroke specialists
- Rehabilitation specialists

Public Health and Prevention Initiatives

- Stroke prevention programs
- Cardiovascular health initiatives

Possible International Collaborators

- Council of Europe
- Organisation for Economic Co-operation and Development (OECD)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- United Nations Human Rights Council (UNHRC)

3.7 IP Strategy


3.7.1 Objective

The legal protection of inventions will be sought through patenting core B-CRATOS technologies as intellectual property to enable further development, freedom to operate, and activities such as licensing. The term of patents is typically 20 years from the filing date (EPO, USPTO) with some possibilities for extensions under national laws.

3.7.2 IP Committee

The B-CRATOS Consortium will establish an IP Committee to manage and coordinate the development of intellectual property through patent filings. Additionally, the IP Committee will serve an important role in ensuring ownership claims and rights are respected according



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to the Grant Agreement, Consortium Agreement, and National and EC policies.

The IP Committee will be constituted of a representative from UU as Project Coordinator, a representative from BRME as WP7 leader, and at least one representative from each Partner expecting to author B-CRATOS IP.

The role of the IP Committee:

- Coordinate and monitor Partners through the patent process, including agreements on the scope of each patent, the content of patents including whether they can or should be partitioned, and forming timelines and deadlines for authoring and submission.
- Guide the formation of exploitation agreements for rights management between Partners on IP, expanding upon the Consortium Agreement’s requirement of “Fair and Reasonable Compensation”. For example, an exploitation agreement between partners jointly owning a patent may establish rules governing the sub-licensing of patents to third parties.
- Act as a notifying body for those Partners planning to publish a public disclosure of B-CRATOS results. The IP Committee will provide guidance to the notifying Partner regarding the presence of any potentially sensitive information and determine and coordinate preparation of patent application development to precede the disclosure.


The IP committee will meet regularly as dictated by the current phase and activities of the project, but no less frequently than once per quarter.

3.7.3 Public disclosure

The ability to protect inventions resulting from the B-CRATOS project with future patents can be limited (barred) by public disclosures that give enough information to someone “of ordinary skill in the art” to duplicate such inventions. Public disclosure is a broad term that includes printed publications or talks. Public disclosure is a critical feature of the B-CRATOS objective and obligation for Communication and Dissemination of results, as described in Section 2 of this Plan. However, care must be taken to protect project results before IP applications are submitted. Especially relevant for B-CRATOS printed public disclosures can include (but are not limited to) the following:

- Research articles
- Popular science articles
- Posters, Abstracts, Conference proceedings
- Grant proposals
- Email
- Project website



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Oral disclosures may include (but are not limited to):

- Conference talks
- Lectures
- Thesis defence presentations
- Department seminars

To mitigate the risk of premature public disclosure threatening patentability, potentially sensitive information should either be excluded, embargoed until relevant patent applications are submitted, or clearly marked as CONFIDENTIAL. However, not all potential disclosures may be protected in these ways, thus, notification and consultation with the General Assembly and IP Committee will provide guidance.

Partners are asked to notify the IP Committee at least 90 days before publication or disclosure.

Rules and procedures for confidentiality are established in the Grant Agreement, Consortium Agreement, and B-CRATOS Data Management Plan.

Once patentable results are protected through patent filings, the B-CRATOS Consortium, in support of the Open Access publication concept and in adherence of relevant policy of the European Commission, will disclose project findings to the general public and scientific community through peer-reviewed publication in high-impact journals. These public disclosures will not only support the overall mission and obligation to the European public, but additionally provide important demonstration and academically rigorous review of B-CRATOS technological claims as the consortium proceeds with commercialization activities.


3.7.4 Patent Cooperation Treaty (PCT) International Filing

B-CRATOS plans to file international patent applications through the World Intellectual Property Office (WIPO) under the PCT, an international treaty with more than 150 Contracting States. This will make it possible to seek patent protection simultaneously across many target regions through a single application. Advantages of this system include that the filings will need to only comply with one set of requirements through the international filing, will have consistent language and claims across all target states and regions, minimizes up-front costs before filing across multiple regions, and affords additional delays before deciding on the overall international strategy while preserving an earlier priority date for protection.

3.7.5 Patent Authorship

Documentation will be maintained in secure storage throughout the B-CRATOS project period (see B-CRATOS Data Management Plan). These project documents will support ownership claims to invention and authorship rights for B-CRATOS developed IP and provide



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important inputs to the listed patent claims. Patentable ideas will be regularly tracked through regular Work Package 7 and IP Committee meetings through a secured “IP Tracker”.

3.7.6 Patentability search

Before investing in the development and filing of a patent application, a patentability search will be performed by the authors to guide the development of the patent claims and reduce the risk of conflict with existing prior art. Patentability searches will be performed using tools such as PatSnap (www.patsnap.com/), Google Patents (patents.google.com), and resources such as the Tech Transfer offices and legal consultants of respective partner institutions.

A patentability search is being executed with report delivered in late October/early November 2024 through participation in the EIC Tech2Market (T2M) program via ISERN (<https://isern.com/>) and funded by the EIC through the T2M Venture Building Team. The core system evaluated by ISERN includes the brain implant with wearable low-power, high-data rate wireless receiver and in-body communication system, interfacing with a sensing bionic limb. The results of the patentability report from ISERN will be evaluated and used to update the B-CRATOS business plan, while also informing the next phase of patent application development and subsequent funding strategies for future EIC Transition projects.

3.7.7 Timeline

The timeline for patent submission is expected to be variable for each individual patent application and development timeline. However, application submissions are expected to follow the same general model and timeline.


Draft Application. Invention development, identification, initial patentability searches, and the drafting of patent applications is anticipated to take place during the first 12-18 months of the B-CRATOS project. During this time, a publishing embargo for sensitive information will be in place to prevent the disclosure of sensitive information (see Section 3.4) relevant to the patent applications.

Local Filing. Starting in Month 18 of the project, it is expected that initial patent application filings will be made with local offices of a member country of the PCT. This will set the *priority date* for the filings. Once a patent application filing is executed, publications and other public disclosures may be made.

PCT Filing. At Month 30, international PCT applications are filed with the WIPO (see www.wipo.int).

International search report and written opinion. At Month 36, an international search report



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(ISR) and written opinion of the international search authority (WOISA) are received from the PCT. Optionally, amended claims and informal comments may be filed following receipt of the ISR. Two months following (Month 38), the international application and reports are published.

National phase. By Month 48, or at least 30 months following the priority date for a given application, patent filings are made with individual national and regional offices such as the European Patent Office (EPO), United States Patent and Trademark Office (USPTO), and others. Time limits to apply vary across various National/Regional Phase entries under the PCT and may be found here: https://www.wipo.int/pct/en/texts/time_limits.html. For example, the EPO allows 31 months following the initial filing, and the USPTO allows only 30 months. An accepted language for patent filings in the EPO and USPTO is English, as with the PCT application, but other countries and regions may require translation to file.

Patent pending approval. Following the international phase, the national phase duration is variable until patent approval is granted. Depending upon the nation and region in which the patent is filed, the granting of a patent is followed by periods allowing for validation, opposition, limitation/revocation, and further appeal.

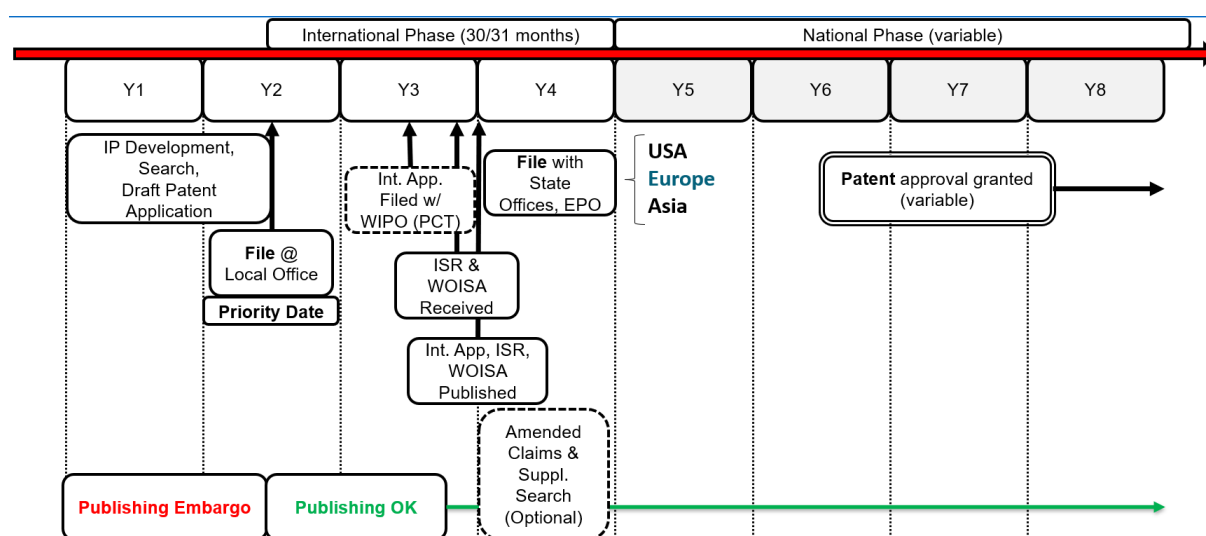



Figure 16. Anticipated patent submission timeline.

3.7.8 Costs

Costs for patent preparation and application fees are anticipated to over €10000 and as much as €30000 or greater, depending upon the countries and regions selected for the National Phase. The Partner author for each patent application will be responsible for funding these fees through their individual project budgets. If multiple Partners collaborate on a single patent application as co-authors, expenses will be negotiated separately between the given Partners.



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3.7.9 Strategic partners

The B-CRATOS Consortium has received letters of interest from Intel Corporation (intel.com) and Amazon (amazon.com).

Once specific IP applications are identified and confirmed, additional potential strategic partners will be identified during the technology transfer phase and business plan development, through continuous scanning of the market in the exploitation phase to profile promising new partners.

3.7.10 Technology transfer phase

Following patent filings, project Partners will then begin to identify the most promising use cases for the B-CRATOS core technologies and collaborate to develop business plans for the primary product of an in-body wireless bidirectional brain computer interface communications platform, to translate the demonstration of the core system to future partnerships and commercial applications, as well as for individual technologies.

4 Business Development & Future Projects


One long-term goal is to identify industry partners for joint ventures based on the core B-CRATOS technologies and platform, targeting the medical sector as a novel BCI platform for neurological disease and related indications. A second pathway is collaboration with affiliated incubators and form joint ventures between B-CRATOS Partners and entrepreneurs to license B-CRATOS protected IP in the non-medical sector.

4.1 Business Plan

Key components of the business plan will include:

- the identification of target markets and market segmentation, including the relative value and benefit of B-CRATOS technologies to any existing medical solutions
- plans for needed additional pre-clinical and first in-human clinical trials
- an analysis of health care economics, such as insurance reimbursement plans)
- economic feasibility through estimates of market penetration over time and revenues
- identification of medical device companies (potential joint venture distribution partners, competitors) in the target markets



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The development of a business plan for the core platform technology along with successful



BCI Market Opportunity

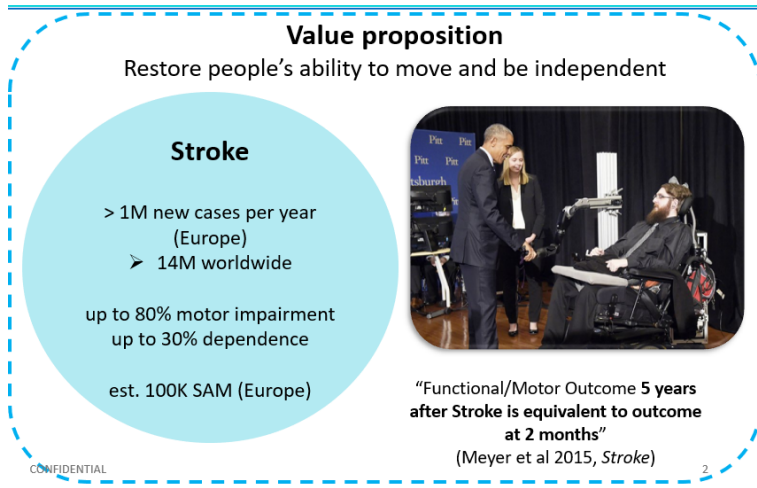


Figure 17. Example slide from B-CRATOS Pitch Deck developed in EIC Bootcamp and T2M program.

demonstration of the core technologies and public dissemination of results in high-profile journals and conferences will culminate in the creation of investor pitch decks to present the business opportunity to interested external partners and investors. Opportunities will be built and identified through the Partners' networks and through the communication and

dissemination activities outlined in the prior section of this plan.

The business plan will be updated before the end of the project with additional learnings and strategic decisions based on the outcome of final integration, patentability search and IP development, and next steps to pursue future funding opportunities and support.

4.2 B-CRATOS Pitch Deck

Through participation in the EIC Innovation Council Programs (see next section), the B-CRATOS team has developed and refined an investor pitch deck for the neural bypass system (Figure 15). The slide deck will be refined and updated with relevant learnings from the final phase of the B-CRATOS system tests and animal demonstration, improved graphics and animations, to serve as the core of presentations to key stakeholders and potential industry partners.

4.3 EIC Innovation Council Programs

4.3.1 EIC Innovation Bootcamp

The B-CRATOS WP7 team participated in the EIC Innovation Bootcamp 4.0. (<https://eic.eisma.eu/community/events/4th-edition-eic-innovation-bootcamp>) to receive training and guidance in developing a business plan and pitch deck, as one of 16 selected EIC Pathfinder/Transition projects.




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Figure 18. Screenshot from B-CRATOS participation in the EIC Innovation Bootcamp 4.0.

4.3.2 EIC Tech to Market Programme (T2M)


The B-CRATOS team applied to and was accepted by the EIC T2M program (https://eic.ec.europa.eu/eic-funding-opportunities/bas/tech-market-programme-t2m_en) for 2024 and participated in hands-on workshops and individualized coaching sessions to refine the business plan and pitch decks developed in the EIC Innovation Bootcamp. Participation in this program yielded an EIC-funded Patentability Search for the B-CRATOS system in late 2024.

The Venture Building team (Mobile World Capital) provided a personalized Opportunities Exploration Report with a set of recommendations and suggested next steps for the B-CRATOS business development team. Recommendations that are being actioned in the current period include prioritization of a patentability search, engagement with TTOs, and a focus on additional public grants in 2025.

4.4 Future Projects and Funding

Aside from potential industry partnerships and ventures as described in the B-CRATOS business plan, future funding will be sought to continue development of the B-CRATOS system and core technologies to higher TRL levels via European research and commercialization support programs.




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Two main European funding applications are currently being considered and planned in the coming months.

B-CRATOS 2.0: Here, we plan a continuation of the B-CRATOS neural bypass system development with an eye towards developing implantable prototypes at TRL 5+ prepared for more extensive animal and first in-human tests. The consortium will target the European Commission administered yearly funding calls (in 2025) in partnership with the Adra Group (AI, Data, Robotics, <https://adr-association.eu/>). Partners at UU, BRME, and DPZ are planning to lead the authoring of this application.

EIC Transition (https://eic.ec.europa.eu/eic-funding-opportunities/eic-transition_en): the core technologies of Fat-IBC communication with e-Skin (UU partners) will lead an EIC Transition application targeting a September 17, 2025 deadline. Core IP will be held by the UU partners (Fat-IBC, eSkin) with collaboration with industry partner Probingon AB (<https://www.probingon.com/>).



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5 Revision History

REVISIONS			
Version #	Date	Type of Change	Lead Author
0.1	10-06-2021	Template for project documents created	Paul Wanda
0.2	06-09-2021	Working draft	Paul Wanda
0.3	21-10-2021	Updated draft	Paul Wanda
0.4	25-10-2021	Consolidated version for review by the Consortium	Paul Wanda
0.9	28-10-2021	Cleaned up text and final edits for final review	Paul Wanda
1.0	29-10-2021	Finalized version for D7.1	Paul Wanda
2.0	20-06-2023	Finalized version for D7.4	Paul Wanda Milena Bocle
3.0	29-11-2024	Finalized version for D7.5	Paul Wanda Martina Desio Pascale Caulier

