



M E D I C N E S T

Joint Action Plan for Precision Medicine against Cancer 2022-2027

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ABSTRACT

This deliverable represents the Joint Action Plan for Precision Medicine against Cancer 2022-2027, where all the actions planned are presented and a chronogram whereas these actions will be implemented

STATEMENT OF ORIGINALITY

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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1. Rationale

The **Medic Nest Meta Cluster** is mobilizing the collective power of four clusters active in the HealthTech domain that have decided to join forces and create a cross-regional partnership in the domain of precision medicine. By working together, the four partners will create new business opportunities for their members and integrate them better in European and global strategic value chains. They will pool resources and knowledge to work concretely together on initiatives supporting their industrial ecosystems and, in particular, their SMEs. EU clusters sharing the same ambition will be invited to join the partnership which gradually will evolve to a meta-cluster on precision medicine.

The partnership has decided to focus on precision medicine because it is considered as one of the promising approaches to realize the healthcare system of the future.

Precision medicine is an innovative approach for tailoring disease treatment and prevention. It will allow doctors and researchers to more accurately predict which treatments are more likely to work for a patient, taking into account individual genetic and molecular make-up, environment, and lifestyle. The ambition is to target the right treatments to the right patients at the right time. Not working treatments will be avoided and the used treatments will be more effective for the involved patient. But precision medicine will go even further and is the basis for a more preventive approach which is believed by many as the only way forward towards affordable healthcare systems.

The **mission** of the Medic Nest Meta Cluster is **to support the scientific competitiveness and innovation journey of the cluster members to facilitate business and research collaborations between EU and international stakeholders to generate the future of Precision Medicine.**

The **vision** of the Medic Nest Meta Cluster is to **create a fostering environment for organizations dedicated to precision medicine supporting a strong and innovative industry for a healthier EU.**

Based on this mission and vision, a first joint action plan has been defined to focus to precision medicine due to its growing role in cancer diagnosis and treatment. Oncology has been leading precision medicine efforts largely in the context of the knowledge of the role of genetic mutations in the development and progression of cancer.

The smart combination of health data and new technologies caters for the exponential development of precision medicine, which becomes a powerful tool to address cancer through tailor-made prevention and treatment strategies so patients receive the therapies that work best for them.

The **Medic Nest Joint Action Plan for Precision Medicine against Cancer 2022-2027** addresses the Europe's Beating Cancer Plan, in order **to drive change in cancer prevention and care**, where patients have access to high-quality screening, treatments and the latest state of the art technologies.

The aim of Europe's Beating Cancer Plan is to tackle the entire disease pathway. It is structured around four key action areas where the EU can add the most value: (1) prevention; (2) early detection; (3) diagnosis and treatment and (4) quality of life of cancer patients and survivors. The Europe's Beating Cancer Plan is focusing on research and innovation, tap into the potential that

digitalization and new technologies offer, and mobilize financial instruments to support Member States.

The **Medic Nest Meta Cluster on Precision Medicine** can play an important role in facilitating the implementation of the Europe's Beating Cancer Plan and the current document defines the actions and mechanisms to be taken.

This scope will be extended to the full scope of precision medicine when the implementation of the meta-cluster is successful.

The Medic Nest Joint Action Plan is developed based on a structured dialogue with clusters members and it is an opportunity to foster European intercluster collaboration in precision cancer medicine and to facilitate the development of interregional projects.

Consequently, the Joint Action Plan for Precision Cancer Medicine will support a mutual understanding, create efficient and effective collaborative approaches to driving innovation and industrial competitiveness in precision oncology and contribute to improvements in key technologies.

Ten action lines have been defined. For each action line, several concrete actions have been proposed.

2. Strategy Deployment. Planned actions

2.1. Description of the actions

AREA	PLANNED ACTIONS
<p>1. Create an active ecosystem in Precision Medicine in cancer in EU:</p>	<p>1.1. To keep the Medic-Nest Grid up to date with the active EU projects against cancer.</p> <p>1.2. To keep the Medic-Nest Entities List dedicated to cancer up to date.</p> <p>1.3. News up to date</p> <p>1.4. Using AI for Grid Maintenance and News distribution</p>
<p>2. Lobbying with EU for new frameworks legislations on Precision Medicine in Cancer:</p>	<p>2.1. Presenting the strategic plan to the regional, national and European authorities</p> <p>2.2. Identifying needs and trends among Meta-cluster members and it's fit with the Europe's Beating Cancer Plan</p> <p>2.3 Identifying the precision medicine legislative committee.</p> <p>2.4 Establishing periodic meetings with the legislative committee in the area of precision medicine in cancer</p>
<p>3. Increase the knowledge of the ecosystem, to increase the international collaboration and coordination in Precision Medicine in Cancer in EU</p>	<p>3.1. Annual Congress of precision medicine in Cancer- Precision Medicine Forum</p> <p>3.2. Two webinars per year</p> <p>3.3. Contact with scientific diffusion Influencers</p> <p>3.4. Increase the specialization of Precision Medicine in Cancer professionals</p> <p>3.5. Create content to be disseminated through social networks</p> <p>3.6. Prepare a Master degree for Precision Medicine with some EU University</p>
	<p>4.1. Promote the exchange of experiences through the CXC program</p>

4. Generating collaborative projects within Meta-cluster members and partners on a national and international level:	4.2. Speed matchmaking between cluster members
	4.3. Disseminate national and European calls in Precision Medicine in Cancer for proposals to partners.
5. Support members to progress in their go to market, with adequate connectivity infrastructure and digitalization:	5.1. Funding rounds
	5.2. Public Procurement of Innovative solutions (PPI)
	5.3. Networking
6. Serve as a connector between European stakeholders, industry, academia and investors	6.1. Funding rounds
	6.2. Networking
	6.3. Negotiate with OTRIs (Office for Transfer of Research Results) to share needs
7. Facilitate data sharing with EU economy by helping the industry sector to bring more products and services to the Precision Medicine in Cancer market:	7.1. Promote research
	7.2. Innovation hubs
	7.3. Business incubators
8. Diffusion of the EU and global research activities in Precision Medicine in Cancer:	8.1. Create content to be disseminated through social networks
	8.2. Use dissemination platforms
	8.3. Social media
9. Facilitating data sharing within EU Precision Medicine in Cancer network:	9.1. Medic Nest Grid
	9.2. Create an open data platform
	9.3. Assist in service development to evaluate facilities, infrastructures and new business models
	9.4. Setting up a panel of experts
10. Provide mentoring	

2.1.1. Create an active ecosystem in Precision Medicine in Cancer in EU.

Action: To keep the Medic-Nest Grid up to date with the active EU projects against cancer

Objective: Maintain the information about Precision Medicine in Europe up to date for the members of the Medic-Nest Meta-cluster members and the scientific community.

Beneficiaries: Cluster members and European scientific community

Description: The Precision Medicine Live Grid created for this project located at Live Grid - MEDIC NEST (<https://medicnest.eu/live-grid>), requires to be updated including all active projects against cancer identified and included to continue being interesting for the scientific community and for the consortium members and to remain being useful as a repository of the located information. For that we will create an AI tool that will help to identify and locate on the web, all Precision Medicine projects published. Also, for all Medic-Nest Meta-cluster members there will be a mailbox where any member can send their information about the Precision Medicine project against cancer they are working in, that will be published within two weeks. Finally, a web-based form will be created to facilitate the self- inclusion of the information about the project where any scientific group or Medic-Nest Meta-cluster member is working on. This information should be validated periodically by a scientific committee from the Medic-Nest Consortium.

Action: To keep the Medic-Nest Entities List dedicated to cancer up to date.

Objective: Maintain up to date the information about the members of the Medic-Nest Meta-cluster.	Beneficiaries: Cluster members and European scientific community
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Description: To become a member of the Medic-Nest Meta-cluster it is required to sign a Partnership Agreement absolutely opened to any European cluster or similar entity that is interested in participating in the Meta-cluster and is willing to follow the General Strategy and collaborate with this Joint Action Plan. For that, a list of the member organizations of the Meta-cluster will be published and updated periodically to be able to extend the ecosystem of the precision medicine in cancer in the EU. All entities dedicated to fight cancer in EU can become a member of the Meta-cluster.

Action: News up to date

Objective: Maintain up to date the information about the activities and organization of the Medic-Nest Meta-cluster and serve as a international speaker for the members activities.	Beneficiaries: Cluster members and European scientific community
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Description: This Joint Action Plan that includes different activities that will be developed by the Medic-Nest Meta-cluster and its members, all related information related to the members of the Meta-cluster and all information their Precision Medicine Projects and activities that will be created under the umbrella of this Meta-cluster, that any member wants to be shared with the rest of the community or publicly available. will be published on the Medic-Nest Webpage and distributed to all members through the periodic newsletter that will be developed and delivered to a GDPR compliance database that will be created and maintained by the Medic-Nest Consortium.

Action: Using AI for Grid Maintenance and News distribution

Objective: Reduce the human effort and intervention requirement for updating the Medic-Nest information and publication systems.	Beneficiaries: Medic-Nest Consortium members and Meta-cluster members.
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Description: The use of the AI for the research and information identification simplifies the maintenance efforts for the systems and publishing information. The development of a tool able to work in different webpages, locate keywords and publish them on the Grid or News sections of the Medic-Nest webpage is created and will be applied. Maintenance of this AI tool and review of its activity during the first period of implantation will be required. All the information managed by the AI will be authorized by a Medic-Nest Consortium scientific

committee that will ensure that the information is accurate, available and its publication is authorized by the owners of the information.

2.1.2. Lobbying with EU for new frameworks legislations on Precision Medicine in Cancer.

Action: Presenting the strategic plan to the regional, national and European authorities.	
Objective: Help the regional, national and European authorities know and understand a bit more about the Precision Medicine Ecosystem in the EU.	Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators and general society.
Description: All European authorities, central, national and regional, require knowing everything possible about scientific initiatives such as Precision Medicine to complete a better and more adjusted regulations to manage the scientific environment and ensure the security of the population. Regional and National authorities should understand better what is going on outside their frontiers and being aware of the legislation and management of other regions and countries inside the EU, but also, they should be aware on the central regulation of the EU to be capable to influence and support on the development of such legislation. This way, local clusters organized through a European Meta-cluster, can Serve as a valid vehicle and interlocutor to facilitate the adaptation, in both directions, of the legislation to the real evidence. To achieve this, the consortium members and the partner organizations adhered to the Meta-cluster, will organize different meetings with the local and national authorities in each region to present the information contained in the strategy and this Joint Action Plan to look for synergies and adherences to local strategies and try to unify efforts for a better completion and performance of the Precision Medicine projects ongoing in the EU.	

Action: Identifying needs and trends among Meta-cluster members and it's fit with the Europe's Beating Cancer Plan.	
Objective: Collect and centralize the evidence of what is being performed and required from agents dedicated to Precision Medicine in Cancer in the EU to share it the regional, national and European authorities.	Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators and general society.
Description: While performing each Precision Medicine project, all agents that are working on this field, found challenges, complications, supports, benefits and needs related to their activities and that might require support from the regional, national or European authorities and they are not fully aware that these entities are willing to help and support the development of such projects, whenever they are useful for the general population. As the Meta-cluster and its members will be in close collaboration with those agents and fully aware of their activities and requirements, and in contact with the regional, national and EU authorities, will be a good option to act as reliable and valid partner and interlocutor between them both. This way, a yearly questionnaire to identify such needs and conditions from the Meta-cluster members will be released and completed and with the information received a report to be shared with the authorities will be issued by the Medic-Nest Meta-cluster. All these needs and trends should in line with the Europe's Beating Cancer Plan, that should be the guide for all entities members of the Meta-cluster to develop their activities against cancer in Europe.	

Action: Identifying the precision medicine legislative committee.	
Objective: Act as reliable and valid partner and interlocutor between agents dedicated to Precision Medicine in the EU and the regional, national and European authorities.	Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators and general society.
Description: Legislative committees to review legislative proposals, negotiate and prepare reports before the full Parliament makes final decisions are organized in the European Union. In addition to these committees, there are political groups that play a role in the parliamentary structure and contribute to the formation of opinions and policies. Trying to identify the legislative committee dedicated to precision medicine will be a clear priority for the Medic-Nest Meta-cluster but the big effort to be done from our side will be to be considered a valid partner and interlocutor from the committees but also from all decision makers with the EU Parliament to be able to influence on the policies to be approved.	

Action: Establishing periodic meetings with the legislative committee in the area of precision medicine in cancer.	
Objective: Act as reliable and valid partner and interlocutor between agents dedicated to Precision Medicine in Cancer in the EU and the regional, national and European authorities.	Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators and general society.
Description: With the same objective of collaborating with the legislative committee dedicated to Precision Medicine in the EU, that will create the directives and legislations that apply in the EU, the Meta-cluster will be always available to meet with the legislative committee. Beside this permanent availability, the intention of the Meta-cluster is to stablish periodic meetings to share all information obtained from the members, the ongoing projects and the regional, national or international regulations that can be identified to be shared and reviewed between the European Precision Medicine legislative committee and the Medic-Nest Meta-cluster members and agents.	

2.1.3. Increase the knowledge of the ecosystem, to increase the international collaboration and coordination in Precision Medicine in Cancer in EU.

Action: Annual Congress of precision medicine in Cancer- Precision Medicine Forum.	
Objective: Connect the EU ecosystem in Precision Medicine.	Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators, scientific community and general society.
Description: Annual medical conferences are events that brings together experts in the field of medicine to discuss the latest advances, discoveries and trends in medical research. These conferences are an opportunity for health professionals to update themselves in their field and learn from their colleagues. Additionally, medical conferences provide a platform for doctors to present their research and discoveries to a wider audience. Attendees can also network with other healthcare professionals and discuss topics of common interest. The Medic-nest Meta-cluster will organize an international congress in Precision Medicine in Cancer to achieve all this goals and connect all cluster ecosystems in an event that will connect all professionals and projects in the EU. This will enable to access to talent, knowledge, know-how, peer to peer experts, facilities and markets worldwide. In addition, outputs and	

evidence generated by the Precision Medicine in Cancer field, notably best practices, lessons learnt, guidelines or screening programmes, will be made available and can be implemented and adapted to the national contexts of third countries.

Action: Two webinars per year.

Objective: Increase the knowledge of the members of the European Precision Medicine in Cancer professionals and transmit particular information to the rest of the agents.

Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators, scientific community and general society.

Description: These webinars as live online events aiming to educate and inform virtual attendees about Precision Medicine in Cancer will be held as real-time presentations for sharing information allowing interaction between the presenter and attendees, answering questions and discussing common interests. The content of the webinars will be discussed every semester and decided between the Medic-Nest consortium, together with the Meta-cluster members, and will try to cover the most relevant topics and information generated within the Precision Medicine in Cancer field. These events will be publicly available.

Action: Contact with scientific diffusion Influencers.

Objective: Broadcasting the Precision Medicine in Cancer advances achieved by the Medic-Nest Meta-cluster members.

Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators, scientific community and general society.

Description: Influencer marketing is a popular and effective way to promote information with end users of that information. By partnering with an influencer, it will be feasible to leverage their social media to reach a wider audience and build awareness of science in general and Precision Medicine field in particular. As influencers are trusted figures within their niche communities and have a loyal following, it will be required to set up our goals and to reach out those influencers who are relevant to Precision Medicine and build a strong relation with them to obtain better results. Main information generated by the Medic-Nest Meta-cluster and its members will be shared with those identified figures that can help us to broadcast and deliver said information to a wider and probably more specialized public.

Action: Increase the specialization of Precision Medicine in Cancer professionals.

Objective: Support the professionals of the Precision Medicine in Cancer field to develop their capabilities and facilitate their specialization.

Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators, scientific community and general society.

Description: Medical professionals can participate in continuing education programs to stay up-to-date with the latest advances in Precision Medicine in Cancer, and we shall provide them with such programs to support their interests and help them to collaborate with other professionals in the field of Precision Medicine in Cancer to share knowledge and expertise. All programs and events will be opened to the researchers and professionals in the field of Precision Medicine in Cancer, but also specific courses, workshops and other educational events, based on the Europe's Beating Cancer Plan, shall be directly created for them. The Medic-Nest Meta-cluster will work to identify, promulgate and even create such kind of activities for the members and professional members of the Meta-cluster.

Action: Create content to be disseminated through social networks.

Objective: Connect, promulgate, disseminate and share content created in the field of Precision Medicine in Cancer.

Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators, scientific community and general society.

Description: Creating content in precision medicine will be a great way to share knowledge and insights with others in the field, using many different formats and support. Considering that the main spirit of the Meta-cluster is based on the collaboration between all professionals in the field including healthcare professionals, researchers, or patient advocates that can help us to create more comprehensive and informative content in a well-rounded perspective. As many of the members and organizations linked and integrated in the Meta-cluster are directly dedicated to innovation and creation of information in this field, we will gather all this information and share it using our social media profiles, webpage, grid, etc.

Action: Prepare a Master degree for Precision Medicine with some EU University.

Objective: Support the professionals of the Precision Medicine field to develop their capabilities and facilitate their specialization.	Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators, scientific community and general society.
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Description: Many of the members of the clusters that are part of the Medic-Nest Meta-cluster are Universities therefore creating a Master program can be feasible. The contents of the Master shall be discussed and evaluated between all entities, but the development of the contents and the information of the program should provide a broad multidisciplinary training in the field of Precision Medicine offering theoretics in the biotechnology, bioengineering, and clinical research to support global Precision Medicine. If any European University member or not of the Meta-cluster is willing to offer such program, the Medic-Nest Meta-cluster should be somehow involved in the development of this program.

2.1.4. Generating collaborative projects within Meta-cluster members and partners on a national and international level.

Action: Promote the exchange of experiences through the CXC program.

Objective: Support short-term exchanges to better connect industrial ecosystems in Europe	Beneficiaries: European Clusters and its members, Medic-Nest Meta-cluster members and scientific community.
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Description: The CXC Program foresees the facilitation of transnational cooperation, peer learning, networking and innovation uptake between members of industrial clusters. It is implemented with support from Cluster Organisations, and the Medic-Nest Meta-cluster should be considered a Cluster Organisation, there will be periodic exchanges organized by the members of the Meta-cluster to complete the different activities included in the program and following different specific objectives. The types of activities that visiting and host organisations may carry out during an exchange are those listed in the CXC program webpage such as: Individual or grouped Precision Medicine capacity building; Sharing of knowledge, experience and information in the Precision Medicine area; Project development, innovation and research and development; Market research; and Networking, identifying new partners and creating business opportunities.

Action: Speed matchmaking between cluster members.

Objective: Help participants to find potential direct partners or connections with other ecosystems members.	Beneficiaries: Medic-Nest Meta-cluster members and scientific community.
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Description: A speed matchmaking event is a social gathering where representative of different organizations, come together to meet and interact with other organizations in a series of short, timed conversations. The Medic-Nest Meta-cluster will count with a platform

to organize such events that will be released periodically. As this will be a project based event, the idea is that the participants should have a short time to share their project and activity in Precision Medicine with many other organizations and people who will be for sure able to help them.

Action: Disseminate national and European calls in Precision Medicine in Cancer for proposals to partners.

Objective: Keep all Medic-Nest Meta-cluster members informed about the regional, national and international calls and facilitate the creation of consortium to apply for said funds.

Beneficiaries: Medic-Nest Meta-cluster members and scientific community.

Description: There are several types of calls for proposals and funding opportunities available for Precision Medicine in Cancer at all different levels, Regional, National and from the European Union. Also, there are many platforms that provides a comprehensive database of active calls for proposals to search for such funding and reliable partnerships and get personalized recommendations for funding based on the needs and expertise. A vigilance of all these calls related to Precision Medicine in the oncology field, and its distribution between the members of the Meta-cluster will be constantly completed by the Meta-cluster. Moreover, the Meta-cluster will try to identify funds requirements from its members and transmit these requirements to the regional, national and EU authorities for them to include financing calls of those concrete needs as explained in the area 2.

2.1.5. Support members to progress in their go to market, with adequate connectivity infrastructure and digitalization.

Action: Funding rounds.

Objective: Support organizations in getting funds for their Precision Medicine projects.

Beneficiaries: Medic-Nest Meta-cluster members, entrepreneurs, Startups, investors and scientific community.

Description: A funding round is a process of raising capital for a company from investors in exchange for equity or ownership. There are several types of funding rounds that startups go through to raise capital, from seed funding to other series of funding (A, B, C...). The Medic-Nest Meta-cluster, through its clusters organizations has an extended experience in organizing pitching competitions and funding rounds with the startups that are members of the clusters and the investors that are part of the ecosystems. As Precision Medicine is a field in expansion, several investors are looking for companies dedicated to this field, and Medic-Nest Meta-cluster will be acting as a platform to interconnect such investors and startups.

Action: Public Procurement of Innovative solutions (PPI)

Objective: Facilitate the access to the market of the startups providing products or services that can be required by the public sector in the oncology field.

Beneficiaries: Medic-Nest Meta-cluster members and startups working on innovation.

Description: Public procurement of innovative solutions (PPI) is a process where the public sector uses its purchasing power to act as an early adopter of innovative solutions that are not yet available on a large-scale commercial basis. PPI provides a large enough demand to incentivize industry to invest in wide commercialization to bring innovative solutions to the

market with the quality and price needed for mass market deployment. This enables the public sector to modernize public services with better value for money solutions and provides growth opportunities for companies. The European Commission provides a list of pages where information about calls for proposal (e.g. public procurement) in the major EU topics and areas of action can be found. The Medic-Nest Meta-cluster will identify regularly those calls dedicated to Precision Medicine in Cancer and public procurement processes to share them with the startups, company members and Precision Medicine actors for them to find a better access to this advantage of the PPI.

Action: Networking.	
Objective: Facilitate meaningful and memorable connections among guests at professional	Beneficiaries: Medic-Nest Meta-cluster members, entrepreneurs, Startups, investors and scientific community
Description: Networking activities are events that allow people with a common profession or special interest to exchange information and ideas in an informal social setting. During all events, presentations and actions that will be created or organized by the Medic-Nest Meta-cluster there will a space for networking, relationship-building activities, and community building activities.	

2.1.6. Serve as a connector between European stakeholders, industry, academia and investors.

Action: Funding rounds.	
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Action: Negotiate with OTRRs (Office for Transfer of Research Results) to share needs.

<p>Objective: Identify needs from the OTRR and the companies and transfer the knowledge generated at universities to companies to help on the market access.</p>	<p>Beneficiaries: Medic-Nest Meta-cluster members, academia, companies and scientific community.</p>
<p>Description: The Offices for the Transfer of Research Results were created to serve as a liaison between the University and Companies with the core objective of reinforcing their relationships and promoting the transfer of science and technology from the university to the business world. Inviting the OTRRs to all Medic-Nest Meta-cluster events and provide them space to share their advances in Precision Medicine and inviting industries and businesses to get to know them in person will help to identify specific areas of interest and to connect them. The OTRRs use to offers a full range of services to ensure the effective transfer of technology, including a catalogue of knowledge transfer that includes patents, utility models and different capabilities and results from the various research groups at the universities. They also provide guidance for planning a patent, utility model, industrial secret, effective registration of software or any intellectual property, as well as management of all implementation details during the protection stage. All these services are useful for startups and can be shared with the Medic-Nest Meta-cluster members to increase the effectiveness of the access of research projects to the market.</p>	

2.1.7. Facilitate data sharing with EU economy by helping the industry sector to bring more products and services to the Precision Medicine in Cancer market

<p>Action: Promote research.</p>	
<p>Objective: Encourage the development of new knowledge and ideas that can be used to improve society, the economy, and the Precision Medicine in Cancer environment</p>	<p>Beneficiaries: Medic-Nest Meta-cluster members, entrepreneurs, Startups, investors, academia and scientific community.</p>
<p>Description: As indicated in the Europe’s Beating Cancer Plan, stepping up our research and innovation efforts will enable us to better understand cancer risk factors, as well as improving diagnoses, therapies, treatments and prevention policies. There are many ways to promote research, including publishing research papers, attending conferences, collaborating with other researchers, use social media platforms to publicize your work and connect with other researchers, write blogs or articles about the research and submit them to relevant publications, create research competitions or apply for research grants to fund the research work. From the Medic-Nest Meta-cluster all required activities to share, distribute and create research content from Precision Medicine in Cancer will be completed as described in the Area 3.</p>	

<p>Action: Innovation hubs.</p>	
<p>Objective: Collaborate with all regional innovation hubs to increase the capabilities of both ecosystems, clusters and hubs.</p>	<p>Beneficiaries: Medic-Nest Meta-cluster members, entrepreneurs, Startups, investors, academia and scientific community.</p>
<p>Description: An innovation Hub is defined through a transregional project a battery of activities from the fields of open innovation and entrepreneurship of the self-employed / innovative SMEs / startups / scaleups, to promote reforms that help and accelerate the economic and social recovery of the regions where the hub is located. The Medic-Nest Meta-cluster is also a fundamental tool for open innovation and shares most of the objectives of</p>	

each innovation hub and as all members of the Meta-cluster are located close to an innovation hub, the collaboration between the Innovation Hub and the Meta-cluster should be exploded. Arranging visits to the Innovation Hubs located close to our regions and present them the project will for sure help on finding common areas to manage Precision Medicine projects all together.

Action: Business incubators.	
Objective: Gain access to resources, expertise, and networks that can help startups grow and succeed	Beneficiaries: Medic-Nest Meta-cluster members, entrepreneurs, Startups, investors, academia and scientific community.
Description: Business incubators offer a range of services, including mentorship, training, office space, and access to funding opportunities. The Medic-Nest Meta-cluster should also establish a collaboration as many business incubators as possible considering that entities located at these incubators can be members of the Meta-cluster and provide their expertise and projects in the field of Precision Medicine. Visiting as many business incubators located in our regions and show the Medic-Nest project will for sure be interesting for these organizations.	

2.1.8. Diffusion of the EU and global research activities in Precision Medicine in Cancer

Action: Create content to be disseminated through social networks.	
Objective: Connect, promulgate, disseminate and share content created in the field of Precision Medicine in Cancer.	Beneficiaries: Medic-Nest Meta-cluster members, EU authorities and regulators, scientific community and general society.
Description: Creating content in precision medicine in cancer will be a great way to share knowledge and insights with others in the field, using many different formats and support. Considering that the main spirit of the Meta-cluster is based on the collaboration between all professionals in the field including healthcare professionals, researchers, or patient advocates that can help us to create more comprehensive and informative content in a well-rounded perspective. As many of the members and organizations linked and integrated in the Meta-cluster are directly dedicated to innovation and creation of information in this field, we will gather all this information and data and share it using our social media profiles, webpage, grid, etc.	

Action: Use dissemination platforms.	
Objective: Share information and knowledge with a wider audience to raise awareness, inform, engage, and promote outputs and results of a Precision Medicine in Cancer project.	Beneficiaries: Medic-Nest Meta-cluster members and scientific community.
Description: Traditional communication vehicles as science magazines and science shows have suffered a wide modification but still retains similar functions and formats. Anyway, there are new different ways for dissemination such as social media, the use of blogs and wikis, 'open notebook science', talks, broadcast, podcasts, science slams and open lab days, science cafés and hackerspaces, novel, participatory spaces etc. Adoption of these outlets and methods can also lead to new cross-disciplinary collaborations, helping to create new research, publication, and funding opportunities for the members of the Medic-Nest Meta-cluster. From the Meta-	

cluster we will support all this events and channels created by our members and will serve as a speaker for the activities and projects developed by the members of the clusters and Meta-cluster.

Action: Social media.	
Objective: Share information and knowledge with a wider audience to raise awareness, inform, engage, and promote outputs and results of the Meta-cluster activity.	Beneficiaries: Medic-Nest Meta-cluster members and scientific community.
Description: Social media activities of the Meta-cluster will be divided into three types of messages: informational, community-building, and action messages. Informational messages are one-way communication from the Meta-cluster to the public and serve to inform the audience about the organization’s activities or anything of interest to the organization’s audience according to the criteria of the Meta-cluster. Community-building messages are two-way communication that will be used to build a relationship between the Meta-cluster and its audience through engaging in dialogue or making a network connection. Finally, all action messages will be mobilizational communication to ask the audience to do something for the Meta-cluster, such as attend an event, participate in any activity, share with other clusters and organizations. The use of the social media from the Meta-cluster will be guided to create a closer relation with all its members and the stakeholders and connections, but also will be managed through the influencers. The impact of social media activities will be measured reviewing the indicators that will be defined in a quantitative but also in a qualitative review.	

2.1.9. Facilitating data sharing within EU Precision Medicine in Cancer network

Action: To keep the Medic-Nest Grid up to date with the active EU projects against cancer	
Objective: Maintain the information about Precision Medicine in Europe up to date for the members of the Medic-Nest Meta-cluster members and the scientific community.	Beneficiaries: Cluster members and European scientific community
Description: The Precision Medicine Live Grid created for this project located at Live Grid - MEDIC NEST (https://medicnest.eu/live-grid), requires to be updated including all active projects against cancer identified and included to continue being interesting for the scientific community and for the consortium members and to remain being useful as a repository of the located information. For that we will create an AI tool that will help to identify and locate on the web, all Precision Medicine projects published. Also, for all Medic-Nest Meta-cluster members there will be a mailbox where any member can send their information about the Precision Medicine project against cancer they are working in, that will be published within two weeks. Finally, a web-based form will be created to facilitate the self- inclusion of the information about the project where any scientific group or Medic-Nest Meta-cluster member is working on. This information should be validated periodically by a scientific committee from the Medic-Nest Consortium.	

Action: Create an open data platform.	
Objective: Provide information about Precision Medicine in Cancer in Europe and facilitate the scientific community access to	Beneficiaries: Medic-Nest Meta-cluster members and scientific community.

<p>the Precision Medicine in Oncology Projects ongoing in Europe.</p>	
<p>Description: The process of creating an open data platform is relatively complex and involves legal, social, and technical considerations, but the Meta-cluster reasons for opening data are mainly the Transparency, Innovation, Efficiency, Participation and Economic growth. From the Medic-Nest Meta-cluster, it will be created a platform, linked to the Medic-Nest grid, where all information from Precision Medicine related to oncology projects under the umbrella of the Meta-cluster will be open to access from any other member of the community and the data in this platform will be freely available for anyone to use, reuse, and redistribute without any restrictions.</p>	

<p>Action: Assist in service development to evaluate facilities, infrastructures and new business models.</p>	
<p>Objective: Provide support to cluster and Meta-cluster members to ensure the adherence of their Precision Medicine in Cancer projects to the standards.</p>	<p>Beneficiaries: Medic-Nest Meta-cluster members, entrepreneurs, Startups, investors, academia and scientific community.</p>
<p>Description: The Medic-Nest Meta-cluster members are capable to support on the development, review, and preparation of business models for the companies, startups and other organizations to place them in their markets. Also, we will be able to evaluate the conditions of new facilities and infrastructures developed or created by Meta-cluster members to ensure their Precision Medicine in Cancer projects are adhered to the regulations and requirements and provide support to modify and reorganize said projects to comply with the regulations. For this, the Meta-cluster will count on with a committee who will review all these oncology related projects and provide feedback to the members that will provide this consulting service.</p>	

<p>Action: Setting up a panel of experts.</p>	
<p>Objective: Provide support to cluster and Meta-cluster members to ensure the adherence of their Precision Medicine in Cancer projects to the standards.</p>	<p>Beneficiaries: Medic-Nest Meta-cluster members, entrepreneurs, Startups, investors, academia and scientific community.</p>
<p>Description: There will be a Medic-Nest Panel of Experts in Precision Medicine in Cancer projects that will help all Meta-cluster members to correctly orient their activities and ensure the compliance with the standards conditions of the projects. This panel will be created with a defined scope of the panel's work and the questions that the panel will be able to address will be clearly defined and shared with the potential users of this service.</p>	

2.1.10. Provide mentoring.

<p>Action: Provide Mentoring.</p>	
<p>Objective: Provide support to cluster and Meta-cluster members to develop their capabilities in management and other skills.</p>	<p>Beneficiaries: Medic-Nest Meta-cluster members and scientific community.</p>
<p>Description: The mentoring is a process of providing guidance, support, and advice to an individual or group of individuals to help them achieve their goals and develop their skills that can be provided in different forms, such as one-on-one mentoring, group mentoring, and e-mentoring. The Meta-cluster will provide on demand mentoring to its members and will</p>	

organize different sessions to inform the members about the capability of the Meta-cluster to provide such service, always linked to the Precision Medicine field.

2.2. Actions chronogram

The Planned actions indicated previously of the MEDIC NEST will be developed by the consortium and the Meta-cluster members and associates between March 2024 and December 2025, when it will be reviewed and extended to 2027 if the activities continuous having sense.

On the table below it can be found the period when each action will be implemented if all resources and capabilities are available for it.

It will be divided in three types of actions:

- **Continuous Actions.** Those that should be implemented at a single moment but that will remain being done during the whole length of this plan.
- **Periodic Actions.** Those that will be done every defined period.
- **Punctual Actions.** Those that will be done once.

2024

Period	Q1	Q2	Q3	Q4
Continuous Actions	<ul style="list-style-type: none"> • Networking • Keep the Medic-Nest Grid up to date • keep the Medic-Nest Entities List up to date • News up to date • Using AI for Grid Maintenance and News distribution • Disseminate national and European calls • Share, distribute and create research content 			
Periodic Actions		<ul style="list-style-type: none"> • Identifying needs and trends • Content creation and diffusion through social media 	<ul style="list-style-type: none"> • Content creation and diffusion through social media • Investors' day 	<ul style="list-style-type: none"> • Identifying the precision medicine legislative committee • Presenting the strategic plan to authorities • Content creation and diffusion through social media
Punctual Actions				<ul style="list-style-type: none"> • CXC activity

2025

Period	Q1	Q2	Q3	Q4
Continuous Actions	<ul style="list-style-type: none"> • Networking • Keep the Medic-Nest Grid up to date • keep the Medic-Nest Entities List up to date • News up to date • Using AI for Grid Maintenance and News distribution • Locate and share education programs • Disseminate national and European calls • Share, distribute and create research content 			
Periodic Actions	<ul style="list-style-type: none"> • Meeting with the legislative committee • Contact with scientific diffusion Influencers • Content creation and diffusion through social media • PPI training 	<ul style="list-style-type: none"> • Webinar • Content creation and diffusion through social media • Investors' Day 	<ul style="list-style-type: none"> • Annual Congress of Precision Medicine in Cancer • Content creation and diffusion through social media 	<ul style="list-style-type: none"> • Presenting the strategic plan to authorities • Webinar • Content creation and diffusion through social media
Punctual Actions	<ul style="list-style-type: none"> • Speed matchmaking • Connect with OTRRs 	<ul style="list-style-type: none"> • CXC activity • Visits to the Innovation Hubs • Visits to the Business Incubators 	<ul style="list-style-type: none"> • Master degree for Precision Medicine 	<ul style="list-style-type: none"> • Create an open data • Create a panel of experts to launch the consulting service.

3. Viability

The Medic Nest Joint Action Plan for Precision Medicine against Cancer 2022-2027 addresses the Europe's Beating Cancer Plan, mobilising the collective power of the health orientated clusters to drive change in cancer prevention and care, where patients have access to high-quality screening, treatments and the latest state of the art technologies.

The aim of Europe's Beating Cancer Plan is to tackle the entire disease pathway. It is structured around four key action areas where the EU can add the most value:

- (1) prevention;
- (2) early detection;
- (3) diagnosis and treatment;
- (4) quality of life of cancer patients and survivors.

The Europe's Beating Cancer Plan will focus on research and innovation, tap into the potential that digitalisation and new technologies offer, and mobilise financial instruments to support Member States.

Precision medicine has a growing role in cancer diagnosis and treatment. Oncology has been leading precision medicine efforts largely in the context of the knowledge of the role of genetic mutations in the development and progression of cancer.

The smart combination of health data and new technologies caters for the exponential development of precision medicine, which becomes a powerful tool to address cancer through tailor-made prevention and treatment strategies so patients receive the therapies that work best for them.

We have already identified the objectives, the strategic lines, the resources available and the timelines for the implementation of this Joint Action Plan, beside the risks that we will have to face during its implementation, we consider that with some support from the stakeholders of the clusters associated to the Meta-cluster we can complete and implement this Joint Action Plan and from it the full strategy.

4. Financing

To cover the full Joint Action Plan, we estimate a financing of around 500k € during the 5 years of duration, considering the dedication of the Meta-cluster members.

Each of the actions described in this Joint Action Plan will require its own resources and financing sources, but the main European Funding source for the Joint Action Plan for Precision Medicine against Cancer 2022-2027 will be the **Horizon Europe Mission on Cancer** that embodies a true mission approach by integrating innovative approaches to research, public health, data sharing, digital policies, and citizen engagement **to jointly achieve the Europe's Beating Cancer Plan** ambitious goal of improving the lives of more than 3 million people by 2030, through prevention, cure and for those affected by cancer including their families, to live longer and better.

The Mission on Cancer offers a distinct and comprehensive approach to improve cancer prevention and control by systematically bringing together research, innovation and policy development, in ways that cannot be achieved through individual and often fragmented research activities and policy initiatives at EU and national level.

Four elements are the keys to the Mission's success: **First**, the Mission will systematically identify and exploit research results related to cancer from existing EU and national funded projects, in particular Horizon 2020, and accelerate their translation into public health and clinical practice. **Second**, it will set a common strategic R&I agenda on cancer, which will steer national efforts and streamline investments towards its objectives, and provide dedicated digital infrastructures in support of research.

Third, it will create a seamless link between R&I and policy development at national and EU level, including through ensuring the coordination with and supporting the implementation of the Europe's Beating Cancer Plan. It will also bring value to the new Knowledge Centre on Cancer (JRC) and the European Cancer Information System.

The Fourth element is adequately addressed by the MEDIC NEST Meta Cluster will increase cross-sectoral collaboration by bringing together relevant actors in health, research, innovation, finance, social sciences and humanities, for a continuous interaction and exchange of experiences and best practices. All of this cannot be achieved through individual initiatives at national or European level and thus represents the clear added value of the Mission.

The other funding opportunities of Medic Nest Joint Action Plan for Precision Medicine against Cancer 2022-2027 are the EU4Health Programme, the Digital Europe Programme, the Euratom Programme, and the Interregional Innovation Investments funding instrument.

Other funding ways will be directly through Meta-cluster members and members of the clusters while using the services of the Meta-cluster.

The impact of this Joint Action Plan should be considered in the value provided to the Meta-cluster members, so there is where the effectiveness of this plan should be evaluated.

5. Governance, implementation and monitoring

Joint Action Plan for Precision Medicine against Cancer 2022-2027 will be monitored by the Medic Nest Meta-Cluster according to the provisions that will be developed within the Partnership Agreement.

The composition of the MEDIC-NEST Meta-Cluster will be formed by **founding members** (the 4 partnering clusters that have initiated this structure within the implementation of the COSME funded project MEDIC-NEST) and by **members** (other clusters and supporting organizations that have a keen interest in precision medicine).

The meta-cluster is an open initiative, subject to certain rules and criteria. The members are **cluster organizations** or **similar supporting organizations (industry associations, digital innovation hubs, innovation agencies, patient associations)**. The members should be a legal entity. Clusters and DIH can authorize to be represented by a cluster or DIH member.

The following governance structure is foreseen for the initial stage of the meta-cluster, up to the end of 2027:

- MEDIC-NEST General Assembly
- MEDIC-NEST META-CLUSTER Chairman
- Task Groups for specific challenges
- MEDIC-NEST Operational Team

The **MEDIC-NEST General Assembly (GA)** will be formed by authorized representatives of each member of the meta-cluster and it will be the main decision-making body of the alliance. All decisions of the GA will be taken by a simple majority vote. They will gather biannually in ordinary meetings (online or onsite) and whenever needed in case of extraordinary events, with a prior notice of minimum 10 working days.

The **MEDIC-NEST Meta-Cluster Chairman** will be appointed by the GA on a rotative basis, every 2 years. He/she will be responsible for elaboration of documents and organization of the alliance, for coordination and facilitation of communication and collaboration between the members, for implementing the decisions of the GA and for daily management of the meta-cluster activities.

The **Task groups** for specific challenges related to precision medicine will be dynamically initiated by the GA and they will organize their work, communication and decision making by themselves, depending on the number of partners involved, depending on the nature or the work or actions, but assuring openness and fair representation of all members involved.

The **MEDIC-NEST META-CLUSTER Operational Team** will be formed by a team of volunteers that, under the coordination of the Chairman, will ensure the promotion of the meta-cluster and the daily management of the organizational activities. The team will be appointed during the GA meetings and can withdrawal with a prior notice of 30 days.