

THANKS AND ACKNOWLEDGEMENTS

To the health professionals of the Castilla y León Health System, whose daily dedication and experience have been essential in understanding the real needs and practical challenges they face.

Their perspective from the front line has been invaluable.

To the middle managers, directors and operators, who have demonstrated visionary leadership and provided the resources and support necessary to drive this Plan forward. Their strategic vision and organisational capacity have been fundamental pillars.

To the patients and their families, whose experiences, needs and hopes have been our driving force and raison d'être. Their willingness to share their stories and actively participate in the process has enriched our vision and understanding.

And especially to the experts who have participated in the development of this Plan in its different phases, led by **Dr. María Isidoro García**. Their generosity, commitment and experience have been fundamental in establishing a comprehensive approach to Personalised Precision Medicine.

The PEMPPCyL is the result of a collective effort and reflects a shared commitment to improving healthcare, the sustainability of the system and responsibility for people's quality of life. To all of you who have contributed, in one way or another, we express our most sincere thanks.

STRATEGIC PLAN FOR
PERSONALISED PRECISION
MEDICINE
IN CASTILLA Y LEÓN
2024-2030

MULTI-OMICS: A NEW ERA FOR HEALTH

The traditional model of healthcare is changing, and personalised precision medicine (PPM) represents a unique opportunity to improve people's health.

To bring about this transformation, a coordinated effort is needed that takes our current reality as a starting point and defines a roadmap that consolidates the foundations of the medicine of the future.

After a thoughtful and participatory process of elaboration, I am pleased to present the Strategic Plan for Personalised Precision Medicine in Castilla y León 2024-2030 (PEMPPCyL), a project that reflects the commitment of the Junta de Castilla y León to the health and well-being of the people of our community.

It is the result of work in which professionals from the Castilla y León Health System, scientific societies, patients' associations, bio-health research institutes, research staff from different institutions at regional and national levels, health centre managers and health planning professionals have collaborated. All of them with a common purpose, to have a Plan that allows 'Promoting the development of an integrated and coordinated network model that ensures adequate technological, economic and human resources for the implementation, based on evidence, safe, equitable, sustainable and efficient, of PPM in Castilla y León'.

I share with the scientific director of the PEMPPCyL, Dr. María Isidoro, her vision of PPM as the beginning of a new era in medicine, in which we will be able to reconcile two objectives: the improvement of individualised patient care and the way to promote the sustainability of public health systems. She defines it as 'the triumph of ethics in the pursuit of the greater good of implementing equity in health policy'.

The implementation of PPM must necessarily go hand in hand with a strong commitment to ethics and equity. We must be able to ensure that all people in Castilla y León have access to the benefits of this strategy, regardless of their place of residence, economic or social situation. And we must also show our commitment to protecting the privacy and confidentiality of our patients' genetic and health information.

The famous phrase that 'the future is already here' takes on its greatest raison d'être with the PPM. It is a commitment to the future, but above all to the present. A present in which people's health and well-being are at the centre of all our decisions and actions, in which health must be at the heart of all policies.

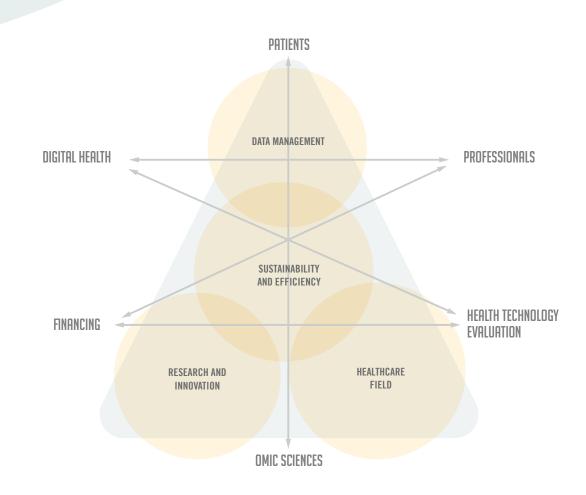
I am convinced that, with everyone's efforts and cooperation, we will be able to make this strategy a reality. A reality that will not only improve the lives of the people of Castilla y León but will also place our Region at the forefront of health innovation.

In my capacity as Regional Health Minister, I invite you to learn more about the PEM-PPCyL and to join us on this exciting journey towards a more precise and personalised medicine, with an evidence-based clinical approach aimed at addressing the individual needs of each patient.

Alejandro Vázquez Ramos Regional Minister of Health of Castilla y León

WHY THE PEMPPCYL?

- It defines a **common strategic framework** for the development of PPM throughout the Public Health System of Castilla y León.
- It makes it possible to organise, coordinate and work in a network for the **real and effective incorporation of PPM** in Castilla y León.
- It tackles a complex area with the participation of multiple agents, levels of the organisation and specialities, requiring a high level of **institutional leadership**.
- It facilitates the **optimisation of resources** and promotes networking within the Organisation.
- It has a common strategic **roadmap**, aligned with the rest of the health and research and innovation policies.
- It makes it possible to estimate and determine the **resources necessary** for its development.



WHAT IS THE BASIS OF THE STRATEGIC APPROACH OF THE PEMPPCYL?

VALUES

- Patient orientation
- Fthics
- Sustainability
- Collaborative approach
- Safety
- Innovation

GUIDING PRINCIPLES

QUALITY TRANSPARENCY EQUITY

MISSION

Develop a comprehensive framework for the implementation of PPM in Castilla y León.

To provide the reference framework that facilitates the implementation of PPM in the Community, through the integrated development of the processes and resources necessary to guarantee access for all citizens of Castilla y León, under equal conditions, to the PPM services of proven value in clinical practice that are applicable and available to them.

VISION

To improve the health of the people of Castilla y León through an accessible and effective PPM, based on scientific knowledge and technological advances.

The PEMPPCYL will contribute to improving the health outcomes of the population of Castilla y León through the application of the preventive, diagnostic, therapeutic and personalised follow-up approach of precision medicine; it will favour the generation and clinical transfer of new knowledge in PPM through the reinforcement of the synergies in the field of research and innovation. Furthermore, it will guarantee an efficient incorporation of new PPM services backed by scientific knowledge and technological advances into the portfolio of services of the Castilla y León Public Health System.

7

TARGET GROUPS PARTICIPATION

2022 14 Survey analysis HOSPITALS

2022 52 Interviews KEY STAKEHOLDERS

2022-2024 7 Meetings COORDINATING EXECUTIVE COMMITEE

DEPLOYMENT MODEL

PUBLIC SERVICES MODEL PPM

2023-2024 3 Meetings ALL HEADQUARTERS

O1.SITUATION Analysis

Strategic

challenges

International context

- PPM health policies in the international context outside the EU.
- PPM health and R&D policies in the EU.
- Networks, alliances and consortia in PPM in the EU.

Autonomous Context

- Approval PIERCyL (Integral Plan for Rare Diseases in Castilla v León) March 2023
- Provision of infrastructures to support the PPM
- CvL portfolio genetics, clinical committees, R&I

National Context

- Strategic and Planning Scope of PPM
- Regulatory environment of PPM
- PPM training and professional profiles

HOW HAS IT BEEN DEVELOPED?

For the preparation of the PEMPPCyL, a work schedule was established in three phases. structured around the holding of sessions of the Executive Committee established for this purpose, led by the GDHPRI (Directorate General for Health Planning, Research and Innovation), with the participation of representatives of the GDHCH (Directorate General for Health Care and Humanisation) and the scientific-technical coordinator of the Plan, at a rate of one session per phase. Continuous internal communication actions were carried out with all Committee participants, with review and validation of the contents prepared.



HEALTH POLICIES

RAN; Reference Assistance Node; MRT: Multidisciplinary Reference Teams; CSUR: NHS Reference Centres, Services and Units

O2.STRATEGIC REFLECTION



STRATEGY MAP



MONITORIN FOLLOW-UP

Evaluation

2024 CONTRAST 18 INTERNAL ADVISORY COMMITTEE 5 EXTERNAL ADVISORY COMMITTEE

WHAT IS OUR STARTING POINT?

1. SITUATION ANALYSIS

During this first phase of work, under the direction of the Executive Committee, a situation analysis and diagnosis was carried out, with the aim of providing a comprehensive view of the current state of PPM in the autonomous region, framed within the national and European context. A review was made of all the capacities and resources of the Region, in terms of healthcare, research and innovation, training and information systems, quality and ethics, with identification of the key elements for strategic planning. The information obtained in this process of analysis was complemented, as part of the methodological approach, with data obtained in two time pe-

riods: a survey of professionals in the hospital centres of the Castilla y León Public Health System and interviews with 52 key agents who are experts in different areas, aimed at ascertaining their views on the current situation and the horizon of PPM in Castilla y León.

To complete the analysis of the situation and diagnosis, a SWOT matrix was then drawn up for the specific analysis of weaknesses, threats, strengths and opportunities.

INTERNATIONAL LEVEL

NATIONAL LEVEL

The drive for Personalised Precision Medicine (PPM) in Spain is based on several key initiatives:

- The Senate's Study Committee on Genomics.
- The NHS 5P Plan.
- The update of the NHS Common Portfolio of Services.
- •the area of genetics and genomics.
- The foreseeable recognition of the speciality of Clinical Genetics.
- A future National Strategy for Precision Medicine.

These actions seek to deploy PPM capacities and resources in the Autonomous Communities in a coordinated and sustainable manner

AUTONOMOUS LEVEL

The Autonomous Regions are promoting Precision Personalised Medicine (PPM) in various ways:

- Alignment with the recommendations of the Senate's Genomics Committee.
- Development at the political, strategic, regulatory and operational levels.

Varied approaches:

- Reorganisation of resources in areas such as cancer and rare diseases.
- Large-scale projects with infrastructure for big data.
- Leveraging existing infrastructures to accelerate implementation.
- Most of the Autonomous Regions have specialists who carry out genetic counselling.

A common effort to map the genetic variations of humanity since the beginning of the genomic era in 2001.

- Objectives include:
- Creating global genomic reference libraries.
- Understanding genetic variation and its implications in disease.
- Moving towards the sequencing of individual genomes.

This will allow knowledge to be applied in clinical practice.

The EU prioritises PPM through strategic frameworks, policies and funding instruments.

Member States implement this paradigm in their health systems, driving technologies and digital transformation with European funds.

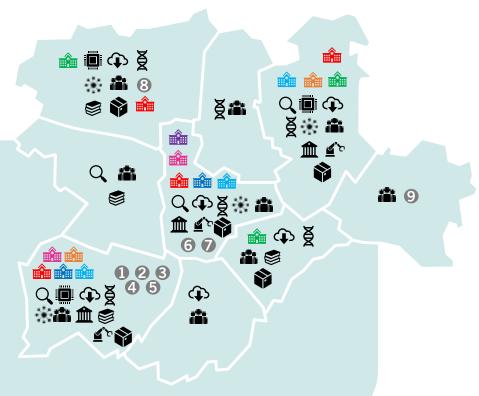
The European Health Data Space (EHDS) aims to enhance the use of data to improve health care and innovation.

1. SITUATION ANALYSIS



The PPM is a strategic priority aligned with other plans and strategies of the region.

- The main areas of development are governance, care resources, information systems, quality, ethics, training, research and innovation.
- Interdisciplinary approach involving diverse areas such as genetics and bioinformatics.
- Encouragement of integrated participation including patients, professionals, research centres, universities, companies, administrations and the third sector.
- •The Portfolio of Services of Castilla y León offers PPM services in several specialities, with access through a network coordination that includes Regional and National Reference Units.



SWOT STRATEGIC AREAS

STRATEGIC AND GOVERNANCE
ASPECTS
CARE AND RESOURCE ASPECTS
DIGITAL HEALTH
QUALITY AND ETHICS
TRAINING AND PROFESSIONAL
PROFILES

RESEARCH AND INNOVATION

1. SITUATION ANALYSIS. SWOT

STRENGTHS

Leadership and strategic support. There is a solid base with track record and political support, as well as active participation in national initiatives.

Established care programmes. Offer pharmacogenomic and genetic testing, being a reference in oncohaematology and rare diseases.

Infrastructure and resources. They have reference centres, biobanks and a solid digital infrastructure (SCAYLE, data warehouse).

Training and human capital. Offer of specific training in PPM and interested professionals and highly qualified.

Research and innovation. There are research infrastructures and participation in calls for proposals and collaborative networks.

WEAKNESSES

Coordination and visibility. There is geographical dispersion, a need for coordination and a specific strategic framework for PPM.

Access and bureaucracy. Excessive bureaucracy and lack of interoperability.

Limited resources. Shortage of funding, infrastructure and specialised staff.

Academic training. Undergraduate and postgraduate curricula which do not incorporate aspects of PPM.

Weak R&D&I. Limited research and development activity in PPM, with low public-private collaboration and little capacity to raise funds.

SWOT

OPPORTUNITIES

National and European impulse. Prioritisation of PPM in programmes such as IMPaCT and advances in data management at a European level.

Development of digital health. Incorporation of technologies such as Big Data and artificial intelligence to improve the coordination and exploitation of data.

Funding and collaboration. New funding opportunities and boosting public-private collaboration.

Training and legislation. Training and ethical frameworks under development, together with European legislative advances in PPM.

THREATS

Lack of National Strategy and instability. Possible impact on PPM priorities and funding.

Competition between autonomous regions. Access to resources, funding and attraction of talent, with greater attraction from other regions.

Deficiencies in cybersecurity and privacy. Data protection risk due to the increase in demand and proliferation of genetic tests.

2. STRATEGIC THINKING

To offer an integrated, clear and concise graphic vision of the strategy designed to facilitate its understanding, a strategic map was drawn up showing, within the framework of each of the 6 axes established in the PEMPPCyL, how to achieve the expected results and impacts, both on citizens and on the organisation.

As a guiding thread for monitoring the map, different inducing elements were established, which were to be involved in its development; policies and strategies, syste-

ms and capacities, and management and activity. In addition, the 18 strategic lines were aligned with the different elements considered, framed transversally by the values guiding action and decision-making. In this way, the vision of the PEMPPCyL would be achieved, which is to contribute to improving the health outcomes of the population of Castilla y León through the application of the preventive, diagnostic, therapeutic and personalised monitoring approach of precision medicine.



WHAT DO WE WANT TO ACHIEVE?

The general objective of the PEMPPCyL is to promote the development of an integrated and coordinated network model that ensures adequate technological, economic and human resources for the safe, agile, evidence-based, equitable, sustainable and efficient implementation of PPM in Castilla y León, to improve both the health outcomes of the population and the efficiency of the public health system.

STRATEGIC OBJECTIVES

EDUCATION AND TRAINING

Establish the strategic, governance and regulatory framework necessary to facilitate the implementation of PPM in the Public **Health System of** Castilla y León, guaranteeing its alignment with the rest of the policies and strategies on health, training and R&D&I in Castilla y León.

STRATEGIC PLAN GOVERNANCE

Establish the basis PPM CARE MODEL for a coordinated. network-structured model of care. defining the centres, units, nodes and referral teams, as well as the necessary procedures to guarantee access and equity in the application of PPM

RESOURCES AND INFRASTRUCTURE in Castilla v León.

Develop the necessary resources and strengthen existing infrastructures for PPM research and assistance, including the improvement of the research circuits, centres and networks, and promoting investment in technology and resources for the implementation of **Digital Health and** the processing and storage of data.

To promote the general training of professionals in PPM, and to promote specific professional training for its development in the different areas of health care.

RESEARCH AND INNOVATION

Promote research, innovation and the development of new treatments in PPM through Regional research centres, in collaboration with national and international centres and the development and implementation of new technologies. Facilitate public-private collaboration in the field of PPM in Castilla y León, promoting innovation and employment generation, with the incorporation of highly qualified professionals.

CITIZEN PARTICIPATION

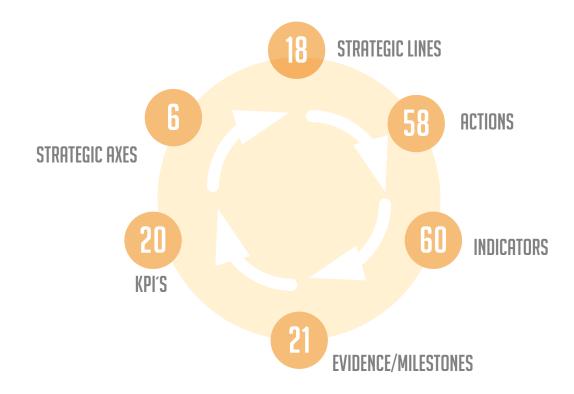
Promote citizen participation in the implementation and development of the strategy, facilitating the dissemination of information and transparency in communication.

3. ROAD MAP AND FOLLOW-UP

During the third and last phase of the project, the PEMPPCyL deployment model was defined, which included the elaboration of a map of key elements of the Castilla y León Health System for the achievement of the expected results in PPM, considering the needs and expectations of the target groups.

A proposal was then drawn up for the priority actions to be carried out in each of the strategic lines defined for the implementation of PPM in Castilla y León. A road map was also designed, which included the specific objectives of each line, as well as those responsible for coordinating each of the proposed actions, the indicators for monitoring, the evidence or milestones to be achieved and the implementation schedule.

Finally, the proposal made by the technical team was submitted for internal and external validation, as a step prior to the establishment of the definitive actions that made up the road map for the implementation of the Plan in the Region. The internal comparison was represented by the management centres of the Regional Ministry of Health and the central services of the Castilla y León Regional Health Management and by the designated advisory-coordinating groups, and the external comparison was carried out by professional experts in different clinical, strategic and research and teaching areas related to PPM.

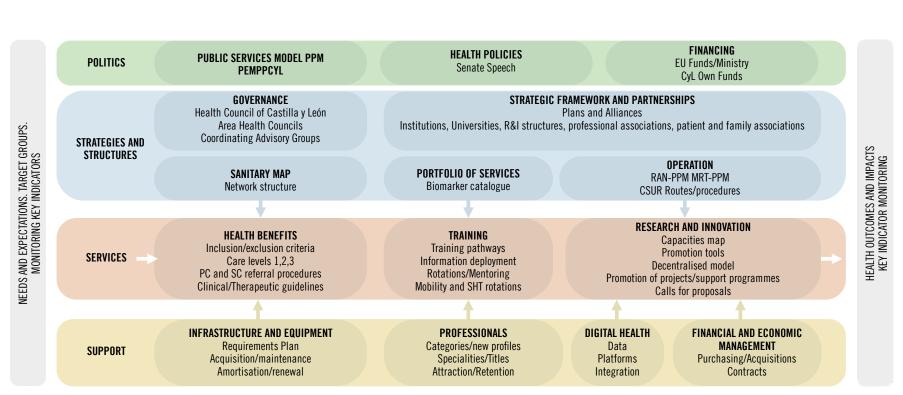


2024

HOW ARE WE GOING TO ACHIEVE IT?

The PEMPPCyL deployment model includes a map of the elements of the Castilla y León Health System for the implementation of PPM, structured in four levels and fifteen areas, in accordance with the needs and expectations of the target groups, to achieve the expected health results in the field of PPM. These results will be monitored through key indicators.

2025



2028

2030

RAN; Reference Assistance Node; MRT: Multidisciplinary Reference Teams; CSUR: NHS Reference Centres, Services and Units

WHAT STRATEGY ARE WE GOING TO FOLLOW?

The PEMPPCyL is structured into 6 Strategic Axes (SA) and 18 Strategic Lines (SL) of action, with a total of 58 actions, which will be deployed in the 2024-2030 time horizon. The corresponding specific objective (SO) has been defined for each Strategic Line, which guides the actions contemplated in each line.

STRATEGIC AXIS 1: STRATEGIC AND GOVERNANCE FRAMEWORK

STRATEGIC AXIS 2: CARE RESOURCES

STRATEGIC AXIS 3: DIGITAL HEALTH

STRATEGIC AXIS 4: QUALITY AND ETHICS

STRATEGIC AXIS 5: TRAINING

STRATEGIC AXIS 6: RESEARCH AND INNOVATION

STRATEGIC AND

GOVERNANCE FRAMEWORK

CARE RESOURCES

Values: Patient-orientation, Ethics, Sustainability, Collaboration, Safety, Innovation

PEMPPCYL STRATEGY MAP

VISION **S015:** BOOSTING THE KNOWLEDGE OF THE GENERAL POPULATION **S04:** ENCOURAGE THE PARTICIPATION OF SOCIETY: **S018:** FOSTERING DISSEMINATION **KPI17** No. of awareness-raising and training actions on PPM KPI5 No. of collaborative actions carried out with specifically aimed at patients and relatives. KPI20 No. of accesses to the PPM web In the **RESULTS AND IMPACTS** Patient and Family Associations. space of the Health Portal of Regional **KPI18** No. of attendees at PPM awareness-raising and training citizenship **KPI6** No. of participants in collaborative actions. actions. Ministry of Health of the Autonomous Region of Castilla v León. **S012:** FOSTERING HUMANISATION **S02**: BOO<mark>ST CO</mark>MMUNICATION AND VISIBILITY OF THE PPM IN CYL In the **KPI14** No. of PROMs and PREMs **KP12** Average generation of new content in 1 year, aimed at both citizens organisation linked to the PPM. and professionals **S05:** INCORPORATE INTO SERVICE PORTFOLIO **S08:** UPDATE AND ADAPT INFORMATION **S017:** Fostering public-private **KP17** Percentage (%) of genetics tests SYSTEMS partnerships as a key to developing the In management implemented technologically in relation to the **KPI11** Inclusion of genetic/genomic tests potential of research and innovation in and activity: linked to PPM in the LIS. total number of tests in the genetics catalogue. Processes and **S013:** BOOSTING KNOWLEDGE FOR PROFESSIONALS projects **S06:** ESTABLISH AN ORGANISED HEALTH CARE SYSTEM **KPI15** No. of hours of continuous training in PPM. **KP18** Estimation of the process of managing requests **KPI16** No. of professionals enrolled in continuing training courses in PPM. for care in RAN/MRT **S07:** ADJUST RESOURCES AND INFRASTRUCTURE In systems and INDUCERS capacities: **KPI9** Monitoring and updating of technological needs for the **\$010:** FACILITATE IMPLEMENTATION OF personnel and implementation of PPM. QUALITY SYSTEMS **KPI10** Degree of development of the RAN/MRT. materials **KPI13** Percentage (%) of RAN/MRT with **S03:** ESTABLISH NETWORKING FRAMEWORK **S09:** CREATE PROCEDURE FOR SECURED DATA recognised certification or accreditation. **KPI3** No. of collaborative initiatives developed with **KPI12** No. of data protection incidents. external actors. **KP14** No. of professionals participating in PPM In policies and related groups/networks. S014: PROMOTE strategies: Focus S016: PROMOTE R&I INCORPORATION INTO and alignment **KPI19** No. of active R&I projects **S01:** ESTABLISH A GOVERNANCE FRAMEWORK SO11: CREATE A COMMON UNDERGRADUATE AND in PPM per 1.000 professionals **KPI1** Extent of development of the PPM governance ETHICAL FRAMEWORK POSTGRADUATE PROGRAMMES with higher education. framework. IN HEALTH SCIENCES

QUALITY AND ETHICS

TRAINING

RESEARCH AND INNOVATION

DIGITAL HEALTH

STRATEGIC AXIS 1: STRATEGIC AND GOVERNANCE FRAMEWORK

HOW ARE WE GOING TO ACHIEVE IT?

STRATEGIC AXIS 1: STRATEGIC AND GOVERNANCE FRAMEWORK

STRATEGIC AXIS 3: DIGITAL HEALTH

TRATEGIC AXIS 5: TRAININ

STDOTECIC DVIS 2. CODE DESCRIBE

STRATEGIC AXIS 4: NUALITY AND ETHICS

TRATEGIC AXIS 6: RESEARCH AND INNOVATIOI

Development of the strategic and governance framework for PPM in the Public Health System of Castilla y León.

SL 1: Establishing a governance framework

- Steering Committee.
- Scientific Committees for the deployment of PPM.

SL 2: Promoting communication and visibility of PPM

- Creation of a PPM website.
- Communication and content generation.
- Organisation of dissemination events.

SL 3: Fostering a framework for collaboration and alliances

- Map of External Agents and Initiatives of interest.
- Active participation of professionals from CyL in groups and networks.
- Incorporation of consultative bodies in PPM planning.

SL 4: Encouraging the participation of society in the development of PPM

- Citizen participation in PPM conferences.
- Articulation of the system of participation of representatives of patient and family associations.
- Involvement of representatives of patients' and relatives' associations.
- Promotion of collaboration with patients' and relatives' associations with greater application of PPM for the implementation of projects.

STRATEGIC AXIS 2: CARE RESOURCES

HOW ARE WE GOING TO ACHIEVE IT?

STRATEGIC AXIS 1: STRATEGIC AND GOVERNANCE FRAMEWORK

STRATEGIC AXIS 3: DIGITAL HEALTH

TRATEGIC AXIS 5: TRAINII

STRATEGIC AXIS 2: CARE RESOURCES

STRATEGIC AXIS 4: QUALITY AND ETHICS

TRATEGIC AXIS 6: RESEARCH AND INNOVATION

Structuring, organising and reinforcing the resources and capacities of the Public Health System in PPM.

SL5: Promoting the development and updating of the PPM service portfolio

- Ongoing review and updating of the portfolio of PPM services, based on the Common Portfolio of Genetics Services of the NHS and its updates.
- Procedure for monitoring and evaluating the application of the portfolio of PPM services.

SL 6: Consolidating a coordinated implementation model

- Configuration of Reference Assistance Nodes in designated centres with reference technology and expertise and Multidisciplinary Reference Teams.
- Network model of the Health Areas.
- Permanent updating and dissemination of the PPM Resource Map in CyL.
- Alignment of the PEMPPCyL with other plans linked to precision therapies.

SL 7: Analysing resources and infrastructure

• Resources and infrastructure requirements plan.

STRATEGIC AXIS 3: DIGITAL HEALTH

HOW ARE WE GOING TO ACHIEVE IT?

STRATEGIC AXIS 1: STRATEGIC AND GOVERNANCE FRAMEWORK

STRATEGIC AXIS 3: DIGITAL HEALTH

TRATEGIC AXIS 5: TRAINII

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STRATEGIC AXIS 4: DUALITY AND ETHICS

TRATEGIC AXIS 6: RESEARCH AND INNOVATIOI

Incorporation of Digital Health in the healthcare and R&I of PPM and adaptation of health information systems in Castilla y León.

SL 8: Fostering the development of health information systems

- Adaptation and improvement of information systems.
- Incorporation of data linked to MPP in the corporate laboratory information system (LIS).
- Automated system for notification of results alerts.
- Standardisation of the completion, capture, storage and transmission of clinical data.
- Data processing plan for primary healthcare purposes.
- Progressive digital transformation.
- Progressive incorporation of biometric data in the GRS information systems.
- Implementation and extension of the Healthcare Data Request Procedure.
- Promotion of information technology systems (Big Data and Al).
- Compliance with the EU AI Law, which will come into force in May 2025.
- Incorporation of digital tools to systematise the measurement of PREMs and PROMs.
- Systematic monitoring of indicators linked to health outcomes.
- \bullet Incorporation of data scientists in the structure of the organisation.

SL 9: Establish a secure data processing procedure

- Verification of the correct application of data protection and security regulations.
- Ensuring security standards in the secondary use of health data.

STRATEGIC AXIS 4: QUALITY AND ETHICS

HOW ARE WE GOING TO ACHIEVE IT?

STRATEGIC AXIS 1: STRATEGIC AND GOVERNANCE FRAMEWORK

STRATEGIC AXIS 3: DIGITAL HEALTH

TRATEGIC AXIS 5: TRAINING

STRATEGIC AXIS 2: CARE RESOURCE

STRATEGIC AXIS 4: QUALITY AND ETHICS

FRATEGIC AXIS 6: RESEARCH AND INNOVATIO

Promoting quality/safety policies and compliance with ethical standards in the PPM field.

SL 10: Supporting the development of quality systems

• Application of quality standards in PPM.

SL 11: Establishing an ethical framework

- Development and dissemination of a common ethical framework.
- Development of standardised informed consent forms.

SL 12: Promoting humanisation

- Inclusion in the humanisation plans of Castilla y León of actions derived from the implementation of PPM.
- Incorporation of methodologies based on patient experience.

STRATEGIC AXIS 5: TRAINING

HOW ARE WE GOING TO ACHIEVE IT?

STRATEGIC AXIS 1: STRATEGIC AND COVERNANCE FRAMEWORK

STRATEGIC AXIS 3: DIGITAL HEALTH

TRATEGIC AXIS 5: TRAINING

STRATEGIC AXIS 2: CARE RESOURCE

STRATEGIC AXIS 4: DUALITY AND ETHICS

TRATEGIC AXIS 6: RESEARCH AND INNOVATION

Development of training programmes, with the aim of ensuring that health and non-health professionals acquire the competencies required for the implementation of PPM.

SL 13: Promoting training in the health field

- Continuous training plan in PPM aimed at healthcare professionals.
- Training stays in reference services in PPM.
- Incorporation of PPM training content in Specialised Healthcare Training, by encouraging rotations in reference services.

SL 14: Promote collaboration in the field of undergraduate and postgraduate training.

• Collaboration and coordination between institutions for the incorporation of specific PPM content in the relevant undergraduate and postgraduate training plans.

SL 15: Promoting the education of the general public

- Training actions in PPM aimed at the general public.
- Training actions aimed at patients and relatives.

STRATEGIC AXIS 6: RESEARCH AND INNOVATION

HOW ARE WE GOING TO ACHIEVE IT?

STRATEGIC AXIS 1: STRATEGIC AND GOVERNANCE FRAMEWORK

STRATEGIC AXIS 3: DIGITAL HEALTH

TRATEGIC AXIS 5: TRAININ

STRATEGIC AXIS 2: CARE RESOURCE

STRATEGIC AXIS 4: DUALITY AND ETHIC

STRATEGIC AXIS 6: RESEARCH AND INNOVATION

Promoting research and innovation in the field of PPM and public-private partnerships.

SL 16: Boosting R&I in PPM

- Map of Assets and R&I Lines.
- Stable and sufficient funding framework.
- Prioritisation of R&I areas, especially in precision diagnostic procedures and advanced therapies.
- Promotion of R&I in PPM in a network in Castilla y León, both clinical and basic.
- Promotion of a support network from the R&I units, accessible to all centres.
- Promotion of SACyLINNOVA.
- Encouragement of measures to promote R&I developed by professionals.
- Promotion of the participation of professionals in PPM R&I projects.

Translator's note: Sacylinnova is the Innovation Support Unit of the Regional Health Management of Castilla y León.

SL 17: Fostering public-private partnerships in the field of PPM

- Promotion of initiatives such as the CPI or participation in calls for joint projects.
- Collaboration for the promotion of business incubators and accelerators linked to the MPP.
- Organisation of meeting activities between innovation agents, both from the public and private sectors.

SL 18: Favouring the dissemination of information on R&I in relation to PPM

- Inclusion of relevant content on PPM in the R&I Communication Plan of PPM of CyL.
- Promotion of informative and awareness-raising actions to encourage citizen collaboration in R&I projects.

¿QUIÉNES SON LOS AGENTES INVOLUCRADOS NECESARIOS?

	Strategic Axes	Strategic Lines	GDHCH	GDHPRI	GDPPD	GDDH	GDHQI	GDPH
0	STRATEGIC AND Governance Framework	 Establish a governance framework Promote communication and visibility Foster a framework for collaboration and partnerships Encourage the participation of the society 	•	•	•	•	•	•
2	CARE RESOURCES	 5 Promote the development and updating of the portfolio of services. 6 Consolidate a coordinated model of implementation. 7 Analyse resources and infrastructures 	•		•		•	•
3	DIGITAL HEALTH	8 Promote the development of health information systems9 Establish a procedure for secure data processing.				•		
4	QUALITY AND ETHICS	10 Support the development of quality systems 11 Establish an ethical framework 12 Encourage humanisation	•	•			•	
5	TRAINING	13 Promote training in the health field 14 Promote collaboration in the field of undergraduate and postgraduate training 15 Encourage training for the general public	•		•		•	
6	RESEARCH AND INNOVATION	16 Boost R&I 17 Promote public-private collaboration 18 Encourage the dissemination of information on R&I	•	•			•	•

STRATEGIC AND GOVERNANCE

FRAMEWORK

RESULTS AND IMPACTS

INDUCERS

Values: Patient orientation, Ethics, Sustainability, Collaboration, Security, Innovation

HOW ARE WE GOING TO MEASURE IT?

CARE RESOURCES

PEMPPCYL STRATEGIC SCORECARD

The PEMPPCYL will contribute to improving the health outcomes of the population of Castilla y León through the application of the preventive, diagnostic, therapeutic and personalised monitoring approach of precision medicine. In addition, it will favour the generation and clinical translation of new knowledge in PPM by strengthening synergies in the field of research. Innovation will ensure an agile and efficient incorporation of new PPM services into the portfolio of services of the Castilla y León Public Health System, backed by scientific knowledge and technological advances.

In the citizenship	SO4: ENCOURAGE THE PARTICIPATION OF SOCIETY: KPI5 No. of collaborative actions carried out with Patient and Family Associations. KPI6 No. of participants in collaborative actions.	SO15: BOOSTING THE KNOWLEDGE OF THE GENERAL POPULATION KP117 No. of awareness-raising and training actions on PPM specifically aimed at patients and relatives. KP118 No. of attendees at PPM awareness-raising and training actions. SO18: FOSTERING DISSEMINATION KP120 No. of accesses to the PPM web space of the Health Portal of Regional Ministry of Health of the Autonomous Region of Castilla y
In the organisation	SO2: BOOST COMMUNICATION AND VISIBILITY OF THE PPM IN CYL KP12 Average generation of new content in 1 year, aimed at both citizens and professionals.	SO12: FOSTERING HUMANISATION KP114 No. of PROMs and PREMs linked to the PPM.
In management and activity: Processes and projects	KP17 Percentage (%) of genetics tests SYSTEMS	KPI15 No. of hours of continuous training in PPM. KPI16 No. of professionals enrolled in continuing
In systems and capacities: personnel and materials	SO7: ADJUST RESOURCES AND INFRASTRUCTURE KP19 Monitoring and updating of technological needs for the implementation of PPM. KP110 Degree of development of the RAN/MRT. SO3: ESTABLISH NETWORKING FRAMEWORK KP13 No. of collaborative initiatives developed with external actors. KP14 No. of professionals participating in PPM related groups/networks. KP12 No. of data incidents.	
In policies and strategies: Focus and alignment	SO1: ESTABLISH A GOVERNANCE FRAMEWORK KP11 Extent of development of the PPM governance framework.	SO11: CREATE A COMMON ETHICAL UNDERGRADUATE AND POSTGRADUATE FRAMEWORK PROGRAMMES IN HEALTH SCIENCES SO16: PROMOTE R&I KPI19 No. of active R&I projects in PPM per 1.000 professionals with higher education.

QUALITY AND ETHICS

TRAINING

RESEARCH AND INNOVATION

DIGITAL HEALTH

HOW DO WE KNOW WE ARE DOING IT RIGHT?



MONITORING THE EVOLUTION OF THE ACTIONS INCLUDED IN THE DEPLOYMENT

The PEMPPCyL is structured into 6 Strategic Axes (SA) and 18 Strategic Lines (SL) of action, with a total of 58 actions, which will be deployed in the 2024-2030 time horizon. The corresponding specific objective (SO) has been defined for each SL, which guides the actions contemplated in each line.



MONITORING THE PROGRESS OF THE PLAN'S OBJECTIVES AND THE RESULTS AND IMPACTS

Monitoring at strategic level, by means of a scorecard with 20 KPIs, which makes it possible to monitor, using key performance indicators, and the achievement of the set objectives.



MONITORING THE IMPLEMENTATION

Through the specific resources earmarked for the development of the actions and their implementation.

FUTURE OF THE PPM

MULTI-OMICS: A NEW ERA FOR HEALTH

PPM will transform healthcare towards a more individualised and effective approach. With a significant impact on health, it paves the way for a future where prevention, diagnosis, prognosis and treatment are tailored to the unique characteristics of each patient.

POSITIVE IMPACT ON HEALTH

Allows the identification of patients at high risk of disease, facilitating early and personalised interventions, which can reduce the burden of chronic diseases in the population. It has the potential to improve the efficiency of the health system by reducing ineffective treatments and optimising resources.

SUSTAINABILITY OF THE SYSTEM

Successful implementation of PPM depends on the sustainability of its care and financing models. It is vital to establish policies that support ongoing research and training of professionals, ensuring that the system adapts to scientific advances and the requirements of the population.

ABBREVIATION LIST

AI Artificial Intelligence

CSUR National Health System Reference Centres, Services and Units

CyL Castilla y León

EHDS European Health Data Space

EU European Union

GDHCH General Directorate for Health Care and Humanisation

GDDH General Directorate for Digital Health

GDHQI General Directorate for Health Quality and Infrastructure

GDPH General Directorate for Public Health

GDHPRI General Directorate for Health Planning, Research and Innovation
GDPPD General Directorate for Personnel and Professional Development

KPI Key Performance Indicator
LIS Laboratory Information System
MRT Multidisciplinary Reference Teams

NHS National Health System

PC Primary Care

PEMPPCyL Strategic Plan for Personalised Precision Medicine in Castilla y León

PIERCyL Integral Plan for Rare Diseases in Castilla y León

PPM Precision Personalised Medicine
PREM Patient-reported experience measures
PROM Patient-reported outcome measures

R&I Research and innovation

R&D&I Research, Development and Innovation

RAN Reference Assistance Node

SA Strategic Axis

SACYLINNOVA Innovation Support Unit of the Regional Health Management of Castilla y León

SC Specialised Care

SCAYLE Supercomputing Centre of Castilla y León

SHT Specialised Health Training

SL Strategic Line SO Specific Objective

SWOT Strengths, Weaknesses, Opportunities, Threats

