Investigação e Inovação para transformar Portugal

Apresentação das propostas de prioridades estratégicas nacionais

REPÚBLICA PORTUGUESA
ECONOMIA E COESÃO TERRITORIAL

REPÚBLICA PORTUGUESA
EDUCAÇÃO, CIÊNCIA E INOVAÇÃO

ai2 Agência para a Investigação e Inovação

PLANAPP
Centro de Planeamento e de Avaliação de Políticas Públicas

Apoio

CÂMARA MUNICIPAL DE COIMBRA

Proposal for National Priorities for Research and Innovation 2027-2031

A proposal to transform Portugal through science, knowledge and innovation

Maria do Rosário Partidário

IST, ULisboa

REPÚBLICA PORTUGUESA
ECONOMIA E COESÃO TERRITORIAL

REPÚBLICA PORTUGUESA
EDUCAÇÃO, CIÊNCIA E INOVAÇÃO

ai2 Agência para a Investigação e Inovação

PLANAPP
Centro de Planeamento e de Avaliação de Políticas Públicas

Apoio
CÂMARA MUNICIPAL DE COIMBRA

A new strategy for Portugal

Strategic Objective

Promote the **intrinsic value of fundamental and applied research**, expand the country's scientific, technological and innovation development base, accelerate the connection between the National Scientific and Technological System (SNCTI) and the business sector, and foster science- and technology-based entrepreneurship.

The Challenge

Create and transform scientific knowledge into prosperity, productivity and quality of life.

What was strategically assessed?

- Definition of Strategic Domains
- Budget allocation for the AI² pillars: R&D areas, Strategic Domains, and the Innovation Promotion Unit (UPI)

AI² Pillars

R&D Areas

SCIENTIFIC CLASSIFICATION

Categories that organise scientific and technological research according to the OECD FORD classification

6 | **SCIENTIFIC AREAS**

1. Natural Sciences
2. Engineering and Technology
3. Medical and Health Sciences
4. Agricultural and Veterinary Sciences
5. Social Sciences
6. Humanities and arts

Strategic Domains

MISSIONS ORIENTED

Promote productivity and competitiveness through an interdisciplinary nature that integrates scientific, technological, economic and societal challenges.

INNOVATION PROMOTION UNIT

BOTTOM-UP AND COMPETIVE LOGIC

Science- and technology-based innovation that mobilises companies, SNCTI organisations and investment to transform knowledge and technology into innovation, new products, new businesses, and economic and social impact.

FUNDAMENTAL AND APLLIED RESEARCH

A Rigorous and Participatory Methodology

Between February and November 2026, the ST4S methodology guided an inclusive process with broad consultation of the scientific and innovation community, monitored by the OECD and an independent Monitoring Committee.

4.500

Participants

in decentralised workshops and in the Science and Innovation Summit

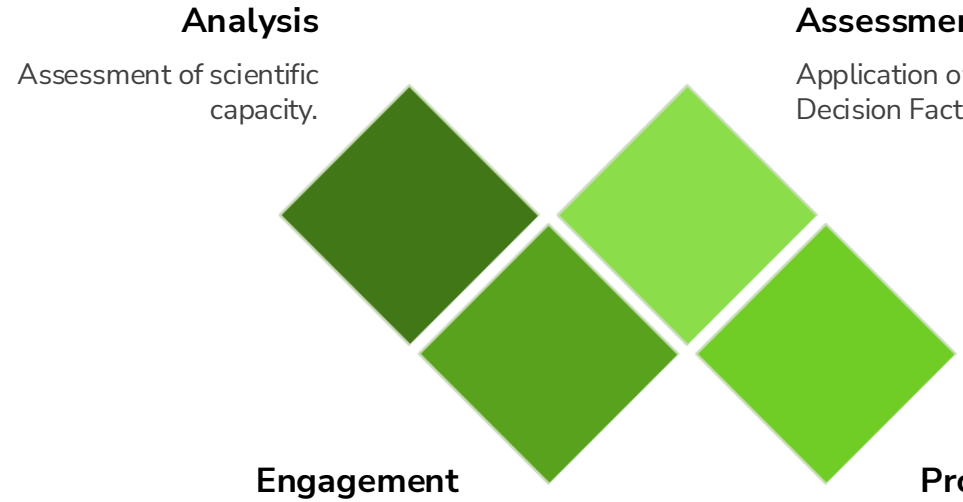
10.000+

Opinions submitted

640

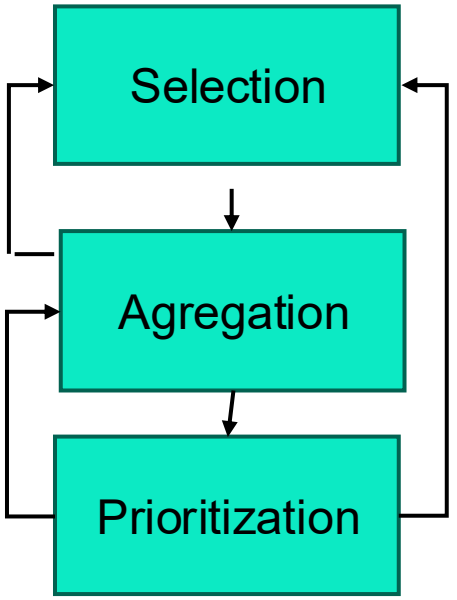
Active users

In AI2Participa platform



Identification and Assessment Process

- Problem framework (Phase 1)
- Trend analysis and international benchmarking
- Bottom-up initiatives
- Reflections and discussions in thematic panels
- Results of decentralised workshops
- Science and Innovation Summit
- Opinions and contributions from SNCTI stakeholders
- Monitoring Committee
- OECD experts
- Analysis of national policies (QRE)



Strategic Assessment Tool

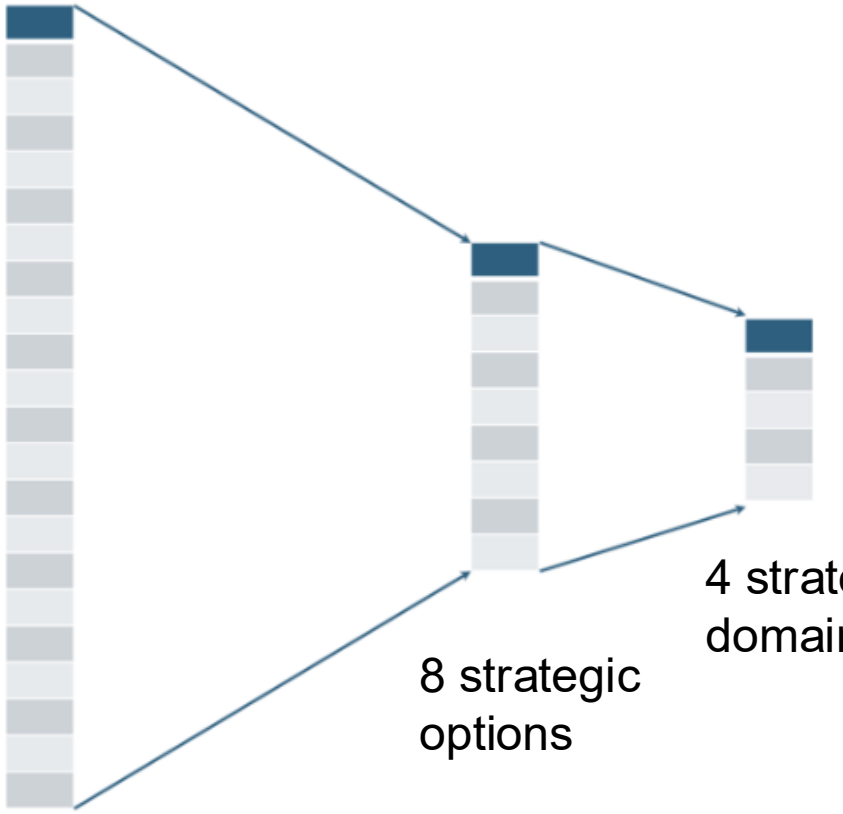
CDF1 Scientific Research Excellence	**CDF2** Science and Innovation as Drivers of Development	**CDF3** Organization and Coordenation of the SNCTI	**CDF4** Stable and Diversified Funding	**CDF5** Human Resources and Infrastructures
Internationally recognised research capabilities and leadership potential	Capacity to generate productivity, competitiveness and societal value	Opportunities to strengthen collaboration and overcome fragmentation	Potential to mobilise diversified public and private investment	Availability of talent, facilities, equipment and capabilities needed for implementation

STRATEGIC DOMAINS

8 Principles for Identifying and Evaluating Strategic Domains

1. Limited number
2. Combination of knowledge, technologies, scientific and business capabilities, societal needs and economic opportunities across multiple sectors and stakeholders
3. Long-term vision with a systemic, cross-cutting and transformative approach
4. Connection to societal challenges
5. Alignment with existing strategic planning instruments
6. European or international leadership position by 2035
7. Value chains
8. Motivation to experiment, integrate and adopt new solutions

Focus



26 bottom-up themes

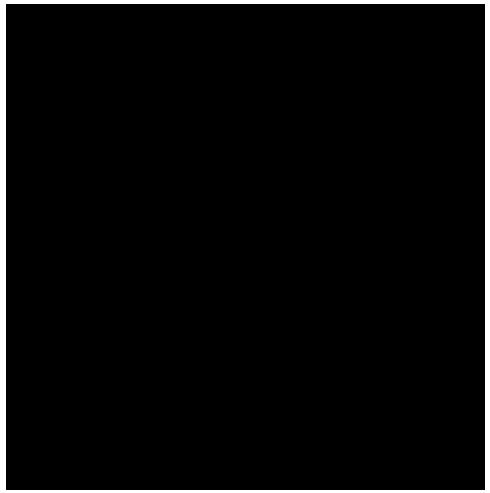
8 strategic options

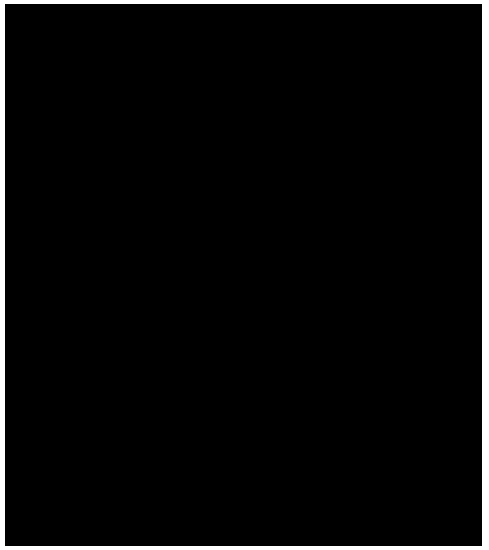
4 strategic domains

4 STRATEGIC DOMAINS

🌿 **VALORIZAR (LEVERAGE)**

Natural Resources,
Energy,
Climate Adaptation,
Territorial Resilience







VALORIZAR (LEVERAGE) - **Ambition**

Preserve and enhance Portugal's endogenous resources and its unique Atlantic and Mediterranean characteristics, while deepening scientific knowledge to generate environmental, social and economic value. Research and innovation will make it possible to understand and sustainably leverage **national endogenous resources**:



Ocean and Marine Sciences

2nd country worldwide in ocean researchers per million inhabitants (UNESCO)

Ocean Economy: **4,3%** national GVA



Bioeconomy, Sustainable Food Systems, Forests and *Montado*

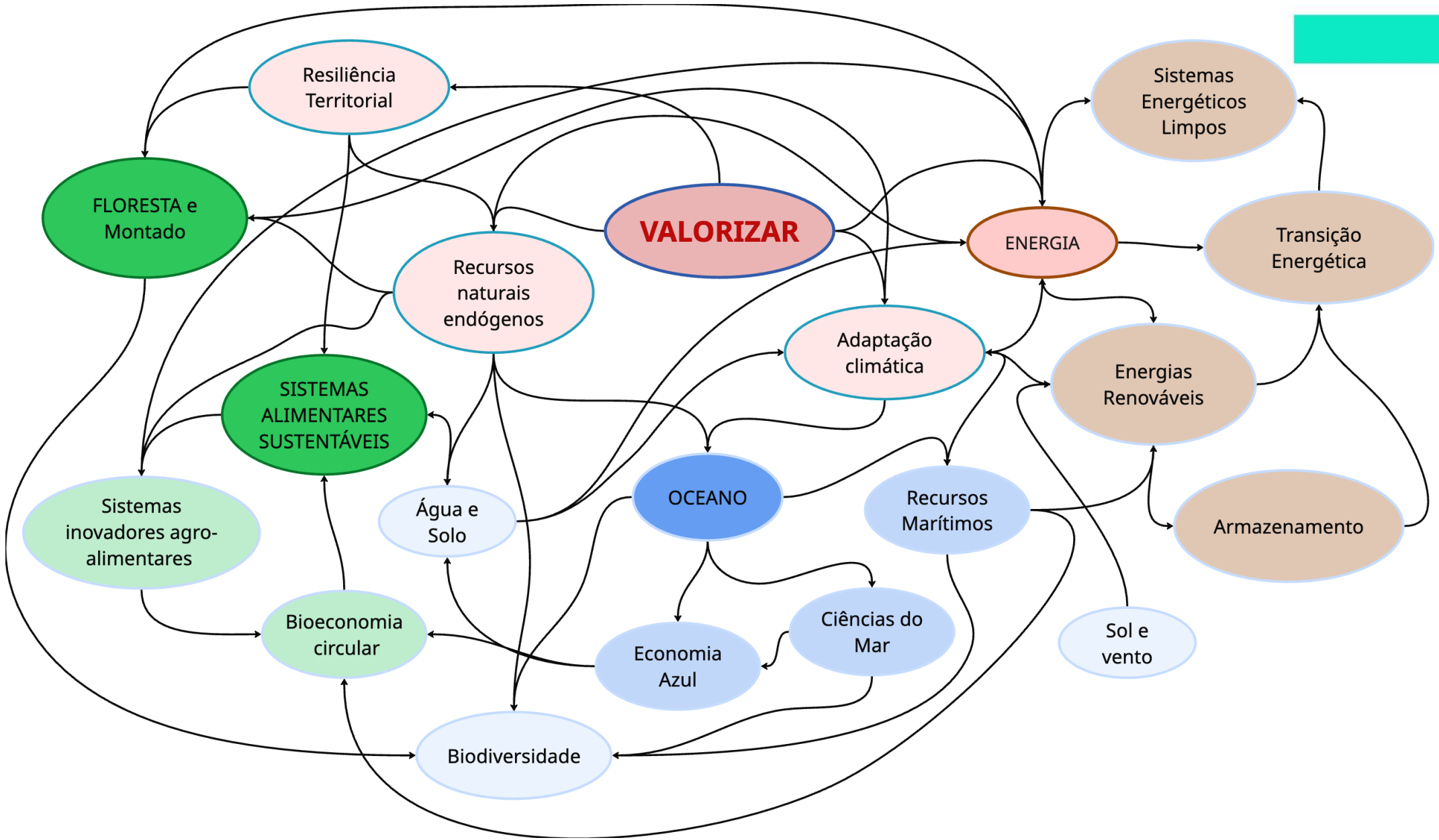
Forestry exports: **6,2 billion €** (7,8% of goods exports, 2025)



Clean and Renewable Energy

75% of national electricity consumption supplied by renewables in 2025

Also addresses water management, climate mitigation and adaptation, biodiversity, territorial resilience, creating opportunities for territorial-based innovation, territorial development and exploring solutions for global challenges.


Resiliência Territorial
Sistemas Energéticos Limpos
FLORESTA e Montado
VALORIZAR
ENERGIA
Transição Energética
Recursos naturais endógenos
Adaptação climática
Energias Renováveis
SISTEMAS ALIMENTARES SUSTENTÁVEIS
Sistemas inovadores agro-alimentares
Água e Solo
OCEANO
Recursos Marítimos
Armazenamento
Bioeconomia circular
Economia Azul
Ciências do Mar
Sol e vento
Biodiversidade

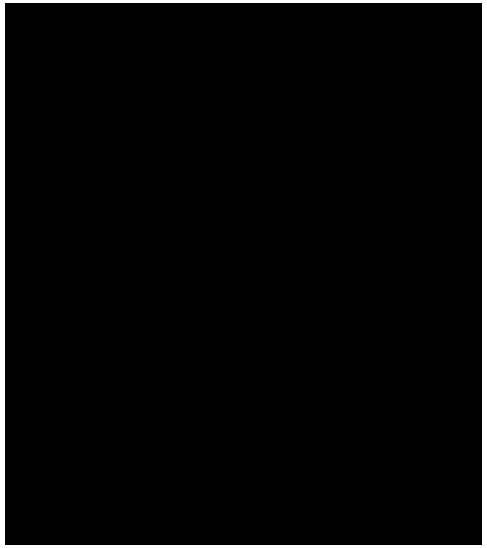
4 STRATEGIC DOMAINS

VALORIZAR (LEVERAGE)

Natural Resources, Energy, Climate Adaptation, Territorial Resilience

ACCELERATE

Digital and Industrial Transformation



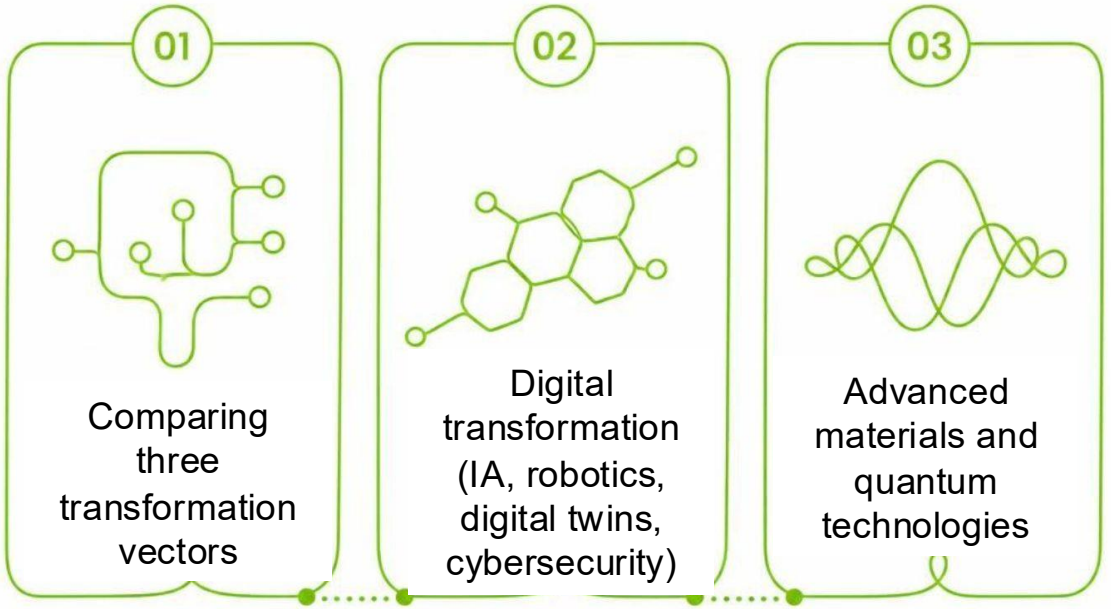


ACCELERATE - **AMBITION**

Deepen and mobilise scientific knowledge in **emerging technologies** to (i) accelerate digital transformation and responsible AI adoption (ii) develop advanced materials and quantum technologies, and (iii) build a more productive and export-oriented economy of goods and services of high intensive technology.

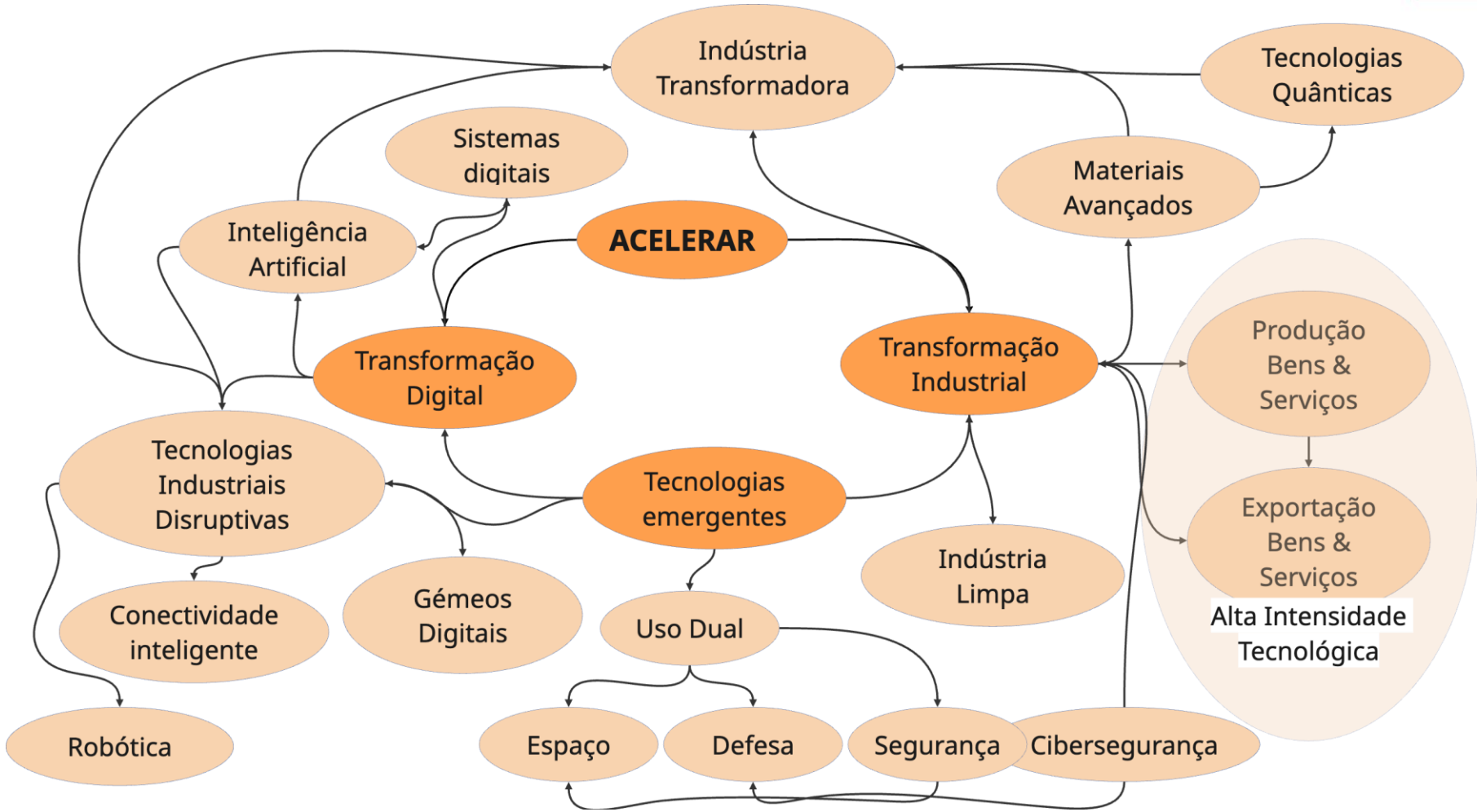
Leverage manufacturing through **disruptive industrial technologies** including: robotics, digital twins, smart connectivity, advanced computing, cybersecurity and secure and trustworthy digital systems, including dual-use applications in security, defence and space.

Translate scientific knowledge in concrete gains in productivity, competitiveness, efficiency, and quality for organizations and public services.



Mobilize emerging technologies to **accelerate the transformation of manufacturing industry**, responsible for **53% of exports** and **730 thousand jobs in** 2024, and modernize Public Administration.

Only **11,5%** of Portuguese companies use AI, below the European average, a gap and an opportunity.


Indústria Transformadora
Tecnologias Quânticas
Sistemas digitais
Materiais Avançados
Inteligência Artificial
ACELERAR
Transformação Digital
Transformação Industrial
Produção Bens & Serviços
Tecnologias Industriais Disruptivas
Tecnologias emergentes
Exportação Bens & Serviços
Indústria Limpa
Conectividade inteligente
Gémeos Digitais
Uso Dual
Alta Intensidade Tecnológica
Robótica
Espaço
Defesa
Segurança
Cibersegurança

4 STRATEGIC DOMAINS

VALORIZAR (LEVERAGE)

Natural Resources,
Energy,
Climate Adaptation,
Territorial Resilience

ACCELERATE

Digital and
Industrial
Transformation

HABITAR (INHABIT)

Housing,
Mobility,
Smart Cities



HABITAR (INHABIT) - **Ambition**

Research and innovation create **opportunities for built environment and mobility**: smart cities, critical infrastructures, energy and water grids and networks, other crucial urban services, **urban rehabilitation and regeneration**, sustainable and resilient construction, industrial construction, low carbon materials, building energy efficiency and smart mobility. Promote more efficient and **sustainable construction methods**, addressing one of the greatest challenges facing society today. Contribute to well-being and productivity through urban organization, services, the quality of the built environment, mobility, and public policies.

Serving as anchors for the **population's well-being and for economic productivity**:



Decent Housing

Portugal has one of the lowest rates of public/social housing in the EU



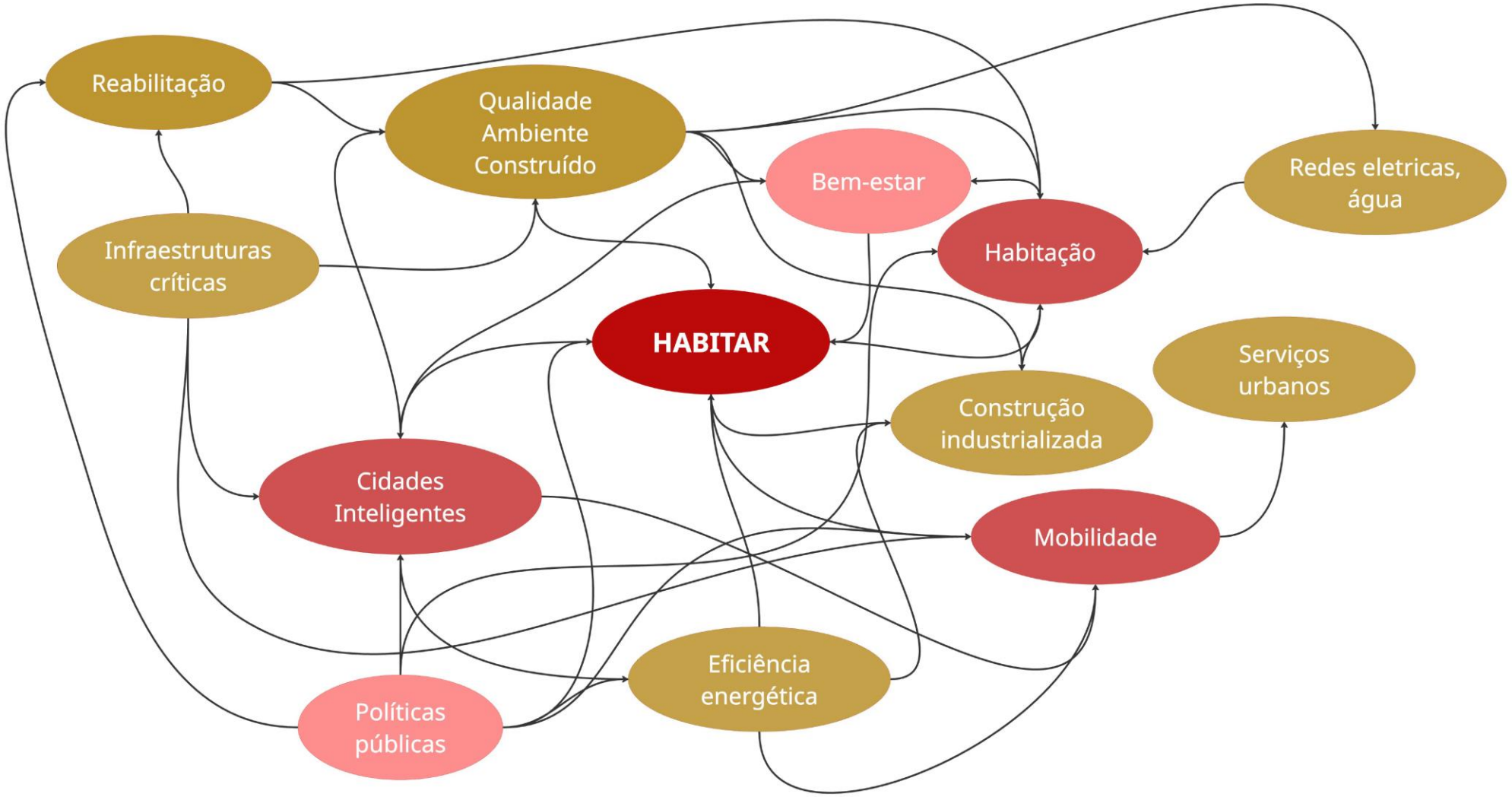
Industrialized Construction

Automation, modular production and advanced materials for greater productivity



Smart Mobility

Intelligent transport systems and electrification for more sustainable cities


Reabilitação
Qualidade Ambiente Construído
Bem-estar
Redes eletricas, água
Infraestruturas críticas
Habitação
HABITAR
Serviços urbanos
Construção industrializada
Cidades Inteligentes
Mobilidade
Eficiência energética
Políticas públicas

4 STRATEGIC DOMAINS

VALORIZAR (LEVERAGE)

Natural Resources,
Energy,
Climate Adaptation,
Territorial Resilience

ACCELERATE

Digital and
Industrial
Transformation

HABITAR (INHABIT)

Housing,
Mobility,
Smart Cities

VIVER MELHOR (LIVE BETTER)

Health,
Life Sciences,
Longevity

An interdisciplinary and interministerial framework to mobilise scientists, companies, public decision-makers and citizens.

LIVE BETTER - **Ambition**

Promote longer, healthier and more active lives, enhancing **people's well-being, autonomy, and quality of life**. Address the challenges of aging, chronic diseases, mental health, and inequalities in access to care through scientific research that enables a better understanding of health and disease, and the development of new solutions for prevention, diagnosis, treatment, and rehabilitation.

Biomedical and Clinic Research
Advance discoveries in prevention and treatment

Care Innovation
New technologies and integrated care models



Personalised Medicine
Healthcare tailored to genetic and clinical profiles

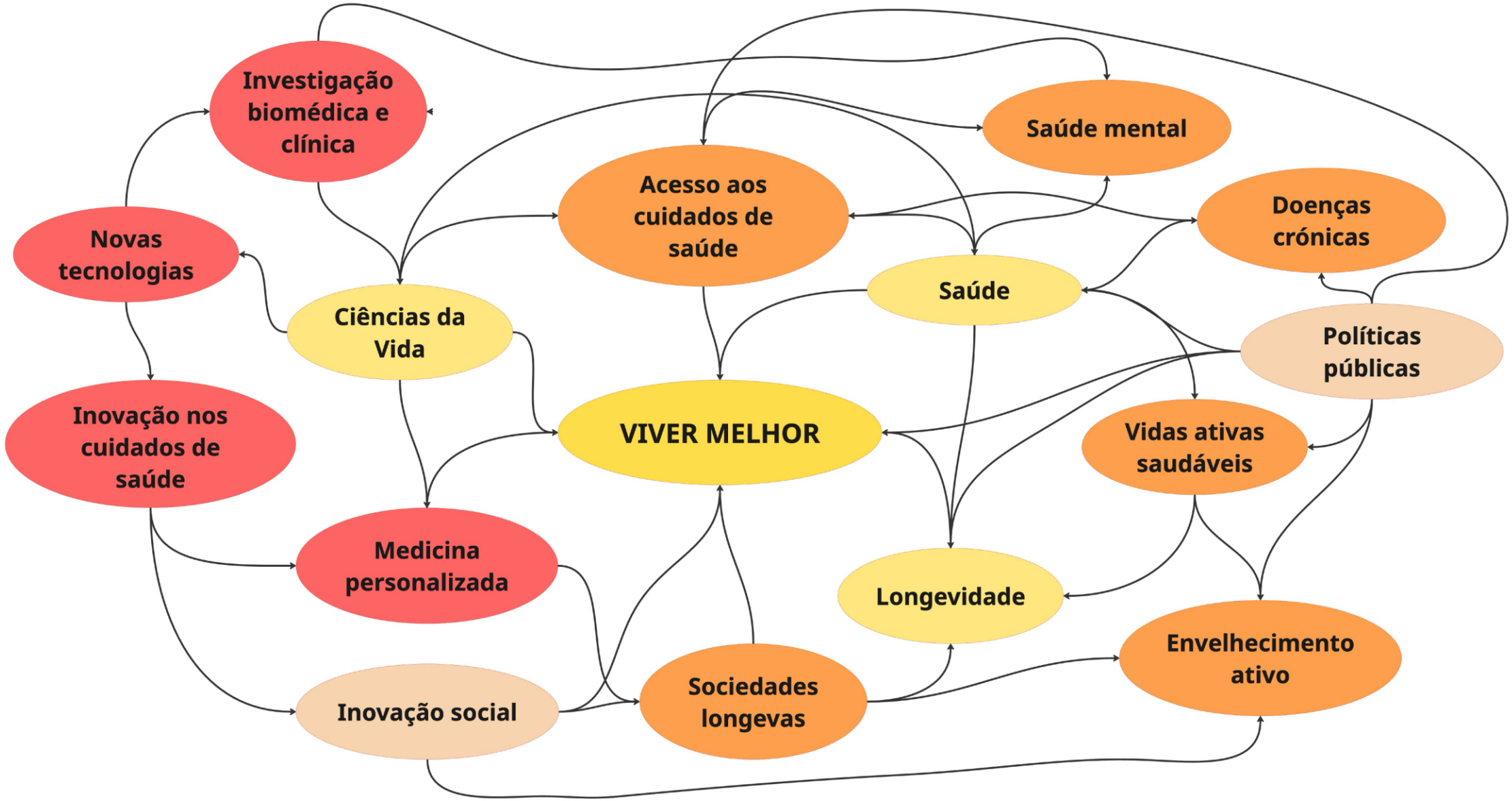
Healthy Longevity
Promotion of active and preventive lifestyles

Promote an integrated approach to healthy longevity and long-lived societies, combining scientific and technological advancements with new care models, social innovation, and public policies.

41% of ERC funding
Obtained by Portugal in life sciences (2019–2025)

24,3% of population ≥ 65 yrs
One of the countries with the oldest population in Europe

22,9% prevalence of mental disorders
And more than 60 thousand new cancer cases in 2022


Investigação biomédica e clínica
Saúde mental
Acesso aos cuidados de saúde
Doenças crónicas
Novas tecnologias
Saúde
Ciências da Vida
Políticas públicas
Inovação nos cuidados de saúde
VIVER MELHOR
Vidas ativas saudáveis
Medicina personalizada
Longevidade
Envelhecimento ativo
Inovação social
Sociedades longevas

BUDGET ALLOCATION

9 Principles for Budget Allocation

1. Priority to science and capacity-building across all scientific fields (Pillar I)
2. Differentiation and complementarity of funding sources
3. Differentiated proportion of public funding
4. Indicative balance among the three pillars
5. Flexible achievement of targets from a multiannual perspective
6. Balanced, merit-based allocation among strategic domains (Pillar II)
7. Support for interdisciplinary and cross-domain initiatives (Pillar II)
8. Strategic flexibility and merit reserve across the three pillars
9. Excellence as the fundamental principle of AI² funding

BUDGET ALLOCATION

Indicative ranges

Pillar I

35-45%

Scientific research across all disciplines, with annual growth in absolute terms.

Pillar II

30-40%

Minimum 15% per strategic domain; 10% reserved for interdisciplinary initiatives.

Pillar III

25-35%

Innovation Promotion Unit, supported by national, European and private funds

10% strategic reserve for exceptionally meritorious initiatives and a five-year multiannual assessment cycle

BUDGET ALLOCATION

Average proportion of public funding :

100% in Scientific Areas (Pillar I),
Up to 70% in Strategic Domains (Pillar II) and
Up to 50% in the Innovation Promotion Unit (Pillar III).

From Priorities to Real Impact

The next challenge is to translate this framework into concrete programs, stronger partnerships, and measurable results, mobilizing all public policy instruments.



The ambition is to strengthen research and innovation and transform Portugal's knowledge, talent and distinctive advantages into solutions for national challenges with global reach that improve people's lives.

Next Steps

Public consultation 16 - 23 november, available on ai2participa.pt

Council of Ministers Resolution (RCM)
Council of Ministers (CM)
Mission Charter
Programme Contract effective from 1 January 2027, defining implementation instruments

Public consultation 16 - 23 november, available on ai2participa.pt by the end of the afternoon:

- Final Report
- Supplementary Engagement and Public Consultation Report
- Supplementary Monitoring & Evaluation Report

Muito obrigada.

REPÚBLICA PORTUGUESA
ECONOMIA E COESÃO TERRITORIAL

REPÚBLICA PORTUGUESA
EDUCAÇÃO, CIÊNCIA E INOVAÇÃO

ai2 Agência para a Investigação e Inovação

PLANAPP
Centro de Planeamento e de Avaliação de Políticas Públicas

Apoio

CÂMARA MUNICIPAL DE COIMBRA