REPÚBLICA PORTUGUESA
SAÚDE

SNS SERVIÇO NACIONAL DE SAÚDE

Instituto_Nacional de Saúde
Doutor Ricardo Jorge

ACTIVITY REPORT

2024

1899 · 2024
125_ANOS
INSTITUTO RICARDO JORGE

Instituto_Nacional de Saúde
Doutor Ricardo Jorge

TECHNICAL FILE

TITLE	ACTIVITY REPORT 2024
VERSION	This document is a translation of specific chapters from the official report
AUTHOR	Instituto Nacional de Saúde Doutor Ricardo Jorge, IP – INSA
COORDINATION	Chairman of the Board of Directors: Fernando de Almeida Member of the Board of Directors: Cristina Abreu dos Santos
ELABORATION	Strategic Planning and Organisational Development Area: Patrícia Rama
COLLABORATION	All Organic Units of INSA
IMAGES	Communications, Marketing and External Relations Pedro Sadio / Health Museum Ricardo Cordeiro / Health Museum Rodrigo Jorge / Health Library
DATE	June 2025

CONTENTS

Tables Index

Graphs Index

I. INTRODUCTORY NOTE

The activity report of the National Institute of Health Doutor Ricardo Jorge (INSA) summarises the main initiatives, actions and projects developed throughout 2024.

The main goal of this document is to assess the achieved results, systematise the relevant information and identify the main challenges. It also reflects the collaborative work between the different technical-scientific departments and other organisational and functional units of the Institute. In addition, the following specific objectives stand out:

- Evaluate the implementation of the Assessment and Accountability Framework and the 2024 Activity Plan, within the framework of the strategic objectives defined in the 2024-2026 Strategic Plan, by measuring the achievement degree of the defined operational objectives;
- Provide institutional information on budget execution, including the allocation of human, financial and technical resources;
- Present quantitative and qualitative data on the essential functions of the Institute, the Technical-Scientific Departments, the Health Museum, the Doping Analysis Laboratory, the Service Directorates and the Management Support Areas.

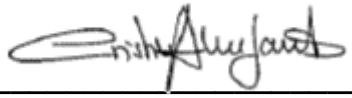
As a State Laboratory and National Reference Laboratory, the Institute has structured itself on a model of multiplicity and interdependence of its essential functions - Research & Development, health observation/epidemiological and laboratory surveillance, reference laboratory, training of human resources, promoting scientific culture and providing services, contributing to scientific progression and population well-being.

In the year commemorating its 125th anniversary, as a motto for evoking Ricardo Jorge's legacy and strengthening INSA's role, we highlight the award of Ricardo Jorge Public Health Prize, the presentation of the book "INSA: 125 anos de compromisso com a saúde" (INSA: 125 years of commitment to health), as well as a series of initiatives aimed at highlighting the areas of activity and the work carried out.

This recognises the institution's activity in responding to the challenges of public health, based on its mission of leadership in health, research and the development of new technologies and practices, not only at national level, but also in positively influencing global health. The collaborations developed with international organisations, with the countries of the Community of Portuguese Speaking Countries and the participation in research networks, demonstrate the consolidation of the institution on the international scene.

On the other hand, the commitment of INSA's professionals was continually recognised, with the promotion of their differentiation and valorisation, as well as the commitment to improving the environment and well-being at work. In addition, investment in quality management systems and certification of the services provided was maintained, combined with a sustained vision of our activities, and the modernisation of physical and technological infrastructures was prioritised.

The year 2024 culminated with a new challenge, namely the beginning of the integration of Regional Public Health Laboratories into INSA - Aveiro, Braga, Évora, Faro and Leiria - as territorially deconcentrated services, reinforcing, in accordance with the criteria of complementarity and subsidiarity, the development of the core competences of those Laboratories and the public health laboratory support network, optimising existing resources and improving the quality of the service provided. This new assignment encourages us to plan for the future and to follow innovative paths in promoting public health and the citizens well-being.

The Chairman of the Board of Directors	The Member of the Board of Directors
	
(Fernando de Almeida)	(Cristina Abreu Santos)

1. CHARACTERISATION OF INSA

1.1. INSTITUTIONAL IDENTITY AND HISTORICAL MILESTONES

INSTITUTIONAL IDENTITY

INSA is based on an institutional identity characterised by the application of four strategic concepts: Mission, Vision, Purpose, Values and Motto.

MISSION

[What do we do?]

Contribute to gains in public health, as a State Laboratory and National Reference Laboratory

Through research and technological development activities, reference laboratory activity, health observation and epidemiological surveillance, as well as coordinating the external evaluation of laboratory quality, disseminating scientific culture, fostering capacity building and training, and ensuring the provision of differentiated services

VISION

[How do we want to be recognised?]

Reference institute in the health system in the field of differentiated laboratory response, research, observation and surveillance, innovation and quality, guaranteeing systematic and sustainable governance for the benefit of the entire population

PURPOSE

[Why our Mission?]

A commitment to people's health

VALUES

[What are our principles?]

Scientific rigour and innovation | Contribute to scientific and technological progress by fostering an environment that facilitates the development of innovative solutions based on scientific rigour.

Commitment and Quality | Ensuring credibility in our work, prioritising the benefit of citizens and society, as well as work focused on quality, efficiency and safety.

Dedication and Responsibility | Putting individual skills at the service of the institution and taking responsibility for the challenge of excellence in the different areas of activity.

Professionalism and Collaboration | Acting in a competent, impartial, rigorous, loyal and collaborative manner in order to maximise internal and external synergies.

MOTTO

[What's our slogan?]

The National Institute of Reference in Health

MAIN HISTORICAL MILESTONES

1899 Founded in 1899 as the Central Hygiene Institute by the medical doctor and humanist Ricardo Jorge

1929 In honour of its founder, it was renamed the Doutor Ricardo Jorge Central Hygiene Institute.

1945 Due to the reorganisation of the Social Assistance Services, it is integrated into the Ministry of the Interior and designated the Doutor Ricardo Jorge Higher Institute of Hygiene.

1951 The National Institute of Health Doutor Ricardo Jorge is created to replace the Doutor Ricardo Jorge Higher Institute of Hygiene. The law also determines the integration of the National Influenza Centre, the Paramyloidosis Study Centre and the Malariology Institute of the Águas de Moura Rural Hygiene and Anti-Malaria Defence Services into the National Institute of Health.

After the "Health Services Reform" and with the definition of a health policy for the country, the National Institute of Health Doutor Ricardo Jorge was integrated into the Ministry of Health and Welfare.

1954 The Porto branch of the Doutor Ricardo Jorge Higher Institute of Hygiene was created in 1954, with Prof. Gonçalves Ferreira as its founder.

1972 Decree no. 35/72 of 31 January was promulgated by the President of the Republic, approving the Regulations of the National Institute of Health Doutor Ricardo Jorge (INSA).

1973 Inauguration of the current INSA headquarters building in Lisbon.

The Centre for the Study of Malaria and Parasitology was created, heir to the Institute of Malariology (1938), with its scope and attributions expanded in 1987 (Centre for the Study of Zoonoses) and reformulated in the 1990s, receiving its current name of Centre for the Study of Vectors and Infectious Diseases (CEVDI).

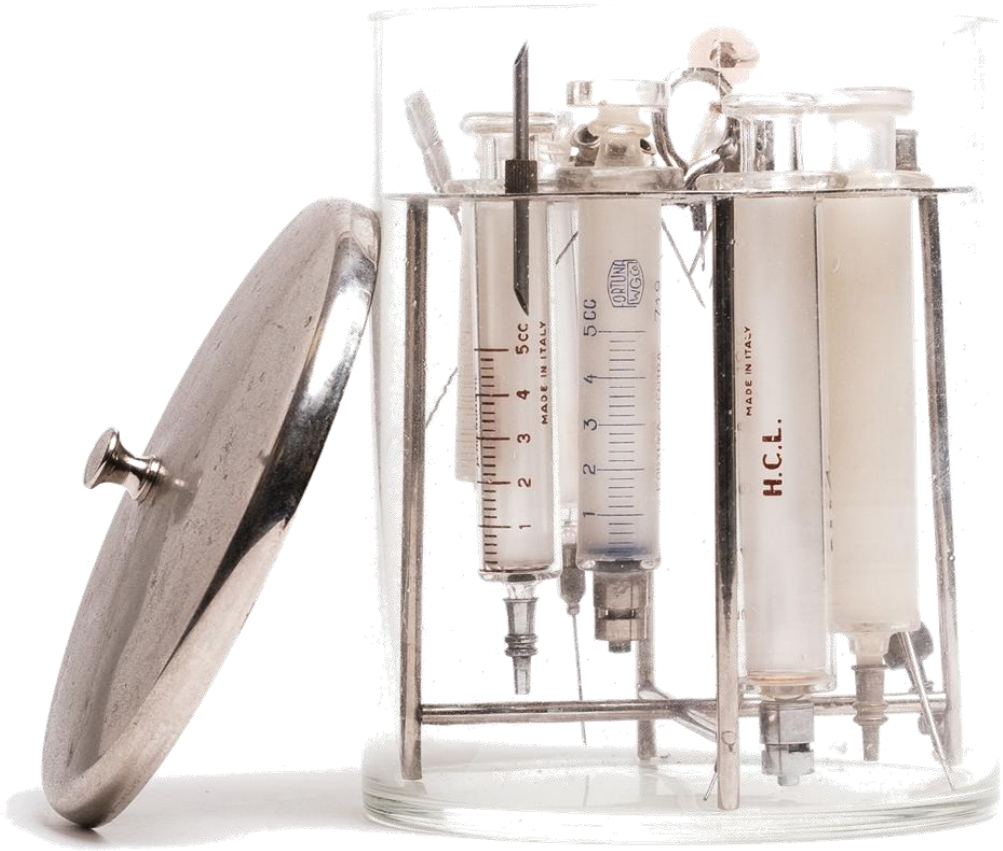
1993 INSA's organisational structure was published, which gave it financial autonomy and entrusted it with new tasks, such as carrying out quality assurance programmes applied to laboratory practice.

2006 The guiding and structuring assumptions of the reform process for state laboratories were solidified in a Ministers Council Resolution.

2007 INSA's new organic law approved and published, strengthening its role in scientific research and experimental development in health sciences and, in particular, in biomedical sciences, as well as other missions, namely those of reference laboratory, national health observatory and community service provider.

It should be noted that in the sector of training and dissemination of scientific culture, INSA is responsible for setting up and running the Health Museum.

2007	The Porto branch is renamed the Public Health Centre Doutor Gonçalves Ferreira - in honour of its founder. Installation and management of the Health Museum (heir to the Hygiene Museum), as an institution of the Ministry of Health, managed by INSA, with national heritage competences, with the mission of preserving the historical, scientific, social, cultural and anthropological heritage of health, being responsible for the inventory, classification and research of heritage assets and the conservation of the historical heritage of health.
2009	Inauguration of the new facilities of the Centre for the Study of Vectors and Infectious Diseases Doutor Francisco Cambournac (CEVDI) in Águas de Moura.
2011	The approval of the Plan for the Reduction and Improvement of the State's Central Administration - PREMAC, together with the commitment to efficiency, laid the foundations for a new INSA organisation. The current Organic Law of the Ministry of Health has defined INSA's mission, duties and management structure, with a view to its reorganisation.
2012	On 8 February 2012, Decree-Law 27/2012 approved INSA's Organic Law, defining it as a public institute, endowed with scientific, administrative and financial autonomy, with its own assets, which is part of the Ministry of Health's services under indirect state administration, subject to the supervision and tutelage of the Minister of Health. This Organic Law classified INSA as a laboratory of national strategic interest, a state laboratory in the health sector, a national reference laboratory and a national health observatory.
2013	On 28 August 2013, the internal regulations were published (Regulation no. 329/2013), which define the current organisation, functioning and discipline of the institution's work.
2016	The Ministry of Health has allocated the headquarters of the Health Museum on Santana Hill, in the complex made up of the former Neurosurgery Services.
2019	Accreditation of the Health Museum by the Directorate-General for Cultural Heritage as a museum of the Portuguese Museum Network.
2022	In the course of 2022, INSA's organic law underwent changes due to the integration of the Doping Analysis Laboratory (LAD). Decree-Law no. 35/2022 of 20 May thus integrated the LAD into the INSA and, at the same time, amended Law no. 81/2021 of 30 November, which approves the anti-doping law in sport. This integration of the LAD into a reference laboratory consolidates Portugal's efforts in the fight against doping, reinforcing the country's image as a state that defends sporting truth and guaranteeing that the laboratory complies with the International Standard for Laboratories of the World Anti-Doping Agency (WADA).


MADE IN ITALY
5cc
H.C.L.
MADE IN ITALY

1.2. Internal Structure, Duties and Organisational Structure

Where we are

LISBON	Head Office Doping Analysis Laboratory (LAD) Health Museum (MuS)	PORTO	Doutor Gonçalves Ferreira Public Health Centre (CSPGF)
ÁGUAS DE MOURA	Centre for the Study of Vectors and Infectious Diseases Doutor Francisco Cambournac (CEVDI)		

Essential functions

INSA fulfils its mission and duties by carrying out various activities that are reflected in the following core functions:

DUTIES

INSA's duties are set out in the Organic Law, approved by Decree-Law no. 27/2012, of 8 February, amended by Decree-Law no. 35/2022, of 20 May, as described below:

a) Promoting and developing scientific research activities geared towards public health needs, carrying out the scientific, operational and financial management of research programmes in the public health sector;
b) Promoting the training of researchers and technicians, as well as actions to disseminate scientific culture from a health in all policies perspective;
c) Promoting, organising and coordinating evaluation programmes, within the scope of its remit, namely the external evaluation of laboratory quality and collaborating in the evaluation of the installation and operation of laboratories working in the health sector;
d) Promoting, organising and coordinating health observation programmes through, in particular, environmental and biological monitoring studies (biosurveillance) of potentially toxic substances, with a view to assessing the exposure of the population or specific population groups to these substances, carried out for the purpose of developing disease prevention and control plans;
e) Ensuring technical and regulatory support for public health laboratories;
f) Providing specialised assistance in medical genetics for prevention and diagnosis, in laboratory services;
g) Planning and implementing the national early diagnosis programme;
h) Collaborating in carrying out epidemiological surveillance activities of communicable and non-communicable diseases, and develop or validate health observation tools, namely through laboratory data, within the scope of information systems, namely ensuring the production and dissemination of public health statistics, and promoting the necessary technical studies, without prejudice to the attributions of the Directorate-General for Health and the Central Administration of the Health System in this matter;
i) Ensuring the laboratory response in the event of a biological emergency of natural, accidental or deliberate origin, without prejudice to the coordination of the Directorate-General for Health in terms of the appropriate response to public health emergencies;
j) Monitoring the consumption of additives and the exposure of the population to contaminants and other potentially harmful substances present in food, including food ingredients whose level of intake could jeopardise the health of consumers;
l) Ensuring the collection, compilation and transmission to the Directorate-General for Agriculture and Veterinary Science for the purposes of communication to the European Food Safety Authority of analytical data on the composition, including contaminants and other chemical substances, of food and animal feeding products;
m) Evaluating the implementation and results of the Ministry of Health's policies, National Health Plan and health programmes;
n) Developing national and international co-operation actions, of a bilateral or multilateral nature, within the scope of its duties, without prejudice to the Ministry of Foreign Affairs' own competences, in conjunction with the Directorate-General for Health as the entity responsible for co-ordinating the Ministry of Health's international relations;

o) Providing paid services, including scientific and technical advisory, to organisations in the public, private and social sectors, at national and international level, in the areas within its remit;
p) Establishing scientific prizes and scholarships for carrying out R&D activities, as an incentive for scientific and technical training;
q) Managing and promoting the Health Museum;
r) Ensuring the laboratory response to control and combat doping in sport, as a Doping Analysis Laboratory.

ORGANISATIONAL AND INTERNAL STRUCTURE

The following are INSA bodies:

- The Board of Directors, the body responsible for managing, planning, coordinating and evaluating INSA's activities, as well as directing the respective services, in accordance with the law and government guidelines;
- The Statutory Auditor, who is appointed and has the competences laid down in the framework law on public institutes;
- The Guidance Council, the body responsible for ensuring that various government departments, the scientific community and the economic and social sectors liaise effectively with INSA's activities;
- The Scientific Council, the body responsible for assessing and monitoring INSA's scientific research and technological development activities;
- The Monitoring Unit, which carries out evaluation and internal counselling functions, in accordance with the parameters defined by INSA's Board of Directors;
- The Joint Committee, which advises on INSA's annual activity plan and report, as well as on labour issues, namely work organisation and safety, vocational training, health and safety at work and social action.

The following table shows the responsibilities of the Technical-Scientific Departments, the Health Museum, the Doping Analysis Laboratory and the Research, Management and Administration Support Services, namely the Service Directorates.

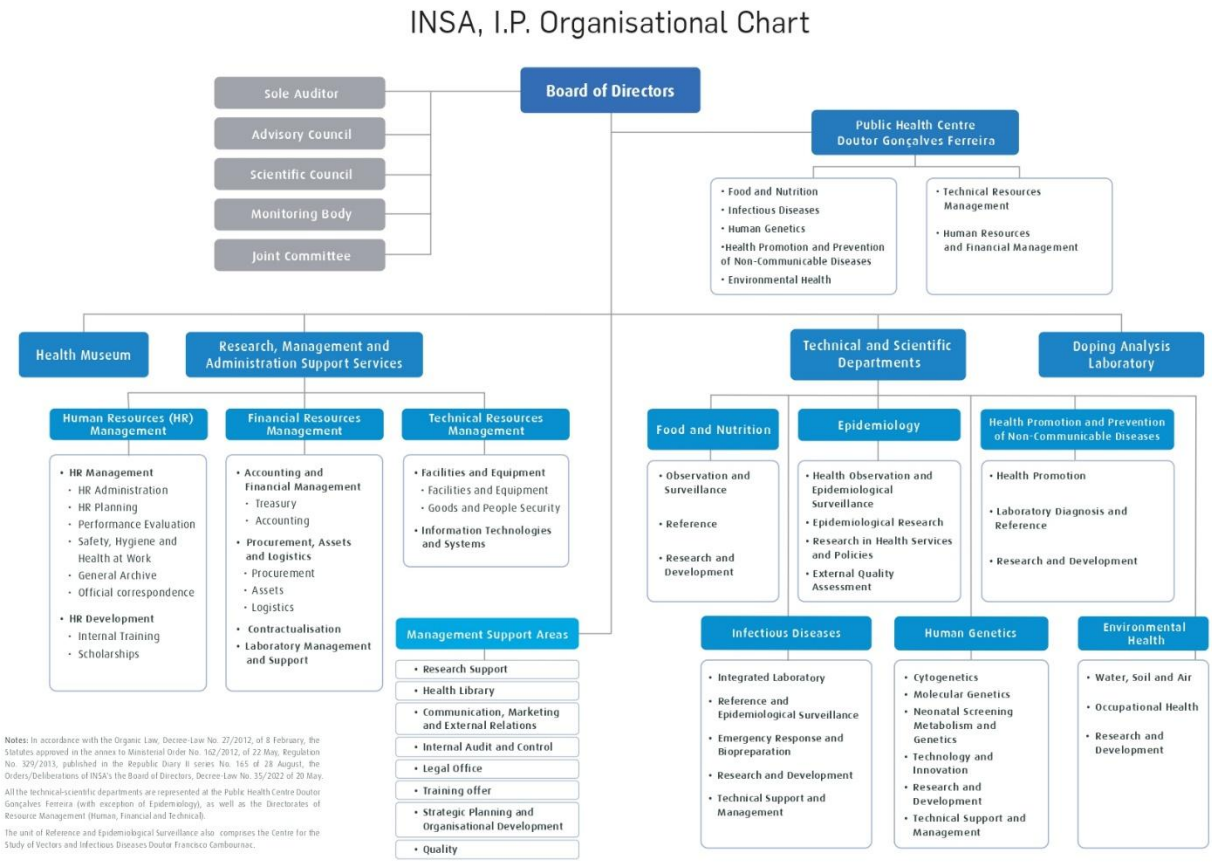
Table 1- Tasks of the Organisational Units

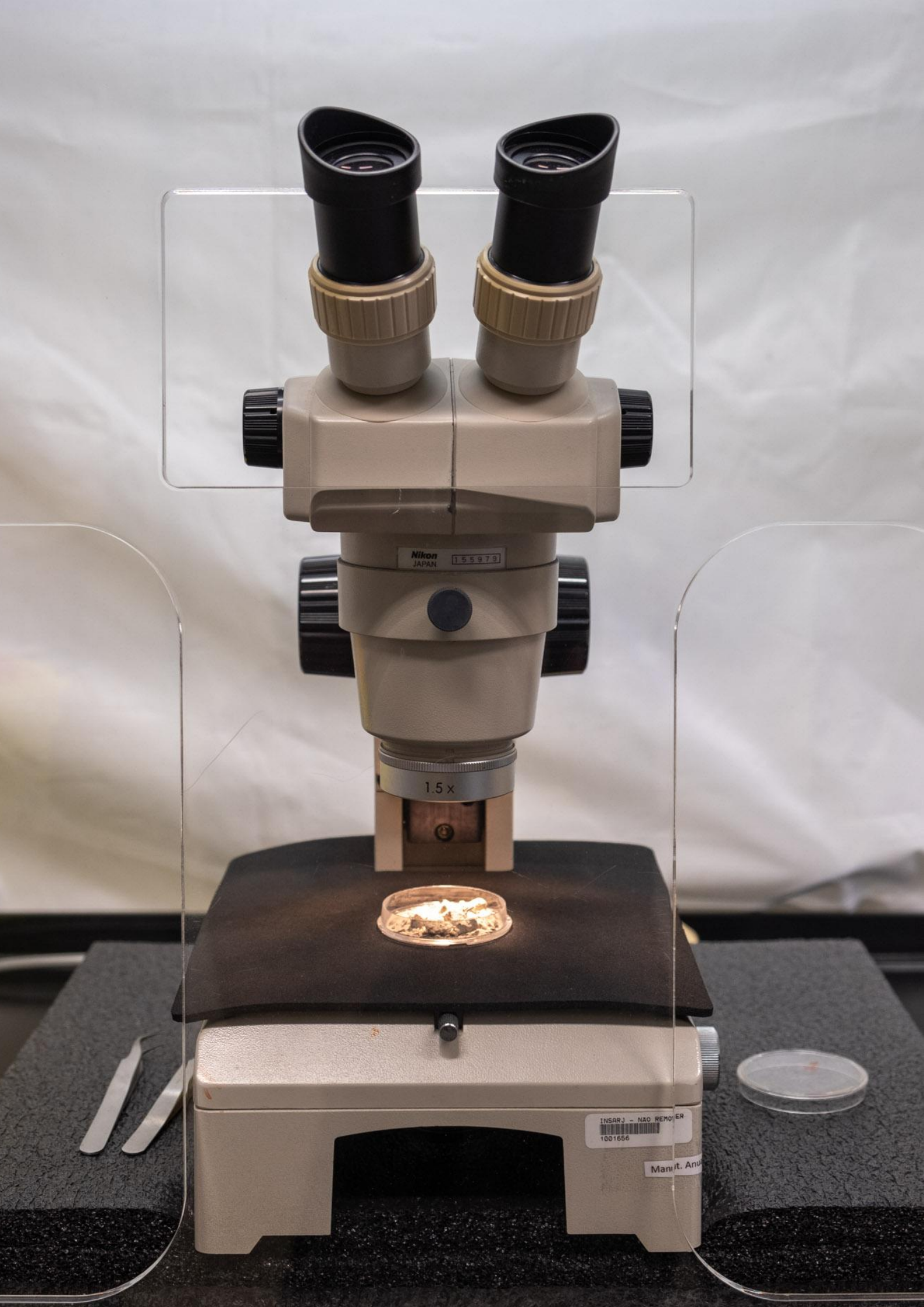
ORGANISATIONAL UNITS	DUTIES
FOOD AND NUTRITION DEPARTMENT (DAN)	• Develops activities in the areas of food safety, toxicology and risk assessment, food composition, food and nutrition, lifestyles and impact on health, through research and development, surveillance, reference, provision of differentiated services, training, information and consultancy
INFECTIOUS DISEASES DEPARTMENT (DDI)	• Carries out activities in the areas of various microbiological agents and their immunology, ensures the laboratory response to emergencies of biological origin and carries out studies on vectors and infectious diseases, integrating the Centre for the Study of Vectors and Infectious Diseases Doutor Francisco Cambournac
EPIDEMIOLOGY DEPARTMENT (DEP)	• Develops activities in the fields of applied epidemiology and biostatistics, including epidemiological surveillance and healthcare research
HUMAN GENETICS DEPARTMENT (DGH)	• Develops activities in the field of genetic determinants of health and disease, namely through epidemiological, clinical, cytogenetic, biochemical or molecular genetic approaches, and ensures the planning and implementation of the national early diagnosis programme
HEALTH PROMOTION AND PREVENTION OF NON-COMMUNICABLE DISEASES DEPARTMENT (DPS)	• Carries out research and monitoring activities on health determinants and risk and protection factors for non-communicable diseases, as well as capacity building and health literacy
ENVIRONMENTAL HEALTH DEPARTMENT (DSA)	• Develops activities in the area of interaction between health and the environment, namely by carrying out environmental and biological monitoring studies (biosurveillance) of potentially toxic substances, with a view to assessing the exposure of the population or specific population groups to these substances
DOPING ANALYSIS LABORATORY (LAD)	• Aims to consolidate Portugal's efforts in the fight against doping, reinforcing the country's image as a state that defends sporting truth and ensuring that the laboratory complies with the International Standard for Laboratories of the World Anti-Doping Agency (WADA)
HEALTH MUSEUM (MUS)	• Aims to preserve the memory of the health services by registering, inventorying, classifying, conserving, exhibiting and disseminating the museum collection
HUMAN RESOURCES MANAGEMENT DEPARTMENT (DGRH)	• Ensures the procedures relating to the following sectors: human resources management, which comprises the administrative, planning, performance evaluation, occupational health and safety, general archives and dispatching areas; and the human resources development sector, which comprises the internal training and grants areas
FINANCIAL RESOURCES MANAGEMENT DEPARTMENT (DRF)	• Ensures procedures relating to the financial management and accounting sector, which includes the treasury and accounting areas, the procurement, assets and logistics sector, the contractualisation area and the laboratory management and support sector
TECHNICAL RESOURCES MANAGEMENT DEPARTMENT (DRT)	• Ensures the procedures relating to the facilities and equipment sector, which includes the facilities and equipment areas and the area of security for people and goods, the technology and information systems sector

The following specialised technical support areas or sectors are functionally dependent on the Board of Directors: Research Support; Health Library; Communication, Marketing and External Relations; Internal Control and Audit; Training Offer; Strategic Planning and Organisational Development; Quality and Legal Sector.

1.3. ORGANISATIONAL CHART

Table 2- INSA organisational chart




Nikon
JAPAN
155979
1.5 x
INSARJ - NAO REMOVER
1001656

II. SELF-ASSESMENT

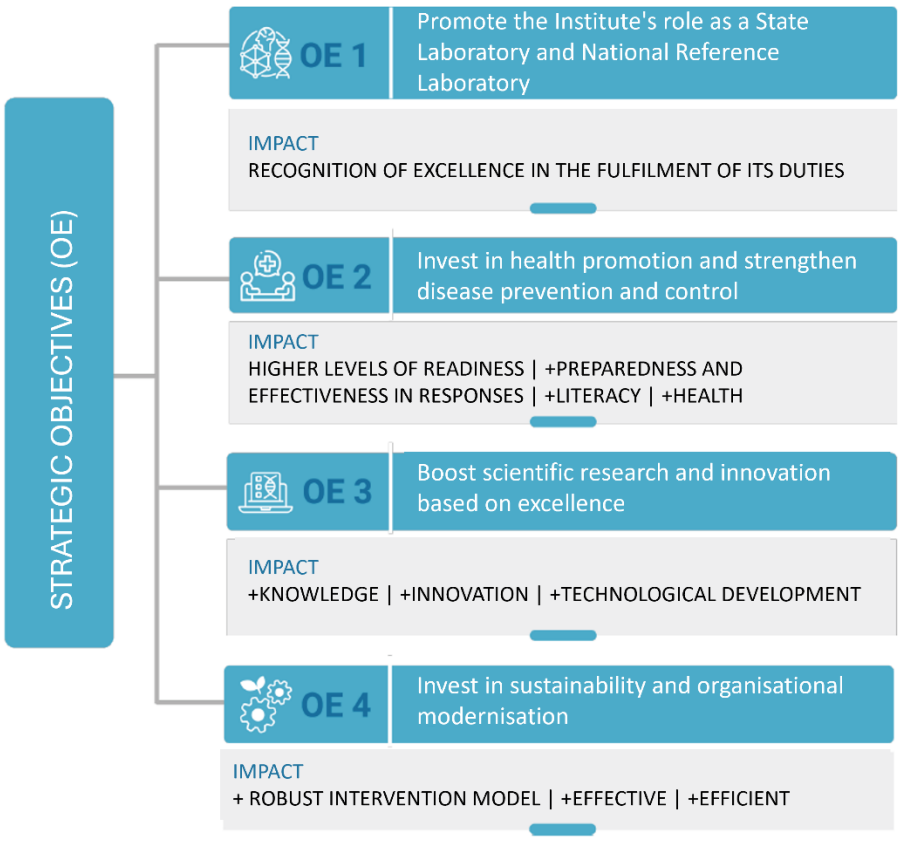
1. Strategic and Operational Objectives

1.1 Strategic Objectives

Four Strategic Objectives (OE) have been established, which constitute the institution's major commitments, approved under the 2024-2026 Strategic Plan.[1]

For each strategic objective, an attempt was made to clarify the expected impact, as well as to define the respective lines of action, aiming to strengthen organisational unity and identity and the desirable ambition of making available resources and existing capacities compatible with the projection of a renewed INSA prepared for the challenges of the three-year period:

Table 3 - Strategic Objectives 2024-2026



[1] https://www.insa.min-saude.pt/category/institucional/instrumentos-de-gestao/

1.2 GOALS SET FOR 2024

The 2024 Evaluation and Accountability Framework - QUAR, approved by Her Excellency the Minister of Health on 10 October 2024, is a tool to support decision-making by making INSA's performance clear.

From among the operational objectives defined for 2024, INSA chose 21 OOp that are part of the QUAR, 11 of which are considered relevant (R). These objectives, with set targets, are measured by 30 indicators covering the parameters of Effectiveness (10 OOp), Efficiency (7 OOp) and Quality (4 OOp) of the Institute's activity. The table below shows the OOPs defined and approved for 2024, as well as their articulation with the Strategic Objectives 2024-2026:

Table 4 - QUAR Operational Objectives and articulation with Strategic Objectives

QUAR OPERATIONAL OBJECTIVES	OE			
	OE1	OE2	OE3	OE4
EFFECTIVENESS				
OOp1: Participating in consortia of European reference laboratories (EURL)				
OOp2: Obtaining evidence for decision-making in Public Health through the use of observation, surveillance or research tools				
OOp3: Ensuring and promoting epidemiological surveillance and monitoring of infections by microbial agents of different aetiologies (R)				
OOp4: Improving laboratory surveillance of antibiotic resistance (R)				
OOp5: Defining the roadmap for planning and implementing the National Strategy for Genomic Medicine (R)				
OOp6: Contributing to evaluate the implementation and results of policies, the National Health Plan (PNS) and Ministry of Health programmes (R)				
OOp7: Improving the recording of health indicators (R)				
OOp8: Contributing to the Integrated Strategy / National Plan for Genetically Based Rare Diseases				
OOp9: Encouraging scientific publishing				
OOp10: Consolidating the inventory and documentation of the Health Museum's collection				
EFFICIENCY				
OOp11: Diversifying laboratory services (R)				
OOp12: Ensuring the protection of the health of sportspeople and the ethics of competitions, in the context of doping control (R)				
OOp13: Generating knowledge to support public health decision-making				
OOp14: Strengthening research (R)				
OOp15: Generating knowledge to support Precision Medicine / Personalised Medicine				
OOp16: Promoting international cooperation projects/actions (R)				
OOp17: Dematerialising INSA's administrative procedures				
QUALITY				
OOp18: Ensuring the quality of differentiated services in innovative scientific areas				
OOp19: Ensuring quality of service (R)				
OOp20: Modernising facilities				
OOp21: Adopting measures for the good management of workers and the improvement of the environment and well-being at work (R)				


Instituto Nacional de Saúde
Doutor Ricardo Jorge
www.insa.p

2. Analysis of the Achieved Results

2.1 Achieved Results | QUAR 2024

As part of the implementation of the QUAR 2024, INSA achieved or exceeded the proposed target in all of the operational objectives, with the following standing out:

- Of the 21 objectives set, 9 were exceeded (43%) and 12 were achieved (57%);
- Of the 11 objectives proposed for relevance, 4 were exceeded (36%) and 7 were achieved (64%);
- Of the 30 indicators registered, the target was exceeded in 13 indicators (43%), and the proposed target was achieved in 17 indicators (57%);

As a result, the overall achievement of the QUAR stands at **109%** with realisation rates per parameter of 109% for Effectiveness, 111% for Efficiency and 109% for Quality.

The following table shows the results and respective realisation rates of the indicators registered:

Table 5- Results by performance indicators

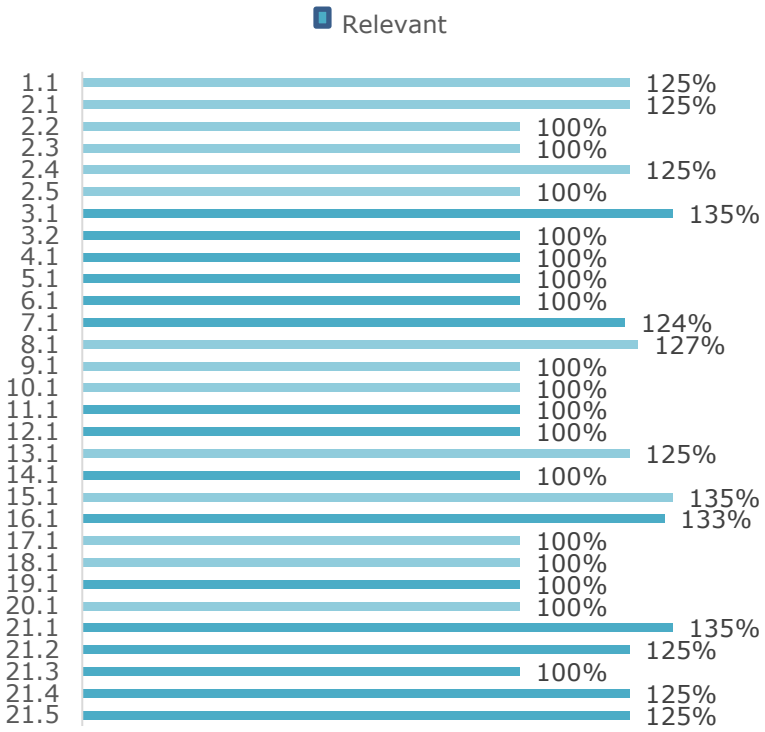
Realisation of QUAR 2024							
No.	Indicator	Target	Tolerance	Critical Value	Weight	Results	Realisation Rate
Effectiveness							
OOp1: Participating in consortia of European reference laboratories (EURL)							
1.1	Number of consortia established under Regulation (EU) 2022/2371 of the European Parliament and of the Council	1	0	2	100%	2	**125%**
OOp2: Obtaining evidence for decision-making in Public Health through the use of observation, surveillance or research tools							
2.1	Child Nutritional Status Surveillance System (COSI Portugal) - Percentage of actions carried out, compared to the actions planned annually	90%	10%	100%	20%	100%	**125%**
2.2	Monitoring the effectiveness of COVID-19 and flu vaccines - Percentage of activities scheduled for the year completed	85%	10%	100%	20%	93%	**100%**
2.3	National Health Survey with Physical Examination (INSEF) and National Serological Survey (ISN) - Presentation of a proposal to carry out the surveys	1	0	2	20%	1	**100%**
2.4	Monitoring all-cause mortality - Percentage of completion of activities planned for the year	85%	10%	100%	20%	100%	**125%**
2.5	Monitoring of congenital anomalies in Portugal through the National Register of Congenital Anomalies (RENAC) - Percentage of completion of activities planned for the year	85%	10%	100%	20%	86%	**100%**

REALISATION OF QUAR 2024							
No.	**INDICATOR**	**TARGET**	**TOLERANCE**	**CRITICAL VALUE**	**WEIGHT**	**RESULTS**	**REALISATION RATE**
OOp3: Ensuring and promoting epidemiological surveillance and monitoring of infections by microbial agents of different aetiologies (R)							
3.1	Entomological surveillance and monitoring of vector-borne infectious agents (REVIVE Network) - Number of initiatives, actions and instruments developed	15	1	17	50%	20	**135%**
3.2	Genomic characterisation (typing) of microorganisms sent by INSA's Reference Laboratories - Percentage of microorganisms genetically characterised using the Next-Generation Sequencing (NGS) methodology	85%	10%	100%	50%	90%	**100%**
OOp4: Improving laboratory surveillance of antibiotic resistance (R)							
4.1	Mapping of isolates from each hospital sent to the Reference Laboratory, within the scope of Standard 004/DGS - Percentage of isolates characterised	80%	10%	100%	100%	85%	**100%**
OOp5: Defining roadmap for planning and implementing the National Strategy for Genomic Medicine (R)							
5.1	National Strategy for Genomic Medicine - integration with European initiatives (Number of initiatives / actions promoted)	4	1	6	100%	5	**100%**
OOp6: Contributing to evaluate the implementation and results of policies, the National Health Plan (PNS) and Ministry of Health programmes (R)							
6.1	Percentage of actions, initiatives and instruments carried out, among those programmed, as part of the planning of the evaluation model of the National Health Plan 2030	30%	10%	100%	100%	30%	**100%**
OOp7: Improving the recording of health indicators (R)							
7.1	National Neonatal Screening Programme - Coverage rate of newborns studied per year compared to the number of newborns registered nationwide	95%	3%	100%	100%	99.8%	**124%**
OOp8: Contributing to the Integrated Strategy / National Plan for Genetically Based Rare Diseases							
8.1	Number of complete exomes studied	24	5	35	100%	36	**127%**
OOp9: Encouraging scientific publishing							
9.1	Epidemiological bulletins "Observações" published	4	1	6	100%	3	**100%**
OOp10: Consolidating the inventory and documentation of the Health Museum's collection							
10.1	Number of museum objects in the collection validated and made available online	150	50	300	100%	150	**100%**
EFFICIENCY							
OOp11: Diversifying laboratory services (R)							
11.1	Number of new tests / trials implemented	55	10	228	100%	64	**100%**
OOp12: Ensuring the protection of the health of sportspeople and the ethics of competitions, within the scope of doping control (R)							
12.1	Doping controls - Number of samples analysed	3000	200	3416	100%	3157	**100%**
OOp13: Generating knowledge to support public health decision-making							
13.1	Number of parameters assessed / implemented as part of wastewater monitoring with the aim of implementing a "sentinel system for emerging risks"	5	1	7	100%	7	**125%**

REALISATION OF QUAR 2024							
No.	INDICATOR	TARGET	TOLERANCE	CRITICAL VALUE	WEIGHT	RESULTS	REALISATION RATE
OOp14: Strengthening research (R)							
14.1	R&D projects started during the year	26	5	38	100%	21	**100%**
OOp15: Generating knowledge to support Precision Medicine / Personalised Medicine							
15.1	Number of reports, theses and scientific articles submitted for publication as part of research projects in personalised medicine	20	5	25	100%	38	**135%**
OOp16: Promoting international cooperation projects/actions (R)							
16.1	Project "Força Saúde - Strengthening the alliance between the African and Portuguese Health Systems through the training of human resources" - Number of training activities and initiatives promoted in the year, within the scope of the 2024-2026 triennium plan	19	2	25	100%	27	**133%**
OOp17: Dematerialising INSA's administrative procedures							
17.1	Number of new services (internal and external) made available electronically	5	1	10	100%	5	**100%**
QUALITY							
OOp18: Ensuring the quality of differentiated services in innovative scientific areas							
18.1	Consolidating the accreditation process for analytical tests - Number of tests	2340	100	2500	100%	2327	**100%**
OOp19: Ensuring quality of service (R)							
19.1	Average overall customer satisfaction index (scale 1-4)	3.5	0.5	4	100%	3.71	**100%**
OOp20: Modernising facilities							
20.1	Rehabilitation of INSA infrastructures - Number of rehabilitation / renovation actions carried out in the year	3	1	5	100%	4	**100%**
OOp21: Adopting measures for the good management of workers and the improvement of the environment and well-being at work (R)							
21.1	Number of initiatives / actions promoted under the "Nutrition in Focus Programme at INSA: towards a healthy and sustainable working environment"	6	1	8	20%	10	**135%**
21.2	Number of actions proposed as a result of employee suggestions in the internal satisfaction questionnaire for year n-1	3	1	5	20%	5	**125%**
21.3	Percentage of employees with work organisation arrangements that make it easier to reconcile professional, family and personal life	45%	5%	55%	20%	49%	**100%**
21.4	Number of training / awareness-raising activities on occupational health and safety	9	2	12	20%	12	**125%**
21.5	Number of initiatives promoted in the field of job satisfaction, career development and training needs	3	1	5	20%	5	**125%**

Regarding the degree to which the indicators have been exceeded, they ranged from 124 to 135 per cent. The following graph shows the realisation rate of the indicators:

Graph 1 - Achievement rate of QUAR indicators



2.2 GLOBAL ACHIEVEMENT | QUAR 2024

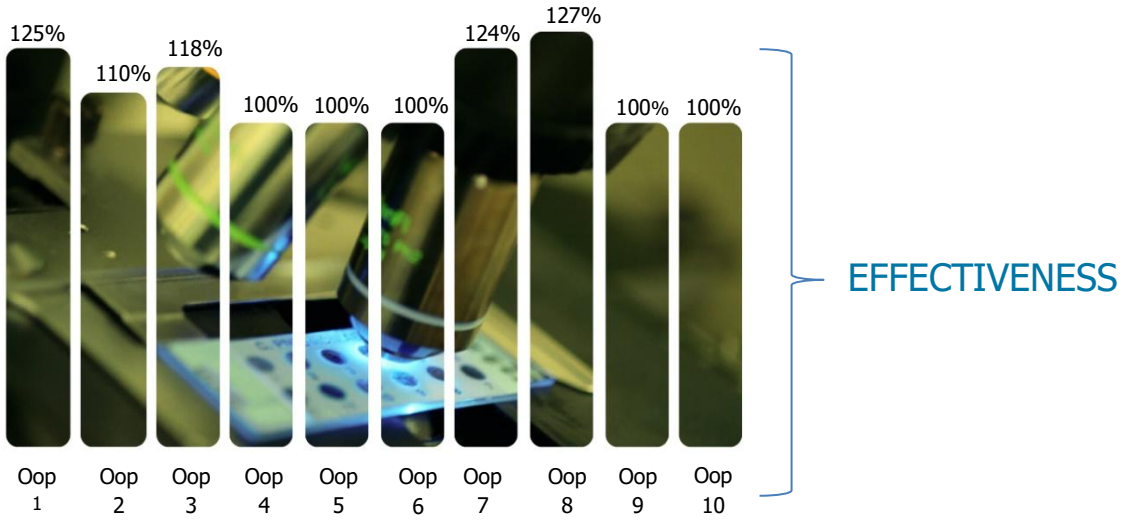
The following table shows the operational objectives included in the QUAR, indicating the results per parameter and per objective, as well as the classification obtained.

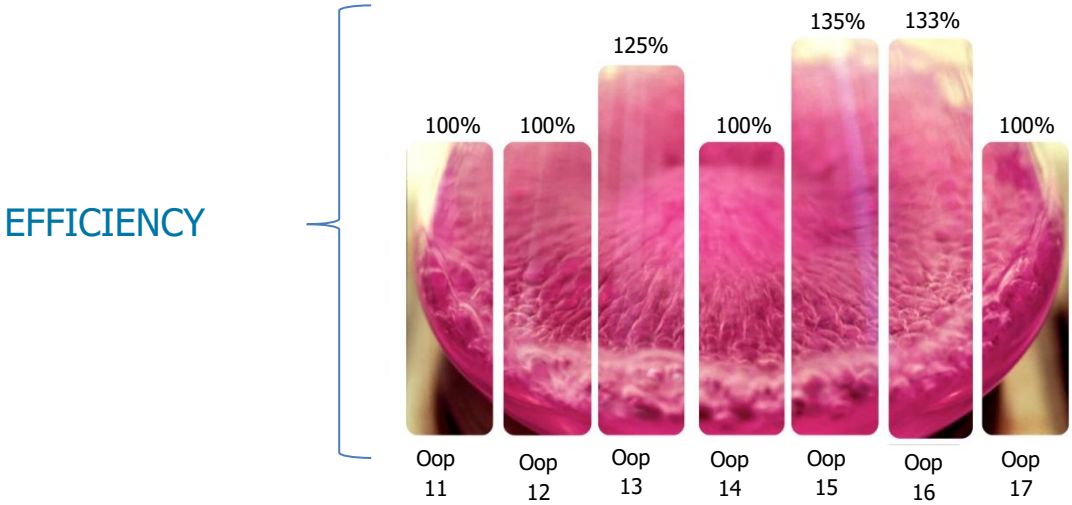
Table 6 - Results of the QUAR Operational Objectives and Classification

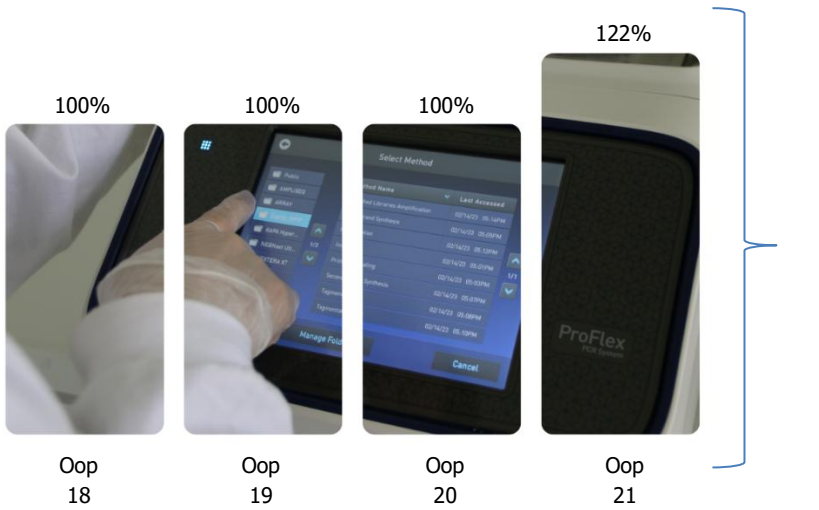
REALISATION OF OPERATIONAL OBJECTIVES QUAR 2024						
OOP NO.	INDICATOR	RELEVANT OOP	PLANNED %	EXECUTED %	REALISATION RATE %	CLASSIFICATION
	EFFECTIVENESS	-	25%	27%	109%	-
1	Participating in consortia of European reference laboratories (EURL)	-	5%	6%	125%	Surpassed
2	Obtaining evidence for decision-making in Public Health through the use of observation, surveillance or research tools	-	5%	6%	110%	Surpassed
3	Ensuring and promoting epidemiological surveillance and monitoring of infections by microbial agents of different etiologies	R	15%	18%	118%	Surpassed
4	Improving laboratory surveillance of antibiotic resistance	R	15%	15%	100%	Reached
5	Defining the roadmap for planning and implementing the National Strategy for Genomic Medicine	R	15%	15%	100%	Reached

REALISATION OF OPERATIONAL OBJECTIVES QUAR 2024						
OOP NO.	INDICATOR	RELEVANT OOP	PLANNED %	EXECUTED %	REALISATION RATE %	CLASSIFICATION
6	Contributing to evaluate the implementation and results of policies, the National Health Plan (PNS) and Ministry of Health programmes	R	15%	15%	100%	Reached
7	Improving the recording of health indicators	R	15%	19%	124%	Surpassed
8	Contributing to the Integrated Strategy / National Plan for Genetically Based Rare Diseases	-	5%	6%	127%	Surpassed
9	Encouraging scientific publishing	-	5%	5%	100%	Reached
10	Consolidating the inventory and documentation of the Health Museum's collection	-	5%	5%	100%	Reached
	EFFICIENCY	-	**25%**	**28%**	**111%**	-
11	Diversifying laboratory services	R	20%	20%	100%	Reached
12	Guaranteeing the protection of the health of sportspeople and the ethics of competitions, within the scope of doping control	R	20%	20%	100%	Reached
13	Generating knowledge to support public health decision-making	-	10%	13%	125%	Surpassed
14	Strengthening research	R	20%	20%	100%	Reached
15	Generating knowledge to support Precision Medicine / Personalised Medicine	-	10%	14%	135%	Surpassed
16	Promoting international cooperation projects/actions	R	15%	20%	133%	Surpassed
17	Dematerialising INSA's administrative procedures	-	5%	5%	100%	Reached
	QUALITY	-	**50%**	**54%**	**109%**	-
18	Ensuring the quality of differentiated services in innovative scientific areas	-	5%	5%	100%	Reached
19	Ensuring quality of service	R	50%	50%	100%	Reached
20	Modernising facilities	-	5%	5%	100%	Reached
21	Adopting measures for the good management of workers and the improvement of the environment and well-being at work	R	40%	49%	122%	Surpassed

Graph 2 - Degree of implementation of QUAR operational objectives by parameter

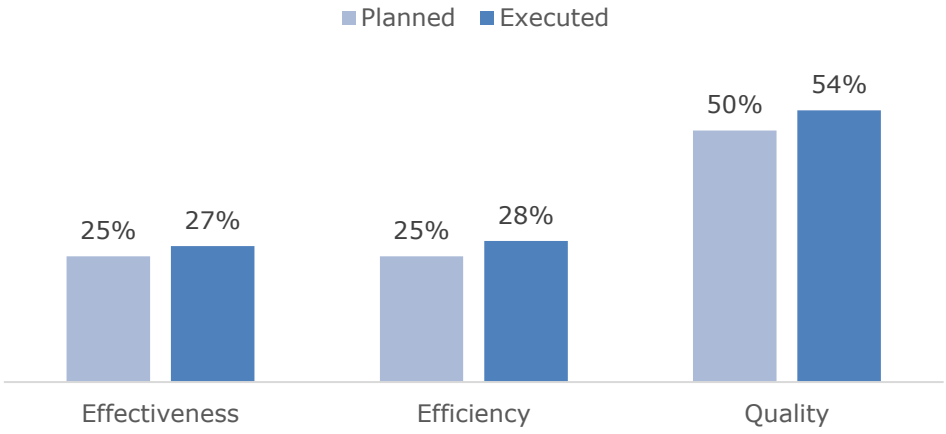






Regarding the evaluation parameters, the overall realisation rates per parameter stood at 109% for Effectiveness, 111% for Efficiency and 109% for Quality. Thus, the realisation rates exceeded what was planned in all three evaluation parameters, as shown in the following graph:

Graph 3 - Overall performance by evaluation parameter (in %)




Heraeus

3. ACTIVITIES CARRIED OUT, FORESEEN AND NOT FORESEEN IN THE PLAN, WITH INDICATION OF THE ACHIEVED RESULTS

This chapter presents the results obtained from INSA's activity within the scope of its core functions: research and technological development activities, dissemination of scientific culture, reference activities, health observation and epidemiological surveillance, provision of differentiated services, training offer, internal control and quality area.

3.1 RESEARCH & DEVELOPMENT (R&D)

The Institute carries out various R&D activities in the field of health sciences, and in particular those that improve knowledge about the state of health, ways of protecting and promoting it, as well as preventing disease and improving the health care system. The results of the activities carried out in this area reflect the importance of this essential function at INSA, namely:

- Scientific research orientated towards health needs, particularly in public health;
- Scientific, operational and financial management of R&D projects;
- Establishment of scientific prizes for R&D activities, as an incentive for scientific and technical training;
- Publication of peer-reviewed scientific articles and production of technical-scientific reports;
- Collaboration on scientific and laboratory research with different institutions, through the establishment of specific networks and protocols;
- Organisation of scientific meetings and dissemination of scientific results;
- Collaboration in supervising master's and doctoral programmes;
- Welcoming R&D scholarship holders and collaborators.

3.1.1 SCIENTIFIC COUNCIL

INSA's Scientific Council (CC) is made up of all employees who, in any capacity, including scholarship holders, whether they are nationals or foreigners, work at INSA, provided they have a doctorate (PhD) or equivalent and have passed the exams[2], or are part of the research or university teaching career[3]. Its members elect a President and representatives of the thematic-based sections to form the Coordinating Committee.

In 2024, INSA's Scientific Council, in terms of the Scientific Research Career, was made up of 62 researchers assigned to the staff map (5 Coordinating Researchers; 19 Principal Researchers and 38 Auxiliary Researchers). In addition to these, it also included 1 Visiting Auxiliary Researcher, 1 retired Coordinating Researcher, 1 retired Auxiliary Researcher, 11 PhD graduates recruited under R&D projects, as well as 52 PhD graduates included in other careers, namely senior technician, senior diagnostic and therapeutic technician, senior health technician, pharmacist and medical career, as well as 4 research grant holders and 1 collaborator from R&D.

As the body responsible for assessing and monitoring INSA's scientific research and technological development activities, in 2024 the CC was involved in drawing up deliberations requested by the Board of Directors, supporting institutional applications (FCT-Tenure), monitoring the issues discussed by the Coordinating Committee, as well as promoting scientific research carried out at the Institute. In this context, the Ricardo Jorge Seminars cycle is worth highlighting, where some of the technical-scientific activities carried out were publicised both internally and externally. These events were held virtually and in person, which significantly increased the number of participants (over 200 per session) and contributed to the wide dissemination of the respective themes.

During the first quarter of 2024, the chair of INSA's Scientific Council also chaired the Forum of the Scientific Councils of State Laboratories[4]. This Forum aims to promote the strengthening, boosting and enhancement of the activities of the State Laboratories in the national scientific and technological context, namely to jointly analyse their common problems and propose appropriate solutions. As a member of the Forum, INSA's Scientific Council participated in the process of revising the Statute of the Scientific Research Career.

[2] As referred to in Article 17(2) of Decree-Law no. 219/92 of 15 October, as amended by Decree-Law no. 124/99 of 20 April;
[3] Regulation no. 349/2017, of 29 June; DR, 2.ª Série, n.º 124: 13196-198
[4] https://sites.google.com/view/forum-ccs-le/home

3.1.2 ETHICS COMMITTEE

The INSA Health Ethics Committee (CES-INSA) is a collegiate, multidisciplinary, independent and consultative body[5]. CES-INSA's functions include safeguarding the dignity and integrity of the human being; issuing opinions on ethical issues in the field of INSA's activities; pronouncing on ethical issues arising from the implementation of scientific research protocols, namely those relating to diagnostic and therapeutic trials and experimental techniques involving human beings and their biological products, carried out within the scope of INSA's activities; contributing to the dissemination of health ethics principles by the means deemed appropriate; considering and applying, in particular, the provisions of the law and regulations, taking into account existing international declarations and guidelines on the matters to be assessed.

In fact, by virtue of INSA's remit, CES-INSA is the only national ethics committee in the public health sector with specific competences in the fields of healthcare practice and clinical research.

CES-INSA held monthly plenary meetings, prioritising the analysis and approval of the opinions requested. Every year, CES-INSA receives approximately 40 requests for opinions, the vast majority of which are analysed within the established legal timeframe.

Specific working groups are set up for topics deemed relevant. The work carried out by these groups is presented and discussed at plenary meetings and the appropriate dissemination is decided.

[5] Which is governed by Decree-Law no. 80/2018 of 15 October

In 2024, this committee also organised courses and webinars, including the following:

- "Ethics and Scientific Integrity" course
  - In collaboration with INSA's Scientific Council, CES-INSA organised the 3rd edition of Training in Ethics and Scientific Integrity between 11 and 15 March. The aim of the training session was to sensitise participants to the importance and impact of this concept on the scientific community and the general population.

- "Ethics in Scientific Research" course
  - In collaboration with INSA's Scientific Council, CES-INSA held a course on "Ethics in scientific research" between 27 February and 26 March. Taking ethics and scientific research as its guiding principles, the training programme aimed to address a range of issues that, regardless of the area of the study project, can pose ethical dilemmas for the principal researcher and his team at an operational level.

- Webinar on "Freedom in ethics"
  - The main aim of the initiative, which took place on 6 February, was to promote reflection on the meaning of "freedom" in the context of ethical decision-making and its thoughtful use in the legal sphere.

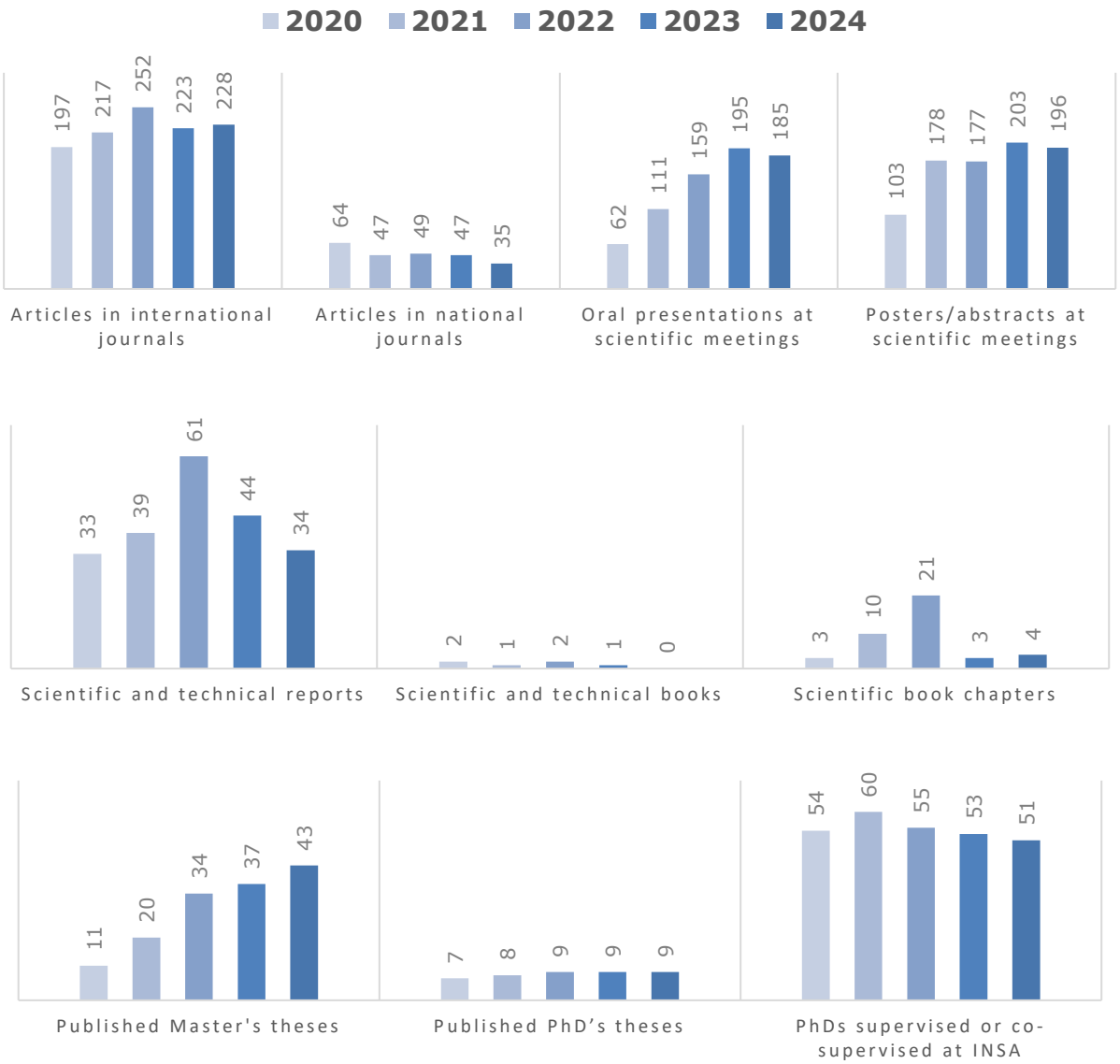
- Webinar entitled "The Challenge of Reconciling Ethics with Artificial Intelligence"
  - The main aim of the initiative, which took place on 11 June, was to promote reflection on the ethical challenges that Artificial Intelligence poses to society, both collectively and individually.

3.1.3 Scientific Production

As part of R&D's activities, several scientific and technical publications are produced each year in the different areas in which it operates. These publications from the Technical-Scientific Departments are made available in the institutional scientific digital repository,[6] in open access, whenever appropriate. The scientific output of the Doping Analysis Laboratory is not yet available on the system, but its integration is planned.

The following graph shows the main R&D products in terms of their evolution from 2020 to 2024:

Graph 4 - Evolution of scientific production in the field of R&D



[6] https://repositorio.insa.pt/

It should be highlighted the high number of **international articles published**, namely **228** in 2024, plus their impact as a result of almost all of them being published in journals indexed in the main reference databases in the speciality. It should be noted that the total number of articles published in international journals does not reflect the sum of the partial results of the Technical-Scientific Departments, since it does not include co-authorships internal to INSA.

Also noteworthy are the publications resulting from master's dissertations (43 in 2024) and PhD theses published (9 in 2024), as well as the number of PhD students supervised or co-supervised at INSA (51 in 2024).

It should be noticed that the data presented regarding the types of publications - national articles, oral presentations and posters/abstracts at scientific meetings, scientific and technical reports, scientific and technical books, chapters in scientific books, as well as master's dissertations - have not been reviewed/validated in the repository system. This was due to processing, validation and statistical calculation constraints resulting from the recent update of the software that supports the repository, which went into production in December 2024.

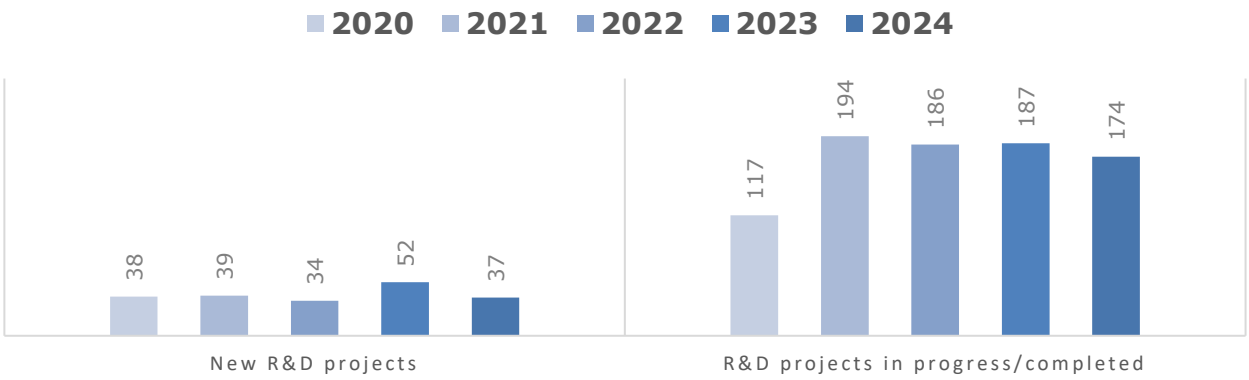
It should be noted that INSA's Scientific Repository is a service for hosting institutional repositories, in a set of 26 institutional repositories, made available and integrated into Portugal's Open Access Scientific Repositories - RCAAP, which is managed and run by FCCN - Digital Services of the Foundation for Science and Technology, with the support of the University of Minho. After the latest update of this software went into production, corrective measures are being implemented to mitigate the anomalies in use and improve its performance, particularly with regard to the provision of statistical data, so it is expected that the difficulties now being experienced will be overcome.

3.1.4 R&D Projects

Funding for R&D activities came mainly from European project contracts, although there was national funding for some projects and contracts under the Stimulus Programme for Scientific and Individual Employment, as well as PhD research grants funded directly by the Foundation for Science and Technology (FCT). This result is in line with the applications made by the Technical-Scientific Departments, which were essentially addressed to European funding organisations.

The following graph shows the evolution of the number of new and ongoing/completed R&D projects from 2020 to 2024.

Graph 5 - Trends in the number of new and ongoing/completed R&D projects



In 2024, INSA initiated **37 projects** which include projects with internal and external funding. Due to their significant impact on the production of scientific knowledge, their innovative nature, their participation in consortia or the value of the funding received, the following externally funded projects started during the year stand out:

- In the area of Food and Nutrition, INSA confirmed its presence in the process of preparing the infrastructure **METROFOOD EPI** (Infrastructure for promoting metrology in food and nutrition) to provide differentiated services in the area of metrology, which is important for monitoring food quality and safety. This research infrastructure will make it possible to work across the entire value chain of the food sector, from the agri-food sector, sustainable development, food safety and quality, traceability, authentication, environmental safety and human health. Participation in the METROFOOD Infrastructure enabled INSA to take part in the **Aquaserve** (Research Infrastructure Services for Sustainable Aquaculture, Fisheries and the Blue Economy) whose objectives are to integrate and make available facilities, instruments and expertise through the allocation of transnational access to the various infrastructures that make up the project which, in INSA's case, is the METROFOOD Infrastructure, thus contributing to the implementation of the Common European Fisheries Policy, the Blue Economy and the European Green Deal;
- INSA has also started participating in the **COST CA23110 INFOGUT** International networking on *in vitro* colon models simulating gut microbiota mediated interactions,

whose aim is to bridge the knowledge gap on *in vitro* colon models, with the development of consensual protocols and solid data sets to improve knowledge of the events that occur in the intestinal environment, including the complex interactions between the microbiota and the host. This network brings together different experts in Gastroenterology, Microbiology, Physiology, Nutrition and Food, Biochemistry, Bioinformatics, Biotechnology, among others;

- In the area of infectious diseases, INSA began its participation in the action **JAMRAI-2** (European Joint Action on Antimicrobial Resistance and Healthcare-Associated Infections), which is made up of 30 member states with the aim of combating antimicrobial resistance at European level through joint and coordinated actions, through interdisciplinary cooperation between countries, institutions and sectors in order to safeguard the effectiveness of antibiotics and protect public health. Also within the scope of antimicrobial resistance, INSA participated in the project **EURGen - RefLabCap** - European Antimicrobial Resistance Genes - Reference Laboratory Capacity project, which aimed to genomically evaluate pathogens with multi-resistance to antibiotics of 'major' importance in public health, their geographical distribution and the transmission of clones with greater virulence, with a view to improving risk assessment and targeting control measures, developing technical capacity and competence for research based on the bacterial genome;
- The **SIVIZ** (Development of an Integrated Surveillance and Alert System of Zoonosis in Portugal) project aims to develop an Information System to support the "One Health" approach with regard to surveillance, response and communication to stakeholders and the public. It targets the surveillance of domestic and wild animals and the environment, including vectors of endemic and exotic notifiable zoonotic diseases such as West Nile fever, Rift Valley fever, Crimean-Congo fever, tick-borne fever, encephalitis, Q fever and Hepatitis E virus. The project involves the development of a new platform that will enable the interoperability of existing information and alert systems on human and animal health, vectors and the environment, aggregating data on diseases and pathogens;
- With regard to research infrastructures in the area of infectious diseases, INSA participates in **EVORA** (the European Viral Outbreak Research Alliance), which brings together 3 research infrastructures (EVA, ERINHA ESFRI and ELIXIR-ESFRI) with unique and complementary competences in terms of biobanks, high containment facilities and data management solutions, respectively, in a single concerted interoperable framework with a common long-term perspective. This project aims to strengthen the EU's capacity for concerted preparedness and response to viral diseases and to address the specific regulatory, ethical and safety challenges related to emerging pathogens;
- The **INTERCEPTOR** - INTERnational Cooperation of high containment research infrastructures: from Epidemic Preparedness TO Response project aims to improve access to high containment laboratories, including training in biological risk management, facilitate the sharing of critical resources and strengthen harmonisation and interoperability. Finally, the project will address the complex regulatory aspects of pre-

clinical research involving high-risk pathogens in order to ensure the structure is operational;

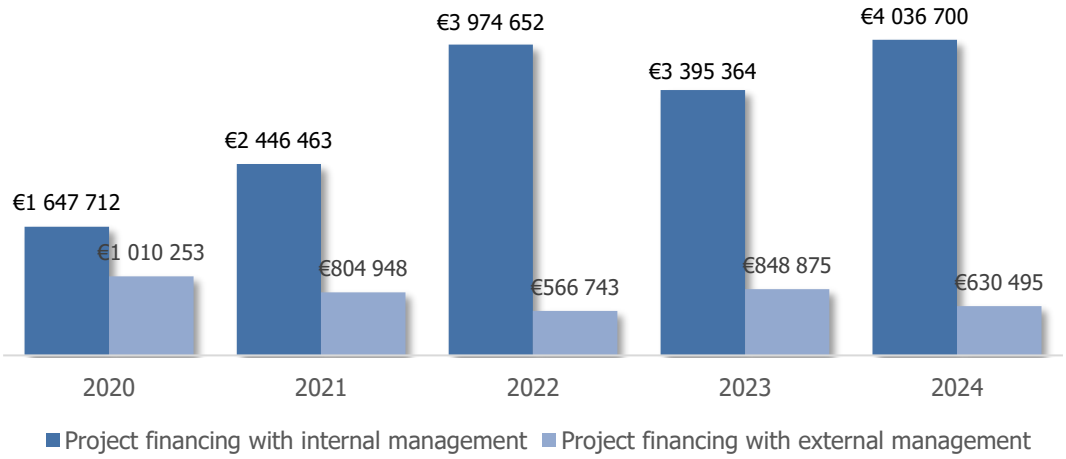
- The **Delta PT-Study** project in the area of viral hepatitis, aims to contribute to improving knowledge of infection by the Delta hepatitis virus in Portugal and the epidemiological and virological factors associated with the possible orientation of more effective clinical and public health intervention measures for the elimination of viral hepatitis;
- In the area of human genetics, INSA began its participation in the European Partnership **ERDERA** - European Rare Diseases Research Alliance. ERDERA aims to create a robust ecosystem that prioritises patients' needs, improving diagnostic methods, integrating digital transformations and promoting public-private partnerships. This initiative also includes a dedicated Clinical Research Network to accelerate clinical trials and improve care for rare disease patients across Europe;
- In the area of cardiovascular diseases and personalised medicine, INSA coordinates the project **PerMedFH -** Personalising diagnosis and treatment for Familial Hypercholesterolaemia patients. This project aims to increase the proportion of patients diagnosed with familial hypercholesterolaemia and thus enable appropriate treatment, reducing unfavourable drug interactions;
- INSA began its participation in the **GoE** - Genome of Europe project with the ambition of establishing a European reference genome that will contribute to new advances in medicine and benefit public health policies. The GoE data will be integrated into the Genomic Data Infrastructure (GDI) project, in which INSA already participates and which allows access to genomic data across Europe for research, healthcare and public health policy purposes;
- In the area of environmental health, INSA began its participation in the **JARED** - Joint Action on Respiratory Diseases project, consolidating its experience in studying the impact of environmental determinants on people's health and quality of life. The aim of this project is to help assess the effectiveness of different mitigation measures, both structural and behavioural, in improving indoor air quality in different types of buildings. At the same time, the INSA team will be involved in drawing up new recommendations, manuals and training materials focussed on the prevention of chronic respiratory diseases;
- The project **ENVESOME** - The Environmental exposome and Health project aims to highlight the role of air, noise and light pollution and hazardous waste in the development of non-communicable diseases. The project addresses the need to strengthen the knowledge available to policymakers on pollution-disease associations and causal mechanisms at different stages of the human life cycle. This project proposes to develop a framework based on the exposome and citizen science to assess the health risks of emerging environmental stressors;
- In the area of international co-operation, and especially because of its relevance in the context of the Community of Portuguese Language Countries (CPLP) and the Portuguese-speaking African Countries (PALOP), the following projects have been identified:

- The **SafeSpace** project aims to accelerate the fight against sexually transmitted infections such as human immunodeficiency virus (HIV), viral hepatitis, tuberculosis and malaria by strengthening the capacities and role of community health organisations in treating vulnerable populations. This cooperation project is funded by Expertise France;
- The **CT Luso** project aims to build ethical and regulatory capacity in the area of clinical trials in 6 Portuguese-speaking countries, involving the respective National Ethics Authorities, National Regulatory Authorities, universities, research centres, national health institutes, in partnership with Portuguese institutions specialised in the areas of ethics, research regulation and clinical trials. INSA collaborates in capacity building and training in specific areas within its competence;
- The **Força_Saúde** (Strengthening the Alliance Between the African Health Systems and Portugal Through the Training of Human Resources) project, co-financed by the Camões Institute, aims to contribute to the resilience of the health services of the PALOP countries (Angola, Cape Verde, Guinea-Bissau, Mozambique and São Tomé and Príncipe), between January 2024 and December 2026, by strengthening the performance of the National Health Institutes, contributing to the reinforcement of Global Security through the training of human resources in the area of health.

  INSA is responsible for the technical-scientific and financial management of the project, as well as implementing the planned activities and initiatives, both in terms of training content and logistical organisation.

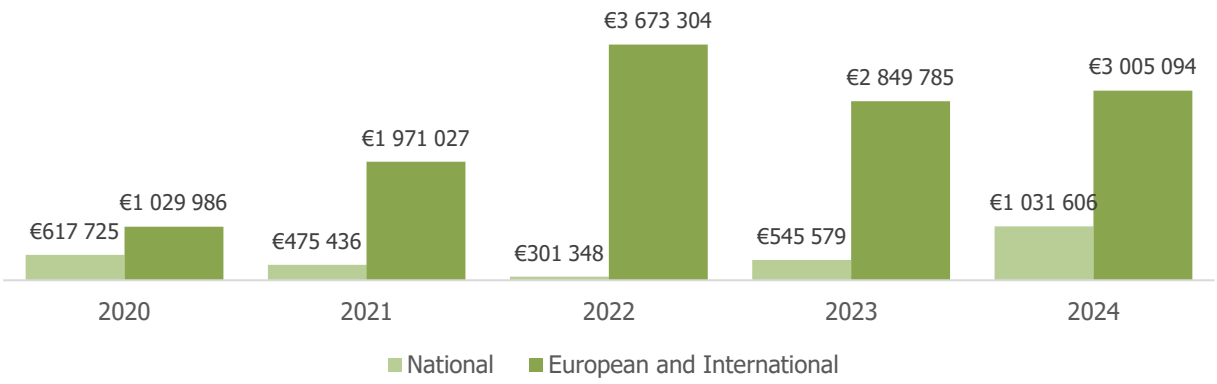
As far as externally funded projects are concerned, there has been a positive trend over the last five years in relation to internally managed projects. In 2024, this funding scaled up to **€4,000,000** of which 86.5% corresponds to projects managed by INSA, as shown in the following graph:

Graph 6 - Evolution of annual funding for projects managed by INSA or external organisations



Regarding the origin of the funding, it should be noted that since 2020 this funding has been mostly European, as shown in the following graph:

Graph 7 - Annual project funding figures by source of funding



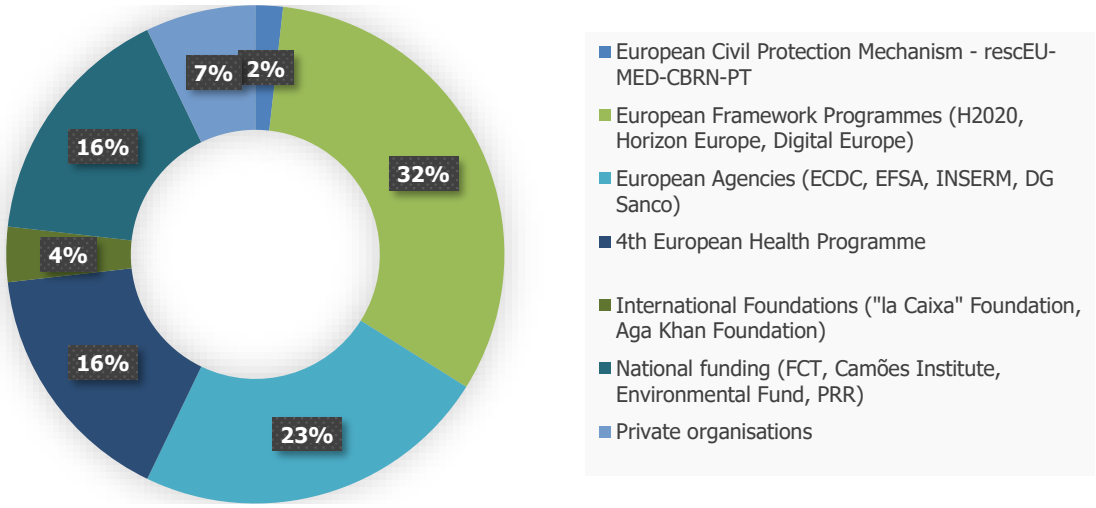
Graph 7 shows that, in general, the funding managed in the year from competitive applications for R&D projects has increased consistently since 2020, with most of this funding being managed internally at INSA. This trend was only reversed in 2023 due to the "Stepping Stones for implementation of a National Strategy for Genomic Medicine in Portugal" project, which was managed directly by the Directorate-General for Structural Reform Support (DG Reform) and also reflects the end of 2 major projects in the area of infectious diseases, the One Health EJP project, where INSA was guaranteed a presence in 14 sub-projects, and the HERA.2021.21 project, aimed at building the capacity of member states to respond to a new pandemic.

It should be mentioned that graphs 6 and 7 do not include the value of the **rescEU-MED-CBRN-PT** project funding on the constitution of strategic reserves of medicines and other medical countermeasures, financed by the European Civil Protection Mechanism. Although this project is important for INSA and strategic for the country, it does not fall within the scope of R&D. It should be noted that the funding for this project rises up to €22,800,000, for a total of 33 months, starting in 2024 (with a value of €9,000,000).

It should be noticed that the European Commission has identified the need to strengthen and modernise the European Union's Civil Protection Mechanism, with the aim of preventing member states from being isolated in crisis situations, increasing the European Union's reaction capacity, reducing response times and mitigating geographical imbalances in European territory. In this context, and with the aim of integrating Portugal into this European endeavour and positioning it as one of the countries with a strategic European reserve, a national consortium was set up, of which INSA is an integral part. This reserve, with regard to INSA's responsibilities, includes items relating to the categories of medical devices, personal protective equipment and support equipment for responding to biological emergencies.

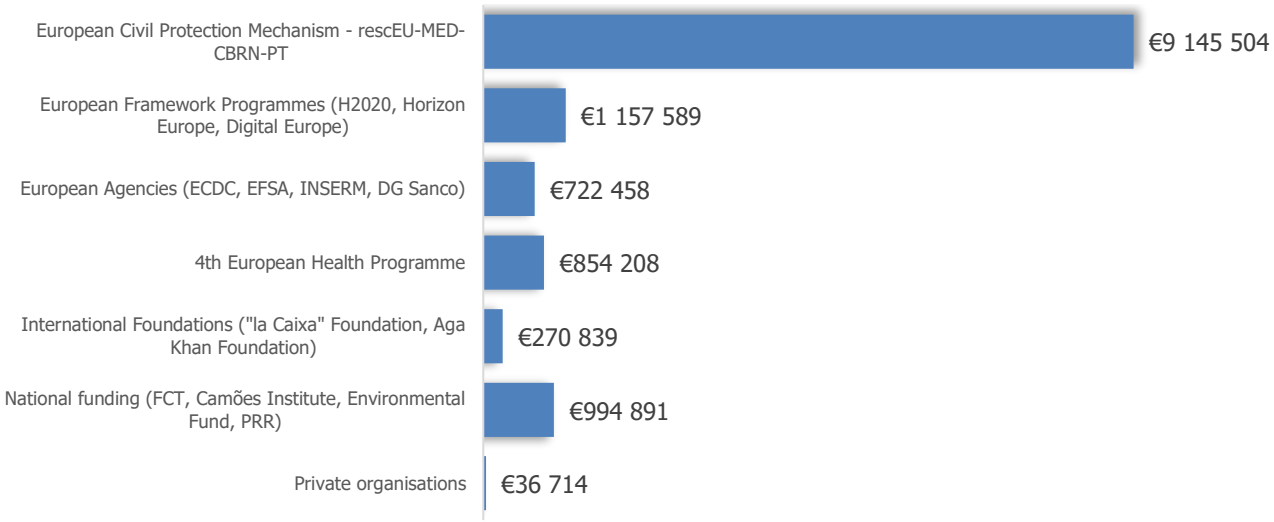
In 2024, in terms of funding sources, 18 projects were funded by European Framework Programmes; 13 by European Agencies; 9 by the 4th European Health Programme; 9 by National funding, namely the Foundation for Science and Technology, the Camões Institute, the Environmental Fund, the Recovery and Resilience Plan (RRP); 4 by Private Entities and 2 by International Foundations. The following graph shows the distribution of projects by funding programme (note: the rescEU project mentioned above has been included in this distribution).

Graph 8 - Breakdown of the percentage of projects by funding programme in 2024



Graph 8 shows the distribution of the volume of funding managed in 2024 by different funding sources, demonstrating that it is mainly international funding sources that have supported the development of R&D projects at INSA, especially funding from competitive applications from the Horizon Europe programme and the 4th Health Programme. Collaboration on R&D services launched by the main European health agencies (23%) was also very important, particularly those from the European Centre for Disease Prevention and Control (ECDC) in the area of vaccination effectiveness. The figures by funding programme are shown in the following graph:

Graph 9 - Breakdown by funding programme in 2024



3.1.5 Ricardo Jorge Public Health Prize

As part of the celebrations for its 125th anniversary (1899-2024), INSA established the **Ricardo Jorge Public Health Prize** [7].

The prize, worth **€25,000** aims to contribute to the progress, promotion and recognition of research and scientific support carried out in Portugal in the field of Public Health, based on criteria such as scientific merit and relevance, the innovative nature of the work and/or the development of new methodologies, the impact on the environment and society and the potential to promote knowledge and inspire change in Public Health.

The jury was made up of the following personalities:

- President of the Jury
  - Alexandre Quintanilha, Physics researcher and retired full professor at the Abel Salazar Institute of Biomedical Sciences;

- Members of the Jury
  - Kamal Mansinho, Director of the Infectious Diseases Department at the Lisbon West Hospital Centre and Visiting Professor at the Institute of Hygiene and Tropical Medicine;
  - Lélita da Conceição dos Santos, Director of the Internal Medicine Service at the University Hospital Centre of Coimbra;
  - Luísa Romão, President of INSA's Scientific Council;
  - Maria da Graça Freitas, former Director-General of Health;
  - Miguel Castanho, principal researcher at the João Lobo Antunes Institute of Molecular Medicine;
  - Válter Fonseca, technical officer in the Health Systems Division of the WHO European Office for Quality in Health (Athens/Greece).

[7] https://www.insa.min-saude.pt/category/informacao-e-cultura-cientifica/premio-ricardo-jorge/

Within the scope of this competition, 31 applications were received, and the Ricardo Jorge Public Health Prize 2024 was awarded to the work entitled "Economic evaluation of Wolbachia deployments in the Madeira Island, as a Dengue control strategy". Authored by Francisco Freitas Barcelos and Joana Moreno, this study focuses on the effectiveness and economic viability of using mosquitoes (vector) with *Wolbachia* to reduce or even prevent dengue cases in a specific context (Madeira Island).

Two honourable mentions were also awarded to the following works, which also stood out for their high scientific merit: "Identification of novel therapeutic targets to overcome lung damage induced by Streptococcus pneumoniae infection", by the proposing author Joana Carvalho Pereira, and "Direct and indirect impact of the COVID-19 pandemic on all-cause and cause-specific mortality in Portugal between March 2020 and December 2021", by the proposing author Ana Paula Rodrigues.

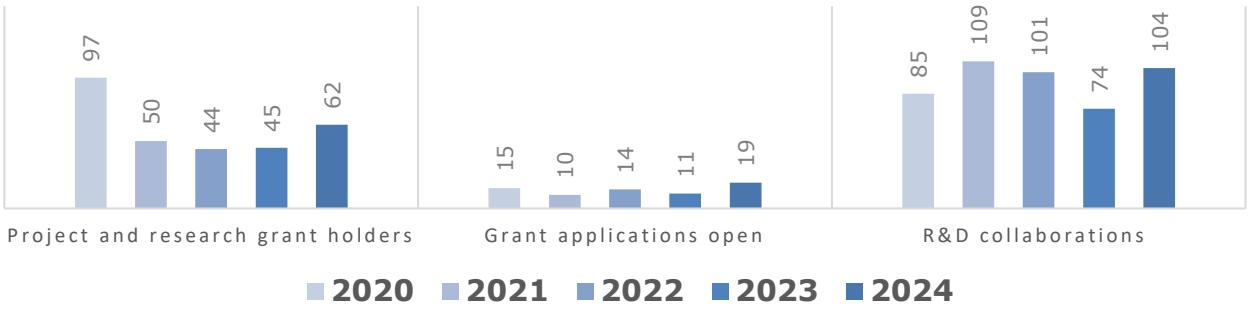
The award ceremony took place on November 12, 2024, in the auditorium of the Champalimaud Foundation in Lisbon, during the session celebrating INSA's 125th anniversary, organised as part of the "INSA Day" celebrations. On that occasion, a brief presentation was made concerning the winning work, and diplomas were awarded to the two honourable mentions.

3.1.6 R&D Grants and Collaborations

In collaborating in the execution of R&D projects, INSA has a very significant human capital - young researchers who are at the Institute under different types of scholarships. Grants can be categorised according to the type of funding and management, as well as the purpose for which they are intended (research, obtaining an academic degree, among others).

The graph below shows the evolution of the number of R&D grant holders and collaborations:

Graph 10 - Trends in grant holders and collaborations R&D



R&D collaborators include students and other professionals from national or international institutions who develop activities at the Institute as part of research projects or curricular internships required to complete their academic degrees.

These collaborators contribute to the scientific dynamism of the Institute, bringing knowledge while benefiting from the experience of INSA's professionals and the development of their skills and competences.

It should be highlighted that INSA has promoted the opening of grants competitions every year (19 in 2024) and welcomed project and research grant holders (62 in 2024). Through protocols established with various universities, INSA has integrated 104 R&D collaborators into the various Technical-Scientific Departments.

The Institute has guaranteed the necessary conditions to support research activities, giving its collaborators the opportunity to develop their projects and work plans.

3.1.7 PARTICIPATION IN R&D UNITS

In 2024, INSA participated in the following R&D Units, Associated and Collaborative Laboratories in the following areas:

- **Food and Nutrition**
  - Centre for Environmental and Marine Studies | CESAM
  - Centre for Marine and Environmental Sciences | MARE
  - Associated Laboratory for Ecologic Chemistry - Clean Technologies and Processes of the Chemistry and Technology Network | LAQV REQUIMTE
  - Bioresources for Sustainability | GREEN-IT
  - Collaborative Laboratory for Innovation in the Agri-Food Industry | COLAB4FOOD
- **Infectious Diseases**
  - Environmental Health Institute | ISAMB
  - Centre for Animal Science Studies | CECA
  - ALS4Animals Associated Laboratory
- **Human Genetics, Genomics and Personalised Medicine**
  - Multidisciplinary Biomedical Research Unit | UMIB
  - Biosystems and Integrative Sciences Institute | BioISI
  - Institute for Research and Innovation in Health | i3S
- **Environmental Health**
  - Centre for Ecology, Evolution and Environmental Change | CE3C
  - Interdisciplinary Centre for Marine and Environmental Research | CIIMAR
- **Epidemiology, Human Genetics, Food and Nutrition**
  - Research, Education and Innovation in Clinical Research and Public Health - Comprehensive Health Research Centre | CHRC
  - Epidemiology Research Unit - Public Health Institute of the University of Porto| EPIUnit - ISPUP

3.1.8 Participation in Research Infrastructures

In 2024, INSA integrated the following research infrastructures:

- **At European level**
  - European Research Infrastructure on Highly Pathogenic Agents AISBL (ERINHA)
  - Infrastructure for Promoting Metrology in Food and Nutrition (METROFOOD-RI)

- **Nationally**
  - Biobanco-PT
  - National Facility genome sequencing and analysis (Genome PT)
  - National Mass Spectrometry Network (RNEM)

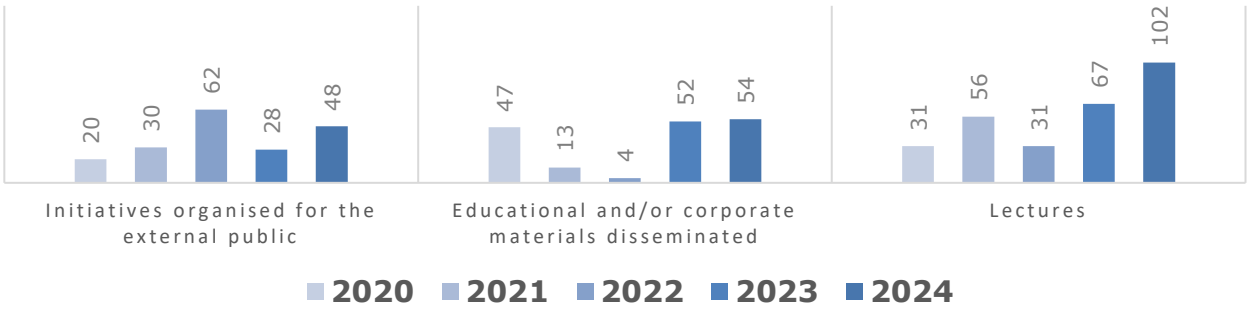
3.2 Dissemination of Scientific Culture

3.2.1 Actions and activities

The essential function of disseminating scientific culture corresponds to the distribution of information and scientific knowledge associated with research and other activities performed by INSA.

INSA develops a range of activities aimed at different target audiences (school population, stakeholders, associations, companies, the media and civil society), also contributing to greater health literacy. The following graph shows the number of initiatives organised for external audiences (48 in 2024), the educational and/or corporate materials disseminated (54 in 2024) and the lectures held (102 in 2024).

Graph 11 - Evolution of data on the dissemination of scientific culture



As part of the celebrations for its **125th anniversary** (1899-2024) of INSA, the following initiatives stand out:

- In 2024, INSA developed a series of activities aimed at highlighting the area of activity and the work performed by its 6 technical-scientific departments, the Doping Analysis Laboratory and the Health Museum. These events covered a range of topics, including:

  - Public Health at the Service of Food and Nutrition;
  - Webinar entitled "Breastfeeding: a healthy start in life";
  - Coffee with Science: Personalised Cancer Medicine;
  - Nutrition in 125 minutes - for a long and healthy life;
  - Environmental Health at the Service of the Community;
  - Does the environment affect our genes? Discovering Genetic Toxicology;
  - Come and find out more about Rare Diseases - from screening to treatment, diagnosis and research;
  - Doping Analysis Laboratory - Four decades of protecting the health of sportspeople;
  - Guided visit to the exhibition "800 years of Health in Portugal";

- 30 years of the Epidemiology Department at INSA - 30 years observing the health of the Portuguese;
- Infectious Diseases - Microbes, health and the laboratory.

- Throughout the second half of 2024, INSA and the Municipality of Porto promoted the Cycle of Conversations with INSA. In line with Porto's Municipal Health Plan, the initiative consisted of a series of talks between people responsible for various areas of the municipality's activities and specialists from INSA's technical and scientific departments, with the aim of promoting health literacy among the population. The following themes were addressed:
  - Food poisoning;
  - Indoor Air and Environmental Quality;
  - The OneHealth concept: effects on sustainability and food safety;
  - Water for human consumption and other uses;
  - Nutritional Status Surveillance Systems and the Portuguese Food Composition Table.
- The Batalha Cinema in Porto was the venue for the 1st INSA Porto Public Health Meeting, which took place on 2 October. The aim of the event was to highlight and promote debate on some of the areas of activity of INSA's technical-scientific departments that are permanently active in its Porto office. Under the slogan "INSA: 125 anos de compromisso com a saúde" (INSA - 125 years of commitment to health), the initiative consisted of a series of presentations and talks on topics of interest in the areas of food and nutrition, infectious diseases, environmental health and human genetics.
- The aim of the "DNA & Health" competition was to ask students what DNA is and how it is formed, as well as its importance for people's health. Young people from more than 40 schools across the country responded to INSA's challenge to build a model of the double helix using recycled materials, in most cases with the support of their Natural Sciences/Biology/Biology and Geology teachers.

  Promoted by INSA's Human Genetics Department, the winners were Beatriz Pires and Rita Delgado, students from Pintor José de Brito Secondary School (Viana do Castelo), and Rita Carvalho and Rafaela Marques, students from Marques Castilho Secondary School (Águeda). In addition to the first prizes, four honourable mentions were also awarded.

  The first prize in the "DNA & Saúde" (DNA & Health) competition consisted of a one-week internship at the DGH, at the INSA facilities in Lisbon and at the Public Health Centre Doutor Gonçalves Ferreira in Porto. The announcement of the winners and the awarding of the respective diplomas took place during the session celebrating INSA's 125th anniversary.

Following is the general programme of activities, which summarises the main initiatives carried out:

Table 7 - General programme of activities as part of INSA's 125th anniversary celebrations

3.2.2 ORGANISATION OF SCIENTIFIC MEETINGS

In 2024, INSA organised and co-organised meetings, conferences, symposia, seminars, workshops and scientific courses. The following are strategically important:

Table 8 - Scientific meetings, conferences, workshops or courses

SCIENTIFIC MEETINGS ORGANISED BY INSA
FOOD AND NUTRITION
▪ **16th PortFIR Annual Meeting: Food Systems, Soil, Food Composition and Health** On 17 and 18 October, INSA organised the 16th edition of the PortFIR (Portuguese Food Information Platform) Annual Meeting, on the theme of "Food systems, soil, food composition and health", which brought together more than 500 participants and more than 1,000 subsequent views. Its aim, among others, was to present and discuss current food systems and their impact on human and planetary health.
▪ **"COSI-COVID Event" - INSA & WHO/Europe** INSA, in its capacity as the World Health Organisation (WHO) Collaborating Centre for Child Nutrition and Obesity, held an International Meeting on 23 April, co-organised with the WHO European Office, which brought together 100 participants. The event included a public session to present the European report of the study coordinated by INSA in the WHO European Region, which aimed to learn about and understand the impact of the COVID-19 pandemic on the lifestyle behaviours of schoolchildren, compared to the pre-pandemic period.
▪ **11th National Symposium "Promoting Healthy, Safe and Sustainable Food - SPA_3S 2024"** On 1 October, INSA held the 11th edition of the National Symposium "Promoting Healthy, Safe and Sustainable Food", on the theme "Micronutrients: The Little Big Allies of Life and Health". This symposium, attended by more than 400 people, discussed the vital role played by trace elements during different stages of the life cycle, namely pregnancy, early childhood and the elderly, as well as the pathologies associated with an inadequate intake of trace elements and the importance of nutrigenomics.
▪ **4th edition of the "Communication for healthy and safe food" seminar** On 23 May, INSA held the 4th edition of the seminar "Communication for healthy and safe food". Under the theme "Food communication: from promoting literacy to over-messaging", the event was attended by more than 500 people and enabled the importance and impact of health communication to be explored and debated.
▪ **Courses organised** • "Food innovation and assessing the potential impact on public health" course • "Promoting healthy eating habits at school age" course

ENVIRONMENT AND HEALTH & HUMAN BIOMONITORING

- **Coorganisation of the 4th workshop on human biomonitoring (4th HBM-PT) in Portugal**

  On 19 April, INSA hosted the 4th edition of the HBM-PT Workshop, bringing together around 300 participants. Under the theme "Human Biomonitoring for a better protection of citizens' health against chemical risks", the main aim of the event was to discuss and share the state of the art of human biomonitoring, environmental and health studies and chemical risk assessment in Portugal and Europe.

- **Meeting on the communication and dissemination activity of the European Partnership for the Risk Assessment of Chemicals**

  Together with the General Chemical State Laboratory (Greece) and the National Center for Public Health and Pharmacy (Hungary), INSA co-organised the annual meeting of Workpackage 3 (WP3) "Synergies, Collaborations and Awareness" of the European Partnership for the Assessment of Risks from Chemicals (PARC). The meeting was attended by around 50 experts from various European institutions involved in WP3 and other PARC WPs, including researchers from INSA.

- **3rd annual meeting of the European Partnership for the Assessment of Risks from Chemicals**

  On 27, 28 and 29 May, INSA organised the 3rd annual meeting of workpackage 5 (WP5) - "Hazard assessment" of the European Partnership for the Assessment of Risks from Chemicals (PARC) concerning the production of data and knowledge. The development of new approaches and methodologies for assessing the toxicity of chemical substances, particularly emerging substances or those that are still poorly characterised in terms of the danger they may pose to human health, is another of the objectives of this working group.

- **1st EU-WISH project capacity building workshop**

  On 10 and 11 October, INSA hosted the 1st EU-WISH capacity building workshop. Structured in a hybrid format, the initiative aimed to discuss the main challenges and opportunities of wastewater epidemiological surveillance and brought together a total of 29 speakers and 245 participants from 47 countries in Europe, the USA, Africa and India.

- **SPMicros2024 Conference: Advancing Microscopy in Materials and Life Sciences**

  On 13 September, INSA co-organised the Annual Meeting of the Portuguese Microscopy Society (SPMicros2024 Conference), with 40 participants. The main objective is to promote the discussion and dissemination of electron microscopy and its applications in the field of materials and life sciences.

- **Courses and seminars organised**

  - "Professional exposure to biological agents" course;
  - "Legionella species: detection, identification and quantification by the cultural method" course
  - "Asbestos in buildings: location, application, risk and exposure assessment" course
  - "Climate and Public Health" seminar

INFECTIOUS DISEASES & EPIDEMIOLOGY

- **10th Meeting of the Epidemiological Surveillance of Influenza in Portugal**

  On 28 October, INSA, in collaboration with the Directorate-General for Health, held the 10th Meeting of Epidemiological Surveillance of Influenza in Portugal, which brought together more than 350 participants. The main objective of the meeting was to disseminate the analysis of data from the 2023/2024 flu season, as well as to strengthen communication between all those interested in flu epidemiological surveillance issues and the National Flu Surveillance Programme.

- **14th Meeting of the Portuguese Network of Laboratories for the Diagnosis of Influenza and Respiratory Viruses**

  On 29 October, INSA held the 14th Meeting of the Portuguese Network of Laboratories for the Diagnosis of Influenza and Respiratory Viruses, bringing together 45 participants.

- **National Cerebral Palsy Surveillance Programme | Annual European plenary meeting**

  The National Cerebral Palsy Surveillance Programme organised the 2024 Annual Plenary Meeting of the Surveillance of Cerebral Palsy in Europe, which took place on 19 and 20 February and brought together 50 participants. The meeting was attended by the Programme's consortium partners, as well as the national or regional technical teams from the different European Cerebral Palsy Surveillance Programmes, with a total of 15 countries represented.

- **Presentation of the report "Ageing in Health: Characterising the health of the elderly population in Portugal"**

  On 8 July, INSA presented the report "Ageing in Health: Characterising the health of the elderly population in Portugal", which brought together 200 participants. The aim of this work is to contribute to understanding the reality of the Portuguese elderly population by integrating and summarising health information.

- **15th Vector Surveillance Network Workshop - REVIVE**

  On 12 April, INSA organised the 15th Workshop of the Vector Surveillance Network - REVIVE. The main aim of the event was to publicise the Network's national and regional results for 2023.

- **Meeting with the European group of the IDB (Injury DataBase) accident surveillance network**

  As part of the EVITA system, on 18 and 19 November INSA held a meeting with the European group of the IDB (Injury DataBase) accident surveillance network. Organised in collaboration with the European Association for Injury Prevention and Safety Promotion (EuroSafe), the meeting reinforced the commitment of each European partner to preventing accidents and injuries and promoting safety.

INFECTIOUS DISEASES & EPIDEMIOLOGY

- **Courses and seminars organised**
  - "EpiInterns - Epidemiology Topics for Public Health Interns" course
  - "Field Epidemiology - Outbreak Investigation [EpiSurge]; Mass Events" courses
  - "Extreme temperatures and their impact on mortality: use of an early warning system in life" course
  - "Epidemiology of domestic and leisure accidents" course
  - "Application of Geographic Information Systems in Epidemiology and Public Health" course
  - "Biosafety in level 2 and 3 laboratories" course
  - "Transport of Infectious Substances" course
  - Training in genomic surveillance of infectious agents
  - Technical-Scientific Seminar for Senior Diagnostic and Therapeutic Technicians "Genetic Dynamics of Invasive Neisseria meningitidis strains in Portugal"

HUMAN GENETICS, GENOMICS AND PERSONALISED MEDICINE

- **World Rare Disease Day 2024**

  INSA marked World Rare Disease Day, which is celebrated on 29 February, with an event on the theme "Rare diseases: patient involvement in building change", which brought together 280 participants. The aim of the initiative was to raise awareness of the issue of rare diseases and to give visibility to the work carried out in this area. Topics of interest in the field of rare diseases were addressed, including "Patient involvement in the discovery of new diagnoses and treatments" and "Clinical trials in rare diseases", with a huge turnout of patients and families, researchers and clinicians.

- **3rd symposium of the GenomePT consortium**

  On 17 November, INSA organised the 3rd symposium of the GenomePT consortium, an infrastructure dedicated to the sequencing and analysis of genomes supported by the Foundation for Science and Technology. There were around 160 participants from 40 organisations, including state laboratories, private laboratories, research centres, academic institutions, health services and companies in the field of sequencing technologies and their applications.

- **13th meeting of the group of representatives of the European countries that signed the declaration "Towards access to at least 1 million sequenced genomes in the European Union by 2022" (Group 1+MG)**

  The meeting of the 1+MG Group brought together 60 representatives from the signatory countries and the European Commission on 19 and 20 November to discuss progress and the next steps in implementing the 1+MG Initiative. The meeting's agenda included updates from the European Commission and discussion of topics such as the World Health Organisation's work on genomics and the ERDERA project. Current developments in implementation projects such as GDI, Genome of Europe and Beyond 1+Genomes Plus, the impact of the European health data infrastructure, the implementation of genomics in healthcare, the involvement of citizens in sharing their genomic data and the geographical scope of 1+MG were also discussed.

HUMAN GENETICS, GENOMICS AND PERSONALISED MEDICINE

- **Scientific Meeting on the Portuguese Study of Familial Hypercholesterolaemia**

  The Portuguese Study of Familial Hypercholesterolaemia celebrated its 25th anniversary. To mark the date, a scientific meeting was held on 27 and 28 September, during Family Hypercholesterolaemia Week, bringing together more than 60 participants. The event featured a group of speakers of recognised national and international merit, divided into several sessions dedicated to Familial Hypercholesterolaemia, with debates on the multigenerational approach to the disease and the importance of paediatric screening.

- **Courses, seminars and workshops organised**

  - "Computational and bioinformatic analysis of variants in genetic disease" course
  - "A day with Neonatal Screening" course
  - Ricardo Jorge Seminar "Personalised Medicine in Familial Hypercholesterolaemia"
  - Technical-Scientific Seminar for Senior Diagnostic and Therapeutic Technicians "Laboratory diagnosis of mitochondrial diseases"
  - Workshop entitled "Organisation of Clinical Services in the Context of Genomic Medicine"
  - Workshop entitled "Governance Model for Genomic and Health Information"

ONE HEALTH / UMA SÓ SAÚDE

- **Co-organisation of a conference dedicated to the One Health approach in the countries of the Community of Portuguese Speaking Countries (CPLP)**

  INSA and the National Institute of Public Health of Cape Verde, with the support of the CPLP Executive Secretariat, organised the 1st CPLP "One Health" Conference in Cape Verde from 12 to 14 October 2023. The meeting was attended by experts associated with the ministries of the CPLP countries, as well as the World Health Organisation, the Centre for Disease Prevention and Control - Africa and the Food and Agriculture Organisation of the United Nations, among others.

3.3 PARTICIPATION IN NETWORKS

The Institute participates in a large number of observation, research and reference networks at national, European and international level. Among the various networks, INSA's participation in 2024 stands out:

- **Food and Nutrition**
  - WHO/European Network | Childhood Obesity Surveillance Initiative - COSI
  - European Food Information Resource (EuroFIR AISBL)
  - Portuguese Food Information Resource (PortFIR Programme)
  - European Food Safety Authority One Health Whole Genome Sequencing system (EFSA One Health WGS System)

- **Environment and Health**
  - Global Consortium for Wastewater and Environmental Surveillance for Public Health (GLOWACON)
  - European Microbiology Experts (sub)Group of the European Commission for the Directives of: Drinking Water (EMEG DW) and Bathing Water (EMEG BW);
  - Multi-Country Multi-City Collaborative Research Network (MCC)

- **Infectious Diseases & Epidemiology**
  - Portuguese Network of Laboratories for the Diagnosis of Influenza and other Respiratory Viruses
  - Global Influenza Surveillance and Response System (GISRS)
  - Sentinel Health Units Network (USS/PNVG)
  - Respiratory syncytial virus infection surveillance network (VigiRSV)
  - Vector Surveillance Network (REVIVE)
  - Portuguese Biosafety Laboratory Network (LabPT BioNet)
  - Sentinel Doctors Network (RMS)
  - National Surveillance Network for Domestic and Leisure Accidents (EVITA system)
  - European Monitoring of Excess Mortality (EuroMOMO)
  - European Region Health Information Network (HIN) of the World Health Organisation

- **Human Genetics, Genomics and Personalised Medicine**
  - International Society of Paediatric Oncology European Neuroblastoma Research Network (SIOPEN-R-NET)

- Collaborative Laboratory Integrated Reports (CLIR)
- European Study Group on Lysosomal Storage Diseases (ESGLD)
- Portal for rare diseases and orphan drugs (ORPHANET)
- Lusophone Network of Biobanks
- National Network of Doctors for Referral to the Study of Familial Hypercholesterolaemia
- ClinGen Familial Hypercholesterolaemia Variant Curation Expert Panel (ClinGen FH)
- 1+Million Genomes initiative - Portuguese mirror group network (1+MG)
- 1+Million Genomes initiative Working Group network for implementation of genomics in healthcare systems (1+MG WG7)
- International Consortium for Personalized Medicine (ICPerMed)

- **Health Museum**
  - Portuguese Museum Network (RPM)
  - Register of Ibero-American Museums (RMI)

Also noteworthy is the participation in various networks whose main aim is to promote research on issues considered strategic, encouraging co-operation between different R&D units and/or countries, through the creation of protocols, partnerships and/or consortia. The **COST Actions** stand out, having INSA participated in several actions in 2024:

- International networking on *in vitro* colon models simulating gut microbiota mediated interactions (INFOGUT)
- European Burden of Disease Network (BURDEN-EU)
- Promoting Innovation of ferMENTed fOods (PIMENTO)
- Prevention, anticipation and mitigation of tick-borne disease risk applying the DAMA protocol (PRAGMATICK)
- Translational control in Cancer European Network (TRANSLACORE)
- European consortium to determine how complex, real-world environments influence brain development (ENVIRO-DEV)

3.4 REFERENCE

As the national reference laboratory for health, INSA:

- Performs reference laboratory activities;
- Provides technical and regulatory support to health service laboratories;
- Participates in the standardisation of laboratory or other techniques;
- Promotes, organises and guarantees external quality assessment in the laboratory;
- Prepares and distributes reference materials;
- Studies and develops new methodologies;
- Implements reference methodologies;
- Collaborates in assessing the installation and operation of public or private laboratories working in the health sector.

In this context, INSA has produced **28** recommendations and publications for technical-normative support and issued **726** technical opinions, guidelines, recommendations, consultancies and reviews of scientific articles.

The following contributions, collaborations and participation by INSA experts should be highlighted:

- Collaboration on legislative matters, such as Ministerial Order no. 114/2024/1, of 22 March, relating to the governance model and operation of national vaccination programmes and campaigns.
- Standards from the Directorate-General for Health (DGS) and the Portuguese Quality Institute (IPQ), including the following:
  - Publication by the DGS of Standard 08/2024 on the COVID-19 Vaccination Strategy, which defines the eligible groups, the vaccines to be used, the vaccination schedules and the technical procedures associated with vaccination;
  - Publication by the DGS of Standard 07/2024 on the Seasonal Influenza Vaccination Strategy;
  - Publication by the DGS of Standard 013/2024 updating the Pneumococcal Vaccination Strategy - National Vaccination Programme and Risk Groups;
  - Publication by the DGS of Standard 004/2017 of 12/04/2017, updated on 21/06/2024 - Procedures in the event of a clinical suspicion or possible case of measles;
  - Publication by the IPQ of the Portuguese standard on the inventory of asbestos and asbestos-containing materials (NP 4593:2024). This standard follows on from the work carried out by the Technical Commission for Standardisation (TC) 214 - Asbestos, chaired by INSA;

- Technical support for the translation of Standard NP ISO 20658:2024, Requirements for the collection and transport of samples for examination in clinical laboratories. This standard applies to clinical laboratories and service providers involved in the preparation and transport of samples;
- Opinions on the revision of 4 IPQ Technical Standards - CT061.

- Guidelines, Plans and Normative Circulars of the DGS, in particular the following:
  - Guidance on foetal DNA testing, circulating in maternal blood, for first trimester aneuploidy screening (Trisomy 21, 18 and 13). The genetic test for analysing circulating foetal DNA in maternal blood is made available to the National Health Service by INSA's Human Genetics Department;
  - Guideline 001/2018 from 17/03/2018, updated on 21/06/2024, Measles: Infection control in healthcare facilities;
  - Seasonal Health Response Plan - Winter Module 2024-2025;
  - Contingency Plan for Seasonal Health Response - Technical Reference Summer 2024;
  - Procedure for access to the National Strategic Botulinum Antitoxin Reserve.

Collaborations with national, European and international organisations stand out:

- Technical opinions on matters related to:
  - Evaluation of European Reference Centres;
  - Biomethane Action Plan 2024-2040;
  - Indoor air quality assessment requirements;
  - Genetically modified organisms (including micro-organisms) and related technologies;
  - Revision of 3 *Codex Alimentarius* guidelines;
  - European Commission regulatory document on food-borne outbreaks;
  - Protection against biological hazards in the workplace;
  - Confined use of microorganisms/genetically modified organisms;
  - Use of manipulated medicines for phage therapy in hospital settings (magistral preparations of bacteriophages);
  - Reports on the activities of researchers in the scientific research career.
- Consultancy activities within the scope of:
  - Assessing occupational exposure to biological, physical and chemical agents;
  - Promoting public policies in early childhood intervention;
- Recommendations, in areas such as:
  - Personalised medicine;

- Sand quality;

- Technical guidelines:
  - Pharmocogenetics;
  - Laboratory investigation of food-borne outbreaks.
- Scientific protocols in areas such as:
  - Resistance to antibiotics;
  - Bathing waters;
  - Vaccine effectiveness;
- As part of the scientific review (reviewer, peer review, editor) of articles published in national and international journals, we highlight the review of more than 150 publications by a total of 41 INSA reviewers, in the areas of infectious diseases, epidemiology, human genetics, health promotion and non-communicable diseases, environmental health and food and nutrition.

  At an international level, we highlight the review of articles and publications for the following scientific journals: American Association for the Advancement of Science; BMC (Public Health; Pregnancy and Childbirth); Elsevier; European Journal of Clinical Microbiology & Infectious Diseases; Eurosurveillance; Frontiers (in Medicine, in Molecular Biosciences, in Public Health); International Journal (for Equity in Health; of Environmental Health Research; of Food Microbiology; of Health Policy and Management; of Molecular Sciences; of STD & AIDS); Nature; ScienceDirect; Springer Nature; The Lancet Infectious Diseases; Animals MDPI.

In another area, mention should be made of the actions carried out by INSA's Licensing Area, which began its activity in 2014 under the Ordinances that regulate laboratory activity.

This area's main activity in the year under review consisted of issuing opinions (390 in 2024), subject to the simplified regime, for the opening of collection points for Clinical Pathology/Clinical Analyses Laboratories.[8]

Another of the activities developed in the area of licensing consisted of supporting the revision of the regulations that set out the technical operating requirements related to health activities, applicable to each of the types of establishments that provide health care, namely in the areas of clinical analyses and medical genetics, among others.

[8] Under Ministerial Order 392/2019 of 5 November.

3.5 Health Observation, Epidemiological and Laboratory Surveillance

The essential function of a health observatory can be translated as the process of collecting, processing and analysing data with subsequent interpretation of results on health and disease, as well as health determinants in populations, performed for the purposes of health observation, epidemiological surveillance and the monitoring and evaluation of plans, programmes or activities.

In carrying out its duties as a national health observatory, the Institute uses data resulting from its activities or produced by other entities, such as the Central Administration of the Health System or the National Statistics Institute, and collaborates with various entities, especially the Directorate-General for Health, in developing epidemiological surveillance activities for communicable and non-communicable diseases. It also studies and updates indicators that describe the state of health of the Portuguese population and its determinants, as well as studying and validating health observation instruments and publicising the results of these activities.

In this context, in 2024, INSA coordinated **33** laboratory and/or epidemiological surveillance networks, issued **383** laboratory and/or epidemiological surveillance bulletins and prepared **15** observation or monitoring reports.

The Institute coordinates three national programmes - the National Neonatal Screening Programme (PNRN), the National Surveillance Programme for Influenza and Other Respiratory Viruses (PNVGVR) and the National Programme for the External Evaluation of Laboratory Quality (PNAEQ).

It participates in the consortium coordination of the National Cerebral Palsy Surveillance Programme (PVNPC). This programme aims to produce data, indicators and knowledge that contribute to increasing and updating the evidence to better meet the health, education and social support needs of people living with Cerebral Palsy. It is part of the Surveillance of Cerebral Palsy in Europe and implements, at a national level, the quality and diagnostic standards advocated by the European registers as a whole, contributing an important part to the European indicators. It also collaborates on larger international projects with the partners of the International Network of Cerebral Palsy Registers.

In the area of infectious diseases, we highlight the close collaboration with the Directorate-General for Health in the surveillance of HIV infection and AIDS, as well as responsibility for the laboratory area of the Programme for the Prevention and Control of Infections and Antimicrobial Resistance (PPCIRA). Also noteworthy is the work resulting from the laboratory surveillance networks established with national laboratories, particularly in the area of water and food-borne diseases, sexually transmitted diseases, invasive bacterial diseases, tuberculosis and influenza and other respiratory infections of viral etiology, work which has a growing impact on integrated epidemiological surveillance, both at national and international level.

In the area of environmental health, we highlight the participation in the Operational Intervention Programme for the Environmental Prevention of *Legionella* (PIOPAL) through laboratory

surveillance of the presence of *Legionella spp*. in all healthcare units of the National Health Service.

INSA collaborates and contributes, technically and scientifically, to 16 other health programmes and the National Health Plan, and several of the Institute's organic units are involved in these activities.

Other duties performed within the scope of this essential function should also be emphasised, such as:

- The National Register of Congenital Anomalies (RENAC), which aims to estimate the prevalence of congenital anomalies in Portugal, characterise their epidemiology, as well as study their distribution and relationship with maternal and paternal sociodemographic characteristics. In 2024, RENAC updated the database sent to the European register for the years 2021 and 2022;
- The Trauma and Accident Epidemiology and Surveillance System (EVITA), which provides annual scientific information on the frequency of domestic and leisure accidents, characterises the type of accident, identifies risk situations and promotes research into the causes of accidents in support of accident prevention and health promotion policies;
- The ÍCARO Monitoring and Surveillance System, which studies the effect of climatic factors on human health, making it possible to estimate the possible effect of heat on mortality and identify periods when a negative effect of temperatures on the population is expected, contributing to the implementation of protective measures. This observation tool is activated every year, between May and September, through the daily production of a bulletin, shared with Health Authorities and other entities responsible for deciding and providing care to the population.

3.6 COORDINATION OF NATIONAL PROGRAMMES

Given the importance of the National Programmes in the context of the policies defined by the Ministry of Health, it was decided to dedicate a separate chapter to these issues. As part of its remit, INSA coordinated the following national programmes in 2024:

- National Neonatal Screening Programme
- National Surveillance Programme for Influenza and other Respiratory Viruses
- National Programme for External Evaluation of Laboratory Quality

3.6.1 NATIONAL NEONATAL SCREENING PROGRAMME

Neonatal Screening Programmes are public health programmes aimed at the early detection of newborns affected by a certain pathology, so that timely treatment can be put in place, reducing morbidity and mortality. The continuous development of programmes is fundamental to maximising public health gains and is based not only on developing strategies that allow for the screening of more pathologies whose early intervention is beneficial, but also on optimising the screening of pathologies that have already been screened, maximising indicators such as positive predictive value, negative predictive value, sensitivity and specificity.

The National Neonatal Screening Programme (PNRN) began in 1979 on the initiative of the Institute of Medical Genetics and was integrated into INSA in 2006. The aim of this programme is to diagnose illnesses in the first few weeks of life which, once identified, allow for early treatment to prevent developmental delays, serious irreversible illness or the child's death.[9]

The panel of screened diseases consists of 28 pathologies: congenital hypothyroidism, cystic fibrosis, drepanocytosis, 24 hereditary metabolic diseases and spinal muscular atrophy (in the pilot study phase, started in October 2022). Given the number of pathologies screened, the average time taken to start treatment and the coverage rate at national level, this is a highly effective programme that can be considered one of the best in Europe.

Since the programme began, 4.3 million newborns have been screened and more than 2,800 positive cases identified. In 2024, **84,631 newborns** were screened. The PNRN coverage rate has remained close to 100% since 1996, which is an excellent indicator of the population's acceptance of this national public health programme.

The Neonatal Screening, Metabolism and Genetics Unit of INSA's Human Genetics Department is the laboratory arm of the PNRN. In addition to neonatal screening of babies born in Portugal, this unit carries out biochemical/enzymatic and molecular confirmation of the pathologies screened in the cases identified, as well as more than 800 other Rare Diseases.

[9] Order 752/2010, of 12th January

Positive cases that are identified in the PNRN are directed to the respective National Treatment Centres or Reference Centres for Treatment.[10]

Table 9 - Performance of the National Newborn Screening Programme

PNRN	2020	2021	2022	2023	2024
Newborns analysed	85,456	79,217	83,436	85,764	84,631
Detected cases	92	82	129	136	138
Samples received	87,475	80,547	84,775	88,483	87,620
Average harvest time (days after birth)	3.68	3.65	3.59	3.56	3.73
Average time to start treatment (days after birth)	10.9	11.1	10.3	9.7	9.9

[10] Order 3653/2016, of 11 March and Order 6669/2017, of 2 August

3.6.2 National Surveillance Programme for Influenza and Other Respiratory Viruses

The National Surveillance Programme for Influenza and Other Respiratory Viruses (PNVGVR) aims to collect, analyse and disseminate information on influenza activity, identifying and characterising influenza viruses and other respiratory viruses circulating at an early stage in each season, as well as identifying emerging viruses with pandemic potential and which pose a risk to public health, thus seeking to contribute to reducing morbidity and mortality associated with the infection and its complications. The information resulting from surveillance also makes it possible to orientate disease prevention and control measures. The PNVGVR integrates the clinical and virological components, and has sentinel and non-sentinel networks made up of primary healthcare and hospital networks:

- Sentinel Doctors Network;
- Network of Sentinel Health Units;
- Portuguese Network of Laboratories for the Diagnosis of Influenza Virus Infection and other Respiratory Viruses;
- Sentinel Hospitals Network for the surveillance of severe acute respiratory infections;
- Network of Sentinel Hospitals for the surveillance of respiratory syncytial virus (RSV).

In the 2023/2024 season, various activities were carried out to publicise the results of the PNVGVR, namely:

- Publication of weekly flu epidemiological surveillance bulletins, not only during the autumn-winter months, but throughout the year (a total of 52 bulletins);
- Meetings/trainings with the Portuguese Network of Laboratories for the Diagnosis of Infection by the Influenza Virus and other Respiratory Viruses and notification of cases in the epidemiological surveillance system;
- Maintaining the management activities of all the networks that make up the PNVGVR, namely the Sentinel Doctors Network, the Sentinel Health Unit Network, the Sentinel Hospitals Network and the Portuguese Network of Laboratories for the Diagnosis of Influenza and Other Respiratory Viruses and the Sentinel Hospitals Network for the surveillance of RSV in hospitalised children under the age of 2;
- Integration of laboratory diagnosis of SARS-CoV-2 and RSV in all cases reported under this programme;
- Laboratory notification in the National Epidemiological Surveillance System (SINAVE) of all cases with laboratory diagnosis of SARS-CoV-2 and RSV;
- Integration of the programme's data into studies on the effectiveness of the flu vaccine and the COVID-19 vaccine;

- Diagnosis of avian influenza in human cases identified by public health authorities investigating avian influenza outbreaks in Portugal since 2021;
- 5 poster presentations at international congresses, 5 oral communications (at national and international meetings), 9 scientific articles in international journals and 3 scientific articles in national journals;
- Annual report National Influenza Surveillance Programme, 2023/2024 season.[11]

Influenza surveillance data, both laboratory and clinical, was reported weekly to the European Centre for Disease Prevention and Control (ECDC) via the *TESSy* platform. This data was included in the weekly bulletins of the European Influenza Surveillance Network (ECDC/WHO).[12] The following table shows the evolution of the number of participants and cases notified under the Programme:

Table 10 - Evolution of the number of participants and cases notified under the PNVGVR

PNVGVR	2019/20	2020/21	2021/22	2022/23	2023/24
No. of Sentinel Doctors / EuroEVA project	122	55	41	87***	70***
Portuguese network of laboratories for the diagnosis of influenza virus infection (number of hospital laboratories)	21	19	22	-	32**
No. of SG cases notified	1034*	1027*	549	1107	490
	(21909**)	(61551**)	(154703**)	(13,150**)	132,116 **
No. of samples received	831	1027	549	1107	490

*Notified by the Medical Sentinel Network, the EuroEVA project and the Emergency and Obstetric Services;
**Notifiers and cases reported by the Portuguese Network of Laboratories for the Diagnosis of Influenza and Respiratory Viruses;
*** Number of Sentinel Doctors and Sentinel Units that reported cases to the PNVGVR during the 2022/23 and 2023/24 seasons. At that time, the EuroEVA Network, Emergency Services and Obstetrics Services were not active.

[11] Available at: http://hdl.handle.net/10400.18/9227
[12] Available weekly in: https://erviss.org/

3.6.3 National External Quality Assessment Programme

INSA is the national reference laboratory for health and is responsible for promoting, organising and guaranteeing the External Quality Assessment (EQA) for clinical and environmental analysis laboratories.

In this way, the Institute has been coordinating the External Quality Assessment Programme (PNAEQ) since 1978, providing inter-laboratory tests in various areas: Clinical; Point-of-care testing (POCT); Genetics; Extra Analytical Phases; Pathological Anatomy; Environmental Microbiology, which includes Food Microbiology and Water Microbiology, aimed at national public and private laboratories, as well as international ones (European, CPLP, Africa and South America, among others).

It relies on the collaboration of experts of recognised competence from different hospitals, institutions and national and international entities, who contribute by issuing technical-scientific opinions and/or selecting and preparing samples, evaluating the performance of the participating laboratories and the methodologies used.

The PNAEQ cooperates with other organisers of international External Quality Assessment Programmes, namely External quality Control of diagnostic Assays and Tests with a focus on Thrombosis and Haemostasis (ECAT), Aurevia Oy (Labquality), UK Health Security Agency (UKHSA), Stichting Kwaliteitsbewaking Medische Laboratoriumdiagnostiek (SKML), Noklus, among others. In addition, INSA is a member of the European Quality Association of Laboratory Medicine (EQALM).

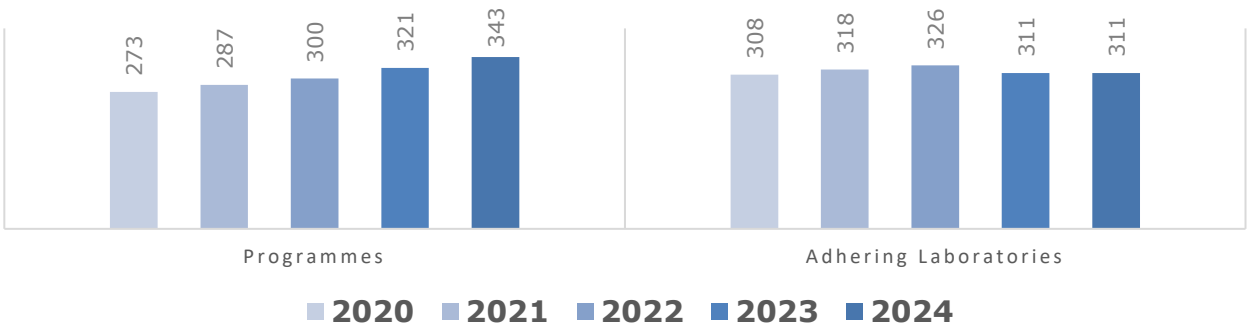
This programme has more than 300 participants. The following table shows the evolution of the PNAEQ, both in terms of the programmes and the adhering laboratories (in the clinical area, food and water), from a quantitative point of view.

Table 11 - Evolution of external laboratory quality assessment data

PNAEQ	2020	2021	2022	2023	2024
Programmes	273	287	300	321	343
Clinic	254	268	281	303	325
Food	10	10	9	9	9
Water	9	9	9	9	9
Adhering Laboratories	308	318	326	309	311
Clinic	241	248	248	229	233
Food	30	32	33	33	35
Water	37	38	45	47	43

It should be noted that the overall figures for the programmes made available under the PNAEQ have grown in recent years. In 2024, the programmes offered covered a wide range of skills, meeting the needs of the participants.

Graph 12 - Evolution of programmes and adhering laboratories



Participation in External Quality Assessment Programmes is voluntary and the confidentiality of the results is guaranteed. Monitoring the results makes it possible to implement improvements in analytical quality, in a retrospective evaluation and in an independent way to guarantee the quality of the services provided by the participants.

The PNAEQ contributes to the harmonisation of methodologies used by participants, monitors performance over time and supports the implementation of corrective and preventive actions, contributing to better clinical diagnosis, treatment and surveillance of diseases, directly benefiting the patient and the general public. A more active involvement of the participants has been achieved by asking them to answer questionnaires, inviting them to take part in training sessions and pilot studies over the last few years, and by collaborating with educational institutions in the field of research and development in the area of quality control.

As a result of the AEQ programmes, 2441 reports were issued in 2024 (1390 in 2020). Participant satisfaction has been consistent, with high satisfaction values of over 90 per cent (2020: 97.5%; 2021: 95.6%; 2022: 96.4%; 2023: 96.0%). In 2024, the proportion of satisfactory responses to customer satisfaction surveys stood at 94.1 per cent.

3.7 DIFFERENTIATED SERVICES

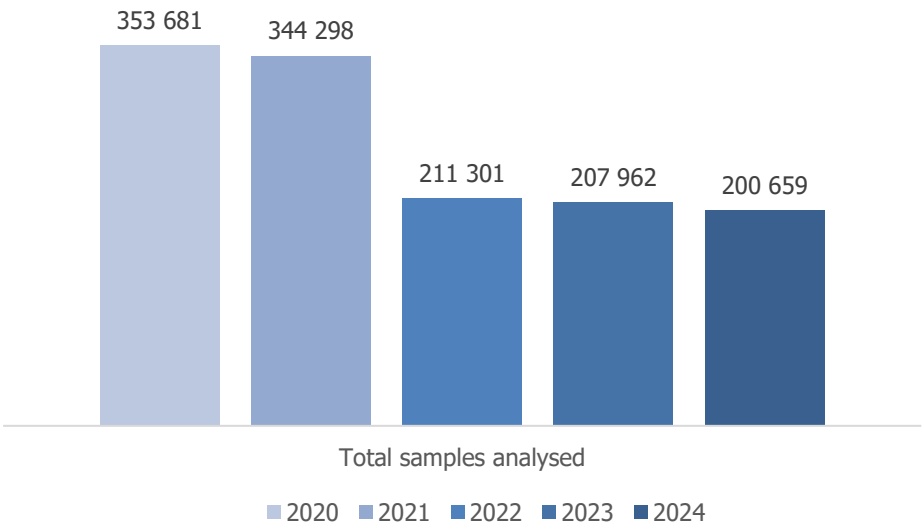
Within the scope of its activity, INSA provides services to various entities in highly specialised areas for which the Institute is dedicated, namely in the area of diagnosis, prognosis and prevention of genetic diseases and as a reference laboratory.

As part of the essential function of providing differentiated services, the results relating to samples and parameters analysed during the year are listed, as are the amounts invoiced by the Institute in areas such as clinical and water, environmental, and food analyses, genetic testing, doping analyses and external quality assessment programmes, as well as the value generated in consultancy and training.

With regard to the samples analysed, as shown in Graph 13, there has been a stabilisation in the last 3 years, after the increase seen in the years of the COVID-19 pandemic. In 2024, **200,659 samples** were received at INSA, and **471 541 parameters** were analyzed.

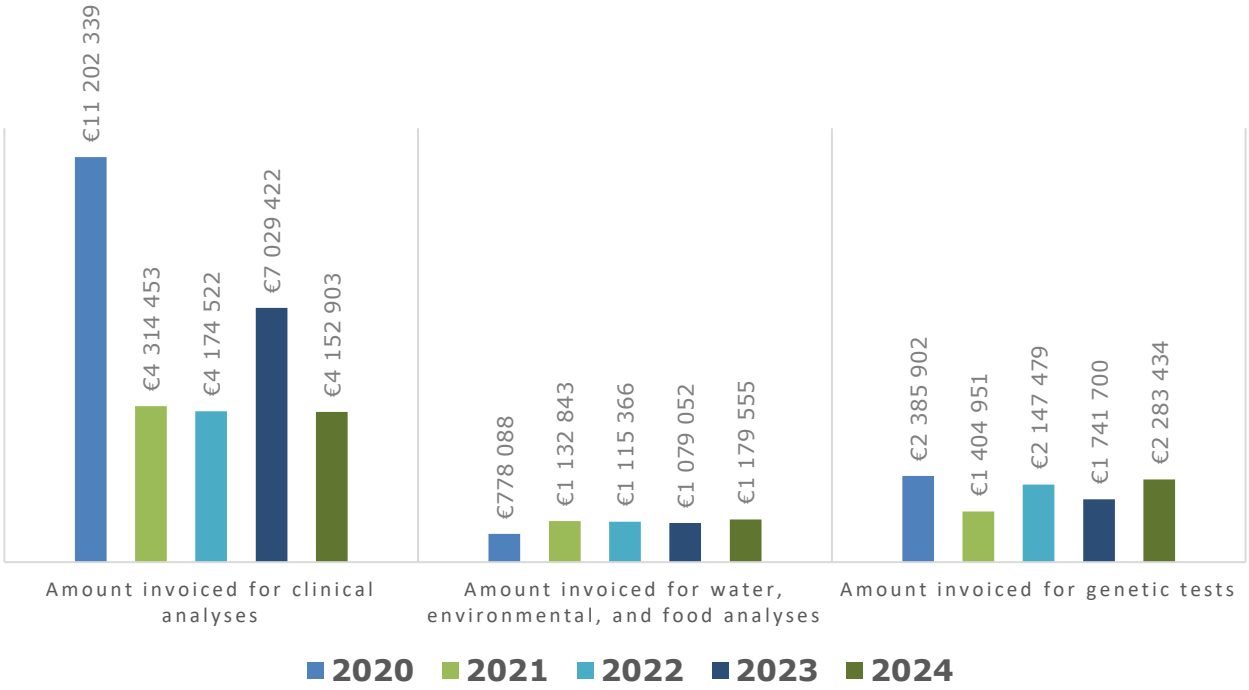
The data referring to the total number of samples refers to the sum of the entries in the 3 specific softwares, referring to Clinical, Food and Environmental Analyses, Genetic Tests, the National Neonatal Screening Programme and Doping Control Analyses.

Graph 13 - Evolution of total samples analysed



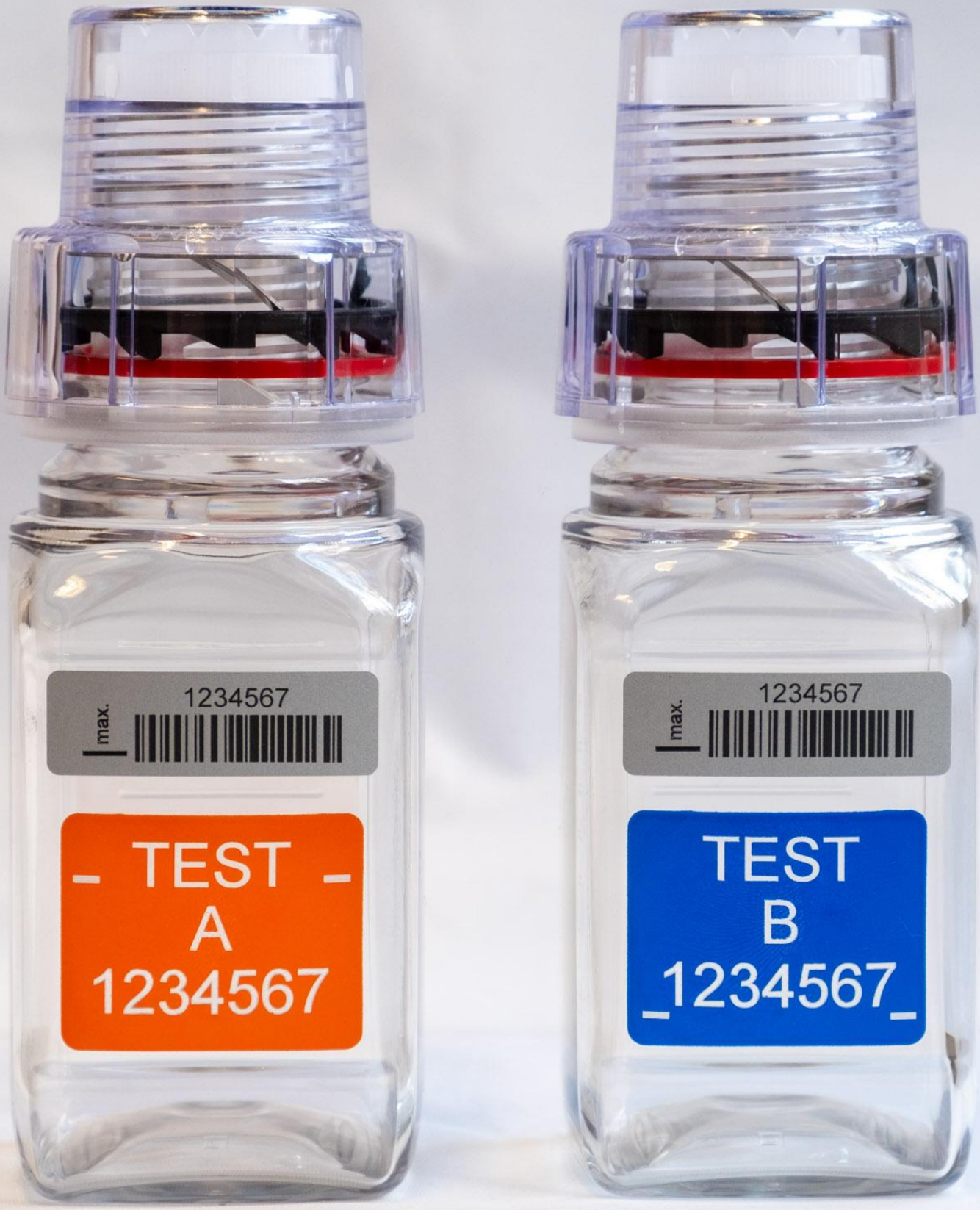
The following graph shows the amounts invoiced for clinical and water, environmental, and food analyses and genetic tests:

Graph 14 - Amounts invoiced for clinical and water, environmental, food analyses and genetic tests



In 2024, INSA earned the following amounts:

- More than €7.5 million in clinical and water, environmental, and food analyses and genetic tests. It was decided to present the amounts invoiced in the Activity Report rather than the amounts generated from these analyses and tests, since their payment may not correspond to the year of invoicing;
- In terms of doping analyses, turnover totalled around €584,000;
- INSA earned €129,000 from external quality assessment programmes;
- INSA also generated €29,000 in specialised consultancy and €52,000 in training.


max.
1234567
- TEST -
A
1234567
max.
1234567
TEST
B
_1234567_

3.8 TRAINING OFFER

Training is one of INSA's essential functions, which includes promoting the training of health professionals and those in related fields. The knowledge produced by the Institute and accumulated in the exercise of its Research, Health Observation and Service Provision functions is shared with institutions and their professionals who intervene directly or indirectly in the health sector. Each year, a Training Offer Plan (POF) is drawn up with a wide range of initiatives in areas of the Institute's technical-scientific speciality and promoted by INSA researchers and specialised technicians.

In addition to the annually programmed initiatives, INSA provides training services tailored to the needs and particularities of the organisations that request them, in Portugal and/or abroad.

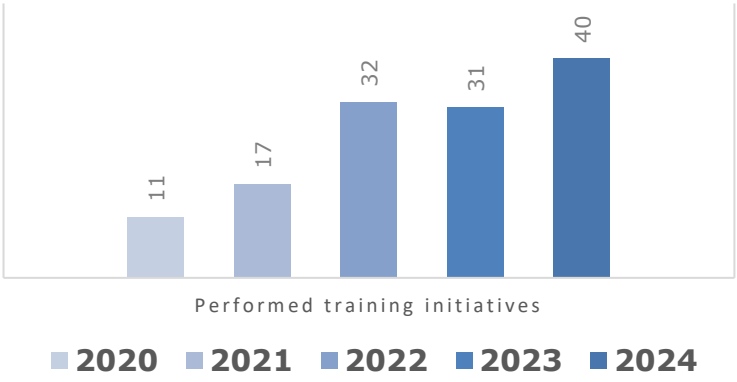
TRAINING INITIATIVES

POF actions take different formats, such as courses, seminars and workshops on public health topics, events to disseminate and update scientific knowledge (e.g. symposia, conferences), training in the context of laboratory work (aka "training internships") and study visits for students and professionals.

- **Courses**

In 2024, 40 initiatives were organised in the form of courses and events, a positive development, as shown in the following graph:

Graph 15 - Number of training initiatives



The participants in these training programmes were students and professionals in the health and related fields, from the public, private and semi-private sectors.

LABORATORY TRAINING

Laboratory training (FCTL) is another of INSA's training programmes. It is designed according to the specific objectives and needs of the trainees and allows them to build specialised professional skills using a hands-on methodology, under the guidance of a supervisor appointed for this purpose in one of INSA's six technical-scientific departments.

In 2024, there were **182 FCTL of a curricular nature** (as part of professional, bachelor's and master's degree programmes) and **33 of an individual/improvement nature** aimed at professionals. INSA offers these training experiences to both Portuguese and foreign professionals/students. In the year under review, the curricular FCTLs carried out included students from Romania and 7 from Granada (Spain), and the further training/individual FCTLs included 18 professionals from the PALOP countries.

▪ Medical Internships

The Portuguese Medical Association (Ordem dos Médicos) recognises INSA as being suitable for training internships. Every year, medical interns carry out internships at the Institute, under the guidance of highly specialised researchers and technicians, in various technical-scientific areas, particularly Human Genetics, Infectious Diseases and Public Health. In 2024, **40 FCTL** were provided to internal doctors from 25 health institutions across the country.

▪ Pharmaceutical Residency

Following the creation of the special pharmaceutical career[13], its internship was created under the name of Pharmaceutical Residency[14]. The Pharmaceutical Residency takes place in two laboratory areas – Clinical Analyses (Clinical Pathology) and Human Genetics – lasting 4 years, with specific programmes defined[15]. Since 2023, INSA has been recognised by the Order of Pharmacists and the Central Administration of the Health System (ACSS) as the host institution for these internships.

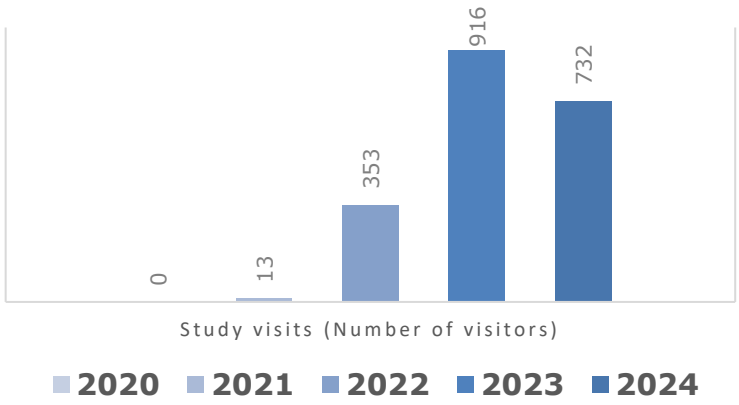
In 2024, INSA welcomed **12 pharmaceutical residents** of which 8 in the area of Clinical Analyses, 2 in the area of Human Genetics and another 2 from hospital institutions (external RF) in the area of Clinical Analyses, to complement specific training not available in the host institutions.

[13] Decree-Law no. 109/2017 of 30 August;
[14] Decree-Law no. 6/2020, of 24 February;
[15] Approved by Ordinances no. 173/2021 (Clinical Analyses) and no. 175/2021 (Human Genetics) of 20 August.

STUDY VISITS

The last two years have seen an increase in the number of study visits, with an impact on the number of "visitors". The main beneficiaries of these activities are secondary school students (from 10th to 12th grade). Schools' motivations for study visits include reinforcing curricular learning, contact with laboratory and scientific working environments in different areas and their professionals. In 2024, the most visited department was Human Genetics (381 visitors, 52 per cent).

Graph 16 - Changes in the number of visitors to training programmes



TEACHING ACTIVITIES

In 2024, INSA professionals collaborated with educational and health institutions in teaching activities in the context of degree and non-degree courses. These are initiatives that take place within the framework of protocols and/or in response to requests, and which can take place on the Institute's premises or outside. In 2024, teaching activities involved 80 classroom hours and 100 trainees.

COLLABORATION PROTOCOLS WITHIN THE TRAINING OFFER

INSA establishes collaboration protocols with health and higher education institutions in the public and private sectors for training or involving training activities. In 2024, 4 protocols were signed to this effect: 3 with higher education organisations and 1 with a direct government service.

3.9 QUALITY

3.9.1 QUALITY MANAGEMENT SYSTEM

The Quality Area is responsible for implementing and managing INSA's quality management systems, namely accrediting tests, representing INSA in all matters relating to quality and, in addition, coordinating actions between the various areas of the Institute.

The accreditation process is governed by international standards, allowing for the existence of International Recognition Agreements (EA, ILAC, WADA/AMA)[16] between accreditation bodies, facilitating the free movement of goods and services covered by accreditations.

INSA's Quality Management System is accredited by the Portuguese Quality Institute (IPAC), in accordance with the reference standards "NP EN ISO/IEC 17025 - General requirements for the competence of testing laboratories", "NP EN ISO 15189 - Clinical laboratories, requirements for quality and competence" and generally fulfils the requirements of the reference standard "NP EN ISO 9001 - Quality Management Systems - Requirements".

IPAC accreditation consists of assessing and recognising INSA's technical competence at national and international level to carry out specific conformity assessment activities, namely tests, clinical analyses and genetic tests, which are included in the certificates (technical annexes).

In addition to its IPAC accreditation, the LAD is also accredited by the World Anti-Doping Agency (WADA/AMA). Of particular importance in its activities is the International Standard for Laboratories (ISL), which aims to guarantee the quality and validity of the data and results produced by anti-doping laboratories in a harmonised and uniform way. WADA, as an independent international agency, has the main role of developing, harmonising and coordinating anti-doping rules and strategies in all sports and countries. Laboratories that analyse doping control samples must act in accordance with the requirements set out in the ISL and the respective technical documents issued by WADA. These documents specify the criteria that must be met in order to obtain and maintain accreditation, in order to demonstrate that laboratories are technically competent, that they operate within the framework of an effective management system and that they are capable of producing legally valid results.

In general terms, the accreditation of tests carried out by INSA has grown steadily since 2011, with the aim of contributing to the continuous improvement of the Institute's performance. In 2024, INSA accredited 73 tests, having maintained the accreditation of the 2,254 tests that already existed in 2023, totalling **2327 accredited tests**.

This consolidation in growth is based on the effort, commitment and investment that the Institute and all its employees have dedicated to this commitment.

[16] EA: European cooperation for Accreditation in Europe
ILAC: International Laboratory Accreditation Cooperation in the global laboratory and inspection space
WADA/AMA: World Anti-Doping Agency, in the global space of doping analysis laboratories

The main activities in 2024 were:

- **Internal and external accreditation audits**
  - Internal audits were carried out by INSA auditors, totalling approximately 799 hours of activity;
  - INSA was subject to 7 internationally recognised external audits, lasting a total of 41 days and involving the participation of 25 auditors. In addition to the 2 IPAC audits, the following audits were also carried out:
    - At international level, INSA's laboratories are evaluated by the WHO as part of disease elimination and eradication programmes. In 2024, the following virtual audits were conducted:
      - Polio Accreditation report - Portugal
      - Annual Progress Report on Polio Eradication Activities - Portugal
      - Measles and Rubella National Laboratory or sub-National Laboratory Check List for WHO Accreditation - Portugal
      - Annual Status Update on Measles and Rubella Elimination - Portugal
    - At European level, INSA was assessed through the audit promoted by the European Commission, within the scope of the response to the avian influenza virus, specifically regarding the implementation of animal health legislation in the areas of preparation and operationalisation of Highly Pathogenic Avian Influenza surveillance and subsequent outbreak controls. Organised by the Directorate-General for Food and Veterinary Science, the audit involved various entities from the veterinary, human health, public health and environmental fields and began with a presentation of the National Surveillance Programme for Influenza and Respiratory Virus and its surveillance, diagnosis and genetic sequencing activities, as well as INSA's installed capacity for responding to possible outbreaks of avian influenza.
  - Following WADA's external evaluation, which is mandatory after one year of LAD's accreditation, which took place in September 2023, LAD obtained the final decision in May 2024 accepting all the corrective actions, thus bringing the external audit to a close. As a result, the laboratory is now able to report all results to its clients without the need to request a second opinion from other laboratories.

- **Normative transition from NP EN ISO 15189**
  - The implementation of the new version of the NP EN ISO 15189 standard (Clinical Laboratories: Requirements for quality and competence), with most of the requirements having been implemented over the course of 2024 in preparation for their formal adoption;

- **Consolidation of NP EN ISO/IEC 17025**
  - The application of the NP EN ISO/IEC 17025 standard (General requirements for the competence of testing and calibration laboratories) was reinforced, guaranteeing that laboratory processes comply with the principles defined;

- **LAD's Quality Management System**
  - The process of integrating the LAD's Quality Management System into the INSA continued, promoting harmonisation with the systems already implemented in other laboratory units of the institution;

- **NP EN ISO 9001 certification**
  - During the year, the strategy for certification of the Quality Management System according to the NP EN ISO 9001 standard was outlined, with a special focus on clinical analyses. In this context, the proposal for certification was also formalised, with a view to its future implementation;

- **Consolidation of Quality Management software**
  - Consolidation of the software supporting the Quality Management System was promoted, an essential tool that integrates and operationalises the requirements of the reference standards by which INSA is accredited and which will also support the ISO 9001 certification process;

- **Review of the Quality, Environment and Safety Policy**
  - The Quality, Environment and Safety Policy was revised, ensuring alignment with institutional values and objectives, with special emphasis on the commitment to the well-being, safety and rights of users. The revised policy clearly reflects the guiding principle: "To guarantee, first and foremost, the well-being, safety and rights of users";

- **Management reviews of laboratory units**
  - The organisational units with laboratory activities held their respective management review meetings, with the aim of assessing the effectiveness of the quality management systems, identifying opportunities for improvement and ensuring their relevance and suitability, in accordance with the principles of continuous improvement.

- **Internal quality control**
  - INSA's laboratories have implemented a robust internal quality control system that ensures the reliability, accuracy and traceability of analytical results. LAD, for example, has a quality control programme, Internal Quality Control - iQAS, developed to continuously monitor the performance of the analytical methods used, through the systematic analysis of control samples, equipment performance reviews and periodic

verification of the acceptance criteria defined in the technical procedures. This control allows for the early detection of deviations, the assessment of the precision and accuracy of the results and the implementation of corrective actions when necessary. Participation in this programme reinforces LAD's commitment to quality, transparency and scientific credibility, promoting confidence in the results issued and ensuring compliance with the highest international standards.

3.9.2 Participation in External Quality Assessment Programmes

External quality assessment is one of the fundamental requirements for demonstrating the competence of an accredited laboratory, as established by the NP EN ISO/IEC 17025 and NP EN ISO 15189 standards. Participation in external laboratory quality assessment programmes is therefore mandatory in order to comply with the national legislation in force and to maintain the accreditation of the tests performed.

This participation is an essential tool for analytical quality control, making it possible to gauge the analytical performance of the tests and the technical competence of the professionals involved. By identifying deviations, gaps or opportunities for improvement, external quality assessment programmes make it possible to diagnose, evaluate and guide corrective actions and continuous improvement, promoting the effectiveness of laboratory quality management systems.

Beyond the technical aspect, this process contributes significantly to improving the overall performance of laboratory services and increasing the quality of results, with a direct impact on patient safety and public confidence. Ultimately, this practice reinforces the pillars of a sound and responsible public health policy, guaranteeing that the services provided are technically valid, reliable and appropriate to their clinical and social purpose.

INSA participated in **339 External Quality Assessment programmes**, and the rate of satisfactory results was over 98%, reaching 100% in some cases.

3.10 Internal Control

The Internal Audit and Control Area (CAI) provides advice and support to the Board of Directors, developing objective analyses and assessments, independently and with full technical autonomy, issuing diagnostic reports identifying weaknesses for the adoption of corrective measures and good practices to be pursued, as well as supporting risk management by assessing the effectiveness of procedures.

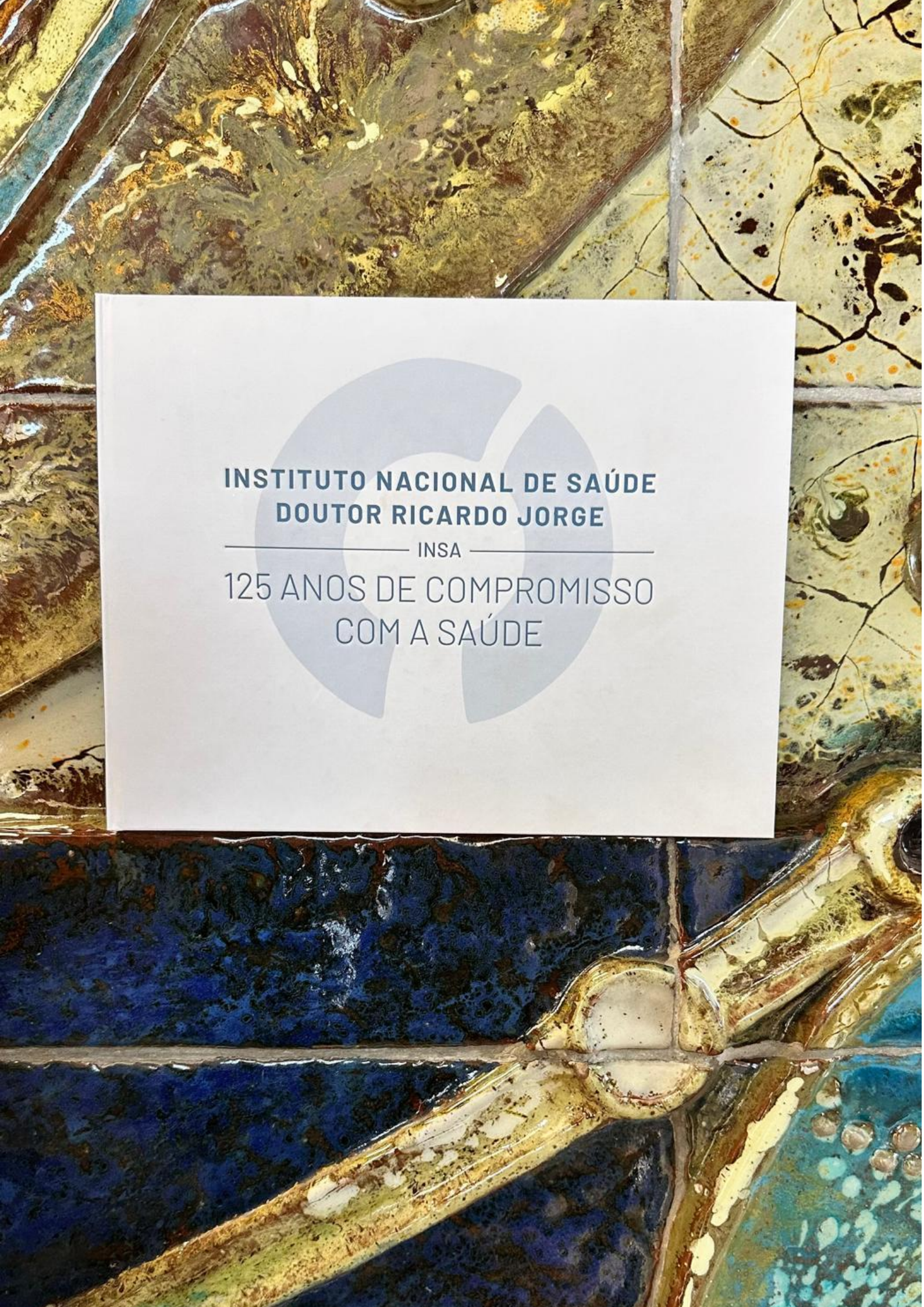
One of the duties of this area relates to drawing up, following up and monitoring the **Plan for the Prevention and Management of Risks of Corruption and Related Offences** (PPGRCIC). In compliance with the General Regime for the Prevention of Corruption[17], the Plan is reviewed every 3 years, or whenever there is a change in the remit or organisational structure of the entities covered. As INSA's PPGRCIC came into force on 1 January 2022, in accordance with the planned timetable, the revision of the Plan was completed by the end of December 2024.

On the other hand, in order to prevent any commercial and/or operational risk to impartiality within the scope of the Quality Management System, the risks to impartiality have been defined in this Plan, as well as the necessary measures to mitigate and/or eliminate them. These risks to impartiality are duly identified in the Plan and are subject to joint monitoring under the terms defined in the PPGRCIC. The review of the Plan found that 10 per cent of the risks of corruption and related offences are High, 41 per cent are Moderate and 49 per cent are Low.

Within the scope of internal control, other activities were carried out, such as a webinar on "Ethics and Confidentiality of User Information", where clarifications were given on the following procedures implemented at INSA: Good Conduct for Preventing and Combating Harassment at Work; Ethics and Professional Conduct; Conflict of Interest Management; Whistleblowing Channel.

Throughout 2024, the approved and revised procedures were publicised, as well as the clarifications and instructions that proved appropriate, in most cases by email to all INSA employees, including the respective directors, coordinators and managers. The Policy on the Receipt of Gifts and Hospitality was also approved and implemented, which is essential for compliance with the Code of Ethics and Professional Conduct, as well as for the implementation of the measures set out in the Plan for the Prevention and Management of Risks of Corruption and Related Offences. This policy is summarised as a manual of conduct and procedures for all those who receive or intend to receive gifts and hospitality.

[17] Approved in annex to Decree-Law no. 109-E/2021, of 9 December


INSTITUTO NACIONAL DE SAÚDE
DOUTOR RICARDO JORGE
INSA
125 ANOS DE COMPROMISSO
COM A SAÚDE

3.11 RELEVANT INITIATIVES IN 2024

Of the many actions that took place in 2024, two important commemorations for INSA stand out. Other important news can be found on the institutional website.[18]

3.11.1 INSA'S 125TH ANNIVERSARY CELEBRATIONS

On 12 November 2024, INSA marked its 125th anniversary (1899-2024). The programme of the evocative session, which had the high patronage of the President of the Republic and took place in the auditorium of the Champalimaud Foundation in Lisbon, featured the presentation of the book "INSA: 125 anos de compromisso com a saúde" (INSA - 125 years of commitment to health) and the award of the Ricardo Jorge Public Health Prize 2024.

The 125-page book takes you on a journey through the Institute's history, paying close attention to the evolution of its name and remit, and highlighting the main milestones in the work performed by its delegations and technical-scientific departments. The book was presented by Maria de Belém Roseira, Minister of Health in the 13th Constitutional Government [1995-1999].

Present at the formal session celebrating INSA's 125th anniversary, the Minister of Health, Ana Paula Martins, considered that over the course of a century INSA "has established itself as a fundamental pillar of the health system, a beacon of knowledge and innovation and an example of dedication to public health and the common good", emphasising that the institution "is now much more than a State Laboratory". "It is a national and international reference centre in various areas of health. An institution that stands out for its scientific excellence, innovation and ability to respond to emerging challenges," she emphasised.

Ana Paula Martins also said that INSA has fulfilled its mission "with distinction, as demonstrated by the numerous research projects, scientific publications and partnerships established with other national and international institutions". The Minister of Health also praised INSA's work in combating the COVID-19 pandemic and thanked everyone who has contributed to the Institute's success over time, "from its founders to its current employees". "I'm sure that INSA will continue to be a beacon of hope and health for all of us," she concluded.

In addition to INSA Day, a wide-ranging programme was defined to celebrate the 125th anniversary, the initiatives of which are described in point 3.2 - Dissemination of scientific culture.

[18] http://www.insa.min-saude.pt/category/informacao-e-cultura-cientifica/noticias/

1899 · 2024
125_ANOS
INSTITUTO RICARDO JORGE

Dia do Instituto Nacional de Saúde Doutor Ricardo Jorge

12 novembro 2024

Auditório Fundação Champalimaud | Avenida de Brasília - Lisboa

PROGRAMA

15:00 SESSÃO DE BOAS-VINDAS

15:30 APRESENTAÇÃO LIVRO "INSA: 125 ANOS DE COMPROMISSO COM A SAÚDE"

Maria de Belém Roseira - Ministra da Saúde [1995 - 1999]
Moderação: Cristina Abreu Santos - Vogal do Conselho Diretivo do INSA

16:15 ENTREGA PRÉMIO RICARDO JORGE DE SAÚDE PÚBLICA 2024

Alexandre Quintanilha - Presidente do Júri
Apresentação do trabalho vencedor

16:45 ENTREGA PRÉMIO CONCURSO "DNA & SAÚDE"

Glória Isidro e Marisa Silva - Departamento de Genética Humana do INSA

17:15 SESSÃO SOLENE

Homenagem aos Colaboradores do INSA
Mensagem de sua Excelência, o Senhor Presidente da República
Mensagem do Primeiro-Ministro de Portugal
Presidente do Conselho Diretivo do INSA
Ministra da Saúde

17:45 PORTO DE HONRA

REPÚBLICA PORTUGUESA | SAÚDE
SNS SERVIÇO NACIONAL DE SAÚDE
Instituto_Nacional de Saúde Doutor Ricardo Jorge
Com o Alto Patrocínio de Sua Excelência O Presidente da República

3.11.2 CELEBRATING 70 YEARS OF INSA PORTO

On 26 November, the Public Health Centre Doutor Gonçalves Ferreira (CSPGF), the INSA branch in Porto, celebrated its 70th anniversary with an event dedicated to its history and impact on public health in Portugal.

In the year in which INSA celebrates its 125th anniversary, its Porto office also commemorated the 70th anniversary of the creation of INSA's Porto office on 9 September 1954. On the occasion, the historical importance and impact of INSA Porto on public health was emphasised, as well as its commitment to the community and its contribution to research, prevention and education in this area.

The event's programme included a special talk entitled "CSPGF: 70 Years of History", led by archaeologist and historian Joel Cleto, in which he presented historical facts about the evolution of health heritage in the city of Porto. The speaker also took the opportunity to revisit the CSPGF's historic and most significant moments.

The celebration was also marked by a tribute to Aloísio Coelho, former director of the INSA and former director of the CSPGF and a major figure in the INSA delegation in Porto, with an evocative speech about his legacy and dedication to public health, as well as the naming of the training room on the 5th floor of the building after Aloísio Coelho.


800 anos de saúde em Portugal
museu da saúde
217 508 159
futuras instalações
visitas por marcação

3.12 PERFORMANCE OF THE HEALTH MUSEUM

The Health Museum, managed and promoted by INSA, has the mission of preserving the historical, scientific, social, cultural and anthropological heritage of health, and is responsible for the inventory, classification and research of heritage assets and the conservation of the historical heritage of health.

Since it was accredited in 2019 by the Portuguese Museum Network (RPM) and with the subsequent integration into this network, the Health Museum has seen its work in preservation, enhancement, heritage and health education recognised, as well as the technical quality printed in the fulfilment of its mission and its museological and educational functions.

The Health Museum aims to stimulate communication with different audiences, in particular schoolchildren, researchers and health professionals, allowing aesthetic enjoyment of the pieces, but also disseminating concepts and knowledge, taking advantage of virtuality to broaden and multiply audiences and sensory experiences.

The following activities should also be highlighted:

- **Exhibitions**
  - 800 Years of Health in Portugal Exhibition - the exhibition, open to the public one day a week, was open to the public for free and guided tours, tours with audio guides or various types of peddypapers and educational games. Out of a total of more than 2,800 visitors, schoolchildren continue to be the most popular visitors to the museum (90 per cent of group visits), with groups at various levels: secondary, technical-vocational and university. Other visits included senior universities and tours of other organisations;

- **Celebrating 125 years of INSA**
  - The Health Museum was responsible for the editorial coordination of the book "INSA – 125 anos de compromisso com a saúde" (INSA - 125 years of commitment to health), which marked the anniversary. The work involved designing the book, writing and selecting content (text and images) and liaising with the various departments. The Museum also contributed to the organisation of INSA Day, providing scientific advice for the presentation of the book, as well as logistical support for the organisation of the event.

- **Disclosure**
  - The Museum continued to strengthen its presence on social media, publicising facts, events, personalities, techniques and other stories and curiosities about health and medicine, with a total of 130 publications in 2024.
  - In addition to the posts made on social media to publicise the collection, the history of objects, health institutions and personalities, as well as techniques, diseases and

ephemeris, the "Piece of the Month" activity was also maintained - the monthly publicising of a piece from the Museum's collection, with the aim of highlighting themes and types of objects with high historical and scientific value.

- **Research and Development**
  - Research for the production of content, whether for the creation of exhibitions, the drafting of internal documents, materials for dissemination on the internet, or support in the execution of academic and literary work;
  - Collaboration in research projects with national and international institutions, in particular the Institute of Hygiene and Tropical Medicine (IHMT) and the Robert Koch Institute in Berlin (RKI), in areas related to the history of infectious diseases. With the IHMT, it collaborated on a study on malaria, including the analysis of *Plasmodium* from the 1930s - 1950s; with the RKI, it collaborated on an international study on historical vaccines, particularly smallpox.

- **Incorporation of historical collection**
  - In 2024, the Health Museum's collection was enriched by various donations, the most significant of which was the incorporation of the DGS's historical collection, consisting mainly of audiovisuals and leaflets from public health campaigns, posters and educational materials and important photo albums from the sanatoriums of the National Institute for Tuberculosis Care. In addition, a list of ARSLVT's historical heritage was drawn up, for proposed incorporation in 2025.

- **Inventory and dissemination of collections**
  - In 2024, work continued on correcting, validating and making the objects in the collection available online on the Health Museum's inweb platform. 150 Inventory sheets have been made available online, with information on the same number of items in the collection.

- **Portuguese Museum Network**
  - The Health Museum has taken part in all the online training sessions and, when possible, participates in person in the "Network Visits" organised by the RPM and has applied for all the funding opportunities, as well as responding to all the surveys it is asked to take part in as part of the Network.

- **Collaboration with other museums**
  - The Health Museum is part of the Ibero-American Museum Network and the informal group Rede Património Ciência e Saúde (Science and Health Heritage Network), which brings together science and health science museums in the Lisbon region and regularly collaborates with various museums nationwide. In the year under review, the following stand out: Sá Penella Museum of Portuguese Dermatology; Casa-Hermes Foundation.


MECYA 335
CHU25
LMECYA 335
CHU25

4. HEARING THE EMPLOYEES IN THE SELF-ASSESSMENT OF THE SERVICES

Every year, INSA has carried out a consultation process through the application of a questionnaire addressed to its employees, which is transversal to the different professional categories, with the aim of gauging their level of satisfaction with the organisation, as well as their main needs and expectations.

Knowing the level of employee satisfaction is an important management and quality tool, and a requirement laid down in Standard NP EN IS0 15189 (Clinical Laboratories - Requirements for quality and competence), the normative reference for INSA's clinical laboratory accreditation system. In addition, the NP EN ISO/IEC 17025 standard (General requirements for the competence of testing and calibration laboratories) defines that the data for management review should include information provided by customers and employees, including suggestions for improvement.

On the other hand, Law 66-B/2007 of 28 December, which establishes the Public Administration Performance Management and Assessment System (SIADAP), stipulates that the self-assessment of services, which is an integral part of the Annual Activity Report, must be accompanied by information on "the hearing of middle managers and other workers in the self-assessment of the service".

Methodology

The questionnaire, made up of 8 questions with 71 items, 33 of which were compulsory, was applied online between 31 January and 14 February 2025.

With regard to the assessment of employee satisfaction (Part I), which is explained below, the five dimensions were presented, four of which were aimed at assessing satisfaction, while the last was intended to gauge levels of motivation:

- Overall satisfaction with the organisation;
- Satisfaction with management and management systems;
- Satisfaction with working conditions;
- Satisfaction with career development;
- Levels of motivation.

In the questions related to satisfaction, it was possible to choose between the following response possibilities: 1 - Very Dissatisfied; 2 - Dissatisfied; 3 - Satisfied; 4 - Good; 5 - Very Good. In the questions relating to "Satisfaction with working conditions", the option of "No opinion" was included.

With regard to the evaluation of INSA's support services (Part II), a question was asked regarding overall satisfaction with the performance of the areas belonging to the Human Resources Management Department, the Financial Resources Management Department, the Technical

Resources Management Department and the Management Support Areas. The analysis and evaluation of Part II was published and disseminated internally and is not analysed in this activity report.

The last question in the questionnaire is qualitative, open-ended and with no character limit, for suggestions for improvement in any area of INSA's operations and organisation.

- **Summary of Results**

From the 2024 consultation process, a response rate of 51 per cent (315 respondents) was obtained, out of a total of 622 workers/employees contacted. The total number of workers/employees includes the various labour regimes (public service employment contract, scholarship, internship or other).

Of the workers/employees who answered the questionnaire, 69% (217/315) belong to INSA's headquarters, 81% (255/315) are female and 94% (295/315) have a public employment contract.

For each of the 5 parameters analysed, the average index was calculated, obtained from the average value of each of the constituent items. The indices obtained were as follows:

Graph 17 - Average value obtained in the groups analysed

Analysing the figures, it can be seen that in all groups, with the exception of satisfaction with management and management systems, the result is positive, with an average value of **3.31**. This was lower than the value reached in 2023 (3.50), with indices ranging from a minimum of 2.93 to a maximum of 3.85, on a scale whose upper value is 5.

It is worth highlighting the high level of motivation among the Institute's employees, with this parameter even achieving the highest average score (3.85).

It can be seen that "Working hours" and "Learning new working methods" are the factors with the highest levels of satisfaction (4.09 and 3.98 respectively), while "The way the Performance Evaluation System is implemented" had the lowest average value (2.47).

In the year under review, 174 suggestions for improvement were also received. The qualitative assessments were converted into response standards and grouped into domains, namely INSA's Communication and Image (7 suggestions); Cooperation and Communication in an Organisational Context (9 suggestions); Strategy and alignment (3 suggestions); Processes and Internal Organisation (15 suggestions); Employee Management and Development (66 suggestions); Information and Communication Technologies (6 suggestions); Functioning of Service Divisions and Management Support Areas (9 suggestions); Laboratory Equipment (3 suggestions); Facilities, Hygiene/Safety and Equipment (Non-Laboratory) (48 suggestions) and Services (canteen/bar) (8 suggestions).

By analysing the main contributions, the aim is to develop an Action Plan that contributes to the development of activities and actions within the scope of continuous improvement.

Table 12 - Employee satisfaction

EMPLOYEE SATISFACTION			ORGANISATION
THE OPINION OF EMPLOYEES IS ANALYSED THROUGH SURVEYS OR OTHER INSTRUMENTS TO MEASURE THE LEVEL OF SATISFACTION			
Employee surveys	1. Response rates (%)		51%
	2. Classification obtained	Good or better, at least 70% answers ≥ good, average >4	2% of responses with average > 4
		Equal to or greater than satisfactory, at least 70% answers ≥ satisfactory, average >3.5	29% of responses with an average > 3.5
		Less than satisfactory, average 3.5	69% of answers with an average of less than 3.5
	3. Change in employee satisfaction compared to the previous year	Yes. Which ones?	No
	4. Carrying out other types of assessment	.	No


PHILIPS

5. ASSESSMENT BY USERS OF THE QUANTITY AND QUALITY OF SERVICES PROVIDED

5.1 CUSTOMER/USER SATISFACTION ASSESSMENT

Knowing the level of customer satisfaction is an important management and quality tool in management system models, and is an explicit requirement laid down in Standard NP EN IS0 15189 (Clinical Laboratories - Requirements for quality and competence) and Standard NP EN ISO/IEC 17025 (General competence requirements for testing and calibration laboratories), which are normative references for INSA's laboratory accreditation system.

In 2024, as in previous years, INSA's customer satisfaction assessment report was carried out, with information on the perception of the services provided by the Institute, making it possible to establish a process of continuous improvement.

Customer characterisation

INSA's clients fall into five categories:

- Clients/Users - Clinical Analyses/Genetic Tests: clients of the national health service and the various health subsystems, private or others with a doctor's prescription, requesting clinical analyses or genetic tests;
- Clients - Environmental Area: clients from the public or private sector who request an analysis of the environmental area;
- Clients - Food Area: clients from the public or private sector who request an analysis of the food area;
- Clients - Doctors: health professionals, in the public or private sector, qualified to prescribe requests for diagnostic tests in the areas of clinical analyses and genetic testing, as well as in the field of public health;
- Clients - Anti-Doping Area: at national level, the main client is the Portuguese Anti-Doping Authority (ADoP) and at international level Federations and other Anti-Doping Organisations use the service.

INSA's clients include public organisations, public and private companies, universities, institutes, doctors, civil society and others.

Methodology

For the period between 1 January and 31 December 2024, safeguarding the specificity of the application, the survey technique was used with the application of a questionnaire. These questionnaires were made up of a maximum of 9 open and closed questions, allowing for a brief characterisation of the client, the area(s) providing the service(s), the reason for choosing and the regularity with which they use the services, the degree of satisfaction with INSA's performance by items and overall, as well as comments and/or suggestions for improvement. To this end, six separate questionnaires were administered to each group of customers to be evaluated:

- Customer/User Satisfaction Assessment Questionnaire - Clinical Analyses/Genetic Tests (INSA-IM68);
- Customer Satisfaction Assessment Questionnaire - Environmental Area (INSA-IM69);
- Customer Satisfaction Assessment Questionnaire - Food Area (INSA-IM95);
- Customer Satisfaction Assessment Questionnaire - Doctors (INSA-IM71);
- Customer Satisfaction Assessment Questionnaire - LAD;
- Questionnaire to Evaluate Satisfaction with the National Neonatal Screening Programme (PNRN).

The questionnaires were sent out in paper format and/or as an online survey.

INSA carried out the survey at the various biological product collection facilities, SAL Lisboa, SAL Porto and the DGH reception in Lisbon and Porto, which made it possible to identify the location to which the evaluation refers. However, the results presented correspond to the overall assessment of all the collection points mentioned.

Summary of Results

It should be emphasised that, given the different methodologies used for INSA's global evaluation, the information will be presented in a different way.

Regarding the overall assessment of INSA (except LAD)

From the 2024 evaluation process, questionnaires were obtained from 4063 participants.

The overall assessment of the data obtained led to the conclusion that INSA ensures a high level of satisfaction with the services it provides, with an average customer satisfaction index of **3,71** on a scale with a maximum of 4. In 2023, a result of 3.72 was obtained.

The following table summarises the results of the customer satisfaction assessment, broken down into the different groups, namely clients/users of the National Health Service, private clients or other users of clinical analyses and genetic tests, private clients or companies using environmental and food analyses, and medical clients.

Table 13 - Overall appreciation of INSA

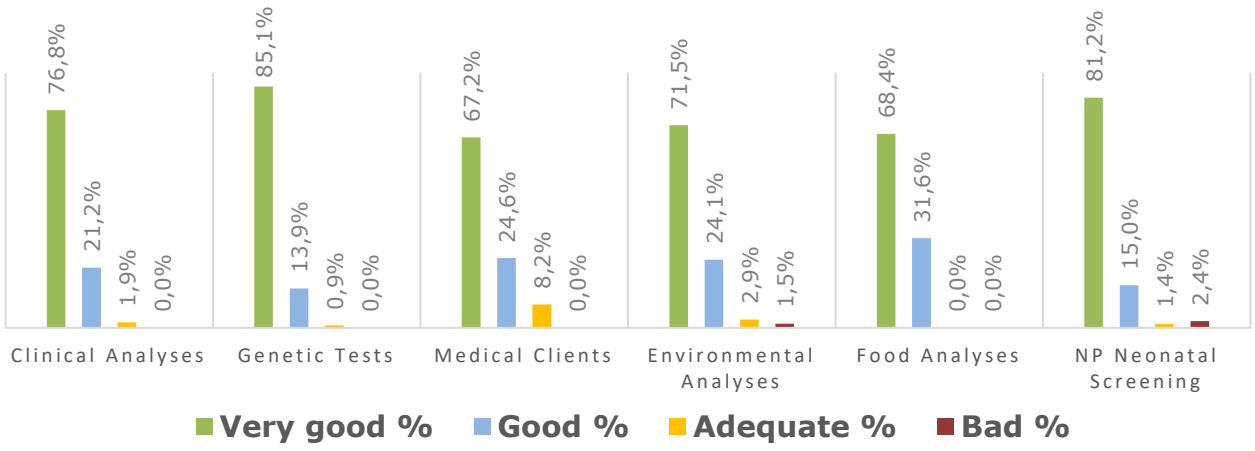
Detailed evaluation	Very good		Good		Sufficient		Bad		Overall assessment
	N	%	N	%	N	%	N	%	Scale 1-4
Clinical Analyses	474	76.8%	131	21.2%	12	1.9%	0	0.0%	3.75
Genetic Tests	275	85.1%	45	13.9%	3	0.9%	0	0.0%	3.84
Medical Clients	41	67.2%	15	24.6%	5	8.2%	0	0.0%	3.59
Environmental Analyses	98	71.5%	33	24.1%	4	2.9%	2	1.5%	3.66
Food Analyses	13	68.4%	6	31.6%	0	0.0%	0	0.0%	3.68
NP Neonatal Screening	2361	81.2%	435	15.0%	41	1.4%	69	2.4%	3.75
Total									**3.71**

Scale: 1 - Bad; 2 - Adequate; 3 - Good and 4 - Very Good

It should be noted that the distribution of the percentage of responses, as well as the overall evaluation index, were calculated excluding the participants who did not answer this question.

In the overall assessment of customers, it should be noted that 96.8 per cent of participants rated the services with the highest marks, "Very good" (75.1 per cent) and "Good" (21.7 per cent), demonstrating customer satisfaction with the quality of INSA's services.

Graph 18 - Distribution of overall appreciation of INSA



- Regarding the evaluation of the LAD

The overall response rate was 56 per cent (17 participants), out of 30 questionnaires sent out.

Analysing by matrix and by type of client, in terms of overall satisfaction with the services provided, with regard to the analysis of urine, serum and plasma samples, the LAD obtains an overall average rating of 3.7 for national clients and 4.2 for international clients, on a scale of up to 5.

With regard to the services provided for whole blood samples, the LAD achieves a satisfaction rating of 4.6 for national clients and 4.8 for international clients, on the same scale.

Table 14 - Customer appreciation - LAD

DIMENSIONS BEING ANALYSED	AVERAGE SATISFACTION LEVEL			
	SERVICES PROVIDED FOR MATRIX: URINE, SERUM AND PLASMA		SERVICES PROVIDED FOR MATRIX: WHOLE BLOOD	
	NATIONAL CLIENTS	INTERNATIONAL CLIENTS	NATIONAL CLIENTS	INTERNATIONAL CLIENTS
Clarification of questions	3.6	4.0	5.0	5.0
Flexibility in responding to requests	3.9	4.5	4.0	5.0
Complaints resolution	3.9	5.0	5.0	--
Fulfilment of delivery deadlines (≤ 20 days)	4.0	3.6	5.0	4.5
Notice of delay in submitting results	4.0	3.8	5.0	--
Consultation with the client about subcontracting analyses to another AMA-accredited laboratory	3.5	4.0	5.0	--
Prices charged by LAD	2.8	4.5	3.0	5.0
Level of satisfaction with the services provided by the LAD	3.8	4.1	5.0	4.5
OVERALL ASSESSMENT	**3.7**	**4.2**	**4.6**	**4.8**

Scale: 1 - Unsatisfied; 2 - Somewhat Satisfied; 3 - Satisfied; 4 - Very Satisfied and 5 - Excellent

Overall, the evaluation of the Doping Analysis Laboratory's customers for the year 2024, based on the average level of satisfaction, showed that the majority of these customers gave a positive assessment of the aspects they valued, with average values ranging from 2.8 to 5.0, on a scale of up to 5.

5.2 COMPLAINTS

In 2024, 6 complaints were lodged, of which 5 were entered in the Complaints Book in the so-called "Yellow Book" (4 lodged at INSA's headquarters and 1 at its deconcentrated service in Porto) and 1 complaint was lodged with the Health Regulatory Authority (ERS), which was forwarded to INSA for an opinion via email. Specifically:

- 1 complaint relating to payment for a diagnostic test;
- 5 related to the customer service, by the internal procedures in place for scheduling exams and attending them by appointment, with insufficient clarification provided.

All the complaints submitted were answered within the deadlines set, both to the complainant and to the organisations involved.

Complaints are analysed after hearing the services and workers involved and, whenever justified, clarifications are requested from the complainants, always prioritising an impartial and fair response.

Although there has been a slight increase in complaints compared to the previous year, it is not clear that this is a negative development. Compared to 2023 (n=5), one more complaint was registered. On the other hand, it should be noted that in 2024 there were 2 compliments.

It should also be noted that INSA has ensured that the workers assigned to the laboratory service have acted in fulfilment of their duty of care and with respect for the rules of urbanity and good treatment towards users who use the services.


Instituto Nacional de Saúde
Doutor Ricardo Jorge
O INSTITUTO DE REFERÊNCIA EM SAÚDE
INVESTIGAR
OBSERVAR
FORMAR
CAPACITAR
DIFUNDIR
REPÚBLICA PORTUGUESA
SNS
insa.pt

6. Evaluation of the Internal Control System

Within the scope of Internal Control, effective control over the activities carried out at the Institute, the clear definition of operating principles, flows and circuits, the simplification of procedures and the reliability and security of information sources and systems are considered important.

The assessment of INSA's internal control system is summarised in a table adapted from Annex A of "Technical Document no. 1/2010 Evaluation of Services - General Guidelines of the Coordinating Council for the Evaluation of Services", submitted annually to the Ministry of Health.

7. DEVELOPMENT OF POSITIVE PERFORMANCE REINFORCEMENT MEASURES

With regard to the development of measures to positively reinforce performance, with a view to encouraging the development of productive and healthy habits, as well as more efficient management of available resources, we would like to highlight some transversal measures, which involve articulation and the development of joint activities between several of INSA's organisational units. These measures are listed below because of the impact they have on the institution, whether through a sustained improvement in performance, the increased dedication of the professionals involved or the benefits they bring to the INSA community:

- **Consolidating the integration of Regional Public Health Laboratories**
  - Consolidating the integration of the Regional Public Health Laboratories (LRSP) into INSA, namely Aveiro, Braga, Évora, Faro and Leiria, as territorially deconcentrated services, reinforcing, in accordance with the criteria of complementarity and subsidiarity, the development of the core competences of those Laboratories and the public health laboratory support network, optimising existing resources and improving the quality of the service provided. This integration, within the scope of Decree-Law no. 54/2024 of 6 September, presupposes the preparation of a proposal to revise the Institute's Statutes, as well as its Internal Rules of Organisation and Operation, the integration of health professionals, laboratory support information systems and other related processes.

- **Strengthening the Institute's role in implementing reference services**
  - Strengthening the Institute's role as a State Laboratory and National Reference Laboratory, emphasising its new role as a European Union Reference Laboratory (EURL) for public health - EURL for *Legionella* and EURL for high-risk, emerging and zoonotic bacteria - under the Regulation on serious cross-border threats to health. Likewise, to maintain the laboratory commitments made with the WHO and ECDC, including collaboration in the preparation of the National Action Plan resulting from the European external evaluation PHEPA - Public Health Emergency Preparedness Assessments. As a national strategic laboratory in the health area, to strengthen the provision of differentiated services and, at the same time, to take on new challenges, particularly in the laboratory area of population-based screening.

- **Strengthening strategic alliances with national and international networks**
  - Strengthening strategic alliances with national and international networks, including partnerships in the field of Global Health, through participation in technical and scientific networks, enabling it to increase the impact and effectiveness of the actions carried out within the scope of its mission. This includes co-operation with the European Union and the WHO/Europe Region, through participation in various working groups and/or initiatives, but also, through the transfer and sharing of knowledge, boosting synergies to strengthen health research networks in countries of the Community of Portuguese

Speaking Countries (CPLP) and African Portuguese Speaking Countries (PALOP), as well as INSA's participation as an advisory body to the CPLP Executive Secretariat. Also noteworthy is the continuation of the project "Força Saúde - Strengthening the alliance between the African and Portuguese HEALTH Systems through the training of human resources", as well as the realisation of the initiative "ProMeQuaLab - Project to Improve Laboratory Quality in Portuguese-speaking Countries".

- **Boosting scientific research and innovation**
  - Defining and monitoring INSA's scientific research agenda, aligned with current health challenges and with European and national research agendas, including: national programmes to stimulate scientific research in the area of health (e.g. "Health + Science Programme"); with the PNS and national priority programmes; but also the focus on relevant research areas, such as bio-preparedness for new epidemics and emerging diseases, rare diseases, vaccine effectiveness studies, human biomonitoring, oncological diseases, childhood obesity, mitigating the effects of climate change on human health, among others;
  - It also maintains the dynamisation of scientific research and innovation based on excellence in order to generate relevant evidence for decision-making in health policies and strategies, both in their planning and evaluation.

- **Consolidating the strategy of promotion, integration of Human Resources and internal training**
  - Consolidating the strategy for promoting and retaining highly qualified human resources in technical-scientific areas, through the opening of tendering procedures and career progression, as well as the presentation of a proposal to revise INSA's statutes to include middle management positions;
  - Promoting the application to the Institute of the legislative changes within the scope of the Integrated System for Performance Management and Assessment in the Public Administration (SIADAP), revised by Decree-Law no. 12/2024 of 10 January, including with regard to the ongoing training of workers, which promotes the reinforcement of competences within the framework of the Public Administration Competence Framework;
  - Reinforcing the thematic areas included in the Annual Training Plan, in line with the needs identified by both employees and transversal areas.

- **Implementing measures to promote well-being at work**
  - Implementing measures aimed at fostering well-being at work, promoting healthy habits and a better balance between professional, family and personal life, in turn contributing to greater satisfaction, motivation and well-being among its employees, in all professional careers. This includes measures in the following areas: working hours and flexibility, parenting, health and safety at work, training and professional development, benefits and protocols, assessment of work-life balance needs, among others.

- **Ensuring the maintenance of a quality management system**

  - INSA's Quality Management System, implemented in accordance with the NP EN ISO/IEC 17025 and NP EN ISO 15189 standards, includes mechanisms for continuous improvement, in addition to corrective actions resulting from occurrences or findings from internal and external audits. This commitment to operational excellence is reflected in the adoption of proactive measures that promote the positive reinforcement of performance and the consolidation of good laboratory practices.

    The actions recommended for improvement originate from various activities of systematic evaluation and revision of the management system, among which the following stand out:

  - SWOT analysis of critical processes;
  - Evaluation reports and customer feedback;
  - Employee satisfaction reports;
  - The conclusions of the management review.

    These sources of information are analysed in an integrated manner and relevant opportunities for improvement are identified. The actions selected are subject to technical assessment as to their feasibility and impact and, when approved, are implemented with structured monitoring of the results.

    In 2024, 2 improvement actions were identified and implemented with a significant impact on the laboratory's overall performance:

  - Reformulation of the preparation of the calibration plan: This action aimed to optimise the procedures related to drawing up, planning and monitoring the calibration plan for critical equipment. The implemented improvement resulted in increased operational efficiency and more effective management of deadlines and associated resources.
  - Strengthening risk assessment and monitoring: A more systematic and dynamic approach to identifying, assessing and mitigating risks was developed, with an emphasis on monitoring the effectiveness of the actions implemented. This measure allowed for stricter control of factors that could jeopardise the quality of the results and compliance with technical and regulatory requirements.

    Both actions were successfully implemented and are now fully integrated into the quality management system, representing concrete examples of the practical application of the continuous improvement cycle.

- **Strengthening internal control measures**
  - Strengthening Internal Control measures by applying a systematic and disciplined approach to evaluating and improving the efficiency and effectiveness of activity management and control, based on adequate internal control and risk management systems. By revising the Plan for the Prevention and Management of Risks of Corruption and Related Offences, INSA is also committed to continuing to monitor this Plan, as well as monitoring the implementation of the Code of Good Conduct for Preventing and Combating Harassment at Work, the Code of Ethics and Professional Conduct and the Conflict of Interest Management Policy. It is therefore important to develop awareness-raising actions to promote and sensitise workers to the need to reduce and/or eliminate the management risks identified.

- **Investing in sustainability and organisational modernisation**
  - Promoting improved financial sustainability by encouraging transparency and diversification of funding sources;
  - Optimising the collection and updating of INSA's price list, including the development of a module for calculating the cost of analyses, tests and services, which is essential for reviewing and adapting the Institute's price list;
  - Modernising the facilities by rehabilitating the infrastructure, including carrying out the activities presented in the application for the Rehabilitation of Infrastructure and Equipment Project (REABIT), within the scope of the Recovery and Resilience Plan;
  - Dematerialising INSA's administrative procedures, namely by implementing improvements in transversal information systems, such as the attendance registration system, the document management system or the quality management system;
  - Promoting digital transformation and making more services available electronically.


1899 · 2024
125_ANOS
INSTITUTO RICARDO JORGE

8. COMPARISON WITH THE PERFORMANCE OF SIMILAR SERVICES AT NATIONAL AND INTERNATIONAL LEVEL

8.1 NATIONAL AND INTERNATIONAL COMPARISON

INSA has distinctive characteristics and attributions that make it unique at national level, which makes it difficult to compare it with national entities within the Ministry of Health. Since it is a State Laboratory, comparing it in technical and scientific terms with other State Laboratories does not seem appropriate, given the different attributions and areas of activity. At international level, the remits of the National Institutes of Health counterparts are also different and there is no European or international body that promotes the comparison of best practices and opportunities for improvement, among other things. However, INSA continued its policy of implementing practices of excellence and continuous improvement in some of its areas of intervention, which are recognised by external bodies for their performance, namely those presented below:

- **Food and Nutrition**
  - INSA supports the World Health Organisation, having been designated the "WHO Collaborating Centre for Childhood Nutrition and Obesity", developing initiatives for the surveillance and prevention of childhood obesity, among other technical-scientific functions, representing international recognition of the quality of the work carried out in this area;
  - INSA, through the Microbiology Laboratory of its Food and Nutrition Department, was designated a National Reference Laboratory for Foodborne Viruses, at the proposal of the Directorate-General for Food and Veterinary (DGAV) and ratification by the Directorate-General for Health and Food Safety (DG SANTE) of the European Commission. This nomination recognises the laboratory's technical and scientific work and attests to its ability to respond to public health emergencies.

- **Infectious Diseases**
  - In 2024, within the scope of reference services, as a national strategic laboratory in the area of health, the commitments with the WHO were ensured, in particular the revalidation of INSA's accreditation by the WHO as a National Reference Laboratory for Measles, Rubella and Polio Virus, as well as maintaining the designation as a Supranational Reference Laboratory for Tuberculosis;
  - In 2024, the National Reference Laboratory for the Influenza Virus maintained its recognition by the WHO as Portugal's representative in the European Influenza Surveillance Network, following a positive performance evaluation. In the 2022/2023 flu season, the WHO considered that INSA's laboratory had once again performed well, and therefore granted the extension of recognition, with the laboratory continuing to be part of the Global Influenza Surveillance and Response System (GISRS);

- In 2024, WHO Europe once again renewed the reference status of the National Reference Laboratory for Mycobacteria, which is also considered a Supranational Reference Laboratory for the PALOP countries;
- Under Regulation (EU) 2022/2371 of the European Parliament and of the Council of 23 November 2022 on serious cross-border threats to health, European Reference Laboratories (EURL) are being designated for different pathologies or groups of pathologies through an international call for tenders, with national reference countries/laboratories being able to apply individually or in consortia with different countries. The applications are being submitted in phases. INSA was part of 2 of the candidate consortia, and the applications in which it participated were approved: EURL for Legionella; EURL for high-risk, emerging and zoonotic bacterial pathogens. In December 2024, the Grant Agreements for those EURLs were signed;
- INSA represents Portugal on the Advisory Forum of the European Centre for Disease Prevention and Control (ECDC), on the ECDC Management Board (as a substitute member) and on the HERA Board (Health Emergency Preparedness and Response Authority).

Human Genetics

- The National Neonatal Screening Programme in Portugal is an outstanding example of good practice in public health. This programme, also known as the "heel prick test", allows for the early identification of metabolic diseases, contributing to rapid and effective intervention, which significantly improves patients' prognosis. Compared to similar international programmes, Portugal stands out for its high level of population coverage (99.8% in 2024) and the efficient integration of the results into the health system;
- The accreditation of various genetic tests by the NP ISO 15189 standard establishes international standards for the quality and competence of medical genetics laboratories. The accreditation of genetic tests by this standard ensures the reliability of diagnoses, guaranteeing that Portuguese laboratories operate in accordance with the highest international standards. This practice puts Portugal on a par with leading countries in medical genetics, such as Germany, the United Kingdom and the United States of America. External audits, international partnerships and certification programmes contribute to the credibility and efficiency of the services.

Epidemiology

- INSA, through the Epidemiology Department, participates in the World Health Organisation's European Region Health Information Network (HIN), a network created to strengthen health information systems in participating countries, with the aim of promoting the improvement of national governance structures and the interoperability of health data, developing work plans to strengthen data quality and fostering the sharing of good practices;

- Since 2009, it has been part of the European mortality monitoring network EuroMOMO (European Monitoring of Excess Mortality). Coordinated by Denmark's *Statens Serum Institut* and including the participation of several European public health institutions, this network aims to monitor mortality and detect and quantify the impact of events such as influenza epidemics or other public health crises on mortality. Participation in this initiative contributes to epidemiological surveillance in Portugal, in line with the work carried out by the other European countries that are part of the network;
- INSA is a member of the National Geographic Information System Guidance Council (CO-SNIG).

Health Promotion and Prevention of Non-Communicable Diseases

- As part of the "1 Million Genomes" initiative, INSA has been coordinating the European Working Group for the Implementation of Genomics in Health Services since 2024. The aim of this group is to identify the challenges relating to the adoption of genomic tests for the diagnosis, treatment and prevention of diseases, particularly rare diseases, cancer and pathologies with multifactorial causes of high prevalence (e.g. cardiovascular diseases or chronic diseases), as well as recommending lines of action;
- INSA was honoured with the European Commission's Key Innovator seal, Innovation Radar, for its pioneering work in developing a benchmark for assessing the maturity of health systems in the use of genomics in clinical practice. With this distinction, INSA joins, for the first time, 132 other Portuguese organisations distinguished by the European Commission as innovative, of which only 4 are public institutions;
- The Executive Committee of the International Consortium for Personalised Medicine (ICPerMed), made up of representatives from policy-making and scientific funding agencies in the participating countries, elected INSA to lead its Working Group on Policies and Strategy for Personalised Medicine. This working group will act as a think-tank on research and implementation policies and strategies to make progress in realising the full potential of Personalised Medicine in Europe and globally.

Environmental Health

- Since 2022, INSA has been part of the National Platform for the Assessment of Risks from Chemicals (PARC's National Hub) as part of the European Partnership for the Assessment of Risks from Chemicals (PARC). This platform includes other partners in the health sector and academic institutions. This platform aims to identify needs at a national level and contribute in the long term to setting up a network for monitoring exposure to chemicals in the population (through the use of human biomonitoring) and in the environment and for risk assessment in parallel with the work carried out in the other European countries participating in PARC;
- Portugal, through INSA, is coordinating at national level a European action, *Joint Action* EU WISH - Integrated Wastewater Surveillance for Public Health, which aims to support activities to improve, expand and consolidate wastewater surveillance for public health.

- **Doping analyses**
  - INSA, through its Doping Analysis Laboratory (LAD), is one of 29 laboratories worldwide accredited by the World Anti-Doping Agency (WADA) to carry out doping analyses in the context of sport. In addition to the samples relating to the national anti-doping programme collected by the Portuguese Anti-Doping Authority, the LAD receives and analyses samples delivered by various international sports bodies, and has also established a collaboration protocol with the Cape Verde Anti-Doping Authority for the analysis of samples collected by this body. Monitoring of the LAD's performance is carried out by WADA through inter-laboratory proficiency tests (announced and anonymised). In 2024, the LAD performed well in all the parameters assessed, allowing it to renew its accreditation.

- **External evaluation of laboratory quality**
  - INSA coordinates the National External Quality Assessment Programme (PNAEQ) and is the national reference laboratory for health, responsible for promoting, organising and coordinating external quality assessment programmes for laboratories operating in the health sector. The PNAEQ relies on the collaboration of a network of national and international experts of recognised competence, as well as European counterparts, in order to promote the continuous improvement of the services provided, directly benefiting the patient and the general public.

- **Health Museum**
  - As a result of the Health Museum's accreditation by the Portuguese Museum Network and its integration into this network, the museum has seen its work in preservation, enhancement, heritage and health education recognised, as well as its technical quality in fulfilling its mission and its museological and educational functions;
  - Since 2024, the Health Museum has been part of the Register of Ibero-American Museums, a digital platform that aims to promote knowledge of the diversity of museums in Ibero-America.

Table 15 - National or International Comparisons

NATIONAL OR INTERNATIONAL COMPARISONS	ORGANISATION
Comparison results refer to a core area of the service; it is among the best; it has maintained the level of excellence previously achieved	X

8.2 AWARDS OR HONOURS FROM EXTERNAL ENTITIES

In 2024, a total of **24 awards** were given to the Institute by national, european, and international institutions, as detailed in the following tables:

Table 16 - Awards and/or honours from external entities

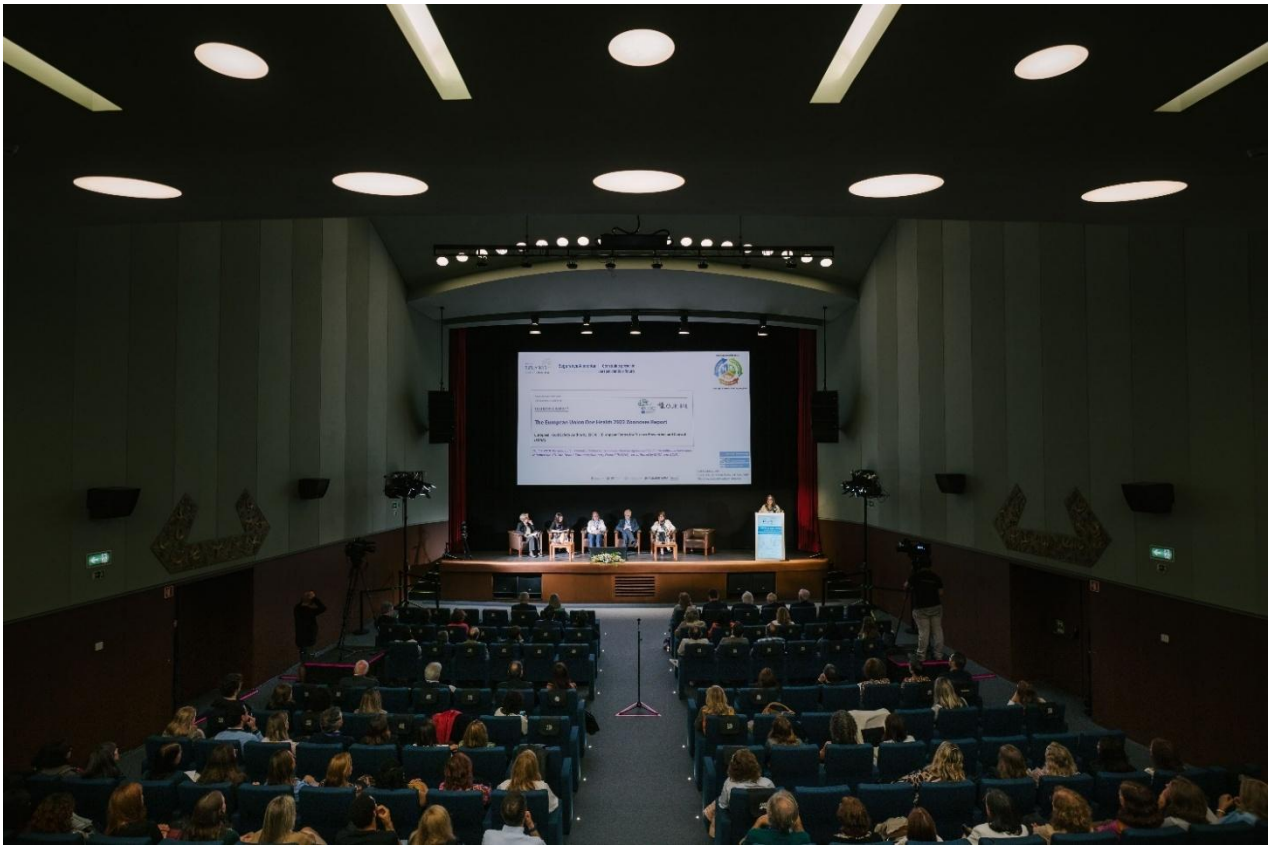
AWARDS AND/OR MENTIONS FROM EXTERNAL ORGANISATIONS HIGHLIGHTING THE RELEVANCE/EXCELLENCE OF THE RESULTS OBTAINED BY THE ORGANISATION	ORGANISATION
It rewards a core area of the service: 1st Prize	
▪ Honour awarded to INSA by the Directorate-General for Health on the 40th anniversary of HIV in Portugal INSA was one of the organisations honoured by the Directorate-General for Health (DGS) for its work in responding to HIV infection in Portugal. A ceremony was held on 10 September at the Culturgest Small Auditorium in Lisbon to mark 40 years since the first case of HIV infection was reported in Portugal. Helena Cortes Martins, head of INSA's National Reference Laboratory for Human Immunodeficiency Virus and Hepatitis B and C Virus, was also one of the personalities honoured.	X
▪ Distinction awarded to INSA by the European Commission for the creation of the Maturity Model for Genomics in Health Systems The 1+MG Maturity Model for Genomics in Health Systems (1+MG MLM), developed by INSA's Department of Health Promotion and Prevention of Non-Communicable Diseases, has been awarded the innovation label by the European Commission's Innovation Radar. This distinction recognises 1+MG MLM as an innovation, and also highlights INSA as an innovative institution (key innovator), due to its promoting and coordinating role in the development of 1+MG MLM.	X
Honours and Distinctions	
▪ President of INSA's Board of Directors honoured by Apifarma The Chairman of INSA's Board of Directors, Fernando de Almeida, was honoured by Apifarma - the Portuguese Pharmaceutical Industry Association - with the "Person of Merit" Award in the area of Health. The award was presented during the dinner celebrating the organisation's 85th anniversary. Distinguished for his career in the service of public health in Portugal, Fernando de Almeida received the award not only as chairman of INSA's Board of Directors, but also for his work leading the Commission for the Implementation of the National Strategy for Genomic Medicine, and coordinating the National Neonatal Screening Programme and the task force for the National COVID-19 Testing Plan.	X
▪ "Women in Science" project honours a researcher from the Ricardo Jorge Institute Laura Vilarinho, INSA researcher and coordinator of the National Neonatal Screening Programme, was honoured by the Valadares Primary School on March 8th. Awarded as part of the interdisciplinary project "Women in History", developed at the school, the honour was based on the professional career of the woman who is also responsible for the Neonatal Screening, Metabolism and Genetics Unit of INSA's Human Genetics Department.	X

Table 17 - Other prizes awarded by national, european and international institutions

OTHER PRIZES AWARDED BY NATIONAL, EUROPEAN AND INTERNATIONAL INSTITUTIONS			
European / International			
Name	Title / Area	Name(s) of INSA Award Winner(s)	Scope and awarding organisation
Best Poster Presentation	Epidemiology and Infectious Diseases: The distinction was awarded to the work entitled "Does SARS-CoV-2 self-testing bias vaccine effectiveness estimates in test-negative studies in primary care? to assess magnitude, direction and control of collider bias"	Ana Paula Ambrósio Rodrigues, Raquel Guiomar	As part of the OPTIONS XII Conference for the Control of Influenza
Excellent ShotGun Poster Communication Prize	Human Genetics - Proteomics: The award was given to the work entitled "Red Blood Cell modulation along COVID-19 vaccination and correlation with immune system components"	INSA's first and last author: Cristina Valentim-Coelho and Deborah Penque (includes other award winners from INSA and other institutions)	PROTEOMASS Scientifc Society, as part of the 9th International Caparica Conference on Analytical Proteomics
Excellent Poster Prize	Human Genetics - Proteomics: The distinction was awarded to the work entitled "Red Blood Cells Metabolomic study in patients with Obstructive Sleep Apnea to uncover candidate biomarkers"	INSA's first and last author: Filipa Martins and Deborah Penque (includes other award winners from INSA and other institutions)	PROTEOMASS Scientifc Society, as part of the 9th International Caparica Conference on Analytical Proteomics
Prize for the Best Poster	Health Promotion and Prevention of Non-Communicable Diseases: The award was given to the work entitled "Health Impact Assessment in Personalised Prevention: three applications on pharmacogenomic testing"	Astrid Vicente, Maria Luís Cardoso, Alexandra Costa, Maria de Fátima Lopes	As part of the 17th European Public Health Conference 2024
National Scope			
Name	Title / Area	Name(s) of INSA Award Winner(s)	Scope and awarding organisation
Pierre Fabre Prize	Infectious Diseases: The honour was awarded to the work entitled "Haemophilus influenzae Type b Vaccine Failure in Portugal: A Nationwide Multicentre Paediatric Survey"	Maria Paula Bajanca Lavado (includes award winners from other institutions)	Portuguese Paediatric Society, as part of the award of the Pierre-Fabre-SPP Prize, which honours the best paediatric publications in Portugal and worldwide
1st Prize Jaime Salazar de Sousa	Infectious Diseases: The honour was awarded to the work entitled "Haemophilus influenzae Type b Vaccine Failure in Portugal: A Nationwide Multicentre Paediatric Survey"	Maria Paula Bajanca Lavado (includes award winners from other institutions)	Associação para as Crianças de Santa Maria (Association for the Children of Santa Maria), as part of the award of the 1st Jaime Salazar de Sousa Prize
1st Research Prize	Epidemiology: The award was given to the paper entitled "Long COVID is not the same for everyone: an analysis of symptom clusters at 9 and 12 months"	Andreia Leite	National Association of Public Health Physicians, within the framework of the 5th National Congress of Public Health Physicians
3rd Research Prize	Area of Epidemiology - Accidents and Injuries: The award was given to the work entitled "Drownings in Portugal: data from the National Maritime Authority, 2020 to 2023"	Pedro Mendes (internship and work supervised by Tatiana Alves and Vânia Gaio)	National Association of Public Health Physicians, within the framework of the 5th National Congress of Public Health Physicians
Research Project Award	Human Genetics - Proteomics: The award was given to the project entitled "Causes of venous thrombosis"	INSA's first and last author: Cláudia Febra and Deborah Penque (includes other award winners from INSA and other institutions)	Luz Saúde, as part of the 3rd Research Congress of Hospital da Luz

National Scope			
Name	Title / Area	Name(s) of INSA Award Winner(s)	Scope and awarding organisation
Prize for the best clinical case	Infectious Diseases: The award was given to the paper entitled "A disease from the new world: double diagnostic challenge after travelling to a tropical country"	Maria João Gargaté (includes other award winners from INSA and other institutions)	Portuguese Society of Dermatology and Venereology, as part of the 23rd National Congress of Dermatology and Venereology
SPDM/ SSIEM Grant Porto 2024	Human Genetics: Short-term scholarship awarded to Célia Nogueira The SPDM/ SSIEM Porto 2024 scholarships, upon application, supported the participation of members of the Portuguese Society for Metabolic Diseases (SPDM) who presented papers at the Annual Symposium of the Society for the Study of Inborn Errors of Metabolism (SSIEM)	Célia Nogueira	Portuguese Society of Metabolic Diseases, as part of the SSIEM Annual Symposium
Best Oral Communication	Food and Nutrition: The award was given to the work entitled "Development of Active Films with Cynara cardunculus L. Extract": Evaluation of Antioxidant Potential Based on Migration Tests"	INSA authors: Cássia Barbosa, Mariana Andrade, Fernanda Vilarinho	INSA at the 16th Annual PortFIR Meeting (Portuguese Food Information Platform)
Best Poster	Food and Nutrition: The award was given for the work entitled "Hygiene indicators and biocides on surfaces in the food preparation and distribution environment in collective catering units"	INSA authors: Andreia Peixoto, Susana Santos, João Rodrigues, Margarida Saraiva, Cristina Belo Correia, Rita Batista	INSA at the 16th Annual PortFIR Meeting (Portuguese Food Information Platform)
Best Poster	Human Genetics: The distinction was awarded to the work entitled "Analysis of the contribution of genes HP, ACE, MTHFR, HFE and CYBA to the development of heart failure - a step forward in risk stratification"	Other INSA authors: Paula Faustino (includes award winners from other institutions)	Portuguese Society of Hypertension, as part of the 18th Portuguese Congress on Hypertension and Cardiovascular Risk
Best poster - NEDAI PRIZES 2024	Human Genetics: The award was given to the paper entitled "Gut microbiome - a useful tool in accessing SLE disease activity? Transversal analysis of a longitudinal study in two centres from Portugal"	INSA's last author: Paulo Pinho e Costa (includes other award winners from INSA and other institutions)	Portuguese Society of Internal Medicine (SPMI) and the Centre for the Study of Autoimmune Diseases (NEDAI) as part of the X National Congress of Autoimmunity and XXIX Annual Meeting of NEDAI
Best e-poster award	Human Genetics: The award was given for the work entitled "Investigating cellular targets, potential biomarkers, and disease-causing variants to understand the complexity of Niemann-Pick Type C Disorder / Rare Diseases"	INSA's first and last author: Ana Catarina Sandiares and Marisa Encarnação (includes other INSA award winners)	Portuguese Society for Metabolic Diseases (SPDM) at the 20th SPDM International Symposium
Best e-poster award	Human Genetics: The distinction was awarded to the work entitled "CRISPR/Cas9 and zebrafish as tools to study rare genetic diseases: a new animal model for Mucolipidosis II"	INSA's first and last author: Eduarda Moutinho and Luciana Moreira (includes other INSA award winners)	Portuguese Society for Metabolic Diseases (SPDM) at the 20th SPDM International Symposium

National Scope			
Name	Title / Area	Name(s) of INSA Award Winner(s)	Scope and awarding organisation
Poster Honourable Mention	Human Genetics: The award was given for the work entitled "mRNA degradation as a therapeutic solution for Mucopolysaccharidoses: use of gapmer and splice-switching antisense oligonucleotides to promote downregulation of heparan sulphate"	INSA's first and last author: Juliana Santos and Sandra Alves (includes other INSA award winners)	AL4AnimaLs Associated Laboratory as part of the III AL4AnimaLs Meeting
Honourable mention	Epidemiology: The award was given to the work entitled "Pandemic Preparedness: First steps on the use of Non-Traditional Data for estimating mobility-incidence links of the COVID-19 pandemic in Portugal"	André Brito (PhD supervised by Ausenda Machado)	IX Workshop on Computational Data Analysis and Numerical Methods (WCDANM)
Honourable mention	Epidemiology: The award was given to the work entitled "Direct and indirect impact of the COVID-19 pandemic on all-cause and cause-specific mortality in Portugal between March 2020 and December 2021"	Ana Paula Ambrósio Rodrigues (includes other INSA award winners)	INSA, as part of the Ricardo Jorge Public Health Prize 2024



9. Analysis of the actual and planned allocation of human, financial and material resources

9.1 Human Resources

The Human Resources identified in the QUAR for the year 2024, as shown in the following table, refer to the number of posts proposed in the staff map approved by the higher authorities, with a distribution among the different careers, according to functional and operational needs.

Table 18 - Evaluation of Human Resources

Name	Permanent (Planned) 01/01/2024	Permanent (Realised) 31/12/2024	Score	Planned Score	Realised Score	Deviation	Deviation in %
Managers - Senior Management	2	2	20	40	40	0	0%
Managers - Middle Management (1st and 2nd) and Team Leaders	5	5	16	80	80	0	0%
Senior Technicians (includes Information Technology and Systems Specialists)	164	144	12	1968	1728	-240	-12%
Technical Coordinators (includes Section Heads)	1	1	9	9	9	0	0%
Information Technology and Systems Technicians	7	5	8	56	40	-16	-29%
Technical Assistants	88	71	8	704	568	-136	-19%
Operational Assistants	70	57	5	350	285	-65	-19%
Other (examples)	-	-	-	-	-	-	-
Doctors	8	6	12	96	72	-24	-25%
Nurses	3	2	12	36	24	-12	-33%
Hospital administrators	0	0	12	0	0	0	-
Senior Health Technicians	61	58	12	732	696	-36	-5%
Pharmacists	30	25	12	360	300	-60	-17%
Researchers	76	63	12	912	756	-156	-17%
Senior Diagnostic and Therapeutic Technicians	110	101	12	1320	1212	-108	-8%
Totals	**625**	**540**	**-**	**6,663**	**5810**	**-853**	**-13%**

During 2024, as part of the strategic management of human resources, new employees were recruited for the areas considered fundamental to pursuing and ensuring INSA's mission in a dignified and effective manner, with the aim of passing on the knowledge held by professionals, maintaining the installed technical capacity and rejuvenating the teams in the various areas of activity.

With the publication of the Order[19] approving the annual consolidated map of authorised recruitments for careers of functional complexity level 3, it was possible to open external competitive procedures for the recruitment of: 3 auxiliary researchers from the scientific research career; 1 assistant pharmacist from the special pharmaceutical career; 1 assistant from the senior health technician career; 5 senior technicians from the general senior technician career and 3 senior technicians from the diagnostic and therapeutic areas. Under the same Order, the recruitment process for 2 senior technicians was also launched, using the recruitment reserves created under the centralised tendering procedure. Through common tendering procedures, 33 procedures were opened to fill 49 jobs, through which 10 workers had been recruited by 31 December.

With regard to competitions for access to a higher category, 6 workers in the senior health technician career (1 senior advisor and 5 principal assistants) and 20 workers in the scientific research career (6 coordinating researchers and 14 principal researchers) were promoted.

As far as career progression is concerned, 134 workers had their salary position changed to the next pay grade with effect from 1 January, in application of Decree-Law[20], which promotes the acceleration of career development for workers with public employment contracts. With a view to developing and training talent, as well as retaining employees, in accordance with the applicable rules, 4 employees had their remuneration changed to the next higher position as a result of obtaining a doctorate (PhD) degree.

In order to promote employee motivation and recognition, in line with the 2024 budget, INSA awarded performance bonuses worth around €78000. In this context, 36 workers were covered who met the conditions for receiving this bonus, corresponding to the value of one month's basic pay. These workers were part of the careers of operational assistant, technical assistant, senior technician, senior health technician, special pharmaceutical career and special medical career.

9.2 INTERNAL TRAINING

The Institute's training policy is part of a global strategy, articulated with the human resources management process and based on the following assumptions:

- Training is an instrument for developing the individual and collective competences needed to realise the Institute's strategic objectives;

[19] Order no. 3186/2024, of 26 March
[20] Decree-Law no. 75/2023, of 29 August

- It involves all the Institute's employees and agents, making it possible to consolidate the initiatives developed each year, as well as to monitor and facilitate organisational changes;
- It is operationalised through the Annual Training Plans (PAF).

In the period under review, training was planned to cover technical, scientific and behavioural skills, contributing to the continuous development of human resources. The model adopted included both face-to-face and online training, guaranteeing access for all trainees.

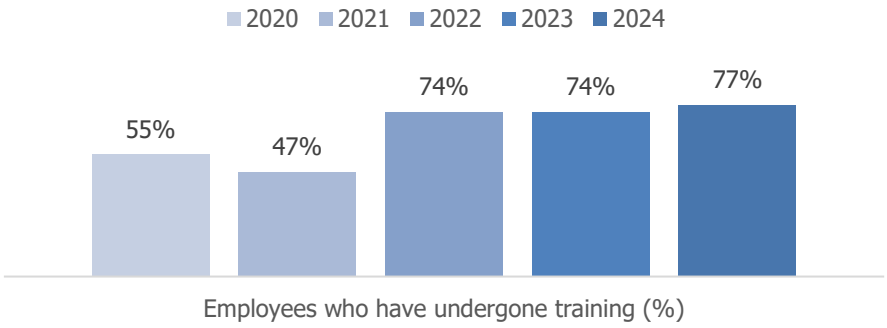
In 2024, the PAF included training in specific thematic areas aligned with the needs identified by both employees and transversal areas, namely Personal Development, Human Resources, Communication, Quality, Safety, Hygiene and Health at Work, Information Technology, Public Procurement and Law. Among the training courses held were courses on Leadership and Team Management, Neurolinguistic Programming, the New SIADAP Regime, Auditing for Auditees, First Aid, General Data Protection Regulation, among others.

In addition to internal training, employees were also given the opportunity to take part in external training, especially in technical and scientific areas. These activities, which included courses, congresses, symposia and workshops organised by national, european and international organisations, were essential for updating and sharing knowledge. In this context, we highlight the participation in the Annual Meeting of the Portuguese Society of Human Genetics, in the International Symposium of the Portuguese Society of Metabolic Diseases, in Congresses on sexually transmitted infections, as well as in actions in the areas of epidemiology, toxicology and laboratory quality. This investment in the continuous training of professionals has been fundamental in strengthening their technical skills.

The INSA Health Ethics Commission has contributed to the organisation of courses and webinars on ethics, enriching the internal training of INSA employees.

Thus, **819 training initiatives** were carried out, of which 514 planned and 305 unplanned. Of the initiatives programmed in the PAF, 52% of the total planned was operationalised. Of the total of 578 INSA employees, which also includes workers on the staff map and fixed-term contracts, **447 workers underwent training** which corresponds to **77%** of the employees covered. The table below shows that the rate of employees covered has been increasing since 2020:

Graph 19 - Evolution of the rate of employees who have undergone training



9.3 Reconciling Professional, Family and Personal Life

INSA has developed various measures to promote well-being at work, promoting healthy habits and a better balance between professional, family and personal life, available to all its employees, regardless of their professional career.

The initiatives implemented or underway are part of the promotion of good labour practices in the following areas:

- **Working hours and flexibility**
  - Flexible work organisation models within the various modalities envisaged for the public administration: this includes workers who, at their own request or at the request of the service, work remotely (part-time or full-time), as well as those who work continuous hours or part-time, in order to care for children or family members, and also those who have justified absences under the Statute/Regulations for Scholarship Equivalency;
  - Implementation of the Teleworking Regulations;
  - Flexible working arrangements, teleworking, with access to the necessary technical means (VPN).

- **Parenting**
  - INSA promotes and ensures the fair exercise of its employees' maternity and paternity rights, respecting time off work or absence from work in the various situations provided for by law.

- **Health**
  - Access to occupational health consultations;
  - Other services are available on the premises at a reduced cost, such as massage therapy, nutrition consultations and fitness classes;
  - Regular dissemination of information leaflets on ergonomics.

- **Other actions and initiatives**
  - In compliance with national and international guidelines, including the commitment widely reinforced by the European Commission, with recommendations for the adoption of Gender Equality Plans by Public Bodies, INSA has its Gender Equality Plan in place. With a view to establishing measures to promote their fulfilment, 24 activities have been planned for 2024, categorised as specific, annual and periodic. During the year under review, 14 measures were implemented to promote the principles and guarantees of gender equality in the following areas: institutional development, human resources management, gender-balanced participation with regard to qualification opportunities in employee training and reconciling professional, family and personal life;

- The institution frequently organises training and workshops on gender equality and reconciling professional, family and personal life, raising awareness among its employees of these issues;
- Integration and welcoming of new workers (Tutor Project);
- Organisation of accompanied visits to the different organic units (Getting to Know the House Project);
- Practices for disseminating information to employees through a regular internal edition (HR Flash) and the press summary;
- Social and institutional activities: in 2024, social events were held, such as the Popular Saints Festivities, the Saint Martin Party and the Christmas Party. Also noteworthy is the annual INSA Day, an institutional celebration open to all INSA employees.

- **Benefits and protocols**
  - Protocols with service providers so that workers benefit from more favourable conditions;
  - Contribution paid by INSA to the Public Administration's Social Services (allowing workers and their families more favourable access to holiday camps, accommodation, canteens, daycare allowances, study allowances, social action, among others);
  - Cafeteria and Bar on the premises or designated place for eating meals.

- **Assessment of reconciliation needs**
  - For 2025, it is planned to draw up an Action Plan based on the questionnaire applied to employees, with the aim of assessing knowledge about the measures already implemented at INSA and gauging others that are considered relevant.

Thus, INSA's prerogative is to develop actions that promote a more balanced and inclusive work environment, which in turn contributes to greater satisfaction, motivation and well-being among its workers. It is considered crucial to continue investing in the implementation of structured measures aimed at promoting the quality of professional, family and personal life from a perspective of continuous improvement.

9.4 FINANCIAL RESOURCES

In 2024, INSA had a budget of **€47,500,000** for the development of its activities, which was reviewed monthly and adjusted according to needs.

Table 19 - Evaluation of Financial Resources

NAME	INITIAL BUDGET	CORRECTED BUDGET	EXECUTED BUDGET	DEVIATION	DEVIATION IN %
Operating Budget	€44,992,299	€47,502,299	€34,486,698	€-13.015.601	-27%
Personnel costs	€23,310,887	€23,311,887	€21,549,525	€-1,762,362	-8%
Purchases of Current Goods and Services	€18,707,584	€20,655,367	€12,237,122	€-8,418,245	-41%
Other Current and Capital Expenditure	€2,973,828	€3,535,045	€700,051	€-2,834,994	-80%

Net expenditure paid by INSA totalled €34.5 million, so considering the corrected appropriations of €47.5 million, the overall level of implementation of INSA expenditure in 2024 was 73%, 13% less than in 2023 (but similar to 2022). However, there is a need for a budget reinforcement throughout the year, which only happened at the end of October (€2.5m) and was not enough to cover the institution's operational needs. This scenario had a direct impact on the execution of expenditure.

Breaking down the expenditure for 2024, the component with the greatest expression in INSA's budget (62 per cent) is Personnel Expenditure, with an increase in all its components as a result of salary updates, career progression and promotion resulting from the SIADAP performance assessment process and other pay rises for workers in public service, with the consequent increase in expenditure on remuneration.

In turn, the Acquisition of Current Goods and Services, which represents the second largest item of expenditure (35 per cent), was impacted by the reduction in consumption of reagents and rapid diagnostic products, which showed savings of around €5.5 million as a result of the reduction in the budget reinforcement.

With regard to Other Current and Capital Expenditure, the most significant were those related to the purchase of laboratory equipment, which received EU funding.

The compensation for expenditure in 2024 comes largely from transfers from the state budget (57 per cent) and the collection of fees for the provision of complementary diagnostic and therapeutic services (24 per cent). In addition, INSA received funding for research projects (7 per cent) and transfers from other public sector entities (12 per cent), which includes the budget increase of €2.5 million mentioned above.

On the other hand, INSA remains committed to promoting transparency and diversification of funding sources, with a view to minimising budgetary risks and ensuring the continuity of essential activities. During 2024, the following measures were developed:

- Strengthening Transparency and Budgetary Control
  - In the second half of 2024, a financial reporting model (dashboard) was developed, which provides management indicators to monitor budgetary, operational and financial efficiency. This tool will allow for more assertive and informed management, enabling more effective decision-making;
- Diversification of Financing Sources
  - The establishment of programme contracts is essential for the financing of epidemiological and laboratory surveillance activities, as well as for the development of health programmes, and it is important for INSA to start these negotiations effectively;
  - In order to promote research in strategic areas, the search for external funding continued, including EU, international and national funding, both public and private, boosting the attraction of new projects and consolidating INSA's commitment to innovation and scientific progress.

9.5 TECHNOLOGICAL RESOURCES

In order to pursue the activities that are essential for the efficient fulfilment of its mission, INSA has specific needs for the development of information systems, specifically laboratory, surveillance and observation, quality management, monitoring and general administrative management systems, whose integration and interoperability with each other and with other health information systems makes it easier to fulfil its objectives.

In 2024, a significant number of actions and improvements were recommended in terms of dematerialisation and administrative simplification, using digital tools and updating the computer terminals made available to employees. This was reflected in the number of new services (internal and external) made available electronically and in the renewal of the technological park, in terms of the number of new pieces of equipment and/or information systems implemented.

With regard to new services made available electronically, and in line with the Government Programme, the Institute promoted the provision of 5 new services, namely the development of a new platform for external professional training, a new module in the quality management system for calculating the cost of laboratory analyses, an increase in the bandwidth of the computer network from 1Gb to 10Gb, the development of a new ticket platform for the Technology and Information Systems Sector and the creation of a new survey platform. A total of 67 new computer terminals were made available to INSA users, more than initially estimated (60), recognising the need for investment in this area.

As part of the Digital Transition in Health Axis of the Resilience Recovery Plan (RRP), the Institute expressed to the Shared Services of the Ministry of Health (SPMS) the need to renew its IT equipment / infrastructure, in order to adapt it to the technologies needed to carry out INSA's activities. Also within the scope of the RRP, an operation is underway to purchase approximately 60 pieces of laboratory equipment, as part of the work to monitor the functional obsolescence of the various pieces of equipment that are essential to laboratory activity. These priorities are discussed and decided in an internal committee set up for this purpose.

9.6 Analysing Productivity and Cost-Effectiveness

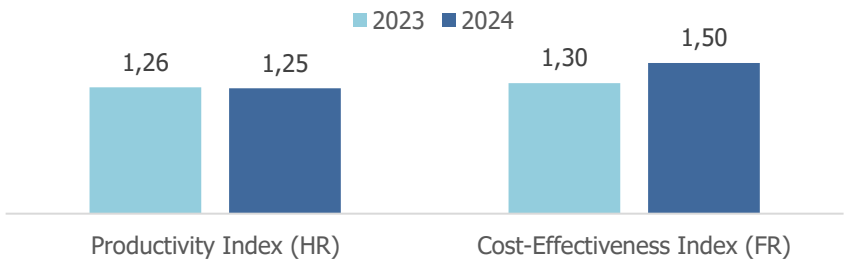
The calculation of the Productivity and Cost-Effectiveness Indexes makes it possible to measure the utilisation rate of human resources and financial resources, respectively.

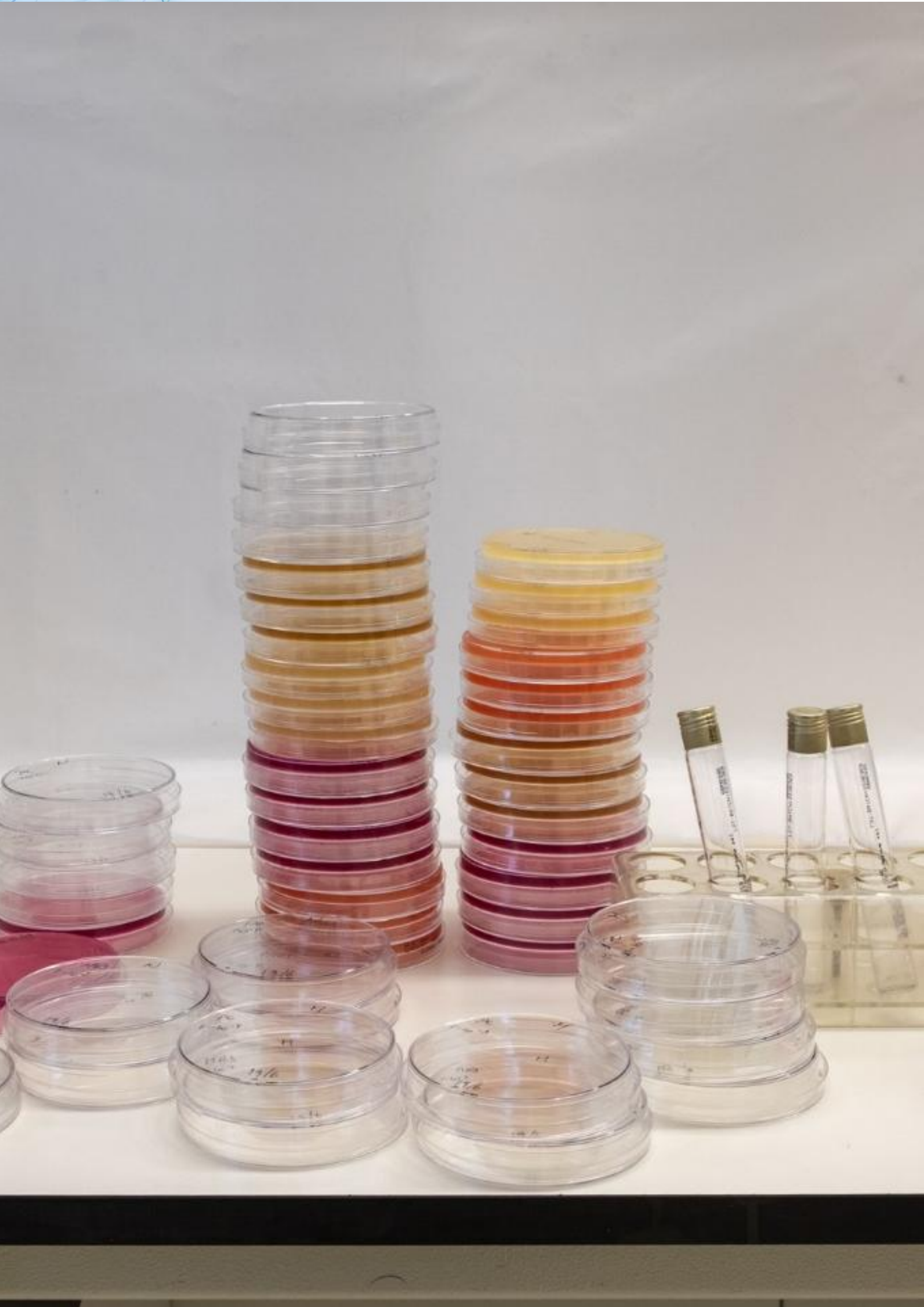
Table 20 - Productivity and cost-effectiveness analysis

	2023	2024	Var Abs 2023-2024	Var % 2023-2024
Human Resources (HR)				
Human Resources Realised (Score)	5816	5810	-6	0%
Planned Human Resources (Score)	6614	6,663	49	1%
Human Resources Utilisation Rate (%)	88%	87%	-1%	-1%
Overall Target Achievement Rate (%)	111%	109%	-2%	-2%
Productivity Index (HR)	**1.26**	**1.25**	-0.01	-1%
Financial Resources (FR)				
Financial Resources (Executed)	€41,226,555	€34,486,698	€-6,739,857	-16%
Financial Resources (Corrected)	€48,312,279	€47,502,299	€-809,980	-2%
Utilisation Rate of Financial Resources (%)	85%	73%	-13%	-15%
Overall Target Achievement Rate (%)	111%	109%	-2%	-2%
Cost-Effectiveness Index (RF)	**1.30**	**1.50**	0.20	15%

The table above shows an increase in the cost-effectiveness index and a decrease in the productivity index, although the latter remains relatively stable. It should be noted that the overall rate of achievement of the QUAR objectives in 2024 is 109%, having been 111% in 2023, so there has been an overall overachievement in this area.

Graph 20 - Productivity and cost-effectiveness indices





III.HOMOGENEOUS UNITS

In 2024, INSA did not integrate homogeneous units.

IV. SOCIAL BALANCE

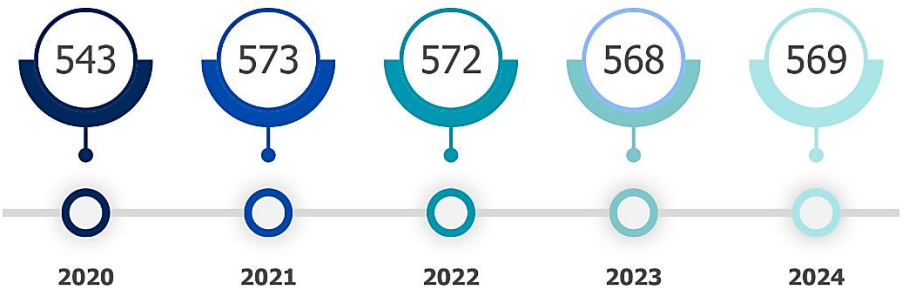
The Social Balance Sheet is drawn up by the Institute's Human Resources Management Department and made available on the institutional website.

When drawing up this instrument, all the employees who were actually working for the company on 31 December 2024 were recorded. For this purpose, the data includes workers who are effectively performing their duties in the following situations: open-ended or fixed-term public service contracts; internal mobility; accumulation of duties; part-time work and temporary absence due to holidays, parenthood, unpaid leave or illness and accidents at work lasting six months or less.

The data reported does not include employees who, despite holding posts on the staff map as at 31 December, were absent for more than 6 months (leave without pay or remuneration, illness, accident at work or other reasons).

The following graph shows the number of registered workers from 2020 to 2024:

Graph 21 - Number of employees per year



The number of workers increased from 2020 to 2021, due to the integration of workers under the Public Administration Precarious Employment Regularisation Process (PREVPAP), especially in the Scientific Research career. In the following years, including 2024, the number of permanent employees reported remained stable, without significant fluctuations.

Thus, on 31 December 2024, INSA had 569 permanent employees. Of these, 79 per cent (447/569) are women.

Professional Group

In 2024, the group of senior technicians presents the largest number of workers, 151, followed by the group of senior diagnostic and therapeutic technicians and senior health technicians (which includes pharmacists) with 102 and 93 workers respectively.

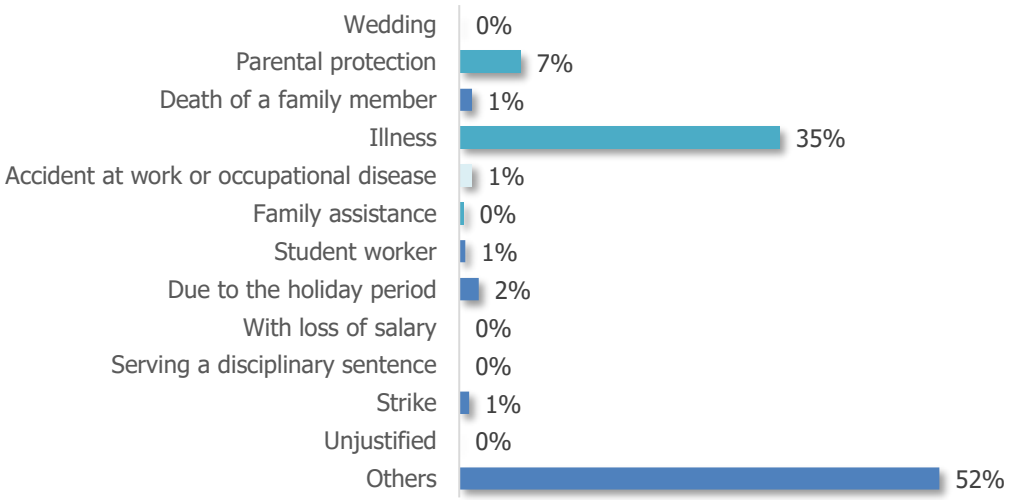
Table 21 - Distribution of the number of workers by professional group

Professional Group	Year					Var Abs 2023-2024	Var % 2023-2024
	2020	2021	2022	2023	2024		
First-degree senior manager - Chairman of the Board of Directors	1	1	1	1	1	0	0%
Second-degree senior manager - Member of the Board of Directors	1	1	1	1	1	0	0%
1st grade middle managers - Service Director	3	4	5	5	5	0	0%
Researchers	60	74	69	79	75	-4	-5%
Doctors	6	6	7	5	6	1	20%
Nurses	4	4	4	4	3	-1	-25%
Senior health technicians and pharmacists	88	88	87	91	93	2	2%
Senior technicians	127	140	148	140	151	11	8%
Senior diagnostic and therapeutic technicians	99	101	100	99	102	3	3%
IT specialists	4	7	7	8	10	2	25%
Technical assistants	91	85	82	78	72	-6	-8%
Operational assistants	59	62	61	57	50	-7	-12%
Total	**543**	**573**	**572**	**568**	**569**	**1**	**0%**

Absences

As far as the distribution of absences is concerned, it can be seen that among the reasons categorised, sick leave accounts for the highest percentage (35%). It should also be noted that no disciplinary action has been served.

Graph 22 - Distribution of absences by reason



- **Occupational medicine**

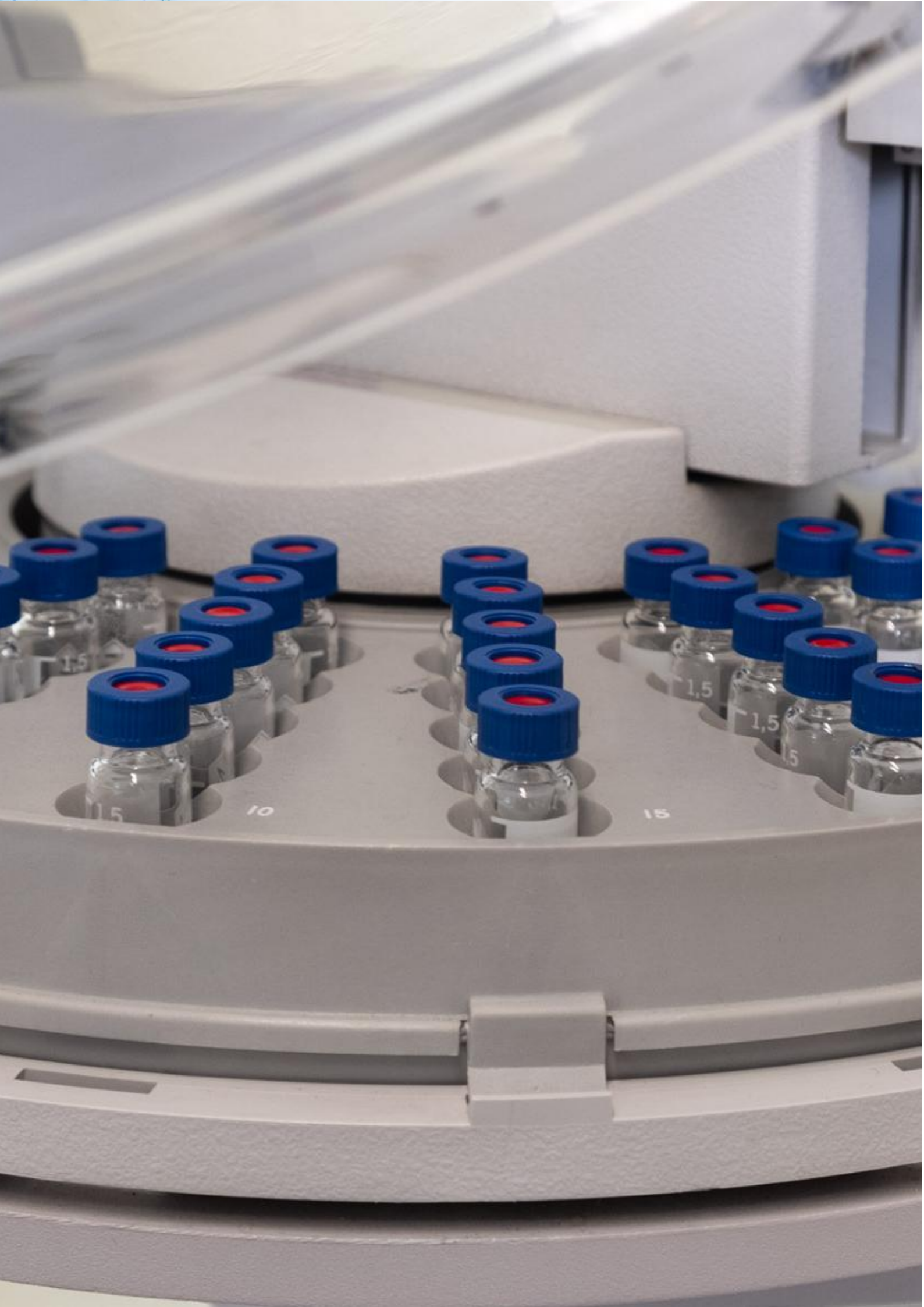
  306 Medical examinations were carried out in 2024. Of these, 27 were entrance exams, 125 were periodic exams and 154 were occasional and complementary exams. Expenditure on occupational health totalled €41,240. Five visits were also made to workplaces.

- **Health and safety at work**

  With regard to training and awareness-raising activities on occupational health and safety, 7 activities were held in this area (some of them with more than one edition), covering 232 of the Institute's employees.

V. INSTITUTIONAL PUBLICITY

During 2024, INSA did not carry out any institutional advertising initiatives, as provided for in No. 10 of Council of Ministers Resolution 47/2010 of 25 June and Law 95/2015 of 17 August, in its current wording.


1,5
1,5
1,5
10
15

VI. FINAL ASSESSMENT

1. APPRECIATION OF THE ACHIEVED RESULTS

Taking into account the application of the Public Administration Performance Assessment System, as part of the implementation of the QUAR 2024, INSA has included 21 operational objectives in this instrument, broken down into 30 performance indicators that best reflect INSA's priorities.

With regard to the QUAR results, of the 21 objectives set, 9 were exceeded (43 per cent) and 12 were achieved (57 per cent), and of the 11 objectives proposed to be relevant, 4 (36 per cent) were exceeded and 7 (64 per cent) were achieved. Of the 30 indicators registered, INSA exceeded the proposed target in 13 indicators (43 per cent of the total) and achieved the proposed target in 17 indicators (57 per cent of the total). INSA also exceeds the planned value in the effectiveness, efficiency and quality parameters under evaluation. Thus, the overall performance of the QUAR was **109%**.

It should also be noted that the overall performance of the Activity Plan was **103%**, which reinforces the good performance achieved in the year under review.

2. MENTION PROPOSAL

INSA has permanently invested in the continuous improvement of its operations, rethinking working methods and processes with a view to making them more effective, boosting the social impact of its essential functions and demonstrating its active commitment to pursuing its mission and achieving its objectives.

Taking into account the results achieved, in accordance with the provisions of the Public Administration Performance Assessment System and the criteria established for the evaluation of the QUAR, under paragraph a) no. 1 of article 18 of Law No. 66/2007, of 28 December, in its current wording, INSA proposes, by virtue of its self-assessment, that the qualitative mention attributed should be **Good Performance**.

3. CONCLUSIONS

This activity report shows the levels of achievement and the deviations from the objectives set. It should be noted that the Institute's final assessment, under the Public Administration Performance Assessment System, corresponds to 109%, considering that the planned activities were achieved overall, reflecting INSA's commitment and orientation in the light of the results demonstrated.

However, INSA's activities are much broader than those included in the QUAR. The various operational and support activities carried out by the different departments, directorates and areas are explained throughout the report, assessed both quantitatively, expressed through the various indicators presented, and qualitatively, through the activities and projects carried out.

An additional reflection of this good performance is identified by listening to its customers/users. After analysing the customer satisfaction questionnaires, the average satisfaction rating was 3.71 on a scale with a maximum value of 4.

At organisational level, the rational and careful management of financial and technical resources was maintained, with a view to the necessary modernisation and diversification of funding sources. In terms of human resources, we have endeavoured to maintain the motivation and recognition of INSA employees, together with a policy of professional development and training.

For the year 2025, the challenge of consolidating the integration of the Regional Public Health Laboratories of Aveiro, Braga, Évora, Faro and Leiria is considered a crucial step towards strengthening INSA's laboratory capacity and more effective support in environmental and public health surveillance, guaranteeing not only the efficiency and effectiveness of the services provided, but also the global response capacity to emerging challenges. Other legislative changes and general challenges require the Institute to work in a collaborative, multidisciplinary and dedicated manner in order to fulfil its commitments and duties. Of particular note are the functions as a European reference laboratory for public health, within the scope of the European Regulation on serious cross-border threats to health, the initiatives related to cybersecurity and technological modernisation, the application to the Institute of the legislative changes within the scope of SIADAP, revised by Decree-Law no. 12/2024 of 10 January, among others.

Similarly to the good performance seen in 2024, to which the endeavour, professionalism, commitment and motivation of each of its employees contributed significantly, the aim in 2025 is to strengthen our performance as a national reference institute for health.

VII. ANNEXES

1. ACRONYMS

ACSS	Administração Central do Sistema de Saúde / Central Administration of the Health System
AEQ	Avaliação Externa da Qualidade Laboratorial / External Evaluation of Laboratory Quality
AOF	Área da Oferta Formativa / Training Offer Area
AP	Administração Pública / Public Administration
APDO	Área do Planeamento Estratégico e Desenvolvimento Organizacional / Area of Strategic Planning and Organisational Development
CAI	Área de Controlo e Auditoria Interna / Internal Audit and Control Area
CC	Conselho Científico / Scientific Council
CCAS	Conselho Coordenador da Avaliação dos Serviços / Coordinating Council for the Evaluation of Services
CD	Conselho Diretivo / Board of Directors
CEDVI	Centro de Estudos de Vectores e Doenças Infeciosas Doutor Francisco Cambournac / Centre for the Study of Vectors and Infectious Diseases Doutor Francisco Cambournac
CES-INSA	Comissão de Ética para a Saúde do INSA / INSA Health Ethics Committee
CMRE	Área da Comunicação, Marketing e Relações Externas / Communications, Marketing and External Relations
COSI Portugal	Sistema de Vigilância do Estado Nutricional Infantil / Child Nutritional Status Surveillance System
COVID-19	Doença infeciosa provocada pelo vírus SARS-CoV-2 / Infectious disease caused by the SARS-CoV-2 virus
CPLP	Comunidade dos Países de Língua Portuguesa / Community of Portuguese-speaking Countries
CSPGF	Centro de Saúde Pública Doutor Gonçalves Ferreira / Public Health Centre Doutor Gonçalves Ferreira
DAN	Departamento de Alimentação e Nutrição / Food and Nutrition Department
DDI	Departamento de Doenças Infeciosas / Department of Infectious Diseases
DEP	Departamento de Epidemiologia / Department of Epidemiology
DG SANTE	Direção-Geral para a Saúde e Segurança Alimentar / Directorate-General for Health and Food Safety
DGAV	Direção-Geral de Alimentação e Veterinária / Directorate-General for Food and Veterinary
DGH	Departamento de Genética Humana / Department of Human Genetics
DGRH	Direção de Gestão de Recursos Humanos / Human Resources Management Department
DGS	Direção-Geral da Saúde / Directorate-General for Health
DPS	Departamento de Promoção da Saúde e Prevenção de Doenças Não Transmissíveis / Department of Health Promotion and Prevention of Non-Communicable Diseases
DRF	Direção de Gestão de Recursos Financeiros / Financial Resources Management Department
DRT	Direção de Gestão de Recursos Técnicos / Technical Resources Management Department

DSA	Departamento de Saúde Ambiental / Environmental Health Department
ECDC	Centro Europeu de Prevenção e Controlo das Doenças / European Centre for Disease Prevention and Control
EQALM	European Quality Association of Laboratory Medicine
EURL	Laboratórios de Referência Europeus / European Reference Laboratories
EVITA	Sistema de Epidemiologia e Vigilância dos Traumatismos e Acidentes / Trauma and Accident Epidemiology and Surveillance System
FCT	Fundação para a Ciência e a Tecnologia / Foundation for Science and Technology
FCTL	Formação em contexto de trabalho laboratorial / Laboratory training
GAI	Área de Apoio à Investigação / Research Support Area
HERA	Health Emergency Preparedness and Response Authority
R&D	Investigação e Desenvolvimento / Research and Development
INSA	Instituto Nacional de Saúde Doutor Ricardo Jorge / National Institute of Health Doutor Ricardo Jorge
INSALab	Sistema de Informação para a Gestão de Processos e Procedimentos Laboratoriais do INSA / INSA's Information System for the Management of Laboratory Processes and Procedures
IPAC	Instituto Português de Acreditação / Portuguese Accreditation Institute
IPQ	Instituto Português da Qualidade / Portuguese Quality Institute
ISL	Norma Internacional para Laboratórios / International Standard for Laboratories
LAD	Laboratório de Análises de Dopagem / Doping Analysis Laboratory
LRSP	Laboratórios Regionais de Saúde Pública / Regional Public Health Laboratories
MARA	Mapa anual consolidado de recrutamentos autorizados / Consolidated annual map of authorised recruitments
MS	Ministério da Saúde / Ministry of Health
MuS	Museu da Saúde / Health Museum
NA	Não aplicável / Not applicable
ND	Não disponível / Not available
Odoo	Software do Sistema de Gestão da Qualidade / Quality Management System Software
OE	Objetivo estratégico / Strategic objective
OF	Oferta formativa / Training offer
OMS / WHO	Organização Mundial de Saúde / World Health Organization
OOp	Objetivo operacional / Operational objective
PAF	Plano Anual de Formação / Annual Training Plan
PALOP	Países Africanos de Língua Oficial Portuguesa / Portuguese-speaking African countries
PHEPA	Public Health Emergency Preparedness Assessments
PIOPAL	Programa de Intervenção Operacional de Prevenção Ambiental de Legionella / Operational Intervention Programme for the Environmental Prevention of Legionella

PNAEQ	Programa Nacional de Avaliação Externa da Qualidade / National External Quality Assessment Programme
PNRN	Programa Nacional do Rastreio Neonatal / National Neonatal Screening Programme
PNS	Plano Nacional de Saúde / National Health Plan
PNVGVR	Programa Nacional de Vigilância da Gripe e outros Vírus Respiratórios / National Surveillance Programme for Influenza and other Respiratory Viruses
POCT	Point-of-care testing
POF	Plano de Oferta Formativa / Training Offer Plan
PPCIRA	Programa de Prevenção e Controlo de Infeções e de Resistência aos Antimicrobianos / Programme for the Prevention and Control of Infections and Antimicrobial Resistance
PPGRCIC	Plano de Prevenção de Gestão de Riscos de Corrupção e Infrações Conexas / Plan for the Prevention and Management of Risks of Corruption and Related Offences
PREVPAP	Programa de Regularização de Vínculos Precários na Administração Pública / Programme for the Regularisation of Precarious Contracts in the Public Administration
PRR	Plano de Recuperação e Resiliência português / Portuguese Recovery and Resilience Plan
PVNPC	Programa de Vigilância Nacional da Paralisia Cerebral / National Cerebral Palsy Surveillance Programme
QUAR	Quadro de Avaliação e Responsabilização / Evaluation and Accountability Framework
RA	Relatório de Atividades / Activities Report
RCAAP	Repositórios Científicos de Acesso Aberto de Portugal / Open Access Scientific Repositories in Portugal
REABIT	Projeto de Reabilitação de Infraestruturas e Equipamentos / Infrastructure and Equipment Rehabilitation Project
RENAC	Registo Nacional de Anomalias Congénitas / National Register of Congenital Anomalies
REVIVE	Vigilância entomológica e monitorização dos agentes infeciosos transmitidos por vetores / Entomological surveillance and monitoring of vector-borne infectious agents
RPM	Rede Portuguesa de Museus / Portuguese Museum Network
RSV	Vírus sincicial respiratório / Respiratory syncytial virus
SARI	Infeções respiratórias agudas graves / Severe acute respiratory infections
SGQ	Sistema de Gestão da Qualidade / Quality Management System
SIADAP	Sistema integrado de gestão e avaliação do desempenho na Administração Pública / Integrated performance management and evaluation system for public administration
SNS	Serviço Nacional de Saúde / National Health Service
SPMS	Serviços Partilhados do Ministério da Saúde / Shared Services of the Ministry of Health
SWOT	Acronym for strengths, weaknesses, opportunities and threats
EU	União Europeia / European Union
UO	Unidade Orgânica / Organisational Unit
USS	Unidades de Saúde Sentinela / Sentinel Health Units
HIV	Vírus da imunodeficiência humana / Human immunodeficiency virus
WADA/AMA	Agência Mundial Antidopagem / World Anti-Doping Agency

REPÚBLICA PORTUGUESA
SAÚDE

SNS SERVIÇO NACIONAL DE SAÚDE

Instituto_Nacional de Saúde
Doutor Ricardo Jorge

INSTITUTO NACIONAL DE SAÚDE DOUTOR RICARDO JORGE

Av. Padre Cruz, 1649-016 Lisboa | Portugal
Tel: (+351) 217 519 200
E-mail: info@insa.min-saude.pt

CENTRO DE SAÚDE PÚBLICA DOUTOR GONÇALVES FERREIRA

Rua Alexandre Herculano, n.º 321, 4000-055 Porto | Portugal
Tel: (+351) 223 401 190
E-mail: inforporto@insa.min-saude.pt

CENTRO DE ESTUDOS DE VETORES E DOENÇAS INFECIOSAS DOUTOR FRANCISCO CAMBOURNAC

Av. da Liberdade, n.º 5, 2965-575 Águas de Moura | Portugal
Tel: (+351) 265 938 290
E-mail: cevdi@insa.min-saude.pt

LABORATÓRIO DE ANÁLISES DE DOPAGEM

Av. Prof. Egas Moniz, Estádio Universitário, 1600-190 Lisboa | Portugal
Tel: (+351) 210 540 360
E-mail: lad@insa.min-saude.pt

www.insa.min-saude.pt

1899 · 2024
125 ANOS
INSTITUTO RICARDO JORGE