

Activities Report 2024



Generalitat de Catalunya
Fundació TIC Salut i Social



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We propel the digital transformation in healthcare and social welfare services in Catalonia by connecting innovation, technology, and people for a more efficient, sustainable, and fair system

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Concerning the TIC Salut Social Foundation

The **TIC Salut Social Foundation** is a public body that works since 2006 to aid with **digital transformation projects** in the healthcare and social welfare spheres in Catalonia. The Foundation's aim is to promote health and social services efficiency and sustainability by means of innovative technology, as well as guaranteeing fairness, innovation, collaboration, transparency, and knowledge transferring.

The Foundation has been assigned to **motivate or coordinate** multiple projects within the **healthcare system and the Department of Social Rights**, centred principally around the following working areas: social (including comprehensive social and healthcare), artificial intelligence, mSalut, personalised care, digital competences, medical imaging, and interoperability.

The Foundation's Board is comprised by high representatives of the Health, Social Rights, Business and Work departments, as well as the Catalanian Government President. It also includes representatives from the Catalanian Healthcare Service, the Catalanian Health Institute, the Catalanian Health and Social Committee, the Union (Healthcare and Social Entities Association), the Catalanian Health Entities Association, the Catalanian Assistance Resources Association, the Third Sector Table, and Mataro's Town Council. Having all of these agents on the Board positions the Foundation as a **key agent** that answers needs for digital transformation projects and acts as a link between these agents and ones outside of the health and social ecosystem.

Parallel to connections linked to the Board, the Foundation **has forged contacts and alliances** with universities, associations, and the main public bodies of health and technology in **Catalonia and Spain**. On an international scale, it participates in **first-rate competitive projects** and has created an extensive work network formed by entities from different European Union state members and international initiatives, like the Healthcare Information and Management Systems Society (HIMSS), the European Connected Health, the Alliance Group (ECHAAlliance Group), and the European eHealth Stakeholder Platform (EHTEL).

Finally, the Foundation shelters the **Office for the Health Data Protection Officer**, who safeguards rules following matters of data protection and to guarantee that interested parties are informed of their rights and duties concerning what is set out in the General Data Protection Regulation.

Equity
Transparency
Innovation

Sustainability
Sharing
Collaboration

A 3D rendering of a microscope is centered on the page, set against a background of faint, glowing white circuitry and data points. The number '2.' is prominently displayed in a large, bold, red font, partially overlapping the microscope's eyepiece.

2.

**Main milestones
of the year**



JANUARY

The **Department of Social Rights** grants 1.2 million to the Foundation to promote the digital transformation process



FEBRUARY

The TIC Salut Social Foundation and BIOCAT promote for the first time the '**Catalonia Health Innovation Ecosystem Pavilion**' at 4YFN

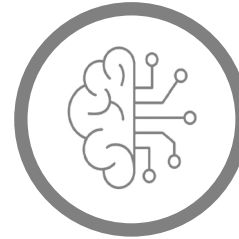
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MARCH

Vic hosts the XIII Day **RDI TIC Salut Social** to explore AI trends, inclusion, and social services

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APRIL

The Foundation's Director is appointed as a representative of the **Artificial Intelligence Commission at the Health Department**

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MAY

The Foundation hosts a meeting between **Catalonia, Scotland, and Finland** to share good practices regarding social and health comprehensive care

[+ INFO](#)



JUNE

The TIC Salut Social Foundation's **DPO office** broadens functions to all public body entities that wish to join

[+ INFO](#)



JULY

The Government agrees with TIC Salut Social Foundation to propel **social innovation**

[+ INFO](#)



AUGUST

Social Rights and Health interconnect information systems

[+ INFO](#)



SEPTEMBER

Blue Button introduces its functions to the Catalan private healthcare sector

[+ INFO](#)



OCTOBER

The **SEARCH** projects is initiated to improve healthcare solutions based on AI with synthetic data

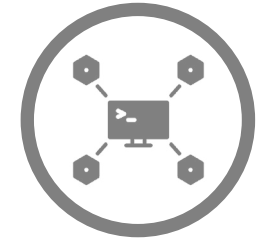
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NOVEMBER

Over 100 people participate in the 1st edition of **GenAI Health Hack** organised by the Hospital Clínic in Barcelona, the Health/AI Programme, and the Precision Oncology Chair at UB in collaboration with MIT Critical Data

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DECEMBER

The Foundation nourishes the Health Department **Adhesion Model for Health Products and Tools** (Catalan abbreviation MAPES) with new content regarding Digital Assets and AI

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3.

Areas and current projects

3.1. Social Area

The Social Area works closely with the Social Rights and Inclusion Department of the Catalanian Government to promote the transformation of assisted care models in the social welfare field and propels technology as a transformative instrument. The team supports creating and driving new social information systems forward, the expansion in definitions of controlled vocabulary for the social sphere use, and evaluating project proposals in the technology and social fields. It also has a key role in the impulse of the future Social and Health Comprehensive Care Agency.

The Government passed an agreement to modify TIC Salut Social Foundation's statutes on 31st October 2023 to intensify the Foundation assimilating the Department of Social Rights and Inclusion and make room for international projection. This resulted in members of the Department of Social Rights and Inclusion, as well as other entities, being integrated into TIC Salut Social Foundation's Board at the end of the year.

Main area projects and milestones during 2024

✓ **Project technical office for the Department of Social Rights and Inclusion**

Technological evaluation and technical control of technology projects financed to third parties by the European Next Generation funds from the Department of Social Rights and Inclusion.

✓ **Social and Health Comprehensive Care Agency**

Support the Social and Health Comprehensive Care Agency in the technology and information system fields. The future organism wishes to guarantee a quality and fair answer to people with attention needs, such as the elderly, those with disabilities, or with social problems stemming from mental health, amongst other groups.

To this effect, we participate in director boards for different strategic projects around the Catalanian territory. We detect ICT initiatives and services as to establish synergies.

✓ **InterSocial**

Leadership and support in the creation, expansion, and coding of SNOMED CT, a standardised terminology of needs, situations, factors, and observations in the social care field. And support with its integration to the new social intervention information system, wSocial, from the Department of Social Rights and Inclusion.

✓ **Social Innovation Services for Treatments (Catalan abbreviation *SISCU*)**

Project that wishes to propel the treatment sector transformation through 8 courses of action based upon technology and organisational innovation. This will guarantee the effective transfer of results to the social care system and services within the Department of Social Rights and Inclusion. At the same time, an innovative ecosystem that integrates public administration, social entities, research centres, technology companies, and other agents from the sector is encouraged.

✓ **Comprehensive social and health at home care programme in Aran**

Support in project management, communication, and technology advise, which aims to consolidate social and health treatment management in a single and comprehensive manner, and logically empower with more autonomy and quality of life the population of the Aran Valley.

✓ **wSocial**

Basic social services intervention tool, integrated into the eSocial platform. This contains the necessary modules and processes to create a working environment for Social Services by homogenising processes, reducing paperwork, and automating tasks while centred on the citizen and oriented towards data that provides information to make decisions, planning, evaluating, and transparency. Different modules have been designed and built, information on processes and paperwork on the basic social service areas to detect needs has been collected, pilots of the tool have been launched in different areas of Catalonia, several tool trainings have gone underway, and a tool finder has been created to check who has contacted or requested a service from

the network of Catalonian Social Services or Department of Social Rights and Inclusion. In addition to this function, a Health + Social microfinder has been included with health data coming from HC3 as well as a Social + Health microfinder for the health system with social information from the Department of Social Rights and Inclusion.

Personal experience (XP)

✓ **Girona's Health Campus**

Help with the strategy to incorporate the XP layer into the organisation when integrating the Hospitals Dr. Josep Trueta and Santa Caterina as part of Girona's new Health Campus.

Redesigning the Ophthalmology Service's XP when intervening for cataracts since the fusion of the services from the hospitals Trueta and Santa Caterina with Comprehensive Care in mind.

✓ **Ripollès and Bages territories**

XP design for the complex chronic patient in Mental Health in the context of Girona's Mental Health network, unique, ground-breaking and international model, with a shared Comprehensive Care practice and a de facto consolidated triple approach.

Support in moving from the Area of Patient Experience towards the Person Experience in the development of Comprehensive Care practices at the Althaia Foundation jointly with the ICS, Manresa Town Council and SAD (Sant Andreu Salut).

Support in designing and developing the Caregiver Portal where UCD (User Centred Design) and Systemic Design methodologies are applied in order to address the complexity of the ecosystem agents and respond to professionals and caregiver needs towards the transformation of the care and structural technological model.

☑ **Mental Health and Addictions Director Scheme**

Operational coordination of the driving force for Digital Innovation and Transformation in Mental Health and Emotional Welfare to improve digital tools and solutions.

Launching, monitoring and evaluating SM (Mental Health, abbreviation is in the original Catalan) pilots that guarantee conditions for scaling up and integration into the Catalonian Health System as well as responding to needs derived from the triple bio-psycho-social approach of the Comprehensive Health and Social Care.

3.2. Artificial Intelligence Area



TIC Salut Social Foundation's Artificial Intelligence Area coordinates and executes actions to launch the Programme to promote and develop Artificial Intelligence in the Catalan Healthcare System (Health/AI Programme), published in [resolution SLT/954/2023](#) of 19th March, in the Catalan Government's official journal. This area's team also participates in artificial intelligence projects in the health field financed with competitive funds that bring high value.

Health/AI Programme:

Creating an enabling environment for innovation in the health field by developing and implementing artificial intelligence solutions to improve on citizen's health, all while prioritising prevention, leading in artificial intelligence solution implementation, and contributing to improve the quality of care and the healthcare system sustainability, as well as providing value to the knowledge generated by the publicly used Catalanian comprehensive healthcare system (SISCAT).

Main area projects and milestones during 2024

- ✓ **Creation** and work meetings for the Directive and Executive Committee for the Health/AI Programme.
- ✓ **Training:** During 2024, a training course on AI for the health sector was taught. It was comprised of 4 modules centred around apps, predictive AI, generative AI, and ethical and legal aspects. This 8-hour long training was taken by over 140 healthcare professionals with different profiles, which demonstrates the growing interest in this technology within the healthcare field.
- ✓ **Adhesion Model for Health Products and Tools (Catalan abbreviation MAPES):** The MAPES model AI technical requirements were updated during 2024 to align with the European AI Act, OEIAC's PIO model, and FUTURE-AI's principals. New requirements have been recollected in a checklist on the website form to ease submission and later analysis.
- ✓ **AI challenges:** During 2024, the TIC Salut Social Foundation coordinated technically diverse AI Health Challenges and supported defining, executing, and managing projects such as diabetic retinopathy, chest X-ray, voice transcriptions, ictus, and CIAM initiatives. The Foundation has written technical documents, organised preliminary market enquiries, and advised on AI. New public health challenges have also been started, the management of critical patients and gonarthrosis, which consolidate using AI tools in the healthcare system.

- ✓ **Initiative Support:** the AI Initiative Support Service was launched based upon two main frameworks: defining and adapting a service portfolio according to the type of entity that is requesting the support, and the creation of a prioritisation system to provide said services.

In first place, a monograph was prepared and a comparative study on health and AI innovation initiative was carried out on a national and international scale, which has allowed to reframe and expand offered services. At the same time, a multilevel evaluation methodology has been designed to prioritise initiatives according to impact and viability, which is supplemented by graphic tools to aid in the decision. Finally, several advisory meetings with public and private entities have been held to provide personalised support for each project.

- ✓ **Conceptual tests:** Conceptual tests have been carried out to evaluate the application of generative AI in the health field by defining an implementation protocol to guarantee a systematic and useful process for SISCAT. Participation in specific projects has also taken place, such as the automated generation of clinical notes based on conversations and information extraction of a large volume of non-structured data for ASPCAT.
- ✓ **AI Health Watchdog:** New questions were introduced during 2024 into the AI Health Watchdog registry form to better collect information regarding generative AI. Technical specifications were also written out to design and develop a management platform on registered data aligned with the Work plan for the Health/AI Programme.

- ✓ **Technical evaluation coordination for AI tool evaluation methodology lead by AQUAS:** we have collaborated with AQUAS to prepare and spread the 'AI digital health technology evaluation guide', that includes specific technical, ethical, and legal criteria. The guide, published in three languages, has been introduced into spaces such as the Mobile World Congress and will become a benchmark for a new specific evaluation framework. We have also reviewed two reports prepared using this methodology.
- ✓ **Technical guide preparation and publication:** Four technical guides with infographics to promote good practices when using AI in the health field were produced and published during 2024. These guides address topics like the safe development of generative AI tools, the application of European regulations on AI, classifying apps as health products, and the process to obtain the CE marking. These publications offer practical guidance to guarantee the controlled, ethical, and safe AI launching in the health field.
- ✓ **Participating in international work groups:** During 2024, TIC Salut Social Foundation reinforced its participation in national and international work groups by actively contributing to the European projects COMFORTage and SEARCH. We lead these projects in key tasks for data governance, explainable AI, synthetic data generation, and regulatory alignment with the goal to promote ethical, safe, and interoperable AI in the health field. Our involvement has allowed us to expand on strategic alliances and position ourselves as an AI European benchmark.

3.3. Digital Assets for Citizens Area



The Digital Assets for Citizens Area's mission is to propel and guarantee quality in health and social welfare digital solutions by aiding citizen access to health services in an efficient, secure, personal, and participatory manner. In collaboration with the Catalan Healthcare Citizenship, Innovation, and Users Service Department (CatSalut), we work to define and improve these assets since we understand them as any other digital tool that allows to manage, check, or receive health and social care through web platforms, phone apps, or other digital interfaces.

These digital assets are categorised into two large groups: **relational assets**, which improve the interaction between citizens and **healthcare services and health and welfare assets**, which are focused on promoting health and specialised care. A prominent example is **La Meva Salut** (which means 'My Health'), a model digital platform that allows access to clinical history, manage visits, and interact with health professionals. Furthermore, several centres have developed their own assets to adapt to more specific needs and improve upon fair care, specially in rural areas.

Said Department also leads a pioneer service in Europe to certify health and welfare digital assets based upon standard [CEN/ISO/TS 82304-2](#). This system evaluates digital apps following uniform, reliable, secure, and ease of use criteria, structured into four large spheres: **Clinical and functional contents, Robust technology, Usability and Accessibility, and Security and data privacy**. This certification provides a quality label recognised across Europe, similar to models such as **Nutriscore**.

During this year, the Department has driven initiatives to consolidate said digital assets forward by prioritising interoperability in the healthcare system and encouraging use from the citizen's perspective. Our commitment towards digital innovation and accessibility contributes to healthcare being more efficient, connected, and centred around people's needs.

Main area projects and milestones during 2024

- ✓ **Directory of Digital Assets for Citizens:** Centralised inventory that collects, classifies, and provides knowledge to Catalonia regarding digital solutions destined to improve citizens' health and welfare.
 - > Over 270 new health and social digital assets were identified, reviewed, and published on the directory.
 - > The directory was expanded into the social sphere by incorporating over 80 digital assets with new dimensions and search modules addressed to this field.
- ✓ **Digital Assets Certification Service:** Evaluation framework concerning digital health assets' quality and reliability to promote and encourage trust amongst citizens.
 - > Consolidation of a self-assessment test destined for SISCAT entities to guide with certification requirement compliance.
 - > Creation of a tool that supports evaluation, a digital evidence form so entities can send all necessary documents on the asset to be reviewed.
 - > New evaluation framework adapted to standard CEN/ISO/TS 82304-2 with updates and the creation of new certification criteria.

- > A pilot evaluation with two new relational apps and two health promotional, prevention, and monitoring ones in use at SISCAT by following the new evaluation framework.
- > Design of a new quality label for health apps in the entire Catalonia territory.

✓ **Monitoring and evaluation of transforming projects concerning ‘Citizen relationships’ by the Adhesion Model for Health Products and Tools (Catalan abbreviation MAPES)**

- > Establish a process to accompany entities to comply with the criteria defined in the Good Practices Guide to develop digital assets for citizens that may be accessible from My Health (*La Meva Salut*).
- > Preparation of evaluation materials and guides concerning ‘[Citizen relationships](#)’.
- > Define a compliance checklist to evaluate the sphere’s projects.
- > Evaluation on 13 transforming projects in the ‘Citizens’ sphere and evaluation of 2024 evaluation report.

✓ **Label2Enable:** European project focused on promoting a quality label for health apps following Europe’s CEN/ISO 82304-2 technical specifications.

- > Consolidation of the Handbook to guide evaluations that allows necessary evidence, questions, and requirements established in CEN/ISO/TS 82304-2 to be provided to carry out the evaluation independently and by comparing to five international regions.
- > Establish a certification outline that details steps and sustainability model from an evaluation organisation on a European level.

- > 24 health apps evaluated by five international independent evaluators following CEN/ISO/TS 82304-2.



- > Label2Enable received 1.3 million euros from funds

✓ **Popularisation and spreading of good practices to promote and develop digital assets via international proposals and projects.**

- > Consolidate synergies between regulatory organisations to reinforce a collaboration and evaluation experience sharing network following recognised standards across borders.

3.4. Personalised Digital Care Area

The Personalised Digital Care area drives the use of technology in care processes, so they become more proactive, participative, collaborative, intelligent, and personalised, ensuring the healthcare system progress. The team defines, designs, and develops technological protocols and tools that guarantee a personalised, proactive, and standardised monitoring of the citizen; boost efficiency and accessibility to technological care services; implement integrating patient detection, diagnosis, treatment, and monitoring models, and evaluate technological solutions that adapt health and social care to the system's needs, all the while centring on the individual and population.

Main area projects and milestones during 2024

✓ UNICAS

> **Goal:** create an ecosystem of alliances to improve paediatric patients with complex minority diseases during their entire care process (from beginning to end). Under the umbrella term Personalised Digital Care Plan, funded by the Recovery, Transformation, and Resilience Plan as well as the Next Generation European funds, Catalonia leads the project's technology development and implementation.

> 2024 Milestones:

- Execution of the project on a national level, coordination of design actions, technological development and integration of the project lead by Catalonia.

- Identifying UNICAS nodes requirements (29 functional nodes spread out between the 17 Autonomous Communities, Ceuta, and Melilla).
- Identifying needs when treating minority diseases in paediatric patients by creating care processes agreed upon on a national level.
- Defining technological development to guarantee a collaborative model and one that shares information online.
- Tender on the technological platform development.

✓ Incorporating drones into healthcare:

> **Goal:** Shape incorporating drone technology to the healthcare system by executing research projects and pilot tests in the three work areas identified in the health sphere. These are health transport logistics, medical emergencies, and clinical applicability.

> 2024 Milestones:

- Designing and executing the incorporation of drones to health.
- Coordinating drone work group in the health sphere.
- Pilot test on the continuous transport of biological samples by drone to Olot.
- Designing and executing of pilot test on the continuous transport of biological samples to the North Metropolitan Health Region.
- Designing the incorporation of drones model with clinical uses.
- Defining the project by product transportation.
- Defining the project by product transportation from the Blood and Tissue Bank to the Lleida and Alt-Pirineu area.

✓ 5G telemedicine projects:

> **Goal:** Develop several relevant health initiatives and use cases to be applied to the 5G network in rural and suburban areas in Catalonia.

> 2024 Milestones:

- Execute the pilot test at Terres de l'Ebre to include medical devices at home care with 5G integration and connectivity.
- Execute the conceptual test to check the use of augmented virtual reality headset in healthcare.

✓ Project T-ONE:

> **Objectiu:** Define the care process by including new technology that allows transmitting information from medical and/or portable devices at a social care setting to the clinical workstation.

> 2024 Milestones:

- Execute the pilot test when using and communicating devices between the PADES and hospital care services.
- Execute the pilot test when using and communicating devices at a primary care level.

✓ ICT tools to improve autism:

> **Goal:** Assess if using ICTs can improve treatments and quality of life for people with Autistic Spectrum Disorder.

> 2024 Milestones:

- Design and execute pilots on patients from the Sant Francesc d'Assis Foundation and the GURU Foundation within a clinical trial framework.

✓ Project for 3D splints:

> **Goal:** Execute a clinical trial to test the use of 3D printed splints to immobilise the radius and carry out a comparison against immobilisation using casts in three hospitals: Olot's hospital, Campdevàdol's hospital, and Blanes' hospital.

> 2024 Milestones:

- Design and start to execute the clinical trial pilot at specified centres.

3.5. Digital Competences

Area

The Digital Competences Area actively promotes, collaborates, and participates in local, national, and international projects that improve upon the necessary digital competences to use technology in the health field.

Main area projects and milestones during 2024

✓ **COMPDIG-Salut:**

Different challenges are proposed by the Professional Dialogue Forum. In particular, Challenge 4 suggested improving upon health professionals' digital competences. This has materialised in the project COMPDIG-Salut, driven forward by TIC Salut Social Foundation, the Health and Business departments, and funded for two years by the European Union's Technical Support Instrument (TSI), granted to Catalonia together with Estonia given the similarities between both territories in the same field and to create joint synergies.

- Training strategy, monitoring plan, and strategic evaluation plan.
- Creation of training contents for nine out of the 11 competences.
- Running an 8h long self-paced pilot course online in which 13 health professionals and 8 training managers have participated (June 24).
- Defining needs to launch the professionals training strategy.

- **Publishing a scientific article:** Saigí-Rubió F, Romeu T, Hernández Encuentra E, Guitert M, Andrés E, Reixach E; Design, Implementation, and Analysis of an Assessment and Accreditation Model to Evaluate a Digital Competence Framework for Health Professionals: Mixed Methods Study; JMIR Med Educ 2024;10:e53462; URL: <https://mededu.jmir.org/2024/1/e53462>

✓ **EHECADI:**

European project the goal of which is to create a digital, international, and collaborative model to face social challenges in the health field for end of course works for nursing, physiotherapy, occupational therapy, nutrition and dietetics.

- Leading tasks related to the identification of society's challenges and European research priorities to elaborate a deliverable report.
- Identifying and defining necessary competences to drive health professionals' digitalisation process and digital transformation forward.
- Modify the course to improve on mentioned competences.
- Lead work sessions with EHECADI's External Committee.
- **Spreading activities:** organising the project's closing function.

3.6. Digital Medical Imaging Area

The Digital Medical Imaging Area supports the Catalan Digital Medical Imaging System (abbreviation in Catalan *SIMDCAT*), the Catalan Pathological Anatomy Digital Medical Imaging System (abbreviation in Catalan *PAT-SIMDCAT*), and launching new components (software and hardware) that provide SISCAT with new services that boost the possibilities of medical imaging digitalisation. This task is coordinated alongside the Information System Area of the Catalan Healthcare Service, the Imaging Diagnostic Service, and the Information Telecommunications and Technologies Centre (abbreviation in Catalan *CTTI*).

All of these systems increase patient security, since, as an example, these avoid losing already performed tests or repeating radiology or pathology tests as images can be shared amongst centres, or put another way, can be online. This also helps activate teleradiology or telepathology processes, implement systemic diagnostic support tools, and balance workloads if necessary.

Main area projects and milestones during 2024

✓ **SIMDCAT:**

Centralised repository of SISCAT's digital medical images that provides the public healthcare system with a secure and technologically advanced environment which saves and shares digital medical imaging services, such as conventional X-rays, MRIs, angiographies, mammographies, PET and SPECT scans, etc. It also serves to save and custody medical images from other specialised services that generate under visible spectrum, like dermatology or ophthalmology.

- Production service monitoring to maintain quality.

✓ **RIS-SISCAT launching:**

Coordination of the radiology information system launching for imaging diagnostic services in SISCAT centres. 23 centres with SAP-Argos will implement this first phase.

✓ **DOSIS-SIMDCAT:**

Centralised programme to register and manage the radiated dose during medical imaging explorations for SISCAT.

- 31 connected centres with CT mode
- Production service monitoring to maintain quality

✓ **Pat-SIMDCAT:**

Centralised repository of SISCAT's pathological anatomy digital medical images which saves whole slide imaging (WSI) or plates generated by scanners in a DICOM 145 format. All ICS pathological anatomy services are currently connected to Pat-SIMDCAT and it is planned that digitalised pathological anatomy services or the digitalisation of the rest of SISCAT start connecting to the system too.

- Production service monitoring to maintain quality.
- Monitoring the adherence to Pat-SIMDCAT using centres' PA services: Parc de Salut Mar, Cllilab, Granollers's hospital, Sant Pau hospital, Hospital Clínic, and Sant Joan de Déu hospital.

✓ **Centralised scanners and SGI/Visor purchase:**

Support when preparing the centralised purchase tender by CatSalut to supply 12 SISCAT centres with scanners and managing systems for pathological anatomy imaging. Support contract allocation, launching, and execution.

3.7. Interoperability Area

The Interoperability Area exercises a key role in the transversal support to the Healthcare System and Social Services in Catalonia by promoting the use of international standards such as HL7 FHIR, SNOMED CT, LOINC, IHE, DICOM, and OpenEHR. These standards help interoperability between systems by guaranteeing access to information regardless of where it has been registered and this favours reusing data, minimises blind spots, and ensures continued care.

The interoperability team participates in several projects within the Catalan Healthcare System by leading tasks like HL7 FHIR message development and SNOMED CT and LOINC coding, amongst others. It also works with tools like the Terminology Service and CCL, as well as being responsible for managing and updating the Catalan version of the SNOMED CT and its Reference Sets for the entire year by annually publishing the incorporation of new concepts and relations according to the Catalan Healthcare System's needs. This management is carried out in collaboration with clinical and social professional work groups who express their needs for a better adaptation of the extension.

Interoperability is essential to share information between systems and devices without losing meaning and guaranteeing comprehensive and efficient care. In this context, the Interoperability Area also collaborates with other institutions like TERMCAT to terminologically validate translations into Catalan of different clinical coding subsets that integrate into Catalonia's shared clinical history.

Main area projects and milestones during 2024

✓ Health Department data axis support:

Advisory and support service for implementing the Health Department data axis clinical terminology to provide knowledge when implementing clinical catalogues used by providing entities of the Catalan Public Use Comprehensive Healthcare System (SISCAT).

- Catalonia's Health Department OID registry management and publication on the CatSalut website.
- Training on HL7 FHIR basic principles for the entire PDSIS.
- Semantic coding for the following initiatives: PROMs, Reason Programming, RPT (pharmacology), Value scales, Immunisations, Vaccines, Intersocial, Allergies, etc.
- Interoperability support for the following initiatives: IS3, HC3, AuditoriaHES, ETC Critics, Bluebotton, mConnecta, visorHES, ARES treatment planning, etc.
- Weekly Health Department catalogue synchronisation: SIT, RUP, orthopaedic devices, pharmaceutical products.
- New terminology published on ST: MedDRA, CIE-O, UCUM, SIVAIN, etc.
- Terminology updates to SNOMED CT, LOINC, CIM10MC and CIM10SCP.

[For more information](#)

✓ Catalan SNOMED CT:

Maintain and update the Catalan version and reference sets according to the Catalonian Healthcare System.

- Updating the Catalan SNOMED CT during 2024 by:
 - Creating 260 new concepts.
 - Creating 406 new links between concepts distributed into areas by clinical relevance.
 - The update counts with over 9,000 descriptions.
 - And over 500 relationships with a special focus on high use frequency terms and pressing clinical areas.
 - New subsets: PROMS forms, substances, microbiology, and improvements upon social vulnerability follow-ups.
- Adaptation to the managing tool ExtCatSCT, ScatManager.
- Manage ExtCatSCT downloads area and licences.

[For more information](#)

✓ xShare:

The European project's goal is to introduce the yellow button and the industrial and quality xShare labels to the European market. The yellow button will allow citizens to share health data in the format of European electronic clinical history exchanges, EHRxF, between different European public and private healthcare systems. The data may also be used for research purposes.

- Project developing since December 2023.

[For more information](#)

✓ Blue Button:

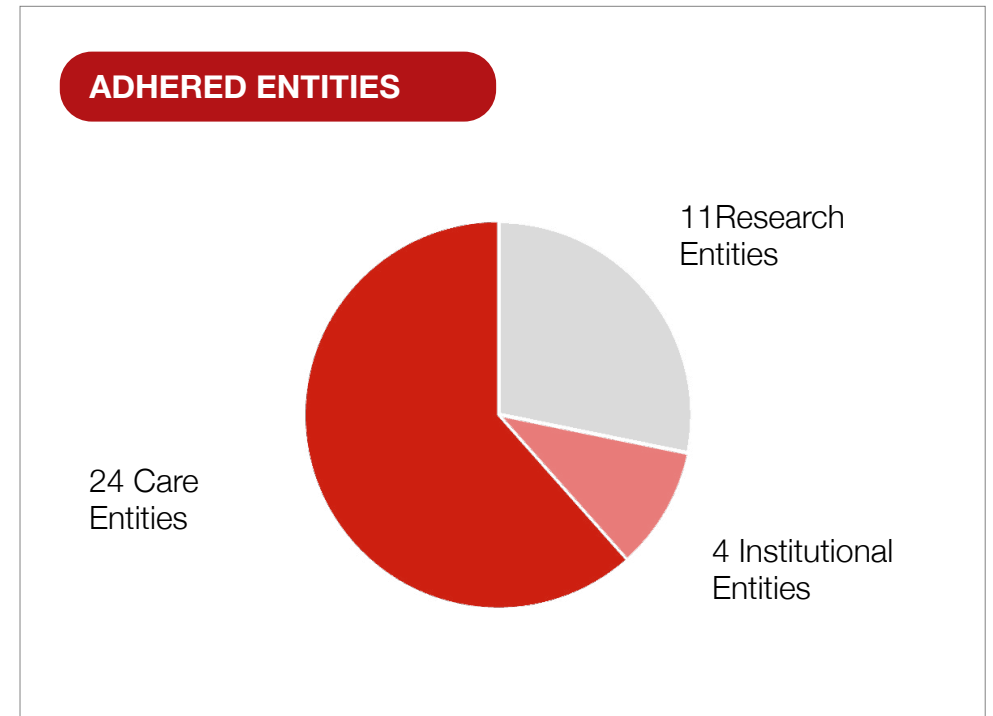
The aim of the project is to allow Catalonia's citizens to download and carry around a summary of their clinical history, regardless if generated in the public or private sectors. This button allows information to be shared amongst centres.

- Blue Button implementation in La Meva Salut and also the LMS app.
- IPS was generated in two private centres.
- The project is developing the tasks foreseen for 2024 and to be able to employ them in private centres.

[For more information](#)

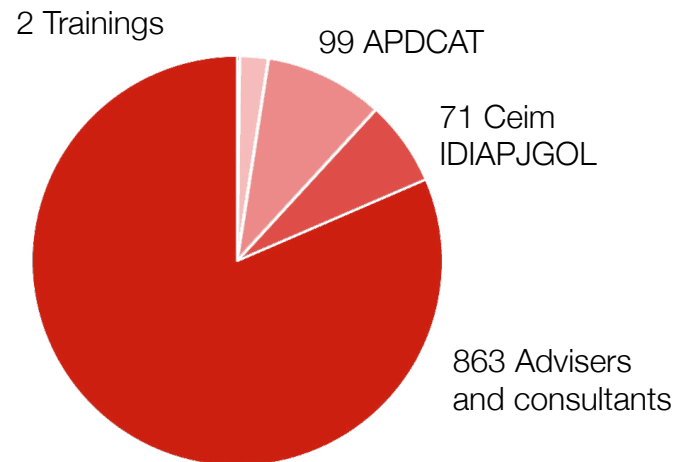
3.8. Office for the Health Data Protection Officer

The DPO's Office has had in 2024:	
Adhered entities:	39
> Institutional	4
> Care	24
> Research	11
DPO Office personnel	8
DPD Office budget	582.387,50€

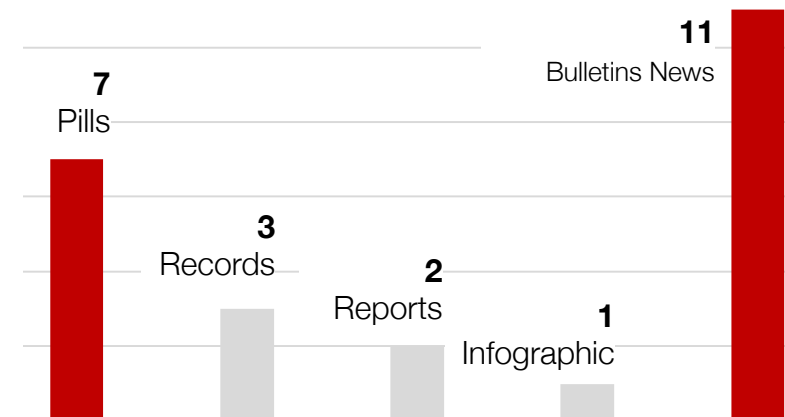


3.8. Health Data Protection Officer

ISSUES PROCESSED BY ODPO 2024



MATERIALS PREPARED BY ODPO 2024



TOOL EVOLUTION (AIPD) 2024

During 2021, the DPO's Office developed a platform to carry out AIPDs adapted to specific needs in the health field both for care as well as research projects. It is a tool initially conceived as an Excel but afterwards developed using a website, specifically <https://aipd.ticsalutsocial.cat/login>.

This platform offers multi-user access that allows collaborative work, it is a system repository, and guarantees the dialogue between the different implied parties in its making.

The tool offers an open version available for free to everyone and a version for adhered entities. This second version, which is accessed through a username and password, includes some specific functions and allows advice on the part of the DPO Office.

During 2024, the AIPD tool has become more used by adhered entities following the trend started at its inception, both for the open version as for the one meant for adhered entities.

On the other hand, several changes were made to the tool during 2024 to help with use by making it more intuitive, increase functions, improve formal aspects, and user experience. Modifications during 2024 were as follows:

- Creation of generic AIPD template reports for the most common data treatments at care entities.

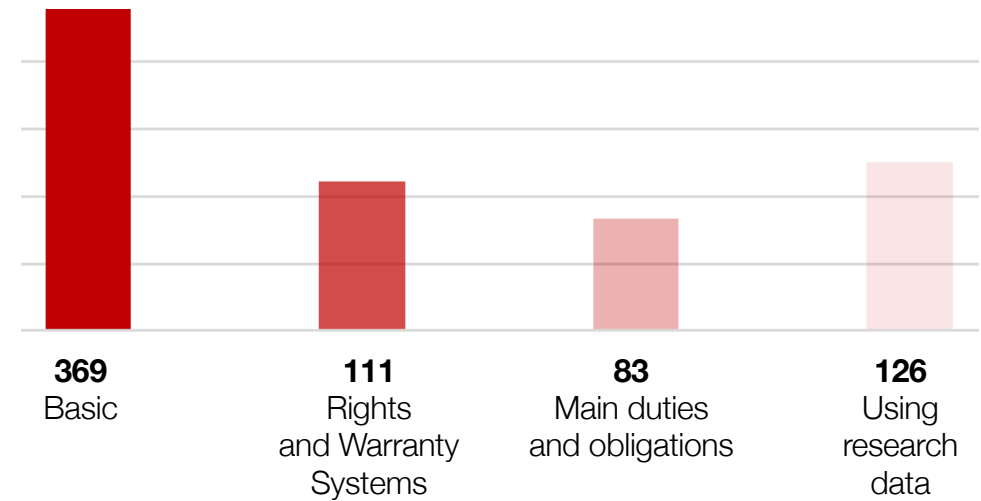
'Control Plan' tab update to adapt to new National Security Framework controls developed under Executive Order 311/2022. In addition and in order to help fill this tab out, two exceptions are added to the Control Plan: be in accordance with the National Security Framework or the PCE-Salut by enclosing corresponding certificates.

- 'DPO' report role is modified and the two fields in which the DPO participates is adjusted during reports.
- Report navigation menu is completely renewed to improve upon user experience.
- New information notes are added in Catalan, Spanish, and English to the required fields in AIPD reports to help with understanding.
- Commentary fields are added to section levels to make it easy on the eye as well as user's experience when filling reports out.
- A new maintenance page is shown when the service is down.
- Adding element boxes are set up so the horizontal scroll bar is permanently visible.
- Function added to copy an element into all sections.
- Given the high report volume, a 10 out of 10 pagination on the home page, a filter drop-down by entities, and a system to search by report name are added.
- Entity administrators are allowed to delete reports.
- Automated notices for report roles are set up.
- Password requirements are modified at the moment of registry.
- Several formal and functioning corrections are carried out.
- Generation of reports in a PDF format is optimised and performance and end display are improved.

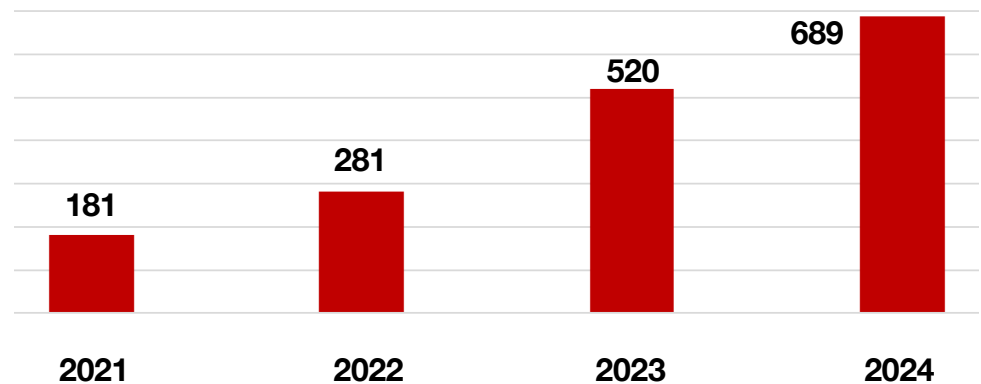
- Proposed controls under the ‘Control Plan’ are compound now, that is either low+medium+high level, and shown taking into account the initial calculated risk.
- Enclosing JavaScript, HTML, or PHP files to the annex platform fields is not allowed in order to improve upon security.

2024 DATA PROTECTION TRAINING

The DPO Office trained 689 participants from different adhered entities during 2024. The student distribution between all four modules offered by the DPO’s Office is shown in the following chart:



There was a strong increase in training in regards to the previous year, as well as other years in which this formation was taught.



On the other hand, the DPO's Office collected suggestions from some adhered entities during 2024, assessed the need to expand its educational offer with more practical courses that gather good practices in the data protection field, which took into account different career profiles from health entities, either institutional, care, or research ones. With this in mind, three new courses on Good Practices have been created to be included in the DPO's Office educational offer for the year 2025.

2025's courses are as follows:

- Good Practices Course for Administrative Personnel.
- Good Practices Research Course.
- Good Practices Course for the Care Field.

2024 DATA PROTECTION POLICY

During 2024, and as was done in 2023, the preparation of a Data protection policy as an action addressed to provide tools to ease with data protection regulation compliance. In this sense, launching different mandatory compliance areas for each of which the DPO Office produces processes and lines of action at the service of adhered entities was planned. The DPO Office has foreseen the following compliance areas when designing the Data protection policy:

1. Introduction
2. Application object and field
3. Data protection organisation
4. Treatment activity registry
5. Interested people's rights
6. Control authority
7. Security breaches
8. Confidentiality, contracting, and agreements
9. Personal obligations and data users
10. Personnel training
11. Data and information access management
12. Information and transparency
13. Treatment lawfulness
14. Data protection advice
15. Communication to third parties
16. Data security
17. Research
18. Impact evaluations
19. Risk analysis in data treatment
20. Internal complaint channel

In this sphere, during 2024 the following documents were prepared:

- Sphere related to the Control authority
 - APDCAT process lines of action guide.
 - Written templates for APDCAT processes.
- Sphere related to Information and transparency
 - Compliance process for duty of information.
 - Clauses about information template.
 - Privacy policy template, cookies information, and terms and conditions on the app's use.
 - Consent template.

TAR WORKSHOP

As a change, two workshops about Treatment of Activities Registry (TAR) addressed to CPDs involved in the entity preparation and maintenance were carried out in 2024, independently if from a technical or legal point of view.



2024 PARTICIPATION IN RELEVANT PROJECTS

Some of the most relevant projects in which the DPO Office has participated in 2024 are:

- MDM single citizen contact data.
- UNICAS.
- Cancer registry order in Catalonia.
- Drone healthcare incorporation.
- Support to System Director Scheme initiatives: HEH - outpatient and Healthcare Electronic History in Catalonia.
- Launching health and social comprehensive attention.
- Launching a service portfolio on personalised and precision medicine.
- MAPES.
- SISCAT's cybersecurity model.
- Processing and volunteer registry for phase I, clinical trials.
- Order on the registry of surgical implants in Catalonia (abbreviation in Catalan, RIQCAT).
- Creation of indicators in the Healthcare Department.
- Professionals' clinical support assistant.
- Voice assistance to the healthcare system.
- Medication information on chatbot.
- Girostudi.

2024 INTERNAL PARTICIPATION

The DPO Office meets periodically with CPDs from adhered entities that constitute a point of contact for topics of interest regarding data protection. It also serves as a forum so CPDs can bring forward suggestions, complaints, or proposals. Meetings are:

- **Plenary:** planned on a quarterly basis to address topics of interest for all adhered entities.
- **Research Work Group:** It is made up of CPDs and adhered entities representatives for this field, be it research or care, interested in matters relating to scientific research lead by the DPO's office. The group is stable and meets bimonthly.

On the other hand, DPO Office members have participated in different work groups during 2024. Some of these work groups are stable or collegiate bodies. The following stand out:

- Data Protection.
- Experts and Catalan Government DPOs work group.
- Technical Committee on Clinical Documentation.
- Spanish Society for Health Information Technology (abbreviation in Spanish SEIS) Technical Committee.
- Catalan Bioethics Committee.
- Healthcare Department Data Protection Group.
- CatSalut Data Protection Group.
- IDIAP Jordi Gol Ethics Investigation Committee.
- TIC Directive Committee.
- Health Data Sphere Work Group.
- Data access request and governance work group. Precisió a Catalunya (MPP).

- Healthcare Department Multidisciplinary Document Management Work Group (abbreviation in Catalan GTM).
- Catalanian Personalised and Precision Medicine Model Framework Work Group (abbreviation in Catalan MPP).
- Cybersecurity Heads for Health Strategic Committee (abbreviation in Catalan CE-CIBER).
- Work group to develop an impactful evaluation methodology for fundamental rights concerning high risk artificial intelligence tools and solutions at APDCAT.
- Monitoring PDSIS (abbreviation in Catalan, Pla Director de Sistemes d'informació) projects.
- Catalonia's Operations Strategy Committee on Digital Health.
- Departmental Coordination Committee on ICT in the Healthcare System.



2024 EXTERNAL PARTICIPATION

During 2024, the DPO Office actively participated in several specialised forums on the protection of personal data in order to spread and dig deeper into specific aspects of data protection in healthcare, in particular the following presentations were carried out:

- XIII Day of RDI TIC Salut Social, TIC Salut Social Chair at the University of Vic-Central University of Catalonia on social inclusion and artificial intelligence.
- Teaching at the Seminar on comprehensive care and data protection by the TIC Salut Social Chair at the University of Vic-Central University of Catalonia.
- TAIEX Study Visit, session 'Data Protection Strategy for Healthcare.'
- 1st Conference on 'DPO Online' organised by APDCAT (table regarding European Space on Health Data).
- XIV Interoperability and Data Governance Forum organised by the Spanish Society for Health Information Technology at the XIII Days of RDI TIC Salut Social.
- Online conference on ARSOPOL Rights organised by ICS for administrative personnel.
- THAIS 2024 3rd Taulí Health Artificial Intelligence Symposium.
- Conference on Data Protection and Artificial Intelligence in Biomedical Research organised by the *Institut d'Investigació Sanitària Pere Virgili (IISPV)*.

3.9. Other

✓ CRITIC.CAT:

Data, information, knowledge integration of all intensive treatments in Catalonia to help with management and coordination on the care and logistical levels.

✓ OCATT:

Information system design and development by the Catalan Transplant Organisation (abbreviation in Catalan *OCATT*).

✓ INNOBICS-SAHS:

European project to help with obstructive sleep apnoea diagnosis and treatment in Girona and Lisbon.

- Launching of the new care process between primary care centres and virtual sleep units.



✓ Vic i-Days:

Organisation of a hackathon at the University of Vic's Faculty of Medicine on innovative solutions that promote healthy habits and prevent chronic diseases.



✓ SECANT:

European project to improve organisations's preparedness and resilience when facing cybernetic threats.

- Leadership when redefining use case on sharing data across borders. The project is jointly funded by the European Union's Horizon 2020 programme.



✓ TIQUE:

European project to improve treatments for patients with heart failure and coexisting chronic diseases.

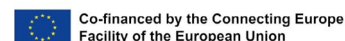
- Contribution to the systemic visibility and compliance control of platforms' technical requirements introduced at PCP. The project is jointly funded by the European Union's Horizon 2020 programme.



✓ eHealth Services across Spain's borders (CEF):

European project that ended when across border services of the document summary on the European patient, April 2023, and the electronic distribution, July 2022, started.









- The project is jointly funded by the European Union's Connecting Europe Facility.





4.

Projects subsidised by competitive funds

<p>Horizon 2020</p> 	 INCISIVE  Tique  Label2Enable  SECANT
<p>Horizon Europa</p> 	 xShare
<p>EIT Health</p> 	 INNOBICS-SAHS Vic i-Days
<p>Erasmus+</p> 	<p>DELIVER</p>  EHECADI
<p>CEF TELECOM</p> 	<p>Serveis transfronterers</p>





5.

Communication

5.1. Publications

· [Digital competences map for healthcare professionals.](#)

· [Health training digital initiatives mapping in Catalonia.](#)

[Saigí-Rubió F, Romeu T, Hernández Encuentra E, Guitert M, Andrés E, Reixach E; Design, Implementation, and Analysis of an Assessment and Accreditation Model to Evaluate a Digital Competence Framework for Health.](#)

· [Drone healthcare incorporation.](#)

· [Guide to good practices to develop digital assets for citizens.](#)

· [Report on good practices concerning DC framework for the health and care sectors.](#)

· [Digital Asset Radar at SISCAT.](#)

5.2. Participation in congresses and conferences

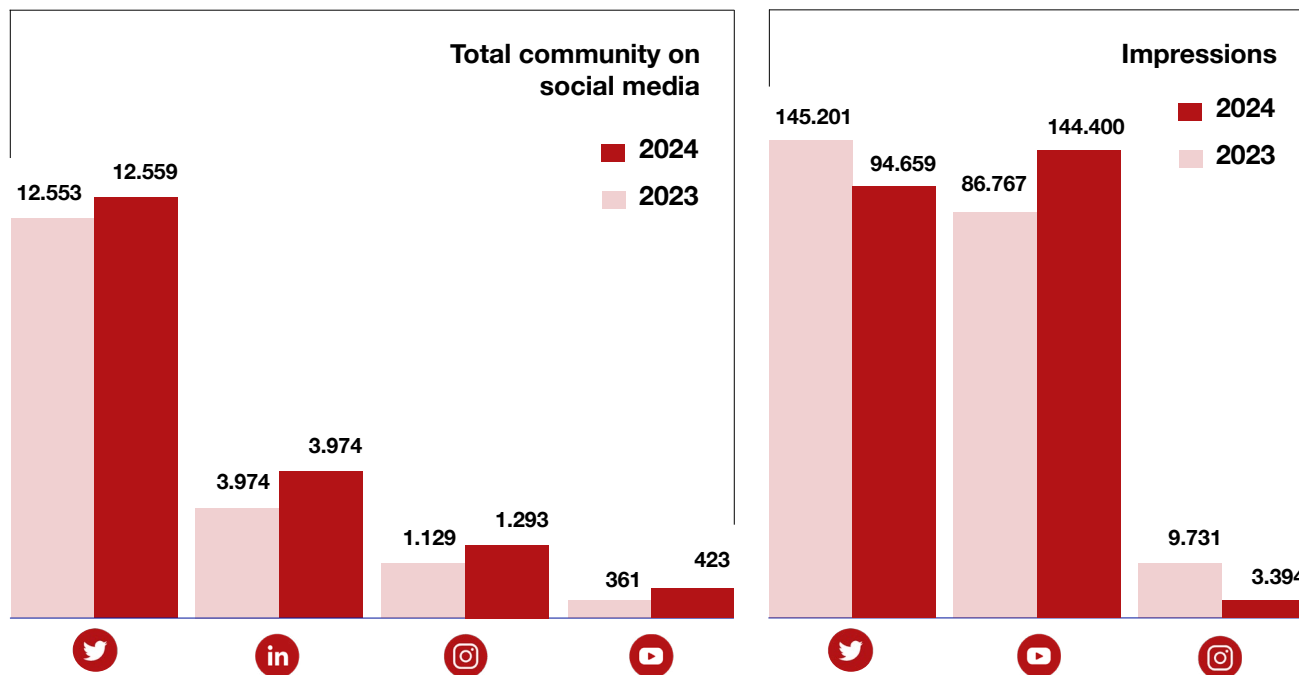
The TIC Salut Social Foundation team participated in numerous congresses and events during 2024.

42
conferences

25
guests

17
own

5.3. Community on social media



Other indicators

Flash TICSS

Subscribed people	5.441
Average openings	46.9%
Average clicks	31,5

WEBSITE

Users	43.500
Average visit time	1'30"
Visits	62.600

Media

Impact	521
Audience	38.300
Economic valuation	925.000

A background image showing several people in white shirts gathered around a table, reviewing financial documents and a tablet. The tablet displays a bar chart titled 'Finance R' with a y-axis labeled 'Axis Title' ranging from 0 to 900,000. The chart has four bars with values approximately 300,000, 500,000, 200,000, and 400,000. The people are looking at various documents with charts and tables on the table.

6.

Financial information

Asset	11.043.992,82
Non-current asset	157.728,65
Current asset	10.886.264,17
Total liability	11.043.992,82
Net worth	114.370,75
Non-current liability	342.970,11
Current liability	10.586.651,96

Income	4.515.266,18
Trasfers	3.895.550,30
Delivery of services	584.471,62
Other income	35.244,26
Expenses	4.517.992,28
Personnel	2.857.458,34
Other management expenses	1.660.533,94
Fiscal results	(2.726,10)



Generalitat de Catalunya
Fundació TIC Salut i Social

2024 Report

TIC Salut Social Foundation

Healthcare Department and
Department of Social Rights and Inclusion,
Government of Catalonia.

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