

Activity Report 2022



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1. TIC Salut Social Foundation



What we do

Mission



Facilitator of digital transformation projects for the Catalan Health System

Vision



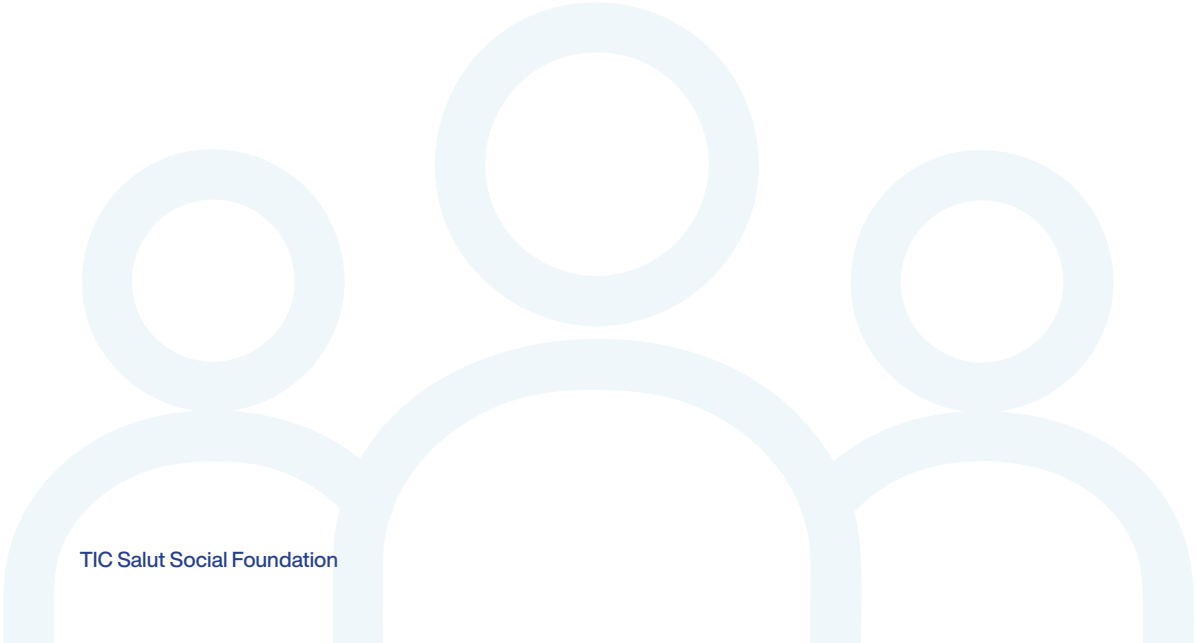
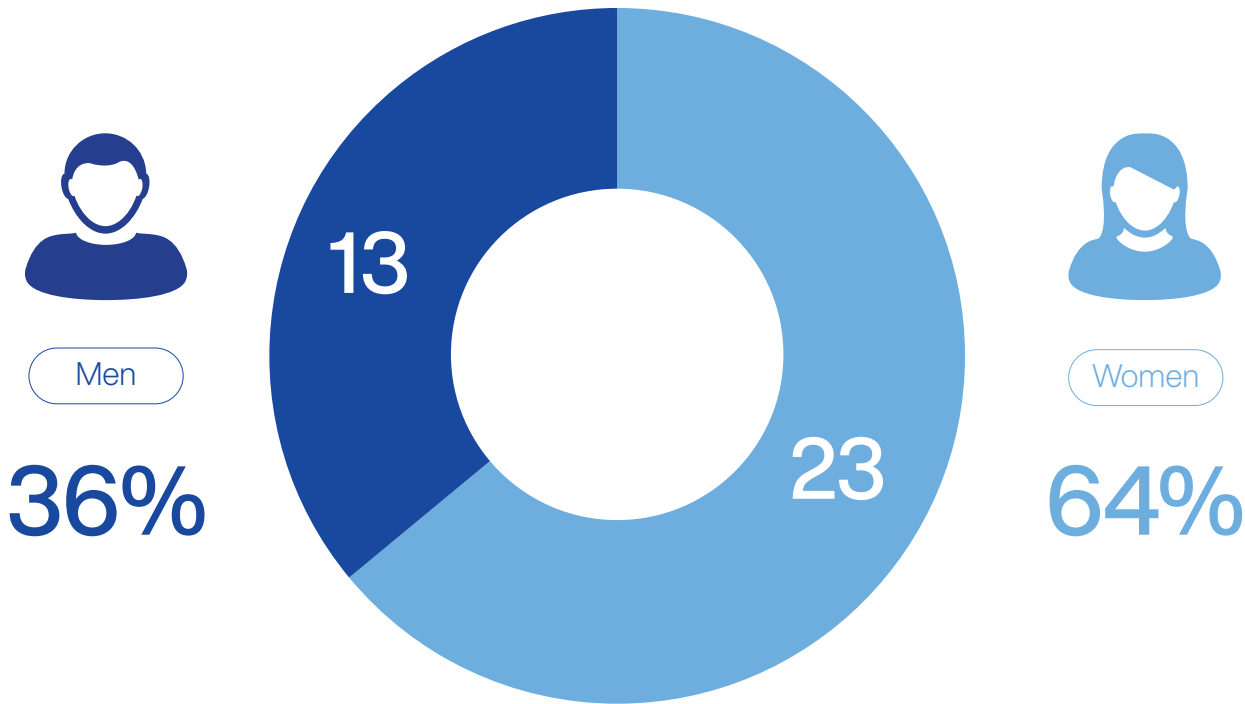
Promote the efficiency and sustainability of healthcare services through innovative technology

Values

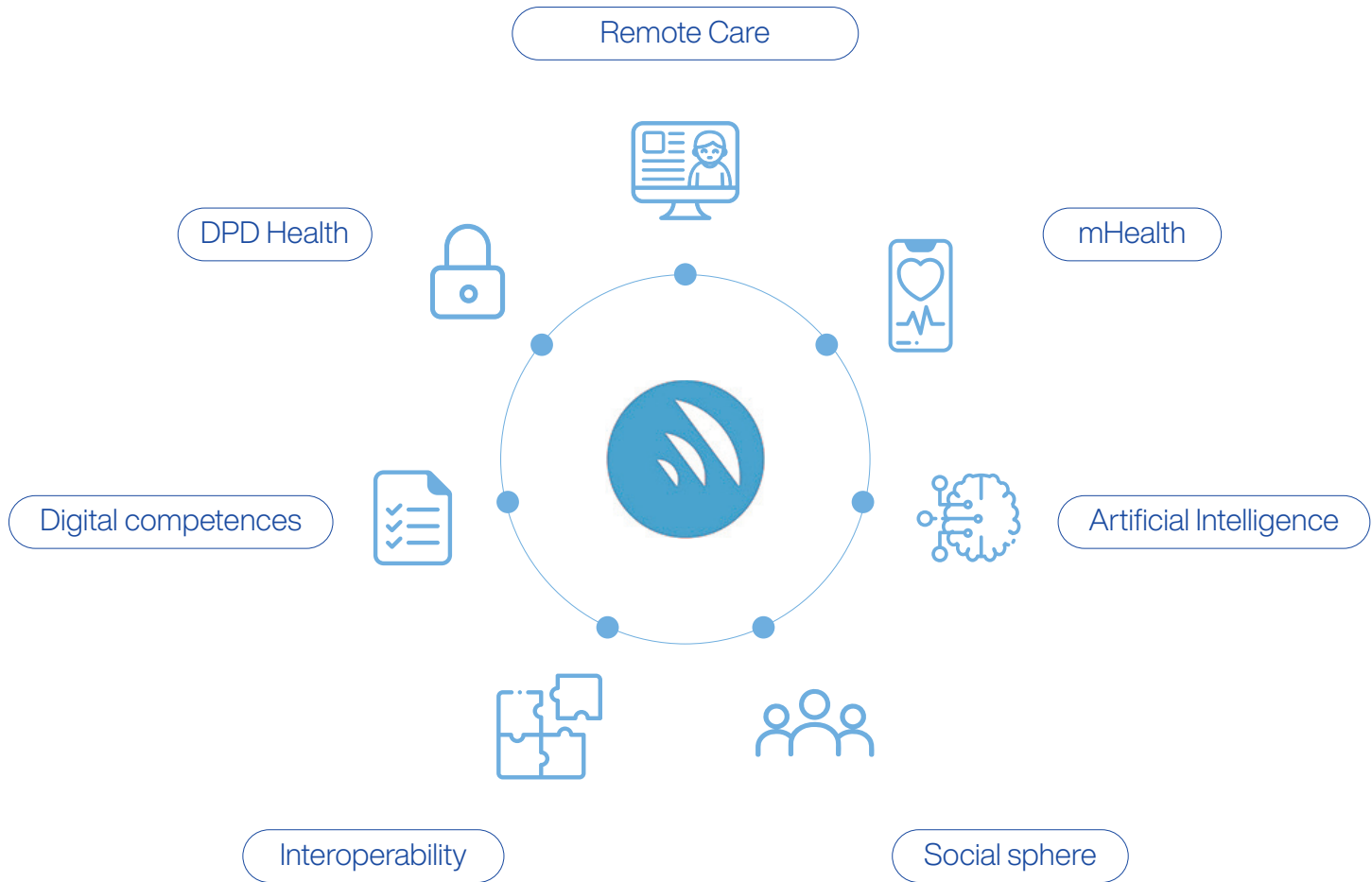


Fairness
Innovation
Collaboration
Sustainability
Transparency
Transfer

Team

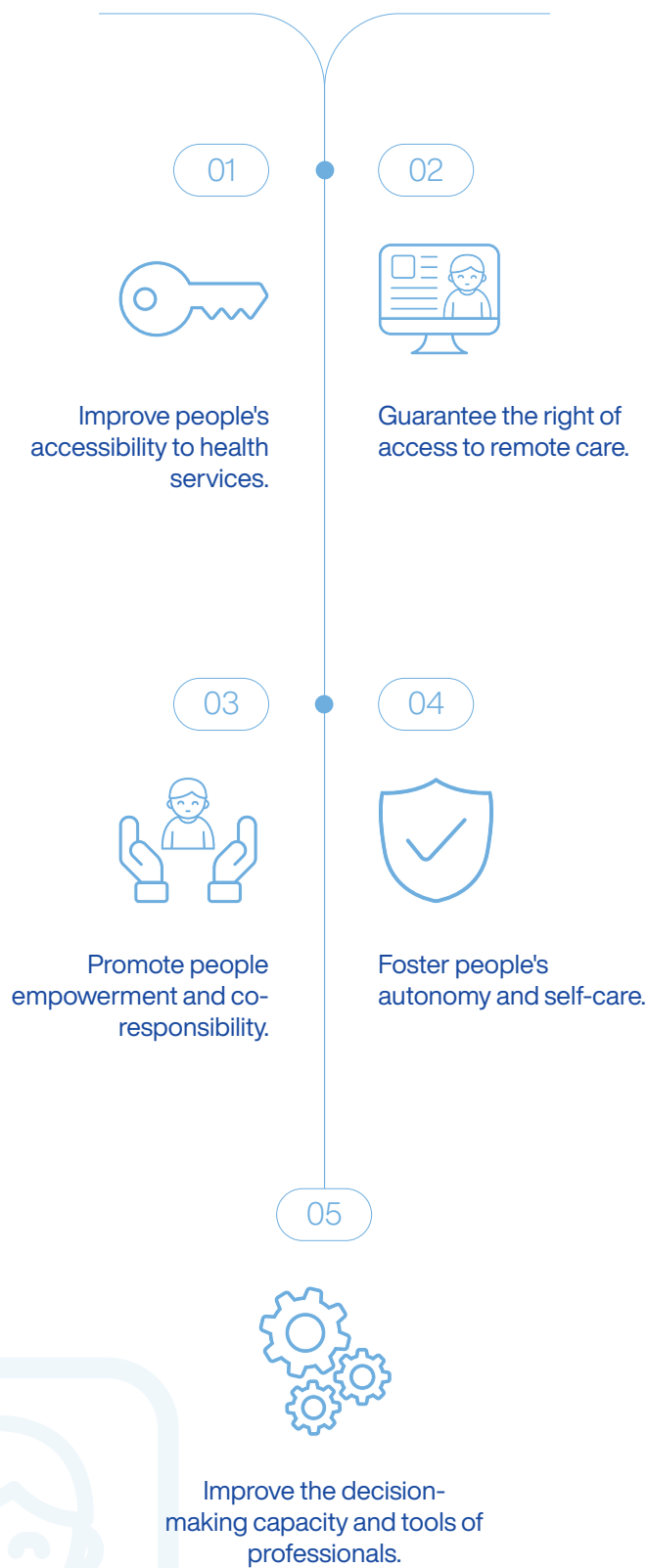


Work areas



Remote Care

The non-face-to-face care strategy aims to define a common framework for the implementation of innovative digital tools in the health sector mainly aimed at achieving the following objectives:



mHealth

Mobile apps certification service

TIC Salut Social Foundation offers a **certification service for mobile applications of the health and social environment**. We advise you to ensure that your product meets the essential requirements to create an app with quality and reliability assurances.



Usability and accessibility

To maximise the advantages offered by the technology, the application's use must be intuitive, its design must be fit for the required purpose and guarantee universal and inclusive access to people with functional diversity.



Technology

We check that the application works efficiently and reliably from a technological point of view. The application must conform to minimum functionality acceptable to the end user, guaranteeing robustness and consistency.



Security

We guarantee the existence of mechanisms to preserve the privacy of data generated by users and the confidentiality of the transfer of this information.

Suitable storage of information must be ensured and encryption mechanisms must be established when registering access passwords.



Functionality and content

With the support of our Expert Committee comprising members of Official Associations such as COMB, COPFLEFC, COIB, SCEPC, AiFICC and CAMFIC, we evaluate the quality of the content and the usefulness of its built-in functions. They review whether the application informs the user of its benefits, whether a professional has participated in the design of the app and whether it informs the user about software updates.

7 Certified apps

5

Diabetes monitoring apps linked to continuous monitoring sensors and glucometers



HumanITCare



Eversense CGM



Minimed Mobile



Guardian



Social Diabetes

1

Oncology patient monitoring apps



Institut Català d'Oncologia

1

Apps for home monitoring of treatments (haemodialysis)



Hemmodin

Artificial Intelligence

Development of the governance model of the Health/AI Programme and creation of an office for the management, coordination and adoption of specific measures to promote the effective application of the programme. The foundation has coordinated the actions and tasks described, derived from the implementation.

Observatory

The AI Observatory in the field of health will promote highly innovative and at the same time safe changes, always monitoring the evolution and advance of technology.

The activities carried out to detect the most important AI initiatives and assess whether they are suitable for applying them to the system are:

- AI maturity study in Catalonia
- Maturity study of artificial intelligence within the health sector in Catalonia's research centres
- Presentation days of the Observatory
- Registry of algorithms
- Report on the current situation of virtual assistants
- Library of reference documents in AI

Supporting initiatives

Creation of supporting materials:

- AI Explainability Guide
- Best practice guide for code development of AI solutions

Advice to the parties involved

- SISCAT entities
- Companies
- Research centres

Diabetic retinopathy challenge

- Identification of the patient cohort for the launch of the first challenge
- Preparation of tabular data for the launch of the first challenge

Synthesised data

- Study of the current situation of synthesised data
- Comparative analysis
- Analysis of tabular data generation tools in a single table
- Analysis of tabular data generation tools belonging to relational databases
- SANDBOX



Social sphere

Initiative created and led by TIC Salut Social Foundation, and promoted in collaboration with the Department of Social Rights. It has the expertise of various professionals from social and health organisations such as the Barcelona Provincial Council, Barcelona City Council, the Ministry of Health of the Government of Catalonia and other departments, ministries and bodies.

wSocial

Promotion of an integrated digital work environment for social services that allows the progressive digital transformation of related care.

- Participate in sprints, led by the General Directorate of Social Services.
- Support in the integration of the InterSocial dictionary.

PECTs

Community specialisation and competitiveness projects.

- **PECT Bagess.** Health and social innovation to respond to dependency and chronicity, improve the quality of life and promote the social inclusion of people with dependency and chronic diseases.
- **PECT Mataró.** Mataró-Maresme Ecosystem for the innovation of caring cities to promote new models of care and support for active ageing for people in situations of frailty, dependency, chronicity or disability.

Next Generation EU

Call for grants from the Ministry of Social Rights within the framework of Next Generation EU funds.

- Advice and drafting of the technological aspect for the grant rules.
- Technological evaluation of the proposals relating to lines 2, 3 and 4.

EIP on AHA reference site

- Inclusion of the social sphere and social and health integration in the international network to promote active and healthy ageing.

Social ICT trend map

Map of ICT trends in the social sphere

- **1 report published.** State of digitisation of the basic divisions of social services

Interoperability

Interoperability is the ability to share information among systems or devices without losing its meaning. It guarantees access to information regardless of where it has been recorded and promotes its reuse, minimising blind spots and ensuring continuity of care.

Maintenance of the SNOMED CT Catalan extension

13,295 Deactivation of non-standard components.

1,771 New descriptions created.

5,331 Corrections to relationships and duplication of tables.

1,771 New concepts in the social sphere.

21 New concepts created

6 New data files for language control (Catalan and Spanish) and subset listing



Reactivation of social work groups and vaccines

Diabetic retinopathy challenge

331 Department of Health OIDs managed.

Catalogue maintenance

ATIC terminology catalogues

4 Lexical updates

- Covid-19
- Mental health
- Allergies
- Nuclear medicine

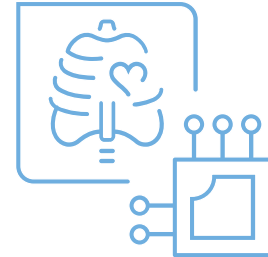
Digital competences

Training and adaptation of the competences of healthcare professionals in the context of digital health.

COMPDIG-Salut

Digital skills competences for health professionals

- Coordinate challenge 4 of the Professional Dialogue Forum.
- Design the digital competences map for health professionals.
- Create the assessment and accreditation model for digital competences.
- Define the bases for the development of training content.
- Support the creation of training pathways for the evaluation and accreditation of digital competences.



SIMDCAT

The Digital Medical Imaging System of Catalonia project unifies the digital medical imaging model in a systemic way to share information stored securely and de-localised through cloud computing.



Pat-SIMDCAT

Pathological Anatomy - Digital Medical Imaging System of Catalonia. Integration of seven centres of the Catalan Institute of Health that are part of the DIGIPATICS project:

- Vall d'Hebron University Hospital (Barcelona)
- Doctor Josep Trueta University Hospital (Girona)
- Germans Trias and Pujol University Hospital (Badalona)
- Joan XXIII University Hospital (Tarragona)
- Verge de la Cinta Hospital (Tortosa)
- Bellvitge University Hospital (L'Hospitalet de Llobregat)
- Viladecans Hospital (Viladecans)
- Hospital Arnau de Vilanova (Lleida)



Health Data Protection Office

At the DPO Health Office, we take care to inform and advise on the obligations set out in the data protection regulations, monitor their compliance and act as a point of contact for issues relating to their processing.

Published reports

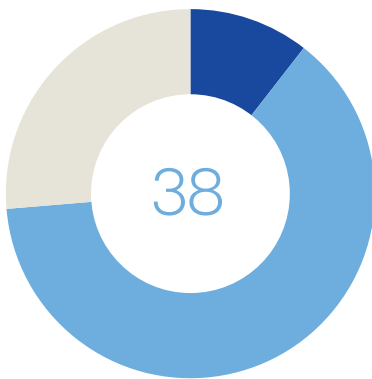
Member entities¹ 38

DPO Office - TIC Salut Foundation

Staff 8

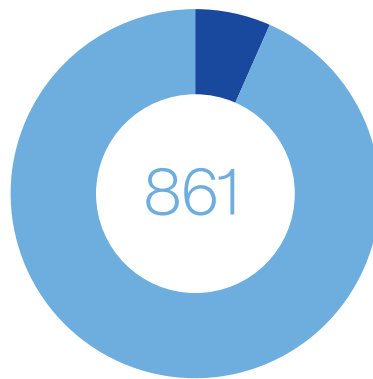
DPO budget² - Art. 38.2 GDPR €582,379.50

Affiliated entities



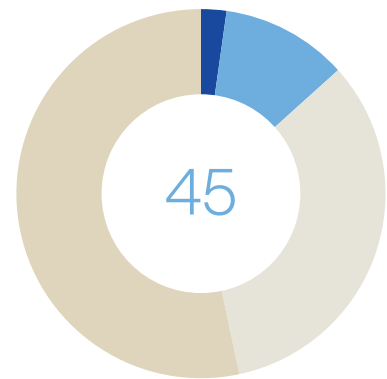
- 4 Institutional bodies
- 24 SISCAT Welfare Bodies
- 10 Other

Social Security-related issues



- 57 Matters processed by DPO
- 804 Matters handled by APDCAT

Materials prepared by DPO



- 1 Guidelines
- 5 Pills
- 15 News
- 24 Reports

Evolution of the AIPD tool in 2022

1,640

Average intake per month

46

Entities registered

363

Registered AIPDs

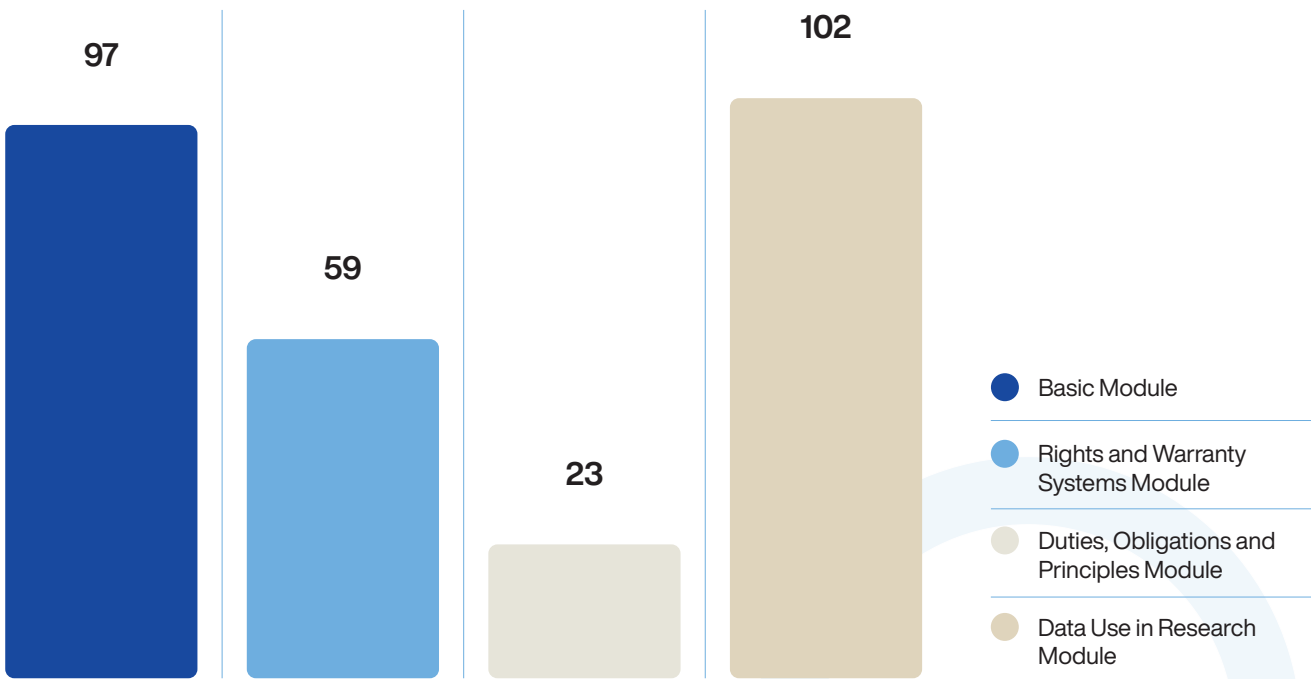
125

Registered users

3%

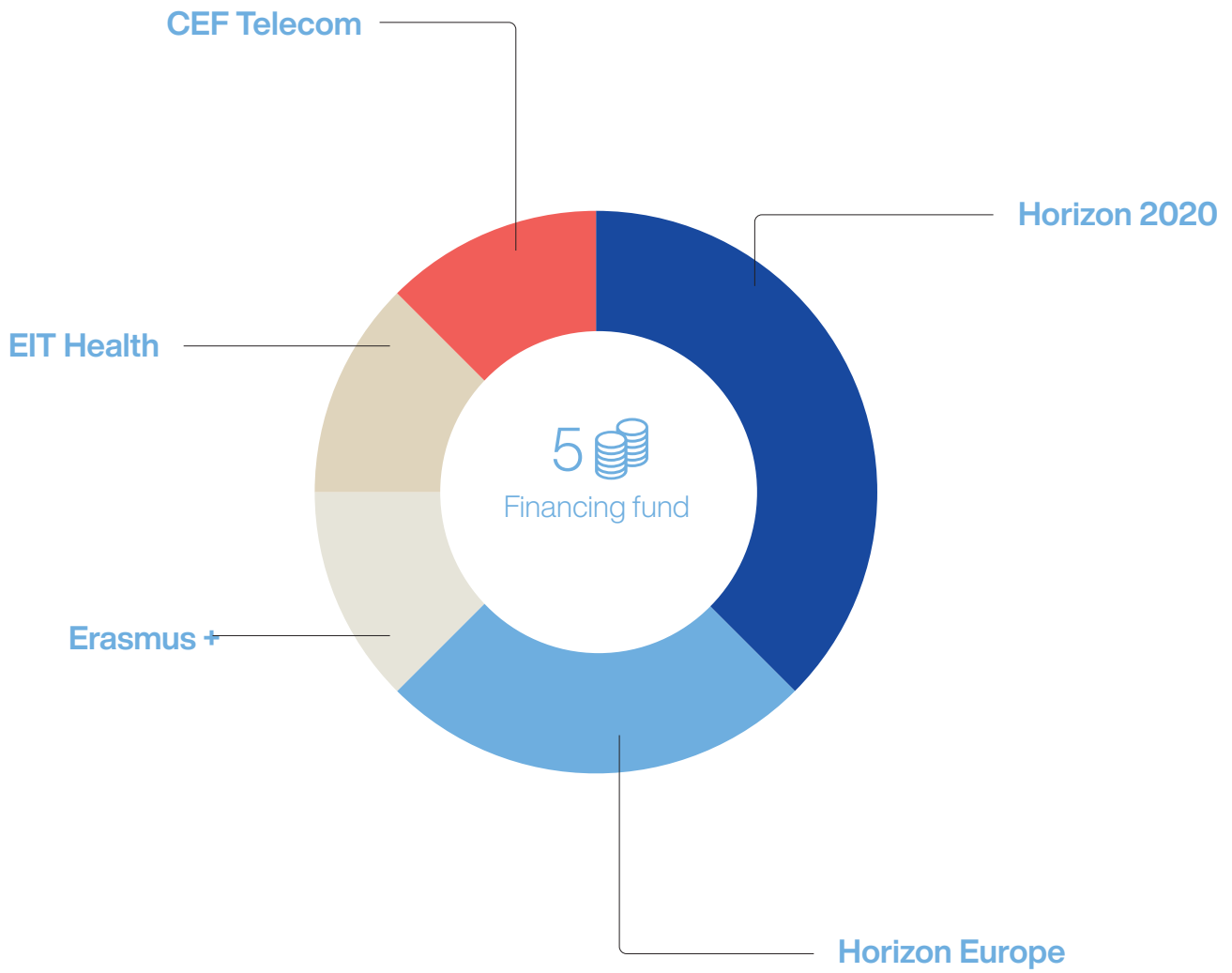
Users from outside Spain

Data protection training delivered



Projects

Projects financed by competitive funds



Projects by Work Area

Artificial intelligence

INCISIVE

Improving the diagnosis and prediction of cancer with AI tools

Funded by the Horizon 2020 research and innovation programme of the European Union, under grant resolution no. 952179



Data protection

SECANT

Improve resistance against cyber threats in Health organisations and entities

SECANT has received funding from the Horizon 2020 research and innovation programme of the European Union, under grant resolution no. 101019645



mHealth

Label2Enable

Promotion of the evaluation framework for health apps in Europe according to ISO/TS

82304-2
Co-funded by the European Union



INNOBICS-SAHS

Improve the healthcare process of diagnosing obstructive sleep apnoea with a digital platform of communication tools between Primary Care and Hospital Care.

Co-funded by the European Union



Interoperability

TIQUE

Treatments for patients with heart failure and coexisting chronic diseases



Cross-border eHealth services in Spain

Cross-border interaction between public administrations, companies and citizens



X-eHealth

Management and cross-border access to health records of European citizens



9
Projects

Digital competences

DELIVER. Digital competences programme for European health professionals



EHECADI. Approach of Final Degree Theses on social challenges in the health sphere



2. Communication



Published reports

7



During 2022, TIC Salut Social Foundation published 7 reports

Scope	Work Area	Document
Health		Report on non-face-to-face care in the health region of central Catalonia
Social		State of digitisation of the basic divisions of social services
Health		Exploratory study of the level of digital competences among /Health professionals
Health		Piloting the Model for the Evaluation of Digital Skills in Health
Health		Guide to explainability in AI
Health		Best practice guide for code development of Artificial Intelligence solutions in health
Health		Current situation of virtual assistants in the health sphere

Scientific articles

3



During 2022, TIC Salut Social Foundation published 3 scientific articles

Manzini, E.; Vlachos, B.; Franch-Nadal, J.; Escudero, J.; Genova, A.; Reixach, E.; Andrés, E.; Pizarro, I.; Portero, J.L.; Mauricio, D.; Perera-Lluna, A. "Longitudinal deep learning clustering of Type 2 Diabetes Mellitus trajectories using routinely collected health records". *Journal of Biomedical Informatics*. November 2022, p. 135: 104218. doi: 10.1016/j.jbi.2022.104218. Epub 8 October 2022. PMID: 36216232.

Reixach, E.; Andrés, E.; Sallent Ribes, J.; Gea-Sánchez, M.; Ávila López, A.; Cruañas, B.; González Abad, A.; Faura, R.; Guitert, M.; Romeo, T.; Hernández-Encuentra, E.; Bravo-Ramirez, S.; Saigí-Rubió, F. "Measuring the Digital Skills of Catalan Health Care Professionals as a Key Step Toward a Strategic Training Plan: Digital Competence Test Validation Study". *Journal of Medical Internet Research*. 30 November 2022, p. 24(11): e38347. doi: 10.2196/38347. PMID: 36449330 PMCID: PMC9752462.

Lazic, I.; Agullo, F.; Ausso, S.; Alves, B.; Barelle, C.; Berral, J.L.; Bizopoulos, P.; Bunduc, O.; Chouvarda, I.; Dominguez, D.; Filos, D.; Gutiérrez-Torre, A.; Hesso, I.; Jakovljević, N.; Kayyali, R.; Kogut-Czarkowska, M.; Kosvyra, A.; Lalas, A.; Lavdaniti, M.; Loncar-Turukalo, T.; Martínez-Alabart, S.; Michas, N.; Nabhani-Gebara, S.; Raptopoulos, A.; Roussakis, Y.; Stalika, E.; Symvoulidis, C.; Tsave, O.; Votis, K.; Charalambous, A. "The Holistic Perspective of the INCISIVE Project—Artificial Intelligence in Screening Mammography". *Applied Sciences*, 2022, p. 12 (17): 8755. <https://doi.org/10.3390/app12178755>

Seminars and Congresses

27 

During 2022, TIC Salut Social Foundation organised and/or participated in a total of 27 conferences and congresses which are detailed below:

Mobile World Congress – from 28 February to 3 March

Inforsalud – 22, 23 and 24 March

Presentation of the Guide on pseudonymization techniques and best practices – 30 March

Women TECh – 1 April

Banberg Foundation – 7 April

Open market consultation TIQUE project – 7 April

Presentation of the "Smart Health" training programme - 21 April

BIB: Health data in Catalonia – 22 April

MedTech Forum – 4 May

IoT World Congress 10, 11, 12 May

Unwanted solitude in the digital age - 23 May

X-eHealth Professionals Training Session – 25 May

Revitalisation of the health sector: strategies, challenges and use cases - 26 May

Smart Technology Forum – 1 June

Presentation of the report on remote care in the health region of Central Catalonia – 1 June

THAIS Parc Taulí AI in health symposium – 20, 21 June

Women Evolution Congress – 6 October

Compiling challenges in the Health sector – 21 October

AI in Health – 28 October

How to accredit Health apps: from research to care - 2 November

1-Day Seminar for SISCAT managers – 22 November

AI Challenge Seminar in Holy Spirit Research – 10 November

HealthTech2030 – 10 November

i-Days – 10 November

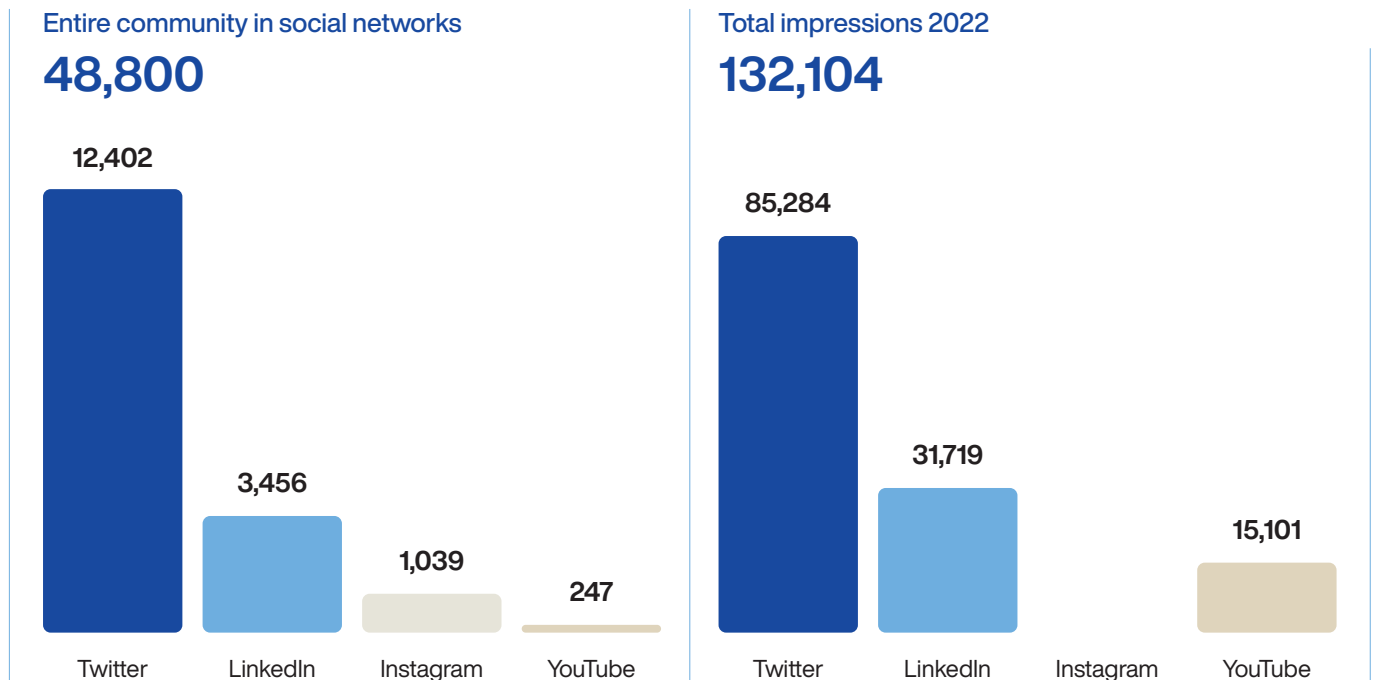
The general public's rights of access and transfer of personal health data: Implementation models and approaches – 28 November

Digital health strategies, governance, and implementation of the European Health Data Space: Challenges and opportunities – 28

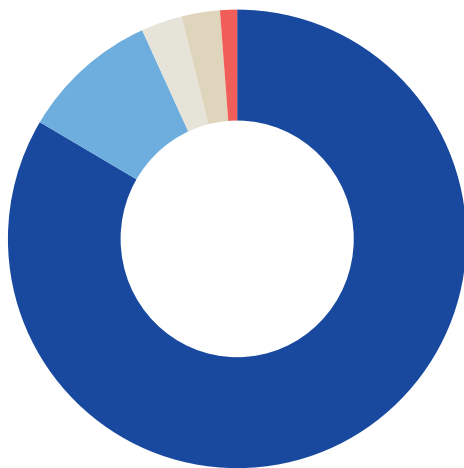
November

Networks

TIC Salut Social Foundation manages a community of 48,800 people distributed in the following channels:



Web users



Web users

31,647

- 83.5% Live
- 9.7% Email
- 2.9% Social networks
- 2.7% Organic
- 1.2% Reference

Press

Subscribers to FlashTICSS (monthly newsletter)

5,081

Audience

5,585,108

Financial valuation(€)

252,776

Impacts

123

3. Financial resources



Total assets

1,939,433.68

Non-current assets (fixed assets)

72,000.20

Current Assets (operating)

1,867,433.48

Total liability

1,939,433.68

Net assets

58,246.92

Non-current liabilities

709,848.28

Current liabilities

1,171,338.48

Income

2,724.118.39

Transfers, grants and donations received

2,593,098.69

Provision of services

127,334.86

Other income

3,684.84

Expenses

2,744,255.80

Non-current assets (fixed assets)

2,060,230.71

Current Assets (operating)

684,025.09

Profit/loss of the financial year

-20,137.41

2022 Report

**ICT Social Health Foundation, Ministry of Health,
Government of Catalonia.**

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