

# PTI Ciencia e Innovación Digital

## Digital Science and Innovation Platform

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## What are CSIC's Interdisciplinary Thematic Platforms (PTIs)?

- Partnerships in scientific collaboration for a social mission and tomorrow's solutions.
- The PTIs are a finalist instrument of research and innovation, created to address multidisciplinary challenges of great scientific, economic, and social impact.
- They comprise research groups from different CSIC centers and are open to the participation of companies, government, other institutions, and social agents.

# Digital Science and Innovation PTI Members



Cecilia Jiménez (IMB-  
CNM)  
Coordinadora



David Rodríguez (IFCA)  
Coordinador



Helena Lozano (IMB-  
CNM)  
Gestora



Fernando Aguilar  
(VICYT)  
Asesor



**44**

Research Centres

**140**

Researchers

**32**

Institutions and bussinesses



# Mission

Innovate in all areas of digital science and data lifecycle management, from planning, acquisition and processing to publication and preservation.

open and innovative science;  
in making data accessible to  
society

commonly used  
infrastructures to  
develop competitive  
capabilities.

innovation in all  
areas that generate  
economic and  
societal impact,

# Infraestructures

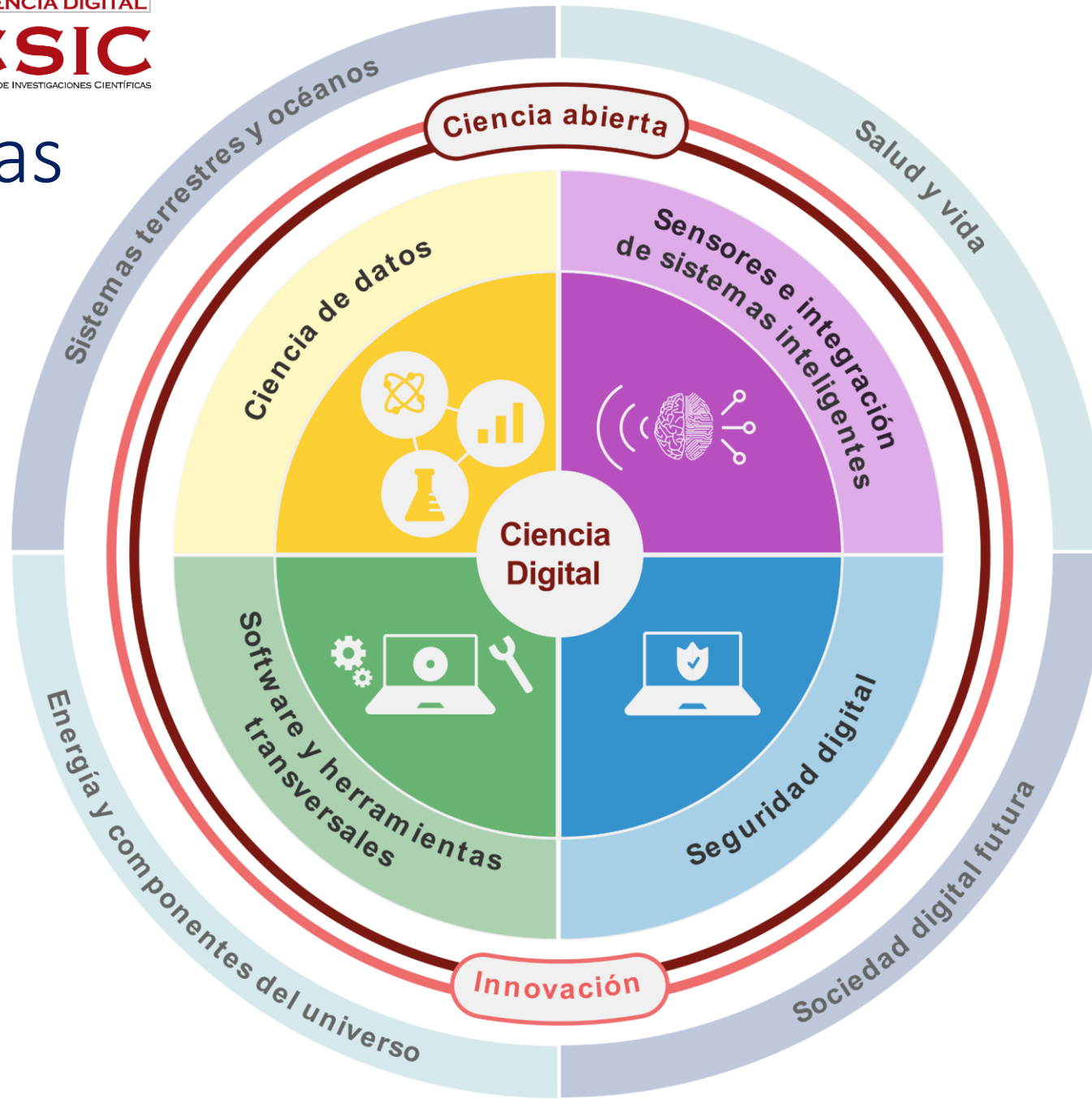


**Clean Room  
IMB-CNM**



**Data Processing Centres  
IFCA, Joaquín Costa....**

# Áreas temáticas



# Challenges

- Cybersecurity
- Software and tools
- Sensors and Smart systems

- Data Science
- Open Research

- Innovation



Encourage R&D in the thematic areas



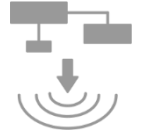
Promote Open Science among the scientific community



Push training in digital skills



Stress the importance of cybersecurity both among CSIC staff and all society



Transfer results of research to society.



Promote Good practices in Data Management



Facilitate Access to computation to CSIC researchers



Promote the use of shared infrastructures for developing competitive capabilities



Development and implementation of technologies for chips manufacturing



Encourage the digitalisation of administration and the adoption of agile methods.



# First Digital Science PTI Day



<https://www.youtube.com/@pticienciaeinnovaciondigit3034/videos>

<https://pti-cienciadigital.csic.es/la-pti-ciencia-digital-aborda-los-retos-de-la-ciencia-y-la-innovacion-digital-en-un-encuentro-entre-investigadores-empresas-y-administracion/>

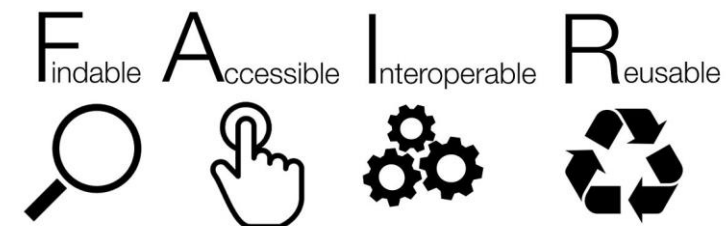
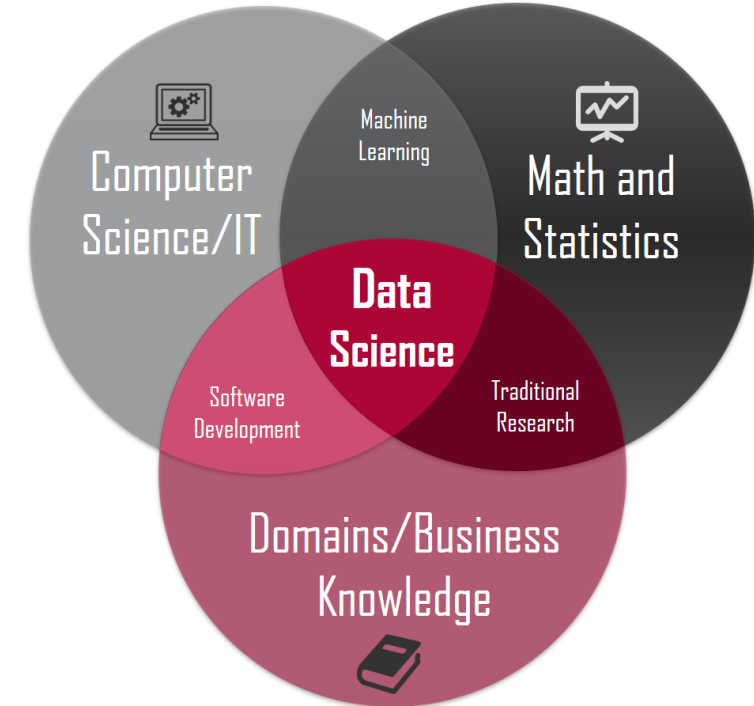


# Data Science

- Mathematics, statistics, data analysis, software engineering....
- Every discipline uses digital data nowadays
- Management of the data lifecycle
  - Planification
  - Curation
  - Analysis,
  - Publication,
  - Preservation

## Objectives

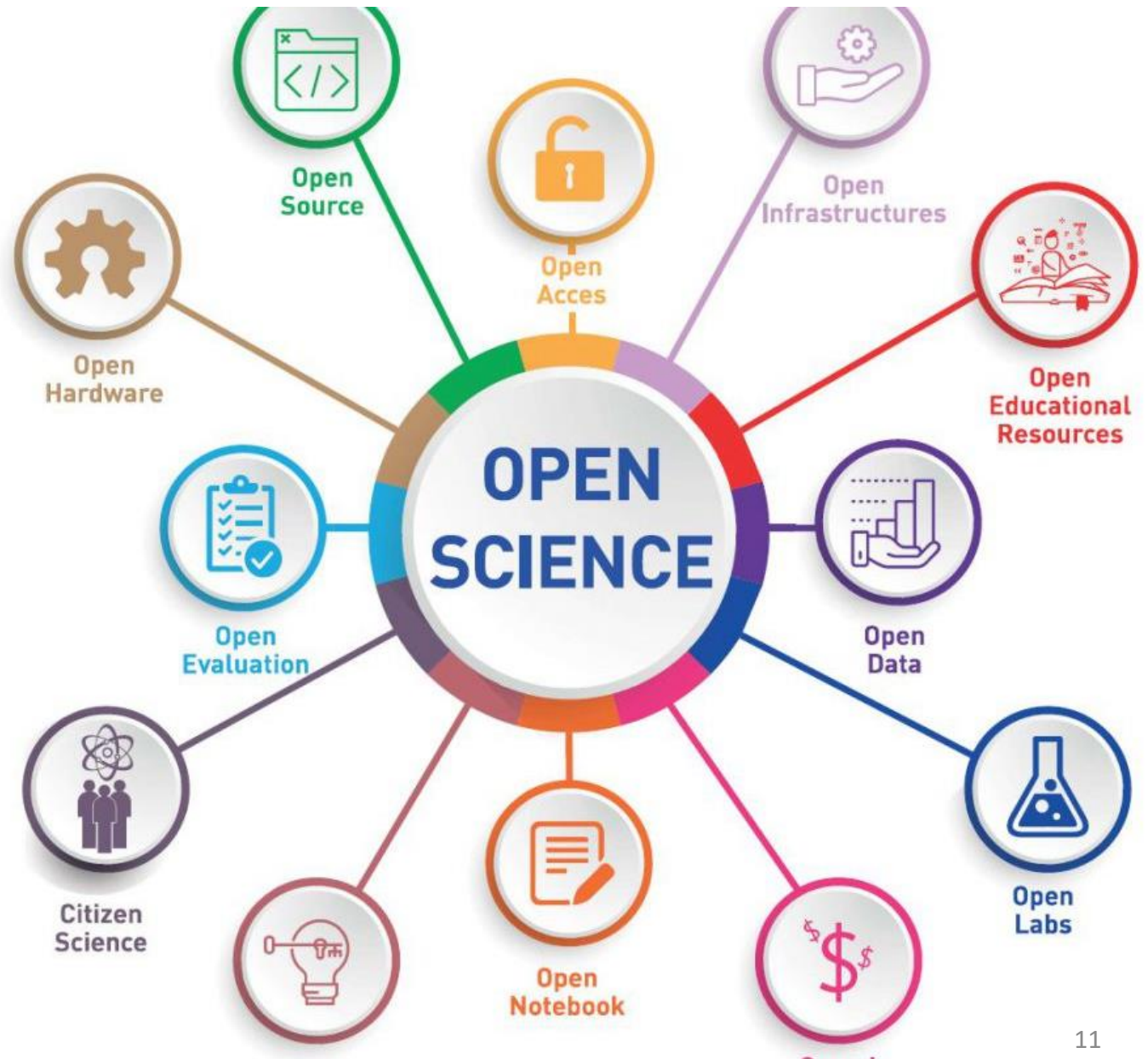
- Promote FAIR data practices
- Understand the current status and needs regarding data at CSIC
  - Infrastructure
  - Tools
  - Training



- Meeting with PTI members interested in this area
  - Most of them
  - Part of them presented their work
- Relation and collaboration with other areas of the PTI
  - Infrastructures
  - Open Science
  - Software and tools
- Taking into account the different domains at CSIC: bio, social sciences and humanities, etc.
- Plans
  - Identify existing services and requirements
    - Try to provide input for the central organisation
  - Status and needs of existing repositories
  - Types, data formats, metadata,
  - Promote use of DMPs

# Open Science

- Cross-cutting area of the PTI
- We consider that the Open Science perspective should be present in all PTI's activities
- Some aspects already advanced at CSIC
  - Open Access mandate
- Room for improvement in many others
- And others are at a different level



# Open Science

- Open Access
  - The most advanced bit
  - Open Access Mandate at CSIC
  - FP have increased the demands over the years
  - Complex situation due to the evolution of publishing business
- Infrastructures
  - EOSC
  - Support use shared computational resources
- Open source
- Open Hardware
- Open Data
  - Obstacles to sharing
  - Motivation
  - Facilitate

# Open Science (other)

- Open peer review
- Open Evaluation
- Citizen science

# Open Science in Horizon Europe

- Peer reviewed manuscript in trusted repositories (AAM VOR)
  - Immediate access
  - Fees only reimbursed if full OA
  - CC BY
- Information on the research result, and accessible tools for reproducibility
- APCs of hybrid journals not covered
- Exceptions
  - Confidentiality
  - Privacy
  - Security

## Open Science Course

- Director Isabel Bernal (Digital.CSIC)
- Exploring different dimensions of Open Science
- With a global perspective:
- Open Access
- Infrastructures and support
- Policies and evaluation



**CURSO DE VERANO**  
**PILARES PARA EL AVANCE DE LA**  
**CIENCIA ABIERTA**  
4 - 6 de septiembre 2023, Sede UIMP Cuenca

**CSIC** **UIMP**  
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS Universidad Internacional Menéndez Pelayo

## Summary

- Covered many aspects of Open Science
- Open Access
- FAIR Data
- Infrastructures
- Open Hardware
- Evaluation
  
- Good following and a very positive experience





# Future activities

- November 23rd evening PTI members meeting
- November 24th “Innovation day” focus on industrial partners
- Short courses
  - Statistics (with R) for CSIC users
  - Cybersecurity
  - Geo data: exploring ArcGIS Online capacities
  - Bio data (genomics)

# Thanks



<https://pti-cienciadigital.csic.es/>

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