CESGA

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FEDER
FONDO EUROPEO DE DESENVOLVEMENTO REXIONAL

GOBIERNO DE ESPAÑA
MINISTERIO DE CIENCIA E INNOVACIÓN

CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

XUNTA DE GALICIA

MISSION STATEMENT

To provide high performance computing and advanced communications resources and services to the scientific community of Galicia and to the Spanish National Research Council (CSIC), as well as, to institutions and enterprises with R&D activity.

To promote high quality research in Computational Science in close collaboration with the research community from Galicia as well as from other regions or countries all over the world; contributing in this way to the advancement of science, to transfer technology to industry and administrations , and as consequence, to the welfare of society as a whole.

LEGAL ENTITIES

· Public Company

· Public Foundation

PARTNERS

· Regional Government of Galicia

· National Research Council of Spain

CESGA COMPUTATIONAL SCIENCE RESEARCH CENTRE

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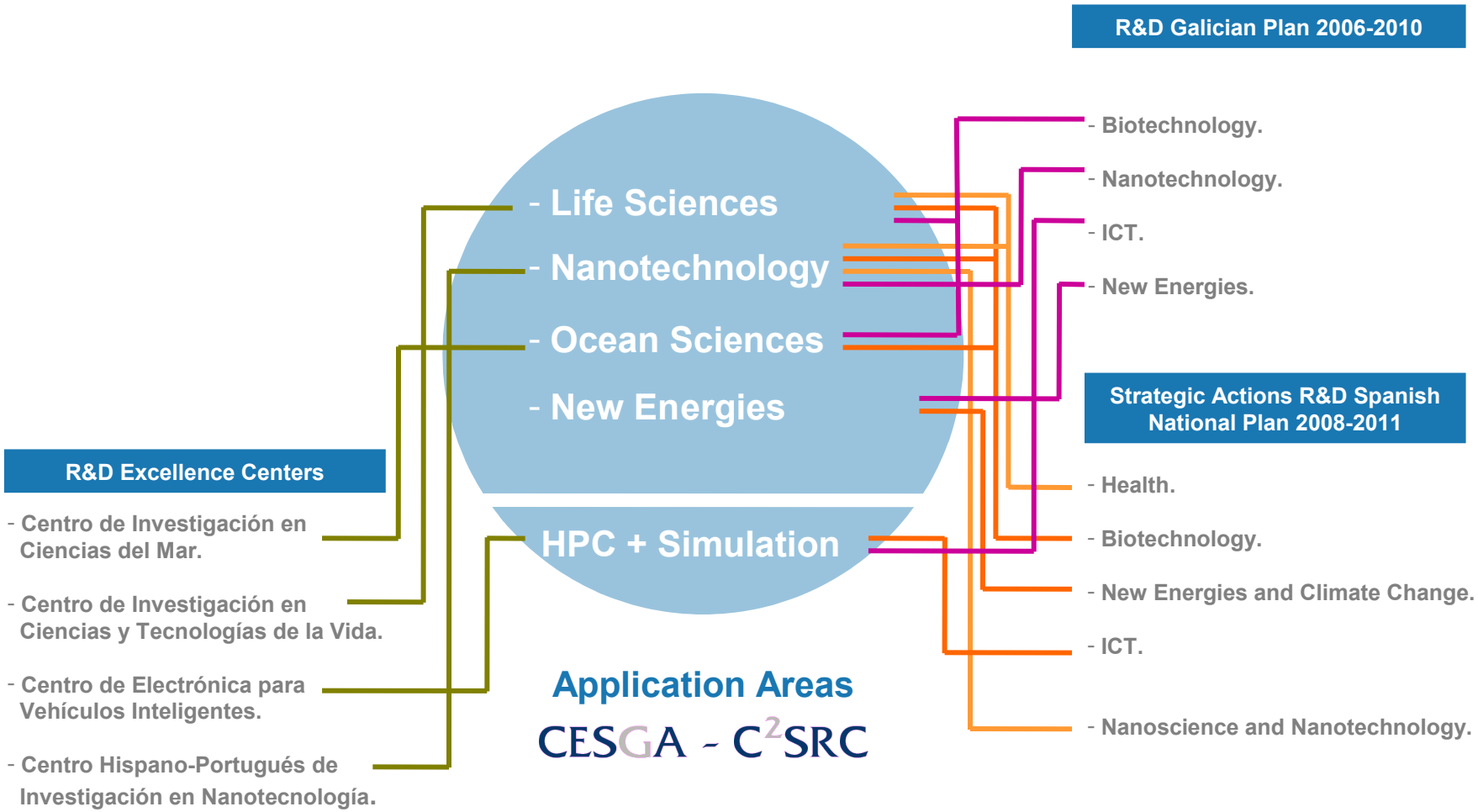
CENTER STRUCTURE



CESGA-ADVANCED SERVICES and INNOVATION

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USER'S SERVICES

- HPC, HTC & GRID Computing
- User Data Storage
- e-Learning & Collaboration Infrastructures
- GIS (Geographical Information Systems)
- Technology Transfer to Industry and e-Business Innovation Support
- **Advanced Communications Network**

REDE DE CIENCIA E TECNOLOXÍA DE GALICIA

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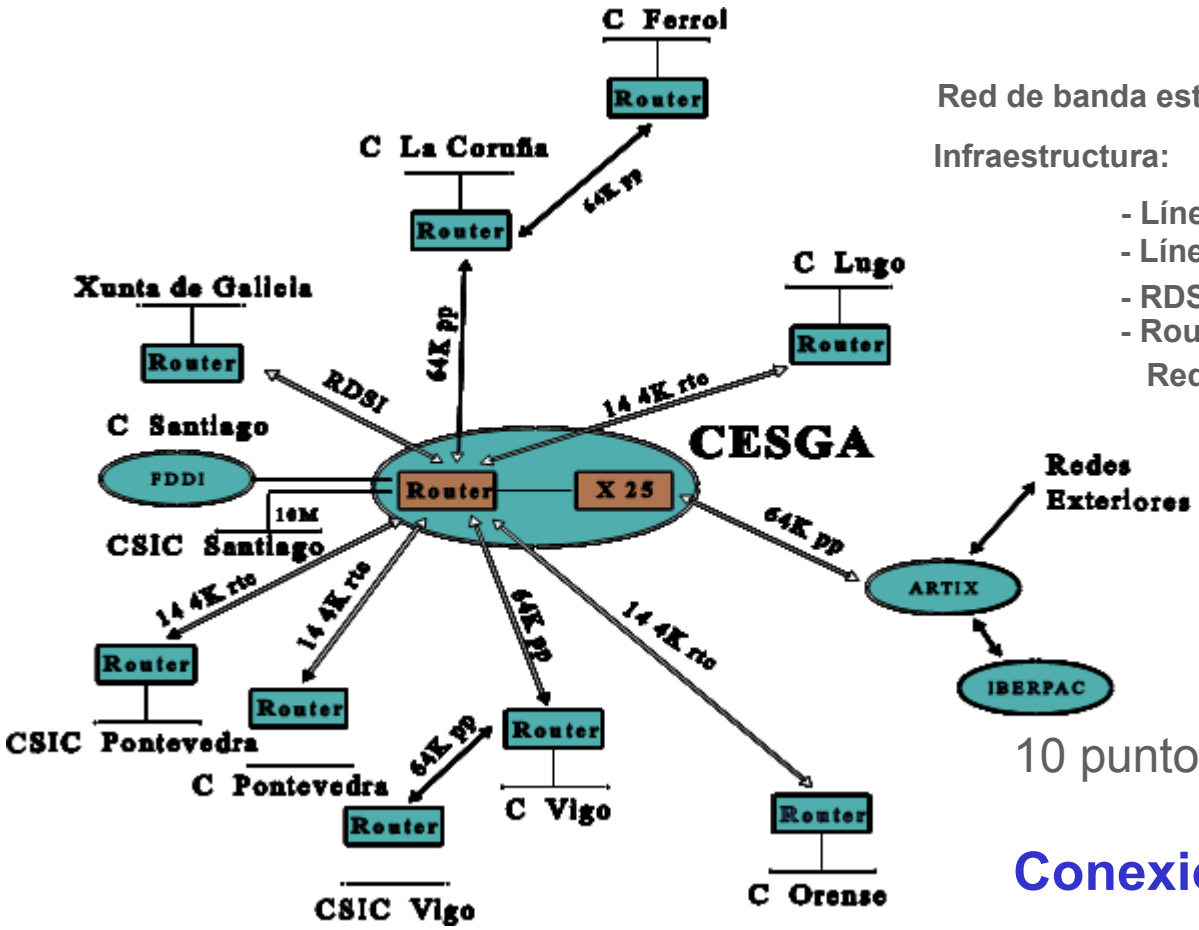
RECETGA EN 1993-95



Red de banda estrecha

Infraestructura:

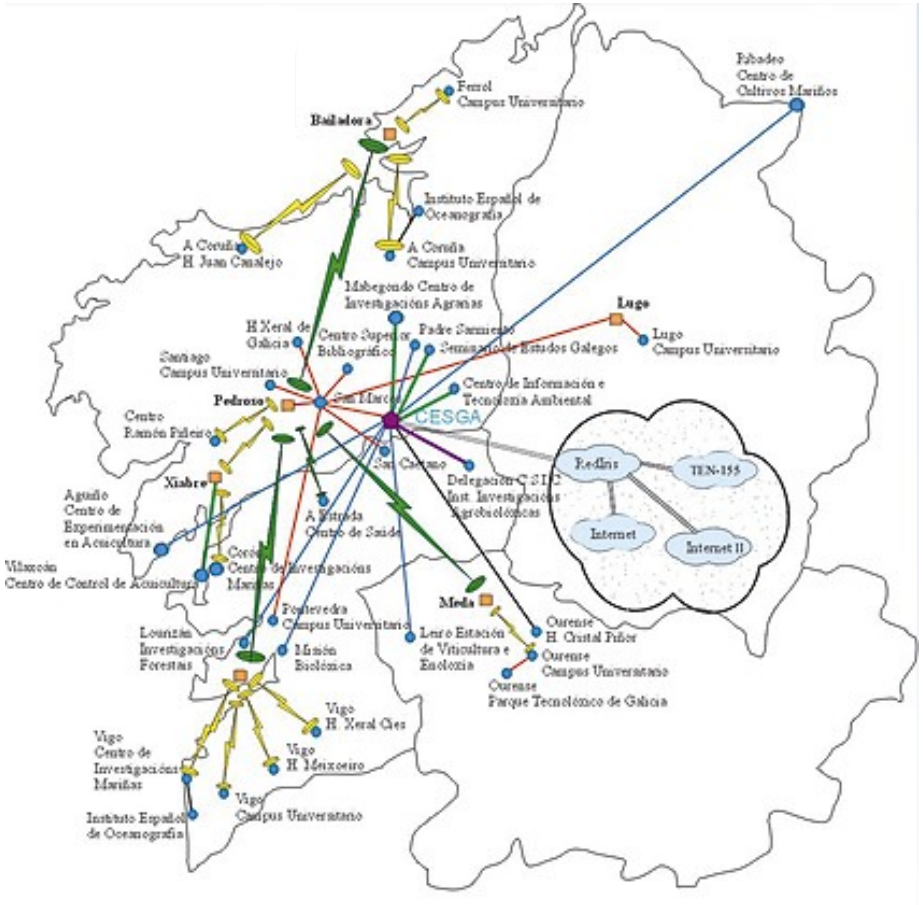
- Líneas punto a punto de 64 Kb
- Líneas RTC (14400 b)
- RDSI (2x64 Kb)
- Routers CISCO, modems Telebit

Red IP (DECnet)

10 puntos de presencia en Galicia

Conexión ARTIX: 64 Kb

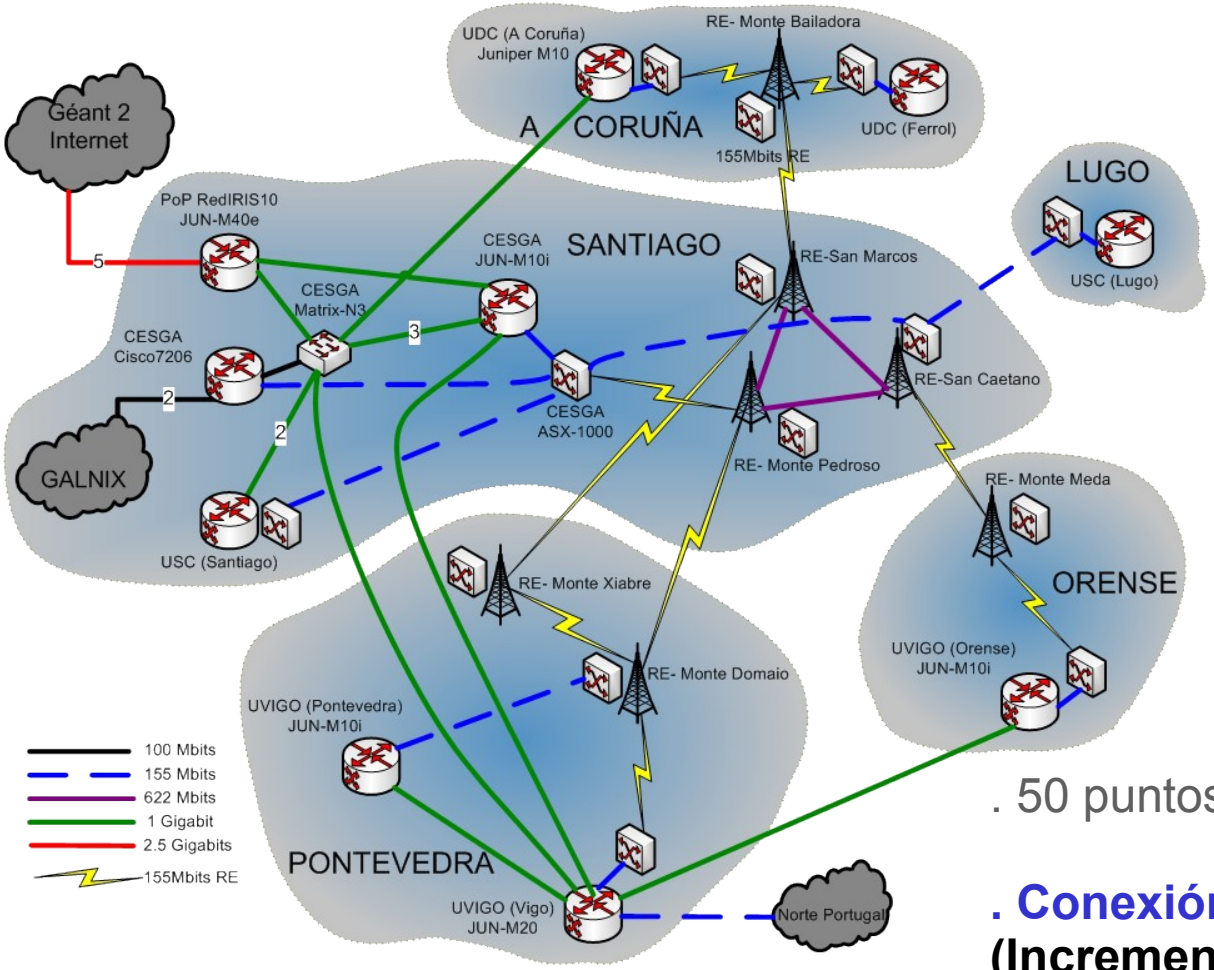
RECETGA EN 1995-2001



. 42 puntos de presencia en Galicia

. Conexión con RedIRIS: 42 Mbps
(Incremento > 650 veces)

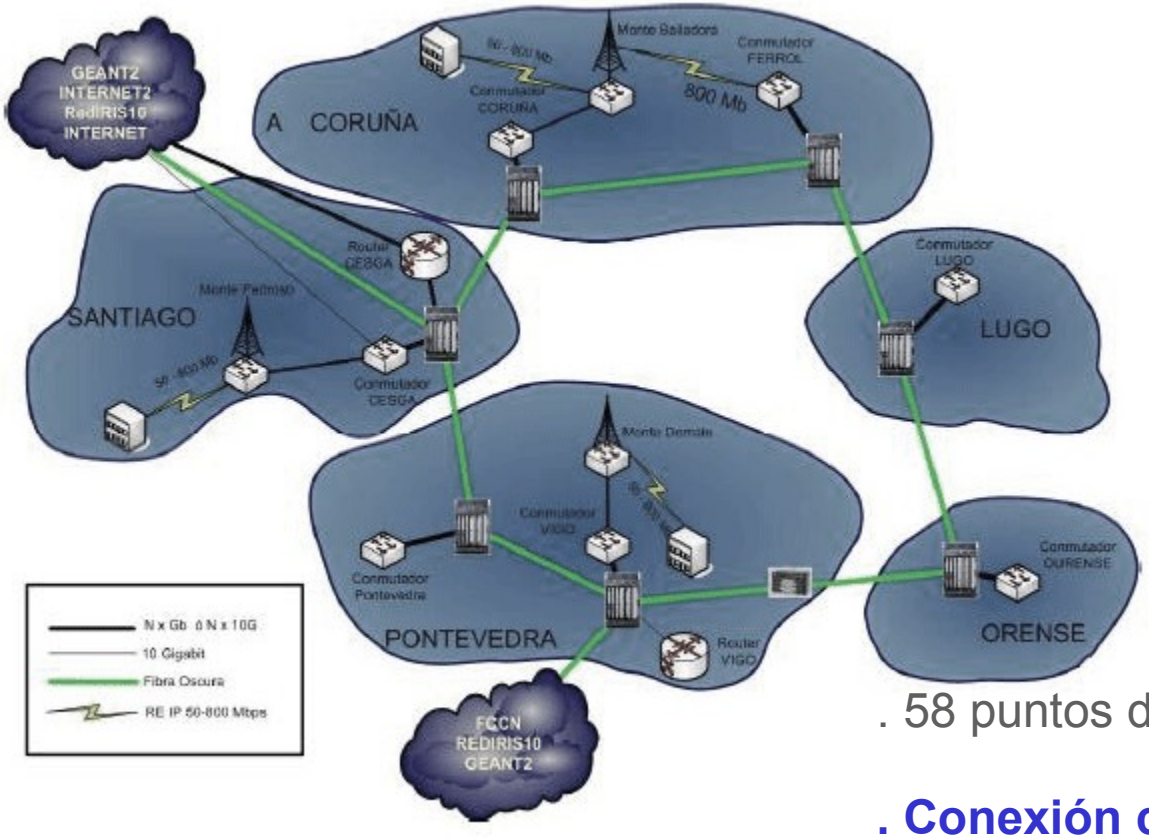
RECETGA EN 2001- 2008



. 50 puntos de presencia en Galicia

. Conexión con RedIRIS: 2,5x2 Gbps
(Incremento > 110)

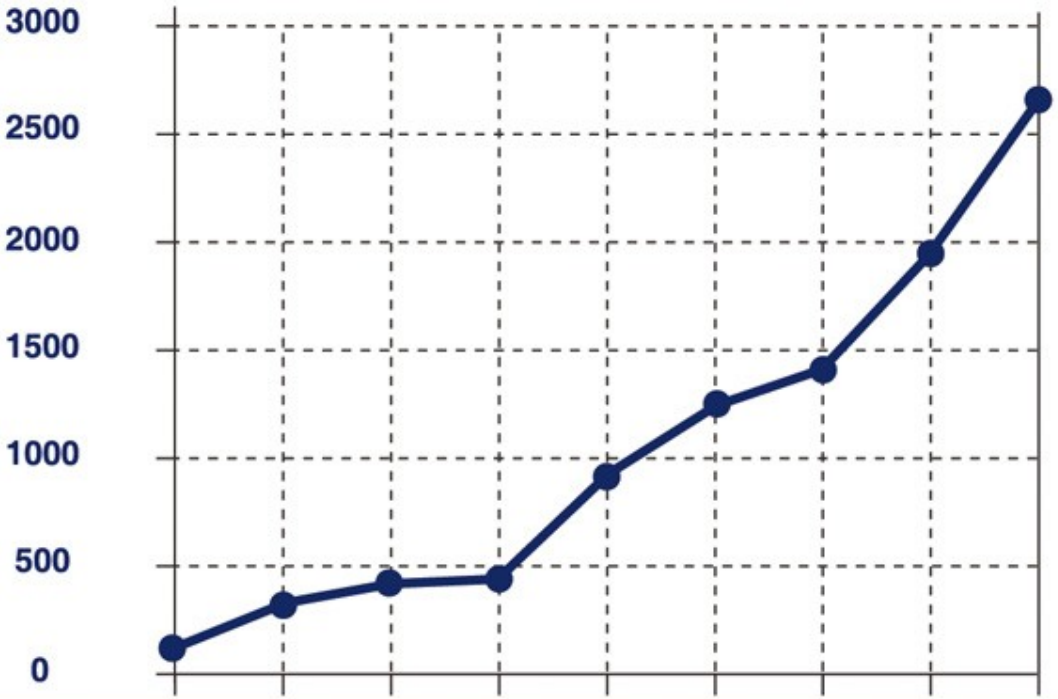
RECETGA/10



. 58 puntos de presencia en Galicia

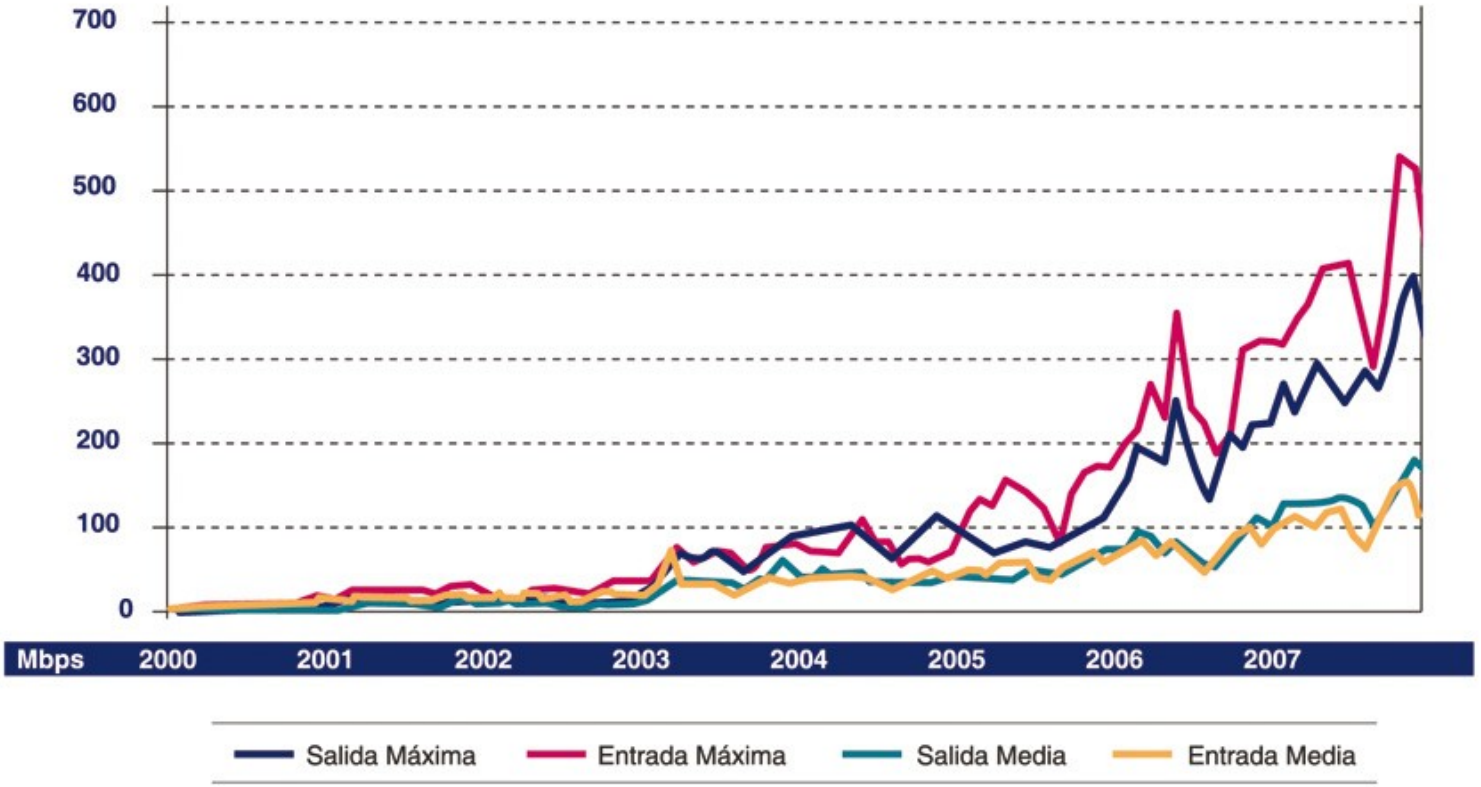
. Conexión con RedIRIS: 10 Gbps
(Incremento 4 veces)

TRÁFICO INTERCAMBIADO EN RECETGA



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Tbytes	39	290	414	429	988	1152	1384	1946	2588

INTERCAMBIO DE TRÁFICO RECETGA REDIRIS 2000-2007



MAIN REASONS FOR RECETGA IS TRAFFIC INCREASE

· **e-Science** deployment

. **Computation**:

GRID: EGEE, SVG, Int.eu.grid, EELA,IBERGRID, ...

Supercomputing: Finis Terrae, Superdome, HPC320, ...

· **Digital Libraries**: BuGalicia, FECYT

· **Collaboration tools**: Access Grid Network, Project platforms,...

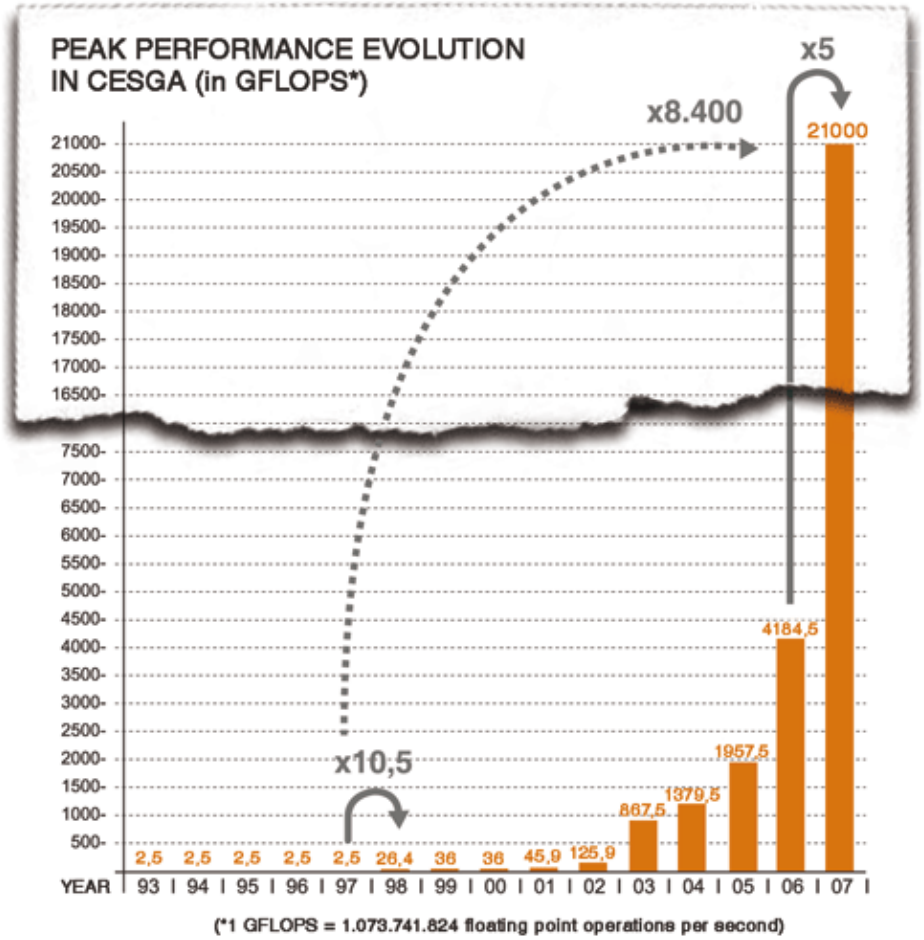
. **Data Repositories**: Open Source, Open Access, ...

. **Technology** evolution: wireless, VoIP, Videoconf, broad band net, terminals...

· **Internet** evolution: more and more services

· Number of **users**: constantly increasing and more demanding needs

CESGA'S PEAK PERFORMANCE EVOLUTION



(*1 GFLOPS = 1.073.741.824 floating point operations per second)

FINIS TERRAE

Spanish National Singular Scientific & Technological Infrastructure

More than: **16,000 GFLOPS** **2,580 CPUs** **19,640 GB Memory**

LINUX, UNIX, WINDOWS

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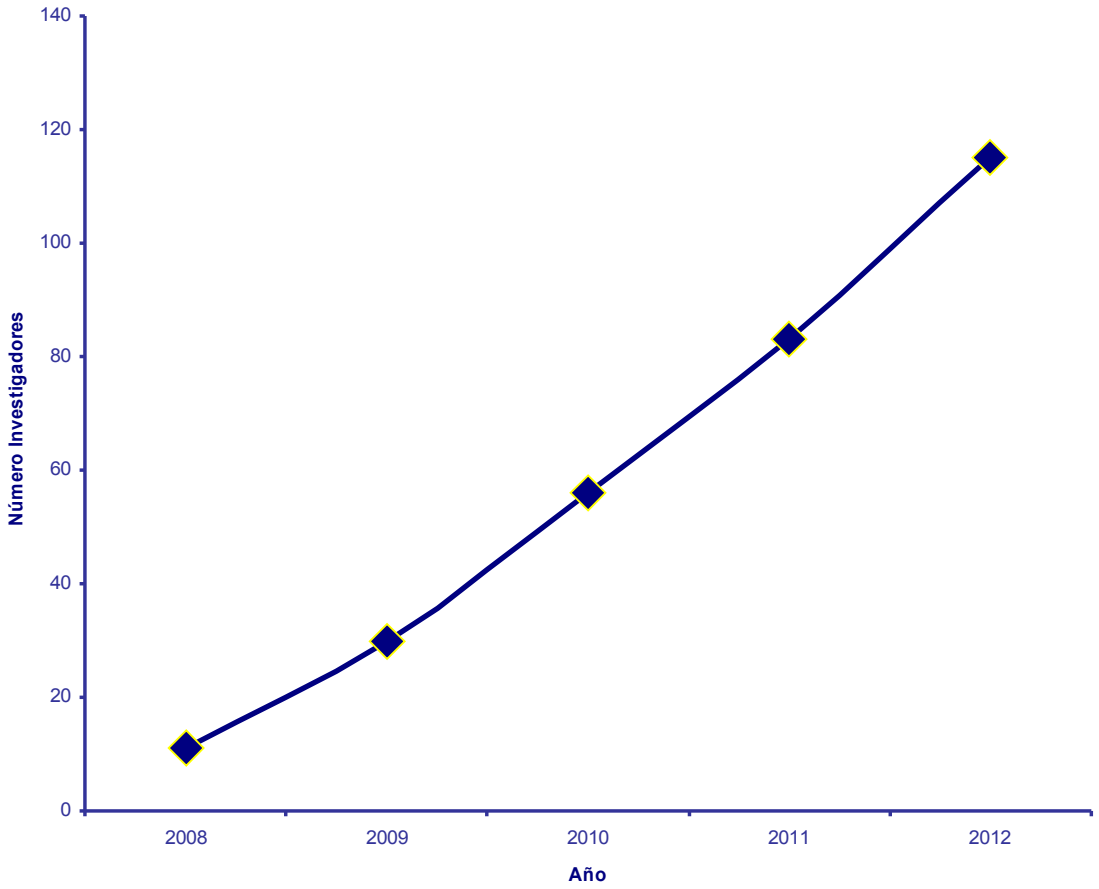
C2SRC: HUMAN RESOURCES



TOTAL: 115 researchers and techniciens

NEW FACILITIES

¡¡¡ FELICIDADES !!!

Red IRIS

20º ANIVERSARIO