Recovering and harmonizing research cruises information
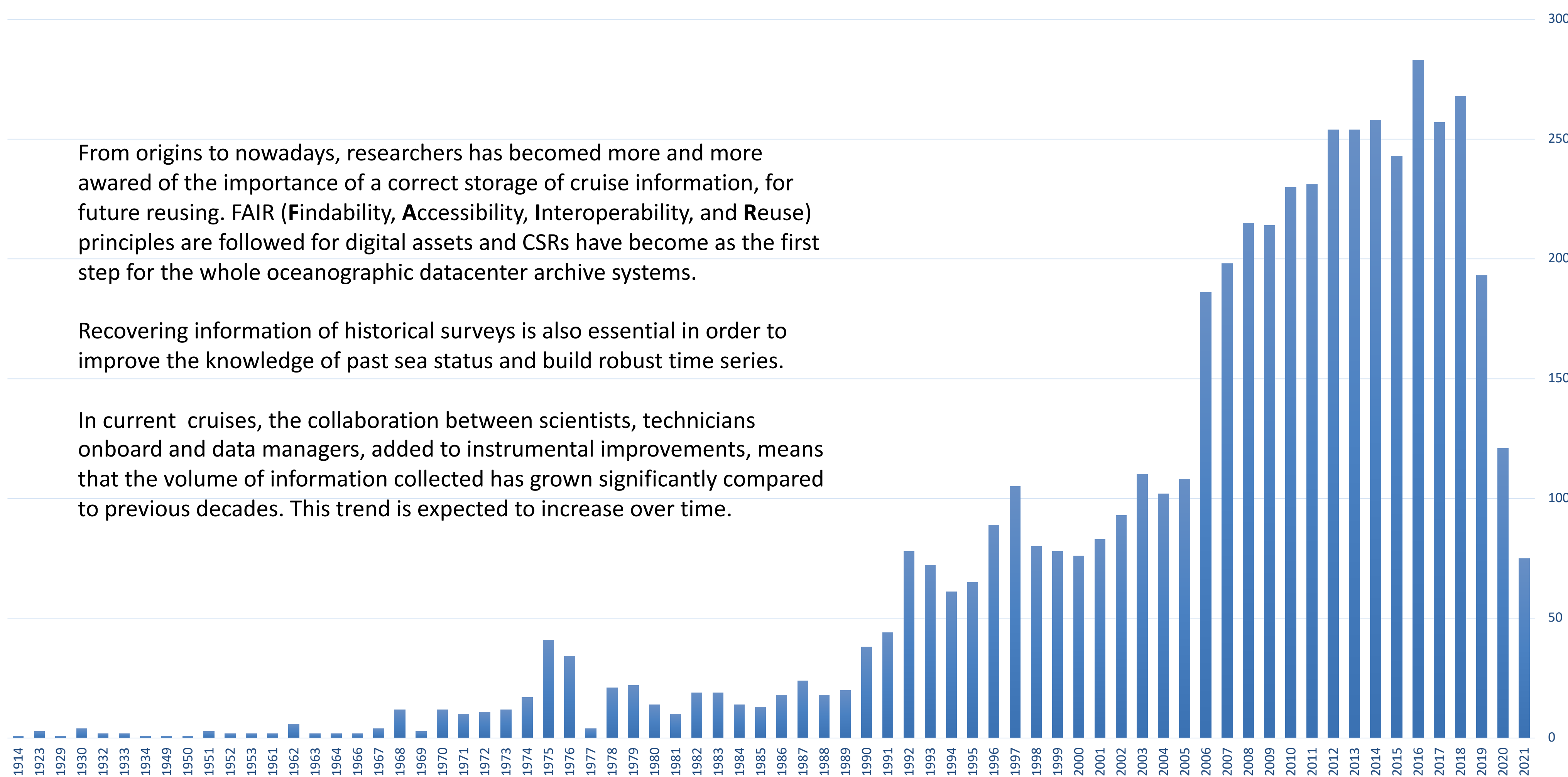
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GOBIERNO DE ESPAÑA — MINISTERIO DE CIENCIA E INNOVACIÓN

CSIC — CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

intecmar — INSTITUTO TECNOLÓXICO PARA O CONTROL DO MEDIO MARIÑO DE GALICIA

UTM — UNIDAD DE TECNOLOGÍA MARINA

The IEO has maintained since late 60s, a local database with basic information on oceanographic campaigns, formerly known as ROSCOF reports, which were established in the framework of IODE initiatives, as a low-level inventory for future access to data. Technological advances in recent decades and different coordination activities between NODCs have favored the implementation of these reports in standardized digital formats (Cruise Summary Reports, CSR) that allow their integration in international repositories as SeaDataNet or POGO.

However, this inventory and cataloging activity has suffered ups and downs over 40 years of activity, changes in storage criteria and periods of less activity. In the search for a unique criterion that can last over time and that unifies this information as much as possible with the data generated in these campaigns, an exhaustive review of the existing information has been carried out.

Stored Cruise Summary Records

From origins to nowadays, researchers has becomed more and more awared of the importance of a correct storage of cruise information, for future reusing. FAIR (**F**indability, **A**ccessibility, **I**nteroperability, and **R**euse) principles are followed for digital assets and CSRs have become as the first step for the whole oceanographic datacenter archive systems.

Recovering information of historical surveys is also essential in order to improve the knowledge of past sea status and build robust time series.

In current cruises, the collaboration between scientists, technicians onboard and data managers, added to instrumental improvements, means that the volume of information collected has grown significantly compared to previous decades. This trend is expected to increase over time.

The result has been the retrieval of information from short-term campaigns carried out on smaller vessels with great coastal activity, as well as updating information regarding old campaigns performed on the first half of the 20th century onboard of decommissioned vessels. All this is completed with the systematic campaigns carried out by INTECMAR in the Galician rias, research vessels operated by the national Fisheries Administration, and information on research surveys carried out by foreign ships in national waters, forming a catalog of more than 4000 entries.

This approach is also followed by the UTM-CSIC, on its own-managed vessels and campaigns carried out since 1991. The common approach allows a unified response to the governmental needs for the planning of future campaigns, and in successive improvements in data recovering, archiving and accessing at NODC/CEDO.

Currently, the Spanish research fleet is made up of 121vessels of different sizes and areas of activity, from Antartic to coastal surveys.

Cruise information is stored at DataCenters in systematic permanent archives according the internationally agreed standards. This supports the accessibility and reutilization and gives them an added value. They are disseminated throughout the web portal www.seadatanet.org, and national portals.
One example of part of displayed information can be seen below.

Rias Baixas RB2011W47 CSR REF-NO : 20215662 Download XML

GENERAL INFORMATION

ID
20215662

Platform/Ship
Jose Maria Navaz

Cruise begin
21.11.2011

Cruise end
23.11.2011

Port of Departure
Vigo, Spain

Port of Return
Vigo, Spain

Chief Scientist(s)
Pedro Montero - Technological Institute for the Control of the Marine Environment of Galicia

Responsible(s) Laboratory
Technological Institute for the Control of the Marine Environment of Galicia

DESCRIPTION

Weekly cruise to monitorize physical and chemical variables in Rias Baixas (Galicia)

LOCATION

General Ocean Areas
Northwest Atlantic Ocean (40W)

Marsden Squares (S, N, E, W)
145 (40.0, 50.0, 0.0, -10.0)

Bounding Box(es)
West East South North
-9.2 -8.6 42.1 42.84

ADDITIONAL INFORMATION

Parameters measured
Alkalinity, acidity and pH of the water column
Density of the water column
Dissolved oxygen parameters in the water column

Instruments used
CTD

A.Alvariño
R.Margalef

Built in 2011 and 2012, these twins IEO regional vessels carry out their activity around the iberian Peninsula up to the north of the Biscay Bay, through the south of Canary Islands ans the Western Mediterranean Sea