A decorative graphic of thin, grey contour lines is positioned on the left side of the slide, extending from the top left towards the center. These lines represent topographic or bathymetric features.

MAKING VIDEOS AND IMAGES FROM MARINE  
ENVIRONMENTAL MONITORING AVAILABLE TO ALL

**A PICTURE IS WORTH A  
THOUSAND DATA POINTS**

# Outline

- » What is imagery data and why do we need to make it publicly available?
- » Case study: Data from Imaging Flow Cytobot (IFCB)
- » Potential issues and future development



**One Look Is Worth  
A Thousand Words--**

One look at our line of Republic, Firestone, Miller and United States tires can tell you more than a hundred personal letters or advertisements.

**WE WILL PROVE THEIR VALUE  
BEFORE YOU INVEST ONE DOLLAR  
IN THEM.**

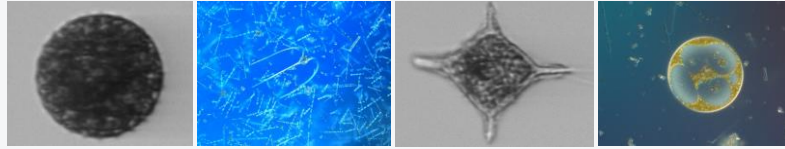
Ever consider buying Supplies from a catalog?

What's the use! Call and see what you are buying. One look at our display of automobile and motorcycle accessories will convince you of the fact.

**THAT WE HAVE EVERYTHING FOR  
THE AUTO**

**Piqua Auto Supply House**  
133 N. Main St.—Piqua, O.

# Imagery data



- » “Imagery data” can be referred to as qualitative and quantitative information from a collection of images.
- » Imaging systems are used more and more frequently in the marine domain to generate huge amounts of imagery data.
- » For example, automatic image classification is used to determine the abundance, size and biomass of plankton communities.

# Why we need to make imagery data publicly available

- » Valuable raw data! Need to connect between analyzed data and the raw imagery data. **Needed for reproducibility!**
- » Stored locally, universities, regional governments, private sector. **National data coordination needed!**
- » Strict demands from **INSPIRE directive**, demands also likely to be picked up from the **FAIR principles**.

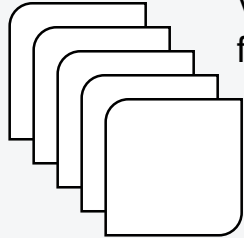


**Deliverer**

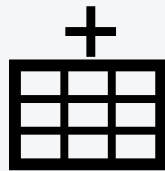


# The SMHI system

# SMHI

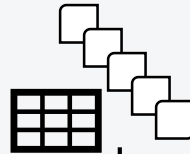


Video/image files delivered



Metadata\* file delivered

QC Screening



Zip archiving



Generate DOI



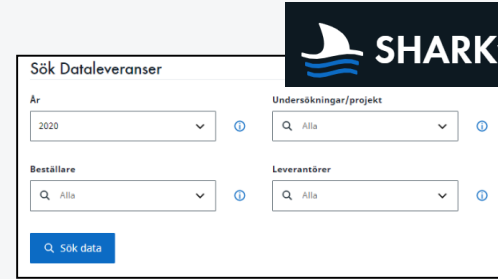
External database

Couple DOI



Upload to datacite

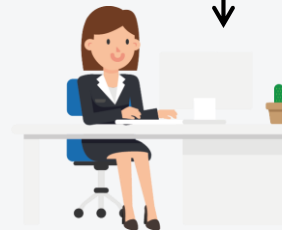
Publish in database SHARKmedia



Searchable through metadata fields, including DOI

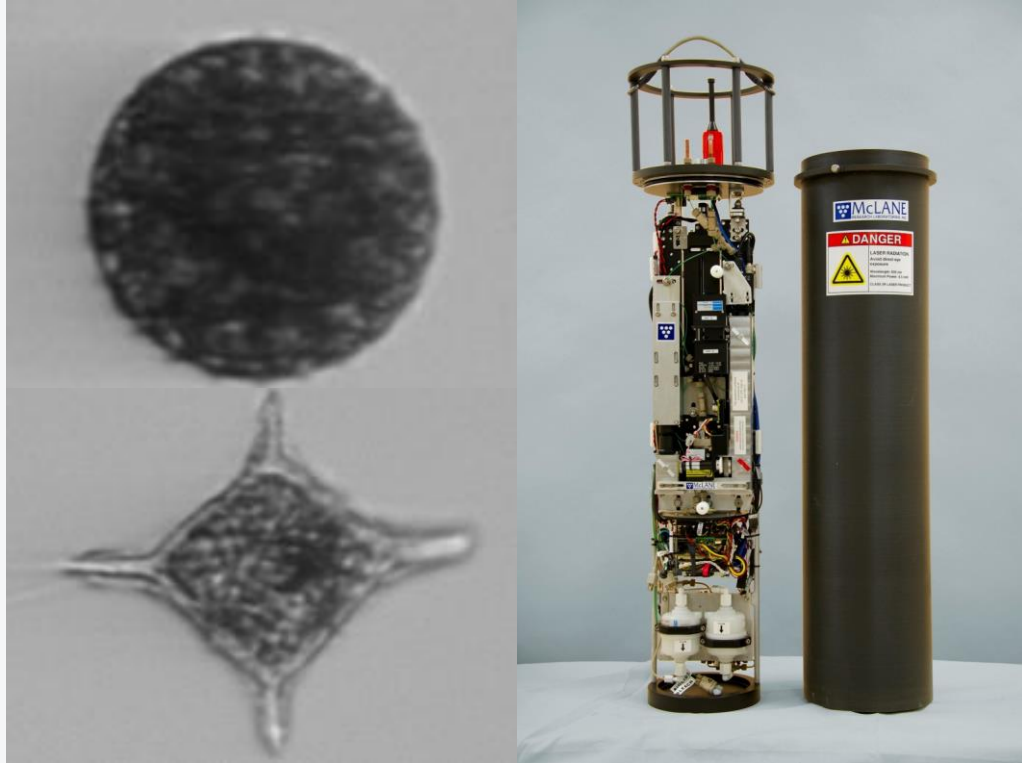
User directed to ftp

**User**



\* We are using a metadata description applied from the INSPIRE directive and ICES/BODC vocabulary and include the use of digital object identifiers (DOI) for published data packages so that data is findable

# Case study: IFCB data



1 sample = on average  
20 MB data

Number of samples  
per day (sampling  
every 20 minutes) =  
 $24 \times 3 = 72$  samples

Number of days per  
expedition = 7

Number of  
expeditions = 12 per  
year

Total amount of data:  
 $20 \text{ MB} \times 72 \text{ samples} \times$   
 $7 \text{ days} \times 12$   
expeditions = 120960  
MB = **120 GB**

# Potential issues

» Storage-related issues, both cost and IT infrastructure



» Geographical information protected by law, special permit for publishing and secure infrastructure for archiving data required



» GDPR issues



# Future development

- » Ocean Best Practices within the JERICO-RI project and contribute to the Ocean Best Practices System Repository (OBPS-R). For more on the JERICO project see: <https://biss.pensoft.net/article/58932/>
- » Workflow of plankton images through <https://ecotaxa.obs-vlfr.fr/> Connection with Darwin Core formatting (DwC-A)
- » API development instead of ftp



EcoTaxa<sup>2.0</sup>





Please get in touch with us:

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