



# SOCIO-ECONOMIC VALUE & IMPACT OF OPEN DATA

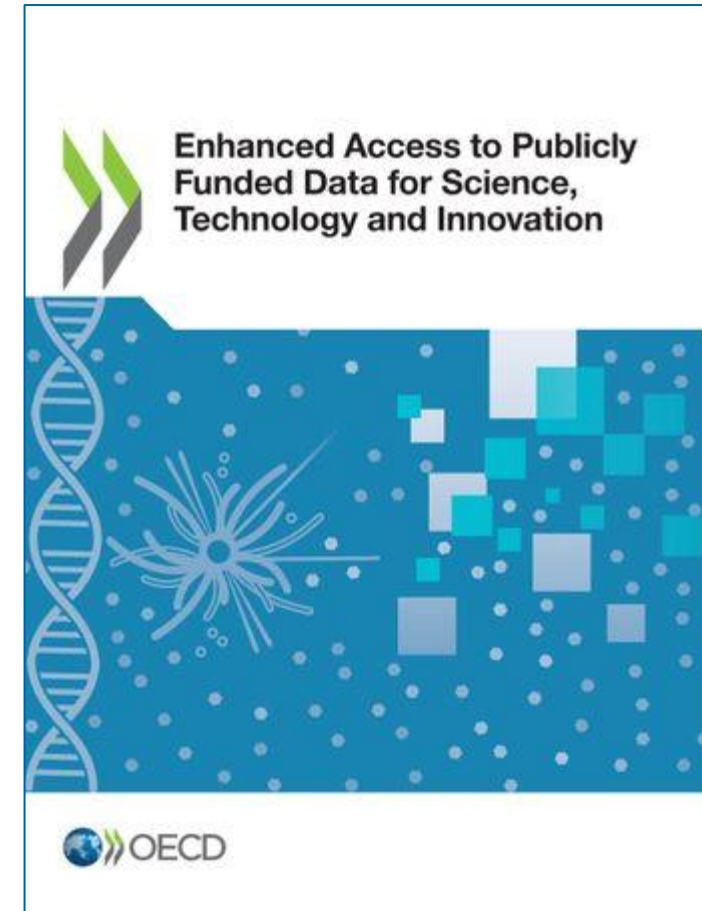
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## Benefits of enhanced access to publicly funded data

- ✓ Opportunity for new scientific discoveries
- ✓ Possibility to reproduce scientific results
- ✓ Facilitating cross-disciplinary co-operation
- ✓ Economic growth through better opportunities for innovation
- ✓ Increased resource efficiency
- ✓ Improved transparency and accountability regarding disbursement of public funds, and better return on public investment
- ✓ Securing public support for research funding and increasing public trust in research in general
- ✓ Furthering other government/public missions, e.g. health, energy security and transportation





## Enhanced access to data also bears associated risks... that need to be managed (1/2)

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Risks related to... privacy, intellectual property, national security and the public interest, including the protection of rare and endangered species. These risks need to be adequately communicated and responsibly managed.

### 7 key challenges:

1. **Balancing the benefits and risks of data sharing** “As open as possible, as closed as necessary” is complementary to the “open-by-default” principle --  
Need a balance
2. **Technical standards and practices** – and keeping up with the pace of technological progress – EMODNET key role in this aspect
3. **Defining data responsibility and ownership (IPRs)**





## Enhanced access to data also bears associated risks... that need to be managed (2/2)

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4. **Incentives and rewards.** Recognition and rewards are needed to encourage researchers to share data. Current academic reward systems mostly encourage the publication of scientific results and do not sufficiently value data sharing.
5. **Business models and funding for enhanced data sharing**
6. **Building human capital and institutional capabilities** to manage, create, curate and reuse data is a prerequisite for advancing data sharing in organisations.
7. **Exchange of sensitive data across borders.**



# OECD RECOMMENDATION CONCERNING ACCESS TO RESEARCH DATA FROM PUBLIC FUNDING

## AREAS OF POLICY GUIDANCE



EXPANDED SCOPE COVERS RESEARCH DATA, METADATA,  
ALGORITHMS, WORKFLOWS, MODELS, AND SOFTWARE (INCLUDING CODE)





# Can we demonstrate how marine data can improve efficiency, productivity in many activities?

**Direct economic benefits**

**Indirect economic benefits**

**Societal benefits**

- Value chains map the relationship between data production, data processing, generation of data products, and the usage by different user groups
- Understanding better value chains contributes to valuation

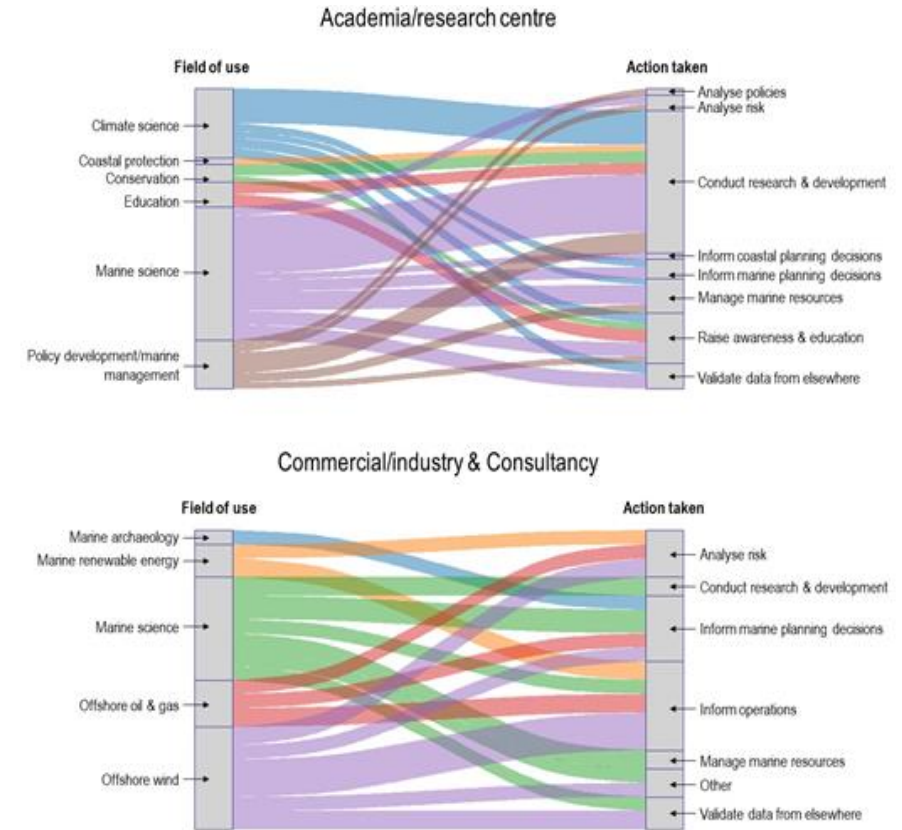
See OECD (2019), *Rethinking Innovation for a Sustainable Ocean Economy*, OECD Publishing, Paris.





# Value Chains of Public Marine Data: A UK Case Study

- ❑ Cooperation between the OECD, the UK's Marine Environmental Data and Information Network (MEDIN) and the Global Ocean Observing System (GOOS).
  - ❑ Survey adding to current understanding of users accessing marine data through *archive/management centres*
  - ❑ Exploring pathways through which marine data are used and transformed into *actionable information*
  - ❑ Laying the foundations for future work on *measuring their value* by creating stylised value chains
- ***Successful case study of marine data repositories' users to be replicated in other countries / regions***



Forthcoming: Jolliffe, J, Jolly, C., Postlethwaite, C., Heslop E. (2021), *Value Chains in Public Marine Data: A UK case study*, OECD Science, Technology and Industry Working Paper, OECD Publishing, Paris.







## And to continue the discussions...



**Access to research data from public funding:  
The case of marine data**

Committee for Scientific and Technological Policy (CSTP)

Virtual event co-hosted by the Global Ocean Observing System (GOOS)  
and the UK Marine Environmental Data and Information Network (MEDIN)  
Monday, 28 June 2021, 13:30-16:00 CEST



1. Positive impacts of open data... but need to balance well the benefits and risks of data sharing
2. Improving the valuation of marine data will be useful to inform policy-makers (...and the data collectors, curators and users)

