



# e-shape solutions: Unlocking the potential of Earth Observation data for climate change and urban

[ 14 - 15 February 2023

9.30 - 17.00 CET

Valletta, Malta

Malta Council for Science and Technology

Francesca Piatto, EARSC  
Showcasing the benefits of  
Earth Observation

# e-shape

An event co-organised by



The Malta Council for  
**Science & Technology**

eurisy  
ACTING COLLECTIVELY TO  
BRIDGE SPACE AND SOCIETY

# EARSC members

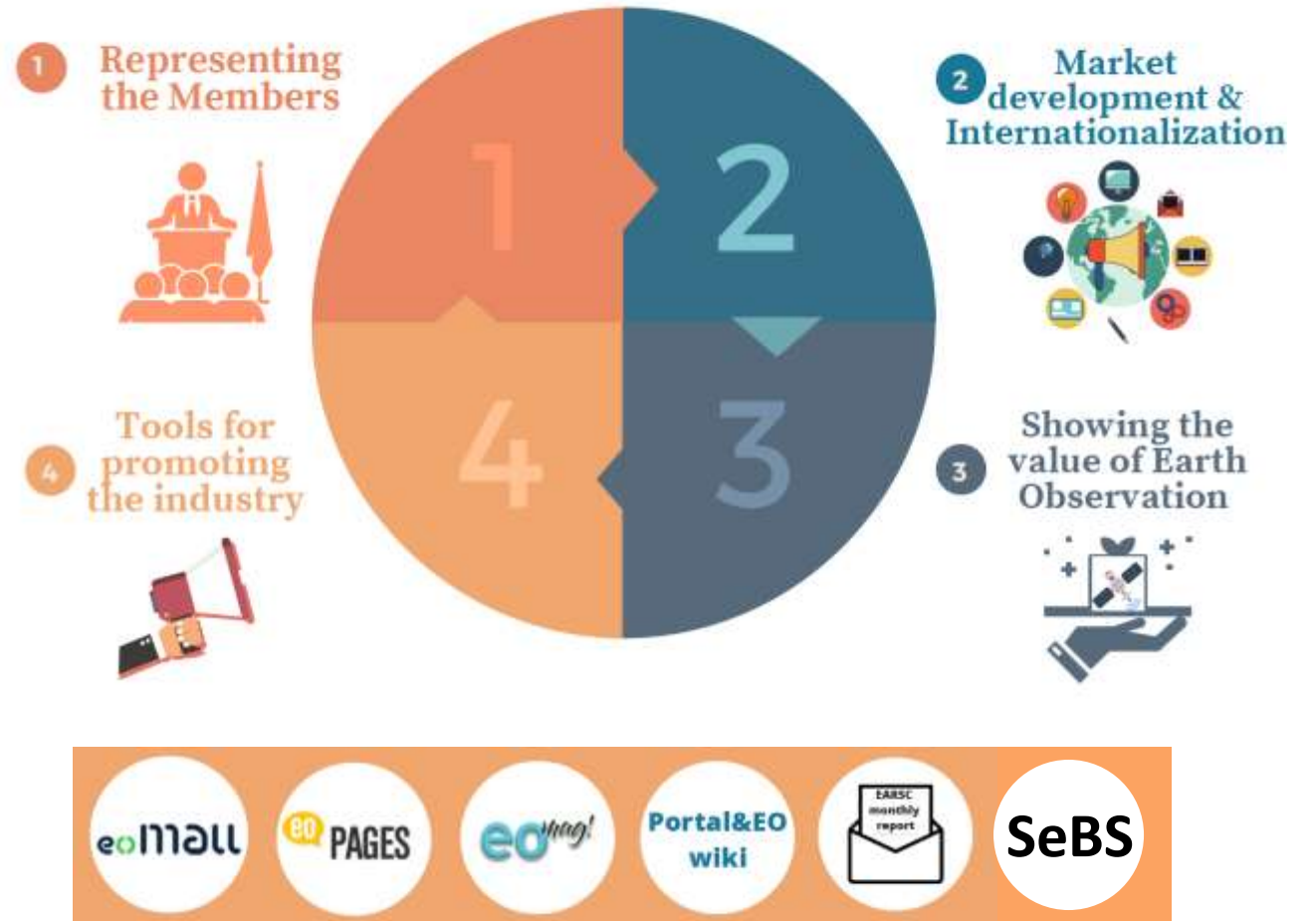
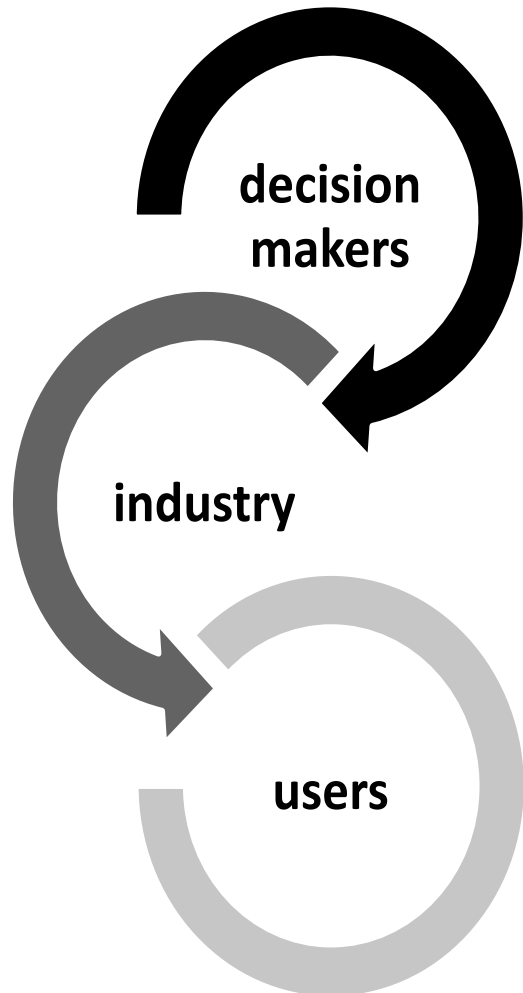
European Association of Remote Sensing Companies



130+ members from 25 countries  
covering whole Earth Observation downstream value chain

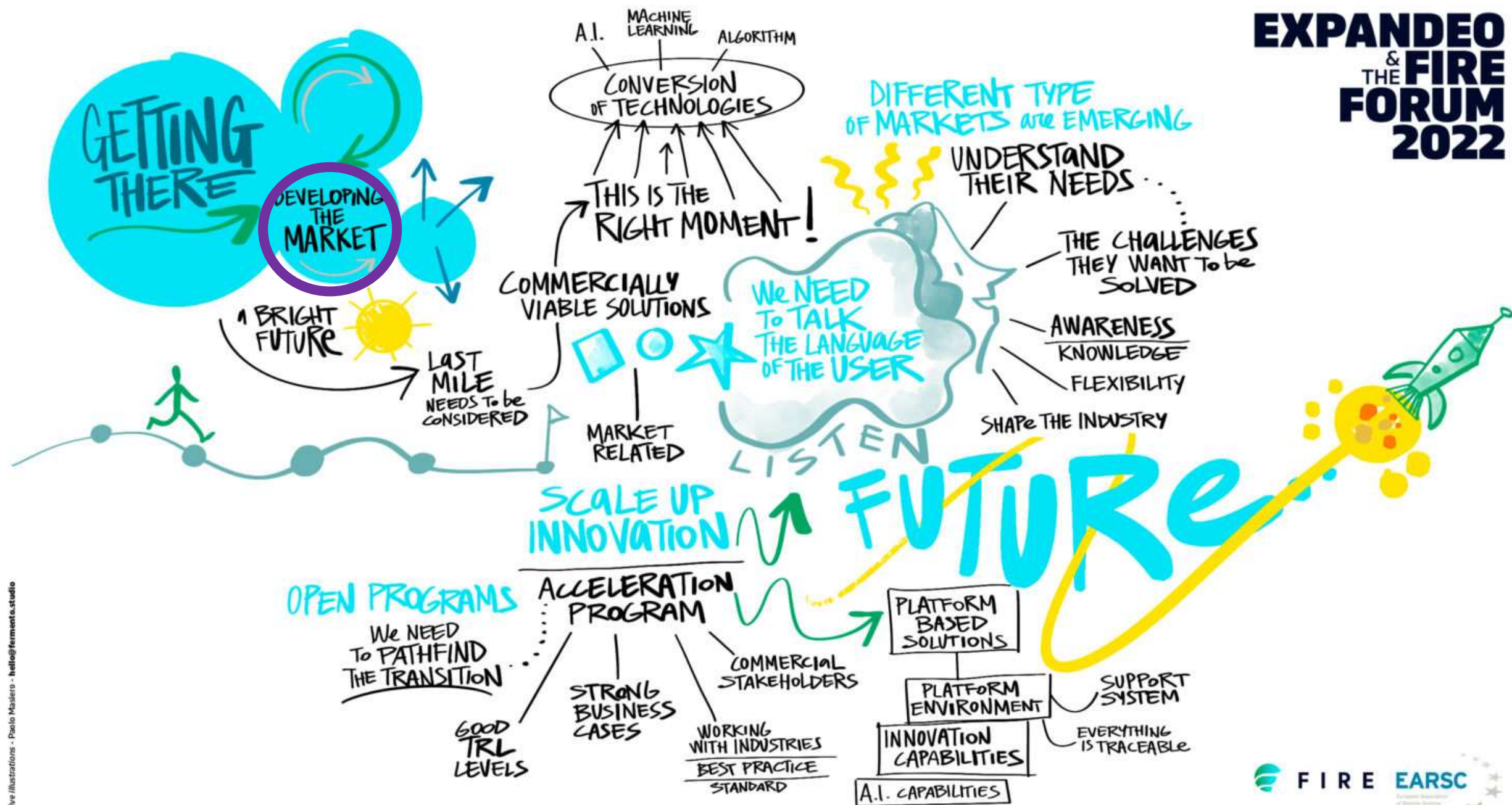


# EARSC Activities



# EARSC Projects







# Industry Survey : Facts & Figures



**746**  
**Companies**



**12085**  
**Employees**



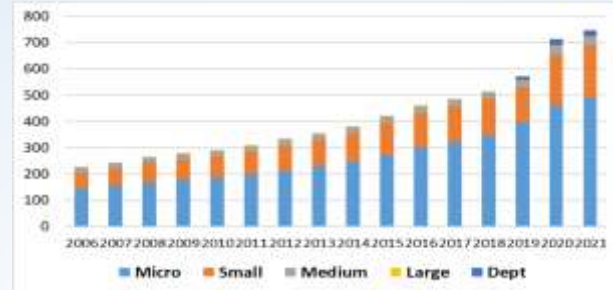
**€1.61 b**  
**Revenues**



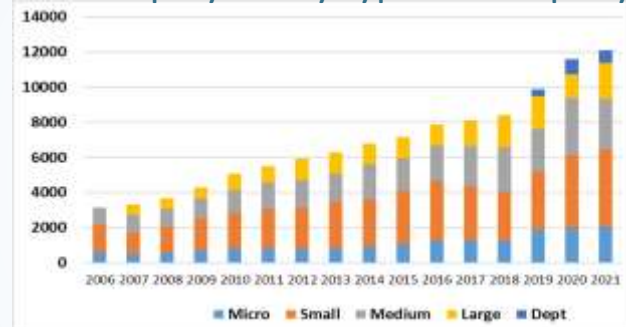
**7,5% growth\***

\* CAGR over 5 year

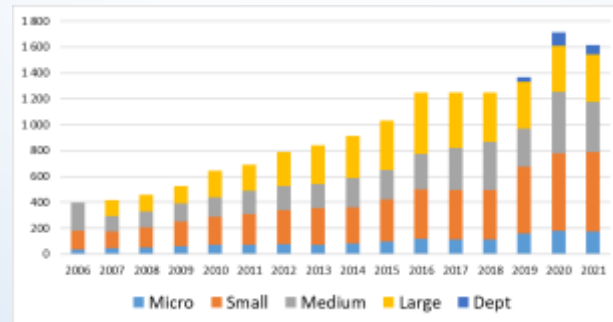
Evolution of EO service companies



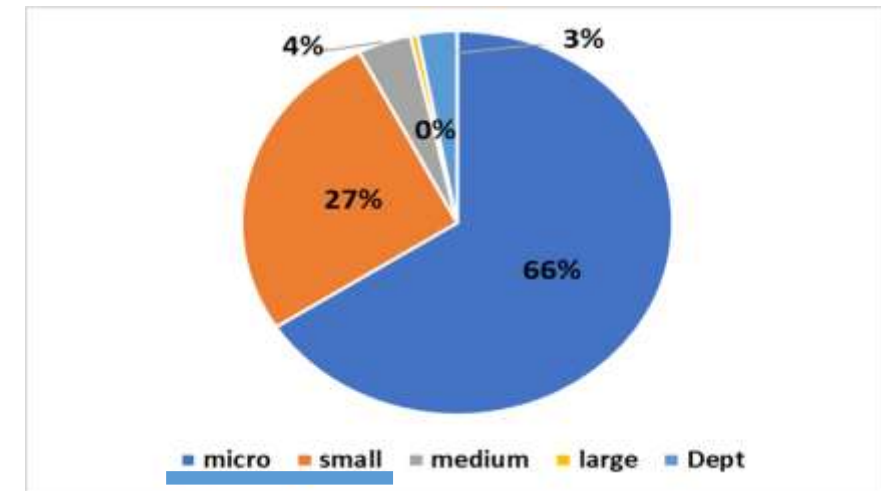
EO employees by type of company



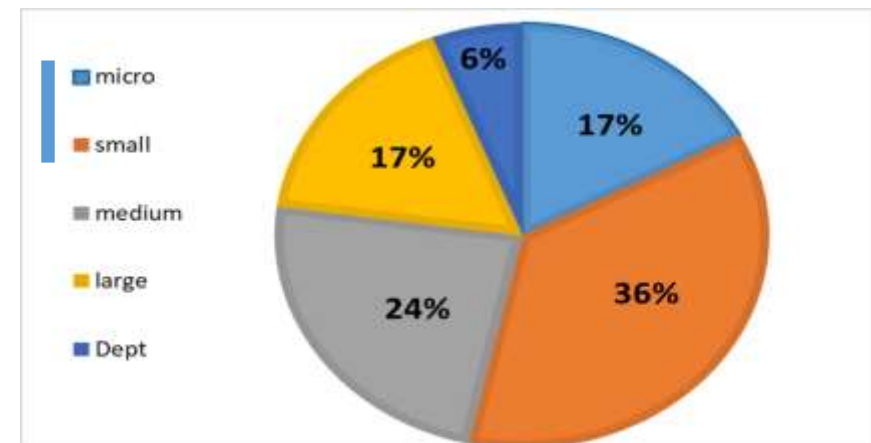
Revenues



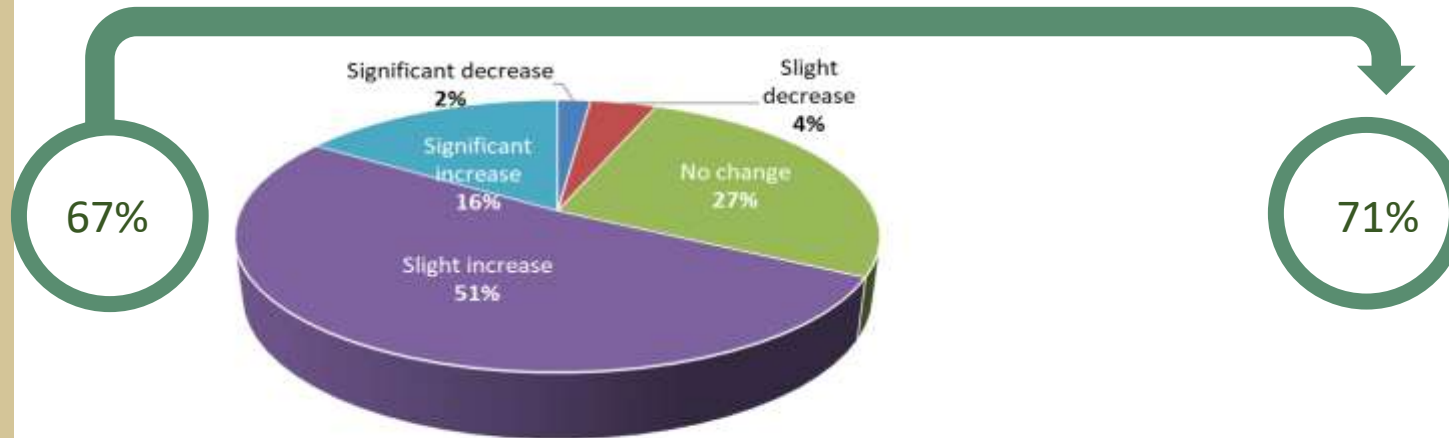
Breakdown of companies by company class in 2021



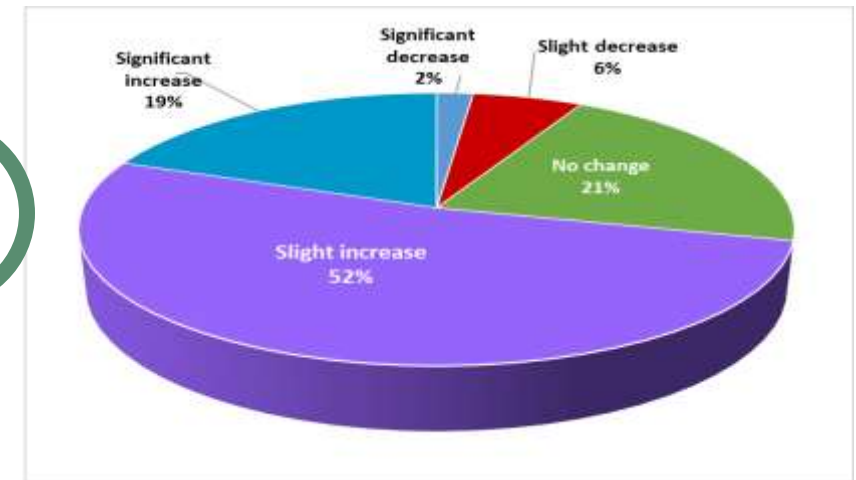
Employee breakdown by company class in 2021



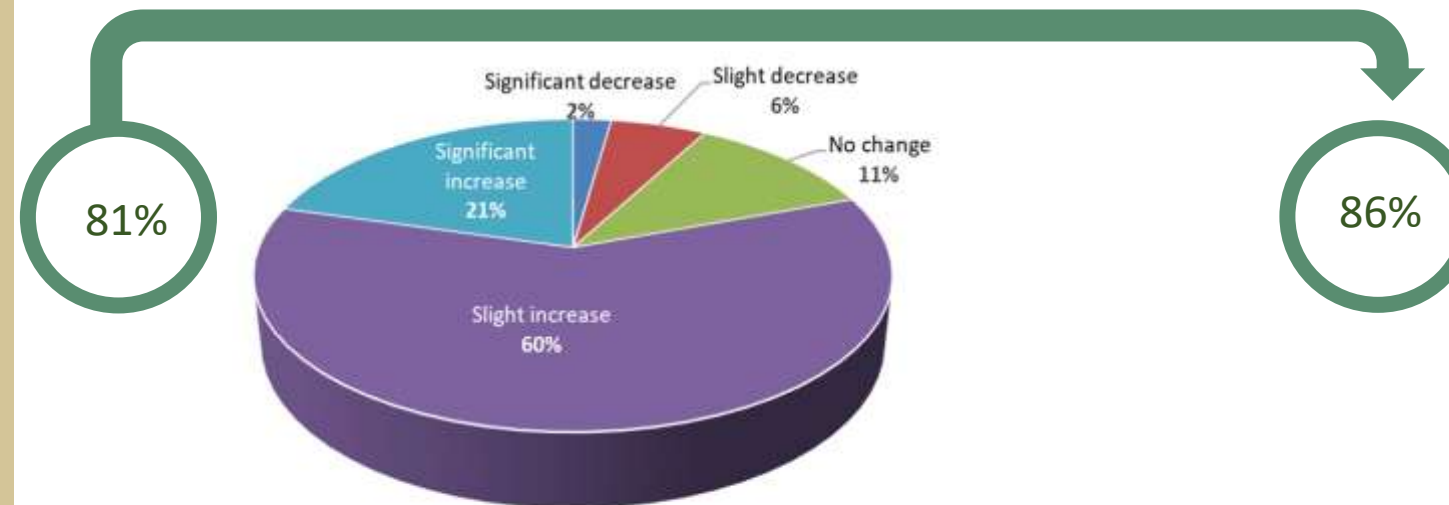
# Industry Survey: Employment & Revenues



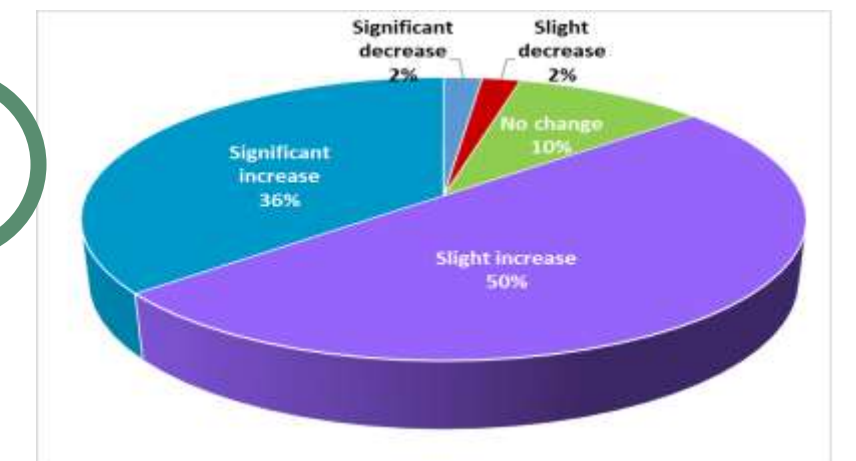
Employment outlook over the next 12 months (2020)



Employment outlook over the next 12 months (2021)

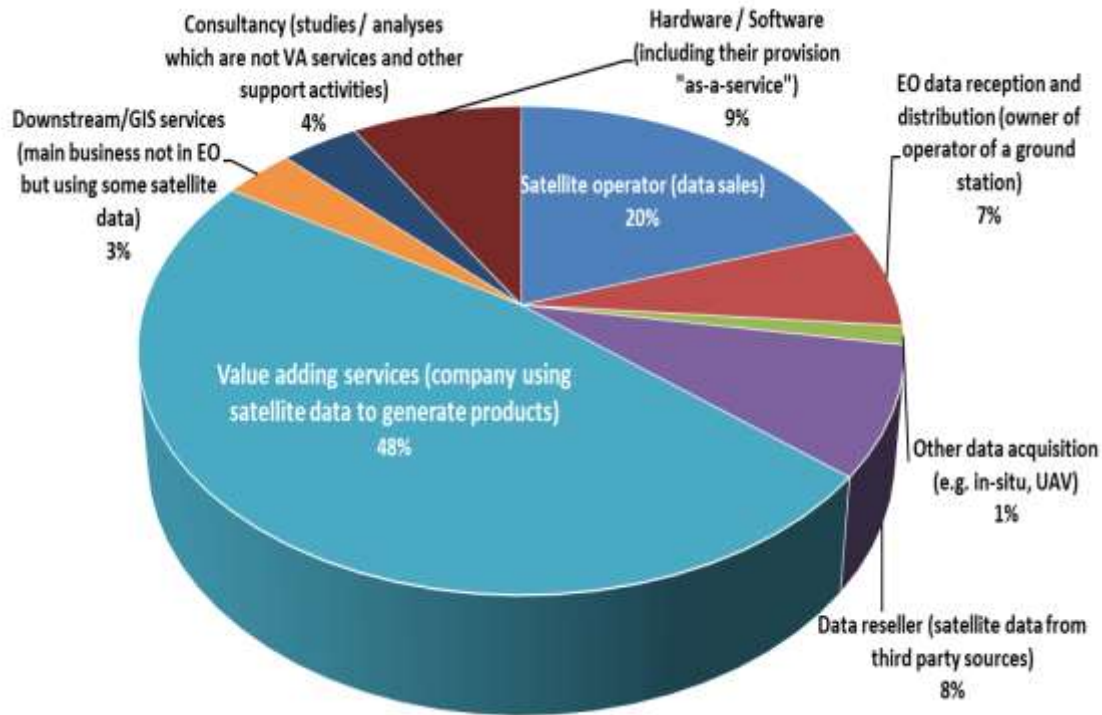


Revenue outlook in the next 12 months (2020)

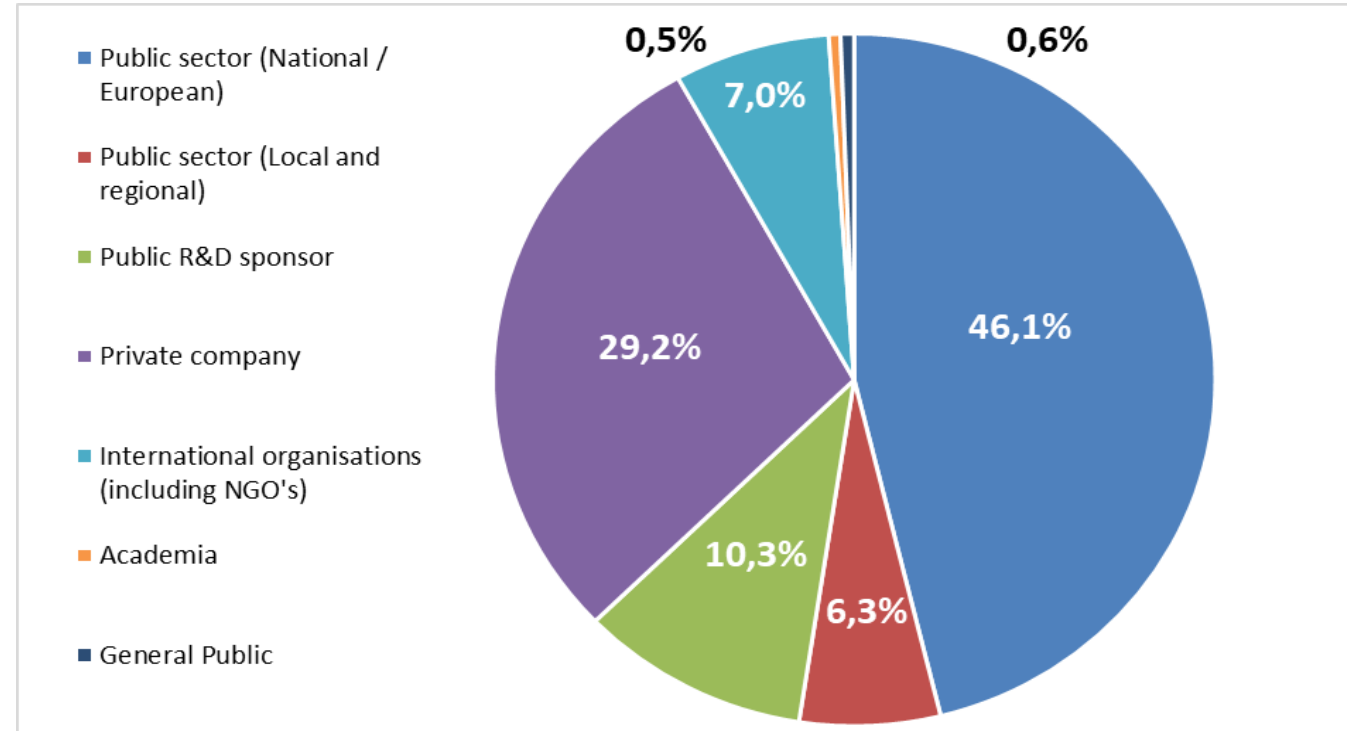


Revenue outlook in the next 12 months (2021)

# Industry Survey : Activities & Users



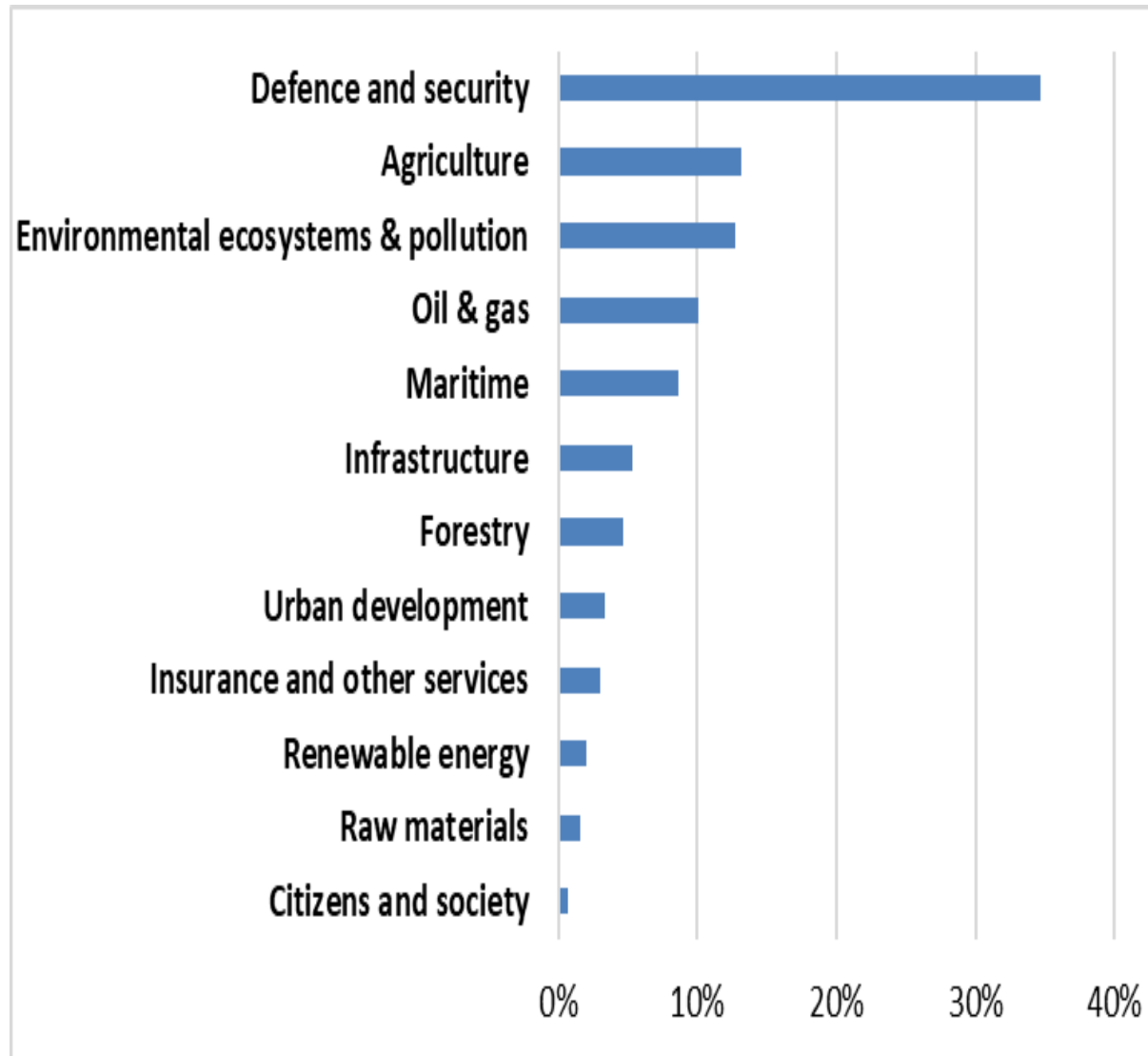
Companies using satellite data to generate products (**from 26% to 48%**)



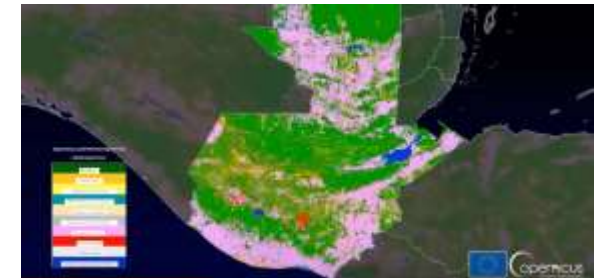
Public sector representing approx. **50%** of industry revenue



# Industry survey: Market Sectors



Flood Risk



Land use maps for agriculture



Surface T maps  
> drought, biomass studies

# Tools supporting the EO awareness and market uptake



## Develop Your Knowledge On Earth Observation

 provided by European Association of Remote Sensing Companies

120+ SDGs case studies



## What Can Earth Observation Do for My Organisation?





## FLOOD MANAGEMENT IN IRELAND

### What it is about

A succession of Atlantic Storms hit Ireland in the winter of 2015-2016 resulting in the heaviest flooding in the country's history. In response to the flooding, the Irish flood management authorities triggered for the first time in December 2015 the Copernicus Emergency Management Service. Using Sentinel-1 and other

satellite data, this service provided all actors involved in flood management with flood delineation maps. These maps have enabled informed decision-making and produced significant economic and social benefits for all actors involved in flood management, from national coordination level down to individual citizens.



## FLOOD MANAGEMENT IN IRELAND



### The Satellite Data

Copernicus Sentinel-1 provides free-of-charge frequent all-weather, day-and-night C-band radar images over Ireland.



### The Service Provider

The Copernicus Emergency Management Service provides delineation maps for floods (and other types of disasters) based on data from the Copernicus Sentinel-1 mission and from other types of satellite data from the Copernicus Contributing Missions.



### The Primary User

The Irish National Coordination Authorities use the flood delineation maps to more timely activate the national emergency management mechanism and coordinate response efforts. The maps help to monitor the evolution of flood events and dispatch any available information to involved government agencies and departments.

€3.61m



### Secondary Beneficiaries

The maps support local and regional authorities in continuously monitoring forecasts to scale the appropriate response measures, implement flood response measures and crucially communicate on the same basis with the public in affected areas.

€0.61m



### End User Beneficiary

The Service has helped manage flood events in Ireland more effectively by taking more informed decisions and reducing the impact of floods on businesses and the general public, ultimately saving lives.

€2.27-26.08m

**Total benefits: €6.5-30.3m** (benefits are limited to floods of 2015-2016)



# e-shape: more than a project



**GEO** GROUP ON  
EARTH OBSERVATIONS

**EuroGEO**

  
**e-shape**

EuroGEO Showcases: Applications Powered by Europe

**68  
partners**

**7 showcases  
37 pilots**

**4 years grant  
2019-2023**

to develop operational  
EO services with and  
for users

to promote the  
uptake at national  
and international  
scale

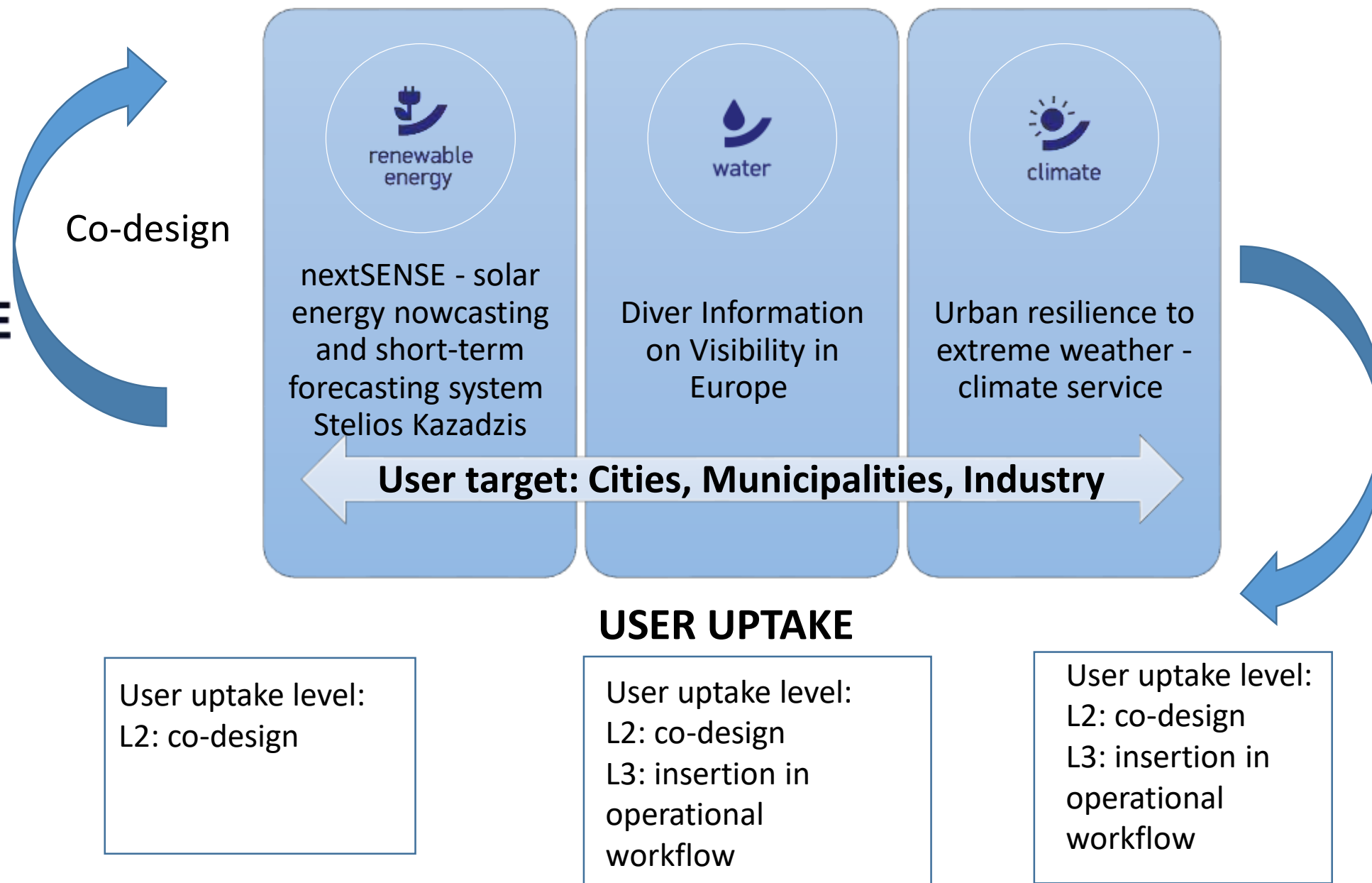
the long-term sustainability  
and the upscaling of pilots,  
their penetration in public  
and private markets



# e-shape co-design methodology

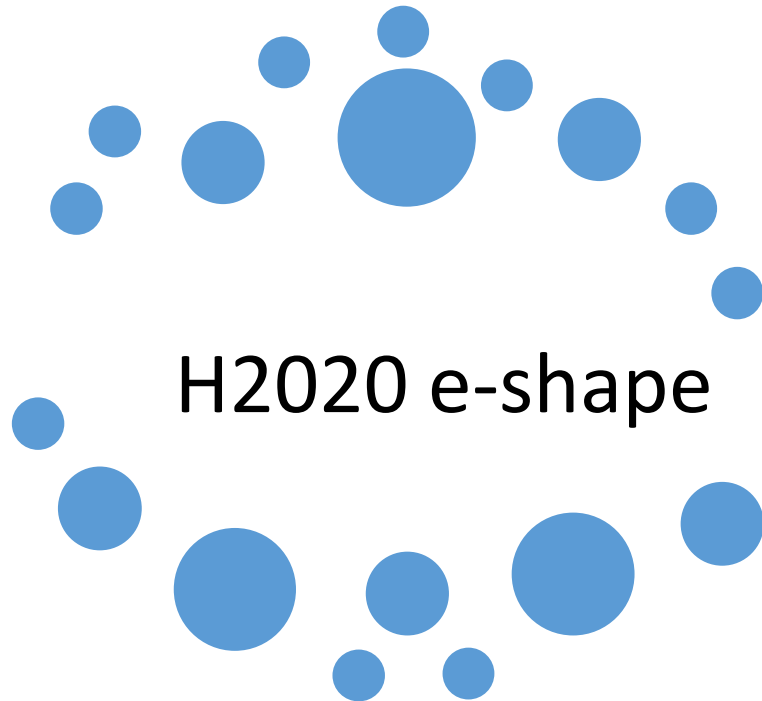


# From innovation to operation: the e-shape user uptake (II)





# e-shape laying the legacy for EuroGEO



- Co-design
- FAIR-GEO principles implementation tool
- 37 EO application/7 showcases
- User Uptake
- Sustainability booster
- Governance models
- Dissemination

Thriving European  
EO sector

Key market drivers  
Challenges

- Best practices introduced in EU funded projects
- Coordination with evolution of EO policy landscape (EUSPA-Cassini..)
- Link between services/app.dev/end-users
- Comprehensive user uptake strategy
- Key node for EU contributions to GEO

# What's the state of the EO industry in Europe?

Your **feedback is crucial** to help us identify the key issues that companies are facing



**FILL IN EARSC 2023 INDUSTRY SURVEY!**

# Thank you!



[www.e-shape.eu](http://www.e-shape.eu)