

# The KM3NeT Project

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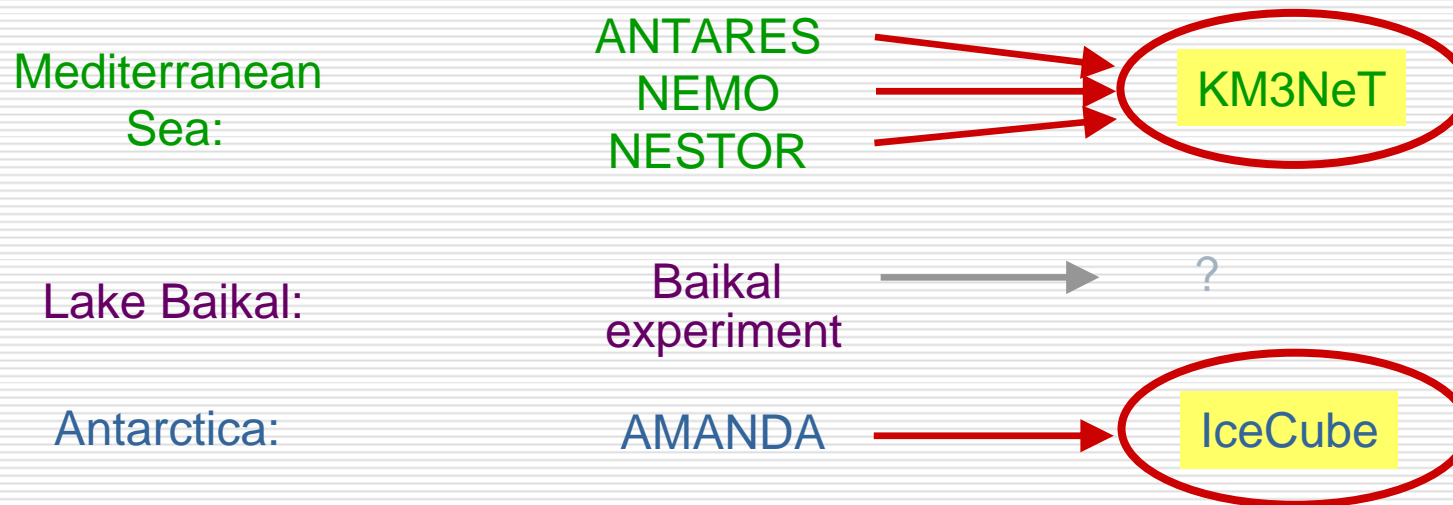
- Objectives
- Current membership and funding
- Preparatory Phase
- The EMSO connection
- Structural funds

# KM3NeT Objectives

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- Observe high-energy cosmic neutrinos

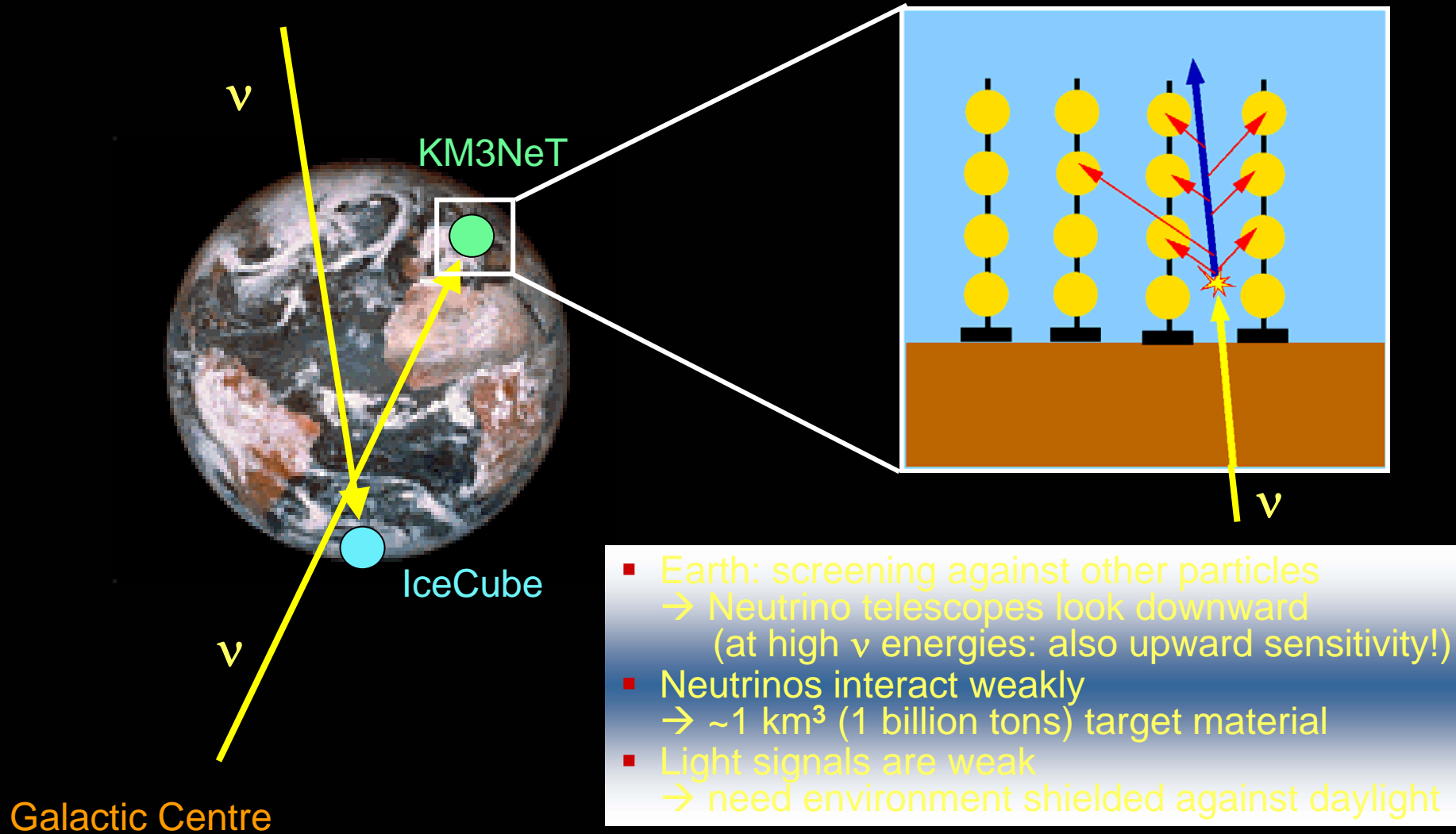
- Opens new window to the most violent processes in the universe
- Key objective of astroparticle physics
- Convergence towards two major neutrino telescopes covering the full sky:



- Provide infrastructure for long-term deep-sea measurements

- Highly interesting for marine biologists, geologists and geophysicists, environmental scientists, oceanographers, ....
- Strong links to the EMSO project.

# How Neutrino Telescopes Work



# The KM3NeT Design Study

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- 3-year FP6 Design Study, Feb. 2006 – Jan. 2009, 9 M€ from EU, overall budget ~20 M€

- Participants:

30 Particle/Astroparticle institutes +  
7 Sea science/technology institutes

} from 9 EU countries:



- Main Deliverables

- Conceptual Design Report (fall 2007)
- **Technical Design Report (early 2009)**

# Current National/Regional Funding

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## ■ Pilot projects:

-	ANTARES (cap. investment only)	20.1 M€
•	FR, GER, IT, NL, ES funding agencies	14.5 M€
•	France: Regional sources	1.9 M€
•	FEDER/France	3.7 M€
-	NEMO (IT, cap. investment only)	17.0 M€
•	IT funding agencies	10.9 M€
•	FEDER/Italy	6.1 M€
-	NESTOR (GR, cap. investment only)	8.0 M€
•	Greek government	6.5 M€
•	FEDER/Peloponnese	1.5 M€

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45.1 M€

■	KM3NeT (cap. + pers.)	ca.	11.0 M€
•	CY, FR, GER, GR, IRL, IT, NL, ES, UK funding agencies and other sources		

# The KM3NeT Preparatory Phase Proposal

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- **Application in preparation**  
(time very tight due to overlap with 1st-year Design Study report)
- **Major objectives to be addressed:**
  - Path to convergence on funding decisions  
(KM3NeT cost estimate: roughly **250 M€**)
  - Legal and governance aspects
  - Site decision (including assessment of multi-site options)
  - Production preparation
  - Data dissemination, data formats, computing
  - Coordination with marine sciences
- **Major goal:**
  - **Go ahead with construction in 2010/11!**

# The EMSO Connection

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- Large overlap in participating institutes
  - IFREMER, INGV, HCMR, Oceanlab/Aberdeen, ...
  - Marine sciences represented in all KM3NeT management and steering bodies
  - Regular informal exchanges
- Funding agencies are aware
  - INFN requests cross-coordination of KM3NeT and EMSO PP proposals
  - ...
- KM3NeT site(s) likely to become part of EMSO

# Structural Funds

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- ERDF funds may be a major source of KM3NeT construction money
  - ERDF and FP7 run concurrently (2007-2013)
  - KM3NeT candidate sites are target-1/target-2 regions
- Political coordination needed
  - Cross-coordination between ESFRI, EU DG Research (FP7), EU DG Regio (ERDF) and national authorities to promote research infrastructures
  - Avoid conflicting boundary conditions in both programs
  - Support for the concept of spending regional funds locally, but in the framework of pan-European projects
- The situation must be clarified very soon!