REINFORCE
REsearch INfrastructure FOR Citizen in Europe

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On behalf of the REINFORCE Consortium and KM3NeT Collaboration

REsearch INfrastructure FOR Citizen in Europe

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REINFORCE has started the 2019/12/01
Website: https://reinforceeu.eu/

Minimizing the knowledge gap between Large Research Infrastructures and Society through Citizen Science
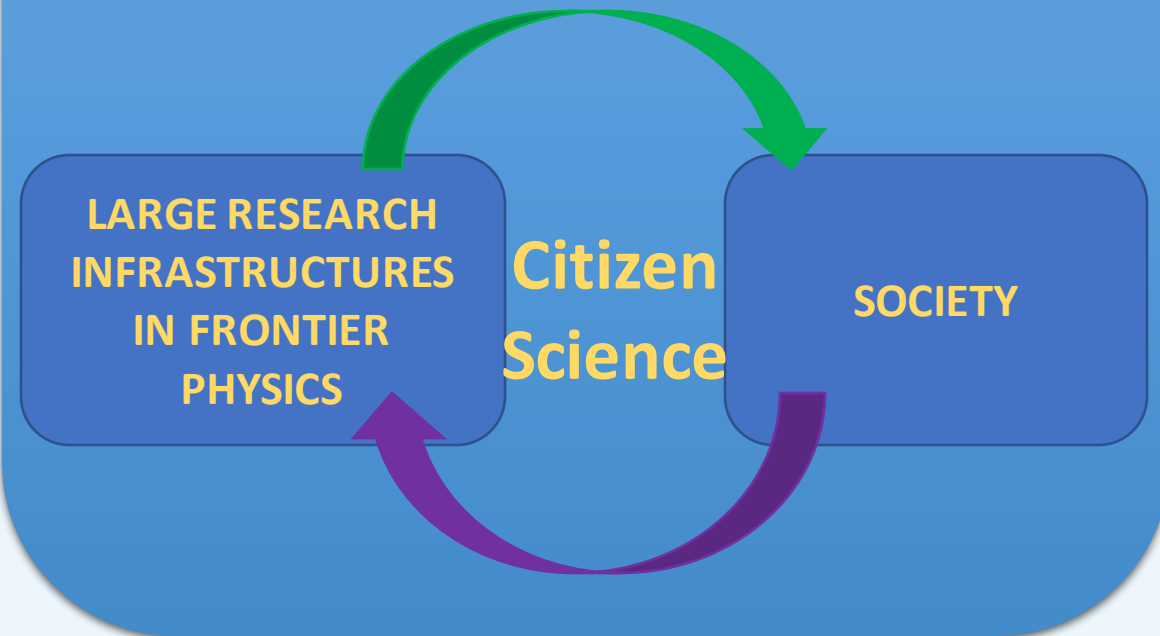
4 Science Work Packages:
- **WP3:** Gravitational Wave Noise Hunting
  - Noises in VIRGO data
- **WP4:** Deep Sea Hunters
  - KM3NeT data **(described in this flash talk/poster)**
- **WP5:** Search for new particles at the LHC
  - Find new particles in ATLAS data at LHC/CERN
- **WP6:** Cosmic muon Images
  - Muon tomography (geoscience and archeology)

Why Citizen Science?

Practically, for some tasks:
- Humans are better than computers!
- We are not enough in the research world!

Citizen Science
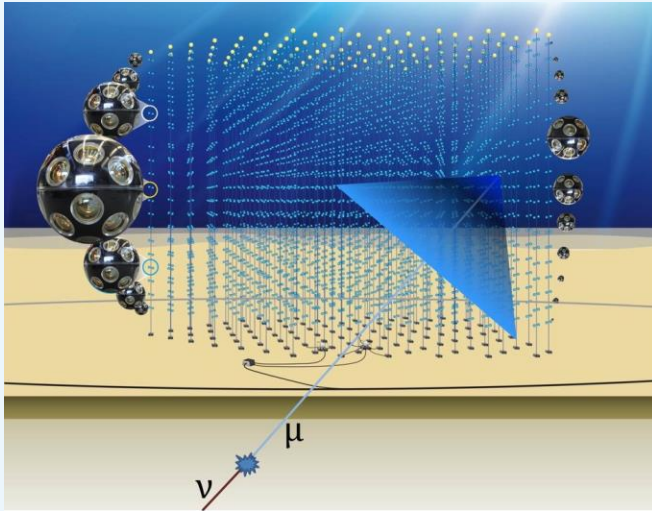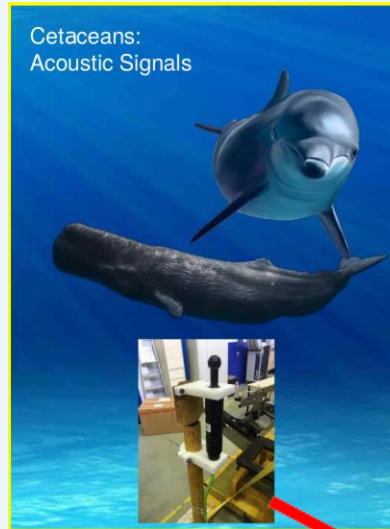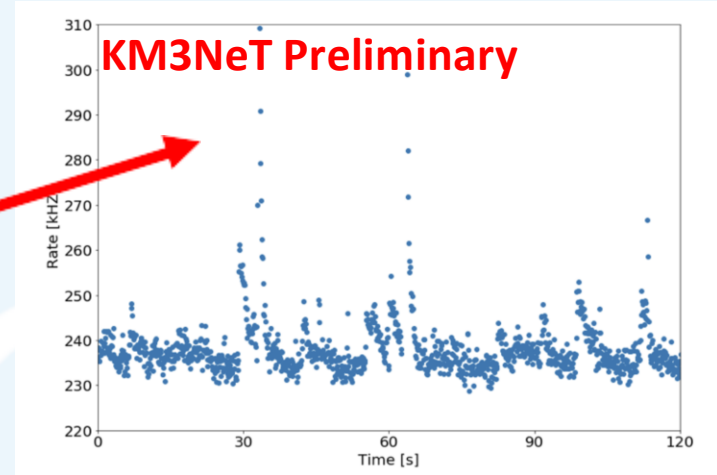
LARGE RESEARCH INFRASTRUCTURES IN FRONTIER PHYSICS

SOCIETY

WP4: Deep Sea Hunters

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Illustration of a neutrino event in KM3NeT

Cetaceans: Acoustic Signals

Bioluminescent organisms: Optical Signals

Bioluminescence data (recorded by PMTs)

KM3NeT Preliminary

Acoustic data (recorded by hydrophones)

KM3NeT Preliminary
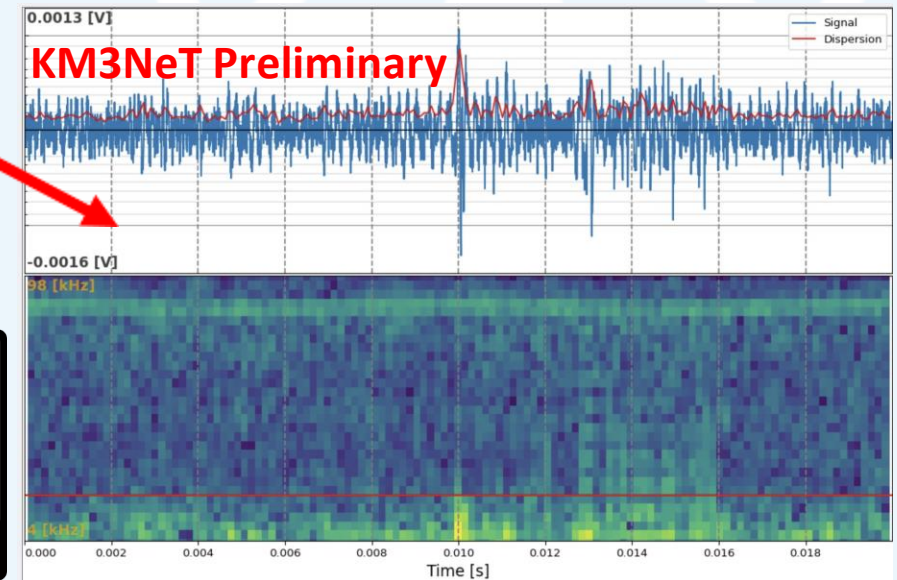
Context: KM3NeT Neutrino Telescope
- Currently being deployed in the Mediterranean sea!

Deep Sea Hunters goal is two sided:
- Better understand the response of KM3NeT instruments
- Perform bioluminescence and bioacoustics studies!

Citizen Science activities proposed on Zooniverse:
- Bioluminescence: peak counting and "weird" signals identification
  Bioacoustics: cetacean clicks classifications

SCAN ME

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