

#### -4H- JENA engineering

Novel systems for monitoring purposes: Self-cleaning Monitoring Box in master/slave mode and new combined litter/plankton and passive samplers

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#### Contents

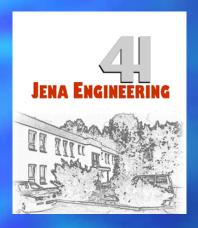
- Company
- New sampling systems
  - Passive sampler
  - Litter and plankton sampler
  - Combination of sampling system
- Self cleaning Monitoring Box
- -4H- FerryBox reach Africa



#### Company profile













## Optical inspection techniques





Marine techniques

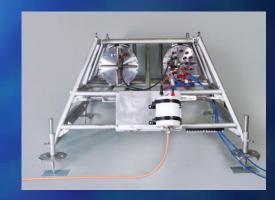
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### Marine techniques













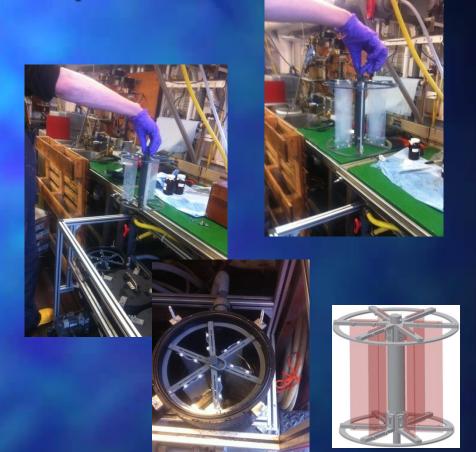




#### -4H- Passive sampler







In cooperation with CEFAS

Special designed foil holder



#### -4H- Passive sampler

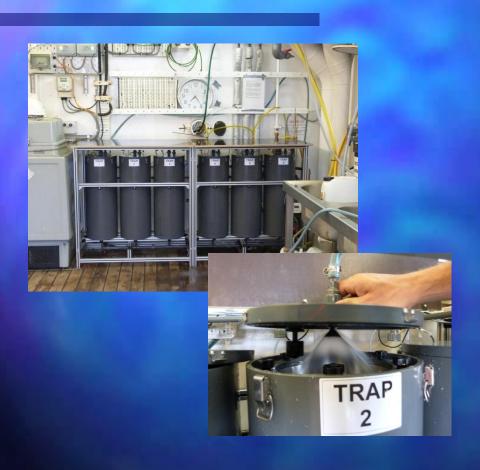


Corsica ferries UNICA

rubber strips and lowdensity polyethylene holder



#### -4H- litre plankton sampler







In cooperation with CEFAS



#### -4H- litre plankton sampler











In cooperation with CEFAS

Special designed for dual use at different seasons



# Combined litre/plankton and passive sampler



Corsica ferries CIBM



#### Software controlled sampling

- Based on LabVIEW
- Stop after defined Volume
- Area controlled
- Fixed time period
- Harbor controlled stopping
- Error controlled stopping/switching





#### -4H- Self cleaning Monitoring Box



- Equipped with standard parameter (C,T,S, Chl-a, Turbidity and sound velocity)
- Master, slave and stand alone operation
- No data leak
- Data quality check with sound velocity
  - Anti-fouling with acid or bleaching solutions
- Opportunity for waste tank for the acid
- Expandable for further parameters with extra frames

In cooperation with the IOW Warnemünde



#### -4H- FerryBox Tunisia



Parameter:

T, S, DO, Chl-a, Turbidity, pH, pCO2 and Algae species)

A cooperation between ISTM and MIO

The Customer configure their own system

