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The Fishing for Litter Measure: Implementation insights from an Italian experience in Chioggia

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Fishing for Litter in a nutshell



Removal of marine litter from the sea by the fishermen

- They are asked to **collect** marine litter that accumulates in their nets as part of their normal fishing activity
- Marine litter is then **stored** onboard in bags provided by the project
- **Disposed** safely on the quayside
- The activity is done on a voluntary basis
- **No** regulatory or financial **burdens** must be put in place



@Francesca Ronchi

FfL as a measure against marine debris



FfL is identified as an important **measure** that has the **potential to reduce the amounts of marine litter** at sea

(Regional Plan on Marine Litter Management in the Mediterranean)

Apart from the direct removal of litter from the sea, it contributes to:

- raising awareness about the problem within the sector
- underlining the need for a better waste management
- sensitizing citizens on their individual behavior regarding waste management

Who is involved?



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1. Fishermen

Collect litter during their normal fishing activities

2. Port Authority

Waste collection points and other facilities needed to implement FfL may be located in the harbour area

3. Local Authority

They are the waste management authority

4. Waste management companies

They can be public or private

5. Citizens

They are not aware of the problem and often they have to pay, as taxpayers, for the costs of FfL



FfL implementation in Chioggia



Claudio Ballard

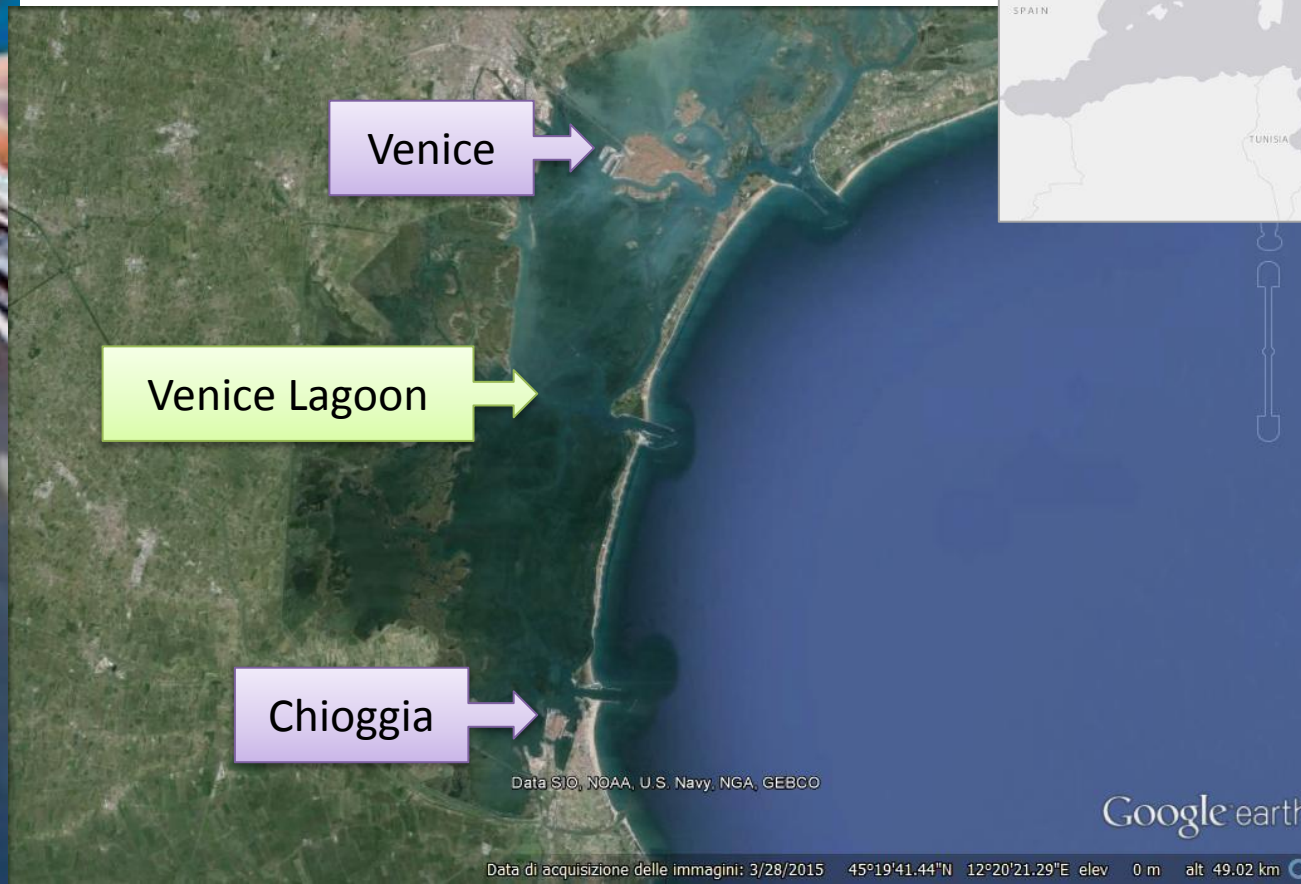
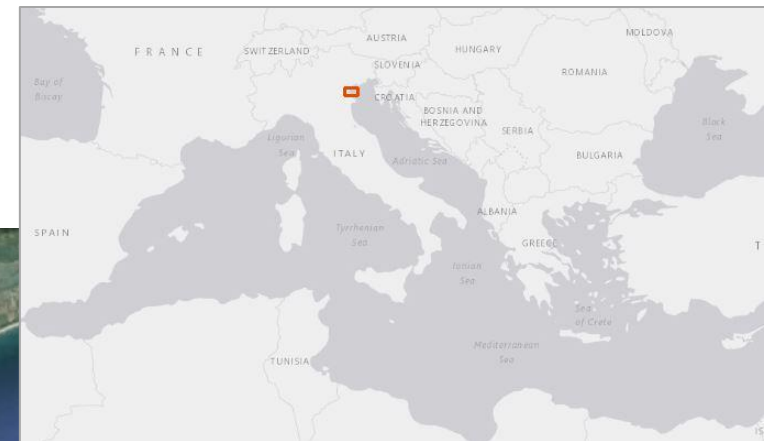
FfL implementation in Chioggia



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Chioggia hosts the **largest fishing fleet** of the Adriatic sea:

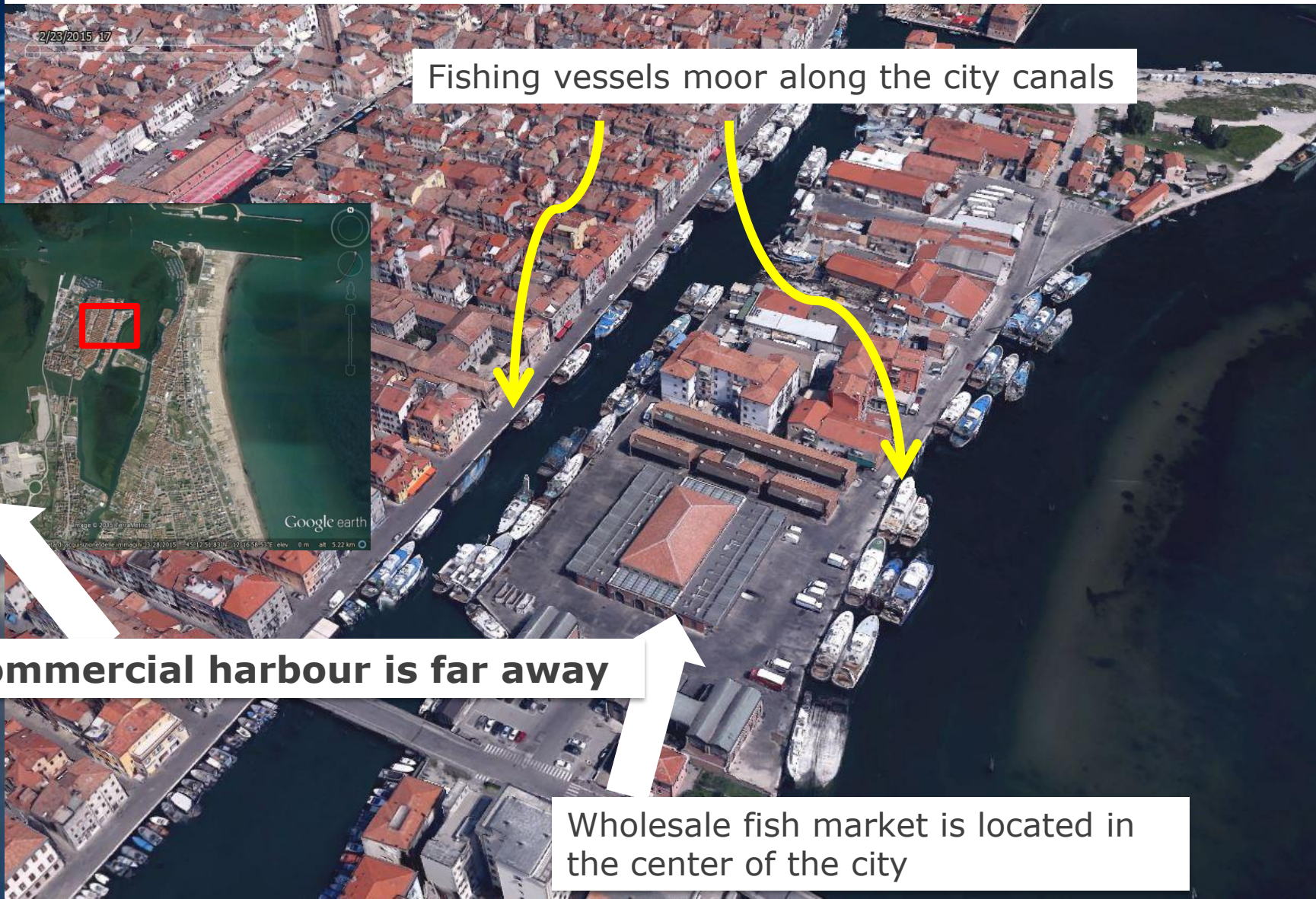
- about 215 vessels
- 39 million Euros of revenue in 2014
- 13,000 tonnes of landings in 2014



Chioggia



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Fishing vessels moor along the city canals

The commercial harbour is far away

Wholesale fish market is located in the center of the city

Timeframe of activities



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Fishing for Litter in Chioggia

ISPRA researchers and fishermen highlighted the presence of marine litter in the nets and **the lack of infrastructures** for their disposal

Early 2013

DeFishGear Project kick off and **beginning** of the implementation activities

September 2013

Hypothesis of a **Pilot Project** due to the **never-ending difficulties** of the implementation of a stable FfL system available for all the fleet

July 2014

Launching the **Pilot Project**

January 2015

Fishing for Litter

Still not implemented (July 2016)

Why it is so difficult to implement FfL in Italy



There can be a **set of obstacles** at multiple levels:
from the National Legislation to the individual behavior



Italian legislation

Ship-generated waste management system

Area / infrastructures / funding

Vessel type / working hours

Individual behavior

Obstacles



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Italian legislation

D.lgs. 152/2006 Environmental Regulations
Art. 184 Waste classification



- Beached (abandoned)
- Vessel waste
- From floods
- Beach clean up



- **FROM FISHING**
- GHOST NETS
- MICROPLASTICS
- UNDERWATER DUMPING



The decree regulates the waste management system

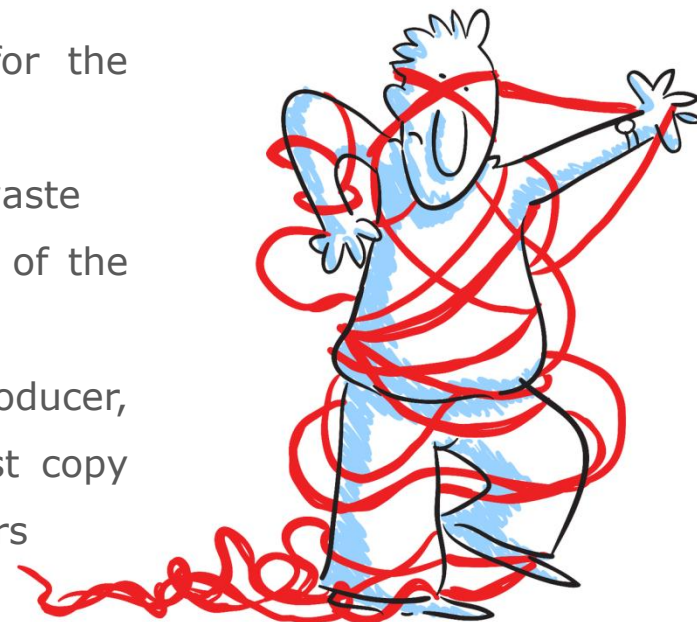


No mention means
→ **special waste**

Italian legislation

Special waste means that fishermen are considered the **producers** of what they collect from the bottom of the sea

- The **expenses** related to the special waste disposal are borne by the producer
- The producer have **penal responsibility** for the destiny of the waste
- He must assign the right classification to the waste
- Its responsibility remains all along the "trip" of the waste from the producer to the consignee.
- He must compile a form in 4 copies (producer, consignor, carrier and consignee) and the last copy must return to the producer and kept for 5 years
- ...



Italian legislation

Possible solution: Local Authority (i.e Municipality of Chioggia) can classify litter that has been caught during fishing activities as **municipal waste**

D.lgs. 152/2006 Art. 198 Environmental Regulations

PROS: extreme simplification

CONS: the community pays for the management

Ship-generated waste management system

The harbour **must have** a waste management plan, and **must have** the infrastructures to receive special or hazardous ship-generated waste

*D.lgs. 182/2003 Implementation of 2000/59/EC on **port reception facilities** for ship-generated waste and cargo residues*

BUT:

- The management system refers to operational garbage (bilge and oily water residues, batteries etc.)
- Marine litter is **not** a ship-generated waste: fishermen collect mainly **other people's waste** from the sea



→ This means **no infrastructures for FfL**



The disposal of waste accidentally collected during fishing activities **do not require the payment of the fare**

Obstacles



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Area / infrastructures / funding

Reception facilities must be near the traditional mooring area, large enough for dump trucks etc.

Financial resources may be necessary to construct the infrastructures

Hygiene standards in quayside or in **fish markets** may be compromised

...



Obstacles



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Vessel type / working hours

There is **little space** on board for 1 m³ polyethylene big bags

Possible solution: single use plastic bags are smaller than big bags that can be thrown away every day

Fishermen have **no time** to separate, safely storage on board and dispose litter

Partial solution: container must be placed near the docking area, open h/24



Obstacles



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Individual behavior

Scenario 1



Fishermen don't see the usefulness of the FfL activity

They see FfL only as more work for them with no advantages

They have little or none environmental culture

They ask for a simple way to dispose litter

Chioggia Pilot project: Scenario 2



Fishermen are the firsts that arise the problem

They clearly see the **decrease of catches** and the **loss of time** spent in the cleaning of nets

They appreciate the publicity these schemes generate with the general public and consumers

They have a good **environmental culture**

How to implement it?



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Contact fishermen

Speak with fishermen first, then with fishermen's associations

- Marine litter is a problem also for them? Demonstrate that marine litter damages fishermen's livelihood as well as the environment
- Recognize their **unique role** for the cleaning of the seafloor
- Acknowledge that FfL represents additional work for them
- Highlight the value of the good will and positive publicity these schemes generate with the general public and consumers, giving them visibility



How to implement it?



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Organize a round table with all the stakeholders and verify:

- How is litter from fishing activities **classified** in the country/city?
- Is it possible to **change** the classification in order to simplify procedures?
- Are there harbour **facilities** that could be used for FfL? Are there competitor users in the same area?
- Who will be in charge of the **management** of the waste coming from the FfL project?
- **Who will pay for waste disposal?**



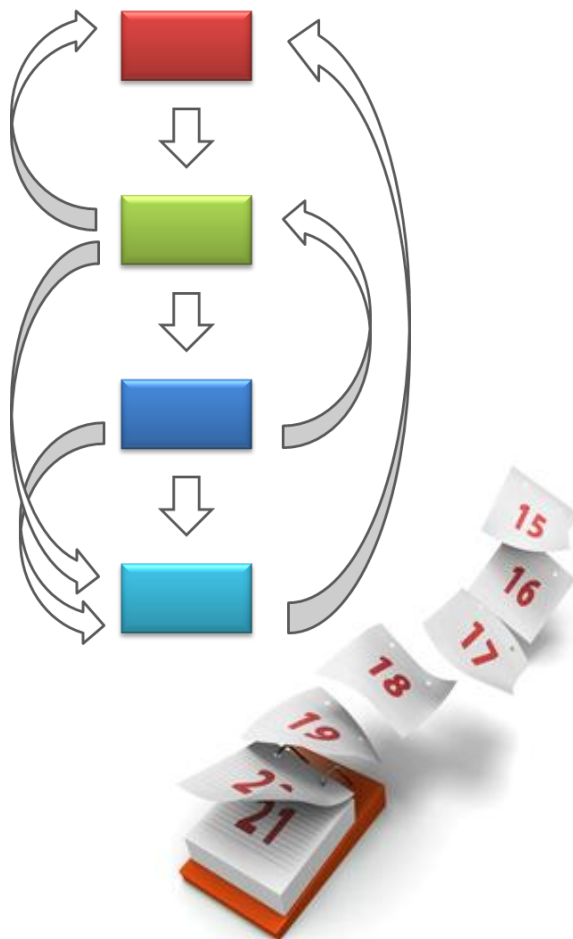
Why a round table?



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Round tables are better than single consultations

Single consultations



Round table



**GOAL
ACHIEVED**



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How to implement it?



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Go ahead with the next steps

- Identify a responsible in every stakeholder group
- Search for **financial resources**
- **Sign contracts** with the companies involved in the process
- Buy the **bags** or other utilities and install the facilities (containers, electric coil for metal cable)
- Create a communication strategy
- Design a **monitoring** plan
- ...



...and yes, most of the work is related to diplomacy, bureaucracy, meetings, e-mails, phone calls...

Is FFL really useful?



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Chioggia pilot project

- 4 bottom otter trawls and 2 "Rapido" beam trawls
- 12 months so far
- Fishing for Litter
- Recovery of derelict fishing gears
- Monitoring



Is FFL really useful?



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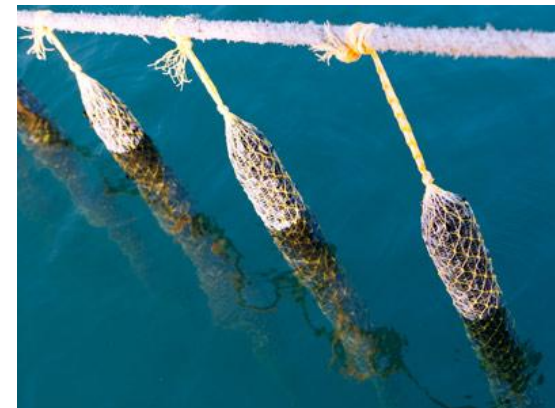
YES

We achieved great results in terms of **knowledge**

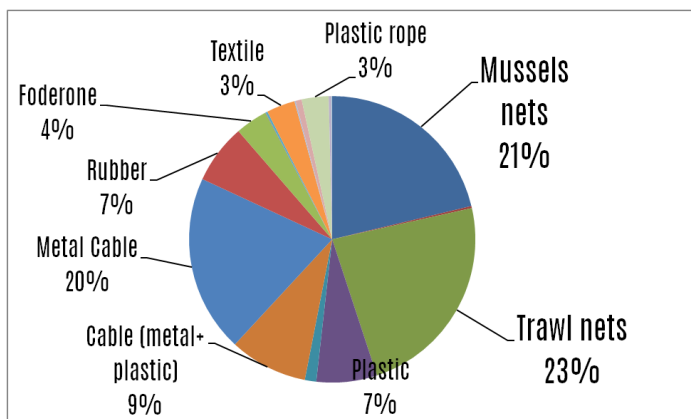
Amounts of litter retrieved from the sea

More than 1,000 bags

29 tons of litter + 7,7 tons of DFG



Main local issues: most common categories



Monitored = 2,000 kg

Mussel Nets = 26% of the fishing related items

Is FFL really useful?



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We draw the **attention of the media** on the problem



CHIOGGIA. I DATI DELL'OPERAZIONE «FISHING FOR LITTER» Cala il numero dei rifiuti trovati in mare

CHIOGGIA

Meno rifiuti in mare rispetto all'anno scorso: merito del Po e dei pescatori. È il primo bilancio dell'operazione «Fishing for litter» (ovvero «Pesca dei rifiuti») il progetto pilota portato avanti, da due anni, in collaborazione, tra i ricercatori dell'Ispra e i pescatori chioggini, nell'ambito del programma europeo DeFishGear.

L'operazione si è svolta, quest'anno, nell'arco di cinque mesi, da marzo a luglio, ha impiegato 6 barche (2 rapide e 4 cocche) che hanno raccolto 23 tonnellate di rifiuti, in un'area di 12 chilometri quadrati di mare. I rifiuti sono stati pesati, misurati e classificati. Il totale è di 1,7 chilogrammi contro 12,8 del 2014.

reti durante le normali di pesca e i ricercatori pesati, misurati e classificati. Il totale è di 1,7 chilogrammi contro 12,8 del 2014.

Comune ha stanziato oltre 60 mila euro per la raccolta dei rifiuti "pescati" in mare. Pronto il centro di raccolta.



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Conclusions



The amount of obstacles encountered at every level clearly highlight the need of a **National strategy** that:

1. **Simplifies** the management system of the litter taken from the sea
2. Takes into consideration that FfL is a **service** for the community and a cost for fishermen in terms of time and money
3. Foresees some kind of **compensation** for the fishermen that participate
4. Keeps a part of the national / regional / local **budget** for FfL purposes
5. Plans effective measures for the **prevention** of the main local sources, in accordance with the main types of litter found in the area (i.e mussel nets in the Po area of the Adriatic sea)



Thank you for your attention

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