



RiverRecycle

catching and recycling
plastic from rivers

What if...



all the rivers were clean?

What if...



all the oceans were clean?

What if...



environmental programs were sustainable?

> The problem sphere

Rivers have been identified as a major pathway for plastic pollution entering the oceans (National Geographic, June 2018).

1. The origin: Mismanaged plastic ends up in the environment where functional waste management systems are lacking (light blue)

2. Plastic in transit: 80-90 % Plastic travels to the oceans from land. Rivers are a major contributor. Asia and Pacific 'high risk' pollution area. (yellow)

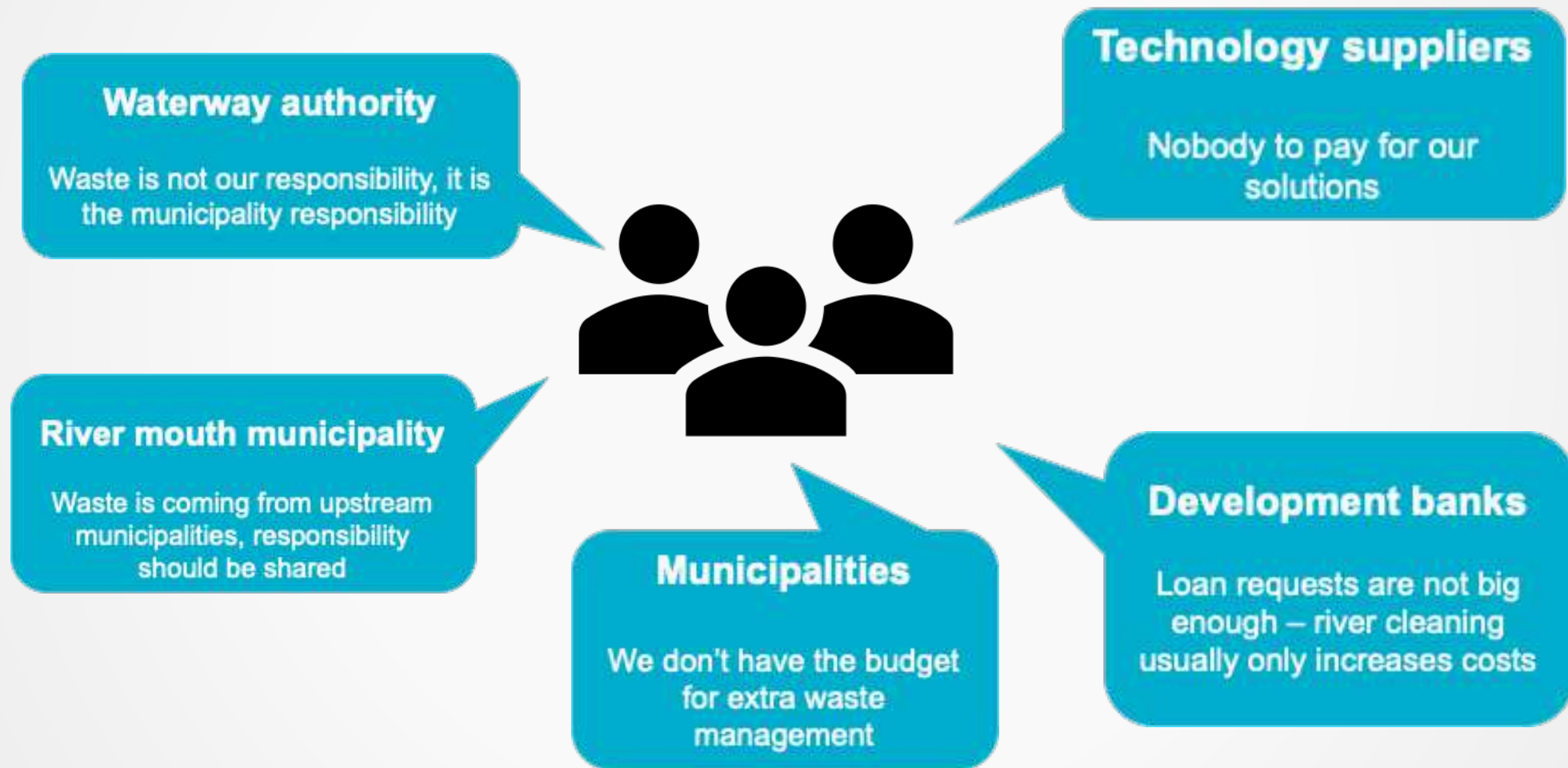
3. The "permanent" problem: Plastic is spread to vast areas in the oceans as a plastic 'soup' (pink)



> Why rivers first?

Quick	1	– technically possible to stop 40-60% of plastic marine debris flow in 3 years
Cheap	2	– € 250M investment to collect 3M tonnes amounts to € 500M+ worth of plastic / year
Fits local economies	3	– makes trash collectors business more efficient
Quick buildup of large economies	4	– Enables establishing sufficient size recycling facilities. Other collection systems have a place to bring the plastic
Soft finance available	5	– Development banks and big brands have several multibillion dollar funds available to fund bankable projects in this space, as soon as proof of concept has been demonstrated. This also lowers the investors' risk considerably.

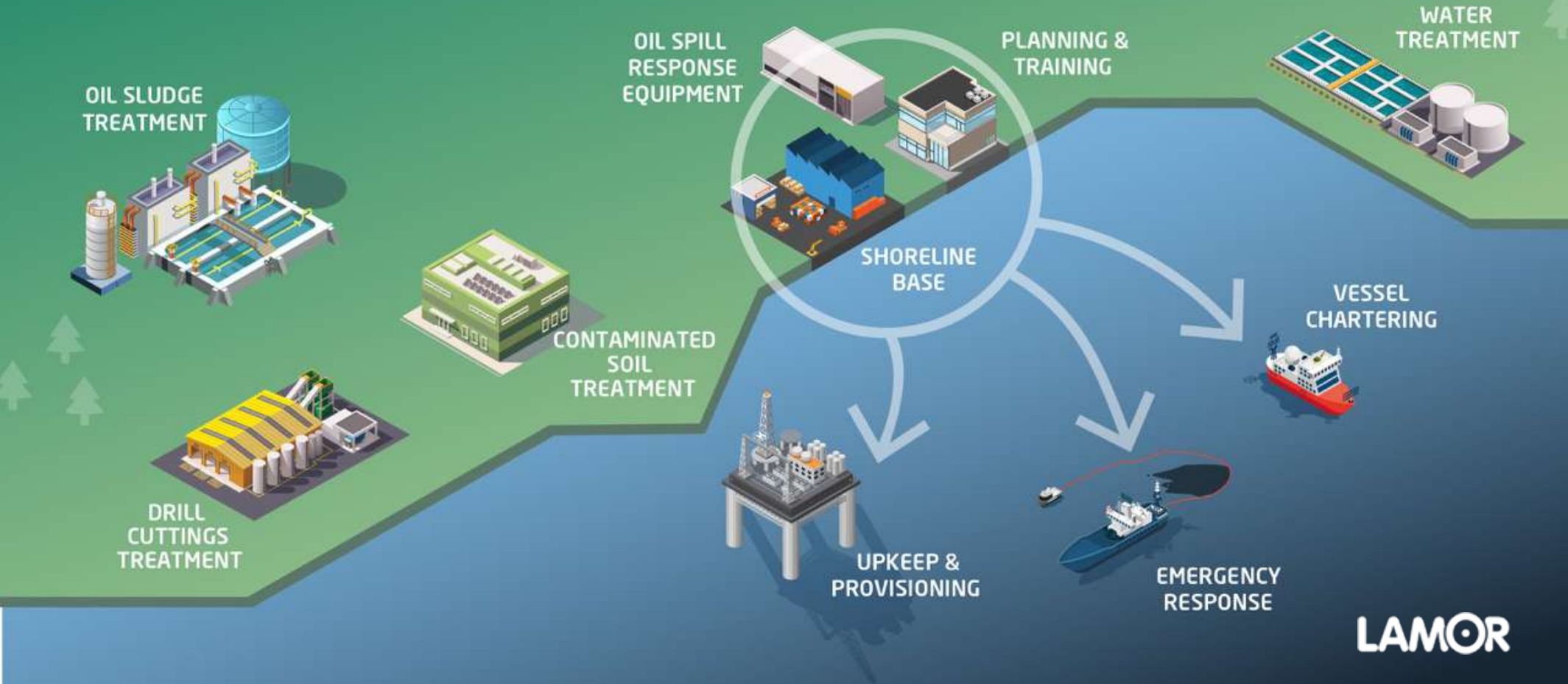
> A vetocracy prevents solutions





➤ Team and resources

Our second largest shareholder is the largest marine oil spill recovery company in the world - LAMOR



Deepwater Horizon

- 1982 Lamor founded 1982
- 350 employees
- 1200 people in responder network



Riverrecycle finds the buyer for cleaning up rivers



RIVERRECYCLE

Helsinki

Africa

India

Indonesia

Philippines

Thailand

Vietnam

The RiverRecycle team at strategic locations

Finland



Anssi Mikola
CEO



Janne Nuutinen
COO



Tina Nyfors
CFO



Pekka Suominen
Legal Counsel

Thailand



Emilie Devenport
Area Director – Thailand & Vietnam

India



Yash Dadhwadia
Area Director

Indonesia



Gulontam Situmorang
Area Director - Indonesia

Vietnam



Vy Dinh
Representative - Vietnam

Philippines



Joona Selin
Representative - Philippines



Fidel Ventura
Representative - Philippines

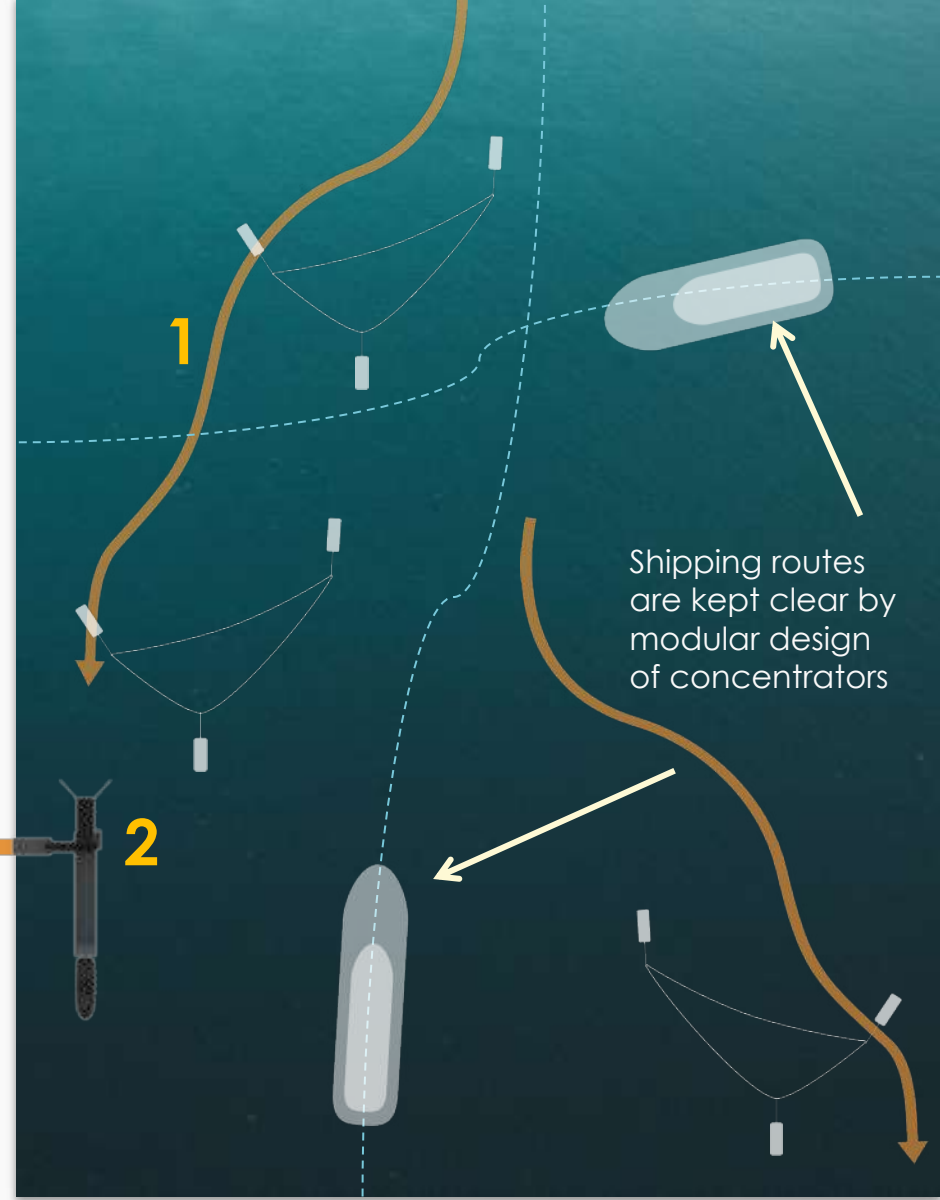
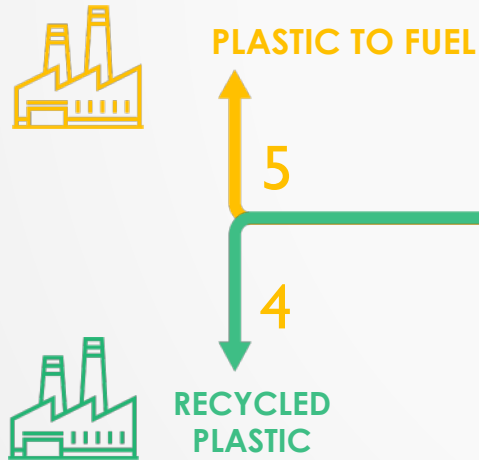


> Solutions

> Value creation

Value is created through lifting large volumes of plastic and bio-waste, then sorting and composting, recycling or processing it into fuel for the shipping industry.

1. CONCENTRATING WASTE
2. COLLECTING FLOATING WASTE
3. SORTING
4. PLASTIC RECYCLING
5. PYROLYSIS



➤ Plastic is pyrolysed to turn it into oil

Low value mixed plastic increases in value when processed into usable oil



> The solution: River cleaning as a free service

The problem

Illegal dumping
due to lack of
waste
management



39 rivers with 60% of
annual ocean plastic
waste increase



Stop the plastic
before the
ocean

1

RiverRecycle system



Collected and
sorted plastic
waste is delivered
to pyrolysis factory

2

Pyrolysis oil sold to
off-take customers
to substitute fossil
oil in plastic
industry

3

500 Collection points to
enable land based
segregating collection
And eradicate need to
throw waste to the river

4

Estimated impact

30-500.000 jobs in circular economy
1.000-1.000.000 tonnes of plastic from water
1.000-30.000.0000 tonnes of CO2 reduction

> River Recycle operating model brings tangible benefits

PRIVATE BENEFITS



- **Avoid negative brand association**
- **Income generation** through sale of resource and jobs created
- **Closing the loop** on plastics as a resource
- **Promote collaboration** of public and private sector at local, national, and international level

COMMUNITY BENEFITS



- **Improving liveability** of cities and coastlines
- **Creating jobs** and improving prosperity
- Contributing to the **UN SDGs 1, 3, 5, 6, 8, 11, 12 & 17**
- **Build awareness** of problem and solutions

ENVIROMENTAL BENEFITS



- **Removing waste** and providing 'catch-all' service to **avoid further pollution** from rivers to the ocean (UN SDG 14)
- Advancing **perception of waste as a resource**
- **Reducing demand for raw material production**
- **Share best practice** to manage and mitigate plastic pollution at local, national and regional level
- **Data collection** to inform policy makers and enable consistent approaches across the region

Requirements

- Requires litter to be present in the river environment
- Requires coordination with local stakeholders and waste management partners
- Requires initial start up investment to establish projects and waste management facilities.

> River recycle in a nutshell

Goal



Stop over 50% of ocean plastic pollution

Through



Proprietary technology to clean rivers without external power, and managing the value chain

Result



Create over € 500 million / year of value from waste plastic, as a sustainable business



RiverRecycle

#riverrecyclesolution

