

# BALTIC REED

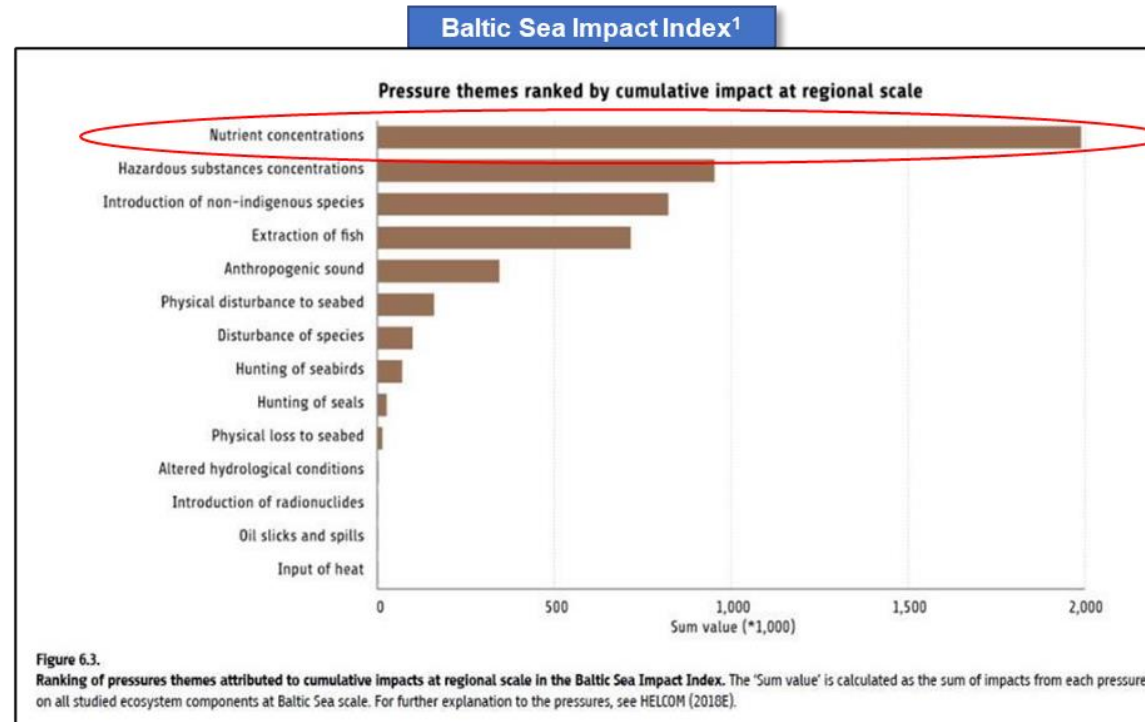
+ innovation to product +  
Mariehamn 19th Sep 2024



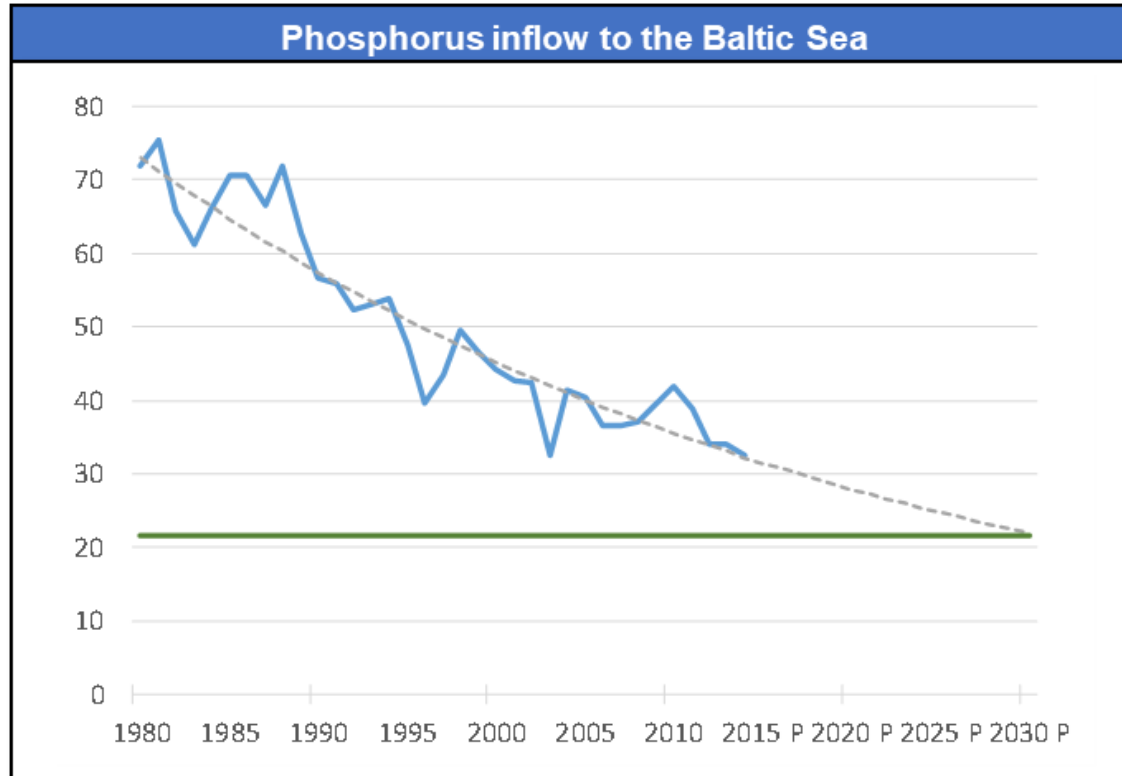
# The problems

## HELCOM

- Hazardous substances
  - **Eutrophication**
  - Marine litter
  - Underwater sound
  - Non-indigenous species
  - Seabed loss and disturbance
  - Species removal (fishing/hunting)
- 
- Eutrophication
    - Dead zones
    - Cyanobacterial blooms
    - Water transparency



# Phosphorus (P)



# Reduction Targets

## The proposed Country Allocated Reduction Targets

The following Country Allocated Reduction Targets for nitrogen and phosphorus have been proposed for adoption by the 2013 HELCOM Ministerial Meeting:

Table 1. Country Allocated Reduction Targets for nitrogen and phosphorus per country (rounded figures)

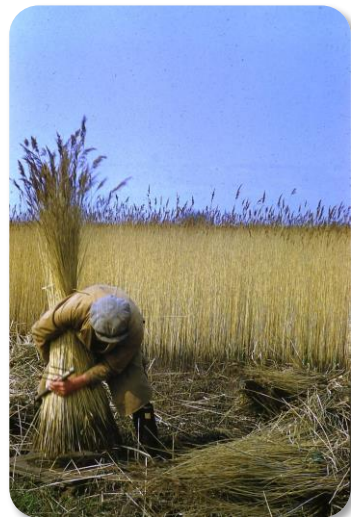
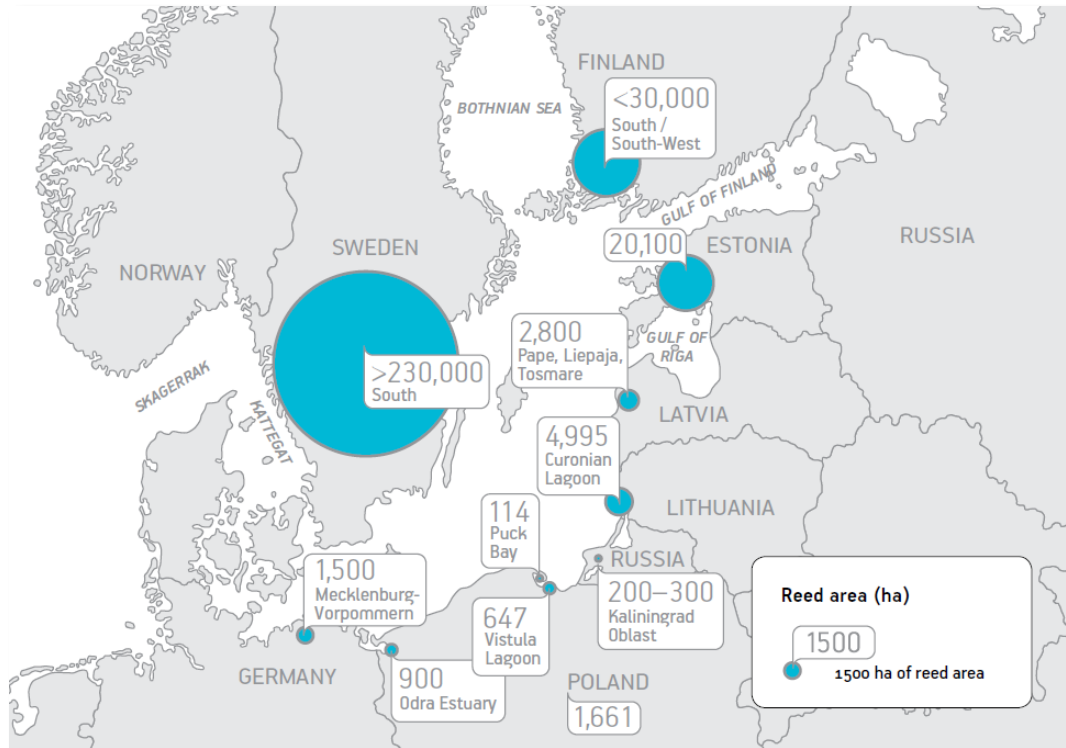
| Country   | PHOSPHORUS | NITROGEN   |
|-----------|------------|------------|
| Denmark   | 38         | 2,890      |
| Estonia   | 320        | 1,800      |
| Finland   | 330+26*    | 2,430+600* |
| Germany   | 110+60*    | 7,170+500* |
| Latvia    | 220        | 1,670      |
| Lithuania | 1,470      | 8,970      |
| Poland    | 7,480      | 4,3610     |
| Russia    | 3,790*     | 10,380*    |
| Sweden    | 530        | 9,240      |

Sweden + Finland = 886 tons Phosphorus (P)



# Background – Reed

- Reed is rich on nutrients
- Grows quickly and there is a lot of it
- Sweden and Finland ~ 260 000 hectares of reed → 2,6 million tons of reed → ~2 600 tons phosphorus
- Not utilized
- Versatile material



# Baltic Reed



## BALTIC REED

A Interreg project to boost reed harvesting and develop reed-based businesses.

interreg  Co-funded by the European Union  
Central Baltic Programme  
BalticReed



# Project activities

- Harvest 300 hectares
- Examine water quality, fish- and birdlife
- Guidelines for Sustainable Harvest
- Build a reed island
- Develop and pilot value chains + commercial products









# WP 1. Baltic Reed Åland Harvesting places

1. Vandöfjärd Saltvik
2. Torpfjärd Jomala
3. Apalängen Sviby Jomala
4. Kökshavet Sund
5. Mellanvik Lemland
6. Ivarsskärsfjärden Finström
7. Öra Brobank Eckerö
8. Bertbyvik Saltvik
9. Vivastby träsk Sund
10. Långsjön Markusbölefjärden Finström

# BalticReed project

- Three year project (2023-2026)
- Six project partners
- Budget € 3 Million (ÅLR € 277 000 )

## Project Partners & Steering Group



LÄNSSTYRELSEN  
ÖSTERGÖTLAND



Stockholms  
universitet



KESKKONNAAMET

TURKU AMK  
TURKU UNIVERSITY OF  
APPLIED SCIENCES



Ympäristöministeriö  
Miljöministeriet  
Ministry of the Environment



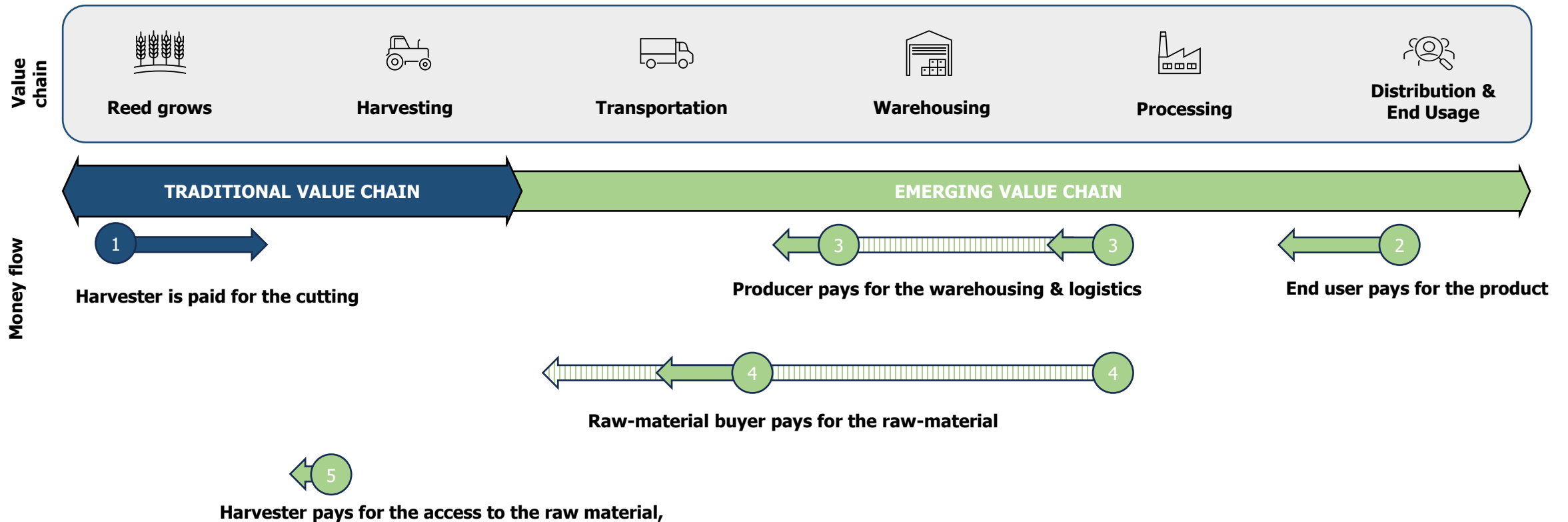
# Developing Value Chain

- Applications;
  - Roofs
  - Straws
  - Fodder
  - Disposables (mugs, plates, packaging etc)
  - Soil improvement
  - Biochar
  - Building material
  - Biofuel
  - Textiles
- Test, analyse and pilot
- Explore business models
- Network with stakeholders



# Value Chain

## Cost and money flow



# ”Bottlenecks”

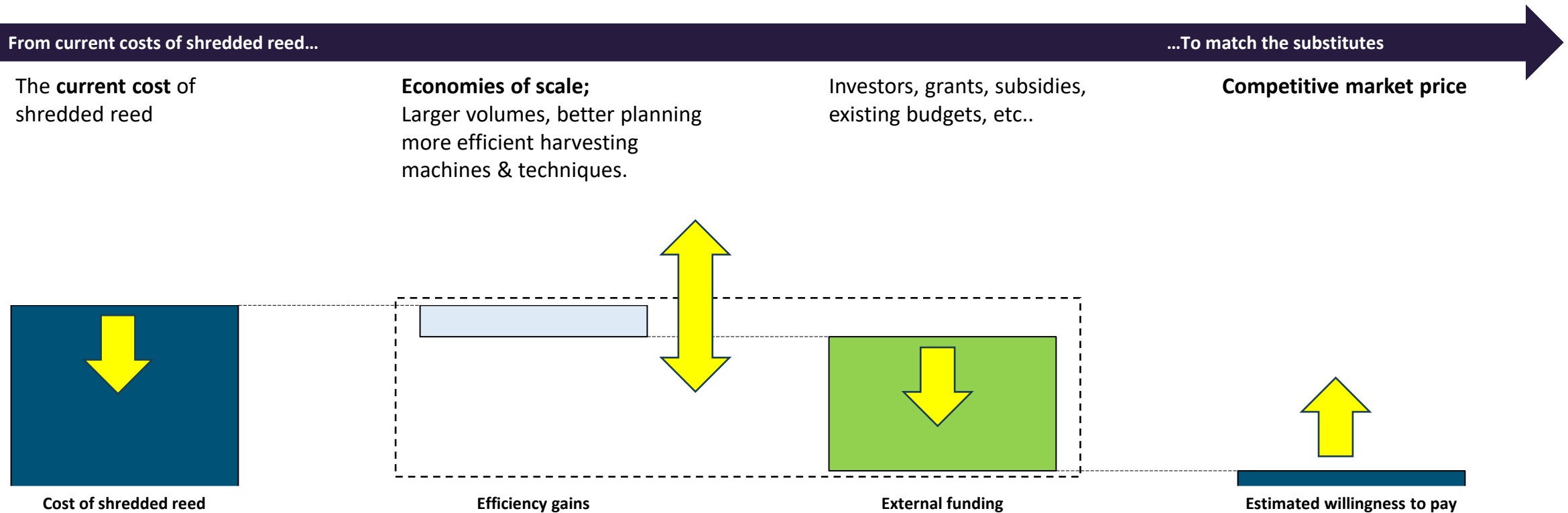
## Barriers

- Harvest
- Logistics
- Consistency (volume and quality)
- Willingness to pay
- Awareness



# External Funding – example

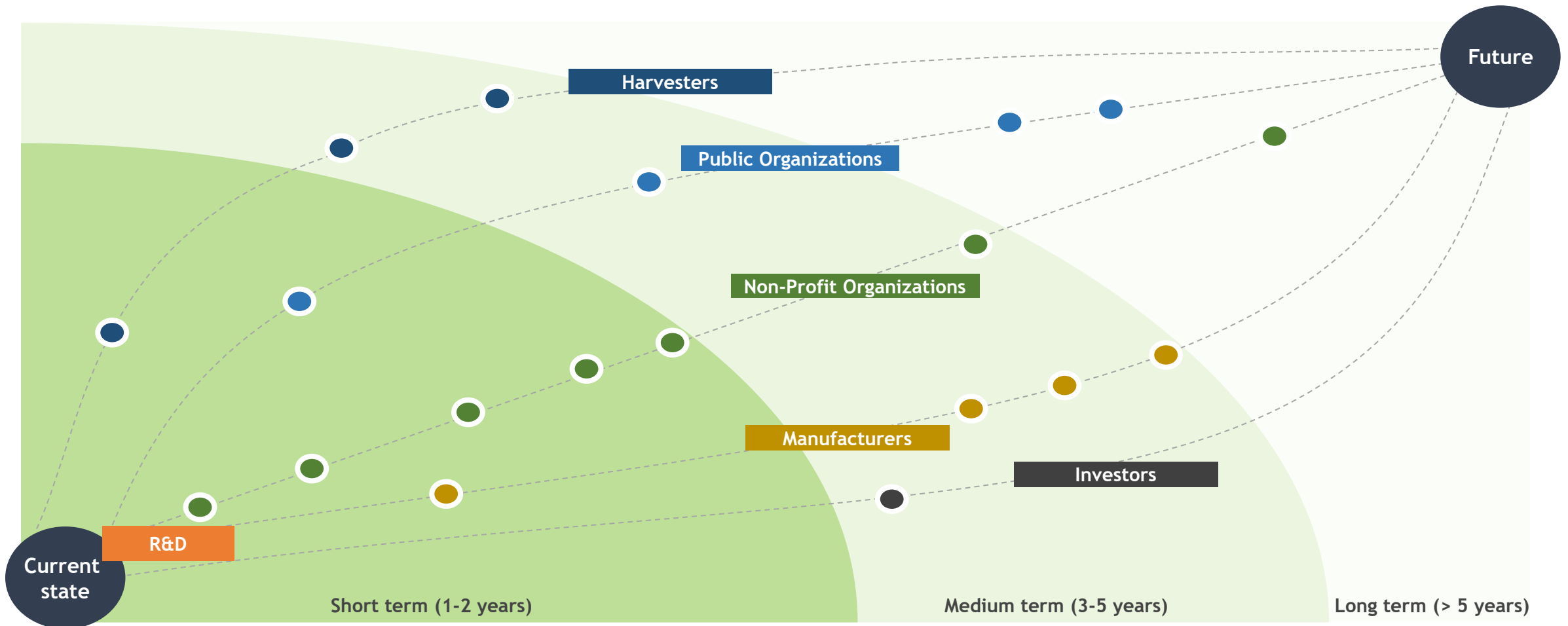
## Bridging the gap





# The Road Map

Including all stakeholders



# Reed Market Potential

## Examples



- Sweden + Finland ~ 4,8 million tons soil production / year
- 80% is peat
- **Reed** 5 % market share = 192 000 tons / year
  - ~ **25 600 hectares per year**
  - **154 tons P**
  - **17%**



- Sweden + Finland ~ 435 000 horses
- Equals 1 500 000 million tons / year
- **Reed** 5 % market share = 72 000 tons / year
  - ~ **9 600 hectares / year**
  - **86 tons P**
  - **10%**



- Century old craft and growing market
- “European countries as Germany, Netherlands, the UK, and Denmark have large areas of drained wetlands and import up to **85% of their reed**”\*

Sweden + Finland =  
**886 tons Phosphorus (P)**



**THANK YOU!**