



# PLASTIX - WHERE BLUE MEETS GREEN Contributing to a more blue and green circular economy

Hans Axel Kristensen, CEO

"Developing a circular economy of fishing nets and ropes (FNRs) in Norway"

Circular Ocean Conference, Ålesund, Norway, 1-2 September 2016





### **AGENDA**

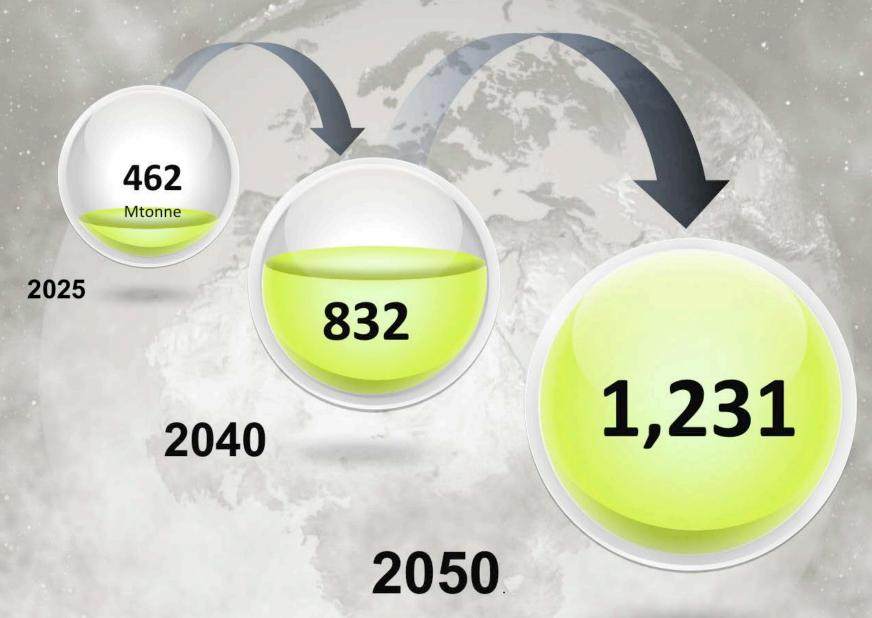
Why are we here?

Plastix at a glance

What challenges are ahead of us all?

**Summary** 

# Expected world plastics growth by 2050



Source: Ellen MacArthur Foundation

# Business as usual.... The future is here right now!!!



#### PLASTIX WHY ARE WE HERE

### **Carbon Countdown**

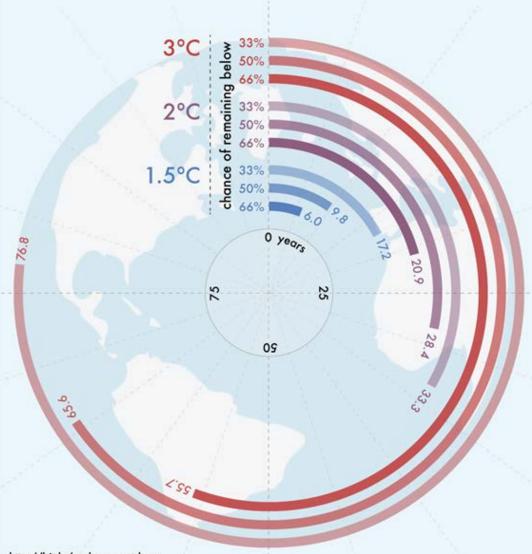
- It will take just six years of current emissions to exhaust a carbon budget that would give a good chance (°66%) of keeping global warming below 1.5°C, based on figures from the Intergovernmental Panel on Climate Change (IPCC).
- 21 years to remain below 2°C
- 3°C warmer in 2070

#### Source:

https://www.carbonbrief.org/six-years-worth-of-current-emissions-would-blow-the-carbon-budget-for-1-5-degrees

# Carbon Countdown

How many years of current emissions would use up the IPCC's carbon budgets for different levels of warming?



### **ECO INNOVATION PROJECT PARTNERS**





Plastix has been co-funded by the European Union within the CIP **Eco-Innovation** initiative of the Competitiveness and Innovation Framework Programme (CIP) through the **Retrawl** project, which formally ended 1 August 2016

Plastix GreenWavePlastics Uddeholm EFD Induction JJ Chicolino

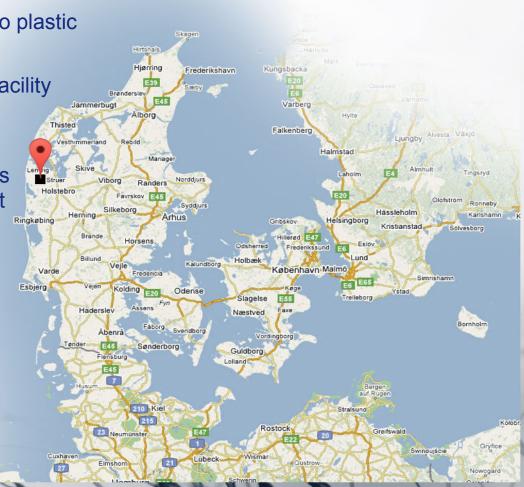




# Pioneer clean-tech company

- Plastix's Mission
  - We transform fishing nets and trawls into plastic raw materials
- Plastix is a registered waste treatment facility of non-hazardous waste
- Plastix has all necessary environmental permits for operating a recycling plant as well as recycling plastic production plant
- Plastix employs 30 employees
- Planned capacity: 25.000 t/y
- Plastix's Vision

We provide sustainable solutions to the maritime industry for cleaner environments and oceans





# Plastix works with four strategic focus areas based on four core capabilities

#### **Strategic focus areas**

**Expand leadership in** recycling of used fishing net

Establish leadership in recycling of aqua farming nets

**Establish leadership in recycling of Ghost nets** 

**Expand Plastix's technologies globally** 

### **Core capabilities**

Engineering, co-creating, and developing technology solutions and processes

Efficient large scale production

Planning
and
executing
optimization
processes,
new sorting
and cleaning
solutions
and delivering
high quality
plastic, raw
materials

Building and maintaining a leading position in emerging plastic recycling markets

# **The Plastix Way**



# **Setup, Processes & Effect**



# Reducing

- Landfilling
- Marine Pollution
- CO2 Emissions
- Loss of valuable resources



# **Co-Creative Partnerships**













#### HAPPY SEAL PARTNERSHIP PROJECT

MULTI STAKEHOLDER PREVENTIVE FISHING GEAR COLLECTION SCHEME





## **Incentives**

**Input Supplier Output Customer Certification Program Certification Program** CLEANER ENVIRONMENTS
CLEANER OCEANS

CLEANER OCEANS

CLEANER OF DISCARDED FISHING PARTIES OF DISCARDED **PLASTIX** CLEANER ENVIRONMENTS
CLEANER OCEANS

RELIGIATES USER OF DISCARDED FISHING METALITY OF DISCARDED

**PLASTIX - WHERE BLUE MEETS GREEN** 



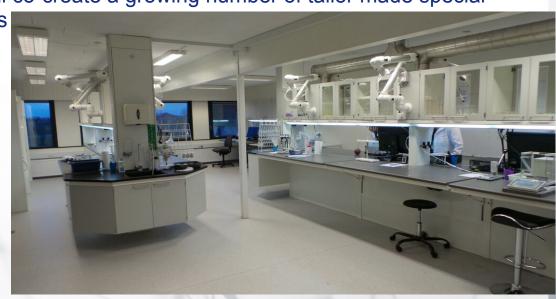
# Plastix documents and quality assures all process steps!

Plastix's Lab is equipped with all required instruments for delivering Technical Data Sheets.

 Test of each production batch on a number of mechanical properties: tensile strength, elongation to break, assess compliance with company data sheets

- Next to standard grades, Plastix will co-create a growing number of tailor made special grades with several of its customers

- Identification: FTIR, DSC
- Mechanical properties: tensile strength, elongation to break
- Rheological properties: MFI
- Grain size
- Technical Data Sheets
- REACH compliance



#### WHAT CHALLENGES ARE AHEAD OF US ALL?



# What is recycling? (Definition in the Waste Framework Directive 2008/98/EC)

**Recycling** means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes.

It includes the reprocessing of organic material but does **not include** energy recovery and the reprocessing into material that are to be used as fuels or for backfilling operations.

#### Hence:

Collection, logistics, sorting and "recovery" is clearly not recycling





Waste Prevention-incl. re-use

**Product** 

Preparing for re-use

Waste

**RECYCLING** 

**Disposal** 

Is the future of plastic energy recovery? Statistics, RDF and recycling

Design for recycling

Tools to move up the

waste hierarchy

- Design for recycling
- Extended producer responsibility
- Separate waste collection
- Recycling targets

http://www.fccenvironment.co.uk/fcc-environment-challenges-helmut-mauers-view-on-plastics-recycling.html

Source: Prof. Dr. jur. Helmut Maurer

#### **SUMMARY**



# To meet the EU 2030 targets for a Circular Economy

- → Stop Landfilling (Too much plastic ends in landfills)
- → Operational Tool No. "1" = Separate Collection
- → PAYT Schemes (Pay As You Throw) proven to give highest yield = Boost to sorting technology (Flat rate charge the worst / DK, SE & NO = Fixed Fee + PAYT)
- → Do Not give incineration of recycables any chance
- Design for Recycling
- Extended Producer Responsibility (Deposit and/or return systems)
- → Enforce Recycling Targets (Ambitious goals, regulations, separate collection, deposit and return systems)

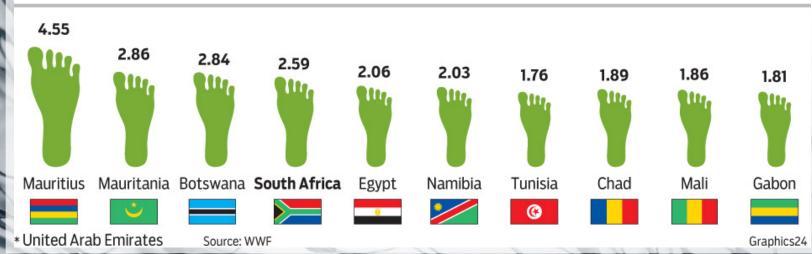
#### **LCAs & CARBON FOOTPRINTS**



### Top 10 countries with the biggest ecological footprint per person



# Top 10 African countries with the biggest ecological footprint per person







# THANK YOU FOR YOUR ATTENTION!

### PLASTIX FILM

shown 8 June at UNEP Conference in New York on The Global Ghost Gear Initiative
- Protecting Oceans and Marine Animals

Link to film:

https://youtu.be/Gw0\_\_9orQsQ? list=PLTPavHdpLFTnvQtSdhBxjNsdUTmxbu8Es

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# **QUESTIONS**



