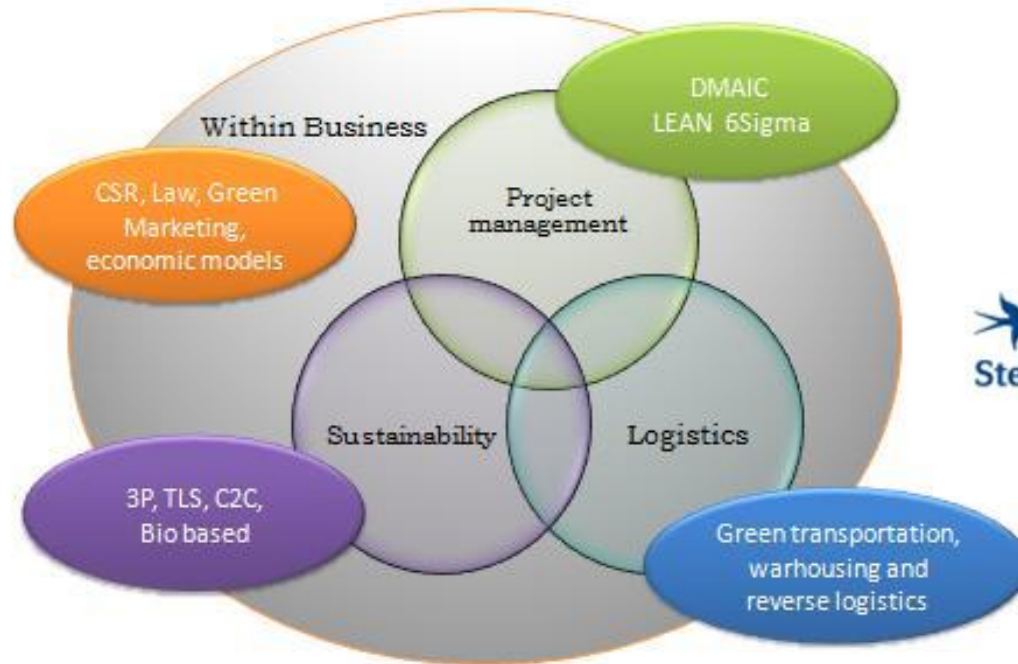




Stenden

Minor Green Logistics

Green Logistics – What and How?



How to manage Green Projects?



The **Coevorden** promise
Proudly made in-house

Different nationalities!

Execution of a real company assignment!



Stenden



H&P Moulding

Leslie Charmet

Edgars Smirnovs

Frank Peters

Rogier de Vries

H&P Moulding Emmen B.V.



H&P Moulding is a full-service, turn-key producer of injection molded plastic parts.



The reason to engage in the project.



The research goal

The goal of the research is to decrease the carbon footprint of H&P Moulding Emmen B.V.



Carbon footprint

The total greenhouse gas emissions caused by an organization, event, product or person.

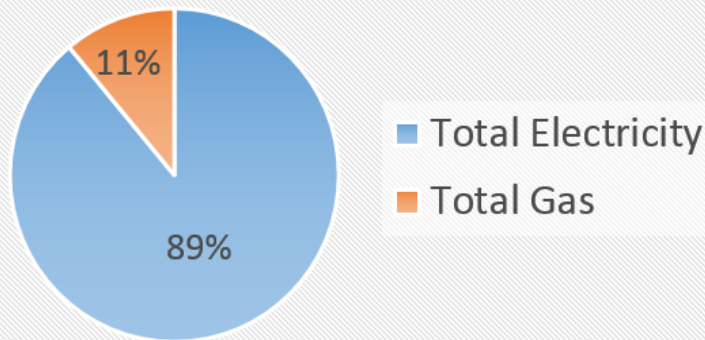
Objectives:

- to determine the carbon footprint
- to structurize it
- to find the means how to decrease it

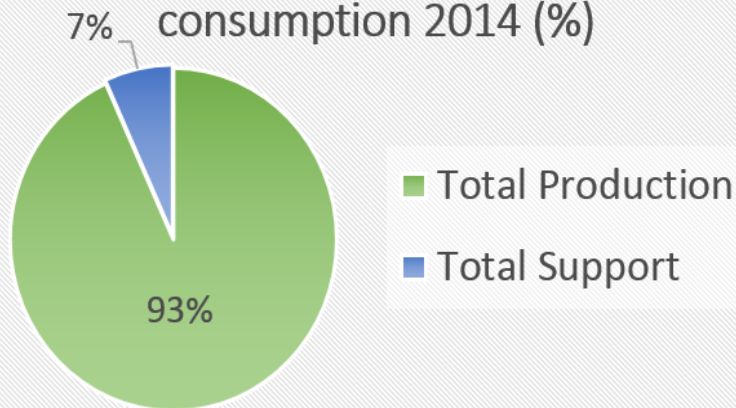


Data analysis

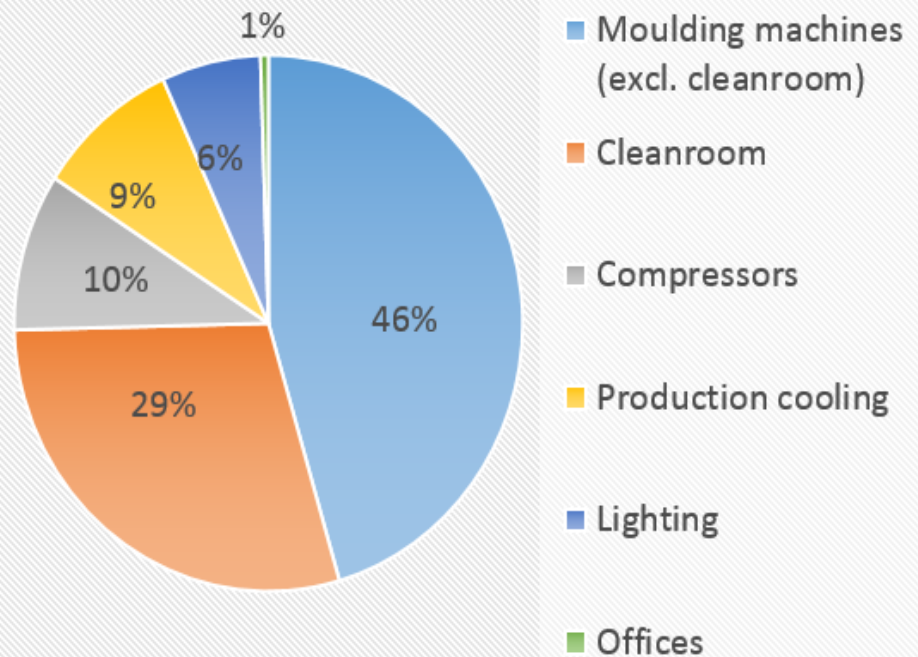
Share in carbon footprint (%)



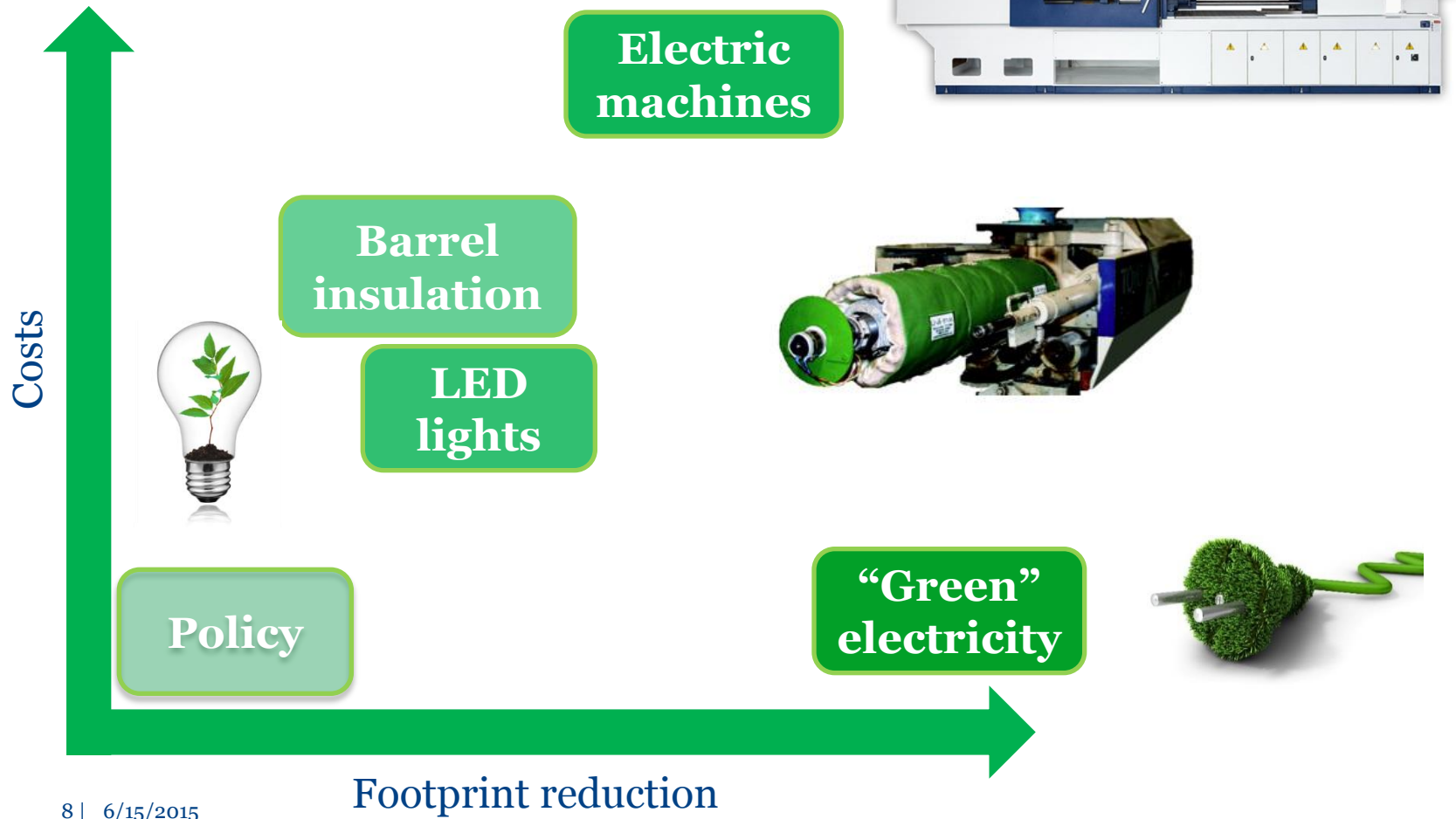
Division of electricity consumption 2014 (%)



Carbon footprint derived from electricity consumption 2014 (%)



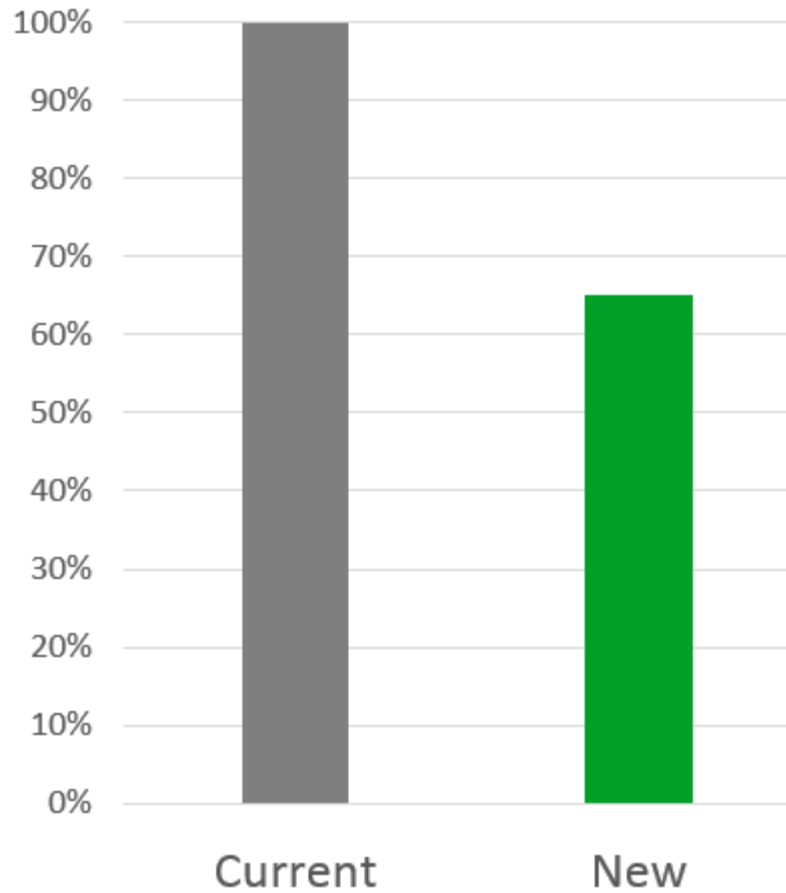
Improvements



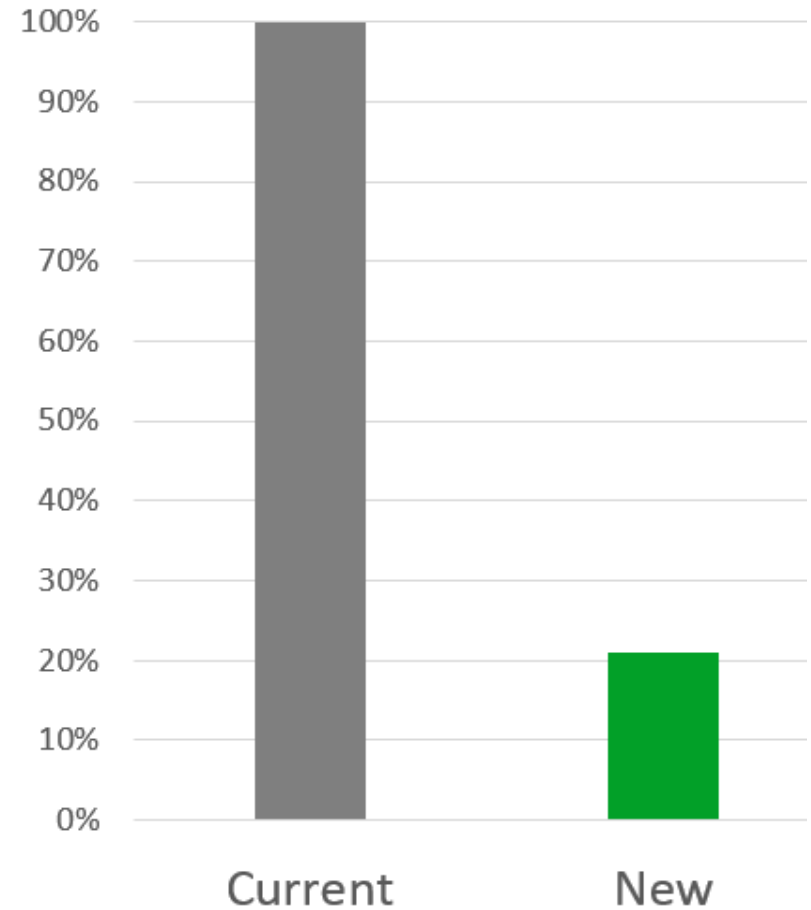
Benefits



Energy consumption



Carbon footprint





Stenden



HOORNSTRA
INFRA BOUW

Hoornstra B.V.

Gaétan Chaloin

Mike Hut

Harmans Dening

Victoria Tumena

Jeroen Haan

Company introduction

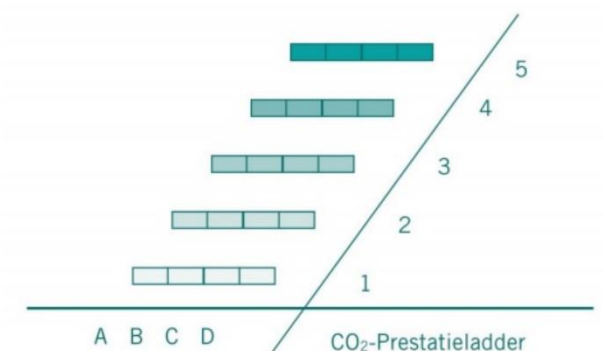
- › Hoornstra B.V.
- › Nieuw Buinen
- › Subsidiaries



Assignment introduction

- › The client
- › Hoornstra's choice
- › CO₂ performance ladder

CO ₂ awareness certificate level	Award advantage
5	...%
4	
3	
2	
1	
1	



Aspecten:

A = Inzicht	A = 40%
B = Reductie (ambitie) van CO ₂ -emissies	B = 30%
C = Transparantie (intern en extern)	C = 20%
D = Participatie in CO ₂ -initiatieven	D = 10%

Problem description

- › Footprint 2014, what is emitted
- › Dashboard, continual registration

Scope 1	omvang	eenheid	conversiefactor
Gasverbruik kantoren	0	m ³	1.825
Gasverbruik Propaan	0	liters	1.530
Brandstofverbruik leaseauto's (diesel)	0	liters	3.135
Brandstofverbruik bedrijfsmiddelen (diesel)	0	liters	3.135
Brandstofverbruik bedrijfsmiddelen (LPG)	0	liters	1.860
Brandstofverbruik bedrijfsmiddelen (benzine)	0	liters	2.780
Brandstofverbruik huur (diesel)	0	liters	3.135
Koudemiddelen	0	kg	n.v.t.

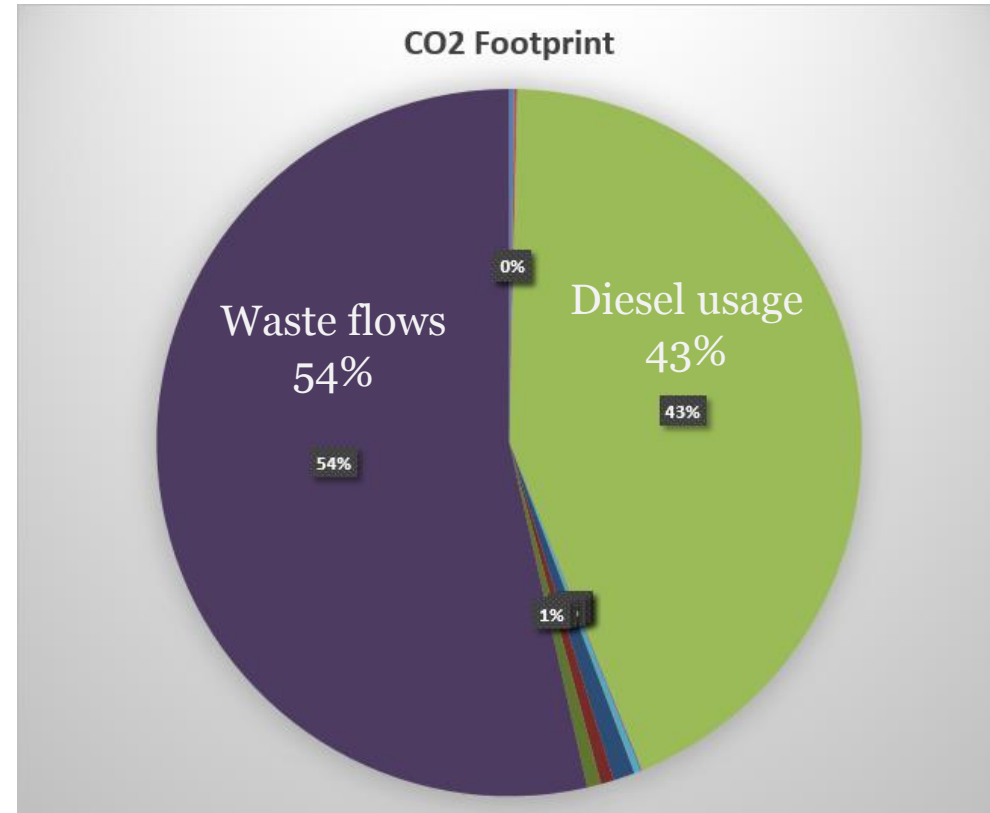
Huidige jaar:				
Scope 1	omvang	eenheid	conversiefactor	ton CO ₂
Gasverbruik kantoren	0	m ³	1.825	0
Gasverbruik Propaan	0	liters	1.530	0
Brandstofverbruik leaseauto's (diesel)	0	liters	3.135	0
Brandstofverbruik bedrijfsmiddelen (diesel)	0	liters	3.135	0
Brandstofverbruik bedrijfsmiddelen (LPG)	0	liters	1.860	0
Brandstofverbruik bedrijfsmiddelen (benzine)	0	liters	2.780	0
Brandstofverbruik huur (diesel)	0	liters	3.135	0
Koudemiddelen	0	kg	n.v.t.	0
Totaal scope 1				0
Scope 2	omvang	eenheid	conversiefactor	ton CO ₂
Elektraverbruik - grijs	0	kWh	455	0
Elektraverbruik - groen	0	kWh	80	0
Stadswarmte	0	GJ	20.000	0
Zakelijke km priveauto's (brandstof onbekend)	0	km's	215	0
Vlieguren < 700	0	km's	270	0
Vlieguren 700 - 2500	0	km's	200	0
Vlieguren > 2500	0	km's	135	0
Totaal scope 2				0
Totaal scope 1 en 2				0
Scope 3	omvang	eenheid	conversiefactor	ton CO ₂
Treinkilometers	0	km's	65	0
Waterverbruik	0	liter	0	0
Woon-Werk kilometers (brandstof onbekend)	0	km's	215	0
Transport kilometers derden	0	km's	215	0
Afval [zie afval inventaris voor specificatie]	0	kg	Zie afvalinventaris	0
Totaal scope 3				0
Totaal scope 1, 2 en 3				0

Focal Question

“What possibilities are there to analyze the carbon footprint of Hoornstra and in the process create a dashboard?”

Research results

- › Footprint 2014
- › Dashboard, not possible
- › Alternative



Benefits to company

- › Easy to use
- › Easy to reproduce
- › It conforms to the CO₂ performance ladder
- › Competitive advantage



Stenden



The **Coevorden** promise
Proudly made in-house

Iams Europe B.V.

Arjan Meems

Povilas Tamasauskas

Maxime Saquet

Sander Zijlstra

Dennis Schuten

Company introduction

- › Iams Europe BV
 - › Producer of dry animal food
 - › Approximately 210 employees



The **Coevorden** promise
Proudly made in-house

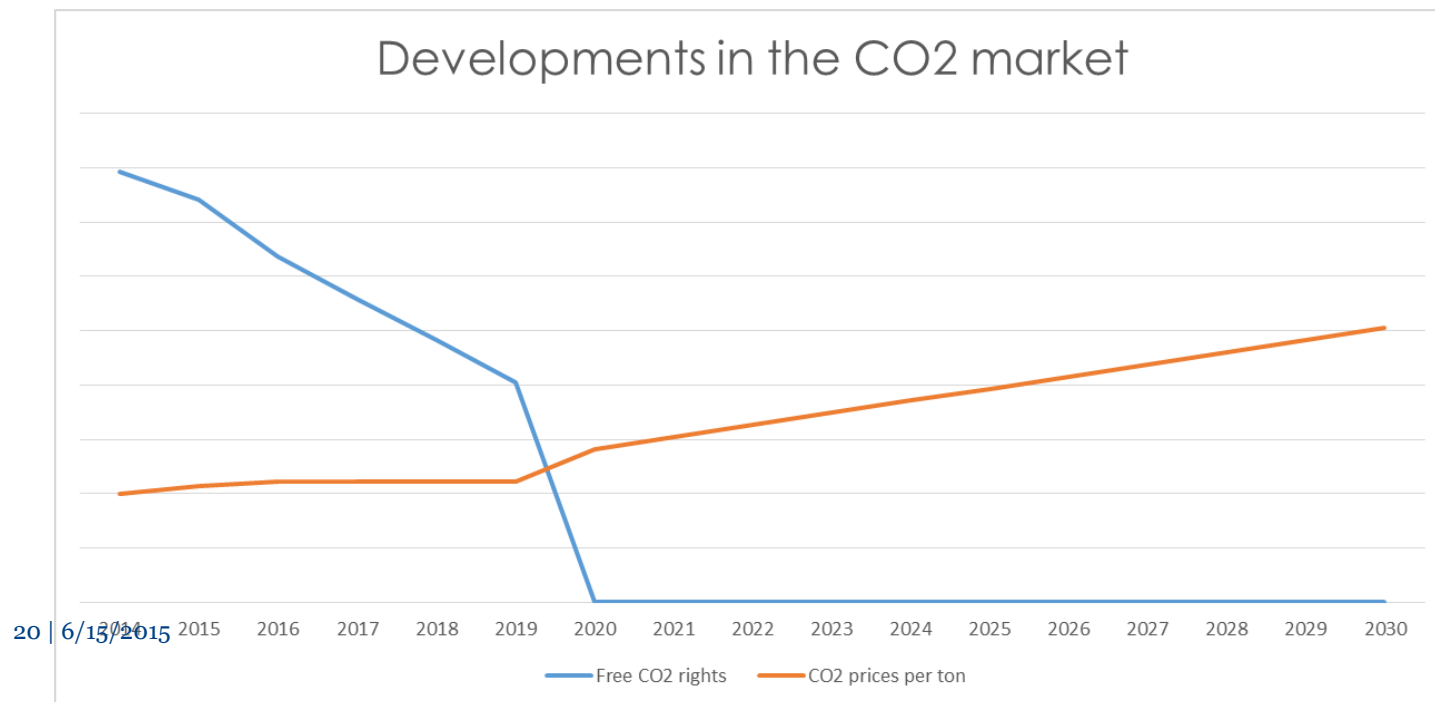
Assignment introduction

- › Production of green gas and demineralized water
 - › Big opportunity
 - › Sustainability performance



Problem description

- › A lot of CO₂ emissions related to gas usage
 - › Decrease of Free CO₂-rights
 - › Increase of the prices of CO₂-emission rights



Focal Question

‘Is it feasible to use green gas and demineralized water in the Iams Europe BV production process from a fermentation installation?’

Sub questions

- Quality
- Volume
- Financial

Research results

- › Green gas with infrastructure
- › Green gas with certificates
 - › Excel Tool
- › Demineralized water
 - › NPV Tool

Thank you for your attention

If there are any questions, feel free to ask