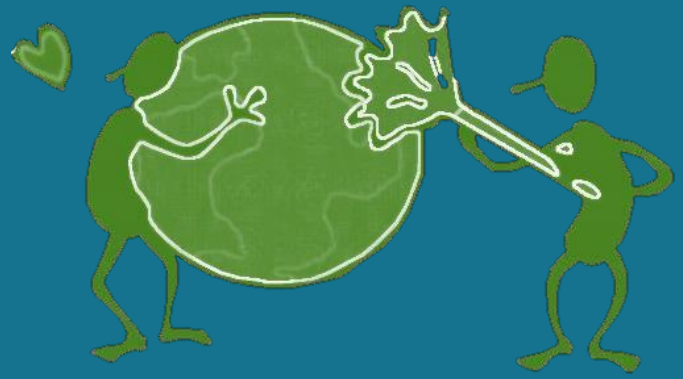
SynDi Center

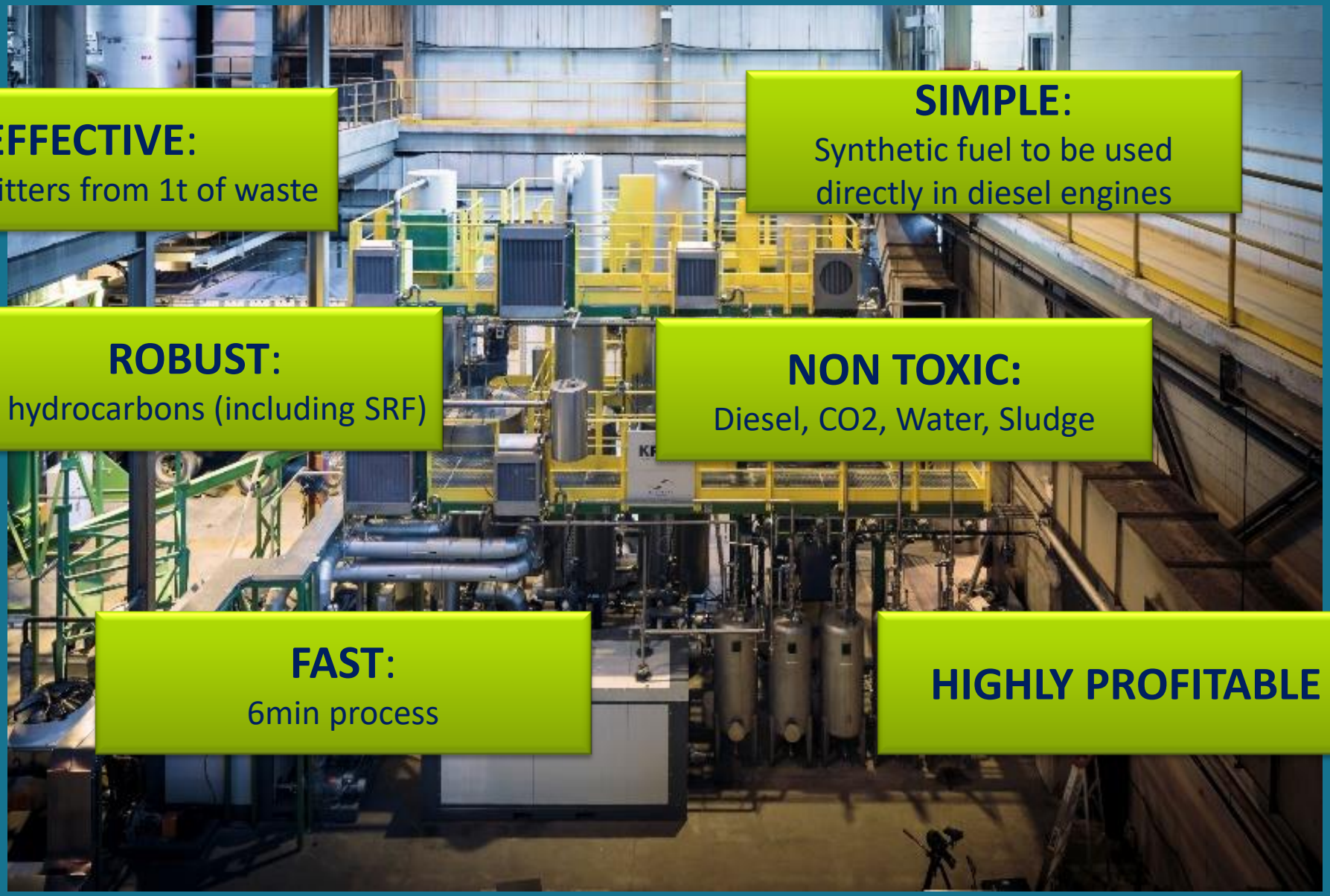
Demonstrating innovative Waste to Fuel Technology based on CDP



we can reduce the CO2 emissions from the fossil fuel consumption for more than 50% by

applying highly efficient green waste2fuel solution with substantial positive environmental and health impact

Innovative, proven and effective technology (TLR9)



EFFECTIVE:
250-700 litters from 1t of waste

SIMPLE:
Synthetic fuel to be used directly in diesel engines

ROBUST:
All hydrocarbons (including SRF)

NON TOXIC:
Diesel, CO2, Water, Sludge

FAST:
6min process

HIGHLY PROFITABLE

Vhodni materiali

- Vse vrste plastike
- SRF, RDF
- Odpadna olja
- Vse vrste biomase
- Premog
- Surova nafta
- …

Tehnologija – posebnosti

Pogoji
- Anorganski del — max. 5 %
- Velikost delcev — max. 1-3 mm diame
- Vsebnost vode — max. 15 %

Proces
- Nizka temperatura — 270-330ºC
- Podtlak — -0,1 bar
- Brez dioksinov & furanov

Produkt
- visokokakovostno sintetično dizelsko gorivo
- Cetansko število — ca. 56
- EN590 — ca. 90 %

Tehnologija – prednosti

Okolju prijazno
- Brez dioksinov & furanov

Izdatnost
- min. 80%

Različni vhodni materiali
- Biomasa, plastika, RDF, odpadna olja, premog, surova nafta

Diesel
- Visokokakovostno sintetično dizelsko gorivo

Stranski proizvodi:
- voda ca. 10-15 % => iz vlage materiala
- gošča ca. 5 % => iz deleža anorganskih snovi
- CO_2 ca. 25-55% => iz vhodnega materiala

Demonstrating to scale up globally

Reasons:

- **Most investors are very impressed but want to see the plant in operation**
- **All entities involved (waste managers, energy companies, complementary technologies) are being disrupted and they want to test a new value chain**
- **Various new potential business scenarios are foreseen but would need to be developed and tested (Kerosene, Plastic soup, Mobile unit,…)**

Market potentials

How much waste do YOU discard?

YOU

1.2 kg a day
in average

A fa

up to 5 kg a day

3.5 million SynDi Plants

Globally

up to 3 tons a family a year
varying between countries

Tomorrow?

2015 1,2kg p.c.
= 9 billion tons

2030 1,8kg p.c.
= 15.3 billion tons

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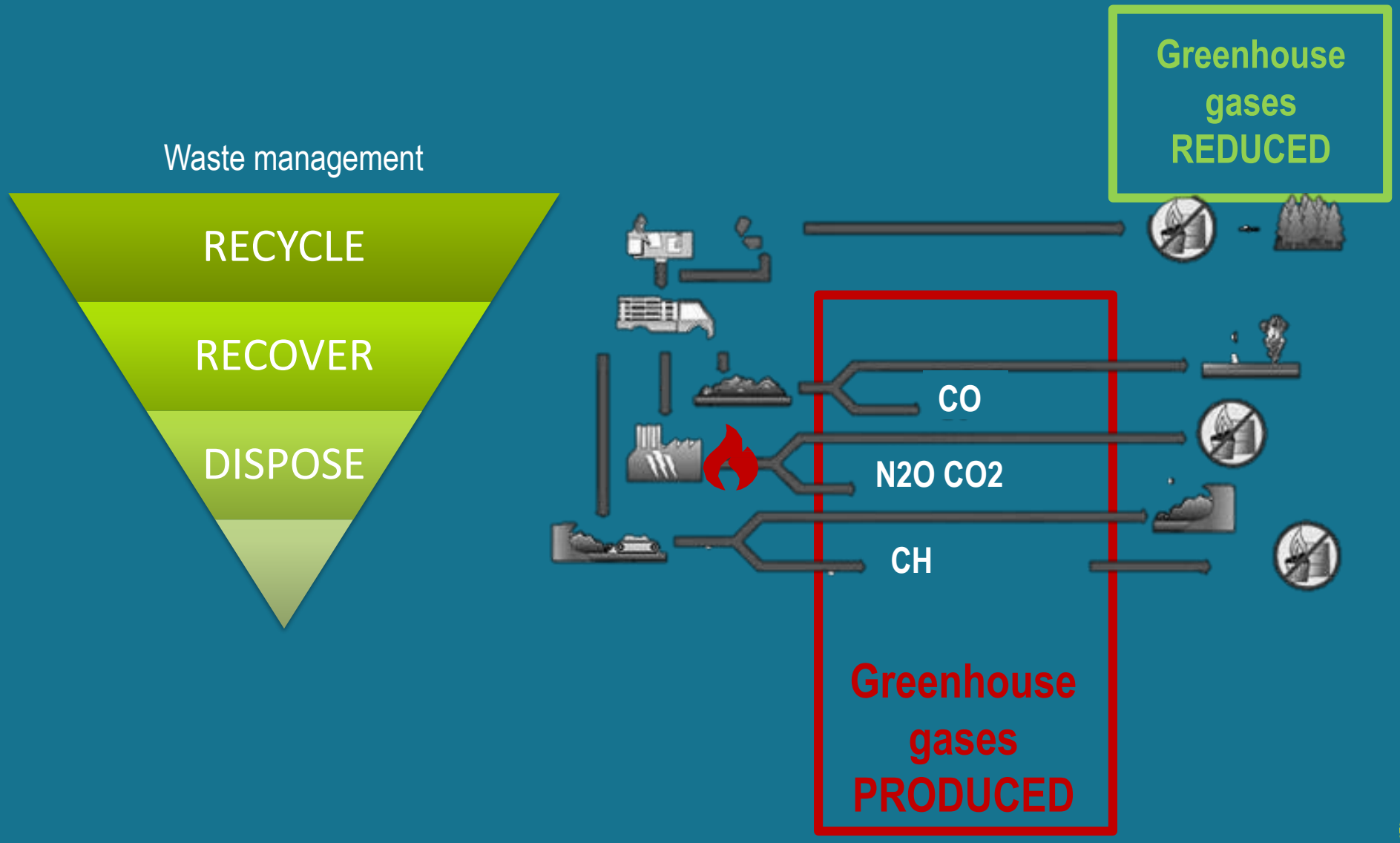
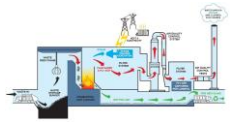
Competitive advantage

Even waste management of the today is adding to the problem, not reducing it.



Competitive advantage

Technology Comparison	 CDP technology	 Carbcoin	 KWATT	 Pyrolysis	 Ozonator	 BioDiesel
PRODUCT						
Type of product	Synthetic diesel	Gas - electricity	Gas - electricity	Pyrolytic oil	Decontaminated plastics	Bio-Diesel
Certified product	✓	✗	✗	✗	✓	✗
Product use	Transportation, electricity	Electricity	Electricity	Electricity, refinery	CDP process	Electricity, refinery
TECHNOLOGY SPECIFICATOIN						
Temperature	270-310ºC	>600ºC	Without reference	<500ºC	25-30ºC	25-30ºC
Process	Chemical process	Thermal chemical process	Thermal process	Thermal process	Chemical process	Mechanical process
Input material	All kind of organic materials	Solid and liquid waste	Solid waste	Plastics	Hospital waste	Food crops
Efficiency	min. 80%	40%	Without reference	35%	90%	50%
Under-pressure process	✓	✗	✗	✗	✓	✗
Commercial plant	✓	✗	✗	✗	✓	✗
Patented technology	✓	✗	✗	✗	✓	✗
Interfering with Food chain	NO	NO	NO	NO	NO	YES
Value chain (feedstock, technology, fuel takover)	✓	✗	✗	✗	✓	✗
LOI with technology owner	✓	✗	✗	✗	✓	✗
LOI with manufacturer	✓	✗	✗	✗	✓	✗
DIGITAL PLATFORM						
Upgrade with digital platform	✓	✗	✗	✗	✓	✗
Enabled trading	✓	✓	✓	✗	✓	✗
Enabled payment	✓	✗	✗	✗	✓	✗
TEAM						
Management team trained	YES	NO	NO	NO	YES	NO
Operational team trained	YES	NO	NO	NO	YES	NO
BY-PRODUCTS						
Solids	Water & sludge for disposal	Ash for disposal	Ash for disposal	Ash for disposal	No by-products	Sludge for disposal
Toxic gasses	NO	NO	YES	YES	NO	NO
ECONOMICS						
Profitability - IRR (10y)	>40%	NA	NA	NA	>35%	NA

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The Fuel Market

WELL-DEVELOPED

Wholesale and retail for the fossil fuels is the target market for the SynDi Fuel.

The same infrastructure & logistics will be used. SynDi Fuel can be perfectly blended with all types of diesel so users do not notice the difference.

EXPERIENCED CUSTOMERS

SynDi Fuel targets wholesalers, their logistic-supply networks and bigger customers.

PERMANENT DEMAND OVER SUPPLY

Lower price, low selling volumes, high quality and the environmental restrictions for the fossil fuels ensure steady and permanent excessive demand over the supply of the SynDi Fuel.

KEROSENE = HUGE POTENTIAL

Future exploitation of the SynDi technology to produce synthetic kerosene

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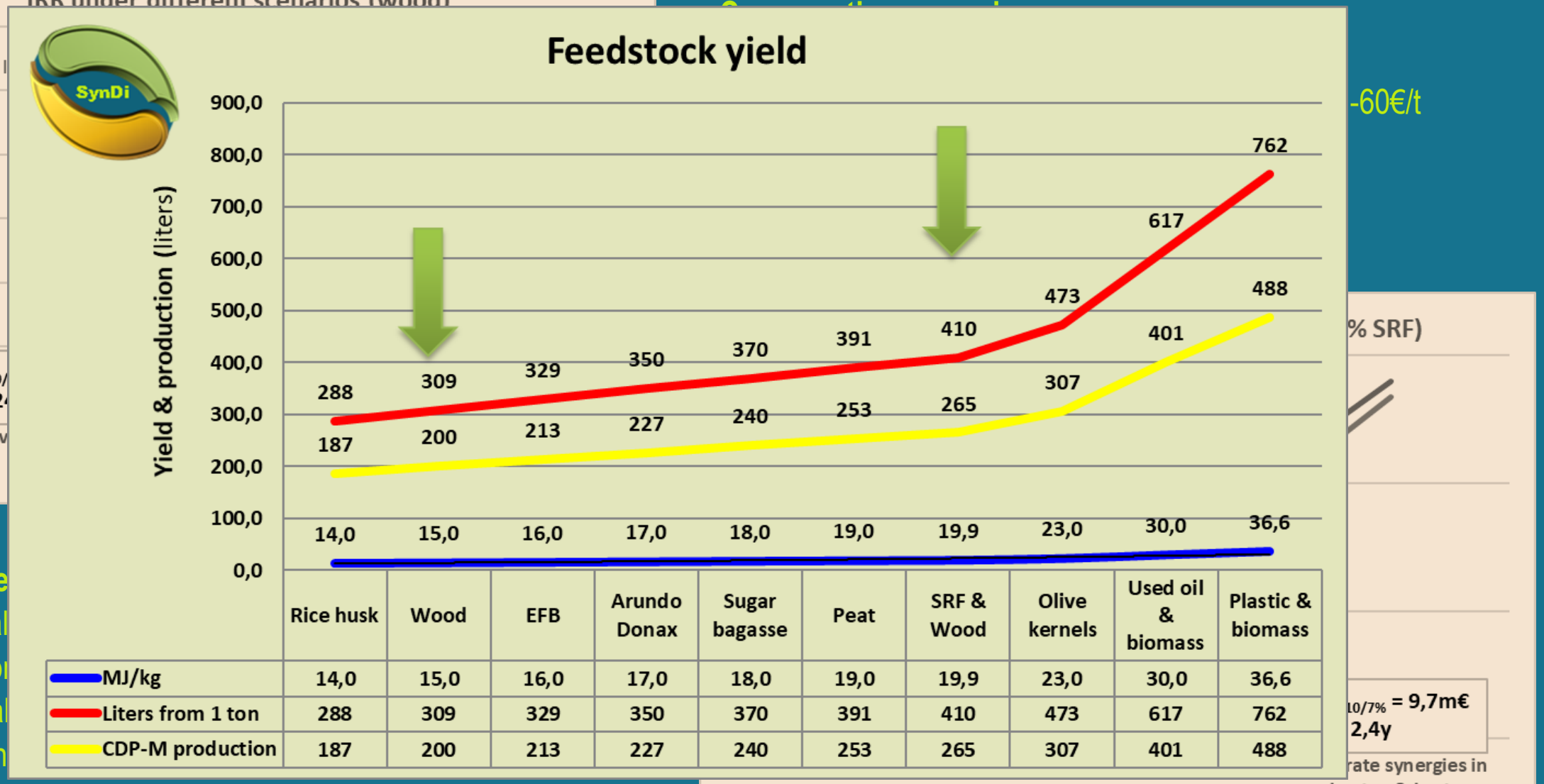
Scenario Analyses



	Rice husk	Wood	EFB	Arundo Donax	Sugar bagasse	Peat	SRF & Wood	Olive kernels	Used oil & biomass	Plastic & biomass
MJ/kg	14,0	15,0	16,0	17,0	18,0	19,0	19,9	23,0	30,0	36,6
Liters from 1 ton	288	309	329	350	370	391	410	473	617	762
CDP-M production	187	200	213	227	240	253	265	307	401	488

Contacts

Do you want to know more?

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