Bio4Fuels Days 2018: Scientific Meeting













Bio4Fuels Days

Norwegian Centre for Sustainable Bio-based Fuels and Energy $11-12^{th}$ October 2018

















- HES
- Overview of Program
 - Posters
- Introduction



Bio4Fuels Day 1 – 11th October (Open) FUELS



Start	Minutes	End	Theme	Speaker
0900	20	0920	Welcome	Duncan Akporiaye, Centre Leader
0920	20	0940	Biofuels in Norway	Audun Rosland, Director, the Norwegian Environmental Agency
0940	40	1020	The IEA's Bioenergy Roadmap	Adam Brown, IEA (Renewable Energy)
1020	40	1100	Biofuel Innovation and Technology Progress	Jaap Kiel, EERA Bioenergy
1100	20	1120	Coffee break /Poster Session	
1120	30	1150	Biofuels, climate change mitigation and sustainability	Francesco Cherubini, NTNU / UNEP
1150	30	1220	Refining the future - Lignofuels	Niilo Oikarinen, Neste
1220	35	1255	Sustainability in Elkem	Alf Tore Haug, ELKEM
1255	20	1315	Effects of the biofuel research in Norway	Odd Jarle Skjelhaugen
1315	60	1415	Lunch	
1415	255	1830	Visit to EGE Waste-to-Energy Agency's Biogass Plant	CINCIE FOR ENVIRONME
1900			Dinner at Quality Airport Hotel Gardermoen	CON ECH II of N



Bio4Fuels Day 2 – 12th October (internal)

Start	Minutes	End	Theme	Speaker (responsible)
0830	30	0900	Introduction by Silva Green Fuels	Ingo Machenbach
0900	150	1130	Scientific Presentations - the Bio4Fuels Value Chains. Please see details below.	(SP Leaders)
1000	30	1030	Coffee / Poster Session	
1130	20	1150	International Advisory Group – evaluation of Annual Report 2017, Work Plan 2019, scientific presentations and posters	Bio4Fuels' IAG
1150	60	1250	Lunch	
1250	130	1500	Bio4Fuels Cluster / SP Interactions – Work plans 2019	All / Lead by WP and SP leaders
1500	30	1530	Bio4Fuels General Assembly 2018 - orientation	Duncan Akporiaye

The remit for Bio4Fuels Centre



Oil & Gas

Transport



Norway's climate gas release (2015)





Industry

BIO4 FUELS Vision



Enabling sustainable biofuels production in Norway

Bio4Fuels aims to contribute to the reduction of emissions from the Norwegian transport sector through coordinated research efforts to establish the basis for sustainable routes to advanced biofuels.















Support of Stakeholders







































RAGN SELLS





Perstorp

WINNING FORMULAS

steeper **











NeoZeo AB



HYPERTHERMICS











Borregaard























Bio4Fuels – following up National Strategies





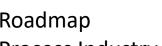
Meld. St. 27 Melding til Stortinget

Industrien - grønnere, smartere og mer nyskapende



Norwegian Industry White paper





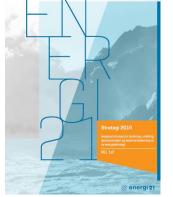
Roadmap National Strategy Process Industry For new Energy Technology

National Strategy for Forestry and Wood Industry

Norwegian Enterprise Norwegian Norwegian Energy Resources Climate Policy











leld. St. 26 (2012 – 2013) Report to the Storting (White Paper) Sumi

National Transport Plan

2014-2023

English version



St.meld. nr. 34

Norsk klimapolitikk

1. Urgency of implementing solutions



INTERGOVERNMENTAL PANEL ON Climate chance



an IPCC special report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty

Summary for Policymakers

This Summary for Policymakers was formally approved at the First Joint Session of Working Groups I, II and III of the IPCC and accepted by the 48th Session of the IPCC, Incheon, Republic of Korea, 6 October 2018.

SUBJECT TO COPY EDIT





8th October IPCC special report

....Limiting global warming to 1.5°C would require "rapid and far-reaching" transitions in land, energy, industry, buildings, transport and cities....



2. Bioenergy has an important role





INTERGOVERNMENTAL PANEL ON Climate change

GLOBAL WARMING OF 1.5 °C

an IPCC special report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty

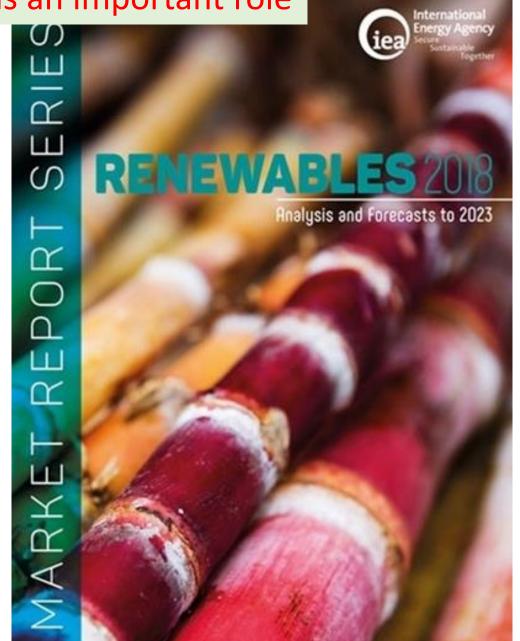
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8th October IEA Market report

The analysis this year contains an in-depth look at bioenergy, the world's largest source of renewable energy, highlighting the untapped potential of modern bioenergy and other renewable sources for greening the industry and transport sectors.....



3. Incentives and regulations to drive implementatioin





GLOBAL WARMING OF 1.5 °C

an IPCC special report on the impacts of global warming of 1.5 °C above pre-industrial levels and

related global grain the context of to the threat of development, ar

Summa

This Summary for Po First Joint Session of and accepted by the Republic of Korea, 6





Prop. 1 S

2018 - 2019

Proposisjon til Stortinget (forslag til stortingsvedtak)

FOR BUDSJETTÅRET 2019 Statsbudsjettet 8th October Norwegian National Budget 2019

Continued focus on the increase in the use of advanced biofuels giving positive climate effect......



BIO4 FUELS

Norwegian Centre for Sustainable Bio-based Fuels and Energy

Nordic Bio-resources

Technologies

- Biochemical
- Thermochemical
- Chemical

Stakeholders

- Resource owners
- R&D institutes
- Industry
- Authorities
- NGOs

Bio-resource, Environment, Climate

Primary Biomass Conversion

Secondary Conversion and upgrading

> Process design and End Use

SUSTAINABILITY

Markets

Aviation fuel • Heavy Diesel • Biogas • Valorised Side Streams



Just over 1.5 years of operation



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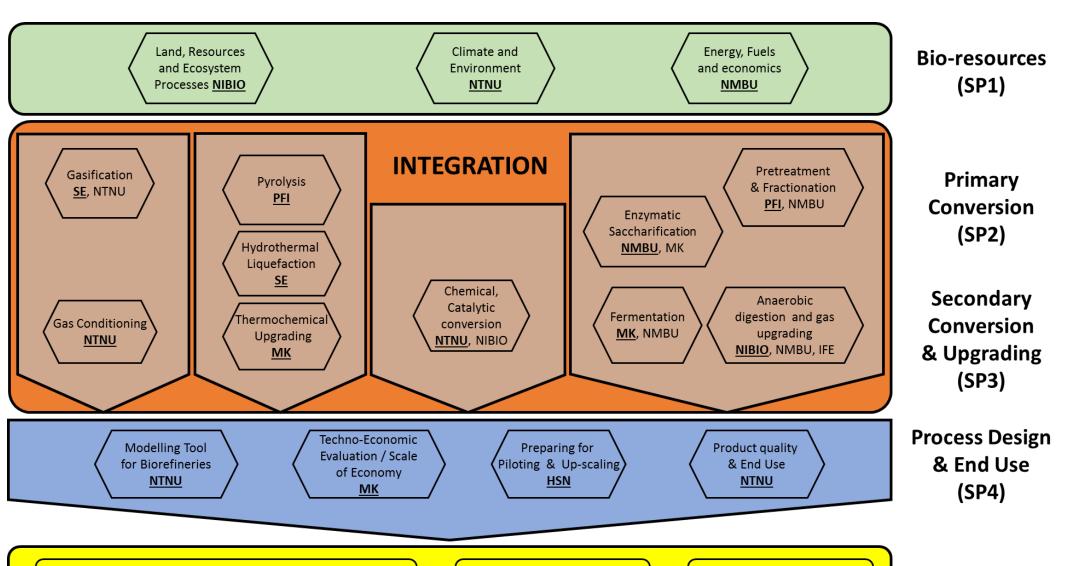






Research within 4 main value chains







Liquid Fuels
Diesel, Gasoline, Alcohol

Value Products
Feed, Aromatics, Monomers

Gaseous Fuels Hydrogen, Methane



Strengthening National and International Research Initiatives and collaboration

EUROPEAN INITIATIVES

NORDIC INITIATIVES

NATIONAL INITIATIVES

CENBIO - FME

BIO4FUELS - FME

NORBIOLAB I - Infrastructure

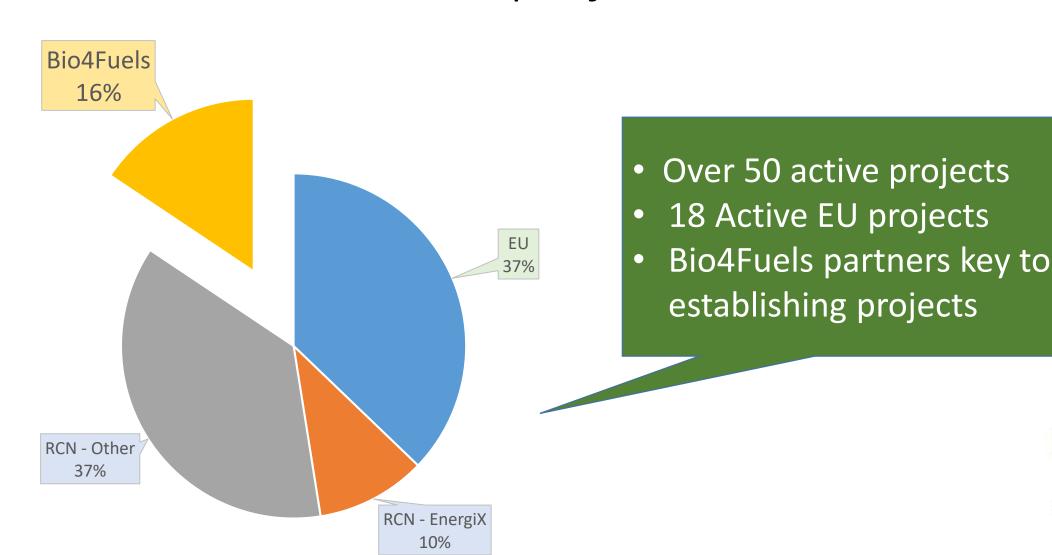
NORBIOLAB II



2015 > 2016 > 2017 > **2018** > 2019 > 2020 > 2021



Bio4Fuels - Associated projects







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