



# Biofuel policy in Norway

Bio4fuels, Gothenburg 5<sup>th</sup> November

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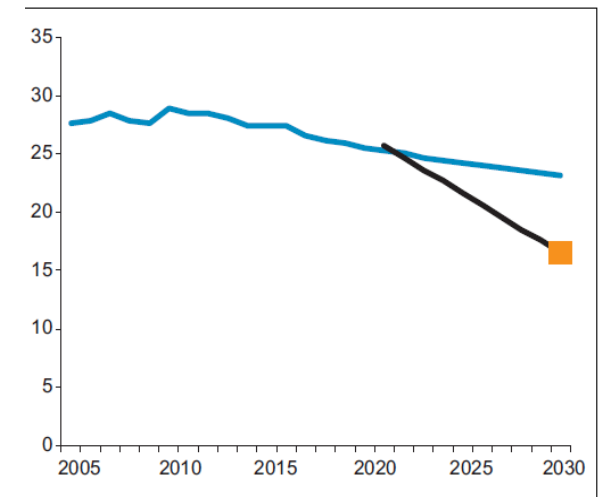
# Agenda

- The Norwegian emission targets in the transport sector
- The Norwegian biofuel regime
- Biofuels in shipping, 2020 and beyond



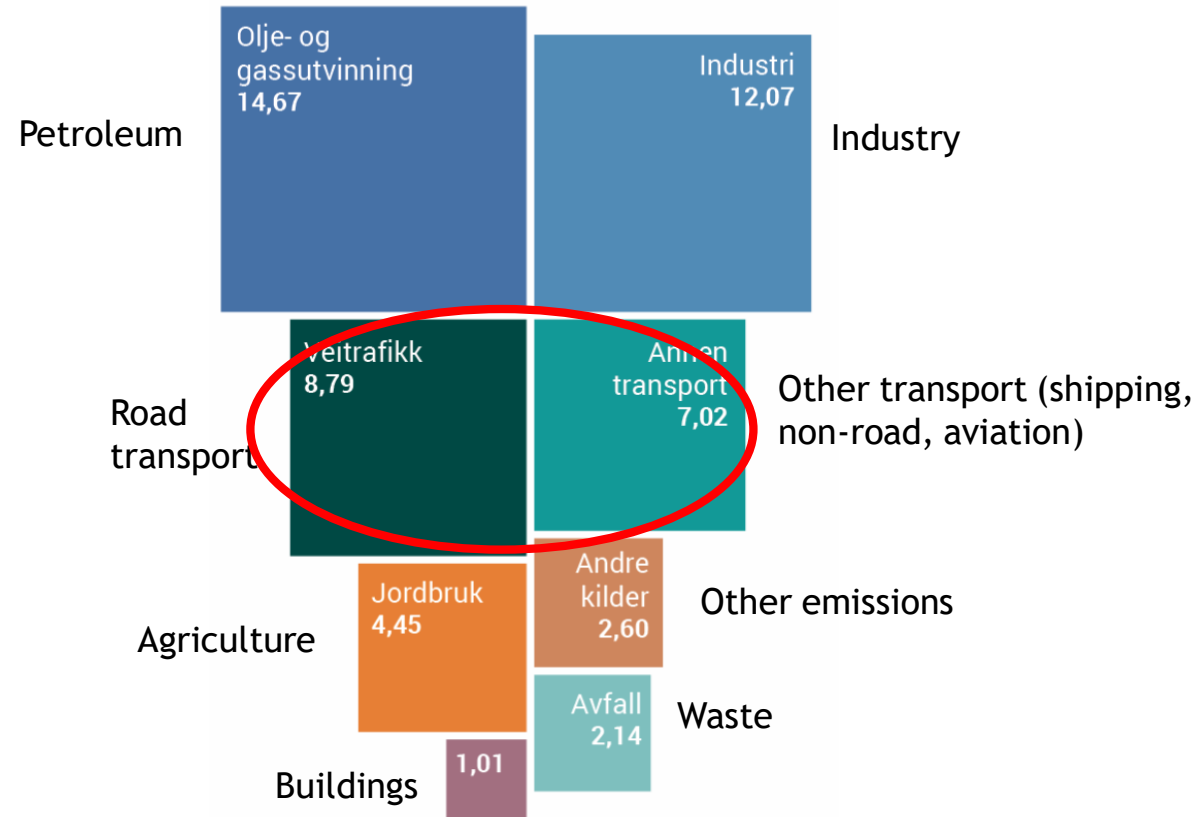
# Norway's emission targets for 2030

- Reduce emissions by at least 40 percent in 2030 compared to 1990 level in cooperation with the EU.
  - ETS sector: part of EUs cap - 43% reduction
  - Non-ETS: Norway preliminary target: 40%
  - Separate target for LULUCF
- The Government aims to reduce non-EU ETS emissions by 45 percent in 2030 compared to 2005.





# Norwegian Emissions 2017





# Policy measures biofuels

- Sales requirement for biofuel in road transport and aviation.
- Sustainability criteria.
- Exemption from CO2-tax.
- Exemption from road usage tax outside the sales requirement.
- Public procurements
- Enova-support



Foto: iStock



# Sales requirement in road transport

- 12 % since January 2019
  - Min. 2,25 % advanced biofuels
  - Min. 4 % bio in petrol

**Advanced biofuel = waste, residue and other feedstock specified on Annex IX in the EU ILUC-directive.**



Part A. Feedstocks for the production of biogas for transport and advanced biofuels, the contribution of which towards the minimum shares referred to in the first and fourth subparagraphs of Article 25(1) may be considered to be twice their energy content:

- (a) Algae if cultivated on land in ponds or photobioreactors;
- (b) Biomass fraction of mixed municipal waste, but not separated household waste subject to recycling targets under point (a) of Article 11(2) of Directive 2008/98/EC;
- (c) Biowaste as defined in point (4) of Article 3 of Directive 2008/98/EC from private households subject to separate collection as defined in point (11) of Article 3 of that Directive;
- (d) Biomass fraction of industrial waste not fit for use in the food or feed chain, including material from retail and wholesale and the agro-food and fish and aquaculture industry, and excluding feedstocks listed in part B of this Annex;
- (e) Straw;
- (f) Animal manure and sewage sludge;
- (g) Palm oil mill effluent and empty palm fruit bunches;
- (h) Tall oil pitch;
- (i) Crude glycerine;
- (j) Bagasse;
- (k) Grape marcs and wine lees;
- (l) Nut shells;
- (m) Husks;
- (n) Cobs cleaned of kernels of corn;
- (o) Biomass fraction of wastes and residues from forestry and forest-based industries, namely, bark, branches, pre-commercial thinnings, leaves, needles, tree tops, saw dust, cutter shavings, black liquor, brown liquor, fibre sludge, lignin and tall oil;
- (p) Other non-food cellulosic material;
- (q) Other ligno-cellulosic material except saw logs and veneer logs.

Part B. Feedstocks for the production of biofuels and biogas for transport, the contribution of which towards the minimum share established in the first subparagraph of Article 25(1) shall be limited and may be considered to be twice their energy content:

- (a) Used cooking oil;
- (b) Animal fats classified as categories 1 and 2 in accordance with Regulation (EC) No 1069/2009.



# Two main aspects of sustainability criteria



Reduction of greenhouse gas emissions

- 50 %

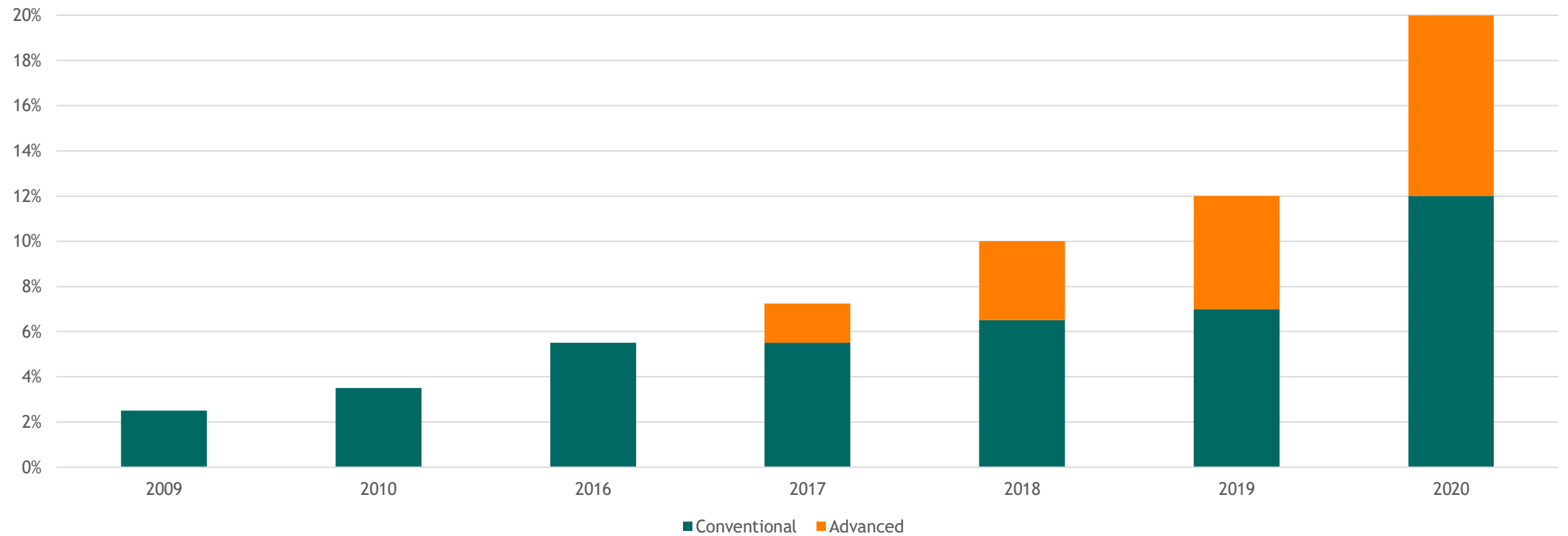


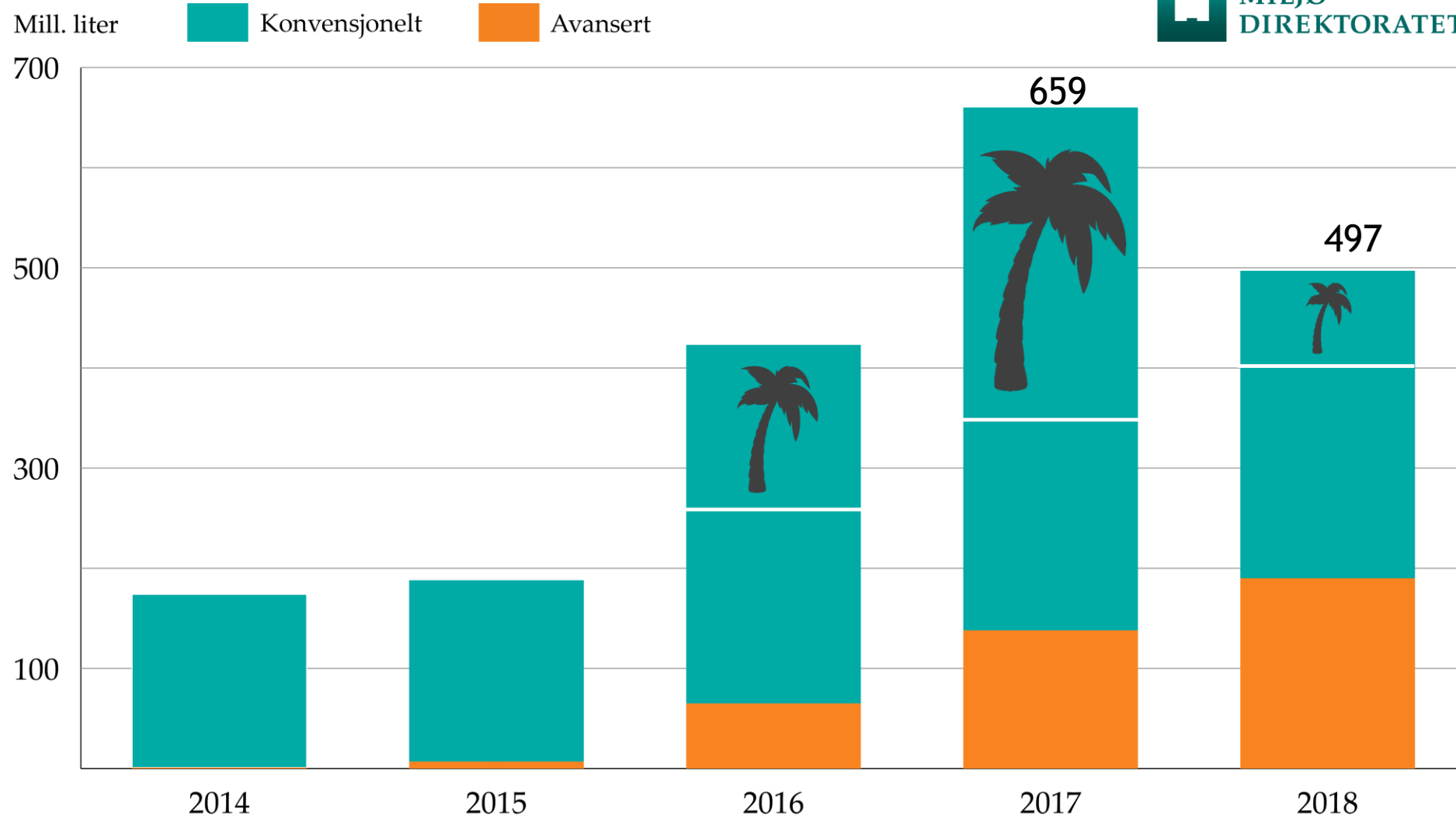
Raw material cannot be from areas with high bio diversity or high carbon stock





# Sales requirement







# Tax exemptions

1 EUR = 9,6 NOK

	Avg. Price 2018	Road usage tax	CO2 tax
Petrol	15,55	5,25	1,18
Auto diesel	14,86	3,81	1,35



# Biogas

- 400 GWh in the transport sector.
- Feedstock: sewage sludge, food waste, waste from fisheries, animal manure



# Sales requirement in aviation

- Enters into force 1. January 2020
- 0.5 % of the annual sales of aviation fuels in Norway must be Annex IX biofuels
  - Approx. 6 mill litres/4900 tonnes
- Applies to both domestic and international travels
- Flights carried out by military airplanes are exempted



Photo: pixabay.com



# Biofuel in shipping

- 2016: The Storting asks the government to propose a sales requirement for sustainable biofuel in shipping.
- 2018/2019: Technical reports and studies. Focus on biogas and advanced biofuels.

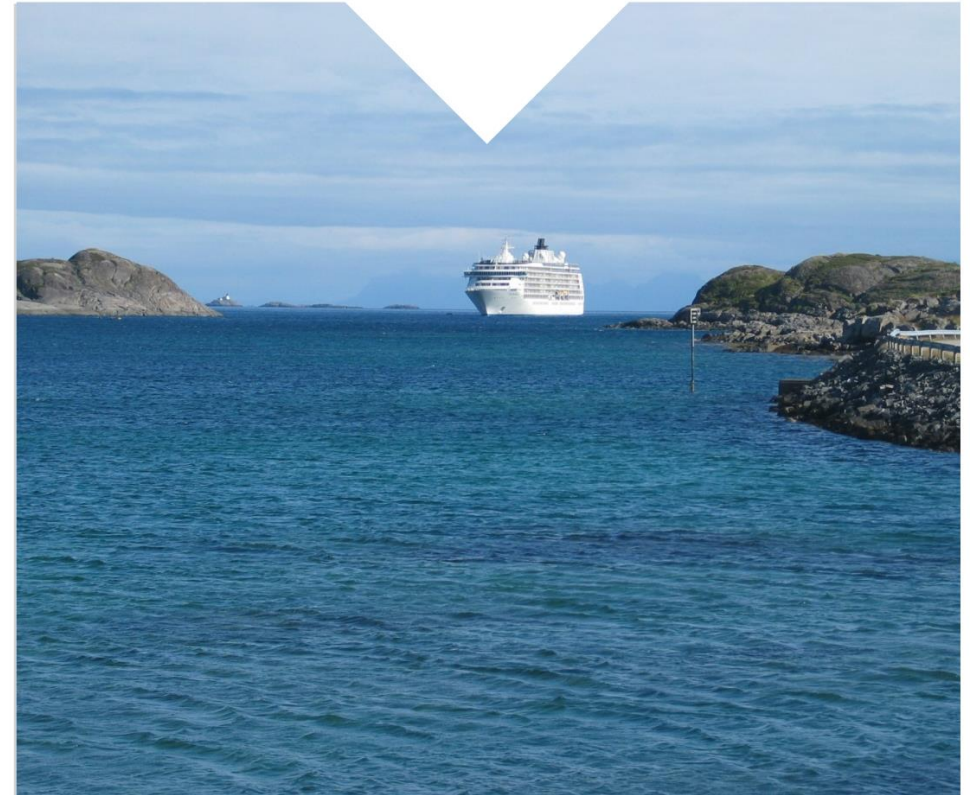


Photo: Tore Høyland



## 2020 and beyond

- Currently working on obligations for 2021-2022. 20 % and 0,5 % sales requirement continues until further notice.
- The government's ambition is still 40 % in road transport in 2030.
- Further assessment of biofuel in shipping, with focus on biogas and advanced biofuels.
- National budget proposal: Full road usage tax on biofuels from 2020.



# Thank you