December 2025

Advanced Motor Fuels News

Photo by Harrison Kugler on Unsplash

EnviTec Biogas and TT-Line concluded a contract on the supply of bio-LNG . It will be used to fuel the two world´s largest Ro-Pax ferries and helps to decrease emissions up to 100 % compared to marine diesel.

Read more…

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DEMONSTRATION / IMPLEMENTATION / MARKETS

Indonesia plans full rollout of B50 in the new year

Indonesia is taking a major step toward its renewable energy goals with the advancement of its ambitious B50 biodiesel mandate, positioning the country at the forefront of global biofuel innovation.

Following successful laboratory engine testing of a 50 % palm oil–based biodiesel blend, the nation is preparing for road trials ahead of a full rollout in 2026. Currently operating under a B40 programme, Indonesia aims to cut fossil fuel imports and boost domestic demand for palm-based biofuels.

Government officials have indicated that while early results are promising, further assessments on non-automotive diesel engines and infrastructure readiness are essential before final approval. If fully implemented, the B50 mandate would require around 20.1 million kilolitres of biofuel annually—an increase of nearly 30 % from current levels.

Source:

https://biofuels-news.com/news/indonesia-plans-full-rollout-of-b50-in-the-new-year/

CNG HPDI compression ignition engine development

Westport announced the development of a compressed natural gas (CNG) version of its HPDI fuel system, enabling diesel-like torque and fuel efficiency using natural gas in a compression ignition engine. The HPDI system was originally developed to use liquefied natural gas and has been commercially available since 2007. Westport plans to have customers demonstrate CNG HPDI trucks in a variety of applications in 2026.

Westport's compressed natural gas ("CNG") solution, when combined with the on-engine HPDI™ fuel system of Cespira, Westport's joint venture with the Volvo Group, is designed to enable fleet operators to achieve diesel-like performance at a lower total cost of ownership and reduce or even eliminate greenhouse gas emissions.

Source:

https://investors.westport.com/news/news-details/2025/Westport-Reveals-CNG-Solution-for-Natural-Gas-HPDIEngines-and-North-Americas-Clean-Transportation-Future/default.aspx

Stellantis investing in ethanol hybrids but ends fuel cell vehicle development

Stellantis is investing $6 billion from 2025 to 2030 into the South American market to build a generation of hybrid engines that can run on gasoline or ethanol. The company plans for a range of ethanol-fueled powertrains including an HEV, an HEV with an electric dual clutch, and a PHEV. In addition, the company announced that it will end its hydrogen fuel cell technology development program citing limited refueling infrastructure, high capital requirements, and the need for stronger incentives for consumers.

Source:

https://www.autoblog.com/news/stellantis-ends-hydrogen-push-retains-overlooked-engine-weapon

Par Pacific, Mitsubishi, and ENEOS to establish joint venture for renewable fuels in Hawaii

Par Pacific Holdings, Inc, Mitsubishi Corporation, and ENEOS Corporation announced the signing of definitive agreements to establish Hawaii Renewables, LLC, a joint venture to produce renewable fuels at Par Pacific's refinery in Kapolei Hawaii.

Hawaii Renewables will leverage Par Pacific's existing refining and logistics infrastructure and Lutros, LLC's new and advantaged pretreatment technology. Construction is currently underway, and the facility is expected to be completed and operational by the end of 2025. Once fully operational, Hawaii Renewables will be the state's largest renewable fuels manufacturing facility and is expected to produce approximately 61 million gallons per year of renewable diesel ("RD"), sustainable aviation fuel ("SAF"), renewable naphtha and low carbon liquified petroleum gases.

The facility is designed to produce up to 60% SAF as a first step toward decarbonizing Hawaii's significant air travel market, with flexibility to process diverse feedstocks and shift yields to RD based on market conditions. These renewable fuels will contribute to reducing greenhouse gas emissions while providing reliable transportation and utility fuels to Hawaii consumers.

Source:

https://www.mitsubishicorp.com/jp/en/news/release/2025/20250722001.html

Australian government announces $1.1 Billion Investment Package

In September, the Australian government announced to invest $1.1 Billion to accelerate the supply of low-carbon liquid fuels, to drive decarbonization across the nation´s key industries.

The ground-breaking investment will turbo-charge Australia's emerging low-carbon liquid fuels sector,

strengthen the nation's fuel security and help position Australia at the forefront of the global clean energy transition. Drawing on Australia's vast agricultural base, the investment positions low-carbon liquid fuels as a key pillar of the government's Net Zero strategy, enabling hard-to-abate sectors such as aviation, marine, manufacturing, transport, mining, and construction to reduce emissions without major disruption or high costs.

The investment follows the release of Bioenergy Australia's Securing our Fuel Future report, which warned that Australia's heavy reliance on imported fuel and shrinking domestic refining capacity left the nation increasingly exposed to global supply shocks and rising costs.

The report found that even with strong electrification, Australia will still need about 30 billion litres of liquid fuel by 2050, making low-carbon options such as Sustainable Aviation Fuel, Renewable Diesel, Biodiesel, Bio methanol, and Ethanol essential to cut emissions, maintain competitiveness and strengthen fuel security.

Source:

https://cdn.revolutionise.com.au/cups/bioenergy/files/2srytfft3ljevlrh.pdf

Shell abandons plans for Rotterdam biofuels project

Shell announced, it will not restart construction of a biofuel facility in the Netherlands, which was expected to become one of the largest in Europe, deeming the project no longer competitive as the global market for biofuels faces a prolonged slump.

"As we evaluated market dynamics and the cost of completion, it became clear that the project would be insufficiently competitive to meet our customers' need for affordable, low carbon products," Shell's Downstream, Renewables and Energy Solutions President Machteld de Haan said.

After starting the project in 2022, Shell took a $780M impairment when it temporarily paused on-site construction work at the Rotterdam facility because of a cost review; when construction was halted, the plant was expected to produce 820K metric tons of sustainable aviation fuel and renewable diesel from waste feedstocks.

Since Wael Sawan took over as CEO in 2023, Shell has been exiting low-carbon projects and underperforming units, including a U.S. wind project earlier this year that resulted in a nearly $1B writedown.

Source:

https://www.shell.com/news-and-insights/newsroom/news-and-media-releases/2025/shell-not-restart-construction-rotterdam-biofuels-plant.html

EnviTec Biogas and TT-Line sign bio-LNG supply agreement

Since the EU Regulation on the use of renewable and low-carbon fuels in maritime transport, also known as FuelEU Maritime, is in force, shipping companies such as TT-Line are required to comply with binding limits for the greenhouse gas intensity of the energy used on board. The regulation applies to all ships in the EU with a gross tonnage of more than 5,000 in commercial passenger or freight transport, regardless of the flag they fly.

EnviTec Biogas and TT-Line have concluded a contract on the supply with bio-LNG. The bio-LNG is used to fuel TT-Line´s both Ro-Pax ferries Nils Holgersson and Peter Pan which are the world´s largest ferries of their kind.

The bio-LNG produced by EnviTec Biogas reduces emissions by up to 100 % compared to marine diesel and thus provides shipping companies with a better starting point with regard to the targets for reducing greenhouse gas emissions under the FuelEU Maritime Regulation. EnviTec Biogas produces its bio-LNG from organic biomass waste such as slurry, dried poultry manure, food waste or agricultural residues.

Source:

https://www.envitec-biogas.com/news/envitec-biogas-and-tt-line-sign-bio-lng-supply-agreement#

POLICY / LEGISLATION / MANDATES / STANDARDS

Brazil and Mexico join MOU on zero-emission heavy-duty vehicles

Brazil and Mexico have joined the Global Memorandum of Understanding on Zero-Emission Medium- and Heavy-Duty Vehicles, with a goal of 100% zero-emission truck and bus sales by 2040 and an interim target of 30% by 2030. The Global MoU now has 42 signatory countries, representing about 25% of the world's truck population.

Source:

https://theevreport.com/brazil-mexico-join-global-zero-emission-truck-push#:~:text=Brazil%20and%20Mexico%20signed%20the%20Global%20MoU%20at,other%20nations%20representing%2025%25%20of%20global%20truck%20volumes.

Brazil, Italy, and Japan Sponsor Plan to increase sustainable fuels

During the COP30 Global Leaders` Summit, Brazil´s President Lula urged countries to support the Belém 4X Pledge on Sustainable Fuels. "Belém 4x" aims to provide political support and foster international cooperation to at least quadruple the use of sustainable fuels by 2035.

The Belém 4X Pledge on Sustainable Fuels was co-sponsored by Brazil, Italy, and Japan and endorsed by 16 more countries in advance of the Climate Leaders' Summit. Brazil indicated that they will use their 2026 COP Presidency to increase the number of countries supporting this initiative.

The Pledge is underpinned by IEA's recent Delivering Sustainable Fuels report, which outlines a pathway to achieve 4X sustainable fuels under existing policy frameworks. Sustainable fuels include hydrogen, hydrogen derivatives, biogas, biofuels, and synthetic fuels.

Source:

https://www.ieabioenergy.com/blog/publications/iea-sees-a-quadrupling-of-sustainable-biofuels-by-2050-in-new-report/

Download Report:

https://iea.blob.core.windows.net/assets/49afc3ce-527d-4637-bde5-005416afed24/DeliveringSustainableFuels.pdf

SPOTLIGHT AVIATION

100% SAF unit based on Axens' Vegan® technology now operational in Asia

Axens has successfully started up 100% Sustainable Aviation Fuel (SAF) unit at site in Asia. The facility has the capacity to entirely convert renewable feedstock into high value Sustainable Aviation Fuel.

This unit is a revamp of existing hydroprocessing assets in which a simple two-stages scheme has been implemented. Combined with innovative catalyst solution including Axens 700 series, this Vegan® unit allows full flexibility to produce either 100% Renewable Diesel (RD) or 100% SAF, permitting to answer the challenging market demand. Since its kick-off a few months ago, the unit has demonstrated to operate very stably with positive performance.

Vegan® process is thus able to prevent co-production of Renewable Diesel if not desired and focus on maximizing SAF. But what makes this solution unique is that 100% SAF mode is obtained without the need of additional hydrocracking stage.

This is a major milestone for Axens Group, partners and customers, contributing to ease the energy transition through more flexible, more efficient and less Capex intensive solutions.

Source:

https://www.axens.net/resources-events/news/axens-kicks-first-worldwide-full-saf-unit-asia

EU and ICAO mark milestone in sustainable aviation fuels project

During the 42nd International Civil Aviation Organization (ICAO) Assembly in September the completion of five EU funded studies under the ICAO's capacity building and training programme for sustainable aviation fuels (ACT-SAF) was announced.

The studies – a business implementation study for South Africa, and SAF feasibility studies for Ethiopia, Jordan, Chile and India – represent an important step in advancing the global uptake of sustainable aviation fuels (SAF).

This ACT-SAF project, with a total budget of €4 million financed by the EU, aims to help partner countries to reduce CO2 emissions from international aviation through SAF development. Implemented jointly by ICAO and the European Union Aviation Safety Agency (EASA), the initiative covers 15 States across Africa and Asia, supporting feasibility studies, business cases and capacity-building activities.

Source:

https://www.icao.int/ACT-SAF

Indonesia´s Pertamina launched initial flight using sustainable aviation fuel

As part of its commitment to supporting the national energy transition and achieving sustainable energy reliability, Indonesian Pertamina Group held the "Inaugural Special Flight Using Sustainable Aviation Fuel (SAF)" operated by Pelita Air, at Soekarno–Hatta International Airport, on 20 August 20 2025.

This special flight marked a tangible milestone in the development of a full-fledged SAF ecosystem built by Pertamina from upstream to downstream. The UCO SAF ecosystem is being developed by Pertamina in preparation for the SAF mandate scheduled for 2027. This ecosystem includes used cooking oil (UCO) collection and distribution managed by Pertamina Patra Niaga, UCO-to-SAF coprocessing by Pertamina International Refinery, SAF distribution to aviation by Pertamina Patra Niaga, and SAF-powered flights by Pelita Air.

The SAF used for this flight is derived from renewable raw materials, such as used cooking oil, and is processed using the "Merah-Putih" catalyst—developed by Indonesian scientists and manufactured by the national catalyst producer, PT Katalis Sinergi Indonesia (KSI).

Source:

https://itb.ac.id/news/pertamina-partners-with-itb-to-launch-inaugural-flight-using-sustainable-aviation-fuel-saf-ushering-in-a-new-era-of-clean-energy-in-indonesia/62741

African Development Bank and JGC Corporation agree to advance use of SAF

The African Development Bank and leading Japanese engineering company JGC Corporation have signed an agreement to explore cooperation in the development of sustainable aviation fuel (SAF) in Africa.

The Letter of Intent, signed on the sidelines of the Ninth Tokyo International Conference on African Development, establishes a framework for cooperation between the two institutions to jointly promote development, information and knowledge sharing, and to explore co-financing opportunities for sustainable aviation fuel and other green aviation solutions in Africa.

The production and adoption of SAF in Africa is consistent with the Bank's sustainable transport and mobility and energy transition strategy. The cooperation with JGC will include undertaking of demand and feasibility studies for production and adoption of Japanese technology to Africa in this regard.

Source:

https://www.afdb.org/en/news-and-events/press-releases/african-development-bank-and-jgc-corporation-sign-agreement-advance-use-sustainable-aviation-fuel-and-africas-green-aviation-agenda-87389

Singapore sets up company to purchase green jet fuel

The Civil Aviation Authority of Singapore (CAAS) announced that Singapore will purchase sustainable aviation fuel via a newly established company by the government as part of its effort to reduce costs and cut flight emissions.

Singapore has set the goal of increasing the percentage of green fuel used at Changi and Seletar Airports to 1% by 2026. The funding will come from a levy imposed on all cargo and passengers flying out of Singapore.

The goal is to increase the share of SAF from 1 % to in 2026 up to 3-5% in 2030, depending on global developments as well as the adoption and availability of the fuel.

Han Kok Juan, the director-general of Singapore's civil aviation authority, stated that SAFCo had already engaged multinational corporations, and received "tremendous" interest. He added that a large buyer in Singapore could secure economies scale.

According to the authority, additional green fuel levies ranging from S$3 up to S$16 may be applied on flights of economy class depending on distance.

Source:

https://www.worldenergynews.com/news/singapore-sets-company-purchase-green-jet-fuel-767214

First Alcohol-to-Jet Production Plant Opens

LanzaJet began operation of world's first commercial-scale plant to produce jet fuel using ethanol as a feedstock. The technology was developed in 2012 in partnership with Pacific Northwest National Laboratory, and the production pathway was approved by ASTM in 2016. The plant is designed to work with a range of feedstocks including agricultural residues, energy crops, municipal solid waste, and captured carbon. The $300 million facility located in Georgia will be able to produce 10 million gallons of fuel per year at full capacity.

Source:

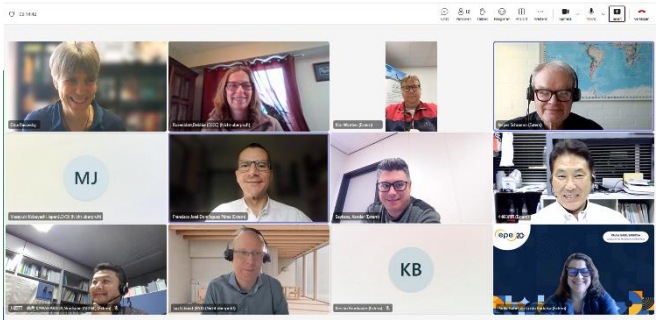
https://www.ainonline.com/aviation-news/aerospace/2025-11-18/lanzajet-starts-saf-production-georgia-plant

AMF NEWS

AMF ExCo Meeting

From 4-7 November, the 70th AMF ExCo meeting was conducted as a series of online meetings. 26 delegates and 13 guests participated in these meetings.

The meeting included progress reports on ongoing AMF projects, discussion of future work, administrative business, and country presentations. A new project on "Alternative Shipping Fuels" was approved; Brazil, Canada and India agreed to develop a project proposal on "Advanced Motor Fuel Solutions for Remote Areas"; and AMF members Spain and India as well as Observers Netherlands and Chile provided presentations on the status of advanced motor fuels in their countries.



New AMF project on Alternative Shipping Fuels

A proposal for working on alternative shipping fuels was approved during the ExCo meeting. The new Task will provide an updated view on shipping fuels with respect to their production, infrastructure requirements, engine compatibility, combustion and emission characteristics, market readiness and supply opportunities. It covers not only ocean-going vessels, but also smaller vessels, and will inform operators in inland and coastal areas. In addition, the Task strives to create a dynamic LCA framework to conduct LCA based on operational data.

Austria, Brazil, China, Denmark, Finland, Germany, Korea and USA participate in this Task. The Task Manager is not yet defined, but Petri Söderena serves as contact point.

Ongoing AMF Tasks

The full list of ongoing AMF projects includes:

- New Task: Alternative Shipping Fuels
- Task 68: End-use Aspects of Hydrogen Application in Transportation
- Task 67: Exhaust After-Treatment Systems (EATS)
- Task 66: Recent Progress in SAF Research
- Task 65: Powertrain options for non-road mobile machinery
- Task 28: Information Service and AMF Website

AMF Task 66 webinar series

The central activity of AMF Task 66 "Recent Progress in SAF Research" is a series of thematic online seminars about recent research work on sustainable aviation fuels.

Seminar 3 "**Monitoring of SAF R&D, demonstration projects and production deployment - Will the global market ramp-up succeed?"** was conducted online on 3rd December. The next two seminars will be held in 2026:

- Q1 2026: Status and developments of engine technology in aircrafts using SAF
- Q2 2026: Recommendations of new policy measures to further promote SAF production and utilization

Presentations and recordings of past seminars are available online, and feel free to contact the Task Manager Doris Matschegg if you want to receive updates on future seminars. AMF Task 66 website: *https://iea-amf.org/content/projects/map_projects/66*

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If you are interested in AMF work, follow us on linkedin *(https://www.linkedin.com/company/amf-tcp/)*, participate in our online seminars, or ask your government to join AMF and enjoy the benefits of information exchange and collaboration opportunities with high-level experts from around the globe!

PUBLICATIONS

Report on the AZEC International Conference to Develop Carbon Market

The Asia Zero Emission Community (AZEC) is a regional platform for advancing carbon across 11 partner countries: Australia, Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. Guided by AZEC's three core principles — decarbonisation, economic growth, and energy security — the initiative seeks to realise net-zero through multiple pathways by developing decarbonisation markets where business efforts toward emissions reduction are properly valued.

To support this goal, the AZEC International Conference to Develop Carbon Markets (AZECDCM) was launched as a policy coordination mechanism

The AZECDCM has convened twice: in May 2025 to discuss indicators and methodologies and in August 2025 to address carbon pricing and market integrity.

This report summarises the outcomes of the first two AZEC-DCM dialogues, outlines the current status of policy coordination, and identifies next steps to be presented at the 3rd AZEC Summit.

Source:

https://www.eria.org/uploads/azec/publications/AZEC-DCM-Report-Oct-2025.pdf

Economic and environmental insights of the SAF grand challenge

Researchers analysed the potential for purpose-grown bioenergy feedstocks to meet the United States SAF Grand Challenge targets. Life cycle assessment, techno-economic analysis, geospatial modeling, and evolutionary optimization framework were used to evaluate the county-level deployment of nine feedstocks across seven land classifications. In cost-optimized scenarios, sorghum and miscanthus comprise more than 95% of the production, achieving minimum fuel selling prices as low as $3.24/gallon. In cultivation land-minimizing scenarios, algae production is favored exclusively, reducing land use to 0.5% of the contiguous U.S., but with higher fuel prices and emissions. In emissions-optimized scenarios, production is nearly all miscanthus, achieving life-cycle emissions below 5 gCO2-eq/MJ. The breakeven carbon price optimized scenarios deploy a mix of miscanthus (86%), sorghum (13%), and soy (1%); balancing low fuel cost and emissions with a breakeven carbon price of $161/tCO2-eq.

Source:

https://pubs.acs.org/doi/10.1021/acs.est.5c05842

Electric vehicle battery production in Chile

The report examined the economic potential of lithium mining, and additional revenue and job potential if Chile were to onshore additional parts of the battery production supply chain. Chile's lithium export revenue is projected to amount to $8.9 billion in 2035. Expanding its current mining and refining capacities to cathode production could generate up to $2.2 billion in annual revenue in 2035. The onshoring of cathode material production could create 2100–3700 jobs in 2035. Onshoring battery cell production to meet the projected demand for vehicular lithium iron phosphate

batteries in Latin America could generate an annual gross product of up to $12.3 billion by 2035. This could also lead to the creation of 19,000–32,600 jobs by 2035. Setting up a battery collection and recycling ecosystem in Chile would allow the recovery of valuable minerals and create additional jobs.

Source:

https://theicct.org/wp-content/uploads/2025/10/ID-391-%E2%80%93-Chile-lithium_report_final.pdf

New report shows progress in SAF uptake across the EU

The European Union Aviation Safety Agency (EASA) published its first annual report on the implementation of the ReFuelEU Aviation Regulation. The report provides a comprehensive overview of the state of sustainable aviation fuel (SAF) uptake across the EU in 2024 and assesses the market's readiness to meet upcoming obligations under the Regulation.

According to the findings, implementation of ReFuelEU aviation has already stimulated increased SAF production capacity within the EU. This positive trend confirms that the EU is on track to meet the overall mandatory SAF blending target in 2030, which is 6%

Source:

https://www.easa.europa.eu/en/newsroom-and-events/press-releases/easa-publishes-report-sustainable-aviation-fuel-scale-progress

Download Report:

file:///C:/Users/schmidtj/AppData/Local/Temp/MicrosoftEdgeDownloads/d5573be0-177f-45ed-852c-f7b57409f1dc/FINAL_EASA_ReFuelEU_Aviation_Annual_Technical_Report_2025_v1.1.pdf

Enhancing Europe's land carbon sink

This report provides a description of the land use, land use change, and forestry (LULUCF) sector, as a relatively new sector in EU climate governance. It assesses the sector in terms of reported GHG emissions and removals, based on information provided in the latest EU greenhouse gas inventories as well as latest available projections data (reporting years 2023-2024). The report provides insights on ways to mitigate GHG emissions and enhance removals in the LULUCF sector, and what enabling conditions are most relevant to upscale options.

Source:

https://www.eea.europa.eu/en/analysis/publications/enhancing-europes-land-carbon-sink

Download Report:

https://www.eea.europa.eu/en/analysis/publications/enhancing-europes-land-carbon-sink/land-carbon-sink.pdf/@@download/file

Japan´s Energy White Paper 2025

The Japanese Agency for Natural Resources and Energy published its 2025 White Paper. A summary of the report is now available in English.

Source:

https://www.meti.go.jp/english/press/2025/pdf/0613_002a.pdf

Global pathways for sustainable liquid and gaseous fuels to 2035

This report was prepared in support of Brazil's COP30 Presidency and its Climate Action Agenda. It presents a sectoral analysis of global pathways for accelerating the deployment of sustainable liquid and gaseous fuels to 2035. It also summarises cumulative policy experience to date, identifies key technology and infrastructure requirements for scaling up deployment, and highlights resulting benefits that extend well beyond emissions reductions. Finally, the report outlines priority policy actions for governments seeking to adopt sustainable fuels to achieve measurable emissions reductions, strengthen domestic energy security and foster new opportunities for economic development.

Source:

https://www.iea.org/reports/delivering-sustainable-fuels

Download Report:

https://iea.blob.core.windows.net/assets/77a8c816-dc61-4668-b501-b1793a3ab2c7/DeliveringSustainableFuels.pdf

Trends and projections in Europe 2025 and technical background document

This report explores the historical trends, most recent progress and projected future developments in climate change mitigation through reduced greenhouse gas emissions, renewable energy gains and improved energy efficiency. It builds upon data reported by all 27 European Union (EU) Member States, five European Environment Agency (EEA) member countries and nine Energy Community contracting parties.

Source:

https://www.eea.europa.eu/en/analysis/publications/trends-and-projections-in-europe-2025

Download Report:

https://www.eea.europa.eu/en/analysis/publications/trends-and-projections-in-europe-2025/en-n_trends_and_projections_2025-th-01-25-028-en-n.pdf/@@download/file

Use of renewable drive energy in agricultural machinery in Germany

The German Board for Technology and Construction in Agriculture (KTBL) carried out a description and

assessment of the options for replacing diesel fuel in agriculture in Germany and identified options for action to support the transition to renewable drive energy. This report was published in 2023 already.

It is evident that in addition to the necessary technical developments in energy sources, engines, drive systems and energy infrastructures, the legal framework, promotion, training, and communication between the actors involved need to be considered for achieving the conversion goals. Against this background, the Federal Ministry of Food and Agriculture (BMEL) has asked the KTBL to specify and classify the identified options for action to provide guidance on which steps could be expedient for a transition to renewable drive energies and which actors would have to initiate the actions.

This task was undertaken by the KTBL-working group "Roadmap - Drive Systems for Agriculture" with the participation of a large number of experts in the period from April to August 2024. The results of this process are assembled in the current report "Use of renewable drive energy in agricultural machinery" and in a catalogue of actions.

Download Report:

https://www.ktbl.de/fileadmin/user_upload/Artikel/Energie/Antriebsenergien/12650_Renewable-drive-energy.pdf

Download Catalogue of Actions:

https://www.ktbl.de/fileadmin/user_upload/Artikel/Energie/Antriebsenergien/12656_renewable-drive-energy_Catalog.pdf

Study on Bankability of de-fossilised FOAK chem & fuels production projects

The study is based on insights from the project ''Barriers to Scaling Up Advanced Biofuels – A Deep Dive into Policy and Finance'' funded through a subsidy provided by the Ministry of Climate Policy and Green Growth under the "Knowledge for Energy Policy" programme.

Source:

https://repository.tno.nl/SingleDoc?find=UID%209d0e4b9a-fdd0-4999-9cc1-e4d2134bfea6

Download Report:

https://publications.tno.nl/publication/34645266/fgPurDxW/TNO-2025-R12523.pdf

New ATSE report highlights pathway to diesel reduction

The Australian Academy of Technological Sciences and Engineering (ATSE), Australia's leading tech and engineering academy, has highlighted the urgent need for Australia to reduce reliance on diesel in mining, road freight, agriculture, fisheries and forestry.

The report gives five clear recommendations, including that the Federal Government commission an independent review to reform financial incentives that support diesel use.

ATSE CEO Dr Kylie Walker said that to achieve its low-emission targets, Australia needed to take a new approach to fueling heavy industry, and this could be achieved by applying technological solutions, and reforming policy and tax levers that support diesel.

Source:

atse.org.au/news/new-atse-report-highlights-pathway-to-diesel-reduction/

Download Report:

https://www.atse.org.au/media/2swjt3wu/atse-decarbonising-diesel-industries-report-250827-final.pdf

Sustainable biofeedstock supply chains for advanced biofuels in Europe 2050

Advanced biofuels are expected to play a key role in the decarbonisation of the European transport sector, particularly in hard-to-abate segments such as aviation, maritime transport, and heavy-duty road vehicles. To support the EU's climate neutrality objectives by 2050, large-scale deployment of sustainable biofeedstocks will be required, along with efficient, cost-effective supply chains and biorefining infrastructure. However, significant uncertainties remain regarding the most optimal supply chain strategies for the large-scale deployment of advanced biofuels.

By exploring a range of scenarios for biomass availability, advanced biofuel demand, and industrial integration options, the study addresses the following key questions:

1. What are the optimal supply chain configurations (centralised vs. decentralised) and main cost drivers for advanced biofuel supply chains in Europe?
2. How do geography and existing infrastructure influence supply chain economics?
3. In what ways do technology selection and economies of scale affect total production costs?

Source:

https://www.concawe.eu/publication/sustainable-biofeedstock-supply-chains-for-advanced-biofuels-in-europe-towards-2050/

Download Report:

https://www.concawe.eu/wp-content/uploads/Rpt_25-10-2.pdf

https://www.concawe.eu/wp-content/uploads/Rpt_25-10_Annex-3.pdf

The Automobile Industry Pocket Guide 2025/2026

This 2025-26 edition of ACEA's Pocket Guide offers a comprehensive overview of the automotive industry, with a new chapter dedicated to infrastructure,

reflecting the growing importance of electric vehicle (EV) uptake. As competitiveness concerns rise and global trade shift, the guide provides timely insights into the current state of the play of the sector. Despite economic uncertainties, the automotive industry remains a leader in research and development, investing €85 billion in 2023 – €12 billion more than the previous year and twice as much as the next largest private sector investor. However, EU vehicle production declined in 2024, with car output falling to 11.5 million units and commercial vehicle production dropping nearly 10%, prompting challenges in maintaining Europe's manufacturing appeal.

Source:

https://www.acea.auto/publication/the-automobile-industry-pocket-guide-2025-2026/

Download Report:

https://www.acea.auto/files/ACEA-Pocket-Guide-2025-2026.pdf

Report on shipping costs under the IMO Net Zero Framework

The International Maritime Organization (IMO) has adopted ambitious decarbonisation targets aiming for net-zero "by or around" 2050, with interim targets for 2030 and 2040. This report summarises the key outputs from a study that assesses the cost and implications of decarbonising shipping. It addresses three central questions:

1. Nature of the transition – What fuel-switching and technology measures will the shipping industry adopt, and what will be their associated costs?
2. Economic impacts – How will decarbonisation affect costs for shippers and the price of shipped goods across different cargo types and trade routes?
3. Role of policy and finance – How can industry, policymakers, and financiers work together to reduce costs and accelerate decarbonisation?

Download Report:

https://www.movinon.eu/wp-content/uploads/2025/11/New-Energies-Coalition_CostofGreenerShipping_Oct25.pdf

Documentation of IEA Bioenergy Workshop on Zero Emission Shipping

International shipping sector responsible for some 3% of global greenhouse gas emissions. The regulatory landscape towards mitigating climate change is emerging at national, continental and international level. In April 2025, IMO finalized and approved the draft 'IMO Net-Zero Framework' which was halted in the October 2025 meeting for at least one year. However, the necessity to lower shipping emissions is evident. This was reflected in a workshop organised by the IEA Bioenergy TCP in November 2026. The workshop provided more background on the sector, highlighted perspectives from various stakeholders in the shipping sector and discussed how biofuels can play a role in bringing Zero Emission Shipping closer.

Source:

https://www.ieabioenergy.com/blog/publications/ws32-iea-bioenergy-workshop-zero-emission-shipping/

Download workshop materials:

https://www.ieabioenergy.com/blog/publications/ws32-iea-bioenergy-workshop-zero-emission-shipping/

EVENTS

RNG Conference

1 – 4 December 2025, Dana Point, California, USA

https://www.rngcoalition.com/rng-conference/

The 11th International Conference on Modeling and Diagnostics for Advanced Engine Systems

15 – 18 December 2025, Chiba, Japan

https://www.ec-convention.com/COMODIA2025/index.html

Transportation Research Board Annual Meeting

11 – 15 January 2026, Washington, D.C., USA

https://www.trb.org/AnnualMeeting/AnnualMeeting.aspx

Clean Fuels Conference

19 – 22 January 2026, Orlando, Florida USA

https://www.cleanfuelsconference.org/

23rd International Conference on Renewable Mobility

19 – 20 January 2026, Berlin, Germany

https://www.fuels-of-the-future.com/en

Central European Biomass Conference

21 – 23 January 2025, Granz, Austria

https://www.cebc.at/8_mitteleuropaeische_biomassekonferenz_cebc_2026?_lang=englisch

Renewable Fuels Association National Ethanol Conference

24 – 26 February 2026, Orlando, Florida USA

https://www.nationalethanolconference.com/

The Work Truck Show & Green Truck Summit

10 – 13 March 2026, Indianapolis, Indiana, USA

https://www.worktruckweek.com/

Future of BioLNG Europe 2026
25 – 26 March 2026, Turin, Italy
https://www.wplgroup.com/aci/event/future-bio-lng-europe/

International Biomass Conference & Expo
31 March-2, April 2026, Nashville, Tennessee, USA
https://ibce.bbiconferences.com/ema/DisplayPage.aspx?pageId=Home

WCX SAE World Congress Experience
14-16 April 2026, Detroit, Michigan, USA
https://www.sae.org/highlights/wcx

Canadian Hydrogen Convention
21-23 April 2026, Edmonton, Canada
https://www.hydrogenexpo.com/

Advanced Clean Technology (ACT) Expo
4-7 May 2026, Anaheim, California, USA
https://www.actexpo.com/

34th European Biomass Conference & Exhibition
19 – 22- May 2026, The Hague, Netherlands
https://www.eubce.com/#

2026 JSAE Annual Congress
27 – 29 May 2026, Yokohama, Japan
https://en.jsae.or.jp/taikai/2026haru/outline/

International Fuel Ethanol Workshop & Expo and Biodiesel Summit
2-4 June 2026, St. Louis, Missouri, USA
https://few.bbiconferences.com/ema

IMPRINT

The Advanced Motor Fuels Technology Collaboration Programme (AMF TCP) is one of the International Energy Agency's (IEA) transportation-related Technology Collaboration Programmes. These are multilateral technology initiatives that encourage technology-related activities that support energy security, economic growth and environmental protection.

AMF provides an international platform for co-operation to promote cleaner and more energy efficient fuels and vehicle technologies. This newsletter contains news articles on research, development and demonstration of advanced motor fuels, information about related policies, links to AMF projects, and an overview over publications and events.

The newsletter is prepared based on contributions from Robert ROSENITSCH, TU Vienna, Shinichi GOTO, AIST, and Andy BURNHAM, ANL. It is edited by Jan Schmidt, FNR. The Newsletter is available online at: *www.iea-amf.org*.

AMF welcomes interested parties to make contact and to become members of the AMF family. If you wish to get in touch please contact the AMF Secretary, the AMF ExCo Chair or your national AMF Delegate.

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