

IEA Task 39 6th Business Meeting

**IEA Bioenergy Task 39
Biofuels to decarbonize transport**

**31st May 2023
Online meeting, 22:00 CET**

Task 39 6th Business Meeting Minutes

Details

Class/Project	IEA Task 39 6th Business Meeting, IEA Bioenergy Task 39: Biofuels to decarbonize transport
Date/Time/Location	May 31 st 2023, 22:00 CET, online @Zoom platform
Goal	Discuss the current state of biofuel programs around the world, current state of development of ongoing projects of Task 39, propose and discuss new projects and next steps.
Attendees	Tomas Ekbom, Franziska Mueller-Langer, Andrea Sonnleitner, Luiz Horta, Hana Mohammadi, Marco Buffi, Hannah Edgren, Fuli Li, Isabelle Ausdal, Paul Bennett, Nicolaus Dahmen, Steve Rogers, Shibby, Susan Van Dyk, Sune Thomsen, Ling Tao, Allison Simmonds, Paul Sinnige, Jean Felipe Leal Silva, Stephan Janborers, Jose Muiser, Rubens Maciel Filho

Meeting notes

1. General introduction and welcome, by Tomas Ekbom, and quick biofuels update by NTLs

Proposed agenda:

- Introduction and quick biofuels update
- General status update
- Task 39 budget status and project invoices
- Project updates
- Program of work proposals
- Discussion on leadership of Project BECCUS
- Project updates: BioTheRoS and ICARUS
- Joint Business meeting #7 with IEA AMF
- Proposed additional meetings, visits, conference, others
- End

All NTLs presented three currently most important “issues” being it projects, policies, events or others in their country right now.

- Australia (Expert: Steve Rogers): expressed regret that Australia is not formally involved in the Task. Australia is very active in topics such as renewable gas, SAF, and renewable diesel. Significant excitement and a number of projects being talked about. Lanzajet is working in Australia. Also, BP is working in the West (Perth) looking into feedstocks. Another project being developed in Brisbane by Oceania Biofuels. There are new developments with the US, Europe and Japan helping drive the biofuels efforts. Australia has huge volumes of feedstocks. Jet council being announced by the government. Queensland sugar industry involved, government proposing projects, and the country hopes to rejoin the Task.
- Austria (Expert: Andrea): there has been regulation for introduction of E10 in gasoline since the end of march 2023 – gradual introduction. The future of passenger cars has been being discussed because of the prospective ban on ICE in Europe. Different political positions about this topic. There has been discussion around e-fuels vs. combustion, green combustion car favored by country’s chancellor, but Climate Minister favors e-mobility and public transport. The climate minister wants to possibly advance the ban on ICE to 2027, instead of 2030.
- Belgium: absent.
- Brazil (Expert: Glaucia): Corn ethanol production in Brazil is soaring: 2% in 2018/2019 to 17% 2023/24 (forecast), 42% increase since last season. Sugarcane ethanol is expected to remain at the same level of the last 3 years (27.5 million m³). Brazilian government has resumed the goal of increasing biodiesel use in the country. Blending mandate was increased from 10% to 12% in April, with a commitment to increase 1 p.p. each year until 15% in 2026. 2) 50% of the energy consumed in Brazil came from renewable resources (world average: 14%) in 2022. Sugarcane products alone accounted for about 20% of the energy consumed in Brazil in 2022, with an ethanol share of 6%. Recently the linking of biomethane into the distribution system of CNG has been approved. Many developments are being observed for green diesel in Brazil. Brazil's domestic production of diesel and jet fuel were about 23% and 18% less than their domestic demand in 2022, and hydroprocessing has potential to grow in Brazil to reduce diesel and jet fuel imports. In April, the government of the state of Bahia has signed a project with the company Acelen valued at 2.44 billion dollars to develop an HVO facility with a capacity of 1 billion liters of biofuels per year. Bills are under discussion in the national congress to include green diesel inside or outside the biodiesel blending mandate. Petrobras, the state oil company, has been producing since 2022 a blend with 5% of vegetable oil in fossil diesel via co-processing in one of its refineries. The project is set to reach a capacity of 4 million m³ per year this year. Vibra Energia has signed a contract with BBF to commercialize advanced biofuels from palm produced in Manaus and Roraima starting 2025. FAME is 2% of energy demand.
- Canada (Expert: Susan): New Clean Fuel regulations will take effect on July 1st. Gasoline and diesel will have a compulsory carbon intensity reduction. Canada has developed its own LCA model. Oil refineries can contribute with carbon capture and need to earn compliance for carbon capture. Biodiesel and ethanol remain the same. Co-processing developments are on the way, and one oil refinery in Vancouver has been processing vegetable oils and obtaining biocrude. There has been a number of announcements on green diesel. British Columbia has enacted a new fuel standard which will become a low carbon fuels act. Specific regulations for the aviation sector are under consultation. Obligatory carbon intensity reductions on jet fuel will apply to domestic and imported, by January 1st 2024, and introduce a volume mandate of 1% by 2028, 2% by 2029, and 3% by 2030. More ethanol or biodiesel can be blended to achieve compliance, thus forcing suppliers to use SAF to meet the regulation. 10 million L/yr, 2 or 3 airports will comply. Penalty from non-compliance had a significant increase. Full life cycle reduction.

- China (Expert: Li): there are new policies on bioethanol and the use of bioethanol in gasoline. The Chinese government will not increase the amount of corn used for ethanol – in fact, the government is strictly contrary to using corn in ethanol production. There are not many lignocellulosic ethanol plants in the country at the moment. In fact, there are 2 or 3 pilot plants of lignocellulose ethanol, but they are not operating yet. There are 4 biomethanol plants from carbon from steel industry. Interest on the carbon peak work plant in many cities across China. Interest on using corn straw as carbon feedstock in the manufacturing of several bio-based molecules, such as bioethanol and biodegradable materials because of its abundance. Biomethanol use as vehicle fuel is of interest for country for efficient use of hydrogen energy. Two plants operated using methanol coming from hydrogen and they want to achieve zero carbon from land to ports in heavy trucks. Much interest for the carbon peak to reduce CO₂, but from ethanol they do not have many updates for the moments.
- Denmark (Expert: Sune): biogas sector had significant developments, but not much in liquid biofuels. The share of biogas in the national grid is over 35%, 84% record last week because of the beginning of the warmer days of the year. Nature Energy is the largest biogas company in the world (1.9 billion Euro value) and has many plans for projects around the World. There hasn't been much happening in terms of policies for liquid biofuels. Denmark high consumption of biomass, much discussion concerning imports of woody biomass. Liquid biofuels affected by discussion. High production of wind energy with negative prices due to low consumption in the summer. Biogas without subsidies may be possible. Anyway, the current scenario for biogas vs natural gas is very promising. Short rotation crops such as poplar penalized.
- European Commission (Expert: Marco Buffi): discussion is being carried out at parliament level with a provisional agreement on a target for 42.5%, aiming at 45% of renewables by 2030 (RepowerEU and Fit-for-55) in the review of RED II on May 30. RePowerEU has a target for biomethane production to replace fossil natural gas from Russia. Aviation and maritime strategies integrated under Fit-for-55 and then integration into EU emissions trading system. Transport sector has set a 14.5% target for GHG reduction to promote advanced biofuels and hydrogen. Annex V and VI under revision as well as co-processing as well as Annex IX (pending), default values being revised. The review of Annex IX intends to differentiate feedstocks for biofuels and advanced biofuels. Net zero industry act and Innovation Fund with 25 billion euros (general decarbonization, energy storage, electrification, manufacturing, CCUS. Bioenergy not included as net zero technologies as being discussed. New RED II expected to be finished in some years still.
- Germany (Expert: Franziska): Many discussions on the phasing out of conventional biofuels to 0% by 2030. Discussions ongoing among ministries, especially transport ministry, on the ban of combustion cars by 2025. Car manufacturers have been discussing how this can be realized. Ministry of transport has presented first results of long-term outlook of how transport will develop by 2050, with many scenarios to achieve the climate targets. 13% increase in passenger transportation, heavy duty increases of 46%. Biofuels are much needed by 2050. Electromobility: many scenarios predict a high share of e-mobility, but it is not increasing that much. Germany is transferring vehicles to Scandinavia. GHG quota for the development of prices on CO₂. 200 Euro/ton of CO₂. Corrections made and market being watched. Bioeconomy framework evaluated as to the role of feedstocks. Program to promote e-fuels. Quota for renewable diesel questioned: Germany does not have one, only for advanced biofuels. Paraffinic diesel mentioned and impact on the demand. 8% biofuels and 1.5% of advanced biofuels. There is a strong debate on biomass trade in the country, but it is a controversial topic. Refineries for the future project, Nicolae mentioned, with opportunities for transformation of oil refineries and advanced and e-fuels for different sectors.
- Ireland (Expert: Tom Walsh): absent.
- Japan (Expert: Shibby): G7 Climate, Energy and Environment meeting held together with the G7 summit (May 2023 in Hiroshima). The meeting discussed the global promotion of green

transformation, and transformation of the whole economic, social and industrial structure to be driven by clean energy to pursue net zero emissions, circular economy and nature positive economies in an integrated manner. Climate and energy: highlighted the increased urgency to reduce global GHG emissions by 43% by 2030 and 60% by 2035 relative to 2019 level in light of the recent findings of the IPCC. Road sector: commitment to reduce carbon intensity of road sector; current global fleet is about 15x the current vehicle sales; commitment to reduce GHG includes efforts in emission reduction, adoption of zero emission vehicles, increase use of carbon-neutral fuels. International shipping: commitment to support the introduction of intermediate targets for 2030 and 2040 for the revised IMO GHG reduction strategy. International aviation: commitment to accelerate global efforts to achieve the ICAO's goal of net-zero emissions by international aviation by 2050.

- New Zealand (Expert: Paul): very low biofuel production at the moment. Most ethanol is a by-product of dairy industry. They had a tallow plant, but it closed and tallow is now exported to Singapore. They are working on a sustainable biofuels obligation, and it was due to be in effect by April 2024, but it was scrapped by the government because of cost of living and sustainability. Standards such as RSB are not appropriate to New Zealand conditions. Short rotation forestry starting to develop. Most biomass potential from forestry, with plenty of availability. Budget with emphasis on hydrogen and process heat. Electrifying everything implies doubling renewable electricity capacity (currently at 83% in the country), but it might have environmental consequences. SAF is being considered by the main carrier of the country, and a draft mandate is being written by the government. The country imports SAF from Singapore to test the supply chain - production in the country might not work. On the marine side, shipping exports accounts to 50% of the country's GDP and 95% of exports; thus, a lot can be done in this sector. For instance, carbon from transportation in kiwi exports to EU can contribute to 50% total GHG emissions compared to Italian kiwi. Blend component for bunker fuels in development (catalytic pyrolysis oils). New Zealand has a large logging industry. Current rotation is 25 to 30 y. Short rotation is increasing, and it can be 10-15 y. Debate ongoing on nitrate emissions and methane in cattle and sheep industry.
- South Korea: absent.
- Sweden (Expert: Tomas): 55% renewable, gasoline with E10, B7, 7% rapeseed FAME, 30-35% HVO, E85 (summer), E75 (winter), B100 RME100 tax exemption, HVO100 tax exemption, ED95 95% ethanol for buses and trucks (tax exemption), Bio-CNG exemption removed. Bioenergy is the largest source of energy in the country, with 143 TWh (39% of total consumption). Wind is increasing to 23 TWh. Nuclear facilities closed recently, but there are talks to reactivate reactors. Government slashed quotas for biofuels on May 8th due to blaming of biofuels of high fuel prices. HVO blend to be cut from 33 to 2%, which is equal to an increase of million t CO₂ emissions (+10 % of total emissions in the country). Electric vehicles sales represented more than 50% new car sales. After the bonus finished, sales plummeted but still representative. Many new plants for e-fuels and SAF. HVO100 pumps replacing E85 pumps in refueling stations (E85 cars are getting old - after 17 years cars get scrapped). Sweden had the highest petrol price in the world. Green economy policies led by previous government has led to economic problems. For example, energy jobs not created in Sweden because biofuels are imported. Debate on the use of biomass and if biofuels are indeed climate friendly. Cold grade diesel was in shortage during the winter which led to mark up on the prices. Electric buses and electric trucks are replacing HVO100 and E85 trucks, so they don't have a large impact on total emissions because they replace low emission vehicles.
- The Netherlands (Expert: Paul): REDII implementation ongoing, update for marine and aviation fuels. Lots of marine fuels in the system. Brown grease was put into use for the marine sector as feedstock because it is very cheap, but it is out now. They need to develop HVO production capacity because biodiesel blending is on the limit right now. ReFuel obligation for 6%, aviation agreed on 4% for SAF - cannot go over that. Separate pillars for different fuels (marine, aviation etc.) with different

obligations. Difficulties in matching REDII to other schemes. HVO100 pumps in many petrol stations. Calculations being made on energy demand till 2050. Big gap identified and gap in policies. Interest to see how much hydrogen needs to be produced in The Netherlands and where will it go in the system. The biogas production and distribution system are currently under development and they want 20% by 2030 in their grid. There is a lot of RNG trucks. The discussion on nitrate emissions is bigger than the discussion on GHG emissions from cows.

- United States (Expert: Ling): EPA has a new proposal for vehicle emissions (trucks, cars). New proposal classifies emissions from light, middle and heavy-duty vehicles from 2007 and beyond. The idea is to accelerate the transition to a clean transport future. Clean fuel and product shots. SAF US DOE announce the launch of clean fuel and product. Reduce GHG emissions on products necessary to our way of life. Carbon emissions reduction, at least 85% reduction compared to benchmark. 2050 net zero demands 100% on net zero SAF and 50% marine and off road, 50% chemicals. 3 billion gal/y announcement led to a lot of commercial activities related to SAF. Honeywell announced Summit Next Gen (biomass residue ethanol-to-jet). Corn, sugar, cellulosic materials. UOP uses hydrogen and CO₂ to produce methane, targeting to make SAF from this technology. Plans to commercialize. They use electricity to convert and produce the final product. US has a significant amount of biomass from many sources, and this includes many residues that can be used in different processes.
- USGC (Expert: Isabelle): working with RFS. Minnesota, Illinois, and Oregon have been implementing tax breaks. Oregon is going for a new RFW. E15 is a huge goal. Excess capacity in the US. Major focus on CCS from ethanol plants to underground deposits in the mid-west with expectation to decrease carbon intensity of ethanol - very viable option. Ethanol-to-jet of interest. Credits to be given under evaluation, but Department of Treasury has last word on this. Discussion on E20 as a future target, legislation is an issue since it was prepared for E10. Warranty areas also under discussion by car manufacturers. Educational campaigns for E15 – major discount on E15 fuel. NREL: stations mapping informed limited number of E15 stations – majority of the fuel stations are focused on E10.

2. General status update, by Tomas and Glaucia: Management, participants, website, webinars, publications, newsletters (ISSN) etc

- Currently there are 15 participating countries and 1 limited sponsor. Task 39 is the second largest task group.
- Ireland is still in process (since Feb 23) of selecting an NTL
- Australia might enter in the next triennium (2025)
- Turkey is waiting for the rejoining process of IEA Bioenergy TCP
- Finland never replied - perhaps next triennium
- Chair of IEA IETS wants a presentation in the next ExCo meeting. Possible cooperation with task XI (Industry-based biorefineries towards sustainability - Austria).
- Hannah is actively working with LinkedIn and adding materials to the members-only section of the site.
- Task 39 plans for several webinars and presentations in conferences.
 - LCA T39+T45 workshop organized April 17th
- The newsletter is in process of an ISSN. The layout has changed completely.
 - #62 European Commission - now
 - #63 New Zealand - August
 - #64 China - November

3. Task 39 budget presentation and status of project invoices, by Tomas

- Total budget: \$634,500 for the triennium
 - Currently six on-going projects, total of \$230,000
- Several new projects to be decided upon
- Financing of an IEA Bioenergy workshop and joint meeting in October (add-ons)
- Tomas asked for invoices because expenditure is behind schedule - this includes accrued costs and money in advance if needed.
- There are uncommitted projects and \$140,000 of available funds.
- Six projects started in 2022. Ideally, four projects should start in 2023, and finalization of projects should be evenly distributed between 2023 and 2024.
- The special project meeting of April 4th gave some results, but there is still room for more.

4. Project updates: brief status reports on ongoing projects**a. T39 Intertask Lessons learned by Tomas, Sweden**

- Successes and lessons learned from biofuels deployment will be finalized by the end of June 2023 with five reports. WP1, WP2: under publication. WP3: will be finished within 3 weeks and will be sent out for review. WP4 and WP5 will be finalized and published as well. These reports will be sent to ExCo for approval by the end of June.
- Franziska will present the project at the 3rd Biofuels Forum in Berlin. A hybrid webinar will be held on September 21st 2023 at the Advanced Biofuels Conference (the event is free of charge). Potential for phase 2 to start in September 2023.
- Glaucia informed that her team produced a draft on this matter to be submitted to the journal Global Change Biology: Bioenergy (Wiley). Draft under first review round inside the Brazilian team. Draft will be sent to Tomas and Franziska for further commentary. She intends to have submission of the paper aligned with the publication of the reports.

b. T39-T1 by Susan, Canada

- Report on SAF published in 2021, so this was mostly as update on commercialization and CORSIA. There is a lot going on in terms of certification.
- Non-CO₂ impacts of aviation and the role of SAF, including a discussion on the use of 100% SAF.
- Comparison of CORSIA model to other models.
- Topic 8 is related to carbon intensity, and it is related to Malina's group.
- Proposed expansion. Discussion started on the paths to be evaluated using a virtual biorefinery - this includes HEFA, gasification of sugarcane and eucalyptus, and modelling of co-processing.

c. T39-T2 by Susan, Canada

- 2014, 2019 and 2021 reports. Working with Jianping.
- Assess the expansion of commercial drop-in biofuel facilities and current volumes of production. This includes HVO, gasification, FT, thermochemical liquefaction, pyrolysis, e-fuels. Assessment of coprocessing worldwide and capacity of these technologies.
- Update on technology pathways and new emerging technologies. This includes TRL level, latest developments, main companies, significant technology features, main companies, and update on the latest research for drop-in biofuel production.

- Key developments and trends in lipid co-processing. Biocrude co-processing and volume. Key research projects, such as Renewell. Tracking of green molecules in co-processing and determining the carbon intensity of co-processed fuels.
- Techno-economic of production cost based on literature reports
- Discussion on the sustainability and carbon intensity of drop-in fuels. This includes modified agricultural practices, use of renewable energy, green hydrogen and CCS as tools to reduce the carbon intensity of fuels.
- Susan commented that Task 34 is releasing a report on thermoliquefaction. Suggestion to share new co-processing report with Task 34. Also possible for the SAF report.

d. T39-T4 by Andrea Sonnleitner, Austria

- The goal is to assess and map demonstration plants around the world
- Many plants have been announced for the upcoming years (>50)
- Many plants do not become operational or take longer to finish. Therefore, there is a slow commercialization progress.
- NESTE Singapore started an expansion project with trial runs completed and inauguration as well, with more than 1.3 million tonne per year capacity.
- There are many colleagues demonstrating interest in the database being created (IEA, experts, journalists etc). There will be a presentation in the biomass conference in Bologna for production and challenges for market uptake of SAF.
- Next step: systematic update is needed
 - BEST will create a datasheet with available information from the last months
 - Datasheet will be sent to NTLs of the task, ETIP Bioenergy, and IEA AMG members for feedback and additions
 - Finalized before task meeting in October
- This last step is very important because task members were questioning outdated entries in the database
- Policy impact and by-products should be considered as well as information provided in this database as well

e. T39-T6 by Franziska Müller-Langer, Germany

- Synergies project on green hydrogen and bio-based value chain development
- Green hydrogen: Joaquim and Axel are creating an overarching template to circulate and fill out with cases and data
- Report "Renewable hydrogen and bioenergy: prospects in Brazil" by Glaucia, Rubens, Luiz and Heitor.
- Workshop from March 29 in Berlin (Franziska, Nicolaus, Marco) with results to be shared soon. Many participants from Bioenergy TCP, Hydrogen TCP, AMF TCP, and HQ. Presentation of case studies on green hydrogen from biomass and green hydrogen use in bio-based processes, with assessment framework (including carbon footprint).

f. T39-P1 by Hana (representing Jack Saddler, both from Canada)

- Implementation Agenda: determining the extent to which policies have been effective in encouraging the production and use of transport biofuels.

- LCA model used by country, market push technologies and pull policies to promote biofuels.
- Sustainability requirements for biofuels
- Possible approved sustainability certification and or verification schemes for transportation biofuels.
- Sweden, Denmark and Belgium need to send their reports.
- Examples of recent key policies
 - US Inflation Reduction Act. New tax credit, Clean Fuel Production Tax Credit, Tax credits for hydrogen, extending biofuel tax credits, ability to stack federal and state policies.
 - EU with RED II, Fit-for-55 with 55% GHG emissions reduction by 2030, RePowerEU plan to obtain 45% of renewable energy by 2030, RePowerEU Aviation to increase the share of SAF.
 - Brazil with RenovaBio (2018) to provide a market-based incentive to biofuel producers based on a GHG emission reduction certificate that fuel distributors need to purchase, and targets to reduce GHG emissions (37% by 2030).
 - California is probably the world leader. Front-runner in the US with the adoption of non-volumetric measures. LCFS has a goal of 20% reduction in carbon intensity by 2030, and tax credits for producers of SAF.

g. T39-P4 by Glaucia Mendes Souza, Brazil

- Biofuels in emerging markets: biofuels for sustainable production and consumption reported at ExCo Workshop in May, 2023
- First assessment provides a look into countries of global South with positive environment for biofuel policies or with partially or fully implemented biofuel use/blending mandate in action. These countries were split into two groups: South America and Asia+Africa.
- For both groups, an evaluation consisting of technoeconomic analysis and life cycle assessment was/is being carried out to determine the feasibility of implementing biofuel use in these markets.
- South America: finished and published (report and paper). Potential to double biofuel production in Brazil, Argentina, Colombia and Guatemala using only 5% of current pasture land.
- Africa+Asia: in progress. Currently, results of LCA are finished, and they indicate that some countries consider the use of fossil energy sources to convert feedstock into biofuel. Despite this problem, carbon intensity of biofuels is still smaller than that of fossil fuels. Opportunities for improvement.

5. Program of Work proposals

a. T39-T3 “Identifying and lowering hinders for greater use of biomarine fuels” by **Tomas Ekbom**, Sweden

- Thomas shared a few words on this project – it is not ready yet.
- He has been talking to some possible partners and collaborations.
 - This could be elaborate in terms of analysis of obstacles and hinders for biomarine fuels. Identifying technical, economic, market and legal factors and proposing solutions.
 - Project is proposed to start on Sep 2023 and finish by Dec 24
 - Budget circa \$90,000 with 45,000 coming from Task 39
 - Potential participants include Sweden, Denmark, The Netherlands, New Zealand, and the US.
 - Potential partners: Maersk, Stena Line, Liquid Wind, Methanol Institute, Swedish Coast Guard, Swedish Maritime Authority, Fossil-free Marine, Licella, Södra, IMO Secretariat, IMO-FFT
 - Workshop at Advanced Biofuels Conference in 20-21 Sep 23.
 - Dissemination at Webinar in Dec 2024.

b. T39-P2 “Assessment of the sustainability of biofuels pathway, and also further compare and harmonize leading LCA models (possibly InterTask with T45)” by **Glaucia Mendes Souza**, Brazil

- Presentation on goals for na LCA project as indicated in the POW. With SAF analyses around 70% of goals to be met. Built upon results presented by Susan before on SAF and discussions after Glaucia's workshop on LCA
 - Extend assessment of the sustainability of biofuels pathways.
- Suggestion of organizing joint activities with AMF
- Separate reports were requested for the SAF part and the SAF LCA and other indicator's part. This is necessary because of the deliverables of the Task and the ExCo report of the Task. Therefore, this will be an add-on since the project involves the same team. Additional \$45,000 was asked, so it will be nice to have new publications to justify the new funds. Total budget is expected to be \$90,000.
- It was requested some clarifications on cash contribution, and Susan will look into it with Jack Saddler and Glaucia Souza.
- New version to be sent to Tomas. Tomas will circulate final version among task members asking for additional comments and approval within 5 work days.

c. T39-P3 “Emerging/proposed certifications for oleochemical/lignocellulosic feedstock-to-biofuel supply chains” by **Paul Sinnige/José Muisers**, the Netherlands.

- Joint project with Task 39 and Task 45 submitted.
- Improvement opportunities for policies and certification schemes promoting sustainable biofuels with low GHG emissions.
- Robustness of GHG emission certification and verification
- Concerns about biofuel data popping up, mostly in EU
- Policies steer increasingly toward further reducing GHG emissions, but with differences in how they aim to achieve that.
- They asked for \$58,000, but may need an additional \$5,000 if Agroicone needs to be involved. Project starts on June and ends in November.
- Project was approved with \$58,000.

d. T39-T5 “Phase 2- Successes and Lessons Learned for Advanced Biofuel Technologies Commercialization (possibly InterTask with Tasks 40 and 45)” by TBD

- Idaho National Lab reach out to help on HVO.
- Request for US to take on the lead.
- Needs approval from DOE.
- Ling will discuss internally with National Labs.

e. Section 4.1.2 and 4.2.2 and other suggestions, proposals

- Meeting was running beyond the scheduled time, so Tomas advanced to the next topic.

6. Discussion of Action No 9 in ExCo90

- Regarding the “Leadership of I-T Project BECCUS Phase 2 and of Task 39 to coordinate to further explore opportunities for synergies” by **Tomas Ekbom**
- Suggestion to have Task 39 as leader.
- Franziska was consulted if she was interested; she is already committed with the Hydrogen project, so she is not available to champion BECCUS.

7. Project updates and news

- Project ICARUS, **Franziska Müller-Langer**

- "Short update on ICARUS: The Project passed the Evaluation and we are currently in the administrative preparation. Keep you updated in October 23" (reply of Franziska Mueller-Langer in the chat, 02:08 AM CET)

- Project BioTheRoS, **Andrea Sonnleitner**

- "Same for the BioTheRoS Project" (reply of Andrea Sonnleitner in the chat, 02:09 AM CET)

8. Business Meeting #7 and joint meeting of IEA AMF in Leipzig, Germany 24-27 Oct, 2023 by DBFZ

- Rubens confirmed to be present, and Hana will confirm if Jack can be present on SAF. 14 countries confirmed attendance. Hannah asked to everyone interested to fill out the form to confirm attendance. The following link was provided by Hannah in the chat at 02:09 AM CET (as Svebio, host): https://docs.google.com/forms/d/e/1FAIpQLSc_f9PjirOQMUBqdombbE9jylbbxSOft0-H7d2gltFuJRvDpw/viewform?usp=sf_link
- Discussion on whether or not organize a visit to BMW.
- **Very important: a letter of personal invitation for work or visa purposes can be requested from Franziska or Hannah if needed!** Help was offered as well to book hotels and related travel arrangements for the meeting in October 2023.
- Details were asked regarding the timetable for the business meeting to arrange transport back to the airport.

9. Others, general discussion. Proposed additional meetings and Intertask and additional task projects and visits.

- Conference invitations: 3rd Biofuels Forum, June 2023, will be attended by Franziska
- Joint meeting with IEA IETS
- Joint project with Task 33 (surplus funds)

10. End

Meeting finished 02:25 am Central European Time.

Follow-ups

Task	Responsible	Completed?
Finalize Successes and lessons learned from biofuels deployment published by the end of June 2023 with five reports.	Tomas	[]
Submit Lessons Learned article to GCBB by the end of June.	Glaucia	[]
LCA on SAF project to be submitted for final approval as additional goals on SAF project but with separate report.	Susan and Glaucia	[]
Sharing of Task 39 reports with other Tasks (T34 and 45 mentioned) for possible inputs.	All	
LCA SAF revised version to be circulated for approval within 5 days.	Tomas	
Data sheet to be sent to NTLs to fill in info on Demoplants including policy and by-products	Andrea	
Template to be circulate and fill out with cases and data on Synergies of Hydrogen Intertask	Franziska	
Send the Implementation Agenda Report to Hana	Sweden, Belgium, Denmark	
Organize joint activities with AMF on SAF LCA	Franziska, Glaucia, Dina	
Verification if US can take on the lead of Lessons Learned phase 2	Ling	

Approvals

Decisions	Approver	
Certification project approved with US\$ 58 k.	All	

[] Meeting Notes Distributed to the Team

[] Tasks & Projects Completed, Processed or Delegated

[] Key Dates Completed or Scheduled