



The inFUELencer Curriculum Outline Report

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Introduction

The inFUELencer project is a strategic Erasmus+ Cooperation Partnership (KA220-VET) designed to support fuel retail businesses in navigating the transition toward a carbon-neutral economy. Our mission is to provide these businesses with the specialised knowledge, strategic tools and green skills needed to ensure long-term viability. Key project results include:

- inFUELencer Curriculum: A sector-specific training framework tailored to business viability and green transformation.
- E-Learning Platform: An accessible digital hub featuring self-assessment tools, a Needs Identification Tool, and multimedia resources to facilitate self-paced learning.
- Capacity Building: Practical workshops and 'train-the-trainers' sessions that bridge the gap between policy requirements and real-world business application.

The Curriculum Outline presented in this report is the second step in our inFUELencer Curriculum development process. In the previous step, we gathered insights from our key stakeholders (127 fuel retailers and 50 vocational trainers and educators) with the aim to establish a robust, evidence-based foundation for developing a sector-responsive vocational education and training (VET) curriculum on alternative fuels, directly supporting the green transition in the fuel retail sector. Our research was conducted in five European countries (France, Germany, Greece, Italy and Poland) in early 2026. The report from this research is available to download on our project website: <https://infuelencer.erasmus.site/project-results/>. In this Curriculum Outline report, we also referenced 25 relevant publicly available courses from multiple sources to enrich our curriculum and keeps the content as well as the pedagogical architecture up to date.

Overall, the inFUELencer Curriculum consists of the following components:

a) The inFUELencer Training Modules

Total content: between 140-175 pages (20-25/module) - approx. 30 learning hours

The course includes 7 structured training modules designed to upskill fuel retailers in business viability and adaptation to sectoral transformations with a practical focus.

b) The inFUELencer Alternative Fuels Guide

Total content: at least 100 pages (15/module) - approx. 20 learning hours

An e-book with 7 chapters dedicated to the seven types of alternative fuels recognised by the EC's AFI directive.

c) The inFUELencer Fuel Retail Business Transformation Guide

Total content: at least 30 pages - approx. 10 learning hours

A visually engaging, infographic-based e-book offering tips, strategies, methods, and business models for successful business transformation, including also 10 relevant best practices/success stories from businesses already either have changed their operational model or offered diversified services from partner countries.

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1. Learning points from stakeholders

1.1 Stakeholder recommendations

In early 2026, we gathered insights from our key stakeholders (127 fuel retailers and 50 vocational trainers and educators) with the aim to establish a robust, evidence-based foundation for developing a sector-responsive vocational education and training (VET) curriculum on alternative fuels, directly supporting the green transition in the fuel retail sector. Our research was conducted in five European countries (France, Germany, Greece, Italy and Poland). The report from this research is available to download in every abovementioned language on our project website: <https://infuelencer.erasmus.site/project-results/>.

A common finding from the research is that in order to support the sector's transition, the inFUELencer project must focus on providing practical, sector-specific training that bridges the gap between awareness and action. The curriculum should prioritize key areas such as alternative fuels, EV infrastructure management, financial planning, regulatory compliance, and digital transformation. Training must be designed to address the specific needs of different types of operators, from small rural stations to large multi-site networks. For smaller operators, the focus should be on survival and viability, with modules on financial planning, investment risk management, and customer engagement. For larger operators, training should emphasize strategic planning, multi-energy models, and operational complexity.

The curriculum should also address broader barriers to transition, such as regulatory uncertainty, limited access to funding, and uneven customer demand. A dedicated component on navigating grants, subsidies, and policy frameworks is essential to help operators align their businesses with the green transition. Additionally, the curriculum must be modular and flexible, allowing operators to choose the topics most relevant to their needs and schedules. Blended learning formats, combining online and in-person elements, should be the default approach to ensure accessibility and engagement across diverse learner profiles.

In general, the findings suggest that future support should focus on:

- Flexible and practical sector-specific training
- Stronger guidance on regulatory compliance
- Business adaptation and sustainability planning
- Digital transformation and smart station management
- Improved access to grants and investment support
- Clearer and more stable long-term policy frameworks

The curriculum design recommendations for the inFUELencer project provide a clear and practical framework for delivering effective training to fuel retailers. The core curriculum modules focus on digital transformation, alternative fuels and EV operations, regulatory compliance, customer innovation, and financial planning, equipping participants with the essential skills needed for business transformation. A blended delivery format is recommended, combining online and in-person sessions to maximize flexibility. Each module should be offered in two formats: short micro-modules (1–2 hours) and standard half-day sessions (3–4 hours), allowing participants to choose based on their availability and learning preferences. The curriculum content should prioritize case studies and real-world examples, particularly from the fuel retail sector, to ensure practical relevance.

To address financial and policy challenges, the curriculum should integrate grants, investment tools, and ROI frameworks into the training content. A dedicated policy module is also essential, focusing on navigating regulatory requirements, compliance with the European Green Deal,

and advocating for technology neutrality. The curriculum should adopt a modular and updatable architecture, allowing content to be easily revised as regulations and market needs evolve.

The primary target audience should be multi-site operators with 10 or more stations in rural areas, as this group is currently underserved but has the highest potential for large-scale impact. These recommendations ensure the curriculum is flexible, practical, and aligned with the sector's needs, empowering fuel retailers to successfully transition in line with sustainability goals. The preference for short, flexible and blended learning formats will also guide the future training design approach.

1.2 Bridge to the inFUELencer curriculum

The inFUELencer curriculum should be structured around five core pillars: energy transition and alternative fuels, EV charging operations and customer support, digital transformation and smart station management, sustainable business models and service diversification, and regulatory compliance and financial planning. Each pillar should include practical, action-oriented modules that focus on real business decisions rather than abstract concepts. For example, modules on EV charging should cover installation decisions, charger operation, maintenance, troubleshooting, and customer support. Similarly, modules on financial planning should include tools for assessing investment costs, expected returns, funding sources, and risk exposure.

The curriculum should also incorporate case studies, real-world examples, and peer learning opportunities to enhance practical relevance. Short micro-modules (1–2 hours) and standard half-day sessions (3 - 4 hours) should be offered to accommodate the time constraints of operators. Digital tools, such as mobile learning platforms and interactive simulations, should be used to engage learners and support self-paced learning. Additionally, the curriculum should include a training-of-trainers component to equip VET providers with updated, sector-specific resources and methodologies.

In details, the findings provide key insights and priorities for the inFUELencer curriculum development:

- **Top Training Areas:** The core curriculum should focus on five primary domains: energy transition and alternative fuels, EV charging operations and customer support, digital transformation and smart station management, sustainable business models and service diversification, and regulatory compliance and financial planning. These areas reflect the most critical skills and knowledge gaps identified by respondents.
- **Preferred Format:** A blended/flexible learning format is preferred by the majority of participants. This indicates the need to prioritize flexible delivery methods over single-format approaches to accommodate diverse learner needs.
- **Preferred Duration:** The majority of respondents prefer shorter sessions lasting half a day or less. This suggests that modules should be designed as 3 to 4-hour units, with options for 1 to 2-hour micro-learning sessions to maximize accessibility and engagement.
- **Learning Resources:** Respondents value case studies and real-world examples as the most effective learning resources. Delivery should emphasize peer learning, discussions, and best practice sharing to ensure relevance and practical application.
- **Participation Intent:** Almost all respondents are at least somewhat likely to participate in training. This confirms high market demand, indicating that the curriculum rollout is highly viable.
- **Primary Support Need:** While training is important, a lot of respondents identified financial support (e.g., grants or investment) as their primary enabler for transition. The

inFUELencer curriculum should align training content with funding opportunities to address this need.

- Policy Blockers: Respondents highlighted the need for technology neutrality, regulatory stability, and reduced bureaucracy as critical policy improvements. The curriculum should include a module on navigating regulatory uncertainty and leveraging policy frameworks to help businesses adapt.
- Curriculum Design Hint: Operators value modular, cost-effective content that can be updated as regulations evolve. The curriculum should be built on an agile, modular architecture to remain adaptable to future regulatory and market changes.
- These insights emphasize the importance of designing a flexible, practical, and forward-looking curriculum that aligns with both market demands and the evolving needs of fuel retailers in the green transition.

2. Learning points from reviewed courses

2.1 List of reviewed courses

In the process of the course review, we reviewed the curriculum of twenty five courses from across the European Union and a small number of international providers. The majority of courses reviewed are based in Germany, reflecting the project's coordination base, with further courses reviewed from the Netherlands, the United Kingdom, Denmark and EU-wide Erasmus+ initiatives. All courses reviewed are publicly accessible and available in English. The table below contains the details of the courses studied.

	Name	Level	Institution	Country	Link
1	Net Zero Scenario, How to Achieve It with Hydrogen	Professional	Fraunhofer Institute for Surface Engineering and Thin Films (IST)	Germany	https://www.ist.fraunhofer.de/en/events-trade-fairs/course-expertise-transition-hydrogen/continuing-education-hydrogen-hybrid-course.html
2	Certified Expert in Climate and Renewable Energy Finance	Professional	Frankfurt School of Finance and Management	Germany	https://www.frankfurt-school.de/en/executive-professional-education/nachhaltige-finanzierung-esg/certificates/certified-expert-in-applied-renewable-energy-finance-cearef
3	Solar Energy Engineering Certificate Courses	Professional, advanced	Fraunhofer Institute for Solar Energy Systems (ISE)	Germany	https://www.academy.fraunhofer.de/en/continuing-education/energy-transition/solar-energy-engineering-certificates.html
4	Green Hydrogen and Renewable Power-to-X (PtX) Professional	Professional, advanced	Renewables Academy (RENAC) AG	Germany	https://www.renac.de/product/green-hydrogen-power-to-x-energy-expert-training-online-course-certificate/

	Name	Level	Institution	Country	Link
5	Green Hydrogen Specialist, Project Development and Economics	Professional, advanced	Renewables Academy (RENAC) AG	Germany	https://www.renac.de/product/economics-of-green-hydrogen-training-online-course-certificate/
6	GreenSkills4H2, Hydrogen Skills Core VET Curriculum	VET, professional upskilling	Karlsruhe Institute of Technology (KIT)	Germany (EU-wide)	https://greenskillsforhydrogen.eu/hydrogen-skills-core-vet-curriculum/
7	Biorefinery, From Biomass to Building Blocks of Biobased Products	Intermediate	Wageningen University and Research (WUR)	Netherlands	https://www.edx.org/learn/biorefinery/wageningen-university-research-biorefinery-from-biomass-to-building-blocks-of-biobased-products
8	From Fossil Resources to Biomass	Intermediate	Wageningen University and Research (WUR)	Netherlands	https://www.edx.org/learn/energy/wageningen-university-research-from-fossil-resources-to-biomass-a-business-and-ec
9	Economics and Policies for a Circular Bio-Economy	Intermediate	Wageningen University and Research (WUR)	Netherlands	https://www.classcentral.com/course/economics-wageningen-university-research-economic-12459
10	Sustainable Energy Systems, Design a Renewable Future	Intermediate	Delft University of Technology (TU Delft)	Netherlands	https://online-learning.tudelft.nl/courses/sustainable-energy-design-a-renewable-future/
11	TwinRevolution, Joint VET Curriculum for Twin Digital and Green Transition	VET	TwinRevolution Consortium	EU-wide	https://twinrevolution.eu/
12	Green Skills 4 VET, Sustainability in VET Learning Programmes	VET	Cisita Parma and partners	EU-wide	https://www.greenskills4vet.eu/
13	SME Green Skills HUB, SDG Training for SMEs via VET	VET, SME staff	SME Green Skills HUB Consortium	EU-wide	https://smegreenskillshub.eu/
14	Climate Fit, Net Zero Training for SMEs	SME owner, manager, staff	SME Climate Hub / CISL / BSR	EU-wide / Germany	https://smeclimatehub.org/climate-fit/
15	Renewable Energy,	Introductory	University of Leeds	EU	https://www.futurelearn.com/courses/renewable-energy-

	Name	Level	Institution	Country	Link
	Achieving Sustainability through Bioenergy				achieving-sustainability-through-bioenergy
16	Global Energy Transition	Professional	The Renewable Energy Institute (REI)	EU (UK/European)	https://www.renewableinstitute.org/training/global-energy-transition/
17	Biomass Training Course	Professional	The Renewable Energy Institute (REI)	EU (UK/European)	https://www.renewableinstitute.org/training/biomass-course/
18	Renewable Energy Solutions	Professional	The Renewable Energy Institute (REI)	EU (UK/European)	https://www.renewableinstitute.org/training/renewable-energy-solutions-course/
19	Hydrogen Energy Systems	Postgraduate , professional	Robert Gordon University (RGU)	EU-wide	https://www.rgu.ac.uk/study/courses/6325-hydrogen-energy-systems
20	Hydrogen, Key Concepts and Use in Green Technologies	Introductory to intermediate	Technical University of Denmark (DTU)	EU-wide	https://www.coursera.org/learn/hydrogen-key-concepts-and-use-in-green-technologies
21	Renewable Energy Futures	Intermediate	University of Colorado Boulder	EU, Denmark/International	https://www.coursera.org/learn/renewable-energy-futures
22	InnoFuels Platform, Renewable Fuels Knowledge Base	Professional, policy, general public	Karlsruhe Institute of Technology (KIT) and DBFZ	Germany	https://www.innofuels.de/english/index.php
23	Renewable Energy Foundations for Business	Professional, business	Cambridge Institute for Sustainability Leadership (CISL)	EU-wide	https://www.cisl.cam.ac.uk/education/learn-online/renewable-energy-foundations-business
24	CoVEs	VET, professional	GREENOVET Consortium	EU-wide	http://www.greenovet.eu/
25	ASTM International, Biodiesel Fuel eLearning Programme	Technical professional	ASTM International	Global network	https://store.astm.org/astm-tpt-143.html

When reviewing the structure of the studied courses, we picked discrete pieces to better grasp the future course architecture, looking at delivery format, study duration, assessment methodology and target audience level.

In terms of delivery format, the majority of courses reviewed are self-paced and entirely online, which aligns closely with the time constraints faced by fuel retail professionals. A smaller number are delivered as hybrid programmes combining self-paced study with live online sessions, and a few require attendance at fixed times, typically through Moodle-based virtual learning environments. None of the German courses reviewed require in-person attendance, which supports their accessibility for a geographically dispersed audience.

Study duration varies considerably, from a few hours to several weeks. Several MOOCs are designed to be completed within a few hours to a few weeks, while professional certificate programmes such as those offered by RENAC and the Renewable Energy Institute typically require twenty to fifty hours of study spread across several weeks. Erasmus+ VET curricula tend to be modular, allowing learners to study individual modules without committing to the full course at once. This modularity is considered a particularly important design principle for the inFUELencer Curriculum, since fuel retail professionals are unlikely to commit to long, continuous blocks of study time.

Each course has adopted a distinct assessment process, with the most common formats being graded quizzes, written assignments, competency based practical assessment, and certificates of participation. A small number of professional certificate programmes, such as those offered by RENAC and Frankfurt School, require a final written examination. Given the time constraints of the target audience, the inFUELencer Curriculum should favour shorter, modular assessment formats such as graded quizzes and self-assessment activities over lengthy written examinations, except where formal certification is specifically sought.

Course materials are most commonly delivered as a combination of video lectures, written fact sheets, and interactive exercises. A small number of courses, including SME Green Skills HUB, deliver assessment through a mobile app, which points toward mobile accessibility as a desirable feature of the inFUELencer e-learning platform, given that fuel retail staff are often on their feet or away from a desk during working hours.

2.2 Concepts covered in reviewed courses

In this section, we discuss the module content of the analysed courses in terms of similarities and contrasts. Across the twenty five courses, both online and hybrid formats are well represented, and courses are generally structured module by module with sub-topics rather than as a single continuous block.

German courses place a strong emphasis on hydrogen, with five of the twenty five courses reviewed dedicated specifically to hydrogen value chains, electrolysis and Power-to-X applications. Dutch courses, delivered through Wageningen University and TU Delft, focus more heavily on biomass and biorefinery processes, including transesterification and biofuel production economics. Courses from the United Kingdom, delivered through the Renewable Energy Institute and the University of Leeds, take a broader sweep across renewable technologies including biomass, wind and solar. Erasmus+ VET projects such as TwinRevolution, Green Skills 4 VET and SME Green Skills HUB are structurally the closest comparators to inFUELencer, sharing a similar modular, competency based approach aimed at SMEs and VET trainers.

Overall, the courses reviewed have a curriculum that emphasises the connection between technical fuel knowledge and business viability. Technical content on fuel types, production and

quality standards is frequently bundled with business and financial content such as green finance and investment decision making, particularly in courses aimed at SME decision makers. This pairing of technical and business content is considered an important structural principle for the inFUELencer Curriculum. In summary, we identified the following recurring topics across the course review.

Topic	Sub-topic
Introduction to the Energy Transition	History of alternative fuels, the EU Green Deal, carbon neutral economy, EU climate targets for 2030 and 2050, the role of fuel retailers
Alternative Fuel Types and Technologies	Biodiesel and the EN 14214 standard, hydrotreated vegetable oil, biogas and biomethane, green hydrogen and Power-to-X, liquefied petroleum gas, sustainable aviation fuel
Biofuel Production and Biorefinery	Transesterification, fermentation, biomass feedstocks, downstream processing, biorefinery design, used cooking oil as feedstock
Fuel Quality Standards and Testing	EN 14214 biodiesel standard, ASTM test methods, flash point, viscosity, blending standards, quality control
Environmental Sustainability	Greenhouse gas reduction potential, life cycle assessment, sustainability criteria under EU RED II/III, carbon footprint calculation, circular economy principles
Business Transition and Green Strategy	Business model analysis, diversification strategies such as EV charging, investment decision making, financial viability, green finance
EU Regulation, Policy and Market	EU regulatory frameworks, greenhouse gas reduction quotas, Renewable Energy Directive, market ramp up, incentive structures
Hydrogen Economy	Green hydrogen production via electrolysis, storage and transportation, fuel cell technology, hydrogen value chain, safety, EU hydrogen strategy
Digital and Mobile Learning Tools	Mobile friendly e-learning platforms, self-assessment tools, gamification, digital transition basics for SMEs

2.3 Bridge to the inFUELencer Curriculum

Several learning points are highlighted during the course review process. As a result, we have concentrated on the most significant and frequently encountered learning points from the reviewed courses. These are set out below:

- Self-paced, modular delivery is the dominant format among courses aimed at working professionals, and should be the default delivery format for the inFUELencer Curriculum, given that fuel retailers cannot easily step away from business operations for extended periods.
- Short modules of twenty to thirty minutes, as used by Climate Fit, appear well suited to busy professionals, allowing learning to be fitted around shifts and quieter periods at the forecourt.

- Mobile accessibility, as already used in SME Green Skills HUB's mobile assessment app, should be a core design requirement for the inFUELencer e-learning platform, since fuel retail staff are frequently away from a desk during working hours.
- Free or low cost courses, particularly those funded under Erasmus+ or by German federal ministries, lower the barrier to participation for small fuel retail businesses with limited training budgets.
- Competency based and practical assessment, rather than lengthy written examinations, is preferred in VET oriented curricula and is likely to be more appropriate for a fuel retail audience than academic style assessment.
- Regulatory and certification content, such as EU RED II/III sustainability criteria and EN 14214 biodiesel standards, recurs across multiple courses and should form a core component of the curriculum.
- Business and financial content, including green finance and investment decision making, is frequently bundled with technical fuel content in courses aimed at SMEs, suggesting that the inFUELencer Curriculum should combine technical and business modules rather than separating them.
- Interactive self-assessment tools, including the Needs Identification Tool referenced on the inFUELencer project website, are well established in comparable Erasmus+ VET projects and should be carried forward into the e-learning platform in mobile friendly form.
- Train the trainer components, present in several Erasmus+ VET curricula reviewed, are necessary to support the capacity building strand of the inFUELencer project.
- Several reviewed courses, including Global Energy Transition (REI), Renewable Energy Solutions (REI) and Renewable Energy Foundations for Business (CISL), explicitly confirm that their course materials are accessible on computer, tablet and mobile, demonstrating that professional-level energy transition content can be delivered in a mobile-friendly format and is not limited to desktop-only environments.

Rather than a single baseline course, three courses from the review are selected as the closest topical and structural matches for the inFUELencer Curriculum, since no single course in the review combines fuel specific content with a fuel retail business audience. These three are presented together below, followed by a note on curriculum design lessons drawn from a fourth course, GreenSkills4H2, whose subject matter is hydrogen infrastructure rather than fuel retail but whose modular VET structure is instructive.

From **Fossil Resources to Biomass (FRB)**, a Business and Economics Perspective, delivered by Wageningen University and Research, is the strongest topical match in the review. It is the only course examined that addresses the business and economic mechanics of transitioning from fossil resources to biomass based products and energy carriers, covering consumer science, supply chain, market mechanics and business model development at the point of sale, which mirrors the commercial decision a fuel retailer faces when introducing biofuels alongside conventional fuel. Its content is pitched at a business and economics audience rather than a chemistry audience, which is the more appropriate framing for fuel retail owners and managers.

The **ASTM International Biodiesel Fuel eLearning Programme** is the strongest match for fuel quality and product knowledge specifically. Its fifteen standard test method modules, each completed in about one hour, cover the practical quality parameters that determine whether a biodiesel blend is fit for sale, including flash point, water content, cold filter plugging point and lubricity, all benchmarked against the EN 14214 standard referenced by GRINCO, the inFUELencer biodiesel partner. Its short, single sitting module format and quiz based assessment with an eighty percent pass mark make it a strong structural model for short, practical, product focused modules within the inFUELencer Curriculum.

Four further courses in the review: **Climate Fit** (SME Climate Hub / CISL), **Renewable Energy: Achieving Sustainability through Bioenergy** (University of Leeds / FutureLearn), **Global Energy Transition** (Renewable Energy Institute), and **Renewable Energy Foundations for Business** (CISL / University of Cambridge) — are not topical matches for biodiesel or fuel retail in the way the WUR and ASTM courses are, but they offer structural and pedagogical lessons that are directly applicable to how the inFUELencer Curriculum should be designed and sequenced.

Climate Fit is the clearest structural model for inFUELencer's business-facing modules. Its seven-module architecture covers governance and strategy, operations, supply chain emissions, sustainable product design, green finance, people and community, and net zero communication, which maps almost directly onto the business transition modules inFUELencer needs to develop for fuel retail owners. Each module takes 20 to 30 minutes, is entirely self-paced and free, and the platform is designed for mobile access, so learners can complete it during quieter periods at the forecourt rather than requiring desk time. The key lesson is that even strategy-level content, which might otherwise seem too complex for a short course, can be broken into digestible standalone modules without losing coherence, provided each module ends with a concrete action. Developed by the SME Climate Hub together with the University of Cambridge Institute for Sustainability Leadership and Business for Social Responsibility, is the strongest match for the target audience itself. Unlike the more technical courses in the review, Climate Fit is built specifically for SME owners and managers making net zero transition decisions, delivered in seven modules of twenty to thirty minutes each, free of charge, with no formal examination. It demonstrates that a short, modular, mobile accessible format is workable even for strategy level content such as governance, supply chain emissions and green finance, which is the format the inFUELencer Curriculum needs for its business facing modules.

Renewable Energy: Achieving Sustainability through Bioenergy (University of Leeds) offers the closest content overlap with biofuels among the four. Its two-week structure begins with the science of how biomass is formed and how it compares to fossil fuels, moves through the social and environmental implications of different biofuel types, and closes with a practical feasibility study exercise. For inFUELencer, the sequencing is instructive: it moves from why biofuels exist, to what different types are and how they compare, to a hands-on task that applies the knowledge, which is the same progression inFUELencer's technical modules should follow. Its case studies focus on developing-world biogas and palm oil rather than EU biodiesel retail, so the content needs translating to the European forecourt context, but the structure itself transfers well.

Global Energy Transition (Renewable Energy Institute) is relevant for its sequencing at the macro level. It opens with the historical context of why the energy transition is happening, then moves through grid decarbonisation, technology options including biofuels and hydrogen, market and policy frameworks, and closes with ESG and geopolitics. This top-down sequencing, from why, to what, to how, and finally to the commercial and regulatory environment, is the right order for the inFUELencer introductory module, since fuel retail owners who are not yet engaged with the transition need the why before they will engage with the what. The course materials are also explicitly designed for computer, tablet and mobile access, reinforcing the case for mobile-first design.

Renewable Energy Foundations for Business (CISL / University of Cambridge) is the most directly relevant of the four to the inFUELencer target audience. It is designed for professionals in energy-intensive sectors including oil and gas, energy and utilities, and manufacturing, and it explicitly includes people working in those sectors who need to understand the transition from a business and commercial perspective rather than a scientific one. Its five-module structure moves from the current energy system and the risks of fossil fuel dependence, through renewable energy technologies and their business case, to a personal action plan that learners

take away and apply in their own organisation. The action plan component is a particularly useful design element for inFUELencer, since fuel retailers who complete the curriculum should leave with a concrete set of next steps for their own business, not just a certificate.

GreenSkills4H2, the Hydrogen Skills Core VET Curriculum led by Karlsruhe Institute of Technology, was also reviewed in detail. Its subject matter, the hydrogen value chain for technical and industrial occupational profiles, does not overlap meaningfully with biodiesel, bioethanol or fuel retail business content, so it is not treated as a topical baseline. However, its curriculum design process is instructive: a formal skills strategy and occupational profile mapping exercise preceded curriculum design, the resulting curriculum was split into three audience specific tracks rather than one generic course, and assessment was linked throughout to recognised qualification pathways under the European Qualifications Framework. This sequencing, mapping the audience and their skills needs before writing content, then splitting tracks by audience type, is a useful structural model for how the inFUELencer Curriculum should be built, even though its hydrogen content itself is not reused.

One entry in the review, InnoFuels, sits outside the category of a training course and is better understood as a comparable project rather than a curriculum to draw modules from. InnoFuels is a German federally funded platform, coordinated by Karlsruhe Institute of Technology with the German Biomass Research Centre as lead partner for its sustainability focus area, running from February 2023 to August 2026, a timeline that overlaps closely with inFUELencer itself. Its mission, networking fuel producers, automotive and transport manufacturers, research institutes and government ministries to accelerate the market uptake of renewable fuels and resolve regulatory barriers, mirrors inFUELencer's own purpose of equipping a value chain stakeholder group with the knowledge needed to navigate the same transition. InnoFuels has produced an interactive online resource explaining the legal framework for renewable fuels, covering target markets, sustainability criteria and crediting mechanisms under EU RED II/III, material that is directly reusable as background reading for the regulation module of the inFUELencer Curriculum. Unlike GreenSkills4H2, InnoFuels also addresses biofuels and e-fuels rather than hydrogen alone, making it topically relevant as well as structurally comparable. Given the overlap in funding model, timeline and mission, InnoFuels is best treated not as source material to copy from but as a sister initiative that the inFUELencer project should reference and potentially coordinate with, both for its existing legal framework content and for its network of fuel sector stakeholders.

3. The inFUELencer Curriculum Architecture

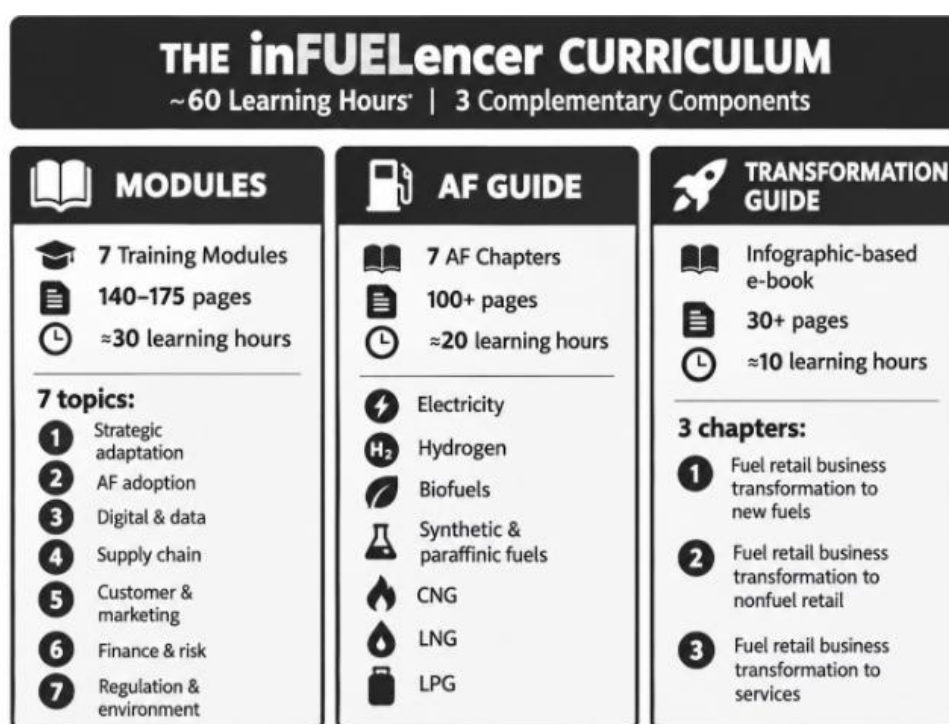
Being informed through the stakeholder research and the reviewed courses, the inFUELencer Curriculum is a comprehensive, modular learning programme designed to empower fuel retailers with the knowledge, skills, and competences required to thrive in the rapidly evolving European energy landscape. The inFUELencer Curriculum will be meticulously designed to address the pressing need for competence development among fuel retailers. Its overarching aim is to equip professionals with the strategic, technical, and operational skills necessary to adapt to sectoral transformations, embrace alternative fuels, and implement innovative business models. By fostering a deep understanding of regulatory requirements, digitalization, and sustainable practices, the curriculum supports fuel retailers in navigating the complexities of the energy transition, enhancing their employability, and contributing to the EU's climate neutrality goals.

3.1. Curriculum Architecture: Modular Design for Holistic Learning

The inFUELencer Curriculum is structured around three interlocking, complementary components, each tailored to address specific learning outcomes and competence areas. The curriculum's modular architecture ensures that each component reinforces and extends the learning outcomes of the others. Six language packages are available for all materials: English, German, French, Greek, Italian, and Polish.

The **Training Modules** provide foundational and advanced competences, the **Alternative Fuels Guide** offers in-depth technical and practical reference material, and the **Business Transformation Guide** translates theory into actionable strategies through real-world examples. This integrated approach supports a seamless learning journey, enabling fuel retailers to develop a comprehensive skillset for business adaptation, regulatory compliance, and sustainable growth.

Here below is a figure that summarizes the modular inFUELencer Curriculum components.



A) The inFUELencer Training Modules

- **Format:** Seven (7) structured modules, each comprising 20–25 pages, for a total of 140–175 pages and approximately 30 learning hours.
- **Content:** Practical upskilling in business viability and adaptation, covering:
 1. Strategic business adaptation
 2. Alternative fuel adoption
 3. Digital and data-driven decision-making
 4. Sustainable supply chain management
 5. Customer engagement and marketing in the new fuel landscape
 6. Financial planning and risk mitigation
 7. Regulatory compliance and environmental standards

- **Approach:** Each module is designed to foster actionable competences. In each module, there are interactive online booklets, downloadable materials, AI videos, and pools of multiple-choice questions to test the knowledge. A final summative test is provided at the end of the course for learners aiming for certification.

B) The inFUELencer Alternative Fuels Guide

- **Format:** E-book comprising at least 100 pages (approx. 15 per chapter), representing around 20 learning hours.
- **Content:** Seven chapters dedicated to alternative fuels recognized by AFIR:
 1. Electricity
 2. Hydrogen
 3. Biofuels
 4. Synthetic and paraffinic fuels
 5. Compressed natural gas (CNG)
 6. Liquefied natural gas (LNG)
 7. Liquefied petroleum gas (LPG)
- **Approach:** Each chapter includes: General information, Fuel characteristics, Infrastructure requirements, Environmental impact, Economic considerations, Additional resources & tools, Conclusion & recommendation. Practical decision-making tools are embedded to support efficient adoption of alternative fuels.

C) The inFUELencer Fuel Retail Business Transformation Guide

- **Format:** Visually engaging, infographic-based e-book of at least 30 pages, designed for approximately 10 learning hours.
- **Content:** Three chapters offering actionable tips, strategies, methods, and business models for successful transformation:
 1. Fuel retail business transformation to new fuels
 2. Fuel retail business transformation to nonfuel retail
 3. Fuel retail business transformation to services
- **Approach:** Features 10 success stories from partner countries, illustrating real-world examples of operational change and service diversification.

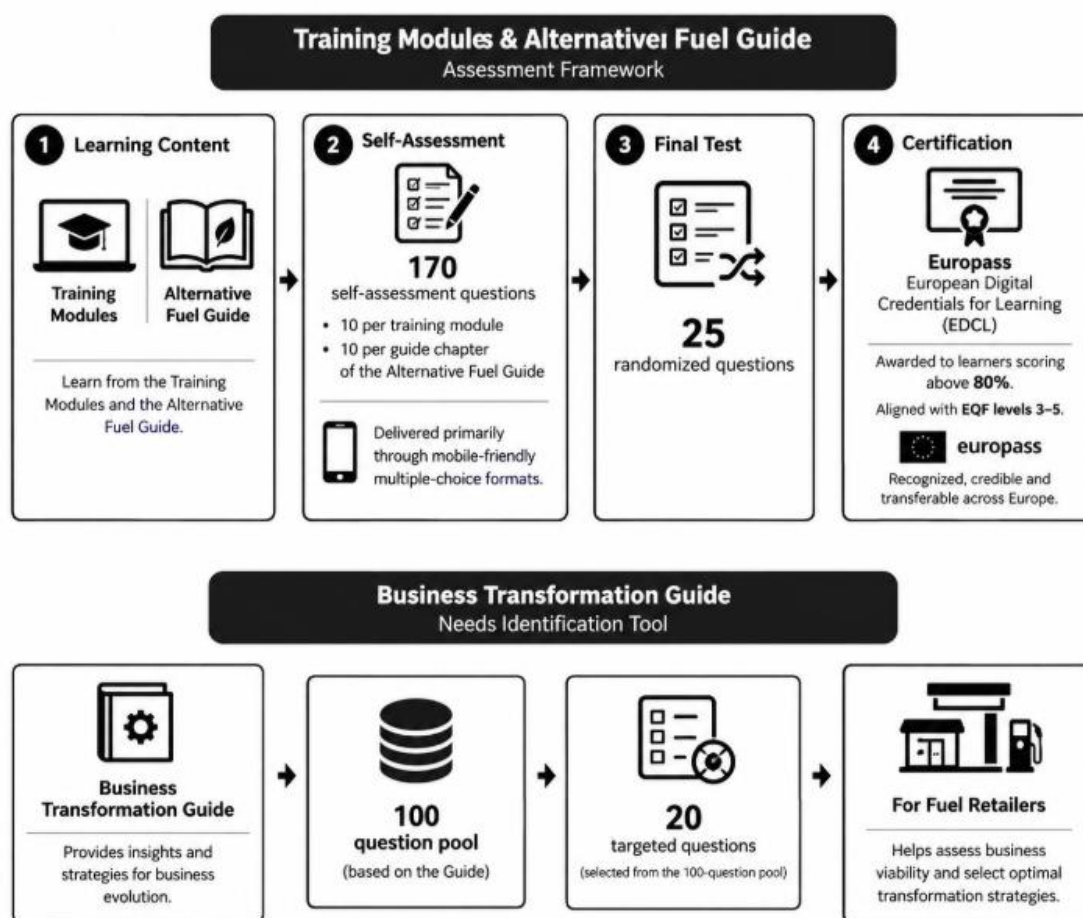
3.2. Delivery and Assessment Architecture: Interactive Digital Learning Platform

In the next stage of our curriculum development, the content outline above will be developed and digitized on the **inFUELence the Change**, an e-learning Digital Learning Platform hosted on the project website. The platform will ensure accessibility, engagement, and practical application of the training content. The platform transforms the project's curriculum, comprising the training modules and guides, into an interactive, self-paced learning experience accessible from both computer and mobile devices. Users can study anytime, anywhere, fitting training around busy work schedules without the constraints of classroom-based sessions. Content can be revisited as often as needed, allowing learners to progress at their own speed and revisit complex topics until fully understood.

In order to assess the learning of the **Training Modules** and the **Alternative Fuel Guide**, a robust assessment framework of 170 self-assessment questions (10 per training module and 10 per guide chapter of the Alternative Fuel Guide) will be delivered primarily through mobile-friendly multiple-choice formats, culminates in a final randomized 25-question test. Learners scoring above 80% are awarded a Europass European Digital Credentials for Learning (EDCL) certificate, aligned with EQF levels 3–5, ensuring the knowledge gained is recognized, credible, and transferable across Europe.

Following the **Business Transformation Guide**, a practical Needs Identification Tool that draws 20 targeted questions from a 100-question pool based on the information and the case studies presented the Business Transformation Guide. This helps fuel retailers assess their business viability and select optimal transformation strategies.

Here below is a figure that summarizes the inFUELencer assessment components.



The platform is further enriched with multimedia resources, including a tutorial video for smooth navigation and AI-created introductory videos for each module and chapter, enhancing comprehension and engagement from the very first click. Multimedia formats cater to different learning styles — visual, auditory, and reading-based learners all benefit. Digital delivery eliminates travel and venue costs, while allowing the platform to reach unlimited users simultaneously, maximizing the project's impact and sustainability. Together, these features ensure that the inFUELencer platform does not just deliver content. It creates a measurable, certified, and practical learning journey that empowers fuel retailers to navigate their business transformation with confidence.

4. Outline: The inFUELencer Training Modules

The inFUELencer training modules consist of seven (7) structured modules, each comprising 20–25 pages, for a total of 140–175 pages and approximately 30 learning hours. In each module, there are interactive online booklets, downloadable materials, AI videos, and pools of multiple-choice questions to test the knowledge. A final summative test is provided at the end of the course for learners aiming for certification. Below are the outlines of all modules, each includes the (a) learning aim, objectives and outcomes, (b) topics, (c) training strategies and methods, (d) training activities, and (e) assessment type and evaluation methods and tools.

Module 1: Strategic business adaptation

a) Learning aim, objectives and outcomes	Aim: enable fuel retailers to adapt their business model to sectoral change. Objectives: assess the viability of the current business model; identify diversification options relevant to the retailer's own site; build a step by step transition roadmap. This addresses the business adaptation and sustainability planning need identified in the stakeholder survey. Outcome: the learner produces a written action plan for their own station, following the action plan model used in the Renewable Energy Foundations for Business course.
b) Topics	Business model analysis; diversification strategies (multi energy stations, service stations); strategic planning for a capital intensive transition.
c) Training strategies and methods	Short modular units of 20 to 30 minutes, self paced and mobile accessible, following the Climate Fit format. Content sequenced from why the transition is happening, to what it means, to how to respond, following the Global Energy Transition course sequencing. This also matches the stakeholder preference for short, half day or less, blended training.
d) Training activities	Business model self assessment; a comparison exercise between at least two diversification options relevant to the learner's own business.
e) Assessment type and evaluation methods and tools	Completion of a personal business action plan following the Renewable Energy Foundations for Business model. This also reflects the stakeholder preference for practical, applied learning outputs in reality. Examples provided for self-assessment.

Module 2: Alternative fuel adoption

a) Learning aim, objectives and outcomes	Aim: give retailers working knowledge of alternative fuels sufficient to make an adoption decision. Objectives: compare fuel types (biodiesel, hydrotreated vegetable oil, biogas, hydrogen, liquefied petroleum gas, sustainable aviation fuel); understand handling, storage, safety and blending requirements; assess which fuel or fuels suit their own site. Technical knowledge of alternative fuels was named as a stakeholder training priority . Outcome: the learner can shortlist which alternative fuel or fuels are realistic for their station.
b) Topics	Biodiesel and the EN 14214 standard; fuel quality standards and testing; handling and storage; safety protocols; blending operations. This module also includes but not focuses on the introduction of fuel types that are going to be included in the Alternative Fuels (AF) Guide: electricity, hydrogen, biofuels, synthetic & paraffinic fuels, compressed natural gas

	(CNG), Liquefied Natural gas (LNG), and Liquefied Petroleum Gas (LPG), which will be covered in more details in the Alternative Fuel Guide.
c) Training strategies and methods	Short, single sitting, product focused modules, following the ASTM International format. Sequencing moves from what the fuel types are, to how they compare, to a feasibility exercise, following the University of Leeds bioenergy course.
d) Training activities	A fuel comparison tool; a safety checklist simulation.
e) Assessment type and evaluation methods and tools	A graded quiz with an 80 percent pass mark, following the ASTM International assessment model, appropriate given the technical and factual nature of this module. This also matches the stakeholder preference for competency based, practical assessment.

Module 3: Digital and data-driven decision-making

a) Learning aim, objectives and outcomes	Aim: build learner confidence using digital tools for station operations. Objectives: understand smart station management; use operational data to inform pricing and service decisions; adopt digital payment systems. Digital transformation and smart station management is one of the 5 core training pillars identified from the stakeholder survey. Outcome: the learner identifies one digital tool to pilot at their own station.
b) Topics	Smart station management; digital payment systems; data driven decision making; mobile friendly digital tools for small and medium enterprises. The Digital and Mobile Learning Tools row in the reviewed courses concepts table describes delivery format rather than retailer facing digital operations content.
c) Training strategies and methods	Mobile first micro learning. No reviewed course covered digital station management directly. This format follows the general mobile accessibility approach seen across several reviewed courses, rather than one specific precedent.
d) Training activities	A guided walkthrough of a sample digital dashboard; a self check exercise on digital terminology.
e) Assessment type and evaluation methods and tools	A short self assessment quiz, focused on tool familiarity.

Module 4: Sustainable supply chain management

a) Learning aim, objectives and outcomes	Aim: help retailers align sourcing and logistics with sustainability requirements. Objectives: map the retailer's own supply chain touch points; evaluate supplier sustainability; understand partnership options with fuel producers. Outcome: the learner can ask their fuel supplier a set of informed questions about sustainability.
b) Topics	Supply chain emissions; sourcing; partnerships with fuel producers. Partnerships with fuel producers. The wider supply chain and sourcing content has limited precedent; the closest source is the Fossil Resources to Biomass course, which covers supply chain and business model development at the point of sale.

c) Training strategies and methods	A short modular unit, following the Climate Fit supply chain emissions module as a structural precedent.
d) Training activities	A supplier engagement checklist.
e) Assessment and evaluation methods and tools	A self-paced quiz assessment.

Module 5: Customer engagement and marketing in the new fuel landscape

a) Learning aim, objectives and outcomes	Aim: equip retailers to communicate new services to customers. Objectives: message new offerings such as electric vehicle charging and alternative fuels clearly; build customer and community trust in the change. Outcome: the learner drafts a short customer communication piece for their own station.
b) Topics	Customer and community engagement; marketing a diversified station; inclusive growth.
c) Training strategies and methods	Case study and example-led delivery. Case studies were confirmed as the most valued learning resource in the stakeholder survey.
d) Training activities	A role play or messaging template exercise.
e) Assessment and evaluation methods and tools	Completion of a draft customer communication piece. Examples provided for self-assessment.

Module 6: Financial planning and risk mitigation

a) Learning aim, objectives and outcomes	Aim: build capability to plan and fund transition investments. Objectives: assess investment options; understand financing instruments including green and sustainable bonds; manage investment risk. Financial support was identified as the primary enabler for transition in the stakeholder survey. Outcome: the learner completes a funding options worksheet for their own business.
b) Topics	Investment decision making; green finance; risk mitigation; specific financial instruments content, green and sustainable bonds; different type of investors and funders.
c) Training strategies and methods	Strategy level content delivered in short digestible units, following the Climate Fit green finance module as a structural precedent.
d) Training activities	The Needs Identification Tool, used as a guided self assessment, carried over directly from the original Business Transition and Green Strategy module's interactive components; the Investment Readiness Tool.
e) Assessment and evaluation methods and tools	A funding options worksheet, or a financial MCQ as the module's assessment. Examples provided for self-assessment.

Module 7: Regulatory compliance and environmental standards

a) Learning aim, objectives and outcomes	Aim: build regulatory and environmental literacy. Objectives: understand EU and national compliance requirements; assess environmental impact reporting; recognise risks and negative externalities associated with the transition. Regulatory clarity and reduced bureaucracy were identified as stakeholder priorities. Outcome: the learner can identify which regulations apply to their own business.
b) Topics	EU regulatory frameworks; incentive structures; greenhouse gas reduction potential; life cycle assessment; sustainability criteria under EU RED II/III; circular economy principles; risks and negative externalities, including battery raw material mining and disposal.
c) Training strategies and methods	Reference style content, reusable as background reading, following the InnoFuels legal framework resource as a precedent.
d) Training activities	An interactive EU regulatory timeline; a stakeholder mapping template.
e) Assessment and evaluation methods and tools	A regulatory compliance self-check.

5. Outline: The inFUELencer Alternative Fuels Guide

The inFUELencer Alternative Fuels Guide is an e-book comprising at least 100 pages (approx. 15 per chapter), representing around 20 learning hours. The seven chapters dedicated to alternative fuels recognized by AFIR: Electricity, Hydrogen, Biofuels, Synthetic and paraffinic fuels, Compressed natural gas (CNG), Liquefied natural gas (LNG), and Liquefied petroleum gas (LPG). Below is the outline applicable for each of those seven chapters, including the (a) learning aim, objectives and outcomes, (b) topics, (c) training strategies and methods, (d) training activities, and (e) assessment type and evaluation methods and tools.

a) Learning aim, objectives and outcomes	Aim: give fuel retailers reference depth knowledge of each recognised alternative fuel to inform an investment decision. Objectives: understand the general characteristics, infrastructure requirements, economic considerations and environmental impact of each of the 7 alternative fuels; access the corresponding practical decision-making tools also included in the training modules. Outcome: the learner can evaluate one alternative fuel's infrastructure and economic fit for their own site.
b) Topics	This topic list applies for each of the 7 chapters of different alternative fuels: electricity, hydrogen, biofuels, synthetic and paraffinic fuels, compressed natural gas, liquefied natural gas, and liquefied petroleum gas. Each chapter follows the same internal structure: 1) General information, 2) Fuel characteristics, 3) Infrastructure requirements, 4) Environmental impact, 5) Economic considerations, 6) Additional resources and tools, 7) Conclusion and recommendation.
c) Training strategies and methods	A reference style e-book, read independently rather than taught as a live module. The guide is interactively digitised on the inFUELencer platform for self paced use, and each chapter includes an AI-created introductory video to support comprehension.

d) Training activities	The practical decision-making tool included in the corresponding training module for that fuel, cross-referenced within each chapter, so the learner can move directly from reading about a fuel to assessing it for their own site.
e) Assessment and evaluation methods and tools	10 self-assessment questions per chapter, drawn from the shared question pool used across the platform. These questions also contribute to the platform's overall pool of 170 questions and the final 25-question randomised test in order for participants to gain certification.

6. Outline: The inFUElencer Fuel Retail Business Transformation Guide

The inFUElencer Fuel Retail Business Transformation Guide is a visually engaging, infographic-based e-book of at least 30 pages, designed for approximately 10 learning hours. The Guide includes three chapters offering actionable tips, strategies, methods, and business models for successful transformation in: (1) new fuels, (2) nonfuel retail, and (3) services. Similar to the inFUElencer Training Modules and the Alternative Fuels Guide, below is the outline applicable for each of those three chapters, including the (a) learning aim, objectives and outcomes, (b) topics, (c) training strategies and methods, (d) training activities, and (e) assessment type and evaluation methods and tools.

a) Learning aim, objectives and outcomes	Aim: inspire and guide fuel retailers through business model transformation using proven pathways from comparable businesses. Objectives: understand the 3 directions a fuel retail business can transform toward; see tips, strategies and business models for each; review real best practice examples from partner countries. Outcome: the learner identifies which of the 3 transformation directions is most realistic for their own business, informed by a comparable case study.
b) Chapters	3 chapters: fuel retail business transformation to new fuels, to non-fuel retail, and to services. These 3 directions correspond to the 3 adjacent value pools identified for the fuel retail sector, new fuels, non-fuel retail and services, as set out in McKinsey and Company's analysis of fuel retail in the age of new mobility, raised by one partner during the project's design phase as supporting evidence for this structure. Each chapter offers tips, strategies, methods, and business models for that chapter's transformation direction, and includes 10 best practice or success story examples, 2 per partner country.
c) Training strategies and methods	A visually engaging, infographic-based e-book, read independently rather than taught as a live module. The guide is interactively digitised on the platform, and each chapter includes an AI-created introductory video.
d) Training activities	The Needs Identification Tool, drawn from this guide's content but presented separately on the platform as a practically oriented 20-question self-assessment, selected from a 100-question pool, to help the retailer identify which transformation direction suits their own business.
e) Assessment and evaluation methods and tools	A practical Needs Identification Tool that draws 20 targeted questions from a 100-question pool based on the Business Transformation Guide. This helps fuel retailers assess their business viability and select optimal transformation strategies.

Summary

The inFUELencer Curriculum is a comprehensive, modular learning program designed to equip fuel retailers with the skills and competences needed to navigate the profound transformations reshaping the European fuel retail sector. The curriculum comprises three complementary components totaling approximately 60 learning hours: (a) seven structured training modules (140–175 pages, 30 learning hours) covering strategic business adaptation, alternative fuel adoption, digital and data-driven decision-making, sustainable supply chain management, customer engagement and marketing, financial planning and risk mitigation, and regulatory compliance and environmental standards; (b) an Alternative Fuels Guide (100+ pages, 20 learning hours), an e-book with seven chapters dedicated to the recognized alternative fuels — electricity, hydrogen, biofuels, synthetic and paraffinic fuels, CNG, LNG, and LPG — each following a consistent seven-part structure and embedding practical decision-making tools; and (c) a Fuel Retail Business Transformation Guide (30+ pages, 10 learning hours), a visually engaging, infographic-based e-book offering tips, strategies, and business models for transformation, complemented by ten best practices and success stories from partner countries. Together, these components form an integrated, learner-centered pathway — from foundational knowledge, to in-depth technical understanding, to real-world application — that empowers fuel retailers to future-proof their businesses, embrace alternative fuels, and contribute to the EU's climate neutrality goals.

The inFUELencer Consortium warmly invites experts from the **Vocational Education and Training (VET)** sector and the **fuel industry** to contribute to the quality and relevance of its curriculum by participating in its evaluation process. We look forward to VET professionals who can assess pedagogical soundness, learning outcomes alignment, accessibility, and instructional design, and fuel industry practitioners who can verify the technical accuracy, practical applicability, and real-world relevance of the material, from alternative fuel characteristics to business transformation strategies. Evaluators will be asked to review the draft content, provide structured feedback on accuracy, completeness, clarity, and usefulness, and suggest improvements that reflect current market realities, regulatory developments, and learner needs. Your expertise will directly strengthen the curriculum before its finalization and dissemination, ensuring it delivers meaningful, actionable value to fuel retailers across Europe. Join us in co-creating a training program that truly serves the sector.

If you are interested in the further development of the Curriculum and the inFUELencer project, please follow us on our website <https://infuelencer.erasmus.site/> and LinkedIn inFUELencer.



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