Ref. Ares(2024)7083286 - 07/10/2024

EE4HORECA

Call: LIFE-2022-CET
Topic: LIFE-2022-CET-BUSINESS
Type of Action: LIFE-PJG (LIFE Project Grants)
Proposal number: 101120572

Proposal acronym: EE4HORECA

Proposal title: Supporting the Clean Energy Transition of the HORECA value chain

Work Package 2 – Deliverable 2.4
Recommendation on best practices transferable across the value chain

The present work is Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

Summary

Introduction

The *LIFE EE4HORECA* project, titled *Supporting the Clean Energy Transition of the HORECA Value Chain*, is a collaborative initiative funded by the European Union's LIFE Programme. The project aims to enhance energy efficiency and reduce greenhouse gas emissions within the HORECA (Hotel, Restaurant, and Catering) value chain, a key sector with substantial environmental impacts across food production, logistics, and energy consumption. Coordinated by Eurochambres, the project brings together 12 partners from different countries, each contributing to work packages designed to foster sustainable practices throughout the sector. This report outlines the project's key outputs and insights, focusing on the collaborative approach of Living Lab sessions held in Italy, France, Germany, Latvia, and Spain. These sessions highlight regional adaptations and outcomes.

1. Project Context and Rationale

The HORECA sector plays a crucial role in Europe's economy, significantly contributing to gross domestic product and providing widespread employment. It encompasses a diverse array of enterprises, from small family-run restaurants and boutique hotels to large multinational hotel chains and expansive catering services. Collectively, these businesses generate approximately €1.5 trillion annually through accommodation, food and beverage services, event management, and other hospitality-related activities. The sector employs over 10 million people, serving as a vital source of jobs, particularly for young workers, seasonal employees, and those seeking flexible employment opportunities.

In addition to direct employment, the HORECA sector supports substantial indirect employment in related industries, including agriculture, logistics, food transformation, energy and technology. Furthermore, it is closely tied to Europe's tourism industry, which in 2019 saw over 800 million international tourist arrivals. Domestic tourism and business travel further enhance its economic impact.

The sector exhibits significant regional differences in Europe, particularly between northern and southern areas. In Northern Europe, businesses prioritize energy consumption for heating, especially during long winters, to maintain comfortable environments for guests. In contrast, Southern Europe experiences high energy demand for cooling during the hot summer months, particularly in tandem with the tourism peak season, driving the need for air conditioning in hotels and restaurants. These regional variations in energy consumption are essential considerations in developing sustainability strategies across the continent.

Despite its economic importance, the HORECA sector is increasingly scrutinized for its environmental impact, particularly in terms of high energy consumption, water usage, and waste generation. These issues are especially pronounced in mass-market tourist areas and business centres, contributing significantly to greenhouse gas emissions. This presents a challenge to the European Union's ambitious goal of becoming the first climate-neutral continent by 2050.

The push toward sustainability is further fueled by changing consumer expectations, as more guests seek environmentally responsible services. Many organisations within the HORECA sector are responding by adopting innovative practices such as energy-efficient technologies, waste-to-energy systems, water-saving solutions, locally sourced ingredients, and green certifications. These efforts are often tailored to address specific regional and operational challenges. Moving forward, the sector's ability to balance economic growth with environmental responsibility will be critical, particularly in aligning with Europe's broader sustainability goals and addressing the distinct energy needs of different regions.

The LIFE EE4HORECA project addresses the high energy consumption and greenhouse gas emissions associated with the HORECA sector. The project objective is to identify and promote the adoption of energy efficiency measure across the value chain. This goal has been pursued by the collaboration between project partners that comprehends academic and NGO with technical background on modelling and energy efficiency, chambers of commerce and industry from 12 EU countries with strong link with SMEs and key players within the sector. This partnership has been specifically designed during the proposal for bridging the gap between academic research and practical, real-world implementation.

The project, which began in 2023, has two main phases. The first phase focused on developing the overall framework to assess potential energy savings and propose countermeasures for improving sustainability. Two key partners were central to this phase:

- **From the academic knowledge to a practical model for energy and economic assessment**: The **university of Brescia** leveraged its expertise in modeling to develop a comprehensive framework that forecasts the energy consumption of the HORECA value chain and its economic impacts. Their work produced models that predict the outcomes of various energy efficiency measures, providing a foundation for understanding the potential benefits and challenges of different approaches.

- **From the economic model to the best practices applicable to the HORECA sector:** Working in parallel, **Fondazione Fenice** focused on creating practical tools to engage stakeholders and facilitate the implementation of energy efficiency measures. They developed the Map with the actors of the value chain, which identifies key players in the value chain and pinpoints areas of significant energy consumption. Additionally, Fondazione Fenice compiled a list of 50 best practices, categorized by type (structural improvements, equipment upgrades, and behavioral changes) and target audience (managers, staff, customers, and suppliers). These tools are designed to be directly applicable to businesses, ensuring that the theoretical models developed by the University of Brescia could be translated into actionable actions and strategies.

The second phase of the project, focuses on dissemination and exploitation of results, is ongoing. **Eurochambres,** in close partnership with **CCI Spain, Terrassa, CCI Latvia, CCI France, CCI Nice Côte d'Azur, the Unione Regionale delle Camere di Commercio Industria Artigianato e Agricoltura del Veneto, the Energy Institute for Business, and Senercon**, is actively working to spread the knowledge and best practices developed throughout the project. This phase emphasizes enhancing collaboration and amplifying the European impact on the HORECA value chain.

The project partners are engaged in ongoing dialogue with both national and European stakeholders to ensure that the project's outcomes are shared and tailored to different regional contexts. This collaborative approach fosters the widespread adoption of energy efficiency practices across the HORECA sector, strengthening its contribution to the European Union’s sustainability and energy **goals.**

2. Development of the Energy and Economic Savings Model

Building upon its previous work in the Horizon 2020 ICCEE project, the University of Brescia developed a model aimed at reducing energy consumption and emissions within the HORECA sector, while also quantifying economic sustainability. This model is specifically tailored to the unique needs of the HORECA sector, integrating lifecycle analysis and a collaborative framework that encourages stakeholder engagement to achieve greater efficiency.

Development of the HORECA-Specific Model

The University of Brescia's model utilizes data-driven simulations to predict the impact of various energy-saving measures. By emphasizing collaboration between different actors in the value chain, the model acknowledges that improvements in one area can generate positive ripple effects throughout the sector. The adaptable nature of the model allows it to be applied across a variety of HORECA establishments.

Identifying Best Practices for Sustainability

In the initial phase, the project focused on identifying existing best practices for sustainability within the HORECA value chain. This phase involved analyzing flow of goods and services in hotels, restaurants, and catering services to identify areas where energy consumption and waste generation were most significant. The analysis highlighted key areas for energy savings, such as HVAC systems, food preparation, and waste management. Recommendations were made to reduce waste, improve energy efficiency, and adopt sustainable food sourcing practices—all of which were recognized as high-impact interventions.

Developing an Integrated Economic Model

Building on these insights, the next phase focused on developing an integrated economic model to assess both the financial and non-financial benefits of energy efficiency measures. Using a Life Cycle Cost (LCC) approach, the model helped stakeholders map energy use across the value chain, identify high-consumption "hotspots," and evaluate the cost-effectiveness of different energy-saving interventions. Additionally, the model accounted for non-energy benefits, such as improved product quality, reduced maintenance, and increased staff satisfaction, offering a holistic understanding of the value generated by sustainable practices.

Data Collection and Analysis

Data collection and analysis played a critical role in ensuring the model's accuracy and relevance. To gather real-world information, data templates were developed and distributed to project partners. These templates captured key details about energy use, operational practices, and financial performance within the HORECA sector. The data collected provided valuable insights into current practices, allowing the project team to pinpoint where energy efficiency measures could be most effectively implemented.

Assessing Renewable Energy Potential

In the final phase, the project assessed the untapped potential for energy efficiency and renewable energy use within the HORECA sector. This analysis explored opportunities to integrate renewable energy solutions, such as solar and geothermal systems, and examined the challenges related to their adoption. The project also identified financial, regulatory, and technical barriers, offering recommendations to simplify access to funding and foster collaboration among stakeholders. By doing so, the project aimed to maximize the benefits of energy-efficient technologies and renewable energy sources across the HORECA value chain.

3. Mapping the Value Chain and Best Practices Identification

Fondazione Fenice work centered on mapping the HORECA value chain, categorizing key actors and energy hotspots—phases along the value chain where the most energy is consumed—and identifying and selecting best practices for improving energy efficiency. Fondazione Fenice's efforts in collaboration with all the project partners were essential in providing a detailed understanding of the sector and actionable insights, which were subsequently used in Living Labs as tools for dialogue with business owners, support organizations, and other stakeholders in the value chain.

Mapping the HORECA Actors and Energy Demand Across the Value Chain

Fondazione Fenice led the effort to map the key actors within the HORECA value chain, as outlined in the document *D2.1, "Mapping the Value Chain."* This report details the structure and interconnections within the sector, identifying all relevant actors from suppliers to consumers, and illustrating the flow of activities contributing to energy consumption. The theoretical foundation included value chain analysis (VCA) and life cycle assessment (LCA), both essential for understanding the environmental impacts of the HORECA sector. The VCA, which was popularized by Michael Porter, emphasizes the importance of analyzing every process that adds value to a product or service. In the HORECA sector, this involves examining the entire lifecycle of services—from food production and logistics to customer service and waste management. The LCA methodology complements VCA by assessing the environmental impact of each stage of the value chain. Additionally, the Greenhouse Gas (GHG) Protocol was used to measure the impact of direct and indirect processes. This holistic approach allowed the team to identify key actors and activities within the value chain that heavily influence energy consumption. Key areas of internal energy consumption are primarily associated with HVAC systems, sanitary hot water demand, food storage and preparation, all of which substantially contribute to the sector's overall energy usage. On the supply side, significant energy savings can be achieved throughout the value chain by optimizing supplier interactions, particularly through reducing the frequency and volume of deliveries and relative packaging and waste. This can be accomplished by coordinating with major suppliers such as laundry services, food and beverage vendors, logistics providers, and energy suppliers. Streamlining delivery schedules and improving efficiency across these sectors can lead to substantial reductions in overall energy consumption.

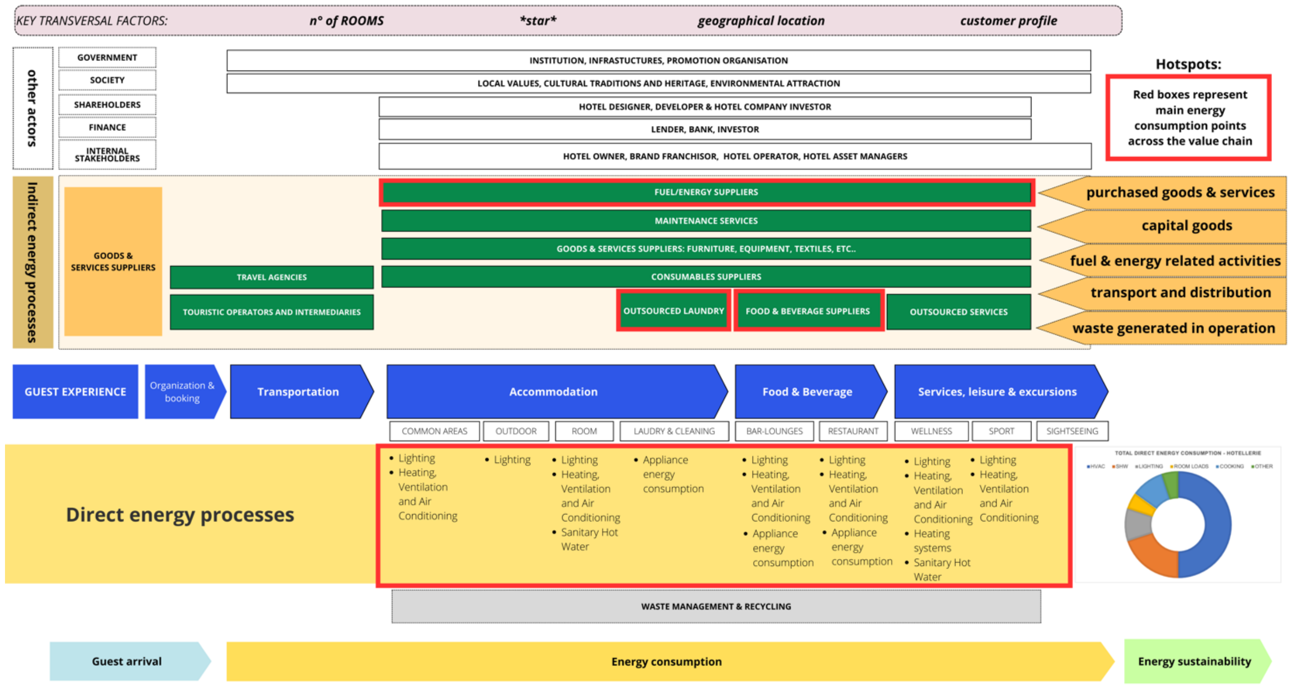

Figure 1 Map of the actor of the value chain with highlighted the areas of main energy consumption (hotspots)

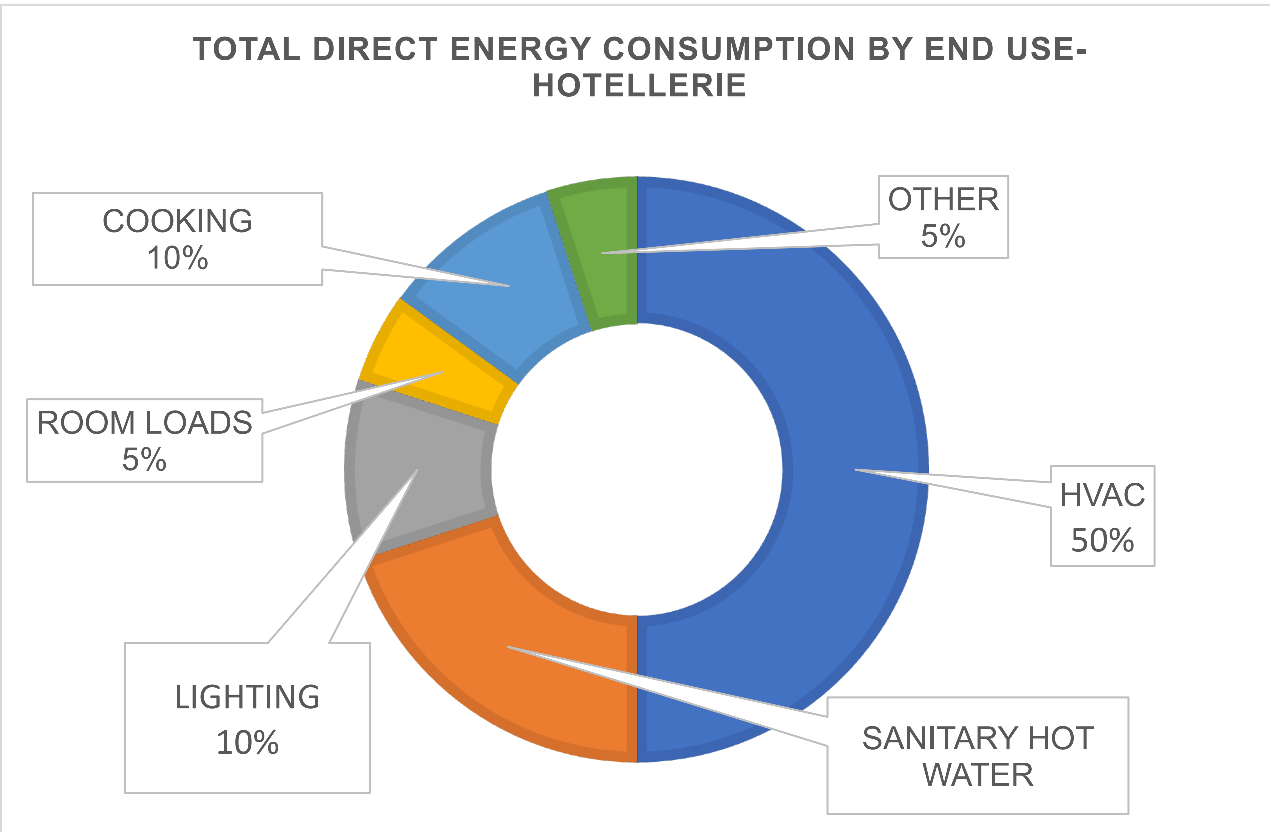

Figure 2 Internal energy consumption in the hotellerie

3.2 Selection of Best Energy Efficiency Practices

In the third phase of their work, Fondazione Fenice compiled the report *"Selection of Best Energy Efficiency Practices"* which serves as a comprehensive guide for enhancing energy efficiency in the HORECA sector. This document identifies energy-saving technologies, processes, and behaviors that can be adopted by different stakeholders, including decision-makers, staff, customers, and suppliers. The following list outlines 44 best practices identified during the project, systematically categorized according to specific themes and criteria:

1. **Target Audience: Managers, Staff, Customers, and Suppliers**
   - **Managers**: As decision-makers, managers are responsible for strategic decisions that impact energy efficiency. Their role includes investing in energy-efficient technologies, implementing sustainability policies, and ensuring compliance with environmental regulations. Managers set the direction for company-wide energy practices and allocate resources for necessary upgrades.
   - **Staff**: Staff members are key to the day-to-day execution of energy-saving behaviors. Training them to use equipment efficiently, follow maintenance schedules, and minimize energy waste is crucial for sustaining improvements. Their consistent engagement ensures best practices are applied across all operations.
   - **Customers**: Engaging customers in energy-efficient behaviors is essential. This can include reusing towels in hotels, participating in recycling programs, or selecting sustainable menu options in restaurants. The HORECA sector can incentivize customers to contribute to energy savings.
   - **Suppliers**: Sustainable procurement practices involve selecting suppliers who prioritize energy-efficient products and operations. Collaborating with suppliers to source energy-efficient equipment or locally produced goods helps reduce the environmental impact across the supply chain.
2. **Type of Intervention: Structural Improvements and Technological Upgrades**
   - **Structural Improvements**: These interventions focus on physical and infrastructural changes to improve energy efficiency. Examples include better building insulation, improved window glazing, energy-efficient design, and retrofitting older structures to minimize energy loss. These long-term investments can result in substantial reductions in energy use, particularly in heating, ventilation, and cooling.
   - **Technological Upgrades**: This category involves the implementation of new technologies designed to reduce energy consumption. Key upgrades include high-efficiency HVAC systems, LED lighting, energy management systems, smart thermostats, and advanced kitchen equipment. These technologies provide real-time energy monitoring and optimization, helping reduce energy waste. Investing in energy-efficient appliances not only leads to operational savings but also reduces carbon footprints.
3. **Behavioral Changes**
   - **For Managers and Staff**: Simple actions like turning off lights and appliances when not in use, using energy-saving settings on equipment, and maintaining equipment for peak performance can lead to significant energy savings. Managers can foster a culture of energy awareness through training programs and rewards for energy-saving behavior.
   - **For Customers**: Customers can be engaged through visible sustainability initiatives, such as recycling stations, energy-saving tips in rooms or dining areas, and

participation in eco-friendly programs. Encouraging these behaviors can make sustainability rewarding and easy.

- **For Suppliers**: Suppliers can adopt energy-efficient practices in their production processes, logistics, and delivery methods. Encouraging suppliers to reduce packaging waste, use energy-efficient transportation, or optimize delivery schedules can significantly reduce energy consumption across the value chain.

In the table below are reported the best practices identified, they can be also downloaded in pdf version at the following link: https://www.fondazionefenice.it/wp-content/uploads/D2.3-recommendation_on_best_practices_table.pdf

4. Collaborative Living Labs Across Countries

The Living Labs conducted across five countries as part of the LIFE EE4HORECA project played a key role in fostering dialogue among stakeholders within the HORECA value chain. A Living Lab is an open innovation environment where users, businesses, researchers, and public agencies collaborate to co-create, test, and validate new concepts and solutions in real-life settings. The Living Labs were designed to bring together a diverse group of participants, including business owners, managers, suppliers, industry experts, and representatives from business support organizations. Each session was tailored to address the specific energy efficiency challenges and opportunities within the local context, ensuring that discussions were both relevant and impactful. These interactive sessions enabled participants to provide real-time feedback on the model and the 44 best practices identified by the project, highlighting the most sustainable and widely applicable ones, while also identifying practices that required additional support due to complexity or high implementation costs. To enhance the impact of these efforts, a European-level Living Lab session is planned to involve all project partners and key stakeholders. This session is expected to further refine and validate best practices on a broader scale. With input from experts and industry leaders across Europe, the session will foster cross-border knowledge sharing, improve understanding of regional variations, and contribute to a more unified approach to energy efficiency in the HORECA sector across the continent. Starting from the five Living Labs held on the five countries CCI Spain and CCI Terrassa identified a series of best practices and cross-cutting needs. These recommendations are enhanced the understanding of the sector supporting the implementation of effective and sustainable solutions, offering a shared framework that allows for addressing common challenges with coordinated approaches adaptable to different national contexts.

4.1 Italy: Living Labs in Jesolo

Unioncamere del Veneto led the Italian Living Labs, held in Jesolo, a town known for its highly seasonal tourist industry with over 5 million of presences. Three distinct sessions were conducted, each focusing on a specific aspect of energy efficiency in the HORECA sector:

- **Session 1: Analysis of Energy Costs in the Value Chain**
  Focus: This session analyzed energy consumption patterns across the HORECA value chain, identifying key areas where interventions could result in significant savings. It also mapped the various stakeholders involved, providing a comprehensive overview of the value chain's energy dynamics.
  Collaboration: Participants included local hotels, restaurants, catering services, energy consultants, and local authorities. The session fostered a shared understanding of the unique energy challenges specific to Jesolo, with its seasonal fluctuations in demand.
- **Session 2: Presentation of 44 Best Energy Practices**
  Focus: The second session presented the best energy efficiency practices, ranging from technological innovations like heat pumps to behavioral changes such as staff training on energy conservation. Discussions explored the applicability of these practices in the context of Jesolo's seasonal operations.
  Collaboration: Local businesses actively participated, sharing their experiences and insights on implementing the best practices. Business support organizations, including local Chambers of Commerce, ensured participants had access to the latest information and resources for implementation.

- **Session 3: Presentation of Business Models**
  Focus: This session focused on sustainable business models for the HORECA sector, particularly those emphasizing collaboration across the value chain. Tools developed from University of Brescia for evaluating the effectiveness of energy efficiency measures were also presented.
  Collaboration: The session encouraged dialogue between businesses, energy consultants, and academic institutions, with a strong emphasis on creating synergies beyond individual companies. Discussions highlighted the potential for joint ventures and collective investments in energy efficiency projects.

4.2 France: Living Labs on the Côte d'Azur

The French Living Labs, facilitated by CCI Nice Côte d'Azur, focused on adapting energy efficiency practices to the regional context of the Côte d'Azur:

- **Session 1: Sustainability in the HORECA Sector**
  Event: Part of the "Tourisme, vers une Hôtellerie durable" event held at the Palais des Congrès in Antibes, this session focused on sustainability within the HORECA sector, with a particular emphasis on energy consumption.
  Collaboration: The session attracted 119 participants, including CEOs, project managers, and energy consultants. The interactive event, which featured a KAHOOT session for real-time feedback, allowed participants to engage deeply with the topics presented. Collaboration between local businesses, CCI NCA, and energy experts highlighted the importance of integrating sustainability into daily HORECA operations.
- **Session 2: Webinar on Energy Best Practices**
  Focus: This online webinar, titled "Acteurs du Tourisme: découvrez les bonnes pratiques énergétiques et passez à l'action!", focused on practical energy-saving measures that HORECA businesses could implement immediately.
  Collaboration: The webinar attracted participants from hotels and other HORECA businesses that had attended the first session, enabling a deeper exploration of best practices in energy management systems and renewable energy adoption. CCI NCA moderated the discussion, ensuring that the content was both relevant and actionable.
- **Session 3: Workshops at the Assises Azuréennes de la Transition Energétique**
  Event: Held during the 4th edition of the "Assises Azuréennes de la Transition Energétique" in Menton, this session was part of a major regional event focused on energy transition.
  Collaboration: With numerous participants, including energy professionals and HORECA representatives, two workshops focused on building energy transitions and financing energy efficiency projects. The discussions emphasized the importance of integrated energy solutions and collaborative efforts, such as adopting renewable energy and improving building design.

4.3 Germany: Living Labs with Hotel CEOs

SEnerCon organized two online Living Labs in Germany, bringing together hotel CEOs and energy experts to discuss the practical implementation of energy efficiency measures:

- **Session 1: Actors and consumption areas of the HORECA value chain and best practice of energy efficiency measures in hotels**
  Focus: During the session the value chain map identified by the project was discussed with

participants and specific energy efficiency measures for hotels suggested by the project were evaluated by participants and completed by measures that have already been implemented by the hotels, including voltage optimization, building management systems, and LED lighting retrofits. Challenges such as franchise requirements that could limit flexibility were also discussed.

Collaboration: Hotel CEOs and energy experts contributed to a dialogue that combined practical business insights with technical expertise, addressing opportunities and obstacles in energy management within the hotel industry, particularly within Berlin's regulatory framework.

- **Session 2: Sustainable business models**
  Focus: The second session focused on green hotel labelling and on business models identified in WP3, which were discussed with the participants following the CANVAS approach. The best practice of the Komodea.com platform specialized on offering sustainable hotel products was introduced by its founder and CEO as best practice of a business model. Additionally, challenges posed by new regulatory requirements such as Germany's Gebäude Energie Gesetz (GEG). The role of energy monitoring systems in complying with these regulations was also covered.
  Collaboration: Ongoing collaboration between hotel operators, energy consultants, and regulatory bodies was emphasized. The discussion highlighted the need for tailored solutions, considering factors like the building's age and infrastructure.

4.4 Latvia: Living Labs in Riga

The Latvian Chamber of Commerce and Industry organized one Living Lab session in Riga, focusing on the challenges and opportunities within the local HORECA value chain:

- **Session: Site Visit and Workshop at Grand Hotel Kempinski**
  Focus: The session combined a site visit to the Grand Hotel Kempinski in Riga with a workshop on energy efficiency practices. It addressed key challenges in the Latvian HORECA value chain, such as logistics, high delivery costs, and the feasibility of collaborative relationships among value chain actors.

  Collaboration: The session brought together 30 participants, including hotel representatives, energy experts, and business support organizations. Participants shared insights on how similar practices could be adopted more broadly within the Latvian HORECA sector, highlighting the value of collaboration in overcoming regional challenges.

4.5 Spain: Living Labs in the HORECA Sector

The Spanish Living Labs were organized to address energy efficiency challenges in the HORECA sector, bringing together 37 participants from Business Support Organizations and Small and Medium Enterprises. Three online sessions were held between April and June 2024, each dedicated to a specific aspect of energy consumption and sustainability:

- **Session 1: Mapping Energy Consumption in the HORECA Value Chain**
  Focus: This session focused on identifying key energy-consuming processes within the HORECA value chain. It provided a detailed analysis of the major "hot spots" for energy use, mapping out the roles of key actors involved in each step of the process.
  Collaboration: Participants included local restaurants, hotels, energy consultants, and BSOs, working together to gain a better understanding of where energy savings could be achieved through targeted interventions.
- **Session 2: Best Energy Efficiency Practices and Models**
  Focus: The second session presented effective energy-saving strategies, both in terms of technological innovations and collaborative business models. These included solutions such as energy management systems and shared strategies for reducing consumption. Discussions focused on how these practices could be adapted and applied to the unique characteristics of the Spanish HORECA sector. The discussions also addressed the importance of establishing the correct KPIs to demonstrate the effectiveness of best practice implementation.
- *Collaboration:* Participants, including SMEs and business support organizations, exchanged insights on how to implement best practices, while energy consultants shared case studies of successful initiatives.
- **Session 3: Feasibility of Energy Analysis Tools**
  Focus: This session explored the feasibility and benefits of using calculation tools to conduct energy analyses in the HORECA sector. Participants were introduced to software that could streamline energy tracking and efficiency evaluations, making the process more accessible to small businesses. The necessity of fostering relationships based on collaboration was emphasized as a key factor in developing sustainable business models, which are a vital component in the practical application of the theoretical models presented. *Collaboration:* Dialogue was encouraged between technology providers, business owners, and local authorities, emphasizing the importance of specialized training and cross-sector collaboration to drive energy efficiency initiatives.

5. IMPAWATT: E-learning and Monitoring Platform for Energy Efficiency

The IMPAWATT project, funded by the European Union and developed by SENERCON, was designed to enhance energy efficiency by offering an innovative training platform and support tools for industries and the service sector. The project's name reflects its mission: to create a significant impact "IMPA" by reducing the energy consumption "WATT" of companies and organizations. It addresses the urgent need for energy efficiency, especially in high-demand sectors, by equipping businesses with the knowledge, skills, and tools necessary to optimize their energy use.

A key feature of the IMPAWATT platform is its ability to consolidate results, expertise, and best practices from various successful projects, such as the project Impawatt itself but also of the LIFE projects EE4HORECA and EE4SME. This provides a comprehensive resource base for energy efficiency training materials translated in several languages of the European Union. The platform has clear objectives aimed at engaging and empowering SMEs to improve their energy consumption practices:

1. **Improving Energy Efficiency and applying renewable Energy Solutions**:
   IMPAWATT promotes widespread awareness and provides targeted training on optimizing energy use, addressing both industrial processes and commercial/service sectors. The aim is to help businesses reduce their overall energy footprint.
2. **Providing Tools and Support Resources**:
   The project offers an online portal filled with resources, tools, and training modules specifically designed to help companies achieve tangible energy consumption reductions. These resources are practical and actionable, making energy efficiency accessible across various industries.
3. **Customized Training Materials**:
   The platform offers tailored materials for varying expertise levels, from technical staff to high-level managers. This ensures that everyone within an organization can contribute to the goal of improved energy efficiency.

Key Tools Provided by IMPAWATT Include:

- **E-learning Materials**:
  Offers specialized training modules on energy management, energy audits, efficient technologies, and sustainable practices. These modules are flexible and adaptable to the unique needs of each business.
- **Monitoring Tools**:
  The platform includes tools that allow businesses to track and analyze their energy consumption in real-time, helping to identify areas for improvement and potential savings. These tools empower companies to make informed, data-driven decisions.
- **Case Studies and Best Practices**:
  A collection of case studies showcases real-life examples of companies that have successfully implemented energy efficiency measures. These stories not only demonstrate economic and environmental benefits but also serve as practical guides for businesses aiming to replicate similar successes.

IMPAWATT integrates several services such as trainings, practical tools for self-assessment of energy efficiency or for identifying funding opportunities, it creates a comprehensive environment for companies to manage their energy consumption more effectively, resulting in both cost savings and environmental benefits.

6. Policy Recommendations for best practices implementation

1. Promote Energy Efficiency Audits for SMEs

Many small and medium-sized enterprises in the HORECA sector struggle with high energy costs due to a lack of awareness about energy inefficiencies. Promote energy audits, funded or subsidized by the government, can help identify wasteful practices in energy consumption. **Post-audit support should be available to guide businesses in implementing solutions, such as upgrading to energy-efficient appliances or modifying operational practices. Providing access to energy audits, even though involving SMEs can be challenging, empower SMEs to make informed decisions about energy use, easily adoptable measures thus reducing costs and emissions.**

2. Encourage Regional Energy Efficiency Hubs

Establishing regional hubs as centers of excellence for energy efficiency will enable businesses to access tailored advice, resources, and training. These hubs should offer region-specific knowledge, especially since the HORECA sector's energy needs vary depending on climate and seasonality. The hubs can also serve as collaborative spaces where several businesses collaborate, exchange best practices and share innovative ideas to tackle common challenges. This initiative ensures that businesses receive practical, location-specific solutions. **Hubs can also be a reference point and favor the dialogue with national representatives, stimulating specific regional policies thus accelerating the adoption of sustainable technologies and practices.**

3. Integrate Circular Economy into Policy Frameworks

The circular economy focuses on reducing waste, reusing materials, and increasing recycling, regeneration and upcycling. Governments can encourage the HORECA sector to adopt these principles by offering tax incentives or subsidies for businesses that implement waste-reducing strategies, such as switching to reusable or recyclable packaging. Specific training campaigns are necessary to generate a new mindset and a widespread culture of sustainability among users, customers, employees, and executives (citizens at large). Implementing circular economy principles leads to long-term resource conservation and waste reduction, reducing pressure on landfills and contributing to national sustainability targets. The HORECA sector, which generates significant waste, can become a key contributor to the circular economy especially in mass touristic destination and big cities where waste separation is challenging.

4. Adoption of Energy Monitoring Systems

Advanced energy monitoring systems allow businesses to track real-time energy usage, providing detailed insights into where energy consumption patterns. Requiring businesses to adopt these systems as part of their regulatory compliance will help them identify

inefficiencies and take corrective action. Government support for installation costs, particularly for smaller businesses, can enhance adoption rates. Mandating energy monitoring systems increases transparency and accountability in energy consumption. **This creates a feedback loop where businesses can continuously improve their energy performance**, leading to widespread reductions in energy use and carbon emissions.

5. Foster Innovation Through Public-Private Partnerships

Public-private partnerships are helpful in fostering innovation. Governments can incentivize collaborations between private companies, academic institutions, and public bodies to develop and pilot new technologies in the HORECA sector. These partnerships should focus on energy-saving innovations, such as renewable energy systems, energy-efficient appliances, and waste management solutions. Public-private partnerships share the risks and costs associated with research and development, speeding up the implementation of new technologies. **Public-private partnerships can provide a structured approach to bringing cutting-edge technologies to market to generate a new culture of efficient use of resources, particularly on energy and water efficiency for the HORECA sector, ensuring that innovative energy solutions are both viable and scalabl**e. The collaboration between public and private sectors can ensure that the part of the cost of innovation is shared and R&D initiatives focuses on applicable solution, fostering progress toward sustainability goals.

6. Increase Green Procurement Policies

Green procurement policies are a simple tool to promote sustainability, they encourage businesses to prioritize suppliers who adhere to sustainable practices, such as using energy-efficient processes and reducing waste. **Governments and organizations can promote these policies by offering fiscal incentives to obtain and maintain certifications for green suppliers and requiring businesses to include sustainability criteria in procurement contracts**. Green procurement creates a cascade effect, motivating suppliers to improve their environmental performance in order to secure contracts with the HORECA sector. Green procurement policies align economic incentives with environmental responsibility, driving sustainable practices across supply chains. This can lead to a widespread shift in the market toward environmentally friendly products and services.

7. Simplify Access to Financial Resources

Many HORECA businesses, particularly SMEs, face challenges in accessing financing for energy efficiency projects due to complex application processes and unclear requirements. Simplifying these processes or funding energy experts that supports SMEs will increase participation to application to finance. Governments should also provide dedicated support to businesses, guiding them through the process and offering tailored advice on how to secure funding, such as low-interest loans or energy performance contracts.

Simplified financing pathways can enable more businesses to invest in energy efficiency measures. SMEs can overcome financial barriers and participate in the transition toward sustainability by making financial resources more accessible.

To further incentivize SMEs to invest in sustainability, energy efficiency, and carbon-neutral processes, European States should consider creating fiscal incentives such as tax deductions related to new investments in these areas.

8. Establish Energy Efficiency Benchmarks

Establishing energy efficiency benchmarks for the HORECA sector will provide businesses with clear, measurable targets for reducing energy consumption. **These benchmarks should be developed in collaboration with industry stakeholders to ensure they are achievable and relevant; some countries have already identified benchmarks per NACE sector**. Businesses that reach these benchmarks could be rewarded with tax breaks, recognition programs, or other incentives. Benchmarks provide a clear framework for businesses to measure their progress, encouraging continuous improvement. They also set industry-wide standards that drive competition and innovation, contributing to national energy reduction targets.

9. Support the Creation of Collaborative Energy Initiatives

Collaborative energy initiatives involve multiple businesses working together to invest in energy-saving technologies or renewable energy projects. Governments can facilitate these initiatives by creating platforms for collaboration and offering joint grants or incentives. For example, hotels, restaurants, and caterers in the same region **could pool resources to install solar panels or create renewable energy communities,** as well governments should facilitate this process through appropriate regulatory measures, including leaning bureaucratic procedures. Collaboration reduces individual financial risks and produces economies of scale, making it easier for smaller businesses to invest in sustainability. These collective efforts can drive larger, more impactful energy-saving projects that benefit entire regions.

10. Incentivize Continuous Professional Development in Energy Management

Lifelong learning is essential in the digital era, where knowledge and technologies are rapidly **evolving. Training programs focused on energy management should be made a core part of professional development in the HORECA sector. Governments can offer financial incentives for businesses that invest in training their employees on energy-saving practices and technologies**. This will ensure that workers at all levels—from management to operational staff—are equipped to implement and maintain energy-efficient practices. Continuous professional development ensures that knowledge of energy efficiency is embedded across the workforce, leading to sustained reductions in energy consumption and a stronger culture of sustainability.

11. Encourage the Adoption of Innovative Technologies

Governments should actively promote the adoption of innovative technologies, such as voltage optimization, geothermal heating, and smart room systems. These technologies not only reduce energy consumption but also enhance operational efficiency and guest satisfaction. Encouraging their use across the HORECA sector will create long-term cost savings and environmental benefits. Promoting innovative technologies accelerates the transition to a low-carbon economy, positioning the HORECA sector as a leader in energy efficiency. The long-term savings for businesses also contribute to improved financial sustainability. **To encourage SMEs to invest in innovative technologies, governments should consider offering fiscal incentives such as tax deductions or other financial support.** These incentives can help SMEs overcome the initial financial barriers and adopt technologies that can lead to significant energy savings and operational improvements.

12. Expand Awareness Campaigns for Cultural Shift

Sustained awareness campaigns targeting both employees and customers are essential for creating a cultural shift toward sustainability. These campaigns should emphasize the long-term benefits of energy efficiency, not only for the environment but also for the business's financial health. Recognizing businesses that lead in sustainability efforts will further promote positive cultural change. Awareness campaigns help embed sustainability into the organizational culture, ensuring long-term commitment to energy-efficient practices. Engaging customers in these efforts also increases brand loyalty and positive public perception.

13. Promote Collaborative Business Models

Collaborative business models encourage organisations within the HORECA sector to work together with suppliers, energy providers, and logistics companies. By fostering partnerships and joint ventures, businesses can share resources, reduce costs, and improve sustainability. Governments can promote these models by offering tax breaks or grants for businesses that engage in collaborative projects. Collaboration strengthens the value chain by aligning stakeholders around common sustainability goals. This leads to more efficient resource use and shared financial benefits, amplifying the impact of energy-saving initiatives.