Trainer's Guidebook

PLANT POWER

plant power

Boosting Innovation for Food SMEs

www.plantpowerproject.eu

2025
Tutor's Guidebook

By
Momentum

Co-funded by the European Union

Our Mission

We aim to provide modular, flexible, and innovative learning materials to trainers to help them better support and provide opportunities for Food SMEs, VET providers, and Policymakers.

- We want to enable them to offer inclusive, accessible, contextualised, sensitive, and relevant education about **plant-based product development**.
- Promote innovative, individualised, and contextualised offers that match the specific knowledge gaps and skill sets needed to tackle challenges.
- The learning materials provided will help close skill gaps in making, selling, and promoting sustainable plant-based foods.
- Allow the Open Educational Resources to be used in different contexts and formats to match both specific teaching and learning requirements and equip educators with the competencies needed to generate impact.

contents

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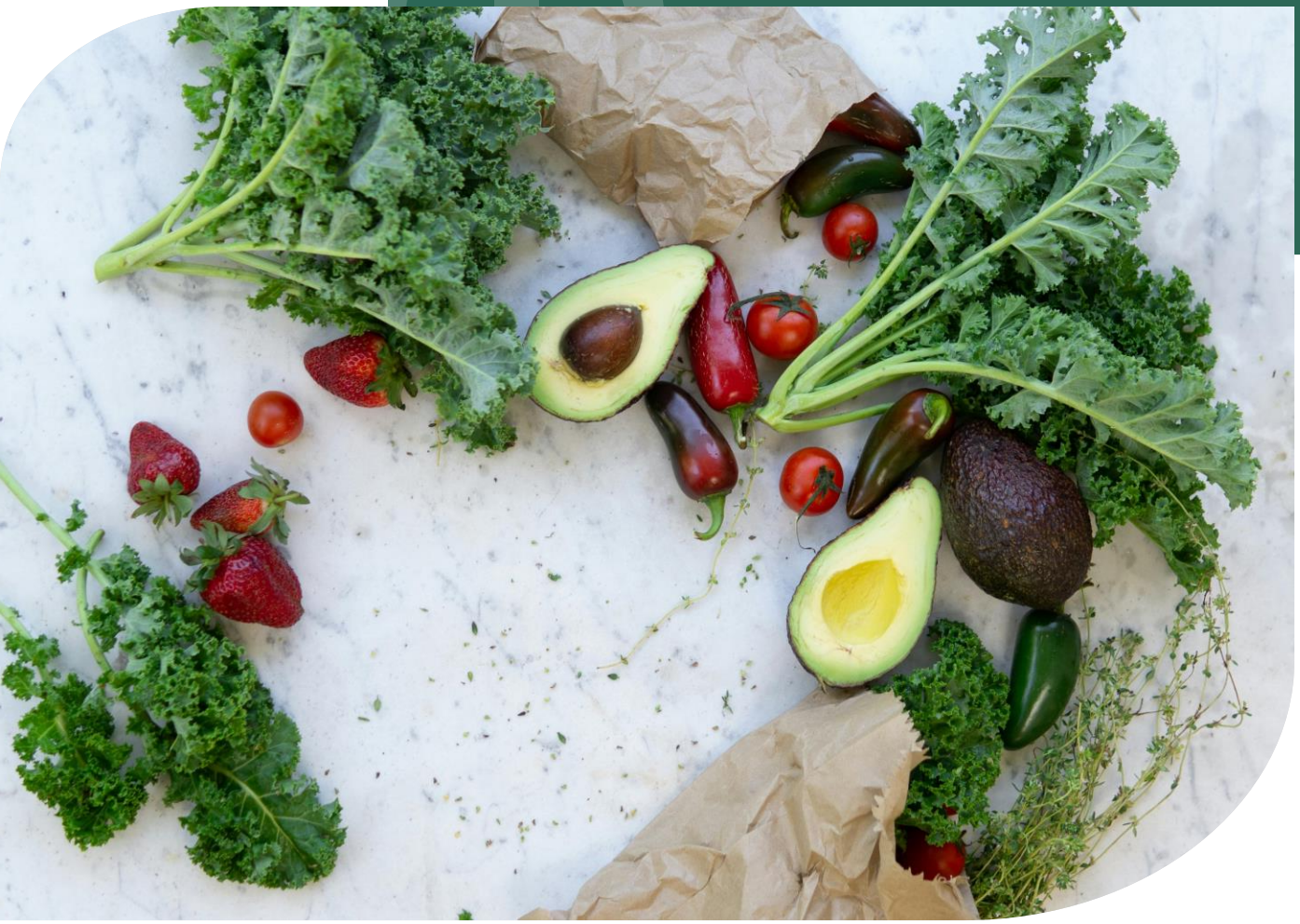
01

WELCOME TO PLANT POWER



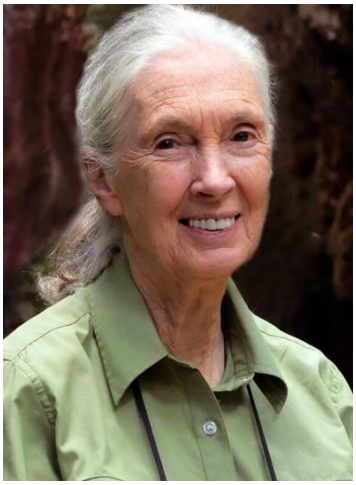
Overview

Collaboration is key to our success. We bring together food entrepreneurs, educators, and policymakers across Europe to **share knowledge, spark innovation, and build a sustainable future for the food industry.**

Join us in reshaping the food sector. Together, we can reduce environmental impact, meet demand for plant-based products, and build a sustainable future!

Plant Power is a European project that supports the food sector in adopting plant-based innovation and sustainability. **Our practical resources help food SMEs develop essential skills and create innovative products**, while trainer's gain valuable content to enhance their educational programmes. Policymakers also benefit from strategies to promote sustainable growth and advance climate action. Together, we're shaping a greener, more resilient future for Europe's food industry. Our project believes that the power of knowledge and collaboration drive positive change.

The Plant Power Project addresses the urgent need to reduce the environmental impact of Europe's food sector. Food production is a major contributor to climate change, but through innovative training and resources, we aim to transform this challenge into an opportunity. By equipping food SMEs and educators with the skills, tools, and knowledge they need, we empower them to adopt sustainable practices, develop plant-based products, and meet growing consumer demand. The Plant Power project is a vital step toward a healthier, greener future where businesses thrive and the planet benefits.



"We can create a sustainable future by eating more plants and wasting less food".

Dr. Jane Goodall
Primatologist and Environmentalist

MEET THE TEAM

Slovak University of Agriculture

SUA brings its expertise in sustainable agriculture, food production, and climate action. With a rich history in research and education, SUA leads the project by ensuring robust collaboration between partners and delivering knowledge-based solutions. Their role includes overseeing project activities, contributing to research, and promoting sustainable innovation in plant-based food systems across Europe.

Rezos Brands

An agrifood SME from Greece, that contributes its expertise in functional foods and sustainable farming. With a strong focus on research and development, Rezos supports the project by sharing insights into plant-based product development and sustainability practices. Their "Farm to Fork" strategy ensures a practical, industry-driven perspective, aiding SMEs in adopting innovative, eco-friendly approaches to food production.

MEET THE TEAM

ITACyL

Instituto Tecnológico Agrario de Castilla y León (ITACyL) contributes in agricultural research and food innovation, providing technical support and advanced facilities for product development. Their role includes facilitating knowledge transfer through living labs and pilot plants, helping SMEs and educators explore new plant-based food innovations.

Momentum

Momentum specialises in designing progressive learning programmes aligned with sustainability and labour market needs. Their role involves developing capacity-building resources and ensuring effective dissemination of project results. With expertise in training and digital education, Momentum plays a key part in creating tools that empower educators and SMEs to innovate and thrive in the plant-based food industry.

MEET THE TEAM

European E-Learning Institute (EUEI)

EUEI leads digital learning efforts, designing the online course and platform. The focus is on creating inclusive, engaging learning experiences for SMEs and educators. EUEI ensures that the Plant Power resources are accessible, user-friendly, and impactful, helping participants develop the skills to drive sustainable change.

BIA Innovator Campus CLG

BIA Innovator Campus is a centre of excellence for food innovation and entrepreneurship. Their role in the project is to connect regional food SMEs with resources, training, and knowledge to scale their businesses sustainably. Through their extensive experience in food education and incubation, BIA ensures SMEs are equipped with the skills to innovate in the plant-based market.

02

INSTRUCTIONS FOR TRAINERS

Aim of Open Education Resources

Methodological Approach

The Open educational Resources (OERs) consist of 6 Modules and the Trainer's Guidebook to introduce trainers to the scope and potential of Plant Power project in a way that is both rigorous and congruent with academic research and focused on the real-world use of innovation and adaptations in the plant-based food sector.

The OERs are based on the understanding that there are opportunities present, but that SMEs need to stay abreast of developments within the sector to remain competitive and to contribute to societal changes. In addition, they demonstrate how competency can be consolidated through new learnings, compliance, and ethical frameworks, which provide practical insights into learning a new skill set in a future-proofing way.

General Instructions

Please read this guide thoroughly before conducting the training. Follow our instructions:

- Ensure a consistent orientation towards the specifications of the OERs and Trainer's Guidebook.
- Achieve to make the resources modular and flexible thus enabling their use as classroom courses, hybrid learning models, and online self-study. The modularity allows the OERs also to be used as a supplement to existing courses.
- Increase the consistent case-based learning approach and the inclusion of current topic examples and role models.

The Open Education Resources have been designed to accommodate a range of teaching styles and cultures. As a common thread, each module is presented with the following design:

- The topic is introduced briefly before delving into the subject matter.
- Information moves from general definitions to more detailed applications, enabling the scope of the topic to be understood.
- Knowledge is reinforced, and skills are developed as students participate in practical exercises.

03

OERs DELIVERY OPTIONS & TOOLS

Delivery Options

In-Person
Classroom training remains one of the most popular techniques for building skills capacity. Typically, it is instructor-centered face-to-face training that takes place at a fixed time and place. The Plant Power Open Educational Resources suggest using the resources provided in the following ways.

Suggested delivery mechanisms:
- **Small group discussions.** Break the students down into small groups and give them case studies and Social Innovation topics, challenges, or situations to discuss or solve. This allows for knowledge transfer between learners.
- **Q & A sessions.** Informal question-and-answer sessions are most effective with small groups and for learning something new and updating existing knowledge.
- **Multimedia.** Multimedia training materials tend to be more provocative and challenging and, therefore, more stimulating to the learner's mind. Trainers should ensure that these are used to their full potential.
- **Interactive tools.** The engagement of learners can be easily achieved by using interactive tools. An example of a free tool is Kahoot! which is a game-based learning and trivia platform used in classrooms, offices, and social settings. You can compile a quiz, which can be answered by the learners on their phones/tablets/computers. It is possible to get immediate feedback and results.

Online Learning
Innovative learning and access to the internet is so important now more than ever to take advantage of and participate in today's digital economy. Before the COVID-19 pandemic, a growing trend towards digital technology was already changing the way we do things as a society – with access to services, information, and support increasingly going 'digital by default'.

Online Learning as a delivery method uses Internet technologies embedded in the Plant Power OER's to deliver a broad array of solutions to enable learning. The Open educational Resources are provided as an online learning programme for direct access by all stakeholders including adult trainers and others interested in acquiring new skills.

Online learning exposes learners to a wide range of resources available online, covering their areas of interest, which they can learn at their own pace, personally. Taking charge of their education like this can be very empowering and can give learners a sense of self-confidence that helps them to do even better.

Delivery Options

Blended Learning

Blended Learning combines online digital media with traditional classroom methods. Blended learning is a method of teaching that integrates technology digital media and the traditional instructor or trainer. It requires the physical presence of both trainer and learner, with some element of learner control over time, place, path, or pace. Learners still attend a classroom setting with a trainer present, face-to-face classroom practices are combined with computer-mediated activities regarding content and delivery. It gives learners a more flexible customized learning experience.

Hybrid Lessons

Hybrid lessons combine both in-person and online learning. They are a flexible and inclusive approach for learners since they promote the strengths of both modalities to create a comprehensive and inclusive learning experience. Hybrid lessons give learners flexibility to choose between attending in-person or online. This type of delivery accommodates different needs and preferences. Trainers offer learners the access to lessons regardless of their location. However, they require very effective use of technology to ensure seamless interaction and communication between all participants.

Classroom Training & Tools

The most popular training technique for building capacity is this one. It is often by a trainer, face-to-face with learners, and takes place at a fixed location and time. The following boxes show the Plant Power training tools. We showcase use along with some additional resources to make the learning accessible.

Tool	Use	Additional Resources
PowerPoint Presentation	Display the training materials on a large screen.	Laptop, Projector, and large screen
Videos	Explain content, and present case studies	Audio/ Sound System
Exercises	Homework or activities in a group	Whiteboard Pens or markers
Case Studies	Analyse real-world scenarios	Whiteboard Pens or markers
Self Assessment Questionnaires	Reflect on knowledge or skills	Google Microsoft Forms Printed

Online Training & Tools

Online lessons are very popular. Using online applications such as Teams, Google Meet, Zoom or others, instructors, and learners can interact instantly via the internet. These lessons offer the benefits of traditional classroom settings while allowing the flexibility of attending classes from any location. This style of learning reduces travel time, costs, and accessibility.

Online Tool	Use	Additional Resources
Online Platform	Create online classroom & provide a calendar of lessons	Teams, Zoom, Google Meet
Technology	Appropriate software & a stable connection	Participants need a laptop
PowerPoint Presentation	Training materials developed in a PowerPoint	Need an online training material depository
Videos	Used to explain certain training content	Make sure learners can hear
Exercises	Used as homework or as group activities in class.	Use Breakout rooms to divide the online class
Case Studies	Real examples can be analysed & discussed.	Breakout rooms used to form smaller groups

04

PEDAGOGICAL APPROACHES

Scenario Analysis

Scenario Analysis is a powerful **pedagogical approach** that immerses learners in realistic, often complex situations that require critical analysis, decision-making, and reflection. Focused on **constructivist and experiential learning theories**, it allows students to actively build understanding through engagement with authentic contexts. By simulating real-world challenges, learners apply theoretical knowledge, test different strategies, and experience the consequences of their decisions in a safe and controlled environment. This aligns closely with principles of effective education, such as active learning, critical reflection, and higher-order thinking.

Research across disciplines consistently shows that scenario-based learning enhances **student motivation, retention, and professional readiness**. Learners who participate in scenario analysis develop stronger problem-solving skills, improved judgment, and a deeper capacity for transferring classroom knowledge to practical contexts. Because scenarios often mirror the complexities of professional practice, they help students cultivate foresight, adaptability, and ethical awareness skills which are essential in the modern world.

This approach supports **inclusive education**, allowing for diverse perspectives and flexible learning formats that meet a range of learner needs.

From a training standpoint, scenario analysis is both **innovative and adaptable**. Trainers can use it through simple written case prompts, classroom discussions, or technology-enhanced simulations, depending on available resources. It encourages interdisciplinary connections and prepares learners to think systemically about uncertainty and change. Furthermore, it can be implemented in any educational setting with moderate preparation, making it a practical and transformative method for fostering active, reflective, and future-oriented learning.

Collaborative & Co-Created Pedagogy

Collaborative and Co-Created Pedagogy is an approach to teaching that redefines the relationship between trainers and learners as a partnership. Instead of positioning the trainer as the sole authority, this pedagogy invites learners to share in the design, delivery, and reflection of their learning experiences. Rooted in **constructivist, social constructivist, and humanistic learning theories**, it views education as a shared process of inquiry and meaning-making. Through dialogue, mutual respect, and joint problem-solving, both teachers and learners contribute to constructing knowledge that is relevant, contextual, and transformative.

Research consistently highlights the **real-world effectiveness** of this pedagogy in promoting deeper engagement, motivation, and critical thinking. When learners are active participants in shaping their education. For example, by using co-designing assessments, contributing to course content, or collaborating on authentic projects then they tend to develop stronger ownership of their learning, and reflective capacity. These approaches naturally support **inclusion** and **accessibility**, as they welcome diverse perspectives, experiences, and learning styles. They align with the principles of **Universal Design for Learning** (UDL) by providing multiple avenues for participation and expression, ensuring that all voices are valued.

It can be implemented in simple ways, such as peer-learning discussions or group projects, or in more advanced forms, like co-designed curricula and community-engaged learning. Digital tools also make collaboration easier across contexts, allowing for flexible and participatory experiences. While it requires a shift in mindset, it is increasingly recognised as an essential approach for developing autonomy, empathy, and democratic engagement in modern education. Ultimately, collaborative and co-created pedagogy transforms classrooms into **learning communities** where everyone teaches, learns, and grows together.

Framing and Reframing

Framing and Reframing is an approach that teaches learners to examine how perspectives, assumptions, and contexts shape their understanding of problems. Students are encouraged to identify the **"frame"** through which they interpret an issue and then to **"reframe"** it by considering alternative viewpoints, disciplinary lenses, or cultural contexts. This pedagogy helps learners develop the ability to question assumptions, engage in reflective inquiry, and construct a deeper understanding of complex topics.

Research demonstrates that framing and reframing enhances **critical thinking, creativity, and problem-solving** across educational fields. By learning to shift perspectives, learners become more adaptable and reflective, enabling them to navigate uncertainty and think about challenges. It also supports **inclusion** and **accessibility**, as it naturally values diverse viewpoints and encourages students to bring their personal experiences, cultural backgrounds, and ways of knowing into the learning environment. Furthermore, this pedagogy allows learners to uncover hidden biases, challenge stereotypes, and develop empathy by understanding how different people may interpret the same situation.

Framing and reframing is an **innovative** yet highly accessible pedagogy. It requires no specialised resources and can be integrated into discussions, writing tasks, case studies, or project-based learning. As learners practice reframing, classrooms become reflective spaces where multiple interpretations are examined. This makes the approach both easy to adopt and deeply transformative, equipping learners with the mindset needed for thoughtful and flexible engagement.

Reflective & Inquiry-Based Learning

Reflective & Inquiry-based Learning encourages learners to explore questions, investigate ideas, and think critically about their learning experiences. Instead of simply receiving information, learners construct their own understanding by questioning, observing, experimenting, and reflecting on their actions. Drawing from constructivist, experiential, and transformative learning theories, this method positions learners as active participants who seek **meaning** and **connections**. Reflection deepens this process by helping learners analyse their thinking, identify assumptions, and integrate new insights into future actions.

Educational research shows that reflective and inquiry-based instruction improves **critical thinking, conceptual understanding, creativity, and learner autonomy**. They engage more deeply when they investigate meaningful questions and reflect on what and how they are learning. This approach also supports **inclusion** and **accessibility**, as it values diverse viewpoints, encourages personal relevance, and provides multiple expression. Inquiry-based learning empowers those who may not thrive in traditional, lecture-based settings. Reflective exercises like journals, self-assessments, and portfolio work further support individual learning needs.

From a practical viewpoint, reflective and inquiry-based learning is **innovative** and highly **adaptable**. Trainers can introduce it through simple reflective prompts, guided investigations, or longer project-based inquiries depending on the context. It requires no special materials just a teaching mindset that prioritises curiosity, questioning, and thoughtful reflection. Digital tools such as collaborative platforms, virtual experiments, and reflective blogs can further enrich the learning experience. Ultimately, this pedagogy transforms the learning into a community of inquiry where learners develop the skills, habits, and mindset necessary for thoughtful engagement in a rapidly changing world.

Critical Thinking & Design Thinking

Critical Thinking and Design Thinking are complementary pedagogical approaches that cultivate essential skills for navigating complex changing environments. **Critical Thinking** focuses on the ability to analyse information, question assumptions, evaluate evidence, and make reasoned judgments. It is based on constructivist and reflective learning theories, emphasising active meaning-making and intellectual focus. **Design Thinking**, meanwhile, takes a human-centered, creative approach to problem-solving through empathy, ideation, prototyping, and iterative refinement. Rooted in experiential and collaborative learning theories, it encourages students to explore real-world challenges with curiosity, flexibility, and innovation.

Evidence from education, industry, and professional practice strongly supports the effectiveness of these approaches. Critical thinking enhances academic performance, improves decision-making, and prepares learners to engage thoughtfully with diverse viewpoints. Design thinking has proven its value in fostering creativity, collaboration, and resilience, enabling learners to tackle problems and co-create solutions with peers or community stakeholders. Both pedagogies support **inclusion** and **accessibility** by encouraging diverse perspectives, validating different ways of thinking, and offering multiple entry points for engagement. Design thinking's emphasis on empathy and multimodal expression, in particular, allows learners of varied backgrounds and abilities to contribute meaningfully.

From an instructional standpoint, both critical thinking and design thinking are highly **adaptable** and **practical** for the classroom. Critical thinking can be incorporated through questioning techniques, source analysis, reflective writing, or structured reasoning tasks. Design thinking can be introduced through simple brainstorming exercises, empathy interviews, low-tech prototyping, or more complex project-based challenges. Neither approach requires specialised technology but a willingness to facilitate inquiry, dialogue, and iteration. When integrated into teaching practice, these pedagogies transform classrooms into active, collaborative learning environments where students learn to reason deeply, and solve problems with compassion.

05

OERs OVERVIEW

Course Content Overview

The OERs are comprised of six modules structured as a journey of learning to understand innovation, entrepreneurial skills, and sustainability practices.

Module 1: Opportunities for Innovation in SMEs & the Power of Digitisation and Innovative Technologies

Module 2: Adding Value to Plant-Based at the Farm and Food Processor Level

Module 3: Creating Plant-Based Innovations for Retail, Prepared Consumer Goods

Module 4: Sourcing/ Mapping Local/ Regional Raw Materials

Module 5: Imagining a Better World Via Plant Power

Module 6: Creating Plant-Based Innovations for Food Service Outlets

Course Content
Detailed Overview

Module 1: Opportunities for Innovation in SMEs & the Power of Digitisation and Innovative Technologies

This module aims to equip participants with a comprehensive understanding of how SMEs can leverage opportunities through the use of digital tools for smarter supply chains and production. This module's main goal is to empower SMEs to compete and scale in a tech-driven food economy.

The interactive further learning materials included will serve as tools for reinforcing knowledge and ensuring a well-rounded learning experience.

Module 2: Adding Value to Plant-Based at the Farm and Food Processor Level

This module aims to provide learners with a comprehensive insight into how modern technologies and traditional methods enhance plant-based foods. We look to explore nutritional quality to market readiness.

This module bridges ancestral wisdom with cutting-edge processing techniques. The interactive content in this module is designed to facilitate active engagement.

Module 3: Creating Plant-Based Innovations for Retail, Prepared Consumer Goods

This module aims to provide a comprehensive understanding of the consumer trends and market demand for plant-based ready-to-eat and retail products. It explores innovative strategies for developing plant-based products that appeal to diverse consumer segments, while analysing challenges and solutions related to formulation, shelf life, packaging, and distribution.

The interactive content is designed to facilitate active engagement and assess the grasp of the course content fostering a deep learning experience.

Module 4: Sourcing/ Mapping Local/ Regional Raw Materials

This module enables learners to understand how local and regional sourcing supports sustainable plant-based food systems. It provides practical methods for finding, mapping, and assessing raw materials in a given region.

By the end, learners will be able to prepare an evidence based regional sourcing plan and propose how locally available ingredients could be used in future plant-based products.

Course Content

Detailed Overview

Module 5: Imagining a Better World Via Plant Power

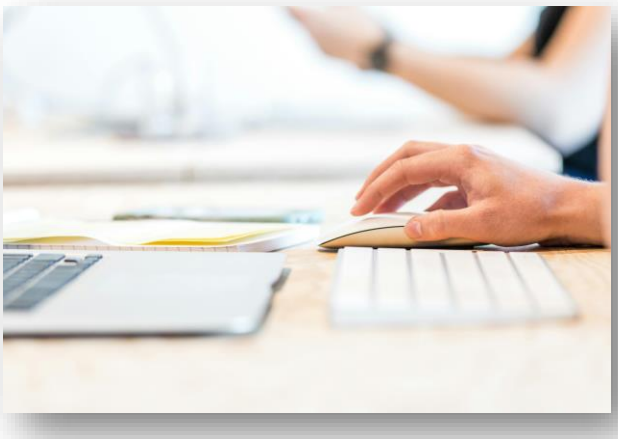
This module empowers learners to understand the critical role plant-based food systems play in shaping a sustainable and resilient future. Learners are encouraged through exploration of the interconnections between food, environment, health, and equity to reflect on current global challenges and imagine transformative solutions rooted in plant-based innovation.

We blend theory, multimedia content, and practical activities so learners will develop the awareness, values, and motivation to become agents of change in the transition to sustainable food systems.

Module 6: Creating Plant-Based Innovations for Food Service Outlets

This module covers aspects such as developing new menu items using plant-based ingredients, adapting recipes to ensure nutritional balance and taste. Training staff on the preparation and marketing of plant-forward dishes is another aspect. The main aim of this section is to help chefs and restaurateurs meet the growing demand for sustainable dining options.

The interactive further learning materials included will reinforce knowledge and ensure a well-rounded learning experience.



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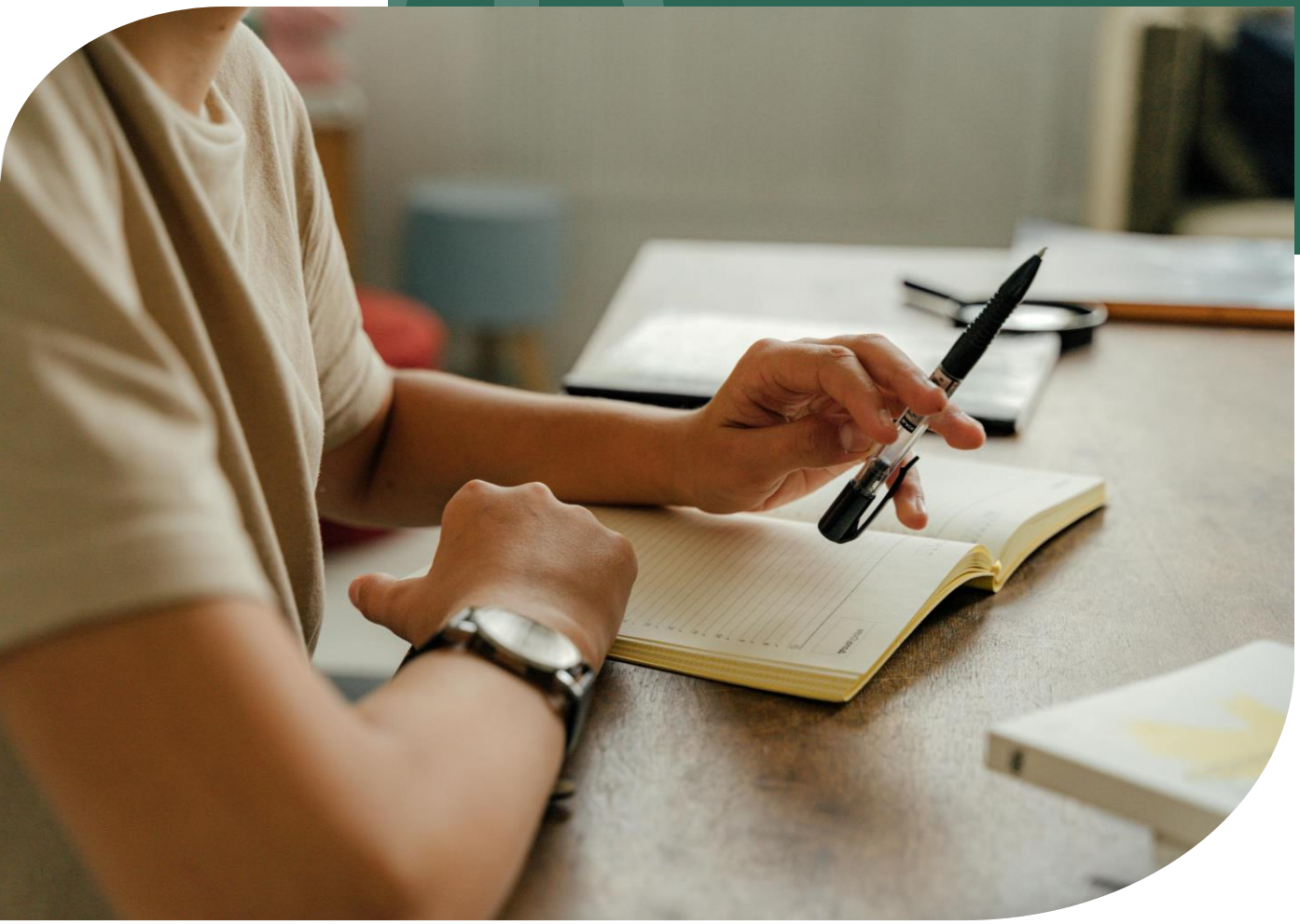
SAMPLE TIMETABLE



Sample Timetable

To allow for embedded and deep progressive learning, you can choose to spread the Plant Power learning across the week, for example, one day per week.

The table below is designed to deliver the complete Plant Power Modules within 6 days. However, you may adapt it to suit your schedule. The modules are designed in a way that they can be downloaded, modified, shortened, mixed up, or become part of an existing or new curriculum. Learners should use two hours in the afternoon of each day to look over other learning materials and to watch videos provided in the modules. Please note that for copyright purposes not to remove any project branding or copyright. For those limited to technology and digital resources, the learning resources can be downloaded and printed or accessed via student mobile devices.

Resources:
Depending on what is available and what your learner's individual needs are; at a minimum, you will need a reliable mobile-phone, laptop, or computer device with internet access and a comfortable environment with a chair and working space for each learner. Other optimal resources; printer and paper, earphones, traditional school supplies, television screen, white-screen, whiteboard with markers, and paper.

DAY	TRAINING CONTENT
Day 1	09.00 - 12.00 Module 1 13.00 - 15.00 Module 1
Day 2	09.00 - 12.00 Module 2 13.00 - 15.00 Module 2
Day 3	09.00 - 12.00 Module 3 13.00 - 15.00 Module 3
Day 4	09.00 - 12.00 Module 4 13.00 - 15.00 Module 4
Day 5	09.00 - 12.00 Module 5 13.00 - 15.00 Module 5
Day 6	09.00 – 12.00 Module 6 13.00 – 15.00 Module 6

07

USEFUL LINKS

Useful Links

Plant Power Resources:
https://plantpowerproject.eu/

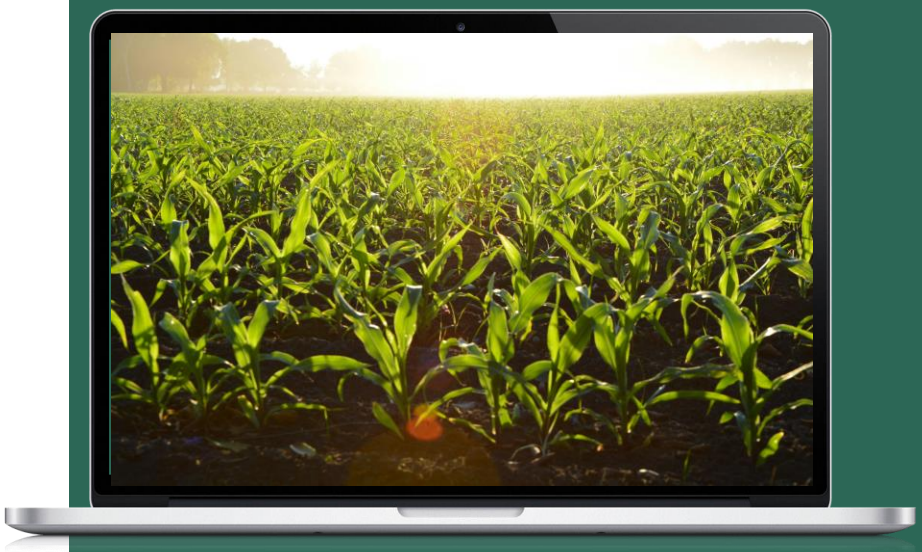
Instagram:
https://www.instagram.com/plantpowererasmus

LinkedIn:
https://www.linkedin.com/company/plant-power-erasmus/?viewAsMember=true

YouTube:
https://www.youtube.com/@PlantPowerEU

plant power

Boosting Innovation for Food SMEs



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follow our journey

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