



TRAINING PROGRAMME ANALYSIS

FOR THE FOOD & BEVERAGE SECTOR

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ABOUT OUR PROJECT

Objective:

- Support SMEs in the Food & Beverage (F&B) sector in adapting to digital transformation

Need for DIGIFABS:

- The F&B sector is the largest manufacturing sector in the EU
- SMEs struggle with adopting new technologies, lagging 20% behind emerging technology potential
- External factors (pandemic, war, climate change, labor changes) highlight the urgency for digital transformation
- Skilled professionals are needed to lead digital change in the sector

Target Audiences:

- **Educators:** Advance digital skills for teaching and research, driving innovation
- **Students:** Gain practical experience in digital tools, increasing employability
- **SMEs:** Improve digital innovation capabilities, competitiveness, and resilience



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01

INTRODUCTION



INTRODUCTION

The digitalisation of small and medium-sized enterprises (SMEs) is increasingly vital for enhancing competitiveness and operational efficiency, especially in the rapidly evolving food and beverage (F&B) sector. As consumer preferences shift and technological advancements reshape the industry landscape, SMEs must adopt digital tools and strategies to stay relevant and thrive. However, many SMEs face challenges in understanding how to effectively implement digital solutions, making tailored training programmes to address these gaps essential for their success.

This report in the form of a mini case collection with 20+ cases highlights successful digitalisation efforts through training programmes within the F&B sector and more generally SMEs. Such a collection would serve as a practical resource in the development of training programmes, providing concrete examples of how various SME stakeholders can navigate their digital transformation journeys. By showcasing best practices and innovative approaches of training programmes all over the world to promote digitalisation in SMEs, this case collection aims to equip SME owners and employees with the knowledge and inspiration necessary to embark on their own digitalisation efforts.

In addition, the mini case collection will address common barriers to digitalisation, such as limited resources, lack of technical expertise, and resistance to change. By illustrating how other SMEs have overcome these challenges through their participation in training programmes, the collection will foster a greater understanding of the digital landscape and encourage a proactive approach to embracing new technologies. Ultimately, this initiative seeks to empower SMEs in the F&B sector to leverage digital tools effectively, ensuring they remain competitive in an increasingly digital economy.

02

GLOBAL



Executive Certificate in Digitalisation & Capability Rebuilding for Food Services

Organising institution(s): Singapore Management University (SMU)

Location(s): Singapore & China

Type: Workshop and overseas programme

Pedagogies: Company visits, lectures, and reflective exercises

Trainer profile: Experts in food supply chains, economic analysis, and entrepreneurship

Learner profile: SME business owners in Food and Beverage (F&B) sector

Frequency of training: Annually

Mode of delivery: Face-to-face

Duration: 0.5-day pre-trip workshop at SMU + 5.5-day overseas programme in Shanghai

Context and Objectives: This Executive Certificate consists of two parts, with the overseas segment focused on addressing challenges faced by SMEs in the F&B sector. By exploring the dynamic and competitive landscape of China's F&B industry—home to global leaders like Haidilao—this programme equips participants with essential insights into the entire value chain.

It highlights key strategies for SMEs to scale effectively, including centralized manufacturing, AI-driven data analytics, customer profiling, advanced food preparation, and centralized procurement. Participants gain a comprehensive understanding of how to navigate and succeed in a substantial market like China, ultimately enhancing their ability to compete and grow.

Skills, Knowledge and Competences:

Critical Thinking: Participants enhance their ability to analyze market trends and dynamics, informing effective decision-making in the food and beverage sector.

Systems Thinking: The programme also equips individuals with an understanding of different resource pooling strategies, enabling them to optimise operational efficiency.

Adaptability: Participants learn to adjust their strategies for rapid scaling and prototyping to effectively respond to market changes.

Digital Skills: Participants gain proficiency in engaging with technologies such as POS and ERP systems to improve operational workflows.

Link to website: [Executive Certificate in Digitalisation and Capability Rebuilding for Food Services - Overseas Immersion and Networking | SMU Academy](#)

Digital Transformation in F&B Industry

Organising institution(s): Siemens Digital Industries Software

Location: United States

Type: Bespoke training

Pedagogies: Open-source online resources, workshops, assessments

Trainer profile: Experts in automation, digitalisation and financing

Learner profile: Companies of any size in the F&B industry

Frequency of training: Case-by-case basis

Mode of delivery: Blended

Duration: Case-by-case basis

Context and Objectives: The "Digital Transformation in F&B Industry" training, organised by Siemens Digital Industries Software, targets companies across all sizes in the Food and Beverage (F&B) sector. Delivered in a blended format, the programme incorporates both online educational resources and hands-on use of Siemens software platforms. Designed specifically for F&B companies aiming to optimise their supply chain management, this training provides customised advice on automation, digitalisation, and financing.

Skills, Knowledge and Competences:

Valuing Sustainability: The training helps employees identify key sustainable practices within their operations, emphasising the importance of reducing environmental impact in F&B manufacturing and product design.

Digital skills: The training helps participants to effectively use advanced digital tools and technologies from Siemens that enhance manufacturing and product design efficiency. This includes hands-on workshops focusing on automation, data analytics, and real-time monitoring systems to optimise processes while minimizing environmental impact.

Identifying Digital Competence Gaps: The training incorporates assessments to evaluate current digital competencies in sustainable manufacturing and product packaging practices. Participants will learn to identify their own skill gaps and the specific needs of their teams, leading to personalized development plans.

Link to website: [Digital Transformation in F&B industry](#)

Inspire – Digital Technologies in the Food System

Organising Institution(s): EIT Food Learning Services with Northern European universities

Location: Pan-Europe

Type: Course programme

Pedagogies: Pre-course online learning resources, online learning (modules), online events (Make-a-thon, pitch event)

Trainer profile: Experts in digital technology role within food systems

Learner profile: Bachelor's, MSc or PhD degree or substantial experience within the food system or tech sector

Frequency of training: Annually

Mode of delivery: Blended

Duration: 5 weeks

Context and Objectives: The INSPIRE programme's unique selling point is the consortium's strong position in research, knowledge, and expertise in food security, food systems, and digital technologies on the UK, EU, and global stages. The course addresses challenges in the food system and explores future technology developments in agriculture, focusing on applying cybersecurity, wireless connectivity, data analytics, AI, and machine learning to solve agri-food industry challenges globally.

Skills, Knowledge and Competences:

Systems Thinking: Participants learn to analyse the complexities of the agri-food system, applying systems approaches to assess and address current and future sustainability challenges.

Digital Skills: The programme equips participants to design and implement impactful digital solutions, fostering sustainable value across the agri-food supply chain.

Valuing Sustainability: Participants create digital solutions with social and environmental value, addressing sustainability challenges within the agri-food sector.

Impact (Short term/Long term)

Participants reported enhanced skills in food tech, manufacturing, and innovation, boosting job competitiveness and interest in sustainability. Networking aided entry into food tech careers, with long-term impacts on career growth and industry innovation. Notably, an alumnus William McColgan used his predictive analytics project from the programme to drive digital transformation at his F&B Company McColgan's, winning the 2024 Best Large Company Product award.

Link to website: [Inspire – Digital Technologies in the Food System](#)

Tetra Pak® Training Services

Organising institution(s): Tetra Pak

Location: Global

Type: Bespoke training

Pedagogies: Skills assessments, certifications, digital communication tools (e.g., Connected Workforce) within the factory

Trainer profile: 60+ years of industry expertise

Learner profile: Food companies and their staff

Frequency of training: Case-by-case basis

Mode of delivery: Blended

Duration: Case-by-case basis

Context and Objectives: Tetra Pak® Training Services, designed for food industry staff, delivers a blended training programme tailored to enhance operational performance across various roles, from operators to management. Utilizing over 60 years of industry expertise, Tetra Pak's training services aim to upskill food company employees in processing, packaging, automation, and food safety.

Skills, Knowledge and Competences:

Valuing Sustainability: The programme prioritizes sustainable practices in operations and packaging, teaching participants to implement eco-friendly processes.

Adaptability: Training on automation and new technologies prepares participants to embrace change and adapt to evolving industry standards.

Communication: Effective communication skills are essential for collaboration among teams in operations and maintenance. This programme ensures clear information sharing regarding safety protocols and quality standards.

Interacting through Technologies: Familiarity with automation tools prepares participants to engage with modern food processing technologies effectively.

Impact (Short term/Long term)

Impacts cited by Tetra Pak include increased workforce competence and a reduction in operational errors. For instance, a large multinational food producer achieved a 55% reduction in unsterility cases after implementing Tetra Pak's tailored competence development programme, highlighting the long-term impact on production reliability and quality control.

Link to website: [Tetra Pak® Training Services](#)

Digital4Business

Organising institution(s): 15 partners from 7 EU countries — higher education institutes, research centres, training providers and industry partners

Location: Pan-Europe

Type: Postgraduate programme

Pedagogies: Online lectures, physical workshops, seminars, networking events

Trainer profile: Universities in engineering, business, data science & software development, operations research, logistics, sustainable development and law

Learner profile: European Companies/SMEs

Frequency of training: Annually

Mode of delivery: Blended

Duration: Full time (1 year, 1500 hours), Part-time Accelerated (1 year, 1000 hours), Part-time (2 years, 1500 hours)

Context and Objectives: Digital4Business is a new European Master's programme focusing on the practical application of advanced digital skills within European SMEs and companies, helping businesses achieve long-term competitiveness and growth through digital transformation and innovation. The Masters is unique because it is entirely market and industry-led, co-created with companies to address the growing digital skills gap hampering the development of many European businesses, in particular SMEs.

Skills, Knowledge and Competences:

Critical Thinking: Participants will develop the ability to critically appraise and select technologies that effectively address complex business challenges.

Valuing Sustainability: Participants will learn to assess sustainability, governance, and ethical risks associated with digital initiatives, ensuring responsible decision-making.

Communication Skills: Participants will gain the ability to synthesize and communicate the opportunities, risks, and challenges of digital transformation practices to key stakeholders, supporting strategic decision-making.

Digital Skills: The programme will provide an in-depth understanding of fundamental concepts and techniques related to advanced digital skills across different business contexts. The programme will also encourage participants to strategically leverage advanced digital practices to foster creativity and innovation at individual, team, and organizational levels.

Link to website: [Digital4Business European Master's programme](#)

Blockchain for Agri-Food Educators

Organising institution(s): Slovak University of Agriculture in Nitra, momentum, FH Munster, Arctur, European E-learning Institute, Czech University of Applied Sciences Prague

Location: Pan-Europe

Type: Online platform

Pedagogies: Reports, courses, Open Educational Resource (OER) modules

Trainer profile: Universities specialising in food sector, education consortiums

Learner profile: HEI and VET academics/lecturers in food sectors

Frequency of training: Not specified

Mode of delivery: Online

Duration: Not specified

Context and Objectives: Blockchain for Agri-Food Educators is an innovative project that seeks to transform the provision of education in the agribusiness, food science, and nutrition sectors through the strategic utilization of blockchain technology. By developing innovative pedagogical approaches that encompass a wide range of theories, methods, processes, and teaching concepts, this project aims to enable higher education educators to take the lead in digitizing the food sector while simultaneously addressing critical societal challenges within the food supply chain.

Skills, Knowledge and Competences:

Digital skills: It equips learners with the digital competences such as blockchain technology and its usage in the fields of agribusiness, food science and nutrition.

Managing learning: The programme guides students to evaluate their progress in mastering blockchain concepts. This includes being open to feedback on their pedagogical strategies and change or adjust them to better meet teaching goals.

Valuing sustainability: The programme focuses on transforming agrifood business models, productivity, and competitiveness to benefit stakeholders across the value chain, from small-scale farmers to consumers.

Link to website: [Blockchain for Agri-Food Educators](#)

EIT Food Next Bite 2024: AgriFoodTech Ventures Track

Organising institution(s): EIT Food

Location: Pan-Europe

Type: Conference, symposium

Pedagogies: Roundtable discussions, panel conversations, networking events

Trainer profile: Startups, business angels, impact funds, VCs, companies and universities in the agrifood sector

Learner profile: Corporate/Industry, farmers, investors, trade associations, academics, SMEs, startups, non-profits, students prior to PhD level

Frequency of Training: Annually

Mode of Delivery: Face-to-face

Duration: 2 days

Context and Objectives: This platform brings together agrifood tech startups, business angels, impact funds, VCs, CVCs, and leading European agrifood companies and universities. It serves as an inspiring and interactive stage for exchanging ideas, fostering collaboration, and building partnerships to drive positive change in the food system.

Skills, Knowledge and Competences:

Valuing Sustainability: The programme customises the role of startups in shaping a future-fit agriculture system by promoting sustainability. Participants will build competence in circular economy principles and gain insights into sustainable practices throughout the agrifood value chain.

Collaboration: The programme exposes participants to networking and collaboration opportunities with diverse stakeholders, such as startups, business angels, impact funds, and agrifood companies, to create positive changes in the food system.

Digital skills: By exploring how AI and robotics are disrupting food production and distribution, participants will acquire the skills to integrate these cutting-edge technologies into agrifood systems. This competence will help them contribute to technology-driven transformations in the sector.

Critical thinking: The programme develops participants' ability to analyze startup pitches, drawing valuable insights and lessons from agrifood sector experiences. This competence in critical thinking and problem-solving will enable them to assess the potential impact and success of innovative business models.

Link to website: [EIT Food Next Bite 2024](#)

03

WESTERN &

SOUTH-WESTERN EUROPE



Postgraduate Certificate in Industry 4.0 digitalisation in Quality Management for Nutritionists

Organising institution(s): Tech School Of Nutrition-Tech Global University

Location: Belgium

Type: Postgraduate programme

Pedagogies: Study materials, expert-led case analysis, master classes

Trainer profile: Food safety professionals with field experience in nutrition, knowledge experts from universities

Learner profile: Students, entrepreneurs, companies with a background in nutrition

Frequency of training: Annually

Mode of delivery: Online

Duration: 12 ECTS (3 months)

Context and Objectives: The programme addresses the essential need for food traceability and safety, especially as recent food crises have highlighted the importance of digital tools and HACCP compliance in quality management. The course aims to equip participants with the skills to develop traceability plans, implement digital strategies, and transition traditional quality management processes to digital platforms. With a focus on international quality standards and digital migration, this programme provides knowledge of digital tools and problem-based learning to prepare professionals for current industry challenges in food safety and quality.

Skills, Knowledge and Competences:

Critical Thinking: The programme provides the participants with strategies for the establishment of protocols related to food quality and safety.

Collaboration: Participants address the main interventions specialists conduct in food safety.

Adaptability: The programme allows students to improve and enhance their skills in food safety, with the certainty of performing the protocols in a very effective way. Moreover, it defines the crucial step to go from a traditional to a digital systems.

Digital skills: Participants are provided with knowledge of different platforms and IT tools and advantages on digitalisation in food safety.

Link to website: [Postgraduate certificate in Industry 4.0 digitalisation in Quality Management for Nutritionists](#)

Course on Digitalisation of Agri-Food Companies

Organising institution(s): ENAE International Business School

Location: Spain

Type: Postgraduate programme

Pedagogies: Mentorship, peer learning, case study analysis

Trainer profile: Professors in agro-food marketing, business administration, agribusiness and precision agriculture

Learner profile: Students, entrepreneurs, companies related to nutrition (no pre-existing skills needed)

Frequency of training: Annually

Mode of delivery: Online

Duration: 75 hours

Context and Objectives: The agri-food industry, a vital part of Spain's economy, is experiencing a transformative phase driven by innovation and technology. This *Course in Digitalisation of the Agri-Food Business* focuses on the sector's evolution, exploring changes across agricultural production, processing, and distribution, and equipping participants with strategies to remain competitive in a globalized, dynamic market. The main objective of this programme is to provide participants with an overview of the digital change process and how disruptive technologies are redefining value creation in business, with a specific focus on the agri-food sector. By the end of the programme, participants create a Basic Digital Transformation Plan for their existing or potential agri-food business.

Skills, Knowledge and Competences:

Critical Thinking: Participants learn how technology can enhance strategic decision-making and improve operational efficiency at every link in the food chain.

Adaptability: Students master the most relevant aspects of agribusiness transformation from a logistical, marketing and technological perspective.

Systems Thinking: Participants are able to explore how the convergence of agribusiness and technology is shaping the future of the agri-food industry.

Digital skills: The programme equips the learners with an overview of the digital transformation of value chain processes and marketing in the agri-food sector, and the necessary tools to lead this revolution in their own companies.

Link to website: [Course On Digitalisation Of Agri-Food Companies](#)

MSc in Digital Technology for Sustainable Agriculture

Organising institution(s): University College Dublin (UCD)

Location: Ireland

Type: Postgraduate programme

Pedagogies: Hands-on training, online modules, peer learning

Trainer profile: Professors with engineering degrees and PhDs from UCD's Biosystems & Food Engineering and Agriculture & Food Science schools

Learner profile: Students, entrepreneurs, companies with a background in agriculture, biological science, physical science, engineering, computer science or similar disciplines.

Frequency of training: Annually

Mode of delivery: Blended

Duration: 90 ECTS (1 year)

Context and Objectives: Digital Technology for Sustainable Agriculture is the integration of new and advanced technologies into crop and livestock farming systems to enable farmers and other professionals in the sector to improve food production. The MSc in Digital Technology for Sustainable Agriculture at UCD integrates advanced digital technologies into agriculture, training students in programming, data processing, IoT, and machine learning. It focuses on building skills to develop, deploy, and manage digital tech for improved efficiency, sustainability, and resilience in food production, with hands-on experience in labs such as Lyons Research Farm.

Skills, Knowledge and Competences:

Digital Skills: The programme provides learners with an understanding of the “Digital Technology” tools that digitise data capture relating to the environment and activity (sensors circuits, systems and programming), move the data (accumulation networks), store the data (databases), analyse data to gain insights (models and AI) and provides actors and stakeholders access to the digital chain (interfaces).

Critical Thinking: Participants enhance the ability to share the digital skills learnt along the agricultural value chain (distribution networks). Through a focus on industry-specific knowledge, participants learn to implement and manage digital systems tailored to the agri-food value chain.

Valuing Sustainability: This programme teaches students how to use digital technologies in the agri-food sector to make food production more efficient, sustainable, and resilient at every stage.

Link to website: [MSc in Digital Technology for Sustainable Agriculture](#)

MSc in Precision Agriculture Technology

Organising institution(s): Universidade de Evora

Location: Portugal

Type: Postgraduate programme

Pedagogies: Workshops, mentorship on dissertation project

Trainer profile: Experts in rural engineering and hold PhDs in biology, environmental science, ecology, and chemistry

Learner profile: Students, entrepreneurs, companies with a background in natural sciences, agronomy, agri-food technology or similar disciplines.

Frequency of training: Annually

Mode of delivery: Face-to-face

Duration: 120 ECTS (2 years)

Context and Objectives: The masters programme is meant to create Technology managers in Precision Agriculture who can work broadly in roles such as developing geoelectric surveys to study soil variability, creating variable application maps for nutrients and production factors, and operating GNSS for georeferencing. They may also handle advanced agricultural machinery, process satellite and sensor data for crop monitoring, manage large datasets using programming, install and manage IoT sensors, apply AI for data analysis, conduct economic studies for new technologies, and engage in applied research focused on sustainable agro-ecosystems.

Skills, Knowledge and Competences:

System Thinking: The programme prepares the participants in the management and strategies of processes and technologies in Precision agriculture, from soil variability to crop management, and interacts within the larger system to optimise overall efficiency, sustainability, and productivity in the agricultural value chain.

Adaptability: Participants gain knowledge of Precision Agriculture techniques tailored to meet evolving European agricultural priorities, particularly in response to significant initiatives like the *Green Deal*, *Farm to Fork*, and the *New Common Agricultural Policy (CAP)*. This training prepares them to adapt quickly to regulatory changes and implement sustainable, economically viable farming practices.

Digital Skills: The programme equips participants with specialized digital skills to become experts in Precision Agriculture solutions. This includes the use of digital tools and technologies such as IoT sensors, GIS mapping, data analysis, and automated machinery, allowing them to implement precision techniques effectively.

Link to website: [MSc in Precision Agriculture Technology](#)

Digital Transformation of Industry

Organising institution(s): Experts du Numérique Entreprises

Location: France

Type: Workshop

Pedagogies: Hands on learning, case analysis, peer learning

Trainer profile: Engineer with passion for technology, shares his experience as a consultant in organizations to aid industrial SMEs in their digital transformation projects

Learner profile: Espace Numérique Entreprises, Economic developers, Business Advisors

Frequency of training: Annually

Mode of delivery: Face-to-face

Duration: 7 hours

Context and Objectives: During this training, participants explore the concepts and challenges of digital transformation within an industrial company. The programme enables participants to understand digital challenges for businesses, align digital strategies with business goals, clarify the role and structure of information systems, and gain insight into various digital solutions (like ERP, MES, and AI) along with their functionalities, maturity, and trends. The main objective of the training is to support companies in their digital transformation in Lyon and surrounding regions.

Skills, Knowledge and Competences:

Critical thinking: Participants receive information on the challenges that are facing companies for pursuing their digital transformation and are encouraged to develop strategies to solve them.

Adaptability: The programme enhance students on the concepts of the digital transformation of an industrial company and the associated challenges.

Digital skills: Participants are provided with knowledge about different digital solutions and software bricks (ERP, GPAO, MES, CMMS, Cloud, BigData, AI, etc.)

Impact (short term/long term)

The programme achieved a high satisfaction rate of 9.4/10 among participants, reflecting positive feedback on ease of access, course duration, overall quality, and skill development.

Link to website: [Digital transformation of industry](#)

04

EASTERN &

SOUTH-EASTERN EUROPE



MSc in Food Science and Technology

Organising institution(s): Cyprus University of Technology (CUT)

Location: Cyprus

Type: Postgraduate programme

Pedagogies: Lectures, lab sessions, internships, research projects

Trainer profile: Professors with expertise in food science, biotechnology, and sustainability

Learner profile: Graduate students or professionals with a background in food science, biotechnology, or agriculture

Frequency of training: Annually

Mode of delivery: Face-to-face

Duration: Full-time/Part-time (between 1-2 years)

Context and Objectives: The *MSc in Food Science and Technology* at Cyprus University of Technology targets graduate students, industry professionals, and researchers. The programme focuses on digital monitoring, sustainability in food production, and biotechnology integration. Its key objectives include fostering skills in research on topics of food science, sustainable practices, and production technologies, with the goal of preparing graduates to drive innovation in the F&B industry locally and internationally.

Skills, Knowledge and Competences:

Critical thinking: Students are encouraged to develop analytical thinking to solve complex problems, assess data, and apply findings to improve food science practices.

Digital skills: Students are trained in the use of digital tools and biotechnology for monitoring and improving food safety, emphasising technology's role in modern food systems.

Valuing sustainability: The programme teaches sustainability in food production, including strategies to reduce waste, improve resource efficiency, and minimize environmental impact.

Impact (short term/long term)

The programme prepares graduates in the short term to apply digital and sustainable technologies in food production, equipping them with practical skills for immediate industry impact. Long term, it aims to foster innovation within the F&B sector, both in Cyprus and on an international scale, contributing to advancements in sustainable and technology-driven food production.

Link to website: [MSc in Food Science and Technology](#)

HRDA Digital Skills Training programmes

Organising institution(s): Human Resource Development Authority (HRDA)

Location: Cyprus

Type: Varied training services

Pedagogies: Lectures, workshops, peer learning, mentorship

Trainer profile: Expertise in digital technologies, sustainability, specialized skills for the F&B industry

Learner profile: Employees or unemployed individuals (incl. in F&B sector), with or without basic digital skills

Frequency of training: Ongoing + Frequent sessions per year

Mode of delivery: Blended

Duration: Varies; few hours or 20-40 hours

Context and Objectives: The *HRDA Digital Skills Training programmes*, organised by the Human Resource Development Authority of Cyprus, target employees in the private and public sectors, unemployed individuals, and specific professionals in the F&B industry. The programme's main objective is to upskill participants in digital literacy, sustainability practices, and industry 4.0 capabilities, supporting Cyprus' national digital strategy.

Skills, Knowledge and Competences:

Digital skills: Participants acquire digital skills in essential tools and software proficiency, data analytics, automation for optimizing food production, and cybersecurity practices to protect digital assets, all geared toward enhancing operational efficiency and strategic digital transformation across the F&B industry.

Valuing sustainability: The programme introduces sustainable business practices, particularly in production processes, to help reduce environmental impact and promote eco-friendly operations. Additionally, tailored content for the F&B sector is also provided to address specific environmental challenges and opportunities for sustainable growth.

Impact (short term/long term)

In the short term, participants improve digital skills and sustainability practices for immediate workplace application. Long-term, companies - especially those in F&B - benefit from higher productivity, lower environmental impact, and stronger competitiveness in the digital economy.

Link to website: [HRDA Digital Skills Training programmes](#)

MSc in Sustainable Agriculture & Business

Organising institution(s): International Hellenic University (IHU)

Location: Greece

Type: Postgraduate programme

Pedagogies: Lectures, workshops, fieldwork, research projects, industry internships

Trainer profile: Academic experts in sustainable agriculture, business management, agri-tech innovations, with backgrounds in research, consulting, and practical business experience.

Learner profile: Graduates in agricultural sciences, economics, business, and those seeking expertise in sustainable agriculture and business management.

Frequency of training: Annually

Mode of delivery: Blended

Duration: 14 months

Context and Objectives: The *MSc in Sustainable Agriculture and Business* at the IHU integrates advanced sustainable agriculture practices with business management expertise. The programme covers sustainable agriculture practices, agri-business management, supply chain management, environmental impact assessments, and sustainable food production. It aims to equip students with the skills to manage agricultural businesses that balance profitability with environmental stewardship, fostering both economic growth and sustainability.

Skills, Knowledge and Competences:

Valuing sustainability: Students gain hands-on knowledge of sustainable practices, emphasising resource management and environmental impact assessments to minimize ecological footprints in crop and livestock production.

Digital skills: The programme focuses on emerging technologies in agriculture, preparing students to adopt and integrate modern agricultural technologies that enhance productivity and sustainability.

Critical thinking: The programme uses real-world case studies and problem-based learning approaches to build critical thinking and decision-making skills.

Impact (short term/long term)

In the short term, graduates are prepared to tackle challenges in sustainable agriculture and lead within agricultural businesses. Over the long term, alumni contribute to a more sustainable agricultural sector by promoting innovative practices that enhance food security, environmental health, and economic resilience.

Link to website: [MSc in Sustainable Agriculture and Business](#)

UPGRADE 100 Digital Transformation Plan

Organising institution(s): UPGRADE 100 Digital Innovation Hub

Location: Romania

Type: Varied training services

Pedagogies: Practical training with digital tools, workshops, online modules, case studies

Trainer profile: Experts in digital transformation, AI, ERP systems, and automation technologies

Learner profile: Business professionals, F&B industry players, entrepreneurs, and tech experts seeking digital transformation skills

Frequency of training: Annually + continuous workshops

Mode of delivery: Blended

Duration: Varies; short courses (few hours), long courses (several days)

Context and Objectives: The *UPGRADE 100 Digital Transformation programme*, organised by the UPGRADE 100 Digital Innovation Hub, targets businesses, SMEs, and entrepreneurs, especially within the food and beverage industry. This annual blended programme focuses on implementing digital technologies like AI, automation, and ERP systems to enhance operational efficiency and product quality. Through workshops, hands-on practice, and case studies, participants learn to streamline production, optimise inventory management, and improve supply chain transparency.

Skills, Knowledge and Competences:

Digital skills: Participants gain proficiency in AI, ERP systems, and automation tools, essential for enhancing production processes and managing resources effectively.

Critical thinking: Through hands-on case studies, workshops, and project-based assignments, participants learn to apply digital solutions in real-world contexts. These include techniques for optimizing production, ensuring transparent supply chains and effective inventory management practices, thereby strategically aligning digital transformation efforts with business goals.

Impact (short term/long term)

In the short term, the programme enhances operational efficiency and product quality within the food and beverage sector. Long-term, it aims to increase business competitiveness, achieve greater cost efficiency, and support full digital integration across operations.

Link to website: [UPGRADE 100 Digital Transformation Plan](#)

MSc in International Food & Beverage Management

Organising institution(s): ESCP Business School

Location: Italy

Type: Postgraduate programme

Pedagogies: Lectures, workshops, company visits, and international internships

Trainer profile: Experienced professors and industry experts in food management, sustainability, digital strategy, and innovation

Learner profile: Professionals in the food and beverage sector, graduates in business, hospitality, and related fields

Frequency of training: Yearly

Mode of delivery: Blended (On-campus in Turin and Paris, with online activities)

Duration: 15 months

Context and Objectives: The *MSc in International Food & Beverage Management* at ESCP Business School, offered in Turin and Paris, is designed for professionals and graduates in business, hospitality, and related fields who aspire to leadership roles in the F&B sector. The programme covers topics such as digital strategy, food waste management, sustainability, agrifood technology, big data, and unique challenges and strategies for F&B-family businesses. It aims to develop managerial skills, enhance knowledge in digital transformation and sustainability, and understand the dynamics of the global F&B industry.

Skills, Knowledge and Competences:

Valuing sustainability: The programme covers sustainability management by teaching strategies for minimizing environmental impact and promoting ethical practices in F&B operations. It also includes techniques for reducing food waste, enhancing operational efficiency and environmental responsibility.

Digital skills: The programme develops skills in digital transformation, teaching learners to integrate technology for efficiency and customer engagement, while leveraging agrifood tech and big data to drive innovation and optimise F&B processes.

Impact (short term/long term)

In the short term, the programme enhances operational efficiency and product quality within the food and beverage sector. Long-term, it aims to increase business competitiveness, achieve greater cost efficiency, and support full digital integration across the sector's operations.

Link to website: [MSc in International Food & Beverage Management](#)

A hand wearing a blue nitrile glove holds a tablet computer. The background is a blurred kitchen or food preparation area with stainless steel equipment and a sink. The image is partially covered by a dark blue graphic overlay on the right side.

05

**CENTRAL & NORTHERN
EUROPE, AUSTRALIA**

Digital Transformation in Manufacturing & Technology Sectors

Organising institution(s): Swinburne University of Technology - School of Science, Computing and Engineering Technologies

Location: Australia

Type: ---

Pedagogies: Project-based learning, industry ties, simulations, strategic partnerships

Trainer profile: ---

Learner profile: Students in Science, Computing, Engineering, and Technologies fields, including those in manufacturing and digital innovation

Frequency of training: Ongoing

Mode of delivery: Hybrid, with both online and practical sessions

Duration: Long-term, with project-based learning spanning across multiple years

Context and Objectives: This programme is dedicated to integrating digital transformation strategies to support a sustainable and secure future, specifically tailored for SMEs. It customises equipping participants with problem-solving skills, practical applications, and personalized strategies to address unique business challenges.

Skills, Knowledge and Competences:

Digital skills: The programme customises aligning digital transformation efforts with the specific goals and industry standards of SMEs, ensuring relevance and long-term impact.

Critical thinking: The programme equips participants with the ability to evaluate complex digital concepts and create innovative, tailored solutions for SMEs, ensuring they can think strategically about integrating digital technologies.

Collaboration: Participants are trained to integrate knowledge from various fields, ensuring that digital transformation strategies are holistic and address multiple aspects of SME operations. Emphasis is placed on effective collaboration in digital environments, preparing participants to work cohesively with diverse teams to implement secure and successful digital projects.

Link to website: [Industrial Digital Transformation Hub | Swinburne University of Technology](#)

Digital Business and Innovation Management

Organising institution(s): FH Münster

Location: Germany, also in EU and US

Type: Innovation workshops and digital transformation training

Pedagogies: Innovation workshops, Blockchain projects, creative implementation tools, customer needs assessment, tailored icebreakers

Trainer profile: students, professors, researchers, administrators, and industry professionals

Learner profile: University actors across departments and hierarchies, students focused on innovation and emerging technologies.

Frequency of training: Long-term (2.5-3 years for certain projects)

Mode of delivery: Blended

Duration: Project-based

Context and Objectives: This programme is designed to enhance transparency and security in value chains through digital transformation, with a specific focus on the food and beverage (F&B) sector. By aligning with the Sustainable Development Goals (SDGs), the programme customises sustainable and responsible practices within supply chains. A key objective is to promote collaboration, bringing together university ecosystems and industry professionals to drive innovation and the adoption of emerging technologies. This collaborative approach ensures that participants are equipped with the skills and knowledge to address complex challenges in digital supply chain management, contributing to a more secure and transparent global value chain.

Skills, Knowledge and Competences:

Digital skills: The programme focuses on assessing and analyzing the potential impacts of new technologies to ensure they deliver desired outcomes and address specific challenges.

Adaptability: The programme encourages participants to remain adaptable and open to exploring novel solutions, which is crucial for driving advancement in supply chains and emerging technology adoption.

Critical thinking: Participants are equipped with the ability to think and plan strategically, ensuring solutions are both effective and sustainable. By understanding customer needs and aligning efforts with the SDGs, participants learn to create meaningful impact in their initiatives.

Collaboration: By working in diverse teams, participants will develop the ability to co-create and implement solutions that consider a wide range of insights and expertise, essential for successful digital transformation in global value chains.

Link to website: [Module Description](#) and [Digital Business and Innovation Management](#)

Digital Transformation in the AgriFood Sector

Organising institution(s): Big Data Value Center

Location: Netherlands

Type: On-demand training services

Pedagogies: Problem-based approach, interactive workshops and expert consultations

Trainer profile: Experts from Big Data Value Center

Learner profile: SMEs in the agrifood sector, including farmers and food producers

Frequency of training: On-demand

Mode of delivery: Mixed (Online/In-person)

Duration: Variable

Context and Objectives: The Digital Transformation in the Agrifood Sector programme supports SMEs in the agrifood sector by promoting digital transformation with a focus on sustainability, regionalization and shorter supply chains. Through practical, data-driven methods, it aims to improve decision making and foster collaboration within the food system.

Skills, Knowledge and Competences:

Digital skills: Training in big data analysis and digital tools for supply chain management
Digital skills: This programme provides training in big data analysis and digital tools specific to supply chain management.

Strategic competence: The programme also focuses on data application to increase sustainability and transparency.

‘Value Case’ methodology: Additionally, it covers the value case methodology, that aligns financial and non-financial values in large multi-stakeholder innovation projects, helping businesses to transition and adapt to digital innovations.

Impact (short term/long term): In the short-term, the programme aims to change mindset towards digitalisation in SMEs to optimise supply chain processes. Long-term, it fosters cultural change and leadership development, putting the spotlight on the strategic role of digital tools in increasing collaboration and partnerships across the supply chain.

Link to website: [Big Data Value Center](#)

Transformation in F&B and Hospitality

Organising institution(s): Private Trendwatcher Company

Location: Netherlands

Type: On-demand training services

Pedagogies: Case-based learning, online resources and direct expert interaction

Trainer profile: Strategy trainer & trendwatcher

Learner profile: SMEs and various-sized businesses in the hospitality sector

Frequency of training: On-demand

Mode of delivery: Mixed (Online/In-person)

Duration: Variable

Context and Objectives: The Transformation in F&B and Hospitality programme supports businesses in the hospitality sector, in particular SMEs, in closing the digital adoption gap. It provides actionable insights on topics such as digital marketing and sales strategies, helping smaller businesses catch-up with bigger players and industry leaders through target digital tools.

Skills, Knowledge and Competences:

Digital strategy: This programme focuses on practical digital marketing and sales tactics that are tailored to different businesses scales and sub-topics within the F&B sector.

Peer influence and adoption: The programme underscores the importance of peer learning and training to encourage technology adoption, reducing the gap between SMEs and larger corporations.

Impact (short term/long term): In the short-term, this training programme fosters digital awareness and readiness among SMEs, supporting digitalisation at the core. Long-term, the programme aims to make SMEs in the hospitality sector more competitive, enabling them to integrate digital strategies that fit them and keep up with industry trends.

Link to website: [Gijsbregt Brouwer Trends](#)

Digital Transformation in Healthcare Culinary Education

Organising institution(s): Research and Innovation in Gastrology & Primary Food Care (CRIGA) – School of Gastrology

Location: Belgium

Type: Ad-hoc modules for specific skills

Pedagogies: Project-based training, practical modules, real-world problem solving, interdisciplinary collaboration, digital platforms

Trainer profile: Experts in healthcare culinary education (e.g., chefs, researchers and healthcare professionals)

Learner profile: Chefs in the healthcare sector, students in gastrology, and healthcare culinary professionals

Frequency of training: Integrated in the curriculum

Mode of delivery: Mixed (Online/In-person)

Context and Objectives: This training equips healthcare culinary professionals with digital and culinary skills to meet patient needs, enhancing interdisciplinary teamwork and resource management in healthcare culinary settings. It focuses on patient-centered approaches, interdisciplinary projects and the use of digital platforms.

Skills, Knowledge and Competences:

Digital and culinary Skills: customises digital communication, collaboration and resource management tailored to healthcare culinary services.

Interpersonal and professional competence: The programme includes quality control, understanding of contracts and skills such as scientific reasoning, creativity and continuous learning.

Impact (short term/long term): The Digital Transformation in Healthcare Culinary Education enhances patient-centered care and helps participants to better communicate across disciplines to improve the delivery of healthcare culinary services. Additionally, it promotes sustainability, improves food quality control and aligns culinary services with patient needs.

Link to website: [CGE – The school of Gastrologic Sciences and Primary Food Care](#)

Design Innovation (Food)

Organising institution(s): National University of Ireland, Maynooth (NUIM)

Location: Ireland

Type: Integrated curriculum session

Pedagogies: Practical examples, case studies, real company engagement, living lab approach

Trainer profile: Experts in entrepreneurship and innovation education

Learner profile: Undergraduate and postgraduate students, primarily in entrepreneurship and strategic management

Frequency of training: Regular sessions throughout the semester

Mode of delivery: In-person with real-world industry engagement

Duration: Semester-long

Context and Objectives: This training equips students with digital transformation skills specifically in entrepreneurship, focusing on real-world challenges in the food and beverage sector. It customises hands-on engagement with industry projects and sustainability, using real examples to develop entrepreneurial acumen.

Skills, Knowledge and Competences:

Digital and strategic skills: The programme covers the development of customer personas, mapping of the commercial journey, sustainability goals and focuses on the practical aspects of B2C industries.

Customer-centric and analytical skills: The programme also focuses on understanding and analysing customer journeys by applying digital tools to real-world business contexts. The emphasis is put on the need for tailoring digital solutions to the customer needs based on a deep understanding of customer behaviour, avoiding one-size-fits-all approaches.

Impact (short term/long term): The training uses hands-on approaches to develop digital and entrepreneurial skills. In the long term, it fosters innovation and practical experience, supporting students' real-world application of digital tools.

Link to website: [MSc in Design Innovation \(Food\) | Maynooth University](#)

Design Transformation in Food Safety and Agricultural Education

Organising institution(s): Slovak University of Agriculture

Location: Slovakia

Type: University programme

Pedagogies: Case studies, simulations, project management methodologies (AGILE, LEAN)

Trainer profile: University professor with background in research & teaching in food safety and occupational safety

Learner profile: University students, agricultural professionals, participants in workshops and outreach events on food safety

Frequency of training: ---

Mode of delivery: Face-to-face lectures + Field visits

Duration: Variable

Context and Objectives: This programme focuses on digital transformation in the food safety and quality sector, equipping students and professionals with expertise in IoT, Big Data, AI, Blockchain, automation, and customer engagement. It aims to enhance participants' understanding of strategic planning, change management, and resource management, fostering the skills needed to navigate and lead in digitally driven environments within the food sector.

Skills, Knowledge and Competences:

Strategic thinking and planning: The programme enables participants to critically assess and implement digital tools and technologies to enhance efficiency, streamline processes, and ensure quality control in the food supply chain.

Project management and collaboration: Through hands-on activities and methodologies like AGILE and LEAN, the programme cultivates strong project management skills and promotes effective teamwork across disciplines.

Data analysis and application: Participants learn to analyze customer data in the food sector using advanced digital technologies, translating insights into actionable strategies for improved decision-making and operational success.

Impact (short term/long term):

The programme provides students with enhanced practical knowledge of digital transformation and food safety monitoring, equipping them to apply skills within the framework of industry standards such as HACCP. It fosters sustained industry collaboration and innovation, encouraging the integration of digital technologies in agricultural practices and food safety management.

06

RECOMMENDATIONS



Recommendations (1/3)

This case collection on digital transformation training programmes for SMEs, particularly in the F&B sector, highlights essential skills and approaches needed for successful digital adoption within this space. Key takeaways from the case studies included the value of practical digital skills, strategic adaptability, and sustainable practices. Training programmes typically emphasise hands-on learning through workshops, case studies, and internships, allowing participants to apply digital tools, optimise operations, and build resilience against F&B industry changes, among other sectors. Some key recommendations identified from the case study analysis include:

1. **Customise Training to Industry Needs:** Each industry faces unique challenges, particularly in areas like F&B, manufacturing, or retail. Tailoring training content to address these specific sectoral demands increases relevance and applicability, ensuring that SMEs acquire tools and knowledge that can be directly applied to their operational needs. For instance, programmes for F&B could focus on supply chain transparency, food safety, and sustainable packaging, while manufacturing might customise automation, robotics, and waste management.
2. **Focus on Practical, Hands-On Learning:** SMEs benefit most from programmes that emphasise real-world applications over theoretical concepts. Training should include workshops, simulations, and project-based assignments that allow participants to apply skills directly. Case studies and interactive problem-solving sessions can help SMEs understand how to implement digital and sustainable practices effectively, preparing them for on-the-job challenges.
3. **Embed Sustainability as a Core Component:** Modern consumers and regulators demand sustainable practices, making it essential for training programmes to integrate sustainability across all learning modules. This can include waste reduction techniques, carbon footprint assessment, eco-friendly resource management, and sustainable supply chain practices. Embedding sustainability not only meets regulatory and market demands but also builds a strong brand reputation for SMEs in a competitive landscape.

Recommendations (2/3)

4. **Incorporate Mentorship and Networking Opportunities:** Connecting SMEs with mentors, industry leaders, and peers creates a support system that extends beyond the training period. Networking can provide insights into best practices, emerging trends, and collaborative opportunities. programmes can facilitate mentorship by pairing participants with experienced professionals or industry-specific advisors who can provide guidance on navigating digital and sustainability challenges.
5. **Offer Flexible Learning Formats:** SMEs often have limited time and resources for employee training, making it essential to offer flexible options such as blended learning, online modules, or self-paced formats. Flexibility allows participants to engage with the material at their convenience, increasing accessibility and participation, especially for small businesses that may not have the capacity to allocate full-time resources to training.
6. **Provide Clear ROI Metrics and Success Tracking:** SMEs are result-driven and benefit from understanding how training will impact their operations. programmes should establish measurable goals and key performance indicators (KPIs), such as improvements in efficiency, cost savings, waste reduction, or increased revenue. Tracking progress helps SMEs evaluate the success of their training efforts and make data-driven decisions on further investments in digital and sustainable initiatives.
7. **Emphasise Change Management Skills:** Digital transformation and sustainability initiatives often require changes in SME culture, workflows, and employee behaviour. Training programmes should incorporate change management strategies to help SMEs effectively implement new practices. This could include communication skills, leadership training, and strategies for gaining employee buy-in, which are critical to ensuring smooth adoption and minimizing resistance to change.

Recommendations (3/3)

8. **Encourage Continuous Learning and Upskilling:** Digital and sustainability landscapes evolve rapidly, making continuous learning essential. Training providers should offer follow-up courses, resources for self-paced learning, and up-to-date content on emerging technologies, regulatory changes, and sustainability practices. This would help SMEs maintain a competitive edge and adapt to future industry changes.
9. **Foster Partnerships:** These cases emphasise the collaboration between universities, industry professionals, and SMEs specifically, to implement transparent, secure and innovative practices within different operational aspects of the F&B sector (e.g., supply chain management, customer journey, etc.). Universities should foster partnerships to facilitate industry-relevant research and curriculum co-design, ensuring students acquire practical, real-world experience to help them overcome digitalisation challenges in their careers.

These case study insights serve as a foundation for designing effective digital transformation training programmes that equip SMEs to innovate, adapt, and thrive in a competitive, tech-driven market. Implementing these recommendations would empower SMEs to integrate digital and sustainable practices effectively, fostering resilience and competitive advantage for sustainable, long-term growth of their enterprises.



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