

LEARNING PATHWAYS AND SHORT INTENSIVE COURSES

e-FOST programme content is offered also as **Learning Pathways (LP) and Short Intensive Courses (SIC)**. Six LPs and six SICs of different duration in both EN and BG language are composed and offered to the target groups / end users to fit better their requirements for professional knowledge and skills upgrading/updating. Thus the full potential of the curriculum in terms of flexibility and user-friendly orientation is exploited. Special software tool was developed for simple and efficient generation of these LPs and SIC and creation of any additional combinations of such, upon demand of end-users. The full list of LPs and SICs with details on their composition, duration / length and target audience is as follows:

PATHWAY 1

Learning pathway: Smart polymers in food industry

Target sector:	Food Industry	
End user:	Vocational Colleges in Food Industry; Food Production / Manufacturing Units;	
Target groups:	Teachers/trainers in Colleges in Food Industry; Plant Operations Managers; Division Packaging Materials Specialists; Quality Assurance / Control Supervisors	
Duration:	10 Units / 900 h / 30 EC	
Summary:	This LP provides general overview on polymers of various natural sources (starch-, protein-and chitosan-based; polymers of marine origin, etc.), their obtaining, purification and processing in the context of application in food packaging. Valuable data about the exploitation of traditional and new tools for improving food quality and safety are also included. The specific issues are combined with information about marketing approaches in food industry, more specifically items connected with buyer behavior.	
Composition:	FIM-B-M2-U1	SCI-A-M3-U2
	SCI-A-M1-U1	SCI-A-M3-U3
	SCI-A-M2-U1	SCI-A-M4-U1
	SCI-A-M2-U2	SCI-B-M2-U1
	SCI-A-M3-U1	SCI-B-M3-U1

PATHWAY 2**Learning pathway: New trends in the use of polymers in food industry**

Target sector:	Chemical and Food Industry	
End user:	R & D centers, SMEs	
Target groups:	Trainers from SMEs; Plant Operations Managers; Division Packaging Materials Specialists; Quality Assurance / Control Supervisors; Food Logistics Manager	
Duration:	10 Units / 900 h / 30 EC	
Summary:	This LP presents up-to-date information about the polymers of natural origin (starch-, protein-and chitosan-based; polymers of marine origin, etc.), their obtaining, purification and processing for application in food industry. The learning material is focused as well on the main properties of polymers used in food packaging and their effect on food. Outlooks on the development of novel polymer materials for food packaging are outlined and data about the exploitation of traditional and new tools for improving food quality and safety are presented.	
Composition:	SCI-A-M2-U1	SCI-A-M4-U1
	SCI-A-M2-U2	SCI-A-M4-U2
	SCI-A-M3-U1	SCI-A-M5-U1
	SCI-A-M3-U2	SCI-B-M2-U1
	SCI-A-M3-U3	SCI-B-M3-U1

PATHWAY 3**Learning pathway: Application of polymers in food industry**

Target sector:	Chemical Industry	
End user:	Departments of Polymer Science	
Target groups:	Lecturers in Universities	
Duration:	10 Units / 900 h / 30 EC	
Summary:	The teaching/training material specific content of this LP is focused on the basic terms in polymer science – synthesis, networks, complexes, degradation; polymerization processes and special characteristics of polymers (molar mass, bulk properties, and surface characterizations). Contemporary knowledge about polymers, obtained from natural sources (starch, proteins, chitosan, marine origin, etc.), and approaches for their obtaining, purification and processing is given. The main properties of polymers used in food packaging and their effect on food are also discussed. The	

prospects for development of novel polymer materials and their use in food packaging are outlined.

Composition:	SCI-A-M1-U1	SCI-A-M3-U2
	SCI-A-M1-U2	SCI-A-M3-U3
	SCI-A-M2-U1	SCI-A-M4-U1
	SCI-A-M2-U2	SCI-A-M4-U2
	SCI-A-M3-U1	SCI-A-M5-U1

PATHWAY 4

Learning pathway: Polymers Application: Improving the Food Quality and Safety

Target sector:	Food Industry
End user:	Departments of Food Industry; R & D centers, SMEs
Target group:	Lecturers in Higher Institutes of Food Science and Technology; Trainers from SMEs; Plant Operations Managers; Division Packaging Materials Specialists; Quality Assurance / Control Supervisors; Food Logistics Manager
Duration:	10 Units / 900 h / 30 EC
Summary:	This LP specific content provides information about risk assessment and management, the nature of the investment risk, risk assessment indicators and methods. Special emphasis is given to the role of the buyer in a marketing process and approaches for understanding and assessing of buyer behavior. To complement the knowledge of the targets, special issues about basic terms in polymer science – synthesis, networks, complexes and degradation are introduced. Up-to-date data about polymers, obtained from natural sources (starch, proteins, chitosan, marine origin, etc.), and procedures for their obtaining, purification and processing are presented. The main properties of polymers used in food packaging and their effect on food, as well as the application of traditional and new tools for improving food safety are also discussed.

Composition:	FIM-A-M3-U1	SCI-A-M3-U1
	FIM-B-M2-U2	SCI-A-M3-U3
	SCI-A-M1-U1	SCI- A-M4-U1
	SCI-A-M2-U1	SCI-A-M4-U2
	SCI-A-M2-U2	SCI-B-M2-U1

PATHWAY 5**Learning pathway: Application of polymer materials in food industry: innovations and management**

Target sector:	Food Industry	
End user:	Initial/continuous training organizations; SMEs – Food production / manufacturing; SMEs – Food services; SMEs – Sales and marketing	
Target group:	Tuition personnel whose qualification needs updating; Tutors in the apprenticeship; Product Development Managers; Product Processing Managers; Product Manufacturing Supervisors; Product Stores Directors; Sales Manager; Brand Manager	
Duration:	10 Units / 900 h / 30 EC	
Summary:	This LP offers data about project management approaches in the field of food industry in terms of investing in real assets, risk assessment and management, project development and appraisal. The specific content of the teaching/training material is focused as well on the marketing strategy selection and implementation criteria. Specialized knowledge for those who need it is given through the information concerning the main properties of polymers obtained from natural sources (starch, proteins, marine origin), and approaches for their obtaining, purification and processing are discussed. The main properties of polymers used in food packaging and their effect on food. The prospects for development of novel polymer materials as well as the application of traditional and new tools for improving food safety are outlined too.	
Composition:	FIM-A-M1-U1	SCI-A-M2-U2
	FIM-A-M3-U1	SCI-A-M3-U3
	FIM-A-M4-U1	SCI-A-M4-U2
	FIM-B-M5-U1	SCI-A-M5-U1
	SCI-A-M2-U1	SCI-B-M2-U2

PATHWAY 6**Learning pathway: F & B Industry: pack & sell”**

Target sector:	Vocational Education
End user:	Vocational Secondary School in Food Industry

Target group:	Teacher in “Food and Beverage Production: Packaging and Market Realization”	
Duration:	10 Units / 900 h / 30 EC	
Summary:	This LP provides information about risk assessment and management, risk assessment indicators and analysis, understanding and assessment of buyer behavior, product and price policy, processes of strategic planning. Those who are interested in specific issues connected with food packaging, the main properties of natural polymers – starch and proteins, their application in food industry packaging and effect on food preservation / spoiling are presented. Outlooks on the development of novel polymer materials for food packaging and implementation of food quality and safety criteria are also discussed.	
Composition:	FIM-A-M3-U1	SCI-A-M2-U2
	FIM-B-M2-U1	SCI-A-M4-U1
	FIM-B-M3-U1	SCI-A-M4-U2
	FIM-B-M4-U2	SCI-A-M4-U3
	SCI-A-M2-U1	SCI-B-M3-U1

e-FOST Short Intensive Courses (SIC)

SIC 1

Short Intensive Course: Food Industry Management & Marketing

Target sector:	Vocational Education
End user:	SMEs – Food services; SMEs – Sales and marketing
Target group:	Sales Managers; Brand Managers Trade Marketing Managers; Consumer Insights Managers
Duration:	9 Units / 810 h / 27 EC
Summary:	The specific content of this SIC provides general overview on management and marketing in the field of food industry. The investment approaches in food industry assets are revealed. Data about risk assessment and management, and project development and appraisal methods are presented. Information concerning customers, markets and marketing, with focus on the buyer’s happiness is included as well. The product and price policy and the

algorithm for formulation and implementation of marketing strategies are shown. The process of strategic planning and criteria of marketing strategy choice are examined.

Composition:	FIM-A-M2-U1	FIM-B-M3-U1
	FIM-A-M3-U2	FIM-B-M4-U1
	FIM-A-M4-U1	FIM-B-M4-U2
	FIM-B-M1-U1	FIM-B-M5-U1
	FIM-B-M2-U2	

SIC 2

Short Intensive Course: Food Industry Management & Safety

Target sector:	Vocational Education	
End user:	SMEs – Food Safety / Sanitation; SMEs – Quality Assurance / Control;	
Target group:	Product Development Managers; Product Processing Managers; Product Packaging Managers; Quality Assurance / Control Supervisors; Food Logistics Manager	
Duration:	9 Units / 810 h / 27 EC	
Summary:	The teaching/training material of this SIC covers main topics in Investment in food industry: methods for validation of the financial effectiveness of investment projects, investment choice and approaches of financial statement analysis, Investment in food industry assets, risk assessment and management, project development and appraisal. Data about customers, markets and marketing, with emphasis on buyer's happiness and product and price policy are presented.	
Composition:	FIM-A-M1-U1	SCI-B-M1-U1
	FIM-A-M1-U2	SCI-B-M1-U2
	FIM-A-M2-U1	SCI-B-M2-U1
	FIM-A-M3-U1	SCI-B-M3-U1
	FIM-A-M4-U1	

SIC 3**Short Intensive Course: Food Risk Assessment Management**

Target sector:	Vocational Education	
End user:	SMEs – Food production / manufacturing; SMEs – Food Safety / Sanitation; SMEs – Quality Assurance / Control	
Target group:	Product Development Managers; Product Processing Managers; Product Packaging Managers; Quality Assurance / Control Supervisors; HR Managers	
Duration:	5 Units / 450 h / 15 EC	
Summary:	This SIC offers data about risk assessment and management, risk assessment indicators and risk analysis in food industry. The role of beneficial and pathogenic microorganisms in food production and processing is also discussed. The application of traditional and new tools for improvement of food quality and safety are presented as well.	
Composition:	FIM-A-M3-U1	SCI-B-M2-U1
	SCI-B-M1-U1	SCI-B-M3-U1
	SCI-B-M1-U2	

SIC 4**Short Intensive Course: Marketing Strategies & Product Offering**

Target sector:	Vocational Education	
End user:	SMEs – Consumer & Industrial Sales; SMEs –Marketing	
Target group:	Area Sales Manager; Brand Manager; Consumer Insight Managers Strategic Planning & Development Directors; Advertising Managers	
Duration:	6 Units / 540 h / 18 EC	
Summary:	This SIC offers specialized information about buyers as main participants in marketing programmes. Data about product and price policy in terms of marketing characteristics, new product development and price positioning of the product are presented. The process of strategic planning and criteria of marketing strategy choice, as well as the approaches for formulating and implementing marketing strategies are revealed.	
Composition:	FIM-B-M2-U1	FIM-B-M4-U1
	FIM-B-M2-U2	FIM-B-M4-U2
	FIM-B-M3-U1	FIM-B-M5-U1

SIC 5**Short Intensive Food technologies processes: food packaging**

Target sector:	Vocational Education	
End user:	SMEs – Food production / manufacturing; SMEs – Food Safety / Sanitation; SMEs – Quality Assurance / Control	
Target group:	Product Processing Managers; Product Packaging Managers; Quality Assurance / Control Supervisors	
Duration:	8 Units / 720 h / 24 EC	
Summary:	This SIC provides general overview on the basic terms in polymer science – synthesis, networks, complexes and degradation; Contemporary knowledge about polymers, obtained from natural sources (starch, proteins, chitosan, marine origin, etc.), and approaches for their obtaining, purification and processing is given. The main properties of polymers used in food packaging and their effect on food are also discussed. The prospects for development of novel polymer materials and their use in food packaging are outlined.	
Composition:	SCI-A-M1-U1	SCI-A-M3-U3
	SCI-A-M2-U1	SCI-A-M4-U1
	SCI-A-M2-U2	SCI-A-M4-U2
	SCI-A-M3-U1	SCI-A-M5-U1

SIC 6**Short Intensive Course: Food safety and quality evaluation**

Target sector:	Vocational Education	
End user:	SMEs – Food Safety / Sanitation; SMEs – Quality Assurance / Control	
Target group:	Quality Assurance / Control Supervisors; Safety / Sanitation / Maintenance Specialists	
Duration:	4 Units / 360 h / 12 EC	
Summary:	This SIC is focused on the impact of beneficial and pathogenic microorganisms in food industry. The role of beneficial microorganisms in food production and processing is presented. Microbial pathogens and the food born diseases, caused by them are also discussed. The application of traditional and novel tools in improvement of food quality and safety are revealed as well.	
Composition:	SCI-B-M1-U1	SCI-B-M2-U1
	SCI-B-M1-U2	SCI-B-M3-U1