

aN Eu Curriculum  
for chef gasTro-engineering  
in primAry food caRe



## Report on cooks' skills needs in the PFC and pre-existing training initiatives and curricula

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## 1 ABSTRACT:

**Background:** According to the World Health Organization (WHO), malnutrition has a high prevalence with increasing numbers in older populations. Within a model from the A3 Action Group of the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA), food supply for older people is based upon interprofessional needs assessments and adapted according to primary, secondary and tertiary food care levels which is a major strategy aim in tackling malnutrition. Due to skills gaps of chefs working in health care this model is not implemented uniformly across Europe. These skills gaps exist because of lack of access to education and trainings for chefs in healthcare, lack of curricula which relate to a formalized European Union occupational profile and too little guidance, funding and time invested in the integrated culinary/clinical approach from policy makers, institutional stakeholders and representatives. NECTAR aims to tackle these three problems and as a first step within this report skills gaps of chefs working in health and social care are addressed through collecting training initiatives and curricula for this topic across Europe.

**Method:** The collection of best practice models in education and training for chefs in healthcare was carried out in a two-stage approach through a search for best practice models of training initiatives in different European Best Practice Databases and by means of a survey with partners from the NECTAR project and the EIP on AHA Reference Site Collaborative Network (RSCN).

**Results:** From 389 training initiatives, which were found in the European project databases, two were included in the results. The others were sorted out during title and abstract screening. Both programmes were not primarily focused on health education and training for chefs. Through the survey eight training initiatives were found. Although some national and regional trainings and educations for chefs in the health sector exist in Europe, they do not comply with the requirements/criteria of the European Union Commission. These criteria are grouped into inclusion, core and qualifier criteria and assess programmes, for example, in terms of relevance, ethical aspects, effectiveness and efficiency, success and quality. Furthermore, in order to create a basis for the development of the professional profile and the curriculum of NECTAR, main competences of curricula of training initiatives were extracted and summarised.

**Conclusion:** In European countries there are only a few best practice for educations and trainings for chefs in healthcare and almost none for chefs who specialize in nutrition for older citizens in need for personalized food care. The NECTAR project will help to close this gap, harmonise existing trainings and educations and facilitate implementation for personalized food care, especially for older people.

## 2 KEYWORDS:

Chef gastro-engineer, healthcare, curricula, best practices, chefs, primary food care, training initiatives



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## 4 VERSION HISTORY AND AUTHORS

Version	Name / Organization	Status*	Date	Provided Content/Comment/ Summary of Changes
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1	Valentina Wagner	A, C	10.01.2021	Writing Draft Version 2
2	Regina Roller-Wirnsberger	A, C	12.01.2021	Writing Draft Version 2, Feedback on Draft Version 2
2	Valentina Wagner	A, C	12.02.2021	Writing Draft Version 3
3	Regina Roller-Wirnsberger	A, C	19.02.2021	Writing Draft Version 3, Feedback on Draft Version 3
3	Valentina Wagner	A, C	05.03.2021	Writing Draft Version 4
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7	Valentina Wagner	A, C	25.03.2021	Implement changes, Final Version

\*Status indicates if:

- A - Author (including author of revised deliverable)
- C - Contributor
- IF – Internal Feedback (within the partner organization)



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## 6 LIST OF ABBREVIATIONS

AM	Andreas Matijevic BSc
BFI	Austrian Vocational Promotion Institute
CHAFEA	Consumers, Health, Agriculture and Food Executive Agency
CINAHL	Cumulative Index to Nursing & Allied Health Literature
CORDIS	Community Research and Development Information Service
DG	Directorate-General for Health and Food Safety
DGE	German Society of Nutrition
CGE	Chef Gastro Engineering
EIPonAHA	European Innovation Partnership on Active and Healthy Ageing
EQAVET	European Quality Assurance in Vocational Education and Training
EQF	European Qualification Framework
EU	European Union
IHK	German Chamber of Industry and Commerce
MUG	Medical University of Graz
NECTAR	aN Eu Curriculum for chef gasTro-engineering in primAry food caRe
PFC	Primary Food Care
RRW	Univ.-Prof. Dr.med.univ. Regina Roller-Wirnsberger
RSCN	Reference Site Collaborative Network
VW	Valentina Wagner MA
WHO	World Health Organization
WIAB	Wiener Institut für Arbeitsmarkt- und Bildungsforschung (Viennese Institute for Labour Market and Education Research)



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WIFI	Austrian Institute for Economic Promotion of the Austrian Economic Chambers
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## 7 INTRODUCTION

According to the World Health Organization (WHO) malnutrition has a high prevalence with increasing numbers in older populations. Consequences such as medical and social impact for people affected as well as tremendous economic costs put health care systems under pressure to tackle malnutrition especially in older and multimorbid populations. One major strategy aims at improving food supply and food safety for citizens and deliver personalized food care (1). This personalized care approach is based upon the collaboration between different professions gathered around older people in an interdisciplinary team. Teamwork for optimal nutritional care is based on shared knowledge and attitudes of team members, such as doctors, nurses, dieticians and chefs, according to their individual professional profiles and an open communication among team members and, equally important, their clients (2-5).

Previous work of partners in the A3 Action Group of the European Innovation Partnership on Active and Healthy Ageing (EIPonAHA) delivered an integrated culinary/food and nutrition approach (6) including the elements described for interdisciplinary food supply as such. Within this EIPonAHA model food supply for older people is based upon interprofessional needs assessments and adapted according to primary, secondary and tertiary food care levels. Primary and secondary food care includes intrinsic involvement of specialized chefs in interdisciplinary health and social care teams (6). This model however, is not implemented uniformly across Europe due to still existing skills gaps, especially for chefs. One reason for this current situation is the fact, that many cooks do not have access to tailored educational programmes covering knowledge skills and attitudes mandatory to work in an interprofessional team in health care. Secondly, while there are existing curricula which address these professional profiles for chefs, they don't relate to a formalized European Union (EU) occupational profile based on WHO and EU politics recommendations (7). Third, too little guidance funding and time is invested in the integrated culinary/clinical approach from policy makers, institutional stakeholders and representatives (8). In a first step of the EU-funded project "aN Eu Curriculum for chef gasTro-Engineering in primARy food caRe (NECTAR)", which aims to address all three domains, skills gaps of cooks who work in health and social care, are addressed. The current report summarizes the collection of already existing curricula for cooks across Europe, with a focus on the continuous professional development of chefs in healthcare for older people and the outline of already existing professional skills for chefs in healthcare.

## 8 Method used for Sampling of Evidence and Best Practice Models of Training Initiatives

Figure 1 summarizes the collection of best practice models in education and training for chefs in healthcare. The process is based upon a two-step approach: 1) search for best practice models in education and training for chefs in the Best Practice-Portal of the European Commission, Consumers, Health, Agriculture and Food Executive Agency (CHAFAEA) Health Programme Database, Community Research and Development Information Service (CORDIS) Database for EU-funded projects and Erasmus+ project database; and 2) survey with partners from the NECTAR project and the EIP on AHA Reference Site Collaborative

Network (RSCN) to collect best practice models in education and training for chefs in their own countries and in countries with the same language.

**Figure 1: Process of best practice model collection in training and education for chefs in healthcare**



It was decided among the consortium during the writing of the proposal and based upon previous experiences from partners in other EU-funded projects. This two-step approach has been proven effective for an evidence-base co-creation process, also including practice-based experience. According to literature, criteria like effectiveness or the potential for scaling up and generalizing the results, are used for identifying best practices, which explains the basis for our approach (13). Further information on projects using similar approaches may be found on: [https://advantageja.eu/images/Deliverable\\_8%201\\_SC%20approved.pdf](https://advantageja.eu/images/Deliverable_8%201_SC%20approved.pdf) (Advantage Joint Action), [http://chrodis.eu/wp-content/uploads/2017/06/ja-chrodis\\_wp5\\_outcome-at-a-glance\\_2017-06\\_final.pdf](http://chrodis.eu/wp-content/uploads/2017/06/ja-chrodis_wp5_outcome-at-a-glance_2017-06_final.pdf) (Joint Action CHRODIS).

## 8.1 Search for Training Initiatives in European Databases

The search for best practice models in education and training for chefs was carried out in the Best Practice-Portal of the European Commission, CHAFEA Health Programme Database, and CORDIS Database for EU-funded projects and Erasmus+ project database. The keywords used for the search for best practice models in education and training for chefs were “nutritional skills”, “chef”, “cook”, “training”, “education”, “health” and “healthcare”. They were used in different combinations and in different setting options. The search was not limited by year of publication. Only training initiatives which were written either in English, German or Dutch were included.

Inclusion criteria for the search were as follows: 1) the population had to be chefs or cooks, 2) the training initiative showed a skill gap of chefs/cooks when working in healthcare or in an interdisciplinary team, 3) the training initiative could also focus on a training/curriculum for chefs/cooks in order to specialize them for healthcare or healthy nutrition.

Title and abstract screening of hits was performed by two persons (AM, VW) and non-relevant publications were excluded. Full-text screening was also performed by two persons (RRW, VW) and scientific publications and training initiatives which did not meet the inclusion criteria were excluded. Disagreements were solved by discussion among the researchers until consensus was reached.

## 8.2 Basic Work for Best Practice Model Definition and Survey Preparation

In preparation for conducting the survey, Medical University of Graz (MUG) developed two documents (see ANNEX 2 – Survey Instruction and Evaluation Documents) in cooperation with Viennese Institute for Labour Market and Education Research (WIAB): the first one was an instruction document which helped the partners of the NECTAR project to find best practice models of training initiatives in their own countries and similar ones. The second document was an evaluation document, which served to verify if the previously collected models were best practice models on the basis of pre-specified criteria. In principle, collection of best practices followed the criteria launched by the directorate general (DG) DG Sante for Health and Food Safety of the EU Commission recently (9).

These criteria are grouped into inclusion criteria, core criteria and qualifier criteria. Inclusion criteria assess relevance, intervention characteristics and ethical aspects and therefore assess the adequacy of a best practice model. Core criteria assess effectiveness, efficiency and equity of a programme. Through this the success of the programme is evaluated. Qualifier criteria are used to assess the quality of the programme and consist of transferability, sustainability, participation and intersectoral collaboration.

## 8.3 Survey of Best Practice Models of Training Initiatives across Europe

As the database research for best practice training initiatives was limited to English, German and Dutch version, the survey served as follow up and for comprehensiveness of the collection.

MUG disseminated the survey via e-mail to NECTAR project partners on 11<sup>th</sup> of December 2020 with the deadline set to 7<sup>th</sup> of January. In order to facilitate survey response for partners, a support meeting was set up by MUG. After the meeting reminders were sent to partners every three days from Odisee until every partner contributed their training initiatives.

The RSCN, WP leader for dissemination within the NECTAR project, supported MUG in disseminating the survey to its members. The survey was disseminated through coordinators to all Reference Sites along with a covering letter providing guidance on how to complete it. Reference Site coordinators were advised to share the survey with the relevant training organization(s) for chefs in their region. This was followed up with two reminders to Reference Sites. Responses from the Reference Sites were shared with MUG for evaluation and agreement on any additional Training initiatives that could be included in the Repository. After only receiving responses from NECTAR partners which are mainly located in middle and southern Europe RSCN distributed the survey again to the European Northern Countries. This was followed up with two reminders to the contact persons. The responses were shared with MUG for evaluation.

In case of remaining uncertainty or missing clarity in the feedbacks the online survey was followed up with virtual meetings with different partners to clarify questions about their survey documents.

## 9 Results

All relevant results were gathered from the included best practice models of training initiatives and combined with the results of the survey of best practice models in education and training for chefs across Europe. They form the basis for the next task in the NECTAR project where the occupational profile chef gastro engineering (CGE) will be defined.

### 9.1 Collection of Best Practice Models of Training Initiatives in European Databases

389 training initiatives were found through searching in project databases. After sorting out 6 duplicates 383 training initiatives were left. Through screening the titles of the training initiatives 12 were classified as relevant. Four models were excluded because they were not classified as best practices in the database, the other five were not targeting the requested outcome. Only three training initiatives were included in the results. One training initiative was found in CORDIS but it was never started (10). Two were found in the Erasmus+ project database (11, 12).

Table 1: Summarized Results of the Best Practice Databases Search contents the main aspects of each programme. Due to lack of information in English in the databases, the programmes could not be evaluated with best practice criteria in health education and training like it was done with the training initiatives from the survey in 9.2 Survey of Best Practices in Education and Training for Chefs across Europe. Both programmes in Table 1: Summarized Results of the Best Practice Databases Search are not focused primarily on health education and training for chefs and cooks. Furthermore, most programmes found in the search were focused on cooking skills and nutritional skills of health professionals indicating the need for targeted health education and training of chefs and cooks.

**Table 1: Summarized Results of the Best Practice Databases Search**

Coordinator	Countries participating	Name	Programme	Action type	Population	Aims
IPSAR Luigi Camacina (11)	Italy	Evaluating Catering and Hospitality Skills for Young Workers and Through ECVET.4 PRO	Erasmus+ (mobility) ECHOS in Europe, Chase	VET learner and staff mobility with VET mobility charter	The project is aimed at graduates of the sector "Food and Wine Services and Hotel Hospitality" who are unemployed and have obtained a state diploma at IPSAR "Luigi Carnacina" in Bardolino / Valeggio (VR) in June 2020.	<p><b>Year:</b> 2020-2021  <b>Duration:</b> 22 weeks  <b>aimed at:</b></p> <ul style="list-style-type: none"> <li>• carrying out training internships with restaurant-hotel companies in Belgium, Finland, France, Germany, Iceland, Latvia, Holland and Spain, Sweden, United Kingdom</li> <li>• addressing needs of hotel and restaurant industry at national and local level to rely on increasingly professionally qualified staff</li> <li>• improving participants' professional, communicative-relational and linguistic skills, strengthening sense of European citizenship, providing them with the tools for lifelong learning</li> </ul> <p>During preparation period and actual internship, questions to raise awareness of correct eating habits will be developed and innovative proposals to improve traditional dishes and drinks will be tested</p>

<p>Stredni Odborna Skola Luhacovice (12)</p>	<p>Czech Republic Turkey Austria</p>	<p>Modern Trends in Gastronomy and Contemporary Trends of European Marketing</p>	<p>Erasmus+</p>	<p>VET learner and staff mobility</p>	<p>30 pupils and accompanying person of Czech School</p>	<p><b>year:</b> 2014-2016 3 week-runs at Cappadocia Cave Resort Hotel &amp; Spa, Kapadokya Lodge and Dedeman Hotel; <b>Stay</b> was contributed to improvement of ICT skills pupils get to know the latest techniques and technical equipment <b>Health aspect:</b> Turkish cuisine is not heavy, too spicy but it is various and can be included in the best and healthy cuisines in the whole world, modern trends can be found <b>Goals:</b></p> <ul style="list-style-type: none"> <li>• improved knowledge and professional skills of pupils</li> <li>• new professional relations</li> <li>• became more independent</li> </ul>
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Legend: Table 1 illustrates the summarized results of the best practice databases search.

## 9.2 Survey of Best Practices in Education and Training for Chefs across Europe

The collected training initiatives were evaluated by VW and RRW from MUG. In order to assess the training initiatives the evaluation document described in 8.2 Basic Work for Best Practice Model Definition and Survey Preparation was used.

The training initiatives shown in Table 2 were collected from Austria, Germany, Switzerland, Italy and Belgium/the Netherlands. Portugal also participated in the survey, but their answers were excluded due to the lack of training for healthcare chefs in Portugal. Furthermore, Poland sent a training initiative where the target group was dieticians. That is why this training initiative was excluded.

The survey shows that although some national and regional trainings and educations for cooks and chefs in the health sector exist in Europe, they do not comply with the requirements/criteria of the EU Commission (see 8.2 Basic Work for Best Practice Model Definition and Survey Preparation). This underlines the importance of the NECTAR project and highlights the need of training systems of European countries.

As a next step verified best practice models of training initiatives are going to be displayed on the NECTAR website and serve as a basis for 1) the definition of the occupational profile chef gastro engineering and for 2) the pilots which are going to be developed in during the NECTAR project. During 5 pilots the effectiveness of the curriculum developed during NECTAR will be tested in Belgium, Portugal, Austria and Italy.

**Table 2: Training Initiatives across Europe evaluated with Best Practice Criteria in Health Education and Training**

General information	<i>Country</i>	AT	AT	BE	DE	DE	IT	CH	
	<i>Provider</i>	BFI	WIFI	Odisee Hogeschool & Center of Gastrology	DGE	IHK	Marco Polo	national education	
	<i>Name original/ Eng.</i>	diätetisch geschulter Koch (diet-trained cook)	diätetisch geschulter Koch (diet-trained cook)	Chef Gastro-Engineerin g	diätetisch geschulter Koch (dietetic trained cook)	Weiterbildung Diätkoch (further training as a dietary chef)	five-year study course	Diätkoch/-köchin EFZ (dietary chef EFZ)	
	<i>Regular offer</i>	✓	✓	✓	✓	✓	✓	✓	
	<i>EQF level</i>	EQF 4	EQF 4	EQF 4	EQF 4	EQF 4	EQF 4	EQF 4	
	<i>Target group</i>	Fully-trained cooks	Fully-trained cooks	Fully-trained cooks	Fully-trained cooks	Fully-trained cooks	Requirement: Middle school diploma	Requirement: Federal Certificate of Proficiency in Cookery EFZ	
	Inclusion criteria	Relevance	<i>Needs of programme explained</i>	x	x	✓	x	x	✓
<i>Level of programme</i>			National	National	Regional	National	National	Local /regional	National





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	Programme characteristics	<i>Supports topic of professional skills gaps of chefs working in healthcare</i>	x	✓	✓	✓	✓	✓	✓
		<i>Target beneficiaries described</i>	x	x	✓	x	x	x	x
		<i>Detailed description of programme provided</i>	x	x	✓	✓	x	x	✓
		<i>Standards, guidelines, SMART objectives defined</i>	Nd	✓	✓	✓	✓	✓	✓
		<i>Estimation of human resources, material and budget in relation with tasks</i>	x	Nd	Nd	x	Nd	Nd	Nd
		<i>Interrelations between different key education elements</i>	Nd	✓	✓	✓	✓	✓	Nd



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	Ethical aspects	<i>Defined scope of programme</i>	✓	✓	✓	✓	✓	✓	✓
		<i>Learning objective clearly outlined</i>	✓	x	✓	✓	✓	✓	✓
Core criteria	Effectiveness and efficiency of intervention	<i>Potential impact on target population assessed positive</i>	✓	✓	✓	✓	✓	✓	✓
		<i>Improvements documented &amp; presented</i>	x	x	Nd	Nd	Nd	x	x
		<i>Evaluation of programme</i>	x	✓	✓	✓	x	✓	✓
		<i>Beneficial impact evaluation outcomes</i>	x	Nd	Nd	Nd	x	Nd	Nd
		<i>Monitored programme</i>	x	x	x	x	x	x	x
	Equity	<i>Equity considered</i>	Nd	Nd	Nd	Nd	Nd	Nd	Nd
Qualifier criteria	Transferability	<i>Repeatable training formats</i>	Nd	✓	✓	✓	✓	✓	Nd



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	Sustainability	<i>Organizational elements, financial, skill-related application process included in description</i>	x	Nd	x	x	x	Nd	x
		<i>Contextual elements of beneficiaries included in description</i>	x	Nd	x	x	x	Nd	x
		<i>Successfully repeated/transferred</i>	✓	✓	✓	✓	✓	✓	✓
		<i>Institutional support, organizational and technological structure and stable human resources</i>	✓	✓	✓	✓	✓	✓	✓
		<i>Presents economic report</i>	x	Nd	Nd	x	x	x	x
		<i>continuation through</i>	✓	✓	✓	✓	✓	✓	✓



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	Intersectoral collaboration	<i>institutional anchoring/ ownership by relevant stakeholders</i>							
		<i>Sustainability strategy</i>	Nd	Nd	Nd	Nd	Nd	Nd	Nd
		<i>Descriptions how to reach EQF and/or EQAVET principles</i>	Nd	Nd	Nd	Nd	Nd	Nd	✘
		<i>Jointly carried out by several sectors referring to the European Framework on Education/Bologna Process</i>	Nd	Nd	Nd	Nd	Nd	Nd	Nd
		<i>Multidisciplinary approach supported by stakeholders</i>	✓	✓	✓	✓	✓	✓	✓
	Participation	<i>Empowerment elements for target population included</i>	Nd	✘	✘	Nd	Nd	✘	Nd



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Legend: ✓ = yes; ✗ = no; Nd = not detectable

### 9.2.1 Training Initiatives in Austria

There are two Austrian training initiatives which are offered by two different providers, but run under similar names.

The Austrian Vocational Promotion Institute (BFI) offers the course “Dietetically Trained Cook” for fully trained chefs to expand their knowledge in the areas of nutrition and dietetics. The course was developed together with the Austrian Association of Dieticians and is offered several times a year in Upper Austria. Chefs receive a diploma at the end of the training, but don’t reach a higher EQF level (EQF 4). This course was not evaluated, there was no monitoring and there is limited accessible information on the website. Further information (in German) can be retrieved under: <https://www.bfi-ooe.at/de/kurssuche/erweiterte-kurssuche/2020VBGM880602.html>

The Austrian Institute for Economic Promotion of the Austrian Economic Chambers (WIFI) offers the course “Dietetically Trained Cook” in each federal province for fully trained cooks several times a year. The course aims to teach cooks the necessary know-how to be able to implement dietary requirements in the best possible way. The curriculum consists of different modules and was developed together with the Austrian Association of Dieticians. At the end of the course cooks receive a diploma, but they don’t reach a higher EQF level (EQF 4). The course has been offered for more than 20 years and has been continuously developed together with experts. There are various standards according to which the course and final exam are designed, however no learning outcomes have been defined. The programme has not been monitored and there is limited accessible information on the website. Further information (in German) can be retrieved under: [https://www.stmk.wifi.at/kurs/58470x-ausbildung-zum-diaetetisch-geschulten-koch?\\_ga=2.197684583.952683081.1613128292-1005194838.1608706406&\\_gac=1.259820152.1612174745.cjwkcaiaudd\\_brbxeiwaudakxx-v\\_61atrqiqlcpmxtiet85s80b9ajfm5gyjh4dgdw0s7vvetxhhociuggavd\\_bwe&zg=gd](https://www.stmk.wifi.at/kurs/58470x-ausbildung-zum-diaetetisch-geschulten-koch?_ga=2.197684583.952683081.1613128292-1005194838.1608706406&_gac=1.259820152.1612174745.cjwkcaiaudd_brbxeiwaudakxx-v_61atrqiqlcpmxtiet85s80b9ajfm5gyjh4dgdw0s7vvetxhhociuggavd_bwe&zg=gd)

### 9.2.2 Training Initiatives in Belgium

In Belgium the Odisee Hogeschool offers the course “Chef Gastro-Engineering” in collaboration with the Center of Gastrology once in two years for chefs of industrial kitchens within the healthcare sector. The course should close the gap between the training of cooks and university education. Cooks learn how to meet the needs of elderlies regarding food and drinks and how to work in an interprofessional nutrition team. The standards of the course are compliant with the accreditation of the Odisee Hogeschool. With this course chefs cannot reach a higher EQF level than 4. The course consists of 10 modules and there are learning outcomes defined. There was no monitoring during implementation of the course and there is a qualitative evaluation through direct feedback from the students. Further information (in Dutch) can be retrieved under: <http://centerforgastrology.com/nl/activiteiten>

### 9.2.3 Training Initiatives in Germany

There are two training initiatives in Germany. The German Society of Nutrition (DGE) adopted the training model from the Chamber of Industry and Commerce (IHK), adjusting the contents. Chefs with this training can plan and prepare dishes professionally and creatively while taking into account the individual health needs of guests/patients. In both courses, different professional groups are involved in the development as well as instructors. Nevertheless, there are differences between the training programmes.

The IHK offers the training "Further Training Dietary Chef" in different regions depending on demand. Due to the federal structure of the IHK, no standards have been worked out for the course. The umbrella organization only issued recommendations for the enactment of special legal provisions which serve as a basis for the regional chambers. The course was not monitored during implementation and the evaluation is done through the final examination, which is uniform throughout the country. There is no obligation to attend a course at the IHK in order to take the exam. The contents could therefore also be learned through self-study, but course attendance is recommended from the IHK. Chefs who successfully pass the exam receive a certificate, but remain at EQF level 4. Further information (in German) can be retrieved under: <https://www.afz-rostock.de/bildungsangebot/gepruefte-r-diaetkoch-diaetkoechin-ihk-vollzeit.html>

The DGE training "dietetically trained cook/specialist" is very similar to that of the IHK. The course is not offered by the DGE itself, but from providers who have been tested by the DGE. There are various standards and guidelines that are used as a basis for the content of the training. The DGE has defined learning outcomes and chefs receive a certificate through this training, which encourages lifelong learning because the validity of the certificate is linked to continuous training. Certificate holders must prove a certain number of education points within three years. Furthermore, the course is evaluated by the participants. Nevertheless, the EQF level is also 4. Further information (in German) can be retrieved under: <https://www.dge.de/va/zertifikatslehrgaenge/diaetetisch-geschulter-kochfachkraft/>

#### 9.2.4 Training Initiatives in Italy

Italy has one training initiative in the region Liguria. Four other training initiatives were sent for evaluation but three of them were not relevant for this report. One training initiative targeted nurses who do not represent the requested target group. The other two training initiatives were no educational programmes and were therefore excluded. The fourth training initiative had an EQF level 6. As the aim of this project is to develop a curriculum with an EQF 4/5, this training initiative was excluded from the list shown in Table 1. However, to present the overall picture of training and education in Europe accurately, this training initiative developed by the University of Naples Federico II was evaluated with the same criteria and added to the appendix for consideration (see ANNEX 3 – Training Initiatives higher than EQF 5).

Marco Polo is an Italian State Professional Institute and offers a three-year and a five-year course. The three-year course only educates regular chefs and has no connection to health care, which is why it was not included as a best practice. The five-year study course is structured with a common biennium, within which the professional subjects of kitchen, hall/ sales and hospitality are covered. Students require a middle school diploma to attend the school. This course provides a diploma for food and wine operator according to National Ministry of Education with an EQF level 4. The learning outcomes are clearly defined and include nutritional topics like for example food allergy, national recommended energy and nutrient intake levels or genetic taste. The school conducts a self-evaluation report every three years in accordance with the requirements of the Ministry of Education. The school has a lot of partners in order to fulfil the student's professional training like for example catering companies, chamber of commerce, professional association of chefs and many more.

#### 9.2.5 Training Initiatives in Switzerland

Switzerland offers a national education once per year as a training initiative which is called "Dietary Chef EFZ". Anyone who has obtained the Federal Certificate of Proficiency in Cookery EFZ is admitted to the one-year additional basic training as a dietary cook. Diet chefs learn to prepare good-

tasting meals according to a doctor's prescription or following nutritional therapy. They calculate nutrients, adapt menus considering intolerances or allergies, incorporate new developments into creative menus and analyse, plan and design operational processes. A commission for professional development and quality for dietary chefs which consists of professional organization hotel & gastronomy union, professional teachers, representatives of the confederation and the cantons and the different language region representatives is responsible for updating the curriculum at least every 5 years. There are learning outcomes defined but the curriculum is not accessible online. The education is based on the Education Ordinance Dietary Chef Switzerland. Chefs receive a final certificate at the end of the education and reach the EQF level 4. The education was not monitored. As of 2022, a new curriculum is planned with which chefs should achieve EQF level 5. Further information (in German) can be retrieved under: <https://www.berufsberatung.ch/dyn/show/1900?id=3933>

### 9.2.6 Extraction of Core Competences from Curricula of Training Initiatives

In order to create a basis for the development of the professional profile and the curriculum of NECTAR, main competences of curricula of training initiatives were extracted and summarised in Table 3. It shows the frequency of all competences that are found in the curricula of the best-practice models. Curricula of training initiatives from Switzerland and the BFI are not known and were therefore not included. The curricula were only available in their original languages, which created a language barrier. Therefore, they could not be compared accurately. Whilst contacting the single training initiatives in the countries it became clear, that training formats and goals strongly depend on environmental factors and cannot be compared 1:1. It was not possible for partner of the Nectar project to further elaborate the program design in detail, as many of those programs are run for years and decades.



Table 3: Frequency of Competences of Training Initiatives Curricula

Competences	WIFI	BE	DGE	IHK	University of Naples Federico II	Marco Polo	Frequency
<b>working context</b>							
<i>knowledge of nutritional medicine</i>	✓	✓	✓	✓	✓	✓	6
basic nutritional knowledge (nutritional recommendations, nutrition science, nutrients, reference values, nutrition trends)	✓		✓	✓	✓	✓	5
anatomy/physiology (function of digestive organs, metabolism)	✓		✓	✓			3
disease patterns (structure, function of digestive organs, metabolism)	✓		✓	✓			3
chemistry (biochemistry, food chemistry)	✓		✓			✓	3
specific nutritional needs for different age groups (adults, seniors, small children)			✓	✓			2
nutritional therapies, diet forms (gastroenterological, neurological/functional, for metabolic diseases, for food allergies)	✓	✓	✓	✓		✓	5
elements of genetics of taste						✓	1
biodiversity of natural resources (botanic, Mediterranean ecosystem)					✓		1
<i>processing and passing on information (channels, content, communication rules, methods, gateways, languages)</i>				✓	✓	✓	3
<i>formulating work instructions (preparation and structure, implementation, use of organizational tools, delegation, control and feedback)</i>				✓		✓	2
<i>instructing and training staff (guidance of staff, staff training)</i>				✓			1
<b>organize procedures and prepare and distribute meals</b>							
<i>evaluate and use products</i>	✓	✓	✓	✓	✓	✓	6
characteristic properties of food and products	✓		✓	✓	✓	✓	5



Deliverable 2.1.1 – 3.0

provision of food and products and storage	✓		✓	✓		✓	4
checking the possible uses of foods and products (list of ingredients, visual and sensory inspection, assessment)		✓		✓			2
<i>plan processes and preparation (equipment, preparation of recipes for specified cost forms, taking into account dietetics and nutrient preservation, hygiene)</i>	✓	✓	✓	✓	✓	✓	6
<i>quality management (design and document within the framework, responsibility and commitment, communication, standards, HACCP)</i>	✓	✓	✓	✓	✓	✓	6
<i>food safety (toxic substances, pollutants, microbiology, vulnerable groups, biotechnological food safety, traceability)</i>	✓	✓			✓	✓	4
<i>food preparation according to specifications (cooking and kitchen techniques, according to special dietary requirements, with special food)</i>			✓	✓	✓	✓	4
<i>environmental protection (reduce waste, sustainability)</i>	✓					✓	2
<i>food distribution (process systems, equipment)</i>		✓					1
<i>media use and evaluation of content (procedure of literature and internet research)</i>				✓			1
<i>target group-specific data (dividing people into target groups with regard to nutrition, determining and preparation of target group-specific data)</i>				✓			1
<b>menu engineering (create nutrient-defined meal plans)</b>							
<i>menu plans development</i>	✓	✓	✓	✓	✓	✓	6
specifications and conditions (regional and seasonal conditions, therapy support, prevention, budget, personnel, ecolabel certification)	✓	✓		✓	✓	✓	5
implementation techniques (choice of ingredients, constellation of recipes, calculation of nutrients)			✓	✓		✓	3
types of plans (weekly, daily, organic)		✓		✓		✓	3
basis for planning (dietary rules of country, reference values)			✓	✓			2



Deliverable 2.1.1 – 3.0

<i>legal framework of dietetics (dietary regulation, standards)</i>	✓	✓		✓	✓		4
<i>nutrient calculations (quantitative and qualitative assessment, nutrient composition)</i>				✓			1
<i>diet catalogues and health-promoting food offers (prevention measures, guidelines, relationship between diet-related diseases and food, diet catalogue developing)</i>				✓			1
<i>individual needs (special living conditions, adaption of nutrients and food, nutrient deficiency)</i>				✓			1
<i>elements of different cuisine (local, regional, national and international traditional)</i>						✓	1
<b>support nutrition education and upbringing</b>							
<i>marketing campaigns for food (marketing measures, recording of guest satisfaction, design of the food offer)</i>				✓	✓	✓	3
<i>history and culture (history of taste in the West, history of gastronomy in countries of Mediterranean Sea, relationship between food, culture and society)</i>		✓			✓	✓	3
<i>advice on health-promoting foods (planning counselling, counselling talks)</i>				✓		✓	2
<i>technical cooking consultations (planning cooking advice, space, time, duration, content)</i>				✓		✓	2
<i>information for different target groups (children, pupils, adults, seniors, patients)</i>				✓			1
<i>event planning (planning, task allocation, involvement of interdisciplinary team, implementation, evaluation)</i>				✓			1
<b>Skills training</b>							
<i>practical lessons (internship, practical cooking, excursion, workshops)</i>	✓	✓	✓		✓		4



Deliverable 2.1.1 – 3.0

<b>corporate knowledge</b>							
<i>economics &amp; strategies (corporate organization, company's strategies, business plan, business management, ISO standards and choice factors)</i>					✓	✓	2
<i>sales and Marketing for business (customer satisfaction survey, sales techniques)</i>							
<i>software management (specific technical terminology)</i>						✓	1
<i>commercial law</i>						✓	1
<i>safety for workers</i>						✓	1
<i>budgeting and accounting (analytical accounting, quantifying the size of the economic investment, sustainability assessment, cost control)</i>						✓	1

Legend: Table 3 illustrates the frequency of the competences of the training initiatives curricula. The competences are sorted in descending order within their categories.

## 9.3 Limitation of Survey of Best Practice Models of Training Initiatives across Europe

The survey of Reference Sites produced a low response and without investigating the reason for this in detail, it could be the 3<sup>rd</sup> wave surge of COVID19 across Europe had an impact. Recognizing this the RSCN will continue to liaise with Reference Sites during the project to gather further examples of Best Practice.

## 10 Conclusion

In European countries there are only a few best practices for educations and trainings for chefs in healthcare and almost none for chefs who specialize in nutrition for older citizens in need for personalized food care. The NECTAR project will help to close this gap and facilitate the development of a skills and professional profile for chefs working in the health and social care arena. NECTAR will also harmonise trainings and educations for chefs in health and social care. Furthermore, the EQF level of chefs is still rather low in most EU countries and chefs usually do not have access to higher education within the Bologna System. Therefore, the NECTAR project aims at creating better interdisciplinary teamwork in the health sector and facilitates implementation for personalized food care, especially for older people.

## 11 Literature

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## 12 ANNEX 1 – Quality Control Check List

Quality Control Check	
Generic Minimum Quality Standards	
Document Summary provided (with adequate synopsis of contents)	x
Compliant with NECTAR format standards (including all relevant Logos and EU-disclaimer)	x
Language, grammar and spelling acceptable	x
Objectives of the application form covered	x
Work deliverable relates to adequately covered	x
Quality of text is acceptable (organisation and structure, diagrams, readability)	x
Comprehensiveness is acceptable (no missing sections, missing references, unexplained arguments)	x
Usability is acceptable (deliverable provides clear information in a form that is useful to the reader)	x
Deliverable specific quality criteria	
Deliverable meets the 'acceptance Criteria' set out in the Quality Register:	x
<b>Checklist completed and deliverable approved by</b> Name: <span style="float: right;">Date: 02/03/2021</span> Valentina Compiani	

## 13 ANNEX 2 – Survey Instruction and Evaluation Documents





## NECTAR Survey of project partners: questionnaire about good practices in education and training of chefs

*The NECTAR project aims at delivering a professional profile for chefs involved in the care of older citizens and in the health care of patients and to enabling chefs to become part of an interprofessional team working around the target group European citizens.*

*As one of the first steps during the project, partners try to collect best practice models in education and training for chefs across Europe dealing with skills which equip chefs to become member of a person-centred care team. Partners of the NECTAR project kindly ask for your support and participation in this effort.*

*The following document has been developed by members from Medical University of Graz (MUG), Austria, based on standards released for evaluation of best practice models by the European Commission (EC) and based on previous experiences in the Joint Action on Frailty Prevention (ADVANTAGE). It aims to support partners in collecting best practice models for education and training of chefs in the context of social and health care. Information provided will be processed by partners working in the NECTAR project and will be disseminated through the project website. We therefore kindly ask you to share information on best practice models from your country with as much content as possible using the following document.*

*We also would like you to attach original flyers and links to homepages from projects/courses/programmes which you would like to recommend to present on the homepage of NECTAR. This document helps you to give us the information we need to post a best practice model on the homepage and to collect an overview of best practice models across Europe.*

*In case of open questions, we would ask for your permission to contact you. Please share the preferred contact details below:*

**Name:**

**E-Mail:**

**Telephone number:**

*Thank you for your cooperation and support!*

*Valentina Wagner MSc, BSc for the team of MUG*

### **How do I read the questionnaire?**

#### **What is a “Best practice model”?**

*A best practice model is a process, a procedure or a method that has been successfully tested in a specific context, has demonstrably achieved its goals and is therefore recommended to be used as model. This model should have been assessed in terms of adequacy (ethics and evidence) and equity as well as effectiveness and efficiency related to process and outcomes. Other criteria are important for a successful transferability of the practice such as a clear definition of the context, sustainability, intersectorality and participation of stakeholders. A best practice model should in this case function as an*

*example of a well-established training programme of chefs in the context of social and health care, which has been successful in regard of e.g. the outcome (vocational qualification), participation, usability for the labour market and satisfaction of relevant stakeholders.*

### **Where and how to find and collect “Best practice models” in my country?**

#### Where: Websites of

- Vocational Information Systems of Public Services (e.g. Public Employment Services)
- Chambers, e.g. Chamber of Labour or Chamber Commerce
- Vocational Schools
- Universities of Applied Sciences
- Universities
- Associations in the field of cooking, nutrition, food engineering, dietology etc., for example
  - professional associations such as associations of cooks (in Austria “Austrian Associations of Cooks”)
  - professional representations at local, regional and federal level, e.g. for the nutrition sector, e.g. association of dietology (in Austria “Austrian Association of Dietitians”)
  - companies and suppliers of cooking equipment and products guilds
  - sector specific online platforms
- VET-Providers (public, sector specific)
- Europass Databases for Diploma and Certificate Supplements
- ESCO

#### How:

- Desktop research
- Contacting via Mail or Phone to ask for more (written) material, e.g. evaluations, feedbacks
- Expert Interviews

#### Exemplary approach for finding education offers for relevant professional/specialization profiles of chefs:

1. Search for keywords and relevant qualifications and professional specializations in the field of cooking, nutrition, food engineering, dietology, etc. (use different search terms) at vocational information platforms (e.g. the Vocational Information System (<https://www.ams.at/bis/bis/>) of the Austrian Labour Market Service and the Vocational Information Platform of the Chamber of Commerce (<https://www.bic.at>) provide information on “diet cook”); Search for education offers for these qualifications and professional specializations and available curriculums/trainings and other information;
2. Search for keywords in the mentioned fields in databases and at internet platforms providing information on national school offers or on studies at University level (e.g. searching for “food” at the online platform [www.fachhochschulen.ac.at](http://www.fachhochschulen.ac.at) delivers the bachelor study “food technology & nutrition” as a result); Search for available curriculums/trainings and other information;



3. Search for further education offers for chefs provided by professional associations (e.g. for cooks), professional representations at local, regional and federal level, companies and suppliers of cooking equipment and products, sector specific online platforms, VET-Providers etc. in the mentioned fields (e.g. the Austrian VET provider WIFI (<https://www.wifi.at>) offers further education for cooks in the field of geriatric cooking; the platform [www.vegucation.at](http://www.vegucation.at) refers to a further education offer for chefs in the field of vegan and vegetarian cooking); Search for available curriculums/trainings and other information;
4. Check if the found examples fulfil best practice criteria (e.g. is the provider accredited, well-established, trustworthy; does the programme fulfil the SMART criteria (see below); is the qualification relevant in practice and for the labour market; is it well-established ...); If the offer possibly covers a potential best practice model collect more detailed information via desktop research, mail exchange, telephone calls and interviews, etc. based on this questionnaire.

**Level of educational programme:** The European Qualification Framework (EQF) is an 8-level, learning outcomes-based framework for all types of qualifications that serves as a translation tool between different national qualifications frameworks. This framework helps improve transparency, comparability and portability of people's qualifications and makes it possible to compare qualifications from different countries and institutions.

The National Qualification Framework (NQF) creates a framework for learning achievements. It facilitates access to, and mobility and progression within education, training and career paths. It enhances therefore the quality of education and training.

**Quality of educational programme:** Quality standards for educational programmes are related to specific indicators for progress in profiles following attendance of a course or programme. They are summarized as “**SMART-Criteria**” including information on **S**pecificity of the programme, **M**easurable outcomes, **A**chievable goals in the programme, **R**ealistic to achieve the major objectives of the programme, **T**ime-bound programme outline.

Specificity targets a specific area for improvement, Measurable outcomes quantify or at least suggest an indicator of progress, Achievable goals describe how to accomplish the goals during a programme, Realistic – state what results can realistically be achieved, given available resources. Time-bound – specify when the result(s) can be achieved.

**Learning objectives** should be outlined based upon competence levels. Learning Objectives should describe the primary teaching intention, i.e. it indicates one of the specific areas that the teacher intends to cover in a block of learning.

## Questionnaire about good practices in education and training of chefs

1. Please describe the name of the model/curriculum/practice (in the original language and in English) and in which country it is offered. If possible, please copy a link to a website, to a paper or send a picture of a flyer or similar for better understanding:
2. Is this model/curriculum/practice a regular offer? If yes, please tell us how often it is offered (e.g. once a year):

- 3. The current model/curriculum/practice is a qualification recognized ... (please further explain)**
  - a) ...by regional authority:
  - b) ...by national registries of occupation:
  - c) ...internationally:
  - d) others, please specify:
- 4. For which qualifications does the current model/curriculum/practice award a certification (e.g. chef specialized in healthy nutrition)?**
- 5. What is the scope of the model/curriculum/practice (e.g. hours of training/education, ECTS, etc.)?**
- 6. Please describe the target group (e.g. cooks/chefs) of the model/curriculum/practice. Which requirements (e.g. degree, certification, training, further education, educational background) have to be fulfilled in order to participate in the model/curriculum/practice?**
- 7. Which EQF/NQF level is accomplished with the model/curriculum/practice? If possible, please describe how the achievement of the training level was measured at the end of the model/curriculum/practice (e.g. learning objectives, specific skills, certificate, criteria to measure performance, ...):**
- 8. Is the model/curriculum/practice linked to any standards, guidelines and/or SMART criteria (if so, please, provide relevant links and short descriptions)?**
- 9. a) Are the learning outcomes clearly described in the model/curriculum/practice? If there are already English translations available, please put in a link to the description/copy the description. If there is no translation available please describe them shortly here (summary or 5-10 keywords):**
- 10. b) We assume that the model/curriculum/practice has been implemented. Please share the current version of the curriculum (link or PDF) and how it is run at the sites of your country:**
- 11. Was the model/curriculum/practice monitored throughout the whole implementation? Please describe shortly how it was monitored:**
- 12. Has this model/curriculum/practice already been successfully repeated or transferred in another context? Please tell us the examples:**
- 13. Does the model/curriculum/practice consider quality assurance principles? Please describe which are considered and how:**

The model/curriculum/practice...

... addresses the process of certification:

... consists of feedback mechanisms and procedures for continuous improvement:

... involves relevant stakeholders at all stages of the process:



... has a self- assessment & external review:

... is supported by appropriate resources (e.g. financing, staff, ...):

... includes the electronic accessibility of evaluation results:

**14. Which stakeholder groups (e.g. professional associations, public institutions from education, employment ...) support a multidisciplinary approach in the model/curriculum/practice? Please describe in more detail:**

**15. We kindly ask you to share national rules about Vocational Education Training (VET) from your country. Please enclose information to this document (PDF, link, etc.).**



Erasmus+



Medical University of Graz

## NECTAR Survey of project partners:

### evaluation of good practices in education and training of chefs

*The following document has been developed by partners from Medical University of Graz (MUG), Austria. It serves as an aid for the evaluation of the collected best practice models in education and training of chefs across Europe. In the NECTAR project best practices should be identified in order to assess their viability for future scaling-up.*

*This document aims to support partners in evaluating the collected best practice models for education and training of chefs in the context of social and health care and contains criteria to assess best practices. These criteria are based on standards released for evaluation of best practice models by the European Commission (EC) and based on previous experiences in the Joint Action on Frailty Prevention (ADVANTAGE). After evaluation the models will be disseminated through the NECTAR project website.*

*Thank you for your support!*

*Valentina Wagner MSc, BSc for the team of MUG*

#### **1. General information about good practices**

Name of the model: \_\_\_\_\_

Download or name of the paper: \_\_\_\_\_

Name of country where the course is offered: (drop down possibility – EU countries)

The model is a regular offer officially accredited by your government or a university:

Yes

No



## Deliverable 2.1.1 – 3.0

- Do not know

How often has this course been offered over the past 6 years: (Drop down menu - also do not know)

Level of training/education

- EQF Level 1 (e.g. Preparation for vocational training; work or study under direct supervision in a structured context)
- EQF Level 2 (e.g. secondary school certificate; work or study under supervision with some autonomy)
- EQF Level 3 (e.g. two-year vocational training, intermediate school-leaving qualification; take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems)
- EQF Level 4 (e.g. three-year vocational training, higher education entrance qualification, advanced technical college entrance qualification; exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities)
- EQF Level 5 (e.g. short study cycle; exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others)
- EQF Level 6 (e.g. bachelor degree; manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups)
- EQF Level 7 (e.g. master degree; manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams)
- EQF Level 8 (e.g. Ph.D.; demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research)
- Others, please specify: \_\_\_\_\_

Target group

- Cooks in training
- Cooks from universities of applied sciences
- Others, please specify: \_\_\_\_\_

Pre-existing specializations among participants

- Chefs/cooks with specialized training in Gastro Engineering
- Cooks who acquired a secondary school diploma
- Chefs who successfully completed apprenticeship
- Chefs who graduated from vocational secondary school (and some job experience)



- Cooks with a diploma by a vocational hospitality institute
- Cooks with a diploma from a State Professional Institute for Foodservice and Hospitality Industry
- Diploma of "Eno-gastronomy and Hotel Hospitality" (EQF 4) obtained from a Professional Institute Eno gastronomy and Hotel Hospitality;
- A Professional qualification "Foodservice Technician - Chef"
- Others, please specify: \_\_\_\_\_

**2. Inclusion criteria**

**Relevance**

Needs of the programme clearly explained and considered...

- Yes
- No
- Not detectable

Level of programme

- Micro- level
- Local/regional level
- National level
- International level

Practice supports tackling of the topic professional skills gap of chefs regarding interprofessional teamwork in health and social care

- Yes
- No
- Not detectable
- Another comparable topic, please specify: \_\_\_\_\_

**Programme characteristics**

	Yes	No	Not detectable
Target population to be trained is clearly described.			
The target beneficiaries are clearly described.			
A detailed description of the programme is provided.			

SMART objectives, standards and guidelines are defined and actions to take to reach them are clearly specified and easily measurable.			
The indicators to measure the planned objectives are clearly described.			
The programme includes an adequate estimation of the human resources, material and budget requirements in clear relation with committed tasks.			
An evaluation process was designed and developed, and the programme will be developed according to feedback.			
The programme includes interrelations between different key education elements.			
The scope of the programme (e.g. duration, ECTS) is defined.			

### Evidence of programme

	Yes	No	Not detectable
The intervention is built on a well-founded programme theory and is evidence-based.			
The effective elements (or techniques or principles) in the approach are stated and justified.			
Best practices in the topic were searched in different databases and served as a basis for this programme.			
During the programme a literature research was conducted and the results were included in the programme.			

### Ethical aspects

The aim of practice is to train as many people to implement equitably.

- Yes
- No
- Not detectable

The learning objective is clearly outlined in the programme.

- Yes
- No
- Not detectable

### 3. Core criteria

	Yes	No	Not detectable
<b>Effectiveness and efficiency of intervention</b>			
The potential impact on the target population is assessed as positive.			
All improvements in comparison to the starting point (e.g. the baseline concerning structure, process and outcomes in different areas) are documented and presented.			
The practice has been evaluated from an economic point of view.			
The evaluation outcomes demonstrated beneficial impact.			
The programme was monitored throughout the whole implementation in order to achieve better results of the programme.			
<b>Equity</b>			
Relevant dimensions of equity were considered throughout the process of implementing the practice.			

#### 4. Qualifier criteria

	Yes	No	Not detectable
<b>Transferability</b>			
The programme uses training formats (e.g. face to face training, e-learning etc.) that allow for repetition/transfer.			
The description of the programme includes all organizational elements, financial or skill-related application process outlined.			
The description includes all contextual elements of the beneficiaries (e.g. patients, general population) and the actions that were taken to overcome personal and environmental barriers.			
The practice has already been successfully transferred / repeated.			
The programme considered quality assurance principles for qualifications that are referenced to the EQF.			
The programme considered quality assurance principles of EQAVET.			
<b>Sustainability</b>			
The practice has institutional support, an organizational and technological structure and stable human resources.			
The practice presents a justifying economic report, which also discloses the sources of financing.			
The continuation of the practice has been ensured through institutional anchoring and/or ownership by the relevant stakeholders or communities in the medium and long term in the planning of the practice.			

A sustainability strategy has been developed that considers a range of contextual factors (e.g. health and social policies, innovation, cultural trends and general economy, epidemiological trends).			
There are clear descriptions of how to reach the EQF principles and levels in the programme.			
<b>Intersectoral collaboration</b>			
The practice has been carried out jointly by several sectors referring to the European Framework on Education or Bologna Process.			
A multidisciplinary approach is supported by the appropriate stakeholders (e.g. professional associations, public institutions from education, employment, ICT, etc.).			
<b>Participation</b>			
Elements are included into the programme to promote empowerment of the target population (e.g. strengthen their health literacy, ensuring the right skills, knowledge and behaviour including for stress management and self-care).			

## 14 ANNEX 3 – Training Initiatives higher than EQF 5

General information		Country	IT
		Provider	University of Naples Federico II
		Name original/ Eng.	Corso di Laurea Triennale in Scienze Gastronomiche Mediterranee' (Bachelor's degree in Mediterranean Gastronomic Sciences)
		Regular offer	✓
		EQF level	EQF 6
		Target group	Fully-trained cooks, students with high school diploma
Inclusion criteria	Relevance	Needs of programme explained	✓
		Level of programme	National
		Supports topic of professional skills gap of chefs working in healthcare	✓
	Programme characteristics	Target beneficiaries described	✓
		Detailed description of programme provided	✓



		<i>Standards, guidelines, SMART objectives defined</i>	✓
		<i>Estimation of human resources, material and budget in relation with tasks</i>	Nd
		<i>Interrelations between different key education elements</i>	✓
		<i>Defined scope of programme</i>	✓
	Ethical aspects	<i>Learning objective clearly outlined</i>	✓
Core criteria	Effectiveness and efficiency of intervention	<i>Potential impact on target population assessed positive</i>	✓
		<i>Improvements documented &amp; presented</i>	Nd
		<i>Evaluation of programme</i>	✓
		<i>Beneficial impact in evaluation outcomes</i>	Nd
		<i>Monitored programme</i>	✓
	Equity	<i>Equity considered</i>	Nd
Qualifier criteria	Transferability	<i>Repeatable training formats</i>	✓
		<i>Organizational elements, financial, skill-related application process included in description</i>	✗
		<i>Contextual elements of beneficiaries included in description</i>	✗
		<i>Successfully repeated/transferred</i>	✓
	Sustainability	<i>Institutional support, organizational and technological structure and stable human resources</i>	✓
		<i>Presents economic report</i>	✗
		<i>continuation through institutional anchoring/ownership by relevant stakeholders</i>	✓
		<i>Sustainability strategy</i>	✗

		<i>Descriptions how to reach EQF and/or EQAVET principles</i>	Nd
	Intersectoral collaboration	<i>Jointly carried out by several sectors referring to the European Framework on Education/Bologna Process</i>	Nd
		<i>Multidisciplinary approach supported by stakeholders</i>	✓
	Participation	<i>Empowerment elements for target population included</i>	✓

The University of Naples Federico II offers a bachelor degree course for young chefs and cooks and students with a high school diploma which is called “Bachelor’s degree course in Mediterranean Gastronomic Sciences”. The course is offered since 2018 once every year. Students get a deep knowledge of nutrition, food composition and gastronomy and learn about hygienic-sanitary aspects of production, management of food and wine production and catering companies, corporate management and cultural knowledge. Graduates can work as kitchen and catering manager, logistic manager or hold communication-dissemination roles and many more. Students achieving the bachelor’s degree need to acquire 180 ECTS and achieve EQF 6. This bachelor degree course is evaluated periodically from a multidisciplinary management committee as well as from students and broadly supported by agri-food industry, star chefs, several public catering companies and leading production companies. It refers to official standards of the Italian Ministry of Instruction, University and Research. Learning outcomes were defined and the course is monitored by the Council of the Course. Further information (in Italian and partly English) can be retrieved under: <http://www.agraria.unina.it/didattica/corsi-di-laurea/lauree-triennali/scienze-gastronomiche-mediterranee>

## 15 ANNEX 4 – Original Curricula of Training Initiatives

### WIFI

#### Stundenbild

Dieser Aufbau wurde im ERFA T am 20.10.1998 in Klagenfurt, gemäß pädagogischer und didaktischer Aspekte der anwesenden Expertinnen und Experten überprüft:

Unterrichtsgegenstände & Lehrinhalte	LE
1. Grundlagen der Ernährung	
- Ernährungslehre	10
- Anatomie des Verdauungstraktes	5
- Physiologie des Verdauungstraktes	5
- Nahrungsmittelchemie	5
- Lebensmittelkunde	2
	<hr/>
	27
2. Diätetik	
- Vollkost-Richtlinien der Ernährungsmedizin	4
- Leichte Vollkost	2
- Diät bei Magen-, Leber und Darmerkrankungen (Gastroentologische Diätformen)	3
- Ernährung bei Diabetes mellitus	2
- Ernährung bei Stoffwechselstörungen	2
- Reduktionskost	2
- Hypertonie	1
- Nierendiäten	1
- Gicht	3
- Zöliakie	1
- Außenseiterdiäten	2
	<hr/>
	25
3. Küchentechnik	
- Lagerung	1
- Umweltschutz	1
- Zubereitung	1
- Lebensmittelgesetz	1
	<hr/>
	4
4. Hygiene	
- HACCP	2
- Giftstoffe und Schadstoffe	1
- Bakterielle Erkrankungen und Mykologie	1
	<hr/>
	4
5. Praxis & Exkursion	50
<b>Gesamt</b>	<b>110</b>

## Odisee Hogeschool and Center of Gastrology

### Programma kort en lang traject

#### SEMESTER 1 (SEPTEMBER 2012 – JANUARI 2013)

Opleidingsonderdeel	SP <sup>(2)</sup>	Uren <sup>(3)</sup>	Planning
Historiek van smaak in het Westen <sup>(1)</sup>	4	18	18-25/9 en 2-9-16-23/10
Smaak en sensoriek <sup>(1)</sup>	6	36	18-25/9 en 2-9-16-23/10 en 6-13-20/11
Kennis van ingrediënten (productkennis)	4	18	27/11 en 4-11/12
Menu-engineering	4	12	8-15/1

#### SEMESTER 2 (FEBRUARI 2013 – JUNI 2013)

Smaak en gezondheid <sup>(1)</sup>	4	18	22-29/1 en 5/2
Smaak en voedselveiligheid <sup>(1)</sup>	5	24	19-26/2 en 5-12/3
Kook- en distributieprocessystemen + kwaliteitsborging	5	24	19-26/3 en 16/4
Technologie van kook- en distributieprocessen <sup>(1)</sup>	5	24	23-30/4 en 7-14/5
Inrichting en uitrusting van kook- en distributieruimten	4	18	21-28/5 en 4/6

<sup>(1)</sup> Deze opleidingsonderdelen vormen het korte traject

<sup>(2)</sup> SP = studiepunten

<sup>(3)</sup> Uren = contacturen (of uren les)

## DGE

### Standardlehrplan

		<u>Stunden</u>
<b>1</b>	<b>THEORETISCHER TEIL</b>	<b>160</b>
<b>1.1</b>	<b>Grundlagen der Ernährungslehre</b>	<b>30</b>
1.1.1	<i>Zusammensetzung der Nahrung, Aufgaben der Nahrungsbestandteile, Nährstoffbedarf</i>	
1.1.1.1	Einführung	
1.1.1.2	Energiebedarf	
1.1.1.3	Hauptnährstoffe	
1.1.1.4	Vitamine	
1.1.1.5	Mineralstoffe	
1.1.1.6	Ballaststoffe	
1.1.1.7	Wasser	
1.1.1.8	Aromastoffe	
1.1.2	<i>Ernährungszustand der Bevölkerung</i>	
1.1.3	<i>Empfehlungen für die Zusammensetzung der Vollkost</i>	
1.1.4	<i>Nährwertberechnung</i>	
1.1.4.1	Notwendigkeit der Nährwertberechnung	
1.1.4.2	Berechnung einer Tageskost	
<b>1.2</b>	<b>Spezielle Anatomie, Physiologie und Biochemie</b>	<b>15</b>
1.2.1	<i>Anatomie und Physiologie der Ernährung</i>	
1.2.1.1	Mundhöhle und Speiseröhre	
1.2.1.2	Magen	
1.2.1.3	Bauchspeicheldrüse	
1.2.1.4	Leber und Gallenblase	
1.2.1.5	Dünndarm	
1.2.1.6	Dickdarm	
1.2.2	<i>Biochemie der Ernährung</i>	
1.2.2.1	Kohlenhydrat-Stoffwechsel	
1.2.2.2	Fett-Stoffwechsel	
1.2.2.3	Eiweiß-Stoffwechsel	
1.2.2.4	Energie-Stoffwechsel	
1.2.2.4	Purin-Stoffwechsel	
<b>1.3</b>	<b>Krankheitslehre und Pathophysiologie</b>	<b>35</b>
1.3.1	Störung des Verdauungstraktes	
1.3.2	Übergewicht	
1.3.3	Diabetes mellitus	
1.3.4	Fettstoffwechsel-Störung	
1.3.5	Bluthochdruck	
1.3.6	Gicht	
1.3.7	Nierenkrankheiten	

<b>1.4</b>	<b>Diätetik</b>	<b>60</b>
1.4.1	<i>Beschreibung der einzelnen Kostformen</i>	
1.4.1.1	Leichte Vollkost	
1.4.1.2	Diät bei Übergewicht	
1.4.1.3	Diät bei Diabetes mellitus	
1.4.1.4	Diät bei Hyperurikämie und Gicht	
1.4.1.5	Diät bei Fettstoffwechsel-Störung	
1.4.1.6	Diät bei Bluthochdruck und Ödemen	
1.4.1.7	Diät bei Nierenerkrankung	
1.4.2	<i>Erarbeitung von Speisenplänen gem. 1.4.1 Mit Ableitungen aus der Vollkost</i>	
<b>1.5</b>	<b>Lebensmittelkunde</b>	<b>16</b>
1.5.1	Lebensmittel pflanzlicher Herkunft, einschl. Genussmittel	
1.5.2	Lebensmittel tierischer Herkunft	
1.5.3	Diätetische Lebensmittel	
1.5.4	Getränke	
1.5.5	Würzstoffe	
<b>1.6</b>	<b>Hygienische Aspekte</b>	<b>4</b>
<b>2</b>	<b>PRAKTISCHER TEIL</b>	<b>50</b>
<b>2.1</b>	<b>Fachpraktischer Unterricht</b>	
2.1.1	Schonende Vor- und Zubereitung	
2.1.2	Übersicht über die Empfindlichkeit der Nährstoffe	
2.1.3	Verlustrhöhe bei Vitaminen und Mineralstoffen	
2.1.4	Ursachen der Verluste mit Beispielen	
2.1.5	Nährwertschonende Küchentechnik	
2.1.6	Vermeidung von Nährwertverlusten	
2.1.7	Ausgleich von Nährwertverlusten	
2.1.8	Materialanforderung/-einkauf nach vorgegebenen Speisen der Kostformen gem. Punkt 1.4.1	
<b>2.2</b>	<b>Praktisches Kochen</b>	
2.2.1	Ansetzen von Brühen, Soßen und Suppen	
2.2.2	Zubereitung verschiedener Menüs nach vorgegebenem Speisenplan der jeweiligen Kostform	
2.2.3	Aufläufe	
<b>Unterrichtszeit:</b>		<b>210</b>

## IHK

The curriculum of the IHK could not be presented due to restricted rights of use. For further information to this particular curriculum contact Valentina Wagner of MUG ([valentina.wagner@medunigraz.at](mailto:valentina.wagner@medunigraz.at)).

## University of Naples Federico II

### SCIENZE GASTRONOMICHE MEDITERRANEE (LAUREA)

A seguire l'elenco degli insegnamenti attivi per l'anno accademico 2020-2021. Per conoscere il programma degli insegnamenti clicca su Scheda insegnamento.

Laurea triennale in SCIENZE GASTRONOMICHE MEDITERRANEE (1° ANNO)		
U2149- Chimica generale e organica applicata all'agroalimentare		CFU 9 Ore didattiche 63
Docente	Cristina De Castro	<a href="#">Scheda insegnamento</a>
U2150- Storia della gastronomia nei paesi dell'area mediterranea		CFU 12 Ore didattiche 84
Docente		<a href="#">Scheda insegnamento</a>
U2153- Biodiversità delle risorse naturali (Corso integrato)		CFU 12 Ore didattiche 84
> Botanica delle piante alimentari (6 CFU- Ore 42)- Docente Riccardo Motti		<a href="#">Scheda insegnamento</a>
> Ecosistemi mediterranei (6 CFU-Ore 42) Docente Danilo Russo		<a href="#">Scheda insegnamento</a>
U2151- Biochimica e proprietà funzionali degli alimenti		CFU 6 Ore didattiche 42
Docente	Francesco Errico	<a href="#">Scheda insegnamento</a>
U2156- Qualità delle materie prime (Corso integrato)		CFU 12 Ore didattiche 84
> Materie prime di origine animale (6 CFU- Ore 42)- Docente Giuseppe Campanile		<a href="#">Scheda insegnamento</a>
> Materie prime di origine vegetale (6CFU- Ore 42)- Docente Stefania De Pascale		<a href="#">Scheda insegnamento</a>

Laurea triennale in SCIENZE GASTRONOMICHE MEDITERRANEE (2°ANNO)		
Preparazione degli alimenti (Corso integrato)		CFU 12 Ore didattiche 84
> Tecnologie per la trasformazione e la conservazione delle preparazioni alimentari (6 CFU- Ore 42) - Docente <a href="#">Silvana Cavella</a>		Scheda insegnamento
> Valutazione sensoriale degli alimenti (6 CFU- Ore 42) - Docente <a href="#">Rossella Di Monaco</a>		Scheda insegnamento
Conoscenza e percezione del vino		CFU 6 Ore didattiche 42
Docente	<a href="#">Luigi Moio</a>	Scheda insegnamento
Tracciabilità e difesa delle derrate alimentari (Corso integrato)		CFU 12 Ore didattiche 84
> Tracciabilità dei prodotti alimentari (6 CFU- Ore 42) - Docente <a href="#">Giandomenico Corrado</a>		Scheda insegnamento
> Patologie e protezione delle derrate (6 CFU- Ore 42) - Docente <a href="#">Nadia Lombardi</a>		Scheda insegnamento
Microbiologia dei prodotti alimentari		CFU 6 Ore didattiche 42
Docente	<a href="#">Maria Aponte</a>	Scheda insegnamento
Ispezione degli alimenti		CFU 6 Ore didattiche 42
Docente	<a href="#">Giorgio Smaldone</a>	Scheda insegnamento
Igiene e sicurezza degli alimenti		CFU 6 Ore didattiche 42
Docente	<a href="#">Teresa Cirillo</a>	Scheda insegnamento
Alimenti e corretta alimentazione		CFU 6 Ore didattiche 42
Docente		Scheda insegnamento



Laurea triennale (DM270) in in SCIENZE GASTRONOMICHE MEDITERRANEE (3°ANNO) a		
Laboratorio di gastronomia (Corso integrato)		CFU 20 Ore didattiche 140
> Gastronomia 1 (5 CFU- Ore 35) - Docente		Scheda insegnamento
> Gastronomia 2 (5 CFU- Ore 35) - Docente		Scheda insegnamento
> Gastronomia 3 (5 CFU- Ore 35) - Docente		Scheda insegnamento
> Gastronomia 4 (5 CFU- Ore 35) - Docente		Scheda insegnamento
Sociologia della comunicazione in enogastronomia		CFU Ore didattiche
Docente		Scheda insegnamento
Economia e marketing		CFU Ore didattiche
Docente	Cembalo Luigi	Scheda insegnamento



## Deliverable 2.1.1 – 3.0

Organizzazione aziendale dell'impresa agrifood		CFU Ore didattiche
Docente		Scheda insegnamento
Legislazione alimentare		CFU Ore didattiche
Docente		Scheda insegnamento
20705- A SCELTA	3 esami da 6 CFU o 2 esami da 9 CFU	CFU 18 Ore didattiche 126
Anno di Corso	Secondo/Terzo Anno	<a href="#">Vedi tabella Esami a scelta</a>
Crediti formativi	18	
Altre attività formative		
Anno di Corso	Terzo Anno	<a href="#">Vedi tabella Altre attività</a>
Crediti formativi	4	
Prova finale		
Anno di Corso	Terzo Anno	
Crediti formativi	4	

## Marco Polo

YEARS 3-4-5 SCHEDULE		
AREA	SUBJECTS	n. hours
PROFESSIONAL AREA	SECOND LANGUAGE	up to 330
	NUTRITION AND FOOD SCIENCE	up to 462
	ENOGASTRONOMY COOKING LAB	up to 594
	ENOGASTRONOMY DINING ROOM LAB	up to 594
	LAW AND ADMINISTRATIVE TECHNIQUES	up to 396
TOTAL NUMBER OF PROFESSIONAL AREA HOURS		up to 2376

SCOPE OF THE CURRICULUM IN THE PROFESSIONAL AREA

COMPETENCES ESTABLISHED BY THE ITALIAN EDUCATION MINISTRY FOR VOCATIONAL CATERING SCHOOLS	KNOWLEDGE	SUBJECTS
N. 1. Usage of traditional and innovative techniques of processing, organization, cooking and distribution services	<p>Specific technical terminology - Software management: warehouse and order</p> <p>Specific techniques of realization, processing and supply of the product / service</p> <p>Promotion and sales techniques: operational and strategic marketing</p> <p>Strategic marketing: characteristics of the phases in which it is divided</p> <p>operational marketing: characteristics, analysis of the elements of the marketing mix</p> <p>The drafting of the marketing plan</p>	<p>Cooking laboratory</p> <p>Law and administrative techniques</p>
N.2 Planning and management of supplies, production and sale processes	<p>Elements of work organization: equipment and tools, human and technological resources.</p> <p>Control of production / processing of products of the reference supply chain.</p> <p>Characteristics and quality standards of the products and services of the reference supply chain</p> <p>Composition of a purchase order, control of the lists drawn up by the various departments and supervision and control of the process</p> <p>Methods for identifying, planning and controlling management and operational processes.</p> <p>Strategies and techniques to optimize results and to deal with any critical issues</p> <p>Cost control and programming techniques.</p> <p>The company's strategies, relations with the external environment, SWOT analysis</p> <p>The business plan: characteristics and preparation</p> <p>Drafting of plans</p>	<p>Cooking laboratory</p> <p>Law and administrative techniques</p>
N.3 Correct application of the HACCP system, of the regulations on safety and health in the workplace.	<p>Personal hygiene, product hygiene, work processes and environmental cleanliness</p> <p>Chemical, physical and biological contaminants.</p> <p>Basic techniques of food preservation</p> <p>Hygienic-sanitary regulations and HACCP self-control procedure</p> <p>Customer protection and safety regulations with particular reference to children and the elderly</p> <p>Protective devices and safety measures for workers with reference to professional contexts: specific rules (Legislative Decree 81/2008)</p>	<p>Cooking laboratory</p> <p>Food and Nutritional Science</p> <p>Food and Nutritional Science</p> <p>Law and administrative techniques</p>

<p>N. 4 Preparation of products, services and menus consistent with the context and the needs of customers (also in relation to specific diets and eating styles), pursuing quality objectives and promoting the spread of sustainable and balanced habits and lifestyles</p>	<p><b>Biochemistry: the nutritional principles</b>          Food chemistry          Organoleptic quality standards and safety of food raw materials          Elements of genetics of taste</p> <p><b>Elements of dietetics and nutrition</b>          National Recommended Energy and Nutrient Intake Levels          Techniques for preparing menus for the different physiological conditions for the main disorders and dietary restrictions          Eating styles</p> <p><b>The menu: types and composition rules</b>          Criteria for choosing raw materials / products          Techniques to reduce waste and their basic techniques of organization, business management</p>	<p>Food and Nutritional Science</p> <p>Food and Nutritional Science</p> <p>Cooking laboratory          Food and Nutritional Science          Law and administrative techniques</p>
<p>N. 6 Most suitable and effective communication techniques in compliance with different cultures, religious prescriptions and specific dietary needs</p>	<p><b>Interaction techniques with customers with specific needs</b>          Customer satisfaction survey techniques</p> <p><b>The relationship between food, culture and society</b></p>	<p>Cooking laboratory</p> <p>Law and administrative techniques</p> <p>Food and Nutritional Science</p>
<p>N. 7 the heritage of local, national and international traditions and specialties</p>	<p>Elements of local, regional, national and international traditional cuisine          Typical local products and services; DOP, IGP, TSG products</p> <p>Basic commodity classification of the main categories of agri-food products of the territory in function of their origin</p>	<p>Food and Nutritional Science</p> <p>Law and administrative techniques</p> <p>Food and Nutritional Science          Cooking laboratory</p>
<p>No. 8 The principles of environmental sustainability, promoting the sale of services and products consistent with the local context, using the web</p>	<p>Environmental sustainability          Methods to reduce waste and optimize the environmental impact of products and services characteristic of the supply chain reference.  <b>Menu with organic and organic food plus; fair trade, local food</b></p> <p>ISO standards and choice factors, criteria for the recognition of ecolabel certification. The calculation of the cost of the product in the restaurant business</p>	<p>Food and Nutritional Science          Cooking laboratory</p> <p>Law and administrative techniques</p>
<p>N. 9 professional Hospitality Management techniques</p>	<p>Basic techniques of professional communication in Italian, English and French</p>	<p>Food laboratory          Languages</p>
<p>N. 10 corporate budgeting-reporting activities, pursuing profitability objectives through appropriate marketing actions</p>	<p>Budgeting elements for quantifying the size of the economic investment and assessing its sustainability.          Elements of commercial law, business organization and management, analytical accounting. Business reporting techniques          Index analysis techniques</p>	<p>Law and administrative techniques</p>