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

EXPLOITATION PLAN

FINAL REPORT

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1   ABSTRACT:

This Report sets out the actions taken within the NECTAR project to facilitate the exploitation of NECTAR, taking account of the relevant Quality Indicators and KPIs.

Exploitation is one of 4 specific areas within WP7 along with Dissemination and Communication, Communication Tools, and Scaling-Up and Sustainability. There is therefore a degree of interdependence between each of these areas particularly the relationship between Exploitation and Scaling-Up and Sustainability as many of the actions in the latter will have facilitated the former.

2   KEYWORDS:

Exploitation, Communication, Dissemination, Stakeholder Mapping, Monitoring, Evaluation

3   REVIEWERS

REVIEWER NAME	EXTERNAL REVIEWER	ORGANISATION	DATE OF APPROVAL
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*Status indicates if:
• A - Author (including author of revised deliverable)
• C - Contributor
• IF – Internal Feedback (within the partner organisation)

5   TABLE OF CONTENTS

6 INTRODUCTION

The quality of institutional food services is important as it influences patient/client nutritional intake as well as their quality of life and the satisfaction with their overall experience. However, the prevalence of malnutrition in hospital and residential aged care settings remains unacceptably high. The causes of malnutrition are both diverse and complex, with inadequate nutritional intake contributing substantially. The reasons behind inadequate nutritional intake are multifactorial and may be the result of an individual's age and/or disease-related factors combined with the quality and nutritional value of the food, as well as with the taste and food service provided, that influence intake. Indeed, numerous studies have reported that meal quality can influence a patient's/clients' level of consumption. Consequently, the meals offered should satisfy standards of quality as well as provide the individual nutritional requirements of patients, taking food preferences and individual problems with food intake into account.

The objective of the NECTAR project has been to address a mismatch identified between the skills currently offered by cooks and chefs working in hospitals, residential care and homecare, and those actually demanded by healthcare institutions, private service providers and final end users, in order to play a pivotal role in Primary Food Care.

Delivering against this object NECTAR has defined an agreed EU Occupational Profile, based on a "culinary/ clinical integrated approach", for "Chef Gastro Engineering" (CGE), and developed a "CGE EU reference Curriculum" for the certification of this profile at EQF 4 and EQF 5 levels. In addition, a number of resource tools through an eLearning Platform have been developed to support CGE students and VET providers.

To bring the success of NECTAR is a broader audience and mainstream the key outputs from the project – CGE OP and Curriculum – a series of enabling actions were undertaken to facilitate its exploitation and creating a multiplication effect so that other regions can benefit from the project.

7 EXPLOITATION OBJECTIVES

7.1 Objectives

The objective of the Exploitation Plan was to inform policy and practices; and contribute to the implementation and shaping of national and European policies and systems for VET providers in food care. Specifically, the Exploitation Plan explored ways of:

(a) *transferring successful results to appropriate decision-makers in regulated local, regional, national or European systems* (e.g. different regions in pilot sites);
(b) *convincing individual end-users to adopt and/or apply the results of the project*.

Through:

➢ *Mainstreaming* – results of the project come to the attention of decision-makers at the local, regional, national, and international levels; and
➢ *Multiplication* – convince end-users to adopt the project's results.

Within the project the relevant Quality Indicators and KPIs for Exploitation were:

Quality Indicators	KPIs
Recognition of the five new localized curricula at regional/national level (depending on recognition laws and rules)	All 5 localized curricula (developed in D3.3) have been recognized on regional OR national level
Recognition of the CGE occupational profile at regional/national level (at least two regions)	The CGE occupational profile is recognizes in at least 2 regions
	The CGE Occupational Profile and Qualification has been integrated into ESCO by the end of the project
Project results publication to the EU Skills Panorama.	At least 1 project result has been published to the EU Skills Panorama

In addition to the Exploitation Quality Indicators and KPIs there are also a range of enabling products/assets developed within the project that can be made available to regions considering adapting / adopting the CGE OP and Curriculum as part of their plans for the education and training of chefs and cooks working in health and care settings. These, and the beneficiaries of the results, were previously defined within the Exploitation Plan:

Exploitable Result	Beneficiary
CGE Occupational Profile	Policy Makers, Regulatory Bodies, Health and Care Providers
CGE Curriculum	Policy Makers, Regulatory Bodies, VET Providers
CGE Web-based Designers' Kit	VET Providers
Open Access Educational Resources	VET Providers
Online Educational Toolkit	VET Providers
Pilot Sites CGE Course Programmes	Policy Makers, VET Providers

7.2 Exploitation Routes

NECTAR's primary exploitation routes revolved around:
- Dissemination of project results
- Promoting uptake of the CGE Occupational Profile and Curriculum
- Ensuring access to CGE eLearning Materials

7.3 Review Against Quality Indicators and KPIs

7.3.1 Recognition of the 5 localized NECTAR Curricula

A first version of the curriculum was released at the end of the first year of the project. The efficacy and flexibility of the curriculum were then tested through the 5 pilot sites that were able to tailor the learning objectives to their regional needs for providing the programme at EQF4 or EQF 5 level.

A comprehensive evaluation process was implemented during the project which helped inform the continued development of the curriculum and the delivery of the final version. The final version of the CGE EU curriculum included the descriptions for 67 Learning Outcomes which were grouped into 7 Units of Learning Outcomes. These Learning Outcomes were described in terms of Knowledge, Skills, and Personal and Transversal Skills.

The final CGE EU curriculum is:

- based on a CGE Occupational Profile made up of 29 core competences characterizinf the CGE at EU level.
- learning outcome oriented and meets the main EU standards and tools for VET such as ECVET, EQAVET, ESCO, EQF, etc.
- modular and flexible to allow it to be adaptable to different contexts, rules and needs of regions and countries across Europe.
- general and across the board to enable it to be a reference for any VET designer targeting the CGE profile on any region of country.
- an enhancement to work based learning.

The curricula was adapted to the context and requirements of each of the pilot site regions. Following implementation of the pilots each of the pilot sites took the following action to secture recognition of the curriculum in their regions:

Styria pilot site negotiated the optimization of the chef profile for health care in the light of needs of competencies, especially for older, geriatric patients and residents, building on pre-existing training structures of the diet chef. Starting next year, the VET-provider aims to entirely integrate the modules currently running as an additional course into the existing course (note: the existing course is also defined as part of the Austrian CGE curriculum). The pilot is therefore planned to be taken over by the VET provider, WIFI Austria, with the support of the Chamber of Commerce.

Liguria and Campania pilot sites. The respective curricula has been recognized through:

- students attending the course being awarded with the certification "Chef esperto in cucina salutistica" linked to the CGE occupational profile and recognized in the regional repository

- the regional repository points to NECTAR pilots in the specific field devoted to the "related training paths"

CHEF DI CUCINA SALUTISTICA

Situazione Tipo Lavoro	La figura si colloca in diversi contesti professionali, ad esempio: può essere responsabile della qualità del cibo e della gestione degli alimenti nelle PFC (ospedali, case di cura, assistenza domiciliare…); si occupa di realizzare pietanze che incontrino le esigenze di persone anziane, nonché di persone con problematiche di deterioramento/alterazione del gusto, di problemi di deglutizione e masticazione, personalizzando ricette e modalità di preparazione; promuove il benessere alimentare e l'innalzamento della cultura culinaria. La figura si relaziona con gli altri operatori addetti alla preparazione dei cibi e si interfaccia anche con medici e operatori sanitari e lavora in collaborazione con altri professionisti sia della salute che dei comparti turistico e gastronomico.
Prerequisiti	Non vi sono requisiti formali. Percorso IVC attivabile.
Percorsi Formativi	I percorsi formativi sono stati attivati in diverse regioni nell'anno 2021 e 2022 mediante il progetto europeo Erasmus+ denominato NECTAR.
ATECO 2007	56.10.11 Ristorazione con somministrazione
Livello EQF	5
NUP	5.2.2.1.0 - Cuochi in alberghi e ristoranti
Conoscenze riferite alla F.P.	Allergie e intolleranze alimentari: tipologie e normative Analisi sensoriale e tecniche di cambiamento della consistenza dei cibi Attrezzature per la conservazione dei cibi Catena di approvvigionamento alimentare: criteri di gestione e caratteristiche Cenni di gastroenterologia Cenni di nutrizione clinica e dietologia Chimica degli alimenti Competenze e ruolo del Gastro-chef engineering (GCE) Criteri e tecniche di composizione di diverse tipologie di menu Elementi di contabilità dei costi Elementi di dietetica Elementi di organizzazione aziendale Filiera agroalimentare e ittica: caratteristiche, criteri di qualità e sostenibilità Fisiologia del gusto/olfatto e patologie correlate Gestione delle risorse umane Modalità e tecniche di presentazione, guarnizione e decorazione dei piatti Normativa su analisi dei rischi e controllo dei punti critici (HACCP) Normativa vigente in materia di privacy e tutela dei dati personali Nozioni di counseling nutrizionale Organizzazione della cucina Organizzazione servizi di ristorazione Patologie e principali problemi di deglutizione Principali attrezzature da cucina e materiali di consumo Principali regimi dietetici e loro caratteristiche nutrizionali (vegetariana, macrobiotica ed eubiotica) Principali social network: caratteristiche e funzionamento in ottica professionale Principali tendenze alimentari e gastronomiche Principali tradizioni e prescrizioni culturali e religiose in campo alimentare Principali tradizioni e prescrizioni culturali e religiose in campo alimentare: provenienza e trattamento degli ingredienti, modalità di cottura e preparazione delle pietanze Principi di sostenibilità nutrizionale

Regione Liguria
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sito ottimizzato per una risoluzione video minima di 1024x768

The regional repository points to NECTAR pilots in the specific field devoted to the "related training paths".

Additionally, there have been discussions with the national network of tourism ITS and the management of ITS BACT to:

a) disseminate the Curriculum in the other 18 Italian regions, providing for its introduction, for funding, subject to expressions of interest, in the training Catalogs of the "Youth Guarantee" (18-29 years) and "Worker Employability Guarantee" (30-65 years) programmes; and

b) provide that the theoretical and practical learning path be recognized as *the first year* of a professionalizing technological education biennial course (ITS) on the figure of "Higher technician for the management of accommodation facilities with a "healthy" Food & Beverage focus.

Algarve pilot site. Santa Casa Misericordia has set out 2 objectives to address the needs of its partners:

1) To put new equipment into operation at:
   - Nursing Homes
   - Day Centres for the elderly
   - Home Care

2) To enable partner organisations to receive training in order to make up for the identified deficits in cooking skills.

Across the Santa Casa Misericordia partners there is expected to be 103 trainees that will undertake training following the NECTAR curriculum developed in the pilot site

Belgian pilot site The Centre for Gastrology are currently negotiating the strengthening of their network to be able to offer an officially recognized full-fledged EQF5 CGE training course. They are also investigating a teach-the-teacher training programme regarding very specific knowledge and techniques in gastrology and gastro-engineering. For example, in the context of twinning partnerships.

Recognising that chefs in the healthcare sector are facing more complex meal requirements and an increasing demand for personalized taste and texture solutions for specific patient groups the Centre for Gastrology has been instrumental in establishing a transnational professional association for chefs working in health and care settings, BVC,

https://bvchefs.com/. NECTAR provided the impetus for establishing this professional association which aims to provide continuous training tailored to the sector; provide necessary professional information; and represent the interests of the profession.

7.3.2 The CGE occupational profile is recognizes in at least 2 regions

The pilot sites in Campania and Liguria held technical meetings with their regional administrative authorities on recognition of the CGE occupational profile "Chef di cucina salutistica". Following these meetings, a draft of the occupational profile was submitted for inclusion in both the National Atlas for Italy and the Regional Repertoires of the 2 Regions. Confirmation was received at the end of the project that the CGE "Chef di cucina salutistica" occupational profile has been included in both the Liguria and Campania regional repertoires.

The Austrian Public Employment Service has integrated the CGE Occupational Profile as specialization of chefs and cooks in their Occupational Register https://bis.ams.or.at and in the Occupational Taxonomy that is used for the nationwide matching of job supply and demand. The occupations of this register are mapped with ESCO occupations. A separate submission to ESCO was made by the project partners, see section 7.3.3 below.

7.3.3 The CGE Occupational Profile and Qualification has been integrated into ESCO by the end of the project

The integration of the occupational profile into ESCO was submitted in July 2023. ESCO Secretariat answered positively requesting extra information. Si4life and WIAB started working completing the requested information. Partners at Si4Life are compiling the additional information requested and this will be forwarded to ESCO before the submission of the final report. We are confident, from ESCO's earlier positive response that the CGE occupational profile will be accepted.

7.3.4 At least 1 project result has been published to the EU Skills Panorama

The results of the project have been sent to the EU Skills Panorama on 10th November 2023 with the proposal of sharing them with the whole labour market. Until now, we have not received an answer, but we hope the results will be considered although, as it was shared in the interim report, the EU Skills Panorama was checked for cooks and chefs, but no relevant information was found. Food preparation workers are the only occupation that entails the preparation of food, but the level cannot be compared to those of a cook or a chef according to ISCO Occupation Group 3434.1 Chefs.

7.4 Enabling Actions to Support the Quality Indicators and KPIs

Key enabling actions supporting the Quality Indicators and KPIs and which will further facilitate the exploitation of NECTAR beyond the partner's regions. A range of resources to support VET providers were developed in WP4 and are key NECTAR exploitation assets:

- CGE Web-based Designers Kit. This supports VET providers in the design and management of CGE training courses. The kit collates the design tools and guidelines to ensure the proper use of the curriculum, including student assessment.

- Open Access Educational Resources. 2 online courses (MOOC) for students and teachers are available for free on https://imoox.at/

- Online Education Toolkit. A range of educational materials, lesson plans and design patterns will be available to download from the project website in the near future.

A further action taken by the project partners is the establishment of the NECTAR Network for Cooperation and Mobility which will:

- Shares the principles behind the project

- Exchanges ideas and best practices

Through this the network will:
- Increase the participation of people who can benefit from the results (elderly, patients, professionals)
- Help other institutions/entities to implement the CGE Curriculum
- Increase the awareness on the correlation between nutrition and healthcare

Organisations wishing to join the network will sign an MoU demonstrating their commitment. The MoU is a general framework setting out the Structure and Principles for Cooperation, Dissemination, Exploitation, and Sustainability. There are currently 32 signatories to the MoU.

Members of the network will undertake to:
- **recognize** the CGE Curriculum as a reference document at EU level;
- **promote** the CGE Curriculum within their contacts or any other institution/entity working in the Healthcare or Culinary sectors;
- collaborate to **involve** any external actor interested in implementing the **CGE Curriculum**;

Complimentary to the network organisations will be able to sign a NECTAR Bilateral MoU to support the mobility of students. Signatories will recognize learning credits and student mobility. There are currently 11 signatories to this MoU.

Finally, the NECTAR website will be maintained by Si4Life after the project ends. This will continue to provide information on the project, highlight initiatives taken forward after the project ends which had their origins in, or were inspired by, NECTAR; and as a point of contact for organisations wishing to join the NECTAR Network for Cooperation and Mobility

8 CONCLUSION

Each of the Quality Indicators and KPIs for the project has been achieved. The actions taken by NECTAR partners will help secure the exploitation of the project and its future sustainability. In addition to the key deliverables of the development and recognition of an EU CGE Occupational Profile and EU CGE Curriculum a number of resources were also developed to help support VET providers in developing and implementing the curriculum in their region. Additionally, initiatives have been introduced to grow the NECTAR community through establishing a NECTAR Network for Cooperation and Mobility. This will ensure the objectives of NECTAR continue to be taken forward through the implementation of the CGE curriculum across Europe.

ANNEX 1 – ABBREVIATIONS

CGE	-	Chef Gastro Engineering
EC	-	European Commission
EU	-	European Union
PFC	-	Primary Food Care
SFC	-	Secondary Food Care
VET	-	Vocational Education Training
WP	-	Work Package

ANNEX 2 – 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
Checklist completed and deliverable approved by Name: Silvia Bossio Date: 24*/11/2023	