

**The European Dual Studies University**

# **DHE Model Framework for Dual Study programmes**

**CE DHE Report 05.06.2024**



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This project has been funded with support from the European Commission. This publication reflects the views only of



Co-funded by the  
Erasmus+ Programme  
of the European Union



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# DHE Model Framework 1.0 for Dual Study Programmes (DSP)

## 1. Introduction

Today, the expectations of universities are changing. The focus on foundational knowledge is significantly modified in favour of conveying application-oriented knowledge and greater engagement beyond the purely academic scholarly system. The discussion about the ‘Third Mission’ does reflect this: in addition to teaching and research, universities are called for taking on additional tasks such as technology transfer, skills development and contributing to the solution of societal challenges. All of these challenges make up the core of The EU4Dual Alliance.

Dual Higher Education (**DHE**) is the core of this Alliance and the destined track for achieving a set of goals: enhance employability, bridge the skills gap, enable cooperative networking as well as academic and professional integration, foster applied research and development and accelerate innovation for mastering the challenges of present and future societies. Models and ideas of DHE have been developed across Europe in several countries and regions. EU4Dual is the point of crystallisation and will develop DHE towards a relevant and successful component of modern Higher Education.

The WP2 ‘Center of Excellence on Dual Higher Education’ (**CE DHE**) is going to be the hub of knowledge exchange, mapping and quality model development of Dual Higher Education. The subject of this report is the Framework for DHE 1.0, with a focus on the Joint Dual Master programmes (**JDM**), developed by WP3.



The Centre of Excellence on DHE

## 2. What is 'Dual' - A Working Definition

The Councils of EU4Dual agreed on a definition of the term 'Dual':

- **The Dual Study Model is a particular form of a Higher Education organisational model providing for an integration with the world of work based on collaboration and mutual commitments in learning, teaching and quality assurance. It is part of the European Qualifications Framework for Higher Education.**
- Its function is to diversify learning opportunities, enhance the employability of graduates, offer qualifications and stimulate innovation - for the benefit of learners, the world of work and society.
- The world of work includes all enterprises, civil society organisations, and the public sector. Dual Integration and collaboration with the world of work is manifested by a **strong focus on the application of learning achievements**. This approach involves **combining phases of work and study**, a concern for employability, cooperation with employers, the use of practice-relevant knowledge and use-inspired research.

### 3. Key Aspects for establishing Dual Study Programmes (DSP)

- **Organisation and structure of Dual Study Programmes (DSP)**

Due to the expedient combination of Higher Education theory phases and practical phases in respective companies, DSP represent a complex form of tertiary education, which requires a high coordination effort. The extend and content depends particularly on the type and subject of the Dual study programme.

- **Collaboration and participation conditions for DSP**

With regard to the conditions for participation in Dual study programmes, a basic distinction must be made between two domains: on one hand, the corporate sector with companies, organisations and public enterprises (world of work), on the other hand, the Higher Education institutions. These key actors must individually fulfil different conditions in order to be eligible to participate in DSP. Furthermore, coordination and collaboration is required between the actors with regard to the combined programme of studying and learning in theory and practice, both in terms of content and organisation, supported by an adequate policy.

- **Implementation and sequence of DSP**

For ensuring the specific Dual success factors, it is important to organise and implement **'learning at work'** where a distinct part of the DSP is dovetailed and integrated with the work environment. Under adequate conditions, **'learning through work'** can be part of Dual study programmes likewise, given the fact, that the workplace offers a sufficient potential for the specified learning outcomes to be integrated.

The range of organisational models for Dual study programmes is broad, not least due to requirements of different study fields. The organisation of Dual studies as a sequence of alternation between theory and practice phases depend largely on the type and subject of a Dual Study Programme. In general, a differentiation can be made between **a) blocked** (adapted to practical requirements) and **b) regular periodic** alternation of practical and theoretical learning phases.

- **Accreditation and status in the individual countries**

The accreditation of Dual Study Programmes serves to ensure the quality and sustainability of these learning opportunities. If a Dual Bachelor or Dual Master study programme, or an individual courses completed as part of a DSP, are to be accredited, they undergo the same accreditation procedure as a comparable ‘traditional’ study programme.

## 4. Overview: DHE Model Dimensions for DSP

As a result of an intense discussion process within the EU4Dual consortium, seven dimensions were developed that frame the Model of Dual Higher Education. With the provided structures, guidelines and criteria, HE institutions ought to be enabled to create the foundation for Dual Study Programmes. The Model primarily addresses responsible persons in Higher Education Institutions, who plan, conduct and develop such DSP.



The seven dimensions of DHE Model

## 5. DHE Model Framework 1.0 for DSP

The framework built on the DHE model will serve to develop a refined set of criteria and subcriteria covering and depicting the entire range of Dual Higher Education, from mandatory to excellence. All three main stakeholders are respected in the model and the framework: Student, World of Work (WoW), Higher Education Institution. Based on this systematic approach, the DHE quality label can be developed.

Using a pragmatic approach, this chapter of the report will provide for a basic overview on the DHE Framework 1.0 and an extracted version for the JDM development. A more detailed description (level1) can be found in the Annex.

Dimensions of DHE Model Framework 1.0		
No.	Dimension	Description of Mandatory Key Criterion
1	<p><b>Policy and Strategy</b></p> <p>Anchoring of Dual HE in the overall policies and strategic framework of HE institution</p>	<p><b>Integration of the world of work into policies and strategic framework of the HEI</b>, providing for ability to act with regard to Dual HE as well as ensuring success and sustainability of Dual HE. The HEI's statutes provide for the possibility of Dual HE as an option in their course portfolio.</p>
2	<p><b>Admission</b></p> <p>Admission processes of a Dual student and the respective corporate partner in Dual study programmes</p>	<p><b>Alignment of study programme and work placement:</b></p> <p>The skills and competences that the Dual student will develop in the practical phase with the WoW partner need to be closely related to the study programme (alignment of theory and practice). The WoW partner's match to the study programme need to be checked</p>
3	<p><b>Formalisation of Commitment</b></p> <p>Practical and administrative arrangements regarding Dual Study Course, bi- or multilaterally between the three parties</p>	<p><b>Agreement of main Dual Study stakeholders:</b></p> <p>Bi- or multilateral contract/agreement on purpose, content, design and implementation of Dual Study course between the main stakeholders of Dual HE (HEI, WoW, student).</p>



Dimensions of DHE Model Framework 1.0		
4	<p><b>Teaching and Learning</b></p> <p>Collaboration between academic staff and professionals from the world of work for implementing learning content</p>	<p><b>Interlinkage of skills development and learning outcomes by dovetailing:</b> Close contentual interconnection of different learning environments aiming for continuous development of competencies and rising employability. There is a curriculum defined set of skills and competencies which the students have to develop during the times of work placement</p>
5	<p><b>Work Placement</b></p> <p>Organisation of the learning and teaching process linking theory and practice phases</p>	<p><b>Minimum share of practical learning:</b>            Master → The share of ECTS-CP for integrated practical workplace-learning must be <b>minimum 20% of the total sum of ECTS-CP</b> awarded for the Dual Study program or an individual course counting as 'Dual'.            Bachelor → The share of ECTS for practical learning is minimum 28% , correlated with a time share of about 40% allocated in curriculum-related practical work placement (<i>still tbd</i>)</p>
6	<p><b>Evaluation &amp; Assessment of Student Learning</b></p> <p>Mutual commitment for validating the skills acquired in the workplace</p>	<p><b>ECTS-CP awarded for work-placement(s):</b>            Commitment of the HE institution to recognise the learning outcomes developed and assessed in the world of work.</p>
7	<p><b>Quality</b></p> <p>Close collaboration of HEI and Dual corporate partners for monitoring and evaluation of: study programme, stakeholders' performance and impact, e.g. on competencies required by the WoW</p>	<p><b>Quality Assurance of entire Dual Study Programme by HEI:</b>            Practical phases are included in Quality Assurance system of HEI, linking them to ESGs</p>

## 6. DHE Model for EU4Dual JDM

The seven dimensions of the DHE Framework 1.0 are mirrored by the DHE Framework for the EU4Dual JDM. Each of the mandatory criteria must be fulfilled. For every JDM programme it will be obligatory to explain how they are implemented.

Mandatory Criteria within DHE Model Framework Dimensions for Joint Dual Masters		
1	<p><b>Study programme and work placement are aligned</b> The skills and competences a dual student will develop in the practical phase with the world of work partner are closely related to the content of the study programme.</p>	Dimension 2
2	<p><b>ECTS are awarded for work placement(s)</b> HEI and world of work partner are both committed for validating the skills acquired in the workplace.</p>	Dimension 6
3	<p><b>Skills development and learning outcomes are interlinked</b> Learning in different learning environments aims for continuous development of competencies and rising employability of the student</p>	Dimension 4
4	<p><b>The share of practical learning is minimum 20% of ECTS</b> Share of practical learning and dovetailed integration of learning content has to be documented and approved by HEI and world of work</p>	Dimension 5
5	<p><b>There is formalised commitment between partners</b> Practical and administrative arrangements are done and documented between all three parties</p>	Dimension 3
6	<p><b>Quality Assurance of entire Dual Study Programme</b> There is close collaboration of HEI and world of work partners for monitoring and evaluation of study programme, stakeholders' performance and impact</p>	Dimension 7
7	<p><b>Dual learning dimensions are anchored to the overall policies and strategic framework of study programme</b></p>	Dimension 1

These concise Dual criteria based on the DHE Model Framework 1.0. may support various concepts of Joint Dual Masters, not only within the EU4Dual Consortium, but also serve as Quality settings for further developments in European Dual Master initiatives, not least with regard to the joint European Degree.

## 7. Outlook for CE DHE


The Development of the EU4Dual Joint Dual Master Programmes will be the first application of the Dual Higher Education Study Model and its key criteria. It seems to be obvious and important that the two teams of WP2 CE DHE and WP3 JDM cooperate in monitoring this first practical test of the DHE Model Framework 1.0 . One of the expectations for the findings from this phase is that further criteria for Dual Study quality can be gained, especially those that lead to excellence. Another expectation is to get some feedback from the stakeholders involved on how to work with the criteria of the DHE Framework.

## 8. Annex


### Description of the seven Dimensions of DHE Framework 1.0 (level 1) by CE DHE

Dual Study Model  
Dimension 1  
with key characteristics\*

\* mandatory




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Dimensions/ Characteristics	Description	Example
<b>1. Policy and Strategy</b>	<b>Anchoring of Dual HE in the overall policies and strategic framework of HE institutions</b>	
<b>Policy and Strategy Integration</b>	Integration of the world of work into policies and strategic framework of the HEI, providing for ability to act with regard to Dual HE as well as ensuring success and sustainability of Dual HE.	EU4Dual 'Mission and Vision' from the application.
Objectives and Outcomes	Main objectives are elaborated with respect to the outcome of Dual HE.	EU4Dual definition of Dual HE.
Involvement of Stakeholders	Concept of appropriate involvement of leadership/management of HEI and world of work stakeholders in Dual Study programme design and implementation. Involvement of student stakeholders where adequate.	EU4Dual: Leadership/management of HEI are involved in development, implementation and oversight of Dual Study programmes. Representatives from world of work are a systemic part of creating such programmes. Student-councils are active partners.
Regional Integration	Engagement with region where the HEI is located, and contribution to its development	DHE is strongly embedded in regional partnerships with the world of work.

Dual Study Model  
Dimension 2  
with key characteristics\*

\* mandatory




Funded by the European Union



Dimension/ Characteristics	Description	Example
<b>2. Admission</b>	<b>Admission processes of a Dual student and the respective corporate partner in Dual study programmes</b>	
<b>Alignment of study programme and work placement</b>	The skills and competences that the Dual student will develop in the practical phase with the world of work partner need to be closely related to the study programme (alignment of theory and practice).	DHBW/FHJ Students' work placement has to be in the domain of the Dual study programme and comply with learning outcomes
World of work led	The Dual student is initially selected by the world of work and assigned to a HE institution, where he/she will accomplish the Dual study programme.	DHBW: Bachelor students do have a contract with a company first and then apply for a Dual study programme at one of the campuses.
HEI led	The Dual student is initially admitted by the HE institution and assigned to/selected by an employer, or has already an employer.	ESTIA: Admitted student is proposed to a company, or a student can find a company. FHJ: Student has to find a company after the 2 <sup>nd</sup> (1 <sup>st</sup> ) semester of the BA (MA) programme. HEI supports this process.

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## Dual Study Model Dimension 3 with key characteristics\*

\*  
mandatory



Dimensions/ Characteristics	Description	Example
<b>3. Formalisation of Commitment</b>	<b>Practical and administrative arrangements</b> regarding Dual Study course, bi- or multilaterally between the three parties	
<b>Agreement of main Dual Study stakeholders</b>	Bi- or multilateral contract/agreement on purpose, content, design and implementation of Dual Study course between the main stakeholders of Dual HE (HEI, WoW, student)..	Spain: New regulations on Dual studies stipulate the use of a Dual training contract, involving a dialogue between educational and labour policies.
Student to world of work	Contract/Agreement arrange and administer the relation between the world of work and the student.	Germany/Austria: A special work contract between the student and the company is mandatory.
World of work to HEI	Contract/Agreement arrange and administer the relation between the world of work and the HE institution.	Spain: A corporation agreement between the HE institution and the world of work is needed, embracing the full period of the Dual study.
World of work, Student and HEI	Contract/Agreement arrange and administer the relation between the three main stakeholders.	France: An apprentice has two contracts a) between learner and company as salaried, b) between the three actors to define the relationships between them as well as the skill-based objectives.

## Dual Study Model Dimension 4 with key characteristics\*

\*  
mandatory



Dimensions/ Characteristics	Description	Example
<b>4. Teaching and Learning</b>	<b>Collaboration</b> between academic staff and professionals from the world of work	
<b>Interlinkage of skills development and learning outcomes</b>	Dovetailing: Close contentual interconnection of different learning environments aiming for continuous development of competencies and rising employability.	DHBW/FHJ: Teaching is based on topical world of work examples and projects. Practical phases enable and support specific learning outcomes DHBW: Curricular integration is fixed by written agreement.
Teaching staff from the world of work	Balance of eligible teachers in theoretical phases from academia and world of work.	FHJ: Approx 40% of lectures are held by professionals from world of work. Academic staff must have minimum 3 years professional experience besides their academic education.
Supervision at HE institution and workplace	Supervision and mentoring by both Dual parties, the world of work and HE institution.	ESTIA: Apprenticeship requires two supervisors, one at HEI and one in world of work to guide the development of skills.

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## Dual Study Model Dimension 5 with key characteristics\*

\* mandatory



Dimensions/ Characteristics	Description	Example
<b>5. Work-Placement</b>	<b>Organisation of the learning and teaching process linking theory and practice phases</b>	
<b>Minimum share of practical learning</b>	The share of ECTS-CP for integrated practical workplace learning must be minimum 20% of the total sum of ECTS-CP awarded for the Dual Study programme or an individual course counting as 'Dual'. Share of practical learning and dovetailed integration of learning content has to be documented and approved by HEI and world of work partners.	Four categories of Dual students' workload can be distinguished: 1. Academic learning a) in presence or virtually at HEI b) self guided transfer learning 2. Practical learning at workplace a) dovetailed/integrated with curriculum b) without direct link to curriculum ECTS-CP can be awarded for 1.a), 1.b) and 2.a) making up the total sum of Dual ECTS-CP.
Alternation and/or number of period	Different alternative models, depending on subjects. For fostering success of Dual Study: At least one change between academic and practical learning per semester.	Day to day, month by month, 3 months and 3 months. FHJ: After 2 <sup>nd</sup> semester alternating rhythm of 3 months.
Alternation of work placement	Location and type of practical activities vary.	DHBW/FHJ: Dual student has opportunity to work in different departments at corporate partner.

## Dual Study Model Dimension 6 with key characteristics\*

\* mandatory



Dimensions/ Characteristics	Description	Example
<b>6. Evaluation/Assessment</b>	<b>Mutual commitment for validating the skills acquired in the workplace</b>	
<b>ECTS-CP awarded for work-placement(s)</b>	Commitment of the HE institution to recognise the learning outcomes developed and assessed in the world of work.	DHBW BA: ECTS-CP for practical phases and not for BA Thesis FHJ: ECTS-CP for BA/MA Thesis and partially for practical phases.
Formative assessment from the world of work	The qualitative assessment by the world of work is based on the feedback that it provides to the Dual student to help him/her improve the skills.	FHJ/DHBW: Achievement of learning content in accordance with curriculum has to be documented by students' reports and evaluation of performance by the company mentor.
Skills based evaluation	Skills-based education is the common ground of the collaboration between the world of work and HE institution in the evaluation of the learning outcomes.	DHBW: Useful AI skills can be developed and adopted very well in the world of work. HEI provide for basics, research, examples Practical experience is added in real work environment.

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## Dual Study Model Dimension 7 with key characteristics

\*  
mandatory



Dimensions/ Characteristics	Description	Example
<b>7. Quality</b>	Close collaboration of HEI and Dual corporate partners for monitoring and evaluation of: study programme, stakeholders' performance and impact, e.g. on competencies required by the world of work.	
<b>Quality Assurance of entire Dual Study Programme</b>	Practical phases are included in Quality Assurance system of HEI, linking them to ESGs.	Erasmus+ Project <a href="#">ApprenticeshipQ</a> Each side, HEI and world of work, are responsible for QA.
Participation of the world of work in the Dual study programme	Involvement of Dual world of work partners in curriculum design, approval and revision.	DHBW: World of work is integrated in all boards. FHJ: Representatives of the world of work are part of the development team for curricula in all study programmes.
Participation of HE institution in the quality management of practical phases	Involvement of HEI representatives in the definition of practical work phases quality criteria and procedures.	FHJ: All study programmes are accredited. Dual study programmes, as well as all other study programmes document their quality management policies.

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## About the EU4Dual Project

EU4Dual is the global top-quality reference for Dual Education. We form the largest integrated Dual- Education institution in the world – a multi-campus, multi-disciplinary institution, committed to close integration between academia, industry and regions. We use our collective expertise to help solve global challenges of industry to society – using Dual Education to make Europe greener, more equitable and more economically successful.