



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

HEIn4.⏻

Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

Deliverables of HEIn4 project (description and links)



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

WP1 Study of EU HEI's experience	
<p>1.1 Study of teaching methodologies and curriculum in relation to Industry 4.0</p> <p>1.3 Study of capacity building practices for collaboration with industry</p>	<p>- Deliverable 1.1.1 - Webinars developed and conducted within HEIn4.0 project. <i>This deliverable represents the description of webinars developed and conducted within HEIn4.0 project: the best practices of European universities in education and cooperation with industrial partners in Industry 4.0 context</i> https://bit.ly/3wBckzG</p> <p>- Deliverable 1.1.2 - List of recommended reading. <i>This deliverable represents the list of recommended reading in the frames of the development of teaching methodologies and curriculum in HEIn4.0</i> https://bit.ly/4c4IzaF:</p> <p>- Deliverable 1.1.3 - Literature Study <i>This deliverable represents the summary of literature study, performed by HEIn4 project partners:</i> - Business and Technology University, - Akaki Tsereteli State University https://bit.ly/3IqqYwn</p> <p>- Deliverable 1.1.4 - Review of Curriculum <i>This deliverable represents the summary of the review of the teaching methodologies and curriculum of European partners of HEIn4, performed by Business and Technology University (Georgia) and Lutsk National Technical University (Ukraine)</i></p> <p>Georgia https://bit.ly/3T4pVr0</p> <p>Ukraine https://bit.ly/48NGNrI</p> <p><u>Generalized materials</u> https://bit.ly/3wL6hJ1</p>



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

<p>1.2 Development of methodology concept and content of curriculum</p>	<p>- Deliverable 1.2.1 - Development of methodology concept and content of curriculum in Georgia and in Ukraine <i>This deliverable represents Methodology concept and content of curriculum in Georgia and in Ukraine together with the Recommendations for updating Engineering curriculum:</i></p> <p>- <i>Case-study Methodology Concept Higher Education 4.0 in Georgia</i> https://bit.ly/3OZHfMu</p> <p>¶</p> <p>- <i>Case-study Methodology Concept Higher Education 4.0 in Ukraine</i> https://bit.ly/3uRxtFm</p> <p>- Deliverable 1.2.2 - Training material – “Concepts of Integral Quality of the professional Management System <i>This deliverable represents the Training material – “Concepts of Integral Quality of the professional Management System” by Prof. Eduard Kuznetsov (Odessa I.I. Mechnikov National University)</i> https://bit.ly/4bW9NjM</p>
<p>1.4. Development of Case Studies</p>	<p>- Deliverable 1.4.1 - Development of Case Studies <i>This deliverable represents the Case Studies, developed in Georgia and Ukraine in collaboration with the EU partners.</i></p> <p><i>Case Study “Best experiences and Practices of Georgian and European Universities”</i> https://bit.ly/3wK89Sp</p> <p><i>Case Study “Higher education towards fourth industrial revolution: European and Ukrainian cases”</i> https://bit.ly/4a1X65m</p>
<p>WP2 Curriculum for Industry 4.0</p>	
<p>2.1 Development of short courses for upgrading industrial staff</p>	<p>-Deliverable 2.1.1 Description of short courses for upgrading industrial staff <i>This deliverable represents the description short courses for upgrading industrial staff each partner country HEI launches in the frames of HEIn4 project</i> https://bit.ly/3Tuptnj</p> <p>- Deliverable 2.1.2 Short courses for industries overview</p>



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

This deliverable demonstrates the number of new modules developed and taught at GE and UA universities and the number of students who followed the new modules.

<https://bit.ly/3VN2aGJ>

Information on GE and UA universities websites

Georgia:

Akaki Tsereteli State University:

Short Descriptions of the Courses offered by ATSU

<https://bit.ly/3UISJ4W>

Batumi Shota Rustaveli State University:

Short Descriptions of the Courses offered by BSU

<https://bit.ly/3UWYYIn>

Business and Technology University:

Short Descriptions of the Courses offered by BTU

<https://bit.ly/3vvmnGo>

Ukraine:

Donetsk National Technical University:

Training modules on Industry 4.0

<https://bit.ly/4ae4VFk>

Lutsk National Technical University:

Digitalization of production, Management Industry 4.0, Additive technologies and materials, Digital leadership training for civil servants at LNTU

<https://bit.ly/48CbbFr>

Ukrainian State University of Sciences and Technologies:

"Industry 4.0. Technologies in metallurgy"

<https://bit.ly/3wxuSRB>

"Integration of Industry 4.0 to Manufacturing Operations"

<https://bit.ly/3Ig9pyX>



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

	<p>Odessa I.I. Mechnikov National University: <i>Integration of Industry 4.0 in industrial and management systems</i> https://bit.ly/3P0BxtY</p>
<p>2.2 Development of taught module "Industry 4.0 Business Management" for Master students.</p>	<p>-Deliverable 2.2.1 - Description of new curriculum <i>This deliverable represents the description of new disciplines each partner country HEI launches since 2021/2022 academic year in the frames of HEIn4 project</i> <i>Syllabuses of new disciplines, developed in HEIn4 (summary)</i> https://bit.ly/49N0Jw6</p> <p style="text-align: center;">Information on GE and UA universities websites</p> <p>Georgia:</p> <p>Akaki Tsereteli State University: https://bit.ly/3xpmvrE</p> <p>Batumi Shota Rustaveli State University: https://bit.ly/3UWYYIn</p> <p>Business and Technology University: https://bit.ly/3vvmnGo</p> <p>Ukraine:</p> <p>Donetsk National Technical University: <i>Industry 4.0: Business Management</i> https://bit.ly/4ahiXGx</p> <p>Lutsk National Technical University: <i>Educational programs that include "Management of Industry 4.0" and "Digital transformation" as mandatory courses:</i> <i>EP "Management" for master's level</i> http://surl.li/rysfx <i>EP "Materials Science"</i> https://bit.ly/3P2oKHn</p> <p>Ukrainian State University of Sciences and Technologies: <i>"Industry 4.0 in metallurgy"</i></p>



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

	<p>https://bit.ly/3Pof623 "Integration of Industry 4.0 to Manufacturing Operations" https://bit.ly/3Pke2Ml</p> <p>Odessa I.I. Mechnikov National University: Business Management in Industry 4.0 (Bachelor) https://bit.ly/3Tg054B Business and management models in Industry 4.0 (master's degree) https://bit.ly/43doprj</p> <p>In preparation for teaching, LNTU prepared two monographs: Additive Technologies and Materials (Deliverable 2.2.2); https://bit.ly/49G3kYS Management Industry 4.0 (Deliverable 2.2.3) https://bit.ly/48Id6Z2 and one monograph Industry 4.0: European practices in higher education and enterprise prepared by USUST (Deliverable 2.2.4) https://bit.ly/3IshHE6 and one master-class "Professionalization of management: innovative paradigm in the context of Industry 4.0" prepared by ONY (Deliverable 2.2.5) https://bit.ly/3wN5bfU</p>
<p>2.3 Development of recommendations for updating Engineering curriculum</p>	<p>- Deliverable 2.3.1 - Development of recommendations for updating Engineering curriculum According to the letter to the EACEA project officer and his approval, these materials were published in two case-studies "Case study Methodology Concept Higher Education 4.0 in Georgia" and Case Study "Higher education towards fourth industrial revolution: European and Ukrainian cases". In addition, the GE and UA team decided to publish two separate brochures: GE - "Recommendations for updating Engineering Curriculum" (https://bit.ly/4cbnPxY); UA - "Joint recommendations for updating engineering curriculum" (https://bit.ly/3wIZVtC) for more wide spreading among GE and UA universities.</p>
<p>WP3 Capacity building</p>	
<p>3.1 Setting Virtual Factory Learning Labs</p>	<p>- Deliverable 3.1.1 - Description of labs This deliverable represents the description of new labs installed at each partner country HEI in the frames of HEIn4 project</p>



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

	<p>Overall description of Labs established in HEIn4: https://bit.ly/3uZvhM5</p> <p style="text-align: center;">Information on GE and UA universities websites</p> <p>Georgia:</p> <p><i>Akaki Tsereteli State University:</i> https://bit.ly/43KIXaM</p> <p><i>Batumi Shota Rustavelli State University</i> https://bit.ly/49bw22I</p> <p><i>Business and Technology University</i> https://bit.ly/3uRGWfS</p> <p>Ukraine:</p> <p><i>Donetsk National Technical University</i> https://bit.ly/3P0IYkS</p> <p><i>Lutsk National Technical University</i> https://bit.ly/49xbVwG</p> <p><i>Ukrainian State University of Science and Technologies</i> https://bit.ly/4bWxKYs</p> <p><i>Odessa I.I. Mechnikov National University</i> https://bit.ly/3STTETn</p>
<p>3.3 Development of content and capacity for consultancy services</p>	<p>- Deliverable 3.3.1 - Content and capacity for consultancy services <i>This deliverable demonstrates the content and capacity for consultancy services at GE and UA labs (The summarized review of GE and UA content and capacity.)</i> https://bit.ly/3wTorIH</p> <p>List of consultancy services available at Labs established in frames of HEIn4 project at each GE and UA HEI</p> <p>Georgia:</p>



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

	<p><i>Akaki Tsereteli State University:</i> https://bit.ly/3J4wmWv</p> <p><i>Batumi Shota Rustaveli State University</i> https://bit.ly/49bw22I</p> <p><i>Business and Technology University</i> https://bit.ly/3uRGWfS</p> <p>Ukraine:</p> <p><i>Donetsk National Technical University</i> https://bit.ly/4ae4VFk</p> <p><i>Lutsk National Technical University</i> https://bit.ly/49xbVwG</p> <p><i>Ukrainian State University of Science and Technologies</i> https://bit.ly/4bWxKYs</p> <p><i>Odessa I.I. Mechnikov National University</i> https://bit.ly/3STTETn</p>
WP4 Quality Plan	
<p>4.3 Evaluation of short courses for industry</p>	<p>- Deliverable 4.3.1 - Development of Questionnaires' for course feedback evaluation <i>This deliverable represents the Questionnaires', developed in GE and UA universities according to analyzing the EU HEIs experience. At USUST, the experience of European universities was used in developing the "Regulations on Questionnaire (Survey) of Stakeholders at USUST". The questionnaires themselves are given in the Course Feedback.</i></p> <p>Georgia:</p> <p><i>Akaki Tsereteli State University</i> <i>Course Feedback ATSU</i> https://bit.ly/48KQ7gb</p>



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

Batumi Shota Rustaveli State University

Course Feedback BSU bachelor1

<https://bit.ly/3uQQUyd>

Course Feedback BSU bachelor2

<https://bit.ly/4a07k6i>

Course Feedback BSU master

<https://bit.ly/4a261nb>

Business and Technology University

Course Feedback BTU

<https://bit.ly/4a2Fq9s>

Ukraine:

Donetsk National Technical University:

Course Feedback DonNTU

<https://bit.ly/3V4CXas>

Lutsk National Technical University

Course Feedback LNTU

<https://bit.ly/3v6H4YU>

Ukrainian State University of Science and Technologies:

Course Feedback USUST

<https://bit.ly/49N9VAU>

Odessa I.I.Mechnikov National University

Course Feedback ONMU 2022

<https://bit.ly/3wG2sVA>

Course Feedback ONMU 2023



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

	https://bit.ly/4383jdJ
WP5 Dissemination	
Dissemination at external events	<p>D 5.1 - Dissemination at external events <i>This deliverable demonstrates how HEIn4 project was disseminated at external events</i> https://bit.ly/3TroDab</p>
WP6 Exploitation	
<u>EXPLOITATION STRATEGY of HEIn4 PROJECT</u>	
6.1 Pilot teaching to industrial staff	<p>D 6.1.1 - Pilot teaching to industrial staff <i>This document is the confirmation of pilot teaching for industrial staff. The materials presented are varied. These can be teaching materials, training presentations, training agendas, certificates, news on the university portal or mass media, YouTube</i> https://bit.ly/49OkS58</p> <p>6.1.1 KPI of trained staff https://bit.ly/49fnI23</p> <p>Anyway each university included the offer on the website:</p> <p>Georgia: <i>Akaki Tsereteli State University:</i> https://bit.ly/3J4wmWv</p> <p><i>Batumi Shota Rustavelli State University</i> https://bit.ly/49bw22I</p> <p><i>Business and Technology University</i> https://bit.ly/3uRGWfS</p> <p>Ukraine:</p> <p><i>Donetsk National Technical University</i> https://bit.ly/4ae4VFk</p> <p><i>Lutsk National Technical University</i> https://bit.ly/49xbVwG</p>



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

	<p><i>Ukrainian State University of Science and Technologies</i> https://bit.ly/4bWxKYs</p> <p><i>Odessa I.I. Mechnikov National University</i> https://bit.ly/3STTETn</p>
<p>6.2 Pilot teaching to university students</p>	<p>D 6.2.1 – Generalized results of pilot teaching to university students. <i>This deliverable demonstrates the number of new modules developed and taught at GE and UA universities and the number of students who followed the new modules.</i> https://bit.ly/3UYqWmR</p> <p>D 6.2.2 - Pilot teaching to university students <i>This document is the confirmation of pilot training for students. The materials presented are varied. These can be teaching materials, lecture presentations, work programs of disciplines, screenshots of classes, and course feedback.</i> https://bit.ly/3Va5KKV</p>
<p>6.3 Services of Labs</p>	<p>- Deliverable 6.3.1 – Services of Labs <i>This deliverable demonstrates the services at GE and UA Labs</i> https://bit.ly/3v8PO0G</p> <p>List of services available at Labs for industry</p> <p>Georgia:</p> <p><i>Akaki Tsereteli State University:</i> https://bit.ly/3J4wmWv</p> <p><i>Batumi Shota Rustavelli State University</i> https://bit.ly/49bw22I</p> <p><i>Business and Technology University</i> https://bit.ly/3uRGWfS</p> <p>Ukraine: <i>Donetsk National Technical University</i> https://bit.ly/3TXM1fl</p>



Boosting the role of HEIs in the industrial transformation towards the Industry 4.0 paradigm
in Georgia and Ukraine
609939-EPP-1-2019-1-BE-EPPKA2-CBHE-JP

	<p>Lutsk National Technical University https://bit.ly/49xbVwG</p> <p>Ukrainian State University of Science and Technologies https://bit.ly/4bWxKYs</p> <p>Odessa I.I. Mechnikov National University https://bit.ly/3STTETn</p>
<p>6.8 International network of Labs</p>	<p>D 6.8.1 – Creation the International network of Labs <i>This deliverable represents the International network of Labs to ensure the sustainability of the project and continue the activities</i></p> <p>HEIn4 Virtual Factory Learning Labs International Network Agreement https://bit.ly/3UYrxVD</p>