

**Project Title:**

THE FOF-DESIGNER:  
DIGITAL DESIGN SKILLS FOR FACTORIES OF THE FUTURE

**Project Acronym:**

DigiFoF

**Grant Agreement number:**

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**Subject:**

**D.4.3. Report on professional trainings<sup>1</sup>**

**Dissemination Level:** Public

**Lead Organisation:**

CONTI


**Project Coordinator:**

ULBS

**Contributors:**

All Partners

**Reviewers:** IDPC

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V3	November 2021	Month 12-24	01/01/2019	36 Months
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<sup>1</sup> "Any communication or publication related to the action, made by the beneficiaries jointly or individually in any form and using any means, shall indicate that it reflects only the author's view and that the Agency and the Commission are not responsible for any use that may be made of the information it contains."

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## 1 Report about professional trainings at Nov.2021

One of the main objectives of the project is to develop and support training programs to support industry professionals in acquiring skills, abilities and certifications for FoF design (digitization, automation, etc.), in order to create added value for both trainees and for enterprises.

These trainings resulted from the collaboration between academia and the partners from the industry and sought to provide the skills needed to transform into FOF/to further develop FoF elements.

The provided vocational training were aligned with the needs of industries dealing with FoF. Also, vocational and initial training programs/curricula used a problem-based learning approach.

Vocational training helped business partners to move forward and increase their productivity. The training was prepared based on the current needs of the business partners. During the training period, employees had practically experienced appropriate ideas by developing and implementing them in the training laboratory to improve their work skills.

The students and the professionals had worked in small groups to solve open-ended questions found in the teaching materials during the vocational trainings or in the NEMO 2019 summer school. Tutors facilitated learning by supporting them, guiding, and monitoring the learning process. While working in a team, the trainees managed to enhance their critical appraisal, their skills for knowledge retrieval and their team-working skills

All the training programs are available to the public. Further on, all the materials – used for the trainings, are (or will continue to be) uploaded on the <https://digifof.eu> platform.

## 2 List of professional trainings performed

### 2.1 Training # 1 at ULBS – June.2020

<b>Author:</b>	Valentin Fleacă
<b>Event Title:</b>	<b>Workplace safety – Employees emotion recognition</b> monitor a machine operator and detect the operator's emotional state. Send an alert if the operator is distracted or angry
<b>Event Date and Venue:</b>	June 15 – 26, 2020, Sibiu, Romania
<b>Type of event (training, webinar, summer school):</b>	Vocational Training
<b>Organiser(s):</b>	Lucian Blaga University of Sibiu, Romania
<b>Link to Agenda:</b>	<a href="https://classroom.google.com/u/0/c/MTEyOTkzMtA4ODk0">https://classroom.google.com/u/0/c/MTEyOTkzMtA4ODk0</a> <a href="https://meet.google.com/ncd-rvjg-wfd">https://meet.google.com/ncd-rvjg-wfd</a> <a href="https://drive.google.com/drive/folders/0B2V3iLI0Uk15fnVQYUpRS-mVJbEN4Q2dnVDFWZXVncnhBQjVRRzN0VmVLRkNEUIRSM0Z2Mk0">https://drive.google.com/drive/folders/0B2V3iLI0Uk15fnVQYUpRS-mVJbEN4Q2dnVDFWZXVncnhBQjVRRzN0VmVLRkNEUIRSM0Z2Mk0</a>
<p><b>Short description: Workplace safety – Employees emotion recognition:</b> monitor a machine operator and detect his emotional state. Send an alert if the operator is distracted or angry. Is structured in 4 sections:</p> <p><b>1. Introduction to Python &amp; OpenCV:</b></p> <ul style="list-style-type: none"> <li>Presenting the objectives and structure of this laboratory</li> <li>Downloading and installing PyCharm &amp; Python</li> <li>Installing OpenCV, NumPy, SciPy; OpenCV usage</li> <li>Python vs C++ vs Java; Python language exercises</li> </ul> <p><b>2. Face detection</b></p> <ul style="list-style-type: none"> <li>Face detection: theory</li> <li>Detecting faces in images and in video sequences</li> <li>Project architecture setup</li> </ul> <p><b>3. Supervised learning: Understanding classification algorithms</b></p> <ul style="list-style-type: none"> <li>Machine learning: classification problems</li> <li>SciKit-learn discussions</li> <li>Classification exercises</li> </ul> <p><b>4. Recognizing facial emotions</b></p> <ul style="list-style-type: none"> <li>Understanding facial expressions and emotions</li> <li>Recognize human emotions from live video sequences</li> <li>Learning a classifier to recognize facial emotions from a dataset</li> <li>Tuning the classifier parameters to increase accuracy</li> </ul>	

• Live face emotion recognition system	
<b>Total number of participants invited:</b>	<b>7</b>
<b>Total number of participants:</b>	<b>5</b>

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS\\_01%3A%20Workplace%20safety%20%E2%80%93%20Employees%20emotion%20recognition](https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS_01%3A%20Workplace%20safety%20%E2%80%93%20Employees%20emotion%20recognition) )

#### ATTENDEES:

	<b>Name</b>	<b>Organisation</b>	<b>Signature</b>
1	Dinuț Carmen-Maria	Continental Automotive Sibiu, intern	
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3	Pîrvan Victor Marius	Continental Automotive Sibiu, TPM CCN department	
4	Căpățînă Luana-Maria	Continental Automotive Sibiu, Process CM department	
5	Ionescu Paula	Continental Automotive Sibiu, VNI CE SYS department	
6	Urian Adrian Mircea	Continental Automotive Sibiu, Safety and Security SW ECC department	
7	Mihuțoiu Cristian	Continental Automotive Sibiu, TCMO department	

	<b>Most satisfied</b>	<b>Satisfied</b>	<b>Moderately satisfied</b>	<b>Rather dissatisfied</b>	<b>Not at all satisfied</b>
By the topic(s) of the training?	8	3	1		
By the format of the training?	3	4	3		
By the duration of the training?	3	4	2	2	
By the teaching method of the training?	4	3	2	2	
By the equipment resources used and available?	8	1	4		

By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?					
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## 2.2 Training # 2 at ULBS – July.2020

<b>Author:</b>	Valentin Fleacă
<b>Event Title:</b>	<b>Workplace safety – Employees emotion recognition</b> monitor a machine operator and detect the operator's emotional state. Send an alert if the operator is distracted or angry
<b>Event Date and Venue:</b>	<b>July 13 – 27, 2020, Sibiu, Romania</b>
<b>Type of event (training, webinar, summer school):</b>	<b>Vocational Training</b>
<b>Organiser(s):</b>	<b>Lucian Blaga University of Sibiu, Romania</b>
<b>Link to Agenda:</b>	<a href="https://classroom.google.com/u/0/c/MTEyOTkzMTA4ODk0">https://classroom.google.com/u/0/c/MTEyOTkzMTA4ODk0</a> <a href="https://meet.google.com/ncd-rvjg-wfd">https://meet.google.com/ncd-rvjg-wfd</a> <a href="https://drive.google.com/drive/folders/0B2V3iLIQUk15fnVQYUpRSmVJbEN4Q2dnVDFWZXVNcnhBQjVRRzN0VmVLRkNEUIRSM0Z2Mk0">https://drive.google.com/drive/folders/0B2V3iLIQUk15fnVQYUpRSmVJbEN4Q2dnVDFWZXVNcnhBQjVRRzN0VmVLRkNEUIRSM0Z2Mk0</a>

**Short description: Workplace safety – Employees emotion recognition:** monitor a machine operator and detect his emotional state. Send an alert if the operator is distracted or angry. Is structured in 4 sections:

### 1. Introduction to Python & OpenCV:

- Presenting the objectives and structure of this laboratory
- Downloading and installing PyCharm & Python
- Installing OpenCV, NumPy, SciPy; OpenCV usage
- Python vs C++ vs Java; Python language exercises

### 2. Face detection

- Face detection: theory
- Detecting faces in images and in video sequences
- Project architecture setup

### 3. Supervised learning: Understanding classification algorithms

- Machine learning: classification problems
- SciKit-learn discussions
- Classification exercises

### 4. Recognizing facial emotions

- Understanding facial expressions and emotions
- Recognize human emotions from live video sequences
- Learning a classifier to recognize facial emotions from a dataset

<ul style="list-style-type: none"> <li>• Tuning the classifier parameters to increase accuracy</li> <li>• Live face emotion recognition system</li> </ul>	
<b>Total number of participants invited:</b>	<b>22</b>
<b>Total number of participants:</b>	<b>20</b>

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS\\_01%3A%20Workplace%20safety%20%E2%80%93%20Employees%20emotion%20recognition](https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS_01%3A%20Workplace%20safety%20%E2%80%93%20Employees%20emotion%20recognition) )

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4	Butoi Emanuel		
5	Cojocaru Gabriel		
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8	Dorca Emanuel		
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20	Totoroga Elena	CCN	
21	Vacaru Rebeca		

### 2.3 Training # 3 at ULBS – July.2020

<b>Author:</b>	<b>Victor Dobrila ,Octavian Baltes, Maria Muntean,Adrian Florea</b>
<b>Event Title:</b>	<b>Smart city modelling (ADOxx):</b> Introduction in ADOxx, Smart City, Parking of a mobile robot using modeling languages, Automation of assembly lines assisted by a robotic arm and a mobile robot
<b>Event Date and Venue:</b>	07.12.2020 – 11.01.2021. Sibiu
<b>Type of event (training, webinar, summer school):</b>	<b>Vocational Training</b>
<b>Organiser(s):</b>	<b>Lucian Blaga University of Sibiu, Romania</b>
<b>Link to Agenda:</b>	<a href="https://drive.google.com/drive/folders/1mxl4SM5v9EDjEU73PgFsHeVOiGHV3xe0?usp=sharing">https://drive.google.com/drive/folders/1mxl4SM5v9EDjEU73PgFsHeVOiGHV3xe0?usp=sharing</a> <a href="https://meet.google.com/phs-jefg-paw">https://meet.google.com/phs-jefg-paw</a> <a href="https://austria.omilab.org/psm/content/bee-up/download?view=download">https://austria.omilab.org/psm/content/bee-up/download?view=download</a>
<b>Short description: Smart city modelling(ADOxx).</b> <ol style="list-style-type: none"> <li><b>1. Introduction to ADOxx</b> <ul style="list-style-type: none"> <li>Installation steps:           <ul style="list-style-type: none"> <li>Define Model types</li> <li>Define modelling and relation classes</li> <li>Define graphical representation</li> <li>Assign classes to a model type</li> </ul> </li> </ul> </li> <li><b>2. Smart City Modeling</b> <ul style="list-style-type: none"> <li>IoT and Smart City Scenario: smart traffic</li> <li>Planning a Smart City</li> <li>How to build/analyse/simulate Smart City models</li> </ul> </li> <li><b>3. Parking of a mobile robot using modeling languages</b></li> <li><b>4. Automation of assembly lines assisted by a robotic arm and a mobile robot</b></li> </ol>	
<b>Total number of participants invited:</b>	<b>29</b>
<b>Total number of participants:</b>	<b>19</b>

Link for training materials:



([https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS\\_02%3A%20Sibiu%E2%80%93Smart%20city%20modelling%20\(ADOxx\)/ULBS\\_02%20-%20Sibiu%E2%80%93Smart%20city%20modelling-Introduction%20to%20ADOxx.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS_02%3A%20Sibiu%E2%80%93Smart%20city%20modelling%20(ADOxx)/ULBS_02%20-%20Sibiu%E2%80%93Smart%20city%20modelling-Introduction%20to%20ADOxx.pdf)  
[https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS\\_02%3A%20Sibiu%E2%80%93Smart%20city%20modelling%20\(ADOxx\)/ULBS\\_02%20-%20Sibiu%E2%80%93Smart%20city%20modelling-SmartCity%20part%202.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS_02%3A%20Sibiu%E2%80%93Smart%20city%20modelling%20(ADOxx)/ULBS_02%20-%20Sibiu%E2%80%93Smart%20city%20modelling-SmartCity%20part%202.pdf)  
[https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS\\_02%3A%20Sibiu%E2%80%93Smart%20city%20modelling%20\(ADOxx\)/ULBS\\_02%20-%20Sibiu%E2%80%93Smart%20city%20modelling-Questions.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS_02%3A%20Sibiu%E2%80%93Smart%20city%20modelling%20(ADOxx)/ULBS_02%20-%20Sibiu%E2%80%93Smart%20city%20modelling-Questions.pdf) )

**ATTENDEES:**

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21	ȘÎRBU D. MIHAI-ALEXANDRU	ULBS, Romania, -Embedded Systems MSc, 2nd Year	
22	SMIOREANU M. MIHAIL-FLORIN	ULBS, Romania, Embedded Systems MSc, 2nd Year	
23	STĂNICĂ A. ELENA-ANDREEA	ULBS, Romania, Embedded Systems MSc, 2nd Year	
24	ȘARPE F. A. LEONARD-IULIAN	ULBS, Romania, Embedded Systems MSc, 2nd Year	
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26	VASIU A. ALIN-VASILE	ULBS, Romania, Embedded Systems MSc, 2nd Year	
27	VEREȘ I. S. NORBERT-FLAVIUS	ULBS, Romania, Embedded Systems MSc, 2nd Year	

28	CHIRIȚĂ ANDREI-MARIUS	ULBS, Romania, Embedded Systems MSc, 2nd Year	
29	LUNGU CLAUDIU-IONEL	ULBS, Romania, Embedded Systems MSc, 2nd Year	

	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	11	8			
By the format of the training?	7	11	1		
By the duration of the training?	4	11	3	1	
By the teaching method of the training?	9	8	2		
By the equipment resources used and available?	3	8	6	2	
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	8	9	2		
By the availability of additional	5	9	5		
By the quality of the writing?	9	10			

## 2.4 Training # 4 at ULBS – October.2021

<b>Author:</b>	Valentin Fleacă
<b>Event Title:</b>	<b>Workplace safety – Employee's emotion recognition</b> monitor a machine operator and detect the operator's emotional state. Send an alert if the operator is distracted or angry
<b>Event Date and Venue:</b>	<b>October 04 – November 22, 2020, Sibiu, Romania</b>
<b>Type of event (training, webinar, summer school):</b>	<b>Vocational Training</b>
<b>Organiser(s):</b>	<b>Lucian Blaga University of Sibiu, Romania</b>
<b>Link to Agenda:</b>	<a href="https://classroom.google.com/u/0/c/MTEyOTkzMtA4ODk0">https://classroom.google.com/u/0/c/MTEyOTkzMtA4ODk0</a> <a href="https://meet.google.com/ncd-rvjq-wfd">https://meet.google.com/ncd-rvjq-wfd</a> <a href="https://drive.google.com/drive/folders/0B2V3iLI0Uk15fnVQYUpRSmVJbEN4Q2dnVDFWZXVNcnhBQjVRRzN0VmVLRkNEUIRSM0Z2Mk0">https://drive.google.com/drive/folders/0B2V3iLI0Uk15fnVQYUpRSmVJbEN4Q2dnVDFWZXVNcnhBQjVRRzN0VmVLRkNEUIRSM0Z2Mk0</a>
<p><b>Short description: Workplace safety – Employees emotion recognition:</b> monitor a machine operator and detect his emotional state. Send an alert if the operator is distracted or angry. Is structured in 4 sections:</p> <p><b>1. Introduction to Python &amp; OpenCV:</b></p> <ul style="list-style-type: none"> <li>Presenting the objectives and structure of this laboratory</li> <li>Downloading and installing PyCharm &amp; Python</li> <li>Installing OpenCV, NumPy, SciPy; OpenCV usage</li> <li>Python vs C++ vs Java; Python language exercises</li> </ul>	

<b>2. Face detection</b> <ul style="list-style-type: none"> <li>• Face detection: theory</li> <li>• Detecting faces in images and in video sequences</li> <li>• Project architecture setup</li> </ul> <b>3. Supervised learning: Understanding classification algorithms</b> <ul style="list-style-type: none"> <li>• Machine learning: classification problems</li> <li>• SciKit-learn discussions</li> <li>• Classification exercises</li> </ul> <b>4. Recognizing facial emotions</b> <ul style="list-style-type: none"> <li>• Understanding facial expressions and emotions</li> <li>• Recognize human emotions from live video sequences</li> <li>• Learning a classifier to recognize facial emotions from a dataset</li> <li>• Tuning the classifier parameters to increase accuracy</li> <li>• Live face emotion recognition system</li> </ul>	
<b>Total number of participants invited:</b>	<b>14</b>
<b>Total number of participants:</b>	<b>13</b>

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS\\_01%3A%20Workplace%20safety%20%E2%80%93%20Employees%20emotion%20recognition](https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/ULBS/ULBS_01%3A%20Workplace%20safety%20%E2%80%93%20Employees%20emotion%20recognition) )

#### ATTENDEES:

	Name	Organisation	Signature
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3	GIURA I. MARIA-DENISA	ULBS, Romania, Embedded Systems MSc, 2 <sup>nd</sup> Year	
4	HERCIU-SAVA M. COSMIN	ULBS, Romania, Embedded Systems MSc, 2 <sup>nd</sup> Year	
5	LUNGU I. COSMIN-IOAN	ULBS, Romania, Embedded Systems MSc, 2 <sup>nd</sup> Year	

6	RADU ANDREEA-DENISA	ULBS, Romania, Embedded Systems MSc, 2 <sup>nd</sup> Year	
7	NECȘOIU I. ION-CĂTĂLIN	ULBS, Romania, Embedded Systems MSc, 2 <sup>nd</sup> Year	
8	PĂUN D. MELANIA (CHILIAN)	ULBS, Romania, Embedded Systems MSc, 2 <sup>nd</sup> Year	
9	POP V. VLAD-EMANUEL	ULBS, Romania, Embedded Systems MSc, 2 <sup>nd</sup> Year	
10	POPA D.-R. MARIA - ROXANA	ULBS, Romania, Embedded Systems MSc, 2 <sup>nd</sup> Year	
11	RADU M. MARIA-ALEXANDRA	ULBS, Romania, Embedded Systems MSc, 2 <sup>nd</sup> Year	
12	VĂCARIU T.-N. TEODOR-CRISTIAN	ULBS, Romania, Embedded Systems MSc, 2 <sup>nd</sup> Year	
13	POPA IOAN DANIEL	ULBS, Romania, Computer Science, 4 <sup>th</sup> Year	

## 2.5 Training # 1 at Conti – October.2020

<b>Authors:</b>	<b>Cristian Mihașoiu</b>
<b>Event Title:</b>	<b>Cobots</b> - installing and programming information needed for a rapid implementation of Cobots in industrial environment
<b>Event Date and Venue:</b>	<b>October the 21<sup>st</sup>, 2020, Sibiu, Romania</b>
<b>Type of event (training, webinar, summer school):</b>	<b>Vocational Training</b>
<b>Type of training (academic/industrial):</b>	<b>Continental Automotive Systems Sibiu, Romania</b>
<b>Organiser(s):</b>	<b>Cristian Mihașoiu</b>
<b>Link to Agenda:</b>	
<b>Short description:</b> <b>Cobots</b> - installing and programming information needed for a rapid implementation of Cobots in industrial environment. Is structured in 7 sections: <ol style="list-style-type: none"> <li><b>General presentation:</b> understand what cobot is and which are the ways of collaboration with humans;</li> <li><b>Cobot selection:</b> select the proper cobot for the application desired;</li> <li><b>Mechanical installation:</b> Understand requirements for cobot installation on production lines;</li> <li><b>Griper development:</b> griper concept and requirements;</li> <li><b>Electrical Installation:</b> electrical connections requirements;</li> <li><b>Software of cobot:</b> Understand cobot software possibilities;</li> </ol>	

<b>Design of Cobot program:</b> Program simple movement of a cobot: free movement, linear movement and process movement.	
<b>Total number of participants invited:</b>	<b>10</b>
<b>Total number of participants:</b>	<b>10</b>

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/CONTI/CONTI\\_01%3A%20Cobots%20-%20Rapid%20implementation%20of%20Cobots%20in%20industrial%20environment/CONTI\\_01%20-%20Cobots%20-%20Rapid%20implementation%20of%20Cobots%20in%20industrial%20environment.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/CONTI/CONTI_01%3A%20Cobots%20-%20Rapid%20implementation%20of%20Cobots%20in%20industrial%20environment/CONTI_01%20-%20Cobots%20-%20Rapid%20implementation%20of%20Cobots%20in%20industrial%20environment.pdf) )

#### ATTENDEES:

	Name	Organisation	Signature
1	Giurgiu Dionisie-Paul	Conti Sibiu, VED ESS	
2	Şerb Răzvan-Ioan	Conti Sibiu, VNI CE	
3	Raulea Cristina-Maria	Conti Sibiu, VNI CE	
4	Draghici Roxana-Maria	Conti Sibiu, VNI CE	
5	Săvoiu Ioan	Conti Sibiu, FF CCN	
6	Buga Iulia	Conti Sibiu, ADAS	
7	Ciorgovean-Dragan Ezechiël	Conti Sibiu, ADAS	
8	Florea Adriana-Petronela	Conti Sibiu, QL	
9	Urian Adrian Mircea	Conti Sibiu, VED	
10	Boncea Şerban-Andrei	Conti Sibiu, IE CBS	

	Not satisfied	Rather not satisfied	Neutral	Rather satisfied	Really satisfied
By the topic(s) of the training?	0%	0%	20%	10%	70%
By the format of the training?	0%	0%	20%	40%	40%
By the duration of the training?	0%	0%	20%	30%	50%

By the teaching method of the training?	0%	0%	10%	20%	70%
By the equipment resources used and available?	0%	0%	30%	10%	60%
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	0%	0%	10%	30%	60%

## 2.6 Training # 1 at UNIBG – December 2020

<b>Authors:</b>	Fabiana Pirola, Giuditta Pezzotta
<b>Event Title:</b>	Business Process Management: Modeling and Simulation
<b>Event Date and Venue:</b>	16-17 December 2020
<b>Type of event (training, webinar, summer school):</b>	Online Training
<b>Type of training (academic/industrial):</b>	industrial
<b>Organiser(s):</b>	University of Bergamo, AFIL
<b>Link to Agenda:</b>	
<b>Short description:</b>	Vocational training on Business process analysis and re-engineering. The training aims at delivering process oriented competences to the participants to be able to describe and analyze a business process. Re-engineering competences will be also provided
<b>Total number of participants invited:</b>	17
<b>Total number of participants:</b>	17

Link for training materials (in italian): <https://cloud.digifof.ulbsibiu.ro/index.php/f/6021>

([https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/UNIBG/UNIBG\\_02\\_Business%20Process%20Modeling%20and%20Reengineering](https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/UNIBG/UNIBG_02_Business%20Process%20Modeling%20and%20Reengineering) )

### ATTENDEES:

	Name	Organisation	Attended
1	Giancarlo Andreoli	Serioplast	Yes
2	Valeria Annoni	Azienda Bergamasca Formazione	Yes
3	Andrea Avalli	Serioplast	Yes
4	Laura Balzari	Serioplast	Yes
5	Dario Belotti	Serioplast	Yes
6	Enrico Cagnoni	Exolvia	Yes
7	Ilaria Cairo	Servizi Confindustria Bergamo	Yes
8	Valentina Elvetti	Serioplast	Yes
9	Francesco Gallo	Itelyum Regeneration	Yes

10	Davide Gamba	MEI Srl & Università degli Studi di Bergamo	Yes
11	Benedetta Gnutti	Quantra	Yes
12	Giulia Imi	Serioplast	Yes
13	Chiara Lazzaroni	Quantra	Yes
14	Pietro Murari	Quantra	Yes
15	Simone Premarini	Serioplast	Yes
16	Marina Proietti Tranquilli	Serioplast	Yes
17	Irene Sardelliti	Kilometro Rosso	Yes

## 2.7 Training # 2 of UNIBG –February.2021

<b>Author:</b>	Fabiana Pirola, Giuditta Pezzotta
<b>Event Title:</b>	Identification of innovative Product Service Systems (Adopting Scene2Model)
<b>Event Date and Venue:</b>	17-18/2/2021 - online
<b>Type of event (training, webinar, summer school):</b>	Vocational training
<b>Organiser(s):</b>	University of Bergamo
<b>Link to Agenda:</b>	<p>Agenda:</p> <ul style="list-style-type: none"> <li>- The phenomenon of the servitizzazione</li> <li>- Methodology for the design and engineering of the products-service</li> <li>- The software Scene2Model</li> <li>- Application to a case of study</li> </ul>
<p><b>Short description:</b></p> <p>The training activity is addressed to manufacturing and service companies and has the objectives to introduce the phenomenon of servitization and to provide the basic skills for the design and engineering of services to support products. In particular, using the software Scene2Model, it focuses on methodologies and tools useful for the design of new product-service solutions that meet the needs of customers.</p>	
<b>Total number of participants invited:</b>	15
<b>Total number of participants:</b>	4

Link for training materials:

[https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP4\\_FoF%3AContinuous\\_Professional\\_Development/D4.3%20Report%20on%20professional%20trainings/Service%20engineering\\_UNIBG](https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP4_FoF%3AContinuous_Professional_Development/D4.3%20Report%20on%20professional%20trainings/Service%20engineering_UNIBG)



**1<sup>st</sup> GROUP of ATTENDEES:**

1.	Davide Gamba	MEI Srl
2.	Enrico Cagnoni	Exolvvia S.r.l.
3.	Linda Bologna	Bks automation
4.	Manuel Lobati	Fae technology

## Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	2	2			
By the format of the training?	3	1			
By the duration of the training?	3	1			
By the teaching method of the training?	4				
By the equipment resources used and available?	3	1			
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	2	1	1		
By the availability of additional	4				
By the quality of the writing?	4				

**2.8 Training # 3 of UNIBG – April.2021**

<b>Author:</b>	Giuditta Pezzotta
<b>Event Title:</b>	Service Operations Management
<b>Event Date and Venue:</b>	23/4/2021 - online
<b>Type of event (training, webinar, summer school):</b>	Vocational training
<b>Organiser(s):</b>	University of Bergamo
<b>Link to Agenda:</b>	1. Product-service systems 2. PSS engineering methodology 3. PSS operations
<b>Short description:</b> Vocational training on the service operations management. The training aims at delivering process oriented competences to the participants to be able to understand and model a service process.	
<b>Total number of participants invited:</b>	7
<b>Total number of participants:</b>	7

Link for training materials:

[https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP4\\_FoF%3AContinuous\\_Professional\\_Development/D4.3%20Report%20on%20professional%20trainings/Service%20operations\\_UNIBG](https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP4_FoF%3AContinuous_Professional_Development/D4.3%20Report%20on%20professional%20trainings/Service%20operations_UNIBG)

**1st GROUP of ATTENDEES**

1.	Mancino Jacopo	ITEMA
2.	Lanteri Paolo	ITEMA
3.	Valota Dennis	ITEMA
4.	Trussardi Davide	ITEMA
5.	Civera Filippo	ITEMA
6.	Maringoni Erica	ITEMA
7.	Marinoni Andrea	ITEMA

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	5	2			
By the format of the training?	4	3			
By the duration of the training?	3	4			
By the teaching method of the training?	5	2			
By the equipment resources used and available?	3	4			
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	7				
By the availability of additional	4	3			
By the quality of the writing?	4	3			

**2.9 Training # 4 of UNIBG – June.2021**

<b>Author:</b>	Fabiana Pirola, Giuditta Pezzotta
<b>Event Title:</b>	Lifecycle management of products and services
<b>Event Date and Venue:</b>	28/6/2021 - online
<b>Type of event (training, webinar, summer school):</b>	Vocational training
<b>Organiser(s):</b>	University of Bergamo
<b>Link to Agenda:</b>	<ol style="list-style-type: none"> <li>1. Product-service systems</li> <li>2. Main maintenance concept</li> <li>3. Total cost of ownership (TCO)</li> <li>4. Application of a TCO in a real case</li> </ol>
<b>Short description:</b> Vocational training on the service operations management. The training aims at delivering process oriented competences to the participants to be able to understand and model a service process.	
<b>Total number of participants invited:</b>	10
<b>Total number of participants:</b>	4

Link for training materials:

[https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP4\\_FoF%3AContinuous\\_Professional\\_Development/D4.3%20Report%20on%20professional%20trainings/TCO\\_UNIBG](https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP4_FoF%3AContinuous_Professional_Development/D4.3%20Report%20on%20professional%20trainings/TCO_UNIBG)

### 1st GROUP of ATTENDEES

1.	Paolo Vercesi	CFI
2.	Davide Gamba	MEI srl
3.	Mattia Barcella	Associazione industriali cremona
4.	Giuseppe Pellini	HDI HOLDING DOLCIARIA ITALIANA SPA

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	4				
By the format of the training?	4				
By the duration of the training?	1	3			
By the teaching method of the training?	3	1			
By the equipment resources used and available?	3	1			
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	4				
By the availability of additional	3	1			
By the quality of the writing?	4				

### 2.10 Training # 1 at at CIRIDD & CIMES – March.2020

<b>Authors:</b>	CIRIDD, Denis COCCONCELLI
<b>Event Title:</b>	Intégrez les usages et le design dans votre modèle économique
<b>Event Date and Venue:</b>	11.02.20 Afternoon – Cité du Design Saint-Etienne
<b>Type of event (training, webinar, summer school):</b>	Training
<b>Type of training (academic/industrial):</b>	Industrial and local authorities
<b>Organiser(s):</b>	Collaboration CIRIDD
<b>Link to Agenda:</b>	/
<b>Short description:</b> Collaborative session with CEOs of different companies and local authorities, for discovering and sharing best practices regarding introducing design processes and innovation in the new economic models of services.	
<b>Total number of participants invited:</b>	1780 contacts by email
<b>Total number of participants:</b>	28

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/CIRIDD/CIRIDD\\_01-Integration%20of%20the%20uses%20and%20design%20in%20the%20company%20business%20model.pptx](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/CIRIDD/CIRIDD_01-Integration%20of%20the%20uses%20and%20design%20in%20the%20company%20business%20model.pptx) )

**ATTENDEES:**

	<b>Name</b>	<b>Organisation</b>	<b>Attended</b>
1	Denis Cocconcelli	CIRIDD	Animator
2	James Pédrón	CIRIDD	Animator
3	Jules Brétillet	CIRIDD	Animator
4	Laurent Vacheresse	Cité du Design	Animator
5	Mickaël Mangyoku	Cité du Design	Animator
6	Achour Annabi	LOCAM	Attendee
7	Fanny Bancourt	B&L Evolution	Attendee
8	Christian Bianchi	Montabert	Attendee
9	Sylvie Blanc	SBI Quintessens	Attendee
10	Jérôme Brossat	Electrocalorique	Attendee
11	Agnès Castillon	Resiliensa	Attendee
12	Eric Chazerans	TravelAssist.io	Attendee
13	Christian Cornet	CETIM	Attendee
14	Frédéric Descaves	CETIM	Attendee
15	Sylvain Cuenot	ASCOREL	Attendee
16	Salomé Desmet	LightLab.io	Attendee
17	Marjorie Peyre	LightLab.io	Attendee
18	Hichem El-Garrach-Balandin	CAGIBIG	Attendee
19	Odile Faure-Rochet	Region Auvergne Rhône-Alpes	Attendee
20	François Ferry	Esprit Tiny	Attendee
21	Camille Huyette	PRODEVAL	Attendee
22	David Joannes	Metheor	Attendee
23	Thomas Perrier	Assur Ma	Attendee
24	Virginie Reynaud	Ville de Saint-Etienne	Attendee
25	Gisele Rivière Terrolle	Rivière Compagnie	Attendee
26	Adrian Huguet	Cabinet Huguet	Attendee
27	Jean-Philippe Varenne	PACKINOV	Attendee
28	Chantal David	Sky Computing	Attendee

**2.11 Training # 1 at EMSE – July.2020**

<b>Authors:</b>	EMSE, Elaheh MALEKI
<b>Event Title:</b>	Formation OMILAB-Design Thinking pour enseignants
<b>Event Date and Venue:</b>	07-07-2020 morning – Mines Saint-Etienne
<b>Type of event (training, webinar, summer school):</b>	Training to use OMILAB as support for Design Thinking
<b>Type of training (academic/industrial):</b>	Academic
<b>Organiser(s):</b>	Mines Saint-Etienne FAYOL Institute, OMILAB laboratory
<b>Link to Agenda:</b>	

<b>Short description:</b> 4 hours training session for teachers, to transfer the key competencies for the use of OMILAB as industrial or student teaching support.	
<b>Total number of participants invited:</b>	5
<b>Total number of participants:</b>	4

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/EMSE/EMSE\\_07%3A%20Design%20Thinking%20for%20Product-Service%20System%20Design](https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/EMSE/EMSE_07%3A%20Design%20Thinking%20for%20Product-Service%20System%20Design) )

#### ATTENDEES:

	Name	Organisation	Attended
1	Elaheh Maleki	Mines Saint-Etienne	Animator
2	Alicja tardy	Mines Saint-Etienne	YES
3	Michelle Mongo	Mines Saint-Etienne	YES
4	Abir Fekih	Mines Saint-Etienne	YES
5	Jalila Elbousserghini	Mines Saint-Etienne	YES

## 2.12 Training # 2 at EMSE – July.2020

<b>Authors:</b>	EMSE, Elaheh MALEKI
<b>Event Title:</b>	Formation OMILAB-Design Thinking pour enseignants
<b>Event Date and Venue:</b>	07-07-2020 afternoon – Mines Saint-Etienne
<b>Type of event (training, webinar, summer school):</b>	Training to use OMILAB as support for Design Thinking
<b>Type of training (academic/industrial):</b>	Academic
<b>Organiser(s):</b>	Mines Saint-Etienne FAYOL Institute, OMILAB laboratory
<b>Link to Agenda:</b>	
<b>Short description:</b> 4 hours training session for teachers, to transfer the key competencies for the use of OMILAB as industrial or student teaching support.	
<b>Total number of participants invited:</b>	4
<b>Total number of participants:</b>	5

Link for training materials:

[https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/EMSE/EMSE\\_07%3A%20Design%20Thinking%20for%20Product-Service%20System%20Design](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/EMSE/EMSE_07%3A%20Design%20Thinking%20for%20Product-Service%20System%20Design)

[Service%20System%20Design/EMSE\\_07\\_Design%20Thinking%20for%20Product-Service%20System%20Design.pdf](#)

**ATTENDEES:**

	Name	Organisation	Attended
1	Elaheh Maleki	Mines Saint-Etienne	Animator
2	Nadine Dubruc	Mines Saint-Etienne	YES
3	Sophie Peillon	Mines Saint-Etienne	YES
4	Xavier Boucher	Mines Saint-Etienne	YES
5	Hervé Vaillant	Mines Saint-Etienne	YES

**2.13 Training # 3 at EMSE – June.2019**

<b>Authors:</b>	EMSE, Nadine Dubruc, Sophie Peillon
<b>Event Title:</b>	Training “creativity for the design of integrated product-service offers” (Solystic Company)
<b>Event Date and Venue:</b>	21/06/2019 – Solystic, Valence
<b>Type of event (training, webinar, summer school):</b>	Creativity Training
<b>Type of training (academic/industrial):</b>	Industrial
<b>Organiser(s):</b>	Mines Saint-Etienne FAYOL Institute, OMiLAB laboratory
<b>Link to Agenda:</b>	
<b>Short description:</b> Full day seminar to learn industrial actors to build integrated product-service offers and anticipate the organization impacts of such offers	
<b>Total number of participants invited:</b>	8
<b>Total number of participants:</b>	12

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/EMSE/EMSE\\_07%3A%20Design%20Thinking%20for%20Product-Service%20System%20Design](https://cloud.digifof.ulbsibiu.ro/index.php/apps/files?dir=/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/EMSE/EMSE_07%3A%20Design%20Thinking%20for%20Product-Service%20System%20Design) )

**ATTENDEES:**

	Name	Organisation	Attended
1	Nadine Dubruc	Mines Saint-Etienne	animator
2	Sophie Peillon	Mines Saint-Etienne	animator
3	Benjamin Serra	Mines Saint-Etienne	animator
4	Elahé Malecki	Mines Saint-Etienne	animator
5	R. Blache (matin)	Solystic	attendee
6	M. Bortolussi/	Solystic	attendee
7	E. Daymier	Solystic	attendee

8	F. Girodet	Solystic	attendee
9	C. Lhomme	Solystic	attendee
10	F. Madar	Solystic	attendee
11	D. Tresse (après-midi)	Solystic	attendee
12	P. Vuillaume	Solystic	attendee

## 2.14 Training # 4 at EMSE – Dec.2019

<b>Authors:</b>	EMSE, Nadine Dubruc
<b>Event Title:</b>	Training on Factory of the Future challenges and Opportunities
<b>Event Date and Venue:</b>	05/12/2019 – Mines Saint-Etienne
<b>Type of event (training, webinar, summer school):</b>	Training
<b>Type of training (academic/industrial):</b>	Industrial
<b>Organiser(s):</b>	Mines Saint-Etienne FAYOL Institute, OMILAB laboratory
<b>Link to Agenda:</b>	
<b>Short description:</b> Discovering the industry of future by visiting IT'm factory. This is a visit by Clextral.	
<b>Total number of participants invited:</b>	5
<b>Total number of participants:</b>	4

Link for training materials:

<https://itm-factory.fr/>

### ATTENDEES:

	Name	Organisation	Attended
1	Nadine Dubruc	Mines Saint-Etienne	animator
2	Audrey Cerqueus	Mines saint-Etienne	animator
3	Sophie Peillon	Mines saint-Etienne	animator
5	Charlotte Berthet	Clextral	attendee
6	Gérard Mounier	Clextral	attendee
7	Gilles Guerrin	Clextral	attendee
8	Dara Singharaj	Clextral	attendee

## 2.15 Training # 5 at EMSE – June.2020

<b>Authors:</b>	EMSE, Nadine Dubruc, Sophie Peillon, Xavier Boucher
<b>Event Title:</b>	Training “Develop a service oriented strategy for an industrial company”
<b>Event Date and Venue:</b>	30-06-2020 – Andrézieux Bouthéon / Western Hôtel
<b>Type of event (training, webinar, summer school):</b>	Strategy oriented Training

<b>Type of training (academic/industrial):</b>	Industrial
<b>Organiser(s):</b>	Mines Saint-Etienne FAYOL Institute, OMILAB laboratory
<b>Link to Agenda:</b>	
<b>Short description:</b> Full day seminar to guide industrial decision-makers on (i) understanding key factors for the definition of a service-oriented strategy and (ii) defining a strategic roadmap adapted to their specific industrial context.	
<b>Total number of participants invited:</b>	10
<b>Total number of participants:</b>	9

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/EMSE/EMSE\\_06%3A%20Deployment%20of%20Service-oriented%20Strategy/EMSE\\_06\\_Deployment%20of%20Servic.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/EMSE/EMSE_06%3A%20Deployment%20of%20Service-oriented%20Strategy/EMSE_06_Deployment%20of%20Servic.pdf) )

#### ATTENDEES:

	Name	Organisation	Attended
1	Nadine Dubruc	Mines Saint-Etienne	animator
2	Sophie Peillon	Mines Saint-Etienne	animator
3	Xavier Boucher	Mines Saint-Etienne	animator
5	M. Brougière	Clextal	attendee
6	C. Bugnazet	Clextal	attendee
7	E. Colleter	Clextal	attendee
8	J. Deygat	Clextal	attendee
9	M. Girodet	Clextal	attendee
10	G. Maller	Clextal	attendee
11	F. Serra,	Clextal	attendee
12	E. Perroton,	Clextal	attendee
13	T. Ramousse	Clextal	attendee

### 2.16 Training # 1 of UNIBIAL – April 2021

<b>Author:</b>	Arkadiusz Jurczuk
<b>Event Title:</b>	Fundamentals of Business Process Management (BPM)
<b>Event Date and Venue:</b>	realization period: April 19 – 23, 2021, Białystok (online), Poland (4 groups)
<b>Type of event (training, webinar, summer school):</b>	Vocational Training, Online



<b>Organiser(s):</b>	Bialystok University of Technology, Poland
<b>Link to Agenda:</b>	<a href="https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen">https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen</a>
<b>Short description:</b> Understanding the key aspects of process management in the enterprise. Hands-on learning process understanding and knowledge of the principles of analysis, designing and documentation processes. Understanding of modern IT systems supporting the process management and digitalization. Developing creativity and contextual thinking.	
<b>Total number of participants invited:</b>	95
<b>Total number of participants:</b>	20+17+13+14=64

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/UNIBIAL/UNIBIAL\\_01\\_Fundamentals%20of%20process%20management.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/UNIBIAL/UNIBIAL_01_Fundamentals%20of%20process%20management.pdf) )

#### 1<sup>st</sup> GROUP of ATTENDEES:

1.	Bajena Jerzy	ChM sp. z o. o.
2.	Działak Aleksy	NNT Sp. z o.o.
3.	Fomienko Artur	ALEX Sp. z o.o.
4.	Gołucki Grzegorz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
5.	Jagowska Sylwia	Uniwersytet Zielonogórski
6.	Kamińska Magdalena	4NETWORKERS Magdalena Kamińska
7.	Kłós Jacek	Plum Sp. z o.o.
8.	Mojśa Michał	Energy Nortle sp. z o.o. sp.k.
9.	Nieckarz Magdalena	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
10.	Osypiuk Krzysztof	ALEX Sp. z o.o.
11.	Pacuk Paulina	Metal-Fach sp. z o.o.
12.	Rabiczko Karol	Metal-Fach sp. z o.o.
13.	Rynkiewicz Sebastian	Centrum Promocji Innowacji i Rozwoju
14.	Ryś Anna	ChM sp. z o.o.
15.	Sepko Tomasz	Metal-Fach sp. z o.o.
16.	Sokołowski Krzysztof	ALEX Sp. z o.o.
17.	Suprun Marcin	Marcin Suprun Creations
18.	Szczęsnowicz Mariusz	Metal Fach Jacek Kucharewicz
19.	Szyszkowska Karolina	ASPI sp. z o.o. sp.k.
20.	Wilk-Kąkol Joanna	Podkarpackie Zakłady Mechaniczne Sp. z o.o. Sp. k.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	62,5%	37,5%	-	-	-
By the format of the training?	43,8%	56,2%	-	-	-
By the duration of the training?	50%	18,8%	12,5%	18,8%	-
By the teaching method of the training?	50%	43,8%	6,3%	-	-

By the equipment resources used and available?	56,3%	31,3%	6,3%	-	6,3%
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	62,5%	25%	12,5%	-	-
By the availability of additional	43,8%	25%	18,8%	6,3%	6,3%
By the quality of the writing?	56,3%	31,3%	12,5%	-	-

**2nd GROUP of ATTENDEES:**

1.	Antonowicz Dominik	ALEX Sp. z o.o.
2.	Bortniczuk Krystian	ChM sp. z o.o.
3.	Bruj Michał	Unihouse S.A.
4.	Chołko Artur	Metal-Fach sp. z o.o.
5.	Dudziński Łukasz	Metal-Fach sp. z o.o.
6.	Goska Łukasz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
7.	Hajduk Michał	Energy Nortle sp. z o.o. sp.k.
8.	Jagodzińska Angelika	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
9.	Januszewska Elwira	Polska Grupa Konsultingowa Elwira Januszewska
10.	Kosiński Andrzej	Metal-Fach sp. z o.o.
11.	Kuna Krzysztof	ALEX Sp. z o.o.
12.	LENKIEWICZ GRZEGORZ	Metal-Fach Jacek Kucharewicz
13.	Mariankowski Zbigniew	ChM sp. z o. o.
14.	Pietkiewicz Artur	ASPI sp. z o.o. sp.k.
15.	Rudź Szymon	Metal-Fach Jacek Kucharewicz
16.	Talipski Marcin	Unihouse S.A.
17.	Tomaszewski Maciej	Centrum Promocji Innowacji i Rozwoju

## Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	63,6%	27,3%	9,1%	-	-
By the format of the training?	36,4%	63,6%	-	-	-
By the duration of the training?	45,5%	45,5%	9,1%	-	-
By the teaching method of the training?	27,3%	54,5%	18,2%	-	-
By the equipment resources used and available?	54,5%	18,2%	27,3%	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	54,5%	36,4%	9,1%	-	-
By the availability of additional	36,4%	18,2%	27,3%	9,1%	9,1%
By the quality of the writing?	36,4%	45,5%	18,2%	-	-

**3rd GROUP of ATTENDEES:**

1.	Boruch Urszula	ALEX Sp. z o.o.
2.	Dąbrowski Marek	Metal-Fach sp. z o.o.
3.	Dobrosz Ewelina	ALEX Sp. z o.o.
4.	Domaszewski Piotr	DECCO S.A.
5.	Jabłońska Agnieszka	Plum Sp. z o.o.

6.	Kacprzak Katarzyna	Plum Sp. z o.o.
7.	Kaźmierczak Maciej	Metal-Fach sp. z o.o.
8.	Poulakowski Janusz	Centrum Promocji Innowacji i Rozwoju
9.	Puc Agnieszka	Unihouse S.A.
10.	Radzewicz Ewa	ChM sp. z o.o.
11.	Siemieniako Zuzanna	ALEX Sp. z o.o.
12.	Szyszkowski Piotr	ASPI sp. z o.o. sp.k.
13.	TURKO MACIEJ	Metal-Fach Jacek Kucharewicz

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	50%	50%	-	-	-
By the format of the training?	50%	50%	-	-	-
By the duration of the training?	-	75%	-	25%	-
By the teaching method of the training?	25%	50%	25%	-	-
By the equipment resources used and available?	50%	25%	25%	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	75%	25%	-	-	-
By the availability of additional	25%	75%	-	-	-
By the quality of the writing?	50%	25%	25%	-	-

#### 4th GROUP of ATTENDEES

1.	Dróżdż Andrzej	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
2.	Jabłońska Sara Józefina	Unihouse S.A.
3.	Jasiński Konrad	Plum Sp. z o.o.
4.	Kukhta Mark	Metal-Fach sp. z o.o.
5.	Kuzionko-Ochrymiuk Ewa	Uniwersytet Białostocki
6.	Lisiewicz Adam	ASPI sp. z o.o. sp.k.
7.	MAJCHER ADRIAN	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
8.	Młodzianowski Dorian	D-TECH
9.	Rębacz Katarzyna	Centrum Promocji Innowacji i Rozwoju
10.	Skorochodzki Mateusz	ALEX Sp. z o.o.
11.	Szatkowski Wiesław	STG Sp. z o.o. Sp.k.
12.	Węclewicz Grzegorz	ChM sp. z o.o.
13.	Zajączkowski Paweł	Metal-Fach sp. z o.o.
14.	Zubrzycki Bartosz	Metal-Fach sp. z o.o.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	50%	50%	-	-	-
By the format of the training?	-	100%	-	-	-
By the duration of the training?	-	50%	50%	-	-
By the teaching method of the training?	50%	-	50%	-	-
By the equipment resources used and available?	-	100%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	50%	50%	-	-	-

By the availability of additional	50%	50%	-	-	-
By the quality of the writing?	-	100%	-	-	-

## 2.17 Training # 2 of UNIBIAL – April 2021

<b>Author:</b>	Alicja Gudanowska
<b>Event Title:</b>	Business Model Canvas - tworzenie modelu biznesu (BMC)/ Business model canvas for FoF strategy creation
<b>Event Date and Venue:</b>	realization period: April 21-22, 2021, Białystok (online), Poland (4 groups)
<b>Type of event (training, webinar, summer school):</b>	Vocational Training, Online
<b>Organiser(s):</b>	Białystok University of Technology, Poland
<b>Link to Agenda:</b>	<a href="https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen">https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen</a>
<b>Short description:</b> Improving the ability to create and develop business models; improving skills of identifying weaknesses of current solutions, seeking opportunities for the development, planning, visualization; improvement of skills of teamwork and presentation of prepared solutions.	
<b>Total number of participants invited:</b>	95
<b>Total number of participants:</b>	15+12+19+18=64

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/UNIBIAL/UNIBIAL\\_02\\_Business%20model%20canvas%20for%20FoF%20strategy%20creation.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/UNIBIAL/UNIBIAL_02_Business%20model%20canvas%20for%20FoF%20strategy%20creation.pdf) )

### 2nd GROUP of ATTENDEES

1.	Antonowicz Dominik	ALEX Sp. z o.o.
2.	Bruj Michał	Unihouse S.A.
3.	Chołko Artur	Metal-Fach sp. z o.o.
4.	Dudziński Łukasz	Metal-Fach sp. z o.o.
5.	Hajduk Michał	Energy Nortle sp. z o.o. sp.k.
6.	Jagodzińska Angelika	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
7.	Januszewska Elwira	Polska Grupa Konsultingowa Elwira Januszewska
8.	Kosiński Andrzej	Metal-Fach sp. z o.o.
9.	Kuna Krzysztof	ALEX Sp. z o.o.
10.	LENKIEWICZ GRZEGORZ	Metal-Fach Jacek Kucharewicz
11.	Mariankowski Zbigniew	ChM sp. z o. o.
12.	Pietkiewicz Artur	ASPI sp. z o.o. sp.k.
13.	Rudź Szymon	Metal-Fach Jacek Kucharewicz
14.	Talipski Marcin	Unihouse S.A.
15.	Tomaszewski Maciej	Centrum Promocji Innowacji i Rozwoju

## Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	75%	25%	-	-	-
By the format of the training?	56,3%	41,7%	-	-	-
By the duration of the training?	66,7%	16,7%	8,3%	8,3%	-
By the teaching method of the training?	56,3%	33,3%	8,3%	-	-
By the equipment resources used and available?	58,3%	25%	16,7%	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	75%	25%	-	-	-
By the availability of additional	50%	25%	16,7%	8,3%	-
By the quality of the writing?	58,3%	33,3%	8,3%	-	-

## 3rd GROUP of ATTENDEES

1.	Boruch Urszula	ALEX Sp. z o.o.
2.	Dąbrowski Marek	Metal-Fach sp. z o.o.
3.	Dobrosz Ewelina	ALEX Sp. z o.o.
4.	Jabłońska Agnieszka	Plum Sp. z o.o.
5.	Kaźmierczak Maciej	Metal-Fach sp. z o.o.
6.	Łapiński Adrian	Metal-Fach sp. z o.o.
7.	Poniatowski Dawid	Unihouse S.A.
8.	Puc Agnieszka	Unihouse S.A.
9.	Radomek Agnieszka	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
10.	Radzewicz Ewa	ChM sp. z o.o.
11.	Siemieniako Zuzanna	ALEX Sp. z o.o.
12.	TURKO MACIEJ	Metal-Fach Jacek Kucharewicz

## Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	25%	50%	25%	-	-
By the format of the training?	25%	50%	25%	-	-
By the duration of the training?	25%	50%	25%	-	-
By the teaching method of the training?	50%	25%	-	25%	-
By the equipment resources used and available?	75%	-	-	25%	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	50%	25%	25%	-	-
By the availability of additional	50%	25%	-	25%	-
By the quality of the writing?	50%	-	25%	25%	-

1<sup>st</sup> GROUP of ATTENDEES

1.	Bajena Jerzy	ChM sp. z o. o.
2.	Działak Aleksy	NNT Sp. z o.o.
3.	Fomienko Artur	ALEX Sp. z o.o.
4.	Gołucki Grzegorz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
5.	Jagowska Sylwia	Uniwersytet Zielonogórski

6.	Kamińska Magdalena	4NETWORKERS Magdalena Kamińska
7.	Kłós Jacek	Plum Sp. z o.o.
8.	Mojśa Michał	Energy Nortle sp. z o.o. sp.k.
9.	Nieckarz Magdalena	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
10.	Osypiuk Krzysztof	ALEX Sp. z o.o.
11.	Pacuk Paulina	Metal-Fach sp. z o.o.
12.	Rabiczko Karol	Metal-Fach sp. z o.o.
13.	Ryś Anna	ChM sp. z o.o.
14.	Sepko Tomasz	Metal-Fach sp. z o.o.
15.	Sokołowski Krzysztof	ALEX Sp. z o.o.
16.	Suprun Marcin	Marcin Suprun Creations
17.	Szczęsnowicz Mariusz	Metal Fach Jacek Kucharewicz
18.	Szyszkowska Karolina	ASPI sp. z o.o. sp.k.
19.	Wilk-Kąkol Joanna	Podkarpackie Zakłady Mechaniczne Sp. z o.o. Sp. k.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	66,7%	33,3%	-	-	-
By the format of the training?	58,3%	41,7%	-	-	-
By the duration of the training?	58,3%	33,3%	-	8,3%	-
By the teaching method of the training?	75%	25%	-	-	-
By the equipment resources used and available?	66,7%	33,3%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	75%	25%	-	-	-
By the availability of additional	50%	25%	8,3%	8,3%	8,3%
By the quality of the writing?	58,3%	33,3%	8,3%	-	-

#### 4th GROUP of ATTENDEES

1.	DĄBROWSKI PIOTR	Metal-Fach Jacek Kucharewicz
2.	Drózdź Andrzej	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
3.	Gryko-Lipska Małgorzata	ChM sp. z o. o.
4.	Jabłońska Sara Józefina	Unihouse S.A.
5.	Jasiński Konrad	Plum Sp. z o.o.
6.	Kuczko Iwona	ChM sp. z o.o.
7.	Kukhta Mark	Metal-Fach sp. z o.o.
8.	Kuzionko-Ochrymiuk Ewa	Uniwersytet w Białymstoku
9.	Lisiewicz Adam	ASPI sp. z o.o. sp.k.
10.	MAJCHER ADRIAN	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
11.	Młodzianowski Dorian	D-TECH
12.	Rębacz Katarzyna	Centrum Promocji Innowacji i Rozwoju
13.	Skorochodzki Mateusz	ALEX Sp. z o.o.
14.	Szatkowski Wiesław	STG Sp. z o.o. Sp.k.
15.	Węclewicz Grzegorz	ChM sp. z o.o.
16.	Wierzbicka Paulina	Plum Sp. z o.o.
17.	Zajączkowski Paweł	Metal-Fach sp. z o.o.
18.	Zubrzycki Bartosz	Metal-Fach sp. z o.o.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	66,7%	16,7%	16,7%	-	-
By the format of the training?	33,3%	66,7%	-	-	-
By the duration of the training?	50%	33,3%	-	16,7%	-
By the teaching method of the training?	83,3%	-	16,7%	-	-
By the equipment resources used and available?	66,7%	33,3%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	50%	33,3%	-	16,7%	-
By the availability of additional	50%	33,3%	16,7%	-	-
By the quality of the writing?	50%	50%	-	-	-

## 2.18 Training # 3 of UNIBIAL – April 2021

<b>Author:</b>	Alicja Gudanowska
<b>Event Title:</b>	Design thinking w projektowaniu wyrobów i usług (DT)/ Design thinking for product and service design
<b>Event Date and Venue:</b>	realization period: April 26-28, 2021, Białystok (online), Poland (4 groups)
<b>Type of event (training, webinar, summer school):</b>	Vocational Training, Online
<b>Organiser(s):</b>	Białystok University of Technology, Poland
<b>Link to Agenda:</b>	<a href="https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen">https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen</a>
<b>Short description:</b> The concept of design thinking - explanation of the essence of the concept, discussion of the various stages, indication of tools supporting their implementation, discussion of examples, exercise in the implementation of the process using an online tool.	
<b>Total number of participants invited:</b>	95
<b>Total number of participants:</b>	14+14+14+13=55

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/UNIBIAL/UNIBIAL\\_02\\_Design%20thinking%20for%20product%20and%20service%20design.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/UNIBIAL/UNIBIAL_02_Design%20thinking%20for%20product%20and%20service%20design.pdf) )

### 2nd GROUP of ATTENDEES:

1.	Antonowicz Dominik	ALEX Sp. z o.o.
2.	Bruj Michał	Unihouse S.A.
3.	Chołko Artur	Metal-Fach sp. z o.o.
4.	Dudziński Łukasz	Metal-Fach sp. z o.o.
5.	Firszej Julita	Plum Sp. z o.o.
6.	Jagodzińska Angelika	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
7.	Januszewska Elwira	Polska Grupa Konsultingowa Elwira Januszewska

8.	Kosiński Andrzej	Metal-Fach sp. z o.o.
9.	Kuna Krzysztof	ALEX Sp. z o.o.
10.	LENKIEWICZ GRZEGORZ	Metal-Fach Jacek Kucharewicz
11.	Pietkiewicz Artur	ASPI sp. z o.o. sp.k.
12.	Rudź Szymon	Metal-Fach Jacek Kucharewicz
13.	Talipski Marcin	Unihouse S.A.
14.	Tomaszewski Maciej	Centrum Promocji Innowacji i Rozwoju

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	60%	40%	-	-	-
By the format of the training?	40%	60%	-	-	-
By the duration of the training?	20%	80%	-	-	-
By the teaching method of the training?	60%	40%	-	-	-
By the equipment resources used and available?	20%	80%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	20%	80%	-	-	-
By the availability of additional	40%	60%	-	-	-
By the quality of the writing?	60%	40%	-	-	-

### 3rd GROUP of ATTENDEES:

1.	Boruch Urszula	ALEX Sp. z o.o.
2.	Dąbrowski Marek	Metal-Fach sp. z o.o.
3.	Dobrosz Ewelina	ALEX Sp. z o.o.
4.	Jabłońska Agnieszka	Plum Sp. z o.o.
5.	Kacprzak Katarzyna	Plum Sp. z o.o.
6.	Kaźmierowski Janusz	Metal-Fach sp. z o.o.
7.	Łapiński Adrian	Metal-Fach sp. z o.o.
8.	Mazur Mateusz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
9.	Puc Agnieszka	Unihouse S.A.
10.	Radomek Agnieszka	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
11.	Radzewicz Ewa	ChM sp. z o.o.
12.	Siemieniako Zuzanna	ALEX Sp. z o.o.
13.	Szyszkowski Piotr	ASPI sp. z o.o. sp.k.
14.	TURKO MACIEJ	Metal-Fach Jacek Kucharewicz

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	50%	50%	-	-	-
By the format of the training?	50%	50%	-	-	-
By the duration of the training?	50%	-	50%	-	-
By the teaching method of the training?	50%	50%	-	-	-
By the equipment resources used and available?	50%	50%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	50%	50%	-	-	-
By the availability of additional	50%	50%	-	-	-



By the quality of the writing?	50%	50%	-	-	-
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**1<sup>st</sup> GROUP of ATTENDEES**

1.	Działak Aleksy	NNT Sp. z o.o.
2.	Fomienko Artur	ALEX Sp. z o.o.
3.	Gołucki Grzegorz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
4.	Jagowska Sylwia	Uniwersytet Zielonogórski
5.	Kamińska Magdalena	4NETWORKERS Magdalena Kamińska
6.	Monachowicz Roman	Unihouse S.A.
7.	Nieckarz Magdalena	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
8.	Osypiuk Krzysztof	ALEX Sp. z o.o.
9.	Pacuk Paulina	Metal-Fach sp. z o.o.
10.	Rabiczko Karol	Metal-Fach sp. z o.o.
11.	Sepko Tomasz	Metal-Fach sp. z o.o.
12.	Suprun Marcin	Marcin Suprun Creations
13.	Szczęsnowicz Mariusz	Metal Fach Jacek Kucharewicz
14.	Szyszkowska Karolina	ASPI sp. z o.o. sp.k.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	100%	-	-	-	-
By the format of the training?	66,7%	33,3%	-	-	-
By the duration of the training?	66,7%	33,3%	-	-	-
By the teaching method of the training?	83,3%	16,7%	-	-	-
By the equipment resources used and available?	66,7%	33,3%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	100%	-	-	-	-
By the availability of additional	83,3%	16,7%	-	-	-
By the quality of the writing?	83,3%	16,7%	-	-	-

**4th GROUP of ATTENDEES**

1.	DĄBROWSKI PIOTR	Metal-Fach Jacek Kucharewicz
2.	Dróżdż Andrzej	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
3.	Gryko-Lipska Małgorzata	ChM sp. z o. o.
4.	Jasiński Konrad	Plum Sp. z o.o.
5.	Kucharewicz Sebastian	Metal-Fach sp. z o.o.
6.	Kuzionko-Ochrymiuk Ewa	Uniwersytet w Białymstoku
7.	Lisiewicz Adam	ASPI sp. z o.o. sp.k.
8.	Rębacz Katarzyna	Centrum Promocji Innowacji i Rozwoju
9.	Skorochodzki Mateusz	ALEX Sp. z o.o.
10.	Sławińska Karolina	ALEX Sp. z o.o.
11.	Szatkowski Wiesław	STG Sp. z o.o. Sp.k.
12.	Węclewicz Grzegorz	ChM sp. z o.o.
13.	Wierzbicka Paulina	Plum Sp. z o.o.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	100%	-	-	-	-
By the format of the training?	66,7%	33,3%	-	-	-
By the duration of the training?	100%	-	-	-	-
By the teaching method of the training?	100%	-	-	-	-
By the equipment resources used and available?	66,7%	33,3%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	66,7%	33,3%	-	-	-
By the availability of additional	100%	-	-	-	-
By the quality of the writing?	66,7%	33,3%	-	-	-

## 2.19 Training # 4 of UNIBIAL – April 2021

<b>Authors:</b>	Julia Siderska
<b>Event Title:</b>	Narzędzia sztucznej inteligencji (AI) i produkcji w chmurze (CM) jako elementy Przemysłu 4.0/ Artificial intelligence tools and Cloud manufacturing for Industry 4.0 transformation
<b>Event Date and Venue:</b>	Realization period: April 21-30, 2021, Białystok (online), Poland (4 groups)
<b>Type of event (training, webinar, summer school):</b>	Vocational Training, online
<b>Organiser(s):</b>	Białystok University of Technology, Poland
<b>Link to Agenda:</b>	<a href="https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen">https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen</a>
<b>Short description:</b> Acquainting participants with knowledge about fundamentals of Industry 4.0 technologies and trends; introducing the basics of artificial intelligence tools enabling industrial transformation; shaping the ability of modelling and simulations with the use of chosen artificial intelligence tools.	
<b>Total number of participants invited:</b>	95
<b>Total number of participants:</b>	20+20+12

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/UNIBIAL/UNIBIAL\\_03\\_%20Artificial%20intelligence%20tools%20for%20Industry%204.0%20transformation.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/UNIBIAL/UNIBIAL_03_%20Artificial%20intelligence%20tools%20for%20Industry%204.0%20transformation.pdf))

### 1<sup>st</sup> GROUP of ATTENDEES

1.	Bajena Jerzy	ChM sp. z o. o.
2.	Działak Aleksy	NNT Sp. z o.o.
3.	Fomienko Artur	ALEX Sp. z o.o.
4.	Gołucki Grzegorz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
5.	Jagowska Sylwia	Uniwersytet Zielonogórski
6.	Kamińska Magdalena	4NETWORKERS Magdalena Kamińska

7.	Kłos Jacek	Plum Sp. z o.o.
8.	Mojśa Michał	Energy Nortle sp. z o.o. sp.k.
9.	Monachowicz Roman	Unihouse S.A.
10.	Nieckarz Magdalena	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
11.	Osypiuk Krzysztof	ALEX Sp. z o.o.
12.	Rabiczko Karol	Metal-Fach sp. z o.o.
13.	Ryś Anna	ChM sp. z o.o.
14.	Sepko Tomasz	Metal-Fach sp. z o.o.
15.	Sokołowski Krzysztof	ALEX Sp. z o.o.
16.	Suprun Marcin	Marcin Suprun Creations
17.	Szczęsnowicz Mariusz	Metal Fach Jacek Kucharewicz
18.	Szymczuk Bogusław	Unihouse S.A.
19.	Szyszkowska Karolina	ASPI sp. z o.o. sp.k.
20.	Wilk-Kąkol Joanna	Podkarpackie Zakłady Mechaniczne Sp. z o.o. Sp. k.

## Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	76,9%	7,7%	7,7%	7,7%	-
By the format of the training?	61,5%	30,8%	7,7%	-	-
By the duration of the training?	46,2%	46,2%	-	7,7%	-
By the teaching method of the training?	46,2%	30,8%	15,4%	7,7%	-
By the equipment resources used and available?	46,2%	38,5%	15,4%	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	61,5%	15,4%	15,4%	7,7%	-
By the availability of additional	46,2%	30,8%	7,7%	7,7%	7,7%
By the quality of the writing?	61,5%	23,1%	15,4%	-	-

## 2nd GROUP of ATTENDEES

1.	Bajena Jerzy	ChM sp. z o. o.
2.	Działak Aleksy	NNT Sp. z o.o.
3.	Fomienko Artur	ALEX Sp. z o.o.
4.	Gołucki Grzegorz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
5.	Jagowska Sylwia	Uniwersytet Zielonogórski
6.	Kamińska Magdalena	4NETWORKERS Magdalena Kamińska
7.	Kłos Jacek	Plum Sp. z o.o.
8.	Mojśa Michał	Energy Nortle sp. z o.o. sp.k.
9.	Monachowicz Roman	Unihouse S.A.
10.	Nieckarz Magdalena	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
11.	Osypiuk Krzysztof	ALEX Sp. z o.o.
12.	Rabiczko Karol	Metal-Fach sp. z o.o.
13.	Ryś Anna	ChM sp. z o.o.
14.	Sepko Tomasz	Metal-Fach sp. z o.o.
15.	Sokołowski Krzysztof	ALEX Sp. z o.o.
16.	Suprun Marcin	Marcin Suprun Creations
17.	Szczęsnowicz Mariusz	Metal Fach Jacek Kucharewicz
18.	Szymczuk Bogusław	Unihouse S.A.
19.	Szyszkowska Karolina	ASPI sp. z o.o. sp.k.

20.	Wilk-Kąkol Joanna	Podkarpackie Zakłady Mechaniczne Sp. z o.o. Sp. k.
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Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	66,7%	33,3%	-	-	-
By the format of the training?	33,3%	33,3%	33,3%	-	-
By the duration of the training?	33,3%	66,7%	-	-	-
By the teaching method of the training?	66,7%	33,3%	-	-	-
By the equipment resources used and available?	66,7%	33,3%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	66,7%	33,3%	-	-	-
By the availability of additional	33,3%	66,7%	-	-	-
By the quality of the writing?	33,3%	33,3%	33,3%	-	-

### 3rd GROUP of ATTENDEES

1.	Boruch Urszula	ALEX Sp. z o.o.
2.	Dąbrowski Marek	Metal-Fach sp. z o.o.
3.	Dobrosz Ewelina	ALEX Sp. z o.o.
4.	Godlewski Marek	Inwest-Produkt
5.	Jabłońska Agnieszka	Plum Sp. z o.o.
6.	Kacprzak Katarzyna	Plum Sp. z o.o.
7.	Łapiński Adrian	Metal-Fach sp. z o.o.
8.	Mazur Mateusz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
9.	Puc Agnieszka	Unihouse S.A.
10.	Siemieniako Zuzanna	ALEX Sp. z o.o.
11.	Szyszkowski Piotr	ASPI sp. z o.o. sp.k.
12.	TURKO MACIEJ	Metal-Fach Jacek Kucharewicz

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	-	100%	-	-	-
By the format of the training?	-	50%	50%	-	-
By the duration of the training?	-	100%	-	-	-
By the teaching method of the training?	50%	50%	-	-	-
By the equipment resources used and available?	50%	50%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	50%	50%	-	-	-
By the availability of additional	50%	50%	-	-	-
By the quality of the writing?	-	100%	-	-	-

### 4th GROUP of ATTENDEES

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	50%	50%	-	-	-

By the format of the training?	50%	50%	-	-	-
By the duration of the training?	50%	50%	-	-	-
By the teaching method of the training?	50%	50%	-	-	-
By the equipment resources used and available?	50%	50%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	50%	50%	-	-	-
By the availability of additional	50%	50%	-	-	-
By the quality of the writing?	50%	50%	-	-	-

## 2.20 Training # 1 of BOC – April-May 2021

<b>Authors:</b>	Zbigniew Misiak
<b>Event Title:</b>	Process identification and Customer Journey
<b>Event Date and Venue:</b>	Realization period: April 26-May 04, 2021, Białystok (online), Poland (4 groups)
<b>Type of event (training, webinar, summer school):</b>	Vocational Training, Online
<b>Organiser(s):</b>	BOC, Poland
<b>Link to Agenda:</b>	<a href="https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen">https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen</a>
<b>Short description:</b> This training provides participants with an overview of process identification methods. Both inside out and outside in perspectives are covered and concept of Customer Journeys is introduced. Participants learn about ways to analyse the process from a customer point of view. Additionally, various methods and examples of process identification are introduced.	
<b>Total number of participants invited:</b>	95
<b>Total number of participants:</b>	16+14+9+5=44

### 1<sup>st</sup> GROUP of ATTENDEES

1	Bajena Jerzy	ChM sp. z o. o.
2	Fomienko Artur	ALEX Sp. z o.o.
3	Gołucki Grzegorz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
4	Jągowska Sylwia	Uniwersytet Zielonogórski
5	Kamińska Magdalena	4NETWORKERS Magdalena Kamińska
6	Kłós Jacek	Plum Sp. z o.o.
7	Nieckarz Magdalena	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
8	Osypiuk Krzysztof	ALEX Sp. z o.o.
9	Pacuk Paulina	Metal-Fach sp. z o.o.
10	Rabiczko Karol	Metal-Fach sp. z o.o.
11	Sepko Tomasz	Metal-Fach sp. z o.o.
12	Sokołowski Krzysztof	ALEX Sp. z o.o.
13	Suprun Marcin	Marcin Suprun Creations
14	Szczęsnowicz Mariusz	Metal Fach Jacek Kucharewicz
15	Szyszkowska Karolina	ASPI sp. z o.o. sp.k.
16	Wilk-Kąkol Joanna	Podkarpackie Zakłady Mechaniczne Sp. z o.o. Sp. k.

## Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	71,4%	28,6%	-	-	-
By the format of the training?	57,1%	42,9%	-	-	-
By the duration of the training?	71,4%	28,6%	-	-	-
By the teaching method of the training?	57,1%	42,9%	-	-	-
By the equipment resources used and available?	57,1%	42,9%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	71,4%	28,6%	-	-	-
By the availability of additional	71,4%	28,6%	-	-	-
By the quality of the writing?	57,1%	42,9%	-	-	-

## 2nd GROUP of ATTENDEES

1	Antonowicz Dominik	ALEX Sp. z o.o.
2	Bortniczuk Krystian	ChM sp. z o.o.
3	Bruj Michał	Unihouse S.A.
4	Butkiewicz Mariusz	ALEX Sp. z o.o.
5	Chołko Artur	Metal-Fach sp. z o.o.
6	Dudziński Łukasz	Metal-Fach sp. z o.o.
7	Jagodzińska Angelika	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
8	Kosiński Andrzej	Metal-Fach sp. z o.o.
9	Kuna Krzysztof	ALEX Sp. z o.o.
10	LENKIEWICZ GRZEGORZ	Metal-Fach Jacek Kucharewicz
11	Pietkiewicz Artur	ASPI sp. z o.o. sp.k.
12	Rudź Szymon	Metal-Fach Jacek Kucharewicz
13	Talipski Marcin	Unihouse S.A.
14	Tomaszewski Maciej	Centrum Promocji Innowacji i Rozwoju

## Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	100%	-	-	-	-
By the format of the training?	66,7%	33,3%	-	-	-
By the duration of the training?	66,7%	33,3%	-	-	-
By the teaching method of the training?	33,3%	33,3%	33,3%	-	-
By the equipment resources used and available?	33,3%	66,7%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	100%	-	-	-	-
By the availability of additional	33,3%	66,7%	-	-	-
By the quality of the writing?	33,3%	66,7%	-	-	-

## 3rd GROUP of ATTENDEES

1	Boruch Urszula	ALEX Sp. z o.o.
2	Dobrosz Ewelina	ALEX Sp. z o.o.
3	Jabłońska Agnieszka	Plum Sp. z o.o.
4	Kacprzak Katarzyna	Plum Sp. z o.o.

5	Kaźmierczak Maciej	Metal-Fach sp. z o.o.
6	Mazur Mateusz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
7	Radzewicz Ewa	ChM sp. z o.o.
8	Siemieniako Zuzanna	ALEX Sp. z o.o.
9	Szyszkowski Piotr	ASPI sp. z o.o. sp.k.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	-	-	-	-	-
By the format of the training?	-	-	-	-	-
By the duration of the training?	-	-	-	-	-
By the teaching method of the training?	-	-	-	-	-
By the equipment resources used and available?	-	-	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	-	-	-	-	-
By the availability of additional	-	-	-	-	-
By the quality of the writing?	-	-	-	-	-

#### 4th GROUP of ATTENDEES

1	DĄBROWSKI PIOTR	Metal-Fach Jacek Kucharewicz
2	Dróżdż Andrzej	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
3	MAJCHER ADRIAN	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
4	Przedziecki Andrzej	ALEX Sp. z o.o.
5	Szatkowski Wiesław	STG Sp. z o.o. Sp.k.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	100%	-	-	-	-
By the format of the training?	-	100%	-	-	-
By the duration of the training?	100%	-	-	-	-
By the teaching method of the training?	100%	-	-	-	-
By the equipment resources used and available?	100%	-	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	100%	-	-	-	-
By the availability of additional	-	100%	-	-	-
By the quality of the writing?	100%	-	-	-	-

## 2.21 Training # 2 of BOC – April-May 2021

<b>Authors:</b>	Łukasz Piotrowski
<b>Event Title:</b>	Process modelling using BPMN
<b>Event Date and Venue:</b>	Realization period: April 26-May 04, 2021, Białystok (online), Poland (4 groups)
<b>Type of event (training, webinar, summer school):</b>	Vocational Training, Online

<b>Organiser(s):</b>	BOC, Poland
<b>Link to Agenda:</b>	<a href="https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen">https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen</a>
<b>Short description:</b> Participants of this training learn how to use BPMN notation for process modelling. Elements of the notation are introduced and participants have a chance to practice by creating diagrams in process modelling tool.	
<b>Total number of participants invited:</b>	95
<b>Total number of participants:</b>	16+13+8+5=42

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/BOCPL/WP3%20T3.2%20-%20Process-oriented%20topic%20-%20Process%20modelling%20using%20BPMN%20-%20BOC-PL.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/BOCPL/WP3%20T3.2%20-%20Process-oriented%20topic%20-%20Process%20modelling%20using%20BPMN%20-%20BOC-PL.pdf) )

#### 1<sup>st</sup> GROUP of ATTENDEES

1	Bajena Jerzy	ChM sp. z o. o.
2	Fomienko Artur	ALEX Sp. z o.o.
3	Gołucki Grzegorz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
4	Kamińska Magdalena	4NETWORKERS Magdalena Kamińska
5	Kłós Jacek	Plum Sp. z o.o.
6	Mojsa Michał	Energy Nortle sp. z o.o. sp.k.
7	Nieckarz Magdalena	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
8	Osypiuk Krzysztof	ALEX Sp. z o.o.
9	Pacuk Paulina	Metal-Fach sp. z o.o.
10	Rabiczko Karol	Metal-Fach sp. z o.o.
11	Sepko Tomasz	Metal-Fach sp. z o.o.
12	Sokołowski Krzysztof	ALEX Sp. z o.o.
13	Suprun Marcin	Marcin Suprun Creations
14	Szczęsnowicz Mariusz	Metal Fach Jacek Kucharewicz
15	Szyszkowska Karolina	ASPI sp. z o.o. sp.k.
16	Wilk-Kąkol Joanna	Podkarpackie Zakłady Mechaniczne Sp. z o.o. Sp. k.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	66,7%	33,3%	-	-	-
By the format of the training?	66,7%	33,3%	-	-	-
By the duration of the training?	66,7%	33,3%	-	-	-
By the teaching method of the training?	66,7%	33,3%	-	-	-
By the equipment resources used and available?	66,7%	33,3%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	66,7%	33,3%	-	-	-



By the availability of additional					
By the quality of the writing?	66,7%	33,3%	-	-	-

**2nd GROUP of ATTENDEES**

1	Antonowicz Dominik	ALEX Sp. z o.o.
2	Bortniczuk Krystian	ChM sp. z o.o.
3	Bruj Michał	Unihouse S.A.
4	Butkiewicz Mariusz	ALEX Sp. z o.o.
5	Chołko Artur	Metal-Fach sp. z o.o.
6	Dudziński Łukasz	Metal-Fach sp. z o.o.
7	Kosiński Andrzej	Metal-Fach sp. z o.o.
8	Kuna Krzysztof	ALEX Sp. z o.o.
9	LENKIEWICZ GRZEGORZ	Metal-Fach Jacek Kucharewicz
10	Pietkiewicz Artur	ASPI sp. z o.o. sp.k.
11	Rudź Szymon	Metal-Fach Jacek Kucharewicz
12	Talipski Marcin	Unihouse S.A.
13	Tomaszewski Maciej	Centrum Promocji Innowacji i Rozwoju

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	100%	-	-	-	-
By the format of the training?	66,7%	33,3%	-	-	-
By the duration of the training?	100%	-	-	-	-
By the teaching method of the training?	100%	-	-	-	-
By the equipment resources used and available?	66,7%	33,3%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	66,7%	33,3%	-	-	-
By the availability of additional	100%	-	-	-	-
By the quality of the writing?	66,7%	33,3%	-	-	-

**3rd GROUP of ATTENDEES**

1	Boruch Urszula	ALEX Sp. z o.o.
2	Dobrosz Ewelina	ALEX Sp. z o.o.
3	Kacprzak Katarzyna	Plum Sp. z o.o.
4	Kaźmierczak Maciej	Metal-Fach sp. z o.o.
5	Mazur Mateusz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
6	Radzewicz Ewa	ChM sp. z o.o.
7	Siemieniako Zuzanna	ALEX Sp. z o.o.
8	Szyszkowski Piotr	ASPI sp. z o.o. sp.k.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	-	-	-	-	-
By the format of the training?	-	-	-	-	-
By the duration of the training?	-	-	-	-	-
By the teaching method of the training?	-	-	-	-	-

By the equipment resources used and available?	-	-	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	-	-	-	-	-
By the availability of additional	-	-	-	-	-
By the quality of the writing?	-	-	-	-	-

#### 4th GROUP of ATTENDEES

1	DĄBROWSKI PIOTR	Metal-Fach Jacek Kucharewicz
2	Drózd Andrzej	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
3	MAJCHER ADRIAN	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
4	Przezdziecki Andrzej	ALEX Sp. z o.o.
5	Szatkowski Wiesław	STG Sp. z o.o. Sp.k.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	100%	-	-	-	-
By the format of the training?	100%	-	-	-	-
By the duration of the training?	100%	-	-	-	-
By the teaching method of the training?	100%	-	-	-	-
By the equipment resources used and available?	-	100%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	100%	-	-	-	-
By the availability of additional	-	100%	-	-	-
By the quality of the writing?	-	100%	-	-	-

### 2.22 Training # 3 of BOC – April-May 2021

<b>Authors:</b>	Zbigniew Misiak
<b>Event Title:</b>	Improving processes and monitoring process changes with Key Performance Indicators (BPI)
<b>Event Date and Venue:</b>	Realization period: April 28-May 06, 2021, Białystok (online), Poland (4 groups)
<b>Type of event (training, webinar, summer school):</b>	Vocational Training, Online
<b>Organiser(s):</b>	BOC, Poland
<b>Link to Agenda:</b>	<a href="https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen">https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen</a>
<b>Short description:</b> This training covers topics of measuring and improving processes. Participants learn about the process goals and Key Performance Indicators (KPIs) and how they are linked with a strategy and stakeholder analysis. Process improvement methods cover AS-IS analysis and identification of improvement potential as well as TO-BE process creation. Apart from the theory and best practices participants have a chance to test their skills thanks to exercises.	
<b>Total number of participants invited:</b>	95
<b>Total number of participants:</b>	15+12+10+7=44

Link for training materials:

([https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3\\_FoF\\_Designer%3AInnovative\\_Teaching\\_Methods\\_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/BOCPL/WP3%20T3.2%20-%20Process-oriented%20topic%20-%20Process%20performance%20monitoring%20-%20BOC-PL.pdf](https://cloud.digifof.ulbsibiu.ro/remote.php/webdav/DigiFoF%20Project/WP3_FoF_Designer%3AInnovative_Teaching_Methods_Tools/T3.2%20-%20Teaching%20and%20training%20materials%20for%20the%20design/BOCPL/WP3%20T3.2%20-%20Process-oriented%20topic%20-%20Process%20performance%20monitoring%20-%20BOC-PL.pdf) )

### 1<sup>st</sup> GROUP of ATTENDEES

1	Bajena Jerzy	ChM sp. z o. o.
2	Fomienko Artur	ALEX Sp. z o.o.
3	Gołucki Grzegorz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
4	Jągowska Sylwia	Uniwersytet Zielonogórski
5	Kamińska Magdalena	4NETWORKERS Magdalena Kamińska
6	Mojśa Michał	Energy Nortle sp. z o.o. sp.k.
7	Monachowicz Roman	Unihouse S.A.
8	Nieckarz Magdalena	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
9	Osypiuk Krzysztof	ALEX Sp. z o.o.
10	Pacuk Paulina	Metal-Fach sp. z o.o.
11	Rabiczko Karol	Metal-Fach sp. z o.o.
12	Sepko Tomasz	Metal-Fach sp. z o.o.
13	Suprun Marcin	Marcin Suprun Creations
14	Szczęsnowicz Mariusz	Metal Fach Jacek Kucharewicz
15	Szyszkowska Karolina	ASPI sp. z o.o. sp.k.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	83,3%	16,7%	-	-	-
By the format of the training?	83,3%	16,7%	-	-	-
By the duration of the training?	66,7%	33,3%	-	-	-
By the teaching method of the training?	83,3%	-	16,7%	-	-
By the equipment resources used and available?	83,3%	16,7%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	83,3%	16,7%	-	-	-
By the availability of additional	83,3%	16,7%	-	-	-
By the quality of the writing?	83,3%	16,7%	-	-	-

### 2nd GROUP of ATTENDEES

1	Antonowicz Dominik	ALEX Sp. z o.o.
2	Bortniczuk Krystian	ChM sp. z o.o.
3	Bruj Michał	Unihouse S.A.
4	Chołko Artur	Metal-Fach sp. z o.o.
5	Hajduk Michał	Energy Nortle sp. z o.o. sp.k.
6	Kosiński Andrzej	Metal-Fach sp. z o.o.
7	Kuna Krzysztof	ALEX Sp. z o.o.
8	LENKIEWICZ GRZEGORZ	Metal-Fach Jacek Kucharewicz
9	Pietkiewicz Artur	ASPI sp. z o.o. sp.k.
10	Rudź Szymon	Metal-Fach Jacek Kucharewicz
11	Talipski Marcin	Unihouse S.A.

12	Tomaszewski Maciej	Centrum Promocji Innowacji i Rozwoju
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Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	-	100%	-	-	-
By the format of the training?	33,3%	33,3%	33,3%	-	-
By the duration of the training?	33,3%	66,7%	-	-	-
By the teaching method of the training?	33,3%	33,3%	33,3%	-	-
By the equipment resources used and available?	33,3%	66,7%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	33,3%	66,7%	-	-	-
By the availability of additional	33,3%	33,3%	33,3%	-	-
By the quality of the writing?	-	66,7%	33,3%	-	-

### 3rd GROUP of ATTENDEES

1	Dąbrowski Marek	Metal-Fach sp. z o.o.
2	Jabłońska Agnieszka	Plum Sp. z o.o.
3	Kacprzak Katarzyna	Plum Sp. z o.o.
4	Kaźmierczak Maciej	Metal-Fach sp. z o.o.
5	Mazur Mateusz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
6	Moćkun Adam	ChM sp. z o. o.
7	Radomek Agnieszka	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
8	Radzewicz Ewa	ChM sp. z o.o.
9	Siemieniako Zuzanna	ALEX Sp. z o.o.
10	Szyszkowski Piotr	ASPI sp. z o.o. sp.k.

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	-	100%	-	-	-
By the format of the training?	33,3%	33,3%	33,3%	-	-
By the duration of the training?	33,3%	66,7%	-	-	-
By the teaching method of the training?	33,3%	33,3%	33,3%	-	-
By the equipment resources used and available?	33,3%	66,7%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	33,3%	66,7%	-	-	-
By the availability of additional	33,3%	33,3%	33,3%	-	-
By the quality of the writing?	-	66,7%	33,3%	-	-

### 4th GROUP of ATTENDEES

1	DĄBROWSKI PIOTR	Metal-Fach Jacek Kucharewicz
2	Drózd Andrzej	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
3	Gryko-Lipska Małgorzata	ChM sp. z o. o.
4	Lisiewicz Adam	ASPI sp. z o.o. sp.k.
5	MAJCHER ADRIAN	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
6	Szatkowski Wiesław	STG Sp. z o.o. Sp.k.
7	Węclewicz Grzegorz	ChM sp. z o.o.

## Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	-	-	-	-	-
By the format of the training?	-	-	-	-	-
By the duration of the training?	-	-	-	-	-
By the teaching method of the training?	-	-	-	-	-
By the equipment resources used and available?	-	-	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	-	-	-	-	-
By the availability of additional	-	-	-	-	-
By the quality of the writing?	-	-	-	-	-

**2.23 Training # 4 of IDPC – April-May 2021**

<b>Authors:</b>	Artur Zawadzki
<b>Event Title:</b>	Manufacturing Process Improvement with Lean approach (LM)
<b>Event Date and Venue:</b>	Realization period: April 30-May 05, 2021, Białystok (online), Poland (4 groups)
<b>Type of event (training, webinar, summer school):</b>	Vocational Training, Online
<b>Organiser(s):</b>	BOC, Poland
<b>Link to Agenda:</b>	<a href="https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen">https://www.metalklaster.pl/news/zarzadzanie-procesami-w-firmach-rusza-cykl-szkolen</a>
<b>Short description:</b> The training allows the company's employees to explore the main methods and tools to analyze and improve business processes. Improvement of production processes and ancillary processes, increase in production efficiency,	
<b>Total number of participants invited:</b>	95
<b>Total number of participants:</b>	14+11+8+10=43

**1<sup>st</sup> GROUP of ATTENDEES**

1.	Bajena Jerzy	ChM sp. z o. o.
2.	Fomienko Artur	ALEX Sp. z o.o.
3.	Gołucki Grzegorz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
4.	Jągowska Sylwia	Uniwersytet Zielonogórski
5.	Kamińska Magdalena	4NETWORKERS Magdalena Kamińska
6.	Kłós Jacek	Plum Sp. z o.o.
7.	Nieckarz Magdalena	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
8.	Osypiuk Krzysztof	ALEX Sp. z o.o.
9.	Pacuk Paulina	Metal-Fach sp. z o.o.
10.	Rabiczko Karol	Metal-Fach sp. z o.o.
11.	Ryś Anna	ChM sp. z o.o.
12.	Suprun Marcin	Marcin Suprun Creations
13.	Szczęsnowicz Mariusz	Metal Fach Jacek Kucharewicz

14.	Szyszkowska Karolina	ASPI sp. z o.o. sp.k.
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Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	83,3%	16,7%	-	-	-
By the format of the training?	66,7%	33,3%	-	-	-
By the duration of the training?	66,7%	33,3%	-	-	-
By the teaching method of the training?	66,7%	33,3%	-	-	-
By the equipment resources used and available?	66,7%	33,3%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	66,7%	33,3%	-	-	-
By the availability of additional	66,7%	33,3%	-	-	-
By the quality of the writing?	66,7%	33,3%	-	-	-

## 2nd GROUP of ATTENDEES

1	Bruj Michał	Unihouse S.A.
2	Chołko Artur	Metal-Fach sp. z o.o.
3	Dudziński Łukasz	Metal-Fach sp. z o.o.
4	Hajduk Michał	Energy Nortle sp. z o.o. sp.k.
5	Kosiński Andrzej	Metal-Fach sp. z o.o.
6	Kuna Krzysztof	ALEX Sp. z o.o.
7	LENKIEWICZ GRZEGORZ	Metal-Fach Jacek Kucharewicz
8	Pietkiewicz Artur	ASPI sp. z o.o. sp.k.
9	Rudź Szymon	Metal-Fach Jacek Kucharewicz
10	Talipski Marcin	Unihouse S.A.
11	Tomaszewski Maciej	Centrum Promocji Innowacji i Rozwoju

Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	75%	25%	-	-	-
By the format of the training?	75%	25%	-	-	-
By the duration of the training?	75%	25%	-	-	-
By the teaching method of the training?	75%	25%	-	-	-
By the equipment resources used and available?	75%	25%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	75%	25%	-	-	-
By the availability of additional	75%	25%	-	-	-
By the quality of the writing?	75%	25%	-	-	-

## 3rd GROUP of ATTENDEES

1	Boruch Urszula	ALEX Sp. z o.o.
2	Dąbrowski Marek	Metal-Fach sp. z o.o.
3	Dobrosz Ewelina	ALEX Sp. z o.o.
4	Mazur Mateusz	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
5	Radomek Agnieszka	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
6	Radzewicz Ewa	ChM sp. z o.o.
7	Siemieniako Zuzanna	ALEX Sp. z o.o.
8	Szyszkowski Piotr	ASPI sp. z o.o. sp.k.

## Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	100%	-	-	-	-
By the format of the training?	100%	-	-	-	-
By the duration of the training?	50%	-	50%	-	-
By the teaching method of the training?	50%	50%	-	-	-
By the equipment resources used and available?	50%	50%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	100%	-	-	-	-
By the availability of additional	50%	50%	-	-	-
By the quality of the writing?	100%	-	-	-	-

## 4th GROUP of ATTENDEES

1	DĄBROWSKI	PIOTR	Metal-Fach Jacek Kucharewicz
2	Drózdź	Andrzej	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
3	Gryko-Lipska	Małgorzata	ChM sp. z o. o.
4	Kukhta	Mark	Metal-Fach sp. z o.o.
5	Lisiewicz	Adam	ASPI sp. z o.o. sp.k.
6	MAJCHER	ADRIAN	Centrum Produkcyjne Pneumatyki "PREMA" S.A.
7	Przezdziecki	Andrzej	ALEX Sp. z o.o.
8	Skorochodzki	Mateusz	ALEX Sp. z o.o.
9	Szatkowski	Wiesław	STG Sp. z o.o. Sp.k.
10	Węclewicz	Grzegorz	ChM sp. z o.o.

## Summary of the Participant Feedback Form:

Are you satisfied	Most satisfied	Satisfied	Moderately satisfied	Rather dissatisfied	Not at all satisfied
By the topic(s) of the training?	50%	50%	-	-	-
By the format of the training?	50%	50%	-	-	-
By the duration of the training?	50%	-	50%	-	-
By the teaching method of the training?	50%	50%	-	-	-
By the equipment resources used and available?	50%	50%	-	-	-
By the relevance of the subject matter(s) and industrial knowledge brought by the teacher regarding Industry 4.0?	50%	50%	-	-	-
By the availability of additional	50%	50%	-	-	-
By the quality of the writing?	50%	-	50%	-	-

### 3 Conclusions

All training started at the end of 2019 after Omilab laboratories installation in all partner HEIs. Unfortunately, very soon, in February 2020 Covid-19 pandemic restrictions stop all trainings face-to-face. Until summer of 2020, most of these trainings were transferred in online.

Following, after Covid-19 vaccines become available and economy relaunched, trainings were restarted and intensified, some of them being performed with physical presence and the others remaining online.

Even if the project task 4.3 activity period ended at June the 30<sup>th</sup>, 2021, some of the trainings were continued as a proof for the interest existing in educational market and inside companies for the kind of trainings supplied by this project.

As a proof of trainings quality and improved evolution in career path of participant students has been identified.

A total of 23 trainings were sustained with a total number of participants of 569 during the project duration.