



**ENGINEERING and INDUSTRY
INNOVATIVE TRAINING FOR ENGINEERS
(ENGINITE)**

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IO4-Task 6: Short national reports







Prepared by CUT



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Task 6: Short national reports

In this section, we will present two Short National Reports, one from each partner country (P1: CUT & P5: TUC) with the results that they have collected.

Short national report by the Technical University of Crete (TUC), Greece

ENGINITE Phase A: Feedback by the trainees

The ENGINITE training courses period was ranked very highly by the trainees in Greece. In particular, as it appears in Table 11, the graduate Engineers at the Technical University in Greece highlighted that the training courses were interactive and engaging ($\bar{x}=4.25$, $SD=0.62$), deemed as essential for their future careers ($\bar{x}=4.17$, $SD=0.94$), contributed to the development of their managerial skills ($\bar{x}=4.08$, $SD=0.29$) and equipped them better ($\bar{x}=4.00$, $SD=0.43$).

Table 11: Overall evaluation of the ENGINITE training courses

| The ENGINITE training courses... | Mean | SD | Min. | Max. |
|--|------|------|------|------|
| ...were interactive and engaging | 4.25 | 0.62 | 3.00 | 5.00 |
| ...were essential for my future career | 4.17 | 0.94 | 2.00 | 5.00 |
| ... contributed to the development of my managerial skills | 4.08 | 0.29 | 3.00 | 5.00 |
| ...equipped me better | 4.00 | 0.43 | 3.00 | 5.00 |
| ... contributed to the development of my technical knowledge | 3.92 | 0.51 | 1.00 | 5.00 |
| ... increased my employability chances | 3.67 | 0.78 | 3.00 | 5.00 |
| ...provided me practical and hands-on knowledge | 3.58 | 0.79 | 2.00 | 5.00 |
| ...met my expectations | 3.50 | 0.90 | 2.00 | 5.00 |

Evaluating each one of the four “Employability enhancement & Managerial skills” courses, according to (a) its relevance, (b) its length, (c) its content, (d) its materials as well as (e) its trainer’s confidence and (f) expertise, it seems that the most highly-ranked course was “A4: Project management in Action” ($\bar{x}=4.04$, $SD=0.36$). As it appears at Table 12, this was followed by “A2: Innovation, Entrepreneurial and Intrapreneurial Skills” ($\bar{x}=3.97$, $SD=0.44$), “A1: Efficient Quality and Health & Safety Management Systems” ($\bar{x}=3.86$, $SD=0.60$) and “A3: Engineering Systems Thinking: Re-engineering by Simplifying” ($\bar{x}=3.78$, $SD=0.63$), which was the lowest ranked course.

Table 12: Ranking of the “Employability enhancement & Managerial Skills” courses

| | Mean | SD | Min. | Max. |
|---|------|------|------|------|
| A4: Project management in Action | 4.04 | 0.36 | 3.67 | 5.00 |
| A2: Innovation, Entrepreneurial and Intrapreneurial Skills | 3.97 | 0.44 | 3.33 | 5.00 |
| A3: Engineering Systems Thinking: Re-engineering by Simplifying | 3.86 | 0.60 | 3.00 | 5.00 |
| A1: Efficient Quality and Health & Safety Management Systems | 3.78 | 0.63 | 2.50 | 5.00 |

Evaluating each one of the four “Technical knowledge enhancement” courses, according to (a) its relevance, (b) its length, (c) its content, (d) its materials as well as (e) its trainer’s confidence and (f) expertise, it seems that the most highly-ranked course was “B4: Supply chain in a rapidly changing environment” ($\bar{x}=4.06$, $SD=0.62$). As it appears at Table 13, this was followed by “B2: Concept to Market Product Development” ($\bar{x}=3.78$, $SD=0.67$), “B3: Applied Process and Production Optimization” ($\bar{x}=3.76$, $SD=0.56$) and “B1: Engineering Economics” ($\bar{x}=3.67$, $SD=0.73$), which was the lowest ranked course.

Table 13: Ranking of the “Technical knowledge enhancement” courses

| | Mean | SD | Min. | Max. |
|--|------|------|------|------|
| B4: Supply Chain in a Rapidly Changing Environment | 4.06 | 0.62 | 2.67 | 5.00 |
| B2: Concept to Market Product Development | 3.78 | 0.67 | 2.67 | 5.00 |
| B3: Applied Process and Production Optimization | 3.76 | 0.56 | 3.17 | 5.00 |
| B1: Engineering Economics | 3.67 | 0.73 | 2.50 | 5.00 |

ENGINITE Phase A: Feedback by the trainers

The ENGINITE training courses period was also ranked very highly by the trainees in Greece. In particular, as it appears in Table 14, the trainers ranked highly that the training programme met their expectations, created positive reactions to the young engineers, contributed to employability enhancement of young engineers, was grounded on an adequate blend of theory and practice, provided appropriate support to the participants, as well as that was ready for wider dissemination and further exploitation. They only ranked a bit lower that the training programme included a selection of significant topics ($\bar{x}=4.50$, $SD=0.71$).

Table 14: Overall evaluation of the ENGINITE training programme

| The ENGINITE training programme... | Mean | SD | Min. | Max. |
|--|------|------|------|------|
| ...met my expectations | 5.00 | 0.00 | 5.00 | 5.00 |
| ...created positive reactions to the young engineers | 5.00 | 0.00 | 5.00 | 5.00 |
| ... contributed to employability enhancement, development of managerial skills and technical knowledge enhancement | 5.00 | 0.00 | 5.00 | 5.00 |
| ... was grounded on an adequate blend of theory and practice | 5.00 | 0.00 | 5.00 | 5.00 |
| ... provided appropriate support to the participants | 5.00 | 0.00 | 5.00 | 5.00 |
| ... is ready for wider dissemination and further exploitation | 5.00 | 0.00 | 5.00 | 5.00 |
| ...included a selection of significant training topics | 4.50 | 0.71 | 5.00 | 5.00 |

Focusing on the ENGINITE training courses and their delivery the trainers evaluated highly that their courses were relevant to the participants’ needs ($\bar{x}=5.00$, $SD=0.00$) as well as that the materials provided during the courses were helpful ($\bar{x}=5.00$, $SD=0.00$). However, they evaluated lower that they were knowledgeable for all the topics of the courses they were requested to deliver ($\bar{x}=3.00$, $SD=2.83$).

Table 15: Evaluation of the ENGINITE training courses

| | Mean | SD | Min. | Max. |
|--|------|------|------|------|
| My course(s) was/were relevant to the participants' needs | 5.00 | 0.00 | 5.00 | 5.00 |
| Materials provided were helpful | 5.00 | 0.00 | 5.00 | 5.00 |
| Length of training was sufficient for my course(s) | 4.50 | 0.71 | 4.00 | 5.00 |
| Content was well organized | 4.50 | 0.71 | 4.00 | 5.00 |
| I was confident and well-prepared | 4.50 | 0.71 | 4.00 | 5.00 |
| I was knowledgeable for all topics related to my course(s) | 3.00 | 2.83 | 1.00 | 5.00 |

ENGINITE Phase B: Feedback by the interns

The ENGINITE internship period was ranked very highly by the interns in Greece, as all the aspects were evaluated above the average. In particular, as it appears in Table 16, the interns in Greece highlighted that during the internship period they had initiated and successfully completed new projects ($\bar{x}=4.50$, $SD=0.67$) and they developed new technical knowledge ($\bar{x}=4.25$, $SD=0.62$). They have only evaluated a bit lower the degree they understood the real industry culture ($\bar{x}=3.67$, $SD=1.23$).

Table 16: Overall evaluation of the ENGINITE internship

| During the ENGINITE internship... | Mean | SD | Min. | Max. |
|---|------|------|------|------|
| ... I have initiated and successfully completed new projects | 4.50 | 0.67 | 3.00 | 5.00 |
| ...I have developed new technical knowledge | 4.25 | 0.62 | 3.00 | 5.00 |
| ...the skills I developed during the training courses were improved | 4.17 | 0.58 | 3.00 | 5.00 |
| ...I have increased my employability potentials | 4.17 | 0.72 | 3.00 | 5.00 |
| ... I became better equipped | 4.17 | 0.58 | 3.00 | 5.00 |
| ... my expectations were met during the ENGINITE internship | 4.00 | 0.85 | 2.00 | 5.00 |
| ...I have developed new skills | 4.00 | 0.95 | 2.00 | 5.00 |
| ...the technical knowledge gained during the training courses was improved | 3.92 | 0.90 | 2.00 | 5.00 |
| ... I have created a network with like-minded people | 3.92 | 1.08 | 1.00 | 5.00 |
| ...I have received feedback from successful entrepreneurs/company representatives | 3.92 | 1.16 | 1.00 | 5.00 |
| ...I have opened new channels with the company's representative | 3.75 | 1.06 | 1.00 | 5.00 |
| ... I have understood the real industry culture | 3.67 | 1.23 | 1.00 | 5.00 |

On the same vein, focusing on the positive aspects of the internship period the participating young engineers highlighted the following ones:

- Development of technical knowledge and practical experience
- Understanding how the industry works
- Improvement of project management skills (Undertake and execute projects within particular deadlines)
- Improving problem solving skills
- Networking / Collaboration and interaction with industry experts
- Increase of employability potentials

Importantly, the vast majority of the participating engineers in Greece (75%) reported that they were planning to stay in contact with their hosting organizations.

ENGINITE Phase B: Feedback by the company supervisors

The feedback received by the company supervisors about the interns was also relatively high, as all the aspects were evaluated above the average. In particular, as it appears in Table 17, the company supervisors in Greece highlighted that the interns adjusted quickly to the working environment of the company ($\bar{x}=5.00$, $SD=0.00$), were motivated ($\bar{x}=4.75$, $SD=0.50$), contributed to the goals of the company ($\bar{x}=4.75$, $SD=0.50$) and the projects of the company ($\bar{x}=4.75$, $SD=0.50$), had a smooth collaboration ($\bar{x}=4.75$, $SD=0.50$) and took part in a constructive internship ($\bar{x}=4.75$, $SD=0.50$). They evaluated a little bit lower that the interns brought new and innovative ideas to the company ($\bar{x}=4.50$, $SD=1.00$), could find innovative solutions to our company's challenges ($\bar{x}=4.50$, $SD=1.00$) and could be an ideal new addition to the company ($\bar{x}=4.50$, $SD=1.00$).

Table 17: Overall evaluation of the ENGINITE interns

| The intern... | Mean | SD | Min. | Max. |
|---|------|------|------|------|
| ... adjusted quickly to the working environment of the company | 5.00 | 0.00 | 5.00 | 5.00 |
| ...was motivated and showed real interest for the company | 4.75 | 0.50 | 4.00 | 5.00 |
| ... contributed to the goals of the company | 4.75 | 0.50 | 4.00 | 5.00 |
| ... contributed to the projects of the company | 4.75 | 0.50 | 4.00 | 5.00 |
| ...had a smooth and productive collaboration with the company | 4.75 | 0.50 | 4.00 | 5.00 |
| ...took part in a constructive and supportive internship | 4.75 | 0.50 | 4.00 | 5.00 |
| ... brought new and innovative ideas to our company | 4.50 | 1.00 | 3.00 | 5.00 |
| ... could find innovative solutions to our company's challenges | 4.50 | 1.00 | 3.00 | 5.00 |
| ...could be an ideal new addition to the company | 4.50 | 1.00 | 3.00 | 5.00 |

Importantly, all the company supervisors, reported that:

- Their expectations were met to their highest degree
- The internship period was of high value for the participating interns

In this context, it is not a surprising that all the company supervisors (100%) reported that they were planning to stay in contact with the young interns, after the end of the partnership period.

Short national report by the Cyprus University of Technology (CUT), Cyprus

ENGINITE Phase A: Feedback by the trainees

The ENGINITE training courses period was ranked very highly by the trainees in Cyprus. In particular, as it appears in Table 18, the graduate Engineers at the Cyprus University of Technology highlighted that the training courses were interactive and engaging ($\bar{x}=4.78$, $SD=0.44$), provided practical and hands-on knowledge ($\bar{x}=4.33$, $SD=0.71$), contributed to the development of their managerial skills ($\bar{x}=4.33$, $SD=0.71$) and equipped them better ($\bar{x}=4.33$, $SD=0.71$).

Table 18: Overall evaluation of the ENGINITE training courses

| The ENGINITE training courses... | Mean | SD | Min. | Max. |
|--|------|------|------|------|
| ...were interactive and engaging | 4.78 | 0.44 | 4.00 | 5.00 |
| ...provided me practical and hands-on knowledge | 4.33 | 0.71 | 3.00 | 5.00 |
| ... contributed to the development of my managerial skills | 4.33 | 0.71 | 3.00 | 5.00 |
| ...equipped me better | 4.33 | 0.71 | 3.00 | 5.00 |
| ...were essential for my future career | 4.22 | 0.67 | 3.00 | 5.00 |
| ... increased my employability chances | 4.11 | 0.78 | 3.00 | 5.00 |
| ...met my expectations | 3.89 | 0.60 | 3.00 | 5.00 |
| ... contributed to the development of my technical knowledge | 3.22 | 1.20 | 1.00 | 4.00 |

Evaluating each one of the four “Employability enhancement & Managerial skills” courses, according to (a) its relevance, (b) its length, (c) its content, (d) its materials as well as (e) its trainer’s confidence and (f) expertise, it seems that the most highly-ranked course was “A4: Project management in Action” ($\bar{x}=4.31$, $SD=0.60$). As it appears at Table 19, this was followed by “A1: Efficient Quality and Health & Safety Management Systems” ($\bar{x}=4.14$, $SD=0.53$), “A2: Innovation, Entrepreneurial and Intrapreneurial Skills” ($\bar{x}=3.96$, $SD=0.38$), and “A3: Engineering Systems Thinking: Re-engineering by Simplifying” ($\bar{x}=3.89$, $SD=0.61$), which was the lowest ranked course.

Table 19: Ranking of the “Employability enhancement & Managerial Skills” courses

| | Mean | SD | Min. | Max. |
|---|------|------|------|------|
| A4: Project management in Action | 4.31 | 0.60 | 3.50 | 5.00 |
| A1: Efficient Quality and Health & Safety Management Systems | 4.14 | 0.53 | 3.17 | 4.83 |
| A2: Innovation, Entrepreneurial and Intrapreneurial Skills | 3.96 | 0.38 | 3.50 | 4.83 |
| A3: Engineering Systems Thinking: Re-engineering by Simplifying | 3.89 | 0.61 | 3.17 | 5.00 |

Evaluating each one of the four “Technical knowledge enhancement” courses, according to (a) its relevance, (b) its length, (c) its content, (d) its materials as well as (e) its trainer’s confidence and (f) expertise, it seems that the most highly-ranked course was “B4: Supply chain in a rapidly changing environment” ($\bar{x}=4.09$, $SD=0.51$). As it appears at Table 20, this was followed by “B1: Engineering Economics” ($\bar{x}=3.93$, $SD=0.98$), “B3: Applied Process and Production Optimization” ($\bar{x}=3.72$, $SD=1.04$) and “B2: Concept to Market Product Development” ($\bar{x}=3.50$, $SD=1.05$), which was the lowest ranked course.

Table 20: Ranking of the “Technical knowledge enhancement” courses

| | Mean | SD | Min. | Max. |
|--|------|----|------|------|
|--|------|----|------|------|

| | | | | |
|--|------|------|------|------|
| B4: Supply Chain in a Rapidly Changing Environment | 4.09 | 0.51 | 3.50 | 5.00 |
| B1: Engineering Economics | 3.93 | 0.98 | 2.00 | 5.00 |
| B3: Applied Process and Production Optimization | 3.72 | 1.04 | 1.33 | 5.00 |
| B2: Concept to Market Product Development | 3.50 | 1.05 | 1.33 | 4.67 |

ENGINITE Phase A: Feedback by the trainers

The ENGINITE training courses period was also ranked very highly by the trainees. In particular, as it appears in Table 21, the trainers ranked highly that the training programme provided appropriate support to the participants ($\bar{x}=5.00$, $SD=0.00$), included a selection of significant topics ($\bar{x}=4.80$, $SD=0.45$), and contributed to employability enhancement of young engineers ($\bar{x}=4.80$, $SD=0.45$). They only ranked a bit lower that the training programme was grounded on an adequate blend of theory and practice ($\bar{x}=4.20$, $SD=0.45$) as well as that was ready for wider dissemination ($\bar{x}=4.20$, $SD=0.45$).

Table 21: Overall evaluation of the ENGINITE training programme

| The ENGINITE training programme... | Mean | SD | Min. | Max. |
|--|------|------|------|------|
| ... provided appropriate support to the participants | 5.00 | 0.00 | 5.00 | 5.00 |
| ...included a selection of significant training topics | 4.80 | 0.45 | 4.00 | 5.00 |
| ... contributed to employability enhancement, development of managerial skills and technical knowledge enhancement | 4.80 | 0.45 | 4.00 | 5.00 |
| ...created positive reactions to the young engineers | 4.60 | 0.55 | 4.00 | 5.00 |
| ...met my expectations | 4.40 | 0.55 | 4.00 | 5.00 |
| ... was grounded on an adequate blend of theory and practice | 4.20 | 0.45 | 3.00 | 5.00 |
| ... is ready for wider dissemination and further exploitation | 4.20 | 0.45 | 3.00 | 5.00 |

Focusing on the ENGINITE training courses and their delivery the trainers evaluated highly that they were confident and well prepared ($\bar{x}=4.80$, $SD=0.45$) as well as that the materials provided during the courses were helpful ($\bar{x}=4.80$, $SD=0.45$). However, they evaluated lower the length of the training courses ($\bar{x}=3.20$, $SD=0.84$).

Table 22: Evaluation of the ENGINITE training courses

| | Mean | SD | Min. | Max. |
|--|------|------|------|------|
| Materials provided were helpful | 4.80 | 0.45 | 4.00 | 5.00 |
| I was confident and well-prepared | 4.80 | 0.45 | 4.00 | 5.00 |
| My course(s) was/were relevant to the participants' needs | 4.60 | 0.54 | 4.00 | 5.00 |
| Content was well organized | 4.60 | 0.89 | 3.00 | 5.00 |
| I was knowledgeable for all topics related to my course(s) | 4.60 | 0.89 | 3.00 | 5.00 |
| Length of training was sufficient for my course(s) | 3.20 | 0.84 | 2.00 | 4.00 |

ENGINITE Phase B: Feedback by the interns

The ENGINITE internship period was ranked very highly by the interns in Cyprus, as all the aspects were evaluated above the average. In particular, as it appears in Table 23, the interns in Cyprus

highlighted that during the internship period they became better equipped ($\bar{x}=4.55$, $SD=0.52$) and they developed new technical knowledge ($\bar{x}=4.55$, $SD=0.52$). They have only evaluated a bit lower the feedback from successful entrepreneurs/company representatives ($\bar{x}=3.91$, $SD=0.54$).

Table 23: Overall evaluation of the ENGINITE internship

| During the ENGINITE internship... | Mean | SD | Min. | Max. |
|---|------|------|------|------|
| ... I became better equipped | 4.55 | 0.52 | 4.00 | 5.00 |
| ... I have developed new technical knowledge | 4.55 | 0.52 | 4.00 | 5.00 |
| ...the technical knowledge I gained during the training courses was improved | 4.45 | 0.52 | 4.00 | 5.00 |
| ... I have initiated and successfully completed new projects | 4.45 | 0.52 | 4.00 | 5.00 |
| ... I have understood the real industry culture | 4.45 | 0.52 | 3.00 | 5.00 |
| ... I have created a network with like-minded people | 4.45 | 0.52 | 4.00 | 5.00 |
| ... my expectations were met during the ENGINITE internship | 4.36 | 0.67 | 3.00 | 5.00 |
| ...I have increased my employability potentials | 4.36 | 0.67 | 3.00 | 5.00 |
| ...I have developed new skills | 4.27 | 0.65 | 3.00 | 5.00 |
| ...I have opened new channels with the company's representative | 4.27 | 0.65 | 3.00 | 5.00 |
| ...the skills I developed during the training courses were improved | 4.18 | 0.60 | 3.00 | 5.00 |
| ...I have received feedback from successful entrepreneurs/company representatives | 3.91 | 0.54 | 3.00 | 5.00 |

Likewise, focusing on the positive aspects of the internship period the participating young engineers highlighted the following ones:

- Increase of motivation
- Development of technical knowledge and practical experience
- Understanding how the industry works
- Improvement of project management skills (Undertake and execute projects within particular deadlines)
- Improving problem solving skills
- Networking / Collaboration and interaction with industry experts

Importantly, all the participating engineers in Cyprus (100%) reported that they were planning to stay in contact with their hosting organizations.

ENGINITE Phase B: Feedback by the companies

The feedback received by the company supervisors in Cyprus about the interns was also relatively high, as all the aspects were evaluated above the average. In particular, as it appears in Table 24, the company supervisors in Cyprus highlighted that the interns had a smooth and productive collaboration with the company ($\bar{x}=4.89$, $SD=0.33$), was motivated ($\bar{x}=4.78$, $SD=0.44$) and adjusted quickly to the working environment ($\bar{x}=4.78$, $SD=0.44$). They evaluated a little bit lower the fact that the interns could find innovative solutions to the company's challenges ($\bar{x}=3.67$, $SD=0.71$) or that the interns brought new and innovative ideas to the company ($\bar{x}=3.33$, $SD=.71$).

Table 24: Overall evaluation of the ENGINITE internship

| The intern... | Mean | SD | Min. | Max. |
|---|------|------|------|------|
| ...had a smooth and productive collaboration with the company | 4.89 | 0.33 | 4.00 | 5.00 |
| ...was motivated and showed real interest for the company | 4.78 | 0.44 | 4.00 | 5.00 |
| ... adjusted quickly to the working environment of the company | 4.78 | 0.44 | 4.00 | 5.00 |
| ... contributed to the projects of the company | 4.44 | 0.53 | 4.00 | 5.00 |
| ...took part in a constructive and supportive internship | 4.44 | 0.53 | 4.00 | 5.00 |
| ... contributed to the goals of the company | 4.33 | 0.71 | 3.00 | 5.00 |
| ...could be an ideal new addition to the company | 4.22 | 0.83 | 3.00 | 5.00 |
| ... could find innovative solutions to our company's challenges | 3.67 | 0.71 | 3.00 | 5.00 |
| ... brought new and innovative ideas to our company | 3.33 | 0.71 | 3.00 | 5.00 |

Importantly, all the company supervisors, reported that:

- Their expectations were met to their highest degree
- The internship period was of high value for the participating interns

In this context, it is not a surprising that all the company supervisors (100%) reported that they were planning to stay in contact with the young interns, after the end of the partnership period.