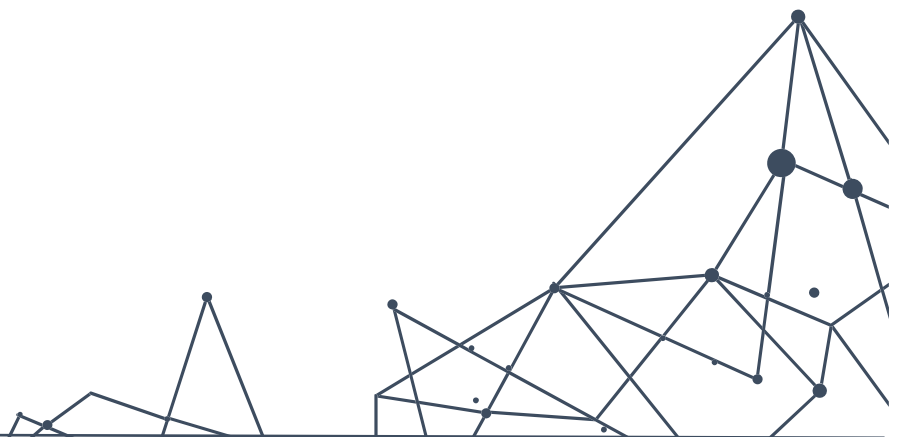


Case Example “Mr. E.”

Case example for the application of the CGC Roundabout for Digital Transformation as learning material for the preparatory webinar session 4 “Exemplary Application of CGC Roundabout for Digital Transformation”



Introduction

This case example forms the basis for the group work in the 4th unit "Exemplary application of CGC roundabouts for digital transformation" of the preparatory webinar on the application of CGC roundabouts for digital transformation. In this scenario, an employers' search for support in planning HR measures accompanying a digital transformation project in the company is the starting point of the multi-stakeholder guidance process. The case focuses on the situation of the employer.

Task

Read the case study at your leisure and then discuss the questions on the worksheet with your group partners.

Case description "Mr. E."

Mr. E. is the owner of a medium-sized, family-run company. He took over the business from his father, who held on to tried-and-tested manufacturing processes and procedures for a long time. While digitization has progressed well in the commercial area of the business, the machines in the production area are still of a purely conventional nature. Milling, machining and turning are still carried out in the family business with precision by eye and without computer support. Two out of ten employees in the production area are about to retire. Due to the shortage of skilled workers, Mr. E. is having difficulty filling the positions. However, since Mr. E. wants to continue to grow with his company and produce in larger quantities than before in order to remain competitive, he decides to purchase new production machinery.

On the one hand, a 3D laser scanner will help to measure the raw material for production more precisely and make suggestions for optimal material utilization. On the other hand, Mr. E. is going to buy CNC machines that can process the material independently, perform quality checks and report defective machine parts as well as malfunctions in the process.

All machines are to communicate with each other via app in order to adapt the operating processes to each other and to detect malfunctions more quickly.

Mr. E. wonders whether the previous skills of his employees are sufficient for the new machines.

Mr. E. contacts the external HR consultant Mr. C., who was recommended to him by a good acquaintance who is also a company owner in the industry. In a first conversation, which takes place on the premises of the company, Mr. E. describes his request. He wants to order new machines for his production plant and wonders whether the skills his employees bring with them are sufficient. At the same time, he is concerned about how he will be able to change the machines with the full order books without the entire operation coming to a standstill.

Mr. C. and Mr. E. visit the workshop with the old machines together. Mr. E. describes the new functions of the machines he has ordered. This allows Mr. C. and Mr. E. to work out that behind the original concern

about whether the employees have the necessary competences, there is a hidden concern for advice on appropriate further training with which the employees can acquire the necessary digital competencies. Mr. C. notes the concern in a joint counselling document.

Mr. C. takes a closer look at Mr. E.'s concerns about how to change the machines when the order books are full. Together they look at what it takes to change the machines. For one thing, the new machines have to be delivered and set up. In the workshop, preparations also have to be made on the subfloor and in the power connections. In addition, Mr. E's employees need further training to be able to operate the machines. Mr. C. explains to Mr. E. that as a counsellor he has no influence on the delivery times of the machines and the preparation work. However, he can advise Mr. E. on further training models that correspond to the setup time for the new machines in order to make the changeover process as efficient as possible.

Mr. E. is relatively surprised that the retooling process of the machines is more extensive than previously assumed. He is now worried about the financial losses that await him due to the loss of production and the further training. In addition, he does not know how he will be able to look through the many training courses on offer. Mr. C. emphasizes that, as a counsellor, he has access to a network of many training providers that can help him select the right training for employees and the company. However, according to Mr. C., employees and their supervisors must also be brought on board. Mr. C. offers that he can support and moderate the process.

Mr. E. asks for a few days to think it over. He has a good feeling about putting the coordination of the training process in the hands of Mr. C. and decides to cooperate.

Mr. E. and Mr. C. have another appointment to assess the initial situation in the company. Also present is Ms. A., who as a manager is in charge of the production area and has a very good insight into the strengths of her employees. Ms. A. is in favor of the acquisition of new machines and the further training of the employees. However, she notes that she is not convinced that all employees will be equally convinced by the training.

Together they work out the ACTUAL state, which Mr. C. also visualizes immediately on a flipchart. 10 people work in the production department. 7 of them have obtained their basic vocational qualification as milling operators (today: metal technology specialists (machining technology)) in the company and 3 have joined externally. Two employees are about to retire. Of the remaining 8 employees, two are between 50 and 60 years old. 4 employees are between 40 and 50 years old. 2 employees are between 30 and 40 years old. As the company has had a low turnover in recent years, no trainees have been taken on. Together they also discuss the previous activities of all employees. The employees' tasks consisted of conventional machining. According to drawings and instructions, they had to clamp workpieces in machines, bring them to the specified dimensions and shapes, and carry out quality checks for each individual workpiece. The employees were used as all-rounders, so that anyone could take on any task. In this way, Mr. E. proudly recounts, it was ensured that production continued even during vacation and sick leave.

During the interview, Mr. C. asks about the previous training practice. None of the employees had completed further training in the last 4 years. According to Mr. E., his father had not pushed this in his business policy. Ms. A. adds that the employees are also rather reluctant to request further training and prefer to go about their work.

Mr. E. is initially uncomfortable discussing internal company data with Mr. C. because he is not from the company. Mr. C. notices Mr. E.'s reticence and addresses it. He assures him that he will treat the data confidentially.

After Mr. C. has recorded the ACTUAL state of the previous operational tasks, the focus now turns to the digital skills in particular that the employees need for the CNC machines and the new 3D laser scanner. Mr. C. goes through the chart of digital competences. With the help of Mr. E. and Ms. A., who planned the purchase and selection of the new production machines, he records the digital competencies required to operate the new machines.

For this it needs, for example:

- Application of digital hardware and software: Employees must know how to start up the machines. They must read plans and data into the machines and operate the software.
- Handling digital data: During processing, the machine creates control data. Employees must be able to read them, check them for plausibility, and derive the next steps for the production process from them.
- Transversal competencies: Digital problem-solving skills: Employees must be able to understand the error messages that the machine produces during its own runtime or for quality control purposes and initiate appropriate steps to solve the problem themselves. At the same time, they must recognize when they need to seek the help of more in-depth support.
- Digital security: Networking also makes the machines more vulnerable to a target of external attacks. They are therefore particularly protected by two-factor authentication and regular access code changes. Employees must master the use of two-factor authentication.
- Digital learning capability: Regular updates expand the functional scope of the machines. Online training courses are offered by the manufacturer for this purpose. Employees must be able to complete these training courses independently and identify their own learning needs based on the machine.

Mr. C., Mr. E. and Ms. A. then talk to each employee individually and go through these competences. They find that two of the employees in particular are already familiar with two-factor authentication and can read error messages from other digital contexts. For the majority of employees, however, these basic digital skills are completely new. Although they also have contact with smartphones and tablets in their free time, they need help setting them up and feel unsure how to use them.

Mr. C. collects the competence characteristics in a table and attaches them to the detailed counselling notes. He has previously checked with the employees that he is allowed to collect this data. He also asks them how they feel about further training and how they would be available for learning. He finds out that 4

employees have family commitments and therefore cannot attend further training outside their daily working hours. All employees have full-time positions and would like to be able to complete continuing education during their work hours. Mr. E. would like the employees to complete further training after work hours before the machines are installed because of the delays in the operating process.

John G. is male, 40 years old, married and has one child. He has been an employee in Mr. E.'s company since his apprenticeship and his last further training was over 8 years ago. He still knows the company as a family-run business and is aware of Mr. E.'s modernisation efforts.

The learning experiences he had at school were rather negative. Therefore, he has a rather negative attitude towards learning and any form of further education.

In his everyday life, John uses a smartphone, but beyond that, he has no pronounced digital skills. His view of the world is more focused on the short-term future. He considers technological innovations to be largely superfluous and is therefore not aware of the digital changes that will come before he retires. He is convinced that he is coping well in his current job and performing well.

He is rather sceptical about Mr E.'s plans - the innovations, which he sees as unnecessary, unsettle him. He feels left out because now a superior who has not learned the job himself from the beginning wants to tell him how the activities could supposedly be done better. He knows that he would have to leave his comfort zone with the new machines.

So far, John has had no experience with counselling. He therefore has no idea what happens in a counselling session. John's previous training experience is limited to short training sessions (3-4 days) in frontal teaching. There has never been a transfer into practice. John is not afraid of losing out due to his low digital competences, as he is not aware of the risk.

Mr. C. and Mr. E. then collect different possible solutions together. Mr. C. makes sure that Mr. E. does not commit himself too quickly to a single solution.

Mr. E. would like all employees to undertake the further training before the machines are replaced in the evening. Mr. C. creates a matrix on a flipchart with the fields "who?", "what?", "how?" and "where?" and fills this solution list with Mr. E.'s first ideas.

<p>WHO (completes continuing education?)</p> <ul style="list-style-type: none"> All employees in the production area 	<p>WHAT (does the training include?)</p>
<p>HOW? (does the further training look like?)</p> <ul style="list-style-type: none"> Time: Before replacing all machines 	<p>WHERE? (can the further training be realized?)</p>

- | | |
|--------------------------------------------------------------------------------------------------------------------------|--|
| <ul style="list-style-type: none">• Integration into the operational process: After hours of the employees | |
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Mr. C. encourages Mr. E. to fill in the open matrix fields as well by asking specific questions. They use the transcripts from the assessment to help them. Mr. C. collects all possible solutions in this phase, even if they cause conflicts within or between the matrix fields. For example, the solution options "after hours of the employees" and "during working hours" do not fit together as a wish of the employees.

<p>WHO (completes continuing education?)</p> <ul style="list-style-type: none"> • All employees in the production area • Employees who are not about to retire • Manager in the production area (Ms. A.) 	<p>WHAT (does the training include?)</p> <ul style="list-style-type: none"> • Application of digital hardware and software: operating the CNC/3D laser scanning machines, reading in plans, operating the app that networks the machines, starting the digital production process. • Digital data: Reading, understanding and interpreting control data, deriving steps for process optimization. • Transversal Competencies: Understanding error messages, deriving steps to address problems on the machine, carrying out the steps, recognizing problem-solving limitations and calling in additional support, using two-factor authentication, keeping credentials secure, recognizing own learning needs, conducting training on updates independently.
<p>HOW? (does the further training look like?)</p> <ul style="list-style-type: none"> • Time: Before replacement of all machines; during the replacement of the machines (production is stopped for 2 weeks), part after installation of the new machines. • Integration into the operational process: After hours of employees; during working hours during the week; time off during working hours and course on weekends. • Training on the job (on the machines in the company itself), training near the job (only the employees in a seminar group, ideally in-house) • Cost: 	<p>WHERE? (can the further training be realized?)</p> <ul style="list-style-type: none"> • In the company, at the on-site training provider, remotely • Continuing education offerings:

After the collection, the costs and the further training offers are still open. Mr. C. asks Mr. E. to prepare a further education budget until the next meeting. Mr. E. prepares this with his finance department. Mr. C. has good contacts to further education providers and knows which offers are available. He brings information on offers to the next meeting.

At the next meeting of Mr. C. and Mr. E., Ms. A. is also present again as the manager of the production employees. Mr. C. presents the offers of the sponsors FUTURE, Strategy and ChaNCe. They cover brainstorming on possible solutions to varying degrees. Together, Mr. E. and Ms. A. decide on the offer of the training provider ChaNCe, as this best combines the goals of Mr. E. (cost-effectiveness of further training, high application relevance) and the interests of the employees (within working hours). The offer is aimed specifically at people who are working with CNC machines for the first time and includes learning close to the workplace on machines in the on-site training center. Mr. C. moderates the determination of Mrs. A. and Mr. E. and supports them in finding out their own decision criteria. ChaNCe does not offer any follow-up support in the company, but A. and E. both want this. Therefore, Mr. C. calls the training provider in the presence of both of them and together they clarify by telephone when the start of the course would be possible and whether follow-up support can be added. ChaNCe assures Mr. E. that it will send him an individual offer and information about funding opportunities.

At the end of the conversation, Mr. C. goes through the next steps with Mr. E.. He communicates that he will be supportive.

Mr. C. is again a guest of Mr. E. at the company. Today, Mr. W. from the training provider also comes, as the company and the training provider conclude a cooperation agreement. In addition, the employees are informed about the further training. Mr. E. still has questions about funding opportunities. Mr. C. can put Mr. E. in touch with a contact in his network, who will call him.

A few days later, the new machines are delivered and Mr. E.'s employees start their two-week training. Mr. C. inquires with Mr. E. about the progress. Mr. E. has no problems and is satisfied.

After four weeks, the aftercare on the machines in the company is also completed and the training has been passed. Mr. E. informs Mr. C. about the end of the further training and the result. Unfortunately, one employee was injured and could not complete the training. Mr. C. also takes note of the result and offers his help. However, Mr. E. is in discussion with Mr. W. from the training provider and therefore does not need any help.

After half a year, Mr. C., Mr. E., Ms. A. and Mr. W. meet again. The employee is also present. Using a feedback sheet, Mr. C. obtains feedback on how the consulting process and the involvement of other actors worked from the perspective of those present. From the feedback, Mr. C. draws conclusions for his further consulting activities. He also turns to his colleague in confidence to reflect together.



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The creation of these resources has been (partially) funded by the ERASMUS+ grant program of the European Union under grant no. 2022-1-DE01-KA220-HED-000089003. Neither the European Commission nor the project's national funding agency DAAD are responsible for the content or liable for any losses or damage resulting of the use of these resources.