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Setting of Group Bari:

A small furniture company has increasing problems to sell their products. The management analyses the situation. The main results are:

- The time from the customer's order to deliver the final product is too long
- The company is not able to follow new market requirements fast enough
- The company has problems with the quality of the products

The management develops the following idea to solve the problems:

The whole production should be transformed to a mostly full automatically production process according to the supply chain of the so called "Industry 4.0"

According to the actual employees as well as for new employees of the company this will have the following consequences

- The vocational education of the new employees must include all the competences that will be needed for the "new working world"
- The company's employees must receive appropriate training.

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First Step in our working group: Find a structure that will display the transformation process to 4.0

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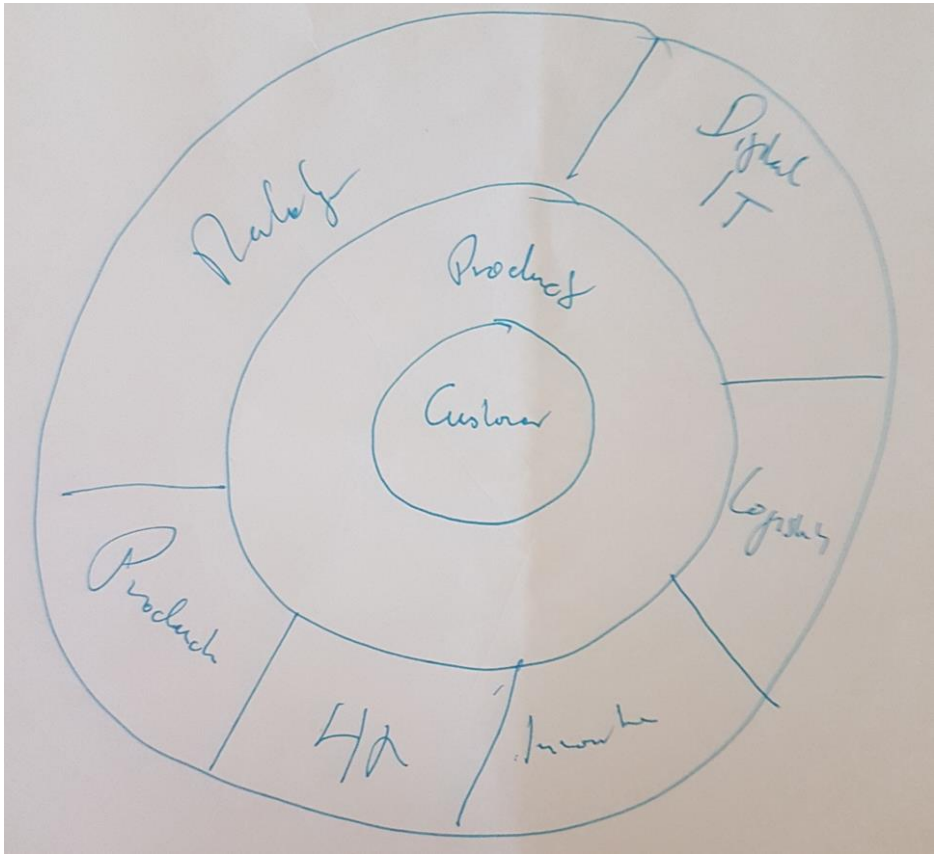

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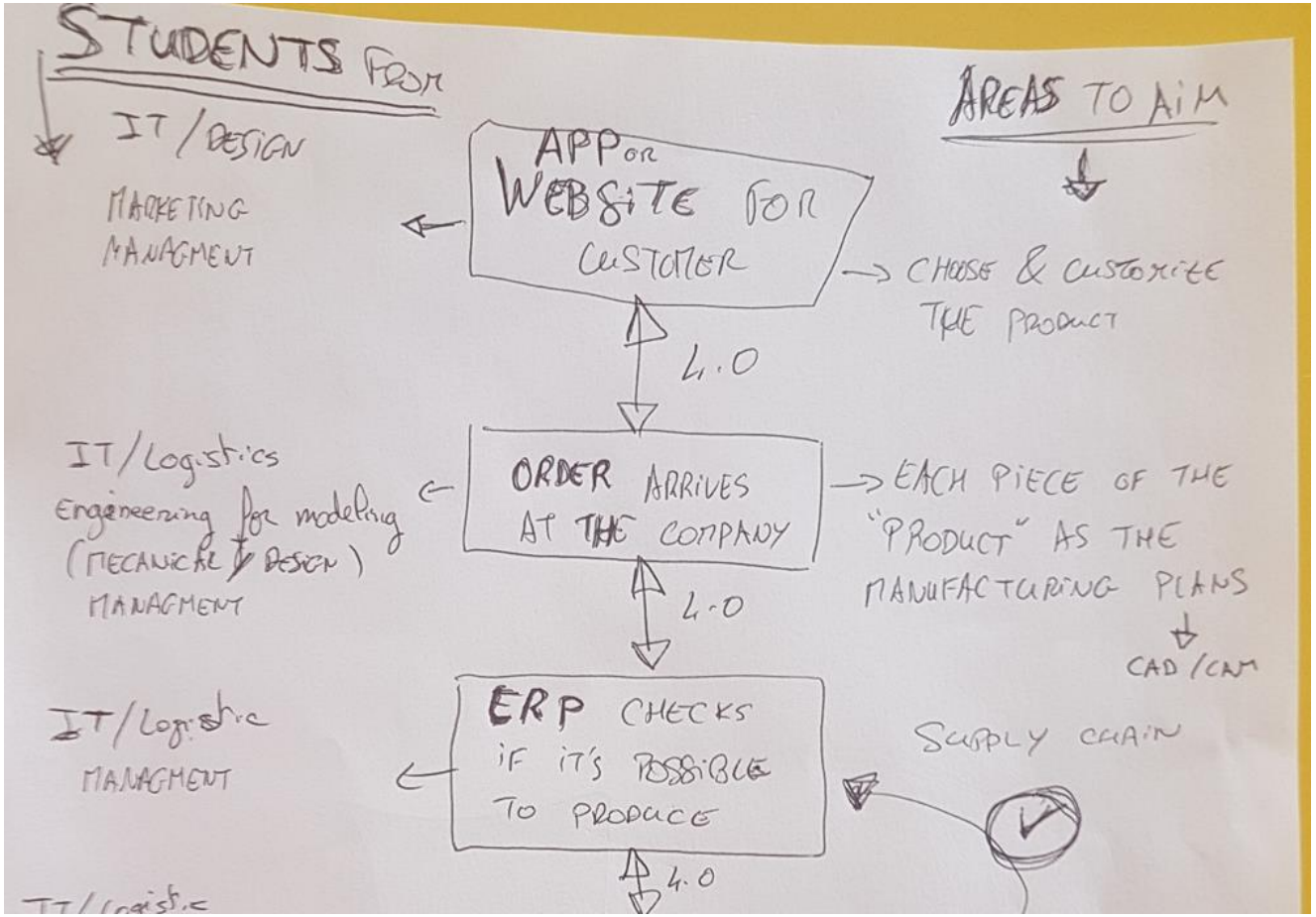

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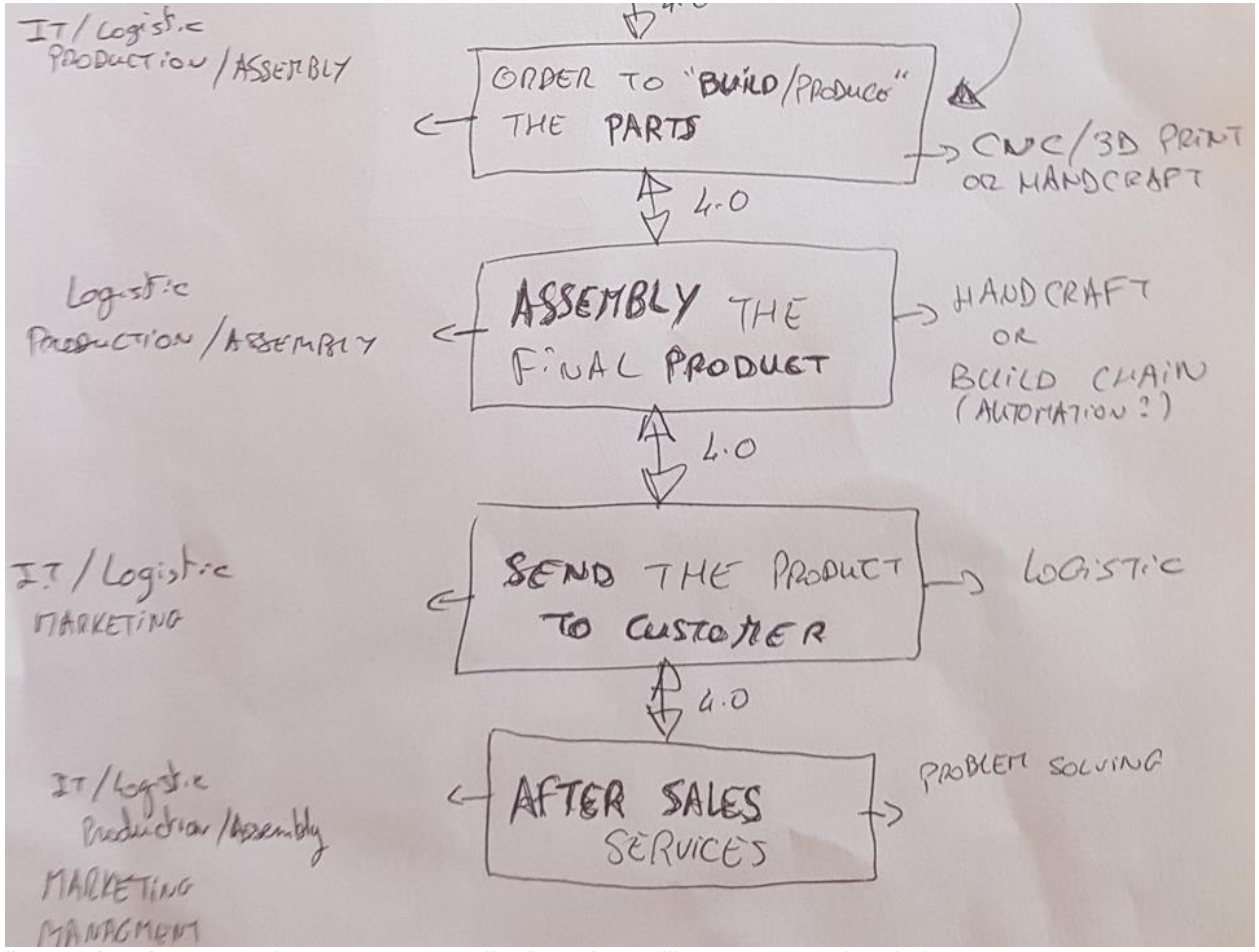

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Ideas for Learning Modules:

1: What is necessary to implement a “modern way of production according to 4.0 in a small furniture company?

Starting point: an app that presents several opportunities / elements of create an individual chair

2: The customer reports quality issues

3: You as a producer must follow the market requirements

4: Delivery problems,

5. lack of work force

6: the price of the product is not competitive

Basic question:

E.g.: Why does a carpenter have to know anything about logistics??

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Template to present the solution of the challenge

Title of the module/activity	
1. **Disciplines working together (business administration, marketing, electronics, finance, health care…)**	• IT • Production Design • Marketing • Financial administration
2. **Time for realization**	It depends on the knowledge of the students, between 6 and 12 h
3. **Number of teachers involved**	3 to 4 Teachers
4. **Aims of your module or activity (you can write which sector you are addressing, the problem you would like to solve, a situation you can imagine…).**	• The new employees are able to understand the complexity of the transformation of the change of the production process to 4.0 • They are able to understand that there is an important connection between all the parts of the production process. • Students will get w wide scope on all the tasks and the involves departments of the new production process That includes also that the

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	• Students are able to work in multidisciplinary teams. • Students are able to change the working teams and even change professional profiles • Students are able to solve problems in the production process,
5. Short description of the module or activity	What is necessary to implement a "modern way of production according to 4.0 in a small furniture company? Starting point: an existing app that presents several opportunities / elements of create an individual chair
6. Information on the target group / prior knowledge to participate (which students are you addressing? Which prior knowledge do they need?)	Students that will be addressed: IT, Production Design, Marketing, Financial administration Prior Knowledge will be basics of IT
7. Which competences could the students achieve by completing this module/activity?	• Being able to work with peers from different disciplines. • Understand other the basics of other professions

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	• The studends will be able to understand how each part of the production process will interact with the other Parts • The students will increase they responsibility of their work in their origin profession
8. ^+Describe the process you will follow (will you include common lessons? Which ones would be necessary?, how will students work together? How will interdisciplinary cooperation be promoted? How will teachers work together?...)	1. Present the task to all students (briefing) 2. Each group of students (from each area) will do a presentation to the whole group of the specifics about their line of work 3. All the students begin to work in a collaborative way to solve/accomplish the task.
9. Which digital tools would you use and for which purpose?	It depends on the possibility of the schools. Examples are: • Collaborative work: Microsoft Office 365 (or Google workspace) • Online quiz platform (Kahoot, Quizizz, Socrative)

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10. Which difficulties you foresee to implement this module/activity and how do you think you can solve them?	• Schedule of the students from different courses • Student's background (different education level and cultural) • Interest of the students for different areas of work

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