**Unit 1: Advanced manufacturing – companies’ mindset and current trends**

**Subunit 2: Current trends: process and product technologies**

**Activity (1): Current trends**

**Learning Outcomes** (paste the appropriate LOs from the LOs Matrix)

Knowledge Skills Responsibility and Autonomy

Basic knowledge of: - Current trends on product technologies - Current trends on process technologies

List of 9 main technologies that are transforming industrial production

List of 9 main technologies that are transforming industrial production

Identify and describe key characteristics of products in advanced manufacturing

Demonstrate knowledge and skills obtained for development of cooperation between VET and business sector

Demonstrate knowledge and skills obtained for development of cooperation between VET and business sector

Demonstrate knowledge and skills obtained for development of cooperation between VET and business sector

Demonstrate knowledge and skills obtained for development of cooperation between VET and business sector

Identify and describe key characteristics of processes in advanced manufacturing

Analyse the possibilities of implementation of product technologies and process technologies in advanced manufacturing on specific examples from the industry

Provide examples of technologies transforming industrial production in international and local companies

**Type of activity** ☒ PDF ☐ PPT ☒ Image/Infographic ☒ Video

☒ Test/Quiz ☐ Game ☐ Other (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Duration** Estimated in minute

180

**Activity** (to be inserted into Moodle and seen by learners)

Tasks: ● read through printed PDF about industry 4.0 trends

● watch the videos

● research: find videos about the topic

● make an infographic and present it to other students (use Canva, PPT...)

● short quiz in Moodle classroom

To complete the activity: Watch the following videos:

Industry 4.0 global trends: https://www.youtube.com/watch?v=VhqMyZMws3Q What is smart manufacturing? https://www.youtube.com/watch?v=EV1Ygw6\_rCs

Read the article about trends: Trends in Advanced Manufacturing Technology Innovation Olivier de Weck, Darci Reed, Sanjay Sarma, Martin Schmidt Massachusetts Institute of Technology

https://www.als2018.com/pdf/ALS2018%20ppt\_5.6%20Thriving%20in%20Industry%204.0%20%E2%80%93%20The%20Festo%20Way.pdf

**Assessment** Student will answer short quiz on the topic.

**Resources** Equipment: PC, laptop, tablet, smartphone, Internet connection **Further reading** Industry 4.0

**Trends in Management of intelligent Manufacturing Systems** Lucia Knapcikova, Michal Balog .