

Title of the Learning Unit	Title Chapter within LU	Number of developed Pill	Title of the Learning Pill	Link to video on Youtube	SKC	Name of SKC	# Pills / chapter	Produced by whom?	Managers of furniture companies	Workers of furniture companies	HE in woodworking and furniture	VET students in woodworking and furniture	Comments
1 Digital technology - Exploration of contemporary emerging and potential disruptive		7											
	Internet of Things (IoT)												
	Industrial Internet of Things (IIoT), framework for product development		43	Internet of Things - Emergence of Connected Economics	1	IoT	1	Aarhus	X	X	X	X	
			71	What is IoT/IIoT? General approach and platforms	1	IIoT	4	UTBv	X	X	X	X	
			72	IIoT framework - Case study Tapio (HOMAG)	1	IIoT		UTBv	X	X	X	X	
			83	Digital product configuration, selling, buying from a single platform (pCon)	1	IIoT		UTBv	X	X	X	X	
			100	Case study of One Two Time and Job registration by barcode scanning	1	IIoT		HoGent	X	X	X	X	
	Cloud computing, enabler of Industry 4.0		48	Cloud Computing – Enabling Industries of the Future	5	cloud comp	2	Aarhus	X	X	X	X	
			73	Cloud computing explained in the context of Industry 4.0	5	cloud comp		UTBv	X	X	X	X	
							7	7	7	6			
2 Digital technology - engineering and manufacturing		18											
	Horizontal and vertical system integration												
			46	Technical General Competences	3	general techn comps	13	Aarhus	X	X	X	X	
			47	Horizontal and Vertical System Integration	4	H + V system integr		Aarhus	X	X	X	X	
	Industry 4.0: concept and terminology (ERP, ORP...)		86	A brief history on the first, second and third industrial revolution	3	general techn comps		HoGent	X	X	X	X	
			87	Industry 4.0	3	general techn comps		HoGent	X	X	X	X	
			88	ERP Introduction	1 + 4 + 5	IIoT, H+V system integr + cloud comp		HoGent	X	X	X	X	
			89	Case study of Proteus ERP	1 + 4 + 5	IIoT, H+V system integr + cloud comp		HoGent	X	X	X	X	
			90	Operational Resource Planning Case study - ARDIS®	1 + 4 + 5	IIoT, H+V system integr + cloud comp		HoGent	X	X	X	X	
	Parametric design softwares for furniture industry 4.0		74	Review of parametric design software for Industry 4.0	3 + 4	general techn comps + H+V system integr		UTBv	X	X	X	X	one case study for VET-students / workers
			75	Case study: Imos as customized design software	3 + 4	general techn comps + H+V system integr		UTBv	X	X	X	X	one case study for VET-students / workers
			76	Case study: Inventor software (applied in Nord Arin S.A Co.)	3 + 4	general techn comps + H+V system integr		UTBv	X	X	X	X	
	From product design to production		91	CADCAM Case study - TopSolid	1 + 6	IIoT, simulation		HoGent	X	X	X	X	
			77	CAD-CAM system Industry 4.0 Case study - Cabinet Vision	3 + 4	general techn comps + H+V system integr		UTBv	X	X	X	X	one case study for VET-students / workers
			78	CAD-CAM Case study - B_Cabinet (Biesse)	3 + 4	general techn comps + H+V system integr		UTBv	X	X	X	X	
	Additive manufacturing		92	Additive Manufacturing Introduction	8	additive manufact	3	HoGent	X	X	X	X	
			93	Additive Manufacturing Overview	8	additive manufact		HoGent	X	X	X	X	
			94	Additive Manufacturing Examples from the furniture sector	8	additive manufact		HoGent	X	X	X	X	
	Autonomous robots		55	Autonomous Robots - An Introduction	10	auton robots	2	Aarhus	X	X	X	X	
			85	Autonomous robots - Case study: Lesta robots for furniture finishing	10	auton robots		UTBv	X	X	X	X	
							25	18	18	11			
3 Digital technology – simulation and AR/VR		9											
	Simulation, digital twins, machining and virtual prototyping												
			51	Establishing Digital Twins for Cyber-Physical Systems	6	simulation	3	Aarhus	X	X	X	X	
			79	Case study - bSolid (Biesse)	6	simulation		UTBv	X	X	X	X	
			80	CAD-CAM-CAE - Sophia platform	6	simulation		UTBv	X	X	X	X	
	Virtual/Augmented reality: in design and in relation to AI		69	Visualization of the design	9	AR	6	Aarhus	X	X	X	X	
			70	Augmented Reality & Artificial Intelligence	9	AR		Aarhus	X	X	X	X	
			81	Augmented Reality - General concepts and applications	9	AR		UTBv	X	X	X	X	
			82	Case study - design pCon digital platform	9	AR		UTBv	X	X	X	X	one case study for VET-students / workers
			95	Using AR/VR in sales	9	AR		HoGent	X	X	X	X	
			96	Remote technician and operator training by AR/VR	9	AR		HoGent	X	X	X	X	
							34	9	9	6			
4 Digital technology – data & security		12											
	Data management and data-driven analytics												
			44	New ways of collecting and moving data - digital platforms	7	big data	6	Aarhus	X	X	X	X	
			28	Tools for Understanding and Monetizing Data	7	big data		Aarhus	X	X	X	X	
			52	Big Data analytics & advanced analytics	7	big data		Aarhus	X	X	X	X	
			53	LEAN and Digital Manufacturing "Total Production Maintenance" TPM	7	big data		Aarhus	X	X	X	X	
			56	LEAN and Digital Manufacturing SMED	1 + 4 + 7	IIoT, H + V system integr, big data		Aarhus	X	X	X	X	
	Information Security Management & Cybersecurity (including Blockchain)		84	Big data analytics and evaluation of customer experience	7	big data		UTBv	X	X	X	X	
			45	Cybersecurity Introduction – backing up your data might not be enough	2	cybersecurity	6	Aarhus	X	X	X	X	
			59	A strategy for cybersecurity: how to protect your digital assets	2	cybersecurity		Aarhus	X	X	X	X	
			30	Cybersecurity (Internally in the firm)	2	cybersecurity		Aarhus	X	X	X	X	
			29	GDPR and Safety - General Data Protection Regulation	2	cybersecurity		Aarhus	X	X	X	X	
			57	Blockchain - a changing trend for industries and what does it mean for your business	11	blockchain		Aarhus	X	X	X	X	
			60	Machine Learning in the furniture industry	11	blockchain		Aarhus	X	X	X	X	
							46	12	12	4			
5 Innovation and digital transformation		11											
	Disruption and (digital) business models and frameworks												
			14	Understanding the Digital Ecosystem	12	innovation	2	Aarhus	X	X	X	X	
			20	Managing innovation processes and tools to drive digitalization	12 + 14	innovation, mgt		Aarhus	X	X	X	X	
	Innovation, creativity and ideas generation		19	Ability to sense the opportunities within digitalization	12	innovation	3	Aarhus	X	X	X	X	
			27	New (Digital) Business Models	12	innovation		Aarhus	X	X	X	X	
			38	Value generation	12	innovation		Aarhus	X	X	X	X	
	Business and IT strategy & alignment		11	Introduction to Digital Transformation	12 + 14	innovation, mgt	6	Aarhus	X	X	X	X	
			12	What is Digital Maturity ?	12 + 14	innovation, mgt		Aarhus	X	X	X	X	
			13	Designing the Digital Strategy	12 + 14	innovation, mgt		Aarhus	X	X	X	X	
			15	Moving from Supply Chain to Ecosystems	12 + 14	innovation, mgt		Aarhus	X	X	X	X	
			17	Moving from Products to Services: New Value Propositions	12 + 14	innovation, mgt		Aarhus	X	X	X	X	
			21	Understanding the Market / Technical Trend and the Competition to Fit in the Digital Ecosystem	12 + 14	innovation, mgt		Aarhus	X	X	X	X	
							57	11	11	6			
6 Leadership in digital transformation		13											
	Organizational structures and leadership												
			22	Investing for Digital Transformation: The Business Case	14	mgt	3	Aarhus	X	X	X	X	
			49	Related to business concepts (i.e. investments)	14	mgt		Aarhus	X	X	X	X	
	Change management - strategy and culture		1	Leveraging Maturity Models to promote Digital Transformation in the Furniture Industry	14	mgt		CENFIM	X	X	X	X	
			65	Digital Adoption: What, why and how	14	mgt	6	Aarhus	X	X	X	X	
			2	Strategy, Organizational Culture and People	13 + 14 + 15	communication, mgt, emotional intell		CENFIM	X	X	X	X	
			3	Underpinning execution: ICT, standards and processes	13 + 14 + 15	communication, mgt, emotional intell		CENFIM	X	X	X	X	

	4	Reorienting the company around the Customer Experience to generate business value	https://youtu.be/j1MgCmlRy80	13 + 14 + 15	communication, mgt, emotional intell	CENFIM	X		X		
	5	Embracing constant change and rapid adaptation to generate business value	https://youtu.be/EQ4n5yc1Kus	13 + 14 + 15	communication, mgt, emotional intell	CENFIM	X	X	X		X
Process management, governance and management of digital assets Self-assessment, evaluation maturity tools and case studies	6	Examples of Digital Transformation Enablers and Tools	https://youtu.be/fBcZa-blfiA	13 + 14 + 15	communication, mgt, emotional intell	CENFIM	X	X	X		X
	7	Self-assessment exploratory questions	https://youtu.be/UnKXCU0o8xg	13 + 14 + 15	communication, mgt, emotional intell	CENFIM	X	X	X		X
	8	Evaluation Tools - How digitally mature is your company?	https://youtu.be/c5Yw_6SSjC	13 + 14 + 15	communication, mgt, emotional intell	CENFIM	X		X		
	9	Furniture Manufacturing Industry: Current Status	https://youtu.be/ufVMND1q9Zg	13 + 14 + 15	communication, mgt, emotional intell	CENFIM	X		X		
	10	Advancement of the Digital Maturity of Furniture Manufacturing Companies	https://youtu.be/QXdDR-Sz9Zw	13 + 14 + 15	communication, mgt, emotional intell	CENFIM	X	X	X		X
						70	13	13	7		
7 Communication in digital transformation											
Engagement, transparency and accelerators adoption											
	18	Digitalization: Opportunity or Threat	https://youtu.be/XLNPXocI7Ng	13	communication	2 Aarhus	X	X	X		X
	32	Communicating the Digital Change in the Company	https://youtu.be/-c1c95WogBQ	13	communication	Aarhus	X	X	X		X
Partnerships											
	16	How to create partnerships in a digital ecosystem	https://youtu.be/zZMUpDu4FZw	13	communication	2 Aarhus	X		X		
	50	LEAN and Digital enabled Supply Chain/Logistic	https://youtu.be/42yb80p0K8Q	6 + 7 + 13	simulation + big data + communication	Aarhus	X		X		
Digital marketing											
	35	The Financial Perspective for Digital Commerce	https://youtu.be/yeAAU0aCBIs	13	communication	6 Aarhus	X		X		
	68	Delivering Digital versions of the furniture/products (e-commerce) - Intro	https://youtu.be/msXEIAYEa8c	13	communication	Aarhus	X	X	X		X
	37	New customer touch points	https://youtu.be/a8z8naHBoyU	13 + 17	communication, ethics	Aarhus	X		X		
	39	E-marketing and (mobile) branding	https://youtu.be/i5Kicrh4	13 + 17	communication, ethics	Aarhus	X		X		
	40	How to understand "your" market	https://youtu.be/D1RP6USAG4	13 + 17	communication, ethics	Aarhus	X		X		
	98	Brands & Patents - Intellectual Property Rights	https://www.thatsip.nl/eng/module	13 + 17	communication + ethics	HoGent	X		X		
						80	10	10	3		
8 The people within the digital transformation											
Working in team: HR-practices in a digital environment											
	41	Digital HR Practices	https://youtu.be/eqlUJFxbQ-GQ	15	mgt + emotional intell	2 Aarhus	X		X		
	23	Getting the right Employees: Hiring & training	https://youtu.be/n_1L92P6btw	14 + 15	mgt + emotional intell	Aarhus	X		X		
Culture and mindset in a digital company											
	24	Assessing the need for organizational change	https://youtu.be/INUnekEQD4A	14 + 15	mgt + emotional intell	4 Aarhus	X		X		
	25	Managing the organizational change	https://youtu.be/7nyvwa1dijw	14 + 15	mgt + emotional intell	Aarhus	X		X		
	26	Change of Culture and Mindset in the Company	https://youtu.be/Kfdf-w4560	14 + 15	mgt + emotional intell	Aarhus	X		X		
	97	Change of culture and mindset in the company. Case study - Van Hoecke	https://youtu.be/Az3p7A_cgM_and	14 + 15	mgt + emotional intell	HoGent	X	X	X		X
						86	6	6	1		
9 Quality, risk and safety in digital transformation											
Quality: automation and standardization											
	64	Automating tasks performed by human vision - Case study: TrackTech	https://youtu.be/T_0evA49P7U	16	Q, risk and S	1 Aarhus	X	X	X		X
Implementing a digital strategy with regards to Risk and Safety											
	31	Digitalization of Organizational Processes	https://youtu.be/0-yXy1z2Ksc	16	Q, risk and S	7 Aarhus	X	X	X		X
	42	From an Analog Safety Management System to a Digital System?	https://youtu.be/8pNc0_g2v8c	16	Q, risk and S	Aarhus	X		X		
	58	Ecosystems and transactions: security implications	https://youtu.be/W4pBGmloTWc	16	Q, risk and S	Aarhus	X		X		
Risk management in the digital area											
	61	Intro to Risk management in the Digital area	https://youtu.be/UFITJDFif	16	Q, risk and S	Aarhus	X		X		
	62	A vision for the Digital risk: the seven building blocks	https://youtu.be/xVkaPdvbbtw	16	Q, risk and S	Aarhus	X		X		
	63	Implementing a Digital Strategy with Respect to Safety	https://youtu.be/fHtOmIva38w	16	Q, risk and S	Aarhus	X	X	X		X
	99	Prevention Policy, Risk Assessment	https://youtu.be/9exz7DKJmpk	16	Q, risk and S	HoGent	X		X		
						94	8	8	3		
10 Social and environmental impact of digitization											
The Good, the Bad and the Ugly in a digital transformation process											
	66	Digital Transformation - The Good, Bad & Ugly	https://youtu.be/FGWwym5n7w	17	ethics	1 Aarhus	X	X	X		X
Digital tools in times of emergency (i.e. healthcare, COVID-19)											
	54	Digital tools in times of emergency - Covid 19	https://youtu.be/QTY0k8ExcmE	17	ethics	2 Aarhus	X	X	X		X
	67	Digital tools in times of emergency - Covid 19 (part 2)	https://youtu.be/bx3cuyndByI	17	ethics	Aarhus	X		X		
Connecting sustainability with digitalization											
	33	Connecting Sustainability with Digitalization	https://youtu.be/slHtQpHg56w	12 + 17	innovation, ethics	3 Aarhus	X	X	X		X
	34	How 'servitization' facilitates for longer lifetime of products	https://youtu.be/-WNiBjANn4	12 + 17	innovation, ethics	Aarhus	X		X		
	36	Full cycle reusability of the Products	https://youtu.be/msUKV57oKnE	12 + 17	innovation, ethics	Aarhus	X	X	X		X
						100	6	6	4		

Knowledge / skills

- 1 Industrial internet of things
- 2 Cybersecurity
- 3 Technical general competences
- 4 Horizontal and vertical system integration
- 5 Cloud computing
- 6 Simulation
- 7 Big data analytics
- 8 Additive manufacturing
- 9 Augmented reality
- 10 Autonomous robots
- 11 Blockchain
- 12 Innovation
- 13 Communication
- 14 Management and entrepreneurship
- 15 Emotional intelligence
- 16 Quality, risk and safety
- 17 Ethics

Vision, strategy roadmaps, IT governance, Business and IT strategy alignment, disruption and new business models/frameworks, innovation with creativity and ideas generation
 Communication skills, engagement, transparency, partnerships, accelerators adoption, digital marketing
 Leadership, entrepreneurial skills (organisational structures, leadership, entrepreneurial skills, interdisciplinary teams, change mgt, process mgt, governance and mgt of digital assets)
 working in team + intercultural skills + social skills + interdisciplinary teams + self discipline + persistence, passion and enthusiasm + integrity + adaptability
 Q standards (measurements and risks) + individual responsibility + controls (tracking, risks and compliance) + safety
 social impact + environmental impact + digital marketing

The following table shows the Learning Units (LU) of the course and its duration:

LEARNING UNITS (The duration of the Pills is approx. 45 min)	EQF 5 managers of furniture companies / HE in woodworking and furniture		EQF 4 workers of furniture companies / VET students in woodworking and furniture	
	Duration (h)	ECVET credits	Duration (h)	ECVET credits
Digital technology - Exploration of contemporary emerging and potential disruptive technologies	5,00	0,2	4,00	0,16
Digital technology - engineering and				

manufacturing	12,6	0,5	7,7	0,31
Digital technology – simulation and AR/VR	6,3	0,25	4,2	0,17
Digital technology – data & security	8,4	0,34	2,8	0,12
Innovation and digital transformation	7,7	0,31	4,2	0,17
Leadership in digital transformation	9	0,36	4,9	0,19
Communication in digital transformation	7	0,28	2,1	0,08
The people within the digital transformation	4,2	0,17	0,7	0,03
Quality, risk and safety in digital transformation	5,6	0,22	2,1	0,08
Social and environmental impact of digitization	4,2	0,17	2,8	0,11
DIGITAL TRANSFORMATION MANAGER	70,00	2,80	35,50	1,42