NET-UBIEP | Network for Use BIM to Increase Energy Performance www.net-ubiep.eu



DELIVERABLE: D14 - D3.1 3D Matrix

Version: 3 Data: 26/03/2019

WP Leader: CSA - CENTRO SERVIZI AZIENDALE Authors: CSA - CENTRO SERVIZI AZIENDALE

Review Contribution: Claudio Rosso - Liliana Bonfiglio (CSA - Centro Servizi Aziendale) - Anna Moreno - Christian Girardello (ENEA)

Network for Using BIM to Increase the Energy Performance

Grant Agreement Number:

754016 Net-UBIEP H2020

www.net-ubiep.eu netubiep.project@net-ubiep.eu





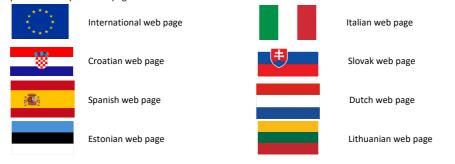
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 754016.

This deliverable reflects only the author's view. The Agency is not responsible for any use that may be made of the information it contains.

The present deliverable will be update during the project in order to align the outcome to the market needs as well as to other BIM related projects realized within Horizon 2020 program.

The updated version of the deliverable will be only available in the website of the project www.net-ubiep.eu.

Some deliverables could also be translated in partners national languages and could be find in the respective national web pages. Click on the flags to open the correspondence pages:





Preparation and Brief iical Design Handover and Close Out Concept Design oped Desig Construction trategic Defini In use **BIM Profiles** Techr De BIM Manager **BIM Coordinator BIM Model Evaluator** BIM Specialist-Expert BIM User

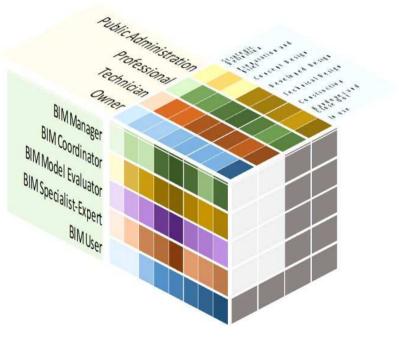
	Strategic Definition	Preparation and Brief	Concept Design	Developed Design	Technical Design	Construction	Handover and Close Out	in use
BIM Coordinator								
BIM Model Evaluator								
BIM Specialist-Expert								
BIM User								

3D Matrix

	Owner	Technician	Professional	Public Administration
BIM Manager				
BIM Coordinator				
BIM Model Evaluator				
BIM Specialist-Expert				
BIM User				

Target Group	Strategic Definition	Preparation and Brief	Concept Design	Developed Design	Technical Design	Construction	Handover and Close Out	In use
Public Administration								
Professional								
Technician								
Owner								

	Strategic Definition	Preparation and Brief	Concept Design	Developed Design	Technical Design	Construction	Handover and Close Out	In use
Public Administration								
Professional								
Technician								
Owner								



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016



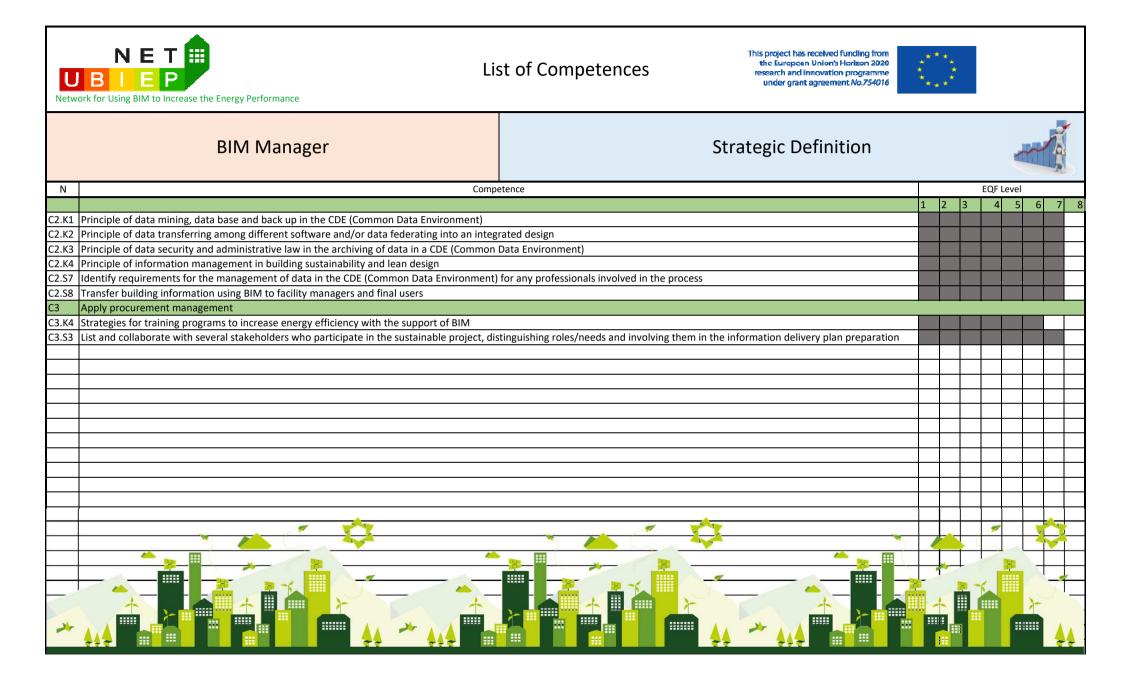
EQF LEVELS

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016



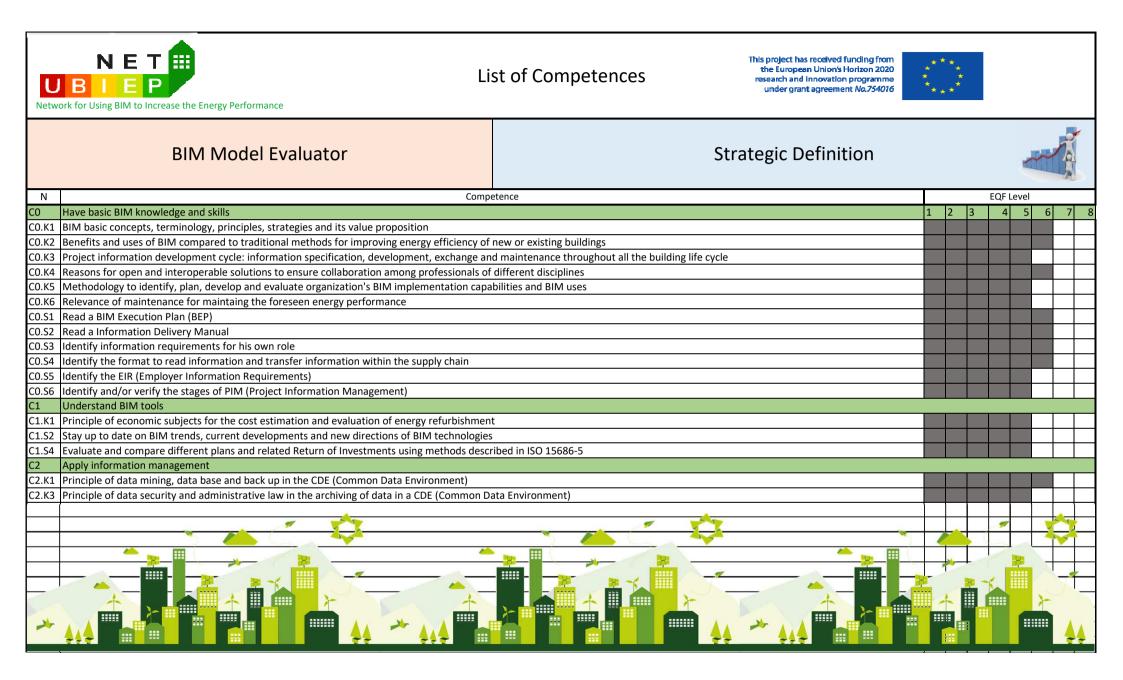
LEGEND:	KNOWLEDGE	SKILLS	RESPONSABILITY AND AUTONOMY
		use of logical, intuitive and creative thinking) and practical (involving manual devterity and the use of methods, materials	In the context of the EQF responsibility and autonomy is described as the ability of the learner to apply knowledge and skills autonomously and with responsibility
Level 1 The learning outcomes relevant to Level 1 are	basic general knowledge	basic skills required to carry out simple tasks	work or study under direct supervision in a structured context
Level 2 The learning outcomes relevant to Level 2 are	basic factual knowledge of a field of work or study	basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	work or study under supervision with some autonomy
Level 3 The learning outcomes relevant to Level 3 are	knowledge of facts, principles, processes and general concepts, in a field of work or study	a range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	take responsibility for completion of tasks in work or study adapt own behaviour to circumstances in solving problems
Level 4 The learning outcomes relevant to Level 4 are	factual and theoretical knowledge in broad contexts within a field of work or study	a range of cognitive and practical skills required to generate	exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Level 5 The learning outcomes relevant to Level 5 are	comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	exercise management and supervision in contexts of work or study activities where there is unpredictable change review and develop performance of self and others
Level 6 The learning outcomes relevant to Level 6 are	advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts take responsibility for managing professional development of individuals and groups
Level 7 The learning outcomes relevant to Level 7 are	-	innovation in order to develop new knowledge and procedures and	manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Level 8 The learning outcomes relevant to Level 8 are	knowledge at the most advanced frontier of a field of work or study and at the interface between fields		demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

	BACK					
Netw	NET BIEP Ork for Using BIM to Increase the Energy Performance	st of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>	**** * * ***		
	BIM Manager		Strategic Definition		~	A P C
N		etence			EQF Level	
	Have basic BIM knowledge and skills			1 2 3	4 5 6	7 8
	BIM basic concepts, terminology, principles, strategies and its value proposition					
	Benefits and uses of BIM compared to traditional methods for improving energy efficiency					
	Project information development cycle: information specification, development, exchange		fe cycle			
	Reasons for open and interoperable solutions to ensure collaboration among professionals					
	Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses				
	Relevance of maintenance for maintaing the foreseen energy performance					
	Read a BIM Execution Plan (BEP)					
	Read a Information Delivery Manual					
	Identify information requirements for his own role					
	Identify the format to read information and transfer information within the supply chain					
	Identify the EIR (Employer Information Requirements)					
	Identify and/or verify the stages of PIM (Project Information Management)					
C1	Understand BIM tools					
	Principle of economic subjects for the cost estimation and evaluation of energy refurbishme	ent				
	Specialised skills to incorporate information into BIM Model, evaluating openBIM software					
	Stay up to date on BIM trends, current developments and new directions of BIM technologi	es				
	Decrease the life cycle cost of the building using methods described in ISO 15686-5	caribad in ISO 1E696 E			البريه	
C1.54	Evaluate and compare different plans and related Return of Investments using methods de					
C2	Apply information management			1 1 1 1		
				+ $+$ $+$ $+$		4
			*			4
-			A 🖽			_
*						*



BACK		
NET UBIEP Network for Using BIM to Increase the Energy Performance	This project has receive the European Unio research and innova under grant agree	ation programme
BIM Coordinator	Strategic Defir	
	etence	EQF Level
CO Have basic BIM knowledge and skills		1 2 3 4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition		
CO.K2 Benefits and uses of BIM compared to traditional methods for improving energy efficiency		
CO.K3 Project information development cycle: information specification, development, exchange		
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among professionals		
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses	
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance		
CO.S1 Read a BIM Execution Plan (BEP)		
CO.S2 Read a Information Delivery Manual		
C0.S3 Identify information requirements for his own role		
C0.S4 Identify the format to read information and transfer information within the supply chain		
C0.S5 Identify the EIR (Employer Information Requirements)		
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)		
C1 Understand BIM tools		
C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM software		
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM technologi	es	
C2 Apply information management		
C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environment)		
C2.K2 Principle of data transferring among different software and/or data federating into an integ		
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)	

	NET BIEP Dirk for Using BIM to Increase the Energy Performance	st of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016	_*** * ***	* * *				
	BIM Coordinator		Strategic Definition						1
Ν	Comp	petence				EQF L	_evel		
				1 2	3	4	5	6 7	7 8
	Principle of information management in building sustainability and lean design								
	Identify requirements for the management of data in the CDE (Common Data Environment) for any professionals involved in the process	5						
	Transfer building information using BIM to facility managers and final users								
	Develop a CDE (Common Data Environment) to exchange data through the building life cyc	le as well as through the supply chain							
	Apply procurement management			_	_	_			
	Strategies for training programs to increase energy efficiency with the support of BIM								
C3.S3	List and collaborate with several stakeholders who participate in the sustainable project, di	stinguishing roles/needs and involving them i	in the information delivery plan preparation			4			4
						+		—	
							-+	—	
						+ +		_	
						+ +		_	
						+		_	
						+		_	
						+	-+	—	
						+	\rightarrow	—	
						+	-+	+-	
-						+ +			
-						+ +			
						+		-	
		· · · · · · · · · · · · · · · · · · ·	A					-	*
			V ⁴ N				-	4	<u>-</u>
*							2		



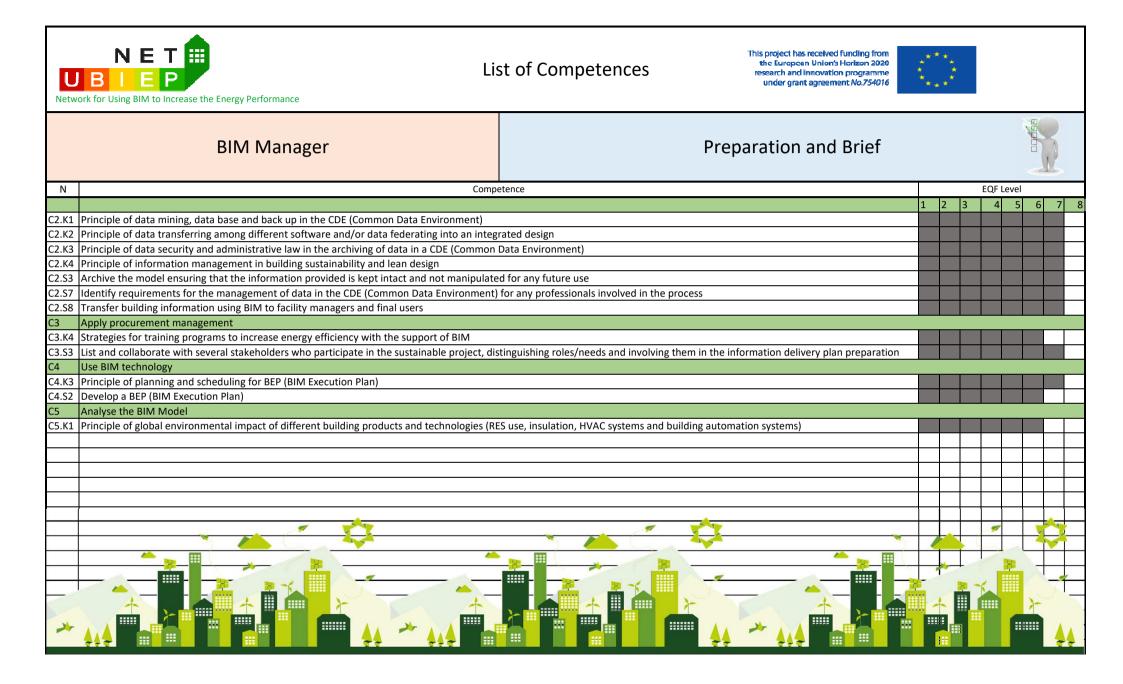
Netw	NET BIEP ork for Using BIM to Increase the Energy Performance	Lis	st of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>		***						
	BIM Model Evaluator			Strategic Definition						~	NA A	
N		Compe	tence		_		-	EQF L	-			
<u> </u>					1	2	3	4	5	6	7	8
	Principle of information management in building sustainability and lean design Identify requirements for the management of data in the CDE (Common Data Environm	ont) f	r any professionals involved in the process								+	_
C2.57	ndentity requirements for the management of data in the CDE (Common Data Environm	ient) fo	any professionals involved in the process								+	
						+		+			+	
						-						
						-						
												_
						_						
						_		+			_	
						_		+			_	
						_		+			-	
						-		++			+	
-						-					-	
											\square	
						\perp	_	\downarrow				
				×		-		-		1		
					7	-		Section 2	Ļ		-	
*						*						

BACK EXTRACT				
NET UBIEP Network for Using BIM to Increase the Energy Performance	List of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>	****	
BIM Specialist-Expert		Strategic Definition		
N	Competence		EQI	F Level
C0 Have basic BIM knowledge and skills			1 2 3	4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition				
CO.K2 Benefits and uses of BIM compared to traditional methods for improving energy effic				
CO.K3 Project information development cycle: information specification, development, exch		ding life cycle		
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among profess	ionals of different disciplines			
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementat	tion capabilities and BIM uses			
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance				
CO.S1 Read a BIM Execution Plan (BEP)				
CO.S2 Read a Information Delivery Manual				
C0.S3 Identify information requirements for his own role				
C0.S4 Identify the format to read information and transfer information within the supply ch	nain			
C0.S5 Identify the EIR (Employer Information Requirements)				
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)				
C1 Understand BIM tools				
C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM sof	tware			
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM tech	nologies			
C2 Apply information management				
C2.K2 Principle of data transferring among different software and/or data federating into a	n integrated design			
C2.K4 Principle of information management in building sustainability and lean design				
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Con	mmon Data Environment)			

Netw	NET BIEP ork for Using BIM to Increase the Energy Performance	ist of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>		***				
	BIM Specialist-Expert		Strategic Definition				×.		1
N	Com	petence		┷			QF Level		
62.642	Develop - CDE (Common Data Environment) to evolution data there wildling life and			1	23	\$	4 5	6 7	' 8
C2.S12	Develop a CDE (Common Data Environment) to exchange data through the building life cyc Apply procurement management	cie as well as through the supply chain							
	List and collaborate with several stakeholders who participate in the sustainable project, d	istinguishing roles/needs and involving the	m in the information delivery plan preparation				1		
						<u> </u>	+		
						_	\perp		
							\pm		
				<u>∔</u>			<u> </u>		<u> </u>
							\pm		
				+			+		
*									₹

	ACK EXTRACT NET BIEP It is rk for Using BIM to Increase the Energy Performance	st of Competences This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016	**** ****			
	BIM User	Strategic Definition				
Ν	Сотр	petence		E	QF Level	
C0	Have basic BIM knowledge and skills		1 2	3	4 5	6 7 8
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition					
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency of	of new or existing buildings				
C0.K3	Project information development cycle: information specification, development, exchange a	and maintenance throughout all the building life cycle				
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professionals	of different disciplines				
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance					
C0.S2	Read a Information Delivery Manual					
C0.S3	Identify information requirements for his own role					
C0.S5	Identify the EIR (Employer Information Requirements)					
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)					
C2	Apply information management					
C2.K2	Principle of data transferring among different software and/or data federating into an integ	grated design				
C2.K4	Principle of information management in building sustainability and lean design					
C3	Apply procurement management					
C3.S3	List and collaborate with several stakeholders who participate in the sustainable project, dis	stinguishing roles/needs and involving them in the information delivery plan preparation				
				-	1	
			5	1010		
*						

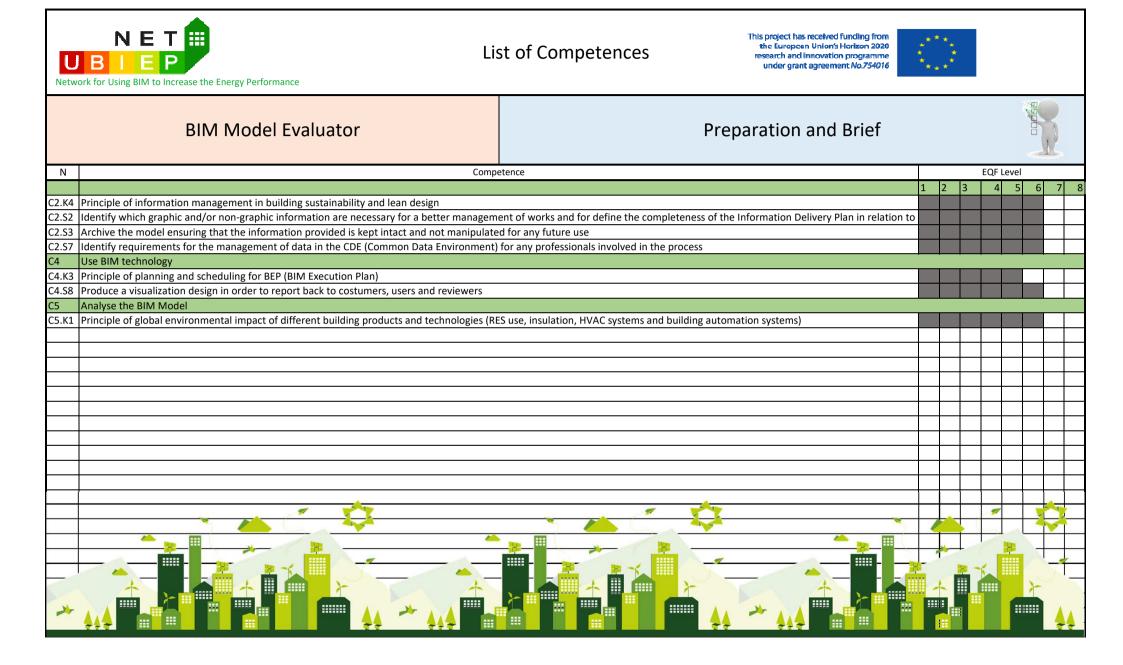
BACK		
NET UBIEP Network for Using BIM to Increase the Energy Performance	St of Competences This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016	**** * * * *
BIM Manager	Preparation and Brief	
	etence	EQF Level
CO Have basic BIM knowledge and skills		1 2 3 4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition		
CO.K2 Benefits and uses of BIM compared to traditional methods for improving energy efficiency of		
CO.K3 Project information development cycle: information specification, development, exchange a		
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among professionals		
C0.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses	
C0.K6 Relevance of maintenance for maintaing the foreseen energy performance		
CO.S1 Read a BIM Execution Plan (BEP)		
C0.S2 Read a Information Delivery Manual		
C0.S3 Identify information requirements for his own role		
C0.S4 Identify the format to read information and transfer information within the supply chain C0.S5 Identify the EIR (Employer Information Requirements)		
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)		
C1 Understand BIM tools		
C1.K1 Principle of economic subjects for the cost estimation and evaluation of energy refurbishme	ant	
C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM software		
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM technologi	es	
C1.S3 Decrease the life cycle cost of the building using methods described in ISO 15686-5		
C1.S4 Evaluate and compare different plans and related Return of Investments using methods des	cribed in ISO 15686-5	
C2 Apply information management		



BACK EXTRACT		
NET UBIEP Network for Using BIM to Increase the Energy Performance	This project has received funding the European Union's Horizon research and innovation progra under grant agreement No.75	n 2020 to the second
BIM Coordinator	Preparation and Brie	ef 🛐
N	Competence	EQF Level
C0 Have basic BIM knowledge and skills		1 2 3 4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition		
CO.K2 Benefits and uses of BIM compared to traditional methods for improving energy effic		
CO.K3 Project information development cycle: information specification, development, exch	o o ,	
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among profess		
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementat	ion capabilities and BIM uses	
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance		
CO.S1 Read a BIM Execution Plan (BEP)		
C0.S2 Read a Information Delivery Manual		
C0.S3 Identify information requirements for his own role		
C0.54 Identify the format to read information and transfer information within the supply ch	ain	
C0.S5 Identify the EIR (Employer Information Requirements)		
C0.S6 Identify and/or verify the stages of PIM (Project Information Management) C1 Understand BIM tools		
C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM sof	twore	
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM tech		
C2 Apply information management		
C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environme	ont)	
C2.K2 Principle of data transferring among different software and/or data federating into an		
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Cor		
	· · · ·	

UBI	L U to Increase the Energy Performance	ist of Competences This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016	.***. **.**	,		
	BIM Coordinator	Preparation and Brief			3	
N	Com	petence		E	EQF Level	
			1 2	3	4 5	6 7 8
C2.K4 Principle of in	formation management in building sustainability and lean design					
C2.S2 Identify which	n graphic and/or non-graphic information are necessary for a better manager	nent of works and for define the completeness of the Information Delivery Plan in relation to				
	odel ensuring that the information provided is kept intact and not manipulat					
C2.S7 Identify requi	rements for the management of data in the CDE (Common Data Environmen	t) for any professionals involved in the process				
	ling information using BIM to facility managers and final users					
	E (Common Data Environment) to exchange data through the building life cyc	cle as well as through the supply chain				
	ement management		_			
C3.K4 Strategies for	training programs to increase energy efficiency with the support of BIM					
		istinguishing roles/needs and involving them in the information delivery plan preparation				
C4 Use BIM tech						
C4.K1 Techniques a	nd principles of integrated digital production and rendering					
C4.K3 Principle of p	anning and scheduling for BEP (BIM Execution Plan)					
C4.K4 Principles of i	nterplays between all aspects of building design, building use and outdoor cli	mate for dynamic evaluation				
C4.S2 Develop a BE	P (BIM Execution Plan)					
C4.S10 Use 4D and 5	D BIM technologies to evaluate time and cost					
C5 Analyse the B	IM Model					
C5.K1 Principle of gl	obal environmental impact of different building products and technologies (F	RES use, insulation, HVAC systems and building automation systems)				
C5.S2 Apply Quality	Management and coordinate team members of different disciplines					
	A					
				1.1	~	XX
					20	
* **						

BACK		
NET UBIEP Network for Using BIM to Increase the Energy Performance	st of Competences This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016	
BIM Model Evaluator	Preparation and Brief	
	betence	EQF Level
CO Have basic BIM knowledge and skills	1 2	3 4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition		
CO.K2 Benefits and uses of BIM compared to traditional methods for improving energy efficiency of		
CO.K3 Project information development cycle: information specification, development, exchange		
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among professionals		
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses	
C0.K6 Relevance of maintenance for maintaing the foreseen energy performance		
CO.S1 Read a BIM Execution Plan (BEP)		
C0.S2 Read a Information Delivery Manual		
C0.S3 Identify information requirements for his own role		
C0.54 Identify the format to read information and transfer information within the supply chain		
C0.S5 Identify the EIR (Employer Information Requirements)		
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)		
C1 Understand BIM tools		
C1.K1 Principle of economic subjects for the cost estimation and evaluation of energy refurbishme		
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM technologi		
C1.S4 Evaluate and compare different plans and related Return of Investments using methods des		
C2 Apply information management C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environment)		
C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environment) C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)	
	Data Environment)	

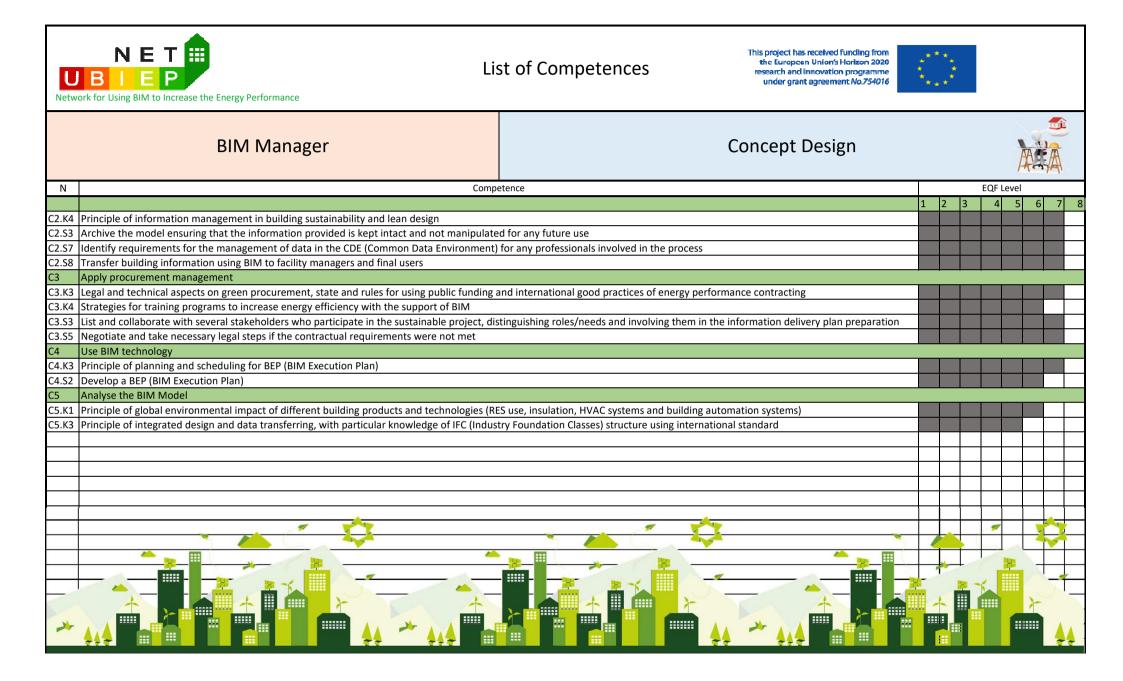


E				
Netwo	NET BIEP It for Using BIM to Increase the Energy Performance	st of Competences This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016		
	BIM Specialist-Expert	Preparation and Brief	3	
Ν	Com	petence	EQF Level	
C0	Have basic BIM knowledge and skills		1 2 3 4 5	6 7 8
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition			
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency	of new or existing buildings		
C0.K3	Project information development cycle: information specification, development, exchange			
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professionals			
C0.K5	Methodology to identify, plan, develop and evaluate organization's BIM implementation c	apabilities and BIM uses		
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance			
C0.S1	Read a BIM Execution Plan (BEP)			
C0.S2	Read a Information Delivery Manual			
C0.S3	Identify information requirements for his own role			
C0.S4	Identify the format to read information and transfer information within the supply chain			
C0.S5	Identify the EIR (Employer Information Requirements)			
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)			
C1	Understand BIM tools			
C1.S1	Specialised skills to incorporate information into BIM Model, evaluating openBIM software			
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technolog	gies		
C2	Apply information management			
	Principle of data transferring among different software and/or data federating into an inte			
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Commor	n Data Environment)		
C2.K4	Principle of information management in building sustainability and lean design			
*				

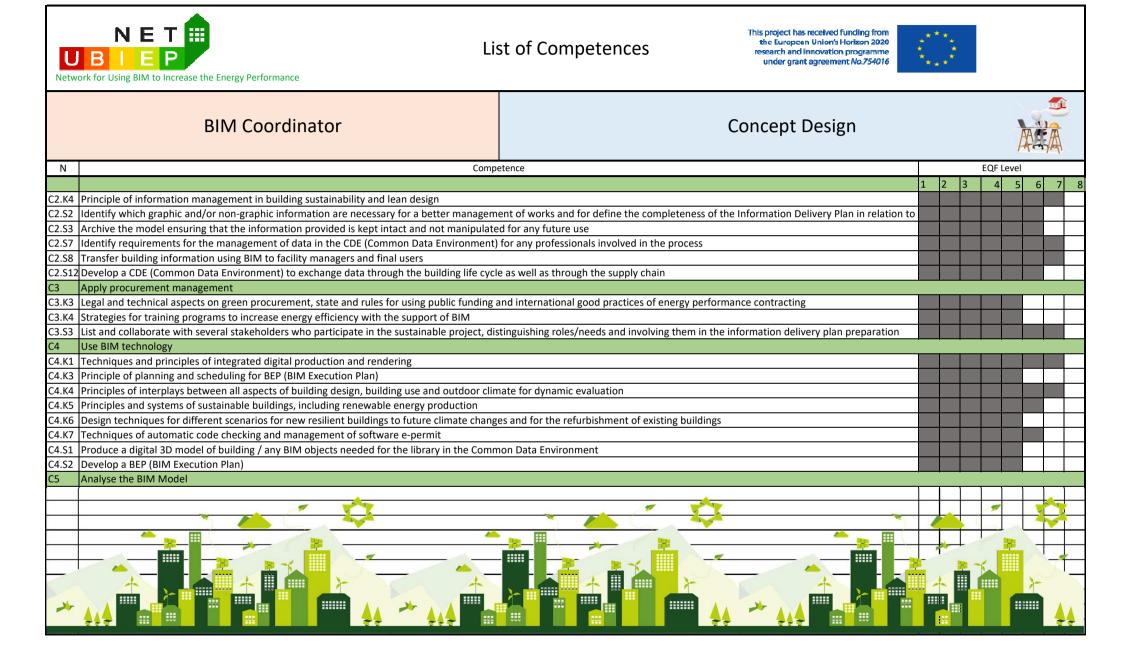
U Netwo	NET BIEP It for Using BIM to Increase the Energy Performance	st of Competences This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016		***				
	BIM Specialist-Expert	Preparation and Brief						
N	Com	petence			E	EQF Lev	/el	
			1	2	3	4	5 6	5 7 8
C2.S2	Identify which graphic and/or non-graphic information are necessary for a better manager	nent of works and for define the completeness of the Information Delivery Plan in relation to)					
C2.S12	Develop a CDE (Common Data Environment) to exchange data through the building life cyc	le as well as through the supply chain						
C3	Apply procurement management							
C3.S3	List and collaborate with several stakeholders who participate in the sustainable project, d	istinguishing roles/needs and involving them in the information delivery plan preparation						
C4 C4.K1	Use BIM technology				_			
C4.K1	Techniques and principles of integrated digital production and rendering							
C4.K4	Principles of interplays between all aspects of building design, building use and outdoor cli	mate for dynamic evaluation						
C4.S4	Use laser scanning in order to produce a point of cloud of existing buildings, comparing and							
C4.S10	Use 4D and 5D BIM technologies to evaluate time and cost							
C5	Analyse the BIM Model							
C5.K1	Principle of global environmental impact of different building products and technologies (F	ES use, insulation, HVAC systems and building automation systems)						
			-			+	-	
			-			+	-	
						+	-	
			-			+	-	
			+		r+	+		
			+		r+	+		
				\vdash	<u> </u>	\rightarrow	—	
				\vdash	<u> </u>	\rightarrow	—	
				┝─┤	┍─┼╴	+	+-	+ $+$ $-$
	<u> </u>		+	┝─┤	┢──┼─	_	-	
-								
2								
			-		- 1		1	
			-	<			十	-
-						1		100
								44

	BACK EXTRACT					
	NET BIEP Fork for Using BIM to Increase the Energy Performance	st of Competences This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016	*** * * * *			
	BIM User	Preparation and Brief				
Ν	Сотр	petence		EQF	Level	
	Have basic BIM knowledge and skills		1 2	3 4	4 5 6	78
	BIM basic concepts, terminology, principles, strategies and its value proposition					
	Benefits and uses of BIM compared to traditional methods for improving energy efficiency					
	Project information development cycle: information specification, development, exchange					
	Reasons for open and interoperable solutions to ensure collaboration among professionals	of different disciplines				
	Relevance of maintenance for maintaing the foreseen energy performance					
	Read a Information Delivery Manual					
	Identify information requirements for his own role					
	Identify the EIR (Employer Information Requirements)					
	Identify and/or verify the stages of PIM (Project Information Management)					
C2	Apply information management					
	Principle of data transferring among different software and/or data federating into an integ	grated design				
C2.K4	Principle of information management in building sustainability and lean design					
C3	Apply procurement management					
C3.S3	List and collaborate with several stakeholders who participate in the sustainable project, di	istinguishing roles/needs and involving them in the information delivery plan preparation				
						\square
		A				
				1		
					- 4	
*						

BACK EXTRACT			
NET UBIEP Network for Using BIM to Increase the Energy Performance	List of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>	***
BIM Manager		Concept Design	AAA
Ν	Competence		EQF Level
C0 Have basic BIM knowledge and skills		1	2 3 4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition			
C0.K2 Benefits and uses of BIM compared to traditional methods for improving energy effic	· · · · · · · · · · · · · · · · · · ·		
CO.K3 Project information development cycle: information specification, development, exc		life cycle	
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among profess			
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementa	tion capabilities and BIM uses		
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance			
CO.S1 Read a BIM Execution Plan (BEP)			
C0.S2 Read a Information Delivery Manual			
C0.S3 Identify information requirements for his own role			
C0.S4 Identify the format to read information and transfer information within the supply ch	hain		
C0.S5 Identify the EIR (Employer Information Requirements)			
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)			
C1 Understand BIM tools	•		
C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM sol			
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM tech	nnologies		
C2 Apply information management			
C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environme			
C2.K2 Principle of data transferring among different software and/or data federating into a			
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Co	mmon Data Environment)		

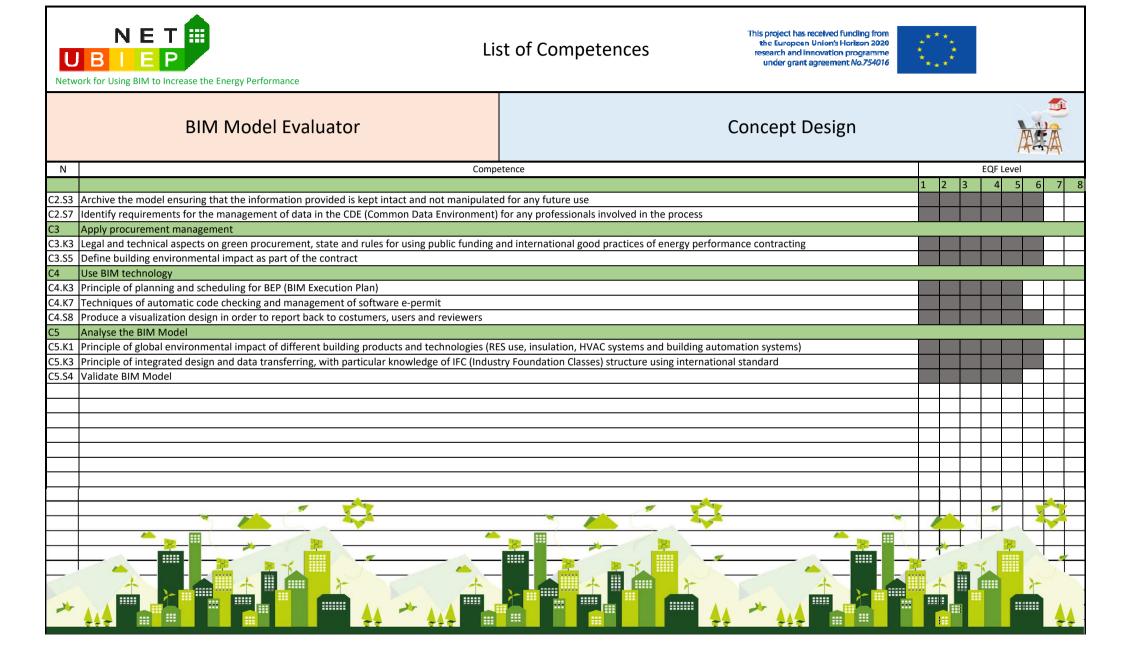


	BACK			
	NET BIEP ork for Using BIM to Increase the Energy Performance	ist of Competences	This project has received funding from the European Union's Horizon 2021 research and Innovation programm under grant agreement <i>No.75401</i> 0	
	BIM Coordinator		Concept Design	A
Ν	Co	npetence		EQF Level
	Have basic BIM knowledge and skills		1 2	3 4 5 6 7 8
	BIM basic concepts, terminology, principles, strategies and its value proposition			
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficience	y of new or existing buildings		
	Project information development cycle: information specification, development, exchanged		cle	
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professiona	ls of different disciplines		
	Methodology to identify, plan, develop and evaluate organization's BIM implementation	capabilities and BIM uses		
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance			
C0.S1	Read a BIM Execution Plan (BEP)			
C0.S2	Read a Information Delivery Manual			
C0.S3	Identify information requirements for his own role			
C0.S4	Identify the format to read information and transfer information within the supply chain			
C0.S5	Identify the EIR (Employer Information Requirements)			
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)			
C1		Understand BIM tools		
C1.S1	Specialised skills to incorporate information into BIM Model, evaluating openBIM softwa	re		
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technology	ogies		
C2	Apply information management			
C2.K1	Principle of data mining, data base and back up in the CDE (Common Data Environment)			
C2.K2	Principle of data transferring among different software and/or data federating into an int	egrated design		
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Comm	on Data Environment)		
*				



>	ease the Energy Performance	ist of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>	*	•**	★ ★ ★					
	BIM Coordinator		Concept Design						A		
	Corr	petence)F Lev			
				1	2	3		4	56	7	8
nvi	ironmental impact of different building products and technologies (RES use, insulation, HVAC systems and building autor	nation systems)								
ed	I design and data transferring, with particular knowledge of IFC (Indu	ustry Foundation Classes) structure using internationa	al standard								
						_					
						—	_	_		┢───╋	
						—	_	_		┢───┼	
				—		+	—	-		r	
	<u> </u>			\rightarrow	+	+	+	_		 +	
				\rightarrow		+	+	-		 	
				-+	+	+	+			rł	
						-	-				
						-	-				
										i t	
										i	
										i	
										i	
										1	
										\square	
										\square	
					\perp	\perp	-				
					_	<u> </u>	1	-			
				2	-	<u> </u>	1	-			<u></u>
					*		ž			51	-
					<u>≁</u>						

	BACK					
	NET BIEP Ork for Using BIM to Increase the Energy Performance	st of Competences This project has received fundii The European Union's Horiza research and innovation prog under grant agreement No	on 2020 gramme		*	
	BIM Model Evaluator	Concept Design				
N		etence		EQF Leve		
	Have basic BIM knowledge and skills	1	2 3	4 5	5 6	7 8
	BIM basic concepts, terminology, principles, strategies and its value proposition					
	Benefits and uses of BIM compared to traditional methods for improving energy efficiency of					
	Project information development cycle: information specification, development, exchange a					
	Reasons for open and interoperable solutions to ensure collaboration among professionals					
	Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses				
	Relevance of maintenance for maintaing the foreseen energy performance					
	Read a BIM Execution Plan (BEP)					
	Read a Information Delivery Manual					
	Identify information requirements for his own role					
	Identify the format to read information and transfer information within the supply chain					
	Identify the EIR (Employer Information Requirements)					
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)					
	Understand BIM tools				_	
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technologi	es				
C2	Apply information management					
C2.K1	Principle of data mining, data base and back up in the CDE (Common Data Environment)					
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)				
	Principle of information management in building sustainability and lean design					
C2.S2	Identify which graphic and/or non-graphic information are necessary for a better managem	ent of works and for define the completeness of the Information Delivery Plan in relation to				
				$\perp \Box$		
				Survey and		<u> </u>
*						+-



	BACK			
	NET BIEP ork for Using BIM to Increase the Energy Performance	List of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016	• * *
	BIM Specialist-Expert		Concept Design	A
N		ompetence		EQF Level
	Have basic BIM knowledge and skills		1	2 3 4 5 6 7 8
	BIM basic concepts, terminology, principles, strategies and its value proposition			
	Benefits and uses of BIM compared to traditional methods for improving energy efficien			
C0.K3	Project information development cycle: information specification, development, exchan	ge and maintenance throughout all the building life	e cycle	
	Reasons for open and interoperable solutions to ensure collaboration among profession			
	Methodology to identify, plan, develop and evaluate organization's BIM implementation	n capabilities and BIM uses		
	Relevance of maintenance for maintaing the foreseen energy performance			
	Read a BIM Execution Plan (BEP)			
-	Read a Information Delivery Manual			
	Identify information requirements for his own role			
C0.S4	Identify the format to read information and transfer information within the supply chair	1		
C0.S5	Identify the EIR (Employer Information Requirements)			
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)			
C1	Understand BIM tools			
	Specialised skills to incorporate information into BIM Model, evaluating openBIM softwa			
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM techno	logies		
C2	Apply information management			
C2.K2	Principle of data transferring among different software and/or data federating into an in	itegrated design		
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Comm	ion Data Environment)		
C2.K4	Principle of information management in building sustainability and lean design			
			<u> </u>	
*				



List of Competences

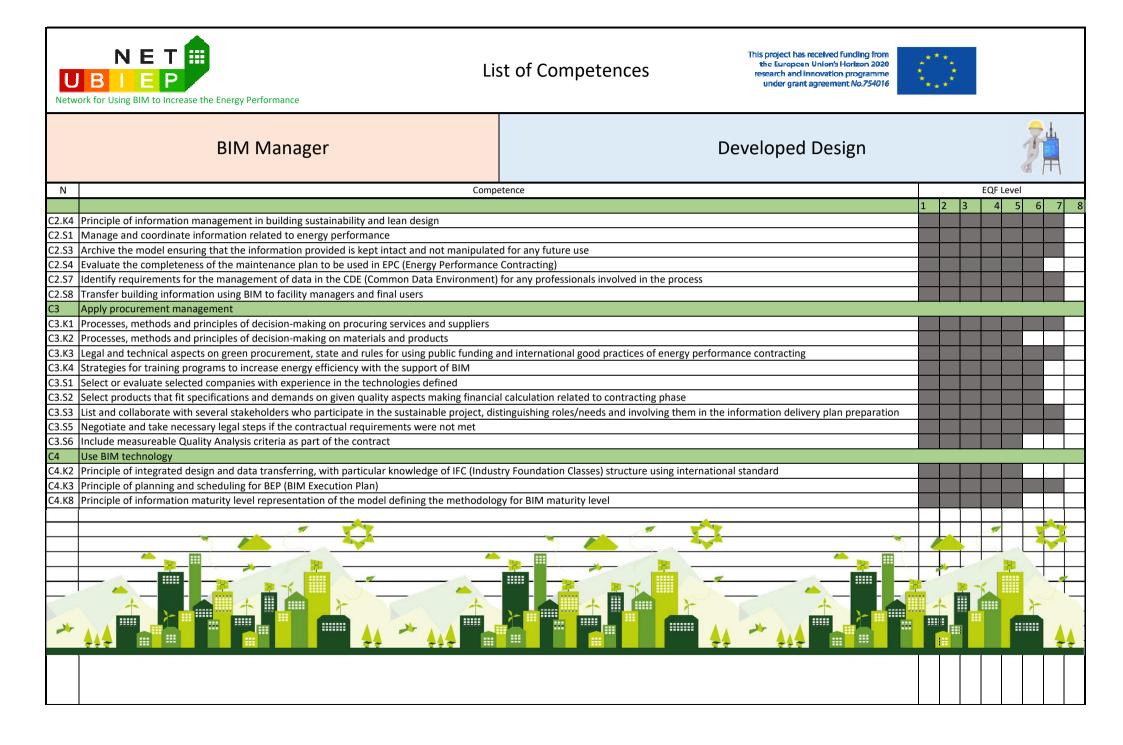
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016



	BIM Specialist-Expert	Concept Design		ALA
N	Сотр	etence	EQF Lev	vel
		1	2 3 4	5 6 7 8
	Identify which graphic and/or non-graphic information are necessary for a better managem			
	Develop a CDE (Common Data Environment) to exchange data through the building life cycl			
C3	Apply procurement management Legal and technical aspects on green procurement, state and rules for using public funding a			
	List and collaborate with several stakeholders who participate in the sustainable project, dis	stinguishing roles/needs and involving them in the information delivery plan preparation		
C4	Use BIM technology			
	Techniques and principles of integrated digital production and rendering			
	Principles of interplays between all aspects of building design, building use and outdoor clin	nate for dynamic evaluation		
	Principles and systems of sustainable buildings, including renewable energy production			
	Design techniques for different scenarios for new resilient buildings to future climate chang	es and for the refurbishment of existing buildings		
	Techniques of automatic code checking and management of software e-permit			
	Produce a digital 3D model of building / any BIM objects needed for the library in the Comn			
	Use laser scanning in order to produce a point of cloud of existing buildings, comparing and	evaluating facilities and related systems		
	Analyse the BIM Model			
C5.K1	Principle of global environmental impact of different building products and technologies (RI			
C5.K3	Principle of integrated design and data transferring, with particular knowledge of IFC (Indus	try Foundation Classes) structure using international standard		
C5.S4	Validate BIM Model			
*				

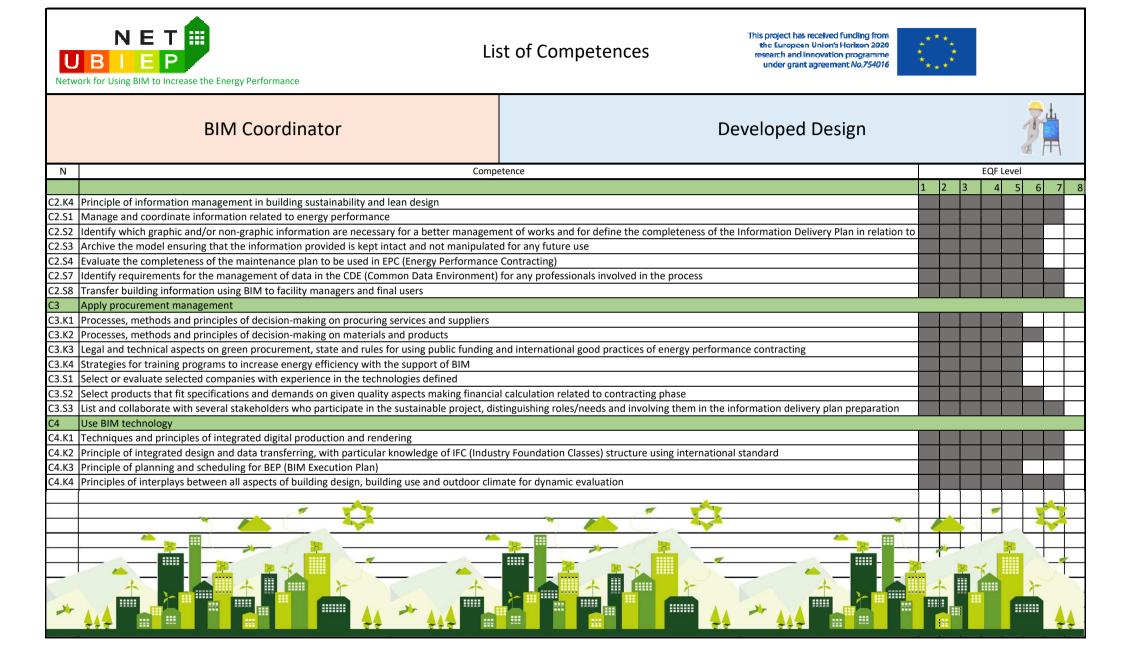
	ACK EXTRACT NET BIEP Lis k for Using BIM to Increase the Energy Performance	t of Competences	This project has received funding from the European Unior's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>	0		
	BIM User	C	Concept Design		Ā	
Ν		etence			EQF Level	
C0	Have basic BIM knowledge and skills			1 2 3	4 5	6 7 8
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition					
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency of	of new or existing buildings				
C0.K3	Project information development cycle: information specification, development, exchange a	and maintenance throughout all the building life cyc	le			
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professionals	of different disciplines				
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance					
C0.S2	Read a Information Delivery Manual					
C0.S3	Identify information requirements for his own role					
C0.S5						
C0.S6						
C2	Apply information management					
C2.K2	Principle of data transferring among different software and/or data federating into an integ	rated design				
C2.K4	Principle of information management in building sustainability and lean design					
C3	Apply procurement management					
C3.K3	Legal and technical aspects on green procurement, state and rules for using public funding a	and international good practices of energy performa	nce contracting			
C3.S3	List and collaborate with several stakeholders who participate in the sustainable project, dis	stinguishing roles/needs and involving them in the in	formation delivery plan preparation			
C3.S5	Define building environmental impact as part of the contract					
C4	Use BIM technology					
C4.K5	Principles and systems of sustainable buildings, including renewable energy production					
*						

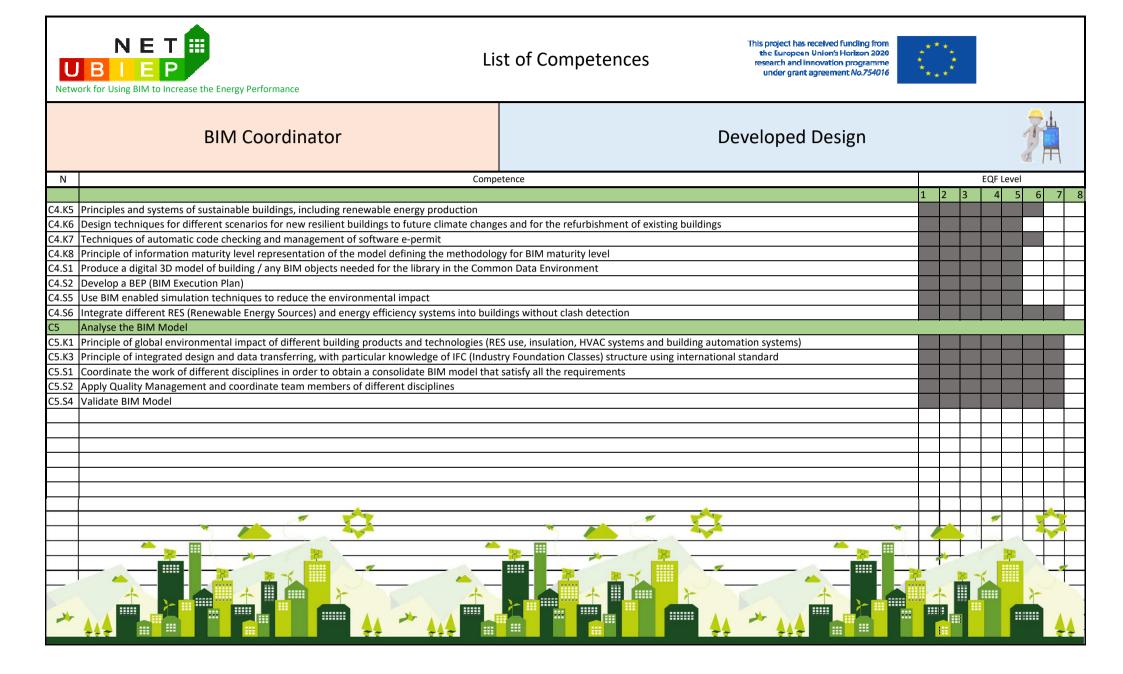
BACK	
NET UBIEP Network for Using BIM to Increase the Energy Performance	ist of Competences
BIM Manager	Developed Design
	EQF Level
C0 Have basic BIM knowledge and skills	1 2 3 4 5 6 7
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition	
C0.K2 Benefits and uses of BIM compared to traditional methods for improving energy efficiency of	
C0.K3 Project information development cycle: information specification, development, exchange	
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among professionals	
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	capabilities and BIM uses
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance	
CO.S1 Read a BIM Execution Plan (BEP)	
C0.S2 Read a Information Delivery Manual	
C0.S3 Identify information requirements for his own role	
C0.S4 Identify the format to read information and transfer information within the supply chain	
C0.S5 Identify the EIR (Employer Information Requirements)	
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)	
C1 Understand BIM tools	
C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM software	e la
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM technologi	gies die
C2 Apply information management	
C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environment)	
C2.K2 Principle of data transferring among different software and/or data federating into an integ	egrated design
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Common	n Data Environment)



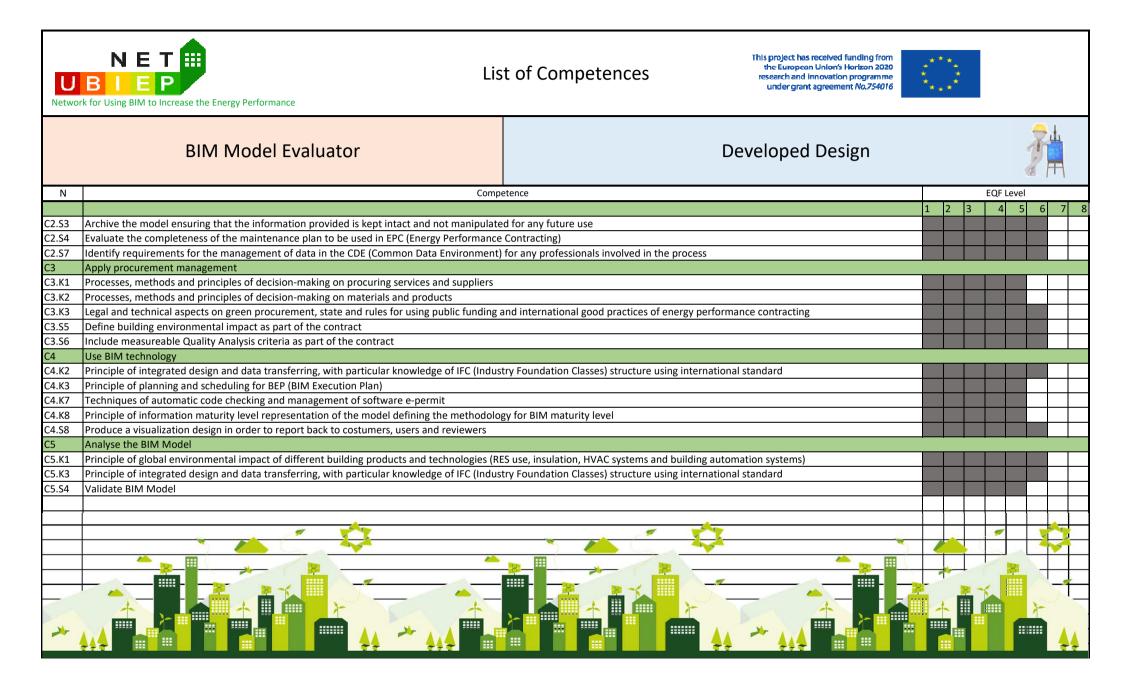
Netv	vork for UN BIE o Increasing Energy Performance	Li	st of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>		***					
	BIM Manager			Developed Design					4.2.4	计	-
Ν		Comp	etence					EQF L	evel		
					1	2	3	4	5	6	7 8
	Develop a BEP (BIM Execution Plan)	_									
C5 C5.K1	Analyse the BIM Model Principle of global environmental impact of different building products and technolog	tios (P	Suse insulation HVAC systems and building a	utomation systems)							
	Principle of global environmental impact of different building products and technolog Principle of integrated design and data transferring, with particular knowledge of IFC										+
C3.K3		(indus	if y roundation classes, structure using internal		+	4	╇─┦			+	
					+	1	+		-		
					1						
					1						
					_	\bot		\square	$ \rightarrow $	\perp	_
					_		\square	\vdash		\rightarrow	_
					–	—	\vdash	┢──╁	\rightarrow	+	_
					<u> </u>	—	\vdash	┢──╁	-+	—	_
					+	+	+	┝─┼	_	—	_
					+	+	┢──┤	┝──╊	+	+-	
					+	+	+ - +	┢──╊	+	+	
					+	+	+	┢──┼		+	
-					1	+	+		-	-	1
				*		-		1			1
				<u> </u>				······		4	7
		-		🔶 👝 🔟							
				<u> </u>	-	T		. 1		N_	-
	· · · · · · · · · · · · · · · · · · ·	_				1			₩.		1_
5-		1				1			>	-	
2											
				77 747 III III II	EQF Level						

	BACK					
Netw	NET BIEP Ork for Using BIM to Increase the Energy Performance	ist of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016	***		
	BIM Coordinator		Developed Design			
N		petence			EQF Level	
	Have basic BIM knowledge and skills		1	2 3	4 5	678
	BIM basic concepts, terminology, principles, strategies and its value proposition					
	Benefits and uses of BIM compared to traditional methods for improving energy efficiency					
	Project information development cycle: information specification, development, exchange		g life cycle			
	Reasons for open and interoperable solutions to ensure collaboration among professionals					
	Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	apabilities and BIM uses				
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance					
	Read a BIM Execution Plan (BEP)					
C0.S2	Read a Information Delivery Manual					
C0.S3	Identify information requirements for his own role					
	Identify the format to read information and transfer information within the supply chain					
C0.S5	Identify the EIR (Employer Information Requirements)					
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)					
C1	Understand BIM tools					
C1.S1	Specialised skills to incorporate information into BIM Model, evaluating openBIM software	2				
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technolog	gies				
C2	Apply information management					
C2.K1	Principle of data mining, data base and back up in the CDE (Common Data Environment)					
C2.K2	Principle of data transferring among different software and/or data federating into an inte	grated design				
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Commor	n Data Environment)				
					Summer of	
*						

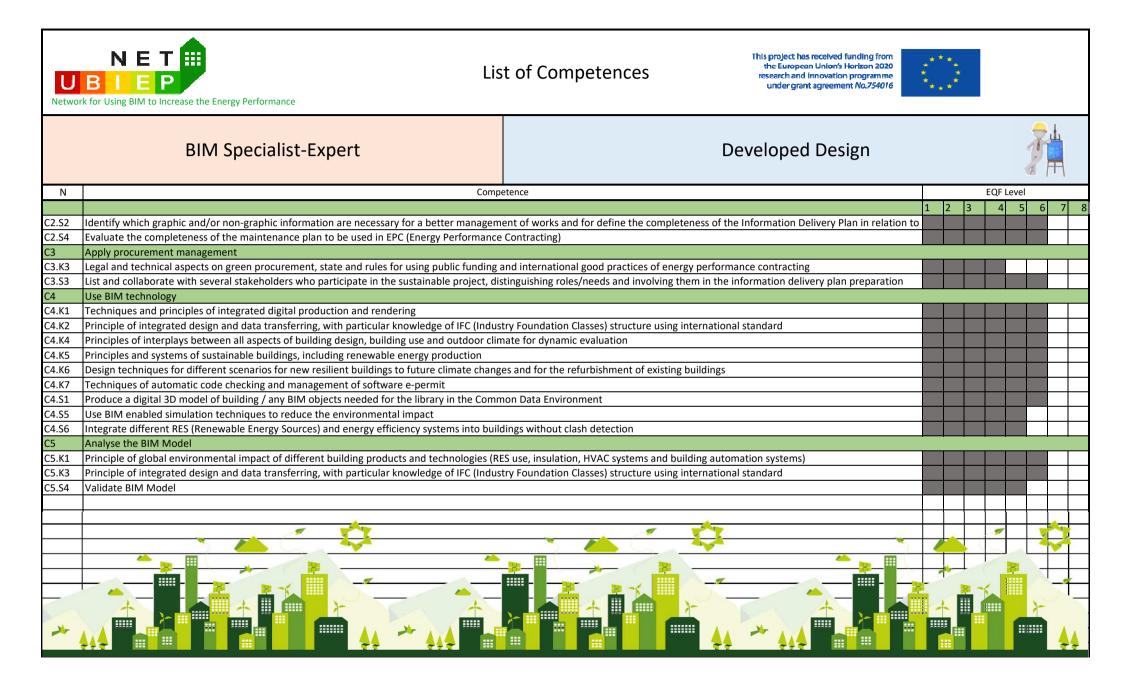




В	ACK						
	NET BIEP Is to Using BIM to Increase the Energy Performance	t of Competences This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016					
	BIM Model Evaluator	Developed Design					
N	Comp	etence	EC	lF Level			
C0	Have basic BIM knowledge and skills		1 2 3	4 5 6 7 8			
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition						
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency of	of new or existing buildings					
C0.K3	Project information development cycle: information specification, development, exchange a	and maintenance throughout all the building life cycle					
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professionals	of different disciplines					
C0.K5	Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses					
C0.K6	6 Relevance of maintenance for maintaing the foreseen energy performance						
C0.S1	Read a BIM Execution Plan (BEP)						
C0.S2	Read a Information Delivery Manual						
C0.S3	Identify information requirements for his own role						
C0.S4	Identify the format to read information and transfer information within the supply chain						
C0.S5	Identify the EIR (Employer Information Requirements)						
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)						
C1	Understand BIM tools						
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technologi	es					
C2	Apply information management						
C2.K1	Principle of data mining, data base and back up in the CDE (Common Data Environment)						
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)					
C2.K4	Principle of information management in building sustainability and lean design						
C2.S2	Identify which graphic and/or non-graphic information are necessary for a better managem	ent of works and for define the completeness of the Information Delivery Plan in relation to					
*							



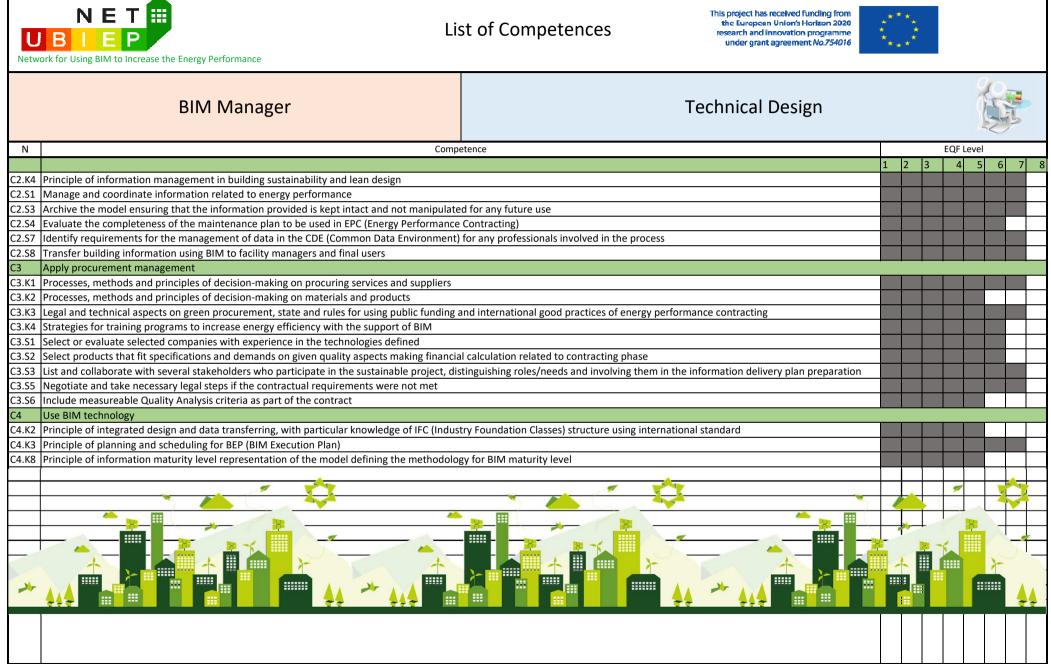
В	ACK			
	NET BIEP Is List Is the for Using BIM to Increase the Energy Performance	st of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>	
	BIM Specialist-Expert		Developed Design	
Ν	Comp	petence		EQF Level
C0	Have basic BIM knowledge and skills			1 2 3 4 5 6 7 8
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition			
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency	of new or existing buildings		
C0.K3	Project information development cycle: information specification, development, exchange	and maintenance throughout all the building I	ife cycle	
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professionals	of different disciplines		
C0.K5	Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses		
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance			
C0.S1	Read a BIM Execution Plan (BEP)			
C0.S2	Read a Information Delivery Manual			
C0.S3	Identify information requirements for his own role			
C0.S4	Identify the format to read information and transfer information within the supply chain			
C0.S5	Identify the EIR (Employer Information Requirements)			
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)			
C1	Understand BIM tools			
C1.S1	Specialised skills to incorporate information into BIM Model, evaluating openBIM software			
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technolog	ies		
C2	Apply information management			
C2.K2	Principle of data transferring among different software and/or data federating into an integ	grated design		
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)		
C2.K4	Principle of information management in building sustainability and lean design	· · · · · · · · · · · · · · · · · · ·		
*				



	BACK							
	NET BIEP It for Using BIM to Increase the Energy Performance	st of Competences This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016	*** * * * *					
	BIM User	Developed Design			THE REAL			
Ν	Сотр	etence	EQF Level					
C0	Have basic BIM knowledge and skills		1 2 3	4	5 6 7 8			
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition							
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency of	of new or existing buildings						
C0.K3	Project information development cycle: information specification, development, exchange	and maintenance throughout all the building life cycle						
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professionals	of different disciplines						
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance							
C0.S2	Read a Information Delivery Manual							
C0.S3	Identify information requirements for his own role							
C0.S5	Identify the EIR (Employer Information Requirements)							
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)							
C2	Apply information management							
C2.K2	Principle of data transferring among different software and/or data federating into an integ	rated design						
C2.K4	Principle of information management in building sustainability and lean design							
C2.S1	Manage and coordinate information related to energy performance							
C3	Apply procurement management				- 1 T			
C3.K2	Processes, methods and principles of decision-making on materials and products							
C3.K3	Legal and technical aspects on green procurement, state and rules for using public funding							
C3.S3	List and collaborate with several stakeholders who participate in the sustainable project, dis	stinguishing roles/needs and involving them in the information delivery plan preparation						
C3.S5	Define building environmental impact as part of the contract							
C3.S6	Include measureable Quality Analysis criteria as part of the contract							
			+ + + + + + + + + + + + + + + + + + +					
*								

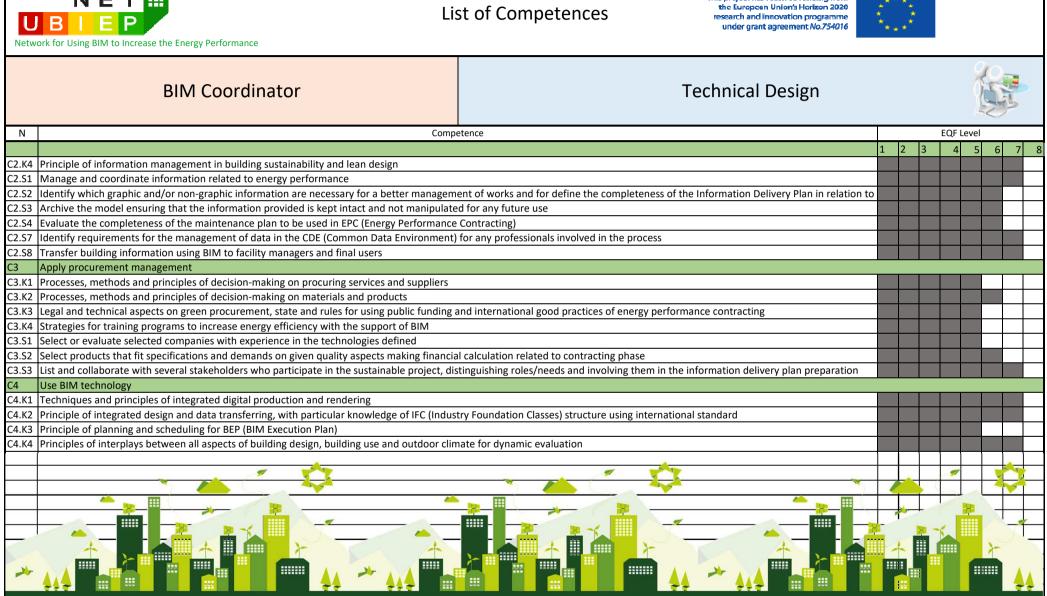
	NET BIEP Prk for Using BIM to Increase the Energy Performance	Lis	st of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>		****					
	BIM User Developed Design N Competence								a 4	3	
N		Comp	etence						EQF Level		
C4	Use				1	2	3	4	5	6	7 8
C4.K5	Principles and systems of sustainable buildings, including renewable energy product	tion									\square
					\square	\square	┍──┼	$ \rightarrow $			\perp
					\vdash	\vdash		\rightarrow			
<u> </u>					+	\vdash	-	<u> </u>			
					+	\vdash	 				
					$\left - \right $	\vdash	 				
					+	⊢	 +	<u> </u>			
					+	\vdash	, — †	-			
					+						
-								-			
							1				
						\square					
							1				
							⊢──┼				
					\square	\square	\vdash	$ \rightarrow $			
-					\vdash	\square	⊢−−			-	
							<u> </u>	-	_		
		-		A			<u> </u>	and the second			-
*		<u></u>								} }	+

BACK							
NET UBIEP Network for Using BIM to Increase the Energy Performance	This project has received fundir the European Union's Horizo research and Innovation prog under grant agreement No.	on 2020 to the second sec					
BIM Manager	Technical Design						
	etence	EQF Level					
C0 Have basic BIM knowledge and skills		1 2 3 4 5 6 7 8					
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition							
C0.K2 Benefits and uses of BIM compared to traditional methods for improving energy efficiency of	of new or existing buildings						
C0.K3 Project information development cycle: information specification, development, exchange							
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among professionals							
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses						
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance							
CO.S1 Read a BIM Execution Plan (BEP)							
C0.S2 Read a Information Delivery Manual							
C0.S3 Identify information requirements for his own role							
C0.S4 Identify the format to read information and transfer information within the supply chain							
C0.S5 Identify the EIR (Employer Information Requirements)							
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)							
C1 Understand BIM tools							
C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM software							
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM technologi	es						
C2 Apply information management							
C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environment)							
C2.K2 Principle of data transferring among different software and/or data federating into an integ	•						
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)						



Netv		List of Co	npetences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016		**				
	BIM Manager			Technical Design				0		
N		Competence			1 2	2 3	EQF	Leve	2	7 0
C4.S2	Develop a BEP (BIM Execution Plan)					. 3	4		0	/ 0
C5	Analyse the BIM Model									
	Principle of global environmental impact of different building products and technologi									
	Principle of integrated design and data transferring, with particular knowledge of IFC (Industry Foundation	Classes) structure using interna	tional standard						
C5.S6	Use BIM models to communicate installation instructions				++					_
					+	-+	—	+	-+	
					+			\vdash	\rightarrow	
					+		_	+		_
					+	-	<u> </u>	+	+	_
										-
					+			\vdash	\rightarrow	
					+	—	—	┝─┼	—	_
					+	+	+	+	+	_
			· · · · ·			~				
				<u>^</u>			Curry		-4	
*							×			

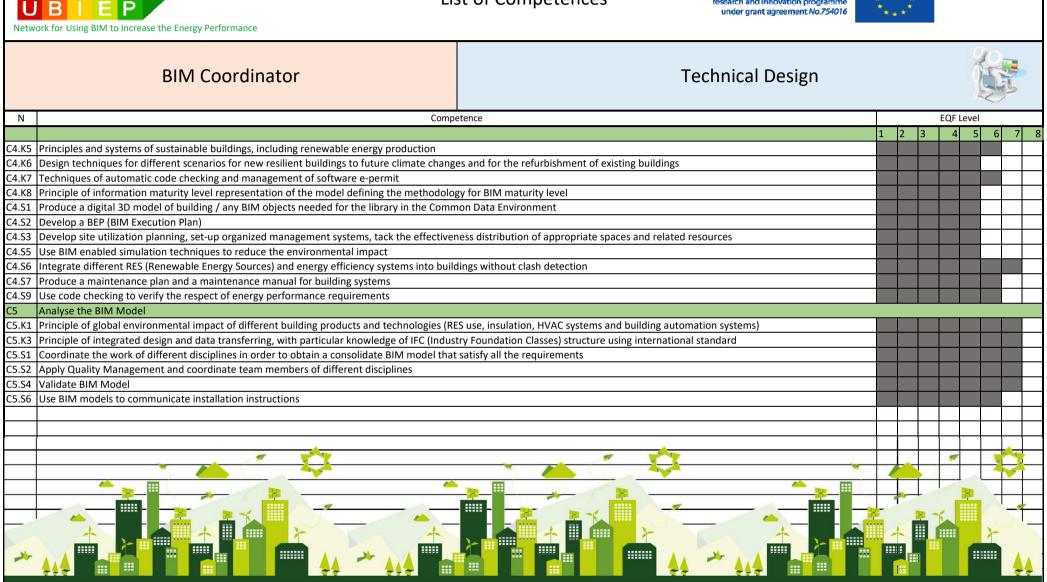
	BACK EXTRACT								
Netv	NET BIEP vork for Using BIM to Increase the Energy Performance	List of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>						
	BIM Coordinator	Т	echnical Design						
N		mpetence		EQF L	evel				
CO	Have basic BIM knowledge and skills		1	2 3 4	5 6 7 8				
	BIM basic concepts, terminology, principles, strategies and its value proposition								
	Benefits and uses of BIM compared to traditional methods for improving energy efficient	• • •							
	Project information development cycle: information specification, development, exchange		le						
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among professionals of different disciplines									
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementation capabilities and BIM uses									
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance									
	0.S1 Read a BIM Execution Plan (BEP)								
	20.52 Read a Information Delivery Manual								
	Identify information requirements for his own role								
-	Identify the format to read information and transfer information within the supply chain								
	Identify the EIR (Employer Information Requirements)								
	Identify and/or verify the stages of PIM (Project Information Management)								
C1	Understand BIM tools								
	Specialised skills to incorporate information into BIM Model, evaluating openBIM softwa								
	Stay up to date on BIM trends, current developments and new directions of BIM technol	ogies							
C2	Apply information management								
	Principle of data mining, data base and back up in the CDE (Common Data Environment)	to much all all all and							
	Principle of data transferring among different software and/or data federating into an in								
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Comm	on Data Environment)							
*									



This project has received funding from



N E T 🧱

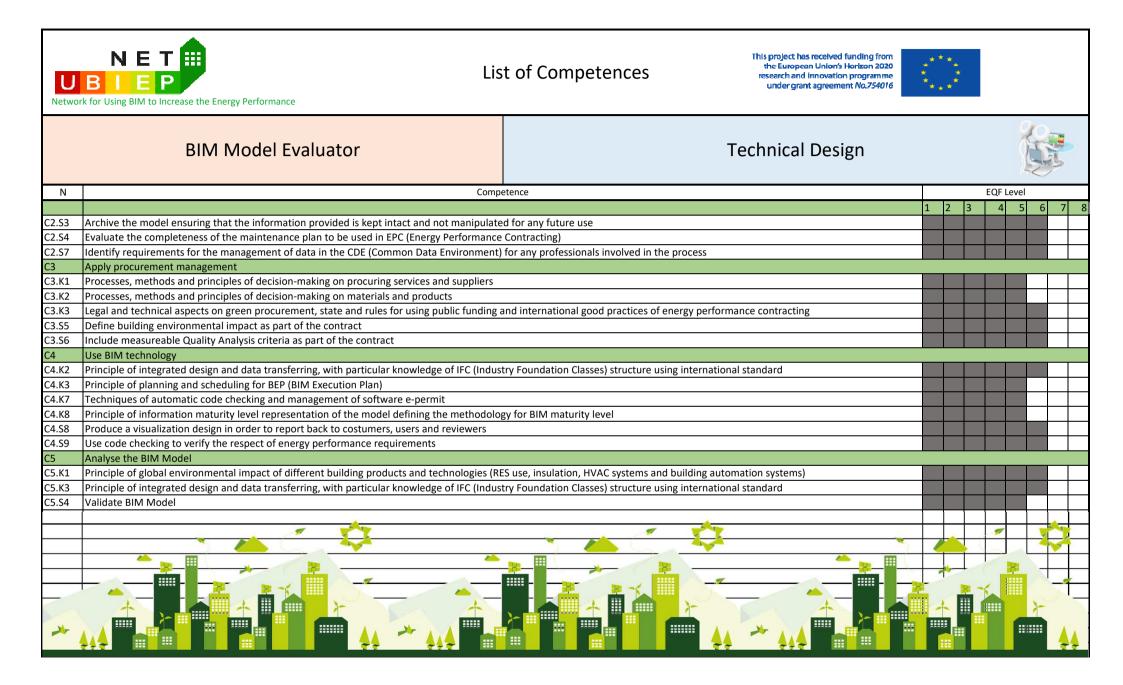


List of Competences

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016



В							
	NET BIEP It for Using BIM to Increase the Energy Performance	St of Competences This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016	****				
	BIM Model Evaluator	Technical Design					
N		petence		EQF Level			
C0	Have basic BIM knowledge and skills		1 2 3	4 5	6 7 8		
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition						
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency	of new or existing buildings					
C0.K3	Project information development cycle: information specification, development, exchange						
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professionals	of different disciplines					
C0.K5	Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses					
C0.K6	6 Relevance of maintenance for maintaing the foreseen energy performance						
C0.S1	1 Read a BIM Execution Plan (BEP)						
C0.S2	Read a Information Delivery Manual						
C0.S3	Identify information requirements for his own role						
C0.S4	Identify the format to read information and transfer information within the supply chain						
C0.S5	Identify the EIR (Employer Information Requirements)						
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)						
C1	Understand BIM tools						
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technolog	ies					
C2	Apply information management						
C2.K1	Principle of data mining, data base and back up in the CDE (Common Data Environment)						
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)					
C2.K4	Principle of information management in building sustainability and lean design	ופחר טר אטראג מחע זטר עפחתפ נחפ כטוזוףופנפוופגג טר נחפ וחוטרווזמנוטור טפוועפרץ צומה וח דפומנוטור נט					
C2.S2	nuentiny which graphic and/or non-graphic information are necessary for a better managen	ient of works and for define the completeness of the information beivery Plan in relation to					
*							



BACK EXTRACT									
NET UBIEP Network for Using BIM to Increase the Energy Performance	List of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>							
BIM Specialist-Expert		Technical Design							
N	Competence		EQF Level						
C0 Have basic BIM knowledge and skills		1	2 3 4 5 6 7 8						
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition									
C0.K2 Benefits and uses of BIM compared to traditional methods for improving energy eff									
CO.K3 Project information development cycle: information specification, development, ex		ing life cycle							
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among profes									
C0.K5 Methodology to identify, plan, develop and evaluate organization's BIM implement	ation capabilities and BIM uses								
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance									
CO.S1 Read a BIM Execution Plan (BEP)									
	C0.S2 Read a Information Delivery Manual								
C0.S3 Identify information requirements for his own role									
C0.S4 Identify the format to read information and transfer information within the supply of	chain								
CO.S5 Identify the EIR (Employer Information Requirements)									
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)									
C1 Understand BIM tools									
C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM so									
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM tee	chnologies								
C2 Apply information management									
C2.K2 Principle of data transferring among different software and/or data federating into	an integrated design								
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Co	ommon Data Environment)								
C2.K4 Principle of information management in building sustainability and lean design									

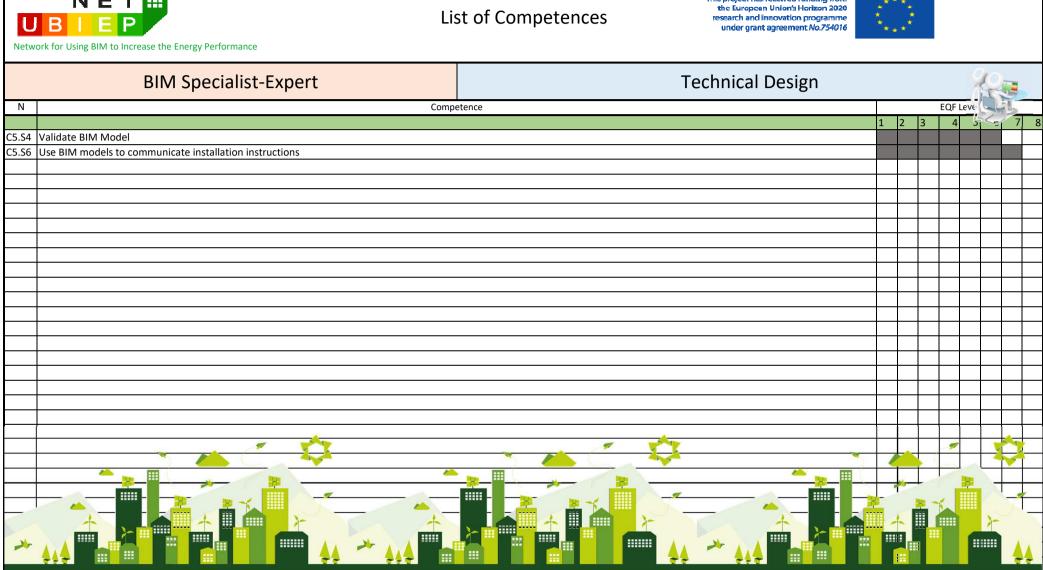


List of Competences

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016



	BIM Specialist-Expert Technical Design				(S					
Ν	Compe	etence		EQ	F Level					
			1 2 3	3	4 5	6 7	8			
C2.S2	Identify which graphic and/or non-graphic information are necessary for a better management	ent of works and for define the completeness of the Information Delivery Plan in relation to								
C2.S4	Evaluate the completeness of the maintenance plan to be used in EPC (Energy Performance	Contracting)								
C3	Apply procurement management									
C3.K3	Legal and technical aspects on green procurement, state and rules for using public funding a	and international good practices of energy performance contracting								
C3.S3	List and collaborate with several stakeholders who participate in the sustainable project, dis	tinguishing roles/needs and involving them in the information delivery plan preparation								
C4	Use BIM technology									
C4.K1	Techniques and principles of integrated digital production and rendering									
C4.K2	Principle of integrated design and data transferring, with particular knowledge of IFC (Indust	try Foundation Classes) structure using international standard								
C4.K4	Principles of interplays between all aspects of building design, building use and outdoor clim	hate for dynamic evaluation								
C4.K5	Principles and systems of sustainable buildings, including renewable energy production									
C4.K6	Design techniques for different scenarios for new resilient buildings to future climate change	es and for the refurbishment of existing buildings								
C4.K7	Techniques of automatic code checking and management of software e-permit									
C4.S1	Produce a digital 3D model of building / any BIM objects needed for the library in the Comm	on Data Environment								
C4.S3	Develop site utilization planning, set-up organized management systems, tack the effectiver	ness distribution of appropriate spaces and related resources								
C4.S5	Use BIM enabled simulation techniques to reduce the environmental impact									
C4.S6	Integrate different RES (Renewable Energy Sources) and energy efficiency systems into build	lings without clash detection								
C4.S9	Use code checking to verify the respect of energy performance requirements									
C5	Analyse the BIM Model									
C5.K1	Principle of global environmental impact of different building products and technologies (RE	S use, insulation, HVAC systems and building automation systems)								
C5.K3	Principle of integrated design and data transferring, with particular knowledge of IFC (Indust	try Foundation Classes) structure using international standard								
			1	1	/					
				- C.	5					
*										



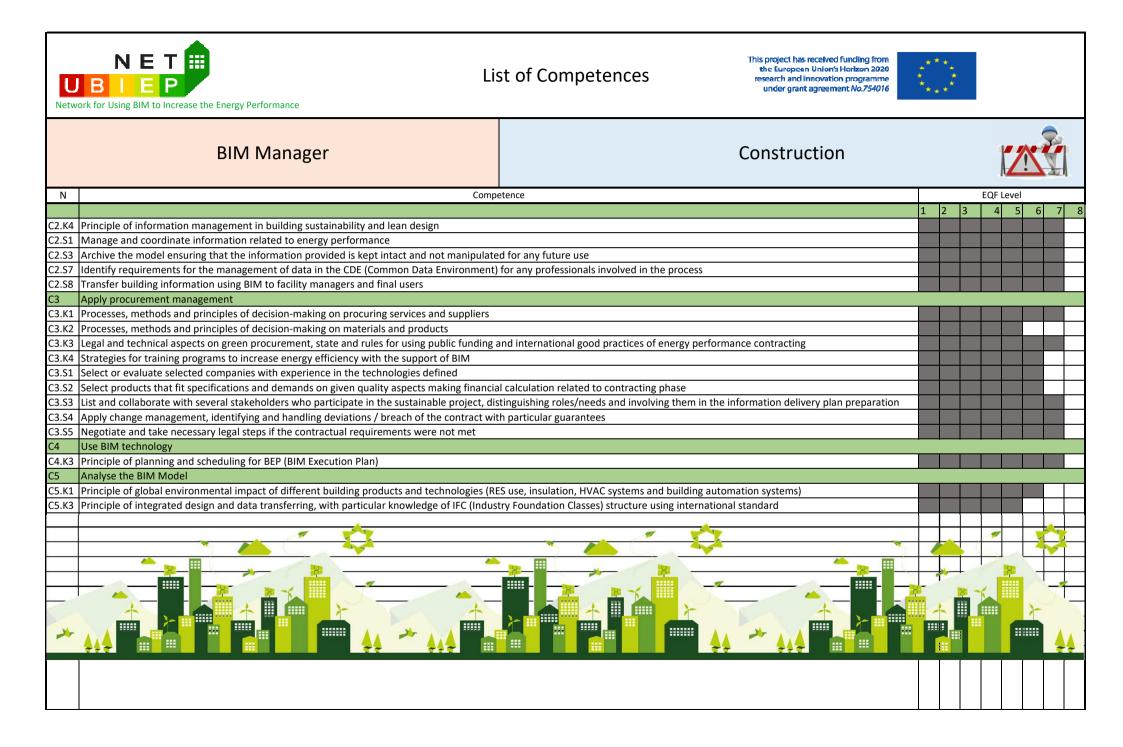
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016



BACK EXTRACT					
NET UBIEP Network for Using BIM to Increase the Energy Performance	* * * * * *				
BIM User		Technical Design		ALLY	
Ν	Competence		E	QF Level	
C0 Have basic BIM knowledge and skills		1	2 3	4 5	6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition					
CO.K2 Benefits and uses of BIM compared to traditional methods for improving energy eff	ficiency of new or existing buildings				
CO.K3 Project information development cycle: information specification, development, ex	change and maintenance throughout all the building l	life cycle			
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among profes	ssionals of different disciplines				
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance					
C0.S2 Read a Information Delivery Manual					
C0.S3 Identify information requirements for his own role					
CO.S5 Identify the EIR (Employer Information Requirements)					
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)					
C2 Apply information management					
C2.K2 Principle of data transferring among different software and/or data federating into	an integrated design				
C2.K4 Principle of information management in building sustainability and lean design					
C2.S1 Manage and coordinate information related to energy performance					
C3 Apply procurement management					
C3.K2 Processes, methods and principles of decision-making on materials and products					
C3.K3 Legal and technical aspects on green procurement, state and rules for using public t		-			
C3.S3 List and collaborate with several stakeholders who participate in the sustainable pro-	oject, distinguishing roles/needs and involving them ir	n the information delivery plan preparation			
C3.S5 Define building environmental impact as part of the contract					
C3.S6 Include measureable Quality Analysis criteria as part of the contract					

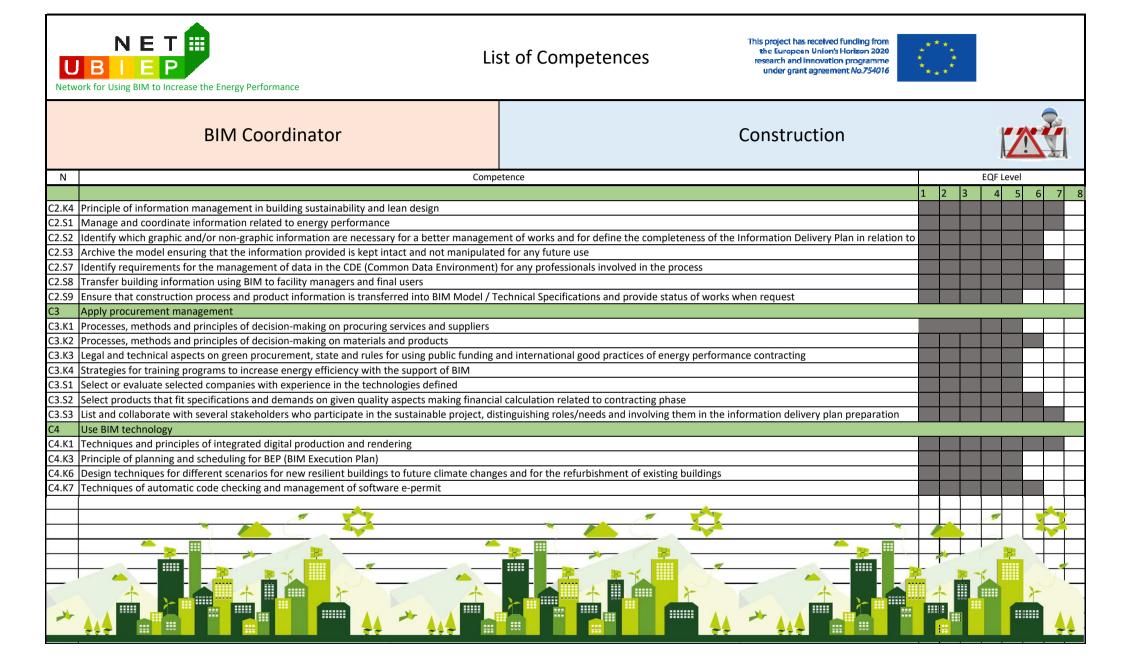
Netv	NET BIEP vork for Using BIM to Increase the Energy Performance	Li	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016	 ** * *	***						
	BIM User		Technical Design					0001	S		>
Ν		Comp	etence		_		EQF L		evel		
C4	Use BIM technology			1	2	3	4	5	6	7	8
C4.K5	Principles and systems of sustainable buildings, including renewable energy production	n					ட				
C5	Analyse the BIM Model			_		_	_				
C5.S6	Use BIM models to communicate installation instructions							\rightarrow			
				 \vdash	\vdash	<u> </u>	⊢				
				 \vdash	\vdash	—	┝─┤				
				 \vdash	┝─┤	\vdash	┢──┼	\rightarrow			
				 \vdash	┝──┦	──	┝─┤				
				 \vdash	\vdash	┝──┦	┢──┦	-			
				 \vdash	┝─┤		┢──┼	\rightarrow	-	_	
								-			
				\square			\square				
							\square				
				 \square	\square	\square	\square	\rightarrow			
è							-1	\rightarrow	-F		
						<u>) (</u>	-		-	-	
*											

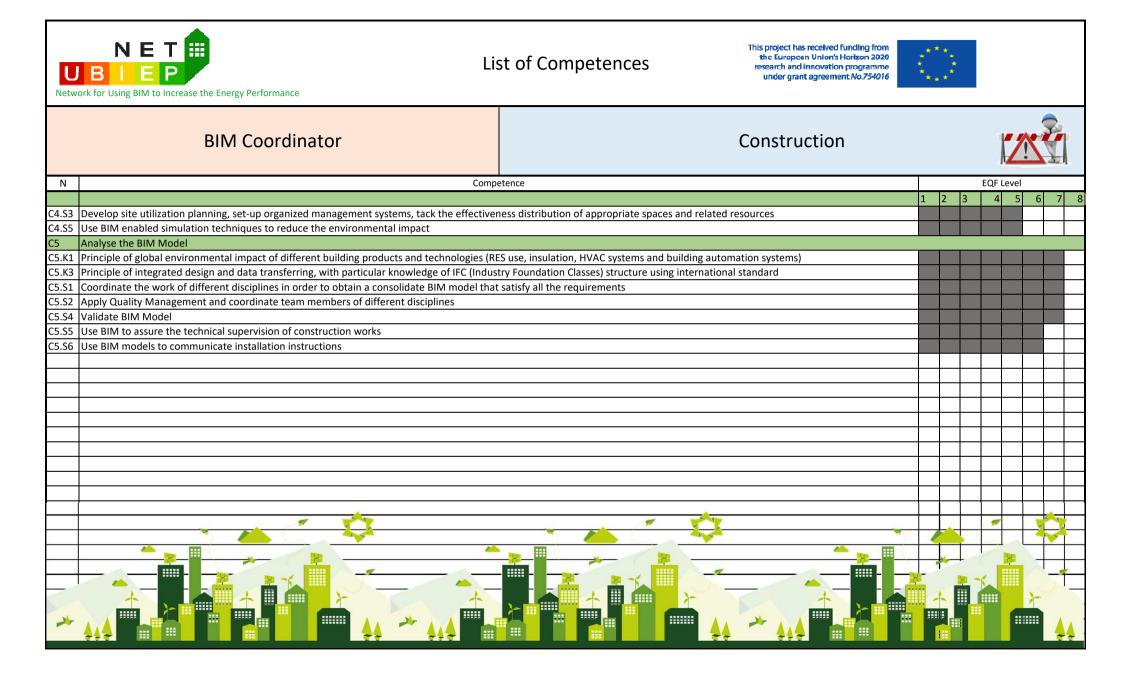
BACK EXTRACT			
NET UBIEP Network for Using BIM to Increase the Energy Performance	List of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>	
BIM Manager		Construction	
N	Competence		EQF Level
CO Have basic BIM knowledge and skills		1	2 3 4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition			
CO.K2 Benefits and uses of BIM compared to traditional methods for improving energy ef			
CO.K3 Project information development cycle: information specification, development, ex		ing life cycle	
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among profe	•		
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implemen	itation capabilities and BIM uses		
C0.K6 Relevance of maintenance for maintaing the foreseen energy performance			
C0.S1 Read a BIM Execution Plan (BEP)			
C0.S2 Read a Information Delivery Manual			
C0.S3 Identify information requirements for his own role			
C0.54 Identify the format to read information and transfer information within the supply	r chain		
C0.S5 Identify the EIR (Employer Information Requirements)			
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)			
C1 Understand BIM tools C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM s			
C1.S1 Specialised skills to incorporate information into Bivi Model, evaluating openBivi s C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM te			
C2 Apply information management C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environ	mont		
C2.K1 Principle of data transferring among different software and/or data federating into			
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (



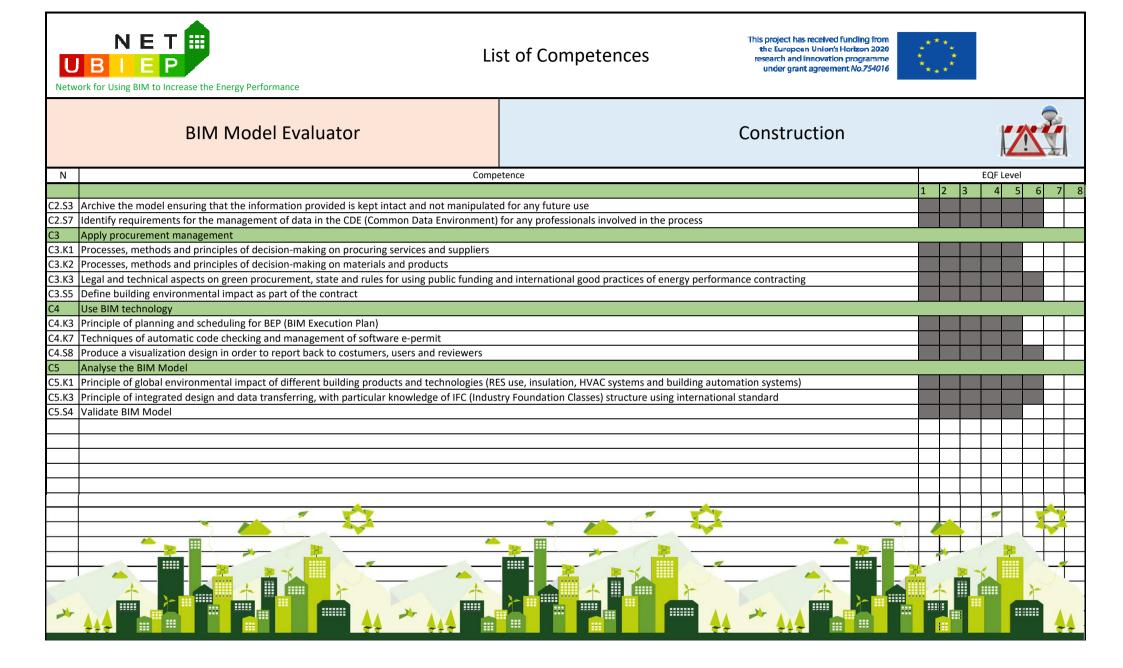
Net		Lis	st of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016	*** * **	***					
	BIM Manager			Construction				ţ		2	1
Ν	(Compo	etence					EQF Le			_
					1	2	3	4	5	6 7	' E
	5 Use BIM to assure the technical supervision of construction works				_		\square				_
C5.S	5 Use BIM models to communicate installation instructions					ļ		_		4	<u> </u>
					┼──	+ - +	┝──┤	\rightarrow	\rightarrow	—	+
					<u> </u>	+	\vdash	<u> </u>	—	+	
					+	+				-	+
					1	\square					1
					\square		\square	\square			\vdash
					<u> </u>		\square		\rightarrow	_	
					<u> </u>	+	\vdash			_	
					┼──	+ - +	┝──┤	\rightarrow	\rightarrow	—	+
					+	+ - +	┢──┤	\rightarrow	+	—	+
					+	+				-	+
-					1					-	1
											1
					\vdash	\square	\square	\rightarrow	\rightarrow		
								1	_	P	4
		-		A		-	<u>) (</u>	- market		-	-
~											F_

	BACK				
	NET BIEP Fork for Using BIM to Increase the Energy Performance	st of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>		
	BIM Coordinator		Construction		
N		petence		EQF Level	
C0	Have basic BIM knowledge and skills			1 2 3 4 5 6	578
	BIM basic concepts, terminology, principles, strategies and its value proposition				
	Benefits and uses of BIM compared to traditional methods for improving energy efficiency				
	Project information development cycle: information specification, development, exchange		cle		
	Reasons for open and interoperable solutions to ensure collaboration among professionals				
	Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses			
	Relevance of maintenance for maintaing the foreseen energy performance				
	Read a BIM Execution Plan (BEP)				
	Read a Information Delivery Manual				
	Identify information requirements for his own role				
	Identify the format to read information and transfer information within the supply chain				
	Identify the EIR (Employer Information Requirements)				
	Identify and/or verify the stages of PIM (Project Information Management)				
C1	Understand BIM tools				
	Specialised skills to incorporate information into BIM Model, evaluating openBIM software				
	Stay up to date on BIM trends, current developments and new directions of BIM technolog	ies			
C2	Apply information management				
	Principle of data mining, data base and back up in the CDE (Common Data Environment)				
	Principle of data transferring among different software and/or data federating into an integ				
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)			
*					





BACK EXTRACT			
NET UBIEP Network for Using BIM to Increase the Energy Performance	List of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>	·**. ·**
BIM Model Evaluator		Construction	
N	Competence		EQF Level
CO Have basic BIM knowledge and skills		1	2 3 4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition			
CO.K2 Benefits and uses of BIM compared to traditional methods for improving energy eff			
CO.K3 Project information development cycle: information specification, development, ex		ife cycle	
C0.K4 Reasons for open and interoperable solutions to ensure collaboration among profes	•		
C0.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementation of the second s	ation capabilities and BIM uses		
C0.K6 Relevance of maintenance for maintaing the foreseen energy performance			
CO.S1 Read a BIM Execution Plan (BEP)			
C0.52 Read a Information Delivery Manual			
C0.S3 Identify information requirements for his own roleC0.S4 Identify the format to read information and transfer information within the supply of the s	hain		
C0.S5 Identify the EIR (Employer Information Requirements) C0.S6 Identify and/or verify the stages of PIM (Project Information Management)			
C1 Understand BIM tools			
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM tec	chaologies		
C2 Apply information management			
C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environm	pent)		
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Co			
C2.K4 Principle of information management in building sustainability and lean design			
C2.S2 Identify which graphic and/or non-graphic information are necessary for a better m	anagement of works and for define the completeness	of the Information Delivery Plan in relation to	
		······································	



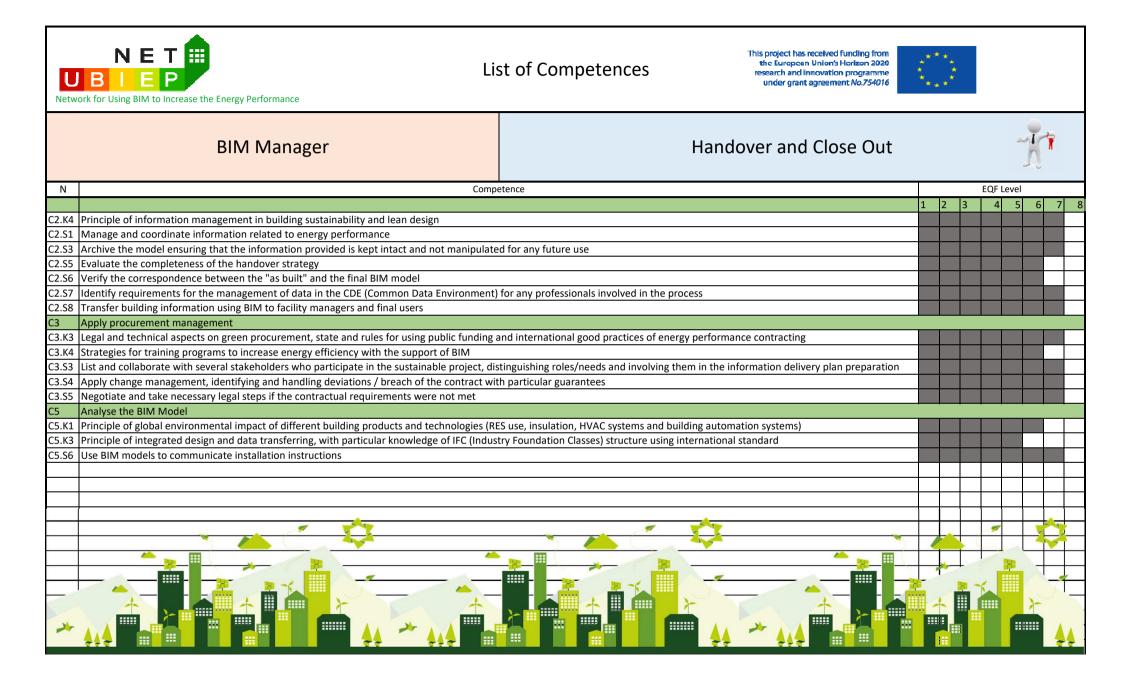
В	PACK				
	NET BIEP Is Lise rk for Using BIM to Increase the Energy Performance	t of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>		
	BIM Specialist-Expert		Construction		
Ν	Сотр	etence		E	QF Level
C0	Have basic BIM knowledge and skills			1 2 3	4 5 6 7 8
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition				
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency of	of new or existing buildings			
C0.K3	Project information development cycle: information specification, development, exchange				
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professionals	of different disciplines			
C0.K5	Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses			
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance				
C0.S1	Read a BIM Execution Plan (BEP)				
C0.S2	Read a Information Delivery Manual				
C0.S3	Identify information requirements for his own role				
C0.S4	Identify the format to read information and transfer information within the supply chain				
C0.S5	Identify the EIR (Employer Information Requirements)				
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)				
C1	Understand BIM tools				
C1.S1	Specialised skills to incorporate information into BIM Model, evaluating openBIM software				
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technologi	es			
C2	Apply information management				
C2.K2	Principle of data transferring among different software and/or data federating into an integ	rated design			
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)			
C2.K4	Principle of information management in building sustainability and lean design				
*					

U Netwo	NET BIEP Intr for Using BIM to Increase the Energy Performance	ist of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016					
	BIM Specialist-Expert		Construction			12	Ň	
N	Com	npetence			EC	QF Level		
				1 2	3	4 5	6	7
C2.S2	Identify which graphic and/or non-graphic information are necessary for a better manage	ment of works and for define the complete	eness of the Information Delivery Plan in relation to)				
C3	Apply procurement management							
C3.K3	Legal and technical aspects on green procurement, state and rules for using public funding	g and international good practices of energ	gy performance contracting					
C3.S3	List and collaborate with several stakeholders who participate in the sustainable project, o	distinguishing roles/needs and involving th	em in the information delivery plan preparation					
C4	Use BIM technology							
C4.K1	Techniques and principles of integrated digital production and rendering							
C4.K6	Design techniques for different scenarios for new resilient buildings to future climate char	nges and for the refurbishment of existing l	buildings					
C4.K7	Techniques of automatic code checking and management of software e-permit							
C4.S3	Develop site utilization planning, set-up organized management systems, tack the effectiv	veness distribution of appropriate spaces a	nd related resources					
C4.S4	Use laser scanning in order to produce a point of cloud of existing buildings, comparing an	nd evaluating facilities and related systems						
C4.S5	Use BIM enabled simulation techniques to reduce the environmental impact							
C5	Analyse the BIM Model							_
C5.K1	Principle of global environmental impact of different building products and technologies (RES use, insulation, HVAC systems and bui	Iding automation systems)					
C5.K3	Principle of integrated design and data transferring, with particular knowledge of IFC (Indu	ustry Foundation Classes) structure using ir	nternational standard					
C5.S4	Validate BIM Model							
C5.S6	Use BIM models to communicate installation instructions							
						+-1		
								-
					+	+-+		
		7				/		
								Ä
-			🍊 🚬 🎟 🗍			20		_
1				-	+	1		-
-							-	1
							3-	-
							1	
						11		
								27

BACK EXTRACT	ist of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>			
BIM User		Construction			
N Com	petence			EQF Level	
C0 Have basic BIM knowledge and skills			1 2 3	4 5	6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition					
C0.K2 Benefits and uses of BIM compared to traditional methods for improving energy efficiency					
C0.K3 Project information development cycle: information specification, development, exchange		le			
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among professionals	s of different disciplines				
C0.K6 Relevance of maintenance for maintaing the foreseen energy performance					
C0.S2 Read a Information Delivery Manual					
C0.S3 Identify information requirements for his own role					
C0.S5 Identify the EIR (Employer Information Requirements)					
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)					
C2 Apply information management					
C2.K2 Principle of data transferring among different software and/or data federating into an inter	grated design				
C2.K4 Principle of information management in building sustainability and lean design					
C2.S1 Manage and coordinate information related to energy performance					
C2.S9 Ensure that construction process and product information is transferred into BIM Model /	Technical Specifications and provide status of works	when request			
C3 Apply procurement management					
C3.K2 Processes, methods and principles of decision-making on materials and products					
C3.K3 Legal and technical aspects on green procurement, state and rules for using public funding	and international good practices of energy performa	ance contracting			
C3.S3 List and collaborate with several stakeholders who participate in the sustainable project, d	istinguishing roles/needs and involving them in the ir	nformation delivery plan preparation			
C3.S4 Apply change management, identifying and handling deviations / breach of the contract w	ith particular guarantees				

	NET BIEP ork for Using BIM to Increase the Energy Performance	ist of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>	•** * **	***				
	BIM User		Construction				K	<u>*</u>	X
N	Com	petence					QF Leve		
C3 55	Define building environmental impact as part of the contract			1	23	3	4	56	5 7 8
	Analyse the BIM Model								
	Use BIM models to communicate installation instructions								
				\square	\rightarrow	\rightarrow	\rightarrow	—	+-+-
				┢──┼	—		_		+
								-	
-								-	
				\square					++-
				\vdash	—	\rightarrow	——	—	+-+-
				\vdash		—	+	_	+
				\vdash		\rightarrow	\rightarrow		++-
				\vdash	—	\rightarrow	+	+	+
				\vdash		\rightarrow	+	—	+
						-	+		
		1			~	J.	1		
			<u> </u>			i - 1			<u> </u>
-						- (*	2	-	+ $+$ $-$
									- * -
				1				7	
									1.4
									44

BACK		
NET UBIEP Network for Using BIM to Increase the Energy Performance	ist of Competences This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016	
BIM Manager	Handover and Close Out	
	petence	EQF Level
C0 Have basic BIM knowledge and skills		1 2 3 4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition		
C0.K2 Benefits and uses of BIM compared to traditional methods for improving energy efficiency	<pre>/ of new or existing buildings</pre>	
CO.K3 Project information development cycle: information specification, development, exchange		
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among professional	•	
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementation of	apabilities and BIM uses	
C0.K6 Relevance of maintenance for maintaing the foreseen energy performance		
CO.S1 Read a BIM Execution Plan (BEP)		
C0.S2 Read a Information Delivery Manual		
C0.S3 Identify information requirements for his own role		
C0.S4 Identify the format to read information and transfer information within the supply chain		
C0.S5 Identify the EIR (Employer Information Requirements)		
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)		
C1 Understand BIM tools		
C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM software		
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM technolog	gies	
C2 Apply information management		
C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environment)		
C2.K2 Principle of data transferring among different software and/or data federating into an inte		
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Commo	n Data Environment)	



E	PACK			
	NET BIEP Drk for Using BIM to Increase the Energy Performance	ist of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>	
	BIM Coordinator		Handover and Close Out	
Ν	Com	petence		EQF Level
C0	Have basic BIM knowledge and skills			1 2 3 4 5 6 7 8
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition			
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency	of new or existing buildings		
	Project information development cycle: information specification, development, exchange		ilding life cycle	
	Reasons for open and interoperable solutions to ensure collaboration among professional			
C0.K5	Methodology to identify, plan, develop and evaluate organization's BIM implementation of	capabilities and BIM uses		
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance			
C0.S1	Read a BIM Execution Plan (BEP)			
C0.S2	Read a Information Delivery Manual			
C0.S3	Identify information requirements for his own role			
C0.S4	Identify the format to read information and transfer information within the supply chain			
C0.S5	Identify the EIR (Employer Information Requirements)			
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)			
C1	Understand BIM tools			
C1.S1	Specialised skills to incorporate information into BIM Model, evaluating openBIM softwar	e		
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technolo	gies		
	Apply information management			
C2.K1	Principle of data mining, data base and back up in the CDE (Common Data Environment)			
C2.K2	Principle of data transferring among different software and/or data federating into an inte	egrated design		
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Commo	n Data Environment)		
*				

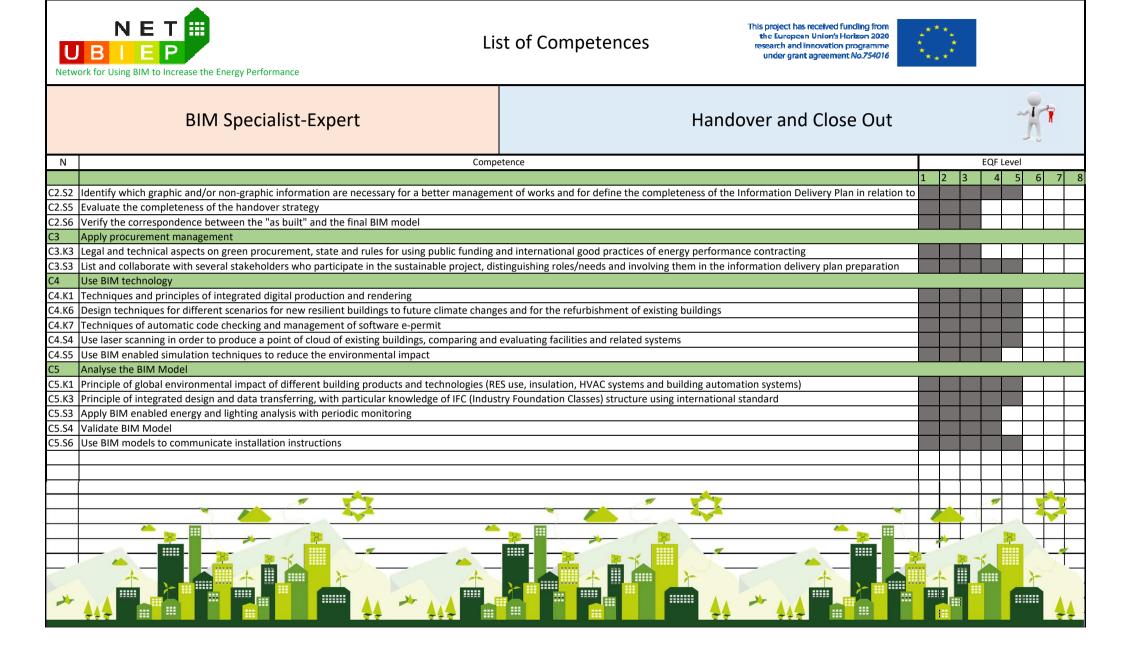
NET UBIEP Network for Using BIM to Increase the Energy Performance	Li	St of Competences This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016	*	* *. * * *				
BIM Coordinator		Handover and Close Out					X	7
N	Comp	etence					Leve	
			1	2	3	4	5 6	7 8
C2.K4 Principle of information management in building sustainability and lean design								
C2.S1 Manage and coordinate information related to energy performance								
		ent of works and for define the completeness of the Information Delivery Plan in relation to	<u>ა</u>					
C2.S3 Archive the model ensuring that the information provided is kept intact and not ma	anipulate	d for any future use						
C2.S5 Evaluate the completeness of the handover strategy								
C2.S7 Identify requirements for the management of data in the CDE (Common Data Enviro	ronment)	for any professionals involved in the process						
C2.S6 Verify the correspondence between the "as built" and the final BIM model								
C2.S8 Transfer building information using BIM to facility managers and final users								
C3 Apply procurement management								
C3.K3 Legal and technical aspects on green procurement, state and rules for using public f		and international good practices of energy performance contracting						
C3.K4 Strategies for training programs to increase energy efficiency with the support of BI	IM							
C3.S3 List and collaborate with several stakeholders who participate in the sustainable pro	roject, dis	tinguishing roles/needs and involving them in the information delivery plan preparation						
C4 Use BIM technology								
C4.K1 Techniques and principles of integrated digital production and rendering								
C4.K6 Design techniques for different scenarios for new resilient buildings to future climat	ite chang	es and for the refurbishment of existing buildings						
C4.K7 Techniques of automatic code checking and management of software e-permit								
C4.S5 Use BIM enabled simulation techniques to reduce the environmental impact								
C5 Analyse the BIM Model								
C5.K1 Principle of global environmental impact of different building products and technological	logies (RI	S use, insulation, HVAC systems and building automation systems)						
C5.K3 Principle of integrated design and data transferring, with particular knowledge of IF	FC (Indus	try Foundation Classes) structure using international standard						
				*				

Netw	NET BIEP vork for Using BIM to Increase the Energy Performance	Lis	t of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016	** * ***	*** * *					
	BIM Coordinator			over and Close Out					7	F	
N	(Compe	tence		L	1-		EQF Le		-	
05.00					1	2	3	4	5 (6 7	7 8
	Apply BIM enabled energy and lighting analysis with periodic monitoring Validate BIM Model				-					+	-
	Use BIM models to communicate installation instructions				-						-
00.00											
					<u> </u>						_
					—	\vdash				—	_
					<u> </u>	+				—	
					<u> </u>	+				—	
											-
										-	-
											_
					<u> </u>						_
					<u> </u>	+				_	_
					<u> </u>	+				—	
					<u> </u>	┼──┦				+	
					<u> </u>						
								-1			
ā											-
			»		\vdash	<u>,</u>		1		\perp	_
				IIII	Ľ	1	-			-	
-		-							···· 🔍	Same	-
		Ŧ									
*							1				
						ATT.			_		

	ACK EXTRACT NET BIEP k for Using BIM to Increase the Energy Performance	t of Competences the E	ject has received funding from uropean Union's Horizon 2020 ch and innovation programme er grant agreement No.754016	
	BIM Model Evaluator	Handovera	and Close Out	
Ν	Сотр	tence		EQF Level
C0	Have basic BIM knowledge and skills		1 2	3 4 5 6 7 8
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition			
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency of	f new or existing buildings		
C0.K3	Project information development cycle: information specification, development, exchange			
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professionals			
C0.K5	Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	abilities and BIM uses		
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance			
C0.S1	Read a BIM Execution Plan (BEP)			
C0.S2	Read a Information Delivery Manual			
C0.S3	Identify information requirements for his own role			
C0.S4	Identify the format to read information and transfer information within the supply chain			
C0.S5	Identify the EIR (Employer Information Requirements)			
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)			
C1	Understand BIM tools			
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technologi	25		
C2	Apply information management			
C2.K1	Principle of data mining, data base and back up in the CDE (Common Data Environment)			
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)		
C2.K4	Principle of information management in building sustainability and lean design			
C2.S2	Identify which graphic and/or non-graphic information are necessary for a better managem	ent of works and for define the completeness of the Informati	ion Delivery Plan in relation to	
*				

U Netwo	NET BIEP rk for Using BIM to Increase the Energy Performance	List of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>					
	BIM Model Evaluator		Handover and Close Out			4	X	
Ν	(Competence			EQ	F Level		
				1 2 3	3	4 5	6	7
C2.S3	Archive the model ensuring that the information provided is kept intact and not manip	oulated for any future use						
C2.S5	Evaluate the completeness of the handover strategy							
C2.S6	Verify the correspondence between the "as built" and the final BIM model							
	Identify requirements for the management of data in the CDE (Common Data Environn	nent) for any professionals involved in the	process					
C3	Apply procurement management							
	Legal and technical aspects on green procurement, state and rules for using public fund	ding and international good practices of er	nergy performance contracting					
	Define building environmental impact as part of the contract							
C4	Use BIM technology							
C4.K7	Techniques of automatic code checking and management of software e-permit							
	Produce a visualization design in order to report back to costumers, users and reviewe	rs						
C5	Analyse the BIM Model							
	Principle of global environmental impact of different building products and technologie	*						
C5.K3	Principle of integrated design and data transferring, with particular knowledge of IFC (I	Industry Foundation Classes) structure usin	ng international standard					
C5.S4	Validate BIM Model							
					- 1	-		
					- Summer			<u> </u>
		<u></u>			- Cart	8		\perp
							-	-
							a	1_
5				📕 🔶 📕			7	
1								
								44

BACK EXTRACT			
Li NET UBIEP Network for Using BIM to Increase the Energy Performance	st of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>	**** ****
BIM Specialist-Expert		Handover and Close Out	
	petence		EQF Level
CO Have basic BIM knowledge and skills			1 2 3 4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition			
CO.K2 Benefits and uses of BIM compared to traditional methods for improving energy efficiency	of new or existing buildings		
CO.K3 Project information development cycle: information specification, development, exchange	-	ding life cycle	
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among professionals			
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	pabilities and BIM uses		
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance			
CO.S1 Read a BIM Execution Plan (BEP)			
C0.S2 Read a Information Delivery Manual			
C0.S3 Identify information requirements for his own role			
C0.S4 Identify the format to read information and transfer information within the supply chain			
C0.S5 Identify the EIR (Employer Information Requirements)			
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)			
C1 Understand BIM tools			
C1.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM software			
C1.S2 Stay up to date on BIM trends, current developments and new directions of BIM technolog	ies		
C2 Apply information management			
C2.K2 Principle of data transferring among different software and/or data federating into an integ			
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Common	Data Environment)		
C2.K4 Principle of information management in building sustainability and lean design			



BACK EXTRACT			
NET UBIEP Network for Using BIM to Increase the Energy Performance	List of Competences This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016		
BIM User	Handover and Close Out		
Ν	Competence	EQF	F Level
C0 Have basic BIM knowledge and skills		1 2 3 2	4 5 6 7 8
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition			
CO.K2 Benefits and uses of BIM compared to traditional methods for improving energy effic			
C0.K3 Project information development cycle: information specification, development, exch			
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among profess	onals of different disciplines		
C0.K6 Relevance of maintenance for maintaing the foreseen energy performance			
C0.S2 Read a Information Delivery Manual			
C0.S3 Identify information requirements for his own role			
C0.S5 Identify the EIR (Employer Information Requirements)			
C0.S6 Identify and/or verify the stages of PIM (Project Information Management)			
C2 Apply information management			
C2.K2 Principle of data transferring among different software and/or data federating into an	n integrated design		
C2.K4 Principle of information management in building sustainability and lean design			
C2.S1 Manage and coordinate information related to energy performance			
C2.S5 Evaluate the completeness of the handover strategy			
C2.S6 Verify the correspondence between the "as built" and the final BIM model C3 Apply procurement management			
C3 Apply procurement management C3.K3 Legal and technical aspects on green procurement, state and rules for using public fu	ading and international good practices of energy performance contracting		
	ect, distinguishing roles/needs and involving them in the information delivery plan preparation		
C3.54 Apply change management, identifying and handling deviations / breach of the contr			
	מכי שינו אמי ויכמומי צממימוונכבי		+ + + +

Netw	NET BIEP vork for Using BIM to Increase the Energy Performance	Li	st of Competences	This project has received funding fr the European Union's Horizon 2 research and innovation program under grant agreement No.754	nme 💦	** * *	****					
	BIM User			Handover and Close O	ut					-K	1	
Ν		Comp	etence			L_			EQF Lev			
00.05						1	2	3	4	5 6	5 7	8
	Negotiate and take necessary legal steps if the contractual requirements were not me Define building environmental impact as part of the contract	et								_	+	
C5	Analyse the BIM Model										┶╾┶	
	Use BIM models to communicate installation instructions				—					—	TT	
00.00										+		
						1	i t					
						i l	i					
					-							
						i	i					
							⊢				\square	
						\vdash	⊢			<u> </u>	+	
						\square	⊢				\downarrow	
						⊢	⊢−−∔			—	+	
						\vdash	⊢──┤			—	+	
						⊢−−┤	┢──┤			—	+	
						┌──┤	⊢−−+			+	+	
						┌──┤	<u> </u>			+	+	
 							r	\rightarrow		+	+	
			7						1			12
	N 🍐 💷 😽				× 1					17		6
	A	1		A		\square	Ī					
								lÌ		۲ ۲	5	
*											4	4

В				
U Networ	NET BIEP K for Using BIM to Increase the Energy Performance	st of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>	
	BIM Manager		In Use	<u>**</u>
N		petence		EQF Level
CO	Have basic BIM knowledge and skills			1 2 3 4 5 6 7 8
	BIM basic concepts, terminology, principles, strategies and its value proposition			
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficiency			
C0.K3	Project information development cycle: information specification, development, exchange		cle	
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professionals			
C0.K5	Methodology to identify, plan, develop and evaluate organization's BIM implementation ca	apabilities and BIM uses		
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance			
C0.S1	Read a BIM Execution Plan (BEP)			
C0.S2	Read a Information Delivery Manual			
C0.S3	Identify information requirements for his own role			
C0.S4	Identify the format to read information and transfer information within the supply chain			
C0.S5	Identify the EIR (Employer Information Requirements)			
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)			
C1	Understand BIM tools			
	Principle of economic subjects for the cost estimation and evaluation of energy refurbishm			
C1.S1	Specialised skills to incorporate information into BIM Model, evaluating openBIM software			
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technolog	ies		
C1.S3	Decrease the life cycle cost of the building using methods described in ISO 15686-5			
	Evaluate and compare different plans and related Return of Investments using methods de	scribed in ISO 15686-5		
C2	Apply information management			
*				

	NET BIEP K for Using BIM to Increase the Energy Performance	ist of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement <i>No.754016</i>	
	BIM Manager		In Use	产气
N	Cor	mpetence		EQF Level
				1 2 3 4 5 6 7
C2.K1	Principle of data mining, data base and back up in the CDE (Common Data Environment)			
C2.K2	Principle of data transferring among different software and/or data federating into an int			
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Commo	on Data Environment)		
C2.K4	Principle of information management in building sustainability and lean design			
C2.K5	Principle of reusing and recycling of materials and components of a building			
C2.S1	Manage and coordinate information related to energy performance			
C2.S3	Archive the model ensuring that the information provided is kept intact and not manipula			
C2.S4 C2.S7	Evaluate the completeness of the maintenance plan to be used in EPC (Energy Performar Identify requirements for the management of data in the CDE (Common Data Environme			
C2.57	Transfer building information using BIM to facility managers and final users	int) for any professionals involved in the proce	-55	
C2.38	Apply procurement management			
C3.K3	Legal and technical aspects on green procurement, state and rules for using public fundir	ag and international good practices of energy	performance contracting	
C3.K3	Strategies for training programs to increase energy efficiency with the support of BIM			
C3.S3	List and collaborate with several stakeholders who participate in the sustainable project,	distinguishing roles/needs and involving them	n in the information delivery plan preparation	
C3.S4	Apply change management, identifying and handling deviations / breach of the contract			
C3.S5	Negotiate and take necessary legal steps if the contractual requirements were not met	and particular Busiciness		
C5	Analyse the BIM Model			
C5.K1	Principle of global environmental impact of different building products and technologies	(RES use, insulation, HVAC systems and buildi	ng automation systems)	
C5.K2	Techniques of passive measures needed for the management of nZEB	· · · · ·		
C5.K3	Principle of integrated design and data transferring, with particular knowledge of IFC (Ind	dustry Foundation Classes) structure using inte	ernational standard	
*				

Networ	rk for UN BIERO INFREMENTE Energy Performance	List of Competences This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016							赤秀		L
	BIM Manager			In Use							
Ν		Comp	etence					EQF L	.evel		
					1	2	3	4	5	6	7 8
C5.S6	Use BIM models to communicate installation instructions										
					\perp	\perp	\perp	\square	\square		
ļ					\perp	\perp	\perp	\vdash	\square		
					+	—	—	\vdash	-+		_
					—			\vdash			
					—	_		\vdash			_
L					+-	—		┢──┤	\rightarrow	_	_
					+	+	+	+			_
					+	<u> </u>		+	\rightarrow		
					+	+	+	+	-		
					-		-				-
							1				
					\perp	\perp	\downarrow	\square	$ \rightarrow$		
					—		<u> </u>				_
				~	+	+			-+		<u> </u>
3						-	<u> </u>	Second Second	L		4
*						*					+ + +

	ACK EXTRACT	st of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016	****
	BIM Coordinator		In Use	产大
N		npetence		EQF Level
C0	Have basic BIM knowledge and skills			1 2 3 4 5 6 7
C0.K1	BIM basic concepts, terminology, principles, strategies and its value proposition			
C0.K2	Benefits and uses of BIM compared to traditional methods for improving energy efficience	, , , ,		
C0.K3	Project information development cycle: information specification, development, exchange		le	
C0.K4	Reasons for open and interoperable solutions to ensure collaboration among professiona			
C0.K5	Methodology to identify, plan, develop and evaluate organization's BIM implementation	capabilities and BIM uses		
C0.K6	Relevance of maintenance for maintaing the foreseen energy performance			
C0.S1	Read a BIM Execution Plan (BEP)			
C0.S2	Read a Information Delivery Manual			
C0.S3	Identify information requirements for his own role			
C0.S4	Identify the format to read information and transfer information within the supply chain			
C0.S5	Identify the EIR (Employer Information Requirements)			
C0.S6	Identify and/or verify the stages of PIM (Project Information Management)			
C1	Understand BIM tools			
C1.S1	Specialised skills to incorporate information into BIM Model, evaluating openBIM software			
C1.S2	Stay up to date on BIM trends, current developments and new directions of BIM technology	ogies		
C2	Apply information management			
C2.K1	Principle of data mining, data base and back up in the CDE (Common Data Environment)			
C2.K2	Principle of data transferring among different software and/or data federating into an int			
C2.K3	Principle of data security and administrative law in the archiving of data in a CDE (Commo	on Data Environment)		
*				

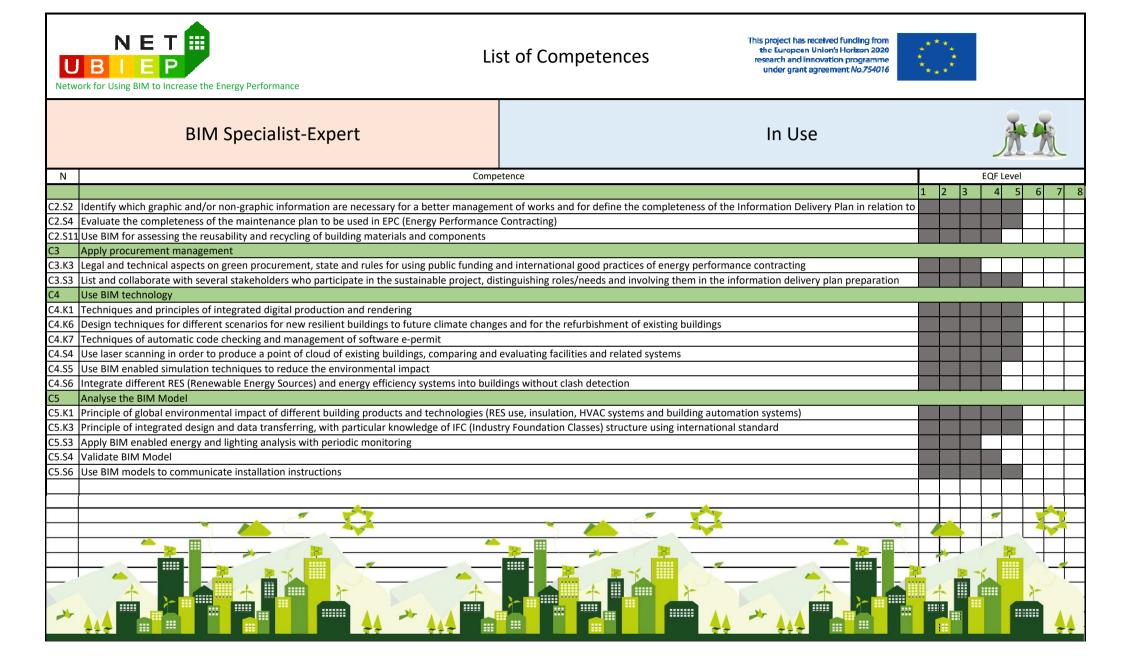
	NET BIEP I for Using BIM to Increase the Energy Performance	ist of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>	*** * * * *			
	BIM Coordinator		In Use		j		ħ.
N	Con	npetence			EQF Le	vel	
				1 2 3	4	5 6	5 7 8
C2.K4	Principle of information management in building sustainability and lean design						
C2.S1	Manage and coordinate information related to energy performance						
C2.S2	Identify which graphic and/or non-graphic information are necessary for a better manage	ement of works and for define the complete	teness of the Information Delivery Plan in relation to				
C2.S3	Archive the model ensuring that the information provided is kept intact and not manipula	ated for any future use					
C2.S4	Evaluate the completeness of the maintenance plan to be used in EPC (Energy Performan						
C2.S7	Identify requirements for the management of data in the CDE (Common Data Environmer	nt) for any professionals involved in the pr	ocess				
C2.S8	Transfer building information using BIM to facility managers and final users						
C2.S10	Ensure the update of the BIM Model / Technical Specification when a maintenance is per	formed					
C2.S11	Use BIM for assessing the reusability and recycling of building materials and components						
C3	Apply procurement management						
C3.K3	Legal and technical aspects on green procurement, state and rules for using public fundin	g and international good practices of ener	gy performance contracting				
C3.K4	Strategies for training programs to increase energy efficiency with the support of BIM						
C3.S3	List and collaborate with several stakeholders who participate in the sustainable project,	distinguishing roles/needs and involving the state of the second s	nem in the information delivery plan preparation				
C4	Use BIM technology						
C4.K1	Techniques and principles of integrated digital production and rendering						
C4.K6	Design techniques for different scenarios for new resilient buildings to future climate chan	nges and for the refurbishment of existing	buildings				
C4.K7	Techniques of automatic code checking and management of software e-permit						
C4.S5	Use BIM enabled simulation techniques to reduce the environmental impact						
C4.S6	Integrate different RES (Renewable Energy Sources) and energy efficiency systems into bu	uildings without clash detection					
C5	Analyse the BIM Model						
*							

	NET BIEP K for Using BIM to Increase the Energy Performance	Lis	t of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>		**					
	BIM Coordinator			In Use				j		K	5
Ν	Competence							QF Le	vel		
					1 2	2	3	4	5	6	7 8
C5.K1	Principle of global environmental impact of different building products and technology	ogies (R	ES use, insulation, HVAC systems and building automa	ation systems)							
C5.K2	Techniques of passive measures needed for the management of nZEB										
C5.K3	Principle of integrated design and data transferring, with particular knowledge of IFC (Industry Foundation Classes) structure using international standard										
C5.S1	Coordinate the work of different disciplines in order to obtain a consolidate BIM model that satisfy all the requirements										
C5.S2	Apply Quality Management and coordinate team members of different disciplines										
C5.S3	Apply BIM enabled energy and lighting analysis with periodic monitoring										
C5.S4	Validate BIM Model										
C5.S6	Use BIM models to communicate installation instructions										
						_				-	
						_				-	
										-	
-											-
					++					-	1
							-		-		-
							+		+	-	-
					++	\neg	-+	+	+	+	+
	1 × 1		A			\pm		1	- 1	-	.
				*		4		-	_	4	4—
		<u> </u>		A		1	t	2		-	-
*											+

BACK EXTRACT							
NET UBIEP Network for Using BIM to Increase the Energy Performance	List of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>					
BIM Model Evaluator		In Use	<u>کر</u>	×			
	Competence		EQF Level				
CO Have basic BIM knowledge and skills			1 2 3 4 5	5 7 8			
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition							
C0.K2 Benefits and uses of BIM compared to traditional methods for improving energy effici							
C0.K3 Project information development cycle: information specification, development, exch		e					
CO.K4 Reasons for open and interoperable solutions to ensure collaboration among professi							
CO.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementation	ion capabilities and BIM uses			+			
CO.K6 Relevance of maintenance for maintaing the foreseen energy performance							
C0.S1 Read a BIM Execution Plan (BEP)							
S2 Read a Information Delivery Manual							
.S3 Identify information requirements for his own role							
.54 Identify the format to read information and transfer information within the supply chain .55 Identify the FIP (Employer Information and transfer information within the supply chain							
S5 Identify the EIR (Employer Information Requirements)							
S6 Identify and/or verify the stages of PIM (Project Information Management) Understand BIM tools							
Understand BIM tools .K1 Principle of economic subjects for the cost estimation and evaluation of energy refurbishment							
S2 Stay up to date on BIM trends, current developments and new directions of BIM technologies							
	S4 Evaluate and compare different plans and related Return of Investments using methods described in ISO 15686-5						
C2 Apply information management							
C2.K1 Principle of data mining, data base and back up in the CDE (Common Data Environmen	nt)						
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Con							
				++			

Netv	NET JBIEP vork for Using BIM to Increase the Energy Performance	ist of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>		*				
BIM Model Evaluator In Use						J	ł	1	
Ν	Com	petence			EQF Level				
				1 2	3	4	5	6 7	78
C2.K4	Principle of information management in building sustainability and lean design								
C2.S2	Identify which graphic and/or non-graphic information are necessary for a better manager	ment of works and for define the completeness of the	Information Delivery Plan in relation to)					
C2.S3	Archive the model ensuring that the information provided is kept intact and not manipulat	ted for any future use							
C2.S7	Identify requirements for the management of data in the CDE (Common Data Environment	t) for any professionals involved in the process							
C3	Apply procurement management								
C3.K3	Legal and technical aspects on green procurement, state and rules for using public funding	and international good practices of energy performa	ance contracting						
C4	Use BIM technology								
C4.K7	Techniques of automatic code checking and management of software e-permit								T
C5									
C5.K1	25.K1 Principle of global environmental impact of different building products and technologies (RES use, insulation, HVAC systems and building automation systems)								Т
C5.K2	Techniques of passive measures needed for the management of nZEB								
C5.K3	Principle of integrated design and data transferring, with particular knowledge of IFC (Indu	stry Foundation Classes) structure using internationa	l standard						
	C5.S4 Validate BIM Model								
-									1
-									1
									1
									1
				+ +		+			+
				+ +		+			+
-				+		┼─┼			+
	x 🕺	g 🔥		+-+-	_	-		-	-
								1	4-
-									-
3							2		
				-	8 -	<		7	1
-								and .	-
>							~		
1									

BACK EXTRACT							
NET UBIEP Network for Using BIM to Increase the Energy Performance	List of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement <i>No.754016</i>					
BIM Specialist-Expert		In Use	产长	٢			
	ompetence		EQF Level				
CO Have basic BIM knowledge and skills			1 2 3 4 5 6	7 8			
CO.K1 BIM basic concepts, terminology, principles, strategies and its value proposition				+			
C0.K2 Benefits and uses of BIM compared to traditional methods for improving energy efficien							
C0.K3 Project information development cycle: information specification, development, exchan		e					
C0.K4 Reasons for open and interoperable solutions to ensure collaboration among profession							
C0.K5 Methodology to identify, plan, develop and evaluate organization's BIM implementatio	n capabilities and BIM uses			_			
C0.K6 Relevance of maintenance for maintaing the foreseen energy performance							
C0.S1 Read a BIM Execution Plan (BEP)							
0.52 Read a Information Delivery Manual							
0.53 Identify information requirements for his own role 0.54 Identify the format to read information and transfer information within the supply chain							
.S5 Identify the EIR (Employer Information Requirements) .S6 Identify and/or verify the stages of PIM (Project Information Management)							
L.S1 Specialised skills to incorporate information into BIM Model, evaluating openBIM software							
LS2 Stay up to date on BIM trends, current developments and new directions of BIM technologies							
C2 Apply information management							
C2.K2 Principle of data transferring among different software and/or data federating into an in	ntegrated design						
C2.K3 Principle of data security and administrative law in the archiving of data in a CDE (Comr				-			
C2.K4 Principle of information management in building sustainability and lean design							



BACK EXTRACT								
NET UBIEP Network for Using BIM to Increase	Li	st of Competences	This project has received funding from the European Union's Horizon 2020 research and Innovation programme under grant agreement No.754016	*** **** ****				
	BIM User		In Use		À	X		
N		petence		E	EQF Level			
C0 Have basic BIM knowled	dge and skills			1 2 3	4 5	6 7 8		
	minology, principles, strategies and its value proposition							
	A compared to traditional methods for improving energy efficiency							
CO.K3 Project information dev	elopment cycle: information specification, development, exchange	and maintenance throughout all the building life cyc	le					
CO.K4 Reasons for open and in	teroperable solutions to ensure collaboration among professionals	of different disciplines						
	nce for maintaing the foreseen energy performance							
	C0.S2 Read a Information Delivery Manual							
C0.S3 Identify information req	uirements for his own role							
	.S5 Identify the EIR (Employer Information Requirements)							
C0.S6 Identify and/or verify th	S6 Identify and/or verify the stages of PIM (Project Information Management)							
C2 Apply information mana								
	.K2 Principle of data transferring among different software and/or data federating into an integrated design							
	.K4 Principle of information management in building sustainability and lean design							
C2.K5 Principle of reusing and	.K5 Principle of reusing and recycling of materials and components of a building							
	.S1 Manage and coordinate information related to energy performance							
C2.S10 Ensure the update of the	2.S10 Ensure the update of the BIM Model / Technical Specification when a maintenance is performed							
C3 Apply procurement mar	nagement							
C3.K3 Legal and technical aspe	ects on green procurement, state and rules for using public funding	and international good practices of energy performa	ince contracting					
	h several stakeholders who participate in the sustainable project, di		formation delivery plan preparation					
C3.S4 Apply change managem	ient, identifying and handling deviations / breach of the contract wi	th particular guarantees						
	4							
			~					

Netw	NET BIEP rork for Using BIM to Increase the Energy Performance	Lis	st of Competences	This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.754016	*	***					
	BIM User			In Use				J	A.	Ż	J
Ν		Comp	tence					EQF Le			
					1	2	3	4	5	6 7	7 8
C3.S5 C5	Negotiate and take necessary legal steps if the contractual requirements were not me Analyse the BIM Model	t									
								— ———————————————————————————————————			-
	Use BIM models to communicate installation instructions							\vdash	-+	+	+
										+	+
					-	1				-	-
						\square	<u> </u>				
						_	<u> </u>	\vdash	\square	\rightarrow	—
					—	—	<u> </u>	++	\rightarrow	—	—
					—	—	'	++	\rightarrow	—	—
					—	<u> </u>	'	+		—	—
					+	+	<u> </u>	++	\rightarrow	<u> </u>	+
					+	<u> </u>	┢──┘	+	-	+	+
					-	1				+	-
						1					-
										_	
				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				1			<u></u>
3						$\sim$	<b>)</b> - (	and the second			<u> </u>
*											+
		===				III					-