worldskills Europe

Technical Description

Carpentry



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1 Introduction

1.1 Name and description of the skill competition

1.1.1 The name of the skill competition is

Carpentry

1.1.2 Description of the associated work role(s) or occupation(s)

A carpenter generally works on commercial and residential projects predominantly undertaking tasks using timber and timber related products. Carpentry is closely associated with other trades that make up the construction industry, working both individually and as part of a team to complete projects. A carpenter undertakes work both internally and externally within homes of customers and on construction sites in all weather conditions.

They are expected to interpret drawings, set out and measure, cut, form joints using hand and power tools, assemble, and install finishes to a high standard. Carpenters also construct and install components that are seen on the inside and outside of residential or commercial buildings such as sidings, shutter and roofing materials. They also make moulds for concrete formwork (called shuttering in some countries). Carpenters may also be involved in the design and construction of timber-framed buildings such as commercial buildings, dwellings, garages, sheds, gazebos, pergolas, and playhouses.

Work organization, self-management, communication, and interpersonal skills are integral parts of a carpenter's skill set along with problem solving, innovation and creativity. The ability to work precisely and accurately are fundamental attributes of an outstanding carpenter. Whether the carpenter is working alone or in a team, the individual takes on a high level of personal responsibility and autonomy.

Every step in the carpentry process matters; mistakes may be largely irreversible and could carry a very high cost. A Carpenter must work safely; demonstrate exceptional planning and organization skills, along with concentration and stamina paying attention to detail in order to achieve an excellent finish.

Carpenters must have technology skills to be able to use digital instruments such as GPS location devices, laser levels, electronic distance measurement devices and digital callipers. They must also be able to use specialist construction CAD software and project management (BIM) software.

With the international mobility of people, the carpenter faces rapidly expanding opportunities and challenges. For a talented carpenter there are many commercial and international opportunities. However, these also carry with them the need to understand and work with diverse cultures and trends.

A Carpenter usually receives his or her training by working as an apprentice with a more experienced professional. With this training, a carpenter has the ability to complete tasks that are more intricate and achieve a higher degree of accuracy and finish.

1.2 The content, relevance and significance of this document

This document incorporates a Role Description and Occupational Standards which follow the principles and some or all of the content of the WorldSkills Occupational Standards. In doing so WSE acknowledges WorldSkills International's (WSI's) copyright. WSE also acknowledges WSI's intellectual property rights regarding the assessment principles, methods and procedures that govern the competition.

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Every Expert and Competitor must know and understand this Technical Description.

In the event of any conflict within the different languages of the Technical Descriptions, the English version takes precedence.

1.3 Associated documents

Since this Technical Description contains only skill-specific information it must be used in association with the following:

- WSE – Competition Rules
- WSI – WorldSkills Occupational Standard framework
- WSE – WorldSkills Europe Assessment Strategy
- WSE – Online resources as referenced in this document
- WSE – Code of Ethics and Conduct
- Host Country – Health and Safety regulations

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2 The Occupational Standards

2.1 General notes regarding WSOS / WSEOS

Where appropriate WSE has utilised some, or all, of the WorldSkills International Occupational Standards (WSOS) for those Skills Competitions that naturally align between the two international competitions. Where the Skill is exclusive to the EuroSkills Competition, WorldSkills Europe has developed its own Occupational Standards (WSEOS) using the same principles and framework to that used for the development of the WSOS. For the purposes of this document the use of the words “Occupational Standards” will refer to both WSOS and WSEOS.

The Occupational Standards specifies the knowledge, understanding and specific skills that underpin international best practice in technical and vocational performance. It should reflect a shared global understanding of what the associated work role(s) or occupation(s) represent for industry and business. Helpfully, for the global consultation on the WSOS in 2014-2021, around 50 percent of responses came from European industry and business.

Each Skill Competition is intended to reflect international best practice as described by the Occupational Standards, and to the extent that it is able to. The Occupational Standards is therefore a guide to the required training and preparation for the Skill Competition.

In the Skill Competition the assessment of knowledge and understanding will take place through the assessment of performance. There will not be separate tests of knowledge and understanding.

The Occupational Standards are divided into distinct sections with headings and reference numbers added.

Each section is assigned a percentage of the total marks to indicate its relative importance within the Occupational Standards. The sum of all the percentage marks is 100.

The Marking Scheme and Test Project will assess only those Skills that are set out in the Occupational Standards. They will reflect the Occupational Standards as comprehensively as possible within the constraints of the Skill Competition.

The Marking Scheme and Test Project will follow the allocation of marks within the Occupational Standards to the extent practically possible. A variation of five percent is allowed, provided that this does not distort the weightings assigned by the Occupational Standards.

2.2 Occupational Standards

Section		Relative importance (%)
1	**Work organization and self-management**	5
	The individual needs to know and understand: • Task analysis and hazard identification and controls • The appropriate selection and use of personal protective equipment (PPE) • Safe use, care, handling, and storage of tools, equipment, and materials	

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Section		Relative importance (%)
	• The importance of interpreting drawings, instructions, and specifications • The importance of time activity planning and attention to detail, in all work practice • The potential environmental impact and sustainability issues associated with a construction project	
	The individual shall be able to: • Comply with relevant health and safety legislation, regulations, and obligations • Identify and control (eliminate, isolate and/or minimize) hazards • Select and use appropriate Personal Protective Equipment when necessary • Safely use, maintain, handle, and store tools, equipment, and materials on site • Complete projects safely, accurately and efficiently, as specified and within projected timelines • Minimize the environmental impact of projects by efficient work practice, minimizing waste, and using appropriate equipment	
2	**Communication and interpersonal skills**	**3**
	The individual needs to know and understand: • The roles and responsibilities of parties involved in construction projects including, but not limited to, clients, architects, engineers, and sub trades • Relevant methods of communications between the above people	
	The individual shall be able to: • Interact with the relevant parties in construction projects • Communicate clearly and comprehensively with parties involved in construction projects.	
3	**Problem solving, innovation and creativity**	**10**
	The individual needs to know and understand: • Common variables which may affect a construction project such as material availability or material defects • Diagnostic approaches to problem solving • The importance of currency of industry knowledge and likely future developments	
	The individual shall be able to: • Anticipate and pre-empt common variables, for example through material selection. • Solve problems at their root cause, rather than their symptoms	

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Section		Relative importance (%)
	• Maintain currency of industry knowledge and trends through research, up-skilling, life-long training, and/or education • Supervise their own work	
4	**Reading and interpreting drawings and written instructions**	**10**
	The individual needs to know and understand: • Relevant conventions used in preparing drawings and written specifications, on paper or through computer assisted drafting (CAD) software and project management software (such as BIM) • How to interpret drawings, written instructions, and specifications • Relevant tolerances for accuracy	
	The individual shall be able to: • Accurately interpret conventionally prepared or Computer Assisted Drafting (CAD) prepared drawings and specifications • Select the correct materials to comply with drawings and specifications • Where required, extrapolate information, using appropriate means or techniques • Produce work within specified tolerances, or where none are given, to a suitable standard	
5	**Preparing, Drawing, Setting out and measuring**	**17**
	The individual needs to know and understand: • The importance of accuracy in all setting out. • The risks and potential consequences of cumulative and compounded errors • Calculations and formulae used both in setting out and confirming accuracy	
	The individual shall be able to: • Set out relevant aspects of construction projects accurately and clearly using conventional measuring tools and digital instruments such as GPS location devices, laser levels, electronic distance measurement devices and digital callipers. • Avoid cumulative and compounded errors • Use appropriate calculations and formulae to confirm accuracy	
6	**preparing members for assembly and Forming joints**	**17**
	The individual needs to know and understand: • The properties of timbers, timber-based construction materials and finished wood materials	

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Section		Relative importance (%)
	• Conventional methods of forming joints in timber (called lumber in some countries) • How to select appropriate hand and power tools to cut materials safely and accurately	
	The individual shall be able to: • Confidently work with timber and timber-based materials • Select and safely use hand and power tools to cut joints safely and accurately • Identify and cut joints as specified, or where required select and cut task appropriate joints	
7	**Assembly Structure**	**20**
	The individual needs to know and understand: • How to assemble and erect structures, without damage to components, personal risk, or risk to others or property • The appropriate use of fasteners and hardware	
	The individual shall be able to: • Accurately assemble and erect structures without damage to components, personal risk, risk to others, or to property • Select and use specified fasteners, or where required, can select and use appropriate fasteners and hardware	
8	**Finishing, protection coats, cladding, panelling and decking**	**18**
	The individual needs to know and understand: • The importance of finishing as specified, or, where required, finish to an appropriate standard	
	The individual shall be able to: • Finish to a specification, with attention to surface finishes and avoidance of damage or unsightly marking of components • Produce accurate joints and intersections with no gaps • Attach members neatly using appropriate fasteners • Where no specification is supplied, finishes to appropriate standards, with attention to the areas above	
	Total	**100**

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3 The assessment approach & principles

3.1 General guidance

Note: this Section and Section 4 summarize a great deal of new information and guidance regarding assessment. Please refer to the Competition Rules for greater detail.

The Competition Committee (CC) establishes the principles and techniques to which assessment at the EuroSkills Competition must conform.

Expert assessment practice lies at the heart of the EuroSkills Competition. For this reason it is the subject of continuing professional development and scrutiny. The growth of expertise in assessment will inform the future use and direction of the main assessment instruments used by the EuroSkills Competition: the Marking Scheme, Test Project, and Competition Information System (CIS).

Assessment at the EuroSkills Competition falls into two broad types: measurement and judgement. All assessments will be governed by explicit benchmarks, referenced to best practice in industry and business.

The Marking Scheme must include these benchmarks and follow the weightings within the Occupational Standards. The Test Project is the assessment vehicle for the Skill Competition, and also follows the Occupational Standards. The CIS enables the timely and accurate recording of marks, and has expanding supportive capacity.

The Marking Scheme, in outline, will lead the process of Test Project design. After this, the Marking Scheme and Test Project will be designed and developed through an iterative process, to ensure that both together optimize their relationship with the Technical Description and the principles for assessment as set out in the WSE Assessment Strategy. They will be agreed by the Experts and submitted to WSE for approval together, in order to demonstrate their quality and conformity with the Occupational Standards.

Prior to submission for approval to WSE, the Marking Scheme and Test Project will be reviewed by the WSE Skill Advisors in order to benefit from the capabilities of the CIS.

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4 The Marking Scheme

4.1 General guidance

This section describes the role and place of the Marking Scheme, how the Experts will assess Competitors' work as demonstrated through the Test Project, and the procedures and requirements for marking.

The Marking Scheme is the pivotal instrument of the WorldSkills Competition, in that it ties assessment to the standard that represents each skill competition, which itself represents a global occupation. It is designed to allocate marks for each assessed aspect of performance in accordance with the weightings in the Standards.

By reflecting the weightings in the Standards, the Marking Scheme establishes the parameters for the design of the Test Project. Depending on the nature of the skill competition and its assessment needs, it may initially be appropriate to develop the Marking Scheme in more detail as a guide for Test Project design. Alternatively, initial Test Project design can be based on the outline Marking Scheme. From this point onwards the Marking Scheme and Test Project should be developed together.

Section 2.1 above indicates the extent to which the Marking Scheme and Test Project may diverge from the weightings given in the Standards, if there is no practicable alternative.

For integrity and fairness, the Marking Scheme and Test Project are increasingly designed and developed by one or more Independent Test Project Designer(s) with relevant expertise. In these instances, the Marking Scheme and Test Project are unseen by Experts until immediately before the start of the skill competition, or competition module. Where the detailed and final Marking Scheme and Test Project are designed by Experts, they must be approved by the whole Expert group prior to submission for independent validation and quality assurance. Please see the Competition Rules for further details.

Experts and Independent Test Project Designers are required to submit their Marking Schemes and Test Projects for review, verification, and validation well in advance of completion. They are also expected to work with their Skill Advisor, reviewers, and verifiers, throughout the design and development process, for quality assurance and in order to take full advantage of the CIS's features.

In all cases a draft Marking Scheme must be entered into the CIS at least eight weeks prior to the Competition. Skill Advisors actively facilitate this process.

4.2 Assessment criteria

The main headings of the Marking Scheme are the Assessment Criteria. These headings are derived before, or in conjunction with, the Test Project. In some skill competitions the Assessment Criteria may be similar to the section headings in the Standards; in others they may be different. There will normally be between five and nine Assessment Criteria. Whether or not the headings match, the Marking Scheme as a whole must reflect the weightings in the Standards.

Assessment Criteria are created by the person or people developing the Marking Scheme, who are free to define the Criteria that they consider most suited to the assessment and marking of the Test Project. Each Assessment Criterion is defined by a letter (A-I). **The Assessment Criteria, the allocation of marks, and the assessment methods, should not be set out within this Technical Description. This is because the Criteria, allocation of marks, and assessment**

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methods all depend on the nature of the Marking Scheme and Test Project, which is decided after this Technical Description is published.

The Mark Summary Form generated by the CIS will comprise a list of the Assessment Criteria and Sub Criteria.

The marks allocated to each Criterion will be calculated by the CIS. These will be the cumulative sum of marks given to each Aspect within that Assessment Criterion.

4.3 Sub criteria

Each Assessment Criterion is divided into one or more Sub Criteria. Each Sub Criterion becomes the heading for a WorldSkills marking form. Each marking form (Sub Criterion) contains Aspects to be assessed and marked by Measurement or Judgement, or both Measurement and Judgement.

Each marking form (Sub Criterion) specifies both the day on which it will be marked, and the identity of the marking team.

4.4 Aspects

Each Aspect defines, in detail, a single item to be assessed and marked, together with the marks, and detailed descriptors or instructions as a guide to marking. Each Aspect is assessed either by Measurement or by Judgement.

The marking form lists, in detail, every Aspect to be marked together with the mark allocated to it. The sum of the marks allocated to each Aspect must fall within the range of marks specified for that section of the Standards. This will be displayed in the Mark Allocation Table of the CIS, in the following format, when the Marking Scheme is reviewed from C-8 weeks. (Section 4.1 refers.)

		CRITERIA								TOTAL MARKS PER SECTION	WSSS MARKS PER SECTION	VARIANCE
		A	B	C	D	E	F	G	H			
STANDARDS SPECIFICATION SECTION	1	5.00								5.00	5.00	0.00
	2		2.00					7.50		9.50	10.00	0.50
	3								11.00	11.00	10.00	1.00
	4			5.00						5.00	5.00	0.00
	5				10.00	10.00	10.00			30.00	30.00	0.00
	6		8.00	5.00				2.50	9.00	24.50	25.00	0.50
	7			10.00				5.00		15.00	15.00	0.00
TOTAL MARKS		5.00	10.00	20.00	10.00	10.00	10.00	15.00	20.00	100.00	100.00	2.00

SAMPLE OF TABLE FROM CIS

4.5 Assessment and marking

There is to be one marking team for each Sub Criterion, whether it is assessed and marked by Judgement, Measurement, or both. The same marking team must assess and mark all Competitors. Where this is impracticable (for example where an action must be done by every Competitor simultaneously, and must be observed doing so), a second tier of assessment and marking will be put in place, with the approval of the Competitions Committee Management Team. The marking teams must be organized to ensure that there is no compatriot marking in any circumstances. (Section 4.6 refers.)

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4.6 Assessment and marking using judgement

Judgement uses a scale of 0-3. To apply the scale with rigour and consistency, Judgement must be conducted using:

- benchmarks (criteria) for detailed guidance for each Aspect (in words, images, artefacts, or separate guidance notes). This is documented in the Standards and Assessment Guide.
- the 0-3 scale to indicate:
  - 0: performance below industry standard
  - 1: performance meets industry standard
  - 2: performance meets and, in specific respects, exceeds industry standard
  - 3: performance wholly exceeds industry standard and is judged as excellent

Three Experts will judge each Aspect, normally simultaneously, and record their scores. A fourth Expert coordinates and supervises the scoring, and checks their validity. They also act as a judge when required to prevent compatriot marking.

4.7 Assessment and marking using measurement

Normally three Experts will be used to assess each Aspect, with a fourth Expert supervising. In some circumstances the team may organize itself as two pairs, for dual marking. Unless otherwise stated, only the maximum mark or zero will be awarded. Where they are used, the benchmarks for awarding partial marks will be clearly defined within the Aspect. To avoid errors in calculation or transmission, the CIS provides a large number of automated calculation options, the use of which is mandated.

4.8 Assessment overview

Decisions regarding the choice of criteria and assessment methods will be made during the design of the competition through the Marking Scheme and Test Project.

4.9 Skill Assessment Strategy

A - Interior joints

- Surfaces flat with minimum saw/chisel marks;
- No overcutting at internal joint faces.

B – Dimensions

- Members cut and assembled to a high degree of accuracy.
- The dimensions to measure are identified on the marking team’s drawings

C - Exterior joints

- Joints formed with no gaps.
- The groups of joints to assess are identified on the marking team’s drawing. The biggest gap in each cluster of joints is measured;

D - Neatness of finish, cleanness, and general impression

- All members in place;
- No unsightly joints;
- Flat surfaces;

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• Flat accurate backing bevels;
• Clean surfaces - minimum pencil marks and stains;
• Neat screw fixings.

E - Use of material

• Complete the project using only the material provided;
• Ordering and optimize the necessary material
• No re-cutting pieces after interior joints are marked;
• No sanding or planning to level joints after assembly.

4.10 Skill Assessment Procedures - Mark distribution

This section defines the assessment criteria and the number of marks (judgement and measurement) awarded. The total number of marks for all assessment criteria must be 100. The table below is advisory only for the development of the Test Project and Marking Scheme.

The skill assessment procedures include the following:

• The Chief Expert sorts the Experts into marking teams while considering WorldSkills experience, language, and culture;
• Each Expert marking team is allocated an aspect or aspects of the project to assess for all Competitors.

A – Interior joints

The Experts assess accuracy and cleanness of joints and cuts.

B – Dimensions

The dimensions to measure are identified on the marking team's drawings

Two groups of three Experts measure dimensions; when results of these two groups are more than 0.5 mm apart a third team of two Experts is used to confirm measurements.

Each dimension is allocated a number of marks in the CIS.

Discrepancy	Percentage of marks
+/- 1 mm	100% of marks
+/- 2 mm	90% of marks
+/- 3 mm	80% of marks
+/- 4 mm	70% of marks
+/- 5 mm	60% of marks
+/- 6 mm	50% of marks
+/- 7 mm	40% of marks
+/- 8 mm	30% of marks

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Discrepancy	Percentage of marks
+/- 9 mm	20% of marks
+/- 10 mm	10% of marks
More than 10 mm or nothing to mark	0% marks

C – Exterior joints

The groups of joints to assess are identified on the marking team's drawing the biggest gap in each cluster of joints is measured.

Joints are measured by two groups of three Experts each.

Each joint is allocated a number of points on the CIS

Discrepancy	Percentage of points
Gaps < 0.5 mm	100% marks
Gaps ≥ 0.5 mm and < 1.0 mm	80% marks
Gaps ≥ 1.0 mm and < 1.5 mm	60% marks
Gaps ≥ 1.5 mm and < 2.0 mm	50% marks
Gaps ≥ 2.0 mm and < 2.5 mm	40% marks
Gaps ≥ 2.5 mm and < 3.0 mm	30% marks
Gaps ≥ 3.0 mm and < 3.5 mm	20% marks
Gaps ≥ 3.5 mm and < 10 mm	10% marks
Gaps > 10 mm or joint not present or not conforming to drawing	0% marks

D – Neatness of finish, cleanness, and general impression

Experts judge the overall finished project for neatness of finish, cleanness, and general impression.

- All members in place;
- Flat surfaces;
- Flat accurate backing bevels;
- Clean Surfaces – minimum pencil marks and stains;
- Neat screw fixings.

E - Use of Material

- Recuts and and new pieces of wood

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• Ordering and optimize the necessary material

No sanding or planning to level joints after assembly.

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5 The Test Project

5.1 General notes

Sections 3 and 4 govern the development of the Test Project. These notes are supplementary.

Whether it is a single entity, or a series of stand-alone or connected modules, the Test Project will enable the assessment of the skills in each section of the Occupational Standards.

The purpose of the Test Project is to provide full and balanced opportunities for assessment and marking across the Occupational Standards, in conjunction with the Marking Scheme. The relationship between the Test Project, Marking Scheme and Occupational Standards will be a key indicator of quality.

The Test Project will not cover areas outside the Occupational Standards, or affect the balance of marks within the Occupational Standards other than in the circumstances indicated by Section 2.1.

The Test Project will enable knowledge and understanding to be assessed solely through their applications within practical work.

The Test Project will not assess knowledge of the EuroSkills Competition's rules and regulations.

This Technical Description will note any issues that affect the Test Project's capacity to support the full range of assessment relative to the Standard Specification. Section 2.1 refers.

5.2 Format/ structure of the Test Project

• The Test Project is a single Test Project with at least three (3) modules assessed in stages.

5.3 Test Project design requirements

Test Projects should reflect the purposes, structures, processes, and outcomes of the occupational role they are based on. They should aim to be a small-scale version of that role. Before focusing on practicalities, SMTs should show how the Test Project design will provide full, balanced, and authentic opportunities for assessment and marking across the Standards, as set out in Section 5.1

The Test Project must reflect the typical work carried out by a carpenter.

It should form a complete timber structure when all the modules are joined together; for example, a base structure, a wall structure, and a roof. Other structures may be included such as:

• Stairs/steps;
• Guard rails;
• Trims;
• Decking;
• Cladding.

It should be designed with intersections and joints to challenge the Competitor such as mitres, mortise, and tenon, halving, dovetails, birds mouth, plumb cuts, seat cuts and lip cuts to purlins, and jack rafters.

It is produced from planed timber (called lumber in some countries) with section sizes generally up to 100 cm² and timber-based manufactured boards and materials where appropriate.

It should be possible to complete most of the project without the Competitor having to set out complex geometry on the drawing board.

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The Test Project should have an overall volume, which will fit, comfortably within the allocated competition area, typically no more than 8.0 m³ and less than 2.4 m in height.

It must be capable of being re-used or recycled.

5.4 Test Project development

The Test Project MUST be submitted using the templates provided by WSE. Use the Word template for text documents and DWG template for drawings. Please contact jordy.degroot@worldskillseurope.org for guidance.

If the Test Project is designed by an Independent Test Project designer, then the Test Project must be designed in accordance with the WSE Independent Test Project Guide v1.1.

If your Skill wishes to have an Independent Test Project designer, you must ensure that WorldSkills Europe is made aware of this, so that it can be assured that there is proper funding in place, or that the Independent Test Project designer is aware that he/she will do this task free of charge.

5.4.1 Who develops the Test Projects or modules

The Test Project / modules are developed under the supervision of:

- All Experts
- Chief Expert, Deputy Chief Expert\
- Independent Test Project designer/ Third party

Note:

- 4 month before the competition all experts can make a proposal for the test project to the CE
- 3 month before the competition all experts vote for a test project.

5.4.2 How and where is the Test Projects or modules developed

The Test Project or modules are developed in the following manner:

- The Test Project is either developed jointly on the Discussion Forums by all Experts or
- The Test Project is developed by an Independent Test Project designer if accepted by WSE

5.4.3 When is the Test Project developed

The Test Project is developed according to the following timeline:

TIME	ACTIVITY
At the previous Competition	Not applicable.
C-6 months prior to the Competition	C-4 months, all experts can make a proposal for the test project. The proposals do not need to be in the form of full detailed drawings but must show the concept clearly using sketches, 3D drawings, and written details. C-3 months, there is a vote on the forum.

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At the Competition	The changes will be shown to the experts at the first preparation day to check the drawings and final Marking scheme.

In the case of ITPD develepment, this is to be developed from C-9 months and C-4 months.

5.5 Test Project validation

Test Project validation will be undertaken by either the Chief and the Deputy Chief Expert, or an external designer (ITPD).

If there is an ITPD, he/she will coordinate the creation of the Test Project/modules and will ensure that it can be completed within the material, equipment, knowledge, and time constraints of Competitors. WSE needs to ultimately approve the final version.

5.6 Test Project selection

- By vote of Experts on the Discussion Forums on C-3 months prior to the competion as a "pre" version
- If the Test Project is designed by an Independent Test Project designer, there is no selection process

5.7 Test Project circulation

Please note that if a Test Project is known by the Chief- and/or Deputy Chief Experts, and/or any of the other Experts, it must be shared via the forums before the start of the Competition. This also means that this Test Project is subject to a 30% change before the start of the Competition.

The Test Project is circulated via the website as follows:

- Submitted to the Secretariat for circulation C-5 months before the current Competition
- The three shortlisted Test Project/modules are circulated five (5) months prior to the Competition as ”pre” version.
- The final Test Project/modules are presented to Experts and Competitors on C1.

If there is an ITPD, there is no circulation of the Test project

5.8 Test Project coordination (preparation for competition)

Coordination of the Test Project will be undertaken by:

- Chief Expert and Deputy Chief Expert

5.9 Test Project change at the competition

If there is an ITPD, no need for 30% change.

If the Test Project is being developed by one or more Experts, the experts must develop a 30% change on C-1.

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5.10 Material or manufacturer specifications

Specific material and/or manufacturer specifications required to allow the Competitors to complete the Test Project will be supplied by the Host Organization and are available via the forums. However, note that in some cases details of specific materials and/or manufacturer specifications may remain secret and will not be released prior to the Competition. These items may include those for fault finding modules or modules not circulated.

The type of material, the type of timber typically used is posted on the EuroSkills Discussion Forum from C-6 months to C-4 months. The ITPD or the CE provides the definitive cutting list confidentially to the Workshop Manager no later than C-3 months prior to the Competition.

5.11 Software specifications

Not applicable.

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6 Skill management and communication

6.1 Discussion forum

Prior to the EuroSkills Competition, all discussion, communication, collaboration, and decision making regarding the Skill Competition must take place on the skill specific Discussion Forum, which can be reached via www.worldskillseurope.org. Skill related decisions and communication are only valid if they take place on the forum. The Chief Expert (or an Expert nominated by the Chief Expert) will be the moderator for this Forum. Refer to Competition Rules for the timeline of communication and competition development requirements.

6.2 Competitor information

All information for registered Competitors is available from the WorldSkills Europe website www.worldskillseurope.org. Please contact jordy.degroot@worldskillseurope.org for guidance.

The information includes:

- Competition Rules
- Technical Descriptions
- Test Projects
- Infrastructure List
- EuroSkills Health, Safety, and Environment Policy and Regulations
- Other Competition-related information

6.3 Test Projects and Marking Schemes

Circulated Test Projects will be available at the WorldSkills Europe website from www.worldskillseurope.org. Please contact jordy.degroot@worldskillseurope.org for guidance.

6.4 Day-To-Day management

The day-to-day management of the Skill Competition during the EuroSkills Competition is defined in the Skill Management Plan that is created by the Skill Management Team led by the Chief Expert. The Skill Management Team comprises the Jury President, Chief Expert and Deputy Chief Expert. The Skill Management Plan is progressively developed in the six months prior to the Competition and finalized at the Competition by agreement of the Experts. The Skill Management Plan can be viewed at www.worldskillseurope.org. Please contact jordy.degroot@worldskillseurope.org for guidance.

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7 Skill specific safety requirements

7.1 Requirements

Refer to Host Country/Region Health and Safety documentation for Host Country/Region regulations. This document will be shared via the forums. One overall Health and Safety document will be published, as well as Skill specific safety requirements.

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8 Materials and equipment

8.1 Infrastructure List

The Infrastructure List details all equipment, materials and facilities provided by the Competition Organizer.

The Infrastructure Lists will be available at the WorldSkills Europe website from www.worldskillseurope.org. Please contact jordy.degroot@worldskillseurope.org for guidance.

The Infrastructure List specifies the items and quantities requested by the Experts for the next Competition. The Host Organization will progressively update the Infrastructure List specifying the actual quantity, type, brand, and model of the items.

At each Competition, the Experts must advise the Competition Manager of any increases in space and/or equipment.

At each Competition, the Technical Observer must audit the Infrastructure List that was used at that Competition.

The Infrastructure List does not include items that Competitors and/or Experts are required to bring and items that Competitors are not allowed to bring – they are specified below.

8.2 Competitors toolbox

WorldSkills Europe aims to minimize the sending of toolboxes as much as possible. We therefor ask you to keep this in mind when writing the section below. Please be advised that competitors should bring as little as possible and what they do bring **MUST** be true hand tools. Only items are allowed that would significantly affect their ability to perform the task and deliver the Test Project to a high standard.

Competitors may bring one toolbox with the total external volume not exceeding 0,75 m³.

(Volume = Length x Height x Width, or V = L x H x W)

Volume measurement does not include a packing crate, other protective packing material, palette for transportation, wheels, etc.

Maximum two rulers and two straight edges can be brought separately (additional to the 0.75m^3) if they are too long for the Toolbox and packed/wrapped in without any other tools.

They are allowed to bring all common carpentry tools which fit in the toolbox except table saw and meter saw.

8.3 Materials, equipment and tools supplied by Competitors in their toolbox

Description	Photo
Set squares	

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Description	Photo
	
Straight edges	
Trammel Points	
Digital marking gauge	
Angle finder/protractor	

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Description	Photo
Digital calliper / height measurement tool.	
Tape Measure	
Steel rulers 150 - 2000	
Compass	
Sliding bevels	
Marking gauges	

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Description	Photo
	 
Calculator	
Try Square and Roofing Square	  
Hand Saws	

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Description	Photo
	 
Planes - metal or wood	  

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Description	Photo
Chisels	
Mallet	
Claw Hammer	
Utility Knife	
Nail Punch	
Allen Key Set	

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Description	Photo
Screw drivers	
Clamps	
Plunge Saw and guide rails	
Router	
Router bits	

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Description	Photo
	
Drill bits metal and wood	 
Cable Reel	 
Knee pads	
Ear Defenders Safety Glasses	 
Vice	

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Description	Photo
	  

It is not allowed to bring any items that are on the infrastructure list.

8.4 Materials, equipment and tools supplied by the Experts

Experts are required to supply their own Personal Protective Equipment as well as their Competitors'.

8.5 Materials, equipment and tools prohibited in the Skill area

Not applicable.

8.6 Workshop Layout

Workshop layouts from previous competitions are available by contacting the Competition and IT Coordinator at: jordy.degroot@worldskillseurope.org. New Workshop Layouts will be communicated via the forums when completed.

Please be advised that you will have the opportunity to discuss your Workshop Layout proposal with the Host Organization during the Skills Development Workshop (SDW) and the Competition Preparation Meetings (CPM).

For workshop layout development, please refer to the forums.

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9 Skill-specific rules

9.1 Introduction

Skill-specific rules cannot contradict or take priority over the Competition Rules. They do provide specific details and clarity in areas that may vary from Skill Competition to Skill Competition. This includes but is not limited to personal IT equipment, data storage devices, Internet access, procedures and workflow, and documentation management and distribution. Breaches of these rules will be solved according to the Issue and Dispute Resolution procedure including the Code of Ethics and Conduct Penalty System.

9.2 Personal laptops – USB – memory sticks – mobile phones

- Competitors are not allowed to bring personal laptops, tablets, mobile phones or any communication device into the workshop. If these items are brought into the workshop, they must be locked in the personal locker but can be removed at lunch time and at the end of the day.
- Competitors are allowed to take photos on C3 at the end of the competition
- Chief Expert, Deputy Chief Expert, Experts are allowed to bring personal laptops, tablets or mobile phones into the workshop.
- However, Chief Expert, Deputy Chief Expert, Experts are not allowed to these personal devices including any communication device such as smart watches while any drawings or documents from the Test Project are open in the workshop from C-3 to C1. The Chief Expert will lock them during that time.
- Experts are not allowed to take pictures of any document of the Test Project from C-3 to C3. Any violation will be taken to the Competition Management team and can be subject to a penalty.
- Chief Expert, Deputy Chief Expert, Experts are allowed to bring and use memory sticks into the workshop.

9.3 Personal photo cameras – video taking devices

- Competitors are not allowed to bring photo cameras and video taking devices into the workshop until the end of the competition.
- Experts are allowed to use cameras and video devices except when any drawings or documents from the Test Project are open in the workshop from C-3 to C1. The Chief Expert will lock them during that time.

9.4 Communication between compatriot experts and competitors

As per the Competition Rules.

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9.5 Other

Drawings, recording information

- Competitors must return all drawings, instructions, and documents produced by themselves to the Chief Expert to be stored in a locked cabinet at the end of each competition day
- All documents must be rolled together, named with the Competitors number and given to the CE immediately after finishing working time.
- All drawings and Test Project papers can be taken at the end of Competition on C4.

Listening to music

- Competitors are allowed to listen to music using personal earphones during the completion of the project; except when using power tools.
- Only MP3 players are allowed, mobile telephones or any Wi-Fi enabled devices are prohibited.

Test Project - finishing

- No bevelling or sanding of any parts of the Test Project (for Marking reasons), every violation will be penalized like a recut.
- Marks and pencil marks maybe removed by eraser

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Carpentry

10 Visitor and media engagement

10.1 Engagement

Following is a list of possible ways to maximize visitor and media engagement, within the remit of the Competition Rules:

The Carpentry competition area will maximize visitor and media engagement by including the following in their competition area:

- Display screens – a screen that shows visuals of carpentry projects, communicates career opportunities, and Competitor profiles;
- Test Project descriptions – a posting of the Test Project drawing that is in public view;
- Display of completed modules.

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11 Sustainability

11.1 Sustainability

This Skill Competition will focus on the sustainable practices below:

- Recycling bins are provided for paper, metal, plastic, and other recirculation products and one for non-circulation products;
- Use of recycled paper for printing of Competition documents;
- Wood used in the Competition projects is certified by the Host Country as sustainable;
- Toolbox and transport box size restricted to a maximum internal volume of 0.75 m^3;
- The finished Test Project is reusable after the competition

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