

# Technical Description

# Wall and Floor Tiling



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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

Wall and Floor Tiling

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

A tiler generally works on commercial and residential projects. There is a direct relationship between the nature and quality of the product required and the payment made by the customer. Therefore the tiler has a continuing responsibility to work professionally in order to meet the requirements of the customer and thus maintain and grow the business. Tiling is closely associated with other parts of the construction industry, and with the many products that support it, normally for commercial purposes. The tiler works internally and externally, including in the homes of customers and on building sites, in all weather conditions and on small and major projects. The work includes the laying of tiles of ceramics, mosaic and natural stone on walls, floors and staircases in houses, industrial and public buildings, churches, swimming pools, outside installations and façades to provide protective and decorative finishes. It also includes the construction of small walls and steps from bricks or blocks. The tiler will interpret drawings, set out and measure, remove any existing covering, prepare surfaces, lay the tiles in the desired pattern, grout and finish to a high standard. Work organisation and self management, communication and interpersonal skills, problem solving, innovation and creativity, and working accurately are the universal attributes of the outstanding tiler. Whether the tiler is working alone (many are self-employed or sub-contractors) or in a team on large projects, the individual takes on a high level of personal responsibility and autonomy. Experienced tilers may also specialise in one area of work such as mosaics and they can work for specialist tiling firms specialising in artistic work. From working safely and tidily through to exceptional planning and scheduling, concentration, precision, accuracy and attention to detail to achieve an excellent finish, every step in the process matters. Mistakes are largely irreversible and can be very costly. With the international mobility of people the tiler faces rapidly expanding opportunities and challenges. For the talented tiler there are many commercial and international opportunities; however these carry with them the need to understand and work with diverse cultures and trends. The diversity of skills associated with tilers is therefore likely to expand.

## 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.

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

## 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	<b>Work organization and self-management</b>	5
	<b>The individual needs to know and understand:</b> <ul style="list-style-type: none"> <li>• health, hygiene and safety legislation, obligations, regulations and documentation</li> <li>• the principles of working safely with electricity</li> <li>• accident/first-aid/fire/emergency procedures and reporting</li> <li>• the situations when personal protective equipment must be used</li> </ul>	

Section		Relative importance (%)
	<ul style="list-style-type: none"> <li>• the purposes, uses, care, maintenance and storage of all hand and powered tools and equipment together with their safety implications</li> <li>• the purposes, uses, care and storage of materials</li> <li>• sustainability measures applying to the use of 'green' materials and recycling</li> <li>• the ways in which working practices can minimise wastage and help to manage costs</li> <li>• the principles of time management, work flow and measurement</li> <li>• the significance of planning, accuracy, checking and attention to detail in all working practices</li> <li>• the importance of integrity and trustworthiness</li> <li>• the value of managing own continuing professional development</li> </ul>	
	<p><b>The individual shall be able to:</b></p> <ul style="list-style-type: none"> <li>• follow health, hygiene and safety standards, rules and regulations</li> <li>• identify and use the appropriate personal protective equipment including safety footwear, ear and eye protection</li> <li>• select, use, clean, maintain and store all hand and powered tools and equipment safely</li> <li>• select, use and store all materials safely</li> <li>• plan the work area to maximise efficiency and maintain the discipline of regular tidying</li> <li>• consistently measure accurately</li> <li>• work efficiently under pressure and check progress/outcomes regularly to meet deadlines</li> <li>• establish and consistently maintain high quality standards and working processes</li> </ul>	
2	<b>Communication and interpersonal skills</b>	5
	<p><b>The individual needs to know and understand:</b></p> <ul style="list-style-type: none"> <li>• the significance of establishing and maintaining customer confidence</li> <li>• the roles and requirements of related trades</li> <li>• the value of building and maintaining trust and productive working relationships</li> <li>• the importance of swiftly resolving misunderstandings and conflicting demands</li> </ul>	
	<p><b>The individual shall be able to:</b></p> <ul style="list-style-type: none"> <li>• interpret customer requirements and manage customer expectations positively</li> <li>• visualise and translate customer wishes making recommendations which meet/improve their design and budgetary requirements</li> <li>• provide specialist technical advice and guidance on heritage projects</li> </ul>	

Section		Relative importance (%)
	<ul style="list-style-type: none"> <li>• present portfolio of previous work to demonstrate range and quality of experience and expertise</li> <li>• produce a cost and time estimate for customers</li> <li>• introduce related trades to support customer requirements</li> <li>• understand the needs/demands of other trades and work around/with them</li> <li>• work effectively in a team to facilitate efficiency/productivity/quality and cost control</li> </ul>	
3	<b>Problem solving, innovation and creativity</b>	5
	<p><b>The individual needs to know and understand:</b></p> <ul style="list-style-type: none"> <li>• the common types of problem which can occur within the work process</li> <li>• diagnostic approaches to problem solving</li> <li>• trends and developments in the industry including new products/interior designs, materials and equipment</li> </ul>	
	<p><b>The individual shall be able to:</b></p> <ul style="list-style-type: none"> <li>• check work regularly, particularly for accuracy/standard, to minimise problems at a later stage</li> <li>• recognise and understand problems swiftly and follow a self-managed process for resolving</li> <li>• challenge incorrect information to prevent problems</li> <li>• develop creative solutions to challenges when working on restoration projects</li> <li>• recognise opportunities to contribute ideas to improve the product and overall level of customer satisfaction</li> <li>• keep up to date with changes in the industry</li> <li>• demonstrate a willingness to try new methods and embrace change</li> </ul>	

Section		Relative importance (%)
4	<b>Produce and interpret drawings</b>	5
	<b>The individual needs to know and understand:</b> <ul style="list-style-type: none"> <li>• the essential information required for floor plans in construction drawings including: sections, datum levels, wall constructions, material codes, depth dimensions, heights, schedules and specification</li> <li>• interpretation and execution of drawings to ISO-A or ISO-E standards</li> <li>• the importance of checking for missing information or errors, anticipating problems and resolving in advance of the 'setting out' process</li> <li>• the role and use of geometry</li> <li>• mathematical processes and problem solving</li> <li>• the range of costs to be included in estimates</li> </ul>	
	<b>The individual shall be able to:</b> <ul style="list-style-type: none"> <li>• accurately interpret and produce building information</li> <li>• produce basic outline drawings (hand and CAD) including elevations, plans and sections to full size</li> <li>• produce accurate complex drawings on wood to make figure on the wall/floor</li> <li>• identify drawing errors or items that require clarification</li> <li>• determine and check quantities of materials required</li> <li>• calculate a cost and price for the work</li> </ul>	
5	<b>Setting out and measurement</b>	5
	<b>The individual needs to know and understand:</b> <ul style="list-style-type: none"> <li>• methods of setting out horizontal, vertical, raking and curved surfaces forming plain areas, patterns and motifs</li> </ul>	
	<b>The individual shall be able to:</b> <ul style="list-style-type: none"> <li>• check measurements of the wall/floor conform to the drawing specifications</li> <li>• produce setting out for templates</li> </ul>	
6	<b>Preparations</b>	15
	<b>The individual needs to know and understand:</b> <ul style="list-style-type: none"> <li>• properties of materials</li> <li>• how to locate information on falls and positions of outlets, materials and tiled features from drawings and schedules</li> <li>• procedures for measuring, marking and setting out for channels, outlets and gullies</li> </ul>	



Section		Relative importance (%)
	<ul style="list-style-type: none"> <li>• the function of materials: waste water fittings, channels, outlets, gullies, fixings and fittings</li> <li>• types of sands used for internal/external rendering; the effects of selecting incorrect types; site tests used on sands</li> <li>• types of one-coat renders and reasons for using water proofers and plasticisers</li> <li>• types of trims and beads including expansion strips, external angle and stop beads</li> <li>• characteristics of components including binder, aggregate, plasticers and water proofer</li> </ul>	
	<p><b>The individual shall be able to:</b></p> <ul style="list-style-type: none"> <li>• remove old tiles, grout, cement or adhesive</li> <li>• fill all holes/cracks and clean surfaces</li> <li>• provide drainage: interpret information with reference to falls and position of outlets from location, assembly and component drawings; install channels, outlets and gullies and finish surface and joints</li> <li>• prepare materials to specification requirements including: sand and cement mixers, beads and trims</li> <li>• gauge and mix renders: sand and cement mixes in the correct proportions</li> <li>• apply render to internal and external backgrounds to provide the specified finish, to include three-coat work and key for tiling</li> </ul>	
7	<b>Fix</b>	<b>40</b>
	<p><b>The individual needs to know and understand:</b></p> <ul style="list-style-type: none"> <li>• the range of fixing methods</li> <li>• the materials to be used to protect existing finished surfaces</li> </ul>	
	<p><b>The individual shall be able to:</b></p> <ul style="list-style-type: none"> <li>• minimise damage to surrounding surfaces by applying protective material and using barriers</li> <li>• install tiles to flat, inclined and curved surfaces</li> <li>• cut and shape tiles needed for edges, corners, and to fit around fittings and pipes ensuring no chipping/sanding</li> <li>• apply correct adhesive evenly to tiles, avoiding excess</li> <li>• attach tiles to surfaces and floors to form patterns and motifs, ensuring no lipping</li> <li>• accurately space tiles, checking level, plumb and square to ensure aligned and levelled</li> <li>• prepare and apply seal and grout to joints ensuring symmetrical and equal</li> <li>• remove excess seal and grout, clean and polish to provide a good finish which meets the specification/customer requirements</li> </ul>	

Section		Relative importance (%)
	• finish edge and corners with appropriate finishing methods and strips	
8	TO BE EDITED	0
	TBD	
	TBD	
	<b>Total</b>	<b>80</b>

## 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.

## 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**

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.)

TOTAL MARKS	STANDARDS SPECIFICATION SECTION	CRITERIA								TOTAL MARKS PER SECTION	WSSS MARKS PER SECTION	VARIANCE	
		A	B	C	D	E	F	G	H				
		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
			5.00	10.00	20.00	10.00	10.00	10.00	15.00	20.00	100.00	100.00	2.00

## 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.)

## 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

Assessment and marking are an intense process that depends upon skilful leadership, management, and scrutiny. The Experts who attend the Competition are divided into marking groups according to their WorldSkills experience, language, and culture to deal with each section of the marking criteria.

- Groups of Experts assess the same aspects for all Competitors;
- Experts use specific points. Experts use drawings for the right position of the specific points. They use measurement tools like a level, screed/aluminium straight edge, a square, and length measurement tool;
- Three groups of Experts decide on the assessment criteria and indicate the specific points on the drawing of the Test Project;
- The three Expert groups are as follows: 1 = floor, 2 = wall A, 3 = wall B;
- Progressive marking is used for each module. To enable Experts to assess progressively Competitors are required to complete the following tasks at the documented times;
- At the end of the second day the Competitor must finish the main wall (A) including the ev 3dimensional object, grouting and cleaning;
- At the end of the third day the Competitor must be finish whit wall B and floor including grouting and cleaning;
- Floor tile bedding can only be laid on day one or day three of the Competition;
- Floor tiles can only be laid on day three of the Competition

## 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.

Section	Criterion	Marks		
		Judgement	Measurement	Total
A	Overall appearance	6		6
B	Cutting	9		9
C	Level		15	15
D	Plumb		12	12
E	Square		8	8
F	Surface alignment		18	18
G	measurments		27	27
H	Fully completed to drawings	5		5
Total =		20	80	100

This mark distribution is given as an example only and doesn't match the evaluation sheets provided for each task.

## 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

- Other:

The goal is that Wall and floor tiling will introduce an externally designed Test Project. If we do not get hold of an Independent Designer, we will follow the original schedule and timetable to establish a test project.

If no External Designer is found:

See Timeline (Section 5.4.3 below).

### 5.3 Test Project design requirements

The project has to be presented in colour, in digital format (Autocad). It must include detailed drawings of cutting and fitting. The project must include all the difficulties of straight, circular and diagonal cutting. It must integrate masonry work, such as straight or circular steps, and three dimensional work.

The maximum tile area of the Test Project, including the 3-dimensional object, must be less than 7m<sup>2</sup> and the floor area must be less than 3.5 m<sup>2</sup>.

In cases where the level of the floor exceeds 20 mm over a distance of 1 m it is the responsibility of the Workshop Supervisor to level the floor prior to C-3.

The arranging country's Workshop manager builds the walls for the competitors. The walls are to be completed at C-2 or before. The walls must be Built from a dimensionally stable material that prevents all movement. The walls must stand on a stable surface so that no movements can occur, Concrete is preferable. The walls must be within a tolerance of +-2 mm The walls are built based on the Test Project. The competitor then performs minor bricklaying work and floor screeding based on current Test Project. Material for it is provided by the organizer.



## 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](mailto: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:

- Nominated Experts
- Chief Expert, Deputy Chief Expert

Or

- Independent Test Project designer/ Third party

### 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 developed by an Independent Test Project designer. If its not possible it is developed by the chief expert or deputy chief by dicusion on the forum .

Decisions about this are communicated on the forum.

### 5.4.3 When is the Test Project developed

The Test Project is developed according to the following timeline:

TIME	ACTIVITY
two (2) months before the CPM	All Experts who have a proposal for the Test Project should upload it on the discussion forum in the correct format (.dwg/CAD readable)
From the 8 <sup>th</sup> to the 5 <sup>th</sup> week before the CPM	All Experts are given three (3)weeks to discuss about the given proposals on the specified forum
between the 5 <sup>th</sup> and 3 <sup>rd</sup> week before the CPM	Using the poll function on the discussion forum the Experts must give their anonymous vote for one proposal
2 month before competiton	The chosen Test Project will be announced to all (including CE and DCE) on the discussion forum and circulated on the website. Each Expert has the chance to work on his suggestion for the 30% changes.

	The Test Project including suggestions for change need to be in the correct format (.dwg/CAD readable) as well as the detailed drawings. The suggestions need to be brought to the current Competition.
C-4	All Experts vote on the suggestions brought forward and therefore define the final project.
ITPD	
Ten (10) months prior to the Competition	The ITPD is identified and a Confidentiality Agreement between WSI and the ITPD is organized.
Four (4) months prior to the Competition	The Test Project/modules are independently developed and sent to WorldSkills Europe, Competitions Administration Manager.
At the Competition on C-2	The Test Project/modules are presented to Experts and Competitors.

## 5.5 Test Project validation

It must be demonstrated that the Test Project/modules can be completed within the material, equipment, knowledge and time constraints. This will be demonstrated by a photograph of the completed project/module and a technical drawing provided by the designing Expert.

## 5.6 Test Project selection

- Test Project is designed by an Independent Test Project designer, therefore there is no selection process.
- If this is not possible see 5.4.2

## 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 2 months before the current Competition

## 5.8 Test Project coordination (preparation for competition)

Coordination of the Test Project will be undertaken by:

Chief Expert and Deputy Chief Expert

If the Test project is developed by an IDTP , it will be coordinated between the external designer and the Workshop Manager. If not possible, the coordination work is done by the Chief Expert.

## 5.9 Test Project change at the competition

The goal is that Wall and floor tiling will introduce an externally designed Test Project. If the TP is designed by an external designer, the TP will not be changed

If no ITPD is found:

Please refer to the timeline in section 5.4.3.

## 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.

As soon as available the WM will reveal information on the forum

## 5.11 Software specifications

Not applicable.

## 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](http://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](http://www.worldskillseurope.org). Please contact [jordy.degroot@worldskillseurope.org](mailto: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](http://www.worldskillseurope.org). Please contact [jordy.degroot@worldskillseurope.org](mailto: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](http://www.worldskillseurope.org). Please contact [jordy.degroot@worldskillseurope.org](mailto:jordy.degroot@worldskillseurope.org) for guidance.

## 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.

## 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](http://www.worldskillseurope.org). Please contact [jordy.degroot@worldskillseurope.org](mailto: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 therefore 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 **0.75m<sup>3</sup>**.

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

The competitor may bring personal tools commonly used for the profession. It is important that the quantity of tools do not exceed 0.75m<sup>3</sup>

### 8.4 Materials, equipment and tools supplied by the Experts

Not applicable.

### 8.5 Materials, equipment and tools prohibited in the Skill area

The following equipment is prohibited for use by Competitors:

- Templates
- Laser cutting machines
- Automatic CNC cutting machine
- Water jet machines

- Dry cutting machines (with the exception of machines which meet the Health and Safety regulations of the Host and have a dust suction component)

## 8.6 Workshop Layout

Workshop layouts from previous competitions are available by contacting the Competition and IT Coordinator at: [jordy.degroot@worldskillseurope.org](mailto: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.

## 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

Chief Expert, Deputy Chief Expert, and Experts are allowed to bring laptops, tablets, and mobile phones into the workshop however they are only allowed to be used in the Expert room. When not in use they must be locked in the personal locker and can only be taken out at lunch time and at the end of the day.

### 9.3 Personal photo cameras – video taking devices

Chief Expert, Deputy Chief Expert, Workshop Manager, Competitors, Experts, are allowed to use personal photo and video taking devices in the workshop at the conclusion of the competition on C3 only. An Expert is appointed by the Chief Expert to take photos of Competitors and their work throughout the competition.

### 9.4 Communication between compatriot experts and competitors

communication with their own competitor may take place during the designated open-communication time before and after the competition and during lunch.

### 9.5 Other



## 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:

- Try a trade
- Display screens
- Test Project descriptions
- Enhanced understanding of Competitor activity
- Competitor profiles
- Career opportunities
- Daily reporting of competition status
- Time based parts of the Test Project

# 11 Sustainability

## 11.1 Sustainability

This Skill Competition will focus on the sustainable practices below:

- Use of 'green' materials
- Use of completed Test Projects after Competition
- Recycling;