

MARBLE IN TUSCANY

How the sector operates

Tuscany, specifically in the provinces of Massa-Carrara and Lucca, boasts the highest – and most renowned – concentration of marble industry firms at world level. A part of them is constituted by medium-large sized enterprises specialized in the extraction, processing, design and international order management. Next to them, there are some small firms or workshops, often subcontractors, specialized in marble processing. Some chemical and mechanical industries provide core business technologies and products, while some tertiary activities offer services to local firms and other undertakings are involved with marble processing waste, thus opening opportunities for innovative start-ups. Safety in the workplace and low environmental impact involve other services, today imperative all through the supply chain.

The process of globalization and the economic crisis – together with the entry of new market players, some developing countries rich in similar materials – have redefined the competitive scenario, pushing towards export-oriented, high added-value and innovative products, but also to the selling of raw materials.

Skill needs: strategic competencies and job profiles

The endowment of accumulated competencies – traditionally transmitted through field experience and tacit knowledge – and local firms constitutes the district's competitive advantage. Although in-house training remains the most common source of skill development, the introduction of the new technologies requires advanced and updated competencies, that local technical institutes are not providing at the moment. A more institutionalized training system, jointly addressed to all marble firms, is thus highly desirable, the more so because the recent market evolutions, having partly changed customer demands, caused a general reduction of the personnel employed in the automated phases and an increase of skill requirements in others.

In-field coaching is strongly recommended for the **quarrymen**, who must have experience and notions of safety at work: a way to avoid costly internal training programs, it would be useful to employ a “test or laboratory quarry” common to the local marble firms. Jobs in higher demand than in the past, are: **machine tool operators and assemblers**, combining mechanical, electronic and computer competencies; **finishers** with craft-based skills; **engineering draughtsmen**, mastering 3D software, and **programmers**, capable of using robots. Downstream in the chain, other in-demand workers are **marble tilers**, and **administrative assistants** capable of managing an international clientele and using complex documentation.

With regard to trading and marketing, customer relationship management entails more expertise in **webmarketing**, **web design** and **social network management**, which is still rare locally. For higher profiles in industrial research, the needs of personnel concerns professionals able to introduce innovations in the **use of materials**, **ecodesign** and **recycling of waste materials**.

Communication in foreign languages constitutes a key transversal skill in the sector.

A taxonomy of the required professional qualifications

The table below combines data from three sources: the mandatory employment notices from firms to job centres, introduced in 2008; the IRPET survey on the training needs of the Tuscan firms having recorded

higher-than-average turnover and employment rates after the crisis; the focus groups with firms belonging to strategic sectors for regional growth. The quantitative and qualitative data collected were used to classify occupations by employment capacity (number of newly employed), and job stability (combination of days worked and contract type).

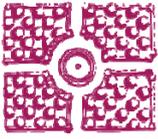
Overview of the most sought-after and in-demand marble jobs

		Job stability	
		Medium-high	Medium-low
Employment capacity (number of newly employed)	Medium-large	Stone cutters and polishers, stone splitters and stonemasons Mine and quarry machine operators Porters, deliverers and related workers Earth-moving plant operators Crane and lifting equipment operators	Automated and semi-automated machine-tool operators Painters, sculptors, designers and restorers of cultural goods Civil construction labourers and unskilled workers, and related workers Pavers and tilers Mine and quarry labourers and other non-qualified workers Non-qualified industrial workers and related workers
	Medium-small	Street paving and related workers Industrial designers and related workers Stone and brick masons Production planning technicians Artisan mechanics, vehicle maintenance and repair and related workers Heavy-truck and lorry drivers Civil engineering technicians and related workers	Car, taxi, van and other vehicle drivers Skilled forestry workers Glass and ceramic painters and decorators Tool-makers and related workers Mining and quarrying technicians Mineral and stone processing machine operators

The analysis of recruitment capacity resulted in two occupation groups (medium-large and medium-small), depending on the number of newly employed (larger/smaller than the median value). The analysis of job stability resulted in two occupation groups (medium-high and medium-low), depending on the value of the composite indicator (higher/lower than the median value).

Territorial localization

The map below shows the location of local units in the sector, highlighting the most dynamic firms in terms of turnover rate and number of workers for the period 2007-2011. This graphical representation allows to appreciate the degree of diffusion/concentration of production activities on a regional basis.



The marble firms

