PhD in Management, Production and Design
Os&h in critical NACE codified sectors

Research Title: *Criteria for improvement and dissemination of Occupational Safety and Health - OS&H Culture in critical NACE sectors*

The analysis of the Occupational Safety and Health - OS&H injuries and health impairments trends have been the cue to draw a realistic picture of a situation influenced by several hidden parameters often more numerous than the obvious ones.

In Italy, an average value not far from 3 work related fatalities/day is still recorded, included the categories of workers not considered by the National Insurance Institute – Inail, despite the national enforcement since 1994 of the 89/391 European Directive on the introduction of measures to encourage improvements in the Safety and Health of workers.

The main causes of this situations are:

- the technological context, notwithstanding the important progress also in terms of Safety and Health,

- the changed socio-economic scenario,

- the more and more diversified composition and origin countries of the workforce,

- difficulties in implementing preventive measures in complex and constantly evolving production situations.

However, the primary cause of the failure lays in the still widespread incapability to act according to the OS&H spirit, logical before than regulated.

In all industrial and construction activities the development of a specific design and management culture (implying full synergy of management and employees as actors with different tasks and skills) is a basic requirement for the development sustainability.

A very important subset of such a culture is the Culture of Safety, which can be conceptualized and synthesized as the understanding of the interactions between cultural and contextual variables in a given scenario, and the effect they have on Safety.

It is possible to summarize such spirit in the pivotal concepts of a Prevention intrinsically linked to the design, and a Quality approach to the Management of systems, and to their safety.

As at the beginning of the study was already clear, from the consultation of the above-mentioned databases on work related accidents and occupational diseases, the situation in critical NACE codified activities is still certainly worthy of attention.

The causes of unwanted events are poor Hazard Identification, uncritical Risk Assessment and, consequently, Risk Management lacking of a Quality approach, all the mentioned causes are attributable to an insufficient "Culture of Safety", this being a general problem, with particularly serious consequences when critical NACE sectors are involved.

The Culture of Safety still shows serious shortcomings at all levels, and in situations. It gained in the last decades a wide attention in the international literature as a system of organized and systematic knowledge production, i.e. a specific science, for both its importance as a basic asset for prevention, and its typical multidisciplinary characteristics.

Considering the OS&H conditions along 1.5 centuries, e.g. from the beginning of the modern industrialization, an impressive progress appears evident, thanks to the improvements of mechanization, social conditions, techniques and technologies, results of epidemiological research work, and the introduction of quality systems and European approaches to the OS&H.

The thesis summarizes the evolution of the approach to the OS&H problems, in accordance with the statements of the EC Directives laying at the very base of the National law and regulations, and the need of a widespread dissemination of the Culture of Safety. Such a culture should be based on the principles of motivational training and should include all the people involved at the different levels of responsibility.

As result of the study, the effective quality and sustainability of a system requires the fulfillment of the OS&H principles, which in turn requires a correct RAM.

Several NACE sectors or initiatives have been analyzed in order to find solutions, methods or develop techniques to face the problem raised in contexts usually lacking of Culture of Safety, and not in tune with the multidisciplinary research results. Results have been tested and, as appropriate, disseminate to the interested audience,

In general terms, since Safety and Health concern everybody, the Culture of Safety should be disseminated to the entire population, but of course there are different information degrees suitable for every target.