As far as is known, the term "Ergonomics" was for the first time applied by the Polish scientist W. Jastrzebowski during 1857. Although ergonomics may thus be regarded as a relatively new scientific discipline, it has undergone an astonishing development over the past few decades. A rapid rise in the standard of education, which in turn increased the general level of expectation of the population in industrialized countries, gave rise to a growing realization for the need to introduce more humane working conditions.

The words: "Humane working conditions" are used here in the sense of excluding psychophysical over-extension, on the one hand, and, on the other hand, as a preventative against the misuse of human labour as a "uni-purpose machine".

Efforts to ease over-extension in the sense of excluding the external health-hazardous influences on work may be achieved by means of varied precautions. The introduction of an eight-hour shift after the First World War whereby working hours were reduced, was one of the first precautions to be effectively applied. A development running parallel to the shortening of working hours was the rapid process of mechanization, resulting in the substitution of human power by the machine. It nevertheless resulted in the mechanization of production, so that continuous assembly line production, as distinguished from the intense division of labour, gradually dominated over the hitherto applied method of single-part production. A consequence of division of labour is however, that an exclusive physical demand on a person may lead to a progressive meaninglessness of his occupation. It was especially a growing meaninglessness, in the sense of a diminution of the job content in question to a few hand movements, which led to dissatisfaction in recent times amongst employees and to a restructuring of human labour in a number of countries.
"Overload by means of underload" in assembly line work however merely constitutes the one side of the coin. The reverse side reflects progressive mechanization and automatization, which took place especially since the great advancement of microelectronics in the fields of production and management which, in turn, led to the use of new production processes operated automatically; the people, so to speak, as monitors of a higher order, merely fulfilling a controlling function. This form of emptiness of work often goes hand in hand with interpersonal isolation at the place of work. Less and less people working in exceedingly larger working areas, produce more and more end-products. The psychological strain factor, resulting from isolation, leads, similarly to physical strain limited only to a few muscles, to increasing dissatisfaction amongst people with their work.

In the production- and administration processes, mechanization and automatization have lightened human labour on a broader basis. Rationalization measures frequently result in an increase in the pressure of performance. Time pressure and new equipment and machines, being frequently complicated to understand and to operate, lead to psychological stress. In addition to these already-mentioned adverse circumstances looms a fear amongst many people of loosing their jobs as a result of rapidly encroaching technology.

Where is the place for ergonomics in this scenario? May ergonomics rightly be defined as a science of human occupation within fixed, cultural, social and physical surroundings? Is it in a position to - or should it be its task to make work more bearable? An occupation may be regarded as bearable if it does not, also not on a long-term basis, result in an impairment or danger to health, regardless whether such impairment is of a physical or psychological nature. For the prevention of an impairment to health it is important that the authorities, responsible for defining the required standards of achievement, have sufficient information on the limits of continuous performance at their disposal. Practical marginal standards of bearableness have evolved in the science of ergonomics for the area of physical stress suffered as a result of muscular exertion and environmental influences (e.g. climate, noise, vibration etc.). The aforesaid standards have found successful application in practise as well as recognition in various countries by means of legislation, regulations and agreements entered into between employer- and employee organizations. No similar standards of bearableness have to date evolved in the joint area of informatory or psycho-mental stress. There remains, as before, a wide scope for future research in this field.

In addition to its contribution towards solving the degree of bearableness of work, it is the task of ergonomics to define such parameters, through scientifically substantiated research, influencing the acceptability of work by groups as well as individuals.