Introduction
The relationship between Ergonomics and Design For All have their origins in the common attention via which the two areas tackle, albeit from different points of view, the specificity and complexity of each case of intervention (whether evaluation or design of a product, environment or service), starting from the identification of the specificity of the needs the user expresses or may express with respect to the relationship with the product.
Similar goals have been outlined in the definition of Design For All contained in the Stockholm Declaration of the EIDD, European Institute for Design and Disability (2004) and in the IEA, International Ergonomics Association definition of Ergonomics.
In the spotlight are the study, evaluation, and design of the interaction, that is, the plurality of the relationships (physical, sensorial, cognitive) that humans establish - or are able to establish - with the products, environments, and technological and social systems, and in which they carry out their work activities and everyday life. Relationships assessed in their specificity, determined by the diverse and possible contexts and by their variability over time.
In theoretical terms, the Design For All approach has been gradually shifting from an approach entailing pronounced specialisation aimed at meeting the needs and expectations of people with disabilities, to a fully conclusive approach which, starting from the needs of specific user sectors, has concentrated on creating products capable of meeting the needs and expectations of the totality of users.
A similar path has also been followed in the field of Ergonomics, in which, over the years the original nucleus of knowledge about human characteristics and abilities, and the study of the safety conditions of workplaces and occupational activities have been flanked by knowledge, evaluation methods, and operational practices coming from increasingly more widespread disciplinary areas and intervention sectors: from cognitive psychology to computer engineering, from anthropology to sociology, to design of the product and communication, for the purpose of studying the totality of aspects that define the interaction between individuals and the systems in which they operate during their work activities and everyday life.

Ergonomics supports Design for All
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method
Ergonomics can offer a concrete contribution to Design For All both in theoretical and methodological terms.
On a theoretical level, Ergonomics may represent a concrete instrument of the DFA approach, thereby making available the wealth of knowledge about human characteristics and abilities that by definition make up the theoretical multidisciplinary basis, and a system of interpretative instruments based on which to evaluate and design compatibility of the product in relation to the characteristics and abilities of the users the product is intended for.
As a methodological approach, Ergonomics and in particular Human-Centred Design methods provide a structured set of methods aimed at evaluation of the individual by interpreting (and imagining) the real needs of the users in the relationship with the product, their possible sources of discomfort and/or frustration, and their expectations and desires.

results
Concrete examples – which will be described through case studies - of a fully inclusive design approach are the solutions aimed at creating products which, by starting from the specific needs of persons with reduced abilities can easily be used by the totality of users. The designing of traditional or mobile phones with buttons that are sized to be immediately identified visually and by touch, the use of legible wording also for short and long-sighted people, the correct relation of colour and contrast between the figures (for example, the symbols and written indications on the safety guards of electrical appliances, televisions, telephones, etc.) and the background against which they are positioned, the use of shapes of handles and opening systems that can easily be grasped and manoeuvred, and doorways and corridors that can easily be used by people in wheelchairs or walking aids, etc., all represent design solutions that can meet not only the needs of
specific categories of users, but they can simply make the products of everyday use easier, safer and more pleasant for everyone.

**Keywords**
Ergonomics in Design, Design For All, Human-Centred Design, Social Innovation

**references**
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EIDD, European Institute for Design and Disability, Stockholm Declaration, 2004