6. Conclusions

Updated anthropometry data of the target population constitutes valuable information to improve garment fitting, optimize the sizing system and reduce the design process cycle. Nevertheless, clothing fit is a complex issue combining aspects as 3D body shape but also textile mechanical properties, clothing drape and fashion trends. Additional research work must be carried out to rationalize the problems of fit and explain its complexities using a logical approach and understanding [4].

However, to reach the final customer, the sizing standardization is one of the main needs. Nowadays European research situation in anthropometrics, with similar national surveys were/being done in many countries across the European Union, allows to think that the improvement of clothing fitting by means of a common European sizing designation standard could be tackled now. The European Committee for Standardization (CEN/TC 248/ WG 10) proposed a new sizing system based on key body dimensions. An integration effort of the anthropometrical data generated in different European regions is required in order to complete the development of this standard.

An additional challenge of these surveys is the exploitation of the 3D human models. New technologies developed to generate garment patterns from 3D models and the integration of avatars in virtual catwalks and virtual try-on services require flexible, quick and easy to use tools to manage these databases. A combination of virtual technology and accurate data coming from the analysis of 3D human model databases is one of the key points to enhance two of the emerging business models in the clothing industry: internet sales and clothing customization.

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