



Horizon 2020 Project

Press Release CrowdDNA

"Technologies for computer-assisted crowd management"

The world is experiencing rapid population growth and urbanization. Now, more than ever, there is a need to understand crowd behavior and implement efficient crowd management in places such as urban areas, transport hubs, stadia and large events. Technology is becoming the cornerstone of analysing human behaviour. Thus, the scientific community and industry have come together to tackle these issues in a largescale research project called CrowdDNA.

CrowdDNA research will lead to a radically new concept to assist public space operators in the management of crowds. For example, mass event organization, pedestrian traffic management, crowd movement analysis and decision support. It is a project funded by the European Commission's Horizon 2020 Research and Innovation Programme, with the aim to combine biomechanical and behavioral simulation in complex scenarios of interactions between many humans.

With a total budget of \notin 3 Million and a duration of 42 months (from 1 November 2020 to 31 April 2024), the project brings together a consortium of 7 partners from 3 EU countries and the UK, comprising leading European research and academic institutions, and SMEs from the crowd management industry that are also leading technology providers.

The main idea behind CrowdDNA is to analyze the features of a crowd at all scales. For example, studying crowd motion, which can reveal valuable information about the structure of the state of a crowd. This challenges the existing paradigms in the field of crowd management by: providing new crowd simulation technologies; developing new variables to help understand the parameters of a crowd; and to interpret and predict crowd behavior. In CrowdDNA, there is a clear scientific challenge: the need for a deep understanding of the relations between the smallest scales of crowd interaction and the largest ones up to the entire crowd.

CrowdDNA technology will result in a new generation of crowd simulation models, which are capable of predicting the dynamic behavior of crowds and associated risk factors. It will revolutionize the practices of crowd management to answer the requirements of modern society on safety and comfort in crowded spaces.





CrowdDNA at a glance

Last but not least, in relation to the current COVID-19 crisis, CrowdDNA technology could shed light on various issues such as changing crowd behavior post-pandemic and social distancing measures. This could help to generate plans and policies towards making crowded places safer, which are potential hotspots of COVID-19 infections due to the high concentration of population.

Partners



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- <u>https://twitter.com/CrowdDNA_H2020</u>
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