

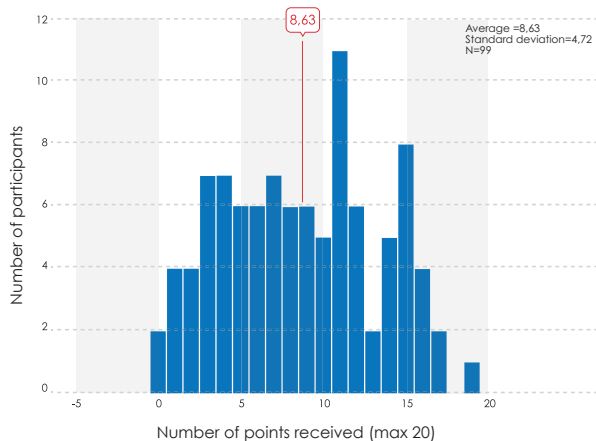
# Virtual training Real competence

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## Report based on own research

Conclusions based on research<sup>1</sup> conducted as part of the **"Widespread Disaster Simulator"**<sup>2</sup> project

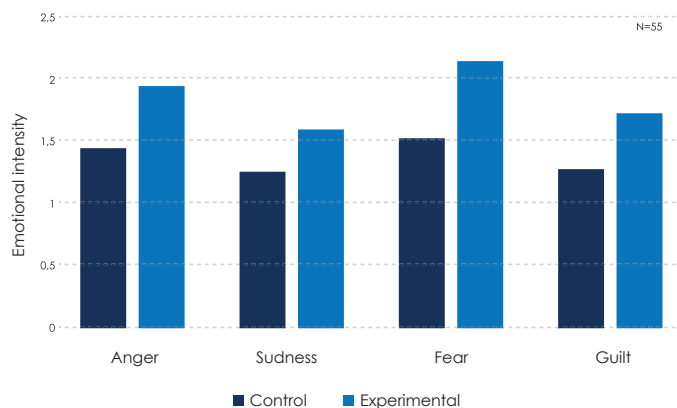
**Chart 1.** Number of points obtained by the research participants conducting the procedure of Triage<sup>3</sup> (segregation of the wounded in a mass event)



The average result obtained in the researched group is 8.63 out of 20 points.

**Research confirms that there is a real need to train the State Fire Service staff.**

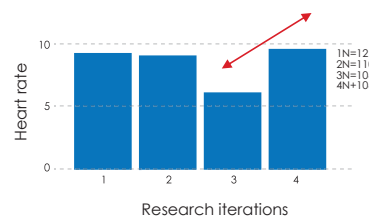
**Chart 2.** Comparison of the intensity of emotions between the control group (rescue procedure at the scene of a car accident) and the experimental one (the same procedure with an additional stressful stimulus)



The introduction of a virtual stressful stimulus has a real impact on the psychophysiological state.

**Training in the Widespread Disaster Simulator prepares for actions in a situation of a real threat in crisis events.**

**Chart 3.** Average increase in the heart rate of the participants after the introduction of a new scenario



The introduction of a new training scenario increased the engagement of the participants.



<sup>1</sup> In total, 501 measurements were conducted among professionally active firefighters from the State Fire Service from rescue and fire-fighting units and cadets of the State Fire Service Aspirants School in Krakow, 11.2017-10.2018.

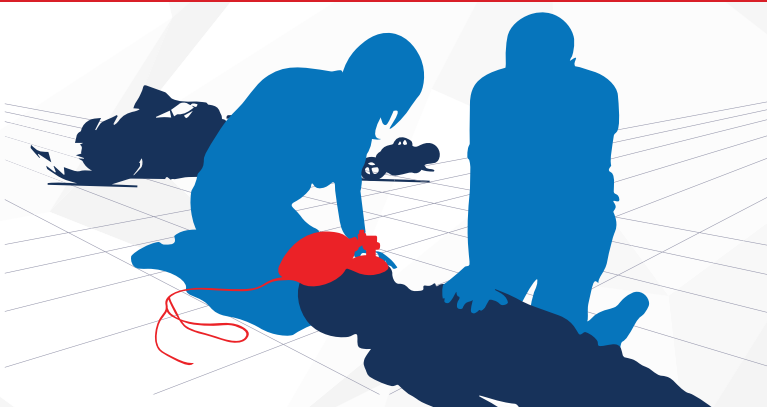
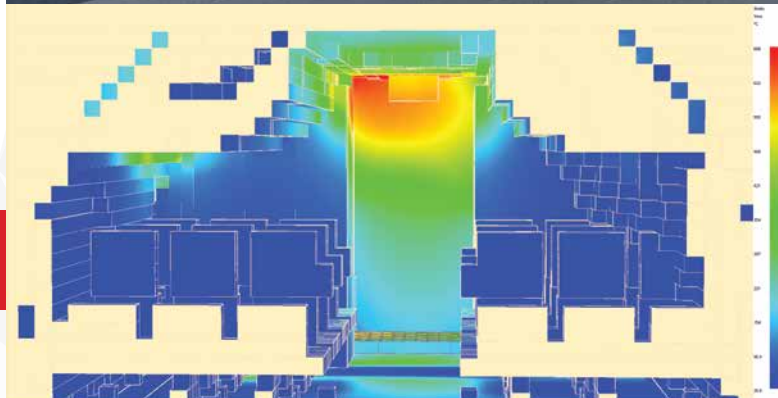
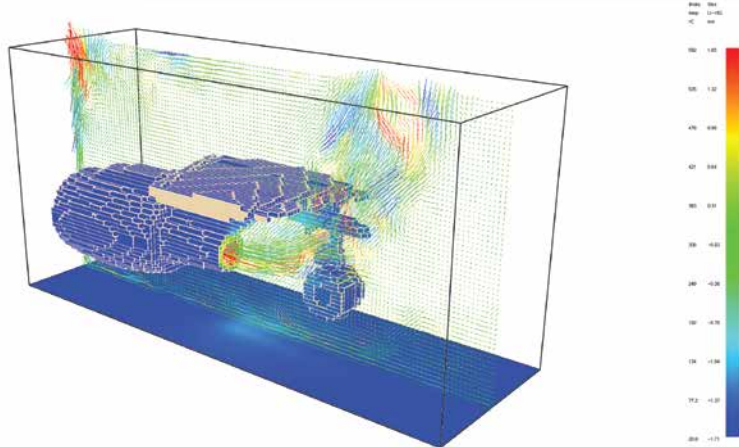
<sup>2</sup> Project co-financed by the European Union from the European Regional Development Fund under the Intelligent Development Program. The project was conducted as part of the competition of the National Center for Research and Development "Szybka Ścieżka".

<sup>3</sup> According to the rules of organization of emergency medical services in the National Rescue and Fire-Fighting System.

**Simpro produces professional VR training simulators, that enable personnel training in terms of procedures and security threats. Simpro VR products and services are dedicated to professional training in the fields of aviation, public safety and critical infrastructure.**

**What distinguishes** Simpro training simulators:

- cutting-edge Virtual Reality technologies,
- personalization and realistic recreation of the training environment due to self-devised photogrammetry technology<sup>4</sup>,
- dynamic modification of scenarios,
- scientific research, delivered by an internal R&D department, confirming the effectiveness and efficiency of training,
- methodological guidelines of the R&D department (publications<sup>5</sup> and scientific research) on the avoidance of simulator sickness, used to minimize the risk of its occurrence by means of User Experience and revision of the training protocol,
- **physically correct simulation of spreading fire and smoke,**




- **multiplayer up to 6 people.**



**s i m p r o**  
Professional VR Training Simulator

[www.simprosoft.com](http://www.simprosoft.com)  
[office@simprosoft.com](mailto:office@simprosoft.com)  
+48 12 257 01 80

 [simproofficial](https://www.facebook.com/simproofficial)  
Simpro sp. z o.o.

ul. Gromadzka 101, 30-719 Kraków, Poland

<sup>4</sup> Awarded in the international RealityCapture for Culture competition, II place for "House of painters in Zolipie" <https://youtu.be/Hlyd0rxlFBk>

<sup>5</sup> E.g. Frontiers in Psychology, Can Simulator Sickness Be Avoided? A Review on Temporal Aspects of Simulator Sickness, 06 November 2018 | <https://doi.org/10.3389/fpsyg.2018.02132>