



DELTA IN TIMES OF CLIMATE CHANGE II

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Deltas in Practice, policy-practice sessions	
Deltas in Practice Theme 8. Post disaster preparedness and recovery	
DP 8.1 Exercising decision-making during flood disasters by the use of 'Flood Simulators'	
Chair	Dr. Elgard van Leeuwen, Deltares, the Netherlands
Organised by	MSc Johannes Leskens, Nelen&Schuurmans, the Netherlands
Session topic	<ul style="list-style-type: none"> Practicing decision-making during flood disasters by the use of 'Flood Simulators'
Objective of the session	<ul style="list-style-type: none"> To demonstrate how flood simulators, such as 3Di, can aid decision-making during flood disasters
Main conclusions and lessons learnt from the presentations	
<p>The aim of the simulator is, among others, to communicate flood risk and to assist in choosing solutions. As a flood risk management tool, the simulator needs to run fast, desirably in real time. Therefore, the model's speed is optimised without losing necessary details. The result is an interactive, cloud based simulator that can run, nearly, in real time. The interactivity is achieved by an intuitive graphic user interface that lets the user place discharge points (dam breach), rain areas, elevation changes (dam heightening), etc. at random places at the highly detailed digital elevation map with a resolution of 50 cm. The tool is thus very attractive for flood risk managers.</p>	
Main conclusions of the discussion	
<p>The objective of the workshop that was given after the presentation was to assess which quarters of a Dutch low-lying city should be evacuated first before a major storm would cause a high risk of a dam breach. The group was split into two groups. One group used the interactive 3Di simulator to assess the best evacuation plan and the other group used six maps of possible dam breach scenarios, these indicated the spread and depth of the inundation. Both groups reached a similar result, but the group that used the "old-school" maps came to a conclusion slightly quicker. However the group that used the simulator could possibly predict risk more accurate.</p>	
Main result or conclusion of the session	
<p>The main result of the session was that the simulator works well, is very intuitive, looks realistic and can bring people from different professional backgrounds together to quickly come to a multidisciplinary and well thought through solution to flood risks.</p>	
Most exciting insights or outcomes	
<ul style="list-style-type: none"> The social interaction in the decision making process is almost as important as the simulator itself The 3Di simulator is very fast, intuitive tool that looks realistic 	

