

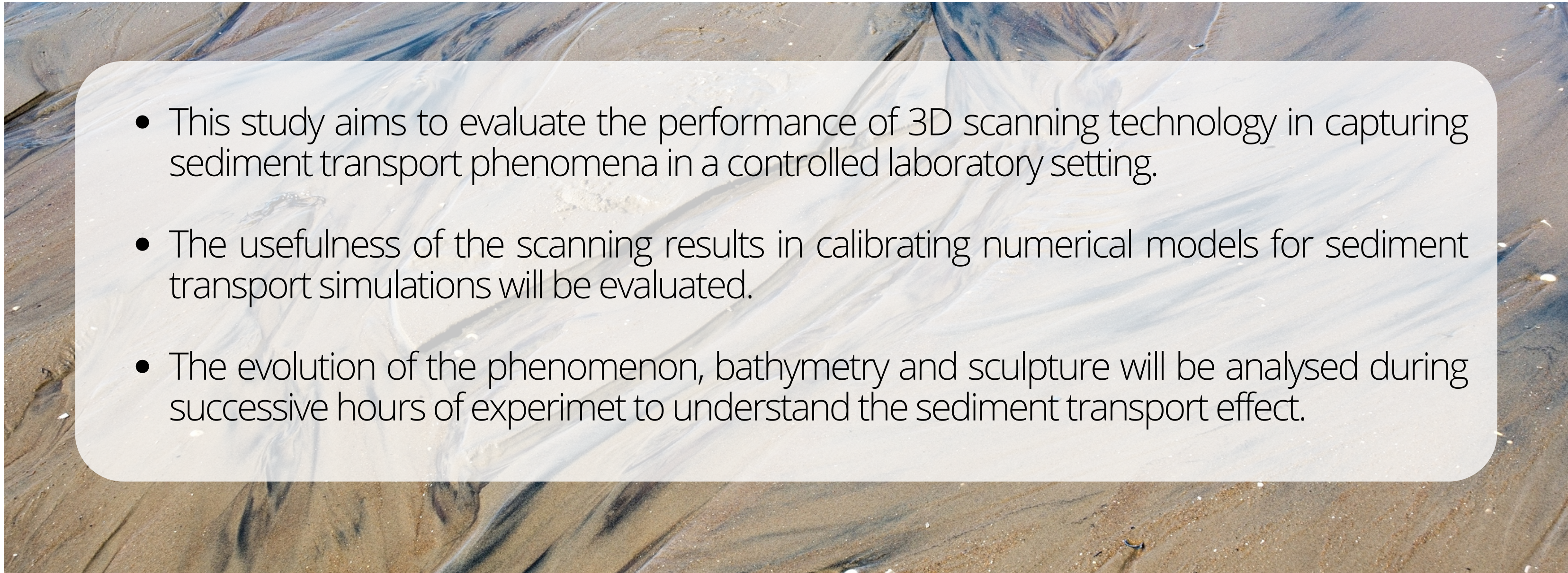
# Laser scanner as a tool for investigating sediment transport under laboratory conditions

**Zuzanna CUBAN<sup>1</sup>, Jakub MALICKI<sup>2</sup>, Małgorzata ROBAKIEWICZ<sup>2</sup>**

1 - Gdańsk University of Technology, Faculty of Civil and Environmental Engineering, Narutowicza 11/12, 80-233 Gdańsk, Poland

2 - Institute of Hydro-Engineering of the Polish Academy of Sciences, Kościarska 7, 80-328, Gdańsk, Poland

\* Correspondence: [zuzanna.cuban@pg.edu.pl](mailto:zuzanna.cuban@pg.edu.pl)

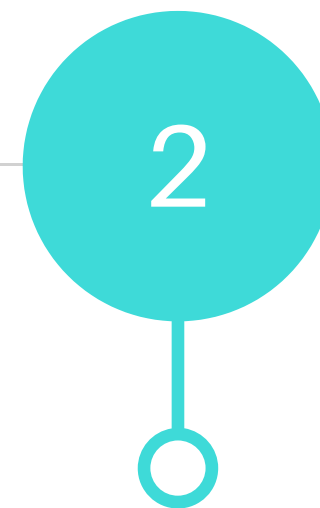
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- This study aims to evaluate the performance of 3D scanning technology in capturing sediment transport phenomena in a controlled laboratory setting.
  - The usefulness of the scanning results in calibrating numerical models for sediment transport simulations will be evaluated.
  - The evolution of the phenomenon, bathymetry and sculpture will be analysed during successive hours of experiment to understand the sediment transport effect.



## Experiment algorithm



**MAINTAIN FLOWS OF  
 $Q = 50, 75, 100, 125,$   
AND 150 L/S IN THE  
LABORATORY  
CHANNEL, EACH  
EXPERIMENT  
LASTING FOR 5  
HOURS.**



**DRAIN THE  
LABORATORY  
CHANNEL AND  
PERFORM A 3D  
LASER SCAN AFTER  
EVERY 5 HOURS OF  
FLOW.**



**SCAN PROCESSING**



# Experiment





# Results

