# Project proposal

## The Idea

In the Netherlands, there is a lot of knowledge about our watersystem. Because protecting ourselves against this water is very expensive, a lot of work is put in researching the weakest points in our protection.

One of these major researches has been looking at hundreds of points where the dikes may break. And where and how the land behind the dikes may consequently flood. We want to use this semi-hidden data to enlarge the awareness of these risks. Our idea is to take the postal code as a input of a interactive map. This postal code can be converted to a location, whereafter the closes breakthroughpoint will be searched. Besides, the total water height due to this flood will be noted.   
If possible, this will be shown in a interactive map.

## Databases required

Physicalgeographic information of the Netherlands  
Adress sytem

Option2:

## <http://basisinformatie-overstromingen.nl/liwo/#basisinfo/>

Data avaiable through exploiting the WMS of rijkswaterstaat

## Methodology

Connect to a wms server in R (Leaflet), get the needed data   
Connect to the basic administration of adresses (BAG)  
Retrieving coordinates for individual adresses  
Write code to find the maxdepth in case of a break in the regional dike convinement and find the closest breakthroughpoint (scenario).

Make a map with the conclusions. (interactive if possible due to time limits)