Decision tree XBeach

* Decision tree is more extensive than current functionalities supported by XBeach.
* Not all combinations will result in a customized advice due to a lack of data.
* Not all combinations are equally relevant. What combinations are most important?
* Decision tree is going to be too large to print, so it will be some kind of online tool.
* Decision tree also indicates the model complexity and the user skills and required ICT environment.

# Input

## Forcing (and/or)

* Waves
	+ Wind waves
	+ Swell
	+ Tsunami
	+ Ship waves
* Water level
	+ Tides
	+ Surges
* Wind

## Configuration (or)

* Alongshore uniform
* Barrier islands & inlets
* Embayed beach
* Channels and rivers

## Composition (and/or)

* Sand
* Mud
* Clay
* Coral
* Gravel
* Structures
* Vegetation

## Interest (and/or)

* Morphological evolution
	+ Storm events
		- Inundation
		- Overwash
		- Collision
	+ Long-term development
		- Stability
		- Recovery
* Hydraulic loads
	+ Wave loads
		- Run-up
		- Overtopping
		- Energy dissipation
		- Structures
		- Ships
	+ Currents
		- Drifters
		- Swimmer safety
	+ Ground water

## Scales

* Time
* Space
	+ Cross-shore
	+ Alongshore
	+ Resolution

# Output

## Model setup

* Model settings
	+ Suggested defaults
	+ Suggested calibration
* Guideline to grid setup
	+ Suggested configuration
* Model validity
	+ Functionality available
	+ Functionality tested
* Model complexity
	+ Budget/time
	+ Runtime
	+ User skills
	+ ICT

Knowledge Base

Database with “Twitter messages” tagged with hashtags according to the orthogonal categories “Forcing”, “Composition”, “Configuration” and “Interest”.

# Categories

## Forcing

* Waves
	+ Wind waves
	+ Swell
	+ Tsunami
	+ Ship waves
* Water level
	+ Tides
	+ Surges
* Wind

## Configuration

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## Composition

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		- Structures
		- Ships
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		- Drifters
		- Swimmer safety
	+ Ground water

# Types of data

* Manual
* Journal papers
* Conference papers
* MSc theses
* Dissertations
* Example models
* Tutorials
* Skillbed
* Expert knowledge (do’s and don’ts)
* Validity judgement
* Novelty score

# Database design

* categories
	+ id
	+ parent\_id
	+ type
	+ name
	+ status
* labels
	+ id
	+ parent\_id
	+ category\_id
	+ name
	+ status
* knowledge
	+ id
	+ category\_id
	+ title
	+ description
	+ url
	+ file
	+ status
* labels2knowledge
	+ label\_id
	+ knowledge\_id
	+ status