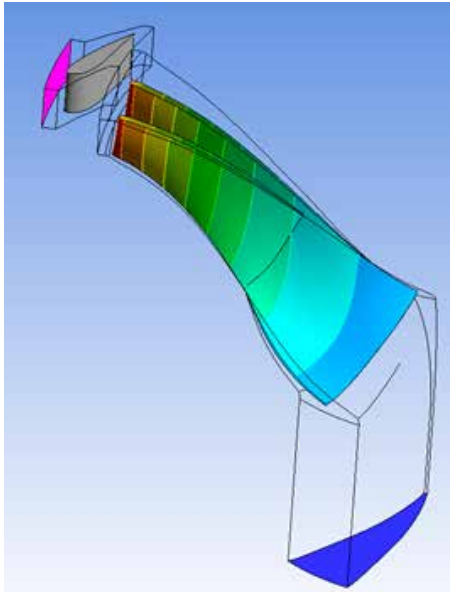


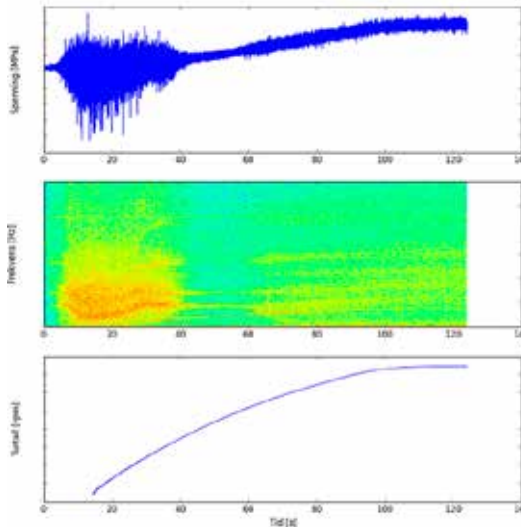
## Background

Due to recent failures of high head Francis turbines, there is a need to improve the understanding of the physics related to dynamic stresses in high head Francis turbines.



## Objective

Evaluate and possibly improve the current methods for calculating stresses in Francis turbines. This is an industrial PhD project with Rainpower, supported by The Research Council of Norway.



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2015 - 2019

**Dynamic stresses in  
high head Francis  
turbines**

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