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A new methodology to increase fatigue life and optimise design and maintenance operations for wind turbines in forest and cold climate environment

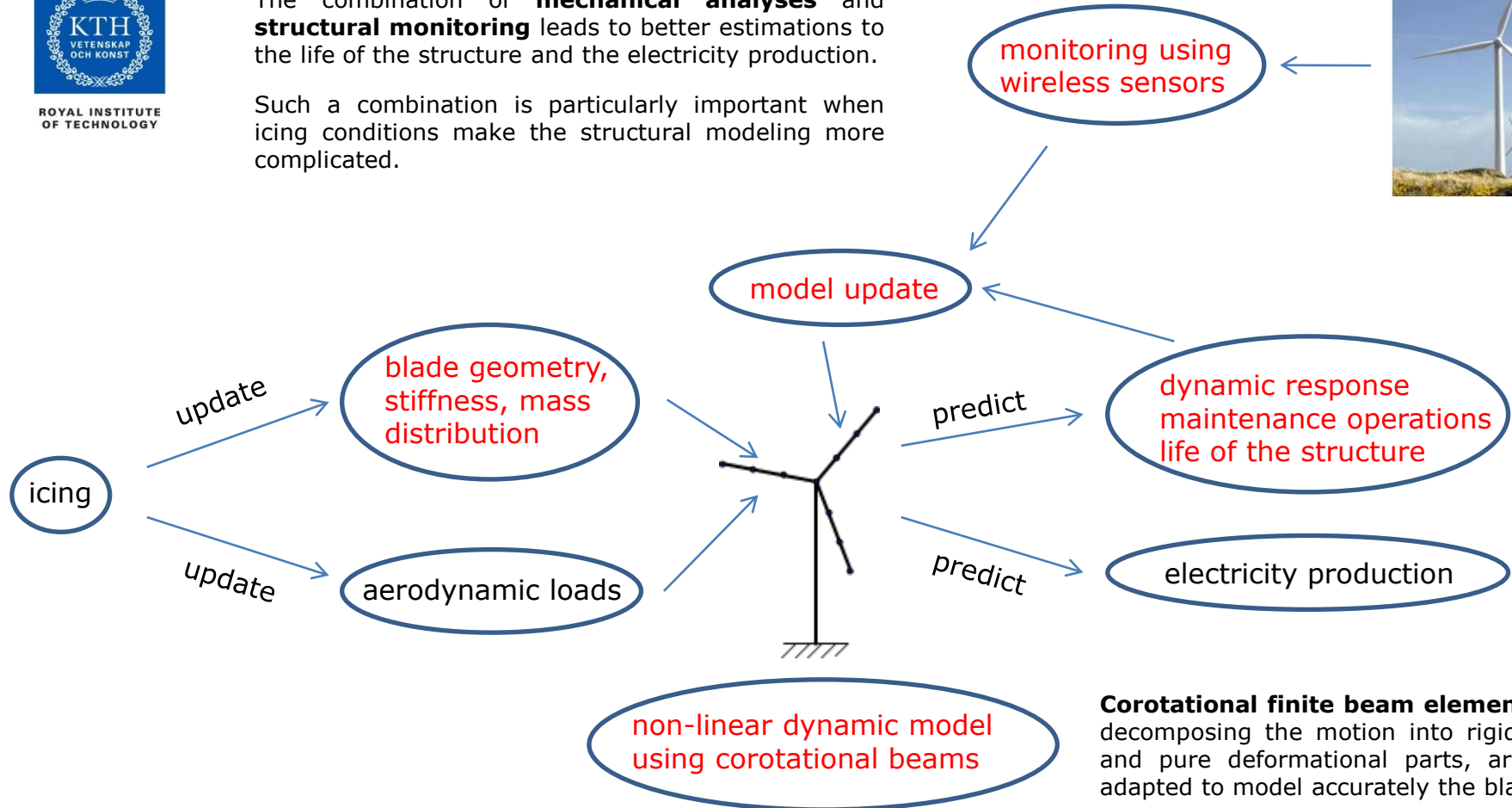
A research proposal

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The combination of **mechanical analyses** and **structural monitoring** leads to better estimations to the life of the structure and the electricity production.

Such a combination is particularly important when icing conditions make the structural modeling more complicated.



Corotational finite beam elements, by decomposing the motion into rigid body and pure deformational parts, are well adapted to model accurately the blades.