Problem:
- Hybrid systems are undecidable
- Decidable models of CS are currently unusable

MLQA mission statement:

"This spans [...] *resource usage* (e.g. 'the control system rotates and adjusts the windmill such that at least 60 % of the potential wind energy is utilised')."

- Highly non-linear system !
- Non-linear hybrid systems are undecidable
- State of the art: *Abstraction* to discrete system
- or to discrete-time or real-time system (*e.g.* timed automata)
- Problem: abstraction too coarse $\implies$ unusable for most examples
- Badly need finer abstractions
- Good candidate: Priced timed automata
- Algorithms; tool support   Watch us in Aalborg...