Frame Conditions
- Promotion of wind energy projects according to the Swiss exit strategy from nuclear and fossil power
- Mandate to the Swiss Coordination Centre for Bat Protection to elaborate national recommendations to integrate bat conservation concerns in the development of wind energy projects enabling the realisation of wind turbines.

Results
National Strategy referring to the implementation of bat conservation in the 3 important phases of a wind energy project:

<table>
<thead>
<tr>
<th>Phase of Wind Energy Project</th>
<th>Actions by Swiss Coordination Centre for Bat Protection / specialized environmental consultancies</th>
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</table>
| Feasibility Study Preliminary Check | • Evaluation of potential impacts according to existing database knowledge and attractiveness of the site for bats as hunting habitat and migration corridor  
  • According to standardized protocol  
  • Pragmatic, fast and cheap  
  • Outcome: recommendation of potential impact according to four possible categories between „Go” and „No Go” for the attention of the planner  
  • Basis for specification in Environmental Impact Assessment EIA  
  ► Operated by Swiss Coordination Centre for Bat Protection  
  ► Approximately 150 standardized preliminary checks so far |

| Planning Phase Investigations connected to obligatory Environmental Impact Assessment EIA | • Investigations according Preliminary Check & site specific requirements  
  Aim: identifications of potential, site specific conflicts:  
  - systematic permanent acoustic measurements in the height  
  - Additional investigations on the ground (acoustic, nets, roost searches)  
  • Possible outcome being part of the Environmental Impact Report EIR  
  - Avoidance: displacement of turbines  
  - Diminution: site specific stopping algorithm  
  - Compensation: suitable measures  
  - Necessity and extent of monitoring as success of control  
  ► Operated by specialized environmental consultancies |

| Building & Operating Phase Success Control | • Implementation control (building phase):  
  - Implementation of stopping algorithm  
  - Implementation of compensation measures  
  - Efficiency Control (operating phase):  
  - Verification of efficiency of stopping algorithm (acoustic or carcass searches)  
  - Adoption of stopping algorithm if necessary  
  ► Operated by specialized environmental consultancies |

Impact categories according to standardized Preliminary Check
- GO: Site without special bat activities or little known  
  - No or little conflicts present or expected  
  - Moderate investigations required
- GO: Site of regional importance  
  - Considerable conflicts present or expected  
  - Intensive investigations required
- NO GO: Site of national importance  
  - Heavy & complex conflicts present  
  - Conflicts inevitable

Stakeholders

Swiss Coordination Center for Bat Protection

Current challenges:
- Improvement of simple, fixed stopping algorithm by complex, multivariate models
- Implementation of real-time stopping mechanisms including:  
  - real-time acoustic bat detection  
  - real-time radar based bat detection

Unsolved problems:
- Consideration of accumulative effects:  
  How to implement the fact that more wind energy projects cause more dead bats?  
- How to ensure quality control of EIA if performed by unspecialised environmental consultancies?