

Appendix 26

“Innovative technology for assessing wildlife collisions with wind turbines”

Prepared by ID-Stat



Think Different !

“Innovative technology for assessing

wildlife collisions with wind turbines”

- >> Development partners
- >> ID-Stat, description, test
- >> Applications





Developed and patented

In collaboration with

Eneria

CAT

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44 620 La Montagne

France



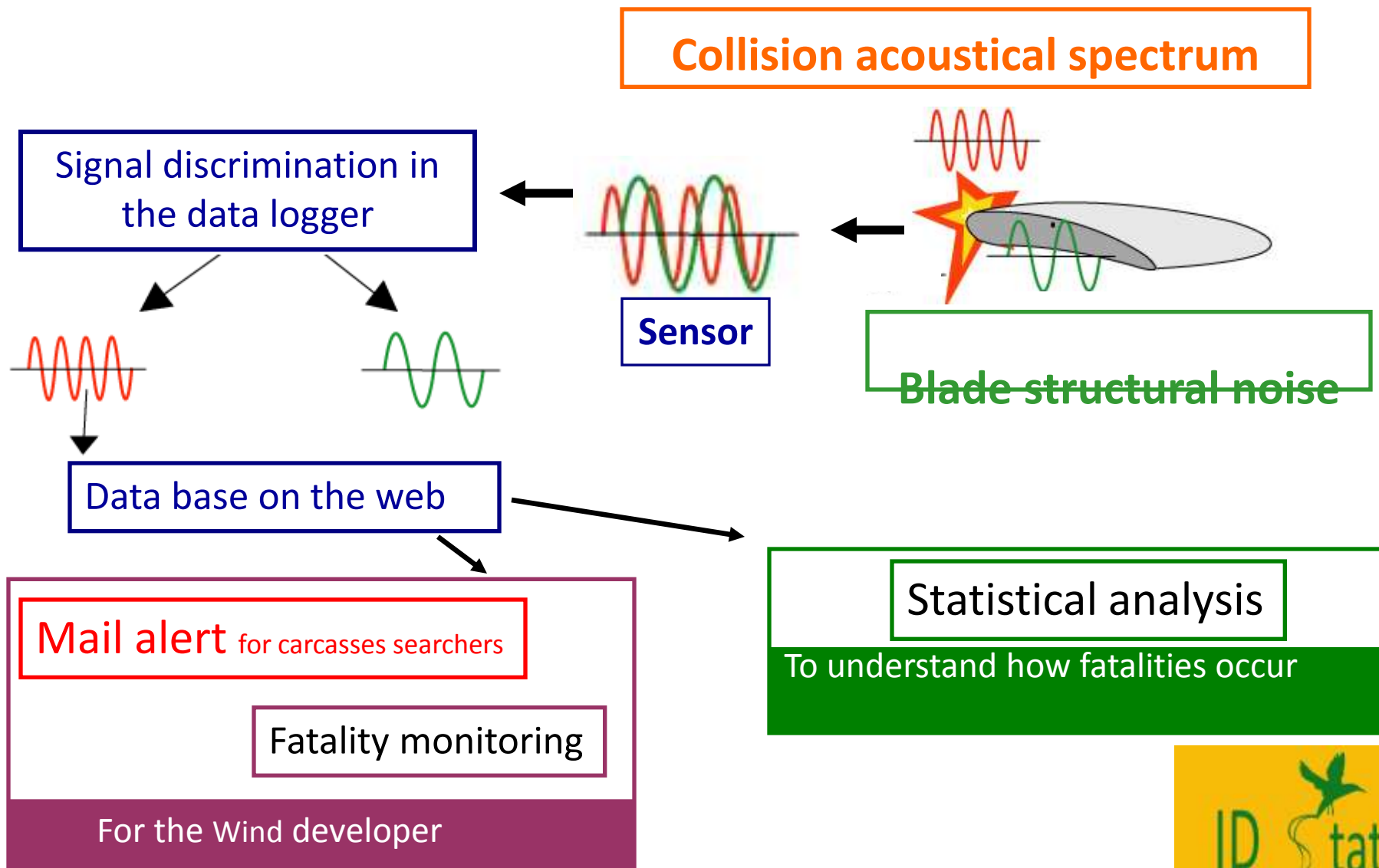
M. Aymeric MINOT

1 rue de Longpont

91 311 Montlhéry

France

>> ID-Stat, automatic and standard collision detector



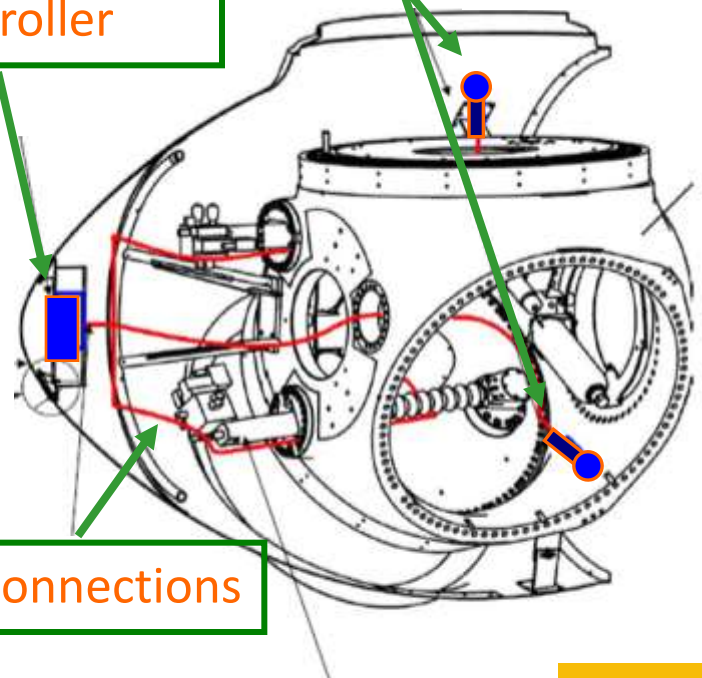
>> ID-Stat, non-invasive vibro-acoustic collision detector



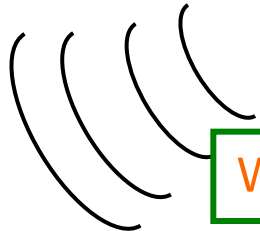
Three microphones
NON-INVASIVE ATTACHMENT



Data logger connected
in hub controller



Wire connections



GSM technology
for data collection ...



>> Test issues

⇒ acoustical detection validation

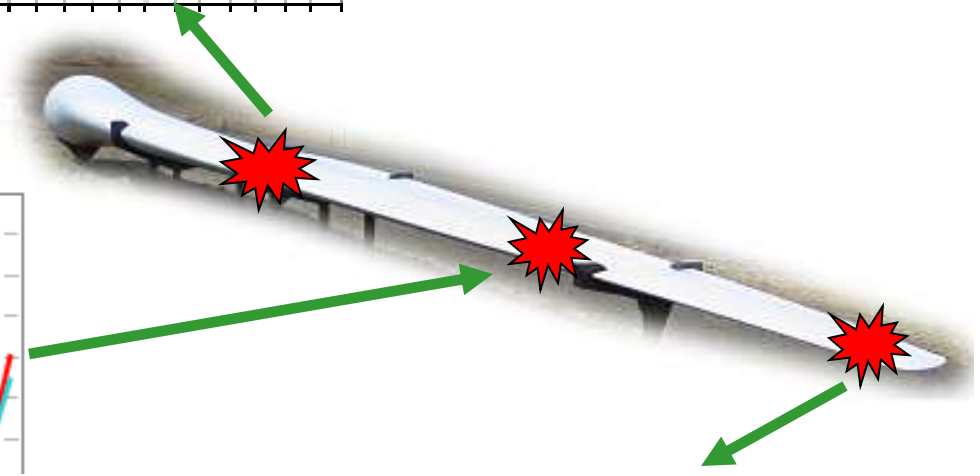
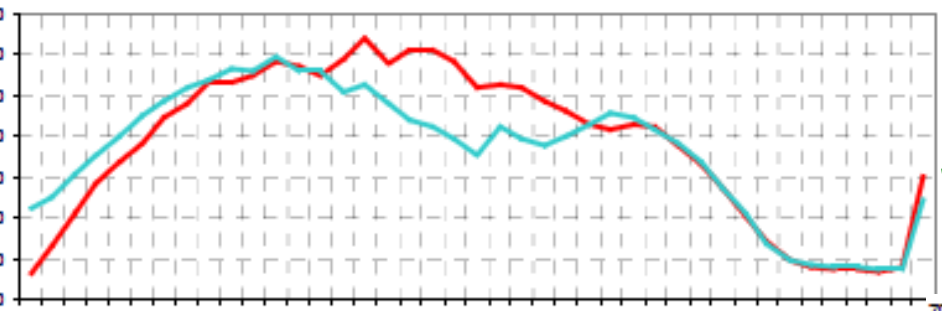
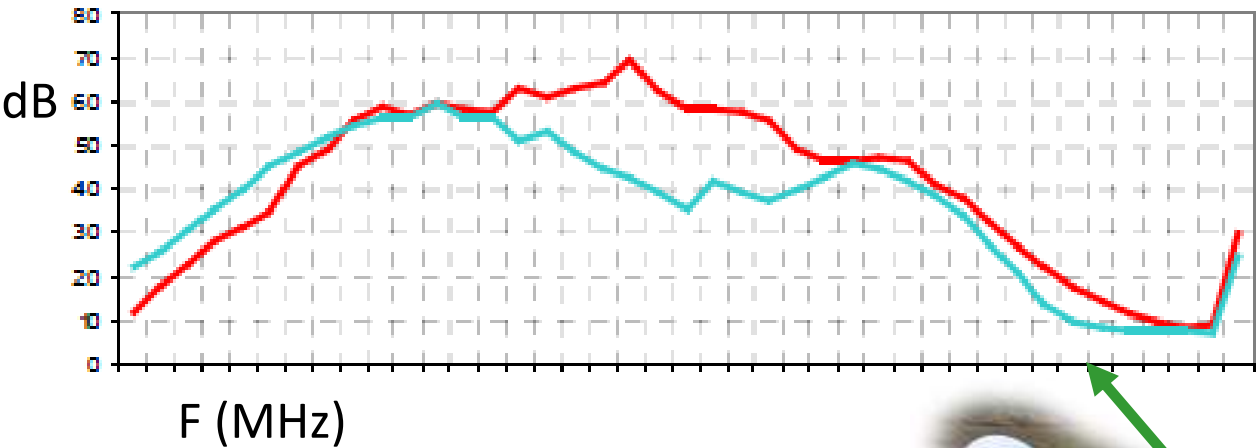
⇒ acoustical detection level

⇒ ID-Stat validation for industrial applications

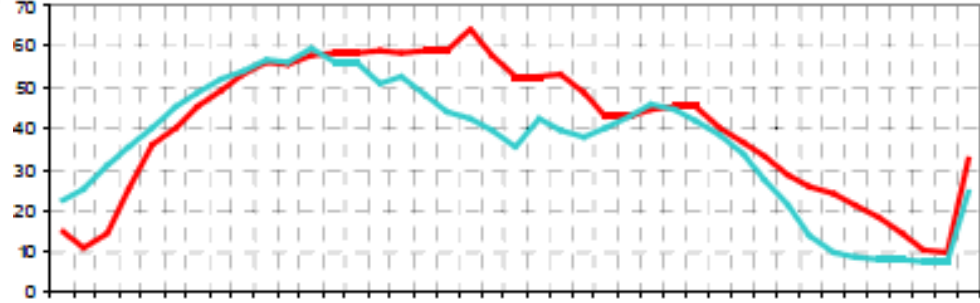


>> Blade acoustical properties ...

Acoustical spectrum constant from base to tip



Red is the collision + laboratory structural noise
Blue is the structural noise



>> First test results

=> Collision detection

-> with flying chicks 30g

-> with “artificial bird” 2,5g *customised chicken gun* ®

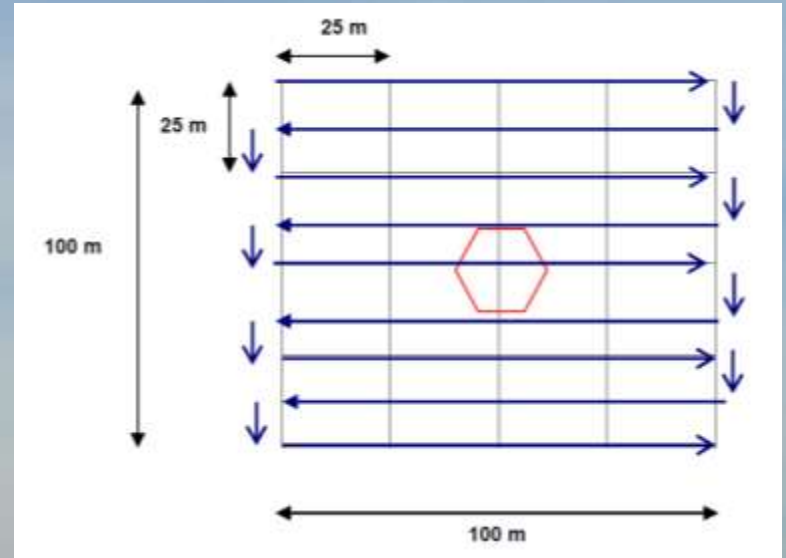


2,5 g artificial bird



run

>> First long term test



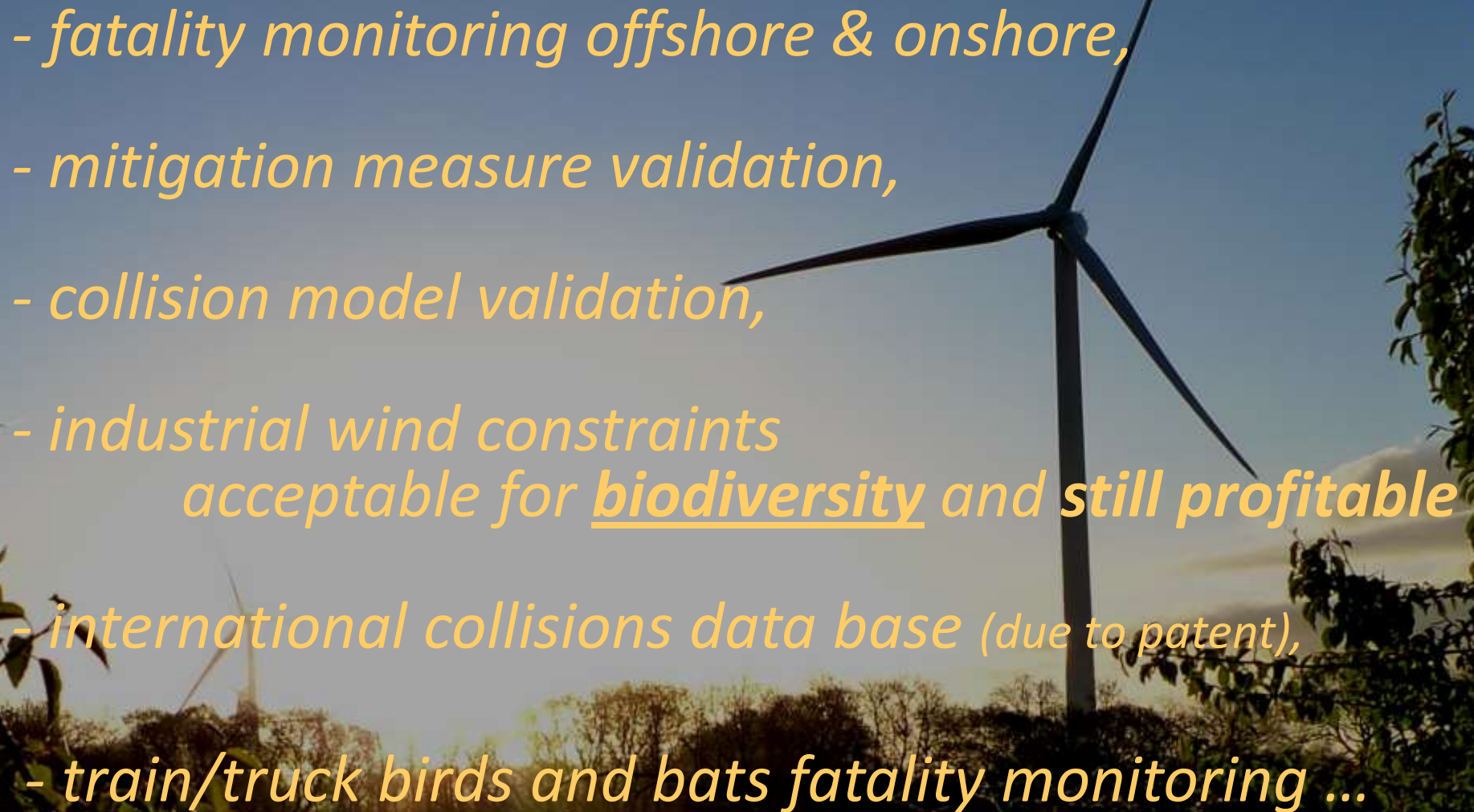
Ground fatality research methodology

=> 1 windturbine (western France)

=> 1 ID-Stat collecting 24/7 since May, 3^d 2011

=> daily ground fatality searches

>> ID-Stat applications

- *fatality monitoring offshore & onshore,*
 - *mitigation measure validation,*
 - *collision model validation,*
 - *industrial wind constraints
acceptable for biodiversity and **still profitable***
 - *international collisions data base (due to patent),*
 - *train/truck birds and bats fatality monitoring ...*
- 
- A large wind turbine stands in a field with trees in the foreground and a clear sky. The turbine is the central focus, with its three blades extending outwards. The background shows a line of trees and a clear blue sky. The foreground is filled with green foliage, partially obscuring the base of the turbine.

Thank's, Multumesc, Danke, Grazie,

Obligado, Gracias, Takk ...

for your attention 😊



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