

A COLLABORATION THAT WORKS

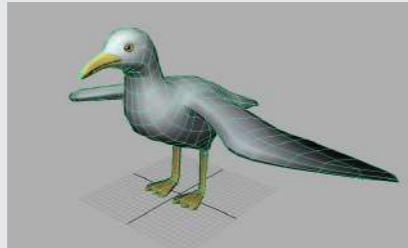


The collaboration between R. STAHL Electromach and Kubiko is a logical match. Electromach is the expert in

explosion protection technology for offshore industries. The certified housings by Electromach together with the soft-

and hardware by Kubiko is the perfect combination to resolve the guano problem on offshore helidecks.

Artificial intelligence by Kubiko



MACHINE LEARNING

The Kubiko system is trained to learn from its newly acquired data. Although Kubiko is able to operate offline, using databases with multiple millions of images and characteristics, the system does also store its actions, enabling it to evaluate upon them.

By learning from its behaviour in terms of true or false observations, the system is set to perfect its functioning.

COMPUTER VISION

The Kubiko system is built around the concept of computer vision, a set of tools and methods within the field of artificial intelligence (AI) and robotics.

Kubiko recognizes objects within its camera's images and distinguishes between birds, human beings, helicopters, etc. by processing different parts of its images through a specialized neural network for classification.

NEURAL NETWORK

The Kubiko system is able to learn and train itself because of a neural network. A neural network is similar to a set of (rudimentary) brain functions.

By using statistics and probability analyses within its neural network, the system is able to learn in a way that is similar to the learning behaviour of human beings and animals.

Offshore solutions by Electromach



CONTAINERIZED SOLUTIONS



HVAC SYSTEMS



EXSYS MODULE



ELECTROMACH



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KUBIKO: SCARECROW OF THE SEA

Your helideck bird and guano free with our smart laser solutions

KUBIKO: THE GUANO PROBLEM RESOLVED



Bird guano causes major health and safety problems on offshore helidecks



Frequent cleaning and maintenance is required, but proves costly and hazardous



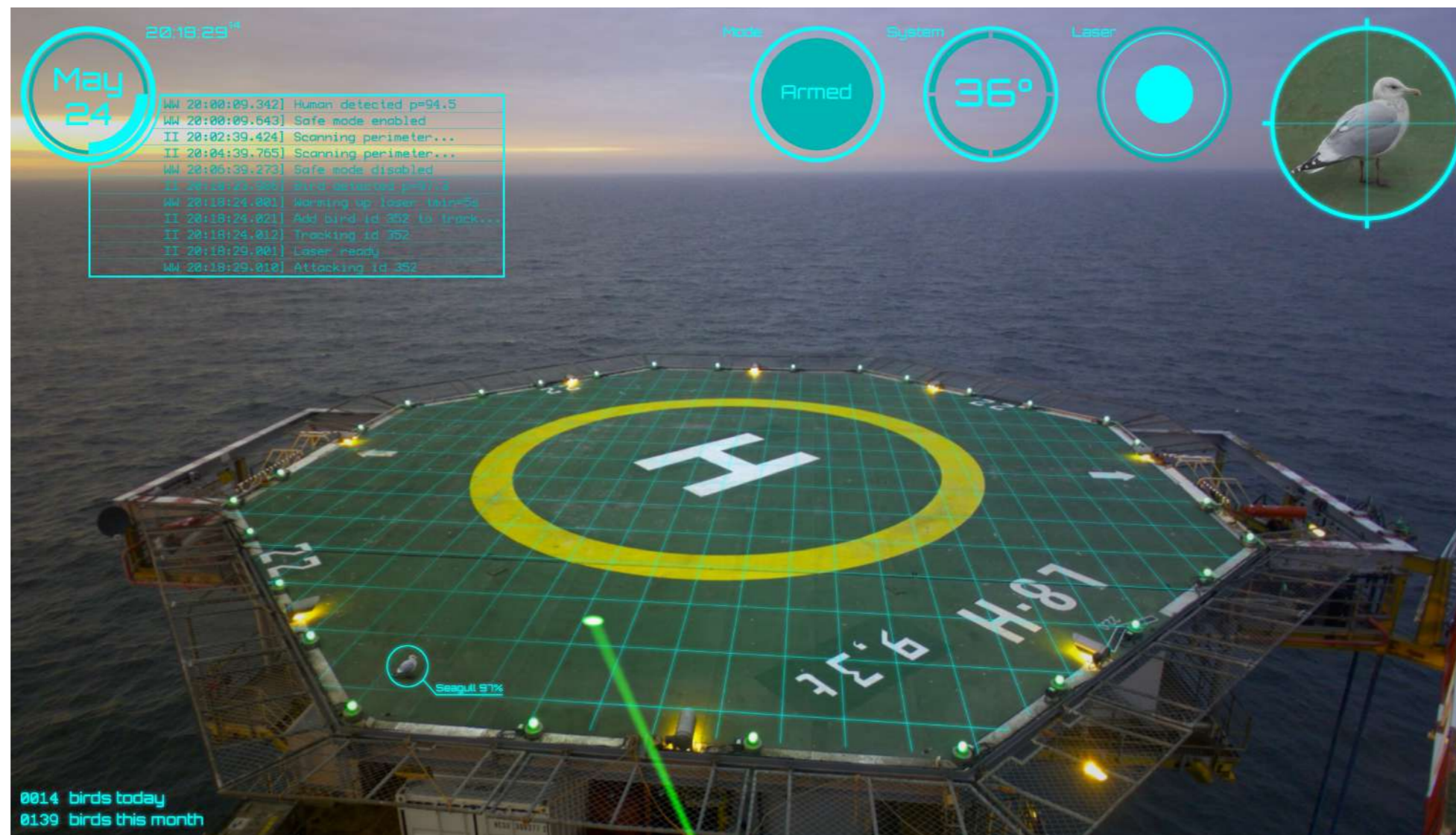
Most repellent systems are effective at first, but birds start ignoring them over time



Robust Ex housing with ultra HD camera and userfriendly class 3 green laser



Ex control station series 8150 for hazardous areas zone 2 by Electromach



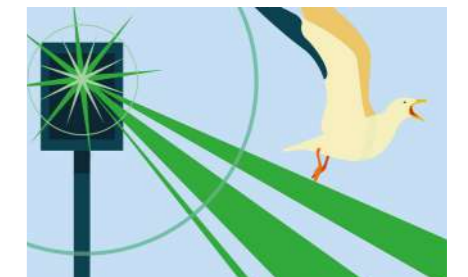
Real-life image in cooperation with development partner Wintershall



Kubiko makes it personal by creating a hunting effect similar to natural predators



The system determines the exact location of the bird and fires a targeted laser project



Bird guano causes major health and safety problems on offshore helidecks



Preserve a safe helicopter landing zone on your offshore platforms. A clean helideck with clear markings means perfect visibility for helicopter pilots. Without the slipperiness from bird guano, the skid resistance on your helideck remains intact. Resulting in less maintenance and a safer landing area for pilots and crew.

Minimize the health risks of your offshore personnel. Bird guano may lead to breathing difficulties, asthma complaints and diseases like laryngitis and meningitis. Kubiko helps you to get rid of these health- and safety hazards. Save your personnel the malodour from bird guano and the trouble of cleaning offshore helidecks.

Reduce the operating, maintenance and cleaning costs for your offshore platforms. Stop birds from damaging your helidecks, offshore installations, netting and equipment. Annual operating, maintenance and cleaning costs due to bird guano add up to considerable amounts per platform, making the Kubiko system an essential asset on offshore platforms.