



Overview of user needs assessment

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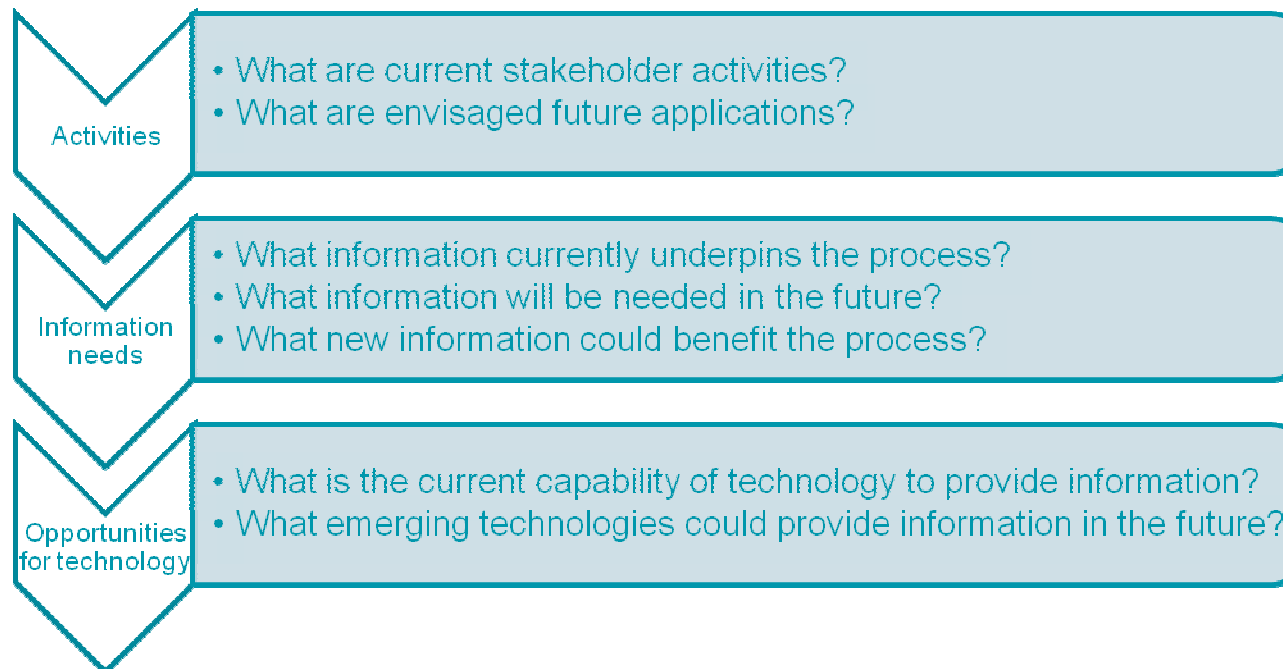
Helios



The user needs assessment is one of the early activities in the project


- We are interested in the current and future activities of airports, ATC and airlines in the bird strike risk management process
- The user needs result from these activities and their information needs

Overview of process





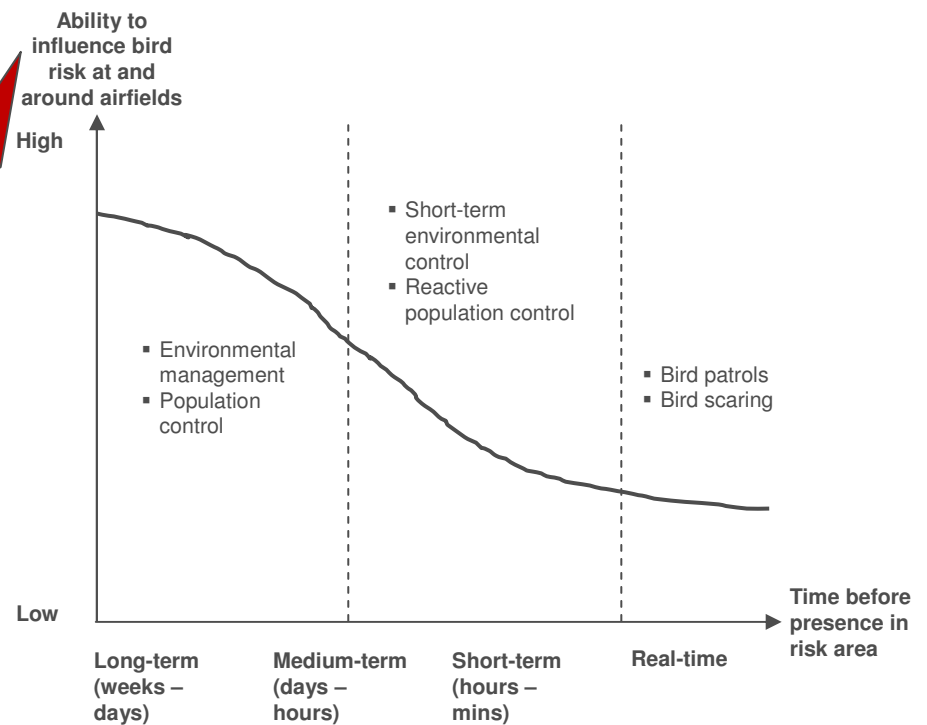
Initial discussions have been held with our participating airport partners, with ATC and pilots

- Results so far driven by discussion with airfields who are seeking to implement best practice
 - Further input is being directly sought from other:
 - Tower controllers
 - Pilots
 - Smaller airfields
 - Discussions oriented at understanding the current bird management process and activities
 - Identifying where technology could enhance or substitute activities
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- Distinct difference between applications in bird hazard management process and real time detection and alerting application

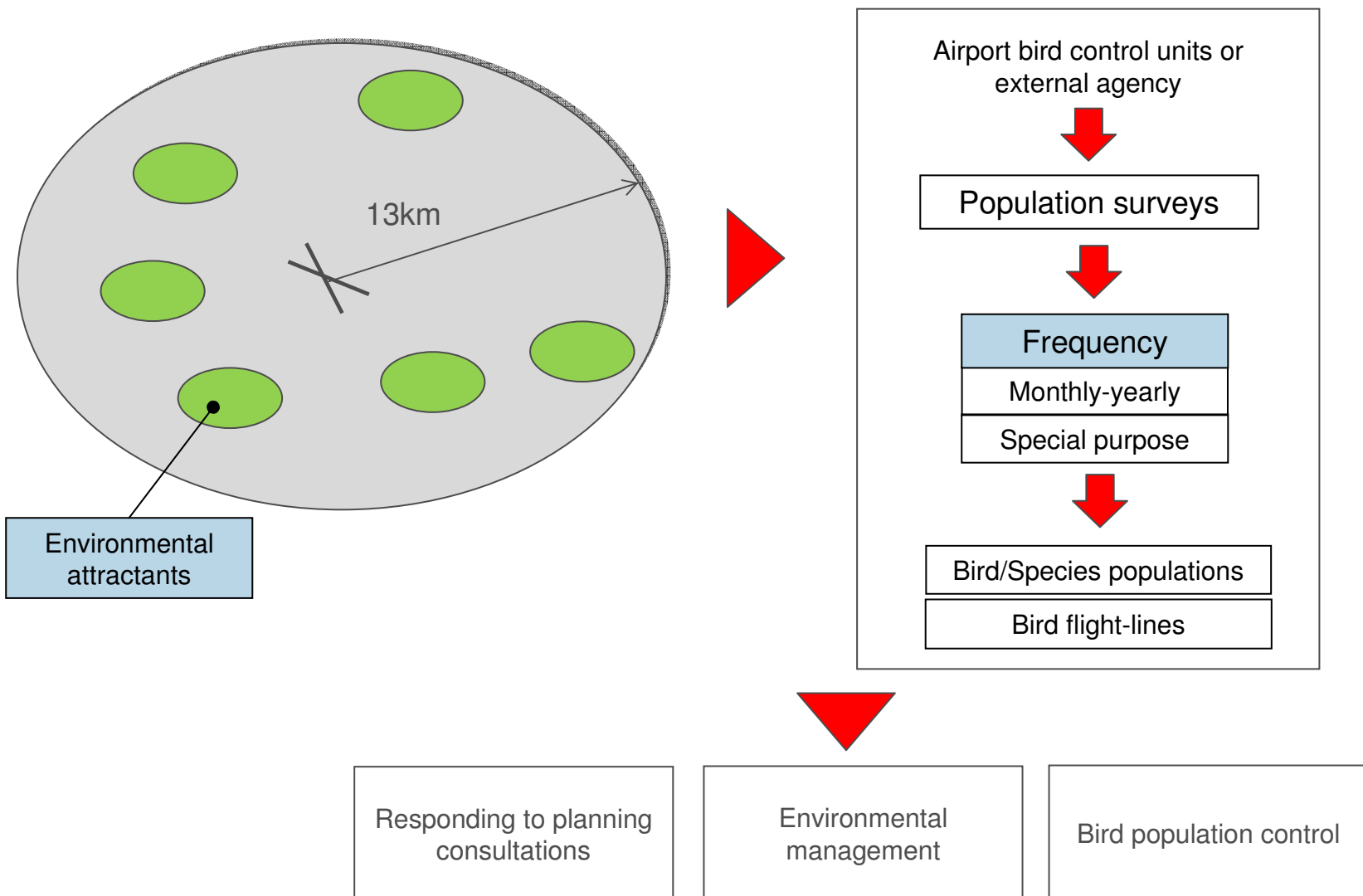
The airport bird hazard management activities tend to benefit most from proactive measures



The more long-term nature of off-field activities means that the overall ability to manage risk varies over time



In the off-field the activities are driven by a robust understanding of the bird population, species behaviour and the environment

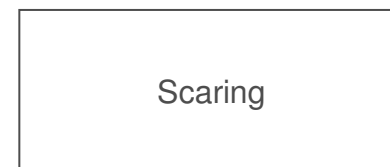
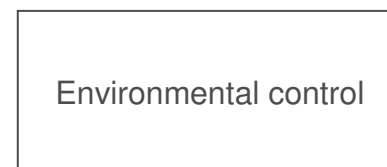
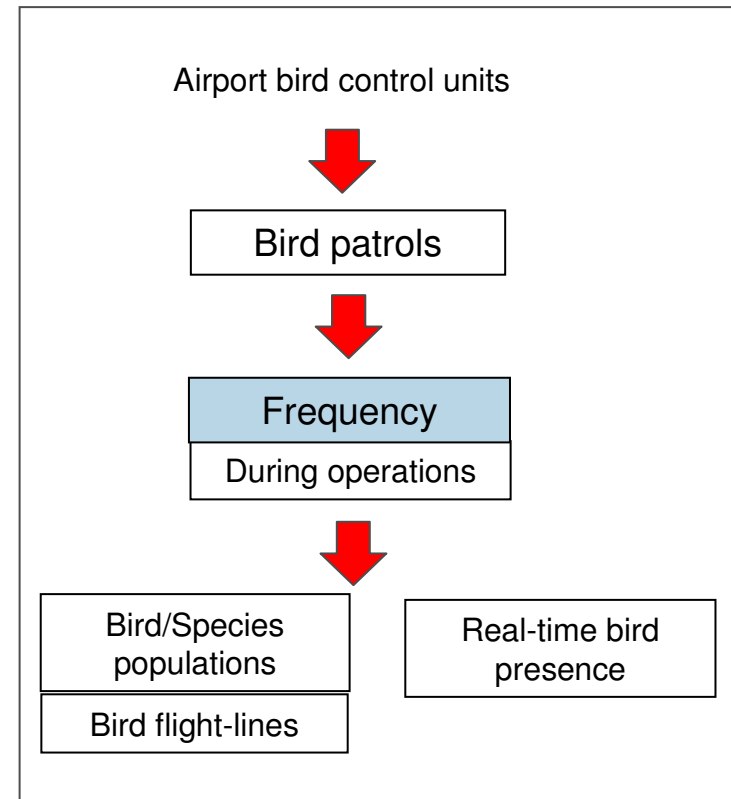
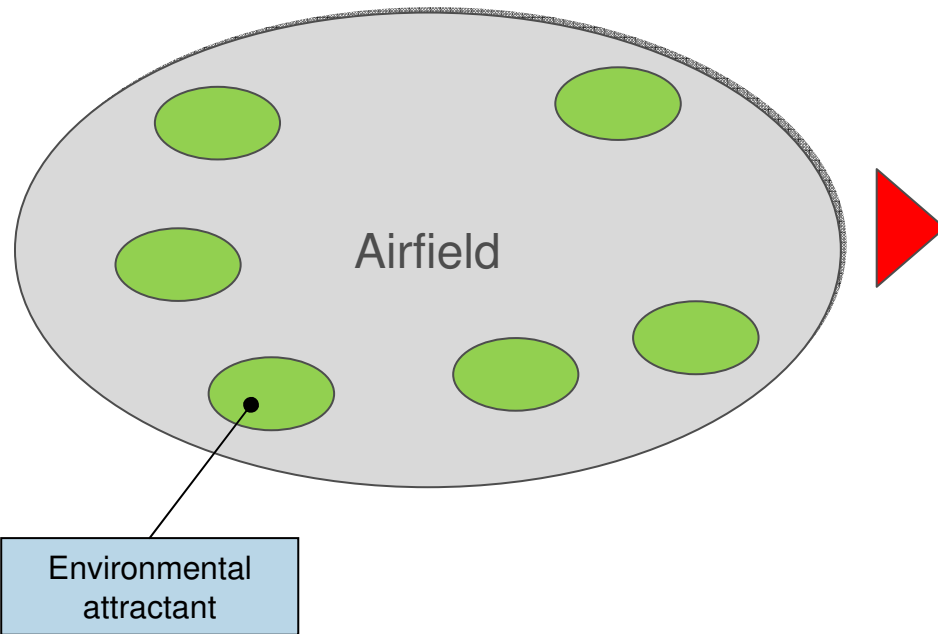




Off-field activities

Population surveys	The airport will undertake bird population and flight-line surveys of the local area, typically focused on the key attractants
Responding to planning consultations	The airport can be consulted for planning applications in the local area and needs a basis to assess consultations and provide evidence on the affect on bird strike risk in their response
Environmental management	When factors resulting in bird strike risk are identified the airport could seek changes to the off-field environment by agreeing with stakeholders to change their activity, land or permit the installation of bird control features (e.g. Lasers etc.)
Population control	When other factors cannot be controlled the risk is reduced by campaigns of relocation or targeted culling

On the field, information from bird patrols inform a number of the activities





On-field activities

Environmental control

Undertaking a wide range of environmental control measures including grass selection and cutting, mitigating attractants, nest removal

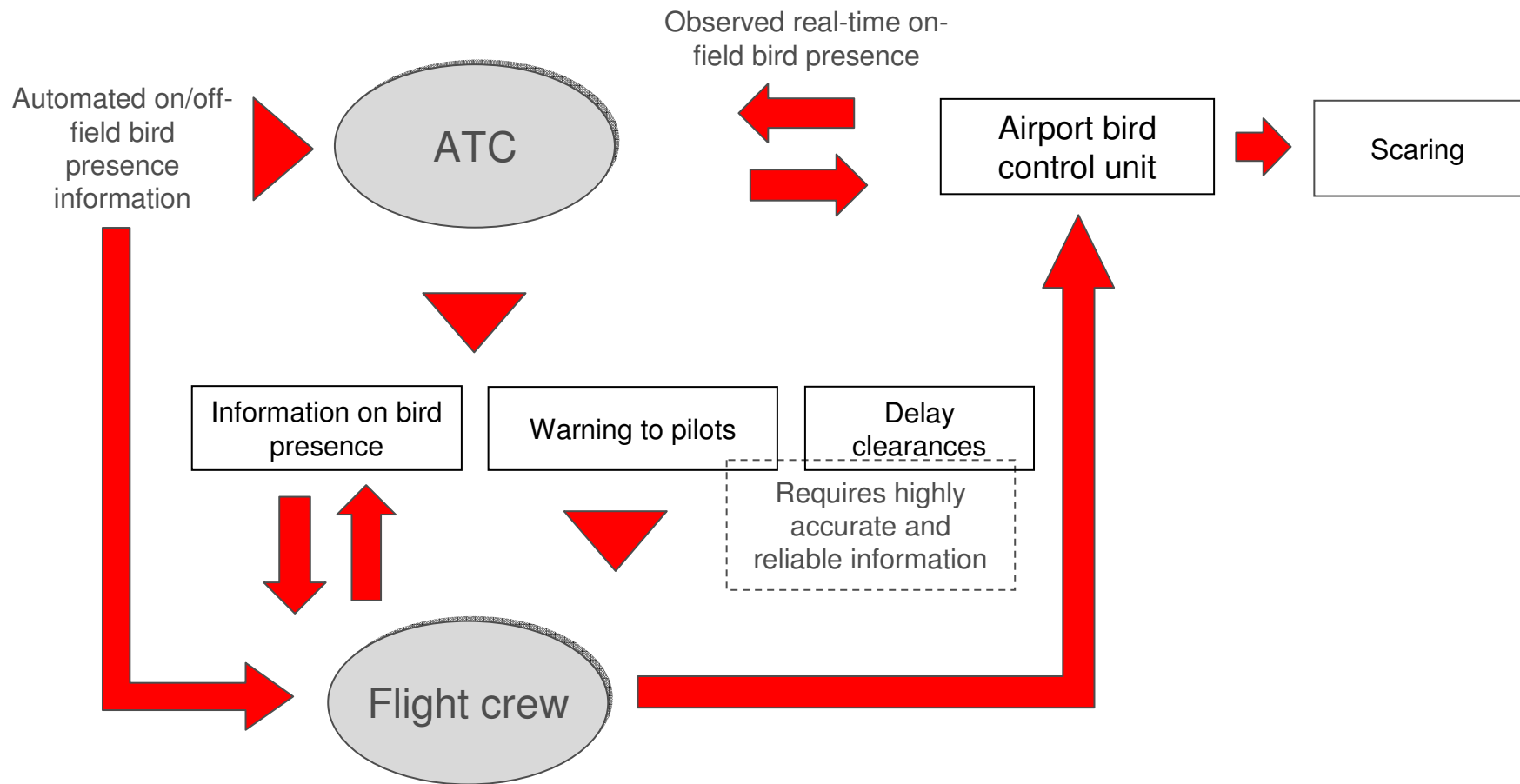
On-field bird surveys

Airport bird control teams will monitor bird numbers and behaviour on the airfield in order to build knowledge on arising risk and the patterns of bird presence

Patrols and scaring

Bird control units patrol the airfield to undertake planning scarring actions and react to birds observed on the airfield judged to pose a risk

Both ATC and the flight-crew are involved in the more real-time oriented application





Real-time activities

Information on bird presence

Information relating to the presence of birds on the runway or in the vicinity of arrival and departure routes can be provided to the flight crew. This information could be derived from the airfield bird patrol, from ATC observations, from other flight crew reports, from the flight crew observations or from direct detection by e.g. radar provided to the flight crew and/or ATC.

Delaying clearances

On the basis of a known risk arising from bird presence on the runway or on the approach or departure paths ATC can withhold clearances to aircraft to enter the airspace.

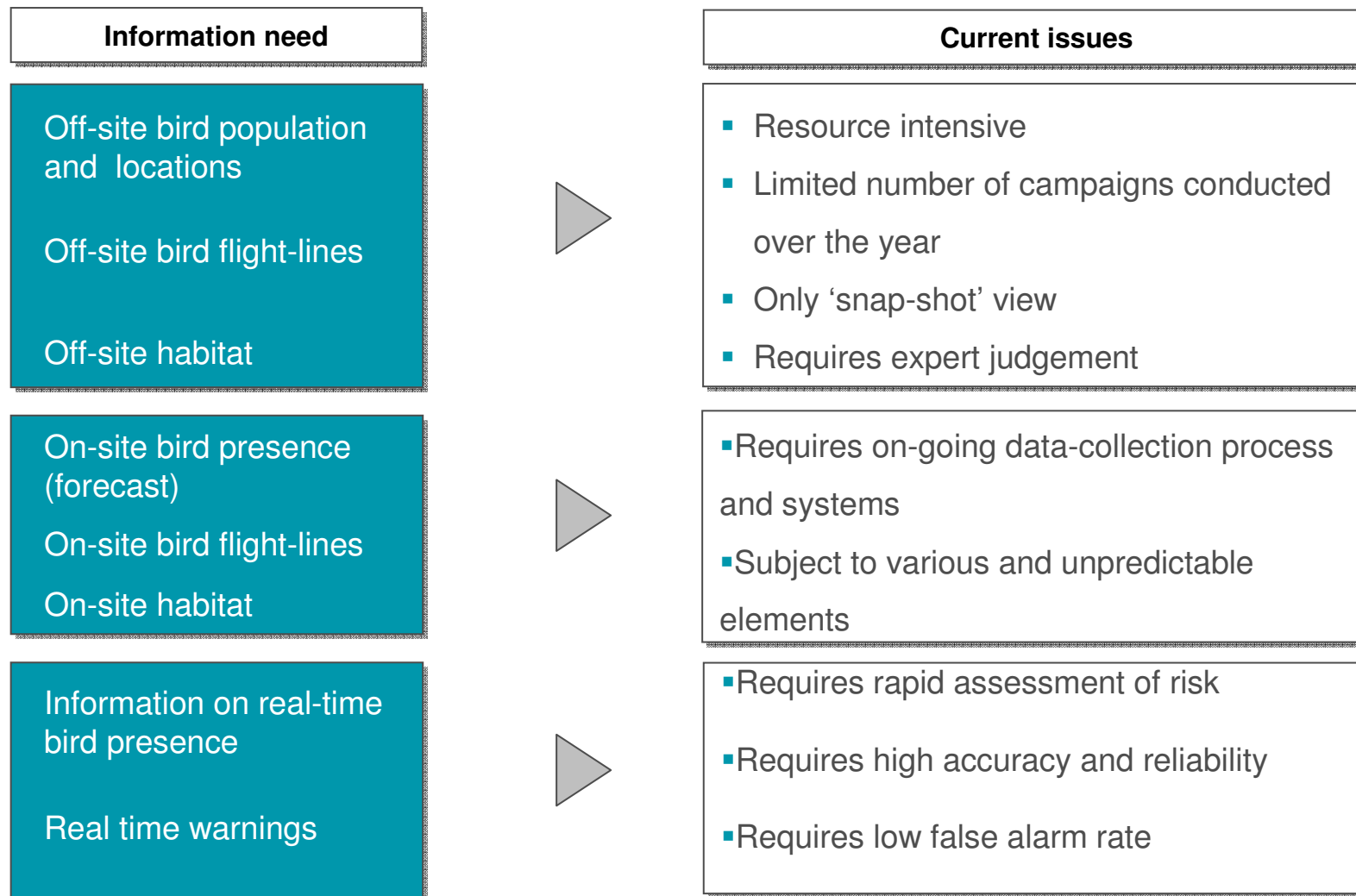
Real time warnings

On the basis of a known and immediate risk to an aircraft on the runway, on approach or departure a real time warning could be provided to the flight crew and/or ATC.

In summary, there are several potential activities identified so far to which a technological service offering could be applied

	Off-field	On-field
Airfield	<ul style="list-style-type: none">Population surveysPlanning consultationsEnvironmental managementPopulation control	<ul style="list-style-type: none">Environmental managementPopulation surveysPatrols and scaring
ATC	<ul style="list-style-type: none">Information on bird presence to trafficDelaying clearancesReal time warnings	
Flight crew	<ul style="list-style-type: none">Information on bird presenceReal time warnings	

Underpinning these activities are common information needs that could provide the opportunities for new services





After the break we have a session dedicated to discussing the user needs...

- Oriented at identifying user needs we have missed or where things are done differently
- We are interested in your input on:
 - Missing activities
 - Additional sources of information used in the process
 - Examples of where things are done differently
 - Which activities would really benefit from new services



Thank you for your attention

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