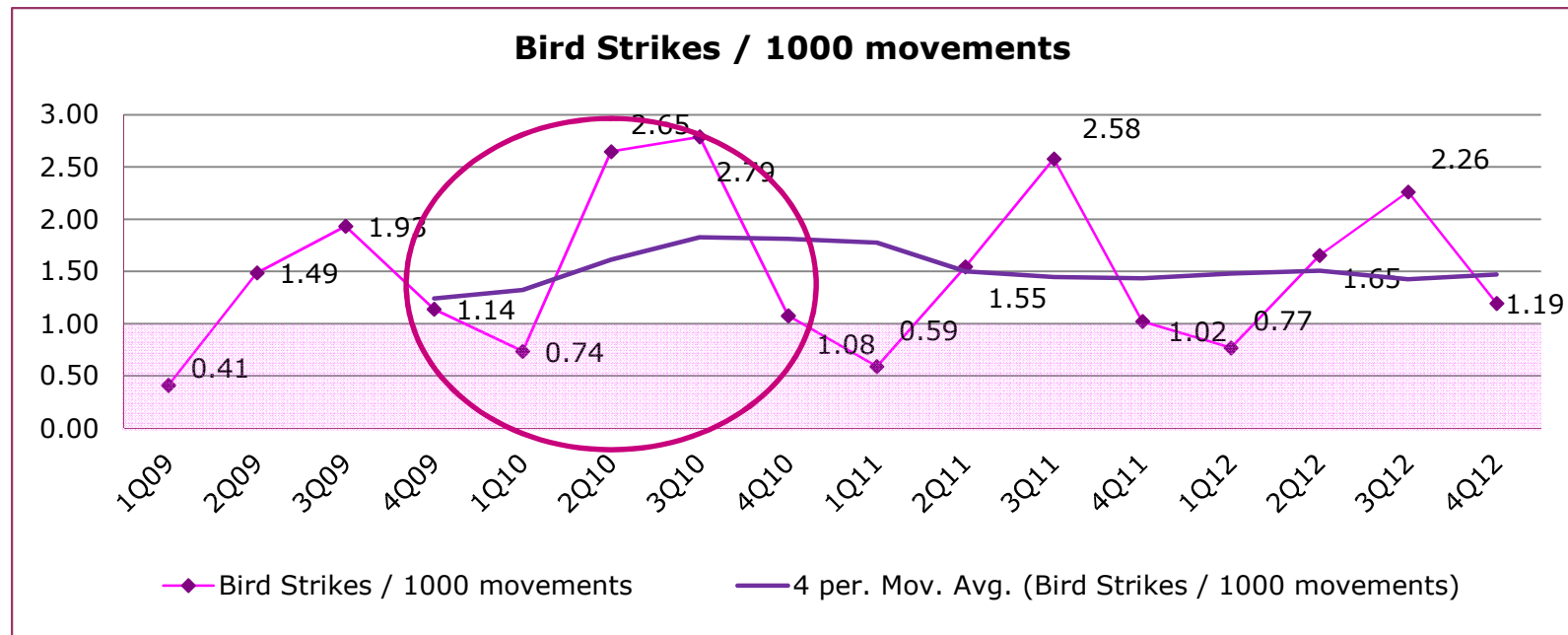


# Wildlife Strike Hazard Reduction

Wizz-BML experience auditing  
35 European Airports

Polish BC meeting,  
Modlin, 16<sup>th</sup> December 2013

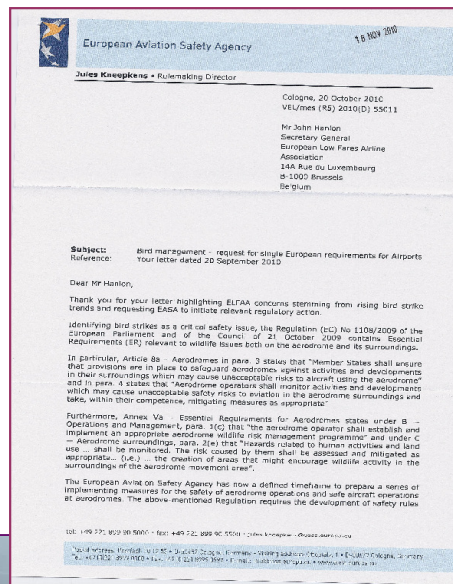
# Introduction



- The bird strike rate rose above the tolerable level in 2009
- Further bird strike rate increase measured in 2010
- Understood, we shall “THINK OUTSIDE THE BOX”

# Risk mitigation – **W!ZZ** action plan

- Lobbying at EASA
- Make the IBSC Standards legal obligation
- Promote IBSC standards
- Check compliance to IBSC standards
- Follow-up compliance to IBSC standards
- New pilot procedures
- Active post-strike procedures
- Involvement of EASA and NAAs



<b>W!ZZ</b> GROUND OPERATIONS MANUAL	AIRPORT RESPONSIBILITIES	Page: 15-2 Date: 01 OCT 2010
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## 15.1 BIRD AND WILDLIFE MANAGEMENT

15.1.1 Proper Birds and Wildlife Management is extremely important to assure safe take off and landing of all Wizz Air aircraft. All bird strikes are very dangerous while the small ones are driving the cost the large ones can result in a significant damage to an aircraft or even lead to a disaster like an air crash (examples: US AIR suffered a double engine bird strike and was forced to perform an emergency landing in the Hudson river in New York – luckily all passengers and crew survived).

15.1.2 Airports should have, in place, a bird and wildlife management programme which aims to manage and minimise the risks associated with bird strikes by effective use of bird-scaring and habitat management controls which are appropriate to the airport environment. It is recommended that airports meet, as a minimum standard, the guidelines agreed and published as "Industry best practice" by the International Bird Strike Committee (IBSC). Website: [www.ibsc-birdstrike.org](http://www.ibsc-birdstrike.org)

15.1.3 The following minimum standards, as published by the IBSC, are considered to be essential for an effective control of the bird / wildlife risk:

- A properly trained and equipped bird/wildlife controller should be present on the airfield for at least 15 minutes prior to any aircraft departure or arrival. Thus, if aircraft are landing or taking off at intervals of less than 15 minutes there should be a continuous presence on the airfield throughout daylight hours. The controller should have no duties other than bird control during this time.
- At night, active runways and taxiways should be checked for the presence of birds/wildlife at regular intervals and the dispersal action taken as needed.
- Bird control staff should be equipped with bird deterrent devices appropriate to the bird species encountered, the numbers of birds present, and to the area that they need to control. All staff should receive proper training in the use of bird control devices.

As a minimum, airport bird and wildlife controllers should record the following at least every 30 minutes:

- area of the airport patrolled,
- numbers, location and species of birds/ wildlife seen,
- action taken to disperse the birds/wildlife,
- results of the action.

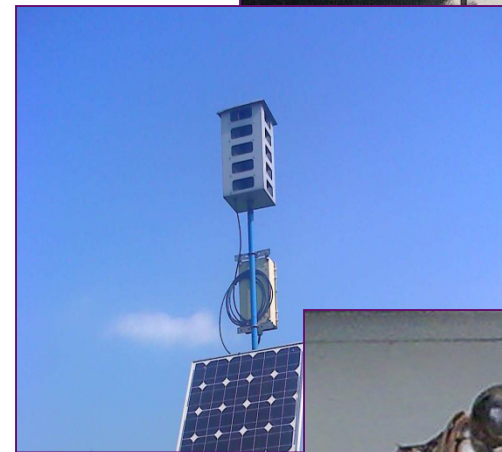
A named member of the senior management team should be responsible for the implementation of necessary habitat management programmes.

An airport should undertake a review of the features on its property that attract hazardous birds/wildlife and develop a plan to eliminate them or deny them access to them as far as possible.

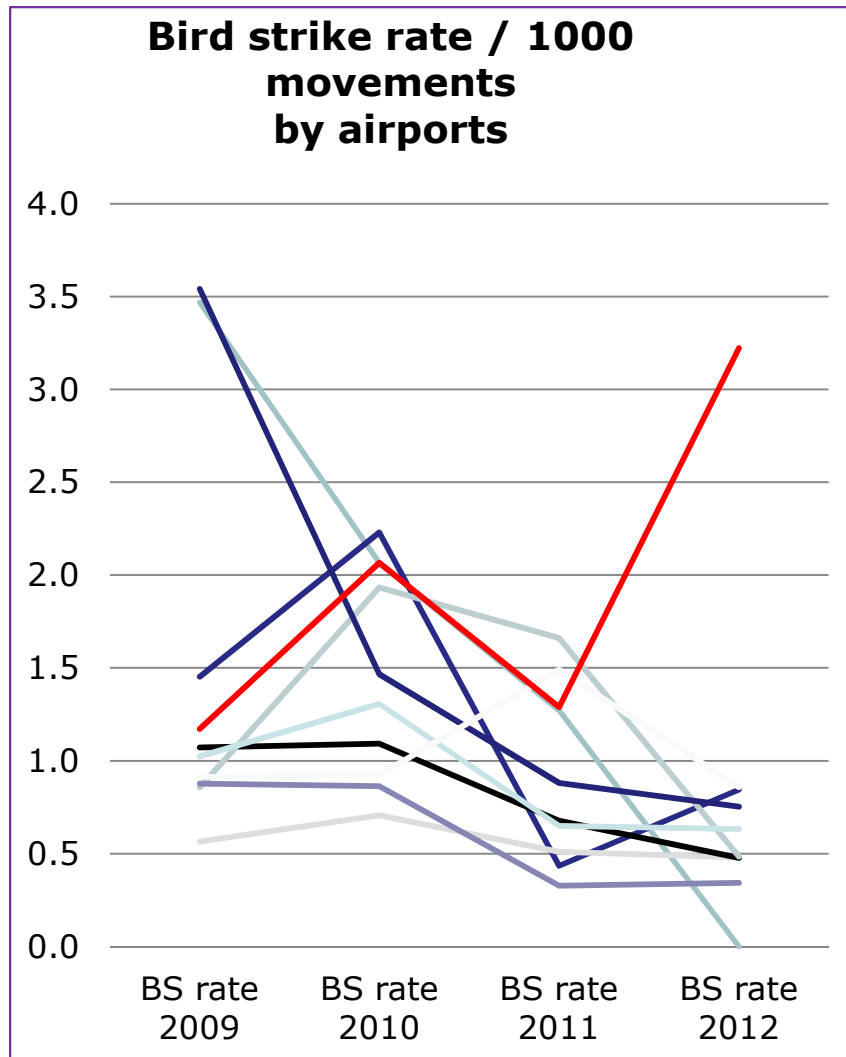


# The safety manager's experience after 35 airports checked

- Bird strike hazard is significant over Europe, mainly due to:
  - Lack of basic understanding of basics on effective bird management
  - Reliance on static/automatic equipment and/or falconry
  - Inadequate use of active bird control
  - Very low reporting and identification rate
  - No safety measure and target
  - Little evidence of regulatory oversight
  - The professional ornithologist's experience will follow



# Significant result achieved



1. Bird strike rate reduction at airport is manageable: all airports improved their active bird control system showed improvement
2. One or two professional checks led to the significant result
3. Little regulatory oversight was experienced at most of the countries visited
4. We believe, professional regulatory oversight can lead to significant change in the industry
5. Wizz & BML are ready to disseminate this information to any forum of EASA or NAA
6. We kindly ask the Polish BC's support in mitigation of this significant safety hazard

# New EASA Requirements for Aerodromes

## ADR-OPS.B.020 — Wildlife strike hazard reduction

(a) The aerodrome operator shall:

- (1) assess the wildlife hazard on, and in the surrounding, of the aerodrome;
- (2) establish means and procedures to minimize the risk of collisions between wildlife and aircraft;
- (3) notify the competent authority if a wildlife assessment indicates conditions in the surroundings of the aerodrome conducive to a wildlife hazard problem.

## AMC-ADR-OPS.B.020 — Wildlife Strike Hazard Reduction

(a) The aerodrome operator should:

- (1) participate in the national wildlife strike hazard reduction programme;
- (2) record and report to the competent authority wildlife strikes to aircraft;
- (3) ensure that wildlife hazard assessments are made by competent personnel;
- (4) establish, implement and maintain a wildlife risk management programme.

- GM1-ADR-OPS.B.020 — Wildlife Risk Assessment
- GM2-ADR-OPS.B.020 — Wildlife Risk Management Program
- GM3-ADR-OPS.B.020 — Wildlife training
- GM4-ADR-OPS.B.020 — Recording and reporting of wildlife strikes and observed wildlife

# Possible fields of cooperation

- Sharing of bird strike data
- NAA safety targets for airports on bird strikes
- More focus on wildlife hazard by local runway safety teams
- Joint bird management standard checks
- Sharing of standard check checklists and reports
- Professional trainings to Airport specialists and NAA inspectors on wildlife management
- Preparation programmes for compliance to EASA ADR regulation – it takes time!
  - Joint introductory forums
  - Trainings
  - Guidance materials

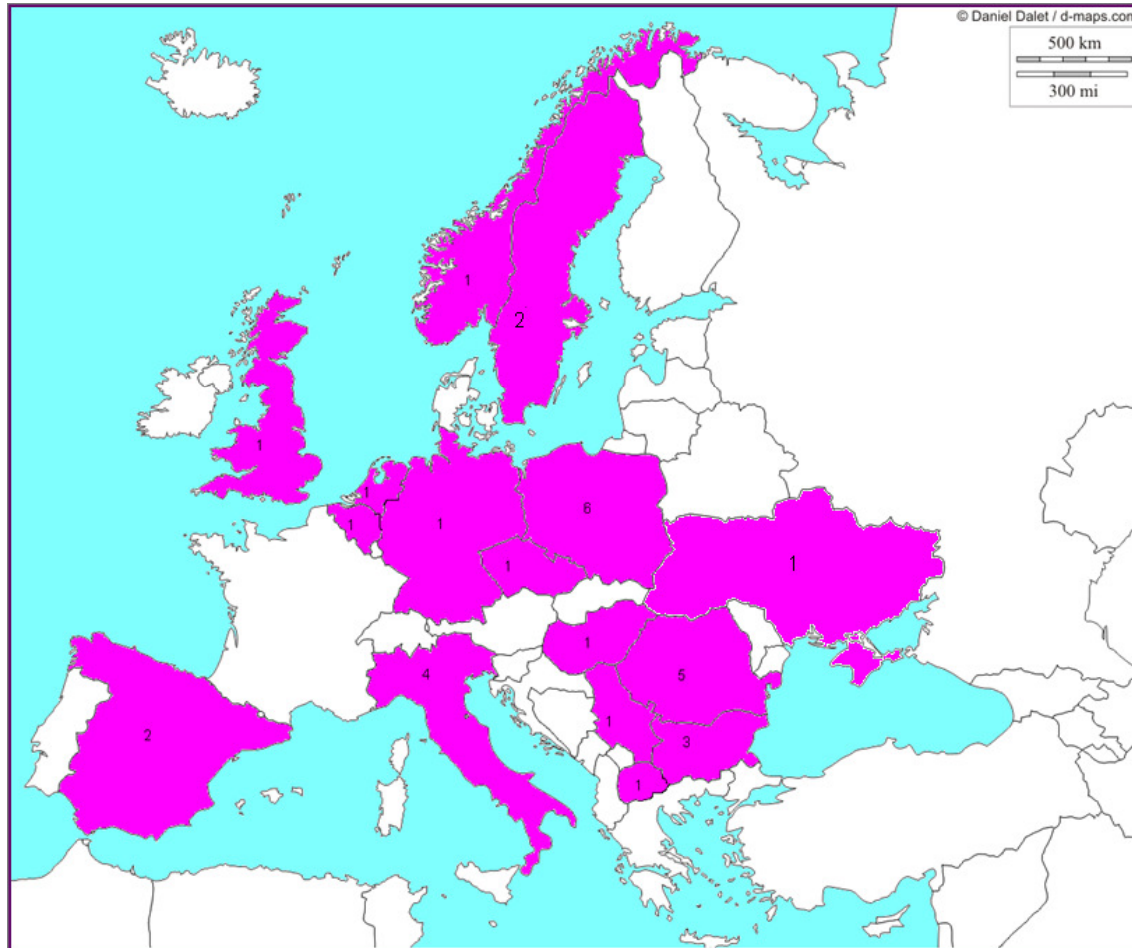


## Assessing the **W!ZZ** risk

- The project used ICAO recommended safety indicator of 1 birdstrike per 1000 aircraft movements
- ICAO 'On airport' definition used = under 200 feet on approach and 500 feet on climb out
- 10 airports *well* above the rate
- The rates ranged between 10.7 to 0.7 for the 30 airports selected to date
- Note: this figure was the figure calculated for Wizz Air and was NOT the airport figure



# Wizz Air Project



# Polish Standards Checks

- 6 Airports
- 6 Initial visits between September 2010 and September 2011 resulting in 83 recommendations (Station average 14)
- 4 Re-visits in 2012 resulting in 66 recommendations (Station average 13)

# Effective Non-lethal Control Methods

## Pyrotechnics

- >80m range
- 12 gauge
- manually operated
- **Distress Calls**
- correct distress calls
- manually operated
- correct procedure



# Lethal Control Methods

## Directive 2009/147/ec of the European Parliament and of the Council of 30th November 2009 on the Conservation of Wild Birds

- Article 9 section 1 (a) allows member states to derogate where there is no other satisfactory solution; reasons for derogation include 'in the interests of air safety'

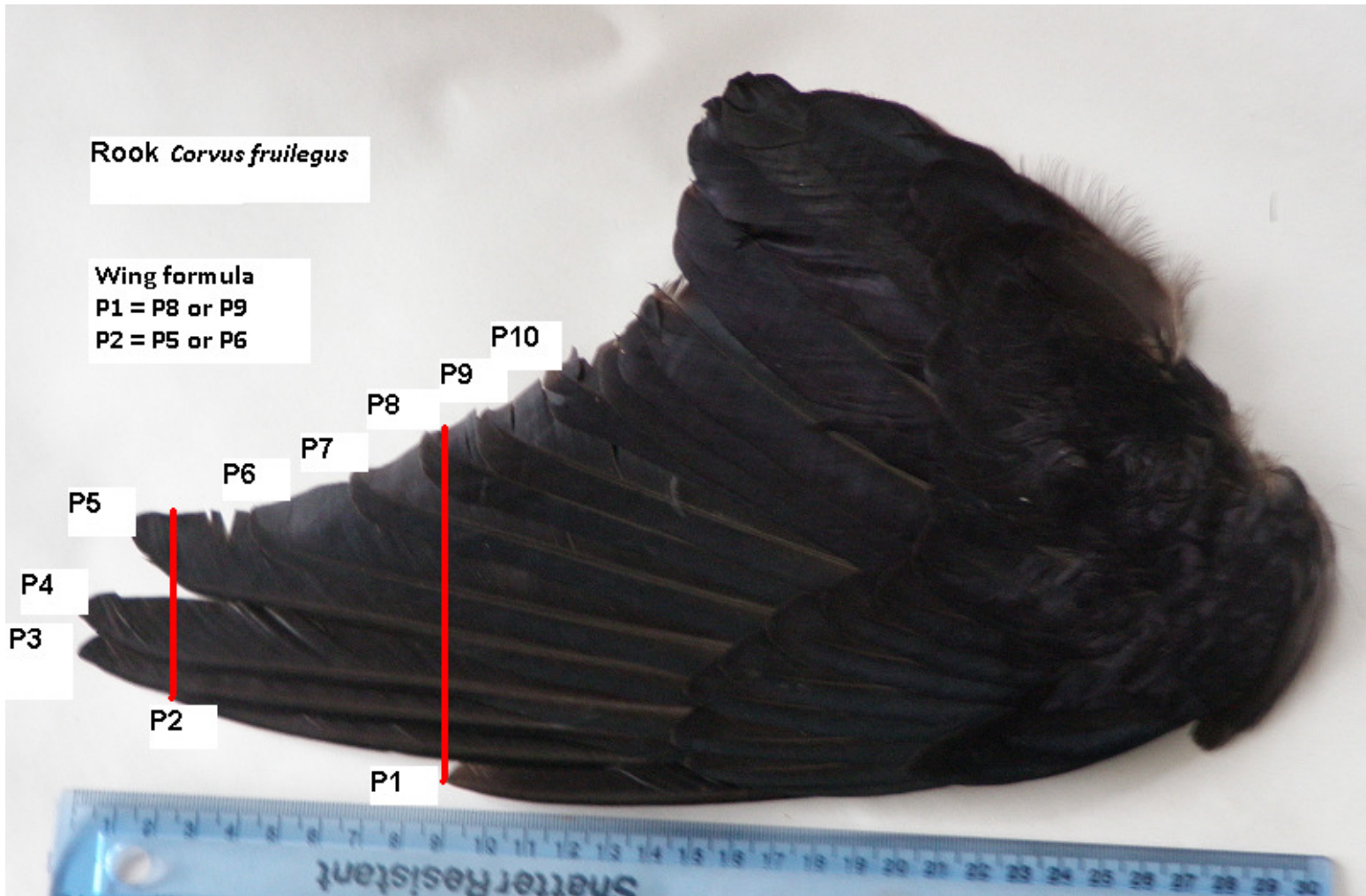


# Birdstrike Remains Identification

- DNA Analysis
- Microscopic Feather Analysis
- Whole, Part Bird & Feather Analysis



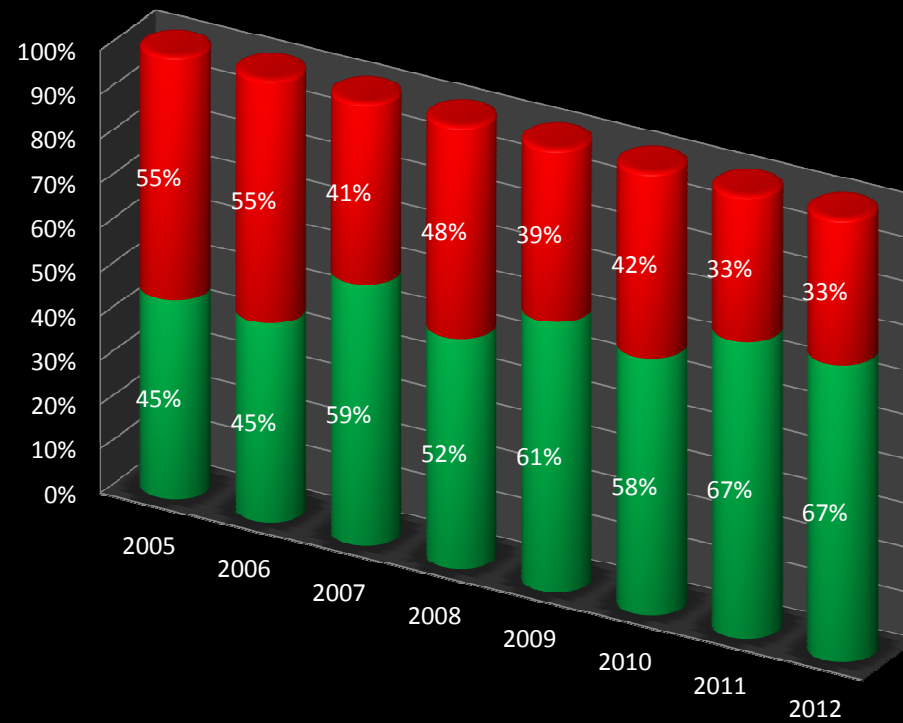
# Photographic ID





# Airport ID

Improvement in Airport Staff ID





# Any questions?

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