

A black and white photograph of an air traffic controller in a control tower. The controller is seen from the back, looking out over a vast airport tarmac with numerous aircraft and runways. The tower's interior features multiple computer monitors displaying flight data and radar, along with communication equipment. Large windows provide a panoramic view of the airport and surrounding landscape under a cloudy sky. The text 'moving dot' is overlaid in the center, with an arrow pointing from the 'dot' to a small square on one of the monitors.

# moving dot

Experts in air traffic  
management



# Experts in air traffic management

2

We are Air Traffic Management experts and hold our profession in high regard. We are eager to share our knowledge and experiences, by solving your complex air traffic management challenges together with you. Our effective solutions will also benefit your time-critical change processes as well as your operation and your safety goals. Your policies will achieve broader operational support and thus become more effective. Browse through the sample of our results and contact us to explore how we may support you.







# Contents

4

## Our company

A quick overview of MovingDot

5

## Our people

Meet the MovingDot team

8

## Our markets

Our services cover various domains

8

## Our customers

We serve customers all over the world

10

## Our services

Find out how we can be of help

15

## Our projects

Browse through a selection of our work

21

## Contact details

Please contact us for more information

3

**moving**  
**dot**



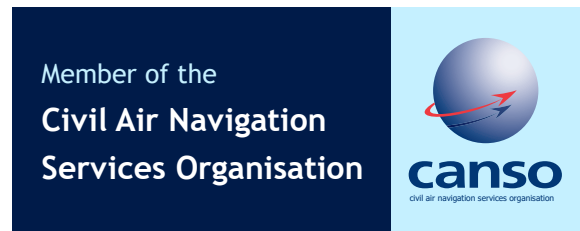


4

The MovingDot office is located in Hoofddorp, just 10 minutes away from Amsterdam Airport Schiphol. - Please visit us for a talk and a cup of coffee!

# Our company

Experts in air traffic management. We focus on connecting the worlds of policy making and that of operational reality. Whether to bring you a higher operational efficiency in ATC or airport operations, to guide your national or company strategic direction. Our strength is to provide you with realistic solutions by a pragmatic approach in the projects we carry out.





Operated by former ANSP  
senior management

In-depth understanding of ATM  
policy and operational affairs



Operational ATC  
expertise



Experienced  
Instrument Flight  
Procedure Designers

# Our people

MovingDot experts have a solid background in various parts of the value chain, which puts them in an ideal position to help you. They can assist you with problems ranging from those of a pure technical nature to issues involving high level policy making, for both civil and military customers.

**21** Air traffic management experts

**7** Operational ATC experts  
TWR - APP - ACC

**5** Former ANSP senior managers

**4** Instrument Flight Procedure Designers









# Our markets, customers & services

7



# Our markets

MovingDot's services cover various domains of the air transport market. Central to our services is our added value: to connect the worlds of policy making and operations for your benefit.



## Air Navigation Service Providers

Our experts assist air traffic control organisations, both in the Netherlands and abroad, with realistic, practical and effective advice, services, and solutions.



## Airports

Airport processes are complex and often include many stakeholders. We streamline your operational processes. Concepts such as Airport Collaborative Decision Making (A-CDM) are at the heart of our expertise.



## Authorities

We understand the language of air transport, allowing our professionals to work with you and connect policy making with that of operational reality. This provides you with realistic and sustainable solutions in the complex regulatory aviation environment.



## Industry

We assist industry, component suppliers and system integrators in obtaining a detailed understanding of the intricacies of ATC operation. Your products receive higher customer satisfaction.

# Our customers

It is our ultimate belief that it is always the people who make the difference. We value the relationship between our customers and employees. We want to guarantee a high quality result by having a sincere, result-driven attitude. Continuity and quality are of primary importance while respecting the customers' wishes.



#### The Netherlands

Air Traffic Control the Netherlands (LVNL)  
Amsterdam Airport Schiphol  
Ministry of Infrastructure and Water Management  
Knowledge and Development Centre Mainport Schiphol (KDC)  
Lelystad Airport  
Twente Airport

Skeyes

DSNA

DFS

PANSA

Skyguide

#### Europe

SESAR Joint Undertaking  
FABEC

Qatar CAA

#### Dutch Caribbean

ANSA  
BIA  
DC-ANSP  
Saba

Vietnam CAA



# Our services

We provide consultancy and advisory services on many levels

10



## Airspace and airports

MovingDot offers a broad range of support and advice in the (re-)design and implementation of airspace changes, routes and operational procedures as well as integrating technical ATM systems. From high-level strategic plans down to specific controller working instructions, we will work with you and provide customised solutions.

### Concept of Operations

Each ATM or airport design begins with describing the changed ATM system in a Concept of Operations (ConOps). The ConOps specifies what the preconditions, the operational performance and the requirements must be for human, machine and procedures in the changed environment. For instance, if you would like to introduce a new air traffic control sector-layout or if you think of introducing advanced surface movement guidance and control (A-SMGCS) on your airport: the ConOps defines the common ground for the follow-up design.

### Airspace and route design (PANS OPS)

In our team we have certified PANS-OPS designers who convert operational concepts into ICAO compliant instrument flight procedures. This includes conventional procedures as well as

Performance Based Navigation procedures (RNAV and RNP). Our designs are converted to charts and descriptions suitable for aeronautical information publications (AIPs). We work with dedicated Instrument Flight Procedure design software.

### ATS procedures and AIS/AIM

Clear and unambiguous operational procedures and supporting documentation are core elements of a safe and effective operation. MovingDot is experienced in developing and maintaining these procedures and corresponding documentation for Air Traffic Services (ATS) personnel, such as Area Control, Approach Control, Aerodrome Control, Flight Information Service and the Aerodrome Reporting Office. Our products are user friendly and comply with the applicable regulations. We also develop and implement processes for keeping the procedures and documentation up to date.

### Airports

Improving the operational efficiency by introducing Airport Collaborative Decision Making (A-CDM) or by (re-)designing runway and taxiway infrastructure based on a solid data-analyses, can make the difference in minimising delays on a congested airport. Our airport specialists work with you improving the airport operational processes.





## Safety management

**Using International Civil Aviation Organization (ICAO) safety management principles as a foundation, MovingDot's consultants develop a tailored safety strategy based on your needs and requirements.**

### Compliance

Demonstrating and monitoring of compliance is an essential part of safety management. Determining which rules and regulations have to be complied with is a first step. Next comes the verification of compliance, where traceability is essential. By prioritising identified compliance issues, resources can effectively be allocated, and issues can efficiently be solved.

We assist you in developing a plan of action for achieving verifiable compliance as well as the execution of the plan. Moreover, we can also support you with resolving identified compliance issues using our extensive ATM expertise. The result is a process for verifying compliance and ongoing compliance monitoring.

### Safety Management Systems

MovingDot's experts have been working with safety management systems on managerial as well as

operational level, supporting Air Navigation Service Providers (ANSPs), airport operations, and Civil Aviation Authorities (CAAs).

Additionally, MovingDot experts can provide Integral Quality Management system support and assist you in structuring the process for making significant changes in your airspace and route structure, operational procedures or technical ATM systems.

### Safety and risk assessments

There is more to safety than making the numbers work. Obtaining insight into impacts of current operations or changes under consideration requires a thorough assessment of not only the technical, but also operational and environmental factors.

## We work together with you to identify practical and realistic mitigations

Using ICAO principles, supplemented by national safety regulations and specific needs, MovingDot experts work with you to methodically assess the various risks. Depending on project needs and objectives, as well as on available data, it is determined whether a qualitative or quantitative assessment is more appropriate. Based on





## MovingDot brings your performance management and strategy outcome in line

12

the findings we will work with you to identify practical and realistic mitigations and develop a corresponding proactive risk management strategy.

### Regulations

Our consultants, with senior management background in ATM safety oversight, operations and systems, can assist you in the implementation of safety management principles and achieving full compliance with the ICAO Annex 19 SMS framework as well as achieving and maintaining applicable certification, e.g. ISO 9001-Quality Management Systems.

Additionally, we can support you in meeting European Union (EU) and European Aviation Safety Agency (EASA) directives and regulations.



## Performance enhancement

**When improving your company's performance or when in need of process improvement or a performance framework, MovingDot offers a number of services.**

### Vision and Strategy

Your vision and strategy, both on the current and future direction in general, as well as on air traffic management in particular, is at the heart of your national policy or business. MovingDot's expertise and track record on these subjects guarantee a well-structured development of the strategy which is supported by your stakeholders.

### Data analysis

There is great value and potential in the use of data. Data analysis has proven to be a powerful tool in our projects, by giving insight in processes and identifying bottlenecks.

Our data analysts use state-of-the-art methods to extract the right information and answers from the data. We find that communicating the results in a clear and comprehensible way is very important. Therefore, we always pay close attention to the best means of visualisation.

### Process innovation

Innovation and renewal of processes and procedures can allow for a significant increase in operational efficiency. For instance, customised



de-icing processes designed as an integral part of your A-CDM process allow for sustaining high capacity throughput during winter conditions. The same holds when an integral view of your change management process will lead to having projects deliver on-time and with the right deliverables. MovingDot assists organisations in change management and operational process innovation.

#### Performance management

Being in control of your organisation is key to any organisation's success. By designing and developing customised performance indicators, supporting systems and processes, you and your team can act on the right time and with the right mitigations. MovingDot brings your performance management and strategy outcome in line.



## Policy support

#### Civil/military co-operation

Airspace fragmentation due to separation of airspace responsibilities between civil and military air navigation service providers can lead to an inefficient use of airspace and thus to increasing costs for its users. Flexible Use of Airspace, co-ordinated airspace management and an integral national airspace strategy can prevent negative effects of having multiple providers. MovingDot has ample experience to work with both civil and military ANSPs to develop and implement steps in a civil/military co-operation or integration process. Harmonisation of procedures and ATM systems is well understood by MovingDot's experts.

#### National policy development

MovingDot supports CAAs and Ministries of Transport to develop their national aviation, airspace or, when requested, a more specific national ATM policy. Through a carefully designed implementation process, we stepwise detail your policy, in close co-operation with your team and relevant stakeholders.

#### Other products

Other products include:

- Cost-benefit analyses
- Investment analyses
- Training and ATM courses







# Our projects

15



Browse through a selection of our projects and get a feel for our expertise and achievements

**Ministry of Infrastructure and Water Management**  
**Government support**

As part of the Dutch National Airspace Policy deliberations, MovingDot provided an update of a 2012 study. The update led to a multi-year government programme to define and implement changes for an enhanced Dutch airspace. MovingDot's knowledge of Dutch stakeholders' requirements and international ATM policy formed the basis of a sound strategic framework and a clear way forward.

A more recent study provided an informative and decision-support document to Dutch members of parliament and the minister showing the complex environment of air traffic management. The Quicksan International Airspace provides Dutch decision makers with a comparison of ATM practices in neighbouring countries. The document provides a common ground in communicating policy and operational requirements for the upcoming redesign of the Dutch airspace.





### Schiphol sector

#### Integral Safety Management

MovingDot has a vast track record concerning safety management, safety assessments and change management. For the recently commissioned Integral Safety Management office Schiphol (ISMS), MovingDot conducted safety assessments to investigate possible safety-related issues in the Schiphol airside operation.

Our team of safety experts, closely advised by our operational ATC experts, Airport experts and pilots, were able to pinpoint causal factors to a presumed unsafe condition. Thereby providing adequate mitigation measures to maintain the highest safety level possible for a complex airport as Schiphol. Other safety assessments concern changes to the airside infrastructure to allow Schiphol pre-empt possible future bottlenecks.

### ANSA (Aruba) & DC-ANSP (Curaçao)

#### Airspace and route design

MovingDot was contracted separately by Air Navigation Services Aruba (ANSA) and Dutch-Caribbean ANSP (DC-ANSP) to respectively redesign their airspace infrastructure and route-structure.

Airspace and route design are carried out by a team of Air Traffic Controllers and airspace design specialists, most of them with a PANS OPS/ PANS ATM background. This enables MovingDot to closely work together with ANSA and DC-ANPS controllers to design procedures how they would intuitively like to work.

MovingDot takes care of all AIP and charting changes which the ANSP can publish at their convenience in a preferred AIRAC-cycle. Next to this, we will train the air traffic controllers on the new procedures based on the latest training methodologies.





#### ATC The Netherlands (LVNL)

##### ICAO Compliant AIS processes, documentation and charts

Up-to-date and compliant aeronautical information and documentation is crucial for the aviation community. One of MovingDot's services provides the comfort of realising this important element for the publishing authority, be it a Civil Aviation Authority or Air Navigation Service Provider.

MovingDot has a fully equipped AIM system suit to work from the procedure design, to documentation for the controllers to publishable items for the Aeronautical Information Publication and affected charts. The information is database-driven and kept up-to-date and compliant with ICAO/EASA regulations.

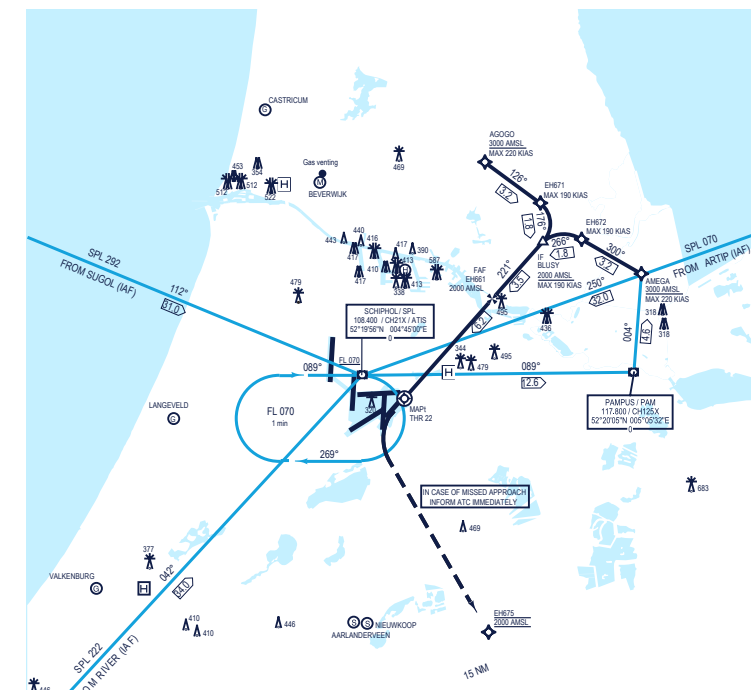
#### ATC The Netherlands (LVNL)

##### Introduction of RNAV procedures for Schiphol's main runways

ATC The Netherlands requested MovingDot to design and implement PBN RNAV procedures for Schiphol Airport runways 06, 18C, 22, 24 and 36R. The MovingDot PANS OPS team and safety experts worked closely with LVNL to introduce the RNAV approaches for Schiphol's main landing runways. The RNAV implementation for runway 22 has already been published.

The RNAV design for these runway approaches is a challenging exercise because of the converging Schiphol runway lay-out and the existing missed-approach procedures.

The RNAV flight procedure for Schiphol runway 22



### Amsterdam Airport Schiphol

#### Concept of Operations “Follow the Greens”

The 6-runway layout and vast taxiway infrastructure at Schiphol Airport leads to a complex operation of handling aircraft on the ground. Dedicated air traffic controllers for this phase, the ground controllers, guide the aircraft from their gate to the runway and vice versa.

Ground controllers are supported by various ground surveillance systems: Advanced Surface Movement Guidance and Control Systems (A-SMGCS) form an important part in the safe and efficient ground movement of aircraft. However, in the view of pilots and ground air traffic controllers, complexity of the operation could possibly be further decreased by introducing A-SMGCS Level 4 possibilities.

MovingDot provided Amsterdam Airport Schiphol with a detailed Concept of Operations how to make use of an advanced technology, called “Follow the Greens”. Schiphol currently carries out pilot projects.



### Twente Airport

#### Concept of Operations Remote Tower

Twente Airport, the former military airbase situated near Enschede, The Netherlands, is attracting new civil aircraft movements and innovative business opportunities. The number of actual movements is such that multiple options are present for providing air traffic services. One of those options is to create a Remote Tower at another location to provide the services needed for Twente’s airport users.

A MovingDot team successfully worked on the Concept of Operations for such a Remote Tower, including the transition period to design, build and commission the Remote Tower.



## FABEC

### Airspace redesign and Concept of Operations

The Functional Airspace Block Europe Central (FABEC) is a cooperative of six states and seven air navigation service providers (ANSPs) set up to comply with the Single European Sky (SES) framework of the European Commission (EC). The FABEC partners work together to deliver a performance-based air transport route network through much of Europe's busy airspace. The immense traffic demand combined with the complex European airspace traffic flows can result in severe delays in the air route system and re-routing of many aircraft on longer routes.

The airspace near Diekirch (Luxembourg) - primarily controlled by the Eurocontrol Maastricht Upper Area Control centre (MUAC) - is a particularly challenging area with many flow-, route and operational interactions with adjacent centres in Germany, Belgium, France and Luxembourg.

MovingDot was instrumental in bringing together the seven ANSP's (4 civil and 3 military organisations) in order to identify the most challenging problems and develop (operational and political) recommended ways forward. Our ability to work with all management levels, in combination with our operational and analytical competences, proved crucial in the development of tangible possible solutions.





# Contact details



Hans Offerman  
**Managing Director**

Hans.Offerman@movingdot.nl  
+31 6 2322 9240



Henk Waltman  
**Director & Business Consultant**

Henk.Waltman@movingdot.nl  
+31 6 5199 3412



Please check our website: [www.movingdot.nl](http://www.movingdot.nl)

© All rights reserved by MovingDot B.V. - June 2022

Disclosure of this document or any part thereof, or the use of any information contained therein for purposes other than provided for by this document, is not permitted, except with prior and express written permission by MovingDot.

**moving  
dot**





Experts in air traffic management

MovingDot B.V.  
Chamber of Commerce 34387249

**Visiting address**

Antareslaan 43  
2132 JE Hoofddorp  
The Netherlands

**Mailing address**

P.O. Box 3083  
2130 KB Hoofddorp  
The Netherlands

**Contact**

+31 (0) 88 668 3000  
[info@movingdot.nl](mailto:info@movingdot.nl)  
[www.movingdot.nl](http://www.movingdot.nl)

