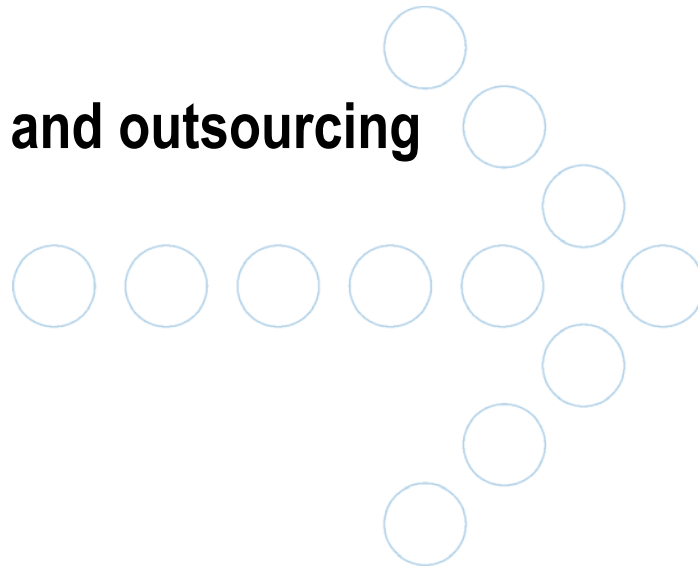


# Use of commercial services and outsourcing to supply CNS services –

## An ANSP's perspective

Dr. W. Langhans, MBA  
ICNS 2018

Version 1.0



SICHERHEIT LIEGT IN DER LUFT



# Outsourcing changes CNS services



- ▶ Communication, navigation and surveillance services are key constituents of safe and cost-effective air navigation services worldwide.
- ▶ In the 2nd half of last century,
  - ▶ air navigation services have been well-regulated by international rules (e.g. ICAO, 1944) and
  - ▶ have been governed by mainly state-owned air navigation service providers.
- ▶ Since the beginning of this century, the air navigation service business is changing continuously.
- ▶ One of the drives for change are emerging options to outsource specific CNS services or parts of specific CNS services to commercial service providers.

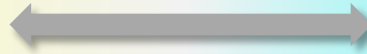
# Let's look at the antagonism between inhouse and outsourced provision of CNS services along key categories



# ANSPs are always accountable for safety and risks

Safety / Risk

Inhouse



Outsourcing

- ▶ Clear accountability for all safety related topics and associated business risks.
- ▶ This accountability can not be delegated to an outsourcing partner.

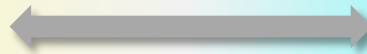
- ▶ Outsourcing partner can take responsibility for parts of the service, but never the full accountability for safety and risks.



# In case of crises, State authorities need to have full access to CNS services

## Sovereignty

Inhouse

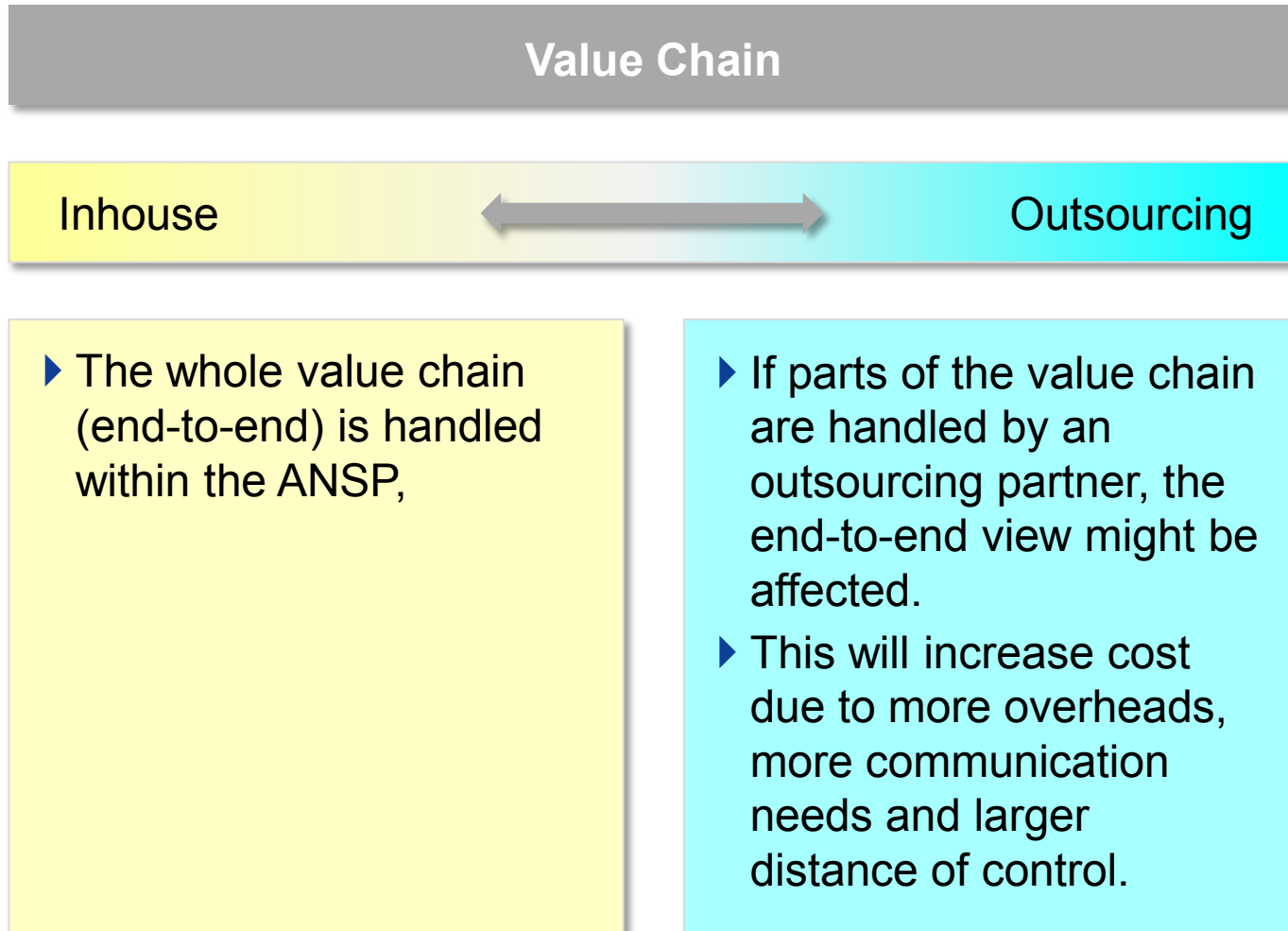


Outsourcing

- ▶ States have full sovereignty for the airspace above the national territory.
- ▶ In case of crises, State authorities need to have full access to all CNS services (especially in small countries).

- ▶ In case of crises, access to CNS services might be limited or even impossible (e.g. in case of war, on purpose deactivation of specific CNS services or related constituents might occur).

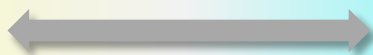
# A split of value chain might increase cost



# In case of outsourcing, more precise specifications are needed

## Business capabilities

Inhouse



Outsourcing

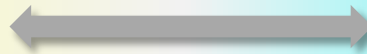
- ▶ Business capabilities can be tailored to the specific needs of the ANSP.

- ▶ To get the business capabilities needed by the ANSP from the outsourcing partner needed, more precise specifications are needed.
- ▶ This will lead to additional cost.

# Unbundling of services must not be mandatory

## Value proposition

Inhouse



Outsourcing

- ▶ The CNS service needs to fit to the needs of airspace users and internal customers (mainly ATCOs).

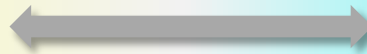
- ▶ In specific cases, outsourcing of specific services might make sense, but decision needs to be taken by the ANSP.
- ▶ Unbundling of services must not be mandatory.



# The ensure compliance, ATSEPs need to be involved in any case

## Compliance

Inhouse



Outsourcing

- ▶ The CNS service needs to fulfil the regulatory requirements.
- ▶ This has to be achieved by involving certified ATSEPs.

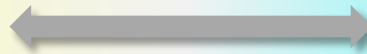
- ▶ Also in case of outsourcing, the CNS service needs to fulfil the regulatory requirements and certified ATSEPs need to be involved.
- ▶ This will lead to additional cost.



# The outsourcing decision should be transparent for airspace users

## Customers and Marketing

Inhouse



Outsourcing

- ▶ Airspace users and internal customers (mainly ATCOs) are served directly.

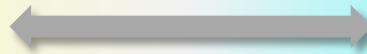
- ▶ Airspace users and internal customers (mainly ATCOs) are served indirectly.



# The outsourcing decision is expected to have no impact on revenue streams

## Revenue streams

Inhouse



Outsourcing

- ▶ CNS services do not generate direct revenues.
- ▶ CNS services generate revenue indirectly (route charges for en-route and approach/departure).

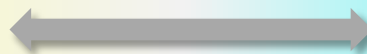
- ▶ CNS services do not generate direct revenues.
- ▶ CNS services generate revenue indirectly (route charges for en-route and approach/departure).



# The over-all cost implications depend on the specific situation

## Cost - effectiveness

Inhouse



Outsourcing

- ▶ The cost for CNS services depend (among other) on the way how the CNS service has been implemented and is being operated within the ANSP's organisation.

- ▶ Some specific services may be available at less cost than internal services (e.g. New PENS).
- ▶ Nevertheless, the total cost of outsourcing needs to be considered (see cost items related to previous categories).

# Conclusion



- ▶ Basically, for most CNS service the whole range between full inhouse service and complete outsourcing to an external service provider is possible.
- ▶ Nevertheless, the impact of the specific mix between inhouse and outsourcing on the ANSPs has to be evaluated for each specific CNS service and for each key category..
- ▶ Unbundling of services must not be mandatory. The business decision regarding the solution for a specific service needs to be taken by the ANSP.