



SIGNIFICANCE OF THE AIR CARGO FOR THE AIRPORTS

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1. Introduction
2. How airport understands cargo
3. What can and is ready to offer
4. Is cargo an attractive market for every airport
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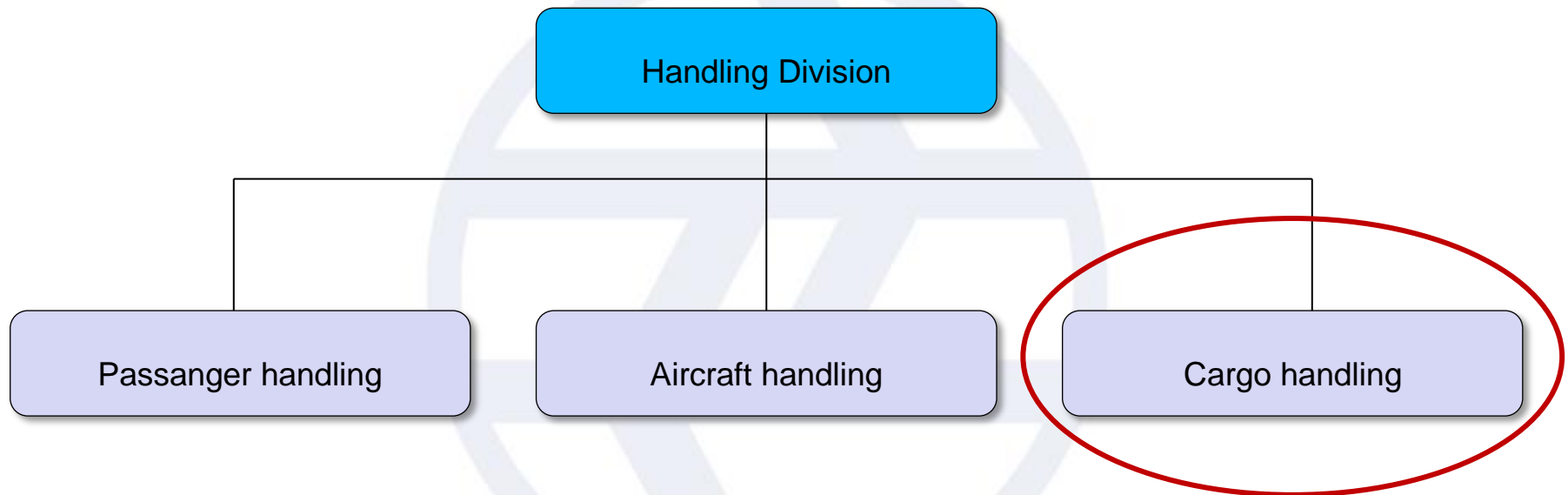


1. Introduction

1.1. Cargo as a business function



Figure 1. Cargo as a business function



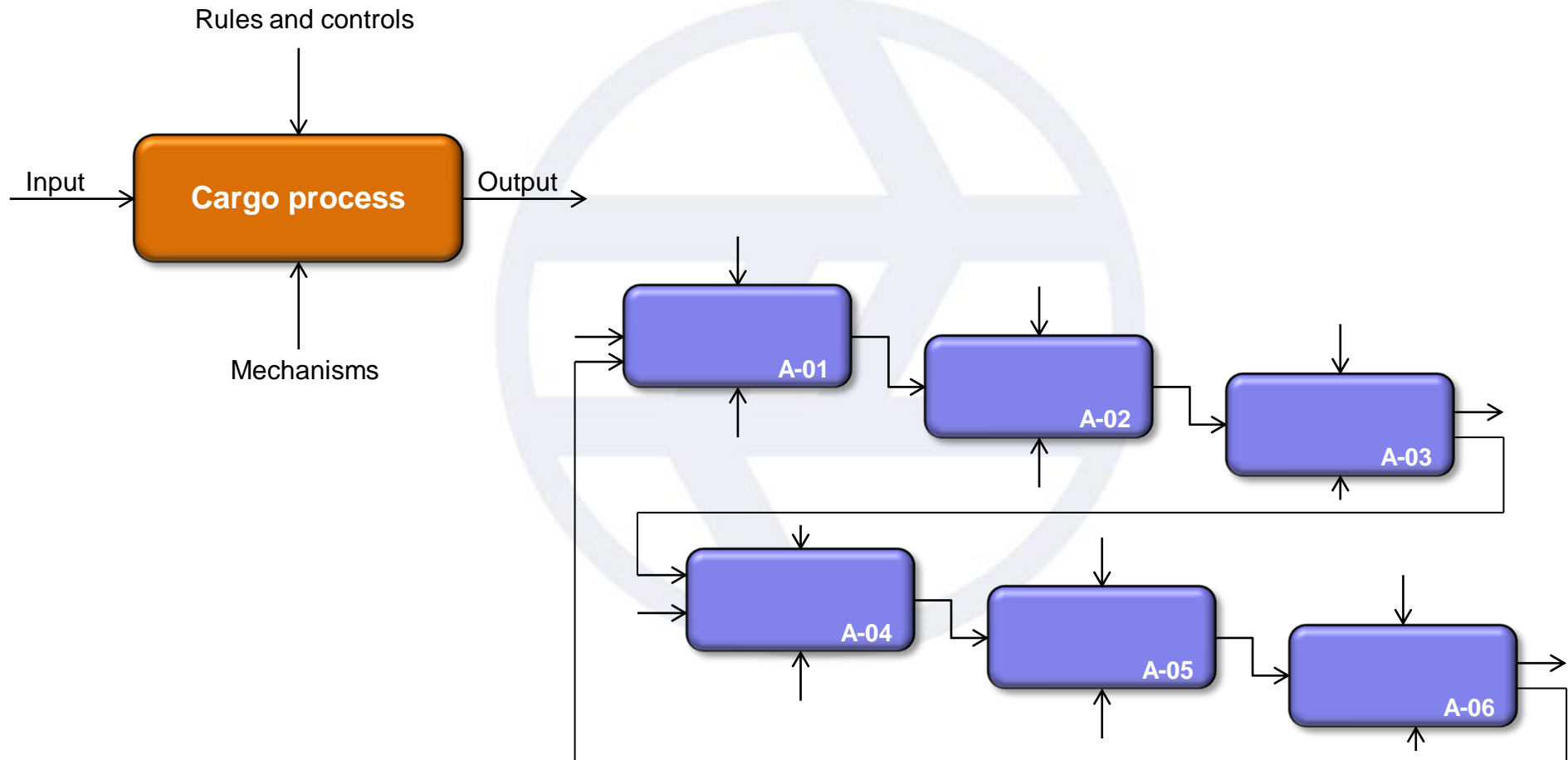
Source: Made by author.





1.2. Cargo as a business process

Figure 2. Cargo as a business process and its decomposition





1.3. Cargo as a business sector

1. Cargo traffic is truthful reflex of trade running around the world.
2. After the global crisis the rapid growth of global trade and air cargo traffic is expected.
3. Cargo is a global business circa 60 billion US\$.
4. Cargo business transports 35% of value of goods traded internationally worth 5 trillion US\$.
5. Cargo supports 32 million jobs around the world.
6. Cargo generates 3,5 trillion US\$ economic activity.





The response of this question is complex. According this aspect we can divide airports as:

1. Mostly Cargo airports:

- Liège (309.000 pax; 674.000 t Cargo, 7th biggest in Europe, 2011)

2. Major airports for Cargo and passenger traffic: (Table 1)

3. Airports without Cargo traffic:

- Charleroi (5.900.000 pax, 2011)
- Croatian airports (Pula, Rijeka, Dubrovnik, Zadar, ...)





Table 1. Major airports for cargo and passenger traffic

No.	Country	City	Airport	Code	TTL Cargo 2011	Total Pax 2011
1.	HK China	Hong Kong	Hong Kong	HGK	3.976.768	53.314.213
2.	USA	Memphis In	Memphis	MEM	3.916.410	4.344.313
3.	China	Shanghai	Pudong IA	PVG	3.065.268	41.450.211
4.	USA	Anchorage	Anchorage	ANC	2.543.105	-
5.	Korea Rep.	Incheon	Incheon IA	ICN	2.539.221	35.191.825
6.	France	Paris	ADP-CDG	CDG	2.300.063	60.970.551
7.	UAE	Dubai	Dubai IA	DXB	2.269.768	50.977.960
8.	Germany	Frankfurt	Frankfurt	FRA	2.214.939	56.436.255
9.	USA	Louisvile	Louisville	SDF	2.188.422	-
10.	Japan	Tokyo	Narita IA	NRT	1.945.351	28.068.714

Source: Cargo Airport and Services, Oct. 2012 & ACI.





According to these figures we can answer the question
“How airports understand cargo”:

1. Cargo is crucial to airports operation:
 - Liège (facilities, equipment, trained staff, marketing, contracts, investment, organization, quality, IT, etc.)
2. Cargo is very important to airports operation: (Table 1)
(the same needs as under 1)
3. Cargo is inessential to airport operation:
 - Charleroi, some of Croatian airports
(No needs as under 1 & under 2).

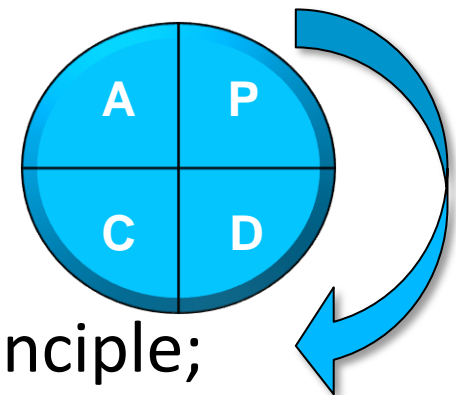




Airports where Cargo is crucial (1) and airports where Cargo is very important to airports operation (2) can and ready to offer:

- Cargo handling all types of aircraft as a service;
- Investment in new facilities (warehouse, park places, road connection, etc.);
- Investment in new Cargo equipment;
- New jobs - factor of social stability;
- New training programs;
- Commercial politics, incentives, etc.;
- Competitiveness (quality of service) continuous improvement as a main principle;
- Service for the regional economy.

Figure 3. Deming cycle



4. Is cargo an attractive market for every airport

On the basis of said we can answer the question: “No it is not”.

It depends of few factors, such as:

1. Depends on the position of the airport (capital, industrial area, main transport corridors, role in intermodal network, etc.).
2. Depends on the mission and vision of the airport (what management plan to do in the future);
3. Depends on the development strategy (materialization of the vision);
4. Depends on the real possibilities (geographic position, economic strength, demand, competition, etc.).





Figure 4. International airports in Croatia





1. Zagreb Airport's (ZA) share in total air cargo traffic in Croatia in period from 1993 to 2010 was 85.35% average.
2. ZA is mainly international airport, in period 2001-2010 was 84,19% international Cargo traffic average.
3. Transfer Cargo traffic 4,95% average (is not regional hub).
4. In international traffic arrival (imports) dominated with 70,23% (import-oriented economy).
5. In domestic traffic departure dominated with 95,05%.
6. ZA is able to provide handling services for any Cargo A/C.



There was many impacts of former cargo traffic development on ZA (1993-2006):

Table 2. Positive correlation between Cargo volume on ZA and economic indicators in Croatia

Correlation between	Rank correlation (<i>Spearman's coefficient</i>)	Intensity of the positive correlation
Aircraft movements & Cargo volume	0,4462	MODERATE
Value of Import & Cargo volume	0,5429	MODERATE
GDP & Cargo volume	0,5912	MODERATE
Value of Export & Cargo volume	0,7231	HIGH

Source: Made by author.





Cargo business Invoiced Revenue Contribution on ZA:

1. Direct:

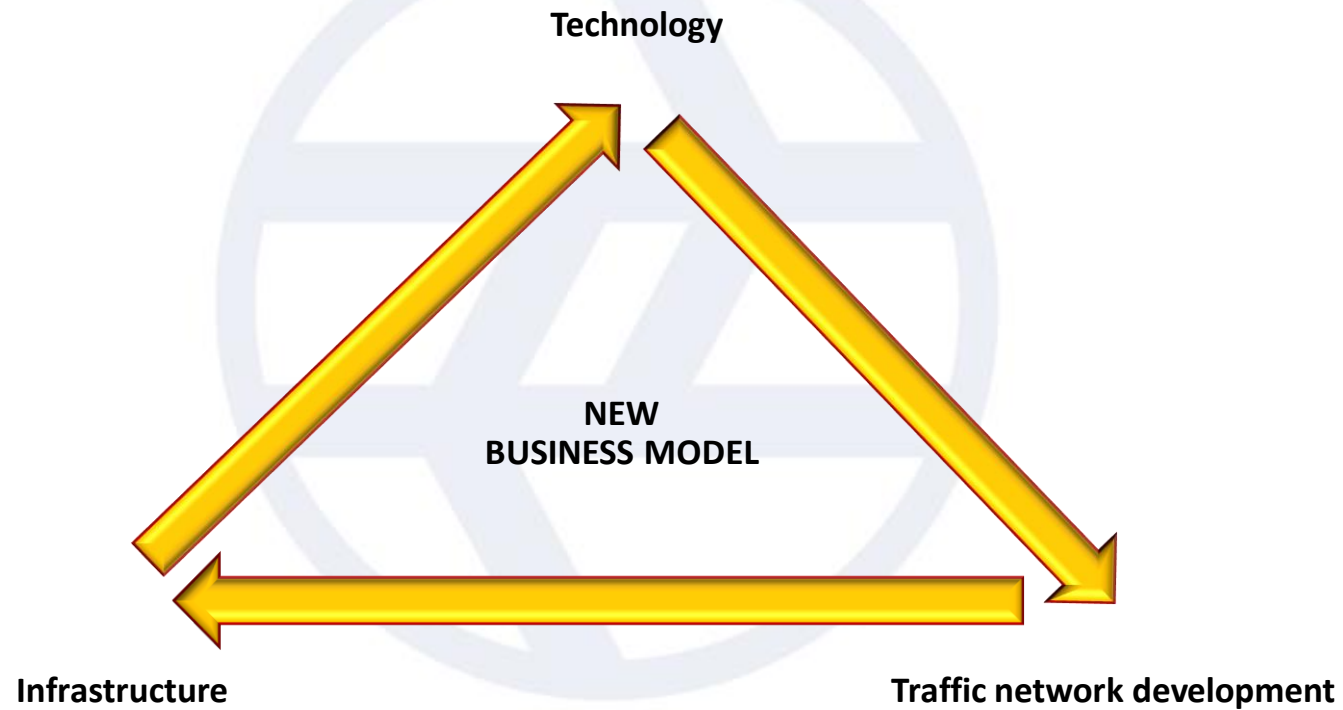
- 6,53% of total revenue
- 7,02% of operating revenue

2. Indirect (Invoiced by other divisions on ZA):

- landing fees for Cargo charter aircrafts,
- handling charges fo Cargo charter aircrafts,
- office rent by forwarders,
- warehouse rent,
- Croatian Post office rent,
- CTN Cargo handling charges (involved in A/C handling charges),
- 8,77% of total revenue
- 9,42% of operating revenue



Figure 5. Strategic business model guidelines



Source: Made by author.

Figure 6. Arrangement in space NPT i ZACC

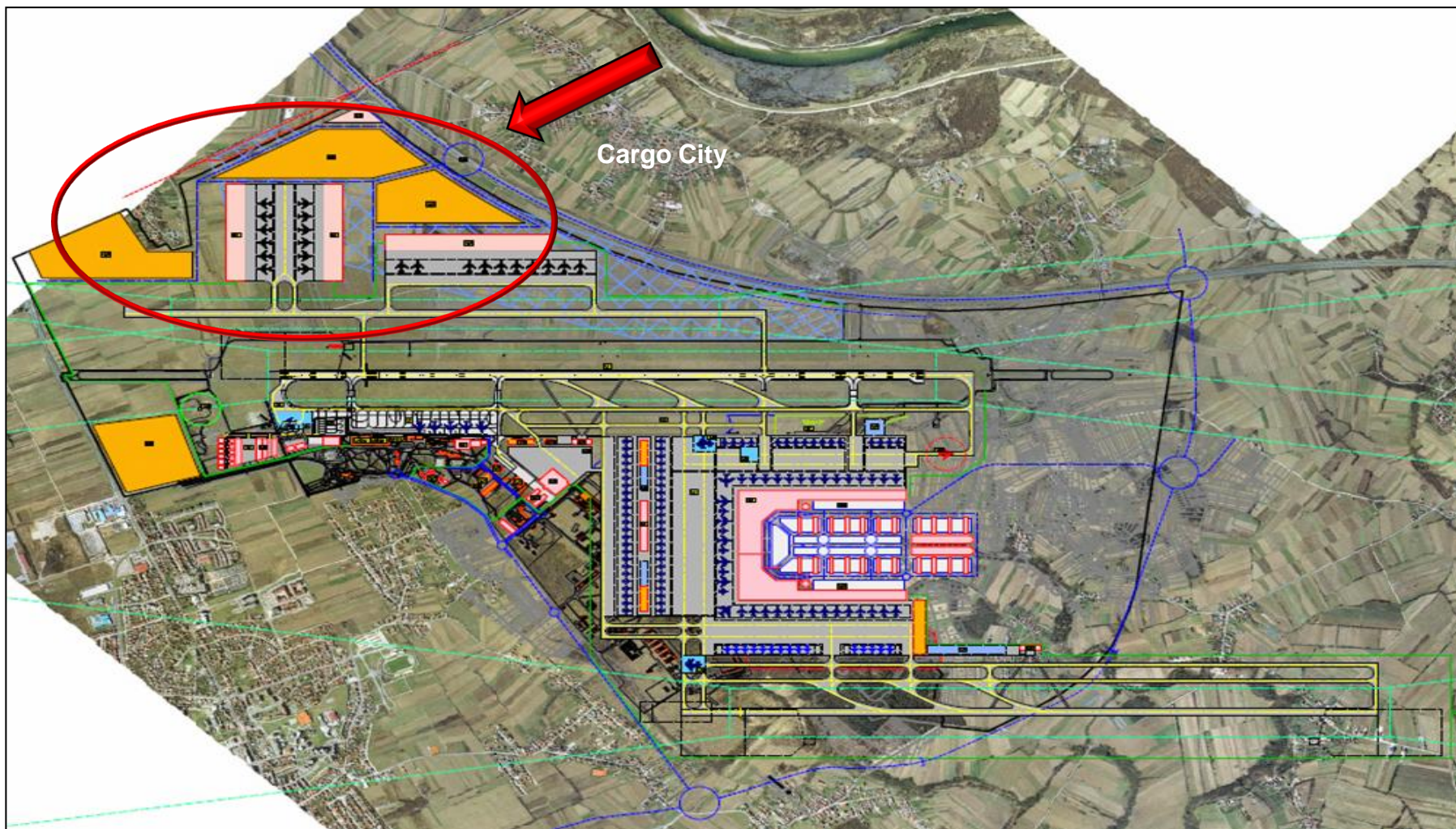




Figure 7. Zagreb Airport Cargo City

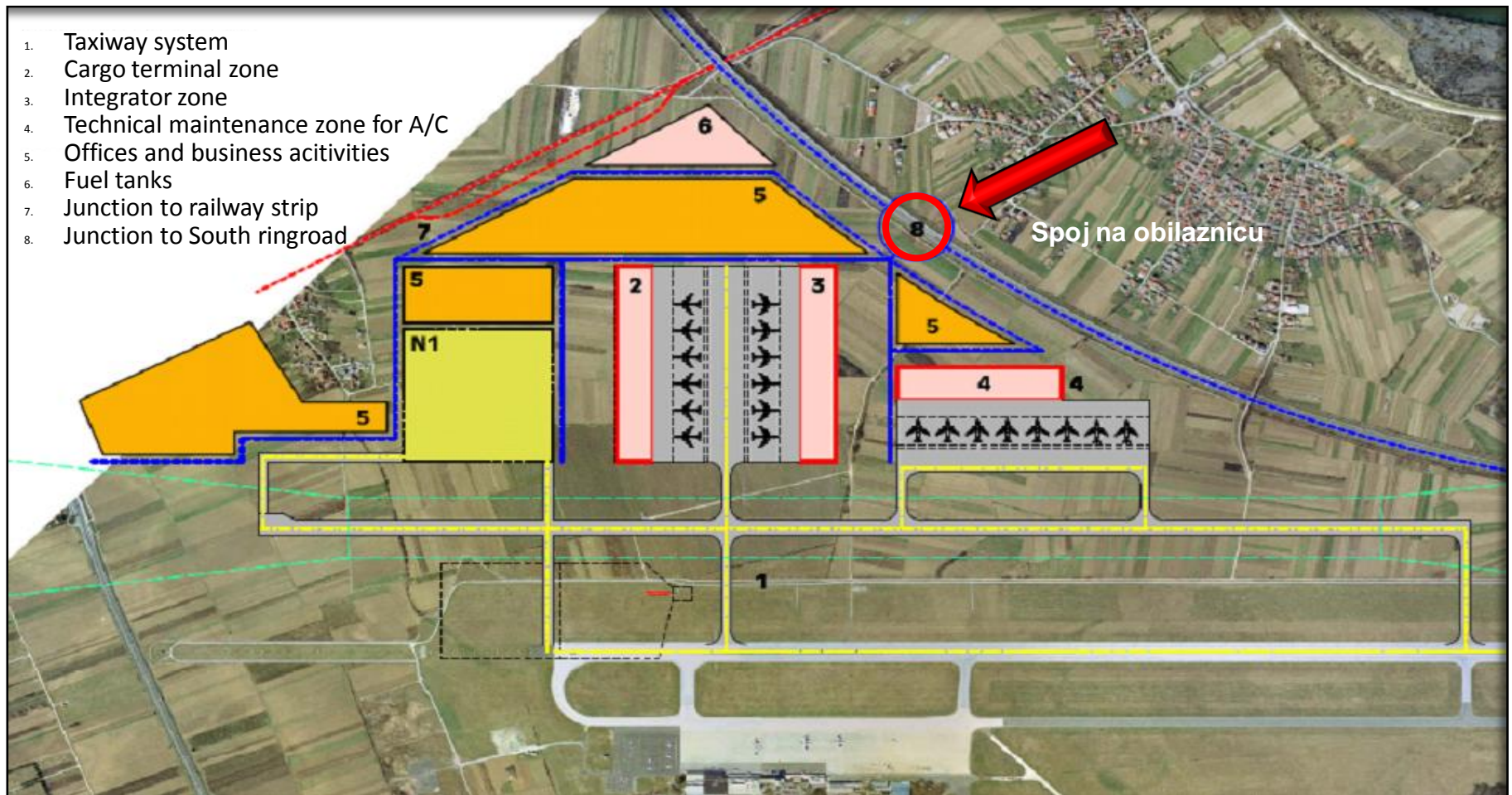
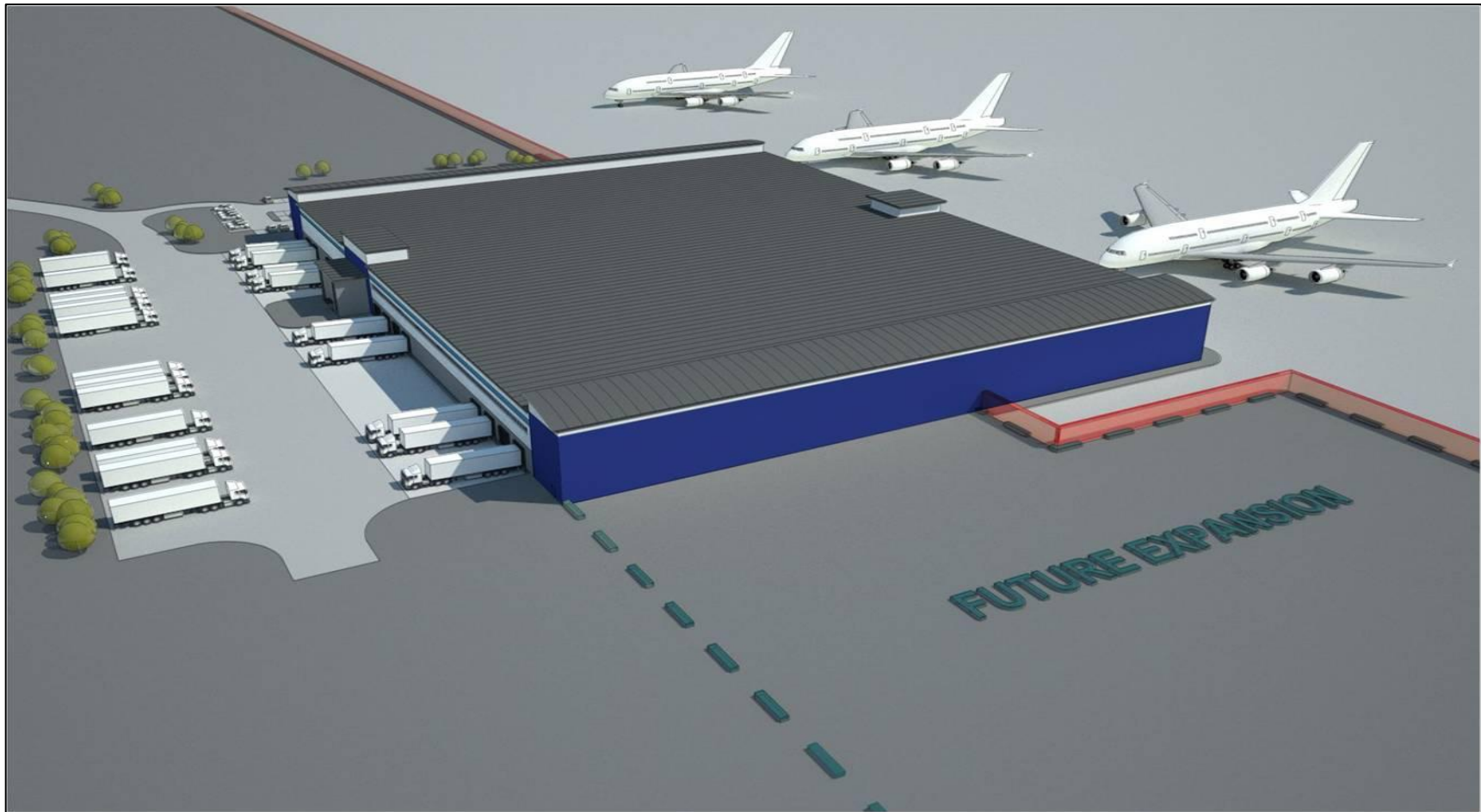


Figure 8. One of the possible design solutions



Source: Helios.

Figure 9. One of the possible design solutions (warehouse and apron)



Source: Helios.



Figure 10. One of the possible design solutions (RFS ramps)



Source: Helios.





Figure 11. Factors that determine the position of airports in Cargo



Source: Made by author.





Thank you for your attention!

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