

**Airport Nikola Tesla upgrade Project  
Non-Technical Summary of the Project  
and related Environmental and Social  
Aspects**

**VINCI Airports**

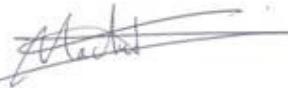
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## Non-Technical Summary of the Project and Related Environmental and Social Aspects

On behalf of ERM France SAS

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Signature:



Date: 03 July 2018

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## INTRODUCTION

VINCI Airports, a global leading private airport operator, is engaging in a Public-Private Partnership (PPP) with the Serbian government to operate and develop the Airport Nikola Tesla (ANT) of Belgrade over a twenty-five (25) year concession period.



Picture 1: Airport Nikola Tesla viewed from the sky



Picture 2: Entrance of departure terminal of ANT

The objectives of the PPP are to expand and improve operation of ANT by:

- Increasing traffic capacity by 2024;
- Increasing efficiency of operations and maintenance; and
- Improving the Environmental and Social performance of the airport.

This will entail a set of investments to improve or further develop the organisation, management, and infrastructures of the airport.

## PROJECT DESCRIPTION

### *Existing infrastructure at ANT airport*

ANT is located in the western part of Belgrade approximately 12 km from the city centre on the Surčin plateau. It is accessed via the E-70 highway.

The airport was first constructed early 20<sup>th</sup> century and has gradually developed since, with new buildings and facilities adding up, especially in the 2000s.

The current ground area of the concession site is approximately 3,184,000 m<sup>2</sup> (318 ha), of which 45,000 m<sup>2</sup> of buildings.



*Picture 3: Location of ANT airport. Source: Google Earth Pro*

At present, the airport has one passenger terminal, one runway, 12 taxiways, 48 parking stands, a control tower, catering facilities, a fuel tank farm, one warehouse and parking facilities.

In order to provide heating and hot water, the airport operates three 9.3 MW boilers that currently operate on heavy fuel oil (HFO).

As of May 2018, ANT has 1,709 employees and 674 short-term contracts (among which 393 employed via Youth organizations and 281 direct occasional jobs).

### *Proposed improvements as part of the Project*

The Project as defined under the terms of the PPP will include:

- **The repair and upgrade of the existing runway:** In order to reduce the need for recurrent maintenance, and improve safety of airplane take-

off and landing, the existing 3,400 m-long runway is to be partially reconstructed.

- For this to be made possible, a **temporary runway** will be built between the existing runway and the terminal to allow for continued operation of the airport during the reconstruction period. After completion of the main runway repair works, the temporary runway will be used as taxiway (in other words, the airport will operate only one runway at any given time).



Figure 1: Existing Runway (in blue) and proposed temporary inserted runway “BCIR” (in yellow) – Source: VINCI Airports

- The **rehabilitation of existing taxiways and construction of new taxiways** (all within existing airport footprint).
- The **improvement of the terminal building and accesses**; parking & terminal forecourt reconfiguration and enhancement to improve airport operation and customer experience.
- The progressive construction of **new apron stands** (parking areas for the planes) in order to improve aircraft handling capacity.
- The **improvement or replacement of existing utilities** (water supply, gas, power, sewage, etc.) **including investments with significant environmental benefits**:
  - Replacement of existing HFO power plant with gas-fired power plant;
  - Construction of a 1 MW photovoltaic power plant to include renewable power in the airport’s energy mix;
  - Implementation of tri-generation systems for heat and cooling via heat recovery at the power plant;

- Dismantling of the existing, ageing petroleum products tank farm and reconfiguration with new tank farm, including appropriate spill prevention system.
- **Additional environmental enhancements** including:
  - Construction and operation of a dedicated waste water treatment plant (as opposed to current sewage discharge in Belgrade city municipal sewers);
  - Construction and operation of a **hazardous waste segregated storage yard**;
  - Construction and operation of a **non-hazardous waste segregation unit** and sheltered storage.



Figure 2: Non-hazardous waste sorting principles – Source: VINCI airports

### *Extension of airport footprint over adjacent agricultural land plots*

The proposed developments will require extending the ANT footprint over approximately 12 hectares of privately-owned agricultural land on an area located adjacently to the west of the airport.

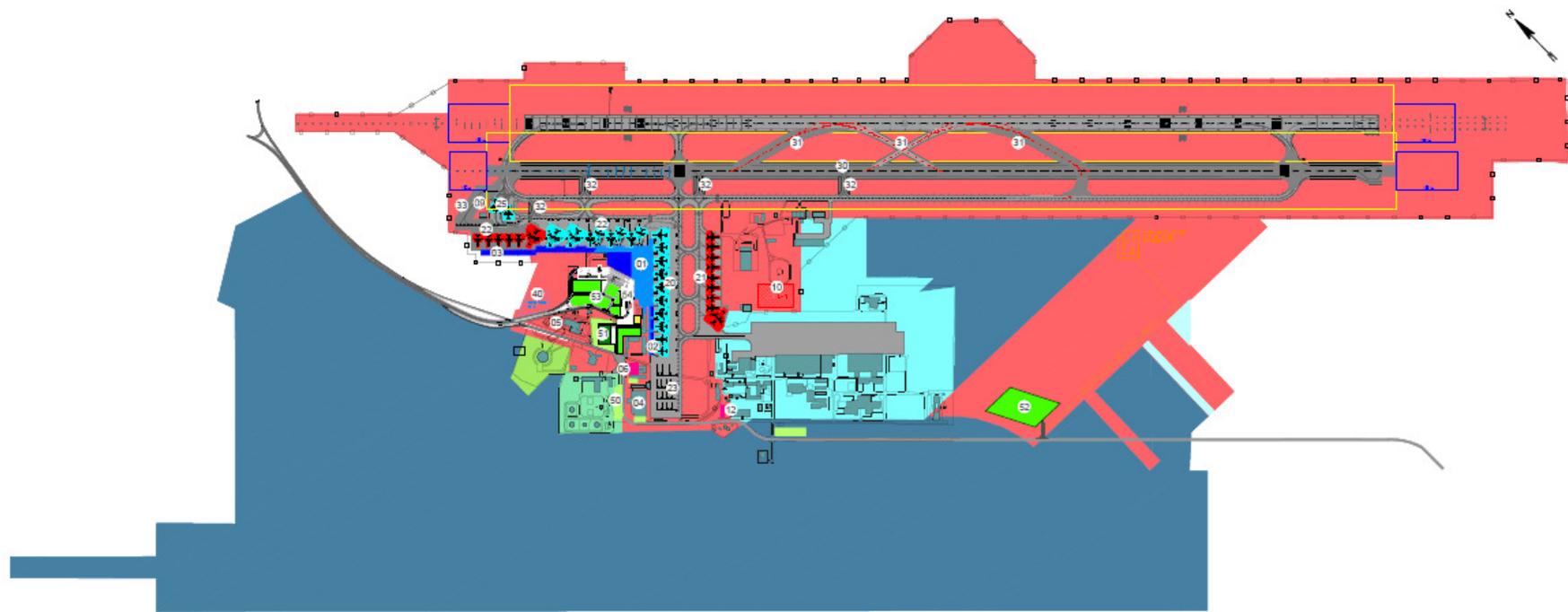
This extension will take over 10 individual land plots, among which 6 will be totally needed and 4 only partially needed. These parcels are dedicated to agricultural activities, and are free of any infrastructure. They were declared of public interest as per the Law on Airport Management enacted in December 2016. The parcels will only be needed in 2027, and the land acquisition process will be finalised by the Grantor, in coordination with VINCI Airports, by then. VINCI Airports will implement a Land Acquisition Plan whereby it will work with the Grantor and relevant Serbian authorities to ensure that the land acquisition, and stakeholder expropriation and compensation process, are managed duly in line with applicable regulations, as well as bridging any potential gaps to EBRD PR5/EIB E&S Standard 51/IFC PS5.

### *Expected outcomes from the Project*

Thanks to the airport redevelopment project, VINCI Airports expects to:

- Improve the operational performance of the airport:
  - Traffic capacity increase from 27 movements (arrivals and departures) per hour at present, to 40-43 movement per hour after completion of the works.
  - In terms of yearly movements, Vinci estimates that traffic could increase by 52% between 2016 and 2024 (from 53,146 flights yearly in 2016 to 81,092 yearly by 2024.)
  
- Increase the efficiency of airport operation and maintenance by applying international good practice to various areas of operational management.
  
- Improve the environmental and social performance of the airport through:
  - facility upgrades as listed above; and
  - development and implementation of environmental and social management policies, systems and processes in line with internationally-accepted good industry practice.

The location of the Project components is shown overleaf.



**Legend:**

- |  |  |  |                                |                       |                           |                                       |
|--|--|--|--------------------------------|-----------------------|---------------------------|---------------------------------------|
|  |  |  | 01 Terminal Building           | 08 -                  | 23 Apron A (Existing GA)  | 34 -                                  |
|  |  |  | 02 Pier A                      | 09 New AGL Substation | 24 -                      | 35 -                                  |
|  |  |  | 03 Pier C                      | 10 New PV plant       | 25 Apron N                | 40 New Retention Pond                 |
|  |  |  | 04 Cargo Building              | 11 -                  | 26 -                      | 50 Existing surface Carpark           |
|  |  |  | 05 Tower                       | 12 New Heating plant  | 30 New Inslered RWY       | 51 Existing multi-storey Carpark      |
|  |  |  | 06 New Administration Building | 20 Apron A            | 31 Rapid exit Taxiway     | 52 New remote surface Carpark         |
|  |  |  | 07 -                           | 21 Apron B            | 32 New cross Taxiway      | 53 New surface Carpark near terminal  |
|  |  |  |                                | 22 Apron C            | 33 New deicing area, West | 54 New arrival / departure roadsystem |

## AIRPORT DEVELOPMENT PLAN 2025



*Figure 3: Project Components Location*

### 3 **HOW WILL THE PROJECT AFFECT THE ENVIRONMENT AND THE PEOPLE?**

#### 3.1 **TYPICAL ENVIRONMENTAL AND SOCIAL ASPECTS RELATED TO AIRPORT OPERATION**

Typically, environmental issues linked to airports include:

- **Noise and vibrations**, linked to landing and take-offs of aircrafts, as well as ground operations such as aircraft taxiing, operation of all support vehicles, operations of power units and also traffic of passenger vehicles.
- **Air Emissions**, which mostly result from the combustion of fuel from aircrafts, exhausts from ground vehicles, fumes from the boilers used for heating and energy production.
- **Stormwater and wastewater generation**. Beyond sanitary wastewater from the aircrafts and the terminals, airports generate effluents linked to the runoff of stormwater on paved surfaces, which may carry pollutants originating from leaks and spills of oil and diesel from aircrafts maintenance and operation of ground vehicles.

Since Belgrade is also subject to cold winters, ANT also includes a de-icing platform where de-icing fluids, which are usually biodegradable but can affect the aquatic environment if discharged directly to the natural environment.

- **Fuel management**. In major airports such as ANT, hydrocarbons used for the fuelling of aircrafts as well as for maintenance operations are stored either in bulk aboveground or underground storage tank. They can potentially be the source of accidental spills and present a risk for soil and groundwater, as well as a risk of fire or explosion.
- **Solid Waste** is also generated at the airports either from arriving aircrafts (food waste, paper, packaging) or from ground services (shops and restaurants). What are called hazardous waste are also present due to the necessary maintenance operations on the aircrafts and facilities.
- **Energy and Water Consumption**. The terminals are usually important structures that may consume significant levels of energy for cooling and heating and may require significant volumes of water for passengers and airplane maintenance
- **Biodiversity**. In the event of new developments or extensions over natural land or adjacent sensitive natural habitats, biodiversity aspects need to be

considered. Avifauna (birds) and chiroptera (bats) also need to be considered as a sensitivity due to the potential for airplane strike.

- *Land use.* In the event of new developments or extensions over land used by third parties, the airport developer/ operator should ensure that stakeholders displaced from land are compensated for their loss of land, asset or livelihood in a fair and sustainable manner.

## 3.2 *KEY E&S ASPECTS ASSOCIATED WITH THE PROJECT AND PROPOSED MITIGATION*

### 3.2.1 *Operational improvements*

VINCI will update and improve the existing E&S management system and ensure development and implementation of appropriate procedures for the management of the identified environmental aspects, including but not limited to wastewater discharges, spills management, air emissions, noise emissions, as applicable.

This will result in improved E&S management and coordination, better-documented processes, and more effective implementation of proposed operational protocols.

### 3.2.2 *Noise*

During operations, VINCI Airports' goal is to federate stakeholders around noise reduction initiatives including noise limiting procedures, low noise generating activities and equipment and experimentations of take-off and landing optimization procedures.

A balanced approach study as defined by the International Civil Aviation Organization (ICAO) will be carried out according to Regulation (EU) No 598/2014 of the European Parliament and of the Council of 16 April 2014.

The balanced approach to noise management consists of identifying any noise problems at the airport and then analysing the various measures available to reduce noise through the exploration of four principal elements, namely reduction at source, land-use planning and management, noise abatement operational procedures and operating restrictions, with the goal of addressing the noise problem in the most cost-effective manner. This will entail working together with the authorities to inform on the acoustic zoning of the area surrounding the airport.

The process will be transparent and include consultation with the community and other stakeholders throughout all stages from assessment to implementation.

Standard operational noise management measures will include the following:

- VINCI Airports will implement a 24/7 noise and flight track monitoring to help monitor and manage noise impact based on experience and approach already implemented at other airports in the portfolio. This will also allow detection of deviations from privileged trajectories and associated noise emission events.
- Noise will be monitored using permanent noise monitoring stations and noise monitoring tool such as monitoring for departure, track profile, use of the PCA (Point of Closest Approach).
- VINCI will collaborate with companies, air traffic control, pilots to implement noise reduction measures.
- VINCI Airports will implement a complaint/ grievance management and monitoring system, including designated person responsible for complaints investigation and resolution.
- Stakeholder engagement to proactively assess stakeholder perceptions and expectations with regards to airport operations and noise nuisance.

### 3.2.3 *Ambient air quality*

#### *Power generation infrastructure*

As part of the Project the existing boilers, running on fuel, will be replaced by 2020 by an efficient natural gas-fired system comprising tri-generation (to generate electricity, heating and cooling).

In addition, a photovoltaic plant with a capacity of 1 MW will also be put in place by 2022 within the airport footprint.

This switch from fuel to gas, trigeneration, and inclusion of renewable energy in the energy mix of the airport, will result in an improvement of energy generation efficiency, a reduction of atmospheric pollutants emissions per unit power generated, and a reduction of greenhouse gas emissions per unit power generated.

#### *Emissions from air traffic*

As described above, airport operations will increase over time. This will result in incremental airplane turbine emissions, which will be evaluated by VINCI Airports via a dedicated air quality impact assessment.

### 3.2.4 *Surface water and groundwater*

At present, the airport does not operate a wastewater treatment facility. Untreated effluent (both sanitary and runoff from potentially contaminated surfaces) is directed into the airport sewers, which connect to the municipal sewers outside of the airport.

The construction of a dedicated, new wastewater treatment plant forms part of the Project. This will reduce the strain on public wastewater treatment infrastructures and will reduce the risks of impact on surface water.

With regards to site drainage and runoff, the Project will improve runoff separation from contaminated and non-contaminated surfaces, through the improvement of drainage and the construction of oil-water separators. The Project also includes improvements at the de-icing platform to reduce water use and additives spill, as well as and the monitoring of water discharge. Those investments should also reduce the risks of impact on surface and groundwater.

### 3.2.5 *Handling of fuel and hazardous substances*

The Project will improve fuel & hazardous substances storage and management practices at the site, thereby reducing potential risks of spill, improper waste management, and consecutive impacts on soils, surface water and groundwater. These improvements will include the following:

- The existing fuel farm will be dismantled and all the tanks, and associated pipeline system will be emptied and secured. A soil and groundwater quality survey will be performed at the area so that potential existing contamination issues are understood and appropriate site management measures can be taken to protect the environment and human health.
- New fuel storage tanks will be installed with improved storage safety and leak prevention.
- The Project will include improvements of the operations at the de-icing platform and adequate run-off collection and management.
- A new waste storage facilities for hazardous and non-hazardous waste, compliant with Serbian and EU requirements, will be development. This will prevent the dispersion of waste, improve waste management / recycling and elimination practices.

### 3.2.6 *Water use*

ANT's water supply comes from the municipal potable water network. The existing capacity of the public system will be insufficient to cover the increased ANT demand as result of the planned expansion and estimated to reach 120 l/s.

VINCI Airports will consult and agree with the authorities that the public water supply system treatment and delivery capacities are increased in alignment with the airport development plans implementation, so that the water supply of the residential area of Surcin is not affected.

### 3.2.7 *Biodiversity*

The extensions planned only concern agricultural areas therefore the impact on of natural habitats or sensitive species linked to the conversion of land are considered limited.

Bird strikes are a common issue related to airport operations. These are avoided via deterring as part of airport's wildlife hazard management (including use of visual and auditory signals, as well as trained birds of prey for deterrence of other birds).

VINCI Airports will implement a programme aimed at building knowledge on biodiversity, share best practices, train and raise awareness of staff members about biodiversity and develop new solutions to better integrate biodiversity issues into daily activities.

## 3.3 *SOCIETAL CONSIDERATIONS*

### 3.3.1 *Land use*

The project will require the acquisition of nearby plots, currently used for agriculture. The land will be acquired through negotiated settlement with landowners by the Serbian Government (up to 10 ha to the east of the airport, to be acquired by 2027) and by VINCI Airports (approximately 100,000 m<sup>2</sup> located to the west of the airport, already being purchased from the landowner as part of a negotiated transaction).

However since there shall be no operational runway extension as VINCI Airports proposes building the temporary inserted runway within the existing footprint of the airport, alongside the existing runway, land acquisition and change of land use remain limited for this Project.

### 3.3.2 *Nuisance for nearby residents (during works)*

The temporary inserted runway and subsequent rehabilitation of existing runway as well as the extension of buildings will result in standard construction nuisance within airport boundaries (traffic increase, noise, visual nuisance).

Impacts will be limited to the immediate vicinity of the runways and implementation of good industry practice in construction management (eg traffic control, noise abatement, dust suppression, waste management etc) as part of construction environmental and social management plans will be put in place in order not to affect conditions outside of the ANT fence line.

### 3.3.3 *Employment*

During the extension and enhancement works, direct and indirect employment will be generated to support construction activities. Whilst the number and detailed nature of these employment opportunities are not yet

known, it is VINCI Airport's intent to work with the Grantor and Serbian authorities to implement a recruitment process consistent with Serbian law and VINCI Airport's commitments towards equal opportunity.

The concession agreement includes a commitment by VINCI Airports to maintain existing employment contracts for airport personnel (directly employed by ANT), and not undertake any retrenchment process for a period of two years from the start of the concession. After this initial period, VINCI Airports will manage workforce resources duly in line with Serbian regulations and Lenders requirements.

### 3.3.4 *Stakeholder engagement*

In order to address the nuisances that can affect the nearby populations, a Community Engagement Plan is being developed by VINCI for ANT, in line with VINCI Airports' global commitments, including:

- Stakeholder identification and mapping (a stakeholder mapping tool named "Reflex" developed and in use at VINCI Airports will be employed to support this process);
- Stakeholder engagement channels;
- Stakeholder's feedback and grievance collection and resolution mechanism;
- Reporting and monitoring.

#### ***HOW CAN I FIND MORE INFORMATION ABOUT THE PROJECT AND COMMUNICATE MY OPINION?***

VINCI Airports will open various communication channels for any inquiry, complaints, concerns and advice in relation to this Project or airport activities in general.

Any person willing to express their views or to address questions about the Project can address these at all times by following means:

- E-mail:
  - To be confirmed once SPV is created
- Contact Phone Numbers:
  - To be confirmed once SPV is created
- Postal Address:
  - To be confirmed once SPV is created
- Complaint boxes are located at :
  - To be confirmed once SPV is created