

CANDIDATE SELECTION REGULATION
for Competitive Procedure with Negotiation
IT ARCHITECTURE DEVELOPMENT STRATEGY
(Identification No: RBR 2022/24)



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1. ABBREVIATIONS AND TERMS

Denomination	Abbreviation	Definition
Application	-	Documentation package the Candidate submits to participate in the First Stage of the Competition.
Candidate (also partnership)	-	A Supplier which has submitted an Application.
Competition (also the Procurement)	-	Competitive procedure with negotiation "IT Architecture Development Strategy" (ID No RBR 2022/24) which is organised in accordance with Section 8, Paragraph 1, Clause 3 of the Public Procurement Law of Latvia and Chapter 2.3. of the Republic of Latvia Cabinet Regulations, No 107 "Tendering Procedures for Procurement Procedures and Design Contests"
Contract	-	Agreement and all its appendixes for development of IT Architecture Strategy.
Contracting Authority	-	The joint stock company RB Rail AS, registration number: 40103845025, legal address: Satekles iela 2B, Riga LV-1050, Latvia.
European Single Procurement Document	ESPD	The European single procurement document (ESPD) is a self-declaration form used in public procurement procedures
First Stage Regulation (also the Regulation)	-	Candidate selection Regulation of the Competition.
First Stage of the Competition (also the First Stage)	-	Qualification stage that includes selection of Candidates who will be invited to submit a Bid in the Second Stage of the Competition.
Procurement commission	-	Commission the composition of which has been established by Contracting Authority; order No 1.9-2022-32 dated 2 November 2022, issued by the Management Board of the RB Rail AS.
Proposal (also the Bid)	-	Documentation package the Tenderer submits to participate in the Second Stage of the Competition.
Public Procurement Law	PPL	Public Procurement Law of the Republic of Latvia
Rail Baltica Global Project	RBGP	All the activities undertaken by the Rail Baltica railway implementing parties in order to build, put in operation and commercialize the Rail Baltica railway and related railway infrastructure in accordance with the agreed route, technical parameters and time schedule.
Rail Baltica railway	-	A new fast conventional double track electrified European standard gauge (1435 mm) railway line on the route from Tallinn through Pärnu - Riga -

		Panevėžys - Kaunas to Lithuanian - Polish border, with a connection line between Kaunas and Vilnius.
Second Stage of the Competition (also the Second Stage)	-	Proposal stage that includes the evaluation of the Bids submitted by the Tenderers and awarding the rights to conclude the Contract.
Supplier	-	An individual or a legal person, a group or association of such persons in any combination thereof which offers to perform works, supply products or provide services accordingly.
Tenderer	-	A Candidate which was invited to submit a Proposal and has submitted a Proposal.

2. GENERAL INFORMATION

- 2.1. The subject-matter of the Competition is to define the long-term IT Architecture Strategy for Contracting Authority and Rail Baltica project (hereinafter – Strategy). A general description of the subject-matter of the Competition for informative purposes is included in the Annex No 2 of the Regulation. Detailed description of the subject-matter (Technical Specification) of the Competition will be disclosed to the Candidates who will be selected for submitting a Proposal during the Second Stage of the Competition. ***Please note that the subject-matter of the Competition is to deliver a strategy and does not include the implementation of that strategy. Responses to the Technical Specification should not include implementation phase activities but identify types of product / functionality required in a vendor-neutral manner (providing examples of alternative offerings): these will then be developed by the contractor in such a way as to support separate future procurement activities to be undertaken by RB Rail and or others. Therefore, to avoid potential conflicts of interest, the delivery of the IT Strategy must not be limited to recommendation of products from the Contractor or related parties.***
- 2.2. The estimated value of the contract is: 500 000,00 EUR (five hundred thousand euro zero cents), excluding value added tax (hereinafter – VAT).
- 2.3. The identification number of the Competition is RBR 2022/24.
- 2.4. The applicable CPV codes are:
- 2.4.1. Main CPV code: 72000000-5 (IT services: consulting, software development, Internet and support);
- 2.4.2. Additional CPV codes: 72222200-9 (Information systems or technology planning services).
- 2.5. Competition is organised in accordance with the Public Procurement Law in effect on the date of publishing the contract notice. The Competition consists of two stages:
- 2.5.1. The First Stage of the Competition – qualification stage - selection of Candidates who will be invited to submit a Bid in the Second Stage of the Competition.
- 2.5.2. The Second Stage of the Competition – proposal stage - submission of initial proposal(s) of the qualified Candidates and negotiations, submission of final proposal(s) and awarding of Contract. The Procurement Commission shall conduct assessment of the proposal(s) submitted by the Candidates and negotiations on

initial and all further proposals. After the negotiations, the Procurement Commission shall request the Tenderers to submit their final proposals. The Procurement Commission shall verify compliance of the final proposal(s) with the requirements of the Regulation and determine the Tenderer, which is awarded the Contract, through establishing of the criteria set to determine the most economically advantageous proposal. The Procurement Commission shall be entitled to make a decision not to organise negotiations and award the Contract on the basis of the initial proposal(s) submitted by the Tenderers. The regulations for the undertaking of possible negotiations will be provided in the Stage Two procurement documents.

- 2.6. The period of performance of the Strategy is within 9 (nine) months after the Contract commencement date.
- 2.7. Delivery place: Estonia, Latvia, Lithuania.
- 2.8. The Competition requires negotiations due to specific nature of the subject-matter since technical specifications cannot be established with sufficient precision with defined standards or technical requirements and because of specific circumstances related to the nature, the complexity, or the legal and financial make-up of the Contract, in accordance with Section 8, Paragraph 6, Clause 1, 3 and 4 of the Public Procurement Law.
- 2.9. The Competition is carried out using E-Tenders system which is a subsystem of the Electronic Procurement System (<https://www.eis.gov.lv/EKEIS/Supplier>). Supplier shall apply for the Electronic Procurement System (if the Supplier is not registered in Electronic Procurement System) in State Regional Development Agency (please see information here <http://www.railbaltica.org/procurement/e-procurementsystem/>).
- 2.10. The Regulation and all its annexes are freely available on the Contracting Authority's profile in the E-Tenders system on the webpage and Contracting Authority's webpage <http://railbaltica.org/tenders/>.
- 2.11. Amendments to the Regulation and answers to Suppliers' questions shall be published on the E-Tenders system webpage <https://www.eis.gov.lv/EKEIS/Supplier/Procurement/90668> and the Contracting Authority's webpage <http://www.railbaltica.org/tenders/>. It is the Supplier's responsibility to constantly follow the information published on the webpage and to take it into consideration in preparation of its Application.
- 2.12. Contact person of the Contracting Authority for the Competition is Procurement Specialist Žaneta Podniece, telephone: +371 29356405, e-mail address: zaneta.podniece@railbaltica.org.
- 2.13. Requests for information or additional explanations must be submitted in writing via the E-Tenders system or (in case the Supplier does not yet have access to the system) by sending it to the contact person electronically by e-mail. Answers to questions or explanations from the Contracting Authority are also provided through the E-Tenders system and e-mail (in case the Supplier does not yet have access to the system).

3. INFORMATION ABOUT THE SECOND STAGE OF THE COMPETITION AND THE CONTRACT

- 3.1. The Bid selection criterion is the most economically advantageous proposal, according to the evaluation methodology to be described in the Second Stage of the Competition.
- 3.2. The Second Stage of the Competition includes any negotiation that may be relevant to be undertaken as specified by the Contracting Authority, although Contracting Authority may perform evaluation of the Bids submitted by the Tenderers without any negotiation and award rights to conclude Contract to Tenderer with the most economically advantageous proposal according to the evaluation methodology to be described in the Second Stage of the Competition.

- 3.3. The successful Tenderer shall be obliged to ensure that its participation in the implementation of the Contract would not create any conflicts of interests.
- 3.4. The Contract will be based on the terms and conditions of the draft agreement provided by the Contracting Authority in Stage Two of the Competition. The Contract entered into as a result of the Competition will be co-financed from the financial resources of the Connecting Europe Facility (CEF), therefore the Contract will *inter alia* contain terms and conditions required by CEF Grant Agreements.
- 3.5. Payments to the contractor will be made in accordance with the payment conditions specified in the Contract and/or in the other documentation of the Stage Two of the Competition.
- 3.6. Data storage accessibility and security requirements will be stipulated in more detail in the Contract and/or in the other documentation of the Stage Two of the Competition.
- 3.7. The liability of the parties shall be determined pursuant to the applicable laws as prescribed under the Contract. The parties shall properly fulfil their obligations undertaken under the Contract and shall refrain from any actions that may lead to damage to each other or that could impede the other party's fulfilment of the obligations undertaken.
- 3.8. The Contracting Authority shall be entitled to unilaterally withdraw from the Contract should *inter alia* international or national sanctions or sanctions significantly affecting the interests of the financial and capital markets of the European Union or a Member State of the North Atlantic Treaty Organisation, should enter into force and would hinder execution of the Contract. Other grounds of termination by the parties will be prescribed in the Contract, as well.

4. CANDIDATE

- 4.1. The Application can be submitted by:
 - 4.1.1. A Supplier, who is a legal or natural person and who complies with the selection criteria for Candidates;
 - 4.1.2. A group of Suppliers (partnership) that complies with the selection criteria for Candidates:
 - 4.1.2.1. A group of Suppliers who have formed a partnership for the Competition. In this case all the members of the partnership shall be listed in Annex No 1 "Application for participation in the Competition". If it will be decided to award contracting rights to such partnership, then prior to concluding the Contract the partnership shall at its discretion either enter into a partnership agreement (within the meaning of Civil Law of the Republic of Latvia, Sections 2241 - 2280) and shall submit one copy of this agreement to the Contracting Authority or establish a general or limited partnership (within the meaning of Commercial Law of the Republic of Latvia, Division IX and X) and notify the Contracting Authority in writing;
 - 4.1.2.2. An established and registered partnership (a general partnership or a limited partnership within the meaning of Commercial Law of the Republic of Latvia, Division IX and X) which complies with the selection criteria for Candidates.
- 4.2. According to Article 5k of Council Regulation (EU) 2022/576 of 8 April 2022 amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilising the situation in Ukraine and Contracting Authority's discretion according to

Section 15 of the Public Procurement Law of Latvia it is prohibited to participate in the Competition:

- 4.2.1. a Russian national, or a natural or legal person, entity or body established in Russia or in country which is not member to the Agreement on Government Procurement of the World Trade Organisation;
- 4.2.2. a legal person, entity or body whose proprietary rights are directly or indirectly owned for more than 50 % by an entity referred to in point 4.2.1. of this paragraph;
or
- 4.2.3. a natural or legal person, entity or body acting on behalf or at the direction of an entity referred to in point 4.2.1. or 4.2.2. of this paragraph, including, where they account for more than 10 % of the contract value, subcontractors, suppliers or entities whose capacities are being relied on within the meaning of the Public Procurement Law of Latvia.
- 4.3. With reference to Section 15 of the Public Procurement Law of Latvia and the Contracting Authority's discretion in the application of Section 15 of the Public Procurement Law of Latvia, participation of any entities from the Russian Federation and/or the Republic of Belarus is prohibited.

5. SELECTION CRITERIA FOR CANDIDATES

5.1. Legal standing and suitability to pursue the professional activity

No	Requirement	Documents to be submitted
5.1.1.	The Candidate, all members of the partnership (if the Candidate is a partnership), persons on whose capacity a Candidate relies, must be registered in the Registry of Enterprises or Registry of Inhabitants, or an equivalent register in their country of residence, if the legislation of the respective country requires registration of natural or legal persons.	<ul style="list-style-type: none"> • For a Candidate (or a member of a partnership, a person on whose capacity a Candidate relies) <i>which is a legal person registered in Latvia</i>, the Contracting Authority shall verify the information itself in publicly available databases. • For a Candidate (or a member of a partnership, a person on whose capacity a Candidate relies) <i>which is a natural person</i> – a copy of an identification card or passport. • For a Candidate (or a member of a partnership, a person on whose capacity a Candidate relies) <i>which is a legal person registered abroad</i> (with its permanent place of residence abroad) – a copy of a valid registration certificate or a similar document issued by a foreign authority in charge of the registration of legal persons in the country of their residence wherefrom at least the fact of registration, beneficial owners, legal representatives (officials) and procura holders (if any) can be determined.

No	Requirement	Documents to be submitted
		<ul style="list-style-type: none"> • If the Application is submitted by a partnership, the Application shall include an agreement of cooperation (or letter of intention to enter into agreement) signed by all members of the partnership, which authorises one key member to sign the Application and other documents on behalf of the partnership stipulated in Section 6.3. of the Regulation. • If the Application or any other document, including any agreement, is not signed by the legal representative of the Candidate, members of the partnership, person on whose capacity the Candidate relies, a document certifying the rights of the persons who have signed the Application or any other documents, to represent the Candidate, a member of the partnership, a person on whose capacity the Candidate is relying, (powers of attorney, authorisation agreements etc.) must be included.
5.1.2.	<p>The Candidate, all members of the partnership (if the Candidate is a partnership), persons on whose capacity a Candidate relies on, and subcontractors are¹:</p> <ul style="list-style-type: none"> • a legal person – <ol style="list-style-type: none"> 1. registered in a Member State to the North Atlantic Treaty Organization (hereinafter - NATO), European Union or European Economic Area; 	<ul style="list-style-type: none"> • No obligation to submit documents, unless specifically requested by the Procurement commission. • The Procurement commission is obligated to apply requirements stipulated in Paragraph 36.¹ of Cabinet Regulation No 442 "Procedures for the Ensuring Conformity of Information and Communication Technologies Systems to Minimum Security Requirements" dated 28.07.2015 and not invite the Candidate to the Second stage of the Competition (where the decision to award rights to conclude the contract will be taken), if statement from Latvian State Security Service with prohibition to conclude the contract has been received.

¹ Please see the Paragraph 36.¹ of Cabinet Regulation No 442 "Procedures for the Ensuring Conformity of Information and Communication Technologies Systems to Minimum Security Requirements" dated 28.07.2015 (available here: <https://likumi.lv/ta/id/275671-kartiba-kada-tiek-nodrosinata-informacijas-un-komunikacijas-tehnologiju-sistemu-atbilstiba-minimalajam-drosibas-prasibam>).

No	Requirement	Documents to be submitted
	<p>2. whose beneficial owner² is a citizen of the NATO, European Union or European Economic Area or non-citizen of the Republic of Latvia; and</p> <p>3. whose manufacturer of the software or equipment used for the provision of the Services is a legal person registered in a Member State of NATO, the European Union or the European Economic Area, or a natural person who is a national of the Republic of Latvia, a citizen of NATO, the European Union or the European Economic Area</p> <p>or</p> <ul style="list-style-type: none"> • a natural person who is a national of the Republic of Latvia, a citizen of the Member State to the NATO, European Union or European Economic Area. 	
5.1.3.	<p>The representative of the Candidate or a member of a partnership, or a person on whose capacity Candidate relies who has signed documents contained in the Application has the right of signature, i.e., it is an official having the right of signature or a person authorized by the Candidate or by the member of a partnership, or by the person on whose capacity Candidate relies.</p>	<ul style="list-style-type: none"> • A document confirming the right of signature (representation) of the representative of the Candidate or a member of the partnership, or the person on whose capacity Candidate relies who signs the Application and any other document (e.g., partnership agreement, agreement on cooperation, letter of intent, etc.). For a Candidate (or the member of a partnership), the person on whose capacity Candidate relies on which is a legal person registered in Latvia the Contracting

² **Beneficial owner:** a natural person who is the owner of the customer - legal person - or who controls the customer, or on whose behalf, for whose benefit or in whose interest's business relationship is being established or an individual transaction is being executed, and it is at least:

a) regarding legal persons - a natural person who owns, in the form of direct or indirect shareholding, more than 25 per cent of the capital shares or voting stock of the legal person or who directly or indirectly controls it;

b) regarding legal arrangements - a natural person who owns or in whose interests a legal arrangement has been established or operates, or who directly or indirectly exercises control over it, including who is the founder, proxy or supervisor (manager) of such legal arrangement.

No	Requirement	Documents to be submitted
		Authority shall verify the information itself in publicly available databases. <ul style="list-style-type: none"> If the Candidate (or the member of the partnership, or a person on whose capacity Candidate relies), submits a power of attorney (original or a copy certified by the Candidate) there shall be additionally submitted documents confirming that the issuer of the power of attorney has the right of signature (representation) of the Candidate, member of a partnership, or by the person on whose capacity Candidate relies.

5.2. Economic and financial standing

No	Requirement	Documents to be submitted
5.2.1.	<p>The Candidate's or all members of the partnership together (if the Candidate is a partnership and confirms the average financial turnover jointly), average annual financial turnover within the last 3 (three) financial years (2019, 2020, 2021) is not less than 1 000 000 EUR (one million euro).</p> <p>In the event the average annual financial turnover of a limited partner of the limited partnership (within the meaning of The Commercial Law of the Republic of Latvia, Division X) exceeds its investment in the limited partnership, the average financial turnover shall be recognized in the amount of the investment in the limited partnership.</p> <p>In the event the Candidate or a member of a partnership (if the Candidate is a partnership) has operated in the market for less than 3 (three) financial years, the requirement shall be met during the entity's actual operation period.</p>	<ul style="list-style-type: none"> Filled in and signed Annex No 3. Audited or self-approved (if the audited annual financial statement is not required by the law of the country of residence of the Candidate) annual financial reports: <ul style="list-style-type: none"> for financial years 2019, 2020, 2021 showing the turnover of the Candidate and each member of the partnership (if the Candidate is a partnership and confirms the average financial turnover jointly) for last financial year showing balance and calculation that proves liquidity ratio and positive equity of Candidate or entity on whose capacity the Candidate is relying on to certify it's financial and economic performance (e.g., member of the partnership). If the previous 3 (three) reporting years of the Candidate differ from the years specified in this Section (2019, 2020, 2021), the financial turnover necessary must be indicated for the Candidate's previous 3 (three) reporting years. For a limited partnership (within the meaning of the Commercial Law of the Republic of Latvia, Division X) - an
5.2.2.	The Candidate or entity on whose capacity the Candidate is relying on	

No	Requirement	Documents to be submitted
	<p>to certify its financial and economic performance and who will be financially and economically responsible for fulfilment of the procurement contract (e.g., member of the partnership), shall have stable financial and economic performance, namely, <u>in the last audited financial year</u> liquidity ratio shall be equal to or exceed 1 and shall have positive equity.</p>	<p>additional document evidencing the amount of the investment by the limited partner (the partnership agreement or a document with a similarly binding legal effect).</p> <ul style="list-style-type: none"> • If the Application is submitted by a partnership, Candidate shall indicate the member of the partnership on whose capacity Candidate is relying on to certify its financial and economic performance and who will be financially and economically responsible for fulfilment of the Contract including this information in the agreement of cooperation (or letter of intent to enter into agreement) stipulated in Section 6.3. of the Regulation.

5.3. Technical and professional ability

No	Requirement	Documents to be submitted
	<p>Within the previous 5 (five) years (2017, 2018, 2019, 2020, 2021, 2022 until the date of submission of the Application) the Candidate has gained experience in the development of at least 3 (three) IT architecture strategies with project (contract) value of each IT architecture strategy at least EUR 500 000,00 (five hundred thousand euro) excluding VAT, where:</p> <p>1) at least 1 (one) IT architecture strategy was related to railway sector (e.g., national rail, metro, light rail, high speed rail, etc.) and delivered for client(s) with ERTMS or CBTC-based railway operations.</p> <p><i>The IT architecture strategy should be delivered and have been accepted by the Client.³</i></p>	<ul style="list-style-type: none"> • Filled in and signed Annex No 4. • Copies of references or similar documents (copies of deeds of acceptance or other evidencing of experience) from respective clients indicated in Annex No 4. <p><i>Please refer to the guidelines enclosed as Annex No 5 for preparation of the Client's reference. Please note, that applications will not be rejected if the information provided in the reference letter will not include all content provided in the Annex No 5 Reference letters may also be prepared and submitted in the form preferred by the Client / Candidate itself.</i></p>

³ The IT architecture strategy should be delivered and accepted by the Client and its final completion date is within the previous 5 (five) years (2017, 2018, 2019, 2020, 2021 and 2022 until the date of submission of the Application). The Candidate is also entitled to rely on the development of the IT architecture strategy, which was started before the period mentioned in this clause, but the development of IT architecture strategy was completed and accepted by the Client during the previous five years (2017, 2018, 2019, 2020, 2021 and 2022 until the date of submission of the Application).

5.4. Quality Management standards

No	Requirement	Documents to be submitted
	The Candidate or each member of the partnership (if Candidate is the partnership) has quality management system that complies with ISO 9001:2015 standard or equivalent and which is approved by competent and independent authority.	<ul style="list-style-type: none"> • A copy of valid certificate of ISO 9001:2015 or equivalent quality management system conforming to the European certification standards, or a copy of certificate issued by other authority accredited in accordance with the procedures laid down in the regulatory enactments of other Member State of the European Union. • If the Candidate is unable to obtain the quality management certificate before the day of submission of the Application due to reasons beyond the Candidate's control, the Candidate shall submit other evidence regarding the performance of equivalent quality assurance measures and prove that the proposed quality assurance measures comply with the requirements of the Contracting authority.

5.5. Exclusion grounds

The Contracting Authority shall exclude the Candidate from further participation in the Competition in any of the following circumstances:

No	Requirement	Documents to be submitted (no obligation to submit documents, unless specifically requested by the Procurement Commission)
5.5.1.	Within previous 3 (three) years before submission of the Application the Candidate or a person who is the Candidate's management board or supervisory board member, person with representation rights or a procura holder, or a person who is authorised to represent the Candidate in operations in relation to a branch, has been found guilty of or has been subjected to coercive measures for committing any of the following criminal offences by such a public prosecutor's order regarding punishment or a court judgement that has entered into force and may not be challenged and appealed:	<ul style="list-style-type: none"> • For a Candidate and a person who is the Candidate's management board or supervisory board member, person with representation rights or a procura holder, or a person who is authorised to represent the Candidate in operations in relation to a branch, which are registered or residing in Latvia, the Contracting Authority will verify the information itself in publicly available databases. • For a Candidate and a person who is the Candidate's management board or supervisory board member, person with representation rights or a procura holder, or a person who is authorised to represent the Candidate in operations in relation to a branch, which are registered or residing outside of Latvia the Candidate shall submit

<p>a) establishment, management of, involvement in a criminal organization or in an organized group included in the criminal organization or other criminal formation, or participation in criminal offences committed by such an organization,</p> <p>b) bribe-taking, bribery, bribe misappropriation, intermediation in bribery, unauthorized participation in property transactions, taking of prohibited benefit, commercial bribing, unlawful claiming of benefits, accepting or providing of benefits, trading influences,</p> <p>c) fraud, misappropriation or money-laundering,</p> <p>d) terrorism, terrorism funding, creation or organization of a terrorist group, traveling for terrorist purposes, justification of terrorism, calling to terrorism, terrorism threats or recruiting or training a person in performance of acts of terrorism,</p> <p>e) human trafficking,</p> <p>f) evasion from payment of taxes or similar payments.</p>	<p>an appropriate statement from the competent authority of the country of registration or residence.</p>
<p>5.5.2. It has been detected that <u>on the last day of the term for submitting Applications</u> (in the First Stage of the Competition) and <u>on the day when a decision has been made</u> on possible granting of rights to conclude the Contract (in the Second Stage of the Competition), the Candidate has tax debts <u>in Latvia or a country where it has been incorporated or is permanently residing</u>, including debts of mandatory state social insurance contributions <u>exceeding 150 euro in total in any of the countries</u>.</p>	<ul style="list-style-type: none"> • For a Candidate registered or residing in Latvia, the Contracting Authority will verify the information itself in publicly available databases. • For a Candidate registered or residing outside of Latvia the Candidate shall submit an appropriate statement from the competent authority of the country of registration or residence.
<p>5.5.3. Candidate's insolvency proceedings have been announced, the Candidate's business activities have been suspended, the Candidate is under liquidation.</p>	<ul style="list-style-type: none"> • For a Candidate registered or residing in Latvia, the Contracting Authority will verify the information itself in publicly available databases. • For a Candidate registered or residing outside of Latvia the Candidate shall submit an appropriate statement from the competent

	authority of the country of registration or residence.
<p>5.5.4. A person who drafted the Competition documents (Contracting Authority's official or employee), Procurement commission member or expert is related to the Candidate, or is interested in selection of some Candidate, and the Contracting Authority cannot prevent this situation by measures that cause less restrictions on Candidates. A person who drafted the Competition documents (Contracting Authority's official or employee), Procurement commission member or expert is presumed to be related to the Candidate in any of the following cases:</p> <p>a) if he or she is a current and/or an ex-employee, official, shareholder, procura holder or member of a Candidate or a subcontractor which are legal persons and if such relationship with the legal person was terminated within the last 24 months;</p> <p>b) if he or she is the father, mother, grandmother, grandfather, child, grandchild, adoptee, adopter, brother, sister, half-brother, half-sister or spouse (hereinafter – relative) of a Candidate's or subcontractor's, which is a legal person, shareholder who owns at least 10% of the shares in a joint-stock company, shareholder in a limited liability company, procure holder or an official;</p> <p>c) if he or she is a relative of a Candidate or a subcontractor which is a natural person.</p> <p>If the Candidate is a partnership, consisting of natural or legal persons, a relation to the Candidate is presumed also if a person who drafted the Competition documents (Contracting Authority's official or employee), Procurement</p>	<p>No obligation to submit documents, unless specifically requested by the Procurement commission.</p>

	commission member or expert is related to a member of a partnership in any of the above-mentioned ways.
5.5.5. The Candidate has an advantage that limits competition in the Competition, if it or its related legal person consulted the Contracting Authority or otherwise was involved in preparing the Competition, and the advantage cannot be prevented by less restrictive measures, and the Candidate cannot prove that its or its related legal person's participation in preparing the Competition documents does not restrict competition.	No obligation to submit documents, unless specifically requested by the Procurement commission.
5.5.6. Within the previous 12 (twelve) months before last day of the term for submitting Applications (in the First Stage) by such a decision of a competent authority or a court judgment which has entered into force and may not be challenged and appealed, the Candidate has been found guilty of violating competition laws manifested as a horizontal cartel agreement, except for the case when the relevant authority, upon detecting violation of competition laws, has released the Candidate from a fine or has decreased the fine for cooperation within a leniency program.	<ul style="list-style-type: none"> • For a Candidate registered or residing in Latvia, the Contracting Authority will verify the information itself in publicly available databases. • For a Candidate registered or residing outside of Latvia, the Candidate shall submit an appropriate statement from the competent authority of the country of registration or residence or other objective proof of good standing. For example, a link to the database of the competent authority's public database (website) listing all its decisions and validity thereof (provided that access to any such database/website is free of charge to the Contracting Authority).
5.5.7. Within the previous 3 (three) years before last day of the term for submitting Applications (in the First Stage) by such a decision of a competent authority, a court judgment or a public prosecutor's order which has entered into force and may not be challenged and appealed, the Candidate has been found guilty and is punished for a violation manifested as employment of one or more persons who do not possess the required employment permit or if it is illegal for such persons to reside in a Member State of the European Union.	<ul style="list-style-type: none"> • For a Candidate registered or residing in Latvia, the Contracting Authority will verify the information itself in publicly available databases. • For a Candidate registered or residing outside of Latvia the Candidate shall submit an appropriate statement from the competent authority of the country of registration or residence.
5.5.8. Within the previous 12 (twelve) months before last day of the term	<ul style="list-style-type: none"> • For a Candidate registered or residing in Latvia, the Contracting Authority will verify

	<p>for submitting Applications (in the First Stage) by such a decision of a competent authority, a court judgment or a public prosecutor's order which has entered into force and may not be challenged and appealed, the Candidate has been found guilty and is punished for a violation manifested as employment of a person without a written employment contract, by failing within the term specified in regulatory enactments to submit an informative employee declaration regarding this person, which must be submitted about persons, who start working.</p>	<p>the information itself from publicly available databases.</p> <ul style="list-style-type: none"> • For a Candidate registered or residing outside of Latvia the Candidate shall submit an appropriate statement from the competent authority of the country of registration or residence.
<p>5.5.9. The Candidate has provided false information to prove its compliance with provisions of this Section 5.5 of the Regulation or qualification criteria or has not provided the requested information at all.</p>		<p>No obligation to submit documents, unless specifically requested by the Procurement commission.</p>
<p>5.5.10. The Candidate is a registered Offshore⁴ company (legal person) or offshore association of persons.</p>	<ul style="list-style-type: none"> • For a Candidate which is registered in Latvia the Contracting Authority will verify the information itself in publicly available databases. • For the Candidate and each member of the partnership (if Candidate is an unregistered partnership) which is a legal person registered outside of Latvia, the Candidate shall submit a copy of a valid registration certificate, or a similar document issued by a foreign authority in charge of the registration of legal persons in the country of their residence wherefrom at least the fact of registration can be determined. 	
<p>5.5.11. The owner or shareholder (with more than 25% of share capital) of the Candidate which is registered in Republic of Latvia, is a registered Offshore company (legal person) or offshore association of persons.</p>		<p>For a Candidate which is registered in Latvia:</p> <ul style="list-style-type: none"> ○ the Contracting Authority will verify the information itself in publicly available databases; ○ if such information by publicly available data bases is not provided, Candidate shall submit self – declaration which approves

⁴ **Offshore:** low tax or tax-free country or territory in accordance with Corporate income tax law of the Republic of Latvia except Member States of EEA (European Economic Area) or its territories, Member States of the World Trade Organization Agreement on State Treaties or territories and such countries and territories with which European Union and Republic of Latvia has international agreements for open market in public procurement area.

	fact that there are no registered owners or shareholders of the Candidate (with more than 25% of share capital) which are registered offshore.
5.5.12. The subcontractors indicated by the Candidate ⁵ whose share of services is equal to or exceeds 10% of the Contract price or person on whose capacity Candidate is relying, is a registered Offshore company (legal person) or Offshore association of persons.	<ul style="list-style-type: none"> • For a subcontractor whose share of services is equal to or exceeds 10% of the Contract price or person, on whose capacity Candidate is relying, which is registered in Latvia, the Contracting Authority will verify the information itself in publicly available databases; • For a subcontractor or person on whose capacity Candidate is relying, which is a legal person registered outside of Latvia (with its permanent place of residence abroad) the Candidate shall submit a copy of a valid registration certificate, or a similar document issued by a foreign authority in charge of the registration of legal persons in the country of their residence wherefrom at least the fact of registration can be determined.
5.5.13. International or national sanctions or substantial sanctions by the European Union (EU) or the North Atlantic Treaty Organization (NATO) Member State affecting the interests of the financial and capital market has been imposed to the: <ol style="list-style-type: none"> a) Candidate or a person who is the Candidate's management board or supervisory board member, Beneficial owner, person with representation rights or a procura holder, or a person who is authorised to represent the Candidate in operations in relation to a branch, b) member of the partnership or a person who is the partnership's management board or supervisory board member, Beneficial owner, person with representation rights or a procura holder (if the Candidate is a partnership), and such sanctions can affect the execution of the Contract.	<ul style="list-style-type: none"> - For a Candidate registered or residing in Latvia Contracting Authority will verify the information itself from the Register of Enterprises of the Republic of Latvia. - For a Candidate registered or residing outside of Latvia Candidate shall submit an appropriate statement from the competent authority of the country of registration or residence with all the information necessary for the examination regarding the Candidate or a member of the partnership (if the Candidate is a partnership), including but not limited, information about Beneficial owner or the fact that there is no possibility to find out the Beneficial owner.

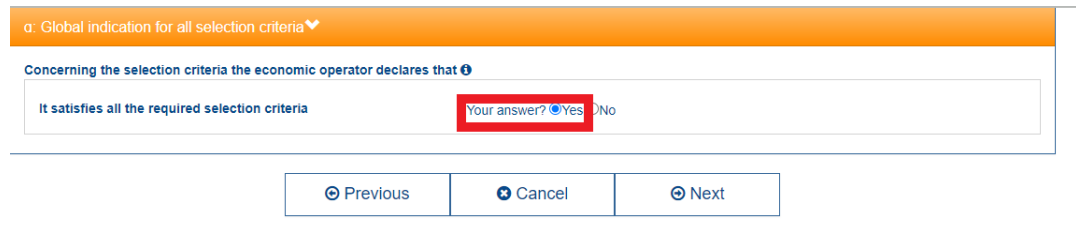
⁵ Candidates will be required to provide information about their subcontractors during the Second Stage of the Competition.

*** In case Candidate (or any member of the partnership if the Candidate is a partnership, or entity on whose capacities the Candidate relies) is registered or permanently resides outside of Latvia, the Contracting authority strongly recommends that the Candidate obtains the evidence documents (especially indicated in the Clause 5.5.2 of the Regulation that requires information on the last day of the term for submitting Applications) before submitting Application to have the documents ready to be sent to the Contracting Authority. The Candidate may submit indicated evidence documents for exclusion ground check at the time of submitting Application.**

- 5.6. Information, provided in the Application to prove the compliance with above-mentioned requirements for Technical and professional ability (Section 5.3 of the Regulation) and Economic and financial standing (Section 5.2 of the Regulation), shall be clear and understandable without any additional analysis or external proof of the submitted information. The Contracting Authority shall not be obliged to use additional sources of information to decide regarding Candidate's compliance with the qualification requirements. The Candidate shall remain fully responsible for the provision of sufficiently detailed information in the Application required to confirm clearly the compliance with qualification requirements set in the Regulation.
- 5.7. Exclusion grounds will be verified in accordance with the regulation stipulated in Section 42 of the Public Procurement Law and Section 11.¹ of the Law On International Sanctions and National Sanctions of the Republic of Latvia. If any of the requirements related to the exclusion grounds (Section 5.5. of the Regulations) differ from the requirements specified in the Public Procurement Law and Section 11.¹ of the Law On International Sanctions and National Sanctions of the Republic of Latvia, the requirements of regulatory enactments shall prevail and the Procurement commission shall act in accordance with requirements specified in the relevant regulatory enactments. If the Candidate complies with any of the exclusion grounds mentioned in Section 5.5. (except Section 5.5.2, 5.5.10 – 5.5.13 of the Regulation) of the Regulation, the Candidate indicates this fact in Annex No 1 "Application for participation in the Competition" of the Regulation.
- 5.8. Notices and other documents mentioned in the Section 5.5 of the Regulation, which are issued by Latvian competent institutions, are accepted and recognised by the Procurement commission, if they are issued no earlier than 1 (one) month prior to the date of submission of particular notice or document, if the issuer of the notice or document has not set shorter period of validity. Notices and other documents mentioned in the Section 5.5 of the Regulation, which are issued by foreign competent institutions, are accepted and recognized by the Procurement commission, if they are issued no earlier than 6 (six) months prior to the date of submission of particular notice or document, if the issuer of the notice or document has not set shorter period of validity.
- 5.9. If the documents, with which a Candidate registered or permanently residing abroad (outside Latvia) can certify its compliance with the requirements of Section 5.5. of the Regulation, are not issued or these documents are insufficient, such documents can be replaced with an oath or, if the regulatory enactments of the country in question do not allow for an oath, - with a certification by the Candidate or by another person mentioned in Section 5.5. of the Regulation before a competent executive governmental or judicial institution, a sworn notary or a competent organisation of a corresponding industry in their country of registration (permanent residence). Regarding all documents submitted based on an oath given under law (e.g., sworn-statements, declarations on oath etc.), the Tenderer must provide (indicate) legal grounds to law or enactment in accordance with such statements or declarations on oath have been given.

5.10. The Candidate to certify that it complies with the selection criteria for Candidates may submit the ESPD as initial proof. This document must be submitted electronically for the Candidate and for each person upon whose capacity the Candidate relies on to certify its compliance with the requirements stipulated in the Regulation, but if the Candidate is a partnership – for each member thereof. To fill in the ESPD the Candidate must use the "ESPD.xml" file on the webpage <http://espd.eis.gov.lv/filter?lang=en>.

5.10.1. To certify compliance with all Competition selection criteria (except exclusion grounds mentioned in Section 5.5. of Regulations), the Candidate can limit itself to filling the following point in the ESPD Section IV **"Selection criteria"** Part **"a: Global indication for all selection criteria"** confirming with **"Yes"**, without having to fill in Part IV, Sections A, B, C or D.



5.11. If the Candidate has chosen to submit an ESPD as initial proof, in the ESPD for person upon whose capacity Candidate relies to certify its compliance with the requirements stipulated in the Regulation it shall be filled in the part regarding the exclusion grounds and information regarding the selection criteria relevant for the specific capacity or capacities on which Candidate relies.

5.12. If the Candidate, who will be invited to submit a Bid, has chosen to submit an ESPD as initial proof, Procurement commission will follow the procedure stipulated in the Paragraph 74 of the Cabinet regulation No 107 of 28 February 2017 "Tendering Procedures or Procurement Procedures and Design Contests".

6. PARTNERSHIP AND RELIANCE ON THE CAPACITIES OF OTHER PERSONS

6.1. If the Candidate is a partnership, the member of the partnership upon whose qualification the partnership relies in order to qualify, must provide the respective goods/services for which the respective qualification was required.

6.2. Contracting authority requires jointly and several liability for the execution of the Contract for the:

6.2.1.1. Candidate and a person on whose capacity Candidate is relying on to certify its financial and economic performance and who will be financially and economically responsible for fulfilment of the Contract;

6.2.1.2. Each member of the partnership (if the Candidate is a partnership) on whose capacity Candidate is relying on and who will be financially and economically responsible for fulfilment of the Contract.

6.3. If an Application is submitted by a partnership, the Application shall include an agreement of cooperation (or letter of intent to enter into agreement) signed by all members of the partnership, which lists responsibilities of each and every partnership member, and which authorizes one key member to sign the Application and other documents, to receive and issue orders on behalf of the partnership members, and with whom all payments will be made. In this document Candidate additionally indicates the member of the partnership on whose capacity it relies on to certify its financial and economic performance and a

commitment to be financially and economically responsible for the fulfilment of the Contract.

- 6.4. For the fulfilment of the Contract, in order to comply with the selection requirements for the Candidates (e.g., technical and professional ability), the Candidate may rely upon capacities of other persons, regardless of the legal nature of their mutual relationship. In this case:
 - 6.4.1. The Candidate indicates in the Application all persons upon whose capacities it relies by filling in the table which is part of Annex No 1 "Application for participation in the Competition" of the Regulation, fills necessary information in E-Tenders system and proves to the Contracting Authority that the Candidate will have available all the necessary resources for the fulfilment of the Contract, by submitting a signed confirmation or agreement on cooperation and/or passing of resources to the Candidate between such persons and the Candidate. The confirmations and agreements on cooperation and passing of resources can be replaced by the Candidate with any other type of documents with which the Candidate is able to prove that the necessary resources will be available to the Candidate and will be used during the term of fulfilment of the Contract.
 - 6.4.2. Documents on cooperation and passing of resources have to be sufficient to prove to the Contracting Authority that the Candidate will have the ability to fulfil the Contract, as well as that during the validity of the Contract the Candidate will in fact use the resources of such person upon whose capacity the Candidate relies.
- 6.5. Candidate may rely on the capacity of other persons only if these persons will provide services that require the relevant capacity.
- 6.6. The Contracting Authority shall evaluate the person, on whose capacity the Candidate, who will be invited to submit a Bid, is relying according to Section 5.5.1 - 5.5.8 and Section 5.5.12 - 5.5.13 of the Regulation. In case such person will comply with any of the exclusion grounds which are mentioned in Section 5.5.1 to 5.5.8 and Section 5.5.12 - 5.5.13 of the Regulation, the Contracting Authority will request the Candidate to change such person. If the Candidate will not submit documents about another person which complies with the selection criteria within 10 (ten) business days from the date when the request was issued or sent to the Candidate, the Contracting Authority shall exclude such Candidate from further participation in the Competition.

7. SUBCONTRACTING

- 7.1. Candidates will be required to provide information about their subcontractors during the Second Stage of the Competition.
- 7.2. During the Second Stage of the Competition the Contracting Authority will evaluate subcontractors, whose share of services is equal to or exceeds 10% of the Contract price, of the Candidate to whom the rights to conclude the Contract should be assigned. In case such subcontractors will comply with any of the exclusion grounds which are mentioned in Sections 5.5.2 - 5.4.8 and Section 5.5.12 – 5.5.13 of the Regulation, the Contracting Authority will request the Candidate to change such subcontractor. If the Candidate will not submit documents about another subcontractor which complies with the selection criteria within 10 (ten) business days from the date when the request was issued or sent to the Candidate, the Contracting Authority will exclude such Candidate from further participation in the Competition.
- 7.3. Contracting Authority reserves the right to request the Candidate to identify all the subcontractors involved in delivery of services irrespective of the amount of participation in the provision of services upon signing the Contract.

8. THE RIGHTS OF THE CANDIDATE

- 8.1. The Supplier can request additional information regarding the Regulation. Additional information can be requested in writing, by sending it to the Procurement commission electronically using the E-Tenders system. Additional information must be requested in a timely fashion, so that the Procurement commission can provide a response no later than 6 (six) days prior to the deadline for submitting Applications. The Procurement commission shall provide a response within 5 (five) business days from the day of receipt of the request.
- 8.2. If the Contracting Authority receives the necessary information about the Candidate directly from a competent institution, through data bases or other sources and the Candidate's submitted information differs from the information obtained by the Contracting Authority, the Candidate in question has the right to submit evidence to prove the correctness of the information the Candidate has submitted, if the information obtained by the Contracting Authority does not conform to the factual situation.
- 8.3. If a Candidate believes that its rights have been violated or such violation is possible due to possible violation of the regulatory enactments of the European Union or other regulatory enactments, the Candidate has the right to submit a complaint to the Procurement Monitoring Bureau according to the procedure stipulated in the Section 68 of the Public Procurement Law regarding the Candidate selection requirements, technical specifications or other requirements relating to this Competition, or relating to the activities of the Contracting Authority or the Procurement commission during the Competition.
- 8.4. The Supplier covers all expenses, which are related to the preparation of the Application and its submission to the Contracting Authority. The submitted Applications are not returned to the Candidate, unless specifically envisaged in the Regulation.
- 8.5. The Application must be signed using an electronic signature according to regulatory acts on the status of electronic documents and electronic signature or tools provided by the E-Tender system or using a signature tool which provides confirmation of the identity of the document's signer by a person who is legally representing the Candidate or is authorised to represent the Candidate in this Competition procedure.
- 8.6. Applications submitted after the expiry of the deadline for the submission of Applications shall not be reviewed.

9. CONTENTS AND FORM OF THE APPLICATION

- 9.1. Application must be submitted electronically in E-Tenders subsystem of the Electronic Procurement System, in accordance with the following options for the Candidate:
 - 9.1.1. by using the available tools of E-Tenders subsystem, filling the attached forms of the E-Tenders subsystem for the Competition;
 - 9.1.2. by preparing and filling the necessary electronic documents outside the E-Tenders subsystem and attaching them to the relevant requirements (in this situation, the Candidate takes responsibility for the correctness and compliance of the forms to requirements of documentation and form samples);
 - 9.1.3. by encrypting electronically prepared Application outside subsystem of E-Tenders subsystem with data protection tools provided by third parties and protection with electronic key and password (in this situation, the Candidate takes responsibility for the correctness and compliance of the forms to the requirements of such documentation and form samples as well as ensuring the capability for the Contracting Authority to open and read the document).

- 9.2. During preparation of the Application, the Candidate respects the following requirements:
 - 9.2.1. Each document mentioned in the Section 9.3 of the Regulation must be filled separately each in separate electronic document in line with the forms attached to the Competition on Contracting Authority's profile in the E-Tenders subsystem (<https://www.eis.gov.lv/EKEIS/Supplier/Procurement/90668>) in a Microsoft Office 2010 (or later) format and attached to the Competition;
 - 9.2.2. Upon submission, the Candidate signs the Application with a secure electronic signature and time-stamp or with an electronic signature provided by the Electronic Procurement System. The Application (its parts, if signed separately) are signed by an authorised person, including its authorisation document (e.g., power of attorney) *expressis verbis* stating the authorisations to sign, submit and otherwise manage the documents.
- 9.3. The following documents shall be included in the Application:
 - 9.3.1. Application for participation in the Competition in accordance with Annex No 1 of the Regulation;
 - 9.3.2. Information and documents confirming compliance of the Candidate with the selection criteria for the Candidates (Annex No 3 – 5 and other documents stipulated in the Section 5 of the Regulation) or the corresponding ESPD;
 - 9.3.3. Information and documents relating to partnership and entities on whose capacity the Candidate is relying (in accordance with Section 6 of the Regulation) or the corresponding ESPD.
- 9.4. The Application and documents must be submitted in a written form in English or Latvian (if submitted in Latvian, translation in English must be provided together with the Application).
- 9.5. The Application may contain original documents or their derivatives (e.g., copies). In the Application or in the reply to a request of the Procurement commission the Candidate shall submit only such original documents which have legal force. For the document to gain legal force it has to be issued and formatted in accordance with the Law on Legal Force of Documents of the Republic of Latvia (<https://likumi.lv/ta/en/id/210205-law-on-legal-force-of-documents>) and Electronic Documents Law of the Republic of Latvia (<https://likumi.lv/ta/en/en/id/68521-electronic-documents-law>), but public documents issued abroad shall be formatted and legalised in accordance with the requirements of the Document Legalization Law of the Republic of Latvia (<https://likumi.lv/ta/en/id/155411-document-legalisation-law>). When submitting the Application, the Candidate has the right to certify the correctness of all submitted documents' derivatives and translations with one certification.

10. ENCRYPTION OF THE APPLICATION INFORMATION

- 10.1. The E-Tenders system, which is a subsystem of the Electronic Procurement System, ensures the first level encryption of the information provided in the Application.
- 10.2. If the Candidate applied additional encryption to the information in the Application (according to Section 9.1.3 of the Regulation), the Candidate must provide the Procurement commission with electronic key with the password to unlock the information not later than in 15 (fifteen) minutes after the deadline of the Application submission.

11. SUBMISSION OF THE APPLICATION

- 11.1. The Application (documents referred to in the Section 9.3 of the Regulation) shall be submitted electronically using the tools offered by the E-Tenders system available at <https://www.eis.gov.lv/EKEIS/Supplier/Procurement/90668> by

14 December 2022 till 15:00 (Riga time).

- 11.2. The Candidate may recall or amend its submitted Application before the expiry of the deadline for the submission of Applications by using the tools provided in the E-Tenders system.
- 11.3. Only Applications submitted via E-Tenders system will be accepted and evaluated for participation in the Competition. Any Application submitted outside the E-Tenders system will be declared as submitted in a non-compliant manner and will not participate in the Competition.

12. OPENING OF APPLICATIONS

- 12.1. The Applications will be opened on the E-Tenders system on 14th December 2022 starting at 15:00 (Riga time) during the opening session. On the E-Tenders system it is possible to follow the opening of submitted Applications online.
- 12.2. The Applications are opened by using the tools offered by the E-Tenders system. The public information of the Applications will be published in the E-Tenders system.
- 12.3. The information regarding the Candidate, the time of Application submission and other information that characterises the Application is generated at the opening of the Applications by the E-Tenders system and written down in the Application opening sheet, which will be published in the E-Tenders system and the Contracting Authority's webpage.
- 12.4. If the Candidate has failed to submit some of the documents which shall be submitted according to the Regulation or the contents of the submitted documents do not comply with the Regulation, the procurement commission decides to exclude the Candidate from further participation in the Competition.
- 12.5. Only those Candidates who have been qualified, will be invited to submit a Bid in the Second Stage of the Competition.

13. VERIFICATION OF APPLICATIONS

- 13.1. The Procurement commission evaluates received Applications in closed meetings.
- 13.2. The Procurement commission verifies whether the submitted Applications comply with the requirements of the Regulation. If the Application does not comply with some of the requirements of the Regulation, the Procurement commission decides on the possibility of further evaluation of the Application.
- 13.3. The Procurement commission:
- 13.3.1. verifies whether the Candidate complies with the Candidate selection requirements specified in Section 5.1. – 5.4. of the Regulation;
 - 13.3.2. verifies whether the exclusion grounds mentioned in Section 5.5. of the Regulation, Section 42, Paragraph 1 of the Public Procurement Law and Section 11.¹ of the Law On International Sanctions and National Sanctions of the Republic of Latvia are applicable to the Candidate.

- 13.4. In the event the Candidate or any member of the partnership (if the Candidate is a partnership) fails to comply with requirements stipulated in Section 5.5 (except Section 5.5.2, 5.5.9 – 5.5.13 of the Regulation) of the Regulation and has indicated that in the Application, upon request by the Procurement commission it submits an explanation about the implemented measures in order to restore reliability and prevent occurrences of the same or similar violations in the future, as well as attaches any relevant evidence which proves the implemented measures, such as but not limited to the evidence about compensating damages, on cooperation with investigating authorities, implemented technical, organisational or personnel measures, an assessment of a competent authority regarding the sufficiency of the implemented measures etc. If the Procurement commission deems the measures taken to be sufficient for the restoration of reliability and the prevention of similar cases in the future, it makes the decision not to exclude the Candidate from participation in the Competition. If the measures taken are insufficient, the Procurement commission makes the decision to exclude the Candidate from further participation in the Competition. If the Candidate, within the indicated time, does not submit the requested information, the Procurement commission excludes the Candidate from the participation in the Competition.

14. DECISION MAKING, ANNOUNCEMENT OF RESULTS

- 14.1. Within 3 (three) business days from the date of the decision about the selection of the Candidates, the Procurement commission informs all Candidates about the decision made (to the excluded Candidates and Candidates whose Applications has been rejected about the reasons for exclusion/rejection as well) by sending the information electronically (including via E-Tenders system) and keeping the evidence of the date and mode of sending the information, as well as about the deadline by which the Candidate may submit a claim to the Procurement Monitoring Bureau regarding any perceived violations of the public procurement procedure.
- 14.2. If only 1 (one) Candidate complies with all the Candidate selection requirements, the Procurement commission makes the decision to terminate the Competition.
- 14.3. If the Competition is terminated, Procurement commission within 3 (three) business days after the termination simultaneously informs all the Candidates of all the reasons why the Competition was terminated and informs about the deadline within which a Candidate may submit a claim to the Procurement Monitoring Bureau on any perceived violations of the public procurement procedure.
- 14.4. When informing about the First Stage results, the Procurement commission will not disclose specific information, if it may infringe upon public interests or if the Candidate's legal commercial interests or the conditions of competition would be violated.

15. THE RIGHTS OF THE PROCUREMENT COMMISSION

- 15.1. The Procurement commission and the interested Supplier or Candidate exchange information in writing in English or Latvian (accompanied by a translation in English), using E-Tenders system.
- 15.2. For the avoidance of doubt, unless specifically stated otherwise, all laws, acts and regulations under which the Competition is undertaken, belong to the jurisdiction of the Republic of Latvia.
- 15.3. The Procurement commission has the right to demand at any stage of the Competition that the Candidate submits all or part of the documents which certify the Candidate's compliance to the requirements for the selection of Candidates. The Procurement commission does not

demand such documents or information which are already at its disposal or is publicly available free of charge.

- 15.4. If the Candidate submits document derivatives (e.g., copies) and the authenticity of the submitted document derivation is in doubt, the Procurement commission can demand that the Candidate shows the original documents.
- 15.5. During the evaluation of Application, the Procurement commission has the right to demand that information included in the Application is clarified.
- 15.6. If the Procurement commission determines that the information about the Candidate or persons upon whose capacity the Candidate is relying on that is included in the submitted documents is unclear or incomplete, it demands that the Candidate or a competent institution clarifies or expands the information included in the Application. The deadline for submission of the necessary information is determined in proportion to the time which is required to prepare and submit such information. If the Procurement commission has demanded to clarify or expand upon the submitted documents but the Candidate has not done this in accordance with the requirements stipulated by the Procurement commission, the Procurement commission is under no obligation to repeatedly demand that the information included in these documents be clarified or expanded upon. The Procurement commission has the right to reject all Applications which are found not to comply with the requirements of the Regulation.

16. THE OBLIGATIONS OF THE PROCUREMENT COMMISSION

- 16.1. The Procurement commission ensures the Competition process documentation.
- 16.2. The Procurement commission ensures free and direct electronic access to the Competition documents on Contracting Authority's profile at the E-Tenders system <https://www.eis.gov.lv/EKEIS/Supplier/Procurement/90668> and webpage of the Contracting Authority <http://railbaltica.org/tenders/>.
- 16.3. If an interested Supplier has requested additional information via the E-Tender system, the Procurement commission provides an answer via the E-Tender system within 5 (five) business days, but not later than 6 (six) days before the deadline for submission of Applications. Simultaneously with sending this information to the supplier who has asked the question, the Procurement commission publishes this information on Contracting Authority's profile at the E-Tenders system <https://www.eis.gov.lv/EKEIS/Supplier/Procurement/90668> and on the Contracting Authority's webpage <http://railbaltica.org/tenders/>, under the section of the respective procurement procedure, indicating the question asked.
- 16.4. If the Procurement commission has amended the Competition documents, it publishes this information on Contracting Authority's profile at the E-Tenders system <https://www.eis.gov.lv/EKEIS/Supplier/Procurement/90668> and on the Contracting Authority's webpage <http://railbaltica.org/tenders/>, where Competition documents are available, no later than 1 (one) day after the notification regarding the amendments have been submitted to the Procurement Monitoring Bureau for publication. If Supplier wishes to receive relevant updates/notifications by email regarding the Competition (e.g., when amendments to the Regulation are published), Supplier shall register as an interested supplier on the E-Tenders system for the Competition accordingly.
- 16.5. The exchange and storage of information in the E-Tenders system is carried out in such a way that all data included in the Applications is protected and the Procurement commission can check the content of the Applications only after the expiration of the deadline for their submission. During the time period between the day of the submission of Applications until the moment of opening thereof the Procurement commission does not disclose any

information regarding the existence of other Applications. During the period of Application evaluation until the moment of the announcement of the First Stage results the Procurement commission does not disclose information regarding the evaluation process.

- 16.6. The Procurement commission assesses the Candidates and their submitted Applications based on the Public Procurement Law, the Regulation, as well as any other applicable regulatory enactments.
- 16.7. The Procurement commission prepares the invitation to the Second Stage of the Competition consisting of the regulation of the Second Stage of the Competition, the Technical specification and the draft Contract and sends it to the selected Candidates that have been qualified for the Second Stage of the Competition.

ANNEXES:

1. Application for participation in the Competition;
2. General description of the subject - matter;
3. Confirmation of Candidate's financial standing;
4. Description of the Candidate's experience;
5. Guidelines for the client's references.

ANNEX NO 1

**APPLICATION FOR PARTICIPATION IN THE COMPETITION
"IT ARCHITECTURE DEVELOPMENT STRATEGY"
(ID NO RBR 2022/24)**

Name of the Candidate or all members of the partnership	
Registration number of the Candidate or all members of the partnership	
VAT payer registration number of the Candidate or all members of the partnership	
Name, surname and position of the person authorized to represent the Candidate or name of nominated representative (in case of the partnership)	
Legal address of the Candidate or all members of the partnership	
Correspondence address of the Candidate or all members of the partnership	
Contact person and contact information of the Candidate (name, surname, position, telephone number, e-mail)	

By submitting the Application, Candidate hereby:

- Confirms participation in the Competition "IT Architecture Development Strategy", ID No RBR 2022/24;
- Informs that the following entities and/or persons are subject to the following exclusion grounds (if applicable):

Name of the entity (person)	Exclusion ground and brief description of the violation
[•]	
[•]	
[•]	

- Declares that for the purposes of qualifying for the Competition, Candidate relies on the capacities of the following entities (if applicable):

No	Name, registration number and registered address of the entity	Description of the capabilities on which the Candidate relies to certify its compliance with qualification requirements (Section 5.1.- 5.4. of the Regulation)	Submitted document (e.g., signed confirmation or agreement on cooperation and/or passing of resources between such persons and the Candidate) with which the Candidate is able to prove that the necessary resources will be available to the Candidate and will be used during the term of fulfilment of the Contract
1.			
2.			
n+1			

- Confirms that the Regulation is clear and understandable, that Candidate does not have any objections and complaints and in the case of granting the right to enter into the Second Stage of the Competition as well as granting rights to enter into a Contract will undertake to fulfil all conditions of this Regulation;
- Confirms that in the preparation and submission of its Application, Candidate has fully considered all clarifications issued by the Procurement commission;
- Confirms that Candidate has prepared the Application without connection with any other person, company or parties likewise submitting the Application and that it is prepared in good faith without collusion or fraud;
- Agrees that the Procurement commission reserves itself the right to reject any or all Applications and terminate the procurement process before entry into the Contract on the grounds specified in the Regulation or the law;
- Guarantees that all information and documents provided are true;
- Confirms⁶ that Candidate meets the criteria of (please indicate by ticking relevant box):

a small

medium

other

sized enterprise⁷ as defined in the Article 2 of the Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprise.⁸

[date of signing]

[name and position of the representative of the Candidate]

⁶ Candidate must indicate size of enterprise for each member of the partnership, if the Candidate is the partnership.

⁷ The information on the size of the Candidate is used solely for statistical purposes and are not in any way whatsoever used in the evaluation of the Candidates and their requests to participate.

⁸ Available here: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2003.124.01.0036.01.ENG&toc=OJ:L:2003:124:TOC.

ANNEX NO 2

**GENERAL DESCRIPTION OF THE SUBJECT – MATTER FOR THE COMPETITION
"IT ARCHITECTURE DEVELOPMENT STRATEGY"
(ID NO RBR 2022/24)**

1. INTRODUCTION
1.1 BACKGROUND INFORMATION
1.1.1 GLOSSARY

Abbreviation or phrase	Definition
5G	The fifth-generation technology standard for broadband cellular networks
ADM	Architecture Development Method
Beneficiary	"An entity with legal personality with which a grant agreement has been signed" (EU reg 2021/1153). (In this document Beneficiary/Beneficiaries refers to RB Rail AS (the overall coordinator of the Global Project and responsible for developing and implementing the IT Strategy) and the National Beneficiaries of Estonia, Latvia and Lithuania: <ul style="list-style-type: none"> • Ministry of Economic Affairs and Communications of the Republic of Estonia • Ministry of Transport of the Republic of Latvia • Ministry of Transport and Communications of the Republic of Lithuania
BIM	Building Information Management/Building Information Modelling
BIM Strategy	See RB Rail AS BIM Strategy information at https://www.railbaltica.org/rb-rail-as-bim-documentation/
CCS	Control, Command and Signalling
CEF	Connecting Europe Facility ec.europa.eu/inea/en/connecting-europe-facility
CEF 7	2020-EU-TMC-0076-S: Activity 8: "IT architecture development strategy".
Design Guidelines	The Design Guidelines manual determines the key requirements and standards for the Rail Baltica railway alignment, track, embankments and earthworks, hydraulic, drainage and culverts, bridges, overpasses, tunnels and similar structures, energy, control-command signalling system, telecommunications system, supervisory control and data acquisition (SCADA), infrastructure facilities (stations, passing loops, crossovers), station and passenger platforms, environmental requirements, adaptation to climate change, BIM requirements, architectural and landscaping (visual design) requirements, reliability, availability and maintainability and safety (RAMS) requirements. https://www.railbaltica.org/rail-baltica-design-guidelines-approved/
ENE	Energy
ENISA	European Union Agency for Cybersecurity enisa.europa.eu/
ERA	European Union Agency for Railways era.europa.eu/
ERJU	Europe's Rail Joint Undertaking https://rail-research.europa.eu/ (the successor organisation to Shift2Rail)
Global Project	All the activities undertaken by the Parties in order to build, render operational and commercialize the Rail Baltic/Rail Baltica railway and related Railway Infrastructure in accordance with the agreed route, technical parameters and time schedule.
HVAC	Heating, ventilation, and air conditioning systems
IT	Information Technology (sometimes used to contrast with OT)

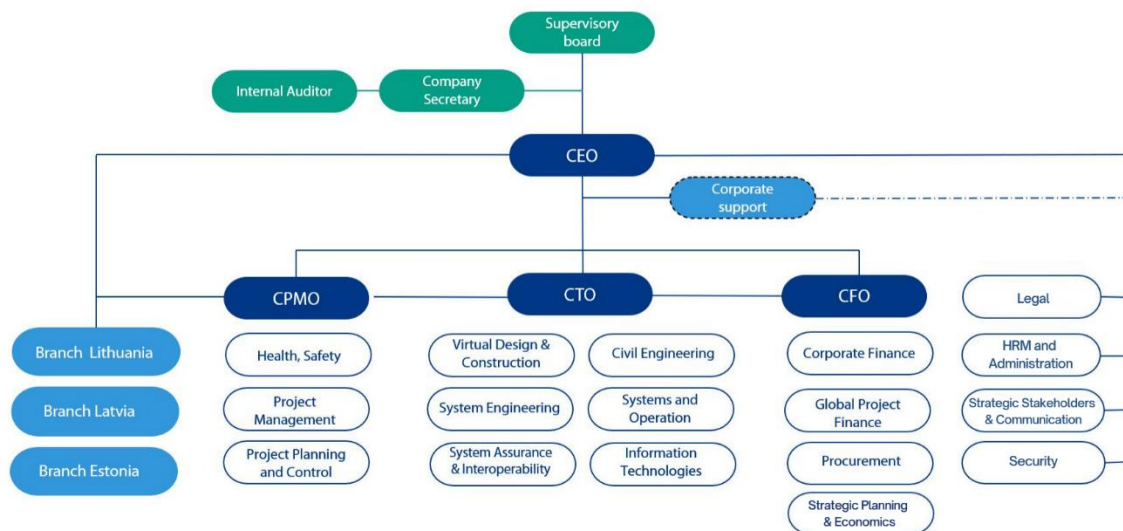
IB	Implementing Body
IM	Infrastructure Manager
Implementing Body	<p>"A public or private undertaking or body designated by a beneficiary, where the beneficiary is a Member State or an international organisation, to implement the action concerned." (EU regs 1316/2013, 2021/1153)</p> <p>RB Rail AS is the Implementing Body for the development of the IT Strategy. The national Implementing Bodies referred to in this document are (as designated by the respective national Beneficiaries):</p> <ul style="list-style-type: none"> • Rail Baltic Estonia OÜ • Eiropas Dzelzcela linijas SIA, (EDZL/European Railway Lines (Latvia)) • Akcinė bendrovė Lietuvos geležinkeliai (LTGI/Lithuanian Railways)
Operating Model	<p>An operating model is a visualisation (i.e., model or collection of models, maps, tables and charts) that explains how the organisation operates so as to deliver value to its customers or beneficiaries. (This example definition is fairly representative and taken from: https://opexsociety.org/body-of-knowledge/operating-model/)</p>
OT	Operational Technology
Parties (to Global Project)	<p>RB Rail AS, and:</p> <p>Ministry of Economic Affairs and Communications of the Republic of Estonia, Ministry of Transport of the Republic of Latvia, Ministry of Transport and Communications of the Republic of Lithuania, Estonian Technical Regulatory Authority, Rail Baltic Estonia OÜ, Eiropas Dzelzcela linijas SIA, (EDZL/European Railway Lines (Latvia)) Akcinė bendrovė Lietuvos geležinkeliai (LTGI/Lithuanian Railways), UAB "Rail Baltica statyba" (Rail Baltica Lithuania)</p>
RFC8	Rail Freight Corridor – North Sea – Baltic (see https://rfc8.eu/) e.g., related to Planning and Path Requests standards
RU	Rail Undertaking
SCADA	Supervisory control and data acquisition
SERA	Single European Railway Area
Shift2Rail	<p>A European rail initiative to seek focused research and innovation and market-driven solutions by accelerating the integration of new and advanced technologies into innovative rail product solutions. shift2rail.org Where Shift2Rail is cited in this document, it should be taken also to include successor organisation(s).</p>
Single Window Initiative	<p>See e.g., https://singlewindow.ee/en/ , https://ec.europa.eu/taxation_customs/eu-single-window-environment-customs_en</p>
System Pillar	One of the two pillars of the ERJU multi-annual work programme, addressing railway operational systems and business process harmonisation for the SERA
TAF	Telemetric Applications for Freight, a TSI
TAP	Telemetric Applications for Passengers, a TSI
TEN-T	<p>Trans-European Transport Network</p> <p>ec.europa.eu/transport/themes/infrastructure/ten-t_en</p>
TOGAF	<p>The Open Group Architecture Framework opengroup.org/togaf (The TOGAF Architecture Development Method (ADM) is used as a reference ADM in this document, but this is not intended to imply a requirement for any specific ADM to be used for development of the IT Strategy.)</p>
TSI	<p>Technical Specification for Interoperability era.europa.eu/activities/technical-specifications-interoperability_en</p>

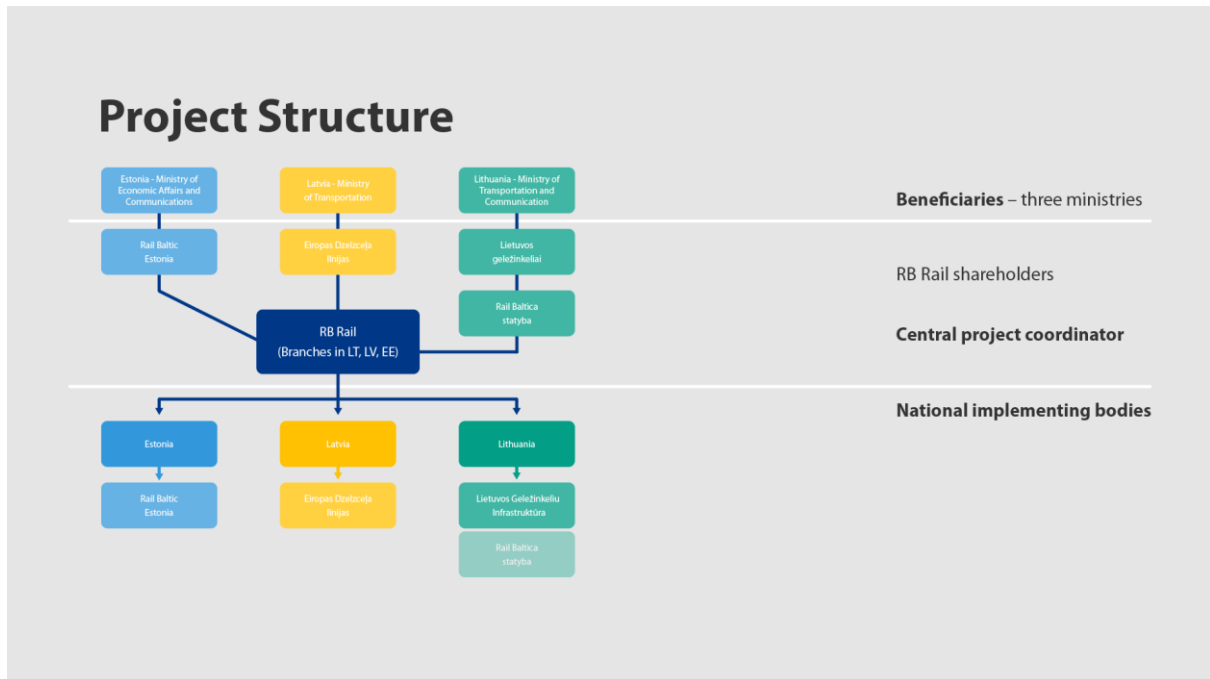
1.1.2 COMPANY OVERVIEW

Rail Baltica is a greenfield rail transport infrastructure project with a goal to integrate the Baltic States in the European rail network and lay the foundations of a new North East European economic corridor. The project includes five European Union countries – Poland, Lithuania, Latvia, Estonia and indirectly also Finland. It will connect Helsinki, Tallinn, Pärnu, Riga, Riga Airport, Panevežys, Kaunas, Vilnius, Bialystok, and Warsaw. The Baltic part of the Rail Baltica project is referred to as the Rail Baltica Global Project.

- The largest Baltic-region infrastructure project in the last 100 years
- A 10-year construction period
- For both passenger and freight traffic
- Length: ~870 km
- Environmentally friendly – **powered by electricity**, produces less noise and vibration
- Max. speed: 249 km/h (passengers), 120 km/h (freight)
- More than €5 bn investment in the region
- Implemented by Estonia, Latvia, Lithuania
- Part of the EU's **North Sea Baltic TEN-T corridor**
- Financed by EU (CEF), Estonia, Latvia, Lithuania
- Provides **intermodality/multimodality**

RB Rail AS is currently structured as follows:





For more information on RB Rail AS, the Global Project, and Rail Baltica, please see <https://www.railbaltica.org/about-rail-baltica/documentation/>.

1.1.3 PROJECT OVERVIEW

RB Rail AS recognizes the opportunity it has in respect of a 'greenfield' rail environment and wishes to define its long-term IT Strategy based on EU and global best practice from the rail industry and the wider multimodal mobility and logistics ecosystem, as well as taking advantage of technical developments in other sectors. As part of the overall operations of the railway, Rail Baltica will rely heavily upon an integrated technology and business environment to manage the tendering, contracting, construction project management, cost control, handover, train operations, multimodal integration, customer management, supplier management, billing, maintenance, back-office support functions and so on. As Rail Baltica is building a 'greenfield' railway, it is critical to take advantage of the opportunity to establish a fully integrated solution landscape and avoid the common integration challenges faced by railways today.

The primary objective of this project will be to provide RB Rail AS, the future owners of the infrastructure, and the Implementing Bodies with a long-term IT Strategy based upon the current and evolving Rail Baltica operating model (the Implementation Stage) and the future Rail Baltica operating model (the Operations Stage), and associated business processes for each Stage.

The IT Strategy will be delivered in two stages (to be elaborated upon in subsequent sections):

- Implementation stage
- Operational stage

1.2 PURPOSE

The intent of this document is for RB Rail AS to identify the most suitable organisation to work with them in defining the long-term IT Strategy for RB Rail AS and Rail Baltica to include:

- Working collaboratively with all stakeholders of the IT Strategy, to ensure RB Rail AS and Rail Baltica business goals and requirements are accurately acknowledged, defined, and addressed across the full breadth of the business
- A workable and fully risk-managed solution, that can adapt and scale as the RB Rail AS and Rail Baltica operating models develop, and the business grows, aligned with and supporting the Rail Baltica Master Schedule
- Strong alignment to key principles:
 - Follow EU and global best practice
 - Follow relevant EU and global standards
 - An integrated Enterprise Architecture for Rail Baltica – one railway, one system, one operating model, one set of rules and standards
- Strong alignment of the operating model processes and IT systems to increase productivity, business agility and return on investment.
- Streamlined business processes to reduce the procedure cycles and increase rail operational effectiveness and efficiency.
- Full inclusion of the business, data, applications, technology, and IT Security domains
- A strong and best practice focus and inclusion of IT Security management throughout the strategy and the architecture
- Defined functionality between applications and standardisation of application integration interfaces to improve visibility, interoperability, and integration of systems.
- Integrated reporting capability and easy access to high quality, trusted information for all users, for effective decision making.
- Reduced application design and development costs and technology risks aided by using standardized reference architectures and data models.
- An approach to information management that will allow the successful transition of a capital delivery project to an operational railway with minimum disruption. It should be noted this transition will be phased over several (two or more) years.

1.3 OBJECTIVES

The primary objective of this project is to provide RB Rail AS, the future owners of the infrastructure, and the Implementing Bodies with a long-term IT Strategy based upon their respective current and evolving operating models and business processes.

This includes reducing risk in all aspects of achieving the mission of RB Rail AS and Rail Baltica, including:

- Development and delivery of the IT Strategy in two stages:
 - Implementation stage
 - Supporting the Global Project

- General corporate support functions
 - Core project implementation functionality
 - Handover to Rail Baltica operations
 - Operations stage
 - Inclusive of Global Project capabilities
 - Handover from the Global Project
 - Rail Baltica business operations
- Development of the IT Strategy in a synchronised manner and with effective project control
 - Including IT tools for stakeholder management, project controls, project reporting so that the status and progress of development of the IT Strategy is clear
- Effective and efficient business processes supported by aligned, effective and efficient IT
- Understanding the requirements and scope of the Control Command and Signalling (CCS) system and its interfaces to align the CCS solution, operational and safety critical applications (Traffic Management System, Interlocking, ERTMS, etc..) with the long-term IT strategy where appropriate. Similar consideration is to be given to the Energy (ENE) system.
- Providing access to up-to-date information under emergency conditions.
- Ensure information and tools interoperability during all project development phases for all project Companies to follow using the same set of tools and processes.
- Ensuring data systems integration with other infrastructure managers, operators, and service providers in the context of the wider multimodal mobility and logistics ecosystem, including non-rail infrastructure organisations and operators.
- Setting unified standards and guidelines for IT systems and data system interoperability, including but not limited to the following examples:
 - Rail Baltica Design Guidelines
 - Open standards and data wherever possible⁹
 - ERA TSIs (including but not limited to INF, CCS, ENE, OPE, TAF, TAP TSIs)
 - Appropriate Shift2Rail / ERJU deliverables, including but not limited to
 - LINX4RAIL "System architecture and Conceptual Data Model for railway, common data dictionary and global system modelling specifications", with particular attention to Common Business Objectives, System Functional Architecture and Harmonisation of Operational Requirements, together with other Deliverables aimed at providing

⁹ This is to improve diversity of supply, range of potential tenderers for systems, and where possible to create opportunities for businesses in the region and the wider EU over the lifetime of the infrastructure

common approaches for SERA

- The "System Pillar" of ERJU Multi-annual Work Plan and its deliverables
 - Industry initiatives such as RCA, OCORA, FRMCS and similar
 - RFC8 standards e.g., for Path Requests
 - Unified Security standards across the current and future organisation, including from ENISA as well as national requirements
- Reducing supplier risk, using standardised data interfaces.
 - Many such interfaces have been developed under Shift2Rail, and this activity shall address the timelines and readiness of key areas such as the Conceptual Data Model for use in Rail Baltica, together with ensuring potential benefits of digitalisation are not obstructed by barriers between systems.
- The IT Strategy Roadmap and Plan provides for implementation of the project in a synchronised manner and with effective project control and quality management
 - Including IT tools for stakeholder management, project controls, project reporting so that the status and progress of implementation of the IT Strategy is clear
- Holistic management of IT security aspects
 - The cyber security management of Rail Baltica's railway IT and IT infrastructure has not been addressed in full so far and, given the cross-border nature of Rail Baltica's railways, the cyber security strategy must
 - Be embedded throughout the IT Strategy and Enterprise Architecture
 - Include guidelines and a governance model that is synchronized in all Rail Baltica's railway infrastructure countries and meets EU and national cyber security requirements.
 - Address cyber security for operational and safety critical applications of the CCS subsystems: Traffic Management System, Interlocking, ERTMS. This is to be undertaken in conjunction with the CCS and Security teams and is not a standalone activity.
- Software Development approach and processes
 - It is possible that custom development of applications or (more likely) of integration tools will be required during the delivery and operational phases of Rail Baltica. Consideration should be given to appropriate development approaches, software supply chain and cybersecurity requirements, as well as appropriate assurance and governance processes
 - This development could be "in-house" (by a Global Project actor), procured from a third party, or adapted from developments elsewhere (notably but not exclusively ERJU/Shift2Rail and industry consortia such as RCA)

- The development of operational control systems is governed by railway-specific standards and is not in scope for this section.

2. PROJECT SCOPE

2.1. SCOPE OF WORK

Rail Baltica recognizes that an integrated Enterprise Architecture will play a critical role in realising its future growth and expansion plans and those of the owners of the built infrastructure, as Rail Baltica moves into operations. The IT Strategy scope is to develop a framework for the (separate) implementation of a secure, optimized, and seamlessly integrated business, information, and technology framework with a significant focus on best practice in the rail industry and wider mobility and logistics industry.

Note that the Enterprise Architecture is expected to evolve from an architecture that supports the requirements of the Global Project (design and build) organisation, through defined stages, to one that supports the future Rail Baltica operational model, with the probability that capabilities from the Global Project will be carried forward and integrated into the Target Enterprise Architecture that fully supports the future Rail Baltica operating model.

The scope of this project is to develop an IT Strategy including an Enterprise Architecture for IT to help meet the goals of the Global Project and Rail Baltica future operations, and a plan for the Global Project to (separately) implement, that are in full alignment with the business vision and mission. All requirements should be considered over the lifecycle of the project and subsequent business operations i.e., development, commissioning, and subsequent go live and running of phased rail operations and other business operations such as, operation of freight terminals, commercial space development in/around stations, dark fibre services (along the RB corridor) and other digital/energy infrastructure etc as described in the Rail Baltica "Corridor Synergies" study. No element in the IT Strategy is to be linked to a specific supplier and all recommendations are to be "vendor neutral", with hardware, software, support, services or other elements available from multiple independent suppliers and based on published and unencumbered¹⁰ specifications.

The journey through completion of the current implementation project, commissioning, and handover and into future operations will be supported by an aligned IT Strategy delivered in two main stages for Rail Baltica Global Project Implementation and Rail Baltica Operations, respectively.

There is a significant risk that the agreed future Operating Model for Rail Baltica (the Operations Stage) will be unavailable for the start of the IT Strategy development work (including for the development of the IT Strategy for the Operations Stage). At the time of writing there is no confirmed expected date for availability. Therefore, the agreed Operating Model is a key dependency for development of the IT Strategy for the Operations Stage. RB Rail AS will provide the most up-to-date information available to the selected supplier, prior to availability of the agreed Operating Model, and the agreed Operating Model once available.

To mitigate the risk/issue of delayed availability of the agreed Rail Baltica Operating Model, the proposed approach is required¹¹ to be as follows:

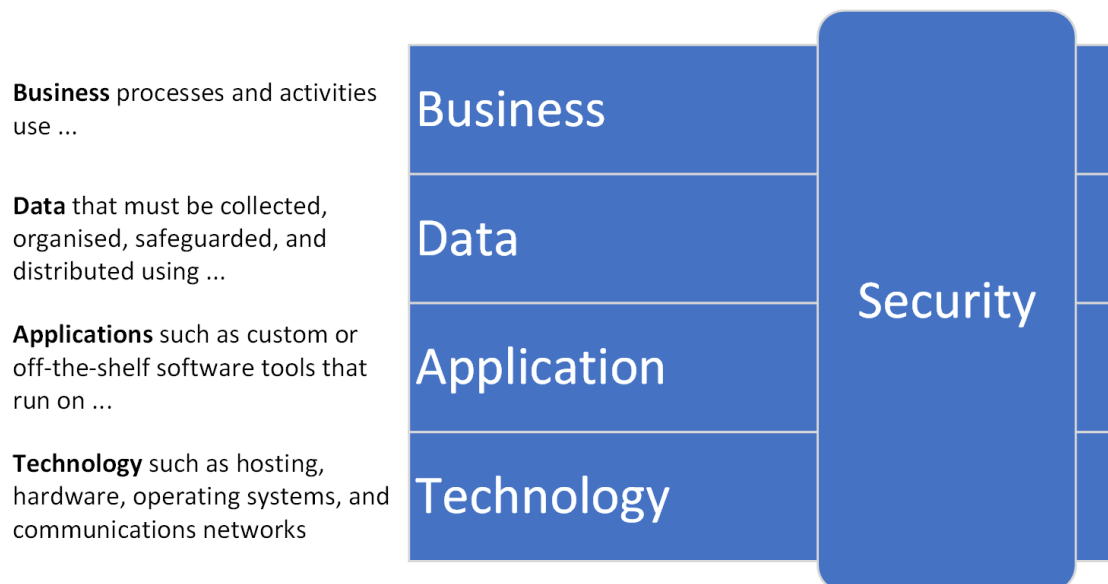
¹⁰ For avoidance of doubt no element may be single vendor only

¹¹ This approach must be considered; however, the supplier may also propose an alternative approach to mitigate the risk/issue of unavailability of the Rail Baltica Operating Model (with corresponding rationale for alternative approach)

- Initially, if the agreed Operating Model is not available, develop the IT Strategy up to a Transition stage incorporating an Enterprise Architecture that can flex to support known / expected options for the Operating Model
 - The Infrastructure Management Study, 2019¹² provides background on relevant options for the Operating Model (note none of the options or recommendation(s) in the study is approved at the level of an intergovernmental agreement at the time of writing and no assumptions should be made.)
- Once the agreed Operating Model is known, the IT Strategy for the Operations Stage can be completed, building on the flexible Enterprise Architecture
- If the agreed Operating Model is available in time for development of the IT Strategy for the Operations Stage, the work does not need to be phased as outlined in the previous bullets

Below is a high-level representation (based on TOGAF¹³) of how RB Rail AS view the Enterprise Architecture and how it will drive business value.

Enterprise Architecture (scope and structure of design and specification)



As a cross-cutting concern, the **Security** Architecture impacts and informs the Business, Data, Application, and Technology Architectures. The Security Architecture may often be organized outside of the architecture scope, yet parts of it need to be developed in an integrated fashion with the architecture.

The proposal must state and describe the proposed ADM to be used in development of the IT Strategy, and confirm that if it is proprietary, it will be licensed such that it can be freely reused by RB Rail AS / Rail Baltica as part of a future Enterprise Architecture capability. See the Deliverables section, under "Provide Recommendations to Establish Enterprise Architecture Capability".

RB Rail AS and Rail Baltica have a significant opportunity as a 'greenfield' infrastructure relatively (see e.g., As-Is systems) unhindered by legacy applications and technology. As such, it is expected that

¹² <https://www.railbaltica.org/wp-content/uploads/2019/04/RB-AS-Infrastructure-Management-Study-Final-Report.pdf>

¹³ <https://www.opengroup.org/togaf>

the successful candidate will display in-depth knowledge of state-of-the-art, EU and global practices and standards (including from the rail industry and, where appropriate, beyond) and will be able to leverage through benchmarking an IT Strategy that identifies and incorporates lessons learned from elsewhere to drive long term benefits and efficiencies.

The following sub-sections address expected activities and tasks to develop the IT Strategy. This is not intended to be exhaustive.

2.2. BENCHMARKING AND BEST PRACTICE

It is expected that the project will involve a level of benchmarking to understand leading practice for European and global rail operators in line with the proposed RB Rail AS and Rail Baltica target operating models.

- Analyse other infrastructure projects from across the EU/world, with relevance/similarities to the Rail Baltica project, to understand best practices used and lessons learned
 - Provide and explain resulting recommendations for Rail Baltica's IT Strategy
 - This activity could be undertaken working alongside the Shadow Operator

It is expected that the project will identify and consider key technologies and technology developments from within the Rail industry and beyond to understand those that can be leveraged by RB Rail AS and Rail Baltica to gain strategic advantage in meeting business goals. Appropriate technologies and how they may be applied is open and consideration should be undertaken in collaboration and consultation with RB Rail AS. These technologies may include, for example:

- Digitalisation of information and data (including but not limited to the Global Project supply chain)
- BIM/Common Data Environment integration
- Asset/component tracking throughout lifecycle (including all railway and ICT assets¹⁴)
- Building on existing work within RB Rail's Innovation and Digital Architecture team, the project should also consider:
 - Common integration layers and message-oriented / event-based systems
 - 5G and related areas such as edge (and hybrid) cloud
 - Advanced technologies for condition monitoring, asset management, predictive and prescriptive maintenance together with real-time integration with control centres and incident management teams
 - Event-based and 'big data' analytics, machine learning and related areas
 - Opportunities for synergies during Global Project delivery

¹⁴ For avoidance of doubt this also includes software supply chain

- Hyperscaler and other approaches for optimising efficiency and sustainability in ICT implementation and operations
- Etc.

It is also expected that the risks versus potential rewards will be evaluated when considering any new technology for inclusion in the architecture

This is to be undertaken jointly with the Innovation and Digital Architecture team within RB Rail AS.

2.3. COLLABORATIVE WORKING

It is critical for the supplier to work collaboratively with all stakeholders of the IT Strategy and Enterprise Architecture, to ensure RB Rail AS and Rail Baltica business goals and requirements are accurately acknowledged, defined, and addressed across the full breadth of the business, including but not limited to

- RB Rail AS/Global Project Executives and their respective designated representatives for each department and national office
- National Beneficiaries/national Implementing Bodies and their respective designated representatives
- Designated representatives of key external stakeholders as required, including Construction Contractors, Rail Undertakings (RUs), Multi-modal transport connections (Ports, Airports, etc.), Emergency Services, Customers, Suppliers, Governments, Government Agencies (such as Tax/Customs), Regulators, and other entities which require integration. Note that RB Rail AS has a Stakeholder Management team which may be able to assist with this.

While working collaboratively, the IT Strategy developer is expected to retain intellectual autonomy. Where stakeholders take different views on aspects of the strategy the IT Strategy developer should work for an optimised decision on how to proceed, with escalation to senior management of RB Rail AS, with recommendations, where differing views of stakeholders have not been reconciled.

The Strategy developer should analyse strategies, initiatives, tenders, plans, projects etc., that relate to the IT Strategy, that have been/are being developed or executed by various stakeholders from across the business to understand, agree and define how they can be aligned with the IT Strategy, taken as inputs, and managed for interdependencies with "gives and gets" to and from the IT Strategy. This should include the following examples:

- CCS Design and Build project (see the CCS subsystems breakdown structure in the Appendix)
- ENE Design and Build project
- Cyber Security
- Document Management Strategy
- BIM Strategy (incl. Asset Register)
- Innovation and Digital Architecture (e.g. digitalisation, innovation and integration approaches)

- Individual national Implementing Bodies' IT Strategies, Business Plans and Business Change Plans relating to Rail Baltica
- Shadow Operator
- Data Centre/Hosting status – (future architecture has been not determined and is within scope of the IT Strategy)

it is also expected that the Strategy developer will create and implement a communications plan, working with RB Rail AS Stakeholder Management team.

2.4. ARCHITECTURE VISION

Document the Architecture Vision including details such as mission, strategy, stakeholder objectives, challenges, and envisioned architecture model

The Architecture Vision should be developed at a high level to allow senior management buy in. It is expected that this Vision will be the basis for the other deliverables.

Develop preliminary Enterprise Architecture Principles for RB Rail AS and Rail Baltica, across all architecture domains (i.e., Business, Application, Data, Technology, and IT Security) – to be refined in the separate architecture domains work

2.5. BASELINE (AS-IS) ARCHITECTURE

RB Rail AS is a relatively young organisation and as such the as-is architecture definition is not as extensive as in mature railway organisations; however, it is not static and is evolving in several areas.

Review the Baseline Architecture by studying relevant aspects of the current state business functions, services, process maps, information flows, data models, application systems, application integration Interfaces, infrastructure, network, hardware systems, software products, etc.

- This applies to RB Rail AS and aspects of the national Implementation Bodies current IT estates that are relevant to the Rail Baltica architecture, including systems used for the delivery of their projects
 - As per the guiding principle of "An integrated Enterprise Architecture for Rail Baltica – one railway, one system, one operating model, one set of rules and standards" – IB systems will not automatically be used for Rail Baltica, but can, where needed, be integrated with the Rail Baltica system(s) after implementation of the core Rail Baltica Enterprise Architecture
 - With respect to the previous point, it is essential data integration standards are specified at an early stage and that these are 'open' rather than linked to any specific vendor or group of vendors
- Also applies to managers of related infrastructure that will require interfaces such as airports and seaports and other external parties
- Analyze all currently implemented systems and planned to be implemented systems at a Global Project level

- Develop specification and requirements for future development of the IT systems

2.5.1. AS-IS TECHNOLOGY ARCHITECTURE – RB RAIL AS

The following list (not exhaustive) describes the current state technology and applications structure for RB Rail AS:

- Hosting is primarily provided by Microsoft Azure with some locally hosted technical infrastructure including servers, network connectivity with Microsoft Azure cloud backup
- User access management – Microsoft AD, Uniflow
- Office 365
- MS Teams, MS Planner, MS Project, MS Visio
- Document Management – SharePoint, DocLogix, Bentley ProjectWise, Trimble Connect
- Autodesk tools including AutoCAD
- ArcGIS
- Oracle Primavera P6 for project planning and management
- Oracle Cloud for Risk Management
- Railsys, PTV Visum for simulations and modelling
- Microsoft Power BI, and other systems

2.5.2. AS-IS TECHNOLOGY ARCHITECTURE – IBS

The IT Strategy will provide clear analyses of all currently implemented systems and planned to be implemented systems of the IBs (where relevant to Rail Baltica).

2.6. TRANSITIONAL AND TARGET ARCHITECTURES

A Transition Architecture is an intermediate architecture at a specific point in time, short of attaining the full Target Architecture that meets the totality of requirements. One or more Transition Architectures may be used to describe the progression in time from the Baseline to the Target Architecture.

The purposes of the Transition Architecture(s) may include:

- Sufficient Architecture development to meet interim (phased) business goals – an example of this could be capabilities to support fully scaled construction contractor management, document management and handover capabilities in sufficient time for testing before the relevant business milestones are reached for the Implementation Stage, and prior to delivery of further Transition Architecture(s) and the full Target Architecture of the Operations Stage.
- Risk Management – breaking down the total scope of work into manageable phases

Design and develop the Transitional and Target architectures to support RB Rail AS's and Rail Baltica's Long Term Architecture Vision, Business Plans and Master Schedule for all Enterprise Architecture domains through proposed business services, process maps, information flows, infrastructure, network, hardware systems, software products, etc (i.e., Future Business Architecture, Application Architecture, Data Architecture, Integration Architecture, Technology Architecture, and IT Security Architecture).

Development of the Transitional and Target Architectures should also include the following activities:

- Identify opportunities and set the guidelines/best practices to optimize the business processes, information flow, and data life cycle within RB Rail AS and Rail Baltica.
- Define standards and guidelines for integration with operational solutions delivered as 'turnkey' as part of CCS and ENE design and build projects e.g., SCADA, Asset Protection Systems, CCS, Power Management, etc.
- Specify/define standards and guidelines to be used (when the IT Strategy is separately implemented), in conjunction with the Enterprise Architecture Principles for selection of relevant software products and hardware systems.
- Specify/identify opportunities for cost reduction, efficiency gains or other benefits from common approaches or shared services across the Rail Baltica Global Project

2.7. BUSINESS ARCHITECTURE

The Business Architecture describes how the enterprise needs to operate to achieve the business goals and respond to the strategic drivers set out in the Architecture Vision.

Key in-scope functions and capabilities of the desired Enterprise Architecture include (but are not limited to – full scope is expected to emerge from Enterprise Architecture gap analysis etc.):

- Implementation Stage: Design, Build, and Deliver Rail Infrastructure and Rail Systems e.g.
 - Back Office (including CPMO Project Management, Project Planning & Control, Reporting etc.)
 - Network and Capacity Planning
 - Customer Management (including Customer Relationship Management throughout the project implementation stages of IBs)
 - Enterprise Resource Planning
 - Tender Management
 - Contract Management
 - Construction project management
 - Cost control

- IT information systems implementation and management (data, applications and configuration)
- Document Management
 - Effective Document Management is required to support all functions and capabilities, throughout the lifecycle of RB Rail AS and Rail Baltica. Note that a procurement process is underway at the time of writing, and this is likely to be in the "As-Is" environment in short order.
- Supply Chain management (if not within ERP domain)
- Handover to Operations
- Operations Stage: Implementation Stage capabilities carried forward and enhanced as needed, plus Operational Rail Processes E.g.
 - Asset Management (while this is mostly within other scopes of work, data integration and analytics/machine learning should be considered in conjunction with the work of the Innovation & Digital Architecture team)
 - Pricing
 - Sales and Order Management
 - Train Operations (Train Operations design and build is mostly from CCS project scope, but business process definition is within IT Strategy scope and should be aligned with ERJU/S2R approach with a view to SERA)
 - etc.
- Operations Stage: Integration with Rail Systems and CCS systems delivered via the CCS and ENE Design and Build projects, including (also see the CCS subsystem breakdown structure in the Appendix):
 - Communications Systems (Data backbone, network design, PA/VA Clock, Telephones, Voice Recording, Radio etc.)
 - Depot Equipment (for maintenance)
 - Fire Systems
 - Asset Protection Systems (hot bearing detection, weigh in motion etc)
 - Mechanical and Public Health (HVAC)
 - Meteorological System
 - Control Centre Systems / Control, Command and Signalling (CCS) systems
 - ENE
 - SCADA

- Security Systems (CCTV, Access Control)
- Etc.
- Implementation Stage and Operations Stage as needed: Integration with external systems as needed for Construction Contractors, Rail Undertakings (RUs), Multi-modal transport connections (Ports, Airports, etc.), Emergency Services, Customers, Suppliers, Governments, Regulators, and other entities which require integration
- Etc.

Business process mapping will be required to define the IT Strategy. This is not expected to be a full business process mapping exercise in every area, but detail mapping is required for key processes. There does not currently exist a full business process map for the organisation. The key 'back office' processes for Finance, HRM, Programme Management, and Procurement are defined through the organisation 'Policies and Procedures'. These will be made available to the successful candidate during the project. The candidate should also consider potential process optimisations to ensure policies such as "Once Only" are also applied throughout the Rail Baltica project and RB Rail AS internal systems.

It is expected that all business processes of RB Rail AS and Rail Baltica will be mapped to Level 1¹⁵. Indicative business processes can be found in Appendix 1. *Note: These are indicative and are defined to assist the candidate in understanding the levels required. The successful candidate is expected to identify the numbers of processes required and justify these levels in their technical proposal.*

It is expected that several business processes will require definition to Level 2 or 3 to fully understand the subsequent information, integration, and technology requirements. Again, indicative processes are defined in Appendix 1. The candidate is expected to understand where the priority lies for these processes and bound their technical proposals accordingly.

2.8. DATA ARCHITECTURE

The scope is both Data ("structured information" as typically used by systems) and Information ("unstructured information" as typically used by people, but also in the sense of "information" being data with context).

This activity includes developing a description of the structure and interaction of the enterprise's major types and sources of data, logical data assets, physical data assets, and data management resources.

Assess the readiness of the Shift2Rail/ERJU Conceptual Data Model and related standards for use by Rail Baltica

- Consider alignment of these standards with Rail Baltica's CCS developments
- Examine the consistency and readiness of approaches to data in different Shift2Rail projects and how such data standards can be used to minimize risk during delivery and maximize

¹⁵ Process definition level must be detailed enough to develop requirements. Levelling assumptions in this document reflect those described in "Reflections on Business Process Levelling" by S. Viljoen (realirm.com/sites/default/files/whitepapers/reflections_on_business_process_leveling_0.pdf). Supplier may use alternative levelling if made clear.

flexibility over the full lifecycle, as inputs to specifications and requirements for system implementation. In addition, compliance with anticipated future SERA standards is to be taken into consideration.

- Ensure that the demarcation of systems into operational technology (control systems) and information technology does not create unnecessary barriers to appropriate information flow both for analytics and enterprise applications, but also importantly including providing and managing secure access to information for emergency services/similar agencies & first responders.

Data asset management over the full lifecycle of data from acquisition to retirement is critical to ensure that all data processed by systems and accessible to users as information, is high quality and trusted. High quality, trusted data supports effective Business Processes and Decision Making as well as user acceptance of systems.

Understand and document the key information flows and requirements for construction, handover and running of an operational railway. This should drive the high-level definition of an enterprise data environment and/or usage of appropriate shared EU/industry systems and how future business benefits can be leveraged through analytics and Business Intelligence. Information Management and Analytics are key to the long-term efficient operations of the railway in a significant number of areas e.g., Pricing, Scheduling and Planning, Maintenance Scheduling, Performance Analysis etc. Please note some of these areas will require data from the CCS and ENE environments to be made available either in real-time or 'near real-time' and the Contractor is expected to work with relevant teams to establish cybersecurity requirements for each 'feed' which will provide such functionality.

Other aspects of Information management that must be addressed include:

- Enterprise Content Management covering such areas as the Rail Baltica BIM Strategy, Document Management, and Web Content Management
- Business opportunities for private companies deriving from the Open Data concept and information flows between Rail Baltica and the companies, as well as tools to enable and support such activities

2.9. APPLICATION ARCHITECTURE

It is expected that this activity will focus on developing the descriptions, specifications, and requirements for software applications that enable the Business Architecture and the Architecture Vision, align with the Data Architecture and hence

- Identify candidate IT Strategy Roadmap components based upon gaps between the Baseline and Target Application Architectures
 - As-Is (baseline) Application Architecture (high level except where applications are expected to be carried forward into Transitional/Target Architectures)
 - Transitional Application Architectures
 - Target Application Architecture
- Modular Solution Building Blocks (SBBs), or re-usable solutions for future implementation efforts, should be defined with sufficient detail to support future procurement/selection of specific solutions and products, and with flexibility to replace specific solutions within the modular architecture if and when this becomes necessary. The definition of such building blocks is to be vendor-neutral such that any future procurement/selection is not unduly

constrained.

- Map and provide an integration plan for the solutions currently used in each of the project implementation partners across the Rail Baltica Global Project, and define integration specifications and requirements

2.10. INTEGRATION ARCHITECTURE

As Rail Baltica aspires to become the centre of the NE Europe mobility and logistics network, it is paramount that the IT Strategy should deliver a solution based on principles of easy accessibility to and integration with information systems of major stakeholders across the network.

The delivery mechanism for RB Rail AS's and Rail Baltica's architectures will require significant integration and information flows during the project and operational lifecycle. The IT Strategy project is expected to recommend reference architectures to securely support secure, technology independent integration across the enterprise.

Secure and standardised integration and interoperability is required between all areas of the Enterprise Architecture without barriers from demarcation resulting from various sources of the components, such as the CCS, ENE, and IT Strategy contracts, scopes, and suppliers.

Scope includes integration

- Between RB Rail AS Systems (internal integration)
- Between RB Rail AS and external entities (external integration)
- Between national Implementing Bodies (during the infrastructure delivery phase) (internal integration)
- Between RB Rail AS, infrastructure owners (the States) and the future infrastructure manager(s) during project handover and related activities (handover integration)
- Between Rail Baltica Systems (internal integration)
- Between Rail Baltica and external entities (external integration)

2.10.1. INTERNAL INTEGRATION

Internal integration is all integration required between RB Rail AS / Rail Baltica systems within

- the Baseline/As-Is Application Architecture
- each Transitional (To-Be) Application Architecture
- the Target (To-Be) Application Architecture

2.10.2. EXTERNAL INTEGRATION

External integration is all integration required between

- (a) systems within the Application Architectures of RB Rail AS and Rail Baltica, and
- (b) systems of external parties such as Construction Contractors, RUs, Multi-mode transport connections (Ports, Airports, etc.), Emergency Services, Passengers, Customers, Suppliers, Governments, Government Agencies (such as Tax/Customs), Regulators, Public Transport, and any other entities which require integration to meet the business goals of RB Rail AS/Rail Baltica. This is to include a collaborative data management environment for integration with such external parties, using proven standards for securing any exchange.

2.10.3. HANDOVER INTEGRATION

Handover integration is all integration required for the special purpose of handover of railway design and build deliverables to live operations. This is expected to fully support the handover from the Global Project to Rail Baltica, and future railway infrastructure enhancement projects carried out by Rail Baltica after the handover.

2.11. TECHNOLOGY ARCHITECTURE

This activity is focused on describing and defining the structure and interaction of the technology services and technology components, including

- Data centre and hosting services
- Hardware
- Operating Systems
- Middleware
- Physical Communications Network
- Communications Network Design
- Metrics, Monitoring and Management Systems
- Etc.

Develop the Baseline, Transitional and Target Technology Architectures that enable the Architecture Vision and respective Transitional and Target Business, Data, and Application building blocks to be delivered through Technology components and Technology services.

2.11.1. DATA CENTRE AND HOSTING SERVICES

The data centre and hosting components of the Technology Architecture must be developed as part of the enterprise architecture. This must include hosting for all IT across RB Rail AS and Rail Baltica, including IT and OT (e.g., CCS, ENE) components. It also includes efficient operation of data centre environments taking into account sustainability considerations (such as Scope 3 emissions), multi-vendor hardware interoperability and ensuring no proprietary "lock-in" within the systems to be implemented in such data centre or hosting environments.

2.11.2. COMMUNICATIONS NETWORK

The CCS project scope includes fibre backbone, infrastructure and network design for CCS and Railway Systems (see the indicative CCS subsystems breakdown structure in the appendix).

The IT Strategy is required to build on the core network physical architecture from the CCS project and extend the design to the whole enterprise architecture, i.e., all corporate and operational IT/OT corporate systems across the enterprise. Therefore, for the communications network there are key dependencies between the IT Strategy development (as well as separate and subsequent implementation) and the CCS/ENE Design and Build projects.

If, however the successful candidate identifies more flexible or efficient options then these can be proposed for evaluation. This is in recognition of the fact that enterprise networks do not have to meet the same stringent requirements as the CCS network and could benefit from additional flexibility.

2.12. SECURITY ARCHITECTURE

Develop a common optimised Rail Baltica railway cyber security strategy, guidelines and common cyber security governance model, organizational design, policies, regulations, and procedures to support the strategy.

- Examine Cyber Security strategies, EU and national regulations and standards, cyber risks, and best practice in Railway infrastructure in the EU and input findings into an optimal Rail Baltica IT Security strategy. This includes
 - ENISA guidelines and recommendations for critical infrastructure, for telecommunications (including 5G) and related areas
 - TEN-T security priorities and practices
 - Dual Use aspects (Military Mobility)
 - Rail Baltica project member states' national security interests and cross-border infrastructure needs
 - Operational and safety critical applications
 - Interfaces with other infrastructure managers and operators

IT Security/Cybersecurity is to be addressed throughout the IT Strategy and Architecture. Areas addressed should include (but are not limited to):

- Risk management strategy
- Threat analysis
- Overarching and integrated Security Architecture covering Business, Data, Application, and Technology domains
- Security use-case models
- List of applicable and to be complied with, security standards including EU and national legal

enactments, security means, requirements for IT critical infrastructure

- Cooperation/communication with competent national authorities in IT security field
- Information classification report (to classify information as Confidential, Public, etc. so that rules for protection can be clearly defined and applied)
- List of asset custodians
- Disaster recovery and business continuity plans, crisis management
- Operational and safety critical applications
- External interfaces
- Multi-layered cyber security approach
- Data storage approach and data transmission network model
- Early attack detection, suspicious activity monitoring within hosts and networks
- Physical security (of IT and Cyber Security assets)
- System segregation
- Ecosystem mapping/ecosystem relations
- Human resources security
- Security audits

Note that IT Security requirements for the CCS and ENE design and build projects are also within the scope of the IT Strategy –as these are interdependencies that must be reflected in the implementation plan. Note this activity is to be undertaken in conjunction with the CCS and ENE teams as well as the Security team within RB Rail AS.

Vendor must demonstrate comprehension of the Technical Specification CLC/TS 50701 "Railway applications – Cybersecurity" (published on July 2021), that addresses the application of the widely accepted IEC 62443 standard "Security for industrial automation and control systems" to rail sector.

As railway systems are designed to be used for decades, vendor must address the potential for developments in the field of quantum-secure cryptography.

2.13. IT STRATEGY ROADMAP AND PLAN

The IT Strategy Roadmap and Plan address migration planning. That is, how to move from the Baseline to the Target Architecture (from the Implementation Stage to the Operations Stage as well as within each stage) by finalizing a detailed Implementation and Migration Plan for the Implementation Stage and the Operations Stage respectively. For clarity, note that the Roadmap is expected to be an abstracted view of the separate and aligned, detailed Implementation and Migration Plan.

The timeframe of the Roadmap and Plan is expected to be from the current time through the duration of the Global Project (see the Rail Baltica Master Schedule) and for a significant period into the operational running of the railway, following the handover that is planned for 2026 at the time of writing.

The timeframe during which the Enterprise Architecture is fully fit for purpose beyond the handover and into the operational running is open and it is expected that the capabilities that have been implemented with the IT Strategy will support Rail Baltica well beyond this date. A date beyond the handover should be recommended for a review of the Enterprise Architecture.

The IT Strategy must be designed to support Rail Baltica well into the period of operational running and this will require RB Rail AS / Rail Baltica to provide, as a key input to the IT Strategy, the agreed Operating Model and Business Plans for Rail Baltica over the period.

Design and Develop the IT Strategy Roadmap addressing the RB Rail AS and Rail Baltica objectives, business drivers, and milestones, for the Implementation and Operations Stages respectively.

- Identify initiatives list (Projects/Initiatives Catalogue) to realize the Transition and Target Architectures.
- Estimate high level project cost and schedule for identified projects.
- Provide recommendations regarding the best resource planning approach
- Identify and define priorities and risks.
- Define the dependencies, and document Transition Architecture(s) as required for each stage/transition while accounting for the degree of change the organization can cope with at any one time.
- Include key governance and approval process and milestones (key stakeholders from RB Rail AS, national Beneficiaries and national Implementing Bodies are reviewers)

2.14. GOVERNANCE FRAMEWORK

Define the Governance Bodies and Structure required to support the IT Strategy development and implementation and provide management visibility into the Enterprise Architecture progression.

Define the skills, processes, and roles & responsibilities required for the governance bodies to achieve their set objectives.

3. PROJECT DELIVERY APPROACH

3.1. OUTPUTS AND RESULTS

The primary objective of this project is to provide RB Rail AS, the future owners of the infrastructure and the Implementing Bodies with a long-term IT Strategy based upon the current and evolving RB Rail AS operating model and the future Rail Baltica operating model and associated business processes – the Implementation and Operations Stages respectively.

The IT Strategy will provide clear recommendations (with rationales) based on strong understanding of the best practices in the Railway industry and beyond for systems and technology architecture implementation, and maintenance to ensure Global Project implementation on time and in optimum scope/quality.

The recommendations will be used as an input for the future choice of the systems, as well as technology decisions (including data centre/hosting architecture).

The IT Strategy will provide clear analyses of currently used systems of RB Rail AS and the IBs (where relevant to Rail Baltica) and give recommendations for future integration and unification of tools across the Global Project implementers, thus ensuring implementation of the Global Project on time and acceleration of the project delivery process. The result will be used as input for future tools integration and implementation decisions.

The IT Strategy will provide a standards-based, interoperable, and flexible digitalisation approach using outputs of Shift2Rail and other projects as well as previous Rail Baltica work to enable trusted and efficient information flow between systems and across organisations such as RU(s)/IM(s) in future. This will also assist with seamless & efficient transition of information from the implementation phase to the operational phase.

The IT Strategy will provide a cyber security requirements and governance model for a unified railway infrastructure

3.2. SUMMARY OF DELIVERABLES

3.2.1. GENERAL DELIVERABLES

The list of general deliverables in this section is an indicative high-level summary based on the TOGAF Architecture Development Method (ADM) with some additions; it is not intended to be exhaustive or exclusive. Equivalent work products should be specified at a detailed level and be based on the stated ADM to be followed by the supplier, specifically tailored for Rail Baltica.

In general, these deliverables apply to both the Implementation Stage and the Operations Stage as well as progressively from Implementation to Operations, covering the capabilities needed.

- Architecture Principles, Vision and Requirements
 - Architecture Principles
 - Architecture Vision, e.g.,
 - Business Principles, Objectives and Drivers
 - Business Vision
 - Business Strategy
 - IT Systems Strategy
 - Technology Strategy
 - IT Security Strategy
 - Stakeholders
 - Architecture Requirements, e.g.,
 - Requirements
 - Constraints
 - Assumptions
 - Gaps
- Business Architecture, e.g.,
 - Operating Model

- Business Architecture Principles
- Organization structure
- Business goals and objectives
- Business services
- Business processes
- Business roles
- Correlation of organization and functions
- Business continuity and resilience requirements
- Information Systems Architecture
 - Data, e.g.:
 - Data Architecture Principles
 - Business data model
 - Logical data model
 - Data management process models
 - Data Entity/Business Function matrix
 - Application, e.g.,
 - Application Architecture Principles
 - Application Portfolio catalog
 - Interface catalog
 - Application/Organization matrix
 - Role/Application matrix
 - Application/Function matrix
 - Application Interaction matrix
 - Application Communication diagram
 - Application and User Location diagram
 - Application Use-Case diagram
 - Process/Application Realization diagram
 - Integration, e.g.,
 - Integration Architecture Principles
 - Internal Integration
 - Handover Integration
 - External Integration
- Technology Architecture, e.g.,
 - Technology Architecture Principles
 - Data Centre/Hosting
 - Hardware/OS
 - Middleware
 - Communications Network
- IT Security Architecture, e.g.,
 - IT Security Architecture Principles
 - Business
 - Information Systems
 - Technology
- Implementation and Migration Plan, including:
 - Implementation and Migration Strategy
 - Project and portfolio breakdown of the implementation
 - Resource utilization plan

- Architecture Roadmap
- Implementation Governance Model
- Provide Recommendations to Establish Enterprise Architecture Capability
 - Review the organizational context for conducting Enterprise Architecture
 - Identify and scope the elements of the enterprise organizations affected by the Architecture Capability
 - Identify the established frameworks, methods, and processes that intersect with the Architecture Capability
 - Establish Capability Maturity target
 - Define and recommend the Organizational Model for Enterprise Architecture
 - Define and recommend the detailed process and resources for Architecture Governance
 - Recommend tools that support the Architecture Capability
 - Recommend Architecture Methodology / ADM
 - Describe the compatibility of the proposed ADM to be used in the development of the IT Strategy with the recommended ADM

3.2.2. CYBER SECURITY STRATEGY

Develop a common optimised RB Rail AS and Rail Baltica railway Cyber Security Strategy, guidelines and common cyber security governance model, organizational design, policies, regulations, and procedures to support the strategy.

A preliminary version of the Cyber Security Strategy should be delivered for the Implementation Stage, followed by the all-encompassing version for the Operations Stage.

- This Strategy will have interdependencies with the separate, but related development of a physical railway security strategy, for example
 - Cyber Security Strategy scope includes physical security of IT assets and should align standards, etc. with physical railway security strategy
 - Physical Railway Security Strategy is expected to use various IT Assets to support physical security and should align standards with the IT Strategy

3.2.3. DIGITALISATION STRATEGY

Develop a Digitalisation Strategy

A preliminary version of the Digitalisation Strategy should be delivered for the Implementation Stage, followed by the all-encompassing version for the Operations Stage. This work is to be done in conjunction with the RB Rail AS Innovation and Digital Architecture team, who will involve others within RB Rail AS as appropriate, as well as providing briefings in the form of both meetings and materials. It should also be noted a separate study is to be undertaken in this area and this strategy will be expected to align with the outputs of that study as well as other activities within the Innovation and Digital Architecture team.

- Assess the readiness of the Linx4Rail Conceptual Data Model and related approaches including alignment of these standards with CCS developments.
- Assess projects such as but not limited to those under ERJU / Shift2Rail on how such data standards and other elements can be used to minimise risk during delivery and maximise flexibility over lifecycle.

- Consider the EU and Estonia Single Window initiatives, and existing data sharing arrangements between governments in the region (including specifically between the governments of Estonia and Finland)
- Consider the implications of a fully open "Single European Railway Area" for data exchange and real-time information flows
- The strategy will ensure that the demarcation of systems into operational technology (control systems) and information technology does not create unnecessary barriers to appropriate information flow, including providing and managing secure access to information for emergency services/agencies & first responders, secure transfer of data from the 'OT' to 'IT' domains to allow for real-time analytics and machine learning, and similar areas.

3.2.4. DATA AND TOOLS STRATEGY

Develop a Data and Tools Strategy.

A preliminary version of the Data and Tools Strategy should be delivered for the Implementation Stage, followed by the all-encompassing version for the Operations Stage.

Much of the detail of the Data and Tools Strategy is expected to be encompassed within the Data Architecture and Integration Architecture deliverables. However, the Data and Tools Strategy should describe the overall strategy in this area as in the following description of activities and outputs:

Railway/infrastructure projects with similar magnitude and/or aspects will be analysed across the EU/world to understand best practices used, and the analysis developed to provide recommendations on how Rail Baltica project IT strategy and systems can be developed. Also, a task will map and provide an integration plan of the currently used IT solutions in each of the project implementation partners and define common specifications and requirements.

The Data and Tools Strategy will provide clear analyses of currently used systems and give recommendations for future integration and unification of tools across the Global Project implementers, thus ensuring implementation of the Global Project on time, within budget and quality goals, and acceleration of the project delivery process. The result will be used as input for future tools integration and implementation decisions.

3.2.5. INTERDEPENDENCIES WITH CCS/ENE PROJECTS

There are interdependencies both ways between the IT Strategy projects and the CCS/ENE design and build projects that must be addressed in the IT Strategy for the Operations Stage.

The IT Strategy is expected to define requirements for Control Command and Signalling (CCS) and ENE Subsystems and their interfaces to align the CCS/ENE solution, operational and safety critical applications (Traffic Management System, Interlocking, ERTMS, etc..) with the long-term IT strategy.

- This is a dependency from the CCS/ENE design and build projects to the IT Strategy which is responsible for this deliverable
- The design and build (plan) are dependencies from the IT Strategy to CCS and ENE projects (CCS and ENE projects are responsible for deliverables)

- The CCS/ENE design and build projects scope includes Communications Systems (Data backbone, network)
 - The IT Strategy team is responsible for the Enterprise Network Architecture, incorporating the CCS/ENE deliverables and extending to the whole organisation (e.g., from the OT scope to the full IT and OT scope of RB Rail AS and Rail Baltica). This approach is to lead to a single enterprise network for the Rail Baltica Global Project during the Implementation phase which can then be used for sharing data during the Operational phase irrespective of business model.
 - It is important to ensure that irrespective of the Rail Baltica operating model, data can be shared to allow effective use of analytics and machine learning for predictive/prescriptive maintenance. This is a clear example of an area in which the unique opportunities of this greenfield cross-border project should not be lost.

4. Required experts

- 4.1. The Candidate will be asked to submit in its initial proposal the proposal of the Core Team that will consist of at least the following Key experts (detailed minimum requirements for the experts will be included in the Second Stage of the Competition):
 - 4.1.1. Project Manager (with experience in multi-stakeholder projects);
 - 4.1.2. Railway Systems Expert;
 - 4.1.3. Railway Operations Expert;
 - 4.1.4. Business Process Analyst (with experience in transport sector);
 - 4.1.5. IT Systems Architect (with experience in critical infrastructure);
 - 4.1.6. Cybersecurity Architect (with experience in railway technologies or industrial operational technologies).
 - 4.2. For the purposes of clarity, one expert can cover multiple roles as required above. The Candidate will not be allowed to change the Key experts during execution of the Contract without prior written approval of RBR pursuant to Article 42 of the Public Procurement law.
5. This project is to deliver a strategy and does not include the implementation of that strategy. Responses to the Technical Specification should not include implementation phase activities but identify types of product / functionality required in a vendor-neutral manner (providing examples of alternative offerings): these will then be developed by the contractor in such a way as to support separate future procurement activities to be undertaken by RB Rail and or others. Therefore, to avoid potential conflicts of interest, the delivery of the IT Strategy must not be limited to recommendation of products from the Contractor or related parties.
 6. Full Technical Specification (detailed requirements, information on the scope and delivery schedule of the system) will be provided to selected Candidates during the Stage Two of the Competition.

APPENDIX 1 BUSINESS PROCESS DEFINITION

Below is an outline of the expected level of business processes to be defined as part of the IT Strategy project and applying to RB Rail AS and Rail Baltica respectively. This is indicative and the Candidate is expected to review this considering their own experience to outline the level of detail required and included within your scope of work. Note the Common Business Objectives and Harmonisation activities under ERJU/Shift2Rail are to be respected and should be used as a base in some areas. A subset of the processes should be relevant for the Implementation Stage, and all the processes should be relevant for the Operations Stage (subject to the agreed Operating Model).

Level 0	Level 1	Expected 2+ process level definition in specific sub-process areas
Infrastructure and Operations ¹⁶	Manage Capital and Risk	
	Manage Plant, Facilities and Equipment	X
	Manage Accounting and Control Data	
	Manage Key Accounts	
	Manage Maintenance Cycle	X
	Manage Operation Control Centre ¹⁷	
	Manage Train Operations ⁹	X
	Manage Quality and Safety	X
	Manage Yard Operations ⁹	
	Manage Terminals ^{9,10}	
	Manage Sales and Delivery Cycle	
	Manage Ticketing and Yield Management ¹⁸	
	Manage Data	X
	Manage IT Security	X
	Manage Interfaces with external parties (incl. RUs, intermodal IMs, etc.)	X
Construction	Manage Construction Design	X
	Manage Construction Projects	X
	Manage Quality Control	X
Back Office	Manage Strategic Planning	X
	Manage Legal Services	
	Manage Human Resources	X
	Manage Administration	X
	Manage Finance and Accounting	X
	Manage Information Technology	X
	Manage Procurement and Logistics	X
	Manage Public Relations	
Manage Service Contracts		
	Frequently-used Internal Processes	X

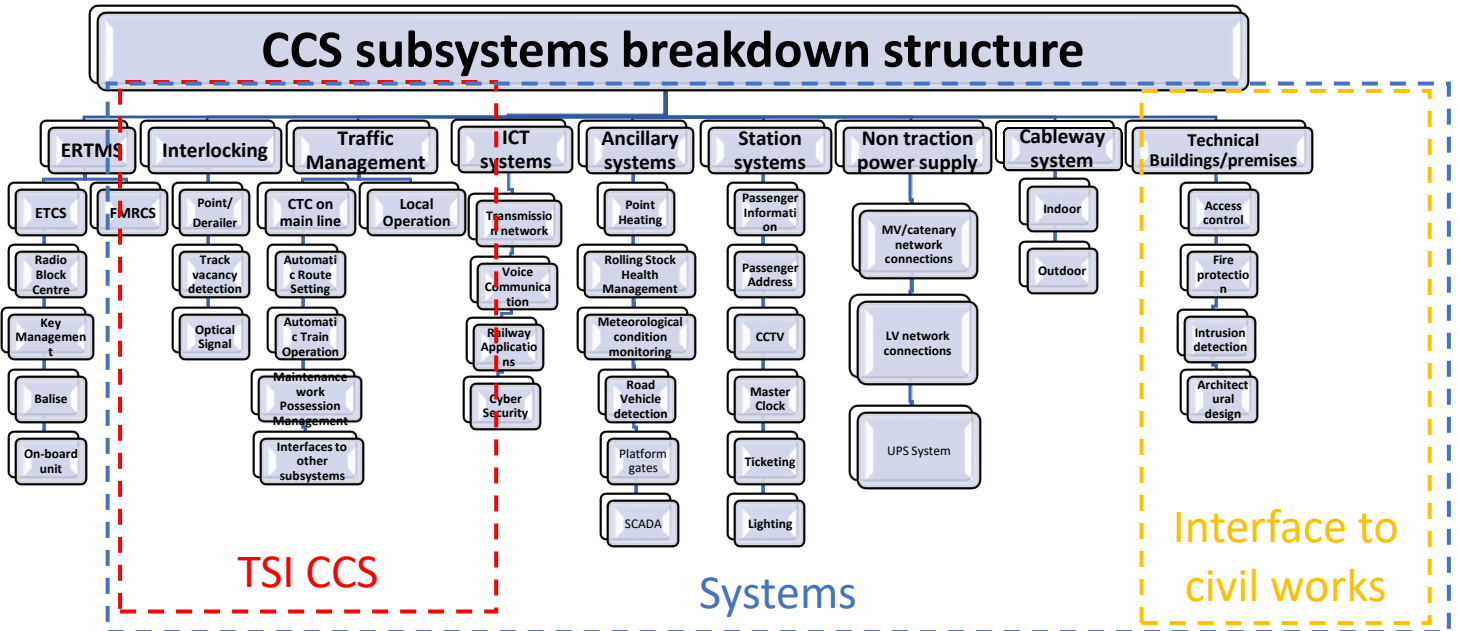
¹⁶ To be aligned with work of ERJU and RB Rail Systems and Operations teams

¹⁷ CCS design and build is a separate project, but business process definition required from this project, and harmonisation and interfaces required between IT and OT systems

¹⁸ Potentially in scope together with Shadow Operator and CCS projects

APPENDIX 2 INDICATIVE CCS SUBSYSTEMS

The indicative CCS subsystem breakdown structure is provided in the Figure below:



APPENDIX 3 WORK PACKAGES

Title of deliverable	Description of deliverable
Inception Report (WP1)	a. Architecture Principles, Vision and Requirements (WP1.1) b. Business Architecture (WP1.2) c. IT Security Architecture (WP1.3)
Interim Report (WP2)	a. Information Systems Architecture (WP2.1) b. Technology Architecture (WP2.2) c. Data and Tools Strategy (WP2.3) d. Cybersecurity Strategy (WP2.4)
Final Report (WP3)	a. Synthesis of WP1 and WP2 (WP 3.1) b. Implementation and Migration Plan (WP 3.2)

CONFIRMATION OF CANDIDATE'S FINANCIAL STANDING FOR THE COMPETITION
"IT ARCHITECTURE DEVELOPMENT STRATEGY"
 (ID NO RBR 2022/24)

- Section 5.2.(1) of the Regulations**

The Candidate's or all members of the partnership together (if the Candidate is a partnership and confirms the average financial turnover jointly), average annual financial turnover within the last 3 (three) financial years (2019, 2020, 2021) is not less than 1 000 000 EUR (one million euro).

In the event the average annual financial turnover of a limited partner of the limited partnership (within the meaning of The Commercial Law of the Republic of Latvia, Division X) exceeds its investment in the limited partnership, the average financial turnover shall be recognized in the amount of the investment in the limited partnership.

In the event the Candidate or a member of a partnership (if the Candidate is a partnership) has operated in the market for less than 3 (three) financial years, the requirement shall be met during the entity's actual operation period.

No	Year	Total Turnover in EUR*	Notes
Candidate's or all members of the partnership together (if the Candidate is a partnership)			
1	2019		
2	2020		
3	2021		
Average within last 3 (three) financial years			
<i>If the Candidate is partnership, please continue and provide info regarding each member:</i>			
1	2019		
2	2020		
3	2021		
...			

**If the financial turnover is in another currency than euro, for the purposes of this Application it should be recalculated in euro in accordance with the currency exchange rate published by the European Central Bank on the date of signing of this document.*

- Section 5.2.(2) of the Regulations**

The Candidate or entity on whose capacity the Candidate is relying on to certify its financial and economic performance and who will be financially and economically responsible for fulfilment of the procurement contract (e.g., member of the partnership), shall have stable financial and economic performance, namely, in the last audited financial year liquidity ratio shall be equal to or exceed 1 and shall have positive equity.

Name of the Candidate /member of partnership/other entity*

Financial information from the Candidate's financial statement used to calculate liquidity ratio and equity*	Last audited year _____
Current assets	
Total assets	
Short-term liabilities	
Total liabilities	

* Please continue and provide information regarding each entity to which this requirement applies. If value of assets or liabilities have been calculated from different parts of Candidate's financial statement, Candidate must provide explanation how the calculations have been made.

$$\text{liquidity ratio} = \frac{\text{current assets}}{\text{short - term liabilities}} = \underline{\hspace{2cm}}$$

$$\text{equity} = \text{total assets} - \text{total liabilities} = \underline{\hspace{2cm}}$$

[date of signing]

[name and position of the representative of the Candidate]

DESCRIPTION OF THE CANDIDATE'S EXPERIENCE FOR THE COMPETITION
"IT ARCHITECTURE DEVELOPMENT STRATEGY"
(ID NO RBR 2022/24)

[Note: The Candidate shall indicate in the table the experience, which attests compliance with the requirements set in Clause 5.3. of the Regulations for the Selection of Candidates: Within the previous 5 (five) years (2017, 2018, 2019, 2020, 2021, 2022 until the date of submission of the Application) the Candidate has gained experience in the development of at least 3 (three) IT architecture strategies with project (contract) value of each IT architecture strategy at least EUR 500 000,00 (five hundred thousand euro) excluding VAT, where:

1) at least 1 (one) IT architecture strategy was related to railway sector (e.g., national rail, metro, light rail, high speed rail, etc.) and delivered for client(s) with ERTMS or CBTC-based railway operations.

The IT architecture strategy should be delivered and accepted by the Client.

No	Name, registration number, contact person (name of representative, phone, e-mail) of the Client ¹⁹	Date of commencement (month/year) and date of acceptance by the Client of the IT architecture strategy	Title and brief description of the delivered IT architecture strategy, including sector and information on client's railway operations (for experience stipulated in Subclause 1) of the Clause 5.3. of the Regulations)	Value of the project (contract) of IT architecture strategy *
1.	<i>[Name, registration No of the Client. Name, phone, e-mail of the Client's contact person]</i>	<i>From [month/year] - to [month/year]²⁰</i>	<i>[Title and description of the delivered IT architecture strategy] [To prove Candidate's experience stipulated in Subclause 1) of the Clause 5.3. of the Regulations information that proves that delivered IT architecture strategy was related to railway sector (e.g., national rail,</i>	<i>[]²¹ EUR without VAT</i>

¹⁹ In case of doubt, the Contracting authority has the right to contact the Client to verify that the experience specified complies with the requirements set in Section 5.3. of the Regulations.

²⁰ Within the previous 5 (five) years (2017, 2018, 2019, 2020, 2021, 2022 until the date of submission of the Application). The IT architecture strategy should be delivered and accepted by the Client and its final completion date is within the previous 5 (five) years (2017, 2018, 2019, 2020, 2021 and 2022 until the date of submission of the Application). The Candidate is also entitled to rely on the development of the IT architecture strategy, which was started before the period mentioned in this clause, but the development of IT architecture strategy was completed and accepted by the Client during the previous five years (2017, 2018, 2019, 2020, 2021 and 2022 until the date of submission of the Application).

²¹ At least 500 000,00 EUR (five hundred thousand euro) without VAT.

			<i>metro, light rail, high speed rail, etc.) and delivered for client with ERTMS or CBTC- based railway operations.]</i>	
2.				
3.				

* If the value of the contract/project is in another currency than euro, for the purposes of this Proposal it should be recalculated in euro in accordance with the currency exchange rate published by the European Central Bank on the date of signing of this document.

The IT architecture strategy should be delivered and accepted by the Client.

[date of signing]

[name and position of the representative of the Candidate]

**GUIDELINES FOR THE CLIENT'S REFERENCE FOR THE COMPETITION
"IT ARCHITECTURE DEVELOPMENT STRATEGY"
(ID NO RBR 2022/24)**

The following information is expected to be included in the Client's reference:

- *Date and place of issue of reference letter*
- *Name of the Client*
- *Name of the Candidate*
- *Reference to the Client's project (please specify the sector and information on Client's railway operations)*
- *Period of time of delivery (MM.YYYY – MM.YYYY)*
- *Brief description of delivered IT architecture strategy*

Please note, that Applications will not be rejected if the information is not included in the form / content provided above, and reference may also be prepared and submitted in the form preferred by the Client / Candidate itself.

[date of signing]

[name and position of the
representative of the Client]