

**CONTRACT FOR NON-CONSULTING SERVICES**

**Processing of Manganese Oxide Raw Materials**

**GE-GITA-208861-NC-DIR**

between

**Georgia's Innovation & Technology Agency**

and

**Ivane Javakhishvili Tbilisi State University**

**Date: February 23, 2021**

**Contract No.: GE-GITA-208861-NC-DIR**

This CONTRACT (hereinafter called the "Contract") is made the 23th day of the month of February 2021, between, on the one hand, **Georgia's Innovation & Technology Agency LEPL (GITA)** (hereinafter called the "Employer") ID No.: 204582521 having its principal place of business at 7, Innovation str. 0114, TechPark, Okrokana, Tbilisi, Georgia and, on the other hand, **Ivane Javakhishvili Tbilisi State University LEPL** (hereinafter called the "Service Provider") ID: 204864548 having its principal office located 1 Ilia Tchavtchavadze Avenue, 0179 Tbilisi, Georgia

WHEREAS

- (a) the Employer has requested the Service Provider to provide certain Services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the "Services");
- (b) the Service Provider, having represented to the Employer that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract at a contract price of **EUR 22,448.32 (Twenty-Two Thousand Four Hundred and Forty-Eight Euros and Thirty-Two Euro Cents)**;
- (c) the Employer has received a credit from the International Bank for Reconstruction and Development (hereinafter called the "Bank") towards the cost of the Services and intends to apply a portion of the proceeds of this credit to eligible payments under this Contract, it being understood (i) that payments by the Bank will be made only at the request of the Employer and upon approval by the Bank, (ii) that such payments will be subject, in all respects, to the terms and conditions of the agreement providing for the credit, and (iii) that no party other than the Employer shall derive any rights from the agreement providing for the credit or have any claim to the loan credit proceeds;

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents shall be deemed to form and be read and construed as part of this Agreement, and the priority of the documents shall be as follows:

- (a) the Special Conditions of Contract;
- (b) the General Conditions of Contract;
- (c) Cost estimate of the Services List of Personnel and Schedule of Rates; and

(d) The following Appendices:

**Appendix A:** Description of the Services

**Appendix B:** Schedule of Payments and Reporting Requirements

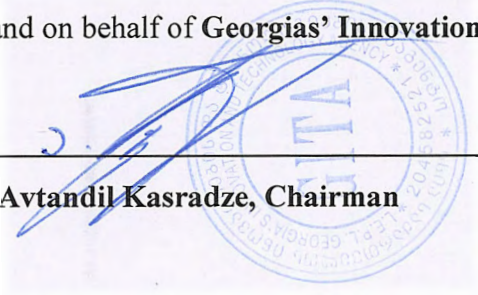
**Appendix C:** Key Personnel

2. The mutual rights and obligations of the Employer and the Service Provider shall be as set forth in the Contract, in particular:

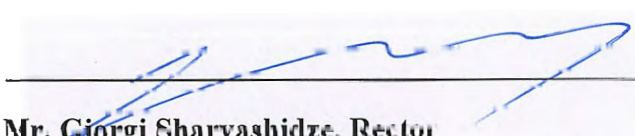
- (a) the Service Provider shall carry out the Services in accordance with the provisions of the Contract; and
- (b) the Employer shall make payments to the Service Provider in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of **Georgias' Innovation and Technology Agency**

  
\_\_\_\_\_  
**Mr. Avtandil Kasradze, Chairman**

For and on behalf of **Ivane Javakhishvili Tbilisi State University LEPL**

  
\_\_\_\_\_  
**Mr. Giorgi Sharvashidze, Rector**

  
\_\_\_\_\_  
**Mr. Lasha Saghinadze, Head of Administration**

# General Conditions of Contract

## Table of Clauses

<b>A. General Provisions .....</b>	<b>5</b>
1.1 Definitions.....	5
1.2 Applicable Law .....	6
1.3 Language .....	6
1.4 Notices.....	6
1.5 Location.....	6
1.6 Authorized Representatives.....	7
1.7 Inspection and Audit by the Bank .....	7
1.8 Taxes and Duties .....	7
<b>2. Commencement, Completion, Modification, and Termination of Contract.....</b>	<b>7</b>
2.1 Effectiveness of Contract .....	7
2.3 Intended Completion Date .....	7
2.4 Modification.....	8
2.5 Force Majeure .....	8
2.6 Termination .....	8
<b>3. Obligations of the Service Provider.....</b>	<b>10</b>
3.1 General .....	10
3.2 Conflict of Interests.....	10
3.3 Confidentiality.....	11
3.4 Insurance to be Taken Out by the Service Provider.....	11
3.5 Service Provider's Actions Requiring Employer's Prior Approval .....	11
3.6 Reporting Obligations .....	11
3.7 Documents Prepared by the Service Provider to Be the Property of the Employer .....	12
3.8 Liquidated Damages.....	12
3.9 Performance Security .....	12
3.10 Fraud and Corruption .....	13
3.11 Sustainable Procurement.....	13
<b>4. Service Provider's Personnel .....</b>	<b>13</b>
4.1 Description of Personnel.....	13

4.2	Removal and/or Replacement of Personnel.....	13
<b>5.</b>	<b>Obligations of the Employer .....</b>	<b>14</b>
5.1	Assistance and Exemptions.....	14
5.2	Change in the Applicable Law.....	14
5.3	Services and Facilities.....	14
<b>6.</b>	<b>Payments to the Service Provider.....</b>	<b>14</b>
6.1	Lump-Sum Remuneration.....	14
6.2	Contract Price.....	14
6.3	Payment for Additional Services, and Performance Incentive Compensation .....	14
6.4	Terms and Conditions of Payment.....	14
6.5	Interest on Delayed Payments.....	15
6.6	Price Adjustment.....	15
6.7	Dayworks .....	16
<b>7.</b>	<b>Quality Control .....</b>	<b>16</b>
7.1	Identifying Defects.....	16
7.2	Correction of Defects, and .....	16
<b>8.</b>	<b>Settlement of Disputes .....</b>	<b>17</b>
8.1	Amicable Settlement.....	17
8.2	Dispute Settlement.....	17

## General Conditions of Contract

### A. General Provisions

#### 1.1 Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) The Adjudicator is the person appointed jointly by the Employer and the Service Provider to resolve disputes in the first instance, as provided for in Sub-Clause 8.2 hereunder.
- (b) "Activity Schedule" is the priced and completed list of items of Services to be performed by the Service Provider forming part of his Bid;
- (c) "Bank" means the International Bank for Reconstruction and Development, Washington, D.C., U.S.A.;
- (c) "Association" means the International Development Association, Washington, D.C., U.S.A.;
- (d) "Completion Date" means the date of completion of the Services by the Service Provider as certified by the Employer
- (e) "Contract" means the Contract signed by the Parties, to which these General Conditions of Contract (GCC) are attached, together with all the documents listed in Clause 1 of such signed Contract;
- (f) "Contract Price" means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (g) "Dayworks" means varied work inputs subject to payment on a time basis for the Service Provider's employees and equipment, in addition to payments for associated materials and administration.
- (h) "Employer" means the party who employs the Service Provider
- (i) Not Applicable;
- (j) "GCC" means these General Conditions of Contract;
- (k) "Government" means the Government of the Employer's Country;
- (l) Not Applicable;
- (m) "Member," in case the Service Provider consist of a joint venture of more than one entity, means any of these entities; "Members"

means all these entities, and "Member in Charge" means the entity specified in the SC to act on their behalf in exercising all the Service Provider' rights and obligations towards the Employer under this Contract;

- (n) "Party" means the Employer or the Service Provider, as the case may be, and "Parties" means both of them;
- (o) "Personnel" means persons hired by the Service Provider or by any Subcontractor as employees and assigned to the performance of the Services or any part thereof;
- (p) "Service Provider" is a person or corporate body whose Bid to provide the Services has been accepted by the Employer;
- (q) "Service Provider's Bid" means the completed Bidding Document submitted by the Service Provider to the Employer
- (r) "SCC" means the Special Conditions of Contract by which the GCC may be amended or supplemented;
- (s) "Specifications" means the specifications of the service included in the Bidding Document submitted by the Service Provider to the Employer
- (t) "Services" means the work to be performed by the Service Provider pursuant to this Contract, as described in Appendix A; and in the Specifications and Schedule of Activities included in the Service Provider's Bid.
- (u) "Subcontractor" means any entity to which the Service Provider subcontracts any part of the Services in accordance with the provisions of Sub-Clauses 3.5 and 4.

**1.2 Applicable Law** The Contract shall be interpreted in accordance with the laws of the Employer's Country.

**1.3 Language** This Contract has been executed in the languages **specified in the SCC**, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. In the event of any conflict between the provisions of the Georgian and English texts of this Contract, the English version of the Contract shall prevail.

**1.4 Notices** Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address **specified in the SCC**.

**1.5 Location** The Services shall be performed at such locations as are specified in Appendix A, in the specifications and, where the location of a

particular task is not so specified, at such locations, whether in the Government's country or elsewhere, as the Employer may approve.

**1.6 Authorized Representatives**

Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Employer or the Service Provider may be taken or executed by the officials **specified in the SCC**.

**1.7 Inspection and Audit by the Bank**

Pursuant to paragraph 2.2 e. of Appendix A to the General Conditions, the Supplier shall permit and shall cause its subcontractors and subconsultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or the accounts and records relating to the performance of the Contract and the submission of the Bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Supplier's and its Subcontractors' and subconsultants' attention is drawn to Sub-Clause 3.10 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).

**1.8 Taxes and Duties**

The Service Provider, Subcontractors, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price.

**2. Commencement, Completion, Modification, and Termination of Contract**

**2.1 Effectiveness of Contract**

This Contract shall come into effect on the date the Contract is signed by both parties or such other later date as may be **stated in the SCC**.

**2.2 Commencement of Services**

**2.2.1 Program**

Before commencement of the Services, the Service Provider shall submit to the Employer for approval a Program showing the general methods, arrangements, order and timing for all activities. The Services shall be carried out in accordance with the approved Program as updated.

**2.2.2 Starting Date**

The Service Provider shall start carrying out the Services thirty (30) days after the date the Contract becomes effective, or at such other date as may be **specified in the SCC**.

**2.3 Intended Completion Date**

Unless terminated earlier pursuant to Sub-Clause 2.6, the Service Provider shall complete the activities by the Intended Completion Date, as is **specified in the SCC**. If the Service Provider does not complete the activities by the Intended Completion Date, it shall be



liable to pay liquidated damage as per Sub-Clause 3.8. In this case, the Completion Date will be the date of completion of all activities.

## **2.4 Modification**

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, may only be made by written agreement between the Parties and shall not be effective until the consent of the Bank or of the Association, as the case may be, has been obtained.

### **2.4.1 Value Engineering**

Not Applicable

## **2.5 Force Majeure**

### **2.5.1 Definition**

For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

### **2.5.2 No Breach of Contract**

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

### **2.5.3 Extension of Time**

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

### **2.5.4 Payments**

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Service Provider shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

## **2.6 Termination**

**2.6.1 By the Employer**

The Employer may terminate this Contract, by not less than ten (10) days' written notice of termination to the Service Provider, to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Sub-Clause 2.6.1:

- (a) if the Service Provider does not remedy a failure in the performance of its obligations under the Contract, within seven (7) days after being notified or within any further period as the Employer may have subsequently approved in writing;
- (b) if the Service Provider become insolvent or bankrupt;
- (c) if, as the result of Force Majeure, the Service Provider is unable to perform a material portion of the Services for a period of not less than thirty (30) days; or
- (d) if the Service Provider, in the judgment of the Employer has engaged in Fraud and Corruption, as defined in paragraph 2.2 a. of the Appendix A to the GCC, in competing for or in executing the Contract

**2.6.2 By the Service Provider**

The Service Provider may terminate this Contract, by not less than thirty (30) days' written notice to the Employer, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and (b) of this Sub-Clause 2.6.2:

- (a) ~~If the Employer fails to pay any monies due to the Service Provider pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the Service Provider that such payment is overdue; or~~
- (b) ~~If, as the result of Force Majeure, the Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days.~~

**2.6.3 Suspension of Loan or Credit**

In the event that the World Bank suspends the loan or Credit to the Employer, from which part of the payments to the Service Provider are being made:

- (a) The Employer is obligated to notify the Service Provider of such suspension within 7 days of having received the World Bank's suspension notice.
- (b) If the Service Provider has not received sums due to by the due date stated in the SCC in accordance with Sub-Clause 6.5 the Service Provider may immediately issue a 14 day termination notice.

**2.6.4 Payment  
upon  
Termination**

Upon termination of this Contract pursuant to Sub-Clauses 2.6.1 or 2.6.2, the Employer shall make the following payments to the Service Provider:

- (a) remuneration pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination;
- (b) except in the case of termination pursuant to paragraphs (a), (b), (d) of Sub-Clause 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel.

**3. Obligations of the Service Provider**

**3.1 General**

The Service Provider shall perform the Services in accordance with the Specifications and the Activity Schedule, and carry out its obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Service Provider shall always act, in respect of any matter relating to this Contract or to the Services, as faithful adviser to the Employer, and shall at all times support and safeguard the Employer's legitimate interests in any dealings with Subcontractors or third parties.

**3.2 Conflict of Interests**

**3.2.1 Service  
Provider Not to  
Benefit from  
Commissions  
and Discounts**

The remuneration of the Service Provider pursuant to Clause 6 shall constitute the Service Provider's sole remuneration in connection with this Contract or the Services, and the Service Provider shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Service Provider shall use their best efforts to ensure that the Personnel, any Subcontractors, and agents of either of them similarly shall not receive any such additional remuneration.

**3.2.2 Service Provider  
and Affiliates  
Not to be  
Otherwise  
Interested in  
Project**

The Service Provider agree that, during the term of this Contract and after its termination, the Service Provider and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing goods, works, or Services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.

**3.2.3 Prohibition of  
Conflicting  
Activities**

Neither the Service Provider nor its Subcontractors nor the Personnel shall engage, either directly or indirectly, in any of the following activities:

- (a) during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract;
- (b) during the term of this Contract, neither the Service Provider nor their Subcontractors shall hire public employees in active duty or on any type of leave, to perform any activity under this Contract;
- (c) after the termination of this Contract, such other activities as may be **specified in the SCC**.

**3.3 Confidentiality**

The Service Provider, its Subcontractors, and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Employer's business or operations without the prior written consent of the Employer.

**3.4 Insurance to be  
Taken Out by the  
Service Provider**

The Service Provider (a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Subcontractors', as the case may be) own cost but on terms and conditions approved by the Employer, insurance against the risks, and for the coverage, as shall be **specified in the SCC**; and (b) at the Employer's request, shall provide evidence to the Employer showing that such insurance has been taken out and maintained and that the current premiums have been paid.

**3.5 Service Provider's  
Actions Requiring  
Employer's Prior  
Approval**

The Service Provider shall obtain the Employer's prior approval in writing before taking any of the following actions:

- (a) entering into a subcontract for the performance of any part of the Services,
- (b) appointing such members of the Personnel not listed by name in Appendix C ("Key Personnel and Subcontractors"),
- (c) changing the Program of activities; and
- (d) any other action that may be **specified in the SCC**.

**3.6 Reporting  
Obligations**

The Service Provider shall submit to the Employer the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.

**3.7 Documents Prepared by the Service Provider to Be the Property of the Employer** All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Service Provider in accordance with Sub-Clause 3.6 shall become and remain the property of the Employer, and the Service Provider shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Employer, together with a detailed inventory thereof. The Service Provider may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be **specified in the SCC**.

### **3.8 Liquidated Damages**

**3.8.1 Payments of Liquidated Damages** The Service Provider shall pay liquidated damages to the Employer at the rate per day **stated in the SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the SCC**. The Employer may deduct liquidated damages from payments due to the Service Provider. Payment of liquidated damages shall not affect the Service Provider's liabilities.

**3.8.2 Correction for Over-payment** If the Intended Completion Date is extended after liquidated damages have been paid, the Employer shall correct any overpayment of liquidated damages by the Service Provider by adjusting the next payment certificate. The Service Provider shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in Sub-Clause 6.5.

**3.8.3 Lack of performance penalty** If the Service Provider has not corrected a Defect within the time specified in the Employer's notice, a penalty for Lack of performance will be paid by the Service Provider. The amount to be paid will be calculated as a percentage of the cost of having the Defect corrected, assessed as described in Sub-Clause 7.2 and **specified in the SCC**.

**3.9 Performance Security** The Service Provider shall provide the Performance Security to the Employer no later than the date specified in the Letter of acceptance. The Performance Security shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The performance Security shall be valid until a date 28 days from the Completion Date of the Contract in case of a bank guarantee, and until one year from the Completion Date of the Contract in the case of a Performance Bond.

### **3.10 Fraud and Corruption**

The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in the Appendix to the GCC.

The Employer requires the Supplier to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

### **3.11 Sustainable Procurement**

Not Applicable.

## **4. Service Provider's Personnel**

### **4.1 Description of Personnel**

The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Service Provider's Key Personnel are described in Appendix C. The Key Personnel and Subcontractors listed by title as well as by name in Appendix C are hereby approved by the Employer.

- (a) If the Employer finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Service Provider shall, at the Employer's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Employer.

### **4.2 Removal and/or Replacement of Personnel**

- (c) The Service Provider shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

## 5. Obligations of the Employer

- 5.1 Assistance and Exemptions** The Employer shall use its best efforts to ensure that the Government shall provide the Service Provider such assistance and exemptions as **specified in the SCC.**
- 5.2 Change in the Applicable Law** If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the Services rendered by the Service Provider, then the remuneration and reimbursable expenses otherwise payable to the Service Provider under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Sub-Clauses 6.2 (a) or (b), as the case may be.
- 5.3 Services and Facilities** The Employer shall make available to the Service Provider the Services and Facilities listed under Appendix A (Description of Services).

## 6. Payments to the Service Provider

- 6.1 Lump-Sum Remuneration** The Service Provider's remuneration shall not exceed the Contract Price and shall be a fixed lump-sum including all Subcontractors' costs, and all other costs incurred by the Service Provider in carrying out the Services described in Appendix A. Except as provided in Sub-Clause 5.2, the Contract Price may only be increased above the amounts stated in Sub-Clause 6.2 if the Parties have agreed to additional payments in accordance with Sub-Clauses 2.4 and 6.3.
- 6.2 Contract Price** (a) The price payable in Georgian Lari using exchange rate of National Bank of Georgia for the date of payment (GEL) for entire Contract is **set forth in the SCC.**
- 6.3 Payment for Additional Services, and Performance Incentive Compensation** 6.3.1 Not applicable.  
6.3.2 **If the SCC so specify**, the service provider shall be paid performance incentive compensation as set out in the Performance Incentive Compensation appendix.  
Payments will be made to the Service Provider according to the payment schedule **stated in the SCC. Unless otherwise stated in the SCC**, the advance payment (Advance for Mobilization, Materials and Supplies) shall be made against the provision by the Service Provider of a bank guarantee for the same amount, and shall be valid for the period **stated in the SCC**. Any other payment shall be made after the conditions **listed in the SCC** for such payment have been met, and the
- 6.4 Terms and Conditions of Payment**

Service Provider have submitted an invoice to the Employer specifying the amount due.

**6.5 Interest on  
Delayed  
Payments**

If the Employer has delayed payments beyond fifteen (15) days after the due date stated in the SCC, interest shall be paid to the Service Provider for each day of delay at the rate stated in the SCC.

**6.6 Price  
Adjustment**

Not applicable



**6.7 Dayworks**

Not applicable

**7. Quality Control**

**7.1 Identifying Defects**

The principle and modalities of Inspection of the Services by the Employer shall be as **indicated in the SCC**. The Employer shall check the Service Provider's performance and notify him of any Defects that are found. Such checking shall not affect the Service Provider's responsibilities. The Employer may instruct the Service Provider to search for a Defect and to uncover and test any service that the Employer considers may have a Defect. Defect Liability Period is as **defined in the SCC**.

**7.2 Correction of Defects, and Lack of Performance Penalty**

- (a) The Employer shall give notice to the Service Provider of any Defects before the end of the Contract. The Defects liability period shall be extended for as long as Defects remain to be corrected.
- (b) Every time notice a Defect is given, the Service Provider shall correct the notified Defect within the length of time specified by the Employer's notice.
- (c) If the Service Provider has not corrected a Defect within the time specified in the Employer's notice, the Employer will assess the cost of having the Defect corrected, the Service Provider will pay this amount, and a Penalty for Lack of Performance calculated as described in Sub-Clause 3.8

## 8. Settlement of Disputes

### 8.1 Amicable Settlement

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

### 8.2 Dispute Settlement

8.2.1 If any dispute arises between the Employer and the Service Provider in connection with, or arising out of, the Contract or the provision of the Services, whether during carrying out the Services or after their completion, the matter shall be referred to the Adjudicator within 14 days of the notification of disagreement of one party to the other.

8.2.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

8.2.3 The Adjudicator shall be paid by the hour at the rate **specified in the BDS and SCC**, together with reimbursable expenses of the types **specified in the SCC**, and the cost shall be divided equally between the Employer and the Service Provider, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision will be final and binding.

8.2.4 The arbitration shall be conducted in accordance with the arbitration procedure published by the institution named and in the place **shown in the SCC**.

8.2.5 Should the Adjudicator resign or pass away, or should the Employer and the Service Provider agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator will be jointly appointed by the Employer and the Service Provider. In case of disagreement between the Employer and the Service Provider, within 30 days, the Adjudicator shall be designated by the Appointing Authority **designated in the SCC** at the request of either party, within 14 days of receipt of such request.

## **Appendix A of the GCC**

### **Fraud and Corruption**

#### **1. Purpose**

1.1 The Bank's Anti-Corruption Guidelines (refers to the Guidelines indicated in the Project Financing Agreement) and this annex apply with respect to procurement under Bank Investment Project Financing operations.

#### **2. Requirements**

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); hidden, consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, the terms set forth below as follows:

- i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
- iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v. "obstructive practice" is:
  - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
  - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.

- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti-Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;<sup>1</sup> (ii) to be a nominated<sup>2</sup> sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (i) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders, consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect<sup>3</sup> all accounts, records and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank.

---

<sup>1</sup> For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

<sup>2</sup> A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

<sup>3</sup> Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

## Special Conditions of Contract

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1	The words “in the Government’s country” are amended to read “in <i>Georgia</i> .”
1.1(a)	The Adjudicator is: <i>Mr. Paata Salia Office located at #4 Shio Mghvimeli Str, Tbilisi 0161, Georgia</i>
1.1(v)	The contract name is: “ <b>Processing of manganese oxide raw materials</b> ” Reference No. <b>GE-GITA- 208861-NC-DIR</b>
1.1(h)	The Employer is: <i>LEPL Georgia’s Innovation &amp; Technology Agency (GITA)</i>
1.1(p)	The Service Provider is: “ <b>Ivane Javakhishvili Tbilisi State University</b> ” LEPL (ID: <b>204864548</b> )
1.2	The Applicable Law is: <b>Law of Georgia</b>
1.3	The language is: <b>English and Georgian</b>
1.4	The addresses are: Employer: <b>Georgia’s Innovation &amp; Technology Agency – 7, Innovation str. 0114, Tech Park, Okrokana.</b> Service Provider: <b>Ivane Javakhishvili Tbilisi State University LEPL - 1 Ilia Tchavtchavadze Avenue, 0179 Tbilisi, Georgia</b>
1.6	The Authorized Representatives are: For the Employer: <b>Mr. Avtandil Kasradze, Chairman</b> For the Service Provider: <b>Mr. Giorgi Shervashidze, Rector</b>
2.1	The date on which this Contract shall come into effect is: date of contract signing by both parties
2.2.2	The Starting Date for the commencement of Services is: 14 calendar days from contract effectiveness.
2.3	The Intended Completion Date is: 2 months from commencement of the services.
2.4.1	Not Applicable
3.2.3	Activities prohibited after termination of this Contract are: <i>None</i>
3.4	Not Applicable
3.5(d)	The other actions are: <i>None</i>
3.7	Restrictions on the use of documents prepared by the Service Provider are: <i>N/A</i>

3.8.1	The liquidated damages rate is <i>0.01%</i> of the final Contract Price per day The maximum amount of liquidated damages for the whole contract is <i>5%</i> percent of the final Contract Price.
3.8.3	The percentage to be used for the calculation of Lack of performance Penalty(ies) is <i>5%</i> .
3.9	Not Applicable
5.1	The assistance and exemptions provided to the Service Provider are: <i>None</i>
6.2(a)	The amount in Euro (EUR) is: <b>EUR 22,448.32 (Twenty-Two Thousand Four Hundred and Forty-Eight Euros and Thirty-Two Euro Cents)</b>
6.3.2	The performance incentive paid to the Service Provider shall be: <i>N/A</i>
6.4	Ten (10) percent of the lump-sum amount shall be paid upon the Employer's receipt of Inception Report, acceptable to the Employer. Fifty (50) percent of the lump-sum amount shall be paid upon the Employer's receipt of Progress, acceptable to the Employer. Forty (40) percent of the lump-sum amount shall be paid upon the Employer's receipt of Final Report, acceptable to the Employer.
6.5	Payment shall be made within <i>30 calendar</i> days of receipt of the invoice and the relevant documents specified in Sub-Clause 6.4. The interest rate is: <i>0.01% of unpaid amount per each day of delay.</i>
6.6.1	Not Applicable
7.1	Not applicable The Defects Liability Period is: <i>None</i>
8.2.3	The Adjudicator is: Mr. Paata Salia. Who will be paid a rate of USD 150 equivalent in local currency at the date of payment using exchange rate of National Bank of Georgia (nbg.ge) per hour of work.
8.2.4	The rules of procedure for arbitration proceedings pursuant to GCC Clause 8.2.4 shall be as follows: <b>In accordance with the Georgian legislation.</b> Institution whose arbitration procedures shall be used and the place of arbitration shall be: Dispute Resolution Center Ltd. (the DRC), 71 Vaja- Pshavela ave., Tbilisi, Georgia
8.2.5	The designated Appointing Authority for a new Adjudicator is: Dispute Resolution Center Ltd. (the DRC)

## Cost estimate of the Services List of Personnel and Schedule of Rates

(1) Remuneration of Staff

Name	Position	Rate	Time spent (number of staff- months)		Total (EUR)
			EUR	Home	
Gigla Tsurtsunia	Project Supervisor	1,694.00	1	-	1,694.00
Tinatin Lezhava	Project Manager	1,694.00	1	-	1,694.00
Nikoloz Nioradze	Coordinator	880.00	1	-	880.00
Nana Koiava	Engineer Technologist	880.00	4.2	-	3,696.00
David Gogoli					
Jemal Shengelia					
Levan Beriashvili	Chemist-analyst	880.00	2.05	-	1,804.00
Rusudan kurtanidze					
Nodar Taziashvili	Mechanical Engineer	880.00	1.03	-	906.40
Hamlet Kazanjian	Electrical Engineer	880.00	1.03	-	906.40
Nunu Jokhadze	Assistant Engineer	704.00	2.05	-	1,443.20
<b>Sub-Total (1)</b>					<b>13,024.00</b>

(2) Reimbursables

	Unit	Quantity	Rate EUR	Amount EUR
Analysis of the product in the local certified laboratories for monitoring of the product quality	Lump sum	1	1,500.00	1,500.00
Reagents, chemical utensils and counter materials.	Lump-sum	1	4,500.00	4,500.00
<b>Sub-Total (2)</b>				<b>6,000.00</b>

**VAT (18%):** EUR 3,424.32

**Contract Price:** EUR 22,448.32

## Appendices

### Appendix A - Description of the Services

Assignment Title: „Processing of manganese oxide raw materials”

#### 1. Background

Since the early 90's, the World Bank has been operating in Georgia through multiple programs including the more recent National Innovation Ecosystem (GENIE). The project aims at increasing the innovative activities of firms and individuals in the Georgia and their participation in the digital economy through capacity building at the **Georgia's Innovation and Technology Agency (GITA)**

GITA's mission is the formation of an ecosystem which improves all kinds of innovations and technologies in the country, to promote a commercialization of knowledge and innovations, to stimulate using them in all fields of economy, to create an environment for the growth of innovations and high-tech products and developing high-speed internet nationwide.

The European Union has decided to support a Technology Transfer Pilot Program (TTPP), **operated by GITA with hands-on support from** the World Bank. This program focuses on:

1. Building capacity of GITA and public partner organizations in technology transfer and commercialization process, from the initial disclosure until deal closing, and
2. Testing whether commercialization of inventions originating in public research and development institutions in Georgia are viable, and if so, demonstrate such viability.

The TTPP team works with universities including faculties and research and development institutes, as well as with the private sector, in order to:

- Identify projects with commercial readiness (triage);
- Obtain disclosures from researchers;
- Fund activities that increase the technology readiness levels of inventions;
- Assist researchers in developing and implementing a commercialization roadmap, including as it pertains to sourcing additional financing from external sources, and identifying key partners;
- Demonstrate viability of technology transfer by successfully closing transactions (from negotiating to contracting stages) and providing support in the process (contract research, IP database search and competitive analysis, etc.);
- Monitor outcomes and recommend further steps necessary for successful commercialization.

#### 2. Implementing Agency

The central institution responsible for implementation of the project is **Georgia's Innovation & Technology Agency (GITA)** under the Ministry of Economy and Sustainable Development of Georgia (MoESD). GITA is responsible for all project implementation. It will coordinate the gathering and processing of the results of monitoring, reporting, fiduciary functions, and safeguard procedures in close cooperation with relevant institutions participating in the project.



### **3. Objective of the assignment**

The Service Provider came up with an innovative process of simultaneous conversion of manganese oxide materials into three products: electrolytic manganese metal (EMM), electrolytic manganese dioxide (EMD) and manganese sulfate monohydrate (MSM). New technology has been tested in a laboratory condition and one of the products (MSM) is produced with 98.7% purity. The team elaborated the new method using electro-leaching and autoclaving which will allow to create high purity manganese sulfate monohydrate (HPMSM) with the purity of  $\geq 99.0\%$ .

The objective of the assignment is to test the real industrial application of the new method on two samples of manganese ores: containing oxidized ores and calcined manganese oxide ores. The Service Provider is expected to produce the HPMSM and apply its purification method to unpurified MSM.

### **4. Scope of Work**

The service provider will conduct following activities by processing two types of materials supplied by partners.

1. Production of 3kg HPMSM from manganese containing oxide ores;
2. Production of 5 kg HPMSM from calcined manganese containing oxide ores;
3. Purification of sample (1kg) of manganese sulfate monohydrate supplied by Employer (obtained from industrial partner) using method developed by the Service Provider.

The scope of the work encompasses the following technological processes: Electro-leaching of oxide ores, chemical leaching of calcined oxide ores, sulfide and hydrolysis purification of solutions, autoclave crystallization of manganese sulfate monohydrate from concentrated solutions and additional purification using washing reagents.

#### **The work includes:**

1. Setting of equipment for realization of technological process;
2. Electro-leaching of manganese containing oxide ores, purification (hydrolytic and sulfide) of obtained solutions, MSM crystallization from purified solutions by autoclave treatment and farther purification to obtain HPMSM
3. Chemical leaching of calcined oxide ores, purification (hydrolytic, sulfide) of obtained solutions, MSM crystallization from purified solutions by autoclave treatment and farther purification to obtain HPMSM.
4. Purification of low purity sample supplied by the partner using washing reagents.
5. Control of processing of both materials at different technological stages and physicochemical analysis of final product.
6. Delivery of a final product to the Employer.
7. Economic evaluation of implemented technological processes

Below is a step by step process implemented by the personnel under the contract:

- a. Electro-leaching of manganese containing oxide ores, leaching of calcined concentrate by sulfuric acid, sulfide (ammonium sulfide fresh solution) and hydrolysis purification of solutions at controlled pH and preparation of manganese sulfate solution for autoclave processing; MSM crystallization from purified solutions by autoclave treatment and farther purification to obtain HPMSM (engineer – chemist – technologist),
- b. Autoclave (volume - 3 liters) treatment of purified concentrated manganese sulfate solutions at  $165^{\circ}\text{C}$  and 8 atm pressure; Unloading autoclave ( $\text{MnSO}_4 \cdot \text{H}_2\text{O}$  crystals) after each treatment, removing filtrate equipment and preparation of autoclave for the next treatment (engineer – mechanist).

- c. Analysis on Mn, Fe, Ni, Co, H<sub>2</sub>SO<sub>4</sub> in the initial material, working solutions, intermediate and final products at the beginning and the end of every technological process (chemist – analyst).
- d. Maintenance of electro-leaching reactor, autoclave and other electrical equipment (engineer-electrician).

### **5. Location, Timeframe and Duration**

Duration of this assignment is 2 (two) months. The assignment is expected to start in February 2021.

### **6. Reporting Requirements and Deliverables**

#### **Tentative Timeline, Reporting and Payment Schedule**

<b>Deliverables</b>	<b>Submission Date</b>	<b>Language and form of the report</b>
<b>Inception Report:</b> Detailed work plan	within 10 days from the commencement of services	English, Electronic
<b>Progress Report:</b> a. Descriptive Parameters of technological stages of preparation of 25 and 40 liters of 90-100g/l manganese containing solutions from supplied materials (ore, calcined ore) b. Parameters of purification process of sample (1kg) of manganese sulfate monohydrate (MSM) provided by a supplier	In 1 month from commencement of the services	English, Electronic
<b>Final Report:</b> a) Data of technological stages for preparation of 3 kg (electro-leaching) and 5 kg (sulfuric acid leaching) high purity ( $\geq 99.0\%$ ) manganese sulfate monohydrate (HPMSM) from concentrated solutions of manganese sulfate monohydrate by autoclave treatment crystallization and farther purification. b) Cost calculation of complete technological cycle of HPMSM production.	within 50 days from the commencement of services	English, Electronic

## **7. Required Qualifications**

The Service Provider shall make available for the assignment team of key staff with following qualification and experience:

- **Project Supervisor** - Doctor of Chemistry or equivalent academic degree, at least 10 years of experience of work in the field of manganese hydrometallurgy, the experience of managing scientific – engineering projects.
- **Project Manager** - Doctor of Chemistry or equivalent academic degree, at least 10 years of experience of work in the field of manganese hydrometallurgy and chemical technology, the experience of managing scientific – engineering projects.
- **Coordinator** - Doctor of Chemistry or equivalent academic degree, at least 10 years of experience of work in the field of chemical technology, fluent at Georgian – English scientific – technical terminology.
- **Engineer – technologist** - Doctor of Chemistry or equivalent academic degree, at least 10 years of experience of work in the field of manganese hydrometallurgy and chemical technology.
- **Chemist – analyst** - Master Degree in Chemistry or equivalent academic degree, at least 5 years of experience of work at the chemical laboratory, skillful with classical chemical analysis and chemical apparatus.
- **Engineer – Mechanist** - Master Degree or equivalent academic degree, working experience with chemical apparatus.
- **Engineer – Electric** - Master Degree or equivalent academic degree, at least 5 years of working experience as an electrician.
- **Assistant** - Master Degree or equivalent academic degree, at least 5 years of working experience.

## **8. Obligations of Georgia's Innovation and Technology Agency (GITA)**

GITA will provide:

- Access to all available data, information, and documents relevant to this assignment;
- Manganese ore samples, obtained from the industrial partner.

## Appendix B - Schedule of Payments and Reporting Requirements

### Reporting Requirements

Deliverables	Submission Date	Language and form of the report
<b>Inception Report:</b> Detailed work plan	within 10 days from the commencement of services	English, Electronic
<b>Progress Report:</b> a. Descriptive Parameters of technological stages of preparation of 25 and 40 liters of 90-100g/l manganese containing solutions from supplied materials (ore, calcined ore) b. Parameters of purification process of sample (1kg) of manganese sulfate monohydrate (MSM) provided by a supplier	In 1 month from commencement of the services	English, Electronic
<b>Final Report:</b> a) Data of technological stages for preparation of 3 kg (electro-leaching) and 5 kg (sulfuric acid leaching) high purity ( $\geq 99.0\%$ ) manganese sulfate monohydrate (HPMSM) from concentrated solutions of manganese sulfate monohydrate by autoclave treatment crystallization and further purification. b) Cost calculation of complete technological cycle of HPMSM production.	within 50 days from the commencement of services	English, Electronic

### Schedule of Payments

Ten (10) percent of the lump-sum amount shall be paid upon the Employer's receipt of Inception Report, acceptable to the Employer.

Fifty (50) percent of the lump-sum amount shall be paid upon the Employer's receipt of Progress, acceptable to the Employer.

Forty (40) percent of the lump-sum amount shall be paid upon the Employer's receipt of Final Report, acceptable to the Employer.

### Appendix C - Key Personnel

<b>Key staff</b>	<b>Position</b>
Gigla Tsursumia	Project Supervisor
Tinatin Lezhava	Project Manager
Nikoloz Nioradze	Coordinator
Nana Koiava David Gogoli Jemal Shengelia	Engineer – technologists
Levan Beriashvili Rusudan kurtanidze	Chemist – analysts
Nodar Taziashvili	Engineer – Mechanist
Hamlet Kazanjian	Engineer – Electric
Nunu Jokhadze	Assistant Engineer

## Project Supervisor

### Personal information:

Name, surname - Gigla Tsurtsunia

Date of birth - 15.10. 1946

Place of Birth – Khobi, Georgia

Address – 8a Ioane Petritsi, apt. 2, Didi Digomi, Tbilisi 0131, Georgia

Phone - (+995 32) 2534917; 599137104

Email - giglat@yahoo.com

### Education:

Ph.D (Candidat of Chemical Sciences), 1976, Karpov Physical- Chemical Institute, Moscow (Russia)

Graduate Student, 1971-1973, Institute Inorganic Chemistry and Electrochemistry of Georgian Academy of Sciences.

Engineer-technologist (Electrochemical engineering), Diploma, 1965-1970, Georgian Technical University (GTU), former Georgian Polytechnic Institute (GPI), Tbilisi, Georgia.

### Work place / organization

Head of Laboratory of Electrochemistry and Electrometallurgy, 2012-present, R. Agladze Institute of Inorganic Chemistry and Electrochemistry, I. Javakhishvili Tbilisi State University .

Senior Researcher, 2006-2012, R. Agladze Institute of Inorganic Chemistry and Electrochemistry, Laboratory of Electrochemistry and Electrometallurgy

Researcher, 2004-2005, Department of TECHWIN. Ltd, LG Chemical Co. Ltd., TECHNOLOGY WINNERS Co., Chongju, South Korea,

Dean of Faculty of Medicine, 1995-2003, D. Agmashenebeli Georgian University.

Senior Researcher, 1989-1995, R. Agladze Institute of Inorganic Chemistry and Electrochemistry, Laboratory of Electrochemistry and Electrometallurgy, Georgian Academy of Science.

Junior Researcher, 1977-1989, R. Agladze Institute of Inorganic Chemistry and Electrochemistry, Laboratory of Electrochemistry and Electrometallurgy, Georgian Academy of Science.

Engineer, 1976-1977, R. Agladze Institute of Inorganic Chemistry and Electrochemistry, Laboratory of Electrochemistry and Electrometallurgy, Georgian Academy of Science.

Trainee – researcher, 1972-1976, Karpov Physical- Chemical Institute, Moscow (Russia)

### Scientific achievements:

Articles 62

Conferences 33

Inventions 7

Grants 9

### Knowledge of languages:

Russian - fluent

English - good

### Teaching Activities:

Professor, 2009-2013, Department of Chemistry and Metallurgy, Georgian Technical University.

Professor, 1995-2003, Faculty of Medicine, D. Agmashenebeli Georgian University

Associate Professor, 2017-present, Faculty of Medicine, D. Agmashenebeli Tbilisi State University.

### awards

R. Agladze's National Award of Georgian National Academy of Sciences in Chemical Technology, 2013.

Medal of Ivane Javakhishvili Tbilisi State University, 2015.

## Project Manager

### TINATIN LEZHAVA

0186, Tbilisi, Nutsubidze Plato 3-3-2, #35

Tel: 599728603

[tinaemili@yahoo.com](mailto:tinaemili@yahoo.com)

**Date of Birth:** 08.06.1950 (Tbilisi, Georgia)

#### **Current position:**

Deputy Director/ Head Researcher of the R. Agladze Institute of Inorganic Chemistry and Electrochemistry of the Tbilisi State University

#### **Education and Science/Academic degrees:**

- 1990 - Doctor of Chemical engineering (PhD). R. Agladze Institute of Inorganic Chemistry and Electrochemistry of Georgian Academy of Sciences, Tbilisi, Georgia
- 1975-1979 Post-Graduate Course Institute of Inorganic Chemistry and Electrochemistry of Georgian Academy of Sciences, Tbilisi, Georgia
- 1967-1972 M.S. Technology of Electrochemical production. Department of Chemistry and Chemical Technology, Georgian Polytechnic University, Tbilisi, Georgia,

#### **Work place / organization:**

**2011-present** Deputy Director/ Head Researcher of the R. Agladze Institute of Inorganic Chemistry and Electrochemistry of the LEPL Iv. Javakishvili Tbilisi State University

**2006-2011** Deputy Director/ Head Researcher of the LEPL R. Agladze Institute of Inorganic Chemistry and Electrochemistry

**1972-2006** Engineer, Researcher, Senior Researcher Laboratory of Electrochemistry and Electrometallurgy R. Agladze Institute of Inorganic Chemistry and Electrochemistry of the Georgian Academy of Sciences

**Scientific interest:** Electrochemical engineering, hydrometallurgical processing, electro -synthesis of inorganic compounds and metal powders, physical-chemical testing, solid waste treatment, Metal powder, Fuel briquettes.

**Participation in Research Grant Projects:** 5 (2010 - till now)

**Publication/ Patents:** 80 scientific publications including 24 patents

## Coordinator

### NIKOLAZ NIORADZE

68 Shuamta Street, Apt. 16  
Tbilisi 0182, Georgia  
Tel: (+995 599) 795255  
n.nioradze@gmail.com

---

<b>Date of Birth</b>	12 <sup>th</sup> July, 1970	
<b>Education</b>	<b>PhD, University of Pittsburgh, Pittsburgh, PA, USA</b> 2014 Analytical Chemistry Advisor: Shigeru Amemiya, PhD Thesis title: "Nanogap-enabled Study of Electrode Reactions by Scanning Electrochemical Microscopy"	
	<b>M.S., University of Pittsburgh, Pittsburgh, PA, USA</b> 2010 Analytical Chemistry Advisor: Shigeru Amemiya, PhD Thesis title: "Development of Nanofabricated Probes for Scanning Electrochemical Microscopy"	
	<b>Diploma, Georgian Technical University, Tbilisi, Georgia</b> 1993 Engineering Electrochemistry Advisor: Giorgi Agladze, PhD Thesis title: "Study of Distribution of Potentials and Current Densities on Bipolar Electrodes"	
<b>Research Experience</b>	Senior Scientific-Researcher TSU, R. Agladze Institute of Inorganic Chemistry and Electrochemistry Tbilisi, Georgia	May 2016 - present
	Visiting Scholar Wildau Technological University of Applied Sciences, Wildau, Germany	July - November, 2017
	Senior Specialist The Institute of Green and Sustainable Chemistry, Georgian Technical University Tbilisi, Georgia	April - September, 2016
	Postdoctoral Fellow Chemistry and Biochemistry Department, The University of Texas at Austin, Austin, TX, USA Advisor: Allen Bard, PhD	2015 - 2016
	Research Assistant Department of Chemistry University of Pittsburgh, Pittsburgh, PA, USA	2008-2010, 2012- 2014
	Research Engineer	2010-2011
	Research Scientist	2001-2006
	Junior Research Scientist	1997-2001
	Research Assistant Laboratory of Electrochemistry and Electrometallurgy R. Agladze Institute of Inorganic Chemistry and Electrochemistry, Tbilisi, Georgia	1992-1997
	Visiting Scholar Department of Chemistry, University of Pittsburgh, Pittsburgh, PA, USA	March - May, 2004
<b>Teaching Experience</b>	Inorganic Chemistry Instructor	2019 - present



	San Diego University Georgia	
	Inorganic Chemistry Lab Instructor San Diego University Georgia	2019 - present
	Associate Professor Faculty of Medicine, European University, Tbilisi	January 2018 - active
	Lab Instructor Physicochemical methods of control of food quality Agricultural University of Georgia	Spring Semester, 2019
	Teaching Assistant Department of Chemistry University of Pittsburgh, Pittsburgh, PA, USA	2006-2008
	Teaching Assistant Department of Chemistry University of Pittsburgh, Pittsburgh, PA, USA	September-December, 2014
	Teacher of Chemistry European School in Tbilisi	February – May, 2011
<b>Industrial Experience</b>	Executive Director Head of a Khashuri-Batumi Pipeline Corrosion Testing Group Georgia Engineering Ltd, Tbilisi, Georgia	2003-2004  October – November, 1999
<i>Conferences/ Symposium</i>	<i>Member of organizing committee Editor of Conference Proceedings Modern Researches and Prospects of Their Use in Chemistry, Chemical Engineering and Related Fields International Scientific Conference dedicated to the 60th anniversary of R. Agladze Institute of Inorganic Chemistry and Electrochemistry</i>	<i>October 2016</i>
<b>Fellowship/ Grant</b>	Joint Rustaveli-DAAD Fellowship program  Young Scientist Research Grant, Rustaveli National Science Foundation of Georgia  Georgian Travel Grant follow on Grant, CRDF/GRDF foundation  Travel Grant for Young Scientists Georgian Research and Development Foundation Tbilisi, Georgia  Fellowship of the President of Georgia for Young Scientists Tbilisi, Georgia	July - November, 2017  2017- 2019  2004-2005  March- May, 2004  1997-2000

## Engineer – technologist

**NANA KOIAVA**

10 Kartoza Str., Apt. 386  
Tbilisi, Georgia  
Tel: 599 946961  
nana.koiva@gmail.com

---

<b>Date of Birth</b>	01.06.1951 (Tbilisi, Georgia)	
<b>Education</b>	<b>Doctor of Chemical Engineering (PhD)</b> 1991 R. Agladze Institute of Inorganic Chemistry and Electrochemistry Georgian Academy of Sciences Tbilisi, Georgia	
	<b>M.S., Georgian Technical University,</b> 1968-1973 Technology of Electrochemical production Tbilisi, Georgia	
<b>Research Experience</b>	Senior Researcher, Leading Researcher, Senior Researcher, Researcher Lab Assistant 1973-present <b>R. Agladze Institute of Inorganic Chemistry and Electrochemistry</b> Tbilisi, Georgia	
	Project Supervisor 2000-2001 <b>Grant of Georgian Academy of Sciences</b>	
	Key Personnel 2006-2007 <b>South Korea Chulbuk University International Grant</b>	
	Key Personnel 2010-2021 <b>Shota Rustaveli National Science Foundation Grant</b>	
<b>Teaching Experience</b>	Assistant Professor 1999-2006 <b>Georgian Technical University</b> Tbilisi, Georgia	
	Chair of Committee 1999-2004 <b>Republican Olympiad in Chemistry</b>	
	Supervisor of Graduate Students 1999-2006 <b>Georgian Technical University</b>	
	Supervisor of Students 1999-2005 <b>Students Republican Scientific Conferences</b>	
<b>Publications/Patents</b>	50 scientific publications, 3 Patents	
<b>Scientific Interest</b>	Synthesis of chlorine containing compounds, treatment of natural and waste waters, electrosynthesis of manganese containing compounds.	

## Engineer – technologist

Name, Surname: **David Gogoli**  
Date of birth 24/12/1983

Place of birth: Tbilisi, Georgia  
Address: 4 Anna Politkovskaia 8 BLDG, apt. 29, Tbilisi, Georgia  
Mob: 597 77 92 06  
E-mail: [davit.gogoli@tsu.ge](mailto:davit.gogoli@tsu.ge)

**Education:**

2003-2007 Georgian Technical University, Georgia. Bachelor  
2007-2009 Georgian Technical University, Georgia. Master  
2010-2013 Georgian Technical University, Georgia. PhD

**Work experience:**

2011-present TSU R. Agladze Institute of Inorganic Chemistry and Electrochemistry

2009-2011 LEPL R. Agladze Institute of Inorganic Chemistry and Electrochemistry  
Engineer

2013-2016 Georgian Technical University, Direction of Electrochemical Engineering,  
Assistant Professor

2013-2016 Georgian National high technology Centre, Spectra gases Georgia. Chief  
Technologist

Languages: Georgian (native), English, Russian

## Engineer – technologist

### Jemal Shengelia

0177, Tbilisi, Nutsubidze Str.#2, Apt. 9

Tel: +995 599 58 97 94

noeshengelia@gmail.com

**Date of Birth:** 30.06.1941 (Tbilisi, Georgia)

### Education and Science/Academic degrees:

- 1971 - Doctor of Chemical engineering (PhD). Institute of Inorganic Chemistry and Electrochemistry of Georgian Academy of Sciences, Tbilisi, Georgia
- 1964-1967 Post-Graduate Course Institute of Inorganic Chemistry and Electrochemistry of Georgian Academy of Sciences, Tbilisi, Georgia
- 1958-1963 M.S. Technology of Electrochemical production. Department of Chemistry and Chemical Technology, Georgian Polytechnic University, Tbilisi, Georgia

### Work place / organization:

**2013-present** Georgian Technical University, Faculty of Chemical Technology and Metallurgy,  
Full Professor

**1994-2009** LTD „Georgia Engineering”

**1993-1994** LTD „Manco Iberia”

**1989-2006** Georgian Technical University, Problem Laboratory of manganese and its compounds  
Head of Laboratory

**1985-2012** Georgian Technical University, Direction of Electrochemical engineering, Assistant Professor

**1964-1985** Institute of Inorganic Chemistry and Electrochemistry of the Georgian Academy of Sciences,  
Laboratory of Electrochemistry and Electrometallurgy, Research Fellow, Senior Research  
Fellow

### Scientific interest:

Electrochemistry of manganese and its compounds; Technology for production of active manganese dioxide, hydrometallurgical technology for ore processing.

**Participation in Research Grant Projects:** 5 (2010 - present)

**Publication/ Patents:** 85 scientific publications including 21 patents

## Chemist – analyst

### CURRICULUM VITAE

Name, Surname: Levan Beriashvili

Date of birth 18/04/1986

Adress: Vazisubani, Tsulukidze's third lane, 9th building, apt. 24, Tbilisi, Georgia

Mob: 597 77 19 28

E-mail: levanberia@gmail.com

### Education:

2003-2007 Georgian Technical University, Georgia. Bachelor

2007-2009 Georgian Technical University, Georgia. Master

2010-2015 Georgian Technical University, Georgia. PhD

### Work experience:

2018-present TSU R. Agladze Institute of Inorganic Chemistry and Electrochemistry  
Researcher

2013-2016 Georgian Technical University, Direction of Electrochemical Engineering,  
Research Assistant

2011-2013 TSU R. Agladze Institute of Inorganic Chemistry and Electrochemistry  
Engineer

2011-present Georgian National high technology centre, Chief Technologist

Publication: 5

Conference: 11

Languages: Georgian (native), English, Russian

## Chemist – analyst

### Curriculum Vitae

**Name, Surname** Rusudan Kurtanidze

**Date of birth:** 30 April, 1983

**Phone:** 555 582758

**E-mail:** [rusudankurtanidze@gmail.com](mailto:rusudankurtanidze@gmail.com)

**Address:** 7 Tbilisi street, post code 3700, Rustavi, Georgia

**ID number:** 57001010152

#### Education

No	Years	Name of the University/Institute, Country	Academic Degree	Major / Specialty
1	2003	Georgian Technical University	Bachelor	Electrochemistry/ Chemical engineer
2	2005	Georgian Technical University	Master	Electrochemistry/ Chemical engineer

#### Work Experience

No	Years	Position	Department / Unit	Organization
1	2005- 2010	Laboratory assistant	Laboratory of Electrochemistry and Electrometallurgy	R. Agladze Institute of Inorganic Chemistry and Electrochemistry
2	2011- present	Scientific worker	R. Agladze institute of Inorganic Chemistry and Electrochemistry /Laboratory of Electrochemistry and Electrometallurgy	Ivane Javakhishvili Tbilisi State University

**Research Interests:** Power sources, Fuel cell, Photoelectrochemical solar cell, Catalysts, Water Treatment

**Scientific publication:** 44

**Scientific conferences:** 22

**Patents** 1

**Language skills:** English, Russian

## Engineer – Mechanist

### NODAR TAZIASHVILI

Gldani, Micro Region III, BLDG 10, Apt. 87  
Tbilisi, Georgia  
Tel: (+995) 557 931687  
Email:

---

<b>Date of Birth</b>	15.02.1955	
<b>Education</b>	Diploma Georgian Polytechnical Institute Electronic Devices Engineer-Electromechanist Tbilisi, Georgia	1982-1988
<b>Working Experience</b>	Supervisor of Machine Shop TGU, R. Agladze Institute of Inorganic Chemistry and Electrochemistry Tbilisi, Georgia	2013 - present
	Electrician Mechanist, Electrician Welder Engineer-Technician Sinatle enterprise	1995-2012
	Mechanist Electro Rectifier Scientific-Technological enterprise	1990-1994
	Electrician-Fitterman Alioni Plant	1989-1990
	Worker, Master, Taskmaster Tbilisi Locomotives Manufacturer Factory	1972-1989

## Engineer – Electric

### HAMLET KAZANJIAN

Varketili, Region III, Upper Block, BLDG 46, Apt. 1  
Tbilisi 0182, Georgia  
Tel: (+995) 557113062  
Email: Gamlet-tv@mail.ru

---

<b>Date of Birth</b>	21.10.1960	
<b>Education</b>	Diploma Georgian Polytechnical Institute Industrial Electronics Tbilisi, Georgia	1977-1982
<b>Working Experience</b>	Specialist of Electronic Devices TSU, R. Agladze Institute of Inorganic Chemistry and Electrochemistry Tbilisi, Georgia	2015 - present
	Engineer Institute of Optics Georgian National Academy of Sciences	2000-2015
	Engineer Georgian Television	1995-2003
	Engineer Institute of Geophysics Georgian National Academy of Sciences	1987-1992
	Engineer Institute of Automatics	1982-1987



## Assistant Engineer

### CURRICUIUM VITAE

**Name, surname:** Nunu Jokhadze

**Date of birth:** 08. 10. 1976

**Place of birth:** Tbilisi, Georgia

**Address:** Didi Digomi 3<sup>rd</sup> micro-district, 31 build. 2 Apart. Tbilisi, Georgia

**Mob:** 558 28 64 64

**E-mail:** [Jokhadzenunu@gmail.ru](mailto:Jokhadzenunu@gmail.ru)

#### Education:

1993 – 1997

Bachelor's degree

1998 – 2000

Master's degree

Georgian Technical University, Faculty of Chemistry and

Biology, Technology of Electrochemical Production

Engineer-Chemistry-Technologist

#### Work experience:

2015- present

TSU R. Agladze Institute of Inorganic Chemistry and Electrochemistry  
named after. Engineer

2000 – 2005

Georgian Technical University, Laboratory of Super Clean Manganese  
and its Compounds (302), Junior Researcher

#### Scientific Research

##### Interest:

Electrochemical Synthesis of manganese and its Compounds,  
Electrodeposition of Manganese containing alloys.

##### Scientific Achievement:

6 articles.

##### Language:

Georgian – mother tongue, Russian – Well, English – intermediate

##### Software:

Word, Excel.