



KWLOG / Technical Offer

REPUBLIC OF MOLDOVA

Contract title: “Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț”

IDNO: 1007601004984

Reference: 2020/421-644/6.3.

Contracting Authority: Edineț Municipality City Hall

Date of Issue: October 2023

Bidder: KWLOG (France)



KWLOG

water intelligence



Tender: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edinet.

Reference: 2020/421-644/6.3.

KWLOG / TECHNICAL OFFER (Annex III to the Contract)

Offer validity: KWLOG's offer is valid for 90 days after the deadline for submitting tenders.

In the case KWLOG is selected, a further period of 60 days is added to the validity period irrespective of the date of notification (as per *Instructions to the Tenderers/Paragraph 6.*).

Deadline for submission: November 01, 2023, 10.00 ⁽¹⁾

⁽¹⁾ In compliance with the tender requirements, our offer is submitted electronically via the SIA "RSAP" MTender (KWLOG's Id on *achizitii.com* platform: *kwlog.gm@gmail.com*)

Elements of the Technical Offer

Tender Submission Form:

- Tenderer's identity; Contact person; Economic and financial capacity; Staff; Areas of specialization; Experience; Declarations; Statement

Complementary Forms (incl. other requested documents / certificates / proofs of completion):

- Tenderer's Declaration
 - + Reference project N°1 (proof of completion)
 - + Reference project N°2 (proof of completion)
- Declaration on honour on exclusion criteria and selection criteria
 - + DUAE /ESPD (certificate)
- Key Experts (Annex IV to the Contract)
 - + Experts' CV (document)
- Statement of Exclusivity and Availability (for proposed Experts)
- Financial Identification (Annex VI to the Contract)
- Legal Entity (Annex VI to the Contract)
 - + Power of Attorney (document)
 - + Company Registration from French RCS (certificate FR/EN)
 - + Company Registration Number from French SIRENE (certificate FR/EN)
 - + Material certificate business administration (certificate FR/EN)
 - + Lack of debts to local and national budgets from French INFOGREFFE (certificate FR/EN)
 - + Taxpayer's situation (certificate FR/EN)

Compliance of KWLOG to Technical Specifications & other requirements:

- Clause-by-clause comments on technical specifications
 - + Templates of Service Reports (for items N°1, N°2, N°3 & N°4)
- Organization & Methodology

Jérôme Chamosset

In the capacity of General Manager

Duly authorized to sign the tender for and on behalf of KWLOG company (France)

Paris, 23rd October 2023

☎ +33 6 12 17 37 95

Jerome.chamosset@kwlog.com

SERVICE TENDER SUBMISSION FORM

1. SUBMITTED BY (i.e., the identity of the tenderer)

	Name(s) of legal entity or entities making this application	Nationality
Leader	KWLOG	French
Member	Not applicable	

2. CONTACT PERSON (for this tender)

Name	Jerome CHAMOSSET
Organization	KWLOG
Address	153 rue du Faubourg Saint-Denis, 75010 Paris 10, France
Telephone	+33 612173795
Fax	
E-mail	jerome.chamosset@kwlog.com

3. ECONOMIC AND FINANCIAL CAPACITY

Financial Data	2 Years before last year [2020]	Year before last year [2021]	Last year [2022]	Average	Past year	Current year
	EUR	EUR	EUR	EUR	EUR	EUR
Annual Turnover, excluding this Contract	776 550	342 767 (*)	233 620 (*)	450 979	233 620	935 000
Current Assets	390 186	94 828	187 631	224 215	187 631	202 405
Current liabilities	227 588	95 524	103 153	142 088	103 153	90 000
Current Ratio (current assets/current liabilities)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

(*) In 2021 and 2022, the international Covid sanitary situation has seriously impacted KWLOG's business, especially our international projects (Not travel allowed).

For information, average revenue for 2017/2018/2019 was ~800 000 EUR.

4. STAFF

Annual Manpower	Year before past year 2020		Past year 2021		Current year 2022		Period average	
	Overall	Relevant fields	Overall	Relevant fields	Overall	Relevant fields	Overall	Relevant fields
Permanent staff	5	4	5	4	5	4	5	4
Other staff	12	12	10	10	14	14	12	12
Total	17	16	15	14	19	18	17	16
Permanent staff as a proportion of total staff (%)	29%	25%	33%	29%	26%	22%	29%	25%

5. AREAS OF SPECIALISATION

	Leader	Member 1
Relevant specialization 1	▪ Water Management (international expertise)	Not applicable
Relevant specialization 2	▪ Water Networks (international expertise)	Not applicable
Relevant specialization 3	▪ Water business (international expertise)	Not applicable
Relevant specialization 4	▪ Water projects (financial aspects)	Not applicable
Relevant specialization 5	▪ NRW Reduction services provider	Not applicable
Relevant specialization 6	▪ Smart Billing services provider	Not applicable
Relevant specialization 7	▪ Equipment selection expert (smart metering & misc.)	Not applicable
Relevant specialization 8	▪ AMR/AMI services supplier	Not applicable
Relevant specialization 9	▪ IoT/Smart City environment	Not applicable
Relevant specialization 10	▪ IT (algorithms, processes & interfacing)	Not applicable
Relevant specialization 11	▪ Capacity Building/Trainings	Not applicable
Relevant specialization 12	▪ WU consultancy/support (remote & on-field)	Not applicable

6. EXPERIENCE

Ref no	Project title							
Name of legal entity	Country	Overall Contract value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members if any
ITRON & KWLOG	Jordan	23 M€	9 %	6	Miyahuna	French RPE & USAID	2015 to 2019	N/A
Detailed description of project						Type and scope of services provided		
Non-Revenue Water Reduction Project (incl. Services, supply of smart metering, communication, and metrological equipment)						NRW & Billing Services in large size DMAs in Intermittent Water Supply conditions		
Ref no	Project title							
Name of legal entity	Country	Overall Contract value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members if any
ITRON & KWLOG	Australia	1,2 M€	20 %	2	UnityWater & QUU	Self-funding	2014 to 2018	N/A
Detailed description of project						Type and scope of services provided		
Non-Revenue Water Reduction Project (incl. Services, supply of smart metering) & Consultancy						NRW in large size DMAs, billing improvement		
Ref no	Project title							
Name of legal entity	Country	Overall Contract value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members if any
ITRON & KWLOG	Burundi	4 M€	17 %	4	Regideso	Self-funding	2017 to 2020	
Detailed description of project						Type and scope of services provided		
Non-Revenue Water Reduction Project (incl. Services, supply of smart metering and communication equipment)						Supply of smart water meters, NRW services (modelling, meter fleet analysis, monitoring & leakage detection) in 15 DMA, billing improvement		

Ref no	Project title							
Name of legal entity	Country	Overall Contract value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members if any
KWLOG & Vestra	Romania	4 M€	7 %	4	APAVITAL Iasi	Self-funding	2022 to 2023	N/A
Detailed description of project						Type and scope of services provided		
Smart Metering in fixed network						Supply of smart water meters in fixed network, NRW services (digital audit, modelling, monitoring & leakage detection in 1 DMA), billing improvement		
Ref no	Project title							
Name of legal entity	Country	Overall Contract value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members if any
KWLOG & Vestra	Romania	2,5 M€	7 %	4	CA BUZAU	Self-funding	2022 to 2023	N/A
Detailed description of project						Type and scope of services provided		
Smart Metering in fixed network, Meter Data Management						Supply of smart water meters in fixed network, Meter Data Management, NRW Services (digital audit and modelling), billing improvement		
Ref no	Project title							
Name of legal entity	Country	Overall Contract value (EUR)	Proportion carried out by legal entity (%)	No of staff provided	Name of client	Origin of funding	Dates (start/end)	Name of consortium members if any
KWLOG & Vestra	Romania	1,2 M€	5 %	3	CA SOMES	Self-funding	2021-2023	N/A
Detailed description of project						Type and scope of services provided		
Smart Metering in fixed network, Meter Data Management						Supply of smart water meters in fixed network, Meter Data Management, NRW Services		

7. DECLARATIONS

See related separate document "DECLARATION REFERRED TO IN POINT 7 OF THE TENDER SUBMISSION FORM".

8. STATEMENT

I, the undersigned, being the authorized signatory of the above tenderer (for a consortium, this must include all consortium members), hereby declare that we have examined and accept without reserve or restriction the entire contents of the tender dossier for the tender procedure referred to above. We offer to provide the services requested in the tender dossier on the basis of the following documents, which comprise our technical offer, and our financial offer, which is submitted in a separate, sealed envelope:

- Organization & Methodology.
- Key experts (comprising a list of the key experts and their CVs), if required.
- Tenderer's declarations (for a consortium, two from each consortium member).
- Statements of exclusivity and availability signed by each of the key experts, if required.
- Completed financial identification form (see Annex VI to the draft contract) providing details of the bank account into which payments under the proposed contract should be made in the event that we are awarded the contract (or the financial identification number or a copy of the financial identification form provided to the contracting authority on an earlier occasion, unless it has changed in the meantime).
- A copy of the legal entity file.
- Duly authorized signature: an official document (statutes, power of attorney, notary statement, etc.) proving that the person who signs on behalf of the company/joint venture/consortium is duly authorized to do so.
- Documentary proof or statements required under the law of the country where we are effectively established (or each of the companies in case of a consortium), to show that we do not fall into any of the exclusion situations listed in Section 2.6.10.1 of the practical guide. This evidence or these documents or statements must carry a date, which is not more than one year before the date of submission of the tender. In addition, a statement is furnished stating that the situations described in these documents have not changed since then.
- Documentary evidence of the financial and economic capacity as well as the technical and professional capacity according to the selection criteria specified in the contract notice.

[We undertake to guarantee the eligibility of the subcontractor(s) for the parts of the services for which we have stated our intention to subcontract in the organization and methodology.]

This tender is subject to acceptance within the validity period stipulated in clause 6 of the instructions to tenderers.

We understand that our tender may be rejected if we propose key experts who have been involved in preparing this project or employ them as advisers in the preparation of our tender. We also understand that this may mean exclusion from other tender procedures and contracts funded by the EU/EDF.

We are fully aware that, for a consortium, the composition of the consortium cannot be changed in the course of the tender procedure, unless the contracting authority has given its prior approval in writing. We




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are also aware that the consortium members have joint and several liability towards the contracting authority concerning participation in the above tender procedure and any contract awarded to us as a result of it.

We understand that entities upon whose capacity we rely with regard to economic and financial criteria, become jointly and severally liable for the performance of the contract.

Signed on behalf of the tenderer:

Name	Jerome Chamosset
Signature	
Date	23/10/2023



DECLARATION REFERRED TO IN POINT 7 OF THE TENDER SUBMISSION FORM

23/10/2023

Edineț municipality city hall, 30 Octavian Cirimpei Street

Your ref: 2020/421-644/6.3.

TENDERER'S DECLARATION

Dear Sir/Madam

In response to your letter of invitation for the above contract we, KWLOG, hereby declare that we:

- are submitting this tender ourselves for this contract. We confirm that we are not participating in any other tender for the same contract in any form (as a member, leader, in a consortium or as an individual candidate);
- agree to abide by the ethics clauses in Section 13 of the instructions to tenderers, have not been involved in the preparation of the project which is the subject of this tender procedure unless it is proved that the involvement in previous stages of the project does not constitute unfair competition, and have no professional conflicting interests and/or any relation with other tenderers or other parties in the tender procedure or behaviour which may distort competition at the time of submission of this tender according to Section 2.5.4. of the practical guide;
- are not part of a group or network and have only included data in the tender form concerning the resources and experience of our legal entity;
- will inform the contracting authority immediately if there is any change in the above circumstances at any stage during the implementation of the tasks;
- fully recognize and accept that if the above-mentioned persons participate in spite of being in any of the situations listed in Section 2.6.10.1.1. of the practical guide or if the declarations or information provided prove to be false they may be subject to rejection from this procedure and to administrative sanctions in the form of exclusion and financial penalties up to 10% of the total estimated value of the contract being awarded and that this information may be published on the Commission website in accordance with the Financial Regulation in force;
- are aware that, for the purposes of safeguarding the EU's financial interests, our personal data may be transferred to internal audit services, to the European Court of Auditors, to the Financial Irregularities Panel or to the European Anti-Fraud Office.

We understand that our tender and the expert may be excluded if we propose the same key expert as another tenderer or if we propose a key expert who is engaged in an EU/EDF financed project if the input from his/her position in that contract could be required on the same dates as his/her work under this contract.

We understand that if we fail to respond within the delay after receiving the notification of award, or if the information provided is proved false, the award may be considered null and void.

Sincerely yours,

Jérôme Chamosset

In the capacity of General Manager

Duly authorized to sign the tender for and on behalf of KWLOG company (France)

Paris, 23rd October 2023

☎ +33 6 12 17 37 95

Jerome.chamosset@kwlog.com

A handwritten signature in blue ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

PROJECT COMPLETION DOCUMENT N°1

VESTRA INDUSTRY (www.vestra.ro) is the first cluster specialized in the utilities industry, delivering – among others – equipment and advanced solutions to Romanian water utilities, and executing complex projects, in collaboration with international leading manufacturers and solutions providers.

Customer:

- APAVITAL IASI

Project partner:

- KWLOG (www.kwlog.com)

Objectives of the project:

The objectives of the projects are to fully equip APAVITAL IASI customers with smart water meters, communicating in fixed network, ensure full dataset (including consumption hourly data) is collected, in order to improve billing and to monitor accurately and timely Non-Revenue Water at municipality level and then significantly reduce it in selected District Metered Areas.

Project details:

- NRW digital audit – municipality level (2022).
- NRW assessment and reduction program in DMA IAS-01-03 (2021-2022).
- NRW assessment and reduction program in DMA IAS-07-01 (2023, under execution).
- NRW monitoring – municipality level (2023, under execution).
- Supply of 60.000 smart water meters (2022-2024, under execution).
- LoRaWAN fixed network smart water meters data collection, validation, and storage.
- Billing improvement.

Project value, duration, and execution:

- Overall 4M€, 2022-2023

This project completion document is hereby issued to KWLOG within the framework of its participation in the tender “Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț – Ref. 2020/421-644/6.3. - Republic of Moldova”.

This document is provided for the purpose it may serve.

Constantin DUMITRIU
Administrator
VESTRA INDUSTRY
(+40 755 400 030)



October 17, 2023.

VESTRA INDUSTRY, Str Mihai Eminescu 85, Cătămărești-Deal, Județ Botoșani, România

PROJECT COMPLETION DOCUMENT N°2

VESTRA INDUSTRY (www.vestra.ro) is the first cluster specialized in the utilities industry, delivering – among others – equipment and advanced solutions to Romanian water utilities, and executing complex projects, in collaboration with international leading manufacturers and solutions providers.

Customer:

- COMPANIA DE APA SOMES (Cluj Napoca)

Project partner:

- KWLOG (www.kwlog.com)

Objectives of the project:

The objectives of the projects are to equip 10.000 customers of CA SOMES with smart water meters, communicating in fixed network, ensure full dataset (including consumption hourly data) is collected, in order to improve billing and to monitor accurately and timely Non-Revenue Water at municipality level and then significantly reduce it in selected District Metered Areas.

Project details:

- NRW digital audit – municipality level (2022).
- NRW assessment and reduction program in DMA Pod Calvaria (2021-2022).
- NRW monitoring – municipality level (2022-2023).
- Supply of 10.000 smart water meters (2022-2023).
- LoRaWAN fixed network smart water meters data collection, validation, and storage.
- Billing improvement.

Project value, duration, and execution:

- Overall 1.2M€, 2021-2023

This project completion document is hereby issued to KWLOG within the framework of its participation in the tender “Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț – Ref. 2020/421-644/6.3. - Republic of Moldova”.

This document is provided for the purpose it may serve.

Constantin DUMITRIU
Administrator
VESTRA INDUSTRY
(+40 755 400 030)

October 17, 2023.



DECLARATION ON HONOUR ON EXCLUSION CRITERIA AND SELECTION CRITERIA

The undersigned Mr Jerome CHAMOSSET, representing:

the following legal person: KWLOG
Full official name: KWLOG Official legal form: SAS Statutory registration number: SIREN 440 965 010 RCS Paris Full official address: 153 rue du Faubourg Saint-Denis, 75010 Paris 10, France VAT registration number: FR 21 440 965 010 ('the person')

The person is not required to submit the declaration on exclusion criteria if the same declaration has already been submitted for the purposes of another award procedure of the same contracting authority, provided the situation has not changed, and that the time that has elapsed since the issuing date of the declaration does not exceed one year.

In this case, the signatory declares that the person has already provided the same declaration on exclusion criteria for a previous procedure and confirms that there has been no change in its situation:

Date of the declaration	Full reference to previous procedure
Not Applicable	Not Applicable

I – Situations of exclusion concerning the person

(1) declares that the above-mentioned person is in one of the following situations:	YES	NO
(a) it is bankrupt, subject to insolvency or winding-up procedures, its assets are being administered by a liquidator or by a court, it is in an arrangement with creditors, its business activities are suspended or it is in any analogous situation arising from a similar procedure provided for under Union or national legislation or regulations;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) it has been established by a final judgement or a final administrative decision that the person is in breach of its obligations relating to the payment of taxes or social security contributions in accordance with the applicable law;	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(c) it has been established by a final judgement or a final administrative decision that the person is guilty of grave professional misconduct by having violated applicable laws or regulations or ethical standards of the profession to which the person belongs, or by having engaged in any wrongful conduct which has an impact on its professional credibility where such conduct denotes wrongful intent or gross negligence, including, in particular, any of the following:		
(i) fraudulently or negligently misrepresenting information required for the verification of the absence of grounds for exclusion or the fulfilment of eligibility or selection criteria or in the performance of a contract or an agreement;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) entering into agreement with other persons with the aim of distorting competition;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iii) violating intellectual property rights;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) attempting to influence the decision-making process of the contracting authority during the award procedure;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(v) attempting to obtain confidential information that may confer upon it undue advantages in the award procedure;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) it has been established by a final judgement that the person is guilty of any of the following:		
(i) fraud, within the meaning of Article 3 of Directive (EU) 2017/1371 and Article 1 of the Convention on the protection of the European Communities' financial interests, drawn up by the Council Act of 26 July 1995;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) corruption, as defined in Article 4(2) of Directive (EU) 2017/1371 or active corruption within the meaning of Article 3 of the Convention on the fight against corruption involving officials of the European Communities or officials of Member States of the European Union, drawn up by the Council Act of 26 May 1997, or conduct referred to in Article 2(1) of Council Framework Decision 2003/568/JHA, as well as corruption as defined in other applicable laws;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iii) conduct related to a criminal organisation, as referred to in Article 2 of Council Framework Decision 2008/841/JHA;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) money laundering or terrorist financing, within the meaning of Article 1(3), (4) and (5) of Directive (EU) 2015/849 of the European Parliament and of the Council;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(v) terrorist offences or offences linked to terrorist activities, as defined in Articles 1 and 3 of Council Framework Decision 2002/475/JHA, respectively, or inciting, aiding, abetting or attempting to commit such offences, as referred to in Article 4 of that Decision;	<input type="checkbox"/>	<input checked="" type="checkbox"/>

(vi) child labour or other offences concerning trafficking in human beings as referred to in Article 2 of Directive 2011/36/EU of the European Parliament and of the Council;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) it has shown significant deficiencies in complying with the main obligations in the performance of a contract or an agreement financed by the Union's budget, which has led to its early termination or to the application of liquidated damages or other contractual penalties, or which has been discovered following checks, audits or investigations by a contracting authority, the European Anti-Fraud Office (OLAF) or the Court of Auditors;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) it has been established by a final judgment or final administrative decision that the person has committed an irregularity within the meaning of Article 1(2) of Council Regulation (EC, Euratom) No 2988/95;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) it has been established by a final judgment or final administrative decision that the person has created an entity under a different jurisdiction with the intent to circumvent fiscal, social or any other legal obligations in the jurisdiction of its registered office, central administration or principal place of business.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) (<i>only for legal persons</i>) it has been established by a final judgment or final administrative decision that the person has been created with the intent provided for in point (g).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) for the situations referred to in points (c) to (h) above the person is subject to:		
i. facts established in the context of audits or investigations carried out by the European Public Prosecutor's Office after its establishment, the Court of Auditors, the European Anti-Fraud Office (OLAF) or the internal auditor, or any other check, audit or control performed under the responsibility of an authorising officer of an EU institution, of a European office or of an EU agency or body;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. non-final judgments or non-final administrative decisions which may include disciplinary measures taken by the competent supervisory body responsible for the verification of the application of standards of professional ethics;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. facts referred to in decisions of entities or persons being entrusted with EU budget implementation tasks;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. information transmitted by Member States implementing Union funds;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. decisions of the Commission relating to the infringement of Union competition law or of a national competent authority relating to the infringement of Union or national competition law; or	<input type="checkbox"/>	<input checked="" type="checkbox"/>
vi. decisions of exclusion by an authorising officer of an EU institution, of a European office or of an EU agency or body.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

II – Situations of exclusion concerning natural or legal persons with power of representation, decision-making or control over the legal person and beneficial owners

Not applicable to natural persons, Member States and local authorities

(2) declares that a natural or legal person who is a member of the administrative, management or supervisory body of the above-mentioned legal person, or who has powers of representation, decision or control with regard to the above-mentioned legal person (this covers e.g. company directors, members of management or supervisory bodies, and cases where one natural or legal person holds a majority of shares), or a beneficial owner of the person (as referred to in point 6 of article 3 of Directive (EU) No 2015/849) is in one of the following situations:	YES	NO	N/A
Situation (c) above (grave professional misconduct)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Situation (d) above (fraud, corruption or other criminal offence)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Situation (e) above (significant deficiencies in performance of a contract)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Situation (f) above (irregularity)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Situation (g) above (creation of an entity with the intent to circumvent legal obligations)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Situation (h) above (person created with the intent to circumvent legal obligations)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Situation (i) above	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

III – Situations of exclusion concerning natural or legal persons assuming unlimited liability for the debts of the legal person

(3) declares that a natural or legal person that assumes unlimited liability for the debts of the above-mentioned legal person is in one of the following situations [<i>if yes, please indicate in annex to this declaration which situation and the name(s) of the concerned person(s) with a brief explanation</i>]:	YES	NO	N/A
Situation (a) above (bankruptcy)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Situation (b) above (breach in payment of taxes or social security contributions)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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IV – Grounds for rejection from this procedure

(4) declares that the above-mentioned person:	YES	NO
Was previously involved in the preparation of the procurement documents used in this award procedure, where this entailed a breach of the principle of equality of treatment including distortion of competition that cannot be remedied otherwise.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

V – Remedial measures

If the person declares one of the situations of exclusion listed above, it must indicate measures it has taken to remedy the exclusion situation, thus demonstrating its reliability. This may include e.g. technical, organisational and personnel measures to prevent further occurrence, compensation of damage or payment of fines or of any taxes or social security contributions. The relevant documentary evidence which illustrates the remedial measures taken must be provided in annex to this declaration. This does not apply for situations referred in point (d) of this declaration.

VI – Evidence upon request

Upon request and within the time limit set by the contracting authority the person must provide information on natural or legal persons that are members of the administrative, management or supervisory body or that have powers of representation, decision or control, including legal and natural persons within the ownership and control structure and beneficial owners.

It must also provide the following evidence concerning the person itself and the natural or legal persons on whose capacity the person intends to rely, or a subcontractor and concerning the natural or legal persons which assume unlimited liability for the debts of the person:

For situations described in (a), (c), (d), (f), (g) and (h), production of a recent extract from the judicial record is required or, failing that, an equivalent document recently issued by a judicial or administrative authority in the country of establishment of the person showing that those requirements are satisfied.

For the situation described in point (b), production of recent certificates issued by the competent authorities of the State concerned are required. These documents must provide evidence covering all taxes and social security contributions for which the person is liable, including for example, VAT, income tax (natural persons only), company tax (legal persons only) and social security contributions. Where any document described above is not issued in the country concerned, it may be replaced by a sworn statement made before a judicial authority or

notary or, failing that, a solemn statement made before an administrative authority or a qualified professional body in its country of establishment.

The person is not required to submit the evidence if it has already been submitted for another award procedure of the same contracting authority. The documents must have been issued no more than one year before the date of their request by the contracting authority and must still be valid at that date.

The signatory declares that the person has already provided the documentary evidence for a previous procedure and confirms that there has been no change in its situation:

Document	Full reference to previous procedure
<i>Insert as many lines as necessary</i>	Not applicable

VII – Selection criteria

(1) declares that the above-mentioned person complies with the selection criteria applicable to it individually as provided in the tender documents:	YES	NO	N/A
(a) It has the legal and regulatory capacity to pursue the professional activity needed for performing the contract as required in section 16.Selection Criteria of the contract notice;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) It fulfills the applicable economic and financial criteria indicated in section 16.Selection Criteria of the contract notice;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) It fulfills the applicable technical and professional criteria indicated in section 16.Selection Criteria of the contract notice.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(2) if the above-mentioned person is the sole tenderer or the leader in case of consortium , declares that:	YES	NO	N/A
(d) the tenderer, including all members of the group in case of consortium and including subcontractors if applicable, complies with all the selection criteria for which a consolidated assessment will be made as provided in the tender documents.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Contract title: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

VIII – Evidence for selection

The signatory declares that the above-mentioned person is able to provide the necessary supporting documents listed in the relevant sections of the tender documents and which are not available electronically upon request and without delay.

The person is not required to submit the evidence if it has already been submitted for another procurement procedure of the same contracting authority. The documents must have been issued no more than one year before the date of their request by the contracting authority and must still be valid at that date.

The signatory declares that the person has already provided the documentary evidence for a previous procedure and confirms that there has been no change in its situation:

Document	Full reference to previous procedure
Not applicable	Not applicable

The above-mentioned person must immediately inform the contracting authority of any changes in the situations as declared.

The above-mentioned person may be subject to rejection from this procedure and to administrative sanctions (exclusion or financial penalty) if any of the declarations or information provided as a condition for participating in this procedure prove to be false.

Full name

Date

Signature

Jérôme Chamosset

23/10/2023

In the capacity of General Manager
Duly authorized to sign the tender for
and on behalf of KWLOG company (France)

European Single Procurement Document (ESPD)

Part I: Information concerning the procurement procedure and the contracting authority or contracting entity

Information about publication

For procurement procedures in which a call for competition has been published in the Official Journal of the European Union, the information required under Part I will be automatically retrieved, provided that the electronic ESPD-service is used to generate and fill in the ESPD. Reference of the relevant notice published in the Official Journal of the European Union:

Notice number in the OJS:

-

OJS URL

National Official Journal

IDNO: 1007601004984

In case publication of a notice in the Official Journal of the European Union is not required, please give other information allowing the procurement procedure to be unequivocally identified (e. g. reference of a publication at national level)

Identity of the procurer

Official name:

City Hall Municipality Edinet

Country:

Moldova

Information about the procurement procedure

Type of procedure

Open procedure

Title:

Supply of Services for the implementation of an Intelligent Billing System and a NRW (Non- Revenue Water) Reduction System on a Reference DMA, within the Water Supply Service of Edinet Municipality (goods and services)

Short description:

The scope of the contract is to create and test an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edinet which could be extended on the whole territory of Edinet municipality, based on other service contracts.

File reference number attributed by the contracting authority or contracting entity (if applicable):

Reference: 2020/421-644/6.3.

Part II: Information concerning the economic operator

A: Information about the economic operator

Name:

KWLOG

Street and number:

153 rue du Faubourg Saint-Denis

Postcode:

75010

City:

Paris

Country:

France

Internet address (web address) (if applicable):

www.kwlog.com

E-mail:

administrateur@kwlog.com

Telephone:

-

Contact person or persons:

General Manager

VAT number, if applicable:

FR 21 440 965 010

If no VAT number is applicable, please indicate another national identification number, if required and applicable

-

Is the economic operator a Micro, a Small or a Medium-Sized Enterprise?

Yes

No

Only in case the procurement is reserved: is the economic operator a sheltered workshop, a 'social business' or will it provide for the performance of the contract in the context of sheltered employment programmes?

Yes

No

If applicable, is the economic operator registered on an official list of approved economic operators or does it have an equivalent certificate (e.g. under a national (pre)qualification system)?

Yes

No

- In addition, please complete the missing information in Part IV, Sections A, B, C or D as the case may be ONLY if this is required in the relevant notice or procurement documents

e) Will the economic operator be able to provide a certificate with regard to the payment of social security contributions and taxes or provide information enabling the contracting authority or contracting entity to obtaining it directly by accessing a national database in any Member State that is available free of charge?

Yes

No

If the relevant documentation is available electronically, please indicate:

-

Is the economic operator participating in the procurement procedure together with others?

Yes

No

Where applicable, indication of the lot(s) for which the economic operator wishes to tender:

-

B: Information about representatives of the economic operator #1

- Where applicable, please indicate the name(s) and address(es) of the person(s) empowered to represent the economic operator for the purposes of this procurement procedure:

First name

Jerome

Last name

Chamosset

Date of birth

26-04-1977

Place of birth

Annecy, France

Street and number:

1277 route des Bois Brules

Postcode:

74330

City:

Sillingy

Country:

France

E-mail:

jerome.chamosset@kwlog.com

Telephone:

+33 6 12 17 37 95

Position/Acting in the capacity of:

General Manager

If needed, please provide detailed information on the representation (its forms, extent, purpose ...):

-

C: Information about reliance on the capacities of other entities

Does the economic operator rely on the capacities of other entities in order to meet the selection criteria set out under Part IV and the criteria and rules (if any) set out under Part V below?

Yes

No

D: Information concerning subcontractors on whose capacity the economic operator does not rely

- (Section to be filled-in only if this information is explicitly required by the contracting authority or contracting entity.)

Does the economic operator intend to subcontract any share of the contract to third parties?

Yes

No

- If the contracting authority or contracting entity explicitly requests this information in addition to the information under Part I, please provide the information required under Sections A and B of this Part and Part III for each of the (categories of) subcontractors concerned.

Part III: Exclusion grounds

A: Grounds relating to criminal convictions

Article 57(1) of Directive 2014/24/EU sets out the following reasons for exclusion

Participation in a criminal organisation

Has the economic operator itself or any person who is a member of its administrative, management or supervisory body or has powers of representation, decision or control therein been the subject of a conviction by final judgment for participation in a criminal organisation, by a conviction rendered at the most five years ago or in which an exclusion period set out directly in the conviction continues to be applicable? As defined in Article 2 of Council Framework Decision 2008/841/JHA of 24 October 2008 on the fight against organised crime (OJ L 300, 11.11.2008, p. 42).

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Corruption

Has the economic operator itself or any person who is a member of its administrative, management or supervisory body or has powers of representation, decision or control therein been the subject of a conviction by final judgment for corruption, by a conviction rendered at the most five years ago or in which an exclusion period set out directly in the conviction continues to be applicable? As defined in Article 3 of the Convention on the fight against corruption involving officials of the European Communities or officials of Member States of the European Union, OJ C 195, 25.6.1997, p. 1, and in Article 2(1) of Council Framework Decision 2003/568/JHA of 22 July 2003 on combating corruption in the private sector (OJ L 192, 31.7.2003, p. 54). This exclusion ground also includes corruption as defined in the national law of the contracting authority (contracting entity) or the economic operator. "

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Fraud

Has the economic operator itself or any person who is a member of its administrative, management or supervisory body or has powers of representation, decision or control therein been the subject of a conviction by final judgment for fraud, by a conviction rendered at the most five years ago or in which an exclusion period set out directly in the conviction continues to be applicable? Within the meaning of Article 1 of the Convention on the protection of the European Communities' financial interests (OJ C 316, 27.11.1995, p. 48).

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Terrorist offences or offences linked to terrorist activities

Has the economic operator itself or any person who is a member of its administrative, management or supervisory body or has powers of representation, decision or control therein been the subject of a conviction by final judgment for terrorist offences or offences linked to terrorist activities, by a conviction rendered at the most five years ago or in which an exclusion period set out directly in the conviction continues to be applicable? As defined in Articles 1 and 3 of Council Framework Decision of 13 June 2002 on combating terrorism (OJ L 164, 22.6.2002, p. 3). This exclusion ground also includes inciting or aiding or abetting or attempting to commit an offence, as referred to in Article 4 of that Framework Decision.

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Money laundering or terrorist financing

Has the economic operator itself or any person who is a member of its administrative, management or supervisory body or has powers of representation, decision or control therein been the subject of a conviction by final judgment for money laundering or terrorist financing, by a conviction rendered at the most five years ago or in which an exclusion period set out directly in the conviction continues to be applicable? As defined in Article 1 of Directive 2005/60/EC of the European Parliament and of the Council of 26 October 2005 on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing (OJ L 309, 25.11.2005, p. 15).

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Child labour and other forms of trafficking in human beings

Has the economic operator itself or any person who is a member of its administrative, management or supervisory body or has powers of representation, decision or control therein been the subject of a conviction by final judgment for child labour and other forms of trafficking in human beings, by a conviction rendered at the most five years ago or in which an exclusion period set out directly in the conviction continues to be applicable? As defined in Article 2 of Directive 2011/36/EU of the European Parliament and of the Council of 5 April 2011 on preventing and combating trafficking in human beings and protecting its victims, and replacing Council Framework Decision 2002/629/JHA (OJ L 101, 15.4.2011, p. 1).

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

B: Grounds relating to the payment of taxes or social security contributions

Article 57(2) of Directive 2014/24/EU sets out the following reasons for exclusion

Payment of taxes

Has the economic operator breached its obligations relating to the payment of taxes, both in the country in which it is established and in Member State of the contracting authority or contracting entity if other than the country of establishment?

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Payment of social security

Has the economic operator breached its obligations relating to the payment social security contributions, both in the country in which it is established and in Member State of the contracting authority or contracting entity if other than the country of establishment?

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

C: Grounds relating to insolvency, conflicts of interests or professional misconduct

Article 57(4) of Directive 2014/24/EU sets out the following reasons for exclusion

Breaching of obligations in the field of environmental law

Has the economic operator, to its knowledge, breached its obligations in the field of environmental law? As referred to for the purposes of this procurement in national law, in the relevant notice or the procurement documents or in Article 18(2) of Directive 2014/24/EU.

Your answer?

Yes

No

Breaching of obligations in the field of social law

Has the economic operator, to its knowledge, breached its obligations in the field of social law? As referred to for the purposes of this procurement in national law, in the relevant notice or the procurement documents or in Article 18(2) of Directive 2014/24/EU.

Your answer?

Yes

No

Breaching of obligations in the fields of labour law

Has the economic operator, to its knowledge, breached its obligations in the field of labour law? As referred to for the purposes of this procurement in national

law, in the relevant notice or the procurement documents or in Article 18(2) of Directive 2014/24/EU.

Your answer?

Yes

No

Bankruptcy

Is the economic operator bankrupt? This information needs not be given if exclusion of economic operators in this case has been made mandatory under the applicable national law without any possibility of derogation where the economic operator is nevertheless able to perform the contract.

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Insolvency

Is the economic operator the subject of insolvency or winding-up? This information needs not be given if exclusion of economic operators in this case has been made mandatory under the applicable national law without any possibility of derogation where the economic operator is nevertheless able to perform the contract.

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Arrangement with creditors

Is the economic operator in arrangement with creditors? This information needs not be given if exclusion of economic operators in this case has been made mandatory under the applicable national law without any possibility of derogation where the economic operator is nevertheless able to perform the contract.

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Analogous situation like bankruptcy under national law

Is the economic operator in in any analogous situation like bankruptcy arising from a similar procedure under national laws and regulations? This information needs not be given if exclusion of economic operators in this case has been made mandatory under the applicable national law without any possibility of derogation where the economic operator is nevertheless able to perform the contract.

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Assets being administered by liquidator

Are the assets of the economic operator being administered by a liquidator or by the court? This information needs not be given if exclusion of economic operators in this case has been made mandatory under the applicable national law without any possibility of derogation where the economic operator is nevertheless able to perform the contract.

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Business activities are suspended

Are the business activities of the economic operator suspended? This information needs not be given if exclusion of economic operators in this case has been made mandatory under the applicable national law without any possibility of derogation where the economic operator is nevertheless able to perform the contract.

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Agreements with other economic operators aimed at distorting competition

Has the economic operator entered into agreements with other economic operators aimed at distorting competition?

Your answer?

Yes

No

Guilty of grave professional misconduct

Is the economic operator guilty of grave professional misconduct? Where applicable, see definitions in national law, the relevant notice or the procurement documents.

Your answer?

Yes

No

Conflict of interest due to its participation in the procurement procedure

Is the economic operator aware of any conflict of interest, as indicated in national law, the relevant notice or the procurement documents due to its participation in the procurement procedure?

Your answer?

Yes

No

Direct or indirect involvement in the preparation of this procurement procedure

Has the economic operator or an undertaking related to it advised the contracting authority or contracting entity or otherwise been involved in the preparation of the procurement procedure?

Your answer?

Yes

No

Early termination, damages or other comparable sanctions

Has the economic operator experienced that a prior public contract, a prior contract with a contracting entity or a prior concession contract was terminated early, or that damages or other comparable sanctions were imposed in connection with that prior contract?

Your answer?

Yes

No

Guilty of misinterpretation, withheld information, unable to provide required documents and obtained confidential information of this procedure

Can the economic operator confirm that:

- a) It has been guilty of serious misrepresentation in supplying the information required for the verification of the absence of grounds for exclusion or the fulfilment of the selection criteria,
- b) It has withheld such information,
- c) It has not been able, without delay, to submit the supporting documents required by a contracting authority or contracting entity, and
- d) It has undertaken to unduly influence the decision making process of the contracting authority or contracting entity, to obtain confidential information that may confer upon it undue advantages in the procurement procedure or to negligently provide misleading information that may have a material influence on decisions concerning exclusion, selection or award?

Your answer?

Yes

No

D: Purely national exclusion grounds

Do the purely national grounds of exclusion, which are specified in the relevant notice or in the procurement documents, apply?

Purely national exclusion grounds

Other exclusion grounds that may be foreseen in the national legislation of the contracting authority's or contracting entity's Member State. Has the economic operator breached its obligations relating to the purely national grounds of exclusion, which are specified in the relevant notice or in the procurement documents?

Your answer?

Yes

No

Is this information available at no cost to the authorities from an EU Member State database?

Yes

No

Part IV: Selection criteria

a: Global indication for all selection criteria

Concerning the selection criteria the economic operator declares that it satisfies all the required selection criteria

Your answer?

Yes

No

Finish

Part VI: Concluding statements

The economic operator formally declares that the information stated under Parts II - V above is accurate and correct and that it has been set out in full awareness of the consequences of serious misrepresentation.

The economic operator formally declares to be able, upon request and without delay, to provide the certificates and other forms of documentary evidence referred to, except where:

a) The contracting authority or contracting entity has the possibility of obtaining the supporting documentation concerned directly by accessing a national database in any Member State that is available free of charge (on condition that the economic operator has provided the necessary information (web address, issuing authority or body, precise reference of the

documentation) allowing the contracting authority or contracting entity to do so. Where required, this must be accompanied by the relevant consent to such access), or

b) As of 18 October 2018 at the latest (depending on the national implementation of the second subparagraph of Article 59(5) of Directive 2014/24/EU), the contracting authority or contracting entity already possesses the documentation concerned.

The economic operator formally consents to the contracting authority or contracting entity as set out in Part I, gaining access to documents supporting the information, which has been provided in Part III and Part IV of this European Single Procurement Document for the purposes of the procurement procedure as set out in Part I.

Date, place and, where required or necessary, signature(s):

Date

18-10-2023

Place

Paris (France)

Signature

A handwritten signature in blue ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

ANNEX IV: KEY EXPERTS

Name of expert	Proposed position	Years of experience	Age	Educational background	Specialist areas of knowledge	Experience in partner country	Languages and degree of fluency from A1 (beginner) to C2 (proficient)
CHAMOSSET Jerome	Main Key Expert	22	46	Master of Science & Engineering	<ul style="list-style-type: none"> ▪ Water Management ▪ Water Networks ▪ NRW reduction ▪ Billing systems ▪ Smart metering ▪ AMR/AMI ▪ WU consulting & auditing ▪ IoT/Smart City ▪ Capacity ▪ Building/Trainings 	Yes	French English – C2
MARTIN Mathias	Key Expert	30	54	Master of Science & Engineering	<ul style="list-style-type: none"> ▪ Water Management ▪ Water Networks ▪ NRW reduction ▪ Billing systems ▪ Smart metering ▪ AMR/AMI ▪ WU consulting & auditing ▪ IoT/Smart City ▪ Capacity Building/Training 	Yes	French English – C2 Romanian – C2
FERREOL Eric	Key Expert	31	58	Master of Science & Engineering	<ul style="list-style-type: none"> ▪ Water Management ▪ Water Networks ▪ NRW reduction ▪ Billing systems ▪ Interfacing/Migration processes ▪ IT (GIS/Hydraulic Modeling) ▪ IT Processes ▪ Capacity ▪ Building/Trainings 	Yes	French English – C2 German – C1

Curriculum Vitae N°1

Proposed role in the project	Main Key Expert
Family name	CHAMOSSET
First names	Jerome
Date of birth	26/04/1977
Nationality	French
Civil status	Married
Education	Master of Science

Institution	Date from dd/mm/yyyy	Date to dd/mm/yyyy	Degree(s) or diploma(s) obtained
Arts & Métiers - France	09/1998	07/2001	Master of Science & Executive Engineering

Language	Reading	Speaking	Writing
French	Mother tongue		
English	C2	C2	C2

Membership of professional bodies	
Other skills (e.g., computer literacy, etc.)	Cloud computing, algorithms, bio farming
Present position	KWLOG GM (acting Expert)
Years within the firm	3 years
Key qualifications (relevant to the project)	See Table / Specialist areas of knowledge
Specific experience in the region	Yes

Country	Date from dd/mm/yyyy	Date to dd/mm/yyyy
Main Countries in Europe/EMEA/LAM/NAM	Since 07/2001	Up to now



Contract title: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

Curriculum Vitae N°2

Proposed role in the project	Key Expert
Family name	Martin
First names	Mathias
Date of birth	05/04/1969
Nationality	French
Civil status	Married
Education	Master of Science

Institution	Date from dd/mm/yyyy	Date to dd/mm/yyyy	Degree(s) or diploma(s) obtained
Mines Paris Tech - France	09/1989	09/1992	Master of Science & Executive Engineering

Language	Reading	Speaking	Writing
French	Mother tongue		
English	C2	C2	C2
Romanian	C2	C2	C2

Membership of professional bodies	
Other skills (e.g., computer literacy, etc.)	Data analysis
Present position	Acting Expert
Years within the firm	5 years
Key qualifications (relevant to the project)	See Table / Specialist areas of knowledge
Specific experience in the region	Yes

Country	Date from dd/mm/yyyy	Date to dd/mm/yyyy
Main Countries in EMEA	10/1993	Up to now
Romania	10/1993	Up to now

Curriculum Vitae N°3

Proposed role in the project	Key Expert
Family name	Ferreol
First names	Eric
Date of birth	17/09/1965
Nationality	French
Civil status	Married
Education	Master of Science

Institution	Date from dd/mm/yyyy	Date to dd/mm/yyyy	Degree(s) or diploma(s) obtained
Mines Paris Tech - France	09/1987	09/1990	Master of Science & Executive Engineering

Language	Reading	Speaking	Writing
French	Mother tongue		
English	C2	C2	C2
German	C1	C1	C1

Membership of professional bodies	IWA
Other skills (e.g., computer literacy, etc.)	Algorithms, cloud computing, scuba diving
Present position	KWLOG CEO / Acting Expert
Years within the firm	21 years
Key qualifications (relevant to the project)	See Table / Specialist areas of knowledge
Specific experience in the region	Yes

Country	Date from dd/mm/yyyy	Date to dd/mm/yyyy
Main Countries in Europe/EMEA/APAC/LAM/NAM	Since 1992	Up to now



MAIN KEY EXPERT: Jerome CHAMOSSET

French, 46 years old

Years of experience: 22

Nationality: French

Key Qualifications:

- Water Management
- Water Networks operation, organization, and planning
- NRW reduction project planning and execution in permanent and intermittent water supply
- Apparent Losses operations experts
- Real Losses operations experts (Step testing, leakage detection campaigns...)
- Billing systems, IT process, Interfaces, and integration
- Smart metering including metrology, communication devices and data
- Consulting and audition Water Utility
- Products, Systems, and data relative to IoT including Smart City integration
- Capacity Building construction for utilities development in NRW, Smart Metering, IoT...
- Cloud computing and software development
- Data handling and analysis

Education:

Institution	Arts & Métiers – Paris – France
Date: from (month/year) to (month/year)	09/1998 – 07/2001
Degree(s) or Diploma(s) obtained:	Master of Science and Executive Engineering

Employment Record:

Date: from (month/year) to (month/year)	11/2020 to present
Location	France
Company	KWLOG
Position	General Manager
Description	<ul style="list-style-type: none">▪ Non-Revenue Water reduction project▪ Non-Revenue Water Solution development▪ Company General Manager

Date: from (month/year) to (month/year)	07/2001 to 11/2020
Location	2001 – 2005: Haguenau, France 2005 – 2010: Macon, France 2010 – 2020: Paris, France
Company	Schlumberger Industries / Actaris / Itron - Water Division
Positions	<ul style="list-style-type: none"> ▪ Senior Director NRW Solutions ▪ Director Technical Sales EMEA Water & Heat ▪ Product Line Manager ▪ R&D Program Development Manager ▪ R&D, Sustaining, Product & Manufacturing Engineering Manager
Description	<ul style="list-style-type: none"> ▪ Develop NRW Services worldwide for the company ▪ Develop method to address all NRW project ▪ Manage Performance Based contracts of NRW ▪ Develop the partnership with experts' companies ▪ Develop portfolio and Service offering

NRW – References, work undertaken (non-exhaustive list)

POLAND	2021 - NOW	<p>Set up NRW reduction project for utility including NB-IoT communication infrastructure and IoT data consolidation in Smart City environment – CONFIDENTIAL</p> <p>Leverage benefits of the smart city and IoT data in a NRW project using NB-IoT communication equipment and infrastructure.</p>
JORDAN	2014 - 2019	<p>Project Management and Solution development to for roll out of 200 000 ultrasonic meters combined with Smart Billing implementation and NRW reduction in intermittent water supply – Miyahuna</p> <p>NRW reduction programs in resource-constrained environments (intermittent supply of 1.5 days per week)</p> <p>Prepare and manage the solution to roll out 200 000 meters in 2 years including software solution and measuring the impact of smart billing on the fair billing for the utility.</p>

IRELAND	2013 - 2017	<p>Smart Billing project implementation with product and solution evolutions for country wide – Irish Water</p> <p>Implementation of a water meter replacement program with automatic meter reading devices, measurement of the billing variations, optimization of the replacements for 1.5M meters.</p>
BURUNDI	2017 - 2020	<p>Project Manager for NRW reduction in Bujumbura for full city 15 district metered areas – Regideso</p> <p>NRW reduction programs management in performance-based contract over capital city. Comply with PBC requirements. Address smart metering, laboratory enhancement, residential meter data collection and interface with old billing software of the utility.</p>
BURKINA FASO	2016 - 2017	<p>Improvement of the management of the commercial department and of the analysis of the customer data to reduce Non-Revenue Water - Onea</p> <p>Analysis of the meters and customers databases, detection of the source of apparent losses, recommendations for meter testing of representative samples, recommendations for analysis of the consumption behaviours.</p>
GERMANY	2014 - 2016	<p>Project Manager for Reduction of the Non-Revenue Water due to apparent losses for the 200 largest consumers – RWW Mulheim</p> <p>Implementation of a water meter replacement program with automatic meter reading devices, measurement of the billing variations, optimization of the replacements</p>
MOLDOVA	2011 - 2013	<p>Project Manager for Floresti contract for AMI roll out for billing enhancement. -</p> <p>Manage the project with utility staff to roll out fixed network communication (previous generation of IoT) equipment and smart metering.</p>
TURKEY	2010 - 2014	<p>Project Manager for Reduction of the Non-Revenue Water due to apparent losses for the top 2000 largest consumers, representing 50% of city of Izmit consumption (total 650.000 water connections)</p> <p>Implementation of a water meter replacement program with automatic meter reading devices, measurement of the billing variations, optimisation of the replacements.</p>

Languages:

Language	Reading	Speaking	Writing
French	mother tongue		
English	Excellent	Excellent	Excellent



KEY EXPERT: Mathias MARTIN

French, 54 years old

Ingénieur Mines Paris (Université Paris Sciences & Lettres)
Master of Science and Executive Engineering (1989)
Digital Native Executive Certificate (2021)

30 years of international experience in Schlumberger, Actaris & Itron companies (Europe, Africa, Middle East) in the development and management of complex projects, in drinking water metrology, smart metering, Meter Data Management software solutions, Non-Revenue Water and digitalization.

Advanced technical expertise:

Validation, integration, and automatic analysis of data (meters, sensors, GIS).
Non-Revenue Water modeling.
Calculation of IWA KPIs: ILI, ALI.
Step Tests, hydraulic pre-location of real losses.
Analysis of meter fleets, metrological ageing.
Detection of unauthorized consumption.

Examples of recently completed projects, 2020-2023:

Asociația Română a Apei (ARA):

2023: water loss Balkans forum, speaker, ILI calculation methodology adapted to Romania.
2022 - 2023: summary notes on the digitalization of Romanian water utilities.

ApaVital Iași, Romania:

2023: NRW city monitoring, NRW reduction program in 2 DMAs.
2022: NRW digital audit of the city, NRW reduction program in 1 DMA.

Apa Canal Sibiu, Romania:

2023: digital NRW audit of the city and surrounding areas.

Compania de Apă Buzău, Romania :

2023: digital NRW audit of the city and surrounding areas.

Aquatim Timișoara, Romania:

2023: NRW digital audit in 1 DMA, NRW reduction plan.

Compania de Apă Someș, Romania :

2022 - 2023: NRW monitoring of the city.
2022: NRW digital audit of the city.
2021-2022: NRW reduction program in 1 DMA.

Ecoaqua Călărași, Romania:

2020 - 2021: NRW reduction program in 1 DMA.

Apa Canal Ilfov, Romania:

2020 - 2023: NRW reduction program in 1 DMA.



KEY EXPERT: Eric Ferreol Ragotin

French, 58 years old

Years of experience: 31

Nationality: French

Membership in Professional Societies: IWA - International Water Association

Key Qualifications:

- Reduction of Non-Revenue Water Apparent
- Management of district metered areas (DMA)
- Optimization of the metering to improve the performance of the water utility
- Improvement of the water utility billing and revenue collection system
- IOT dataset & data integration (interfacing & migration processes)
- GIS & hydraulic modelling
- Predictive algorithms

Education:

Institution	Mines ParisTech (PSL, Paris Sciences et Lettres)
Date: from (month/year) to (month/year)	09/1987 – 06/1990
Degree(s) or Diploma(s) obtained:	Master of Science and Executive Engineering, with Major in innovation and project management

Employment Record:

Date: from (month/year) to (month/year)	2001 to present
Location	France
Company	KWLOG
Position	NRW expert
Description	<ul style="list-style-type: none">▪ Non-Revenue Water reduction programs▪ Predictive Algorithms▪ Reduction of the apparent and real losses▪ Audit of the meters and customers databases

Date: from (month/year) to (month/year)	1992 to 2000
Location	1996 – 2000: Paris, France 1994 – 1996: Budapest, Hungary 1992 – 1994: Paris, France
Company	Schlumberger Industries - Water Division
Position	Business Development Manager
Description	<ul style="list-style-type: none"> ▪ 96 – 2000: Asia, Africa, Middle East - Sales: 10 M € – Manager: 5 sales managers ▪ 94 - 96: Hungary, Romania, Bulgaria– based in Budapest - sales: 3 M € – Manager: 4 sales managers ▪ 92 - 94: – sales: 1 M € ▪ Conception and development of a new range of innovative water meters

Main references:

MOROCCO	2021	<p>Determination and implementation of a methodology to identify and reduce the losses due to meter aging – ONEE</p> <p>Analysis of the meters and customers databases (2 300 000 connections), meter testing of representative samples, analysis of the consumption behaviours, determination of the aging laws, calculation of the level of loss due to meter aging, Excel tool to calculate the total loss due to meter inaccuracies.</p>
JORDAN	2015 - 2019	<p>Set up of the follow up and reduction of real and apparent losses on one district metered area with intermittent water supply conditions, as well as supply of monitoring tool for 200.000 ultrasonic meters supervision – Miyahuna</p> <p>Monthly balance with split between real and apparent losses, detection of the source of apparent losses, detection of real losses, follow up of actions, measurement of the billing variations following the recommended meter replacements. Set up of specific algorithms dedicated to intermittent water supply conditions, leading to efficient leak detection. Preparing practical NRW reduction programs in resource-constrained environments (intermittent supply of 1.5 days per week) by updating the digital shape files of the network, creating the hydraulic model, implementing pressure gauges at the inlet and inside the area and flow meter at the inlet, using remote read meters with hourly capabilities to capture accurate data when water is delivered, creating map of probable leaking pipes using the hydraulic model and pressure data, calculating hourly, daily balance for determining water savings of leakage detection actions and monthly balance for overall gain of all the actions.</p>

ROMANIA	2019 - 2020	<p>Set up of the follow up and reduction of real and apparent losses on one district metered area – AC Ilfov</p> <p>Monthly balance with split between real and apparent losses, detection of the source of apparent losses, detection of real losses, follow up of actions, measurement of the billing variations following the recommended meter replacements. Preparing practical NRW reduction programs by updating the digital shape files of the network, creating the hydraulic model, implementing pressure gauges at the inlet and inside the area and flow meter at the inlet, using remote read meters with hourly capabilities to capture accurate data when water is delivered, creating map of probable leaking pipes using the hydraulic model and pressure data, calculating hourly, daily balance for determining water savings of leakage detection actions and monthly balance for overall gain of all the actions. Performing step-tests and temporary sub- district metered areas (as the area represents 4000 connections) to measure the level of night loss per smaller areas and the level of apparent loss and theft during the day.</p>
MALTA	2017 - 2020	<p>Set up of the follow up and reduction of real and apparent losses on two district metered areas – Water Services Corporation</p> <p>Monthly balance with split between real and apparent losses, detection of the source of apparent losses, detection of real losses, follow up of actions, measurement of the billing variations following the recommended meter replacements. Set up of specific algorithms dedicated to illegal water use detection.</p>
BURUNDI	2017 - 2020	<p>Set up of the follow up and reduction of real and apparent losses on full capital city of Bujumbura, 15 district metered areas – Regideso</p> <p>Monthly balance with split between real and apparent losses, detection of the source of apparent losses, detection of real losses, follow up of actions, measurement of the billing variations following the recommended meter replacements. Set up of specific algorithms dedicated to intermittent water supply conditions, leading to efficient leak detection. Preparing practical NRW reduction programs by updating the digital shape files of the network, creating the hydraulic model, implementing pressure gauges at the inlet and inside the area and flow meter at the inlet, using remote read meters with hourly capabilities to capture accurate data when water is delivered, creating map of probable leaking pipes using the hydraulic model and pressure data, calculating hourly, daily balance for determining water savings of leakage detection actions and monthly balance for overall gain of all the actions.</p>
BURKINA FASO	2016 - 2017	<p>Improvement of the management of the commercial department and of the analysis of the customer data in order to reduce Non-Revenue Water - Onea</p> <p>Analysis of the meters and customers databases, detection of the source of apparent losses, recommendations for meter testing of representative samples, recommendations for analysis of the consumption behaviours.</p>

MALI	2015 - 2019	<p>Set up of the follow up and reduction of real and apparent losses on two district metered areas and on the top 120 largest consumers, set up of a meter replacement policy – Somagep</p> <p>Monthly balance with split between real and apparent losses, detection of the source of apparent losses, detection of real losses, follow up of actions, measurement of the billing variations following the recommended meter replacements. Preparing practical NRW reduction programs in resource-constrained environments (limited supply during consumption periods) by updating the digital shape files of the network, creating the hydraulic model, implementing pressure gauges at the inlet and inside the area and flow meter at the inlet, using remote read meters with hourly capabilities to capture accurate data when water is delivered, creating map of probable leaking pipes using the hydraulic model and pressure data, calculating hourly, daily balance for determining water savings of leakage detection actions and monthly balance for overall gain of all the actions.</p>
PORTUGAL	2015 - 2016	<p>Set up of the follow up and reduction of apparent losses on two district metered areas – Indaqua</p> <p>Monthly balance with split between real and apparent losses, detection of the source of apparent losses, follow up of actions, measurement of the billing variations following the recommended meter replacements</p>
ROMANIA	2015 - 2016	<p>Set up of the follow up and reduction of apparent losses on two district metered areas – Apanova</p> <p>Monthly balance with split between real and apparent losses, detection of the source of apparent losses, follow up of actions, measurement of the billing variations following the recommended meter replacements</p>
AUSTRALIA	2014 - 2016	<p>Determination and implementation of a methodology to identify and reduce the losses due to meter aging – Unity Water</p> <p>Analysis of the meters and customers databases (250 000 connections), meter testing of representative samples, analysis of the consumption behaviours, determination of the aging laws, calculation of the level of loss due to meter aging, recommendations of the water meters replacement strategies including automatic meter reading options.</p>
ROMANIA	2014	<p>Reduction of the Non-Revenue Water due to apparent losses for the commercial customers and the residential buildings – Targu Mures</p> <p>Analysis of the meters and customers databases in order to determine the current efficiency of the metering and define the metering policy. Measurement of the billing variations following the recommended meter replacements.</p>
GERMANY	2014	<p>Reduction of the Non-Revenue Water due to apparent losses for the 200 largest consumers – RWW Mülheim</p> <p>Implementation of a water meter replacement program with automatic meter reading devices, measurement of the billing variations, optimization of the replacements</p>

TURKEY	2013	<p>Reduction of the Non-Revenue Water due to apparent losses for the top 2000 largest consumers, representing 50% of city of Izmit consumption (total 650.000 water connections)</p> <p>Implementation of a water meter replacement program with automatic meter reading devices, measurement of the billing variations, optimisation of the replacements.</p>
BARBADOS	2012	<p>Water meters assessment for a bid on residential static meters</p> <p>Assessment of the offers of residential static water meters for the bid of the Barbados Water Authority</p>
ROMANIA	2012	<p>Reduction of the Non-Revenue Water due to apparent losses</p> <p>Determination of the plan to reduce the level of Non-Revenue Water due to apparent losses of the city of Iasi by identifying the meters creating losses and by detecting the failures in the data collection of the Utility Billing and Collection system.</p>
BELGIUM	2012	<p>Test of water meters for a bid of water meter</p> <p>Tests of water meters samples from suppliers participating to the bid of the SWDE in order to calculate the efficiency of each meter versus a selected pattern of consumption</p>
CROATIA	2011	<p>Measurement of the patterns of consumptions of residential customers and meter testing</p> <p>Measurement of the residential consumptions of the Water Utility of Split and meter testing of some installed water meters in order to propose a water meter replacement program</p>
TANZANIA	2010 - 2011	<p>Study for the calculation of the level of Apparent losses of Dar Es Salaam</p> <p>Analysis of the Apparent losses due to the inaccuracies of Meters, data handling and data inconsistencies in the Utility Billing and Collection system. Recommendations for reducing the level of Non-Revenue Water due to apparent losses.</p>
NIGERIA	2009	<p>Study for the zoning of the water distribution network of Abuja</p> <p>Analysis of the main reservoirs, water tanks and population consumptions in order to determine a schematic distribution network and the locations of the zoning meters</p>
FRANCE	2009	<p>Water meter selection by using consumption analysis methodology and statistical analysis of the water meter park</p> <p>Analysis of the water meter park of a French water utility, Guebwiller, in order to determine their metering efficiency and the water meter replacement policy to implement</p>
VIETNAM	2008	<p>Estimation of the Apparent losses of the water meter fleet</p> <p>Analysis of the water meter fleet efficiency of Hanoi Water Corporation for the French subsidized project of Poyri in order to reduce the level of Non-Revenue Water due to Apparent losses.</p>



Contract title: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edinç.

Reference: 2020/421-644/6.3.

STATEMENT OF EXCLUSIVITY AND AVAILABILITY
(FOR PROPOSED EXPERTS)

PUBLICATION REF: 2020/421-644/6.3.

I, the undersigned, hereby declare that I agree to participate exclusively with the tenderer KWLOG in the above-mentioned service tender procedure. This includes that I will not be proposed as a replacement expert in this tender procedure. I declare that I am able and willing to work for the period(s) set for the position for which my CV has been included if this tender is successful, namely:

From	To	Availability
10/12/2023	31/12/2024	Part Time
< etc. >		

I confirm that I do not have a confirmed engagement as key expert in another EU/EDF-funded project, or any other professional activity, incompatible in terms of capacity and timing with the above engagements.

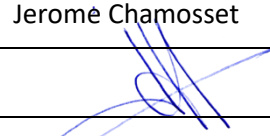
By making this declaration, I understand that I am not allowed to offer my services as an expert to any other tenderer participating in this tender procedure. I am fully aware that if I do so, I will be excluded from this tender procedure, the tenders will be rejected, and I may also be subject to exclusion from other tender procedures and contracts funded by the EU/EDF.

I also declare that I am not in a situation of conflict of interest or unavailability and commit to inform the tenderer(s) of any change in my situation.

I acknowledge that I have no contractual relations with the contracting authority and in case of dispute concerning my contract with the contractor I shall address myself to the latter and/or to the competent jurisdictions.

[For information, I have signed a statement of exclusivity and availability for the following tender(s): Not applicable

Tender reference	Submission deadline for the tender	Tendered engagement
Not Applicable	Not Applicable	Not Applicable

Name	Jerome Chamosset
Signature	
Date	12/10/2023



Contract title: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

STATEMENT OF EXCLUSIVITY AND AVAILABILITY
(FOR PROPOSED EXPERTS)

PUBLICATION REF: 2020/421-644/6.3.

I, the undersigned, hereby declare that I agree to participate exclusively with the tenderer KWLOG in the above-mentioned service tender procedure. This includes that I will not be proposed as a replacement expert in this tender procedure. I declare that I am able and willing to work for the period(s) set for the position for which my CV has been included if this tender is successful, namely:

From	To	Availability
10/12/2023	31/12/2024	Part Time
< etc. >		

I confirm that I do not have a confirmed engagement as key expert in another EU/EDF-funded project, or any other professional activity, incompatible in terms of capacity and timing with the above engagements.

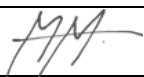
By making this declaration, I understand that I am not allowed to offer my services as an expert to any other tenderer participating in this tender procedure. I am fully aware that if I do so, I will be excluded from this tender procedure, the tenders will be rejected, and I may also be subject to exclusion from other tender procedures and contracts funded by the EU/EDF.

I also declare that I am not in a situation of conflict of interest or unavailability and commit to inform the tenderer(s) of any change in my situation.

I acknowledge that I have no contractual relations with the contracting authority and in case of dispute concerning my contract with the contractor I shall address myself to the latter and/or to the competent jurisdictions.

[For information, I have signed a statement of exclusivity and availability for the following tender(s): Not applicable

Tender reference	Submission deadline for the tender	Tendered engagement
Not Applicable	Not Applicable	Not Applicable

Name	Mathias Martin
Signature	
Date	11/10/2023



Contract title: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edinç.

Reference: 2020/421-644/6.3.

STATEMENT OF EXCLUSIVITY AND AVAILABILITY
(FOR PROPOSED EXPERTS)

PUBLICATION REF: 2020/421-644/6.3.

I, the undersigned, hereby declare that I agree to participate exclusively with the tenderer KWLOG in the above-mentioned service tender procedure. This includes that I will not be proposed as a replacement expert in this tender procedure. I declare that I am able and willing to work for the period(s) set for the position for which my CV has been included if this tender is successful, namely:

From	To	Availability
10/12/2023	31/12/2024	Part Time
< etc. >		

I confirm that I do not have a confirmed engagement as key expert in another EU/EDF-funded project, or any other professional activity, incompatible in terms of capacity and timing with the above engagements.


By making this declaration, I understand that I am not allowed to offer my services as an expert to any other tenderer participating in this tender procedure. I am fully aware that if I do so, I will be excluded from this tender procedure, the tenders will be rejected, and I may also be subject to exclusion from other tender procedures and contracts funded by the EU/EDF.

I also declare that I am not in a situation of conflict of interest or unavailability and commit to inform the tenderer(s) of any change in my situation.

I acknowledge that I have no contractual relations with the contracting authority and in case of dispute concerning my contract with the contractor I shall address myself to the latter and/or to the competent jurisdictions.

[For information, I have signed a statement of exclusivity and availability for the following tender(s): Not applicable

Tender reference	Submission deadline for the tender	Tendered engagement
Not Applicable	Not Applicable	Not Applicable

Name	Eric Ferreol
Signature	
Date	12/10/2023



Digitally signed by Cojocari Constantin
 Date: 2023.10.02 15:42:27 EEST
 Reason: MoldSign Signature
 Location: Moldova



FINANCIAL IDENTIFICATION

PRIVACY STATEMENT

http://ec.europa.eu/budget/contracts_grants/info_contracts/financial_id/financial_id_en.cfm#en

Please use CAPITAL LETTERS and LATIN CHARACTERS when filling in the form.

BANKING DETAILS ①

ACCOUNT NAME ②	KWLOG		
IBAN/ACCOUNT NUMBER ③	FR76 3000 4014 0400 0100 2752 966		
CURRENCY	EURO		
BIC/SWIFT CODE	BNPAFRPPXXX	BRANCH CODE ④	
BANK NAME	BNP Paribas		
ADDRESS OF BANK BRANCH			
STREET & NUMBER	95 Rue Caulaincourt		
TOWN/CITY	PARIS 18	POSTCODE	75018
COUNTRY	FRANCE		

ACCOUNT HOLDER'S DATA

AS DECLARED TO THE BANK

ACCOUNT HOLDER	JEROME CHAMOSSET		
STREET & NUMBER	1277 Route des Bois Brûlés		
TOWN/CITY	Sillingy	POSTCODE	74330
COUNTRY	FRANCE		

REMARK	
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<p>BANK STAMP + SIGNATURE OF BANK REPRESENTATIVE ⑤</p> <p style="text-align: center;">BNP PARIBAS</p> <p style="text-align: center;">04 OCT. 2023</p> <p style="text-align: center;">PARIS LAMARCK/AULAINCOURT</p>	<p>DATE (Obligatory)</p> <p>04/10/2023</p> <hr/> <p>SIGNATURE OF ACCOUNT HOLDER (Obligatory)</p> <p style="text-align: center;"><i>[Handwritten Signature]</i></p>
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- ① Enter the final bank data and not the data of the intermediary bank.
- ② This does not refer to the type of account. The account name is usually the one of the account holder. However, the account holder may have chosen to give a different name to its bank account.
- ③ Fill in the IBAN Code (International Bank Account Number) if it exists in the country where your bank is established
- ④ Only applicable for US (ABA code), for AU/NZ (BSB code) and for CA (Transit code). Does not apply for other countries.
- ⑤ It is preferable to attach a copy of RECENT bank statement. Please note that the bank statement has to confirm all the information listed above under 'ACCOUNT NAME', 'ACCOUNT NUMBER/IBAN' and 'BANK NAME'. With an attached statement, the stamp of the bank and the signature of the bank's representative are not required. The signature of the account-holder and the date are ALWAYS mandatory.



PLEASE COMPLETE AND SIGN THIS FORM AND ATTACH COPIES OF OFFICIAL SUPPORTING DOCUMENTS (REGISTER(S) OF COMPANIES, OFFICIAL GAZETTE, VAT REGISTRATION, ETC.)

LEGAL ENTITY

PRIVACY STATEMENT

http://ec.europa.eu/budget/contracts_grants/info_contracts/legal_entities/legal_entities_en.cfm#en

Please use CAPITAL LETTERS and LATIN CHARACTERS when filling in the form.

PRIVATE/PUBLIC LAW BODY WITH LEGAL FORM

OFFICIAL NAME ①	KWLOG		
BUSINESS NAME (if different)			
ABBREVIATION			
LEGAL FORM	S.A.S.		
ORGANISATION TYPE	FOR PROFIT <input checked="" type="checkbox"/>	NON FOR PROFIT <input type="checkbox"/>	NGO ② YES <input type="checkbox"/> NO <input type="checkbox"/>
MAIN REGISTRATION NUMBER ③	RCS: Paris B 440 965 010		
SECONDARY REGISTRATION NUMBER (if applicable)	SIREN: 440 965 010		
PLACE OF MAIN REGISTRATION	CITY	PARIS	
	COUNTRY	FRANCE	
DATE OF MAIN REGISTRATION	DD	MM	YYYY
	22	02	2002
VAT NUMBER	FR 21 440 965 010		
ADDRESS OF HEAD OFFICE	153 Rue du Faubourg Saint-Denis		
POSTCODE	75018	P.O. BOX	
		CITY	PARIS 18
COUNTRY	FRANCE	PHONE	
E-MAIL	administrateur@kwlog.com		

DATE 5/10/2023

SIGNATURE OF AUTHORISED REPRESENTATIVE

STAMP

KWLOG
153, rue du Faubourg Saint Denis
75010 PARIS - FRANCE
SAS au capital variable minimum
de 7 500.00€
440 965 010 R.C.S. PARIS

① National denomination and its translation in EN or FR if existing.

② NGO = Non Governmental Organisation, to be completed if NFPO is indicated.

③ Registration number in the national register of companies. See table with corresponding field denomination by country.



POWER OF ATTORNEY

The undersigned, Jérôme Chamosset, General Manager of KWLOG SAS, a company organized and validity existing under the laws of France with its registered office located at 153, rue du faubourg Saint-Denis, 75010 Paris, France - SIREN 440 965 010 RCS Paris (hereafter referred "The Company"), do hereby confirm my capacity to submit in the name and on behalf of The Company the offer in relation to the:

"Invitation to Tender (referenced: 2020/421-644/6.3.): Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț" in the Republic of Moldova.

This Power of Attorney is given in full compliance with the following official documents from the *Registre de Commerce et des Sociétés* (French Register of Commerce and Companies):

- Minutes of the KWLOG's Annual General Meeting dated January 13, 2021
- Extracts from the KWLOG's Annual General Meeting dated June 3, 2021

This document is provided for the purpose it may serve.

Made in Paris, October 23, 2023.

Jérôme Chamosset
General Manager

☎ +33 6 12 17 37 95

Jerome.chamosset@kwlog.com

A handwritten signature in blue ink, consisting of several overlapping loops and lines, positioned to the right of the typed name and title.

Greffe du Tribunal de Commerce de Paris

1 quai de la Corse
75198 Paris CEDEX 04

Flashez pour contrôler
<https://controle.greffe-tc-paris.fr/fr/kbis>
Code: Jc1ODYrNHkEu



N° de gestion 2002B03201

Extrait Kbis**EXTRAIT D'IMMATRICULATION PRINCIPALE AU REGISTRE DU COMMERCE ET DES SOCIETES**
à jour au 10 juillet 2023**IDENTIFICATION DE LA PERSONNE MORALE**

<i>Immatriculation au RCS, numéro</i>	440 965 010 R.C.S. Paris
<i>Date d'immatriculation</i>	22/02/2002
<i>Dénomination ou raison sociale</i>	KWLOG
<i>Forme juridique</i>	Société par actions simplifiée à capital variable
<i>Capital social</i>	7 500,00 EUROS
<i>Capital variable (minimum)</i>	7 500,00 EUROS
<i>Adresse du siège</i>	153 rue du Faubourg Saint-Denis 75010 Paris
<i>Activités principales</i>	Conception, développement, implantation de solutions, services, méthodes de traitement de données en vue de réduire les pertes des sociétés de distribution d'eau.
<i>Durée de la personne morale</i>	Jusqu'au 22/02/2101
<i>Date de clôture de l'exercice social</i>	31 décembre

GESTION, DIRECTION, ADMINISTRATION, CONTROLE, ASSOCIES OU MEMBRES**Président**

<i>Nom, prénoms</i>	Ferreol Eric
<i>Date et lieu de naissance</i>	Le 17/09/1965 à Paris 17ème (75)
<i>Nationalité</i>	Française
<i>Domicile personnel</i>	153 rue du Faubourg Saint-Denis 75010 Paris

Directeur général

<i>Nom, prénoms</i>	Chamosset Jérôme
<i>Date et lieu de naissance</i>	Le 26/04/1977 à Annecy (74)
<i>Nationalité</i>	Française
<i>Domicile personnel</i>	1277 route des Bois Brûlés 74330 Sillingy

RENSEIGNEMENTS RELATIFS A L'ACTIVITE ET A L'ETABLISSEMENT PRINCIPAL

<i>Adresse de l'établissement</i>	153 rue du Faubourg Saint-Denis 75010 Paris
<i>Activité(s) exercée(s)</i>	Conception, développement, implantation de solutions, services, méthodes de traitement de données en vue de réduire les pertes des sociétés de distribution d'eau.
<i>Date de commencement d'activité</i>	01/03/2002
<i>Origine du fonds ou de l'activité</i>	Création
<i>Mode d'exploitation</i>	Exploitation directe

Le Greffier

FIN DE L'EXTRAIT

R.C.S. Paris - 11/07/2023 - 13:32:40



Management no. 2002B03201

Kbis extract

EXTRACT FROM THE MAIN ENTRY IN THE REGISTER OF COMPANIES
current as of July 10, 2023

IDENTIFICATION OF THE LEGAL ENTITY

<i>RCS registration number</i>	440 965 010 R.C.S. Paris
<i>Date of registration</i>	22/02/2002
<i>Company name</i>	KWLOG
<i>Legal form</i>	Simplified joint stock company with variable capital
<i>Share capital</i>	7,500.00 EUROS
<i>Variable capital (minimum)</i>	7,500.00 EUROS
<i>Head office address</i>	153 rue du Faubourg Saint-Denis 75010 Paris
<i>Main activities</i>	Design, development and implementation of solutions, services and methods for processing data to reduce water company losses.
<i>Duration of legal entity</i>	Until 22/02/2101
<i>Fiscal year-end</i>	December 31st

MANAGEMENT, ADMINISTRATION, CONTROL, PARTNERS OR MEMBERS

Chairman

<i>Full name</i>	Ferreol Eric
<i>Date and place of birth</i>	17/09/1965, Paris 17th (75)
<i>Nationality</i>	French
<i>Personal address</i>	153 rue du Faubourg Saint-Denis 75010 Paris

General Manager

<i>Full name</i>	Chamosset Jérôme
<i>Date and place of birth</i>	26/04/1977 at Annecy (74)
<i>Nationality</i>	French
<i>Personal address</i>	1277 route des Bois Brûlés 74330 Sillingy

INFORMATION ON BUSINESS ACTIVITY AND MAIN ESTABLISHMENT

<i>Address</i>	153 rue du Faubourg Saint-Denis 75010 Paris
<i>Activity(ies) carried out</i>	Design, development and implementation of solutions, services and processing methods for data to reduce water company losses.
<i>Date of start of activity</i>	01/03/2002
<i>Origin of the business</i>	Creation
<i>Operating mode</i>	Direct operation

The Clerk

END OF EXTRACT

R.C.S. Paris - 07/11/2023 - 13:32:40

Service Info Sirene

09 72 72 6000

prix d'un appel local

SITUATION AU REPERTOIRE SIRENE

A la date du 12/10/2023

Description de l'entreprise	Entreprise active depuis le 01/03/2002
Identifiant SIREN	440 965 010
Identifiant SIRET du siège	440 965 010 00026
Dénomination	KWLOG
Catégorie juridique	5710 - SAS, société par actions simplifiée
Activité Principale Exercée (APE)	63.11Z - Traitement de données, hébergement et activités connexes
Appartenance au champ de l'ESS ¹	Non
Appartenance au champ des sociétés à mission	Non

Description de l'établissement	Etablissement actif depuis le 30/08/2017
Identifiant SIRET	440 965 010 00026
Adresse	153 RUE DU FBG SAINT DENIS 75010 PARIS 10
Activité Principale Exercée (APE)	63.11Z - Traitement de données, hébergement et activités connexes

1 : Economie Sociale et Solidaire

Important : A l'exception des informations relatives à l'identification de l'entreprise, les renseignements figurant dans ce document, en particulier le code APE, n'ont de valeur que pour les applications statistiques (décret n°2007-1888 du 26 décembre 2007 portant approbation des nomenclatures d'activités françaises et de produits, paru au JO du 30 décembre 2007).

Avertissement : Aucune valeur juridique n'est attachée à l'avis de situation.

Service Info Sirene

09 72 72 6000

price of a local call

SIRENE DIRECTORY STATUS

At date of 12/10/2023

Company description	Active since 01/03/2002
SIREN identifier	440 965 010
Head office SIRET identifier	440 965 010 00026
Name	KWLOG
Legal category	5710 - SAS, simplified joint-stock company
Principal activity (APE)	63.11Z - Data processing, hosting and related activities
^{SSE1} membership	No
Belonging to the field of mission-driven companies	No

Plant description	Active since 30/08/2017
SIRET identifier	440 965 010 00026
Address	153 RUE DU FBG SAINT DENIS 75010 PARIS 10
Principal activity (APE)	63.11Z - Data processing, hosting and related activities

1: Social and Solidarity Economy

Important : *With the exception of information relating to company identification, the information contained in this document, in particular the APE code, is only of value for statistical applications (decree n°2007-1888 of December 26, 2007 approving the nomenclatures of French activities and products, published in the JO of December 30, 2007).*

Warning : *No legal value is attached to the notice of situation.*



GREFFE DU TRIBUNAL
DE COMMERCE DE PARIS

1, QUAI DE LA CORSE
75198 PARIS CEDEX 04



1 QU DE LA CORSE
75198 PARIS CEDEX 04

CERTIFICAT EN MATIERE
DE DIFFICULTE DES ENTREPRISES

Situation au 05 octobre 2023

Les recherches faites sur le Registre du Commerce et des Sociétés pour les personnes immatriculées au registre et sur le répertoire général des affaires de la juridiction pour les personnes non immatriculées relativement à des procédures de :

- règlement judiciaire et liquidation des biens (loi du 13/07/1967)
- redressement et liquidation judiciaire (loi du 25/01/1985)
- sauvegarde, redressement, liquidation judiciaire et rétablissement professionnel clôturé (livre VI du code de commerce)
- traitement de sortie de crise (Art. 13 de la loi du 31/05/2021)
- insolvabilité au sens des paragraphes 1, 2 ou 4 de l'article 3 du règlement (UE) n°2015/848 du 20/05/2015

Concernant :

KWLOG

153 rue du Faubourg Saint-Denis
75010 Paris

N° RCS : 440 965 010 - (2002B03201)

ont donné pour résultat :

ÉTAT NÉANT

Certificat délivré sous réserve de :

- toute procédure collective ayant pu être ouverte par une autre juridiction et qui n'aurait pas été portée à notre connaissance,
- toute procédure collective ayant pu exister et ayant donné lieu à un jugement de clôture,
- toute procédure collective ayant donné lieu à radiation des mentions par application des articles R. 626-20, R. 626-50, R 631-35, R. 123-135 du code de commerce et 36-1 du décret n°84-406 du 30 mai 1984, ou à la radiation des mentions par application des articles R.626-20 et R.123-35 du code de commerce,
- toute radiation des mentions qui auraient été faites à d'autres registres ou répertoires que le registre du commerce et des sociétés et qui n'auraient pas été portées à notre connaissance.

En foi de quoi, nous délivrons le présent certificat pour servir et valoir ce que de droit.

Délivré à Paris, le 06 octobre 2023

Le Greffier du tribunal,



GREFFE DU TRIBUNAL
DE COMMERCE DE PARIS
1, QUAI DE LA CORSE

1 QU DE LA CORSE
75198 PARIS CEDEX 04

MATERIAL CERTIFICATE
BUSINESS ADMINISTRATION

Situation on October 05, 2023

Searches made in the Trade and Companies Register for persons registered in the register and in the general business directory of the jurisdiction for unregistered persons relating to :

- judicial settlement and liquidation of assets (law of 13/07/1967)
- receivership and liquidation (law of 25/01/1985)
- protection, recovery, court-ordered winding-up and professional reinstatement completed (Book VI of the French Commercial Code)
- crisis exit treatment (Art. 13 of the law of 31/05/2021)
- insolvency within the meaning of Article 3(1), (2) or (4) of Regulation (EU) no. 2015/848 of 20/05/2015

Concerning :

KWLOG

153 rue du Faubourg Saint-Denis
75010 Paris

RCS NO.: 440 965 010 - (2002B03201)

resulted in :

STATUS: NIL

Certificate issued subject to:

- any insolvency proceedings that may have been opened by another jurisdiction and that have not been brought to our attention,
- any collective proceedings that may have existed and given rise to a closing judgment,
- any insolvency proceedings having given rise to the striking off of entries pursuant to articles R. 626-20, R. 626-50, R 631-35, R. 123-135 of the French Commercial Code and 36-1 of Decree no. 84-406 of May 30, 1984, or the striking off of entries pursuant to articles R.626-20 and R.123-35 of the French Commercial Code,
- any deletion of entries that may have been made in registers or directories other than the register of commerce and companies and which have not been brought to our attention.

In witness whereof, we hereby issue this certificate for all legal purposes.

Issued in Paris, on October 06, 2023

The Court Clerk,

Accueil > Mes Commandes > Mon historique > Commande N°31010-DZONB > Etat d'endettement > **Débiteurs**

Débiteurs

[Imprimer la fiche](#)

SAS KWLOG - 440 965 010 RCS PARIS

153 R DU FAUBOURG SAINT-DENIS 75010 PARIS

Pour recevoir un état d'endettement certifié délivré par le greffe, veuillez passer par la fiche entreprise et sélectionner la commande courrier pour les catégories d'inscriptions souhaitées.

Type d'inscription de sureté (à compter du 01/01/2023)	Nombre d'inscriptions	Fichier à jour au	Sommes concernées
Saisie pénale de fonds de commerce	Néant	10/10/2023	-
Warrants agricoles	Néant	10/10/2023	-
Nantissements conventionnels de parts de sociétés	Néant	10/10/2023	-
Inscriptions de gage sans dépossession à partir du 01/01/2023	Néant	10/10/2023	-

Type d'inscription de privilège	Nombre d'inscriptions	Fichier à jour au	Sommes concernées
Privilèges de la sécurité sociale et des régimes complémentaires	Néant	11/10/2023	-
Nantissements du fonds de commerce ou du fonds artisanal (conventionnels et judiciaires)	Néant	11/10/2023	-
Privilèges du Trésor Public	Néant	11/10/2023	-
Protêts	Néant	11/10/2023	-
Privilèges du vendeur de fonds de commerce et d'action résolutoire	Néant	11/10/2023	-
Nantissements de l'outillage, matériel et équipement	Néant	11/10/2023	-
Déclarations de créances	Néant	11/10/2023	-
Opérations de crédit-bail en matière mobilière	Néant	11/10/2023	-
Publicité de contrats de location	Néant	11/10/2023	-
Publicité de clauses de réserve de propriété	Néant	11/10/2023	-
Gage des stocks	Néant	10/10/2023	-
Warrants (hors agricoles)	Néant	10/10/2023	-

Prêts et délais	Néant	11/10/2023	-
Biens inaliénables	Néant	11/10/2023	-

Type d'inscription de gage (jusqu'au 31/12/2022)	Nombre d'inscriptions	Fichier à jour au	Sommes concernées
Animaux	Néant	10/10/2023	-
Horlogerie et Bijoux	Néant	10/10/2023	-
Instruments de musique	Néant	10/10/2023	-
Matériels, mobiliers et produits à usage professionnel non visés dans les autres catégories	Néant	10/10/2023	-
Matériels à usage non professionnel autres qu'informatiques	Néant	10/10/2023	-
Matériels liés au sport	Néant	10/10/2023	-
Matériels informatiques et accessoires	Néant	10/10/2023	-
Meubles meublants	Néant	10/10/2023	-
Meubles incorporels autres que parts sociales	Néant	10/10/2023	-
Monnaies	Néant	10/10/2023	-
Objets d'art, de collection ou d'antiquité	Néant	10/10/2023	-
Parts sociales	Néant	10/10/2023	-
Produits de l'édition, de la presse ou d'autres industries graphiques	Néant	10/10/2023	-
Produits liquides non comestibles	Néant	10/10/2023	-
Produits textiles	Néant	10/10/2023	-
Produits alimentaires	Néant	10/10/2023	-
Autres	Néant	10/10/2023	-

[Home](#) > [My Orders](#) > [My History](#) > [Order N°31010-DZONB](#) > [Debt statement](#) > **Debtors**

Receivables

[Print file](#)

SAS KWLOG - 440 965 010 RCS PARIS

153 R DU FAUBOURG SAINT-DENIS 75010 PARIS

To receive a certified statement of indebtedness issued by the clerk's office, please go to the company file and select the mail order for the desired registration categories.

Type of security registration (from 01/01/2023)	Number of registrations	File updated at	Amounts involved
Seizure of business assets	None	10/10/2023	-
Agricultural warrants	None	10/10/2023	-
Contractual pledges of company shares	None	10/10/2023	-
Non-possessory pledge registrations from 01/01/2023	None	10/10/2023	-

Type of lien registration	Number of registrations	File updated as of	Amounts involved
Privileges of social security and supplementary schemes	None	11/10/2023	-
Pledging of business or craft assets (conventional and judicial)	None	11/10/2023	-
Treasury privileges	None	11/10/2023	-
Protests	None	11/10/2023	-
Privileges of the seller of a business and resolatory action	None	11/10/2023	-
Pledging of plant, machinery and equipment	None	11/10/2023	-
Claims declarations	None	11/10/2023	-
Equipment leasing transactions	None	11/10/2023	-
Lease advertising	None	11/10/2023	-
Advertising retention-of-title clauses	None	11/10/2023	-
Inventory pledging	None	10/10/2023	-
Warrants (non-agricultural)	None	10/10/2023	-

Loans and deadlines	None	11/10/2023	-
Inalienable property	None	11/10/2023	-

Type of pledge registration (until 31/12/2022)	Number of registrations	File updated as of	Amounts involved
Animals	None	10/10/2023	-
Watches and Jewelry	None	10/10/2023	-
Musical instruments	None	10/10/2023	-
Equipment, furniture and products for professional use not included in other categories	None	10/10/2023	-
Non-professional equipment other than computers	None	10/10/2023	-
Sport-related equipment	None	10/10/2023	-
Computer equipment and accessories	None	10/10/2023	-
Furnishings	None	10/10/2023	-
Intangible assets other than shares	None	10/10/2023	-
Coins	None	10/10/2023	-
Works of art, collectors' items and antiques	None	10/10/2023	-
Company shares	None	10/10/2023	-
Products of the publishing, press or other graphic industries	None	10/10/2023	-
Inedible liquid products	None	10/10/2023	-
Textile products	None	10/10/2023	-
Food products	None	10/10/2023	-
Other	None	10/10/2023	-



DIRECTION GENERALE DES FINANCES PUBLIQUES

ATTESTATION DE REGULARITE FISCALE

Numéro de délivrance : 15055993

La société désignée ci-dessous :

DENOMINATION DE LA SOCIETE :
SAS KWLOG

ADRESSE DU PRINCIPAL ETABLISSEMENT :
153 RUE DU FBG SAINT DENIS
75010 PARIS 10

N° SIREN : 440965010

est en règle au regard des obligations fiscales suivantes :

- Dépôt des déclarations de résultats, de TVA, et du PAS⁽¹⁾
- Paiement de la TVA⁽²⁾
- Paiement de l'impôt sur les sociétés⁽²⁾
- Paiement du PAS⁽²⁾

Date de délivrance : le 11/10/2023

Service gestionnaire :
SERVICE IMPOTS DES ENTREPRISES PARIS 10E
EQUIPE IFU 2
5 CITE PARADIS
75475 PARIS CEDEX 10

Tél. : 0148015223
SIE.PARIS-10E@DGFIP.FINANCES.GOUV.FR

⁽¹⁾ Prélèvement à la source.

⁽²⁾ Y compris les pénalités y afférent éventuellement mises à sa charge.



DIRECTION GENERALE DES FINANCES PUBLIQUES

TAX CLEARANCE CERTIFICATE

Issue number: 15055993

The company named below:

COMPANY NAME :

SAS KWLOG

ADDRESS OF PRINCIPAL PLACE OF BUSINESS :

153 RUE DU FBG SAINT DENIS

75010 PARIS 10

SIREN NO.: 440965010

has fulfilled the following tax obligations:

- Filing income tax, VAT and PAS returns⁽¹⁾
- Payment of VAT⁽²⁾
- Payment of corporate income tax⁽²⁾
- Payment of PAS⁽²⁾

Issue date: 11/10/2023

Service gestionnaire :
SERVICE IMPOTS DES ENTREPRISES PARIS 10E
EQUIPE IFU 2
5 CITE PARADIS
75475 PARIS CEDEX 10

Tel: 0148015223
SIE.PARIS-10E@DGFIP.FINANCES.GOUV.FR

⁽¹⁾ Withholding tax.

⁽²⁾ Including any related penalties.



Tender: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

CLAUSE-BY-CLAUSE COMMENT ON TECHNICAL SPECIFICATIONS

As stipulated in "*Annex I to the TOR: Technical Specifications*", this mandatory document is provided to establish the conformity of KWLOG's technological offer to all the requirements of the Contract.

Preamble

KWLOG company in a nutshell:

- **Established in 2002**, KWLOG is a service company, pioneer in its field, which offers a unique solution for reducing water losses.
- **From 2002 to 2022**, KWLOG was incorporated into the NRW business of Itron (formerly Actaris, formerly Schlumberger Industries) through an exclusive partnership.
- **Since 2020**, KWLOG has adapted its strategy, organization, and structure to meet the growing needs of the water utilities worldwide and has created an international team of multilingual Domain Experts to work on contracted projects.
- KWLOG and its experts are currently active in Europe, Middle East, and Asia Pacific.

Our offer is aimed at water utilities worldwide and responds precisely and efficiently to their main concern: OPTIMIZE water resources and REDUCE related energy costs.

This implies de facto improvement in all the inherent systems and processes required to achieve this essential objective for a water utility (billing system, metering and data collection system, creation of DMAs...).

Our solution combines proven Domain Expertise with powerful data integration and analytic tools.

KWLOG is able to quickly identify NRW linked issue and define the appropriate Action Plans to monitor them in an optimal way.

Corporate website: www.kwlog.com

Compliance of KWLOG's offer to the required specifications (item by item)

We hereby certify that all Services and Equipment offered by KWLOG within the Contract comply with the legislation in force in the Republic of Moldova as well as in the European Union.

As stated in the *Instructions to Tenderers/Paragraph 8.*, "*any additional documentation (brochure, letter, etc.) sent with a tender will not be taken into consideration*". However, KWLOG has made some supportive technical documents (i.e., brochures) available to the Contracting Authority at the following address:

[KWLOG Technical Library](#).

NB: To help water utilities to address NRW reduction and Smart billing improvements, KWLOG's *DIS Water Intelligence Platform* (designed for massive data integration and analysis) combined with KWLOG's Domain Experts knowledge, will be used to deliver Item 1, Item 2, Item 3 & Item 4. These specific items are key to provide NRW and Billing Services required by Apă-Canal Edineț.

For clearer understanding, these 4 items have been illustrated with various tables and graphs coming from real cases of KWLOG projects.

(For each of the 4 items, a template of report for acceptance is proposed by KWLOG in compliance with the requirements of the Contract)

▪ **Item 1 / Component I: NRW Preliminary Service Report**

KWLOG's offer:

- Analysis of existing data of the utility

For this specific analysis, KWLOG will collect the necessary data from various inherent tools/systems (billing, GIS, etc.). Automatic collection of this data is preferable if it already exists within the water company.

This data will be injected into the powerful DIS platform, which will perform the cleaning process prior to loading.

DIS will automatically list any general data quality problems identified (data corruption, missing data, data structure issues, database version...).

Perfect formatting of data quality is a sine qua non for optimal service delivery.

- Define KPIs on NRW for the utility

The essential KPIs (ALI, ILI, etc.) are provided and calculated automatically by DIS, and presented in a simple, graphic format for easy use. See illustration below (DIS extract).

DISTRICT METERED AREA	LEAKAGE (M3/H)	M3/KM/DAY	L / CONNECTION / DAY	UURL (L / CONNECTION / DAY)	ILI	ILI (BAND)	ALI	ALI (BAND)
SECTEUR BARRET	2.28	5.81	148.4	91.8	1.6	A2	0.0	
SECTEUR CENTREOUEST	4.33	4.25	28.1	58.6	0.5	A1	2.6	B1
SECTEUR CURIESUD	3.72	9.93	144.6	66.6	2.2	B1	0.0	
SECTEUR DANUBE	0.62	3.45	39.6	63.5	0.6	A1	0.0	
SECTEUR ECOQUARTIER	0.15	2.30	37.6	68.4	0.5	A1	0.0	
SECTEUR LACRAJ	0	0	0	130.0	0.0		0.0	
SECTEUR LIBERATION	1.08	2.60	45.2	63.1	0.7	A1	7.5	C2
SECTEUR PINS	0	0	0	24.7	0.0		0.0	
SECTEUR ROCO	0.72	1.22	21.3	44.2	0.5	A1	0.0	
SECTEUR ZHISCLES	0.00	0	0	103.2	0.0		0.0	

- Analysis of the utility process

For this specific analysis, KWLOG will collect the necessary data relating to the water company's operating processes (customer services, meter installation team, meter readers, etc.).

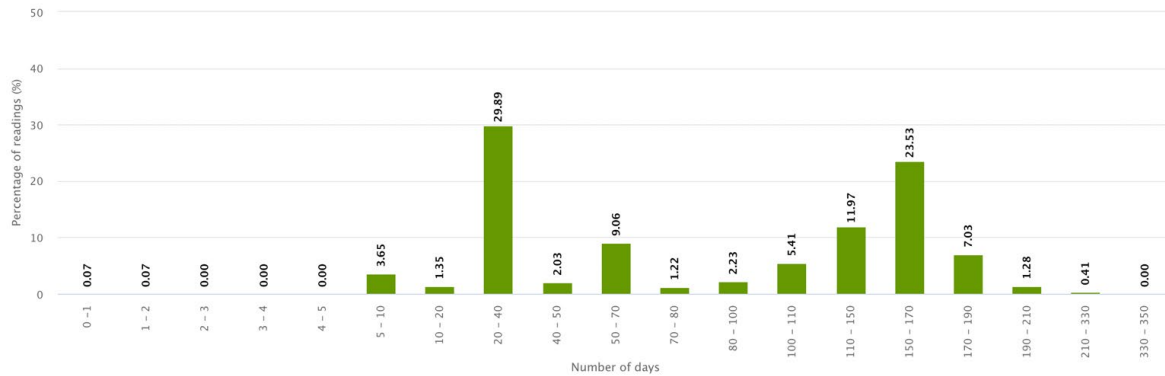
The data collected will be analyzed by KWLOG's domain experts and converted into operational solutions in the report/action plan.

- Provide global statistics on the meter reading

Once the existing data collected, KWLOG's powerful solution will offer to make generic statistics on the meter reading and its efficiency (number of reads, missing meters reads, reading campaign duration, period between 2 reads...).

The data collected will be analyzed by KWLOG's domain experts and converted into operational solutions in the report/action plan.

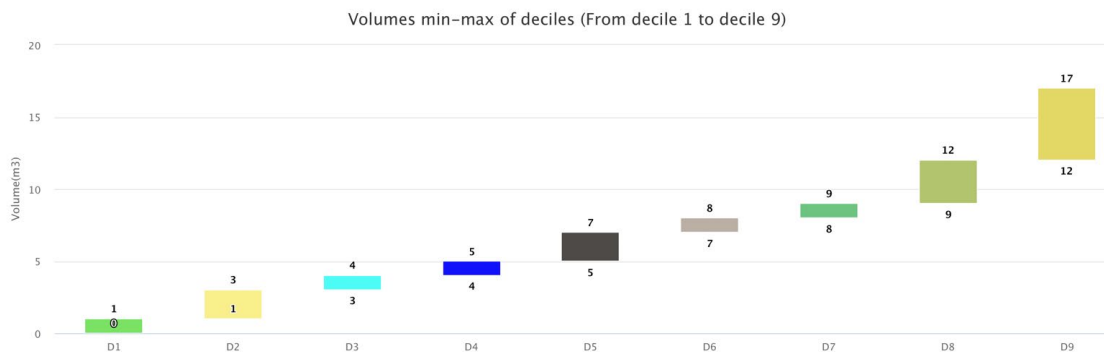
Below the example of the time between two reads for each connection. It offers to highlight connections not read often.



- Make the segmentation of the Customers

The customer’s segmentation is automatically generated by the DIS at each read in groups of customers based on their consumption.

The easy-to-understand presentation of information, such as below range of monthly consumptions in decile, is made to facilitate the decision on action plan definition.



- Identify the connections with data issues

Once the data is loaded in the DIS, KWLOG’s experts validate the automatically generated lists of connections with data issues. Such lists are classified by issue types and are joined in the report.

Thanks to the DIS and KWLOG’s experts experience, the list of issues encountered in the projects is large (duplicates serial numbers, Connections ID re-use, DMA definitions, GIS issues, Customers address missing, GPS position missing,).

- Provide missing information impacting NRW per connection

For this analysis, KWLOG experts highlight, with the DIS, all connections missing information impacting the utility NRW. This is the continuity in the analysis of the connections with a focus on NRW issues.

The generated list will cover issues such as meter types, meter size, incoherent installation date, meter flow limits definition....

- Make the ranking of connections with highest volume loss and impacting NRW

The DIS application offers to compute and automatically deliver the ranking of consumers over a period of consumption from the largest to the smallest.

This ranking combined to the KWLOG experts' analysis, will define the priority list based on highest consumptions. This list will be attached to the report.

Meter SN	Meter Name	DN	QN	DN Proposed	QN Proposed	Volume per Month	Read Date
11504857	POWOGAZ JS-6,3	25	3.5	32	6	253	Sep-19
40040215	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	218	Sep-19
40039731	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	210	Sep-19
40168493	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	205	Sep-19
17312869	POWOGAZ JS-80 NK	80	40	20	2.5	205	Sep-19
40194615	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	195	Sep-19
56777153	+JS 6,3 R100 [MID]	25	3.5	20	2.5	182	Sep-19
40040214	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	179	Sep-19
56777132	+JS 6,3 R100 [MID]	25	3.5	20	2.5	161	Sep-19

- **Dashboard of Reference DMA**

The DMA is central in the NRW project structure developed by KWLOG. The unique expertise and experience gained over the years in the execution of the projects offers to generate various analyses that exceeds the requirements of Apă-Canal Edineț.

This module is available in the DIS and consolidated by KWLOG's experts and exceeds by far the requirement. The lists will be attached to the report.

- **Average NRW level to define NRW reference level**
- **Average injected volume in the DMA**

NB: The average NRW level to define NRW reference level and the average injected volume in the DMA, are treated in one single explanatory section, as DIS platform allows them to be processed in common tables and graphs (see below).

The following table summarize the analysis done to compute the average injected volume, the reference NRW and consumed volume of the DMA.

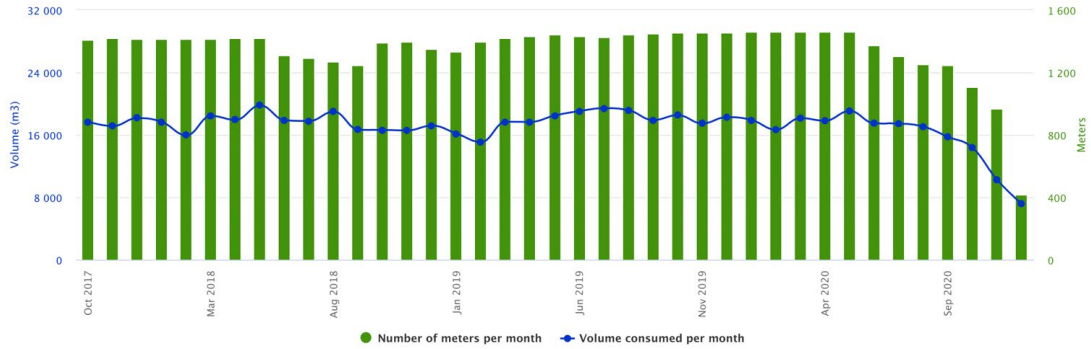
DMA	Month of Data	Total Vol Loss (m3)	NRW %	Consumed Vol. (m3)	Injected Vol (m3)
DMA 1	Mar-22	2451	17%	12020	14471
DMA 1	Apr-22	2564	18%	12017	14581
DMA 1	May-22	3782	24%	12124	15906
DMA 1	Jun-22	4396	27%	11688	16084
DMA 1	Jul-22	4464	28%	11600	16064
DMA 1	Aug-22	4786	31%	10632	15418
DMA 1	Sep-22	4226	30%	9728	13954
DMA 1	Oct-22	5144	36%	9222	14366
Average		3977	26%	11129	15106

The same figures are consolidated in the DIS in visual graphics and charts a simple and easy understanding of users.

- **Average monthly consumption (m3/month)**

The graph showing the evolution number of connections in the DMA and the monthly consumption of the DMA.

Thanks to the DIS to generate automatically this analysis based on the data prepared by KWLOG's experts.



○ **Average water balance used by the utility**

The following chart retrieve the average water balance over the DMA including NRW level, injected volume.

Thanks to the DIS to generate automatically this analysis based on the data prepared by KWLOG's experts.



○ **Number of connections in the DMA**

For each DMA, the DIS has a simple to use and user-friendly interface to manage the DMA configuration and display. The number of connections is instantly available in the DMA for configuration and follow up.

Sectoring

Current Leaks Apparent Loss Consumer Side Balance Indicators GIS Sampling Connections Help

Search by District metered Search Edit DMA Global configuration Load list Delete Reference values Extract

District metered area	Number of inlet meters	Number of meters of irregular con...	Number of residential meters	Allocation meters
B01-B101	1	0	208	0
B02-B101	1	1	49	0
B03-B101	6	1	631	0
B04-B101	9	0	375	0
B05-B101	13	6	3771	0
B06-B101	6	2	360	0
B07-B101	9	0	592	0
B08-B101	2	1	125	0
B09-B101	5	4	773	0
B10-B101	5	0	6	0

Page 1 of 2 Results 1 to 10 of 11

Manage irregular consumers Manage pressure sensors

Number of connections not associated to a district metered area : 2 (Connections list)

- Details and consolidated impact on NRW of all connections with the following issues:

KWLOG's experts are essential in the analysis of the data provided before and after data loading in the DIS. The combination of the expertise and the DIS capacities offer to identify by types of the meters or connections with issues impacting the NRW level.

For each type of issue, KWLOG's experts will issue a list of connections converted into operational solutions in the report/action plan and exceeds by far the requirement.

DMA_NAME	CONNECTION_ID	SERIAL_NUMBER	NAME_METER	DN	QN	INSTALL_DATE	VOL_PER_MONTH
DMA 1	Connection 1	C22BB013344	FLODIS DN20	20	2.5	Jun-23	364
DMA 1	Connection 2	C23BF033599	FLOSTAR DN 50	50	15	May-23	326
DMA 1	Connection 3	C21BC068674	FLODIS JS 6,3	25	3.5	Feb-22	272
DMA 1	Connection 4	C21BC068688	FLODIS JS 6,3	25	3.5	Feb-22	153
DMA 1	Connection 5	17312869	JS-80 NK	80	40	Jun-18	149
DMA 1	Connection 6	C22BB051030	FLODIS DN20	20	2.5	Mar-23	139

For each issue type an illustration of the individual analysis available in the DIS.

o **Meters not read or not accessible**

The analysis provided by the DIS to list all connections that are not read per DMA and typical monthly consumption volume missing.

MONTH	DMA	Nb Connections Missing	Volume Missing (m3)
Nov-20	DMA 1	21	479
Nov-20	DMA 2	660	11517
Nov-20	DMA 3	28	198
Nov-20	DMA 4	29	218
Nov-20	DMA 5	2	1
Nov-20	DMA 6	5	57
Nov-20	DMA 7	176	4605
Nov-20	DMA 8	186	1421
Nov-20	DMA 9	7	70

The list of each connection resulting of this analysis is defined above.

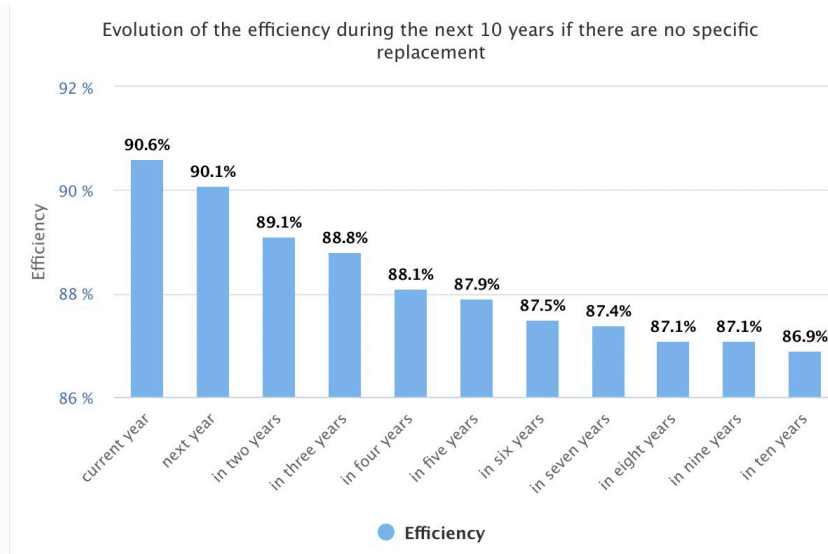
o **Meters with incorrect readings**

The analysis provided by the DIS to summarize the connections with incorrect readings. It shows the evolution per year of the metering efficiency.

The list of each connection resulting of this analysis is defined above.

o **Meters ageing impact**

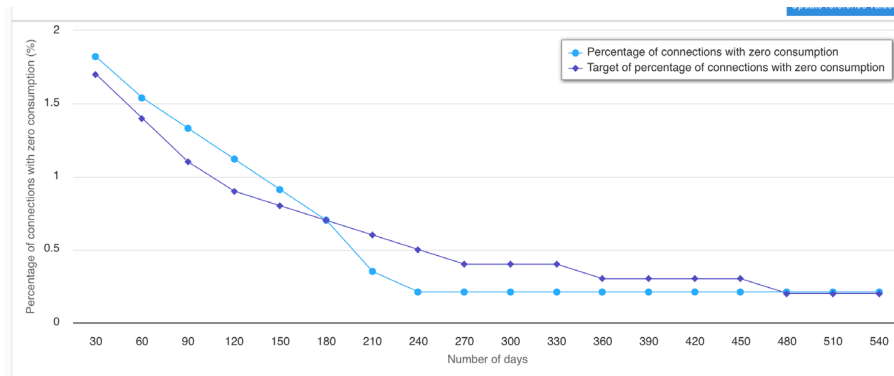
The analysis provided by the DIS to summarize the ageing impact is as below. It shows the evolution per year of the metering efficiency.



○ **Connections with no consumption and their duration**

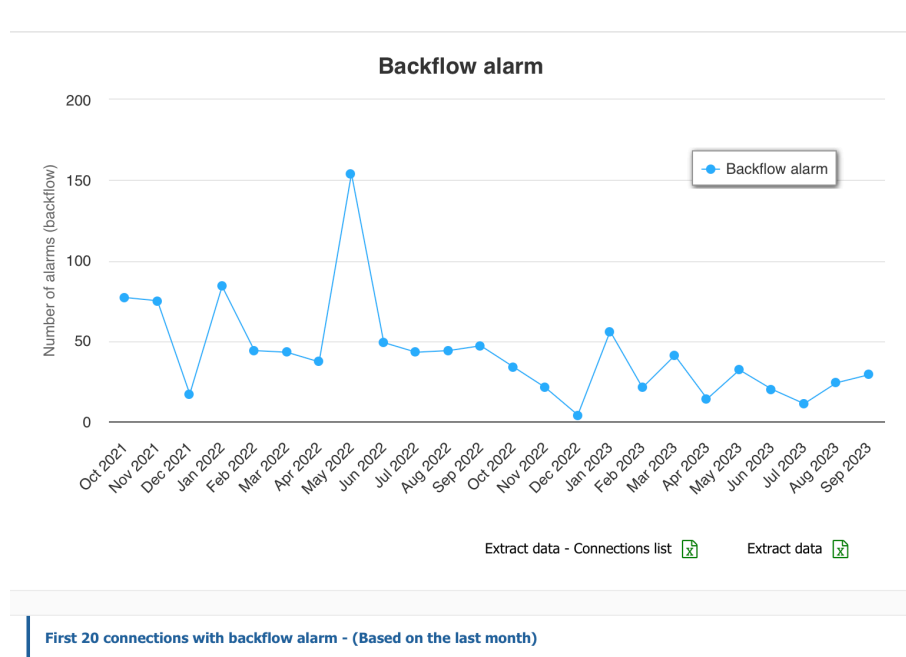
The analysis provided by the DIS to summarize the no consumption impact is as below. It shows the percentage of connections with no consumption and their duration in days.

The list of each connection resulting of this analysis is defined above.



○ **Connections with backflow volume**

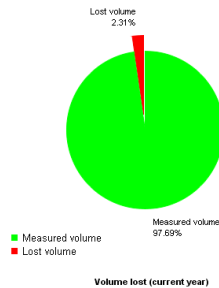
The analysis provided by the DIS to summarize the backflow alarm impact is as below. It shows the number of alarms of backflow either coming from the smart metering or from the analysis of the indexes for each connection.



The list of each connection resulting of this analysis is defined above.

○ **Connections with metering inefficiency**

The analysis provided by the DIS to summarize the metering efficiency impact is as below. It shows for each meter population types and associated connections the volume lost due to ageing.

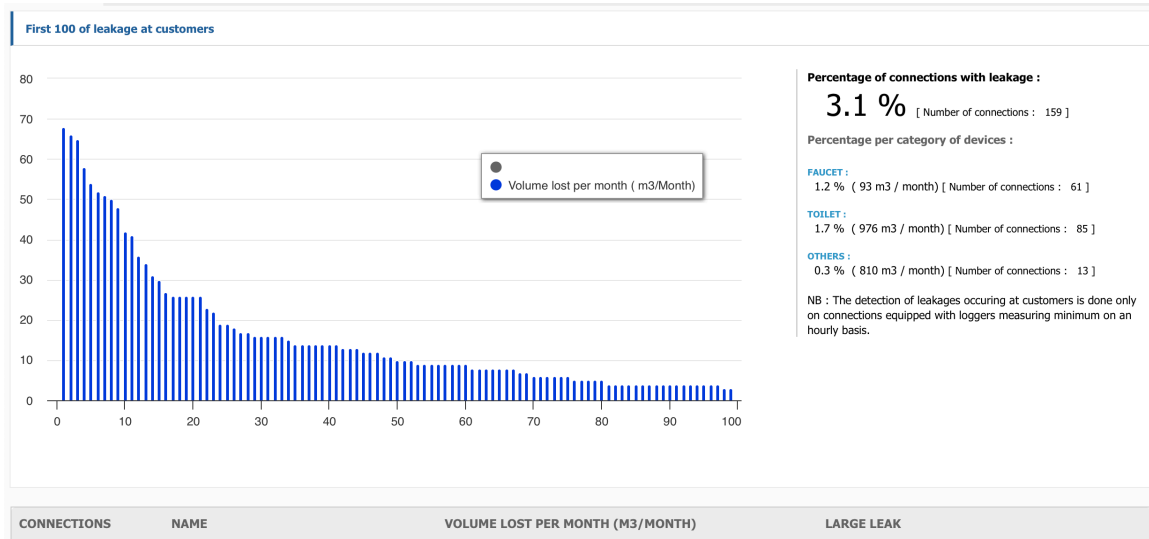


BRAND	MODEL	DN	QH	INVOICED VOLUME(M3 / YEAR)	LOST VOLUME(M3 / YEAR)	EFFICIENCY	NB METERS	LIFETIME (YEARS)	NUMBER OF YEARS REMAINING	QUANTITY OF METERS TO REPLACE FOR THE CURRENT YEAR
(UNKNOWN)	(UNKNOWN CLASS B VELOCITY)	15	1.5	568	26	95.6%	11	4	0	1
ITRON	AQUADIS	15	1.5	4,225	132	97.0%	87	24	3	4
ITRON	FLODIS	15	1.5	538,993	12,468	97.7%	6,287	16	8	178
ITRON	FLOSTAR	15	1.5	14,147	558	96.2%	220	16	1	80
ITRON	INTELIS	15	1.5	497	0	100.0%	10	27	3	0

The list of each connection resulting of this analysis is defined above.

○ **Connections with leakage after the meter**

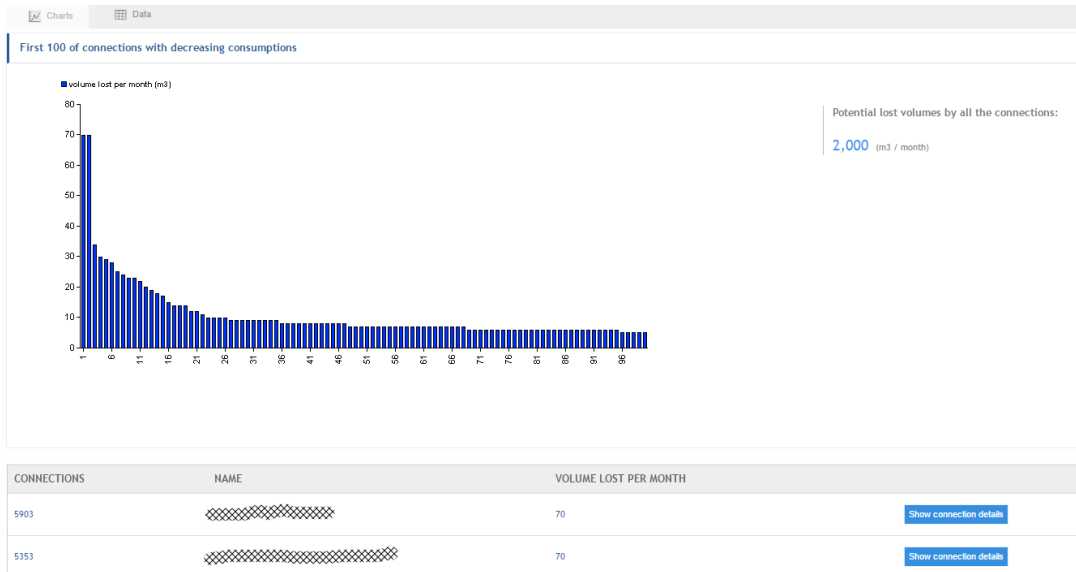
The analysis provided by the DIS to summarize the leakages after the meter impact is as below. It defines the connections with a leakage inside the private property and some statistics on its type and impact for the utility.



The list of each connection resulting of this analysis is defined above.

○ **Connections with decreasing consumption**

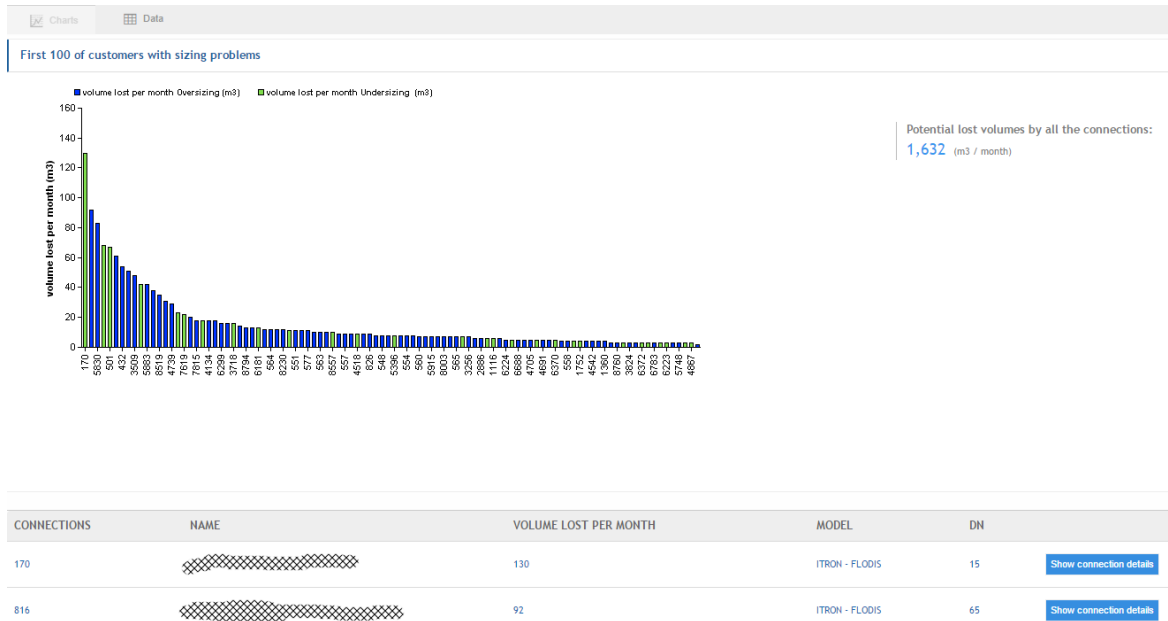
The analysis provided by the DIS to summarize the decreasing consumption impact is as below. It shows the connections with the volume lost due to decreasing consumption compared to historical data.



The list of each connection resulting of this analysis is defined above.

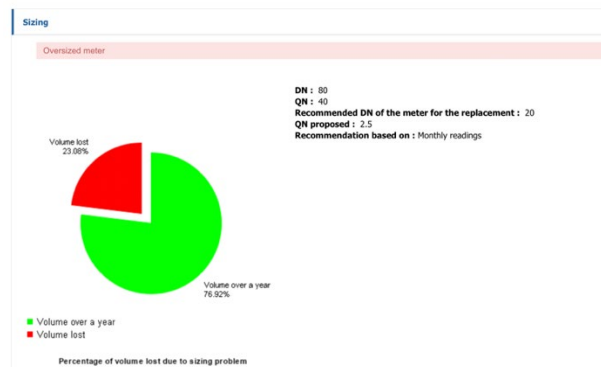
○ **Connections with sizing issues (oversize, undersize)**

The analysis provided by the DIS to summarize the sizing impact is as below. It shows the connections with a sizing impact and for consequence an NRW impact for the utility.



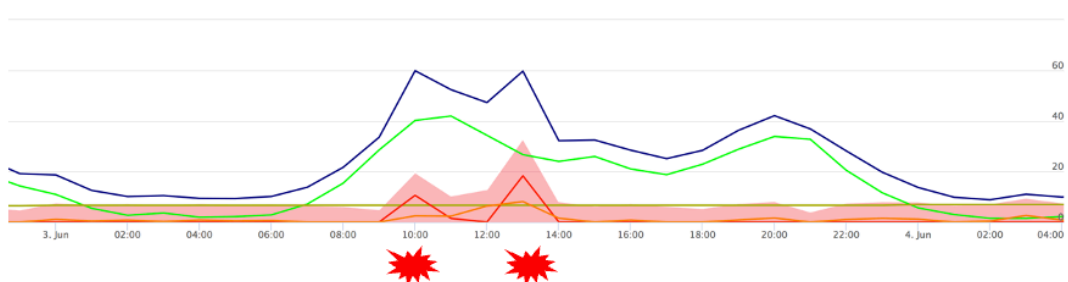
For each individual connection, the evaluation of the volume lost due to sizing is available.

The list of each connection resulting of this analysis is defined above.



○ **Connections with fraud attempt**

In practice, these connections with fraud attempts are more what we call potential fraud zones. The zone is identified using algorithms of the DIS and based on smart metering data. For these areas, KWLOG identifies the connections within the areas where the gap between injected volume in the building and the consumption has deviation towards the volume expected.



- **Overall NRW Action Plan and list of priorities**

A first automatic general report including a structural action plan will be generated by the DIS. The final report and action plan will be established thanks to the indispensable industry expertise provided by the experts.

The final document will be delivered to the contracting authority following the Item 1 template.

KWLOG' specified item is fully compliant and even exceeds Item 1 requirements.

▪ **Item 2 / Component I: Smart Billing Preliminary Service Report**

KWLOG's offer:

- **Diagnostic of the current Billing process**

For this specific analysis, KWLOG will collect the necessary data relating to the water company's operating processes focusing on Billing (customer services, meter readers, etc.).

The data collected will be analyzed by KWLOG's domain experts and converted into operational solutions in the report/action plan.

- **Analysis of the data quality impacting the Billing**

For this specific analysis, KWLOG will collect the necessary data from various inherent tools/systems linked to billing applications (billing, Meter reading solution, etc.). Automatic collection of this data is preferable if it already exists within the water company.

This data will be injected into the powerful DIS platform, which will perform the cleaning process prior to loading.

DIS will automatically list any general data quality problems identified (data corruption, missing data, data structure issues, database version, data configuration...) linked to billing.

Perfect formatting of data quality is a sine qua non for optimal service delivery.

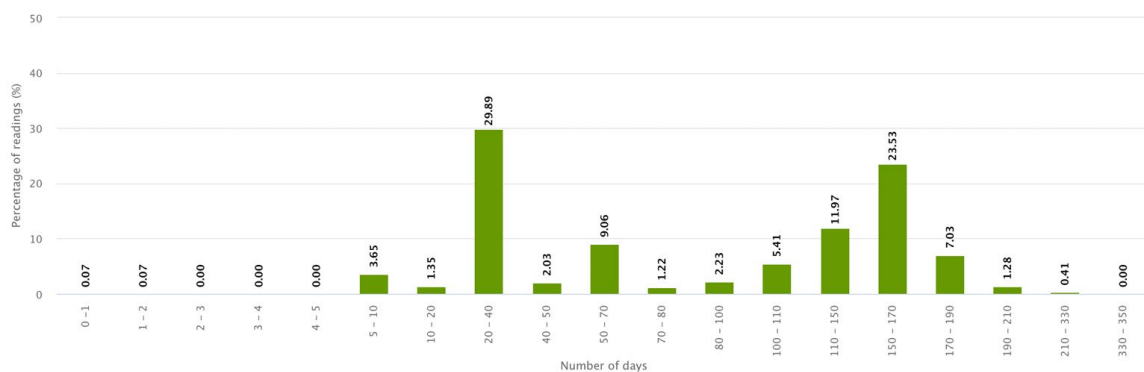
- **KPIs on the Billing process**

Once the existing data collected, KWLOG's powerful solution will offer to make generic statistics on the meter reading and billing process and their efficiency (number of reads, missing meters reads, reading campaign duration, period between 2 reads, Revenue...).

The data collected will be analyzed by KWLOG's domain experts and converted into operational solutions in the report/action plan.

○ **Analysis of the last month number of reads and time to read the meters**

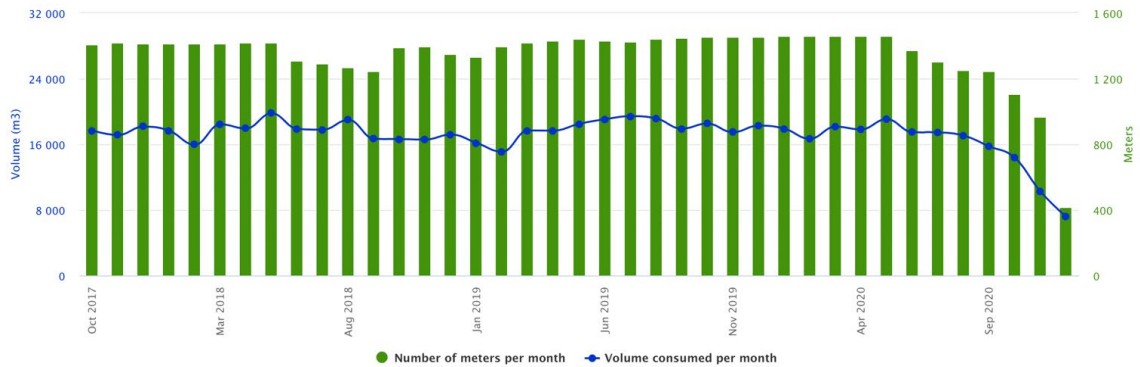
The importance of time between two reads is to enhance the revenue of the utility and fair billing for the inhabitant.



○ **Analysis of the last month consumption evolution over the selected area (m3/month)**

The graph showing the evolution number of connections in the DMA and the monthly consumption of the DMA.

Thanks to the DIS to generate automatically this analysis based on the data prepared by KWLOG's experts. Following the consumption equals to follow invoicing from the utility. DIS platform can be set up with prices to give financial value for most of the analysis.



- **Global statistics on the meter reading and Billing over Reference DMA**

Once the existing data collected, KWLOG's powerful solution will offer to make generic statistics on the meter reading and its efficiency (number of reads, missing meters reads, reading campaign duration, period between 2 reads...).

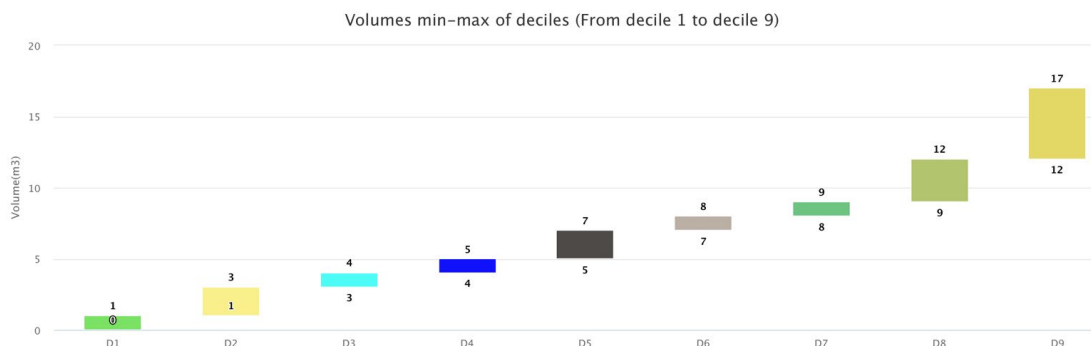
The billing software data analysis including its error codes can be extended by the DIS and KWLOG's experts.

The data collected will be analyzed by KWLOG's domain experts and converted into operational solutions in the report/action plan.

- **Segmentation of the Customers by groups and types**

The customer's segmentation is automatically generated by the DIS at each read in groups of customers based on their consumption.

The easy-to-understand presentation of information, such as below range of monthly consumptions in decile, is made to facilitate de decision on action plan definition.



- **Customers and connections with administrative issue**

The DIS offers to add extra fields of configuration to adapt to the situation of each utility. Once the typical administrative configuration of the utility including tariffs, reading error codes, address, GPS position, reading routes, building inlet meter... the configuration of the platform by KWLOG experts will allow extensive analysis and reports.

At first, all issues in this typical configuration will lead KWLOG's experts to generate a list of all connections with billing administrative issues.

The data collected will be analyzed by KWLOG's domain experts and converted into operational solutions in the report/action plan.

- **Connections with duplicated Id or Serial Number**

Once the data is loaded in the DIS, KWLOG's experts validates the automatically generated lists of connections with data issues. Such lists are classified by issue types.

Thanks to the DIS and KWLOG's experts experience, the list of issues encountered in the projects is large (duplicates serial numbers, Connections ID re-use, DMA definitions, GIS issues, Customers address missing, GPS position missing...)

- **Missing information impacting Billing per connection (Customer Tarif group, ...)**

For this analysis, KWLOG experts highlight, with the DIS, all connections missing information impacting the utility billing relative to Tarif management of the billing software.

DIS is configurable with financial data of the utility including complex tariff structure but does not manage cash recovery of debt from the customers.

The generated list will cover issues such as of tariffs groups issues, Threshold definitions, incoherent data,...

- **Ranking of connections with highest volume loss and financial valuation**

The DIS application offers to compute and automatically deliver the ranking of consumers over a period of consumption from the largest to the smallest including the value in local currency.

This ranking combined to the KWLOG's experts' analysis, will define the priority list based on highest consumptions. For each consumption, the value in local currency offers a consolidation of the revenue of the utility.

Meter SN	Meter Name	DN	QN	DN Proposed	QN Proposed	Volume per Month	Valuation (Lei) / Month	Read Date
11504857	JS-6,3	25	3.5	32	6	253	396700	Sep-19
40040215	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	218	350774	Sep-19
40039731	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	210	296369	Sep-19
40168493	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	205	295267	Sep-19
17312869	POWOGAZ JS-80 NK	80	40	20	2.5	205	272470	Sep-19
40194615	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	195	268174	Sep-19
56777153	+JS 6,3 R100 [MID]	25	3.5	20	2.5	182	267624	Sep-19
40040214	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	179	262998	Sep-19
56777132	+JS 6,3 R100 [MID]	25	3.5	20	2.5	161	249876	Sep-19

- **Detail and consolidated financial impact of all connections with the following issues:**

KWLOG's experts are essential in the analysis of the data provided before and after data loading in the DIS. The combination of the expertise and the DIS capacities offer to identify by types of the meters or connections with issues impacting the NRW level.

For each type, KWLOG's experts will issue a list of connections converted into operational solutions in the report/action plan.

DMA_N AME	CONNECTION _ID	SERIAL NUMBER	NAME_METER	DN	QN	INSTALL_ DATE	VOL_PER_ MONTH	Valuation (Lei)/Month
DMA 1	Connection 1	C22BB013344	FLODIS DN20	20	2.5	Jun-23	364	3203.2
DMA 1	Connection 2	C23BF033599	FLOSTAR DN 50	50	15	May-23	326	2868.8
DMA 1	Connection 3	C21BC068674	FLODIS JS 6,3	25	3.5	Feb-22	272	2393.6
DMA 1	Connection 4	C21BC068688	FLODIS JS 6,3	25	3.5	Feb-22	153	1346.4
DMA 1	Connection 5	17312869	JS-80 NK	80	40	Jun-18	149	1311.2
DMA 1	Connection 6	C22BB051030	FLODIS DN20	20	2.5	Mar-23	139	1223.2
DMA 1	Connection 7	H21CC002150	AURIGA JS 6,3	25	3.5	Nov-21	136	1196.8
DMA 1	Connection 8	C22BB013396	FLODIS DN20	20	2.5	May-23	136	1196.8
DMA 1	Connection 9	C21BC068696	FLODIS JS 6,3	25	3.5	Jan-22	133	1170.4
DMA 1	Connection 10	C22BB051173	FLODIS DN20	20	2.5	Jul-23	121	1064.8
DMA 1	Connection 11	C22BB013389	FLODIS DN20	20	2.5	Jun-23	100	880

For each issue type an illustration of the individual analysis available in the DIS.

○ **Meters not read or not accessible**

The analysis provided by the DIS to list all connections that are not read per DMA and typical monthly consumption volume missing.

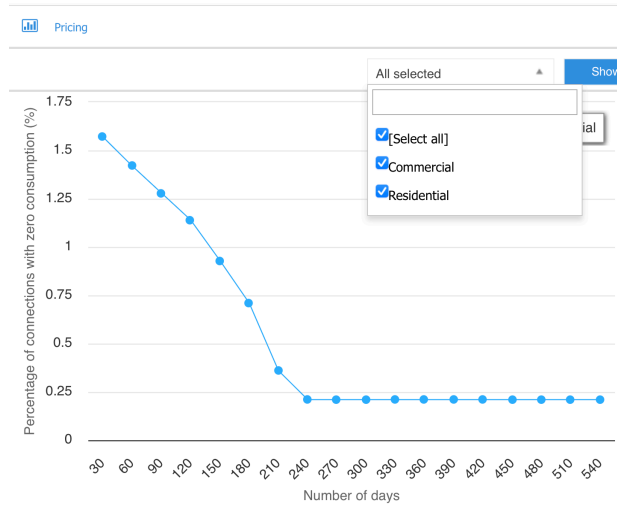
MONTH	DMA	Nb Connections Missing	Volume Missing (m3)
Nov-20	DMA 1	21	479
Nov-20	DMA 2	660	11517
Nov-20	DMA 3	28	198
Nov-20	DMA 4	29	218
Nov-20	DMA 5	2	1
Nov-20	DMA 6	5	57
Nov-20	DMA 7	176	4605
Nov-20	DMA 8	186	1421
Nov-20	DMA 9	7	70

The list of each connection resulting of this analysis is defined above.

○ **Connections with no consumption and their duration**

The analysis provided by the DIS to summarize the no consumption impact is as below. It shows the percentage of connections with no consumption and their duration in days. The impact can be computed per tariff types.

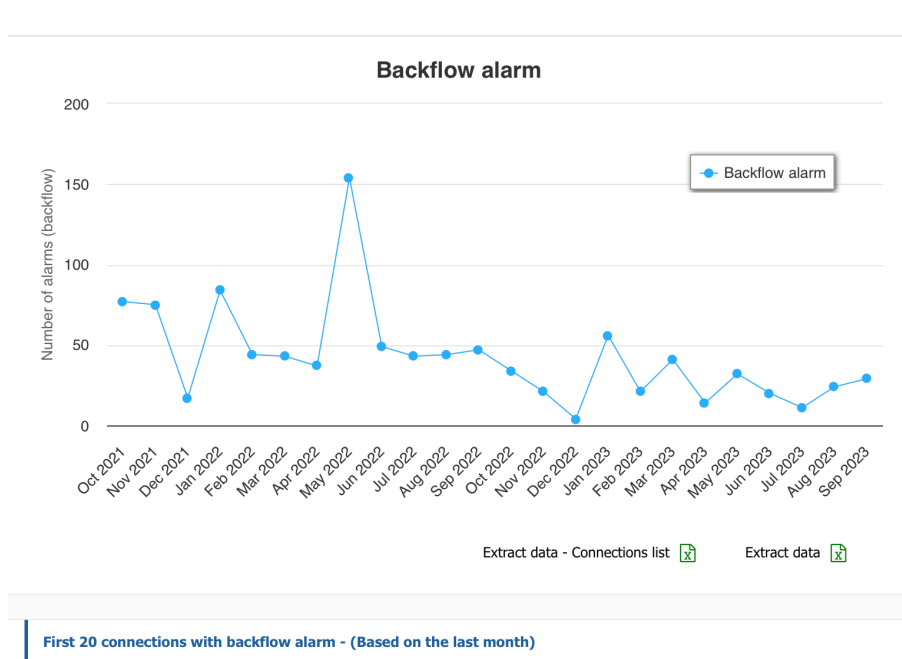
The list of each connection resulting of this analysis is defined above including valuation in utility currency.



The list of each connection resulting of this analysis is defined above including valuation in utility currency.

○ **Connections with backflow volume**

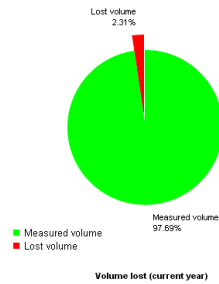
The analysis provided by the DIS to summarize the backflow alarm impact is as below. It shows the number of alarms of backflow either coming from the smart metering or from the analysis of the indexes for each connection.



The list of each connection resulting of this analysis is defined above including valuation in utility currency.

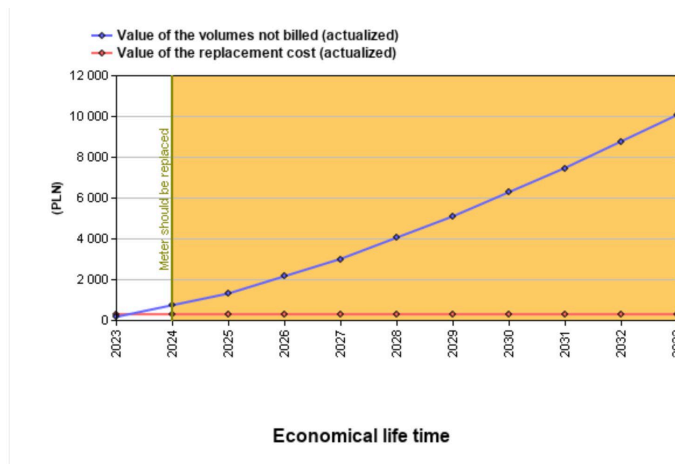
○ **Connections with metering inefficiency**

The analysis provided by the DIS to summarize the metering efficiency impact is as below. It shows for each meter population types and associated connections the volume lost due to ageing.



BRAND	MODEL	DN	QM	INVOICED VOLUME(M3 / YEAR)	LOST VOLUME(M3 / YEAR)	EFFICIENCY	NB METERS	LIFETIME (YEARS)	NUMBER OF YEARS REMAINING	QUANTITY OF METERS TO REPLACE FOR THE CURRENT YEAR
(UNKNOWN)	(UNKNOWN CLASS B VELOCITY)	15	1.5	568	26	95.6%	11	4	0	1
ITRON	AQUADIS	15	1.5	4,225	132	97.0%	87	24	3	4
ITRON	FLODIS	15	1.5	538,993	12,468	97.7%	6,287	16	8	178
ITRON	FLOSTAR	15	1.5	14,147	558	96.2%	220	16	1	80
ITRON	INTELIS	15	1.5	497	0	100.0%	10	27	3	0

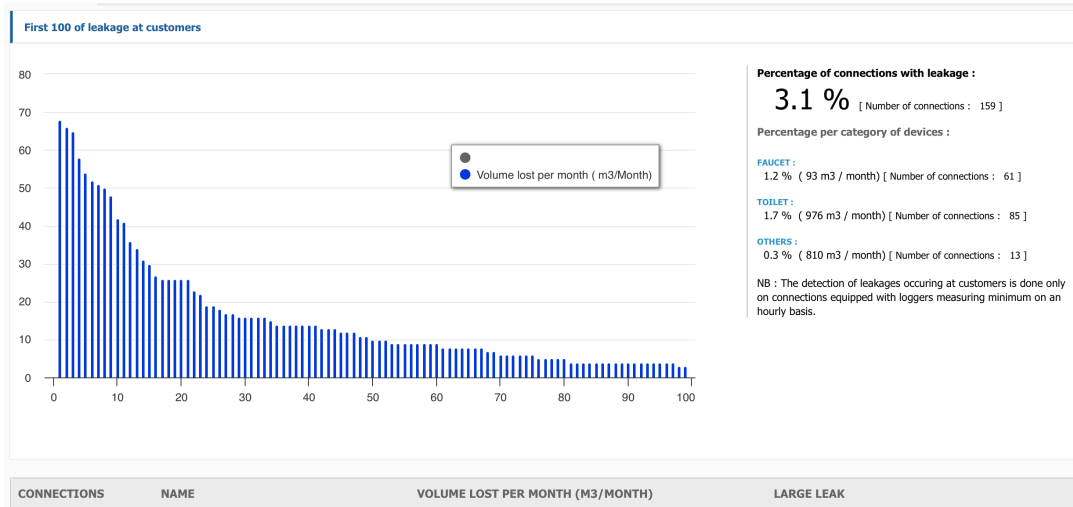
Below an example of valuation of inefficiency for a connection in when to replace the meter.



The list of each connection resulting of this analysis is defined above including valuation in utility currency.

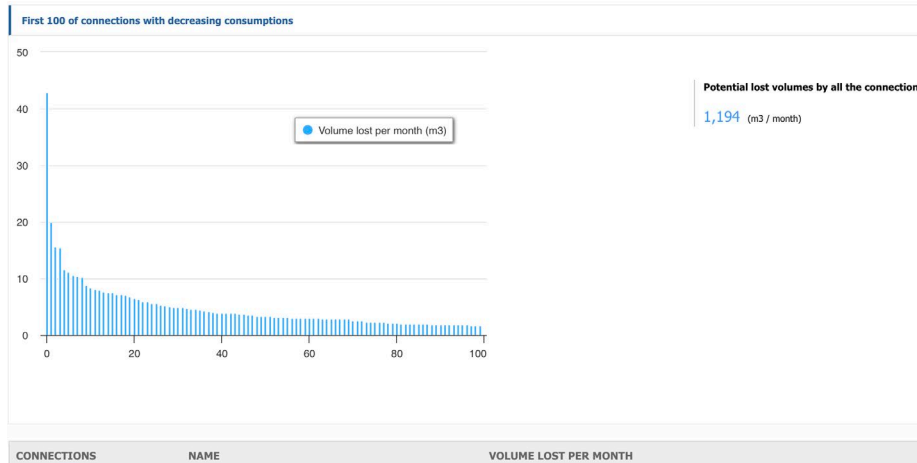
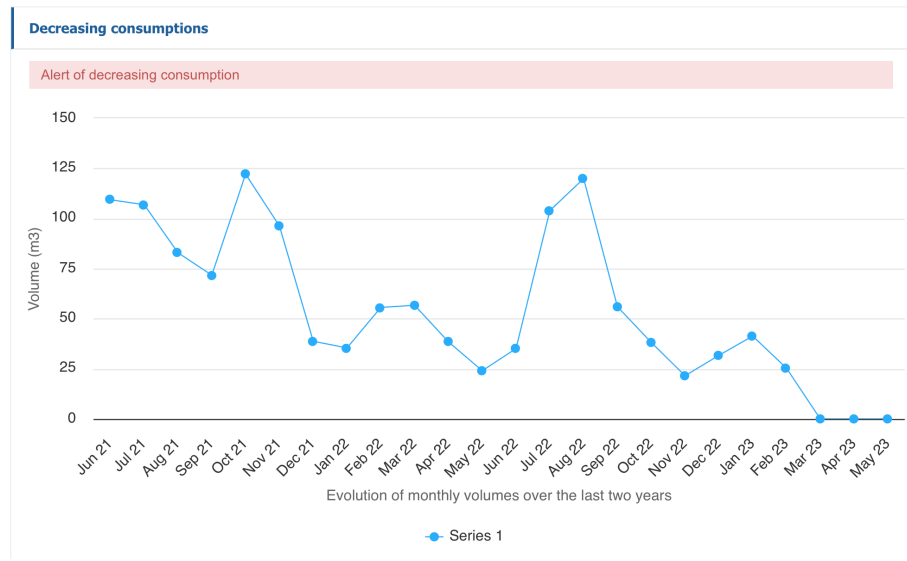
○ **Connections with leakage after the meter**

The analysis provided by the DIS to summarize the leakages after the meter impact is as below. It defines the connections with a leakage inside the private property and some statistics on its type and impact for the utility.



The list of each connection resulting of this analysis is defined above including valuation in utility currency.

○ **Connections with decreasing consumption**



The list of each connection resulting of this analysis is defined above including valuation in utility currency.

○ **Connections with fraud attempt**

In practice, these connections with fraud attempts are more what we call potential fraud zones. The zone is identified using algorithms of the DIS and based on smart metering data. For these areas, KWLOG identifies the connections within the areas where the gap between injected volume in the building and the consumption has deviation towards the volume expected.

- **Overall Billing System Action Plan and priorities**

A first automatic general report including a structural action plan will be generated by the DIS. The final report and action plan will be established thanks to the indispensable industry expertise provided by the experts.

The final document will be delivered to the contracting authority following the Item 1 template.

KWLOG' specified item is fully compliant and even exceeds Item 2 requirements.

▪ **Item 3 / Component I: NRW Periodical (Monthly) Services Reports**

KWLOG's offer:

- **Status update on the data quality impacting NRW**

The DIS and KWLOG expert will automatically assess the data and its quality during the integration process of the periodical reads.

- **List of data quality issues in the month impacting NRW**

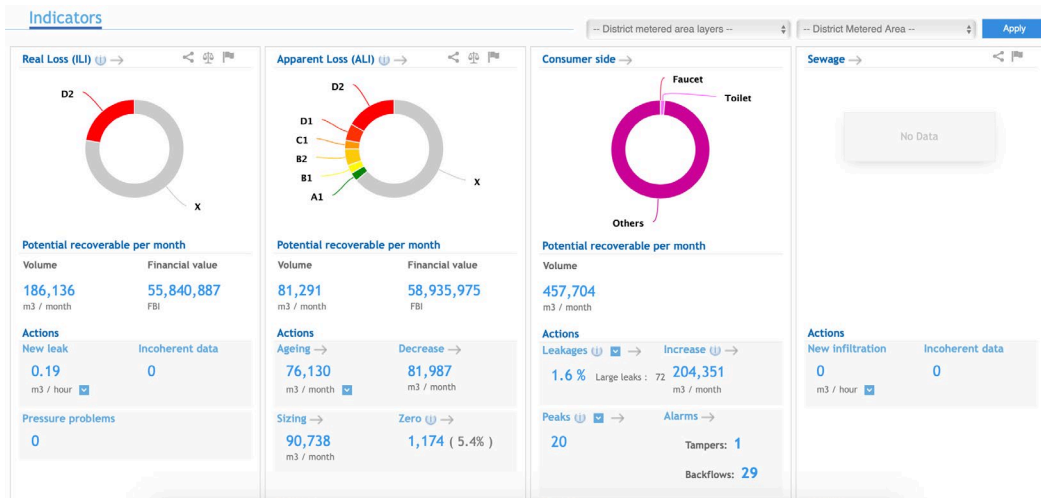
KWLOG offers with the DIS an automatic report of the situation per DMA on periodical basis to assess the quality of the data.

By experience this solution is responding fully to the request of highlighting the data quality issues in the DMAs. Below the example of the table available from the DIS.

Day	2021-05-03	2021-05-04	2021-05-05	2021-05-06	2021-05-07	2021-05-08	2021-05-09
Number of connections that have communicated whatever the number of hours	396	395	396	396	237	237	237
Number of connections that have communicated with 24 hours of daily data	394	394	395	0	237	237	0
Number of connections that measured daily consumption	361	357	364	0	216	189	0
Number of connections that measured night consumption	39	42	33	0	25	16	0
Meters read (%)	98.52 %	98.51 %	98.76 %	60.67 %	59.25 %	59.25 %	59.25 %
Representativity coefficient (min 95%)	95.63 %	97.94 %	13.95 %	52.49 %	93.46 %	93.25 %	0.00 %
Number of hours for the residential	24	24	24	24	24	24	1
Number of hours for the inlets	24	24	24	24	24	24	24
Night day factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96

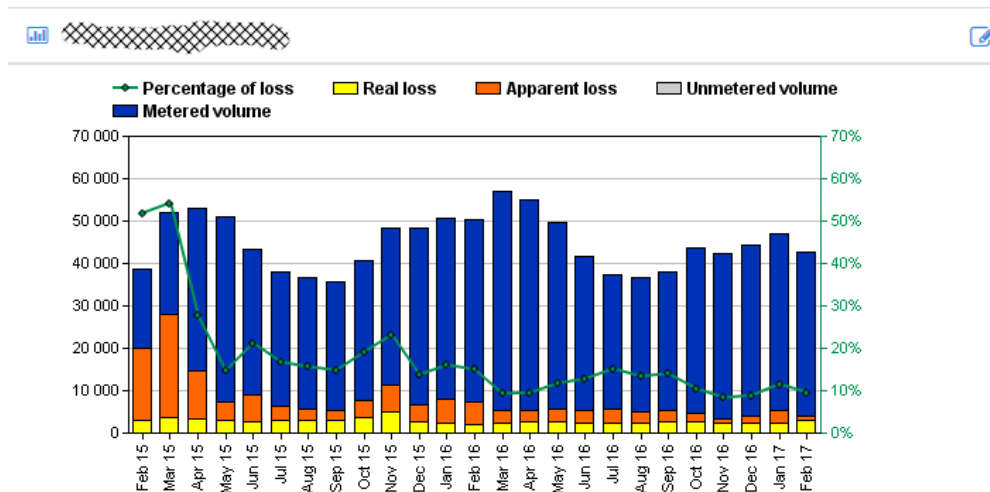
- **Update of NRW KPIs (at the date of report)**

The following graph reports the monthly evolution of the injected volume, consumed volume, level of NRW, the water balance segmentation between apparent and real losses monthly. The complete graph regroups in a simple way, the results of the actions done to reduce the RNW over the DMA. All requirements of KPIs update can be summarized with the following 2 graphs issued from the DIS completed with KWLOG's experts' validation of the content.



This dashboard summarizes indicators and is the welcome screen of the DIS platform.

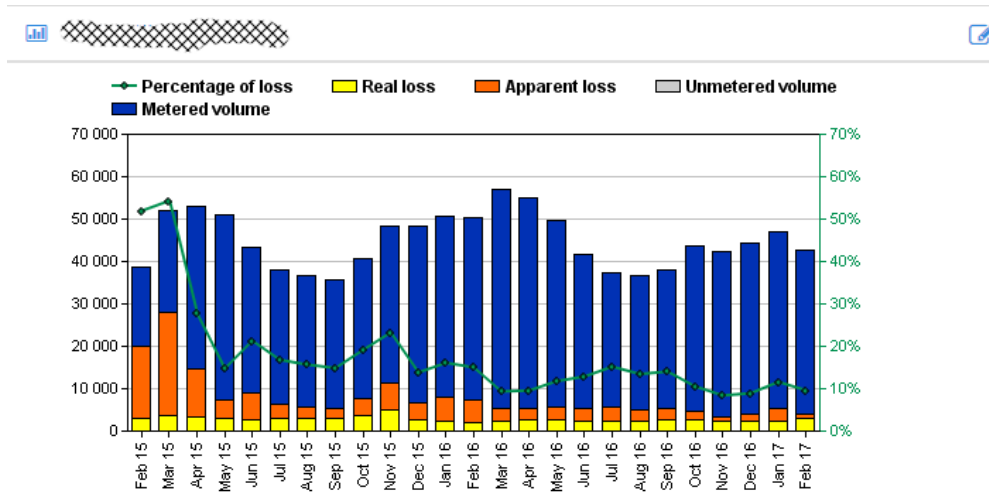
- **Follow-up of injected volume in the Reference DMA**



- **Water Balance for the DMA as well residential buildings**
- **Computed volume lost due to Apparent Losses.**
- **Computed volume lost due to Real Losses.**
- **Measure the gain on the NRW over the selected perimeter**

NB: The DIS platform can be easily configured for any type of configuration of DMA and Sub-DMA. KWLOG wants to use this capacity of the DIS to respond to this demand by creating sub-DMA for each of the buildings of the Reference DMA. Then the same analysis will be on building base. The above-mentioned feature combined with the computed volumes lost due to Apparent Losses & Real Losses as well as the measurement of the gain on the NRW over the selected perimeter, are treated in one single explanatory section, as DIS platform allows them to be processed in common tables and graphs (see below).

Below graph (similar to the one described in previous "Follow-up of injected volume in the Reference DMA" will be also used to fulfill this requirement).



- **Dashboard of Reference DMA**

- **NRW level evolution compared to NRW reference level**
- **Injected volume of the month**
- **Number of connections**
- **Number of replaced meters**
- **Number of leakages found and associated volumes**
- **Number of leakages found on the water supply network segment and associated volumes**

NB: The NRW level evolution vs NRW reference level, the injected volume of the month, as well as the number of connections, replaced meters, leakages found/associated volumes & leakages found on the water supply network segment/associated volumes, are treated in one single explanatory section, as DIS platform allows them to be processed and exported in common spreadsheets (see below).

KWLOG Experts will create a specific dashboard based on its project experience and all the analysis done automatically in the DIS. KWLOG team calls this progression dashboard on the DMA a NRW scorecard.

All DMAs and sub-DMAs of a project can be analyzed quickly using this dashboard. The report is updated on a monthly base.

NRW Scorecard Project XXX : 1 DMA								date of Consolidation : 31/05/2022		
DMA	Nbre Connections	Inlets	Injected Volume (m3)	Oulets	Reference NRW	Meters Replaced	Leakages	Volume Saved (m3)	Increase invoice (m3)	NRW Latest
DMA Name	1 534	2	25 096	0	0	1 458	2	1 730	2 686	22%

The color code defines the source of the data (Red for manual, Orange for semi-automatic, Green for automatic)

This dashboard consolidates the number of connections, the evolution of the NRW, the injected volume, the number of connections, the number of replaced meters, the leakages found and associated volume.

- **Specific Action Plan focus NRW level improvement**

The follow up of the impact of all actions realized is done automatically by the DIS and monitored in the scorecard presented previously. All these tools and methods used to manage a NRW reduction project are issued from the long experience of KWLOG’s experts.

○ **Consolidation of last month specific actions impact on NRW.**

KWLOG proposes to respond to this demand and simplify his reporting method in adding in its scorecard, a follow up of the actions ongoing in the reference DMA.

○ **Definition of the coming month specific actions to implement by the Utility staff.**

The DIS can generate and track actions for the NRW reduction to help the utility. During the analysis operated by KWLOG's experts, the connections that need a specific attention will be listed in the report.

▪ **Apparent Losses actions:**

List of connections to investigate for all issues found

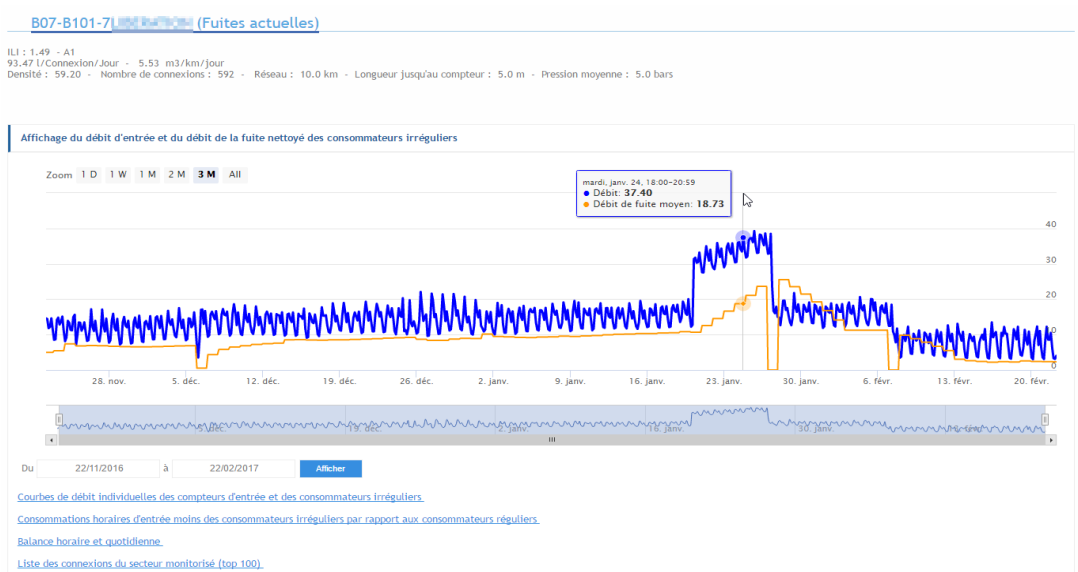
The DIS generates automatically lists to investigate based on the selected type of problem the experts are highlighting to the utility. All issues reported previous have their own list of connections to follow up.

Sole the expertise of KWLOG's team offers to combine the lists for a global consolidation. KWLOG will issue these lists in the periodical reports.

▪ **Real Losses actions:**

Detection of new leakages (if any) not yet visible in the streets

The automatic treatment of the data by the DIS detects new leakages by analyzing the data collected.



Map with found leakages position

KWLOG offers with the DIS a technology to position existing leakages on the map with priority identification. The technology uses pressure sensors combined with hydraulic modeling.

Below, an example of a map with highlighted segments in black for priority in leakage detection campaign. In addition, the places with leakages are pin pointed on the map.



KWLOG' specified item is fully compliant and even exceeds Item 3 requirements.

▪ **Item 4 / Component I: Smart Billing Periodical (Monthly) Services Reports**

KWLOG's offer:

- **Status update on the data quality impacting Billing.**

The DIS and KWLOG expert will automatically assess the data and its quality during the integration process of the periodical reads.

- **List of data quality issues of the month impacting Billing.**

KWLOG offers with the DIS an automatic report of the situation per DMA on periodical basis of the data and connections impacting the billing.

By experience this solution is responding fully to the request of highlighting the data quality

- **Update of global billing KPIs (Volume, duration, ...)**

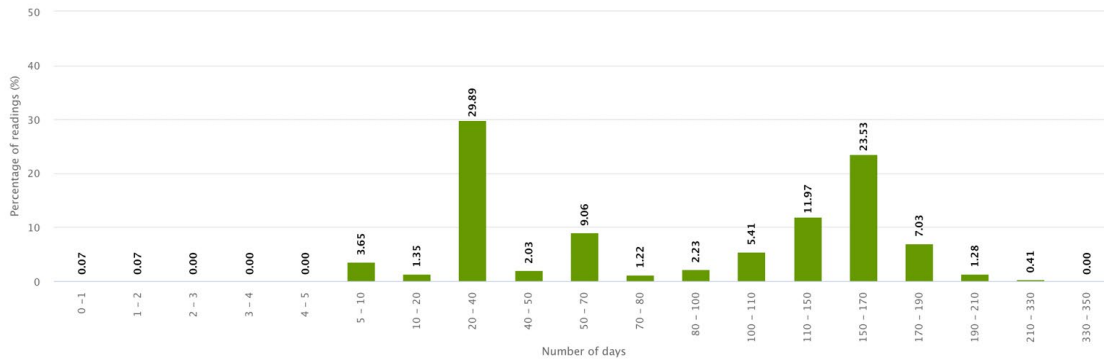
All Billing KPIs of KWLOG's offer are computed in the DIS and according to the preliminary report presented previously.

The following graph reports the monthly evolution of the injected volume, consumed volume, level of NRW, the water balance segmentation between apparent and real losses monthly. The complete graph regroupes in a simple way, the results of the actions done to reduce the RNW over the DMA.

All requirements of KPIs update can be summarized with the following 2 graphs issued from the DIS completed with KWLOG's experts' validation of the content.

○ **Analysis of the last month number of reads and time to read the meters**

The importance of time between two reads is to enhance the revenue of the utility and fair billing for the inhabitant. KWLOG tracks these indicators automatically in the DIS.

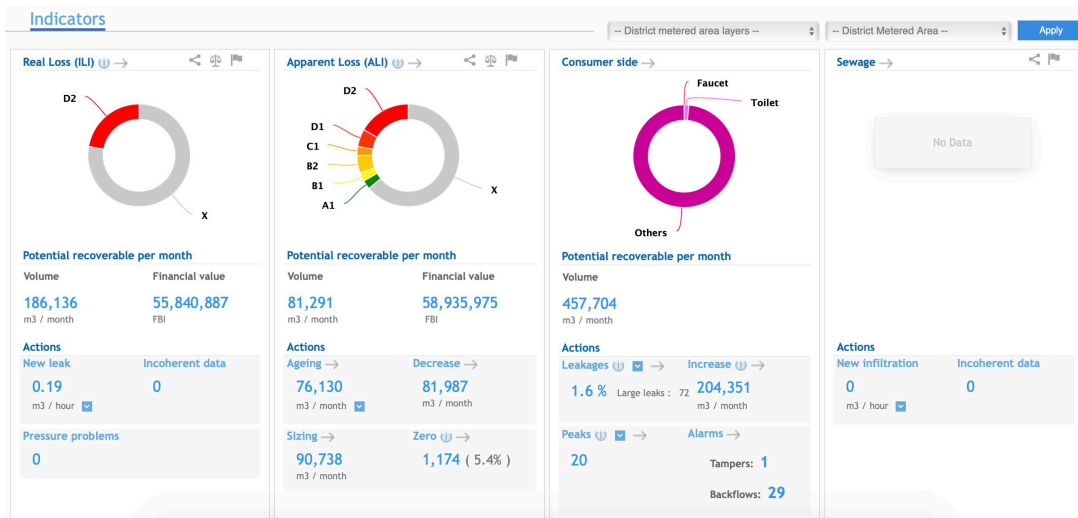


○ **Analysis of the last month consumption evolution over the area (m3/month)**

In addition to the automatic consolidation of the monthly consumption, KWLOG offers to track inside the DIS the evolution per month and per year of the monthly consumption by setting up a project of monitoring.

- **Dashboard on the alarms collected with smart metering and linked to Billing.**

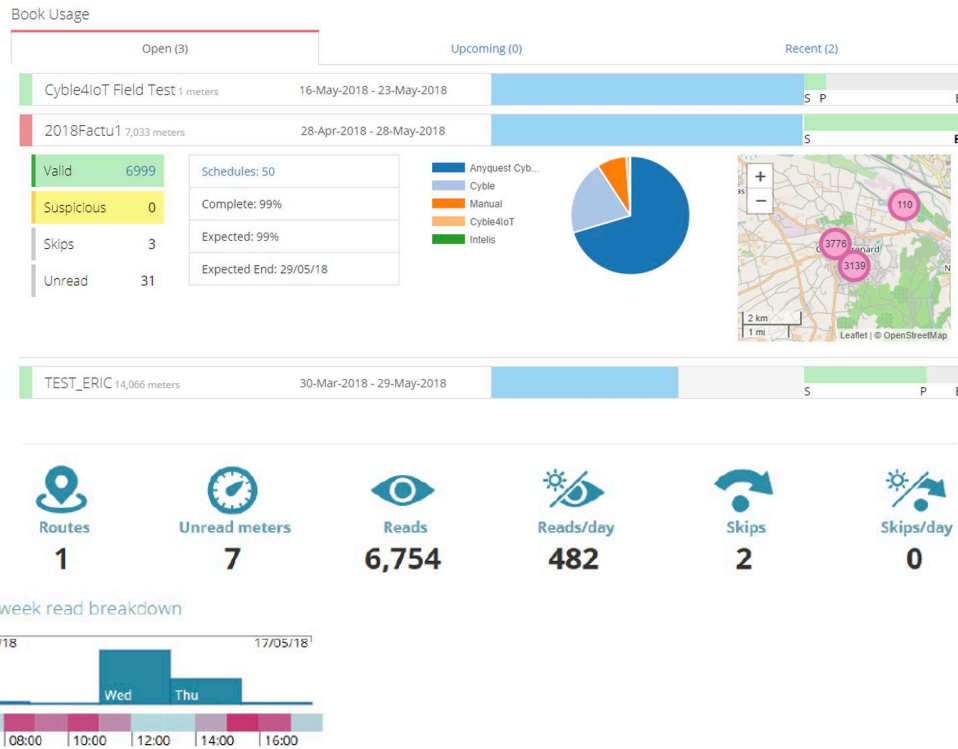
KWLOG combines the Smart Billing dashboard with the NRW dashboard. The valuation of the losses and the impact on billing are integrated inside the DIS in data exports. First example is the welcome screen of the DIS which includes both indicators on the same page.



- **Dashboard of meter reading efficiency per route and meter reader.**

KWLOG's solutions offer various dashboards and graphics to illustrate the efficiency of the reading routes and the performance of the meter reader.

The graphs below highlight some examples of tools available reaching this objective.



- **The ranking of connections with highest volume loss and financial valuation.**

The DIS application offers to compute and automatically deliver the ranking of consumers over a period of consumption from the largest to the smallest including the value in local currency.

This ranking combined to the KWLOG's experts' analysis, will define the priority list based on highest consumptions. For each consumption, the value in local currency offers a consolidation of the revenue of the utility.

Meter SN	Meter Name	DN	QN	DN Proposed	QN Proposed	Volume per Month	Valuation (Lei) / Month	Read Date
11504857	JS-6,3	25	3.5	32	6	253	396700	Sep-19
40040215	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	218	350774	Sep-19
40039731	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	210	296369	Sep-19
40168493	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	205	295267	Sep-19
17312869	POWOGAZ JS-80 NK	80	40	20	2.5	205	272470	Sep-19
40194615	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	195	268174	Sep-19
56777153	+JS 6,3 R100 [MID]	25	3.5	20	2.5	182	267624	Sep-19
40040214	+ JS 6,3 R100 [MID]	25	3.5	20	2.5	179	262998	Sep-19
56777132	+JS 6,3 R100 [MID]	25	3.5	20	2.5	161	249876	Sep-19

- **Details and consolidated financial impact of all connections with the following alarms**

- **Meters not read or not accessible**
- **Connections with no consumption and their duration**
- **Connections with backflow volume**
- **Connections with metering inefficiency**
- **Connections with leakage after the meter**
- **Connections with decreasing consumption**
- **Connections with fraud attempt**

NB: The unreadable/inaccessible meters and the connections (with no consumption and their duration, with backflow volume, with metering inefficiency, with leakage after the meter, with decreasing consumption, with fraud attempt), are treated in one single explanatory section, as DIS platform allows them to be processed and exported in common spreadsheets (see below).

KWLOG Experts will create a specific dashboard based on its project experience and all the analysis done automatically in the DIS. KWLOG team calls this progression dashboard on the Smart Billing a Billing Scorecard.

All DMAs and buildings will be summarized in this dashboard and can be analyzed quickly. The report is updated on a monthly base.

NRW Scorecard Project XXX : Smart Billing - Month XXXX											date of Consolidation: 31/05/2022					€ 2.00
DMA	Nbre Connections	Inlets	Injected Volume (m3)	Volume Conso (m3)	TOTAL Loss (m3)	Meters Not Accessible	Zero Consumption	Backflow	Fraude Attempts	Inefficiency (m3)	Leakages in Private (m3)	Leakages in Public (m3)	Decreasing Conso (m3)	TOTAL Missing Revenue (m3)	Financial Impact	
DMA Name 1	806	1	15 808	12 124	3 781	7	0	0	1	198	378	2 231	242	235	€ 509.33	
DMA Name 2	1 521	2	25 056	18 114	6 982	15	3	2	0	310	836	4 210	374	467	€ 933.33	
Building XXX	35	1	488	379	107	0	1	1	0	3	32	2	6	24	€ 49.55	
Building YYY	45	1	622	488	136	1	2	0	1	4	7	6	13	48	€ 96.67	
TOTAL	2 407	5	41 928	31 705	10 224	23	6	3	2	426	1 055	6 781	636	794	€ 1,588.88	

The color code defines the source of the data (Red for manual, Orange for semi-automatic, Green for automatic)

This dashboard consolidates the number of connections, the injected volume, the volume lost, the number of meters not read, the zero consumptions, the connections with backflow, the volume lost by inaccuracy of meters, the leakages inside property or public, the decreasing consumptions, the fraud attempt. For all these issues the volume lost will be computed and a financial valuation will be issued based on tariffs elements from the utility.

- **Consumption/Volume invoiced analysis per residential building**

- **Volume consolidation between building inlet and apartment meters**
- **Volume and revenue loss per collective residential building**

NB: The volume consolidation between building inlet and apartment meters and the volume/revenue losses per collective residential building, are treated in one single explanatory section, as DIS platform allows them to be processed and exported in common tables and graphs which are similar to the ones described in *Item 4/Details and consolidated financial impact of all connections with the following alarms*.

In addition of details and consolidated financial impact, KWLOG offers to also consolidate the volume per building and the revenue loss for each building in the same dashboard. The requirements for building monitoring will be fulfilled.

- **Specific Action Plan focus on Billing improvement:**

The follow up of the impact of all actions realized is done automatically by the DIS and monitored in the scorecard presented previously. All these tools and methods used to manage a NRW reduction project are issued from the long experience of KWLOG's experts.

o **Consolidation of last month specific actions impact on billing**

KWLOG proposes to respond to this demand and simplify his reporting method in adding, in its scorecard, a follow up of the actions ongoing in the reference DMA.

o **Definition of the coming month specific actions to implement for Apă-Canal Edineț staff**

The DIS can generate and track actions for the Smart billing to help the utility. During the analysis operated by KWLOG's experts, the connections that need a specific attention will be listed in the report.

KWLOG' specified item is fully compliant with Item 4 requirements.

▪ **Item 5/ Component II: Electromagnetic water meter DN100**

KWLOG's offer:

Siemens Sistrans FM Mag 8000 electromagnetic water meter DN100 (incl. installation accessories).

This item will be dispatched directly to Moldova from Vestra facilities in Romania.

KWLOG' specified item is fully compliant with Item 5 requirements.

▪ **Item 6/ Component II: Isolation valves DN100**

KWLOG's offer:

Sferaco concentric wafer butterfly isolation valve DN100 performance range with ductile iron body, ductile iron disc and EPDM ACS seat.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 6 requirements.

▪ **Item 7/ Component II: Flanges DN100**

KWLOG's offer:

Sferaco weld neck BW stainless steel flange DN100.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 7 requirements.

▪ **Item 8/ Component II: Electromagnetic water meter DN50**

Siemens Sistrans FM Mag 8000 electromagnetic water meter DN50 (incl. installation accessories).

This item will be dispatched directly to Moldova from Vestra facilities in Romania.

KWLOG' specified item is fully compliant with Item 8 requirements.

▪ **Item 9/ Component II: Isolation valves DN50**

KWLOG's offer:

Sferaco concentric wafer butterfly isolation valve DN50 performance range with ductile iron body, ductile iron disc and EPDM ACS seat.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 9 requirements.

▪ **Item 10/ Component II: Flanges DN50**

KWLOG's offer:

Sferaco weld neck BW stainless steel flange DN50.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 10 requirements.

▪ **Item 11/ Component II: Mech. water meters DN40 (single jet type), with com. module**

KWLOG's offer:

Itron Flostar-M single jet turbine type water meter DN40 pre-equipped with Itron Cyble 5 multi-connectivity RF module for fast AMR (drive-by) and AMI reading (IoT LoRaWAN/Sigfox/OMSV4).

This item will be dispatched directly to Moldova from Vestra facilities in Romania.

KWLOG' specified item is fully compliant with Item 11 requirements.

▪ **Item 12/ Component II: Fittings DN40**

KWLOG's offer:

Sferaco brass fitting DN40 consisting of 1 brass linear, 1 brass free nut (with plumbing hole for sealing purpose) & 1 EPDM ACS gasket.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 12 requirements.

▪ **Item 13/ Component II: Y-filters DN40**

KWLOG's offer:

Sferaco brass Y-filter DN40 with plumbing hole for sealing and removable stainless steel filter grid.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 13 requirements.

▪ **Item 14/ Component II: Isolation valves DN40**

KWLOG's offer:

Sferaco brass ball isolation valve building series DN40 with flat steel handle (or aluminum butterfly handle as an option).

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 14 requirements.

▪ **Item 15/ Component II: Anti-fraud sealing rings DN40**

KWLOG's offer:

Sferaco/Hydromeca plastic anti-fraud ring DN40 for sealing purpose, snaps around the pipe fitting and prevents from manipulation of the locking mechanism.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 15 requirements.

▪ **Item 16/ Component II: Mech. water meter DN15 (single jet type), with com. module & inserted NRV**

KWLOG's offer:

Itron Flodis single jet turbine type water meter DN15 pre-equipped with Itron Cyble 5 multi-connectivity RF module for fast AMR (drive-by) and AMI reading (IoT LoRaWAN/Sigfox/OMSV4). This water meter is also pre-equipped with an outlet inserted Itron Non-Return Valve DN15.

This item will be dispatched directly to Moldova from Vestra facilities in Romania.

KWLOG' specified item is fully compliant with Item 16 requirements.

▪ **Item 17/ Component II: Fittings DN15 (1 linear ½", 1 nut ¾" and 1 gasket)**

KWLOG's offer:

Sferaco brass fitting DN15 consisting of 1 brass linear ½", 1 brass free nut ¾" (with plumbing hole for sealing purpose) & 1 EPDM ACS gasket.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 17 requirements.

▪ **Item 18/ Component II: Fittings DN15 (1 linear ¾", 1 nut ¾", 1 gasket)**

Sferaco brass fitting DN15 consisting of 1 brass linear ¾", 1 brass free nut ¾" (with plumbing hole for sealing purpose) & 1 EPDM ACS gasket.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 17 requirements.

▪ **Item 19/ Component II: Y-Filters Dn 15 (with sealing hole)**

KWLOG's offer:

Sferaco brass Y-filter DN15 with plumbing hole for sealing and removable stainless steel filter grid.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 19 requirements.

▪ **Item 20/ Component II: Isolation valves DN15 (with sealing hole)**

KWLOG's offer:

Sferaco brass ball isolation valve DN15. This valve is equipped with rotating nut making it easy to install the tap and sealing hole on the nut against fraud.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 20 requirements.

▪ **Item 21/ Component II: Anti-fraud sealing rings DN15**

KWLOG's offer:

Sferaco/Hydromeca plastic anti-fraud ring DN15 for sealing purpose, snaps around the pipe fitting and prevents from manipulation of the locking mechanism.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 21 requirements.

▪ **Item 22/ Component II: GSM analyzers**

KWLOG's offer:

Plum MacR6 remote flow and pressure monitoring Analyzer/Data logger with built-in with LTE Cat. M1/NB IoT/2G communication module.

This item will be dispatched directly to Moldova from Plum facilities in Poland.

KWLOG' specified item is fully compliant with Item 22 requirements.

▪ **Item 23/ Component II: Connectors (GSM analyzer to Electromagnetic meter)**

KWLOG's offer:

Plum Connector for Plum MacR6 Analyzer/Data Logger connection to compatible water meters.

This item will be dispatched directly to Moldova from Plum facilities in Poland.

KWLOG' specified item is fully compliant with Item 23 requirements.

▪ **Item 24/ Component II: Pressure sensors**

KWLOG's offer:

Plum Pressure Sensor for Plum MacR6 Analyzer/Data Logger.

This item will be dispatched directly to Moldova from Plum facilities in Poland.

KWLOG' specified item is fully compliant with Item 24 requirements.

▪ **Item 25/ Component II: Saddle clamps DN100**

KWLOG's offer:

Sferaco multi-material stainless steel body Saddle Clamps DN100 for small boss (M40x300) isolation valves.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 25 requirements.

▪ **Item 26/ Component II: Saddle clamps DN50**

KWLOG's offer:

Sferaco multi-material stainless steel body Saddle Clamps DN50 for small boss (M40x300) isolation valves.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 26 requirements.

▪ **Item 27/ Component II: Saddle clamps DN40**

KWLOG's offer:

Sferaco multi-material stainless steel body Saddle Clamps DN40 for small boss (M40x300) isolation valves.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 27 requirements.

▪ **Item 28/ Component II: Isolation valves for saddle clamp DN100**

KWLOG's offer:

Sferaco brass ball isolation valve M40x300. This specific valve is intended to saddle clamp DN100.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 28 requirements.

▪ **Item 29/ Component II: Isolation valves for saddle clamp DN50**

KWLOG's offer:

Sferaco brass ball isolation valve M40x300. This specific valve is intended to saddle clamp DN50.

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 29 requirements.

▪ **Item 30/ Component II: Isolation valves for saddle clamp DN40**

KWLOG's offer:

Sferaco brass ball isolation valve M40x300. This specific valve is intended to saddle clamp DN40. This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 30 requirements.

▪ **Item 31/ Component II: Drilling set for saddle clamps**

KWLOG's offer:

Sferaco universal load drilling machine with DN20-40 ratchet key for Saddle Clamps. The drilling machine includes an operating spindle drilled with several holes, allowing the position of the valve stop to be adjusted by means of a cylindrical pin according to valve length. The set is packaged in a handy storage case

This item will be dispatched directly to Moldova from Sferaco facilities in France.

KWLOG' specified item is fully compliant with Item 31 requirements.

▪ **Item 32/ Component II: Tablet Android (robust type) for meter Installation, configuration and reading**

KWLOG's offer:

Samsung Galaxy Tablet Active 3; robust version; 64 Go; 8"; 3G-4G. This tablet is one of the most suitable on the market for this usage. As an alternative, a fully compatible tablet can also be proposed.

This item will be dispatched directly to Moldova from Vestra facilities in Romania.

KWLOG' specified item is fully compliant with Item 32 requirements.

▪ **Item 33/ Component II: Radio frequency gateways for Android tablets**

KWLOG's offer:

Itron RF Master 5 EU868 Frequency Gateway (incl. charger; whip antenna & car-roof antenna)

This item will be dispatched directly to Moldova from Vestra facilities in Romania.

KWLOG' specified item is fully compliant with Item 33 requirements.

▪ **Item 34/ Component II: Communication modules activation tools**

KWLOG's offer:

Itron CyblemagSwitch magnet for Itron Cyble 5 communication modules waking-up.

This item will be dispatched directly to Moldova from Vestra facilities in Romania.

KWLOG' specified item is fully compliant with Item 34 requirements.

▪ **Item 35/ Component II: Digital security keys for communication modules**

KWLOG's offer:

A unique Itron Digital Security Key will be provided for each communication module Itron Cyble 5. For evident security reasons (hacking attempts, for example) and depending on the environment in which the meter data will be collected (mobile or fixed/IoT reading), these keys will be integrated directly into the data collection tool. Nevertheless, a copy of the security keys will be available on digital support at any time, upon request by the Contracting Authority, for further storage in Apă-Canal Edineț's server in a secure way.

KWLOG' specified item is fully compliant with Item 35 requirements.

▪ **Item 36/ Component II: Subscription fees to Residential data collection tool dedicated SaaS platform**

KWLOG's offer:

KWLOG subscription to Itron/Temetra Mobile Data Collection Platform. This SaaS tool is one of the most advanced and powerful on the market today. It offers among others the following features:

- Fast vehicle-based meter reading (Drive-By),
- Meter reading by an operator on foot (Walk- By),
- Geolocation,
- Data storage, management, and access via the Cloud,
- Real-time meter reading,
- Local photography capability,
- Multi-platform.

KWLOG' specified item is fully compliant with Item 36 requirements.

▪ **Item 37/ Component II: Account creation to Residential data collection tool dedicated SaaS platform**

KWLOG's offer:

One-off Account Creation operation is one of the steps required in the subscription procedure to Itron/Temetra Mobile Data Collection Platform (see Item 36)

KWLOG' specified item is fully compliant with Item 37 requirements.

▪ **Item 38/ Component II: Configuration/Set-up of Residential data collection tool dedicated SaaS platform**

KWLOG's offer:

One-off Configuration/Set-up operation is one of the steps required in the subscription procedure to Itron/Temetra Mobile Data Collection Platform (see Item 36)

KWLOG' specified item is fully compliant with Item 38 requirements.

▪ **Item 39/ Component II: Subscription to Network and Building Inlets data collection tool dedicated SaaS platform**

KWLOG's offer:

KWLOG subscription to Plum eWebTEL Data Collection Platform. This SaaS tool offers among others the following features:

- Possibility to define the scope and type of data to be transmitted
- Creation of measurement points and groups for balancing the water supply network
- Remote configuration (setting flow and pressure limits, setting data transmission schedules)
- Devices visualization on map using geolocation
- Exporting data to files: CSV, XML, Excel

KWLOG' specified item is fully compliant with Item 39 requirements.

▪ **Item 40/ Component II: Account creation to Network and Building Inlets data collection tool dedicated SaaS platform**

KWLOG's offer:

One-off Account Creation operation is one of the steps required in the subscription procedure to Plum eWebTEL Data Collection Platform (see Item 39)

KWLOG' specified item is fully compliant with Item 40 requirements.

▪ **Item 41/ Component II: Configuration/Set-up of Network and Building Inlets data collection tool dedicated SaaS platform**

KWLOG's offer:

One-off Configuration/set-up operation is one of the steps required in the subscription procedure to Plum eWebTEL Data Collection Platform (see Item 39)

KWLOG' specified item is fully compliant with Item 41 requirements.

▪ **Item 42/ Component II: Interfacing data collection tool for residential metering with the billing tools used by Apă-Canal Edineț**

KWLOG's offer:

Experts and other support specialists from KWLOG have all the experience, skills and know-how required to carry out the most complex interfacing operations for this type of project.

Once the Interfacing data collection tool for residential metering with the billing tools used by Apă-Canal Edineț has been completed, a functional test will be performed in the presence of the Contracting Authority's specialists to validate the operation.

KWLOG' specified item is fully compliant with Item 42 requirements.

▪ **Item 43/ Component II: Interfacing data collection tool for network metering with Apă-Canal Edineț existing water supply monitoring tools**

KWLOG's offer:

Experts and other support specialists from KWLOG have all the experience, skills and know-how required to carry out the most complex interfacing operations for this type of project.

Once the Interfacing data collection tool for network metering with Apă-Canal Edineț existing water supply monitoring tools has been completed, a functional test will be performed in the presence of the Contracting Authority's specialists to validate the operation.

KWLOG' specified item is fully compliant with Item 43 requirements.

▪ **Item 44/ Component II: Migration process of the elements of the Reference DMA to IoT/Smart City environment**

KWLOG's offer:

Experts and other support specialists from KWLOG have all the experience, skills and know-how required to carry out the most complex migrating operations for this type of project.

Once the Migration process of the elements of the Reference DMA to IoT/Smart City environment has been completed, a functional test will be performed in the presence of the Contracting Authority's specialists to validate the operation.

KWLOG' specified item is fully compliant with Item 44 requirements.

▪ **Item 45/ Component II: Interfacing between the IoT tools and data collection tool for residential metering (Migration process related)**

KWLOG's offer:

Experts and other support specialists from KWLOG have all the experience, skills and know-how required to carry out the most complex interfacing operations for this type of project.

Once the Interfacing between the IoT tools and data collection tool for residential metering has been completed, a functional test will be performed in the presence of the Contracting Authority's specialists to validate the operation.

KWLOG' specified item is fully compliant with Item 45 requirements.

▪ **Item 46/ Component II: Training course: Metrology and Metering (including Smart Metering)**

KWLOG's offer:

Experts and other support specialists from KWLOG have all the experience, skills, and know-how necessary to organize and set up specialized training programs in the fields required by this project. These courses can be held in the language requested by the Contracting Authority (either directly or through qualified interpreters).

The *Metrology and Metering (including Smart Metering)* course will be run with the use of digital or printed materials. Once course is completed, these materials will be made available to Apă-Canal Edineț participants to the training session.

KWLOG's Experts estimate the duration of this training course at between 1 and 2 days (depending on the level of participants).

KWLOG' specified item is fully compliant with Item 46 requirements.

▪ **Item 47/ Component II: Training course: New Tools and Software for Customers Data Collect**

KWLOG's offer:

Experts and other support specialists from KWLOG have all the experience, skills, and know-how necessary to organize and set up specialized training programs in the fields required by this project. These courses can be held in the language requested by the Contracting Authority (either directly or through qualified interpreters).

The *New Tools and Software for Customers Data Collect* course will be run with the use of digital or printed materials. Once course is completed, these materials will be made available to Apă-Canal Edineț participants to the training session.

KWLOG's Experts estimate the duration of this training course at between 2 and 3 days (depending on the level of participants).

KWLOG' specified item is fully compliant with Item 47 requirements.

▪ **Item 48/ Component II: Training course: New Tools and Software for Network Data Collect**

KWLOG's offer:

Experts and other support specialists from KWLOG have all the experience, skills, and know-how necessary to organize and set up specialized training programs in the fields required by this project. These courses can be held in the language requested by the Contracting Authority (either directly or through qualified interpreters).

The *New Tools and Software for Network Data Collect* course will be run with the use of digital or printed materials. Once course is completed, these materials will be made available to Apă-Canal Edineț participants to the training session.

KWLOG's Experts estimate the duration of this training course at between 1 and 2 days (depending on the level of participants).

KWLOG' specified item is fully compliant with Item 48 requirements.

▪ **Item 49/ Component II: Training course: IoT/Smart City, Basics & Smart City for Water Management**

KWLOG's offer:

Experts and other support specialists from KWLOG have all the experience, skills, and know-how necessary to organize and set up specialized training programs in the fields required by this project.

These courses can be held in the language requested by the Contracting Authority (either directly or through qualified interpreters).

The *IoT/Smart City, Basics & Smart City for Water Management* course will be run with the use of digital or printed materials. Once course is completed, these materials will be made available to Apă-Canal Edineț participants to the training session.

KWLOG's Experts estimate the duration of this training course at between 1 and 2 days (depending on the level of participants).

KWLOG' specified item is fully compliant with Item 49 requirements.

▪ **Item 50/ Component II: Training course: NRW (Non-Revenue Water), Basics & Reference DMA focus**

KWLOG's offer:

Experts and other support specialists from KWLOG have all the experience, skills, and know-how necessary to organize and set up specialized training programs in the fields required by this project. These courses can be held in the language requested by the Contracting Authority (either directly or through qualified interpreters).

The *NRW (Non-Revenue Water), Basics & Reference DMA focus* course will be run with the use of digital or printed materials. Once course is completed, these materials will be made available to Apă-Canal Edineț participants to the training session.

KWLOG's Experts estimate the duration of this training course at between 3 and 4 days (depending on the level of participants).

KWLOG' specified item is fully compliant with Item 50 requirements.

▪ **Item 51/ Component II: Training course: Smart Billing, Basics & Smart Billing for Water Management**

KWLOG's offer:

Experts and other support specialists from KWLOG have all the experience, skills, and know-how necessary to organize and set up specialized training programs in the fields required by this project. These courses can be held in the language requested by the Contracting Authority (either directly or through qualified interpreters).

The *Smart Billing, Basics & Smart Billing for Water Management* course will be run with the use of digital or printed materials. Once course is completed, these materials will be made available to Apă-Canal Edineț participants to the training session.

KWLOG's Experts estimate the duration of this training course at between 1 and 2 days (depending on the level of participants).

KWLOG' specified item is fully compliant with Item 51 requirements.

▪ **Item 52/ Component II: Assistance Mission: Hardware installation & M2M/IoT thematic**

KWLOG's offer:

KWLOG has the necessary domain expertise in the 2 areas identified by Apă-Canal Edineț as requiring assistance.

Having reviewed in detail the conditions and the time allocated to this project, KWLOG estimates that 19 Experts/Days will be required to successfully fulfill this demand for the duration of the project.



Tender: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

KWLOG proposes an Assistance in the organization of the hardware installation (Smart Meters, Pressure Sensors, Accessories, ...) in the segment of the water supply network and Customers sites in the territory covered by the Reference DMA in the following way:

Needs: 1 (one) Expert for the duration of the hardware installation (3 months), once a month for a 3-day period each visit.

- Organization of a briefing at Apă-Canal Edineț facility with the team selected to carry out the installation of all equipment, definition of a detailed "installation" action plan including milestones (this briefing should take place during the 1st visit, after confirmation that all hardware has been successfully delivered).
- Field team assistance, coaching and guidance support during the installation phase on the Reference DMA perimeter.
- Once all equipment has been effectively installed at the Customer's location as well as on the network (residential smart meters, accessories, network meters, GSM analyzers, communication devices, etc.), an operational performance test (without M2M features) will be carried out during the final visit.

KWLOG proposes an Assistance in handling the M2M subscriptions related discussions with Edineț city main telecom operator on selecting the most appropriate solution for the Project and take this opportunity to address the particular and innovative topic of IoT, with a view to future deployment on the Reference DMA in the following way:

Needs: After the hardware operational performance test (without M2M features) is carried out, 1 (one) Expert will be needed during 5 working days to set up M2M subscriptions for GSM analyzers (Item 22) and Tablets (see Item 32). 5 more working days will be also necessary after the transition from mobile data reading to fixed network (IoT) when available.

- Organization of a meeting with Apă-Canal Edineț's IT specialist in charge of telecommunication dossiers in order to build a specific action plan.
- Identification of the Operator for M2M/IoT subscriptions.
- Selection and validation of the most appropriate Operator.
- Management of exchanges with the selected operator and follow-up until completion of the assignment.

KWLOG' specified item is fully compliant with Item 52 requirements.



Contract: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

NRW Preliminary Service Report

(This document is proposed by KWLOG as a template report for acceptance. Its content is described in detail in "CLAUSE-BY-CLAUSE COMMENT ON TECHNICAL SPECIFICATIONS, Item 1 / Component I: NRW Preliminary Service Report")

- **Analysis of existing data of the utility**
- **Define KPIs on NRW for the utility**
- **Analysis of the utility process**
- **Provide global statistics on the meter reading**
- **Make the segmentation of the Customers**
- **Identify the connections with data issues**
- **Provide missing information impacting NRW per connection**
- **Make the ranking of connections with highest volume loss and impacting NRW**
- **Dashboard of Reference DMA**
 - o Average NRW level to define NRW reference level)
 - o Average injected volume in the DMA
 - o Average monthly consumption (m3/month)
 - o Average water balance used by the utility
 - o Number of connections in the DMA
- **Details and consolidated impact on NRW of all connections with following issues**
 - o Meters not read or not accessible
 - o Meters with incorrect readings
 - o Meters ageing impact
 - o Connections with no consumption and their duration
 - o Connections with backflow volume
 - o Connections with metering inefficiency
 - o Connections with leakage after the meter
 - o Connections with decreasing consumption
 - o Connections with sizing issues (oversize, undersize)
 - o Connections with fraud attempt
- **Overall NRW Action Plan and list of priorities**

KWLOG	
Name	
Signature	
Date	
Comments	

Contract Authority Approver	
Name	
Signature	
Date	
Comments	



Contract: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

Smart Billing Preliminary Service Report

(This document is proposed by KWLOG as a template report for acceptance. Its content is described in detail in "CLAUSE-BY-CLAUSE COMMENT ON TECHNICAL SPECIFICATIONS, Item 2 / Component I: Smart Billing Preliminary Service Report")

- **Diagnostic of the current Billing process**
- **Analysis of the data quality impacting the Billing**
- **KPIs on the Billing process**
 - o Analysis of the last month number of reads and time to read the meters
 - o Analysis of the last month consumption evolution over the selected area (m3/month)
- **Global statistics on the meter reading and Billing over Reference DMA**
- **Segmentation of the Customers by groups and types**
- **Customers and connections with administrative issue**
- **Connections with duplicated Id or Serial Number**
- **Missing information impacting Billing per connection (Customer Tarif group, ...)**
- **Ranking of connections with highest volume loss and financial valuation**
- **Detail and consolidated financial impact of all connections with the following issues:**
 - o Meters not read or not accessible
 - o Connections with no consumption and their duration
 - o Connections with backflow volume
 - o Connections with metering inefficiency
 - o Connections with leakage after the meter
 - o Connections with decreasing consumption
 - o Connections with fraud attempt
- **Overall Billing System Action Plan and priorities**

KWLOG	
Name	
Signature	
Date	
Comments	

Contract Authority Approver	
Name	
Signature	
Date	
Comments	



Contract: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

NRW Monthly Service Report N°#

(This document is proposed by KWLOG as a template report for acceptance. Its content is described in detail in "CLAUSE-BY-CLAUSE COMMENT ON TECHNICAL SPECIFICATIONS, Item 3 / Component I: NRW Periodical (Monthly) Service Report")

- **Status update on the data quality impacting NRW**
- **List of data quality issues in the month impacting NRW**
- **Update of NRW KPIs (at the date of report)**
- **Follow-up of the injected volume of the Reference DMA**
- **Water Balance for the DMA as well as for residential buildings**
- **Computed volume lost due to Apparent Losses.**
- **Computed volume lost due to Real Losses.**
- **Measure the gain on the NRW over the selected perimeter**
- **Dashboard of Reference DMA**
 - o NRW level evolution compared to NRW reference level
 - o Injected volume of the month
 - o Number of connections
 - o Number of replaced meters
 - o Number of leakages found and associated volumes
 - o Number of leakages found on the water supply network segment and associated volume
- **Specific Action Plan focus on NRW level improvement**
 - o Consolidation of last month specific actions impact on NRW.
 - o Definition of the coming month specific actions to implement by the Utility staff.
 - Apparent Losses actions:
 - Real Losses actions:

KWLOG	
Name	
Signature	
Date	
Comments	

Contract Authority Approver	
Name	
Signature	
Date	
Comments	



Contract: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

Smart Billing Monthly Service Report N°#

(This document is proposed by KWLOG as a template report for acceptance. Its content is described in detail in "CLAUSE-BY-CLAUSE COMMENT ON TECHNICAL SPECIFICATIONS, Item 4 / Component I: Smart Billing Periodical (Monthly) Service Report")

- **Status update on the data quality impacting Billing**
- **List of data quality issues of the month impacting Billing**
- **Update of global billing KPIs (Volume, duration, ...)**
 - o Analysis of the last month number of reads and time to read the meters
 - o Analysis of the last month consumption evolution over the area (m3/month)
- **Dashboard on the alarms collected with smart metering and linked to Billing**
- **Dashboard of meter reading efficiency per route and meter reader**
- **The ranking of connections with highest volume loss and financial valuation**
- **Details and consolidated financial impact of all connections with the following alarms**
 - o Meters not read or not accessible
 - o Connections with no consumption and their duration
 - o Connections with backflow volume
 - o Connections with metering inefficiency
 - o Connections with leakage after the meter
 - o Connections with decreasing consumption
 - o Connections with fraud attempt
- **Consumption/Volume invoiced analysis per residential building**
 - o Volume consolidation between building inlet and apartment meters
 - o Volume and revenue loss per collective residential building
- **Specific Action Plan focus on Billing improvement:**
 - o Consolidation of last month specific actions impact on billing
 - o Definition of the coming month specific actions to implement for Apă-Canal Edineț staff

KWLOG	
Name	
Signature	
Date	
Comments	

Contract Authority Approver	
Name	
Signature	
Date	
Comments	

Author: KWLOG	Page 1 of 1	Ref:	
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Tender: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

ANNEX III: ORGANISATION & METHODOLOGY

1. RATIONALE

Based on our experience with this type of project, Apă-Canal Edineț approach is fully in line with water utilities in the world that have placed water management and energy efficiency at the top of their strategic agenda.

For KWLOG, this project is technologically and ideologically mature, very well designed, with real and pragmatic objectives.

This ambitious project has particularly attracted our interest and motivation. Its approach, in terms of replicability, among other things, is completely in line with our way of working. Our feedback from previous projects underlines our ability to execute this project successfully.

The quality of the TOR proposed within this contract allows us to formalize our proposal in a structured and accurate way.

In this scheme, the fact to replace metering equipment with high quality hardware is the first marker to tackle NRW and Smart Billing. The move to automatic data collection offers multiples operational benefits to the water utility such as faster readings, undoubtable data, fair billing, better inhabitant satisfaction.

The data is the heart of the decision-making process. the complete data acquisition chain requested will turn Apă-Canal Edineț into a Smart City addressing the challenges in water supply. In addition, the utility will benefit in a single project of an entire panel of solution and addressing all these evolutions in a single reference project will turn Apă-Canal Edineț into the position to plan and extend its investments with clear data and ROI material.

In our mind, this project is more a collaborative endeavor where the parties (Contractor and Contracting Authority) must contribute with a team spirit with a common objective.

KWLOG does not see any particular risk in the execution of this project since it is managed by Apă-Canal Edineț under the aegis of the municipality of Edineț and the European Union.

Nevertheless, objectively speaking, the only element we believe could potentially present a risk is the geopolitical situation in the region.

2. STRATEGY AND METHODOLOGY

The Strategy and the Methodology are the key elements needed before embarking on a project of this type. In the TOR, Apă-Canal Edineț has already defined main components and their associated milestones for the running the project.

KWLOG proposes to use these components and milestones as a backbone to execute the project.

Starting from the milestones requested for each Component, KWLOG will detail, one by one, the project activities. Each activity will focus on how the TOR are addressed and the deliverables production.

By experience this way of defining a clear expectation in terms of landmarks is an excellent sign a project focused on reaching its goals.

KWLOG propose to use its online storage and working library for the project execution and give access to Apă-Canal Edineț. The solution is based on Microsoft 365, compliant to GDPR and data are stored in EU.

KWLOG will assign the participation of its experts in function of the needs per activity and task within a clear objective to reach the milestone set in the TOR.



Tender: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

- Activities Milestone#1: Kick off meeting

To reach this milestone objective of realizing the project kick off meeting within 2 weeks after contract signature requires the following tasks and schedule:

- The parties assign respective project leaders and the associated teams for the project execution.
- KWLOG will define its organization and the required positions and resources from Apă-Canal Edineț for the right execution of the project.
- KWLOG will detail the schedule of the activities with a clear timetable for the rest of the project.
- KWLOG will issue a presentation with details of the kickoff meeting elements.

Activities: Kick off meeting	Dec 2023				Jan 2024				Feb 2024			
Contract Signing												
Collect Data for Kick Off meeting												
Organization definition by parties												
Kick Off Meeting												
Milestone Validation by Apă-Canal Edineț												

- Activities Milestone #2: Delivery of equipment

To reach this milestone objective of realizing the delivery of equipment within 1 month 2 weeks after contract signature requires the following tasks and schedule:

- Once the contract is signed, the hardware ordering is launched.
- Schedule of the products deliveries.
- Logistic transfer and delivery of goods to the Apă-Canal Edineț storage facility.
- Apă-Canal Edineț will validate the milestone.

Activities: Delivery of Equipment	Dec 2023				Jan 2024				Feb 2024			
Contract Signing												
Equipment ordering												
Logistics, Transfer & Delivery of goods to facility												
Milestone Validation by Apă-Canal Edineț												

Partial deliveries validation might be proposed to Apă-Canal Edineț.

- Activities Milestone #3: Interfacing Data Collections (Residential & Network)

To reach this milestone objective of realizing the interfaces of data collection solutions within 4 months after contract signature requires the following tasks and schedule:

- Interfacing the Data Collection (Residential & Network) with their respective interfaces will start after contract signing.
- Preparation work on the Residential Data Collection with Apă-Canal Edineț Billing Software.
- Preparation work on the Network Data Collection with Apă-Canal Edineț water supply monitoring tool.
- Collect data from utility systems (billing software, meter reading software, GIS...) and the associated processes.
- Creation of the accounts in both Residential and Network Data Collection solution.
- Set up of environment in both Residential and Network Data Collection solution.
- Realization of the interfaces for both Residential and Network Data Collection with their respective integration platform (billing software or monitoring tool).
- Apă-Canal Edineț will validate the milestone.



Tender: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

Activities: Interfacing Data Collection	Dec 2023				Jan 2024				Feb 2024			
Contract Signing												
Preparation work on Residential Data collection												
Preparation work on Network Data Collection												
Collect of Data with Utility Staff for NRW & Smart Billing												
Account Creation Data Collect (Residential & Network)												
Set Up Data Collect (Residential & Network)												
Interfacing Data Collect (Residential & Network (*)												
Milestone Validation by Apă-Canal Edineț (**)												

(*) IT work pending of the workload of Apă-Canal Edineț Billing Software, Scada (if any) sub-contractors.

(**) Partial validation might be proposed to Apă-Canal Edineț.

- Activities Milestone #4: NRW & Smart Billing Preliminary Reports

To reach this milestone objective of realizing the NRW & Smart Billing Preliminary Reports within 2 months after contract signature requires the following tasks and schedule for both:

- Service starts of the NRW and Smart Billing Preliminary Report will start after contract signing.
- Preparation work on the Data to collect with Apă-Canal Edineț systems (billing software, meter reading software, GIS...).
- Collect data from utility systems (billing software, meter reading software, GIS...) and the associated processes.
- Analysis of the collected data prior data loading for NRW and Smart Billing.
- Iteration of the data collect analysis and validation to reach the correct data for analysis and start issuing the Preliminary.
- Data validation and Loading in the DIS.
- Generation of the Preliminary reports for NRW & Smart Billing according to templates proposed.
- Apă-Canal Edineț will validate the milestone.

Activities: NRW & Smart Billing Preliminary Reports	Dec 2023				Jan 2024				Feb 2024			
Contract Signing												
Preparation work on data to collect (Billing, Reading, GIS...)												
Collect of Data with Utility Staff for NRW & Smart Billing												
Data Analysis prior loading for NRW & Smart Billing												
Iterative Loops of data collect and validation												
Data validation & loading in DIS for NRW & Smart Billing												
Preliminary reports Generation according to Templates												
Milestone Validation by Apă-Canal Edineț												

- Activities Milestone #5: NRW & Smart Billing Monthly Reports

To reach this milestone objective of realizing the NRW & Smart Billing Monthly Reports within 3 months after contract signature, and then every month, requires the following tasks and schedule for both:

- The monthly reports issuing can start after the preliminary report for both NRW and Smart Billing services.
- The monthly reports always follow the same process composed of the following activities.
- Monthly data collection of all data (residential, network) automatically.
- Data loading and integration process in the DIS and analyzed by KWLOG Experts team.

- Update of the scorecards for NRW and Smart Billing.
- Generation of the Monthly Reports for NRW & Smart Billing according to templates proposed.
- Supply Monthly Report to Apă-Canal Edineț according to templates proposed.
- Validation by Apă-Canal Edineț of the milestone.

Activities: NRW & Smart Billing Monthly Reports	Feb 2024				Mar 2024				Apr 2024			
Preliminary Reports available (NRW, Smart Billing)												
Data Collect operational (Residential & Network)												
Monthly Residential data collection (*)												
Monthly Network data collection (*)												
Data Integration & Processing in DIS apps (*)												
Scorecard Update for NRW & Smart Billing (*)												
Monthly Reports Generation according to templates (*)												
Milestone Validation by Apă-Canal Edineț (*)												

(*) Activities repeated every month until the end of the contract for report generation for both NRW & Smart and over the same duration over 2 weeks in total.

- Activities Milestone #6: Equipment Installation

To reach this milestone objective of realizing the equipment installation within 3 months after the date of delivery requires the following tasks and schedule:

- Execution of the first Assistance Mission on Hardware installation when the equipment is delivered.
- Installation of equipment starting with the first Assistance Mission on Hardware Installation.
- Consolidation of where to install network equipment (meters, data logger and pressure sensors).
- First equipment installation for inlet meter and network meters.
- Replacement of residential meters execution in parallel.
- Replacement of Building inlets after Inlet and Network meters installation.
- Last equipment to install will be the pressure sensors.
- Validation by Apă-Canal Edineț of the milestone.

Activities: Equipment Installation	Jan 2023				Feb 2024				Mar 2024			
Equipment delivered in Apă-Canal Edineț												
Assistance Hardware Installation												
Consolidation of where to install equipment (Network...)												
Apă-Canal Edineț Staff Install Inlet & network meters												
Apă-Canal Edineț Staff Install Residential meters												
Apă-Canal Edineț Staff Install Building inlets												
Apă-Canal Edineț Staff Install Pressure Sensors												
Equipment Installed												
Milestone validation by Apă-Canal Edineț (*)												

(**) Partial validation might be proposed to Apă-Canal Edineț

- Activities Milestone #7: IoT/Smart City environment

To reach this milestone objective of realizing the IoT/Smart City environment within 6 months after the date of full installation requires the following tasks and schedule:

- Execution of the assistance mission relative to the IoT/Smart City thematic environment activity.

- Schedule of the IoT/Smart City environment activities once the IoT/Smart City provider selected. Migration will be over 2 months once the telecom operator will be selected.
- Selection of the Telecom operator for the IoT service.
- Definition of the interface between the Residential Data Collect and the IoT Provider.
- Implementation of the interface between the Residential Data Collect and the IoT Provider.
- Migration of the Reference DMA into the IoT/Smart City environment.
- Validation by Apă-Canal Edineț of the milestone.

Activities: IoT/Smart City environment	Jan 2024				Month N				Month N+1			
Assistance IoT Thematic												
Selection of IoT telecom operator												
Interface IoT & Residential Data Collect definition												
Interface IoT & Residential Data Collect Realization												
DMA Reference Migration												
Milestone validation by Apă-Canal Edineț												

- Activities Milestone #8: Training courses

To avoid affecting the water company's operations, this specific milestone schedule is subject to prior validation by Apă-Canal Edineț and will be addressed during the kick-off meeting (see TOR/ 8.3. Component III: "Training Courses").

Activities: Training Courses	Feb 2024				Mar 2024				Apr 2024			
Training on Metrology, Metering, Smart Metering												
Training on Customers Data Collect												
Training on Network Data Collect												
Training on IOT, Smart City Basics & Water Management												
Training on NRW Basics and Reference DMA Focus												
Training on Smart Billing Basics & Water Management												
Milestone validation by Apă-Canal Edineț												

- Activities Milestone #9: End of Contract meeting

To reach this milestone objective of realizing the End of contract meeting requires the following tasks and schedule:

- Consolidation of Reference DMA results in NRW and Smart Billing will be necessary to draw the benefits of the project.
- Data and Information collect to prepare the end of the contract. The parties assign respective project leaders and the associated teams for the project execution.
- Preparation of the End of Contract meeting between Apă-Canal Edineț and KWLOG will be necessary. A joint presentation for the event will be prepared.
- The End of Contract meeting will take place according to schedule in December 2024.
- Validation by Apă-Canal Edineț of the milestone.

Activities: End of Contract meeting	Oct 2024				Nov 2024				Dec 2024			
Reference DMA Project results consolidation												
Project retrospective & lessons learn												
Last Monthly Report as Template (NRW, Smart Billing)												



Tender: Supply of Services for the implementation of an Intelligent Billing and a NRW (Non-Revenue Water) Reduction Systems on a Reference DMA, within the Water Supply Service of the municipality of Edineț.

Reference: 2020/421-644/6.3.

End of Contract Meeting													
Milestone validation by Apă-Canal Edineț													

3. BACKSTOPPING, SUBCONTRACTING AND CAPACITY PROVIDING ENTITIES

KWLOG will make its permanent staff as well as all its technological means available for this project.

At this stage, we objectively believe that KWLOG Experts proposed for the successful completion of this Contract are sufficient.

In the event of a punctual need for outsourcing, it should be expressed in full compliance with the requirements of the Contract.

4. TIMETABLE OF WORK

All elements relative to the required Timetable of Work (timing, sequence, and duration...) are already integrated in detailed manner in the paragraph 2. "STRATEGY AND METHODOLOGY" of the present document.

5. TECHNICAL SPECIFICATIONS

The Specifications Offered by KWLOG item-by-item are given in their simplified version, in order to fit into the table format required by the tender documents.

The detailed version of each item is described in document "*CLAUSE-BY-CLAUSE COMMENT ON TECHNICAL SPECIFICATIONS*".

Item N ^o	Component	Specifications Required	Quantity (Pcs)	Specifications Offered	Notes, Remarks, References to documentation (Producer, Country of origin)	Evaluation Committee Note
1	I	NRW Preliminary Service Report	1	KWLOG NRW Preliminary Service Report	KWLOG (France)	
2	I	Smart Billing Preliminary Service Report	1	KWLOG Smart Billing Preliminary Service Report	KWLOG (France)	
3	I	NRW Periodical (Monthly) Services Reports	10	KWLOG NRW Periodical (Monthly) Services Reports	KWLOG (France)	
4	I	Smart Billing Periodical (Monthly) Services Reports	10	KWLOG Smart Billing Periodical (Monthly) Services Reports	KWLOG (France)	
5	II	Electromagnetic water meter DN100	1	Siemens Sistrans FM Mag 8000 electromagnetic water meter DN100	Vestra/Siemens (Romania, Germany)	
6	II	Isolation valves DN100	2	Sferaco concentric wafer butterfly isolation valve DN100	Sferaco (France)	
7	II	Flanges DN100	6	Sferaco weld neck BW stainless steel flange DN100	Sferaco (France)	
8	II	Electromagnetic water meter DN50	2	Siemens Sistrans FM Mag 8000 electromagnetic water meter DN50	Vestra/Siemens (Romania, Germany)	
9	II	Isolation valves DN50	4	Sferaco concentric wafer butterfly isolation valve DN50	Sferaco (France)	
10	II	Flanges DN50	12	Sferaco weld neck BW stainless steel flange DN50	Sferaco (France)	

11	II	Mechanical water meters Dn 40mm (single jet type), pre-equipped with communication module	12	Itron Flostar-M single jet turbine type water meter DN40 pre-equipped with Itron Cyble 5 multi-connectivity RF module	Vestra/Itron (Romania, France)	
12	II	Fittings DN40	24	Sferaco brass fitting DN40	Sferaco (France)	
13	II	Y-filters DN40	12	Sferaco brass Y-filter DN40	Sferaco (France)	
14	II	Isolation valves DN40	12	Sferaco brass ball isolation valve building series DN40	Sferaco (France)	
15	II	Anti-fraud sealing rings DN40	24	Sferaco/Hydromeca plastic anti-fraud ring DN40	Sferaco (France)	
16	II	Mechanical water meter DN15 (single jet type), pre-equipped with communication module & inserted NRV	450	Itron Flodis single jet turbine type water meter DN15 pre-equipped with Itron Cyble 5 multi-connectivity RF module with inserted Itron NRV DN15	Vestra/Itron (Romania, France, Italy)	
17	II	Fittings DN15 (1 linear ½", 1 nut ¾" and 1 gasket)	450	Sferaco brass fitting DN15 (linear ½"/nut ¾")	Sferaco (France)	
18	II	Fittings DN15 (1 linear ¾", 1 nut ¾", 1 gasket)	450	Sferaco brass fitting DN15 (linear ¾"/nut ¾")	Sferaco (France)	
19	II	Y-Filters Dn 15 (with sealing hole)	450	Sferaco brass Y-filter DN15	Sferaco (France)	
20	II	Isolation valves DN15 (with sealing hole)	450	Sferaco brass ball isolation valve DN15	Sferaco (France)	
21	II	Anti-fraud sealing rings DN15	900	Sferaco/Hydromeca plastic anti-fraud ring DN15	Sferaco (France)	
22	II	GSM analyzers	15	Plum MacR6 remote flow and pressure monitoring Analyzer/Data logger	Plum (Poland)	
23	II	Connectors (GSM analyzer to Electromagnetic meter)	3	Plum Connector for Plum MacR6 Analyzer/Data Logger	Plum (Poland)	
24	II	Pressure sensors	15	Plum Pressure Sensor	Plum (Poland)	

25	II	Saddle clamps DN100	1	Sferaco multi-material stainless steel body Saddle Clamps DN100	Sferaco (France)	
26	II	Saddle clamps DN50	2	Sferaco multi-material stainless steel body Saddle Clamps DN50	Sferaco (France)	
27	II	Saddle clamps DN40	12	Sferaco multi-material stainless steel body Saddle Clamps DN40	Sferaco (France)	
28	II	Isolation valves for saddle clamp DN 100	1	Sferaco brass ball isolation valve M40x300 for Saddle Clamps DN100	Sferaco (France)	
29	II	Isolation valves for saddle clamp DN50	2	Sferaco brass ball isolation valve M40x300 for Saddle Clamps DN50	Sferaco (France)	
30	II	Isolation valves for saddle clamp DN40	12	Sferaco brass ball isolation valve M40x300 for Saddle Clamps DN40	Sferaco (France)	
31	II	Drilling set for saddle clamps	1	Sferaco universal load drilling machine with DN20-40 ratchet key for Saddle Clamps	Sferaco (France)	
32	II	Tablet Android (robust type) for meter Installation, configuration and reading	3	Samsung Galaxy Tablet Active 3; robust version; 64 Go; 8"; 3G-4G (or equivalent)	Vestra/Samsung (Romania)	
33	II	Radio frequency gateways for Android tablets	3	Itron RF Master 5 EU868 Frequency Gateway	Vestra/Itron (Romania, France)	
34	II	Communication modules activation tools	5	Itron CyblemagSwitch magnet for Itron Cyble 5 communication modules waking-up	Vestra/Itron (Romania, France)	
35	II	Digital security keys for communication modules	462	Itron Digital Security Key	Vestra/Itron (Romania, France)	
36	II	Subscription fees to Residential data collection tool dedicated SaaS platform (device x	5082	KWLOG subscription to Itron/Temetra Mobile Data Collection Platform	KWLOG/Itron (France)	

		number of months)				
37	II	Account creation to Residential data collection tool dedicated SaaS platform	1	One-off Account Creation operation (KWLOG subscription to Itron/Temetra Mobile Data Collection Platform)	KWLOG/Itron (France)	
38	II	Configuration/Set-up of Residential data collection tool dedicated SaaS platform	1	One-off Configuration/Set-up operation (KWLOG subscription to Itron/Temetra Mobile Data Collection Platform)	KWLOG/Itron (France)	
39	II	Subscription to Network and Building Inlets data collection tool dedicated SaaS platform (device x number of months)	180	KWLOG subscription to Plum eWebTEL Data Collection Platform	KWLOG/Plum (France, Poland)	
40	II	Account creation to Network and Building Inlets data collection tool dedicated SaaS platform	1	One-off Account Creation operation (KWLOG subscription to Plum eWebTEL Data Collection Platform)	KWLOG/Plum (France, Poland)	
41	II	Configuration/Set-up of Network and Building Inlets data collection tool dedicated SaaS platform	1	One-off Configuration/Set-up operation (KWLOG subscription to Plum eWebTEL Data Collection Platform)	KWLOG/Plum (France, Poland)	
42	II	Interfacing data collection tool for residential metering with the billing tools used by Apă-Canal Edineț	1	KWLOG Interfacing data collection tool for residential metering with the billing tools	KWLOG (France)	
43	II	Interfacing data collection tool for network metering with Apă-Canal Edineț existing water supply monitoring tools	1	KWLOG Interfacing data collection tool for network metering with water supply monitoring tools	KWLOG (France)	
44	II	Migration process of the elements of the	1	KWLOG Migration process of the	KWLOG (France)	

		Reference DMA to IoT/Smart City environment		elements of the Reference DMA to IoT/Smart City environment		
45	II	Interfacing between the IoT tools and data collection tool for residential metering (Migration process related)	1	KWLOG Interfacing between the IoT tools and data collection tool for residential metering	KWLOG (France)	
46	III	Training course: Metrology and Metering (including Smart Metering)	1	KWLOG training course: Metrology and Metering	KWLOG (France)	
47	III	Training course: New Tools and Software for Customers Data Collect	1	KWLOG training course: New Tools and Software for Customers Data Collect	KWLOG (France)	
48	III	Training course: New Tools and Software for Network Data Collect	1	KWLOG training course: New Tools and Software for Network Data Collect	KWLOG (France)	
49	III	Training course: IoT/Smart City, Basics & Smart City for Water Management)	1	KWLOG training course: IoT/Smart City, Basics & Smart City for Water Management	KWLOG (France)	
50	III	Training course: NRW (Non-Revenue Water), Basics & Reference DMA focus	1	KWLOG training course: NRW (Non-Revenue Water), Basics & Reference DMA focus	KWLOG (France)	
51	III	Training course: Smart Billing, Basics & Smart Billing for Water Management	1	KWLOG training course: Smart Billing, Basics & Smart Billing for Water Management	KWLOG (France)	
52	IV	Assistance Mission: Hardware installation & M2M/IoT thematic	1	KWLOG Assistance Mission	KWLOG (France)	