



Gemeente
Amsterdam

Automated Waste Collection System (AWCS) Amsterdam Sluisbuurt Market consultation



26-4-2018



Agenda

- 09:30 – 10:00 Walk in
- 10:00 – 10:15 Opening
- 10:15 – 10:45 Introduction to the project
- 10:45 – 11:00 Coffee break
- 11:00 – 11:30 Presentation planning en starting points AWCS and procurement
- 11:30 – 12:15 Multidisciplinary discussion on risks
- 12:15 – 13:00 Lunch and networking





Contents

1. Location Zeeburgereiland and Sluisbuurt
 2. Program information Sluisbuurt
 3. Why an AWCS for the Sluisbuurt?
 4. Planning Sluisbuurt
 5. Starting points: technical
 6. Principles
 7. AWCS overview
 8. Preliminary scope of works
 9. Procurement
 10. Schedule
 11. Follow-up phase
 12. Disclaimer
 13. Break out
- Appendix: legal framework - competitive procedure with negotiation

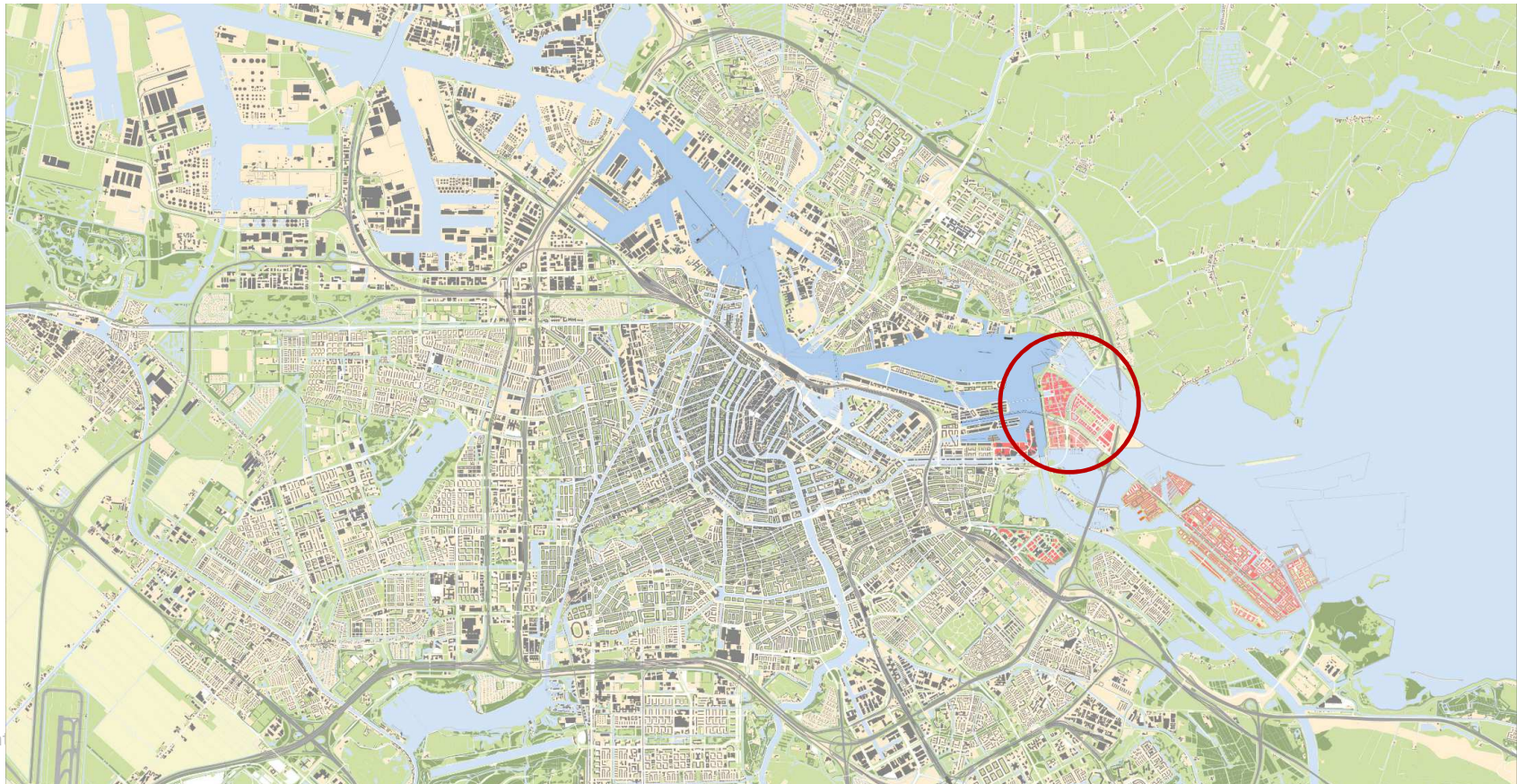


1. Location – Amsterdam



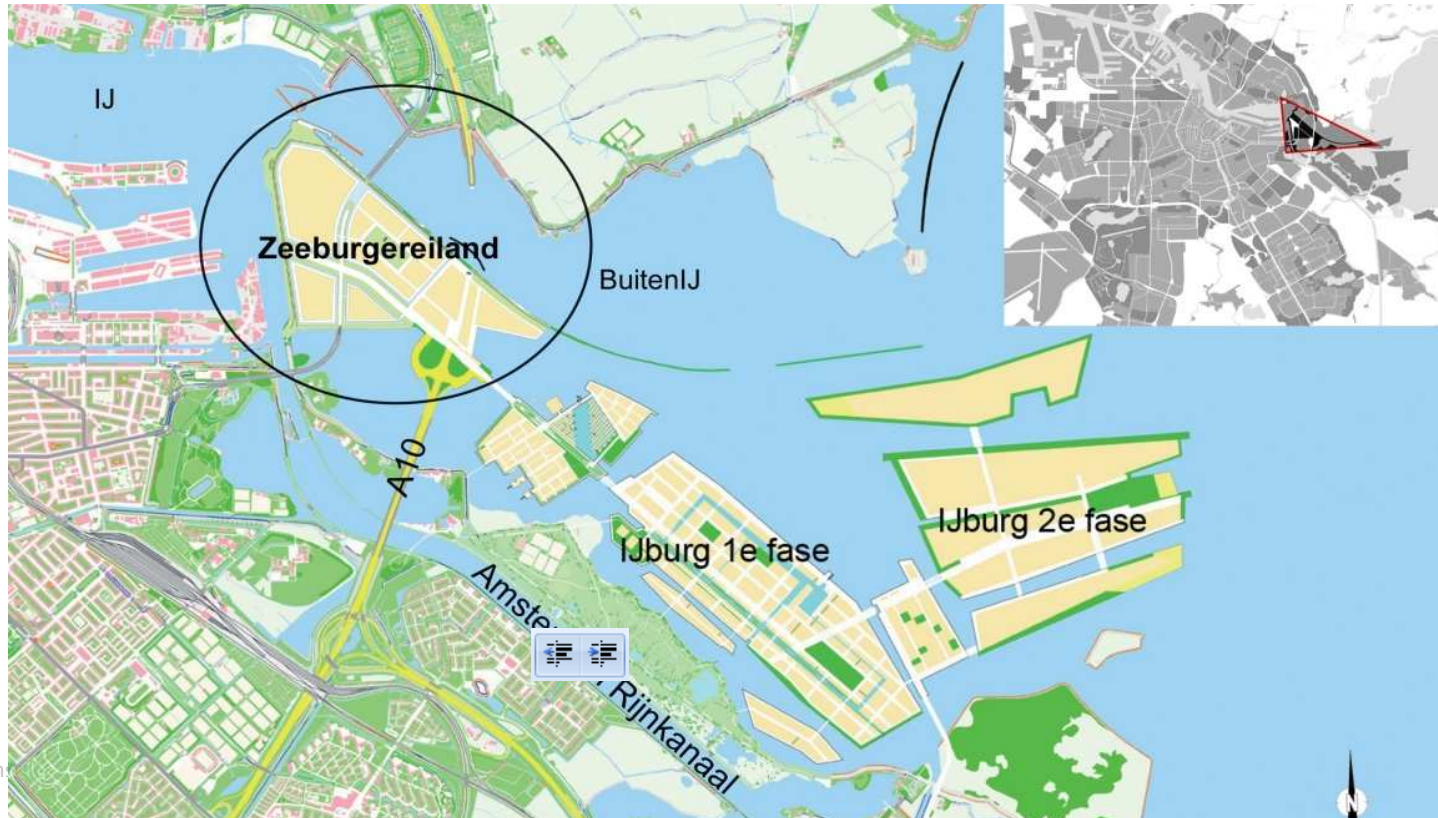


1. Location – East side of Amsterdam





1. Location Zeeburgereiland and Sluisbuurt (1)





1. Location Zeeburgereiland and Sluisbuurt (2)



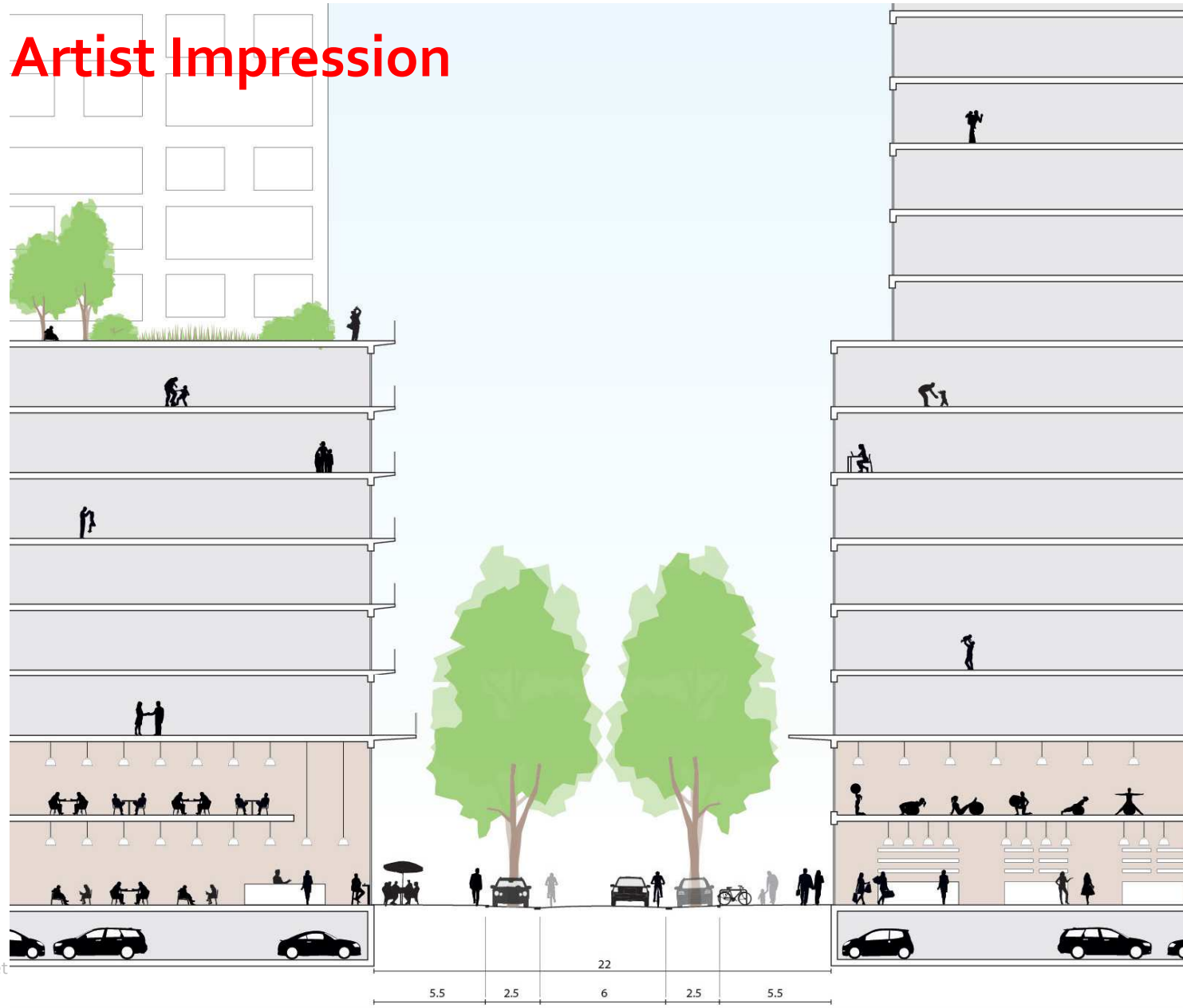


Artist Impression





Artist Impression



Presentation market



2 Program information Sluisbuurt (1)

- Building surface: 28,3 ha;
- 5,500 new homes, approx. 10.000 inhabitants;
- 100.000m² space for schools, offices and shops;
- High living density: residential towers up to 140m;

- Homes/ha: 200;
- Floorspaceindex: 2.2;
- Floorspacindex per lot: 4.3;



2 Program information Sluisbuurt (2)

Fraction	Traditional Ton per year	AWCS Ton per year
Residual waste	4,129	2,680
Organic	4	623
Paper, cardboard	1,108	1,386
Plastic, metal waste, cardboard drink packaging (PMD)	27	451
Total	5,267	5,140



3 Why a AWCS for the Sluisbuurt? (1)

- **Sustainability policy for waste collection**

- Enhancement for separation of waste collection from 27% waste in 2014 to 65% in 2020;
- Separation of waste at the source;

The waste department is looking for new ways to reach these goals and wants to improve service



3 Why a AWCS for the Sluisbuurt? (2)

■ Spatial policy

- Priority will be given to pedestrians and cyclist when dividing scarce public spaces;
- There will be as less static functions in public space as possible. This means we will be reluctant with parking space, waste containers, kiosks, etc
- AWCS (inside buildings) helps to reduce pressure on public space



4 Planning development Sluisbuurt





5 Starting points: technical

- Settlement of the soil of maximum 30 cm in 30 years?
- No settlement of bridges and buildings (foundation on poles)
- No first sand layer at part of the island
- Ground water level: approx. 0.5m below surface
- Soil structure:
 - 1-2m sand top layer
 - 12-20m clay and peat (varies throughout the area)
 - First sand layer starts at: 12-20m below surface (varies throughout the area)



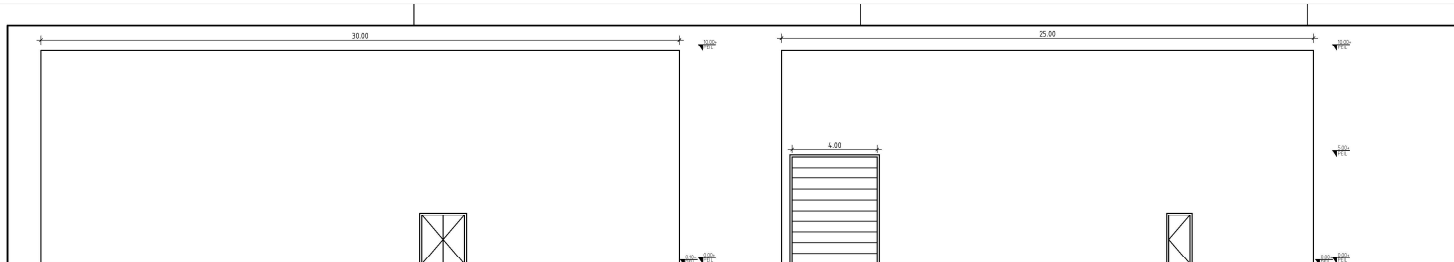
5 Starting points: AWCS

- Pipe diameter 400 mm?
- Inlets approximate 270?
- Terminal situated near Piet Hein tunnel or Bedrijvenstrook



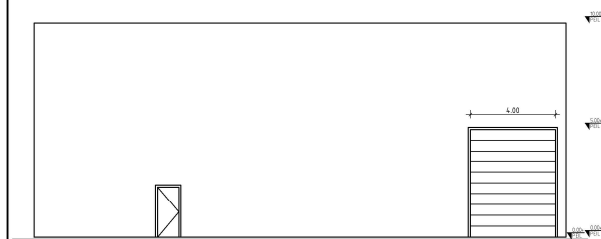
Location Terminal



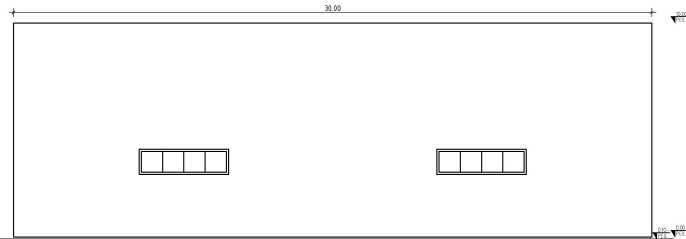


AANZICHT NOORDGEVEL
SCHAAAL 1:100

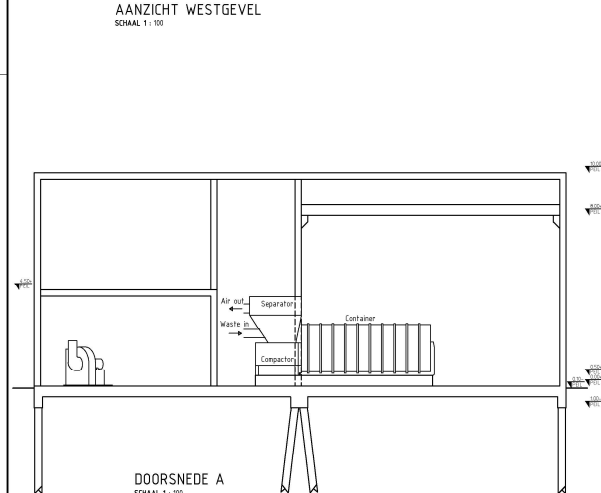
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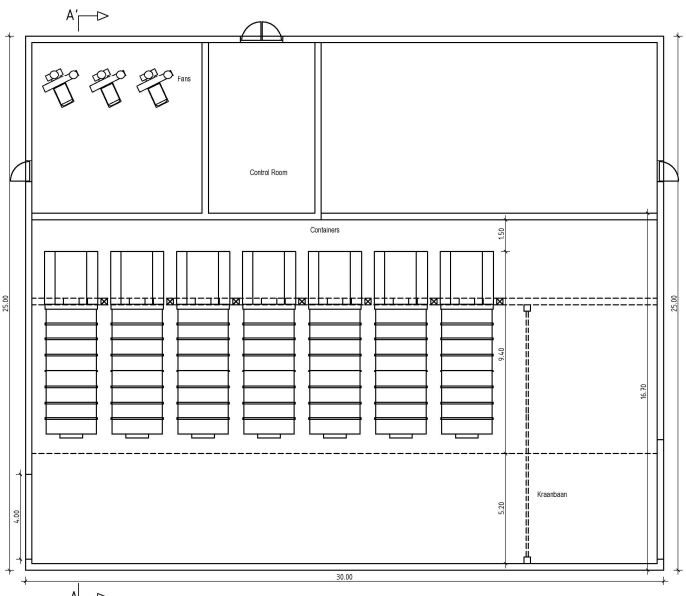
AANZICHT WESTGEVEL
SCHAAAL 1:100



AANZICHT ZUIDGEVEL
SCHAAAL 1:100



DOORSNEDE A
SCHAAAL 1:100



BOVENAANZICHT
SCHAAAL 1:100

ARCHITECTONISCH BEELD NADER VAST TE STELLEN



Maken is maken. Het is erin omgeven.
 Houtskool is volkomen
 Hogeronder in meters Lox N.A.P.

CONCEPT

GEMEENTE AMSTERDAM
OAT SLUISBUURT

Ontwerp
ONTWERP TERMINAL
LOD100

Projectnummer	Hoofdgroep	Vaak	Datum van afgeven	Ontwerper	Controleur		
309854	T101		29-03-2018	Schetsontwerp			
Blad	Van	Naar	Formaat	Project	Ont.	Dec.	Acc.
LOD1		1:100	A1	ALKMAAR	T.B.		

www.sweco.nl
 41 Street Technology B.V. Alle rechten voorbehouden.

SWECO

Pres



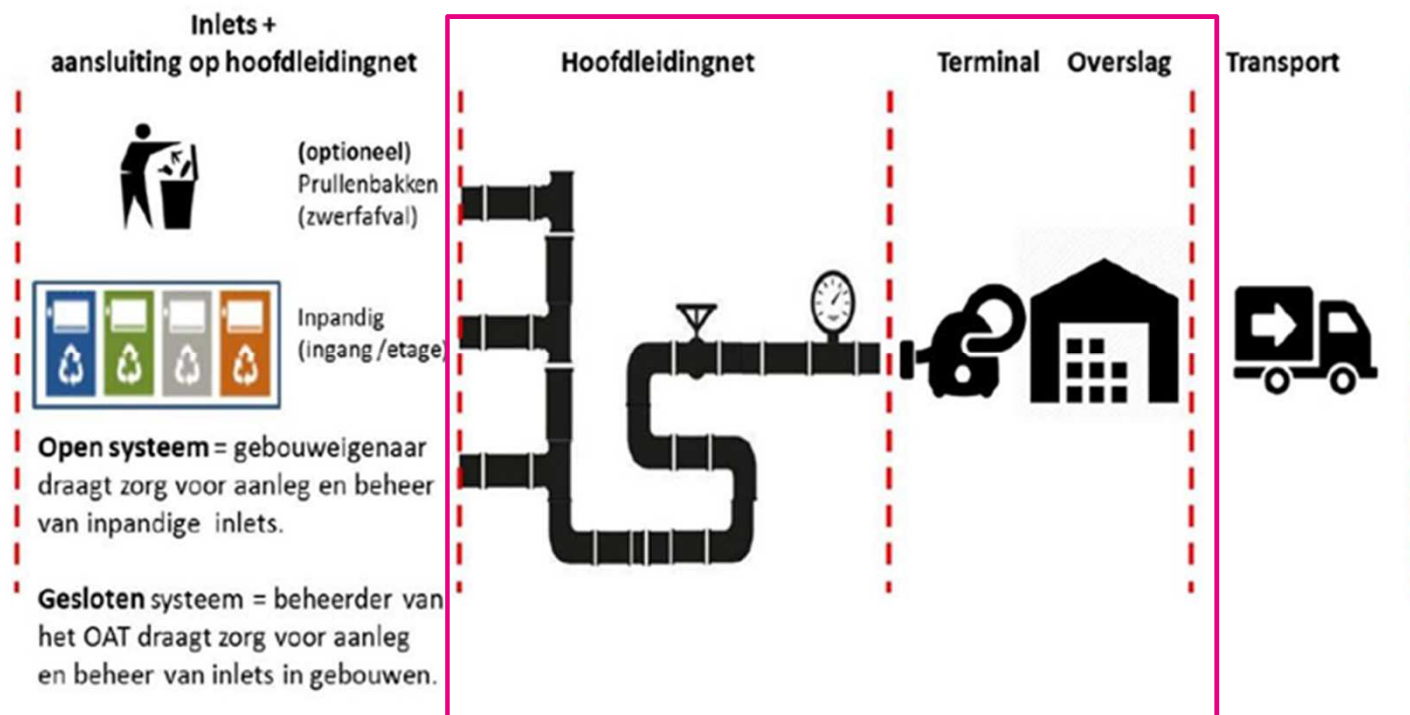


6 Principles

- Automated Waste Collection System (indoors) for residual waste, organic, paper & cardboard, plastic, metal waste, cardboard drink packaging (PMD)
- Design, Built, Maintain and Operate AWCS by Contractor
- Open system, which means:
 - Allocation responsibilities between developers Sluisbuurt and Contractor AWCS
 - Coordination needed between developers Sluisbuurt and Contractor AWCS
- Maintain & Operate: contract period of maximum 50 years
- Phased development Sluisbuurt for a period of ten years
- Encourage companies to participate in AWCS– task Contractor



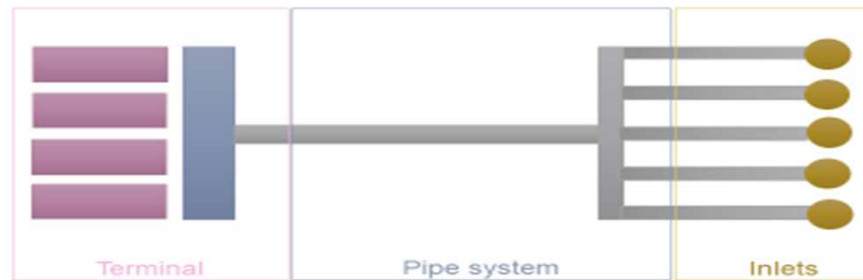
7 AWCS overzicht



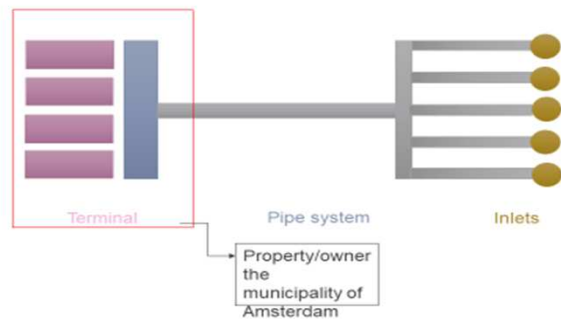


8 Preliminary scope of works (1)

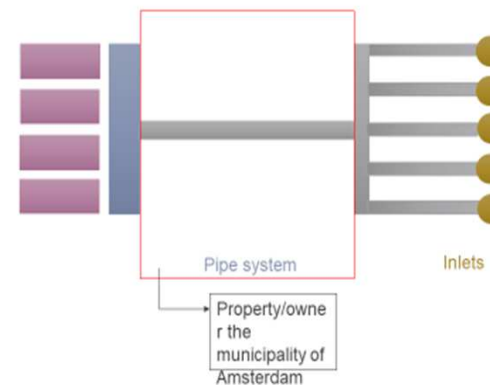
Automated Waste Collection System



Automated Waste Collection System



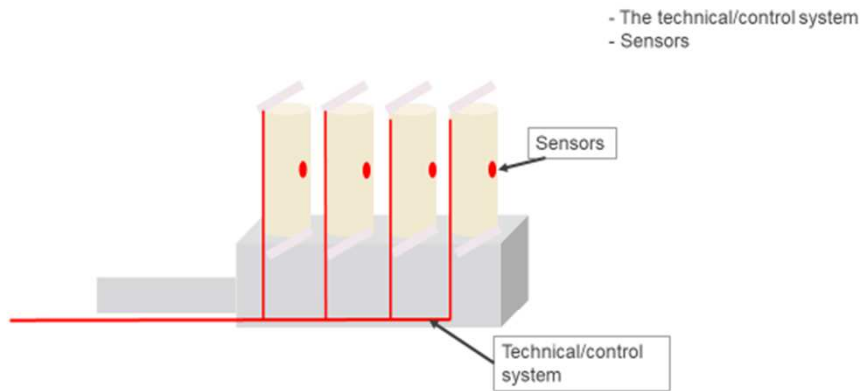
Automated Waste Collection System



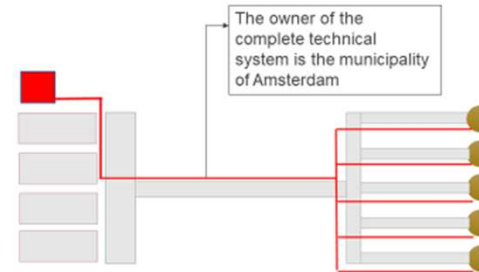


8 Preliminary scope of works (2)

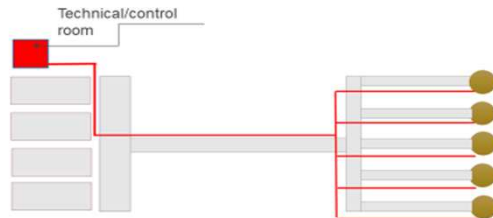
Property:
Municipality of Amsterdam



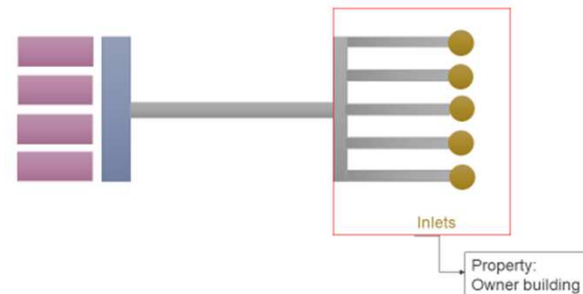
Automated Waste Collection System



The waste system includes technical/control room



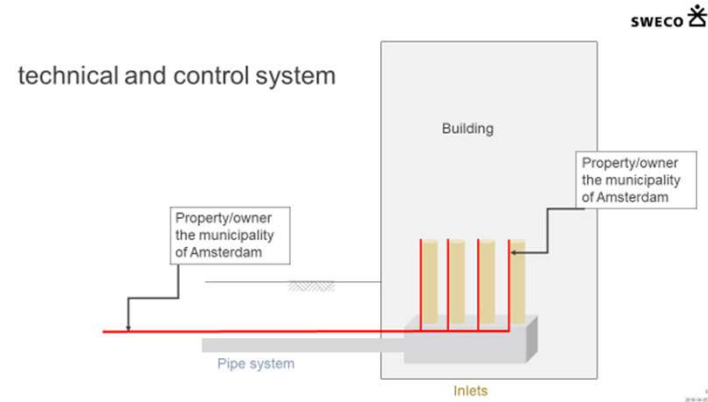
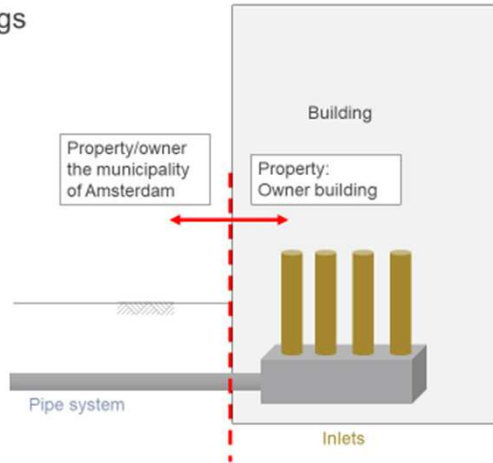
Automated Waste Collection System



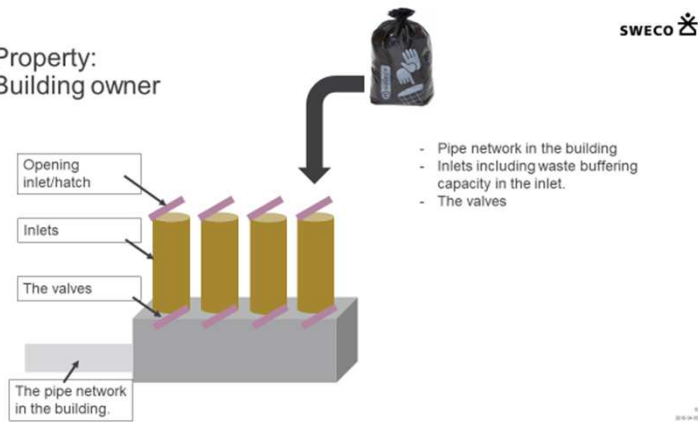


8 Preliminary scope of works (3)

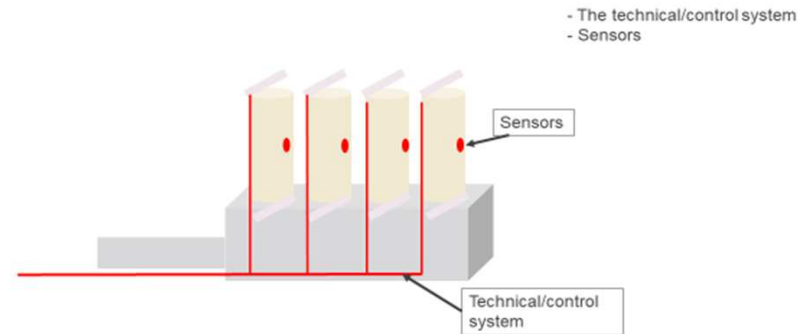
Municipality of Amsterdam and owners of buildings



Property: Building owner



Property: Municipality of Amsterdam



✖ ✖ ✖ 8 Not included in preliminary scope of works

Not included in scope of works:

- Wastecontainer transport to AEB (waste processing plant of The City Council of Amsterdam)
- Design, built, maintain inlets & bunker AWCS inside buildings (responsibility developer(s) Sluisbuurt)

Result:

- A need for external communication and allocation of responsibilities between operator(s) en inhabitants Sluisbuurt



9 Procurement: Competitive procedure with negotiation





9 Procurement: Negotiations

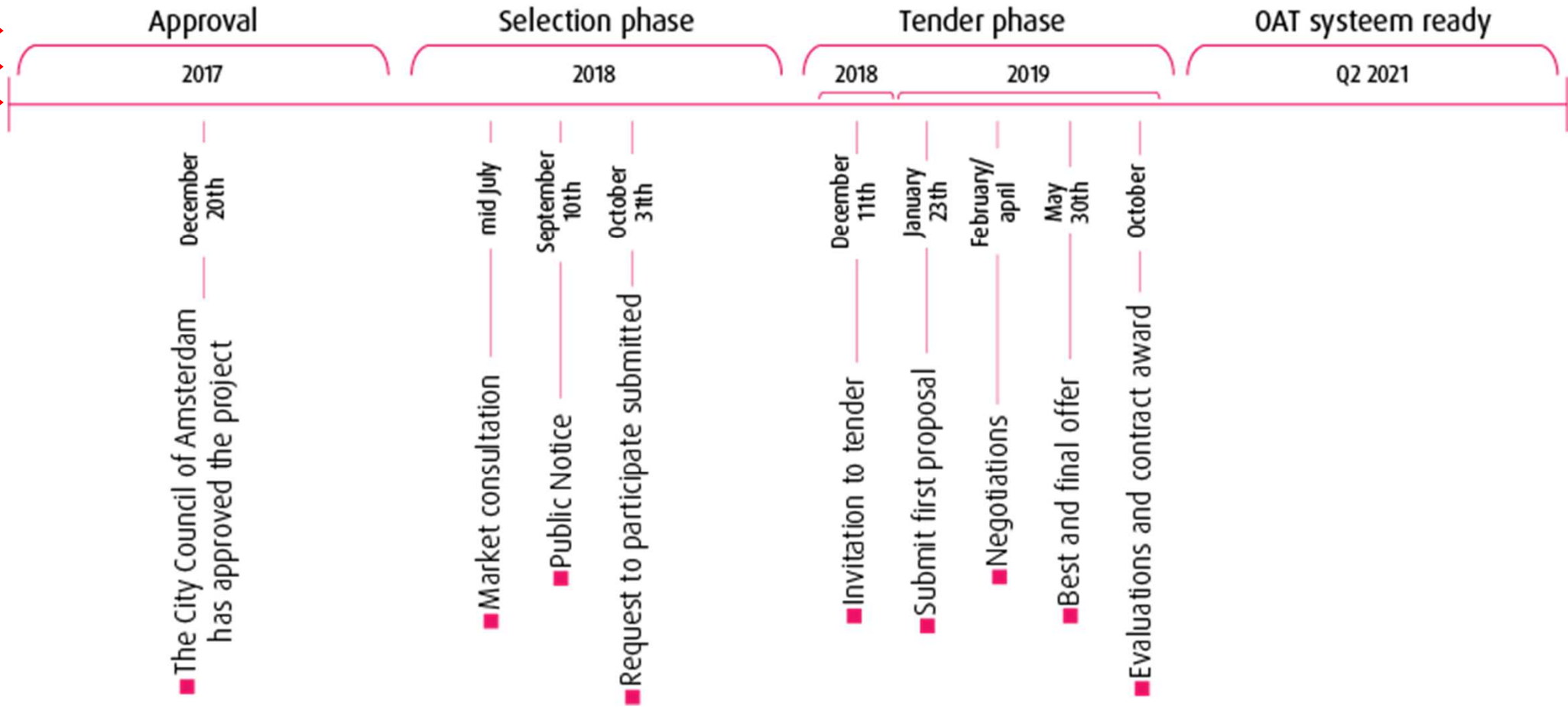
- During Tenderphase:
 - Q & A clarifications tenderdocuments (individually and general)

- After submitting first proposal:
 - Three rounds of negotiations, about:
 - Design AWCS
 - Output AWCS
 - Financial conditions
 - Legal conditions

- **Goal: improve proposals**



10 Schedule





11 Follow-up phase

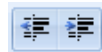
- **Next market consultation expected mid july 2018:**
- Market consultation document(s) contain the following:
 - Preliminary scope of works
 - Primary characteristics of the DBMO contract (outline legal conditions)
 - Risk assesment, control and preliminary allocation
 - Questionnaire City Council of Amsterdam
- Subsequent steps:
 - Written responses by market Parties
 - The contributions received may lead to more in-depth questions. If this is the case, The City Council of Amsterdam is leaving open the possibility to invite market Parties, without justified reasons, and ask for additional explanations to the responses received.
 - The results of the market consultation may be processed in the possible Tender documents, without being traceable of participants of this market consultation.



12 Break out: risk assessment and control

Four main themes for the risks to be discussed:

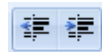
1. The application of an open system
2. Maintenance for a period of 50 years
3. Soil quality
4. Changes in planning and program are responsibility of market.
There is a fixed fee for the terminal and primary network





12 Break out: key questions

- What risks do you see for the themes?
- What is the probability of the risk?
- What is the impact of the risk?
- How do you manage those risks?





12 Break out: plenary discussion

What risks have been mentioned for each theme and where should they be placed in the risk assessment matrix?

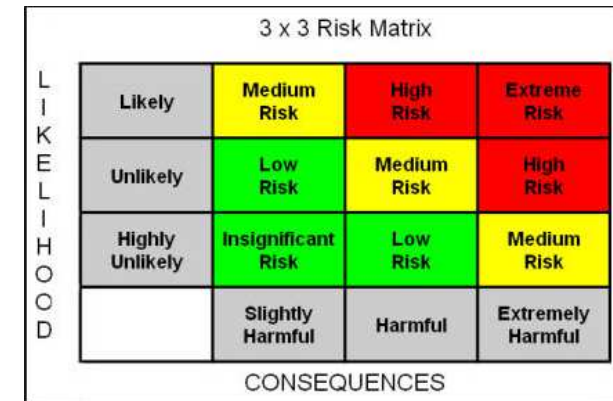
3 x 3 Risk Matrix

L I K E L I H O O D	Likely	Medium Risk	High Risk	Extreme Risk
	Unlikely	Low Risk	Medium Risk	High Risk
	Highly Unlikely	Insignificant Risk	Low Risk	Medium Risk
		Slightly Harmful	Harmful	Extremely Harmful
	C O N S E Q U E N C E S			





Group 1 – open system

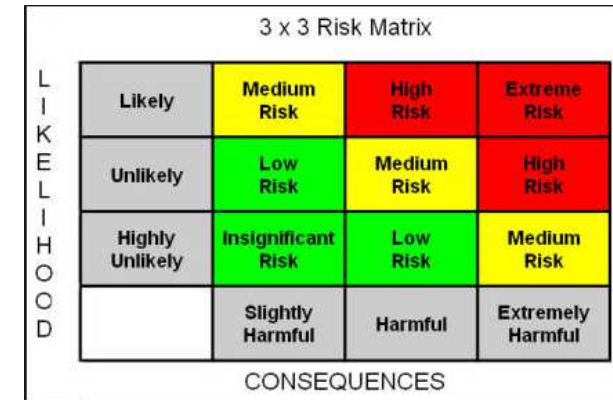


Risks	Probability	Impact	Measures
Responsability for operational aspects	Likely	Extremely harmful	<ul style="list-style-type: none"> - Specify general connection requirements in tender for development - Use technical specs once the AWCS party has been chosen
Monitoring system and the in-building mechanism don't match	Unlikely	Extremely harmful	<ul style="list-style-type: none"> - Specify general connection requirements in tender for development





Group 1 – 50 years maintenance

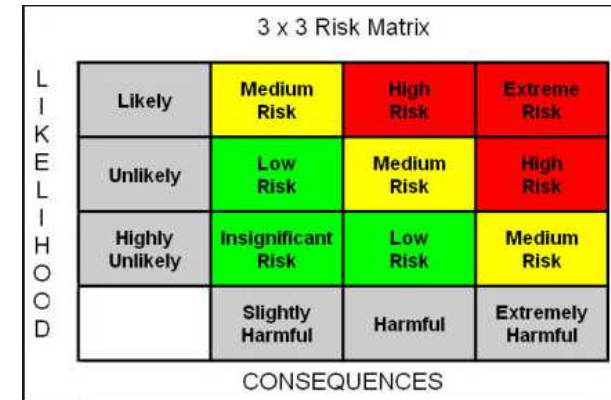


Risks	Probability	Impact	Measures
Unforeseeable risks for contractor > cost will be maximized > may be higher than max. budget	Likely	Extremely harmful	<ul style="list-style-type: none"> - Reconsider pricing after for instance 10 years and possibly terminate in case market has evolved - Work with cost pricing methodology by which future costing will be accounted - Get insights in life span of critical components
Change of maintenance party results in bad knowledge of system	Unlikely	Harmful	Parties are already used to maintain the systems of their competitors





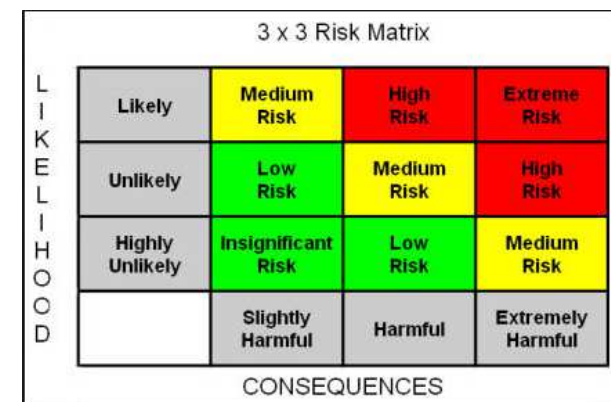
Group 2 – changes in program



Risks for a change in planning and program	Likelihood	Consequences	Measures
It is forbidden to obligate a developer to use a certain system, how can the system work if one doesn't use the same system?	likely	slightly harmful	- Close inlets, so the system can work when a developer doesn't use the system as well
People will blame the system if there is a delay, even if the system isn't the real problem	likely	extremely harmful	- The system needs to work flawless, but even more important, the operation needs to be flawless. Municipality and supplier need to incorporate the developers actively in the process.
Change in the urban plan in the (near) future	likely	harmful	- Construct the main tube system and don't construct the inlets before a building permit for new buildings has been granted. - Realize that an increase in buildings/layers will increase the use of the system → tubes won't dure as long as predicted



Group 2 – soil quality

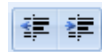


Risks for soil quality	Likelihood	Consequences	Measures
Prolapsing ground → damaging of the pipes	Likely	Extremely harmful	<ul style="list-style-type: none"> - Talk with Dutch experts on ground prolapsing to analyse the way ground prolapses, so it can be taken into account in the design and materialization of the pipes - Build constructive supports around the pipes - Build a technical gallery
(Isolated) polluted soil	Likely	Harmful	<ul style="list-style-type: none"> - Build a technical gallery
Corrosion of pipes due to being below water level	Likely	Harmful	<ul style="list-style-type: none"> - Apply special painting and coatings to prevent corrosion
Water going into pipes due to being below water level	Likely	Extremely harmful	<ul style="list-style-type: none"> - Preventive maintenance plan based on analysis of weak points (predictions can be made of where water will leak in first)
Different settings of the ground in different areas	Likely	Extremely harmful	<ul style="list-style-type: none"> - Technical gallery



Disclaimer

- No rights can be obtained from the information provided in this presentation or from information given by words during this market consultation.
- This presentation will be published at TenderNed after the presentation has been given.





Appendix – Legal Framework Competitive procedure with negotiation (mededingingsprocedure met onderhandelingen)

- Directive 2014/24/EU article 29
- <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32014L0024&from=NL>
- Dutch Law: Aanbestedingwet articles 2.30 and 2.31
- <http://wetten.overheid.nl/BWBR0032203/2016-07-01#Deel2>





How to use TenderNed

- <https://www.tenderned.nl/cms/english/six-steps-bidding-public-procurement-contracts-online-through-tenderned>
- Tenderers can choose to submit a Request for Participation/Quotation fully independently or in cooperation with other entities / economic operators. The following forms of Tenderers are recognised:
 - Fully independent Tenderer;
 - A Tenderer which is a cooperation of economic entities i.e. a group, consortium, joint venture or similar;
 - Or as a “Contractor/subcontractor (also called agent)” structure;
- A Tenderer is only permitted to submit one RFP/RFO, either fully independently or in cooperation with other companies (either as a Consortium or as a Contractor). As a subcontractor it is permitted to join several Contractor/subcontractor structures.