**AMENDMENT No. 4 TO PROCUREMENT DOCUMENTS**

**Issued on** **27th of May 2020**

**FOR** **THE PROCUREMENT OF EQUIPMENT FOR MOTHER AND CHILD INSTITUTE „DR VUKAN ČUPIĆ”**

**NO. IOP/38-2019/UHI**

In accordance with the Clause 8. Part 1. Bidding Procedures, Section I. Instructions to Bidders, Contents of Bidding Documents, Amendment of Bidding Documents of the Procurement Documents, Public Investment Management Office, No. 11 Nemanjina street, Republic of Serbia, as the Purchaser, hereby notifies all persons concerned for Procurement of equipment for Mother and Child Institute „Dr Vukan Čupić”, No. IOP/38-2019/UHI, that there has been an amendment made in the Procurement Documents.

The following provisions of Tender Documents are hereby replaced as follows:

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 5, which reads as follows:**

All movements of the system, including bi-plane C-arm, patient table and system for image acquisition, have control at the patient table side. Joysticks at command panel are above panel plane

**Is replaced and reads as follows:**

All movements of the system, including bi-plane C-arm, patient table and system for image acquisition, have control at the patient table side. Joysticks at command panel are above panel plane or equivalent solution at command panel

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 8, which reads as follows:**

Automatic stand positioning depending on the reference image selected

**Is replaced and reads as follows:**

Automatic C-arm/stand positioning depending on the reference image selected

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 15, which reads as follows:**

Maximum table load min. 350 kg

**Is replaced and reads as follows:**

Maximum table load min. 320 kg

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 16, which reads as follows:**

Control panel, at the patient table side comprises:

a) Motorized vertical table movement

b) Blockage and release of the tabletop

c) Motorized movement of the biplane C-arm for reaching of the desired position.

**Is replaced and reads as follows:**

Control panel or Touch screen , at the patient table side comprises:

a) Motorized vertical table movement

b) Blockage and release of the tabletop

c) Motorized movement of the biplane C-arm for reaching of the desired position

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 38, which reads as follows:**

Generators enables continuous display of actual anode heat (HU status), with display of free capacity left to reach maximum anode heat content

**Is replaced and reads as follows:**

Generators enables continuous display of actual anode heat (HU status), with display of free capacity left to reach maximum anode heat content OR an equivalent solution, only when there is a warning involved

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 43, which reads as follows:**

Maximum anode heat content min. 5 MHU for each tube

**Is replaced and reads as follows:**

Maximum anode heat content min. 3 MHU for each tube

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 44, which reads as follows:**

Maximum anode cooling rate min. 1.5 MHU/min. for each tube

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 47, which reads as follows:**

System must be equiped with min. five-level adaptive Cu prefiltration for each X-ray tube for X-ray beam quality improvment and dose reduction, automatic selection control based on the real-time patient dose absorption according to C-arm angulation, without interruption aquisition or changing existing organ program

**Is replaced and reads as follows:**

System must be equiped with min. three-level adaptive Cu prefiltration for each X-ray tube for X-ray beam quality improvment and dose reduction, automatic selection control based on the real-time patient dose absorption according to C-arm angulation, without interruption aquisition or changing existing organ program

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 49, which reads as follows:**

System must have effective way to control skin dose. If the accumulated reference air kerma exceeds a configures threshold, a warning sound is given and pop-up displays on the system, so operator must change existing C-arm position

**Is replaced and reads as follows:**

System must have effective way to control skin dose. If the accumulated reference air kerma exceeds a configures threshold, a warning sound is given and/OR pop-up displays on the system, so operator must change existing C-arm position

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 50, which reads as follows:**

Both X-ray tubes must have ‘’grid-switch’’ or flat emitter technology or eqv. tehnology for dose reduction during pulsed fluoroscopy

**Is replaced and reads as follows:**

Both X-ray tubes must have ‘’grid-switch’’ or eqv. tehnology for dose reduction during pulsed fluoroscopy

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 51, which reads as follows:**

AEC - Automatic exposure control – min. 5 parameters automatically optimized in real time (kV, mA, ms, small/big focal spot, Cu pre-filtration level) during different C-arm angulation, without need to change program or to interupt exposure, which enables minimized dose and optimized resolution independent of C-arm angulation

**Is replaced and reads as follows:**

AEC - Automatic exposure control – min. 3 parameters automatically optimized in real time (kV, mA, ms) during different C-arm angulation, without need to change program or to interrupt exposure, which enables minimized dose and optimized resolution independent of C-arm angulation

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 53, which reads as follows:**

Active detector size min. 17x17cm, but not more than 25x25cm with rotation in landscape/portrait position for each detector

**Is replaced and reads as follows:**

Active detector size min. 17x17cm, but not more than 30x30cm with rotation in landscape/portrait position for each detector, in case the detector is not square

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 60, which reads as follows:**

Synchronized rotation of detector and collimator in all C-arm positions in bot planes (plane A and plane B) in order to get always upright live image, usefull with radial approach

**Is replaced and reads as follows:**

Synchronized rotation of detector and collimator in all C-arm positions OR equivalent solution in order to get always upright live image, useful with radial approach

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 74, which reads as follows:**

Image storage capacity min. 100.000 images, 1024 x 1024 pixels, 12 bits

**Is replaced and reads as follows:**

Image storage capacity min. 100.000 images, 1024 x 1024 pixels, 10 bits

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.1 - Digital biplane angiography system for cardiology diagnostic and interventional pocedures, ID 97, which reads as follows:**

Two (2) monitors min. 19`` in control room and display provided on Large monitor in examination room

**Is replaced and reads as follows:**

One (1) monitor min. 19`` in control room and display provided on Large monitor in examination room

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.1 - Cardiovascular ultrasound machine, ID 1.2, which reads as follows:**

LCD monitor size min 23" Full HD on articulating arm

**Is replaced and reads as follows:**

LCD monitor size min 23" ±1" Full HD on articulating arm

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.1 - Cardiovascular ultrasound machine, ID 1.9, which reads as follows:**

At least 4 LGC on operating console or LCD touch - screen panel for lateral gain control

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.1 - Cardiovascular ultrasound machine, ID 2.11, which reads as follows:**

2D analysis functionality requested in point 2.10. is possible on right ventricle and left atria

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.1 - Cardiovascular ultrasound machine, ID 2.14, which reads as follows:**

Simultaneous display of last exam and current exam image. Last exam can be from the same ultrasound machine or other modalities (CT, MR)

**Is replaced and reads as follows:**

Simultaneous display of last exam and current exam image. Last exam can be from the same ultrasound machine or other modalities, including CT

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.1 - Cardiovascular ultrasound machine, ID 3.5, which reads as follows:**

Network connection minimum 1000 Mbps

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.1 - Cardiovascular ultrasound machine, ID 4.1, which reads as follows:**

2D transthoracic matrix cardiology probe with field of view of minimum 120° and frequency range of 2,0 to 5,0 MHz or wider

**Is replaced and reads as follows:**

2D transthoracic matrix cardiology probe with field of view of minimum 120° and frequency range of 2,0 to 5,0 MHz +/- 1 MHz

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 3, which reads as follows:**

Frame rate more than 1000fps

**Is replaced and reads as follows:**

Frame rate more than 800fps

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 5, which reads as follows:**

Min 22" wide screen High-Definition (HD) OLED display with monitor on an articulating arm. Resolution 1920x1080 px

**Is replaced and reads as follows:**

Min 22"±1" wide screen High-Definition (HD) OLED display with monitor on an articulating arm. Resolution 1920x1080 px

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 6, which reads as follows:**

Integrated Ultra HD LCD touch-screen panel, diagonal at least 12”.

**Is replaced and reads as follows:**

Integrated Ultra HD LCD touch-screen panel, diagonal at least 10”

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 9, which reads as follows:**

Maximum depth range in B-mode not less then 45 cm – probe specific

**Is replaced and reads as follows:**

Maximum depth range in B-mode not less then 45 cm (+/- 15 cm) – probe specific

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 11.5, which reads as follows:**

Sector phased array TEE probes

**Is replaced and reads as follows:**

TEE probes

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 12.4, which reads as follows:**

Curved anatomical M-mode

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 19, which reads as follows:**

Tri-plane Automated Function Imaging which allows assessment at a glance by combining three longitudinal views into one comprehensive bulls-eyeview

**Is replaced and reads as follows:**

Automated Function Imaging which allows assessment at a glance by combining longitudinal views into one comprehensive bulls-eyeview

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 20, which reads as follows:**

Visualization providing enhanced display of anatomical structures using advanced shadowing techniques in combination with depth colormaps as HD live or similar

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 21, which reads as follows:**

Software which, depending on the given parameters, allows a volume rate of min. 1500 on 4D TEE probes in single beat acquisition, without reducing image quality Vmax or similar.

**Is replaced and reads as follows:**

Software which, depending on the given parameters, allows a volume rate of min. 800fps on 4D TEE probes in single beat acquisition, without reducing image quality Vmax or similar.

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 22, which reads as follows:**

Simultaneous visualization of Bi-plane acquisition and Tri-plane acquisition. Bi-plane, Tri-plane or similar.

**Is replaced and reads as follows:**

Simultaneous visualization of min two plane acquisition.

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 25, which reads as follows:**

Simultaneus display of 5,7,9 or 12 combined of short-axis and long-axis standard slices extracted from the 4D volume data (tissue and/or color) available in live and replay as Multi-slice or similar.

**Is replaced and reads as follows:**

Simultaneus display of combined of short-axis and long-axis standard slices extracted from the volume data (tissue and/or color).

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 26.1, which reads as follows:**

2D Sector pediatric cardiac probe. Bandwidth from 2.4 to 8.0 MHz (+/- 0,5 MHz).Depth of field: minimum 16 cm. Sector width: minimum 110 °

**Is replaced and reads as follows:**

2D Sector pediatric cardiac probe. Bandwidth from 3 to 8.0 MHz (+/- 1MHz) or wider. Depth of field: minimum 16cm +/- 1 cm. Sector width: minimum 110 °( +/- 20°)

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 26.2, which reads as follows:**

2D Sector pediatric cardiac probe. Bandwidth from 4.0 to 12.0 MHz (+/- 0,5 MHz).Depth of field: minimum 12 cm. Sector width: minimum 100 °

**Is replaced and reads as follows:**

2D Sector pediatric cardiac probe. Bandwidth from 4.0 to 12.0 MHz (+/- 1 MHz) or wider. Depth of field: minimum 12 cm+/- 1 cm. Sector width: 100 ° ( +/- 20°)

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 26.5, which reads as follows:**

2D endocavital probe. Bandwidth from 4 to 8.6 MHz (+/- 0,5 MHz). Depth of field: minimum 30 cm. Sector width: minimum 120 °

**Is replaced and reads as follows:**

2D convex probe, Bandwidth from 1 to 5 MHz (+/- 1 MHz) or wider. Width: min 70 °( +/- 10°)

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 27.1, which reads as follows:**

Fusion of an ultrasound image with a image of CT. CT fusion or similar

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 27.2, which reads as follows:**

2D Sector matrix cardiac probe ( matrix technology provides probe elements in several rows in matrix order) Bandwidth from 1.5 to 4 MHz (+/- 0,5 MHz).Depth of field: minimum 30 cm. Sector width: minimum 120°

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.3.2 - Ultrasound cardiovascular premium 4D system, ID 27.3, which reads as follows:**

The semi-automatic surface detecting algorithm helps clinical users get fast, reproducible and accurate 4D quantification of the left atrium acquired with 4D TTE probes as 4D Auto LAQ or similar

**Is replaced and reads as follows:**

The semi-automatic surface detecting algorithm helps clinical users get fast, reproducible and accurate 4D quantification with 4D TTE probes

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.5 - ECG, ID 2, which reads as follows:**

Integrated mains and battery supply with battery capacity of minimum 7 hours

**Is replaced and reads as follows:**

Integrated mains and battery supply with battery capacity of minimum 2 hours

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.5 - ECG, ID 5, which reads as follows:**

Input impedance min. 100 MΩ

**Is replaced and reads as follows:**

Input impedance min. 50 MΩ

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.5 - ECG, ID 11, which reads as follows:**

Device must have color-coded lead quality check.

**Is replaced and reads as follows:**

Device must have lead attachment quality check.

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.5 - ECG, ID 13, which reads as follows:**

Device must have print preview feature

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.5 - ECG, ID 15, which reads as follows:**

Integrated USB interface for direct PDF export of ECG recordings directly to USB stick

**Is replaced and reads as follows:**

Integrated USB interface for export of ECG recordings directly to USB stick

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.5 - ECG, ID 20, which reads as follows:**

Device must have integrated ECG interpretation module based on the "Seattle criteria"

**Is replaced and reads as follows:**

Must have ECG interpretation based on the "Seattle criteria"

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.5 - ECG, ID 22, which reads as follows:**

ECG resting rhythm must be recorded min 9 minutes, continuously.

**Is replaced and reads as follows:**

ECG resting rhythm must be recorded

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.5 - ECG, ID 30, which reads as follows:**

Device must be upgradable with barcode scanner, vacuum electrode system, worklist and exercise ECG sofware

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.5 - ECG, ID 31, which reads as follows:**

The complete device software must be in Serbian

**Is replaced and reads as follows:**

The complete device software must be in Serbian or English

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.6 - Defibrillator with pacemaker option, ID 11, which reads as follows:**

Integrated device memory for a minimum of 12 hours of ECG or 500 events

**Is replaced and reads as follows:**

Integrated device memory for a minimum of 12 hours of ECG or 300 events

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.6 - Defibrillator with pacemaker option, ID 12, which reads as follows:**

he complete device software must be in Serbian

**Is replaced and reads as follows:**

The complete device software must be in Serbian or English

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.6 - Defibrillator with pacemaker option, ID 15, which reads as follows:**

Weight of defibrillator including battery and pedals max. 6 kg

**Is replaced and reads as follows:**

Weight of defibrillator including battery and pedals max. 6 kg +/- 1kg

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.6 - Defibrillator with pacemaker option, ID 16, which reads as follows:**

Device must have minimum IP 53 protection standard

**Is replaced and reads as follows:**

Device must have minimum IP 53 protection standard, optional IP 34, IP4X

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.7 - Hospital Defibrillator, ID 11, which reads as follows:**

Integrated device memory for a minimum of 12 hours of ECG or 500 events

**Is replaced and reads as follows:**

Integrated device memory for a minimum of 12 hours of ECG or 300 events

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.7 - Hospital Defibrillator, ID 12, which reads as follows:**

he complete device software must be in Serbian

**Is replaced and reads as follows:**

The complete device software must be in Serbian or English

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.7 - Hospital Defibrillator, ID 14, which reads as follows:**

Weight of defibrillator including battery and pedals max. 6 kg

**Is replaced and reads as follows:**

Weight of defibrillator including battery and pedals max. 6 kg +/-1kg

1. **Tender Documents are changed in Technical Specification, Lot 1 - Angio Operating Theatre, Line item No. 1.7 - Hospital Defibrillator, ID 15, which reads as follows:**

Device must have minimum IP 53 protection standard

**Is replaced and reads as follows:**

Device must have minimum IP 53 protection standard, optional IP 34, IP4X

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 2, which reads as follows:**

Console weight with probe max. 4,0 kg

**Is replaced and reads as follows:**

Console weight max. 6 kg+/-10%

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 2, which reads as follows:**

Console weight with probe max. 4,0 kg

**Is replaced and reads as follows:**

Console weight max. 6 kg+/-10%

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 9, which reads as follows:**

System boot up max. 16 sec

**Is replaced and reads as follows:**

System boot up max. 30 sec

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 10, which reads as follows:**

Probe loading max. 3 sec

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 12, which reads as follows:**

Maximum depth of field min. 30 cm (probe dependent)

**Is replaced and reads as follows:**

Maximum depth of field min. 25 cm (probe dependent)

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 19, which reads as follows:**

CINE memory min. 250MB

**Is replaced and reads as follows:**

CINE memory

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 21, which reads as follows:**

Docking cart with features including:

- height adjustable

- handle for maneuverability

- large high clearance swivel wheels with locking front wheels

- monitor tilt min. 30 degrees

- 2 removable transducer holders

- built in power supply

- isolation transformer

- 3 USB ports, HDMI interface, Ethernet port

**Is replaced and reads as follows:**

Docking cart with features including:

- height adjustable

- handle for maneuverability

- large high clearance swivel wheels with locking front wheels

- monitor tilt

- 2 removable transducer holders

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 22.2, which reads as follows:**

Linear with 4 configurable buttons

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 22.3, which reads as follows:**

Phased Array

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 24.3, which reads as follows:**

Advanced needle guidance technology with accurate magnetic needle tracking

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.24 - Portable tablet Ultrasound system for anesthesia, ID 25.1, which reads as follows:**

High-frequency linear array transducer

- Bandwidth 8 - 18 MHz (+/- 0,5 MHz)

- Footprint 11 x 35 mm (+/- 1 mm)

**Is replaced and reads as follows:**

High-frequency linear array transducer

- Bandwidth 8 - 15 MHz (+/3 MHz)

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 1.3, which reads as follows:**

Integrated full physical QWERTY keyboard illuminated or with backlight which retracts from operating panel and can be hidden in it for less space consumption

**Is replaced and reads as follows:**

QWERTY keyboard

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 1.5, which reads as follows:**

At least 10 buttons on operating panel (not on keyboard) can be programmed according to customer needs

**Is replaced and reads as follows:**

Buttons on operating panel (not on keyboard) can be programmed according to customer needs

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 1.7, which reads as follows:**

Highly movable device with 4 rotating casters weighing less than 110 kg with all offered accessories

**Is replaced and reads as follows:**

Highly movable device with 4 rotating casters weighing less than 150 kg

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 1.8, which reads as follows:**

At least 3 active probe connectors (not counting connector for pencil probes) and every offered probe can be connected to nay port, electronic probe switching

**Is replaced and reads as follows:**

At least 3 active probe connectors (not counting connector for pencil probes) , electronic probe switching

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 1.11, which reads as follows:**

Maximum scanning depth in B mode at least 40 cm

**Is replaced and reads as follows:**

Maximum scanning depth in B mode at least 30 cm

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 1.14, which reads as follows:**

Maximum fps in B mode mode at least 500 fps

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 1.15, which reads as follows:**

Maximum fps in Color Doppler mode at least 350 fps

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 2.1, which reads as follows:**

"Tissue Harmonic Imaging" based on newest techniques like: pulse subtraction, pulse phase inversion, wide band pulse inversion coded harmonics or similar with at least 3 operating frequencies on all offered transducers

**Is replaced and reads as follows:**

"Tissue Harmonic Imaging" based on newest techniques like: pulse subtraction, pulse phase inversion, wide band pulse inversion coded harmonics or similar

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 2.6, which reads as follows:**

Display of diagnostic image from upper to lower edge of screen

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 2.15, which reads as follows:**

Battery for system operation with autonomy of at least 90 minutes without mains supply, with display of remaining battery capacity on display of system

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 3.1, which reads as follows:**

Cine memory at least 300 MB

**Is replaced and reads as follows:**

Cine memory

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 3.4, which reads as follows:**

Export of images in JPEG format and Cine clips in AVI (MPEG-4) format.

**Is replaced and reads as follows:**

Export of images in JPEG format and Cine clips in AVI (MPEG-4) format or equivalent PC formats.

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 3.7, which reads as follows:**

System can be upgraded with following DICOM functions: Store, Print, Query/Retrieve, Verification, Modality Worklist Management, MPPS, Structured reporting, DICOM Multi Frame, DICOM Media Storage

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 3.8, which reads as follows:**

Users can create personalized reports on system, these reports can be exported to PDF or printed on office printer

**Is replaced and reads as follows:**

Users can create personalized reports on system, these reports can be exported to PDF or equivalent PC format or printed on office printer

1. **Tender Documents are changed in Technical Specification, Lot 3 - INTENSIVE CARE, Line item No. 3.31 - Cardiology Ultrasound Device, ID 4.1, which reads as follows:**

Sector probe with operating frequencies in range 2,0-4,0 MHz or wider, with field of view of at least 90⁰ (without usage of extended field of view techniques)

**Is replaced and reads as follows:**

Sector probe with operating frequencies in range 2,0-4,0 MHz or wider, with field of view of at least 90⁰

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.1 - Volume CT Scanner, ID 1.2, which reads as follows:**

Physical gentry tilt at least ±30°

**Is replaced and reads as follows:**

Physical or digital gentry tilt at least -24⁰/+30⁰

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.1 - Volume CT Scanner, ID 2.1, which reads as follows:**

Vertical movement of patient couch in range of at least 50 cm with the lowest height, maximum 50 cm

**Is replaced and reads as follows:**

Vertical movement of patient couch in range of at least 40 cm with the lowest height, maximum 55 cm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.1 - Volume CT Scanner, ID 2.3, which reads as follows:**

Scanning range in horizontal direction with extensions at least 200 cm

**Is replaced and reads as follows:**

Scanning range in horizontal direction with extensions at least 185 cm

1. **Tender Documents are changed in Technical Specification,** **Lot 4 - Radiology, Line item No. 4.1 - Volume CT Scanner, ID 2.4, which reads as follows:**

Patient couch maximum load capacity at least 300 kg

**Is replaced and reads as follows:**

Patient couch maximum load capacity at least 200 kg

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.1 - Volume CT Scanner, ID 4.1, which reads as follows:**

X-ray tube has anode heat storage capacity at least 6.8 MHU

**Is replaced and reads as follows:**

X-ray tube has heat storage capacity at least 6.8 MHU (heat capacity refers to anode heat capacity or housing of anode depending on manufacturer's technology)

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.1 - Volume CT Scanner, ID 5.2, which reads as follows:**

Total active detector length (coverage and collimation), in submillimeter mode, in “Z” direction and in iso-center in axial mode without patient couch moving at least 160 mm

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.1 - Volume CT Scanner, ID 6.3, which reads as follows:**

Shortest time for one full rotation (360°) maximum 0.35 seconds

**Is replaced and reads as follows:**

Shortest time for one full rotation (360°) maximum 0.28 seconds

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.1 - Volume CT Scanner, ID 7.5, which reads as follows:**

On-line storage capacity at least 800,000 non-compressed images in 512x512 pixel matrix

**Is replaced and reads as follows:**

On-line storage capacity at least 700,000 non-compressed images in 512x512 pixel matrix

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.2 - Premium ultrasound machine for radiology department, ID 4, which reads as follows:**

Dynamic range: The system shall provide a dynamic range of at least 350 dB.

**Is replaced and reads as follows:**

Dynamic range: The system shall provide a dynamic range of at least 250 dB.

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.2 - Premium ultrasound machine for radiology department, ID 6, which reads as follows:**

The system shall have Touch Screen with at least 13 inch touch panel and with digital TGC with predefined 4 curves

**Is replaced and reads as follows:**

The system shall have Touch Screen with at least 13 inch (+/- 1’’) touch panel and with digital TGC with predefined 4 curves

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.2 - Premium ultrasound machine for radiology department, ID 12, which reads as follows:**

The system shall have 23“ LCD or LED technology, with resolution 1920x1080 pixels. Height, rotate and tilt adjustable.

**Is replaced and reads as follows:**

The system shall have 23“ (+/- 1’’) LCD or OLED or LED echnology, with resolution 1920x1080 pixels. Height, rotate and tilt adjustable

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.2 - Premium ultrasound machine for radiology department, ID 18-22, which reads as follows:**

**ID 18:** Convex Transducer: Frequency range: min. 1 – 7 MHz,number of elements min. 160, single crystal or matrix technology.

**ID 19:** Micro-convex Transducer: Frequency range: min. 4 – 8MHz, number of elements min. 128, FOV min.90°

**ID 20:** Linear Transducer: Frequency range: min. 3 – 16 MHz, number of elements min.192, min., FOV max.40mm

**ID 21:** Linear Transducer: Frequency range: min. 4 – 18 MHz, number of elements min.280, min., FOV max.38mm

**ID 22:** Linear Transducer Intraoperative (L-Shape): Frequency range: min. 3 – 16 MHz, number of elements min.128, min., FOV max.28mm

**Is replaced and reads as follows:**

**ID 18**: Convex Transducer: Frequency range: min. 1 – 7 MHz,±2MHz number of elements min. 160, single crystal or matrix technology.

**ID 19**: Micro-convex Transducer: Frequency range: min. 4 – 8MHz±2MHz, number of elements min. 128, FOV min.90°+/-10°

**ID 20**: Linear Transducer: Frequency range: min. 3 – 10MHz±2MHz, number of elements min.192, min., FOV max.40mm+/-10mm

**ID 21**: Linear Transducer: Frequency range: min. 4 – 18 MHz±2MHz, number of elements min.280, min., FOV max.40mm+/-10mm

**ID 22**: Linear Transducer Intraoperative : Frequency range: min. 5 – 15 MHz±2MHz, number of elements min.128, min., FOV max.30mm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.2 - Premium ultrasound machine for radiology department, ID 24, which reads as follows:**

CINE Function: The system shall perform CINE Function, 12.000 cine images minimum

**Is replaced and reads as follows:**

CINE Function: The system shall perform CINE Function, 12.000 cine images minimum or 1GB Cine memory minimum

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.2 - Premium ultrasound machine for radiology department, ID 29, which reads as follows:**

USB Ports: The system shall have min 8 user-accessible USB 2.0 ports.

**Is replaced and reads as follows:**

USB Ports: The system shall have min 3 user-accessible USB 2.0 ports.

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 1.4, which reads as follows:**

Time range min. 0.01-10 sec. in steps

**Is replaced and reads as follows:**

Time range min. 0.01-5 sec. in steps

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 2.1, which reads as follows:**

Dual focus: small focal spot max 0.6 mm and big focal spot max. 1.2 mm

**Is replaced and reads as follows:**

Dual focus: small focal spot max 0.6 mm and big focal spot max. 1.3 mm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 3.2, which reads as follows:**

Translation X(Longitudinal) min. 4000mm x Y(Lateral) min 3000mm x Z(Vertical) min. 1800 mm

**Is replaced and reads as follows:**

Translation X(Longitudinal) min. 3500mm x Y(Lateral) min 3000mm x Z(Vertical) min. 1300 mm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 3.4, which reads as follows:**

Arm Rotation movement min -150º/ +180

**Is replaced and reads as follows:**

Arm Rotation movement min ± 135º

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 3.6, which reads as follows:**

Multi functional Touch Screen Display min 12 inch

**Is replaced and reads as follows:**

Multi functional Touch Screen Display

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 3.8, which reads as follows:**

Detector tilting motorized min. range: -30/+90

**Is replaced and reads as follows:**

Detector tilting motorized min. range: -20/+90

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 4.2, which reads as follows:**

Max patient Weight (kg): min. 350 kg

**Is replaced and reads as follows:**

Max patient Weight (kg): min. 270 kg

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 4.3, which reads as follows:**

Up and Down range: 550-900mm

**Is replaced and reads as follows:**

Up and Down range: 550-850mm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 4.4, which reads as follows:**

Longitudinal movement range: min ± 480 mm

**Is replaced and reads as follows:**

Longitudinal movement range: min 600 mm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 4.5, which reads as follows:**

Transverse movement range: min ± 140 mm

**Is replaced and reads as follows:**

Transverse movement range: min 240 mm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 4.8, which reads as follows:**

Wireless foot switch

**Is replaced and reads as follows:**

Wireless or wired foot switch

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 4.13, which reads as follows:**

A/D conversion: min. 16 bits

**Is replaced and reads as follows:**

A/D conversion: min. 14 bits

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 4.20, which reads as follows:**

Effective area dimensions: min. 42.5x42.5 cm

**Is replaced and reads as follows:**

Effective area dimensions: min. 42.5x42.5 cm+/- 1%

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 4.22, which reads as follows:**

A/D conversion: min. 16 bits

**Is replaced and reads as follows:**

A/D conversion: min. 14 bits

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 5.1, which reads as follows:**

Computer with min. 1 LED HD monitor diagonal size min. 23 inches in control room

**Is replaced and reads as follows:**

Computer with min. 1 LED HD monitor diagonal size min. 23 inches in control room or 2 LED HD monitors diagonal size of min. 19 inches in control room|

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 5.2, which reads as follows:**

HDD capacity: min. 1 TB

**Is replaced and reads as follows:**

HDD capacity: min. 500 MB

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 5.6, which reads as follows:**

Anatomical Programmed Radiography (APR matching, x-ray conditions, mechanical position, image processing parameters, markers) enabling dose optimisation

**Is replaced and reads as follows:**

Anatomical Programmed Radiography (APR matching, x-ray conditions, image processing parameters, markers) enabling dose optimization

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.3 - Fixed Radiography system with Wireless Flat Panel Detectors - Ceiling mounted, ID 6.1, which reads as follows:**

FPD angle measurement is available on THU display for free exams

**Is** **deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.1 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for diagnostic MSK procedures, ID 3, which reads as follows:**

Frequency: min. 100 kHz

**Is replaced and reads as follows:**

Frequency: min. 50 kHz

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.1 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for diagnostic MSK procedures, ID 8, which reads as follows:**

Anatomic programs: min. 800

**Is replaced and reads as follows:**

Anatomic programs: min. 200

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.1 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for diagnostic MSK procedures, ID 16, which reads as follows:**

Anode heat capacity: min. 800 kHU

**Is replaced and reads as follows:**

Anode heat capacity: min. 750 kHU

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.1 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for diagnostic MSK procedures, ID 38, which reads as follows:**

Dynamic range: min. 16 bits

**Is replaced and reads as follows:**

Dynamic range: min. 14 bits

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.2 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for interventional and diagnostic abdominal and urology procedures, ID 6, which reads as follows:**

mA range for radiography: min. 10 - 1000 mA

**Is replaced and reads as follows:**

mA range for radiography: min. 10 - 800 mA

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.2 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for interventional and diagnostic abdominal and urology procedures, ID 18, which reads as follows:**

Table tilt: min. +90°/-90°

**Is replaced and reads as follows:**

Table tilt: min. +90°/-45°

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.2 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for interventional and diagnostic abdominal and urology procedures, ID 20, which reads as follows:**

Maximum table load in horizontal position: min. 300 kg

**Is replaced and reads as follows:**

Maximum table load in horizontal position: min. 300 kg or Maximum table load in any position: min. 280 kg

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.2 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for interventional and diagnostic abdominal and urology procedures, ID 22, which reads as follows:**

Lowest table plate height: min. 47 cm

**Is replaced and reads as follows:**

Lowest table plate height: min. 50 cm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.2 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for interventional and diagnostic abdominal and urology procedures, ID 45, which reads as follows:**

Pixel pitch: max. 140 μm

**Is replaced and reads as follows:**

Pixel pitch: max. 150 μm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.2 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for interventional and diagnostic abdominal and urology procedures, ID 67, which reads as follows:**

Application „IMAGE STICHING“ for enabling of seamless merging of more radiographic images of long anatomic structures into one continuous image (spine, peripheral bones and blood vessels)

**Is** **deleted**.

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.2 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for interventional and diagnostic abdominal and urology procedures, ID 68, which reads as follows:**

Application “THOMOSYNTHESIS” for acquiring of digital multilayered tomography images of different slice thickness in serial acquisition from different angles, using CT image reconstruction algorithm.

**Is deleted**.

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.4.2 - Radiography Fluoroscopy system with dynamic Flat Panel Detector for interventional and diagnostic abdominal and urology procedures, ID 73, which reads as follows:**

Processing capacity at least 80 sheets/hour size 35x43 cm

**Is replaced and reads as follows:**

Processing capacity at least 70 sheets/hour size 35x43 cm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 4, which reads as follows:**

Maximum current value, min. 450 mA

**Is replaced and reads as follows:**

Maximum current value, min. 300 mA

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 12 which reads as follows:**

Collapsible column

**Is deleted**.

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 13, which reads as follows:**

Multi functional Touch Screen Display min 7 inch

**Is deleted**.

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 18, which reads as follows:**

Auto filter included

**Is replaced and reads as follows:**

Auto or manual filter included

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 25, which reads as follows:**

Pixel size max. 140 μm

**Is replaced and reads as follows:**

Pixel size max. 150 μm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 26, which reads as follows:**

Detector weight: max. 3.5 kg

**Is replaced and reads as follows:**

Detector weight: max. 4 kg

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 32, which reads as follows:**

Detective Quantum Efficiency (DQE) min. 75%

**Is replaced and reads as follows:**

Detective Quantum Efficiency (DQE) min. 66%

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 35, which reads as follows:**

Pixel size max. 140 μm

**Is replaced and reads as follows:**

Pixel size max. 150 μm

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 37, which reads as follows:**

Water resistance detector

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 40, which reads as follows:**

LCD touch screen monitor diagonal size min. 19"

**Is replaced and reads as follows:**

LCD touch screen monitor diagonal size min. 15"

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 42, which reads as follows:**

Image preview in max 3 seconds after exposure

**Is replaced and reads as follows:**

Image preview in max 4 seconds after exposure

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 57, which reads as follows:**

Distance from focal spot to floor in vertical direction, in range of min 500 – 2100 mm

**Is replaced and reads as follows:**

Distance from focal spot to floor in vertical direction, in range of min 500 – 2100 mm +/-20%

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 59, which reads as follows:**

X-ray tube rotation around arm min +/- 150º

**Is replaced and reads as follows:**

X-ray tube rotation around arm min range: 300º

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 60, which reads as follows:**

X-ray tube rotation around vertical axes min 90°/-20°

**Is replaced and reads as follows:**

X-ray tube rotation around vertical axes min 90°/-10°

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 61, which reads as follows:**

System weight max 400 kg

**Is replaced and reads as follows:**

System weight max 450 kg

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.5 - Mobile radiography digital system with 2 FPD (Flat Panel Detectors), ID 65, which reads as follows:**

FPD angle measurement is available on THU display for free exams

**Is deleted**.

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.6 - PACS, ID 17, which reads as follows:**

Monitor, graphics card and calibration software from the same manufacturer; Built-in ambient light sensor on the front of the screen, for calibration of the monitor with calibration software; Displays monochrome images in accordance with DICOM, as well as color images in accordance with DICOM.

**Is replaced and reads as follows:**

Monitor and calibration software from the same manufacturer; Built-in ambient light sensor on the front of the screen, for calibration of the monitor with calibration software; Displays monochrome images in accordance with DICOM, as well as color images in accordance with DICOM.

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.6 - PACS, ID 34, which reads as follows:**

Support for two language for user interface English and Serbian.

**Is replaced and reads as follows:**

Support for two language for user interface English or Serbian.

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.6 - PACS, ID 47, which reads as follows:**

CINE-mode, Image rotation (90 °, 180 °, -90 °), Image flip (vertical, horizontal)

**Is replaced and reads as follows:**

CINE-mode, Image rotation (90 °, -90 °), Image flip (vertical, horizontal)

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.6 - PACS, ID 82, which reads as follows:**

Stereoscopic processing

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.6 - PACS, ID 114, which reads as follows:**

Making curved section

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.6 - PACS, ID 124, which reads as follows:**

Segmentation

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.6 - PACS, ID 125, which reads as follows:**

Automatic removal of the patient table

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.7 - Infusion pump, dual channel, compatible with magnetic resonance, ID 3, which reads as follows:**

For use in a magnetic field, individually without the use of an additional shield

**Is replaced and reads as follows:**

For use in a magnetic field, with or without the use of an additional shield

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.7 - Infusion pump, dual channel, compatible with magnetic resonance, ID 5, which reads as follows:**

The infusion pump must have an ultrasonic motor of non-magnetic material

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.7 - Infusion pump, dual channel, compatible with magnetic resonance, ID 7, which reads as follows:**

The infusion pump must have a built-in battery capacity of more than 12 hours at a flow rate of 125 ml / hr

**Is replaced and reads as follows:**

The infusion pump must have a built-in battery capacity of more than 4 hours

1. **Tender Documents are changed in Technical Specification, Lot 4 - Radiology, Line item No. 4.7 - Infusion pump, dual channel, compatible with magnetic resonance, ID 8, which reads as follows:**

Flow range 0-1400 ml / hr I to 0-100 ml / hr at intervals of 0.1 ml / hr, 100-1400 ml / hr at intervals of 1 ml / hr

**Is replaced and reads as follows:**

Flow range 0.1-1200 ml / hr I to 0-100 ml / hr at intervals of 0.1 ml / hr, 100-1200 ml / hr at intervals of 1 ml / hr

1. **Tender Documents are changed in Technical Specification, Lot 5 - Equipment for Specialist Wards Specification, Line item No. 5.24 - Premium ultrasound machine for gynecology department, ID 16, which reads as follows:**

Convex Transducer: Frequency range: min. 2 – 9 MHz, number of elements min. 192, single crystal or matrix technology.

**Is replaced and reads as follows:**

Convex Transducer: Frequency range: min. 2 – 9MHz +/- 2 MHz, number of elements min. 192, single crystal or matrix technology.

1. **Tender Documents are changed in Technical Specification, Lot 5 - Equipment for Specialist Wards Specification, Line item No. 5.24 - Premium ultrasound machine for gynecology department, ID 17, which reads as follows:**

Real-time curved volume Transducer: Frequency range: min. 1 – 8 MHz, number of elements min. 192, single crystal or matrix technology

**Is replaced and reads as follows:**

Real-time curved volume Transducer: Frequency range: min. 1 – 8 MHz +/- 2 MHz , number of elements min. 192, single crystal or matrix technology

1. **Tender Documents are changed in Technical Specification, Lot 5 - Equipment for Specialist Wards Specification, Line item No. 5.24 - Premium ultrasound machine for gynecology department, ID 18, which reads as follows:**

Volume endovaginal Transducer: Frequency range: min. 3 – 10 MHz, number of elements min.192, FOV min.150°

**Is replaced and reads as follows:**

Volume endovaginal Transducer: Frequency range: min. 3 – 10 MHz +/- 2 MHz, number of elements min.192, FOV min.150°

1. **Tender Documents are changed in Technical Specification, Lot 5 - Equipment for Specialist Wards Specification, Line item No. 5.24 - Premium ultrasound machine for gynecology department, ID 20, which reads as follows:**

CINE Function: The system shall perform CINE Function, 12.000 cine images minimum

**Is replaced and reads as follows:**

The system shall perform CINE Function

1. **Tender Documents are changed in Technical Specification, Lot 5 - Equipment for Specialist Wards Specification, Line item No. 5.24 - Premium ultrasound machine for gynecology department, ID 22.3, which reads as follows:**

USB Ports: The system shall have 8 user-accessible USB 2.0 ports.

**Is replaced and reads as follows:**

USB Ports: The system shall have 4 user-accessible USB 2.0 ports.

1. **Tender Documents are changed in Technical Specification, Lot 5 - Equipment for Specialist Wards Specification, Line item No. 5.24 - Premium ultrasound machine for gynecology department, ID 24, which reads as follows:**

Software for evaluation of 9 standard fetal echocardiography views in a single display using STIC datasets and Color Doppler data

**Is replaced and reads as follows:**

Software for evaluation of standard fetal echocardiography views in a single display using STIC datasets and Color Doppler data

1. **Tender Documents are changed in Technical Specification, Lot 5 - Equipment for Specialist Wards Specification, Line item No. 5.24 - Premium ultrasound machine for gynecology department, ID 24.1, which reads as follows:**

Software for evaluation 9 plane fetal brain for provide 6 measurements from 3 transverse views

**Is deleted.**

1. **Tender Documents are changed in Technical Specification, Lot 5 - Equipment for Specialist Wards Specification, Line item No. 5.45 - Color Doppler ultrasound system, ID 4, which reads as follows:**

Default SSD 120 GB + 500 GB HDD

**Is replaced and reads as follows:**

500 GB HDD memory storage

1. **Tender Documents are changed in Technical Specification, Lot 5 - Equipment for Specialist Wards Specification, Line item No. 5.45 - Color Doppler ultrasound system, ID 11, which reads as follows:**

3-12MHz High Density Linear Transducer

**Is replaced and reads as follows:**

3-12MHz +/- 2 MHz High Density Linear Transducer

1. **Tender Documents are changed in Technical Specification, Lot 5 - Equipment for Specialist Wards Specification, Line item No. 5.45 - Color Doppler ultrasound system, ID 12, which reads as follows:**

1-6MHz Convex Transducer

**Is replaced and reads as follows:**

1-6MHz +/- 2 MHz Convex Transducer

In all other aspects, Tender documents for the Procurement of equipment for Mother and Child Institute „Dr Vukan Čupić”, No. IOP/38-2019/UHI, remains unchanged.

This Amendment to Procurement Documents is a constituent part of the Procurement of equipment for Mother and Child Institute „Dr Vukan Čupić”, No. IOP/38-2019/UHI and will be posted on the Purchaser’s web site: <http://www.obnova.gov.rs/english/public-procurement>

Updated version of technical specifications is given in excel file and is constituent part of this amendment.

In order to submit a responsive bid, bidders are expected to prepare their offers in accordance with this amendment.

Public Procurement Committee