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**Bidding document for procurement of Goods**

**Publication Ref: ICB No: IOP/09-2015/NCE/2**

**Subject: Procurement of capital equipment**

**Location: Republic of Serbia**

**The following modifications are made to the Bidding document for procurement of Goods:**

**- Original text of the Section VII. Schedule of Requirements, Technical Specification ANNEX I for Lot No.: 9 Item 9.1 - High Resolution GC/MS**

1. dioxins, dibenzofurans, dioxin-like PCBs (Commission Regulation EU 252/2012) – according to Table 1a and 1b
2. 16 EU priority PAHs (Commission Regulation EU 208/2005 ad 4 and Benzo[c]fluorene) – according to Table 2.
3. PBDEs and other standards- according to Table 3
4. Other standards- according to Table 4

**has been modified as follows:**

1. dioxins, dibenzofurans, dioxin-like PCBs (Commission Regulation EU 252/2012)
2. 16 EU priority PAHs (Commission Regulation EU 208/2005 ad 4 and Benzo[c]fluorene)
3. PBDEs and other standards
4. Other standards
5. Supply with four GC capillary columns for determination of POPs (dioxins, dibenzofurans, dioxin-like PCBs, PAHs, PBDEs) in food
6. Supply with analytical standards - dioxins, dibenzofurans, dioxin-like PCBs (Commission Regulation EU 252/2012); 16 EU priority PAHs (Commission Regulation EU 208/2005); PBDEs

**- Original text of the Section VII. Schedule of Requirements, Technical Specification ANNEX I for Lot No.: 47 Item 47.1 - Flash-lamp photonic curing tool with conveyer for flexible electronics**

Flash-lamp photonic curing tool with conveyer for flexible electronics

**1.POWER RACK**

- Power supply should provide adequate power into lamps
- Device should have configuration to be connected in the Serbia power system (50Hz, 220V)
- Lamp power should be  $\geq 40$  kW

**2.LAMP ASSEMBLY UNIT**

- Minimum size of heated surface has to be 150x150mm
- Minimum one spare lamp
- Lamp should have as wider as possible output spectrum
- Lamp pulse length should be in the range from 25 ms to 10000 ms or wider
- Lamp max pulse rate should be as higher as possible (discrete kHz range)
- Max peak power to lamps should be as higher as possible
- Adjustment of lamp housing above curing surface
- Lamp should be equipped with photodetectors which can observe lamp's state and measure power
- Lamp life time should be as longer as possible (minimum 10 000 000 pulses)
- Output spectrum of lamps should be in range between 200nm-1500nm

**3.MATERIAL HANDLING**

- Device should be equipped with minimum one curing method
- Minimum standard web width should be 150x150 mm
- Curing temperature should be from the range 25-200 °C or higher
- Conveyer (line) speed should be 10 m/min or higher

**4.CONTROL MODULE**

- Auto-synchronization of the lamp pulse delivery with the conveyer speed (moving web)

5.Warranty period: 12 months

6.Delivery period : 90 days

Delivery address: Fakultet tehničkih nauka u Novom Sadu

**has been modified as follows:**

**1. POWER RACK**

Power supply should provide adequate power into lamps

Device should have configuration to be connected in the Serbia power system (50Hz, 220V)

**2. LAMP ASSEMBLY**

Minimum one spare lamp

Lamp should have as wider as possible output spectrum (minimal output spectrum range 200–1500 nm)

Lamp pulse length should be in the range from 25  $\mu$ s to 10000  $\mu$ s or wider

Lamp max pulse rate should be as higher as possible (discrete kHz range)

Max radiant energy to lamps should be as higher as possible or at least 45 J/cm<sup>2</sup>

Max peak radiant power to lamps should be as higher as possible or at least 24 kW/cm<sup>2</sup>

Lamp should be equipped with photodetectors which can observe lamp's state and measure power

Lamp life time should be as longer as possible (minimum 10 000 000 pulses)

**3. MATERIAL HANDLING**

Device should be equipped with minimum one curing method

Area cured per sample should be 300x150 mm

Effective max linear processing speed 30 meters/min

**4. CONTROL MODULE**

Auto-synchronization of the lamp pulse

**5. THERMAL SIMULATION PACKAGE**

Thermal simulation package should be invaluable design tool for predicting processing results, allowing users to close the loop. Its main role should be to dramatically decrease process development time and reduce the number of samples needed for curing optimization.

6. Warranty period : 12 months

7. Delivery period : 90 days

Delivery address: Fakultet tehničkih nauka u Novom Sadu

Please find attached modified **Lot 9** and **Lot 47** of ANNEX I Technical part, Technical specification

**All other terms and conditions of the Bidding document remain unchanged.**

**The above amendments are integral part of the Bidding document.**

*Tranepa Novoluit*