

P3-SST-III  
Robotic Telescopes Demonstration  
Change Request 02  
Briefing for Slovak subcontractor

Iguassu Software Systems, a.s.  
11/05/2021, teleconference

# Agenda

- P3-SST-III project overview
- P3-SST-III Change Request 02 objectives
- Proposal Preparation
  - Cover Letter
  - Detailed Proposal
    - Technical Part
    - Management, Administrative and Implementation Part
    - Financial Part
- Questions & Answers

## P3-SST-III Overview

- Project objectives
  - Test-Bed Telescope (TBT) updates: SW & HW
  - Networking of passive optical sensors
- Test-Bed Telescope
  - Autonomous observations of NEOs and SST
  - 2 identical telescopes: Cebreros (Spain), La Silla (Chile)
  - TBT SW: scheduler, control (RTS<sub>2</sub>), processing (ASAP), HMI
  - TBT Scheduler
    - Strategies for NEO, SST
    - Follow-up, survey (mosaic)
    - Automatic mode
    - Scheduling and Commanding Message (SCM)



## P3-SST-III Overview

- Test-Bed Telescope
  - TBT Control (RTS<sub>2</sub>)
    - Observation targets from scheduler
  - TBT Processing (ASAP)
    - Automated real time processing and tracklet building
    - NEOs: discoveries presented on a web page for user confirmation, automatic reports to MPC
    - SST: automatic TDM generation and upload to SFTP
  - TBT HMI
    - TBT web interface
    - RTS<sub>2</sub> monitoring and control
    - On-site webcams
    - Telescope networks

## P3-SST-III Overview

- Networking of passive optical sensors
  - Interoperability between different sensors and networks
  - 6 sensors were selected:
    - TBT CEB
    - Panoptes-Solaris: Panoptes-PIR, Panoptes-MAM, Panoptes-COG, Solaris-2
    - SHOT
  - ICDs
  - Observation Campaign Plan
    - Collaborative observations of SST targets (GEO, GNSS, Molniya)
    - Schedule same for all sensors, 15-min observation slot per target
    - Ongoing



## P3-SST-III Change Request 02 Objectives

- Prepare Slovak entities for future participation in ESA S2P Programme
- Technology developments for robotic telescopes
- Telescope networks with Slovak sensors
- Data exchange formats, protocols and standards
- Work to be performed described in the SoW
- 3 Tasks:
  - Task 1: Interface Capacity with Robotic Telescopes
  - Task 2: Observation Campaigns for Network Capacity Demonstration – SST, NEOs
  - Task 3: Lessons learnt and identified gaps/shortcoming in Task-2

# Proposal Preparation

- Cover Letter and Detailed Proposal
- Proposal template distributed
- Cover Letter
  - Company details, including ESA registration codes (esa-star registration required)
  - Total price
  - Contact persons
  - Delivered as a separate document, signed
- Detailed Proposal
  - Technical Part
  - Management, Administrative and Implementation Part
  - Financial Part



# Proposal Preparation

- Detailed Proposal – Technical Part
  - Technical requirements and objectives
    - Provide analysis of the technical requirements (and suggested modifications, if any)
    - Describe the main technical objectives of the ITT
    - Describe the approach how to reach the objectives
  - Potential Problem Areas
    - Describe the potential problematic areas and proposed solutions
  - Technical Implementation
    - Proposed work logic
      - Flowchart and description
      - Shall contain milestones/reviews



# Proposal Preparation

- Detailed Proposal – Technical Part
  - Contents of the proposed work
    - Work Breakdown Structure (WBS)
      - Divide the work into individual WPs/sub-WPs
      - Provide WBS diagram
      - Avoid too little/too many WPs
    - Work Package Description (WPD)
      - For each WP provide ESA PSS-A20
  - Background
    - Existing concepts/products
    - 3<sup>rd</sup> party concepts/products
    - Background of the company(ies)

PROJECT:	PHASE:	WP:
WP Title:		Sheet of
Company: WP Manager:		Issue Ref
Start Event:	Planned Date:	
End Event:	Planned Date:	Issue Date
Inputs:		
Tasks:		
Outputs:		

# Proposal Preparation

- Detailed Proposal – Technical Part
  - Technical Reservations, Technical Compliance
    - Reservations
    - Technical Compliance Matrix
      - With requirements from SoW

REQUIREMENT (*)	COMPLIANT (Y/N/P) (**)	REMARKS (***)
R01		
R02		
R...		



# Proposal Preparation

- Detailed Proposal – Management, Implementation and Administrative Part
  - Team organization and personnel
    - Proposed team
      - Team composition, key personnel, reporting, time dedication
    - Curricula Vitae
      - For all key personnel
  - Planning
    - Proposed schedule and milestones
      - Shall follow SoW
    - Bar chart

# Proposal Preparation

- Detailed Proposal – Management, Implementation and Administrative Part
  - List of deliverable items
    - Shall follow SoW
  - Non-conformances / limitations
- Detailed Proposal – Financial Part
  - Price quotation for the contemplated contract
    - FFP, maximum 180,000 Euro
  - Subcontracting plan
    - Details of your subcontractor (if applicable)



# Proposal Preparation

- Detailed Proposal – Financial Part
  - Detailed Price Breakdown
    - PSS Costing forms
      - PSS A1, A2 (+ exhibits), A8, A15.1
      - Download from esa-star publication
      - Provide also in original format (Excel) and as a signed pdf
  - Milestone Payment Plan
    - Maximum 2 payments per 12 month
    - Payments shall be associated with formal milestones
    - Final payment required
    - Payments from Iguassu to SK entity
  - Travel and subsistence plan
    - Teleconference preferred, travel can be proposed for FP

# P3-SST-III

## Robotic Telescopes Demonstration

### Change Request 02

### Briefing for Slovak subcontractor

**Please review the supporting documentation available on the Slovak Space Portal for more information. Please direct questions related to this opportunity to the below contact person.**

**The proposal submittal date is: 7th June 2021 at 13:00 CEST**

**Mr. Jiří Doubek**  
**Tel: +420 235 351 000**  
**E-mail: [jiri.doubek@iguassu.cz](mailto:jiri.doubek@iguassu.cz)**

**General interest questions related to potential partners for this or other Slovak Space topics may be directed to [Michal.Brichta@sario.sk](mailto:Michal.Brichta@sario.sk).**