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| Žádost o poskytnutí informace k českým aktivitám na ISSCzech ISS Activities Request for Information (CIARFI) |

Ministry of Transport of the Czech Republic has initiated this formal Request for Information (RFI) to map the interest of the Czech academic, industrial and other communities in Czech human exploration activities to be possibly operated at the International Space Station (ISS). The information to be collected will serve as basis for further consideration at the public sector level and, if relevant, also to the assessment of benefits of activities performed before, during and after a potential Czech astronaut flight. This RFI is in English because the European Space Agency (ESA) is part of the overall process.

If the result of such consideration and assessment requests implementation of the activities, an Announcement of Opportunity (AO) is foreseen where detailed proposals will be solicited. Answering to this RFI is not a prerequisite to the AO, but is helpful to the decision process.

For the purpose of this RFI, the academic, industrial and other entities (e. g. educational and outreach) can submit ideas for scientific experiments, technology demonstrations and other activities to be carried out on the ISS and possibly other Low Earth Orbit (LEO) spacecrafts that may be available in next years, for example, but not limited to, Dragon, which is being used for Axiom missions.

This form shall be sent to the Ministry by 31 March 2024 to the following address: ondrej.rohlik@mdcr.cz with subject “RFI CIARFI [short title of your proposal]”.

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| **Team** |
| Short title of the proposal  |  |
| Full title |  |
| Full title (in Czech) |  |
| Name of Proposal Coordinator |  |
| Phone number |  |
| E-mail |  |
| Affiliation |  |
| Other partners (names and affiliations) |  |

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| **Activity/Experiment/Demonstration** |
| Description The description should include the working hypothesis and its justification, the originality and new knowledge to be gained in the experiment/demonstration, references to previous research or work related to it, the rationale for proposing it, the necessity of conducting the experiment on board ISS (or similar), the anticipated impact expected from the results on the humankind, and tangible benefits for the Czech Republic. |  |
| Provide the concept diagrams and/or graphical concept of the experiment and procedure. |  |
| Description in Czech, same as above |  |
| Relevance to ESA’s SciSpacE Key Science Questions (if any) |  |
| Time needed to prepare the experiment or demonstration (up to flight ready) in months |  |
| Duration of experiment or demo (in flight) in hours |  |
| Summary of requirements (mass up/down, volume, power, data, astronaut hours, cold stowage, etc.) |  |
| Cost estimate (total and breakdown to development and operations cost) |  |
| Foreseen sources of funding and co-funding |  |

It is understood that the content of the next section is subject to uncertainties. Pressurized Payloads Interface Requirements Document for International Space Station Program and Activity Requirement Document (ARD) Type 1A are available upon request to allow you to anticipate the information needed for the subsequent AO.

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| **Requirements/Technical** |
| Tools, equipment, instruments, samples, transport, storage |
| Tools, equipment, instruments to be used by astronaut |  |
| Samples |  |
| Cartridges/containers |  |
| Transport and storage of samples/cartridges/containers |  |
| Experimental Procedure |
| Operational steps in flight |  |
| Crew requirements(incl. astronaut working hours) |  |
| Ground Reference Experiment/Demo |
| Tools, equipment, instruments (incl. where they are located) |  |
| When conducted (pre-/post-) |  |
| Operational steps for ground reference experiment/demo |  |
| Conditions/requirements of the ground experiment/demo |  |
| Results after in-flight experiment/demo |
| Measured/monitored elements |  |
| Approach to analysis |  |
| Expected results |  |
| Future work |  |
| Elaborate on tangible benefits for the society and business (return on investments) |  |
| Descoping and alternatives |
| Description of descoped (simpler/cheaper) version |  |
| Impact of the descoping on the science/technology/value |  |
| Delta (Cost, time, mass, etc. and risk) |  |