

### Session 3.5a: Sensor and Actuator Technologies for Planetary Surface Exploration

- GINGER II - An Upgrade of the Technology Demonstrator of the Guidance and  
into the Ground Exploration Radar GINGER 3.5a-1  
*Lentz, H.; Braun, H.M.; RST Radar Systemtechnik AG, Switzerland*
- IPSE: A Robotic Micro Laboratory for in Situ Science on Mars 3.5a-2  
*Mugnuolo, R.\* ; Angrilli, F.\*\* ; Debei, S.\*\* ; Saggin, B. \*\*\*\*; de Marchi, E.\*\*\* ; Nista,  
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Terribile, A.\*\*\*; Valdes, S.\*\*\*; \*ASI, Italy; \*\*CISAS, Italy; \*\*\*Tecnomare SpA, Italy;  
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- The Development of the "Mole with Sampling Mechanism" Subsurface Sampler 3.5a-3  
*Richter, L.\* ; Kochan, H.\* ; Gromov, V.\*\*; Coste, P.\*\*\*  
\*DLR, Germany; \*\*VNIITransmash, Russian Federation; \*\*\*ESA/ESTEC,  
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- Robotic Deep Driller for Mars Exploration 3.5a-4  
*Zelikman, M.\* ; Visentin, G.\*\* ; Ylikorpi, T.\*\*\*; Suomela, J.\*\*\*\*;  
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