

ECSL

European Centre for Space Law



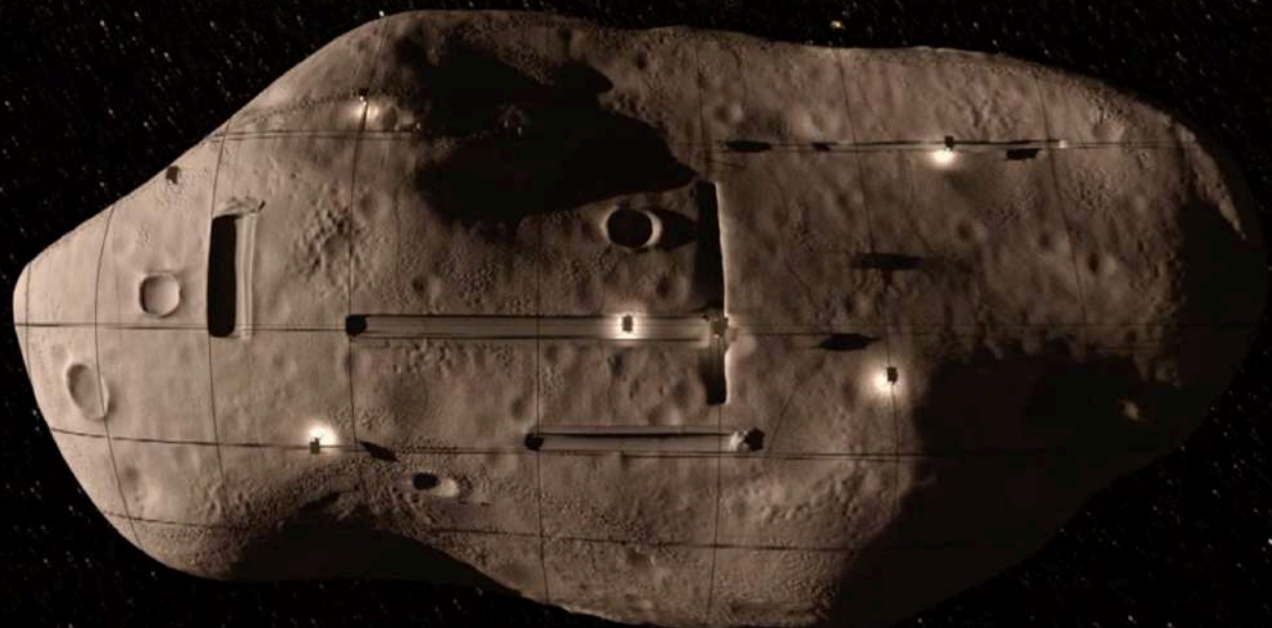
The Exploitation of Natural Resources in Outer Space

ECSL Practitioner's Forum, Paris, 18-03-2016

'Space Mining': Taking Stock

- ◆ Two major private projects gearing up
- ◆ Recent US Act includes Title on 'space mining'
- ◆ Luxembourg plans to facilitate 'space mining'
- ◆ International space law applies only tangentially
 - Outer Space Treaty: 'province of all mankind' & benefits of all countries, non-appropriation of the area, freedom of scientific exploration, & requirement of international cooperation & access
 - Moon Agreement: ratified by only a few & (only) calling for an international regime





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Lessons from elsewhere?

- ◆ Frequency and slot allocation – using a ‘non-tangible’ space resource for commercial purposes?
- ◆ Terrestrial mining – but outer space is ‘global commons’, not subject to territorial sovereignty...
- ◆ Deep seabed mining – would 1994 New York Agreement approach to UNCLOS III regime work for outer space?



Morning session

- ◆ Laying out the Land: current science, economics & law behind ‘space mining’
 - **Fabio Favata** on scientific aspects of asteroid exploration as undertaken & planned by ESA
 - **Peter Marquez** on asteroid exploitation as planned by Planetary Resources
 - **Zhenjun Zhang** on the Moon Agreement and its potential impact – or lack thereof – on ‘space mining’ & governance thereof
 - **Giuseppe Reibaldi** on informal discussion initiative



Intermezzo (directly after lunch)

- ◆ Presentation of awards for the 2nd ECSL Student Essay Competition on Space Law – “What is the current and what could be the prospective legal regime for non-orbital flights?”
 1. **Isis de Moortel**, Leuven University, Belgium
 2. **Dimitra Stefoudi**, Leiden University, Netherlands
 3. **Georgia-Maria Kalogirou**, National & Kapodistrian University of Athens, Greece



Afternoon session

- ◆ The main legal issues involved in ‘space mining’: a comparative approach
 - **Ian Coles** on national and international legal aspects of mining minerals on earth
 - **Armel Kerrest** on legal aspects of mining the ocean floor
 - **Daniela Genta** on commercial use of space resources – the approach to spectrum exploitation
 - **Stephan Hobe** on the specifics of space law *vis-à-vis* space mining: international *versus* national approaches



A word cloud featuring the phrase "thank you" in numerous languages and scripts. The central and largest text is "thank you" in red. Other prominent words include:

- danke** (German)
- gracias** (Spanish)
- merci** (French)
- terima kasih** (Indonesian)
- dziękuje** (Polish)
- obrigado** (Portuguese)
- sukriya** (Malay)
- arigatō** (Japanese)
- takk** (Norwegian)
- mercü** (Turkish)
- teşekkür ederim** (Turkish)
- ngiyabonga** (Sesotho)
- спасибо** (Russian)
- धन्यवाद** (Hindi)
- ကျေးဇူးတင်ပါတယ်** (Burmese)
- धन्यवाद** (Gujarati)
- આભાર** (Gujarati)
- තෙපමන ආගන්තුකයි** (Sinhala)
- ကျေးဇူးတင်ပါတယ်** (Tamil)
- ආගන්තුකයි** (Tamil)
- ကျေးဇူးတင်ပါတယ်** (Telugu)
- అభినందనలు** (Telugu)
- ကျေးဇူးတင်ပါတယ်** (Kannada)
- ಧನ್ಯವಾದಗಳು** (Kannada)
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- ആദരവ്** (Malayalam)
- ကျေးဇူးတင်ပါတယ်** (Bengali)
- ভাঙ্গা ক্রেতাদের** (Bengali)
- ကျေးဇူးတင်ပါတယ်** (Vietnamese)
- trung trọng** (Vietnamese)
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- អរគុណ** (Khmer)
- ကျေးဇူးတင်ပါတယ်** (Thai)
- ขอบคุณ** (Thai)
- ကျေးဇူးတင်ပါတယ်** (Lao)
- ຮຽນສະດວກ** (Lao)
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- நன்றி** (Tamil)
- ကျေးဇူးတင်ပါတယ်** (Telugu)
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