

# How to Grow A Space Program in Canada

University of Victoria Presentation,  
UNISEC First Global Meeting,  
University of Tokyo,  
November 24, 2013

# Presentation Overview

- CSDC Introduction
- UVic ECOSat Overview
- Collaboration with Academic Community
- Collaboration with Business Community



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# CSDC Overview

- CSDC Created in 2011 by Larry Reeves of Geocentrix Technology Inc.
- Created to provide educational opportunities for students in Canada
- Competition to conceptualize/ design/ build a 3U Cubesat
- Currently has 10 teams participating across Canada



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# ECOSat Overview

- ECOSat was started at University of Victoria in 2011
- Is on second 3U Design
- Currently has 1 faculty advisor, 15 students
- Building a 3U CubeSat with a research payload
- Collaborating with local business for payload design
- Collaborating with local college for aspects of manufacturing



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# Collaboration – Academic Community

- Partnering with Camosun College in Victoria, Canada for manufacturing support.
- Using 3D printing to reduce design constraints. Camosun has a low off gassing material – Ultem @0.4%
- Opened new area of opportunity for Camosun, opens up new design frontier for ECOSat



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# Collaboration – Academic Community

- Partnering with UVic English department.
- ECOSat will put stories and books onboard satellite that can be downloaded from satellite
- English students able to take part in a unique and interesting project
- ECOSat able to provide opportunities and adds dimension to ECOSat project



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# Collaboration – Business Community

- Through community awareness, ECOSat now receives support from AGO business owner.
- Jim Harrington, owner, has background in space technology and design (Ulysses Satellite Contributor)
- Payload is Based on research from the University of Tokyo on diamagnetic material
- New ADCS capability that, if proven successful, could be perfect for small satellite systems in the future



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# Conclusion

- By creating opportunities, hundreds of students in Canada get the first opportunity to learn satellite design
- By creating community awareness of the project, new areas of research and support opened up for Camosun College 3D printing technology
- By creating community awareness of the project, new partnerships created between local business and University that strengthens research capability and novelty of missions for business and ECOSat



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**ANY QUESTIONS???**

**Thank You to UNISEC**

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