

# FlyMate™

Advanced Pico & Nano Satellite Deployer

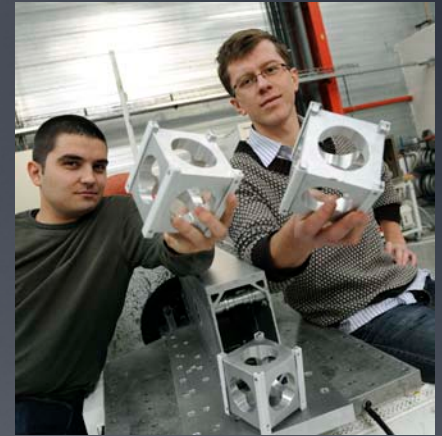


Stanislaw OSTOJA & Spas BALINOV  
CalPoly 2011 Spring Workshop

# 1. Company Profile

## NovaNano – a Nanosatellite Start-up

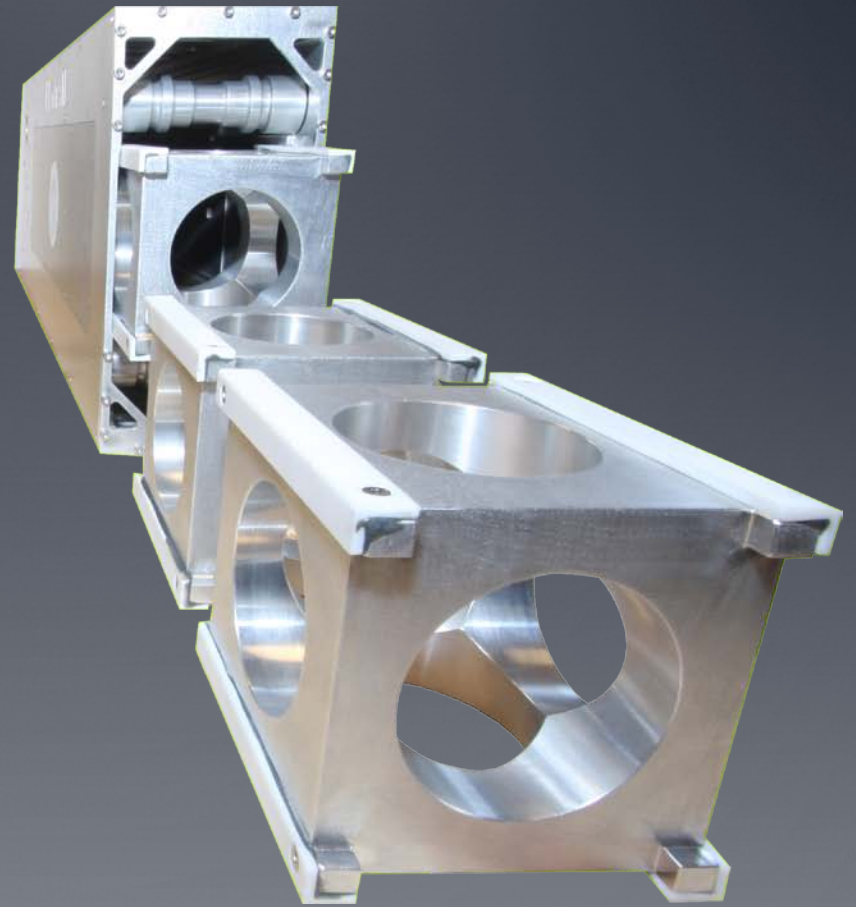
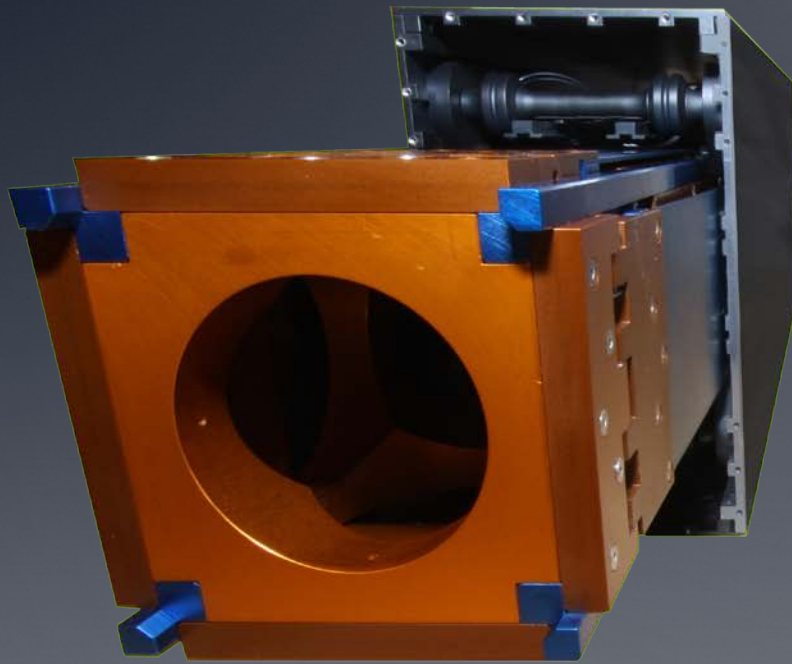
- Based in Lyon (France)
- Founded in 2009 by two INSA Lyon alumni
- Incubated within the Lyon technology incubator, Crealys from 2007 till 2009
- Specialized in nanosatellite and associated technologies



Les fondateurs : Spas Balinov & Stanislaw Ostoja  
Credit: AFP

- Laureate of the 2010 National Innovation Awards from the French Ministry of Research
- Supported by Oseo, the French Innovation Agency
- Member of the « Pegase » Aerospace Cluster
- Collaborating with top French research labs

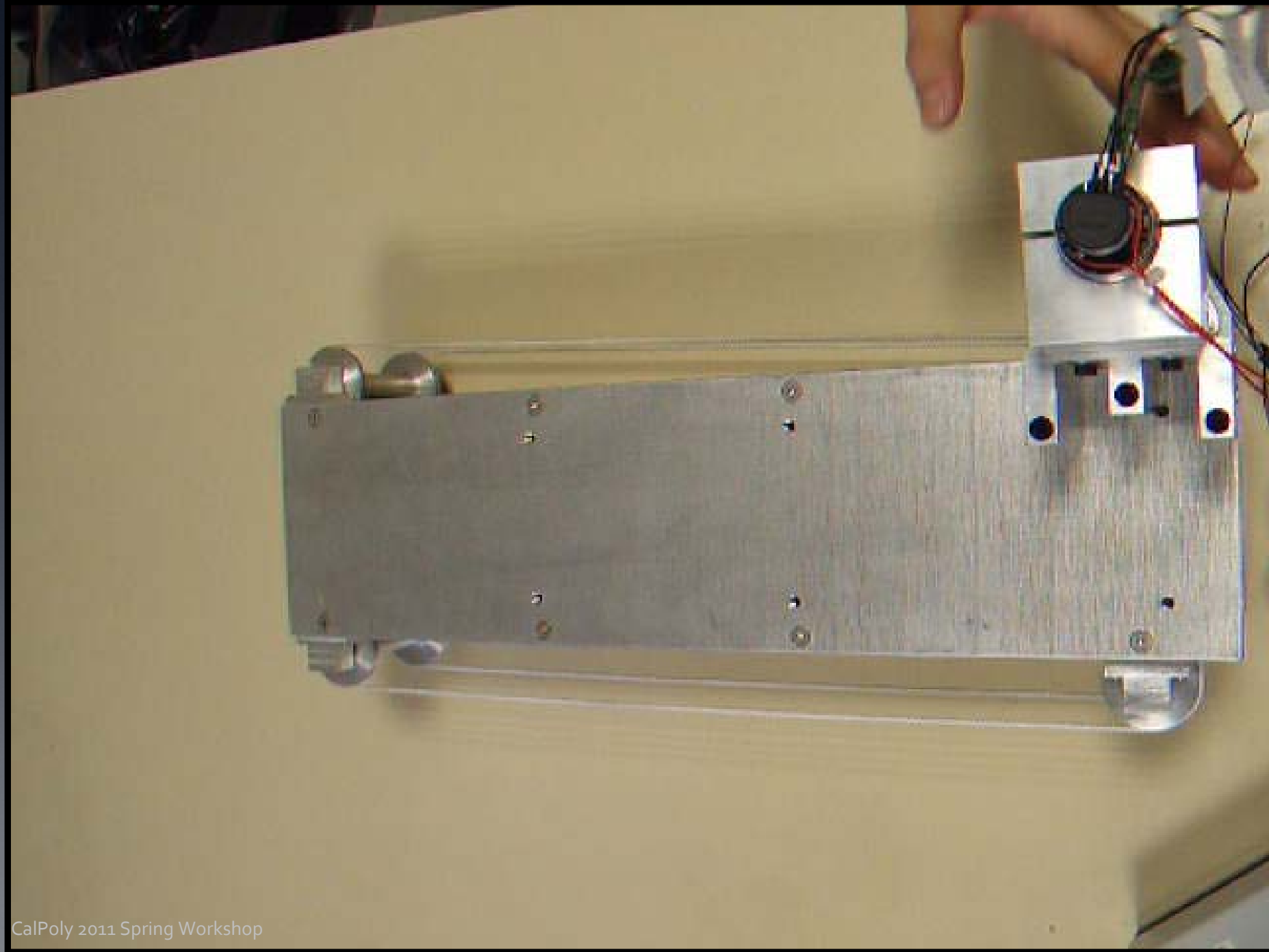




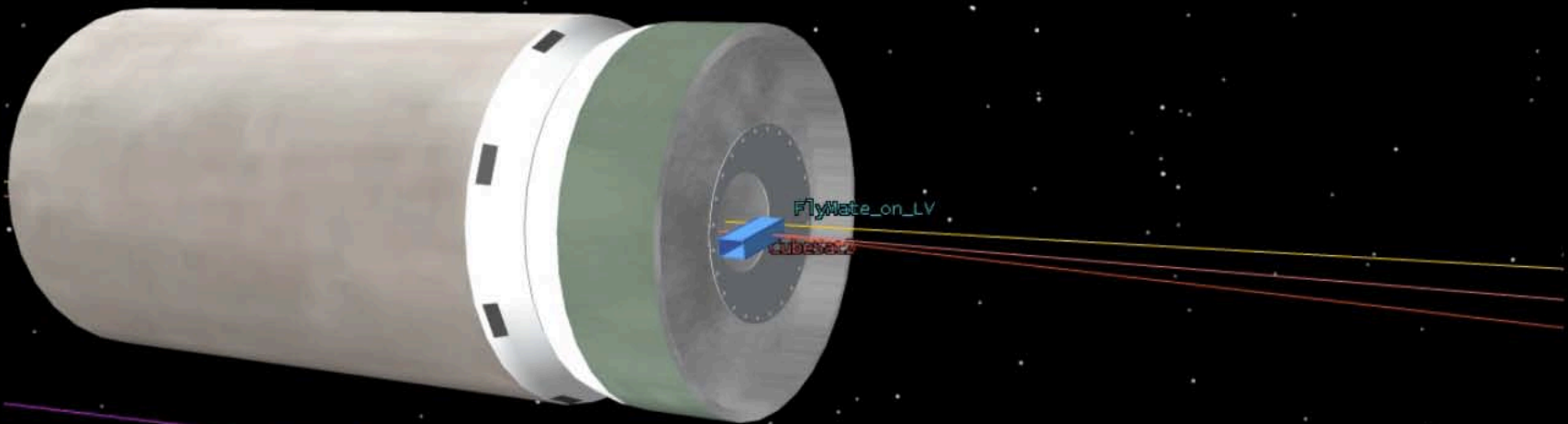
## 2. FlyMate™ : the Innovation

- Controlled Ejection
  - Passengers ejected sequentially
  - Controlled temporization
  - More Space for passengers
- Features
  - Motorized mechanism, no springs
  - Cubesat standard compatible
  - Energy autonomous, Standardized interfaces
  - Adaptable on various LV
  - Applications: Formation flying & constellations
  - Patented









FlyMate\_on\_LV

CubeSat1

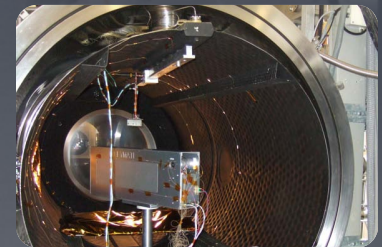
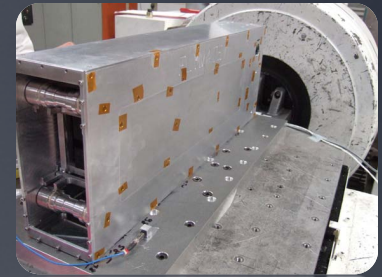
CubeSat1

FlyMate\_on\_LV ICR Axes  
1 Jul 2007 00:12:18.550 Time Step: 0.15 sec



### 3. FlyMate™ : Industrial Qualification Process

- 1<sup>st</sup> Phase: Proof of concept tests
- 2<sup>nd</sup> Phase: Environmental characterization tests
  - Vibrations and shocks
  - Thermal Vacuum: with CNES support
  - Zero G
- 3<sup>rd</sup> Phase: Reliability and statistics tests
  - More than 1600 functional ejections





## Flight 1 - Parabola 3



# FlyMate™

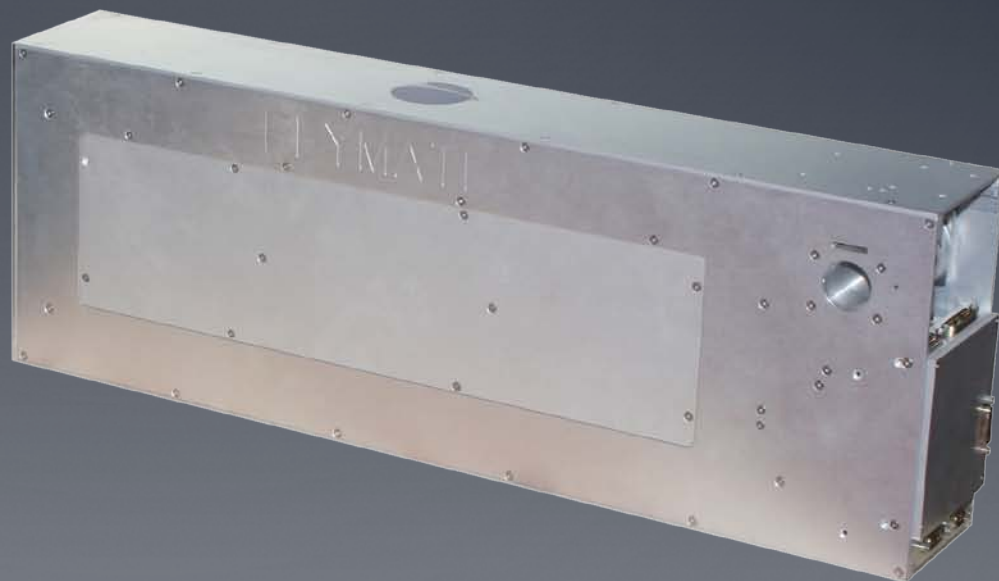
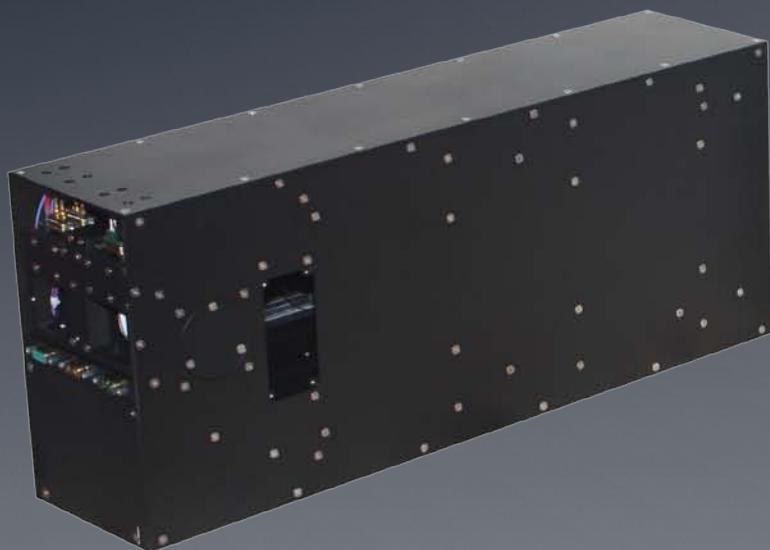
Custom designed

FlyMate™  
standard for:

3x 1U

1x 3U

2x 2U



## 4. The FlyMate™ Offer

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- First delivery carried out in December 2010
- Standard Delivery Service:
  - Compliance testing
  - User Manual & Documentation
  - Export License and shipping
- Optional Services
  - Design customization
  - On site training
- Soon offering Launch Opportunities on:  
[www.novanano.com](http://www.novanano.com)



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Visit us at the Paris Air Show 2011 in June 20-26