

Cyprus Information Day – 7th October 2024



KYAMOS LTD

Activities and lessons learnt

True colour image
acquired by Copernicus Sentinel-2
July 16, 2024



Company overview



Name: *KYAMOS LTD*

Creation date: *13/07/2018*

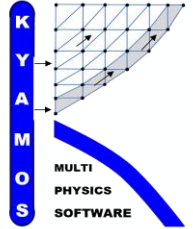
Number of employees: *10*

Core competences: *Multiphysics simulation software, CFD/EM simulations, AI, GUI, Green Technologies, Cluster/SaaS, High-Performance InfiniBand GPU Computing, Finite Elements, Lattice-Boltzmann*

% Space Revenue: *Expected: ~36% space revenue*

Key customers: *RIF (CY Gov & EU funding): ~64%,
ESA: ~36%*

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Space project(s) with ESA overview

Highlighted Space Project: *Real Live Simulation of Laser Beam Propagation in Satellite Communication using Artificial Intelligence*

Purpose/ Goal of the project: *Develop a software to predict the laser beam propagation considering the atmospheric conditions*

Keywords and key technologies: *AI, CFD, Electromagnetics, Weather Forecasting, Free-space Optics, Laser Beam Propagation, High-Performance / Distributed InfiniBand GPU / Parallelizable CUDA Computing*

Target customers: *Research Institutions or Companies in Satellite Communication, Aerospace and Defense Contractors, Government Space Agencies, Telecommunication or Laser Manufacturers*

Key successes to date: *Developed baseline models, finalised the consortium and the requirements to proceed to the next phase of implementation*

Key difficulties to date: *Finalise a fully feasible activity*



Writing proposals:

1. *Clear goals and approach*
2. *Involve experts and collaborators*
3. *Set clear project requirements*

Running ESA Activities:

1. *Early Planning – Define clear objectives and detailed tasks*
2. *Communicate with participants regularly*
3. *Be prepared for technical and operational risks*

Finding and Working with international Partners:

1. *Start Early*
2. *Try networking through ESA's tools (ESA Match)*
3. *Communicate their involvement and expectations from the beginning*

Finding Customers and commercialisation:

1. *Identify sectors and industries that may benefit from your solution*
2. *Advertise it to targeted audiences*
3. *Attend industry conferences*

Vision of the future for the company and the product (10yrs from now)

1. *Release laser beam propagation software: Improving accuracy and computational speed*
2. *Become established as an international Multiphysics software company in the Computer Aided Engineering (CAE) industry for:*
 - (a) *Green Technologies*
 - (b) *Free Space Optics and Space Communications*

Key next steps to achieve this:

1. *Demonstrate the value of our software to the space industry (TRL3-TRL9)*
2. *Attract international customers' interest and stakeholders → Convert leads to sales*
3. *Enhance software capabilities and customer support*