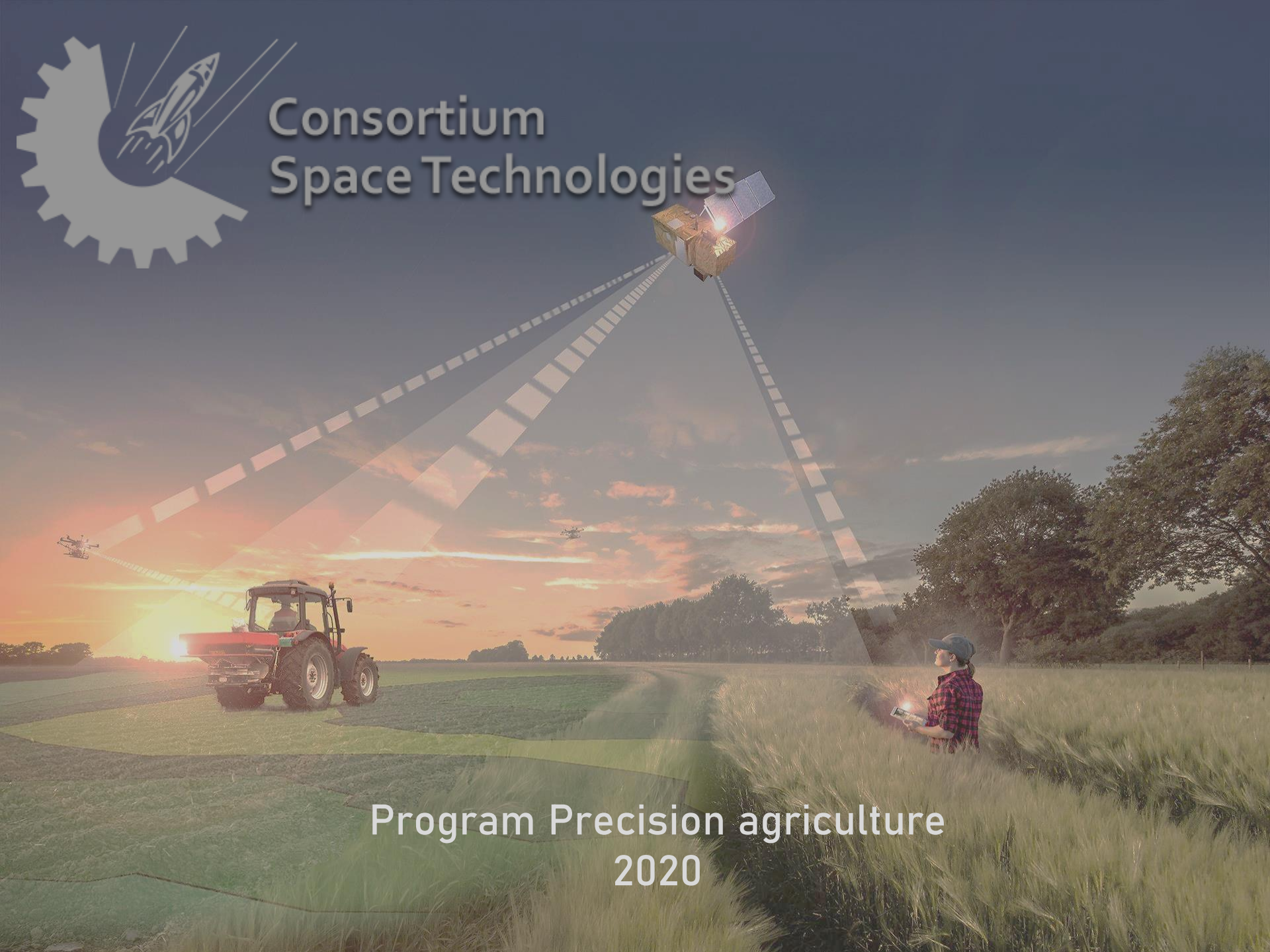


Program Precision agriculture 2020

Philosophy of Consortium

- The philosophy of our organization is the recognition that humanity, both in the humanitarian and technical fields, has reached such a level of development that it is able to manage natural processes, change and improve the environment and create a new, change and improve a person.
- The organization uses scientific methods, both at the theoretical and applied levels. We use advanced research approaches, take into account the advantages and disadvantages of the objectivist method.
- We welcome free research based on reason understood as a combination of rationality and virtue

Mission, goal, task of the Program "Precision Agriculture"

- Mission - quality agricultural products for everyone
- The goal is the implementation of precision agriculture
- The task is effective monitoring and forecasting in order to increase the productivity and productivity of agricultural producers

Management and Leading Technical Specialists of the Consortium

Vadim Nagovitsyn, engineer

Oksana Bassova, designer

Management of Consortium Space Technologies

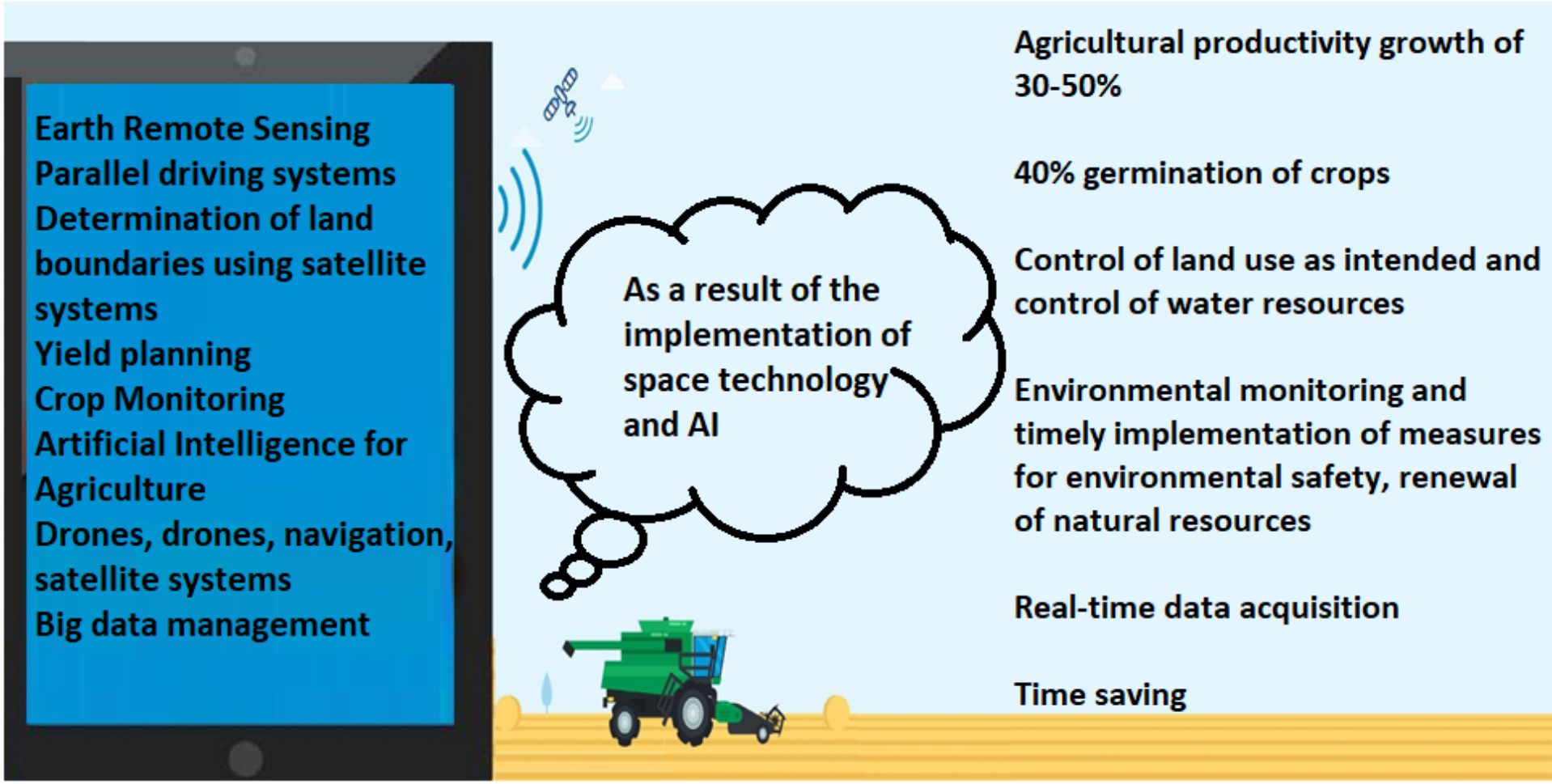
Chairwoman Julia Arkhipova
Graduated from Lomonosov Moscow State University
Master of Faculty of Space Research,
specialization: Public Administration in the Space Sector

Maria Arkhipova, Lawyer of Consortium, Graduated with honors from Lomonosov Moscow State University Master of Faculty of Space Research, specialization: Public Administration in the Space Sector

Irina Gracheva, architect

Ivan Stepin, radiobiologist

Increased productivity with support of the program "Precision Agriculture"



Growth drivers. Market environment. Legislation. Implementation strategy.

Growth drivers
- unique technologies
- unique qualified personnel
- the use of artificial intelligence in the implementation of programs;
- planning and risk prevention.

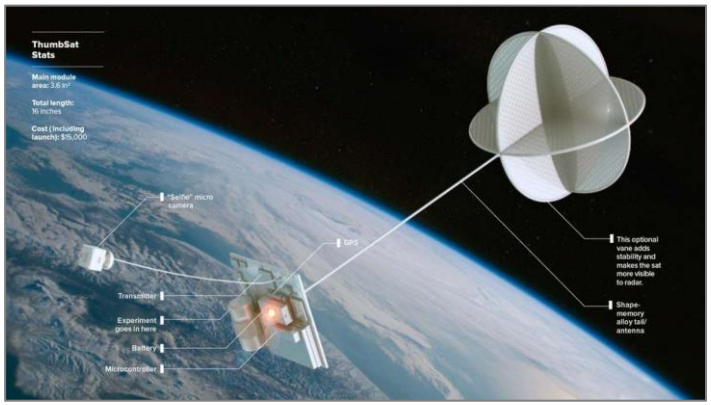
Market Environment Information
- the use of technology 70-80s. in agriculture, it makes up 80% in the European Union, 60% in the USA;
- the use of space technology will allow us to occupy a leading position in the production of agricultural products, reduce costs in the field of animal husbandry, increase productivity in the field of crop production, and grow more stable crops.

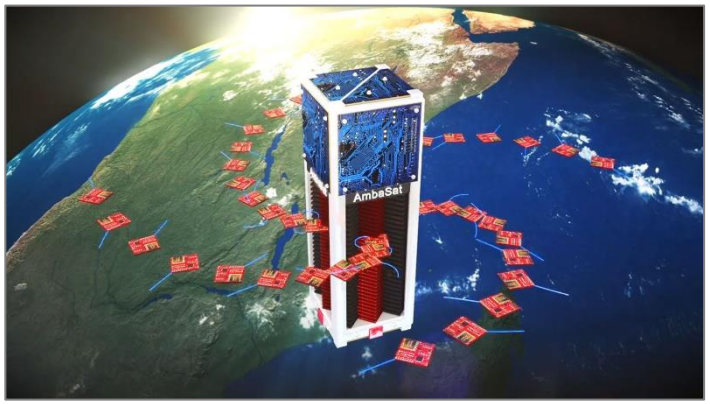
Legislation
International law, national law in the field of agriculture, high technology, copyright.

Implementation strategy
"0" stage zero - an assessment of the amount of work;
1. Diagnostics of the agro-industrial complex;
2. Data processing and the formation of individual solutions for the agricultural sector;
3. Implementation of the program "Precision Agriculture";
4. Operation of the program;
5. The next stage in improving the quality of agricultural products.

Technical Solutions

The new concept of femto-class satellites (ChipSat) weighing in grams - the new solution for massive operations in space, incl. constant monitoring of agricultural facilities

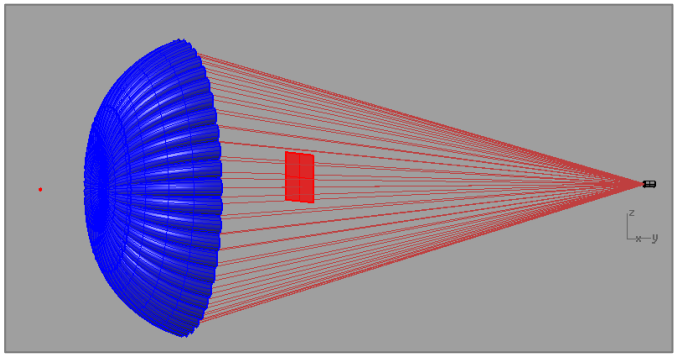


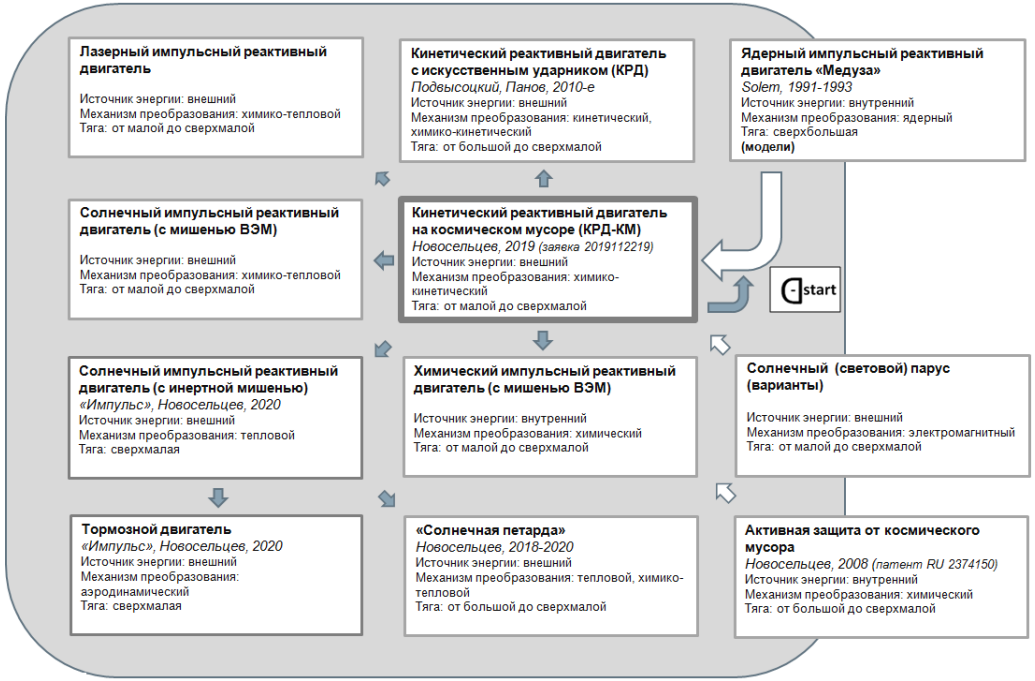


THUMBSAT

With the cost of first generation femto-satellites starting at $ 300 (including launch services), they are available to a wide range of users - small companies and for individual researchers

The family of femto-class spacecraft engines for single-pulse interorbital maneuvers and related technical solutions D-Start LLC expands the possibilities of using femto satellites

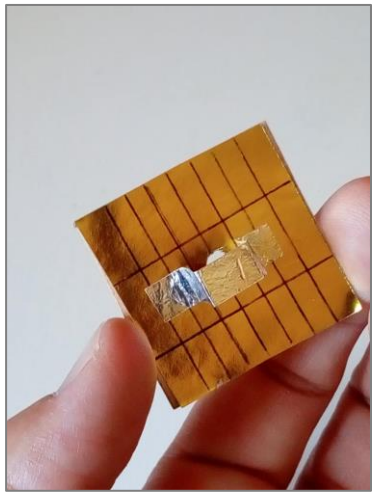


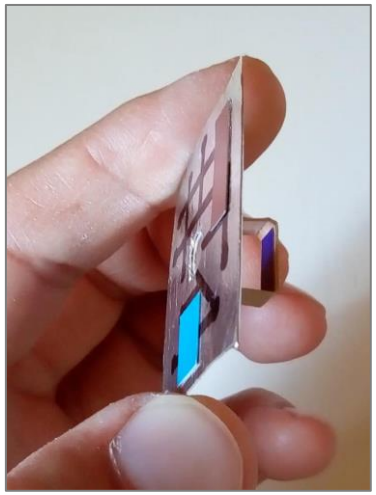


start

It is possible to equip existing models of femto satellites with propulsion systems or develop new designs of femto satellites integrated with the engine

The developed technical solutions of D-Start LLC (according to the Fireworks project), in combination with the number of technologies of other developers, allow for the transition from modern femto satellites "on board" to promising femto satellites "on film", using the existing infrastructure for their group launch

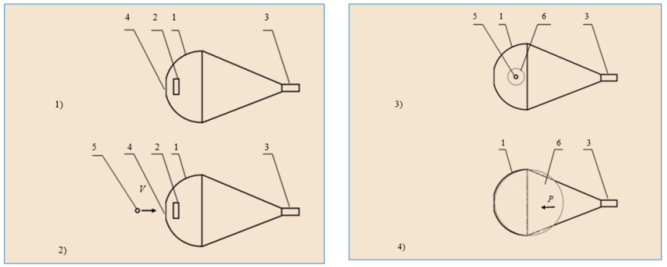




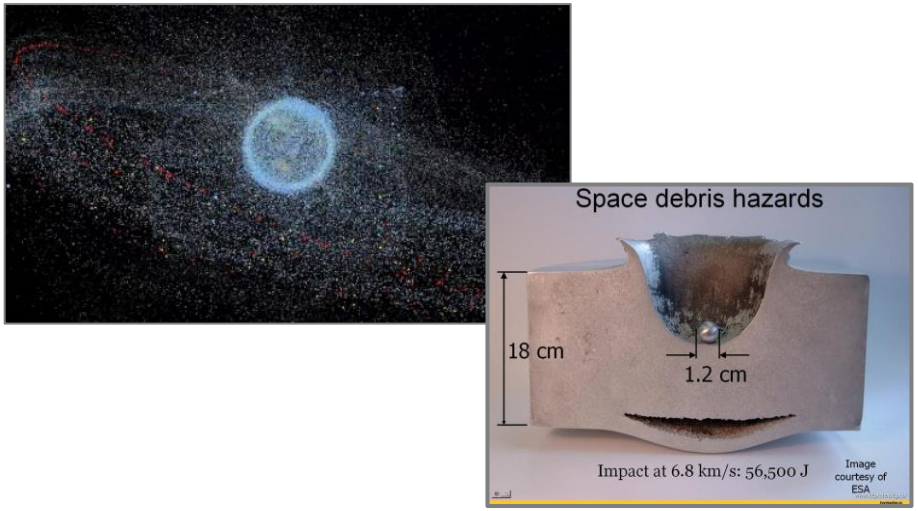
D-start

At the same time, their unit weight and cost are expected to decrease from 2 to 10 or more times, with a proportional increase in the number of their groupings ("swarms") to thousands of units

The developed basic technology of kinetic engines of LLC D-Start provides for the possibility of using such a type of “toxic waste” as small space debris (or fragmented large space debris) as an energy source for single-pulse maneuvers



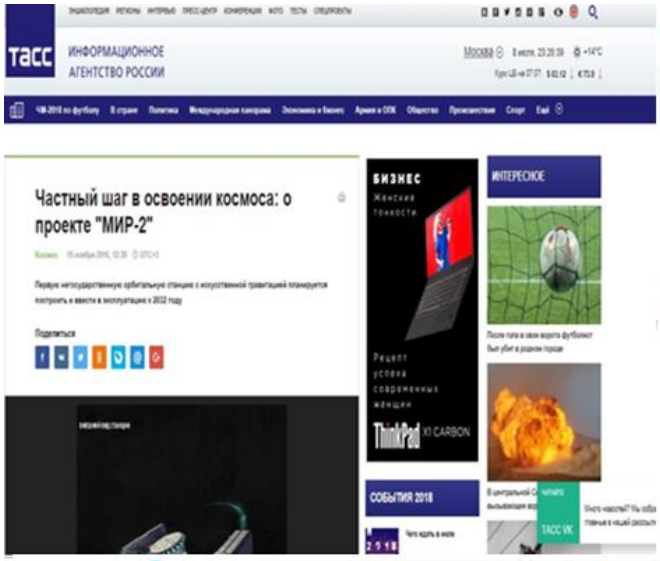
1 – отражатель КРД, 2 – мишень, 3 – КА, 4 – входное отверстие отражателя малого диаметра, 5 – фрагмент КМ, движущийся со скоростью *V* относительно КА, 6 – газообразные продукты химико-кинетического взрыва мишени, *P* – тяга КРД

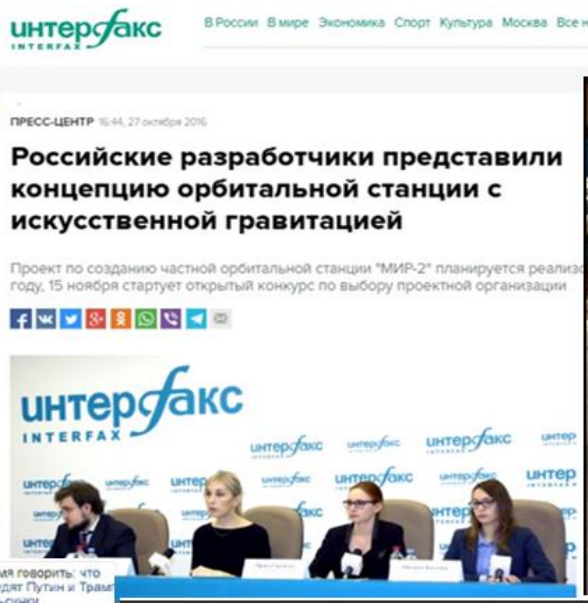


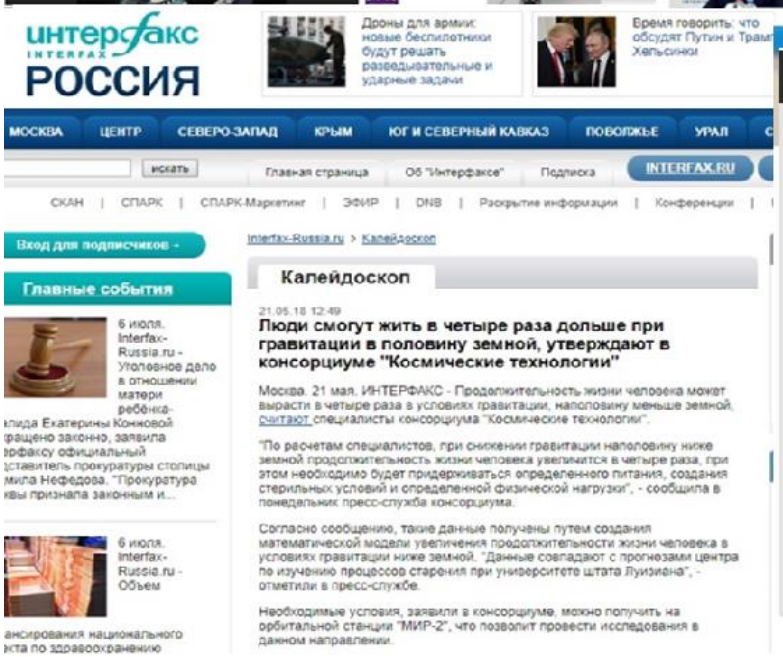
At the same time, the power-to-weight ratio of femto satellites increases by an order of magnitude or more compared to the use of chemical fuels

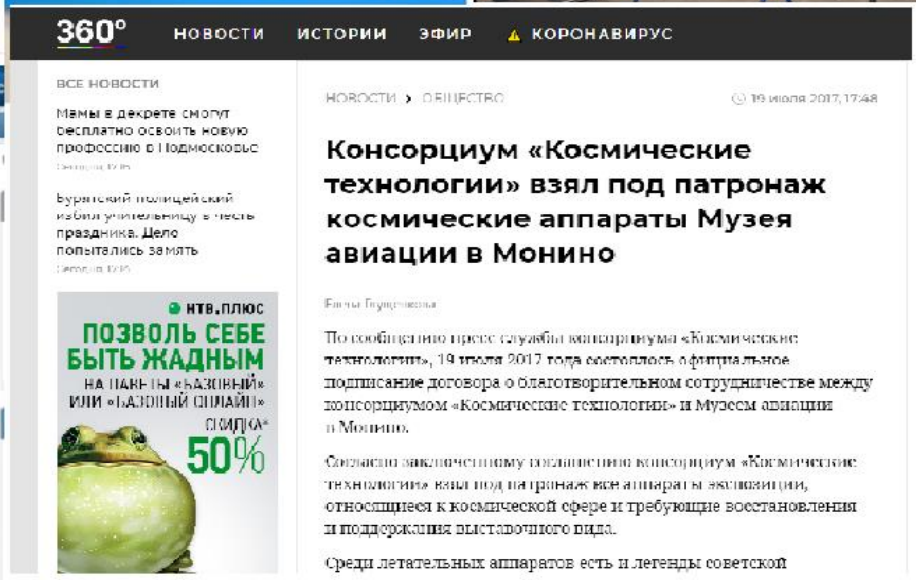
According to RVC JSC (2019), the world market for such engines exceeds $ 5 billion.

Media about Consortium «Space Technologies»









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