

The main launch sites for the SIR rocket are based in northern Europe, with the possibility to be launched from various locations thanks to the custom transport erector launcher.

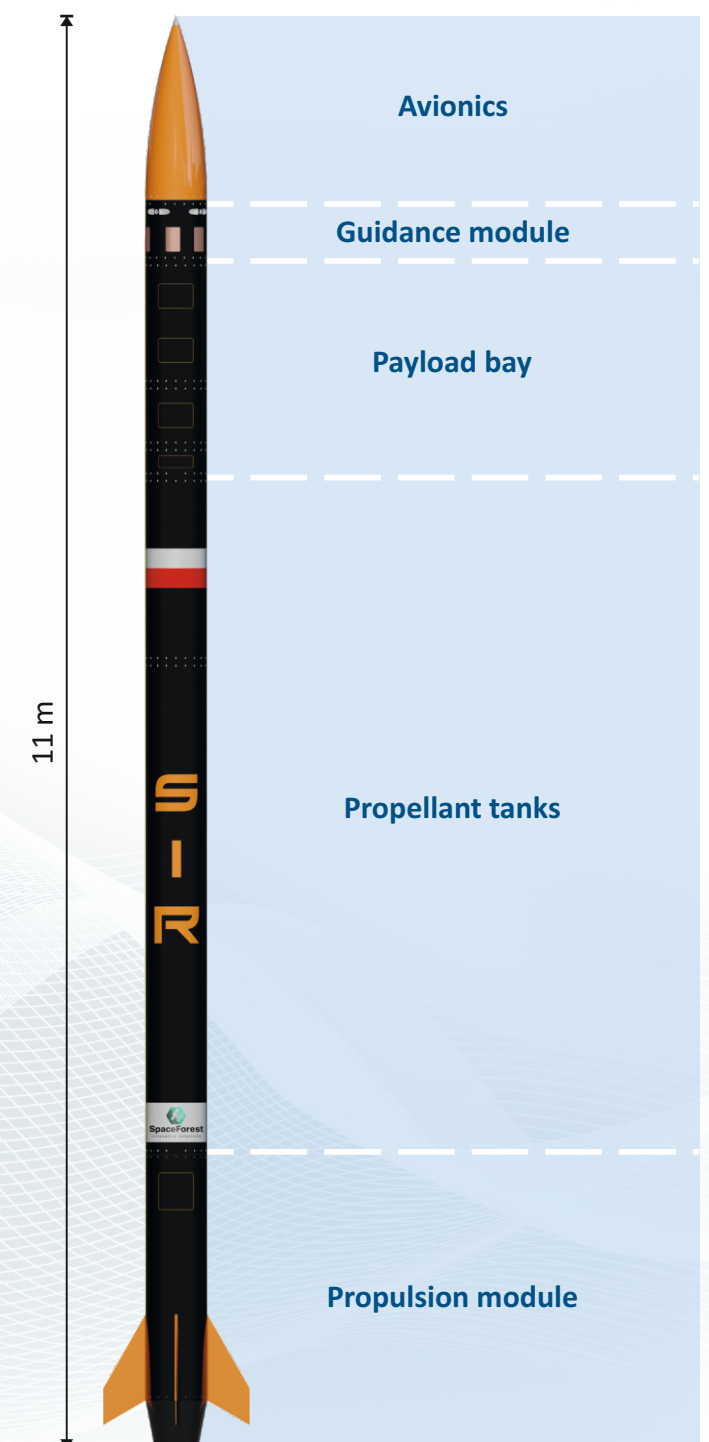
Esrang Space Center and Andoya Space Center both work in cooperation with SpaceForest for the preparations and launch of the SIR rocket. The launch campaign is coordinated with either launch site based on customer preference and is completely carried out by SpaceForest.

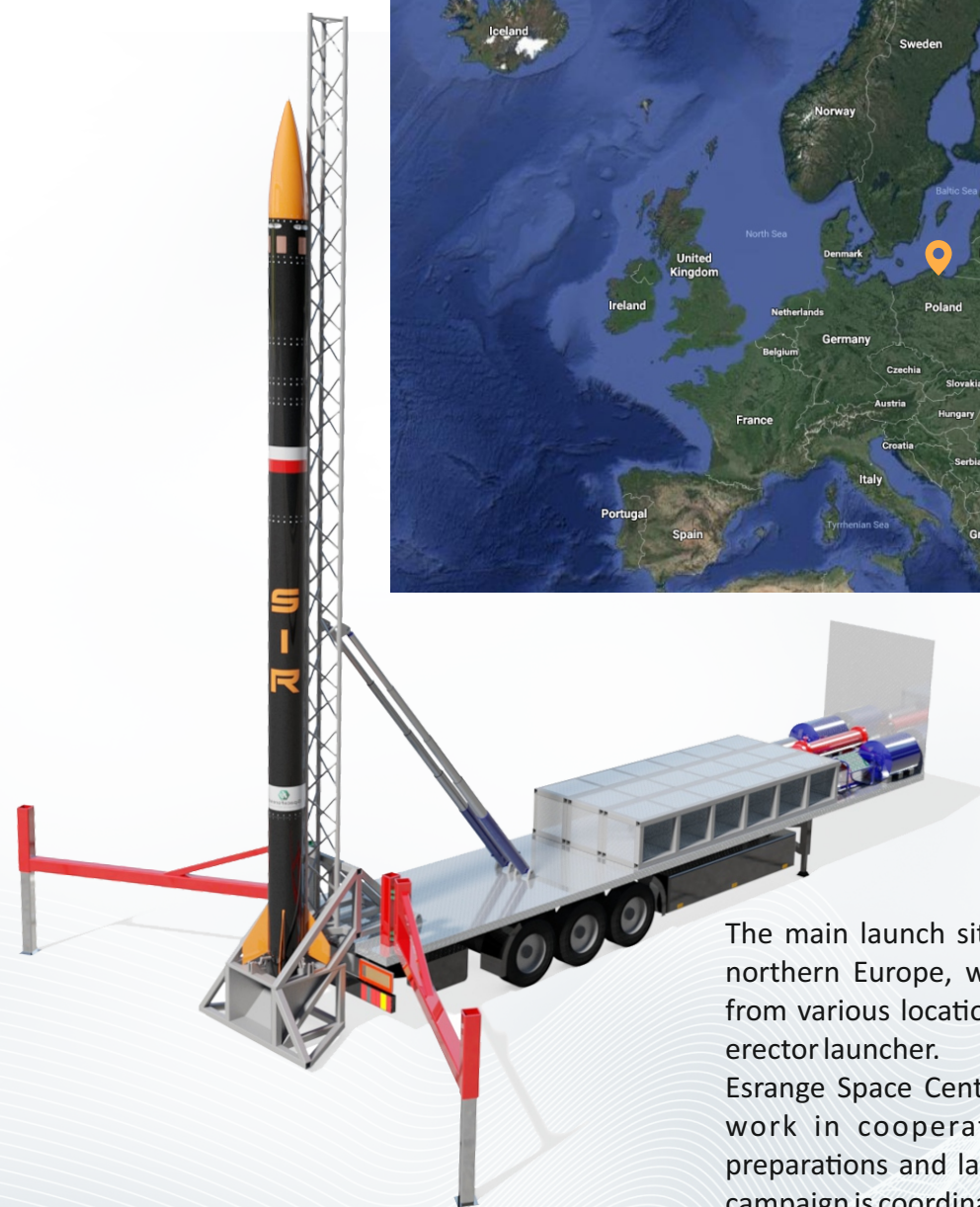
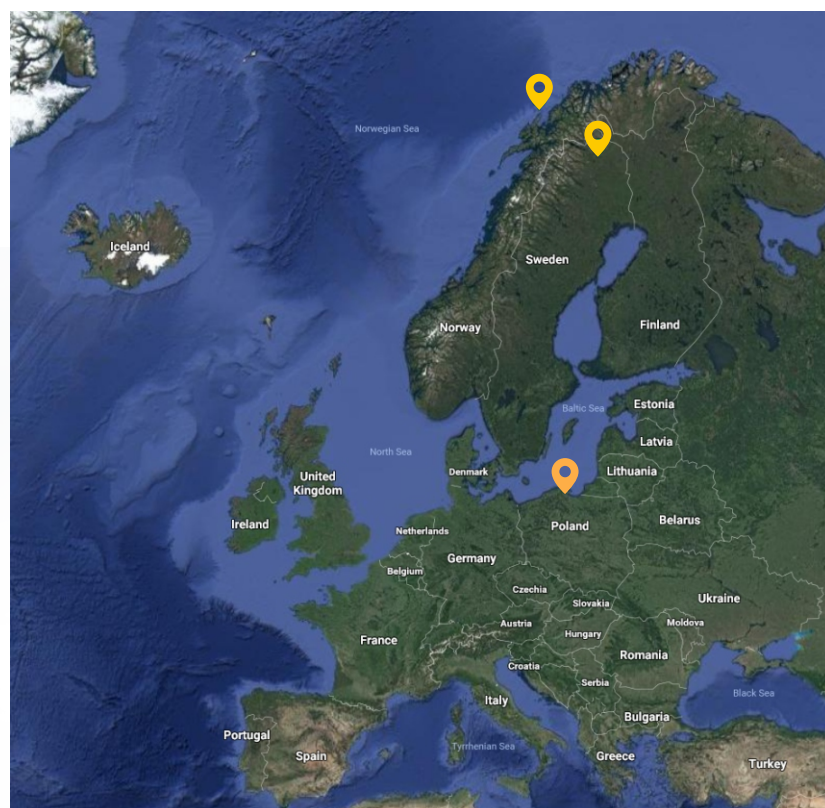
SUBORBITAL INEXPENSIVE ROCKET SIR

SpaceForest is a European space company providing various services to facilitate the commercial and scientific access to space. Our Experimental Rocket Department is currently focused on carrying out the Suborbital Inexpensive Rocket (SIR) project. The aim of this project is to develop a fully reusable suborbital rocket capable of carrying 50-75 kg of payload to an altitude range of 150 to 225 km.

SIR rocket is designed to be ideal for providing high performance and reliability at low cost for the suborbital space users. SIR is a single-stage guided suborbital launch vehicle that will be flight proven in 2019 and will be active to serve the market starting 2020.

Function	Suborbital launch vehicle
Manufacturer	SpaceForest
Price	\$4500/kg
Height	11 m
Diameter	0.5 m
Dry mass	425 kg
Wet mass	950 kg
Stages	1
Payload	50 -75 kg
Acceleration	Adjustable to customer needs
Propulsion system	Hybrid
Fuel / oxidizer	Paraffin/Nitrous oxide
Burn time	35 s
Engine contro	Throttleable (25-100%)
Flight control	Cold gas ADCS
Recovery control	Controlled drogue parachute
Recovery system	Dual deployment
Launch site	Andoya SC/Esrang SC





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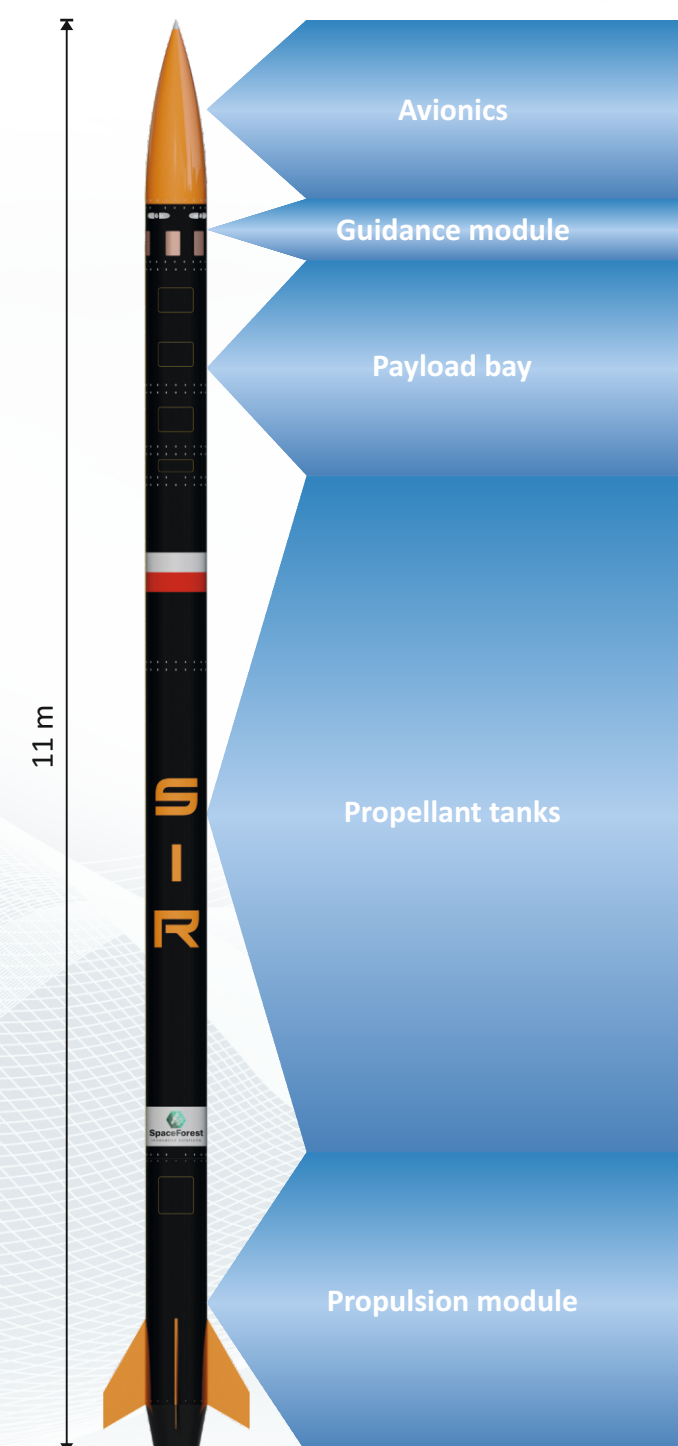
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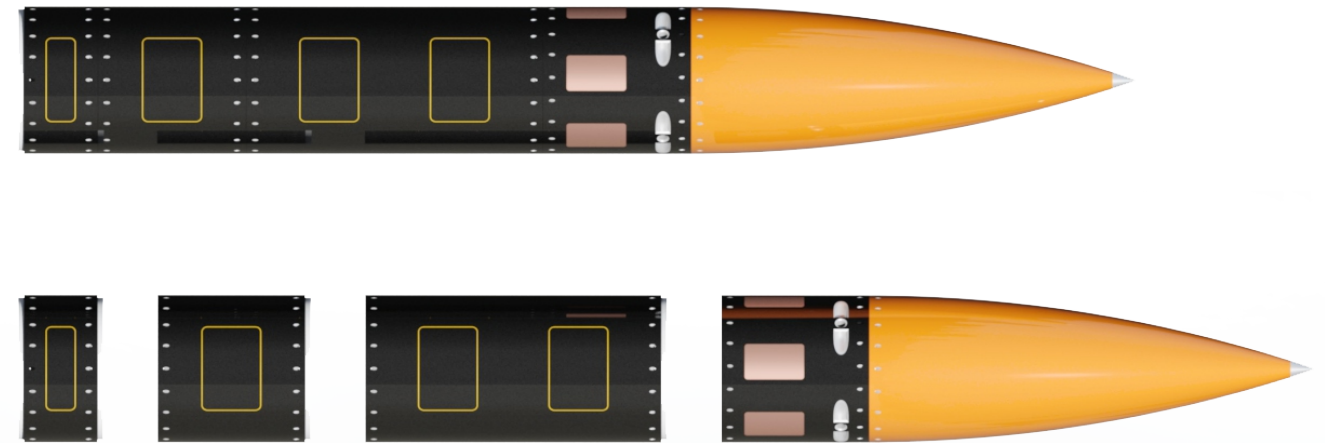
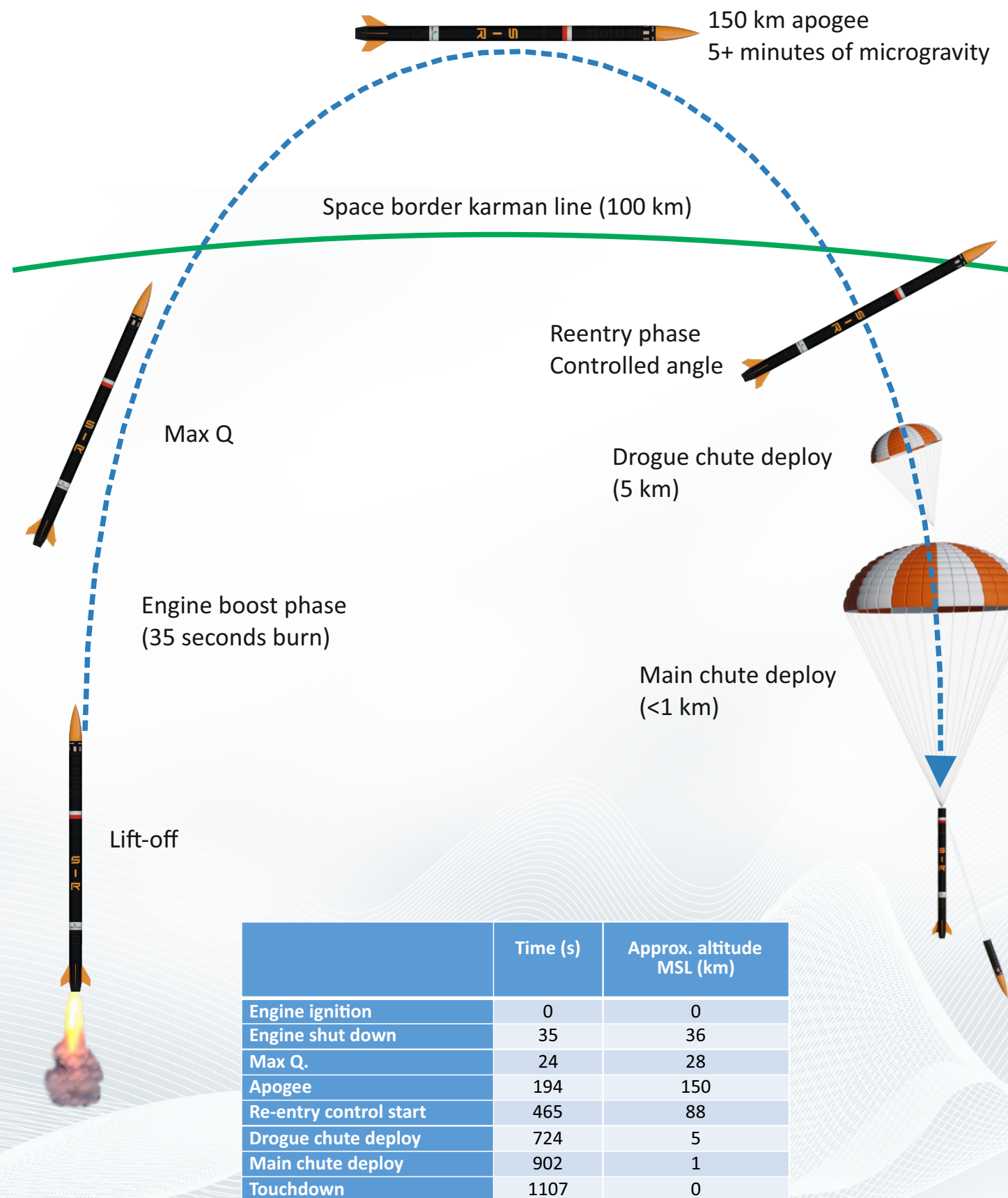
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Allowable payload specs.	PM-1	PM-2	PM-3
Height (mm)	200	350	450
Diameter (mm)	400	400	400
Weight (kg)	12.5	17.5	25
Access door	1	1	2
Access to space	No	No	Yes
Ejected to space	No	No	Yes

