BACKGROUND
The increasingly difficult situation of fire management and the growing direct economic costs require proactive approaches to reduce the likelihood of the occurring catastrophic forest fires.

An important consideration for the prevention is the prior knowledge of the flammability of the environment. Miniaturized and low-cost satellite systems can host instruments capable of producing the data necessary for the aforementioned analyses, enabling monitoring and prevention.

It is therefore possible to address the problem by studying a satellite "payload" system suitable for the remote sensing of the specific Mediterranean forest ecosystems.

CHALLENGE
The purpose of this challenge is to identify the best technological solution on the market that allows defining the characteristics of a payload onboard nano or microsatellites. The design will be made based on the use cases and favouring the best tradeoff between geometric, spectral resolution and revisiting times necessary for the early warning, impact and post-event monitoring phase.

Key objectives:
- develop a processing chain of the acquired data that demonstrates the effectiveness and efficiency of the payload;
- make the product compatible with the identified small satellite platforms;
- achieve TRL3 technology maturity through demonstration of principles, application, and Proof of Concept.

APPLICATION
- Challenges are worth 8 curricular or extra-curricular credits according to your degree programme.
- Look for "Challenge@PoliTO" in your institutional email and read the regulation carefully.
- SIGN UP NOW! Places are limited!
- For any questions, contact clik@polito.it