

**Towards a new generation of plant-inspired growing artefacts**

Grant Agreement No. 824074



***Research Topic:***

***In situ* growth dynamics of vines and lianas in the forest canopy**

The core element of the GrowBot project is to understand how climbing plants climb and integrate this knowledge into a new generation of climbing artefacts. However, very few studies actually document just how climbing vines and lianas behave in the forest canopy. We are therefore very interested to know just how diverse climbing plants actually behave in and on the forest canopy. This topic addresses issues relating to the development of new tools and methodologies for the observation of the growth dynamics of lianas in the forest canopy. Currently, the traditional approaches include pictures or film taken from ground or air. The main drawbacks are related to the difficulty of access, resolution of features, visualizing amid stem and leaf clutter, limited ranges of studied canopies and expense of observing more than a few locations using canopy rafts, cranes or climbers. Candidates should address these issues by considering all potential options and methods; improvements over current approaches are strongly encouraged. Suggestions of new or unconventional approaches which will be more than welcome.

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| ***Full Title of the proposal***  **Acronym of the proposal** | |
| Name of the applicant: | Name Surname |
| Host institution: | Name of the host institution |
| Applicant email: | email |

Note: Grey highlighted areas needs to be filled.

# Abstract

*(Maximum 200 words – Summary of the proposal)*

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# Section A: Introduction

*(Maximum 250 words – Introduction and state of the art)*

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# Section B.1: Brief description of the proposal

*(Maximum 100 words – Description of the proposal highlighting the key and innovative aspects)*

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# Section B.2: Detailed Working Program

*(Maximum 200 words – Detailed description of the research activities)*

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# Section C: Expected results

*(Maximum 100 words – Expected outcomes, publications, conference contributions, patents, etc.)*

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# Section C: Detail of costs

*(Maximum 50 words – Travel, equipment, services, large research infrastructure, etc.)*

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# Section D: References

*(Maximum 10 references)*

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| 1. Surname Name, Surname Name. (Year) Title. **Journal Volume number**: Pages. |

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|  | This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement no. 824074. |