H2020-FETPROACT-2018-01

GrowBot – Towards a new generation of plant-inspired growing artefacts

Deliverable 10.1

GrowBot Platform

WP10 – Community building

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Revision History

Author Name, Partner short name	Description	Date
IIT	Draft	30/08/2019
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Contents

1   Introduction

Deliverable 10.1 focuses on the development of the GrowBot on-line platform, with the aim to link different communities that work on plants across several disciplines.

The platform includes a collection of experimental protocols and set-ups, a list of tools for analysis of plant features, links to other related projects, tutorials, video, news, and a list of upcoming events related to plants (**Figure 1**). The contents will be updated during the all project lifetime.

The GrowBot platform is hosted on the project website (www.growbot.eu) under the "Community" section.
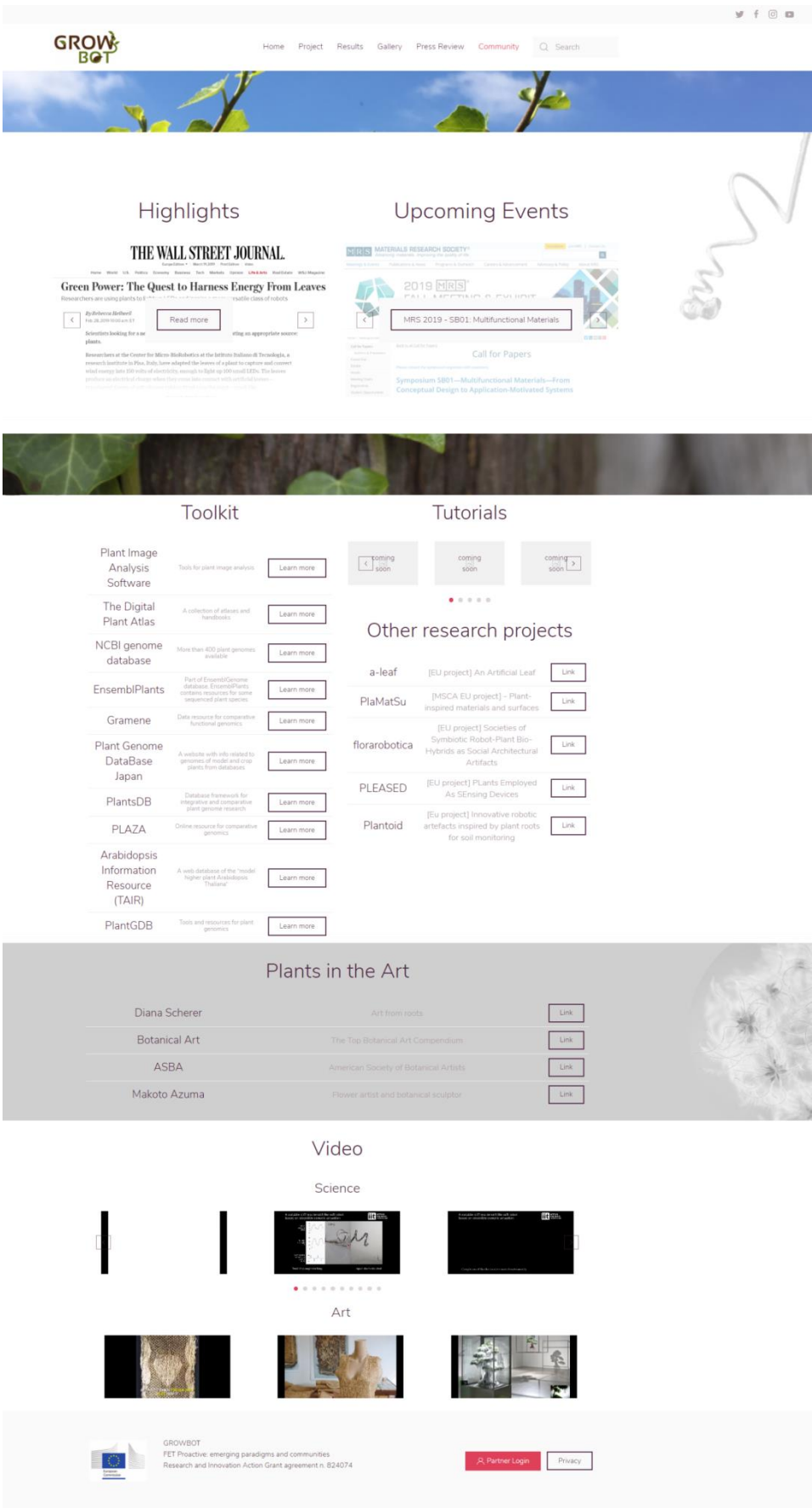
Figure 1: *Screenshot of the Community page on the GrowBot project website.*

2 The architecture of the Community page

The page consists of seven sections: highlights, upcoming events, toolkit, tutorials, other research projects, plants in the art, and video.

2.1 Highlights

"Highlights" section is a slideshow element, aimed at collecting news related to the GrowBot project and news on plants published on eminent magazines and newspapers (**Figure 2**).

Figure 2: *"Highlights" section of Community page.*

2.2 Upcoming events

"Upcoming events" section is a slideshow element, aimed at collecting the events that will come soon having as topic 'plants'. The collection of events will not gather only scientific events but also events of common interest for a generic audience (**Figure 3**).

Figure 3: *"Upcoming Events" section of Community page.*

2.3 Toolkit

"Toolkit" section is a list, aimed at collecting open-access tools useful in the study and analysis of plants (e.g., experimental protocols, set-ups technical details, software, etc.). The tools are both outcomes of the GrowBot project and open-access tools available online (**Figure 4**).

Figure 4: *"Toolkit" section of Community page.*

2.4 Tutorials

"Tutorials" section is a slideshow element, aimed at collecting tutorials from the GrowBot experts and other distinguished scientists on topics related to the project (**Figure 5**).
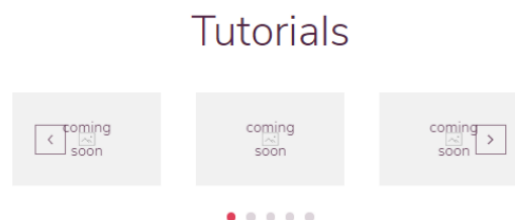

Figure 5: *"Tutorials" section of Community page.*

2.5 Other research projects

"Other research projects" section is a list including research projects on plant-related issues, still active or recently ended (**Figure 6**).

Figure 6: *"Other research projects" section of Community page.*

2.6 Plants in the Art

"Plants in the Art" is an interesting section that aims at collecting artistic activities focused on plants. This section is particularly important to highlight the role of plants in our culture and society. A list of artists and organizations is gathered in this section (**Figure 7**).

Figure 7: *"Plants in the Art" section of Community page.*

2.7 Video

"Video" is a slideshow element that collects interesting videos made by experts on plant-related issues. The section is divided into subsections in order to make the user navigation among the various disciplines as friendly as possible (**Figure 8**).
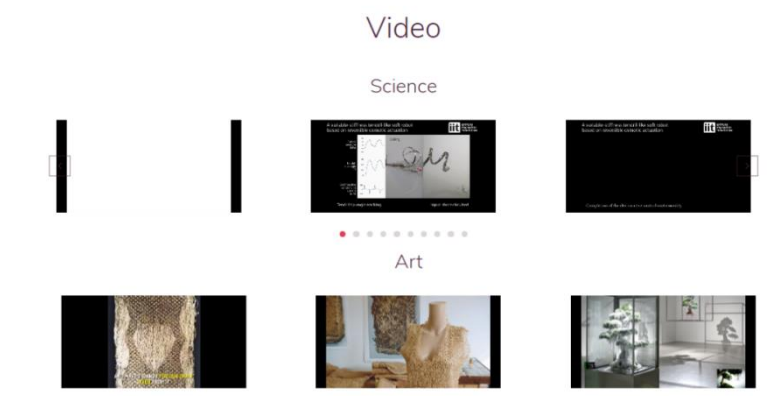

Figure 8: *"Video" section of Community page.*

3 Change vs GrowBot Annex 1

The unique variation made respect to the project proposal (GrowBot Annex 1) is the development of the forum.

In the GrowBot Annex 1, D10.1 was expected to include an open forum aimed at discussing news from scientific and technological issues addressed within the project (i.e., bioinspired robotics, biomimetics, plant science, clean energy inspired by plants, sustainable technology, bioinspired materials, manufacturing, soft robotics, etc.).

After a deep analysis and discussion, the consortium agreed to develop other forms of communication, such as social network profiles (Facebook, Twitter, Instagram, and YouTube) and workshops, considered more usable and contemporary.

The activities and results of the project will be, in fact, shared via social network channels and the discussion of scientific project topics will be presented during scientific conferences and dedicated workshops.

4 Conclusions

GrowBot Platform is part of the community building framework of the GrowBot project.

The main aim of GrowBot community building is to consolidate the ground-breaking and disruptive community on plant-inspired robotics technologies that, although still in its infancy, can represent a revolutionary approach in technology, as it has already happened with plant-inspired solutions in material science.

There is, in fact, a growing scientific community that addresses and studies plants for pursuing innovation in different fields. This includes several actors, such as, among many, biologists, especially interested in plant environment interaction and stimulus-signal transduction and interpretation; engineers and material scientists, who intend to imitate plant functionalities, energy efficiency, geometries, strategy of movements, etc.; architects and designers, who exploit plants' beauty and aim to integrate green energy production in their work. GrowBot shares this vision and would change the way to see plants in the future. This process requires a merging of different disciplines (including biology, materials science, engineering and robotics), which goes beyond the typical boundaries of a traditional robotic manufacturing approach.

In this scenario, the GrowBot Platform plays a strategic role in representing a reference tool for this growing community.

GrowBot Platform, as the entire project website, will be updated and maintained within and beyond GrowBot project, managed by IIT.