Pre2Pos project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 733209

Deliverable 5.1

PRE2POS Phase 2 project website

Date	Issue	Author(s)
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Project name: PREcession-based drive mechanisms for high-PREcision energy-efficient POSitioning deives
Project acronym: PRE2POS
Grant Agreement: 733209
Project Consortium: Phi Drive SRL, Arquimea Ingenieria SL
Project Start Date: 01/10/2016
Deliverable nature: Dissemination strategies
WP numer: 5.1.
Funding scheme: SME -2- SME instrument phase 2

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Deliverable 5.1

1. Introduction

PRE2POS project is based on the industrialization and commercialization of rotary actuators using an innovative motor, which takes advantage of the micrometric displacement of piezoelectric stacks and other smart materials to achieve infinite motion. The project if founded by the EU Horizon 2020 programme, under Grant Agreement 733209.
The first step of the project commercialization strategy is focused on the development of a website. This report is related to the release of PRE2POS website, according to Deliverable 5.1: PRE2POS Phase 2 Project Website:

"Pre2Pos Phase 2 project will be registered on the ".eu" domain (www.pre2pos.eu for example). The project website will be composed by different sections presenting the project: home, background, progress and achievements, news, dissemination materials and activities (e.g. fairs, exhibitions). After its launch in Month 3, the website will be updated regularly, on a monthly basis."

The deliverable description as in the project documentation has been followed to define a proper layout for the site. In the next section this structure will be presented in detail.
The site has been launched on the 4th of January 2017, at the page http://www.pre2pos.eu . It required a month and a half of work (which began in November), carried out by Phi Drive SRL, which was in charge of the Deliverable.

2. Website layout

The site has been created using WordPress, which provided an user-friendly way to create the main structure. Only the Administrator of the page can modify the layout and add pages to the website, while the other users can add news and modify existing pages.
The site is composed by the following sections: Homepage, Concept, News, Results and Contact. All those pages share a common Header, Sidebar and Footer. The Header gives access to the other pages, and displays evocative images, which have been purchased to avoid any legal issues, and the project logo, which will be discussed in the next chapter.

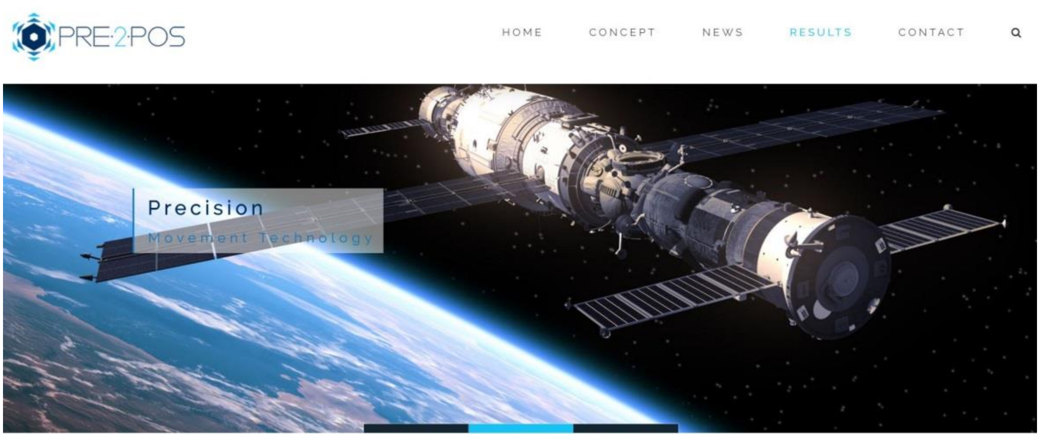

Figure 1: Header

On the Sidebar the user is provided with a fast access to the last news, along with a list of the commercial targets of the project and the basic engineering approach.
The Footer includes a Timeline that describes in an intuitive way the progress of the project, according the percentage of the completed deliverables, and the logos of the consortium Partners and of the EU, with the following caption: "Pre2Pos project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement 733209" . The logos link to the related websites.

Figure 2: Footer

2.1. Homepage

In the Homepage the goals and benefits of the project are presented, along with a brief description of the project.

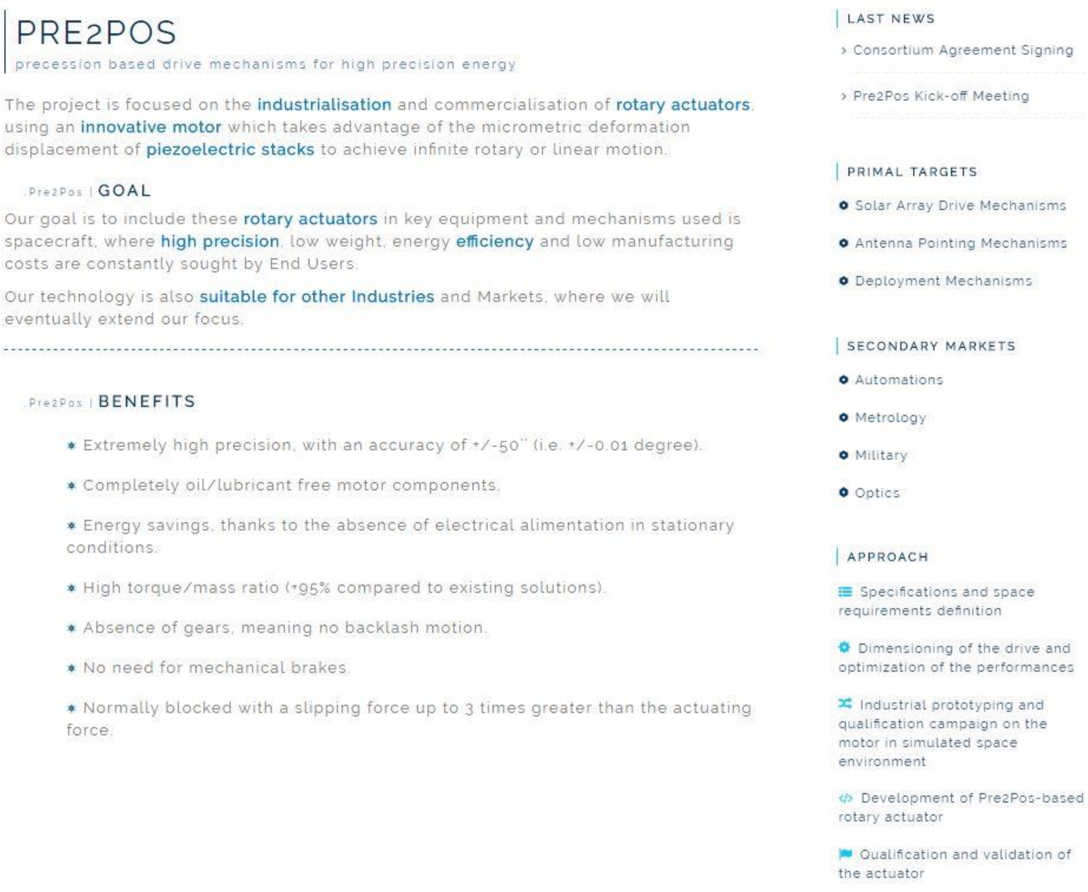

Figure 3: Homepage and Sidebar

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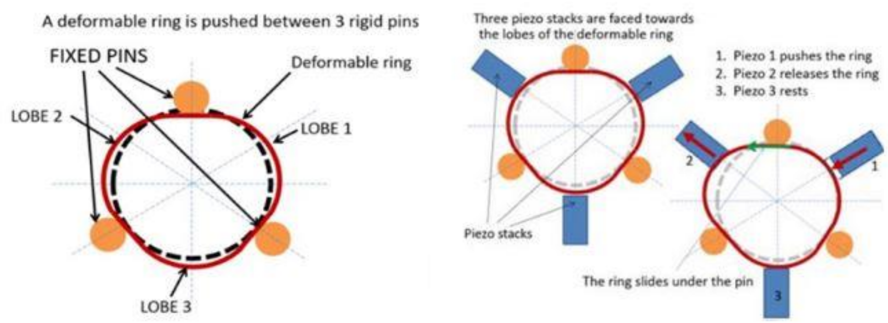
2.2. Concept

The Concept page includes a basic description of the motor mechanism, with pictures for an easier understanding of the innovative and patented principle developed by Phi Drive SRL.

CONCEPT

manipulating a flexible ring

The **technical concept** of the Pre2Pos motor is depicted in the schematics below. Pre2Pos technology is based on the concept of **manipulating a flexible ring**, which is constrained by 3 fixed pins. The constrains **deform the ring** inducing the creation of **3 lobes**.



Pre2Pos | HOW IT WORKS

Each lobe is **pressed by a linear actuator** *(e.g. piezoelectric stack)* which is initially set at half stroke (*see top schematic*), 3 linear actuators being positioned at **equal distances**.

> *BY COMMANDING THE **MAXIMUM STROKE** FOR ACTUATOR 1, THE MINIMUM STROKE FOR ACTUATOR 2 AND LEAVING THE ACTUATOR 3 AT HALF STROKE, THE RING "FLOWS" IN THE DIRECTION INDICATED BY THE GREEN ARROW.*

Then, by continuously **commuting the actuators position**, the ring is subject to a **rotational motion**, its speed being determined by the force applied by the linear actuators and their own stroke speeds.

Figure 4: Concept

2.3. News

News are visible in this page. There is a section for events, and one for publications. It will be updated regularly, and at the launch date two news have been added: one for the Consortium Agreement Signing, and the other for the Kick-Off meeting. Each news has a main picture of the related event. News have their own pages, which the user can reach by clicking on the news title or the "Read More" button.

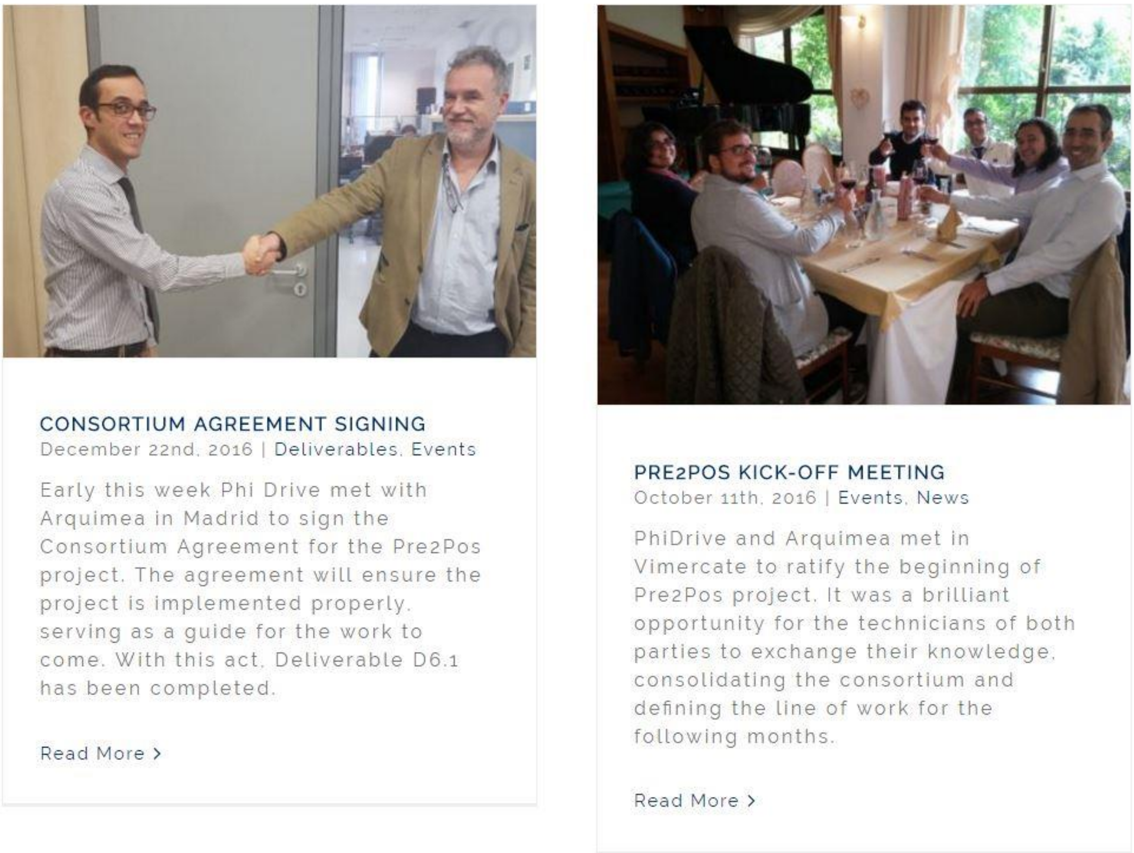


Figure 5: News

2.4. Results

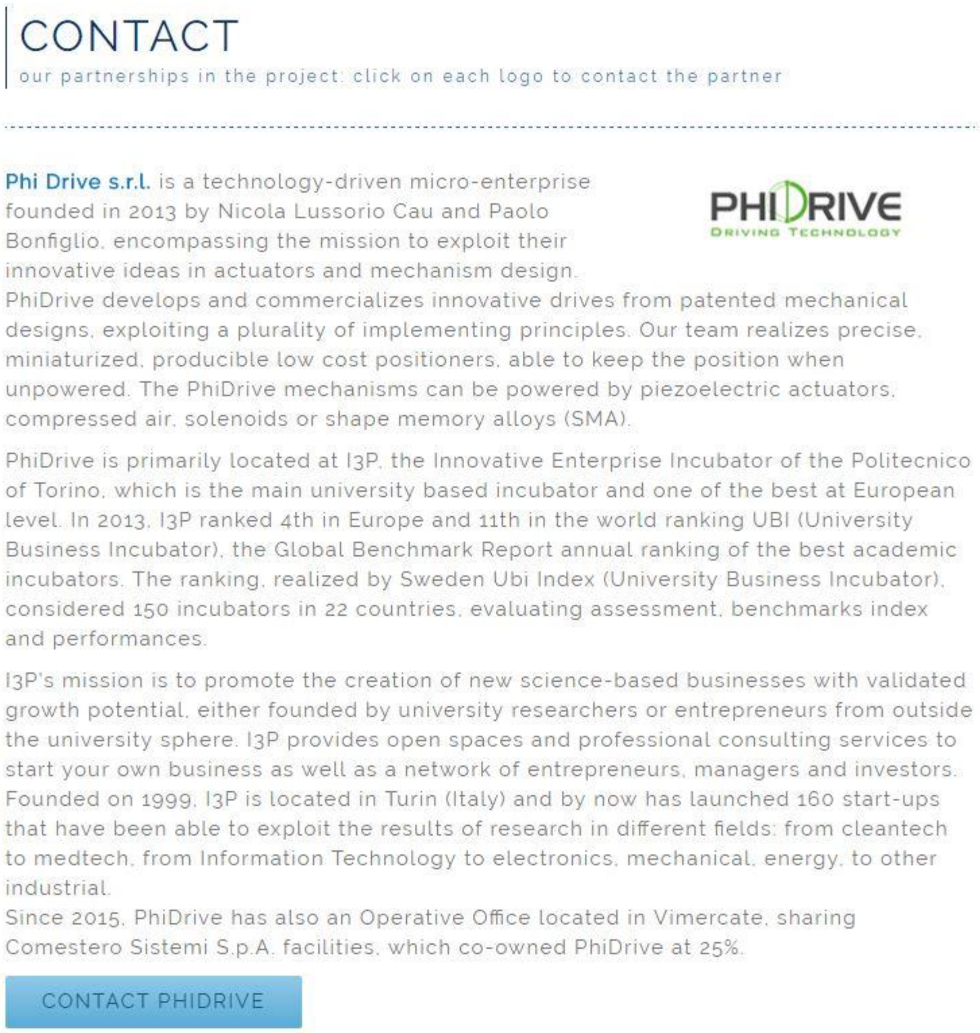
This section is divided in two pages. In the first one, named Deliverables, all the deliverables of the project are listed in chronological order, while in the second, Summary, the achieved results are presented and added as the project is carried out, in order to describe the progress of the project in detail. Each result has a basic description, and files and links can be added for a better dissemination.

Figure 6: Deliverables

Figure 7: Summary

2.5. Contact

Here the user can find a brief description of the partners' backgrounds, and links to the contact pages of their websites. The user can decide the partner to contact according to its needs or geographical location.



CONTACT

our partnerships in the project: click on each logo to contact the partner

Phi Drive s.r.l. is a technology-driven micro-enterprise founded in 2013 by Nicola Lussorio Cau and Paolo Bonfiglio, encompassing the mission to exploit their innovative ideas in actuators and mechanism design.

PhiDrive develops and commercializes innovative drives from patented mechanical designs, exploiting a plurality of implementing principles. Our team realizes precise, miniaturized, producible low cost positioners, able to keep the position when unpowered. The PhiDrive mechanisms can be powered by piezoelectric actuators, compressed air, solenoids or shape memory alloys (SMA).

PhiDrive is primarily located at I3P, the Innovative Enterprise Incubator of the Politecnico of Torino, which is the main university based incubator and one of the best at European level. In 2013, I3P ranked 4th in Europe and 11th in the world ranking UBI (University Business Incubator), the Global Benchmark Report annual ranking of the best academic incubators. The ranking, realized by Sweden Ubi Index (University Business Incubator), considered 150 incubators in 22 countries, evaluating assessment, benchmarks index and performances.

I3P's mission is to promote the creation of new science-based businesses with validated growth potential, either founded by university researchers or entrepreneurs from outside the university sphere. I3P provides open spaces and professional consulting services to start your own business as well as a network of entrepreneurs, managers and investors. Founded on 1999, I3P is located in Turin (Italy) and by now has launched 160 start-ups that have been able to exploit the results of research in different fields: from cleantech to medtech, from Information Technology to electronics, mechanical, energy, to other industrial.

Since 2015, PhiDrive has also an Operative Office located in Vimercate, sharing Comestero Sistemi S.p.A. facilities, which co-owned PhiDrive at 25%.

CONTACT PHIDRIVE

Figure 8: Contact

3. Pre2Pos logo

The first weeks of the current work package have been dedicated to the choice of a proper logo for the project. It is thought that the importance an attractive logo can't be overstated for dissemination issues, helping the consortium to convey in a graphic way the main ideas behind the working principle of the actuator and the goals of the project.

The consortium defined a series of keywords which better describe the overall ambitions of Pre2Pos project: hi-tech, futuristic, movement, fluidity, precision, dynamicity, space. Such words would help in defining the shape and the colors of the logo, while its dimensions would also depend on the media where the logo will appear, being it a website, or a report and PowerPoint layout, or a business card.

At first a series of shapes were proposed.

The hexagonal shape was originally meant to represent the isometric view of a boxed satellite, as well as the ideal shape of the core of the drive at the current stage of the technical development. The sharp edges give the idea of precision, while the triangles seems to convey the fluidity of motion and its diffusion across the mechanism.

Figure 9: Initial logo ideas

A study of the proper colors was carried out afterwards. Once again we focused on the idea of fluidity and space, considering the proper contrast with the background and the used media.
In Figure 10 and 11 the final versions of the logo are presented.

Figure 10: Final logo: long version

Figure 11: Final logo: compact version

Both a long and a compact version are presented, and will be used according to the space available on the media.

4. Indexing and Control

In order to maximize the effectiveness of the Pre2Pos website, two tasks are necessary.

The first one is a proper indexing of the pages. This activity has been carried out during the creation of the website, and will be further needed when new pages are added. With the use of Google Trends the consortium has identified the most promising keywords to use in the website pages, according to the global research trends. Then the pages content has been shaped to match these words. Using this method the site is assured the best visibility possible on Google search engine. This task will be carried out until the website has obtained a satisfying visibility.

The second task is a proper control of the website effectiveness. Thanks to Google Analytics, the consortium will control the traffic on the website, and it will be useful to fine-tune the dissemination strategy. The information provided by this instrument will allow the consortium to understand the strong points of the dissemination strategy, as well as its weakness. The site will be checked periodically after each update. The contact page will be useful as an indirect control criteria, since the partners' will be contacted by users who show interest in the project, and their feedback will provide more information for the dissemination strategy.

5. Conclusions

As stated in the introduction, the site layout was decided in order to include all the main features presented in the deliverable description according to the project documentation, and provide an easy and user-friendly way to share information on the Pre2Pos project.

Specific attentions have been given to the dissemination of the project results and deliverables: the site user will know the current state of the project, and what is to be expected in the following months.

The Partners and the European Union have their place in the Footer of each page for a better visibility.

The site will have regular updates on the progress of the Pre2Pos project.

Several weeks of work have been dedicated to the definition of an effective logo for the project, with the intent to be captivating and convey its philosophy.

Both indexing and control will be fundamental in the dissemination strategy, and particular care has been used on these issues to achieve a more efficient dissemination.

The expected date of the launch was due to be on the end of December 2016. Delays were mostly due to the need to acquire pictures for the site, in order to avoid legal repercussions by the original owners of the images.