# FRENCH COMPANY HAP2U REVEALS THE FIRST HAPTIC SMARTPHONE AND WINS ITS SECOND AWARD AT THE LAS VEGAS CES

DeepTech - Virtual Reality – Augmented Reality

*Grenoble, France, 28 October 2019* – Already a winner in 2017 for its haptic technology that lets us feel what we see on touchscreens, start-up HAP2U has won another award for the application of its technology in future smartphones.

After making its haptic technology 3D, multi-touch, and adaptable to all flat surfaces, HAP2U has filed 15 patents to miniaturise it and integrate it into future smartphones.

In advanced talks with the key mobile telephone operators in the US and Korea, HAP2U will reveal the first haptic mobile phone at the Las Vegas CES next January. The phone is a major innovation for this market that represents nearly 350 million mobiles sold per quarter throughout the world.



### Thin Technologies: HAP2U reduces its haptic technology to 2 microns thick

Since 2015, start-up HAP2U has filed around 20 patents to protect its haptic technology that **makes tactile surfaces more intuitive by integrating tangible touch sensations.** For example, you just need to touch a fish to feel its scales.

To achieve this result, the start-up uses piezoelectric sensors that are integrated under the screen with electronic chips to control them. Then, by working on the **friction coefficient**, HAP2U **emphasises and diversifies touch sensations** (intense or soft nicks, springs, buttons, elasticity, and all kinds of relief and textures, etc.) so that **each application can be personalised**.



 $\Rightarrow$  HAP2U has filed new patents to refine its haptic technology to a new thin layer, in other words, to reduce the thickness of the piezoelectric layer from 1.5 mm to just 2 microns of material.

This feat has yet to be equalled and can now be embedded into the next generation of smartphone screens to revolutionise the user experience—feel the photos on Instagram or the texture of a sweater on an online store, use your smartphone without having to look at it, and feel the letters on the keys.

The first haptic smartphone will be presented at the Las Vegas CES from 7 to 10 January 2020.

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### Haptics: a potentially infinite market

In the coming years, haptics are expected to be included in all our daily objects: vehicles, appliances, walls, switches, to name just a few. The start-up already **raised 4 million euros in 2018 from German giant Daimler** (Mercedes) to develop haptics in new car models.

This year, HAP2U has pushed ahead with its patents to make its haptic technology:

- Multi-touch: the user can use multiple fingers in different areas of the screen simultaneously and receive the corresponding haptic feedback from each section. The haptic feedback can vary in texture, relief, or intensity.
- **Multi-surface:** HAP2U has expanded its technology to all materials such as wood, glass, metal, and plastic, expanding the frontiers of what is possible.
- **3D:** apply a "3D button" that can take various shapes onto a flat surface such as an oven or an industrial machine. It picks up on the haptic feedback emanating from the surface.

With a turnover of €500,000 in 2018 and a team that has doubled in size in just a few months (from 14 to 30 employees), HAP2U is expected to reach **1.2 million in turnover and 40 employees by the end of 2019**.

#### About HAP2U:

Founded in November 2015 by Cédrick Chappaz, Grenoble-based HAP2U has developed a haptic technology that accentuates the touch coefficient for greater sensations on touchscreens. This technology amplifies the sensation of touch to establish an interaction between fingers and the tactile interface, giving the user an impression of relief and texture.

HAP2U's objective: to integrate its haptics technology in all the tactile interfaces in the automotive market, manufacturing, IoT, and smart home products to revolutionise how we interact with objects and machines.

While a large share of HAP2U's business activity currently relies on the sale of prototypes, eventually the start-up will refocus its business exclusively on the sale of licences. HAP2U is currently preparing a new fundraising campaign to expand into all these markets in 2020.

In figures:

- 2012: an R&D project that received €2 million in government funding
- 2015: the company was founded
- 2016: 1st round of fundraising resulted in €500,000
- 2018: 2nd round of fundraising of €4 million from Daimler
- 2018 turnover: €500,000
- Distribution of capital: co-founders, private investors, and Daimler

#### About the founder:

Cédrick Chappaz is a scientific researcher from CEA-Leti and the R&D unit at STMicroelectronics who worked in microtechnologies for 10 years with the conviction that microsystems would one day change how we communicate. His initial research work involved a technology capable of changing the surface of a mirror to correct image distortion caused by atmospheric layers. He then studied other applications for this technology with the challenge of reproducing the texture using haptic feedback solutions. Cédrick focused his research on this technology for four years with €2 million euros of government funding as part of an innovation process undertaken by STMicroelectronics in close collaboration with CEA-Leti, Orange Labs, INRIA and the Universities of Grenoble and Lille. Encouraged by the success of his project and the enthusiasm of stakeholders, Cédrick Chappaz founded HAP2U in early 2015 with the goal of industrialising his haptic technology. He began his entrepreneurial venture with a single employee. A few new hires arrived (the company had 11 employees in 2018), and, today, Cédrick Chappaz has doubled his headcount to respond to the excitement from manufacturers who see haptic technology as an undeniable innovation to improve the user experience of their future products/machines.

https://www.hap2u.net/