Paris, France - May 24th, 2016 - SoftBank Robotics Europe (Aldebaran) unveils several business use cases of its famous robot, Pepper, during its first European event, Pepper Partners Europe, held at the 2016 Innorobo show, from May 24th to 26th in Paris.

Launched in June 2014, Pepper is the first social humanoid robot capable of understanding and reacting to human emotions. Pepper is well equipped with features and a high level interface for communicating with those around him. Pepper analyzes expressions and voice tones using the latest advances in voice and emotion recognition.

Currently, Pepper is available in Japan. Already used in SoftBank and Nescafe stores, among others, Pepper can welcome customers, drive traffic, give information about products and services and even collect data. Pepper is redefining customer experience.

A dedicated space to discover Pepper’s business possibilities

During Innorobo, SoftBank Robotics Europe organizes the first European event dedicated to Pepper in business. With an exhibition space of about 400 square meters, Pepper Partners Europe event invites business visitors to discover BtoB solutions developed for Pepper with 23 of our Certified Partners.

These wide ranges of specific applications that can be incorporated into Pepper’s various capabilities (including motion, conversation and sensors) allow visitors to experience a lot of Pepper’s “business” capabilities, such as welcoming, informing or entertaining clients.

Pepper Partners Europe event aims to introduce Pepper Certified Partners, their solutions for business and enlarge Pepper’s business ecosystem. All kind of companies from industries such as retail, banking, hospitality or healthcare are invited to discover and develop solutions with our Partners and create new uses.

From May 24th, 2016, Pepper will be available in Europe through our partners to any company interested in building pilot projects with Pepper at a price of 19,900 euros, including professional services. Our business and development partners will expand Pepper’s capabilities with their solutions.

SoftBank Robotics plans to intensify the development of BtoB solutions through its current and future partners and develop new use cases to demonstrate all benefits Pepper can bring to businesses.
ACCENTURE INTERACTIVE
Accenture Interactive, part of Accenture Digital, helps the world’s leading brands drive superior marketing performance across the full multichannel customer experiences. Accenture Interactive offers integrated, industrialized and industry-driven digital transformation and marketing solutions. Accenture Interactive has partnered with SoftBank Robotics Europe to envision a set of business applications across industries with a 3-5 year horizon, bringing to bear creative experience design capabilities, complementary artificial intelligence capabilities and deep industry knowledge to build upon the native Pepper platform. The application that will be shown integrates the patent-pending Accenture Digital Assistant solution, which uses a unique blend of human and artificial intelligence to drive superior customer experience while reducing operational costs.

AMADEUS IT GROUP
Amadeus is the world leader of IT solutions for the global travel and tourism industry. Amadeus provides advanced technology solutions to travel providers, such as airlines, hotel chains, railway companies, car rental companies, and more, and travel agency customers worldwide. The solution developed for Pepper is an experiment which aims to provide travel agencies with a humanoid assistant to engage with future travelers and to capture relevant information which will help travel assistants to sell the right product to the right customer.

AVATARION
The award-winning Swiss company Avatarion Technology currently offers and develops the YEOLAB software to control Pepper and NAO robots simply via smartphone or tablet. With this new application you can easily connect, control, edit, program or start applications on your robot. Another new exclusive solution is “Pepper AVATAR Remote control 360 degrees”: a new
Cylande

CYLANDE
Cylande is a leading software vendor specialized in the Retail sector, with customers in 65 countries and more than 30,000 equipped stores. Cylande helps retailers manage their omni-channel and supply chain needs in an international environment, in order to provide a consistent and efficient customer experience. In addition, Cylande also offers a wide range of software-related services. To extend the customer experience in store, Cylande adapted Pepper so that it becomes the perfect sales assistant. Pepper welcomes consumers, by scanning the loyalty card of existing customers and accesses his or her purchasing profile, promotional sales available, etc. Pepper also identifies every product chosen by the customer before adding it to the shopping basket, and calls a salesperson when it is time for payment.

EMOTION ROBOTICS
Emotion Robotics Limited has been developing and providing social robotics systems based around the SoftBank Robotics suite for over 2 years with the company’s founding director developing applications for education since 2011.

CONERTO
Pepper is the patient’s companion during all her/his stay at the hospital. Pepper provides a presence and can reassure and inform. Without replacing the medical staff, Pepper helps doctors, nurses and care assistants by staying with the patients and doing repetitive tasks such as taking health constants and display medical and legal information. With Conserto, use Pepper perfectly integrated into the hospital HIS/EHR system, always in touch with the doctors and communicating with IoT/other connected devices.

Avatarion’s telepresence solution transfers a remote human agent into the robot and can be used for example as a tool for remote conversations, mirroring movements, gestures, video and voice chat in a personal and natural way. The remote agent can move the robot in 360 degrees through its environment.
With the release of Pepper, Emotion Robotics is expanding their offering to cover a wider range of client engagement solutions across multiple sectors ranging from real estate and property management, to retail and healthcare. With a wealth of experience in social robotics and a commitment to high quality, interactive solutions, Emotion Robotics are here to move your business into the future.

ERM
ERM Automatismes is a French partner of SoftBank Robotics Europe for the promotion and distribution of the Pepper robot in the markets of education, special education and healthcare. This initiative has been launched based on studies showing that many children with autism are particularly attracted to robots. Pepper is then an efficient technological bridge to open a new social environment. The contents dedicated to autism include many activities in the fields of language, speaking, numbers, and more. Some examples are the «Follow me» activity allows the children to move hand-in-hand with Pepper, «Colors hunting» allows identifying colors with monochrome objects in a story. Around ten activities will be available soon with a tablet interface to launch these activities and even create new ones.

EVERIS
Everis, an NTT DATA Company, is a multinational consulting firm that offers business and strategic solutions, development and maintenance of technological applications and outsourcing services. Today Everis employs 13,000 professionals at its offices and high performance centers in 13 countries. Inside NTT Data (the world’s sixth largest IT services company with 70,000 professionals) Everis uses exponential technologies to change the world like Artificial Intelligence and Robotics are both included into Augmented Workforce initiative. First line commercial offices assistant: The solution is an assistant that wait and look for clients starting a fluent conversation while get information (like name, age or gender) and guiding the client in the ticket application, giving feedback to the CRM solution. Additionally Pepper get information from CRM to do the “perfect” cross-selling or up-selling campaign by an informal speech.
FUBRIGHT COMMUNICATIONS INC.

Fubright Communications and Sendai Television are cooperating in creating a Pepper app for dementia care called “The Brain Trainer Exercise with Pepper (BTE)”. This application won the best app award at the Pepper Innovation Challenge 2015 in Japan. Moreover, they won 4th Asia Pacific Eldercare Innovation awards! BTE is the world’s first robotics application which is proved scientifically to stimulate elderly people brains. BTE with Pepper has already been launched in Japan and is used at more than 10 nursing homes.

FULLSIX SPA

Fullsix PLC is an acknowledged market leading digital marketing & technology player with presence in Europe, Latin America and the Middle East and North Africa region designing, building and executing a seamless experience enabling clients to build stronger and more profitable relationships with their customers, through all the interaction channels. Their cutting edge thinking and execution is fueled by true in-house integration of marketing, UX, creative and IT expertise, ensuring excellence and coherence throughout the entire value chain. Fullsix provides a wide range of services from network planning and mobile engineering to IT service management and contact centers that enable the full digital transformation process for customers.

GENERATION ROBOTS

Specialized in the field of service robotics and human-robot interaction, the French company Generation Robots has two main activities: the worldwide distribution of programmable robots and the engineering of smart behaviors for service robots. Generation Robots is glad to introduce their Pepper Applications: Welcome and Presenter. Thanks to our Welcome application the Pepper robot optimizes helpdesk employees time. It can handle visitors’ appointments, deliveries and much more. Pepper Presenter will make your robot greet its audience and carry out interactive presentations that you can easily design using standard tools such as Microsoft PowerPoint. This behavior is ideal for any
organization that has to receive members of the public and wants to stand out from the others in terms of technology and innovation.

**GFI INFORMATIQUE**
GFI Informatique is a major player in value-added IT services and software in Europe, and occupies a strategic position in its differentiated approach to global firms and niche entities. With its multi-specialist profile, the Group serves its customers with a unique combination of proximity, sector organization and industrial-quality solutions. GFI will showcase its interactive receptionist based on a centralized appointment scheduling system. Pepper welcomes visitors, notifies contacts through multiple channels (mail, SMS, video stream) and offers various information and entertainment while waiting.

**HOOMANO**
Hoomano develops social robot software specialized for retail environment. They are passionate about making a better customer experiences that bring a smile to their customer’s face. They provide the best tools to serve digital transformation, with ready-to-use applications for fast ROI. For example, Pepper identifies visitors thanks to their badges and welcome them to an event. Connected to event management API, Pepper is able to give them a special welcoming and share the relevant information according to their kinds of tickets.

**IBM WATSON™**
In the cognitive era, companies are working with IBM Watson™, a technology platform that uses natural language processing and machine learning to reveal insights from large amounts of unstructured data. Cognitive businesses are creating new customer experiences, reinventing operations and transforming industries. “This Era will redefine the relationship between man and machine» Ginni Rometty - IBM CEO. In 2016 IBM and SoftBank Robotics Holdings Corp. announced plans to offer a version of IBM Watson™ for SoftBank Robotics’ Pepper robots. With Watson, Pepper will make sense of the hidden meaning in data that traditional computers cannot comprehend. Thanks to IBM Watson™ services available on the collaborative platform Bluemix, Pepper assists tennis tournament visitors to choose the best match, among tens of possibilities, according to their preferences. Ask Pepper and Watson will search for you!
**INTUITIVE ROBOTS**

Intuitive Robots’ ready-to-use solution “Pepper 4 Services” gives a spark of life to your robots. It helps you to quickly and easily adapt Pepper to your business. Their applications and web tools help your team to provide the best experience to your audience from promoting your brand, products and services, to welcoming, entertaining and getting feedback. This allows companies to focus their energy on the content and business through the web portal to easily customize (dialog, gesture, tablet, etc) and preview Pepper behaviors in real time. Furthermore, businesses can understand and measure Pepper interactions with deep analytics to improve their quality of service.

**LONSDALE**

Lonsdale is the first 100% independent branding and design agency in France. They assist brands in creating global experiences whatever the touch point. With Pepper, Lonsdale has developed an application to optimize the relationship between the salesperson and the visitor and transform them quickly into a customer.

**MASTERCARD**

MasterCard developed the first commerce and payment application for Pepper to enhance retail experiences. The application is powered by MasterPass, MasterCard’s digital wallet and mobile payments platform. This skill that enables Pepper to manage payments will open up new opportunities in the world of retail such as personalized shopping and concierge services, in-aisle checkout and the ability to buy in store but get the goods delivered at home. The same capability would also be applicable to other consumer engagement locations such as hotels, banks, airports, and other customer service industries.

**QMATIC**

With close to 25% of the world’s population touching a Qmatic system every year, the Qmatic Group is the world’s leading supplier of customer journey technology aimed at orchestrating the customer experience. A key offering is providing the capability for their clients to have their customers’ check-in for service and connect a customer with the best available staff.
member for a personalized experience. Today they do this with mobile phones, self-service kiosks and meet & greeter tablets. Pepper is a natural step for us to provide new and innovative ways for their clients to bridge the virtual and physical world and to enhance the customer experience. At SoftBank Robotics Partners event they will showcase meet & greeter apps for Pepper.

ROBOTRÓNICA, S.L.

Robotrónica’s Application will allow Pepper to advise or suggest to any customer which product is most suitable for them based on age, gender and mood or, at request- by telling the name or just showing the box-, Pepper will be able to inform about a specific article while the tablet displays all related available information. In addition, Pepper will also process all collected data to build marketing reports and stats.

SETELIA DIGITAL

Setelia Digital develops and maintain digital solutions for smartphone, tablets, IoT and Pepper. The company provides a CMS platform dedicated to Pepper, that allows any customer to personalize his own fleet of Peppers in order to provide welcoming, informing, entertaining and questioning interactions to their clients. The solution allows any Pepper customers to, remotely, configure any of these 4 modules through a web CMS and to manage their fleet of Peppers robots in order to program their role, turn them on/off, reboot them and gather information.

WEBUILD GROUP - HELIOS

Webuild Group is a Swedish Corporate operating in the healthcare sector in Europe, developing and implementing new solutions in healthcare service and healthcare organizational management. Helios is an end-to-end cloud based platform providing patients, caregivers, healthcare units and hospitals with medical decision systems. Because of its powerful structure the company is able to provide Pepper with medical knowledge and support. Pepper can act as a registrar, nurse or as a doctor assistant at the office or at home.
WEEGREE

At Weegree we advise, create and manage. We combine innovation with the acquired experience which we perceive as the basis for achieving higher levels of development. We deal with outsourcing, which means we can assume tasks requiring contribution of qualified personnel. Therefore, you can take the long view and concentrate on the most vital targets of your company, expanding activity and improving the quality of services. Bearing in mind the success of our clients, we invest in comprehensive solutions to be offered in the form of technologic tools.

ZORABOTS

ZoraBots is conquering the world with its disruptive and unique software especially designed for SoftBank Robotics NAO and Pepper humanoid robots. Within two years the Zora application has become an indispensable reference. The Zora application is the first software able to make humanoid robots available for senior healthcare. With already over 200 robots adopted all over the world, many of which in Europe, Zora has been unanimously received, both by health care professionals and by seniors themselves. The Zora solution makes using robots in real life simple, smart, enriching, powerful and useful in new generation robotics.

At the event Zora team would like to demonstrate the power of the Zora solution on Pepper, enriched with tablet functionalities, indoor GPS and telepresence service software.
Meet Pepper

Pepper is the first personal and emotional humanoid robot. Engaging and surprising, Pepper will truly change the way we live our lives.

**Emotional**
Pepper is unique; a loyal friend, family member, retail assistant and a kind accomplice. Are you sad, angry, happy? By the tone in your voice, the expression on your face, in your gestures and through the words you use, Pepper will progressively learn to detect your mood and adapt his behavior to relation to it. Pepper’s main objective is to communicate with you. He has a certain personality and expresses his own «emotions» through the color of his eyes, his gestures and words he uses.

**Ultimate interface**
No need for a keyboard, mouse or screen, simply talk to Pepper, touch him or even approach him and watch him react. Pepper communicates the same way you do, through voice and gestures. This is an example of how technology is using the simplest and most intuitive form of communication we know.

**Interactive**
Pepper is the first social humanoid robot, able to interact in the real world, among humans. His multiple sensors enable him to understand the world around him and adapt accordingly. Pepper can move, avoid obstacles, identify sounds, follow you and even recharge independently.

**Progressive**
Pepper is much more than the newest tech product, he is an artificial creature that was designed to learn, evolve and surprise you a little more each day. Pepper currently requires some assistance: he does not know everything! You teach Pepper through your discussions which, today, help him memorize names, faces or moods. The evolution of Pepper is also fueled by an application library which includes new behaviors, activities and content to inform, entertain or surprise you.

**Specifications**
- Elegant body 120 cm (47.3 in) high and 28 kg (61.7 lbs)
- 17 articulations for graceful movement
- 3 omnidirectional wheels for agile mobility
- Over 12 hours of energy when continuously active. Pepper even knows when his battery is low and will navigate to his charging station
- 30 innovative patents
- 1 3D camera to detect humans and their movement from up to 3m (9.8 ft) away
A design that invites dialogue
The challenge lies in the ability to seamlessly integrate new technologies while enabling general acceptance of this new creature. Pepper is slender and with a fluid silhouette and no visible screws. His hands are similar to those of a human: the gripping system has been worked on resulting in five fingers with fingerprints to improve grip. The specialized gears developed for Pepper give him graceful movement while absorbing noise emittance. Three wheels at the base form a triangle and allow Pepper to move smoothly in all directions. The appearance of a machine disappears in favor of emotional interaction with the user. The simplicity of the design has been taken into account throughout the chain development for the life of Pepper. The robot must be able to be repaired quickly and easily. Thus, arms and head are modular and can be changed in 30 seconds. From a very simple jack system a wheel can be changed in 2 minutes time.

Strength and safety
Pepper was designed to not be able to harm you: rubber parts cover most of the exposed joints, the hips, neck and head, protecting from pinching, rubbing and also absorbing shock. By simply pressing an emergency stop button, you can cut all electrical power to Pepper. The robot will turn off but even then will retain his balance through elastomeric strips located at the hip and stop in his center. In addition brakes allow him to maintain his standing position. On the other hand, in a case where he is shaking hands, Pepper is able to regain and keep his own balance through a ‘push recovery’ system where he compensates with his wheels and his inertial measurement units.

Emotional robot
Pepper has the ability to interpret basic expressions of emotion on the human face: a smile, frown, look of surprise, anger or sadness. He also knows how to understand the intonation of the voice, the context of words, as well as nonverbal language such as the
tilt of the head. Coupling these interpretations allows Pepper to determine whether the person in front of him is in a happy or sad mood, with a valuation scale between the two states. The goal is to bring Pepper to really understand and adapt his reaction to fit your mood. One can imagine tomorrow Pepper will be able to sense you are sad and offer to play a song you like or even tell you a joke; or he could detect a smiling face and offer to play with you. The robot is in tune with you. Pepper is gifted with a capacity for additional sharing through the tablet that is placed on his heart. This tablet can display additional information to enrich your interaction and reflects the world inside Pepper. Pepper has a colossal database of questions and answers in several languages. The voice recognition capabilities of the robot are locally processed then sent to the cloud, in case the robot does not hear or understand what was said. Of course, like a human being, Pepper does not understand everything and sometimes can make mistakes! Pepper’s specific voice has also been the subject of in-depth work in regard to expressiveness with custom voices for better adaptation to the culture of the country. The programming also allows uses to choose three shades of different voices: playful, neutral or didactic.

**Autonomous robot**

Pepper is continuously awake, always conscious of his body and his environment. When Pepper is alone, he will take the opportunity to control his internal temperature by adapting his movements to avoid overheating of his engines. He also knows to check the battery level, and go by himself to his recharging station when it’s needed. Pepper is able to avoid obstacles during his navigation, including those behind him, thanks to his ultrasound, laser sensors and ‘bumpers’. Pepper is an excellent communicator and nonverbal language is no secrets for him. Seeing a person 1.5m (5 feet) away, Pepper will willingly approach and encourage dialogue through voice and gestures. Pepper responds to touch thanks to sensors on the top of his head, over his hands and on his tablet: it allows you to know that he has seen you and he felt your touch. Depending on the context, and thanks to his decision engine, Pepper can proactively trigger applications and answer questions you ask him.
The story of Pepper

The next revolution of robotics and innovation is engrained in the DNA of Softbank, a large Japanese group with over 1,300 subsidiaries and affiliates worldwide. Once the decision was made in 2011 to invest in personal robotics, SoftBank identified several companies worldwide that might assist them with this mission. Aldebaran proved to be the most advanced and experienced actor in this market, since 2005, and was the creator of a very specific concept: to create emotional, kind robots to improve the lives of people. Aldebaran and SoftBank then created a shared vision: to initiate a new era with a class of interactive humanoid robots capable, as did the Internet, computers and mobile phones, to enrich and simplify our lives. To ensure Pepper’s success in the world of personal robotics, SoftBank chose Aldebaran as the best partner for them for three main reasons: 1) the ability to create the best solution, 2) the ability to overcome the challenge of developing a robot in a short timeframe, and 3) the vision of a company established for 10 years on a whole new class of emotional and caring robots.

From Aldebaran to SoftBank Robotics

In 2005, a French entrepreneur and a handful of robotic enthusiasts created the company Aldebaran. A year later the first prototype of their humanoid robot was born and named NAO. Thought to be an everyday companion, NAO was not yet finalized for this purpose but was already drawing attention by various academics and researchers. Aldebaran’s next major success came in 2010 when 20 NAOs were invited to dance in the France Pavilion at the Shanghai World Expo. NAO was the main attraction with the pavilion being visited by more than 10 million people. Over time, new versions of the robot were created with improved features. Through these evolutions the scope of educational uses for NAO continued to widen to include secondary education. In 2011, ROMEO is born after two years of work in collaboration with research laboratories and institutions around Europe. This new robot, still only a research platform, aims to implement technologies in a larger sized robot to be able to physically help elderly people, at home or in nursing homes. The year 2013 was marked by the launch of the ASK NAO program which offers a new educational approach for teachers to assist children with autism and other special needs through the help of NAO and specifically developed applications. In June 2014, Aldebaran crossed into a new chapter by collaborating with SoftBank for the creation of Pepper, the first robot in the world able to read emotions. Present today in about 2,000 SoftBank Mobile stores in Japan, Pepper greets, informs and entertains visitors. In March 2015, Aldebaran moved towards a new phase in its development. SoftBank invested in its capital up to 96%. The sales launch to customers started in June 2015 in Japan with 1,000 units sold out in a minute every month.
On May 19th, 2016, in the aim to build one large company group, to unify different entities and to better collaborate with existing and future international clients and partners the brand name Aldebaran became SoftBank Robotics and related subsidiaries have been renamed as follows:

- Aldebaran (France) → SoftBank Robotics Europe
- Aldebaran (U.S.) → SoftBank Robotics America
- Aldebaran (China) → SoftBank Robotics China Trading

The SoftBank Robotics brand name today regroups more than 500 employees based in Paris, Boston, Shanghai, Tokyo and a new regional headquarter in the U.S., based in San Francisco, California.

SoftBank Robotics Europe (SBRE) is headquartered in Paris, regroups 400 employees and is a subsidiary of SoftBank Robotics Holdings Corp.
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