BUSINESS PLAN SUMMARISED

1 General description of the company's activity

Sensing & Control Systems was founded in 2006 in Barcelona (Spain). S&C develops IoT platforms and applications allowing companies to efficiently connect products, manage data and seamlessly interact with their customers. We offer IoT solutions to organizations in different sectors including telecom, energy providers, healthcare, buildings construction and management, hardware and appliance manufacturers, retailers, insurance companies, warranty services and Smart Cities. Our platform is a complete end-to-end solution that easily integrates with existing systems and products from multiple industries. It connects to any device including sensors, actuators, appliances, meters, wearables, smartphones, home products (as thermostats, lights, plugs), cameras and Raspberry Pis. We have customized our platform to serve the smart home, security and energy market through a solution named enControl™.

We currently employ a team of 14 multidisciplinary professionals from different specialties, and as part of our growth we have consolidated a network of partners and distributors in Denmark, Poland, Bulgaria, Croatia, Serbia, Spain, India, Argentina and Chile. Among the most important milestones and achievements we highlight:

- One of the 5 finalist of the IoT M2M innovation Worls Cup 2016 in the category of "Connected Homes" among 400 participants.
- Finalist in the 2014 edition of the world to NYC global industry challenge: smart and sustainable cities. The event invites innovative companies from around the world to pitch their solutions to nyc's energy utility, public authorities and investors. http://worldtonyc.com/past-programs/fall-2014-program-smart-sustainable-cities/
- The project SCANERGY (a SCAlable and modular system for eNERGY trading between prosumers) received the "Best DEMO Award" at the 2015 International Conference on Autonomous Agents & Multiagents Systems. http://www.aamas2015.com/en/Best-Demo-Awards.html
- The REWARD project, in which S&C's middleware platform has been adapted to create a novel security functions, was granted the 2013 NCT CBRNe "Innovation Award" for the most innovative product. http://www.cbrneportal.com/and-the-winner-is
- Our Dev Team took second place in the Sony Hackathon within Mobile World Congress 2014 in Barcelona.

Mission

Sensing & Control Systems develops the tools that allow individuals and companies to carry out continuous monitoring of their assets and resources, through research and permanent update will create the most advanced solutions, promote the improvement of the team and this will always remain committed to service and total customer satisfaction.

Vision

Global Market leader in connected homes.

2 Market

Today's smart homes are more about quality of life and living greener. Homes with our solution are sustainable, and it helps to ensure that households are comfortable, safe, and secure and it even help alert users when they are overspending energy (whether they are home or not).

Current trends in home automation include remote mobile control, automated lights, automated thermostat adjustment, scheduling appliance operation, mobile/email/text notifications, and remote video surveillance.

Connectivity and interactivity are driving the way families live and manage their homes. Therefore, while people are expected to be in more places due to business travel, children's school schedules and social activities, these new smart systems provide innovative connectivity to the household, even when far away. In addition, when the house is occupied, the high level of automation enables more convenience, control and safety anywhere in the property. It all adds up to fewer worries and increased enjoyment of life, which is something we all welcome nowadays.

There is a wide range of 'smart' hardware on the market that help manage homes. These hardware based systems only target convenience rather than a holistic approach leaving out important issues like security, safety and efficiency. In general, the smart device market is still very small in Europe. For instance in 2014, approximately 2.7 million homes, or 1.2% of all households in the EU28+2 region, had at least one smart device with smart thermostats being the most popular. However, these devices and systems are forecasted to grow at a compound annual growth rate (CAGR) of 61 percent during the next five years, leading to 29.7 million smart homes by 2019. Market revenues grew by 60 percent to € 0.77 billion (US$ 1.0 billion) in 2014. The market is forecasted to grow at a CAGR of 58 percent until 2019 reaching € 7.6 billion. Most households will first buy a single smart device before buying an entire smart home system[1]. **Thus, at the wider European level, will experience increasing demand over the mid-term.**

Regarding software solutions, one important trend we can´t let bypass is the increasing number of smart homes ecosystems being deployed during the last 2 years. This business sector is expected to grow at a inter annual rate of 11,36% market penetration. In reference markets like the US, steady growth is expected during 2015 reaching a 5% penetration or about 6 million homes. From cameras, sensors to thermostats to internet-connected stereo systems, consumers are buying solutions that they can control from their smartphones and tablets.

Customer´s awareness about what home automation is and what it can do for their lives is bolstering sales. The general population is a lot more educated on the general concept. The consumer sees this technology and starts to think about what they can do. Homeowners are beginning to understand the capabilities of home automation and how it can make their lives better. The state of home automation as a whole is better than it has ever been. Players in this market report double-digit growth year over year, noting that home automation sales increased even during the economic crisis. Manufacturers of hardware are not the only ones seeing positive growth. Some competitors have been up just under 20 percent for three years in a row," says Keith Harrison, owner of Total Home Technologies, located in Roseland, N.J., and he anticipates the same for the coming years. Neal Check, president of SoundCheck, in Southfield, Michigan, reports that his company, a whole home integrator in the Detroit metropolitan area, saw 1,6 million € in sales for 2014, a 79 percent increase over 2013. He says that sales in home automation are remarkable, especially considering that Michigan's economy had been hit even harder than the rest of the nation during the recession.

Another important trend is the one toward greater use of specialized and focused technology partners, instead of in-house resources. Service providers are looking for more out-sourcing and, in general, a preference for variable costs instead of fixed costs. Pioneer companies like NEST[2] (recently acquired by Google[3]) with over 1 million users are bringing automated climate control tools to the massive residential market. Although their primary offering claims convenience rather than security or energy efficiency, we are sure their success will bring a good push to the industry.

We choose to start implementation of enControl™ in countries with a mixture of service providers trying to improve their business model, the cultural environment that have a clear need for advanced automation technologies and on the other hand product and channel areas that match our strengths and will expose us to mass markets. For this reason, we operate focusing on two of the most prominent channels, energy and telecom service providers.

enControl™, as well as future product upgrades, targets the mass residential market. As a white label, business-to-business service offering, enControl™ will be offered to households by our current and future service provider (Telecoms & Utilities) partners across Europe. This business model leverages the existing relationship between the user and their service provider. Our target partner has an average of 2,5 million residential users with approximately 10% of those customers being 'digital households' – homes with WiFi that use a range of web and smartphone applications to perform routine tasks. In addition to a general market survey, over the past twelve months, we have carried out extensive research to identify the true automation control needs of households, as well as the service needs of their utility providers.

3 Product and Technology:
We have developed a solution that enables homes to provide states and emotions to their householders; enControl™ is able to combine scents, lights scenarios, moods, sensations and lifestyles. The home informs parents of any event happening, when kids arrive and if they stay well; when-excessive CO_2 level requires further ventilation; which time cleaning service finished their job, your elder parents behave normally at home. The inmates can interact remotely with their homes: select a specific lighting program, perfuming the house, dynamically control TV watch time.
Our technology puts any home at the service of their owners, bringing intelligence and assistance. With enControl™ a home learns the preferences of the occupants and adapts itself to it automatically, bringing the best comfort with the lowest energy consumption, whilst experiencing with their home emotions, they make money. By integrating all in one comfort, security and energy efficiency enControl™ ensures convenience, simplicity and peace of mind
We have already deployed our solution in Croatia, Spain, Denmark, Bulgaria and India with more than 300 installations, obtaining high satisfaction ratios from users plus energy savings in excess of 15%.
Our business model uses service providers like utilities and telecoms to leverage massive residential markets. For this reason, we offer to service providers a centralized dashboard for supporting their clients and a powerful back office tools allowing variable tariffs, data aggregation and the business intelligence necessary to make profit whilst increasing customer satisfaction.
enControl™ is the result of 6 years of development closely working with service providers from Denmark, Croatia and Bulgaria. Following a R&D strategy in which S&C has integrated the result of different developments from 4 FP7 projects related with energy, security, smart cites, health (iURBAN, SCANERGY, GREENCOM, MEEEGAS) together with the development of an own M2M (Machine to machine) IoT (Internet of things) platform in the current product.

enControl™ is composed by: (1) An IoT platform running on the cloud. (2) A series of home devices (sensors and actuators) enabling local functions (energy management, security, comfort, automation and health). (3) Powerful smart phone and tablet Apps for users. (4)In addition, a web based multi user graphical interface for the end user to manage and interact with the home. (5) An enControl™ home gateway that manages, control and collects data from energy sensors installed at the home or building.

Sensor devices provide information like status of the infrastructure, integrity of occupants, air quality levels, temperature, relative humidity, global or partial energy consumption/production, and other related information that might affect performance like weather forecast, presence, window and door's status, CO_2, CO, Smoke, leakage, etc. Actuation devices provide information like status and settings of thermostats, doors, curtains, blinds, electric motors, etc. Actuation devices are the first level enablers to improve user's behaviour.

enControl™ home gateway connects bi-directionally home devices with the IoT platform. Booth, the IoT platform and the home gateway execute predefined rules automatically as a function of user preferences, which brings actions at a level of configuration setups for ease to use by end users.

At higher level, the IoT platform holds a big data infrastructure and decision support system, which aggregates current and historical information from all connected homes and from external services. At this level, enControl delivers users with: (i) forecasting, (ii) personalised awareness advices (as a function of future potential events), (iii) engagement and (iv) rule engine that empowers users to efficiently manage their home ecosystem. enControl™ targets efficiency in use of home system and high load appliances. enControl™ service is accessible through enControl™ API, which allows the connection of the service provider ERP allowing the integration of the aforementioned functions into their ICT system. Additionally, enControl™ administration functions are accessible through a control panel based on web technologies which shortens the service provider time to market.

enControl™ first prototype, provided a sophisticated method to monitor and control the home's needs. Next to comfort, security and energy management, the system can control and monitor a large variety of other aspects of the home. Examples of these functions are heating, ventilation and air conditioning (HVAC), Indoor Air quality, lighting or security measures. In 2012 was finished a beta-version. During 2013, we validated the innovation in a *proof-of-concept* with a Danish utility partner, achieving average energy savings of 9% per home. By 2014, we developed and integrated new functions in enControl like 1.-energy production monitoring; 2.-energy trading functions; 3.-small scale energy consumption and production forecast. By this time enControl™ was also being used in 3 European communities within the scope of two FP7 projects: *GreenCom* consisting of 40 homes in Denmark[4] and; *iURBAN* comprising 18 multifamily apartment buildings in Bulgaria and 3 in Croatia[5]. The solution has achieved 13% energy savings (119 kWh) per month per home. You can watch our product video: https://www.youtube.com/watch?v=qSYzRE9t-sw.

Today´s **enControl™,** our current commercial solution integrates 3.0 technology that was developed during 2014/2015, it includes advanced features like Plug And Play, Device Management, a Powerful Rule Engine and Back Office Tools for the service providers to support their users. Moreover, we have further enhanced the solution improving interoperability with different home systems and other control sensors. We have also migrated the platform to a user-friendly mobile app for iOS and Android.

enControl™ - innovative solution
The main innovation of enControl™ is the holistic approach to the energy market with a unique tool, covering the need of both: energy providers and energy demanders. This novelty is enhanced by four main cutting-edge technologies that enable smart functionalities and differentiates our technology from other existing developments:
a)A decision support system that anticipates user's decisions by analysing behaviours and comparing with both: energy models and behavioural models.
b)Smart thermostat functions optimizing both comfort and energy consumption (Most of the solution that learn from user – NEST- provides only comfort).
c) Modelling and forecasting features. Anticipate the future is the basis to unlock valuable features such as advises, peak of consumption/production and identify potential demand response programs.
d)Demand response programs and variable tariff, that enable utilities interact directly and individually (or specific groups) with their customers to improve load management

4 The team:
Board of Directors

Members of the Board of Directors are full-time employees and shareholders of the company. Their corporate responsibilities are as follows:

1) Narcís Avellana Tarrats, *Chief Executive Officer / Chief Financial Officer / Executive Chairman*
2) Alberto Fernandez García, *Chief Technical Officer / Executive Vice President*

Two passionate founders and a Management team bringing together extensive experience in software and hardware development, telecommunications, operations, finance, marketing and sales, propel the current 16-people team. The management team has developed their professional experience at multinational companies including Siemens, Seiko-Epson, Nokia, Comcast and Verio, as well as various entrepreneurial ventures. During the last 6 years we have gather extensive experience from developing solutions for the IoT and automation market, among others we have created solutions for the energy, smart city, health and security markets. We have a Chief Technology Officer a Commercial Officer and Development Manager reporting to the President and CEO. S&C has an excellent management team with direct knowledge of the industry, extensive research experience, and unique administrative skills.

Dr. Narcis Avellana, PhD, CEO, CFO, Founder
As CEO, Narcis Avellana is responsible for the vision, strategy, and leadership of Sensing & Control Systems. As CFO, he is responsible for the company's financial management. Under his leadership, S&C has grown to become one of the top 20 most innovative companies in Barcelona. Narcís co-founded S&C with Alberto Fernandez in 2006. Prior to S&C, he was a Marketing Director and Key Account Manager for the Application Specific Integrated Circuits (ASIC) Division at Epson Europe Electronics where he increased turnover from 200K€ to 7.5 M€. In 2001, he returned to Barcelona to establish the Seiko-Epson Business & R&D Center, where he was General Manager for 6 years. Along his professional career, Narcís has published more than 40 scientific articles and is an *Approved Expert Evaluator and Reviewer for* the European Commission. He received his Ph.D. in Microelectronics, *summa cum laude*, from the University Of Ulm, Germany, his BA in Computer Science from the University of Barcelona and his MsC in Business Administration from the Autonomous University of Barcelona.

Alberto Fernandez, CTO, Founder
As CTO, Alberto is responsible for defining the technology and product strategy for S&C's M2M cloud-based platform for the Smart Home and Smart Grid markets. Prior to co-founding S&C in 2006 with Narcís Avellana, Alberto worked in the R&D department of the National Microelectronics Center where he led the development of complex systems for neurophysiological data acquisition and data processing. Then he worked as the R&D Manager at Microson in Barcelona leading the development of digital signal processing for hearing aid products sold globally. In 2001, he became the Technical Manager of the Seiko-Epson Business and R&D Center in Barcelona, where he was responsible for developing the ARM based system-on-a-chip, as well as Application Specific Integrated Circuits (ASIC) for corporate clients in EMEA markets. Alberto received his Master Degree in Microelectronics from the National Center of Microelectronics and his degree in Computer Science from the Autonomous University of Barcelona.

The Management Team

Richard Croyle, Director of Product Definition
Richard is in charge of S&C's product definition. He has over fifteen years of management experience in the telecommunication and IT industries, successfully delivering new products for innovative, leading ICT companies into diverse market verticals. His role at S&C allows him to combine his solid technical background with his clear customer focus. Prior to joining S&C in 2007, Richard worked for 11 years at Nokia where he led the development of GPS, USB and other embedded systems technology for mobile phones sold worldwide. Richard has successfully managed various multimillion Euro projects developing Internet-of-Things solutions for telecom, utility and industrial clients. He is an *Approved Expert Evaluator and Reviewer for* the European Commission. Richard received his First Class BEng (Hons) Electrical & Electronic Engineering degree from Staffordshire University (UK) and Chartered Engineer (CEng) status from the Institution of Engineering and Technology

Pedro Espinel, Global Sales Director
Pedro currently leads distribution & marketing activities including intelligence and research for all the services offered by the company. He also focuses on driving growth by investing in sales channel preparation and evolving S&C's client acquisition, retention and segmentation strategies. Since joining S&C in 2010, he has been responsible for delivering innovative strategies to reach key client segments internationally, including developing a value-added support strategy and the integration of a unique M2M Automation service platform for the Telecommunications, Utilities and Security sectors. Prior to joining S&C, Pedro held key positions in software development, data centre and telecommunication multinationals in the US and Latin America. Complementing his 30 years of product and services experience, Pedro holds an MBA and continued specialized studies in market research, user habits and behaviour, product management and marketing strategies.

5 Financial and risk analysis*:*
S&C has an annual turnover of just under 600.000€ mainly from non-recurrent services, a net profit ranging from 18%-35% during 2010-2014, a customer base of around 1000 users in 7 utilities and Telcos in Denmark, Poland, Bulgaria, Rumania, Croatia, Czech Republic, Sri Lanka, Mexico and Ecuador. From now and until Q1 2017, revenues will continue to come from the enControl™

platform. Beginning in Q1 2017 enControl™ will consolidate as our core offering and account for 100% of our sales, summing an estimated 465.743 monthly users by Q4 2020.

Automation systems and devices are forecasted to grow at a compound annual growth rate (CAGR) of 61 percent during the next five years, leading to 29,7 million smart homes by 2019. Market revenues grew by 60 percent to 0,77 billion€ (US$ 1,0 billion) in 2014 and by 2019 is forecasted to reach 7,6 billion€. The opportunity for Sensing & Control Systems S.L. lies in providing value-added services that truly deliver cost reduction, increased efficiency and ensure scalability and flexibility for utilities and telcos.

By 2020 Sensing & Control's customer list will number over 450.000 users and revenues in excess of 48 million€. Contracts will be split between 6 large very profitable utilities that will account for 25% of sales and 18 medium and small utilities that will account for the remaining 75% of sales. Recurrent revenues will account for 15,4%. We will reach a healthy 79,1% gross margin per account, when considering hardware we will keep an average 15% markup. These solid margins will contribute to reach a 5,6 M€ net income by the end of 2020.

We plan to have a lean structure of 8 to 10 representatives attending local and international opportunities in over 21 countries, specialized resellers by the end of 2020 will be accountable for 85% of the sales or 388K accounts. Sensing & Control Systems S.L. has a product to compete with the best providers with a Plug and Play, User Friendly, Self-Learning solution.

The total budget for additional resources expected for enControl™ is about 3 M€. This budget will be partially covered by the EC (70%) with a total of 2,1 M€ and we have considered 900 K€ by additional subscribed capital and the earning from current operations. We plan to increase subscribed capital by 200 K€ in 2016 and 200 K€ in 2017, composed by private funds (by owners and employees) and public funds by means of soft credits (ENISA) provided by the Spanish Government to investors of SMEs providing the same value of monetary credit as the funds in form of subscribed capital.

Additionally we have run various scenarios considering the eventual participation of a triple "A" investor, previous figures of a conservative scenario show that with an investment of 10 M€ will allow S&C to expand to over 30 countries reaching at least 1,3 M€ accounts and revenues of 144,8 M€ by year 2020.

Business Plan Investment Forum in Green Technologies