Press Release

INDRA LAUNCHES DEPLOYMENT IN BARCELONA OF SMART ENERGY PILOT FOR ARROWHEAD, THE LEADING EUROPEAN R+D+i PROJECT FOR SMART CITIES

- **Centro Cívico de la Sagrada Familia and Jardines de Antoni Puigverd have been chosen for the monitoring and on-site testing phases of the demonstrators**

- **The consulting and technology multinational has just finished lab integration of this advanced energy efficiency system for buildings and finalized the demonstrator of intelligent urban lighting**

- **Arrowhead is funded by the European Union and the Spanish Ministry of Industry; this eighty million euro project involves 11 countries and aims to increase energy efficiency and ensure flexible energy use through automation**

Indra will start deploying this year in Barcelona the two demonstrators that comprise the Smart Energy pilot for project Arrowhead. Arrowhead is the biggest European R+D+i initiative with the aim of developing technologies for providing advanced services in future cities (Smart Cities). In collaboration with Barcelona's city council, Indra has chosen Centro Cívico de la Sagrada Familia and Jardines de Antoni Puigverd for the monitoring and on-site testing stages of the Smart Building (energy efficiency for buildings) and Smart Urban Lighting solutions, respectively.

The consulting and technology multinational has just completed the first phase of the project, i.e. lab design and development (web prototype) of the demonstrators. Additionally, the initial integration of both pilots has been accomplished by means of the Arrowhead framework (technological architecture). This framework makes it possible to communicate and exchange information among the services, and is based on previous ARTEMIS projects such as SOFIA (Smart Objects For Intelligent Applications), which Indra participated actively in. After deployment, both pilots are expected to be operational in September 2015.

Arrowhead is co-funded by the European Union and the Spanish Ministry of Industry, Energy and Tourism in the context of the Artemis joint undertaking (Seventh Framework Program); this eighty million euro project involves 78 organizations from 11 countries. Its purpose is to increase energy efficiency and ensure flexible energy use through collaborative automation in buildings, public infrastructures, industrial processes and the energy sector. This will be achieved through embedded technology.

Communication and Media Relations
Tel. + (34) 91 480 97 01
indraprensa@indracompany.com

Madrid, 22 January, 2015

Led by the University of Lulea (Sweden), this project was launched in March 2013 and is expected to last four years. Among its participants are companies such as Acciona, Tekniker, Ford, Schneider, Honeywell and several universities and research centers. It comprises 12 work packages; the first five focus on developing pilots or demonstrators. In this context, Indra will design, implement and deploy the Smart Energy demonstrator in Barcelona, which can be integrated with all other services developed by European partners through the Arrowhead framework.

Intelligent control of energy use

Specifically, the Smart Building pilot aims to develop a real-time intelligent sensing, monitoring and control system for energy use. Its end objective is to reduce the energy footprint significantly and to help to create energy saving patterns in buildings. This pilot will gather information by deploying different sensors for recording energy, dampness and the presence of people on the various floors of Centro Cívico de la Sagrada Familia.

The Smart Urban Lighting pilot involves installing lighting in Jardines de Antoni Puigverd with sensors that monitor environmental information (e.g. light intensity), energy use and mobility. This lighting equipment will integrate LED technology so as to control light intensity depending on the information gathered.

Information generated by the two demonstrators will be available on a web portal or by means of mobile devices for monitoring and inquiries. For instance, for Smart Building, it will be possible to identify alarms due to excess use or device deactivation, activate energy efficiency services and compare the parameters from different areas. For Smart Urban Lighting, lighting will be set up depending on, for instance, whether there are people in the room or how much light there is in nearby buildings.

Extensive experience in managing infrastructure and energy technologies for future cities

Thanks to its vast experience in providing urban technology services, Indra can offer an integrated and integral solution for smart cities, which has been successfully implemented across the world. In relation to managing urban infrastructures (such as urban lighting), Indra offers the tools for increasing efficiency in the management of these services, by adjusting the resources to the exact needs of each area, ensuring fulfillment of the established quality levels and fast, agile, secure and efficient service operation. Indra leads benchmark projects for improving urban infrastructure and service management, by integrating different city services through its iSMOV solution.

With regard to energy, Indra's global strategy aims to develop new technologies and solutions for energy efficiency and sustainability, for areas encompassing generation, transmission and distribution, as well as for industrial, residential and transportation energy use. The company works on a number of new smart infrastructure projects (Smart Grids) that guarantee sustainable, secure and economical development, while it also works as an advisor to the Spanish Energy Committee in matters of smart grids.

Communication and Media Relations
Tel. + (34) 91 480 97 01
indraprensa@indracompany.com

Madrid, 22 January, 2015

Indra has been involved in R+D+i projects such as Ciudad 2020, which aims to develop and provide integrated management of new smart technologies for mobility, energy and environment. Together with Gas Natural Fenosa, Indra has also led the R+D+i project Energos, whose purpose is to develop methods and technologies for future grids. The company has also co-led the ZIGAMET project, which aims to use the meter remote management infrastructure (currently being deployed) to offer home users integrated management services. Additionally, Indra has worked on a number of projects for developing new energy efficiency computer systems (grid model, real-time integration platforms and bidirectional communication solutions).

Indra

Indra, chaired by Javier Monzón, is one of the world's largest consultancy and technology multinationals, a leader in Europe and Latin America and is expanding in other emerging economies. Innovation is the cornerstone of its business, which is highly focussed on the customer and on sustainability. The multinational is one of the leaders in its sector in Europe in terms of investment in R&D and innovation, having invested more than €570M in the last three years. With sales approaching €3,000 million, it employs 43,000 professional and has customers in 138 countries

Communication and Media Relations
Tel. + (34) 91 480 97 01
indraprensa@indracompany.com

Madrid, 22 January, 2015