Over the past decade, the water sector has begun embracing technology in order to maximise network efficiency and ensure sustainability. The industry has shown an impressive level of innovation and there are constantly new and exciting ideas under development. This article will focus on three such ideas, which each seek to move the industry forward in a different direction. The first is a tool for evaluating network ‘intelligence’, the second, an integrated approach for distribution network management and the third, an ICT solution for urban water management. Each of these unique ideas has the potential to help change industry thought and improve the outlook for water utilities worldwide.

The SWAN SMART SCORE

Water utilities are constantly exploring ways to better evaluate their current practices and increase their network efficiency. To this end, the Smart Water Networks Forum (SWAN), the leading industry forum in the smart water space, recently released the SWAN SMART SCORE. A product of cross-industry collaboration, the SWAN SMART SCORE is a free tool which allows water utilities to gauge the relative intelligence of their network. Comprised of 12, multiple-choice questions and available on the SWAN website, the SCORE assesses the extent to which a utility is taking advantage of existing technologies. Upon completion, utilities receive a quantitative score and a general categorisation of their level of advancement.

Already tested by several global utilities, the SWAN SMART SCORE can be valuable to utilities just beginning their smart water journey, as well as those who have already adopted several smart technologies. In addition, utilities will be able to see how their score compares to other utilities in their geographic region and around the world once there is enough data to provide meaningful results. Complementing the SWAN SMART SCORE, SWAN is also currently developing the Interactive Architecture Tool, which will allow utilities to further explore smart water technologies according to their specific challenge areas. Utilities will be able to search for specific solutions, navigate through interactive architectural diagrams, and then view relevant case studies and benefit analyses.

To take the SWAN SMART SCORE, or learn more about SWAN, visit: www.swan-forum.com
The SmartWater4Europe project

European water utilities currently face a number of challenges related to their distribution networks. Whether it is asset management, water quality, leakage, energy spending or other concerns, water utilities need to manage their resources more efficiently. Every year an estimated 20 billion Euros must be invested to keep the European drinking water network up to date. Thus, SmartWater4Europe (SW4EU) a four-year research project led by Dutch drinking water supplier, Vitens, seeks to demonstrate the benefits of integrated water network management. An EU FP7 funded programme, SW4EU will focus on five major themes: water quality management, leak management, energy optimisation, customer interaction, and water supply management.

Using the latest sensor technology and ICT solutions, SW4EU will provide new insights into the best practices to improve water network performance management. Comprised of 21 organisations, other key participants in SW4EU include London water company Thames Water, Acciona Agua from Spain and the French University of Lille. SW4EU will perform tests in four large-scale demonstration sites across 35,000 kilometres in the Netherlands, Spain, the United Kingdom and France. Each of these sites will feature a real-life configuration of solutions at a substantial scale using real response strategies. Thus, the visibility of solutions will be ensured and awareness of business intelligence simulated within actual water utilities. In the future, SW4EU has the potential to influence the way other water utilities manage their network performance.

To learn more about the SW4EU project,
visit: at www.smartwater4europe.com/

The iWIDGET project

iWIDGET is a collaborative European Commission project aimed at delivering novel ICT solutions to support integrated water management. Another EU FP7 programme, iWIDGET seeks to improve water use efficiency, reduce household waste, and enable water utilities to better manage domestic water demand. Currently in the second of a three-year project, iWIDGET will address social and economic measures, targeting also combined energy and water issues. As water is often the leading energy consumer, iWIDGET will also help support the Europe 2020 Climate and Energy Target of obtaining a 20% reduction in greenhouse gases by 2020.

“iWIDGET will address social and economic measures, targeting also combined energy and water issues”

With public and private partners in the UK, Ireland, Germany, Switzerland, Portugal and Greece, iWIDGET plans to advance knowledge and understanding about smart metering technologies. These technologies can enable utilities to track usage more accurately on the consumer end and implement intelligent water pricing strategies and improved operations at the supplier end. To evaluate its real-life applications, the iWIDGET system will be introduced into three operational environments in Portugal, the UK and in Greece, in collaboration with local water authorities. These studies will assess the anticipated cost, benefits and market prospects for the iWIDGET system, as well as develop a business plan for its commercial development and roll out.

To learn more about the iWIDGET project,
visit: www.i-widget.eu/