

- Smart flow control systems
- Automation & control
- Redesign & cost optimization



Fluid handling systems & metering

Asset longevity & predictive maintenance

Smart sensors, connected systems

Industrial Internet of Things

Resource efficiency & loss detection

Service-based business models

Flow control in the digital age –

Carefully managing the movement and metering of liquids and slurries is critical to maximise plant efficiency and boost asset integrity. Flow control has a direct bearing on productivity and safety, especially when hazardous materials are involved.

In the digital age, there is much potential to optimise and refine industrial processing with intelligent flow control systems. However, before these new opportunities can be realised, significant technical challenges must be surmounted.

Sagentia's work in fluid handling systems design –

Sagentia have been bringing innovation to the world of fluid handling, metering and flow control systems for over 30 years. For industrial applications, we develop or redesign pumps, meters and valves for improved performance and longevity or for the purposes of cost-optimization and differentiation.

For the residential consumer market, we combine our vast experience in sensors, IoT and low-power electronics to deliver the connected home.



At Sagentia, we work across the development lifecycle:-



initial need and market analysis



concept generation



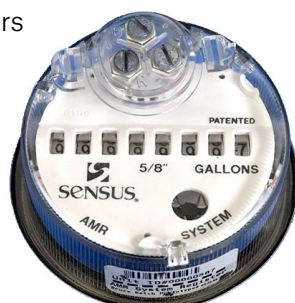
technology and product development



transfer to manufacture

Sensus Metering Systems

A new encoder register solution for Sensus compatible with their full range of meters delivered worldwide



Full case study overleaf →

Smart metering cloud service platform

First-to-market managed service platform in smart metering space



Full case study overleaf →

Sensus Metering Systems: Developing a new water meter register

Challenge ↗

Sensus were finding it difficult to apply their AMR encoder register to the multi-jet and single-jet meters in their product range. These meters could not provide the torque required to drive the existing mechanical encoder registers.



Approach ↗

We used a non-contact magnetic/inductive solution - our own patented technology. Having demonstrated technical feasibility and meeting cost targets we designed high-quality resonators, register assembly and a custom made, mixed signal CMOS ASIC. We worked with Sensus on their manufacturing strategy and special purpose production equipment.

Benefit ↗

A new encoder register compatible with the full range of Sensus meters delivered worldwide. The new register also incorporated twice as many reader wheels for nearly the same cost as the old encoder technology.

The new encoder register is now in mass production, giving better performance for lower cost and opening up significant new markets for Sensus.



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Smart Metering Cloud Service Platform

A smart metering managed service platform using a cloud solution to operate 24x7

Challenge ↗

The client wanted to overcome the traditional challenges associated with positive displacement meters and move to a metering technology offering better performance and shelf-life. They were also wanting to generate real-time data to offer a network-as-a-service solution including a range of customer analytics.



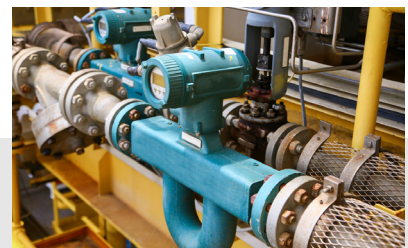
Approach ↗

The Sagentia team:

- Managed the overall program, involving four simultaneous large-scale, interrelated projects across four organizations
- Developed the overall system architecture
- Undertook server software design and implementation, including roll-out of DevOps environment
- Developed the iOS application user experience: definition, design and implementation

Benefit ↗

- Fully-featured managed service system with low operating costs
- Low-cost smart metering unit with future-proof 4G cellular support
- Quantum leap in capability and market offering for the client organization
- Rapid route to providing a better offering than direct competitors



Low-cost smart metering unit with future-proof 4G cellular support

Contact us

The above are just two examples of the work that Sagentia conducts in this area. For more information about how we can help you, please email us at info@sagentia.com or visit us at www.sagentia.com/flow-control-metering