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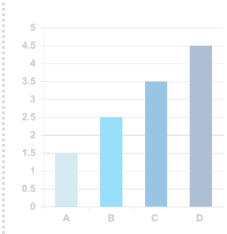
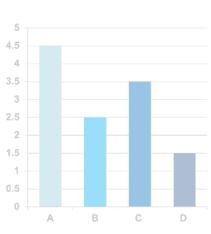
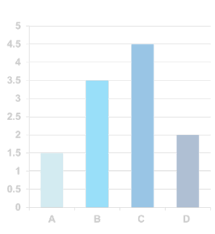
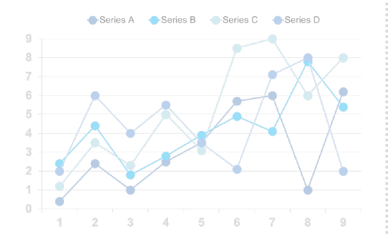
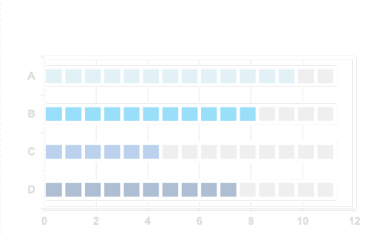
INSIGHT REPORT

The Global Water Metering Landscape:
Technology Shifts, Competitive Strategies, Market Outlook

March 2023

SAMPLE SLIDES

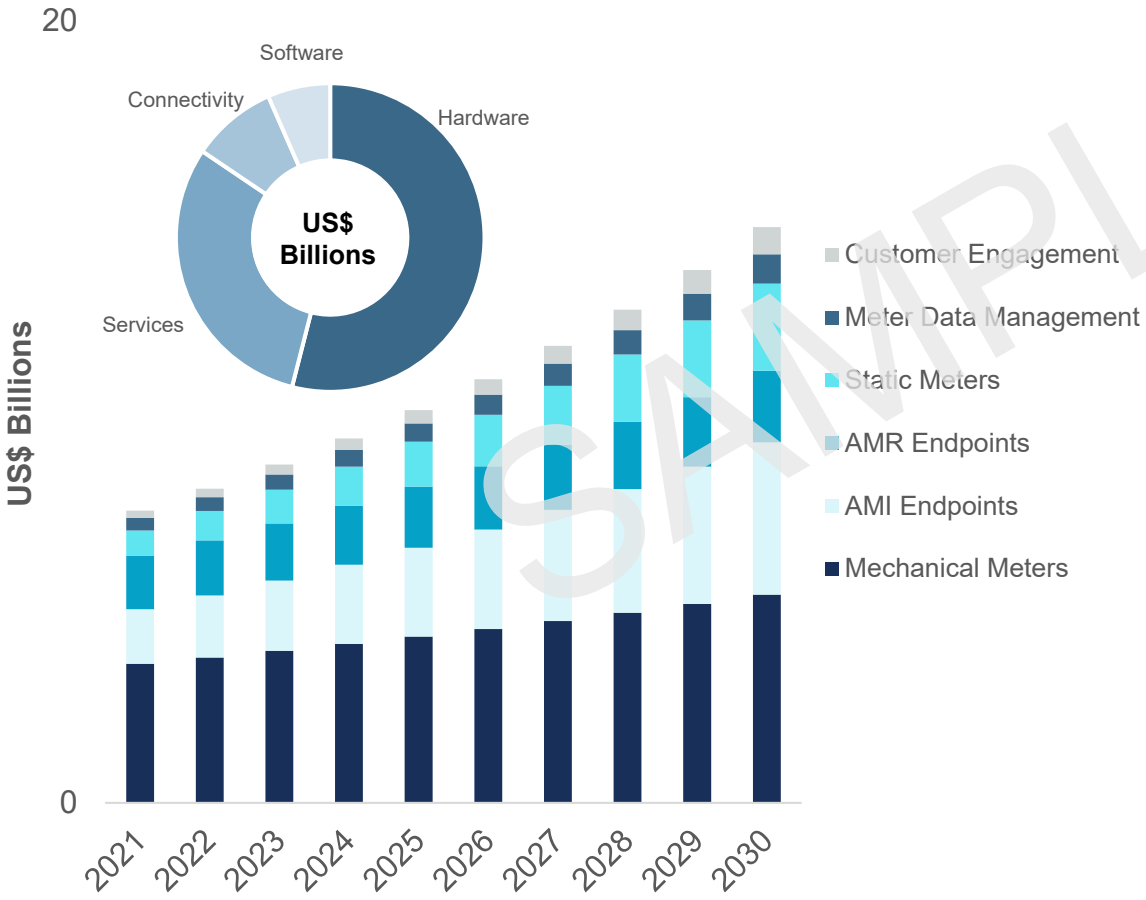







Breaking Down the Opportunity – Metering Technology and Services Outlook

Metering technology, services spend across 45 top global markets is expected to scale at a 7.8% CAGR from US$7.5 billion in 2021 to US$14.7 billion 2030, for a 10-year total of US$107.0 billion.

Global Water Metering Forecast by Segment & Product Type, 2021–2030



Source: Bluefield Research

Analysis

Meter market growth driven by technology advances, leapfrogging.

- Mechanical meters account for the lion's share of metering spend with US$X Billion over the 10-year forecast period (X% of total), reflecting steady demand for basic, low-cost metering solutions in emerging markets and among small and mid-sized utilities in North America, Europe.
- More advanced static meters, AMI solutions are expected to see rapid growth with CAGRs of X% and X% respectively, bolstered by new adopters in Asia, Oceania leapfrogging legacy AMR platforms and mechanical meters.
- Meter and endpoint hardware represents X% of total metering spend, followed by installation and implementation services (X% of total) and data transmission and connectivity fees (X% of total).
- Metering software licenses (e.g., meter data management, customer engagement) account for X% of total 10-year metering spend, outpacing hardware and services with a CAGR of X%.
- Global meter markets may see even greater short- to mid-term growth as vendors work through record high backlogs and pent-up demand driven by the COVID-19 pandemic and subsequent supply chain disruption.

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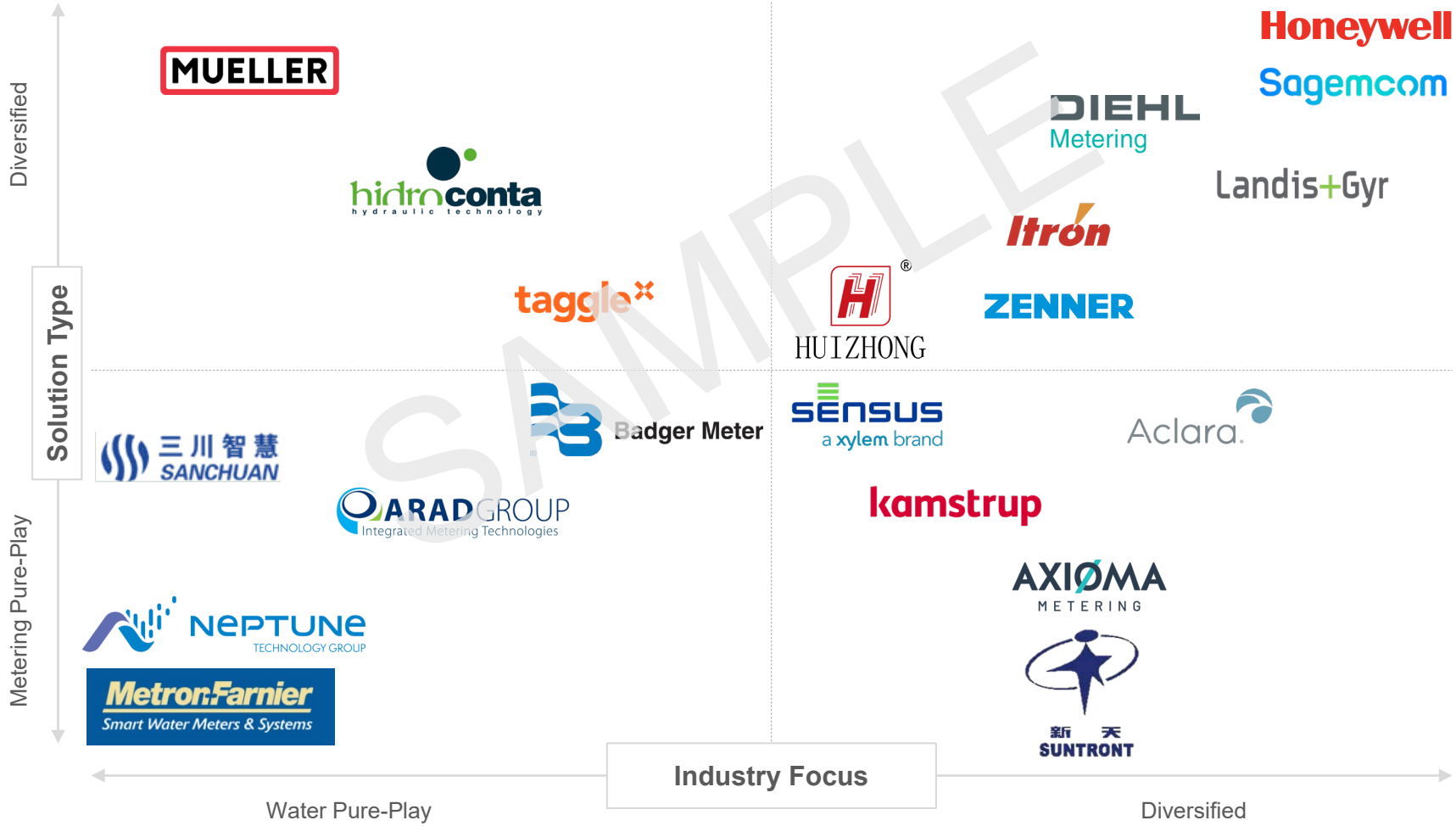
Diverse Roster of Firms Vie for Global Water Metering Market Dominance

Top global metering vendors range from water pure-plays, IoT firms, and energy metering incumbents to highly diversified industrial conglomerates serving the telecom, aerospace, and healthcare sectors.

Select Metering Firms by Solution Type & Industry Focus



Source: Bluefield Research

Leading Meter Vendors Boast Distinct Capabilities Across Value Chain

Company	Positive Displacement Meter	Mechanical Velocity Meter	Electromagnetic Meter	Ultrasonic Meter	AMR Register	Fixed AMI	Cellular AMI	LPWAN	MDM Software	Customer Engagement Software
Landis+Gyr										
Metron-Farnier Smart Water Meters & Systems										
MUELLER	●		●	●	●	●	●	●	●	
NEPTUNE TECHNOLOGY GROUP										
Sagemcom										
三川智慧 SANCHUAN		●	●	●	●		●	●	●	●
SENSUS a xylem brand										
新天 SUNTRONT										
taggle										
ZENNER										

Source: Companies, Bluefield Research

Finding a Solution – Key Considerations Shaping Utility Meter Procurement

Water utilities face a multitude of technical, financial, and operational considerations when selecting metering solutions, shaping demand for a range of competing product and service offerings.

Select Metering Procurement Considerations

Funding & Business Model

- New meters, communications infrastructure represent a sizeable upfront capital investment, which can be partially defrayed by national funding programs in some markets.
- New business models like Network-as-a-Service (NaaS), Metering-as-a-Service (MaaS), performance-based contracts allow utilities to shift upfront CAPEX burden to annual OPEX budgets or pay out of OPEX savings.

Networking & Connectivity

- A variety of connectivity options are available (e.g., AMR, fixed / proprietary AMI, cellular AMI, LPWAN), presenting a range of tradeoffs related to upfront vs. lifecycle costs, signal range / penetration, power consumption, security.
- Bidirectional communications allow utilities to push configuration changes, firmware updates to meters remotely, reducing maintenance burden.

Device & Battery Life

- Next-generation meters (e.g., static / ultrasonic) cost 2x to 4x more upfront in exchange for longer lives, lower lifetime maintenance costs, greater long-term accuracy.
- Utilities face a tradeoff between meter or endpoint functionality and battery life, with more advanced features (high-frequency meter reads, multi-parameter monitoring) potentially killing the battery and thus the business case.

Data Granularity

- While traditional manual meter reads happen monthly or quarterly, AMR systems typically take daily reads, and the industry standard for AMI is between 15 and 60 minutes.
- Some vendors offer reads at intervals of 1 minute or less, providing more granular data to analyze consumption and detect leaks, but these can drain battery and are typically used for leak-prone users (older homes, C&I facilities).

Supply Chain & Sourcing

- Post-COVID supply chain disruptions and component shortages (e.g., semiconductors) have roiled the metering market, resulting in record backlogs, price increases upwards of 25%, and lead times as long as 90 weeks.
- Utilities must balance product preferences with product availability, in some cases switching vendors or meter types midway through a contract to meet project timelines.

Data Integration & Digital Transformation

- While AMR systems are suitable for billing / meter-to-cash purposes, AMI provides more real-time, granular data for a range of use cases (customer engagement, leak detection, distribution network management).
- Expanding vendor hardware, software offerings allow for integration of meter flow data with quality, temperature, pressure, leakage, enabling holistic network management.

Source: Bluefield Research

Landis+Gyr

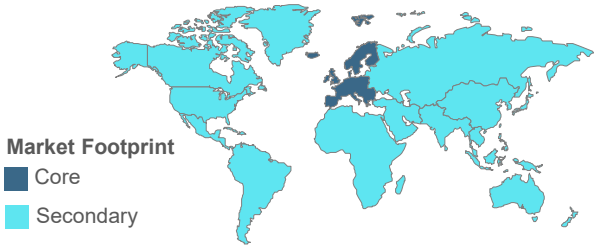
Overview & Strategy

Landis+Gyr is largely focused on power rather than water, with products designed primarily for electric metering and grid management applications.

The firm has focused its water industry efforts on developing meter-agnostic AMI endpoints with two-way RF communications that leverage its proprietary fixed AMI network, Gridstream. Driven by acquisitions and partnerships, Landis+Gyr has shown a growing commitment to IoT, smart cities, and utility network management, leveraging its AMI network capabilities as a springboard to move beyond metering. The firm plans to make an active effort to expand in water, launching two new ultrasonic water meter products in 2023.

Key Statistics

- Company Headquarters: Zug (Zug, Switzerland)
- Year Founded: 1896
- Employees: 6,800
- Ownership: Public
- Total Company Revenue (2022): US$1.6 billion
- Water Metering Revenue (2022): US$XX million



Source: Landis+Gyr, Bluefield Research

Water Metering Product Offerings

Positive Displacement Meter	Mechanical Velocity Meter	Electromagnetic Meter	Ultrasonic Meter
			●

AMR Register	Fixed AMI	Cellular AMI	LPWAN	MDM Software	Customer Engagement Software
●	●	●	●	●	●

Recent Market Activity

- Landis+Gyr strengthened its Nordic positioning with its Jul. 2021 acquisition of Swedish telecom provider Telia's meter reading service business. The firm also acquired Turkish electric and water metering firm Luna in Jan. 2022, and announced a decision to shift production from Germany to Turkey in Jan. 2023.
- In Nov. 2022, the firm announced its new W270 and W370 lines of NB-IoT ultrasonic water metering products, which will be available in 2023. The new meters are 100% recyclable after a 15-year lifetime and have integrated temperature sensor capabilities.
- In 2021, Landis+Gyr launched a SaaS-based water and gas MDM solution, and introduced its W350 ultrasonic water meter to Australia and New Zealand.
- Landis+Gyr has built a modest position in the U.S. water AMI market by partnering with established meter OEMs, including Master Meter (2011), Mueller (2017).
- In 2011, Toshiba became the primary stakeholder after acquiring a 60% stake. However, in 2017, following financial scandals, Landis+Gyr once again became a publicly-traded company on the Swiss Exchange.

Clients / Case Studies

- South East Water (Victoria, Australia)
- Pittsburgh Water and Sewer Authority (Pennsylvania, U.S.)
- Colorado Springs Utilities (Colorado, U.S.)
- City of Seymour (Missouri, U.S.)
- Liechtensteinische Kraftwerke (Schaan, Liechtenstein)
- Lappeenrannan Energiaverkot Oy (Lappeenranta, Finland)
- Acea Distribuzione (Rome, Italy)
- Tatu City (Kiambu, Kenya)

Global companies across the value chain are developing strategies to capitalize on greenfield opportunities in water − new build, new business models, and private investment. Bluefield Research supports a growing roster of companies across key technology segments and industry verticals addressing risks and opportunities in the new water landscape.

Companies are turning to Bluefield for in-depth, actionable intelligence into the water sector and the sector's impacts on key industries. The insights draw on primary research from the water, energy, power, mining, agriculture, financial sectors and their respective supply chains.

Bluefield works with key decision makers at utilities, project development companies, independent water and power providers, EPC companies, technology suppliers, manufacturers, and investment firms, giving them tools to define and execute strategies.

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