Observations for a Better World
Vaisala's Capital Markets Day, June 11, 2015

Agenda

12:00    Welcome and introductions
12:15    Weather and Energy
13:00    Break
13:15    Controlled Environment
14:00    Vaisala's strategy
14:30    Introduction to Vaisala's products
Vaisala Group

Markets We Serve

Weather

- Meteorology
- Energy
- Transportation

Controlled Environment

Page © Vaisala June 11, 2015 Capital Markets Day
Uncertainty, The Enemy of Renewables

Taking the Guesswork Out of Deicing
Efficiency in Power Transmission

Finding Water on Mars
Business Structure

<table>
<thead>
<tr>
<th>Weather</th>
<th>Controlled Environment</th>
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<tbody>
<tr>
<td>Meteorology</td>
<td>Americas North and South America</td>
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<td>EMEA Europe, Middle East and Africa</td>
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<td>Weather Offering</td>
<td>Controlled Environment Offering</td>
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<td>Information Services</td>
<td>Calibration and Repair Services</td>
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<td>Project and Customer Services</td>
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Support Units: Finance & Control, Group Business Infrastructure, Group Quality, Human Resources, Legal & Facilities, Marketing & Communications
Weather

Contents

Business Scope

Growth Strategy

Conclusions
Weather Business

Our Markets

Mega Trends Impacting the Markets

Weather Observation solutions

- Climate Change
- Information Technologies
- Renewable Energy
- Growth of Traffic

- Energy
- Transportation
### Global market sizes and growth 2015

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<td>Market size total</td>
<td><strong>1,020 MEUR, ~20% market share</strong></td>
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* Vaisala estimate of the size of market that is addressable currently or with organic development in the roadmaps.

**Market share indication:**
- Low <10%
- Mid 10–25%
- High >25%

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### We Help Our Customers to Improve

- Safety and protection of lives and property
- Quality of their services
- Operational effectiveness
- Environmental compliance
Weather Business Scope

Weather

Meteorology

Energy

Transportation

Broad & Reliable Weather Offering
High mix, low volume business

- Observation Instruments
- Measurement Systems
- Decision Support Solutions
- Project & Maintenance Services
Weather Business Area

Strategic Goal

**Growth** through renewed offering and information services

- Customers view us as the leader in reliability
- Investment into software and Information service capabilities
- Renewable Energy as fastest growth area
Weather Business Area

**Weather Business**
- Serving weather impacted customers’ needs with comprehensive offering
- Flexible use of business and delivery models to match each customer’s need

**Customers**
- Meteorology infrastructure, Transportation and Energy
- Global delivery together with local partners

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Industrial Internet and Weather Business

[Diagram of Industrial Internet and Weather Business]
Industrial Internet and Weather Business

- Sensor & weather stations networks
  - Connectivity
  - Data Collection
  - Network level monitoring

- Network management and automation
  - Analytics for Data Quality
  - Network and Maintenance Optimization

- Information for decision making
  - Unique models
  - Decision making tools for selected applications

CheckTime Solution for Airlines

- Improves efficiencies of airlines and reduce unnecessary use of de-icing and anti-icing chemicals

- Sold as a hosted service
CheckTime Solution Benefits

- **Savings** on reduced anti-icing fluid use.
- **Savings** by using diluted fluids whenever feasible.
- **Savings** on environmental fees due less fluids used.
- **Safety** improvements especially in heavy snow conditions.

Build New Business around Information Services

- **Roads** winter maintenance optimization
  - RoadDSS Manager
  - Traffic Weather Consulting

- **Airport** winter maintenance and Aircraft de-icing optimization, Lightning warnings
  - AviCast
  - CheckTime
  - ALIS

- **Renewable energy** operations
  - Long and short-term forecasts
  - Assessment Consulting
Energy

Market Update

Onshore wind
- Utility scale major plants
- Top 10 countries form ~85% of market
- Increasing focus on asset optimization

PV Solar
- Panel prices decreasing, easy deployments
- Rooftop solar expected to grow faster than utility-scale

Global on-shore wind energy development

Global PV solar energy development

Source: Bloomberg
New Energy Finance
Installed Wind Capacity 2014

- Installed wind capacity dominated by China, US and Germany

Development of Wind Energy 2015

- 60 GW of new capacity expected in 2015 globally
- Growth dependent on
  - political decisions (energy policies)
  - energy demand
Energy Business Unit

- Use our knowledge in weather to manage risk and increase ROI of renewable energy and transmission
- The recognized leader to manage weather related risks in the energy industry

Business Focus
On-shore Wind, Utility Solar and Lightning Detection
Widest Weather Offering Portfolio

Lightning sensors and data  Weather observations  Energy assessment services  Energy forecasting services

Markets and Offering

MARKET
- Renewables
  - Development
  - Operations
  - Transmission
  - Developers
  - Operators / IPP’s
  - Energy Utilities
  - Turbine manufacturers
  - TSO’s
  - System Integrators
  - Banks / financing institutes
  - Energy traders

OFFERING
- Renewables
  - Development
  - Operators
  - Transmission
  - Measurement products
  - Lightning systems
  - Data loggers / systems
  - SODAR remote sensing
  - Monitoring and maintenance
  - Prospecting
  - Energy forecasts
  - Due Diligence Assessment
  - Lightning Data services

IPP  Independent Power Producer
TSO  Transmission System Operator
Business Progress

Acquisition and integration
- Vaisala
- SecondWind
- 3Tier

New products and services, e.g.
- Wind and solar data collection and management
- Validation of wind energy assessment
- Thunderstorm visualization and alerts software

Geographical expansion
- Establish operations in Brazil
- Strengthen presence in India

Key growth countries
Potential next growth
Opportunistic

Cases
Case Example:

- **Background:**
  - SunEdison Inc. (TerraForm Power Inc.) $2.4 billion purchase of First Wind Holdings Inc. in late 2014
  - 521 MW of active wind and solar power plants
  - More than 8 GW of total pipeline, backlog, and leads.

- **Vaisala:**
  - Wind energy analysis to evaluate key development assets
  - Competency and short delivery time key selection criteria

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Case Example:

- **Background**
  - Puhuri operates 3 wind farms
  - Several wind farms in development pipeline in Finland

- **Vaisala**
  - Evaluation of energy potential for the development pipeline:
    - Measurement equipment
    - Data management and maintenance services
    - Energy assessment services
Case Example:

- **Background**
  - Wind farms built in windy but complex (mountainous) terrain make energy forecasting challenging
  - U.S. Department of Energy is investing $2.5 million in its Wind Forecasting Improvement Project (WFIP)
  - Makes wind development more viable in complex terrain

- **Vaisala**
  - Project lead, management of project partners
  - Measurement technology provider

Way Forward

- Growth from current offering portfolio through **wider geographical presence and market acceptance**
- Expand to operational renewable energy production / **asset management and optimization**
- Capture new opportunities in **utility scale solar** energy development
- Introduction of **integrated solutions**
  - Based on measurement technologies, data management and analysis capabilities
Weather Business Area

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Industrial measurement solutions

Aging Population and Health
Energy Efficiency
Urbanization and Industrial Growth
Growing Electric Power Consumption
Examples of Industries We Serve

- Power Transmission
- Life Sciences
- Industrial Drying (e.g. paper)
- Electronics
- Building Automation, e.g. demand controlled ventilation
- Automotive Industry
- Agriculture and Food Industry

Global Market Sizes and Growth 2015

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<th>Power Transmission</th>
<th>Life Science</th>
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We Help Our Customers to Improve

- Product quality
- Productivity
- Energy efficiency
- Maintenance activities
- Regulatory compliance
Industry Cases

Power Transmission

We measure moisture, temperature and hydrogen gas in transformer oil.

Early indication about the possible faults in high voltage transformers.

Improves the efficiency of customers' operations, generates cost savings.
Near Catastrophe in NY Due to Failure in Power Transformer

- No information on what caused the transformer failure.
- Impacts can be tremendous
  - Electricity supply
  - Health and environment
  - Costs of a shutdown
- Vaisala transformer oil monitoring solutions monitor the condition of the high voltage transformers.

Life Sciences

- Control of environmental conditions
  - improved quality and efficiency
  - reduced risk of damage
- Used in pharmaceutical production, stability chambers, incubators, warehousing
Our products are used to optimize ventilation e.g. in office buildings, hospitals, data centers or factories.

Considerable cost savings through improved efficiency of heating, ventilation and air conditioning.
Growth through Product Leadership

- Understanding our customers’ needs
- Achieving #1 position in selected markets
- Continuously creating winning products

Understanding Our Customers’ Needs

Growth Markets

- Strong growth potential in Life Science and Power Transmission markets
- Investments in new offering addressing the specific market needs
- Identification of new attractive growth markets

Flagship Markets

- Strong position with our high-end humidity and carbon dioxide offering
- Continuous investments in offering development
Achieving # 1 Position in Selected Markets

**New Innovative Offering**
- Life Science and Power Transmission offering
- High-end humidity and carbon dioxide offering

**Application Expertise**
- Strong in-house expertise in industry demands, such as Life Science specific regulations

**Geographical Reach and Channels**
- Regional go-to-market strategies
- Expansion to new regions and sales channels

Continuousely Creating Winning Products

**Our Superior Products and Technologies**
- Instruments, systems and services that outperform competition
- Technological capabilities and in-house knowledge
- Clean room and calibration capabilities
- New parameter development

**Scalability of Our Products**
- Using new technologies in all suitable applications and industries to accelerate growth
Controlled Environment helps customers to improve operational quality and productivity and to gain energy savings.

Controlled Environment continues to grow through product leadership.

Controlled Environment invests in Life Science and Power Transmission offering and new parameter development.
**Vaisala’s Strategy**
President and CEO, Kjell Forsén

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### Vaisala Markets
**Global market sizes and growth in 2015**

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**Vaisala addressable market size total**: ~1,800 MEUR

*Vaisala’s estimate of the size of market that is addressable currently or with organic development in the roadmaps, no external market information available.*
Research and Development

- Research and development activities are a prerequisite for Vaisala's success. We invest in R&D over 10% of annual net sales.
  - High reliability and performance are our core competitive advantages
  - Product lifetime is typically over 10 years
  - In addition to internal research activities, we cooperate with several research institutions

![Research and Development Graph](chart.png)
R&D Investment Portfolio

We have a balanced portfolio for maintenance, renewal and growth

- Large product portfolio that utilizes a wide range of different technologies

Long-Term Financial Targets
Vaisala’s Long-term Targets

Our objective is profitable growth with an average annual growth of 5%
In selected growth businesses such as renewable energy,
life science and power transmission the target is to exceed
10% annual growth

and to achieve 15% operating profit margin (EBIT) by 2018

Observations for a Better World
Tsunami Detection Network in Chile

Cooperation Project in Nepal