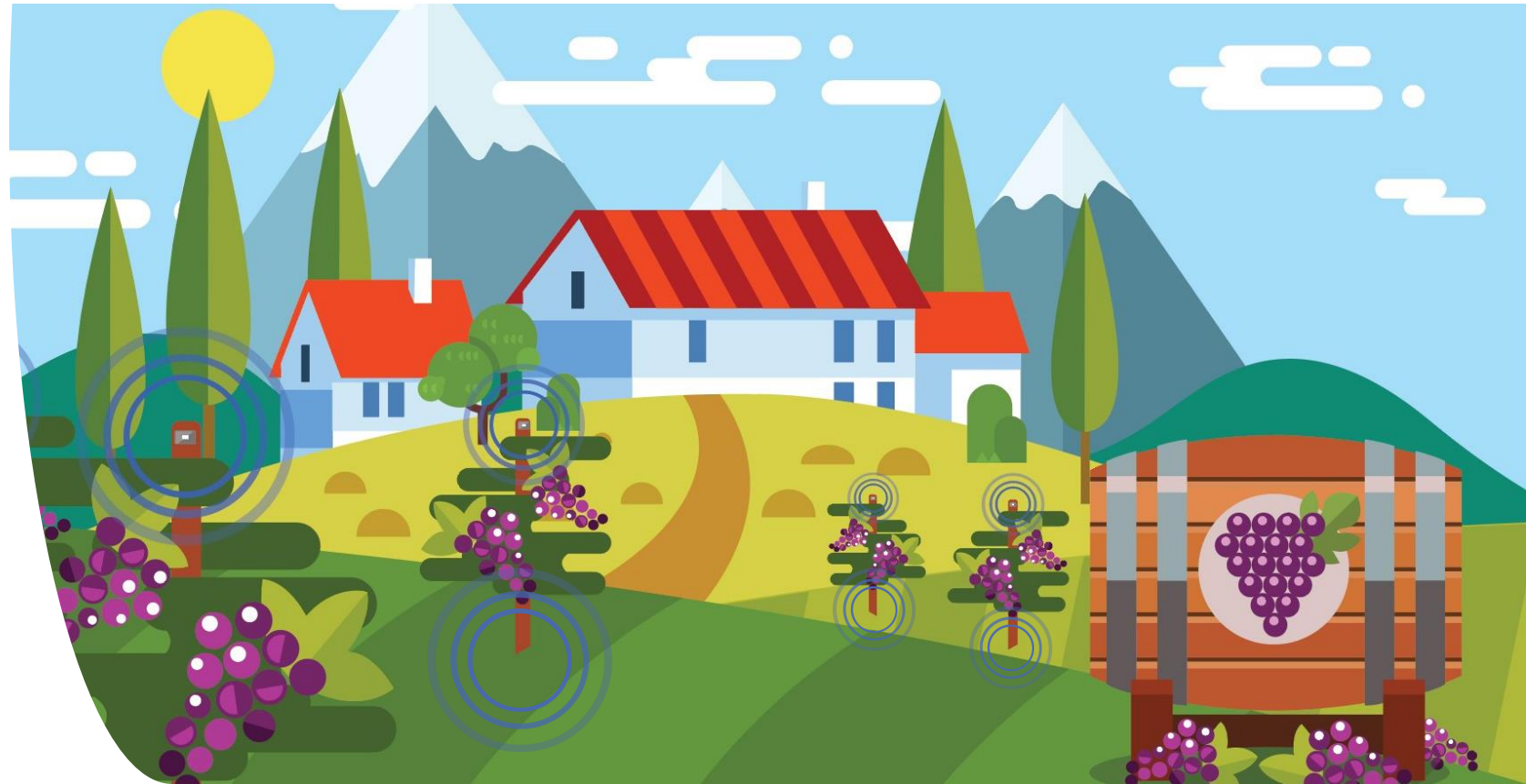




*GSMA Innovators Showcase*

# Monitoring & Controlling the Environment of a Canadian Winery using NB-IOT and LTE-M



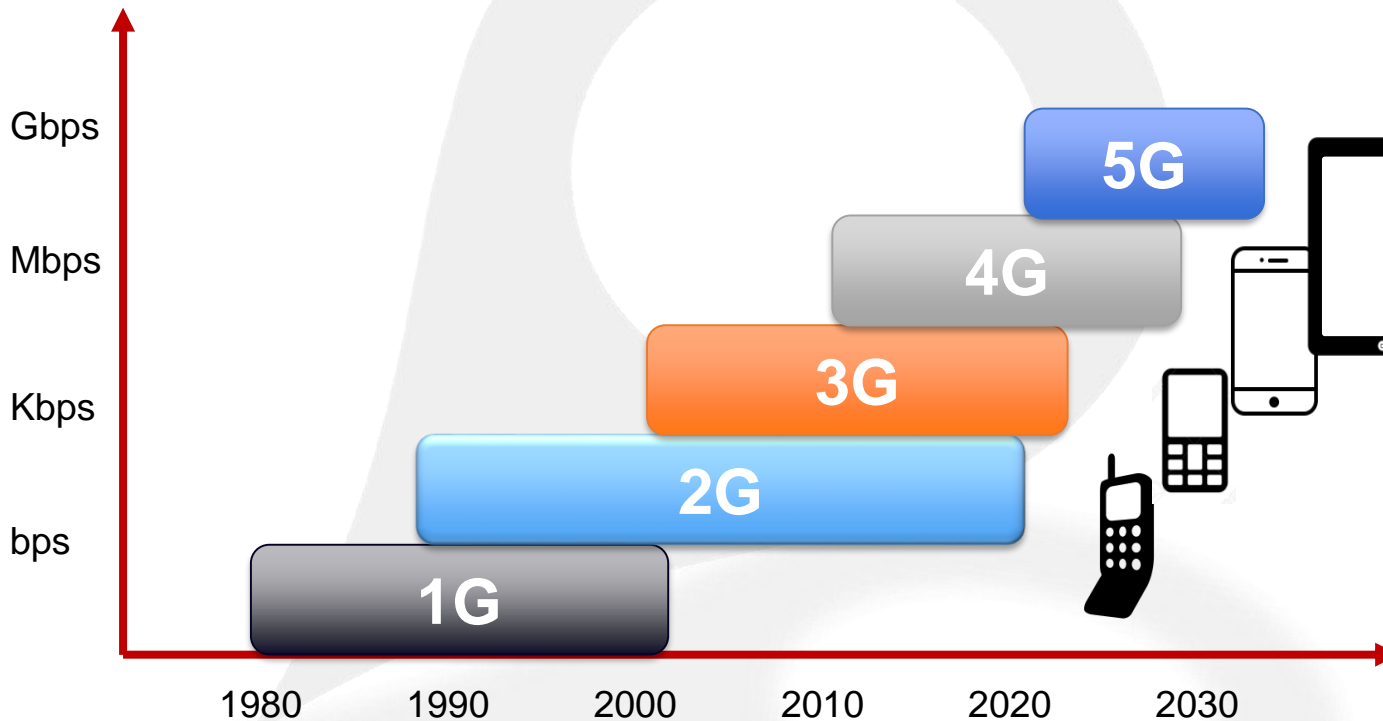
# About BeWhere Inc.



- A publicly traded Industrialized Internet of Things (IIoT) company founded in 2014;
- 50+ years experience (as co-founders / early stage employees) in successful Vehicle Telematics Companies;
- Leveraging new technology for environmental sensing and asset monitoring;
- End to end solution provide. Develops and designs software, middleware, firmware and hardware.

# Innovation in Wireless Cellular Data

Cellular Wireless Law of Speed versus Decade



- Innovation dedicated to capacity and band-width (smartphone market)
- Precursor industries to IOT are M2M, Telematics, Scada.
- NB-IOT and LTE-M represented the first major innovation since CDPD

# What people are saying about licensed LPWA

- “Revolutionary...” Midas Letter June 2015
- “Disruptive...” Canadian Tech June 2017
- “Innovative...” Canada News June 2017
- “Game-changing...” Mobile Syrup July 2017
- “Novel...” Canada News July 2017

# Henry of Pelham, Niagara, Ontario Canada

- Canadian weather conditions pose unique challenges and opportunities to the Winery Industry
- Unexpected adverse weather conditions can impact quality, yield and vine mortality
- Temperature Inversions often occur during critical times of the growing season. Temperature Inversions exceed 10 Degrees Celsius / 18 Degrees Fahrenheit.
- Inversions are often localized



# Henry of Pelham, Niagara, Ontario Canada

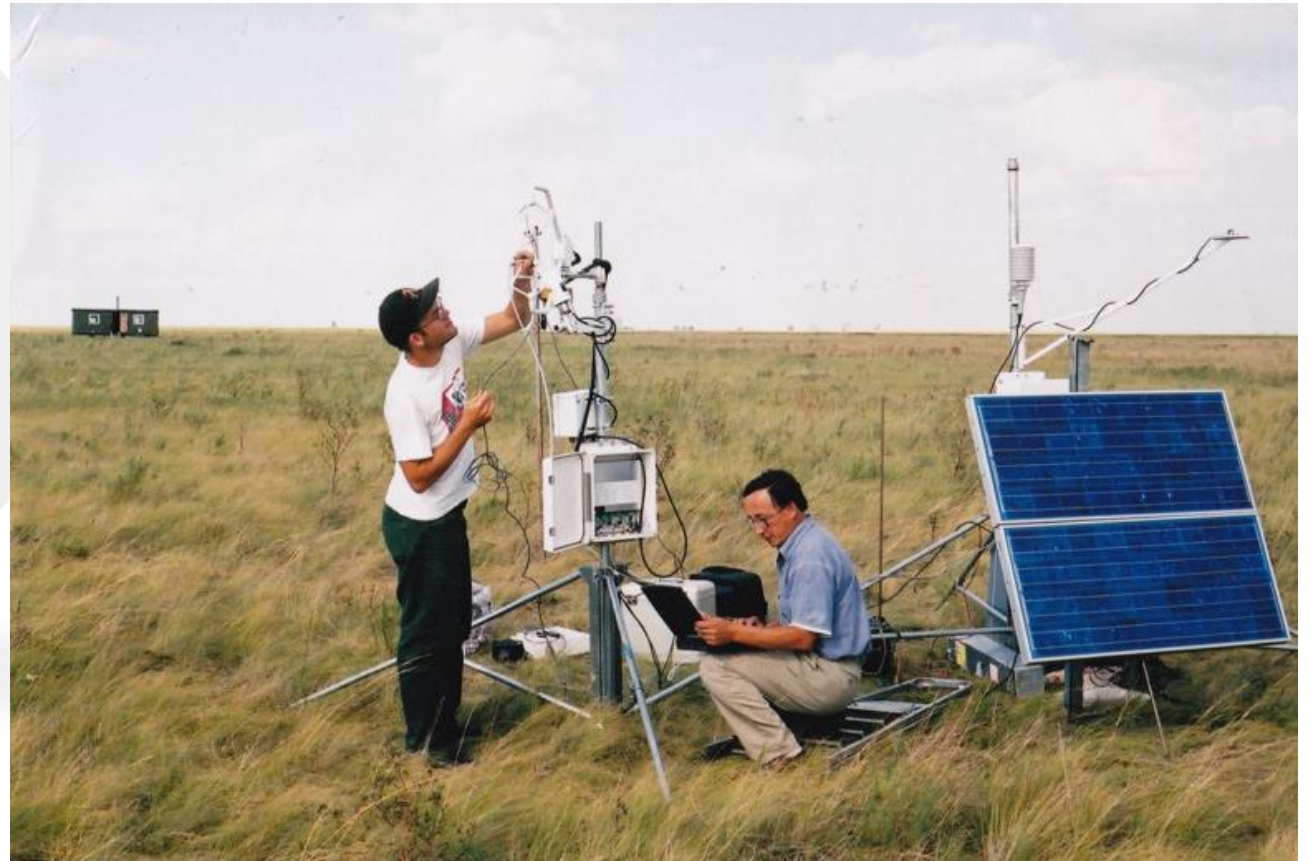
- Phase 1. Deploy 6 NB-IOT and 6 LTE-M to increase the density of environmental sensor monitoring. Deploy sensors at ground level and on a 20 meter pole (update frequency every 15 minutes). Provide email notifications when inversion detected.
- When a Temperature inversion is detected under sensitive weather conditions > Turn on the fans.
- Phase 2. Automate control of the fans through digital I/O's



# Disruptive opportunity

## Old

- Large upfront capital costs
- \$5,000 annually (limited to single site)
- Complex implementation (external sensors)
- Low density due to cost (one site per winery)



# Disruptive opportunity

## New

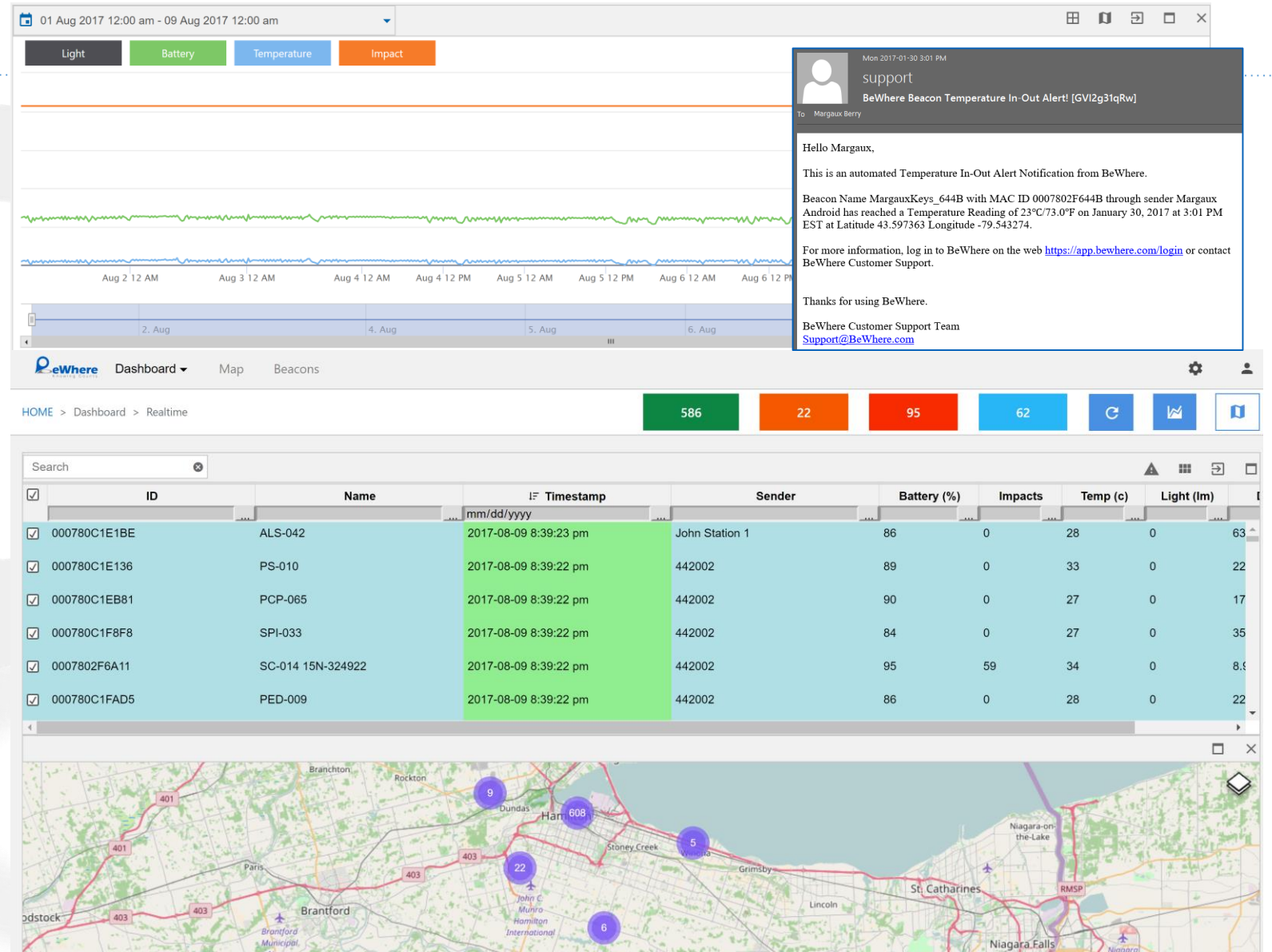
- No upfront costs
- \$100\* annually (high density potential)
- Simple implementation (embedded sensors)
  - GPS
  - Temperature
  - Humidity
  - Pressure
  - Light
  - Accelerometer





# Web Portal

- Real-time environmental condition monitoring
  - Air pressure
  - Temperature
  - Humidity
  - Light levels
  - Location
- Real-time inventory/equipment location
- Alerts and email notifications set up



The screenshot displays the BeWhere web portal interface. At the top, there's a navigation bar with tabs for 'Light', 'Battery', 'Temperature', and 'Impact'. Below this is a dashboard with four colored boxes (green, orange, red, blue) containing the numbers 586, 22, 95, and 62 respectively. A search bar is located above a table of data. The table has columns for ID, Name, IF Timestamp, Sender, Battery (%), Impacts, Temp (c), and Light (lm). Below the table is a map showing the location of various beacons in the Niagara Falls area, with numbered markers (9, 22, 6, 5, 608) indicating specific beacon locations.

01 Aug 2017 12:00 am - 09 Aug 2017 12:00 am

Light Battery Temperature Impact

support  
Mon 2017-01-30 3:01 PM  
BeWhere Beacon Temperature In-Out Alert! [GVI2g31qRw]  
To: Margaux Berry

Hello Margaux,

This is an automated Temperature In-Out Alert Notification from BeWhere.

Beacon Name MargauxKeys\_644B with MAC ID 0007802F644B through sender Margaux Android has reached a Temperature Reading of 23°C/73.0°F on January 30, 2017 at 3:01 PM EST at Latitude 43.597363 Longitude -79.543274.

For more information, log in to BeWhere on the web <https://app.bewhere.com/login> or contact BeWhere Customer Support.

Thanks for using BeWhere.

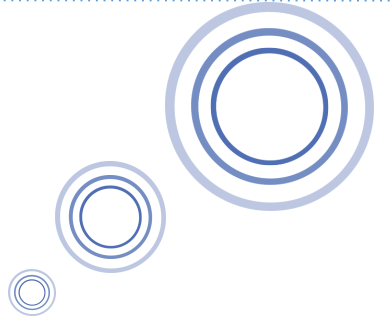
BeWhere Customer Support Team  
[Support@BeWhere.com](mailto:Support@BeWhere.com)

HOME > Dashboard > Realtime

| ID           | Name              | IF Timestamp          | Sender         | Battery (%) | Impacts | Temp (c) | Light (lm) |
|--------------|-------------------|-----------------------|----------------|-------------|---------|----------|------------|
| 000780C1E1BE | ALS-042           | 2017-08-09 8:39:23 pm | John Station 1 | 86          | 0       | 28       | 0          |
| 000780C1E136 | PS-010            | 2017-08-09 8:39:22 pm | 442002         | 89          | 0       | 33       | 0          |
| 000780C1EB81 | PCP-065           | 2017-08-09 8:39:22 pm | 442002         | 90          | 0       | 27       | 0          |
| 000780C1F8F8 | SPI-033           | 2017-08-09 8:39:22 pm | 442002         | 84          | 0       | 27       | 0          |
| 0007802F6A11 | SC-014 15N-324922 | 2017-08-09 8:39:22 pm | 442002         | 95          | 59      | 34       | 0          |
| 000780C1FAD5 | PED-009           | 2017-08-09 8:39:22 pm | 442002         | 86          | 0       | 28       | 0          |

# Learn More

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**Contact Us**  
[info@bewhere.com](mailto:info@bewhere.com)  
or  
1-844-229-4373