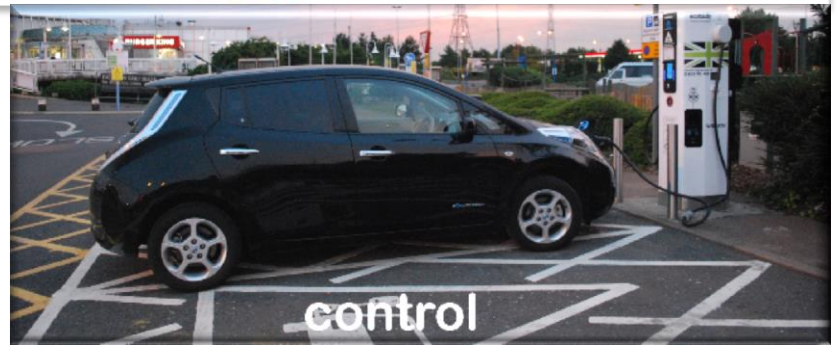
hubeleon

Dublin City
Baile Átha Cliath

Smart Cities

SBIR Gully monitoring



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What is Hubeleon?

Hubeleon is Carra's Device Management System designed for Integrated transport and IOT / Smart City / Ag Tech applications

- **Monitor a wide range of communicating devices (Smart or Dumb) – Comms Hub – IOT platform**
- **Spot problems & escalate**
- **Collect, Analyse & Present the data in a meaningful way**

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SBIR -Challenging floods or flood challenges….How do we avoid this?

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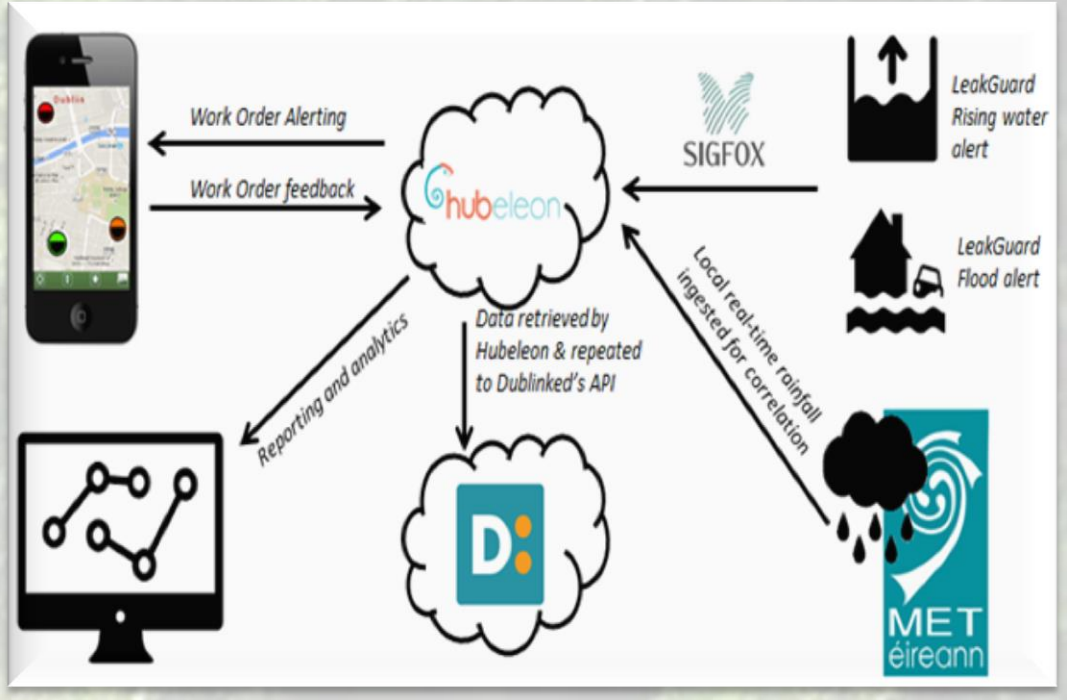
SBIR Gully Monitoring proposal

- Phase 1 - Develop prototype to monitor of gullies 24 /7 - deployed and working Q3 - Q4 17

- Phase 2 - Develop of commercialised product Q 2- Q3 18

  - New HW

  - New App and GUI



AccuWeather

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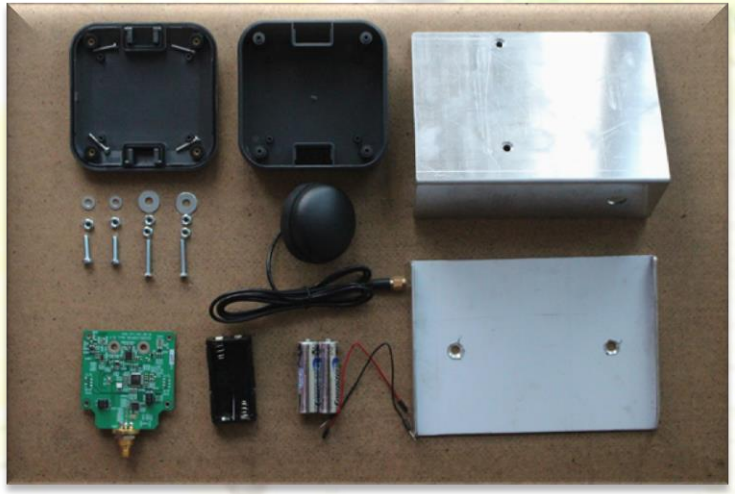
Phase 1 – Prototype and Testing



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Flood Sensors Deployed Phase 1

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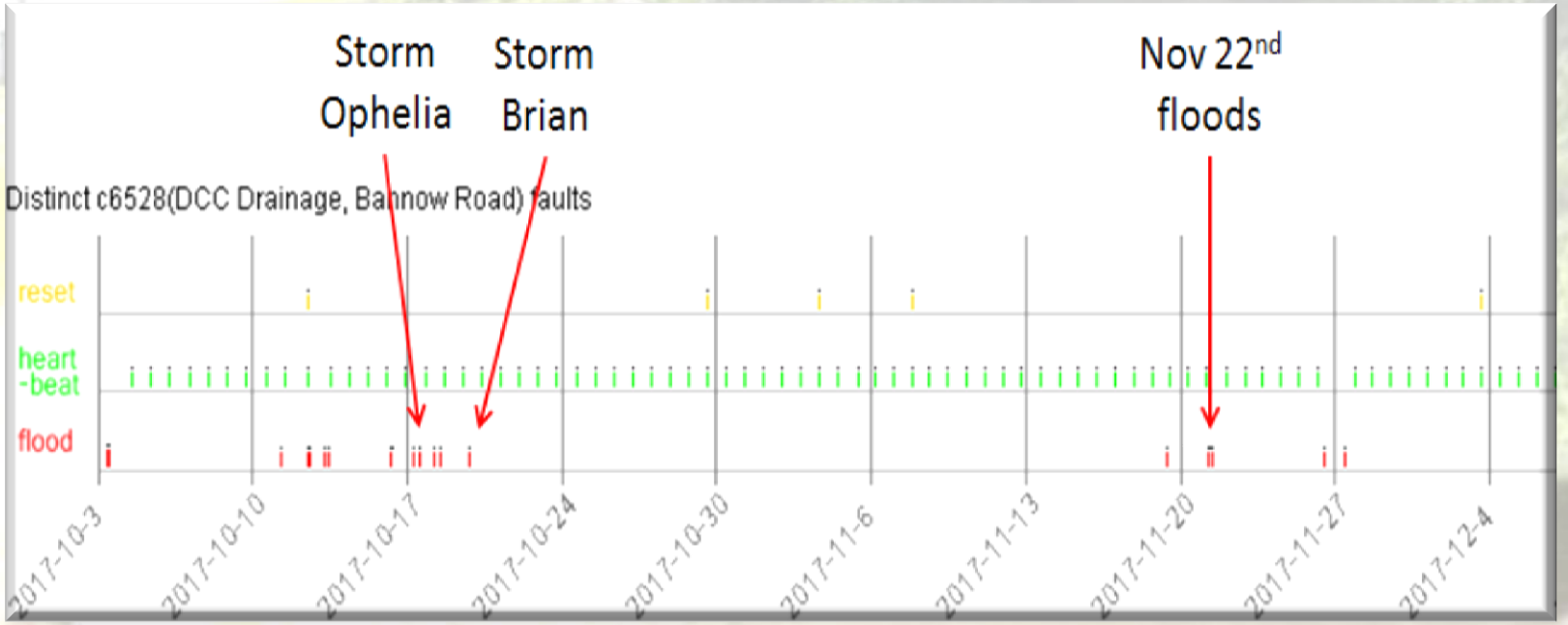
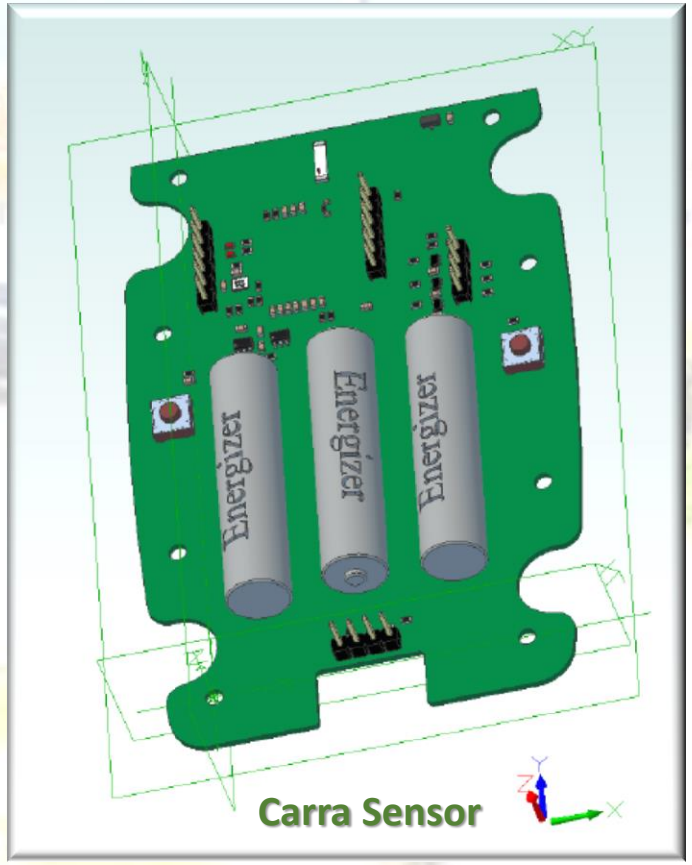
Site Acceptance Testing

The flood sensor solution trialled at DCC's Bannow Road facility for 2 months, Oct-Dec 2017, where it successfully alerted personnel via SMS during staged & real flood events. Drainage personnel arranged the test-gully be deliberately partially-blocked to maximise the likelihood of natural flooding and allow aggressive testing. Below, a Hubeleon histogram visualisation of events transmitted by the Flood Sensor from the Bannow Road gully during the testing period.

All flood events were successfully delivered by SMS to Roy O'Donnell, our DCC Liaison, including three real-world weather events during the period as shown.



Phase 2 Commercialisation



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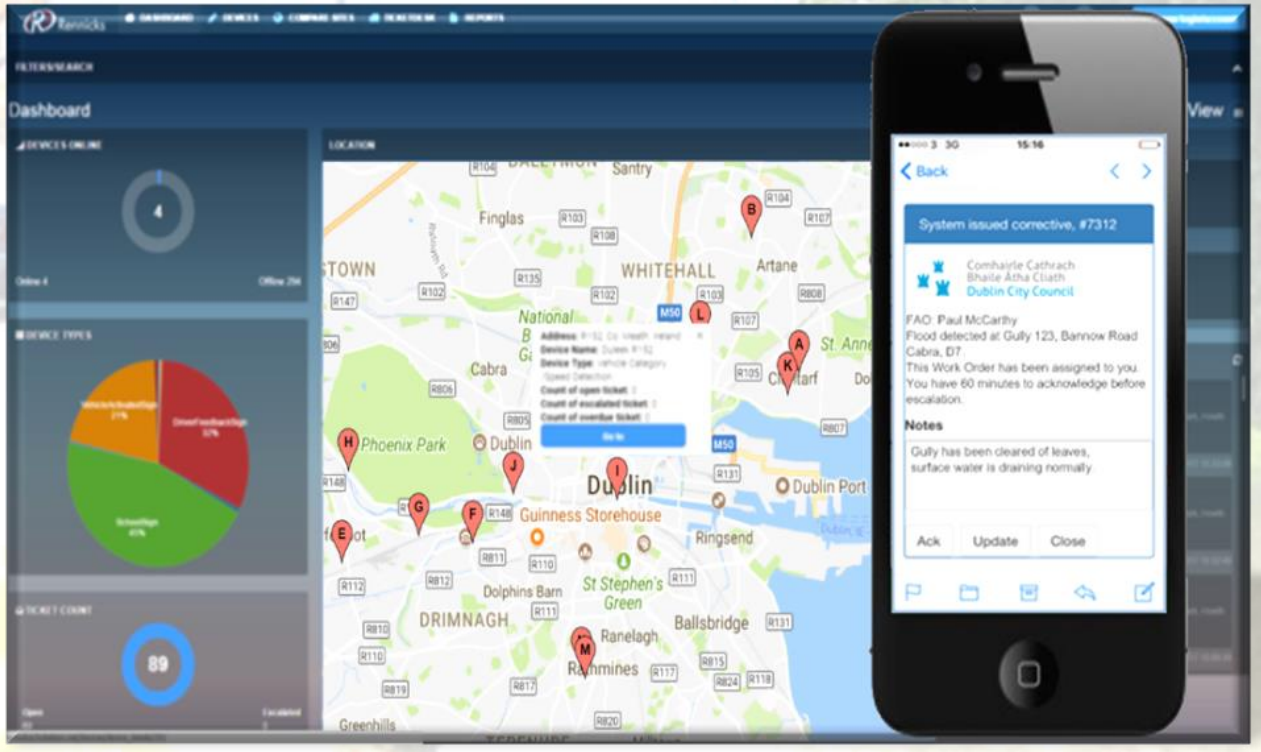
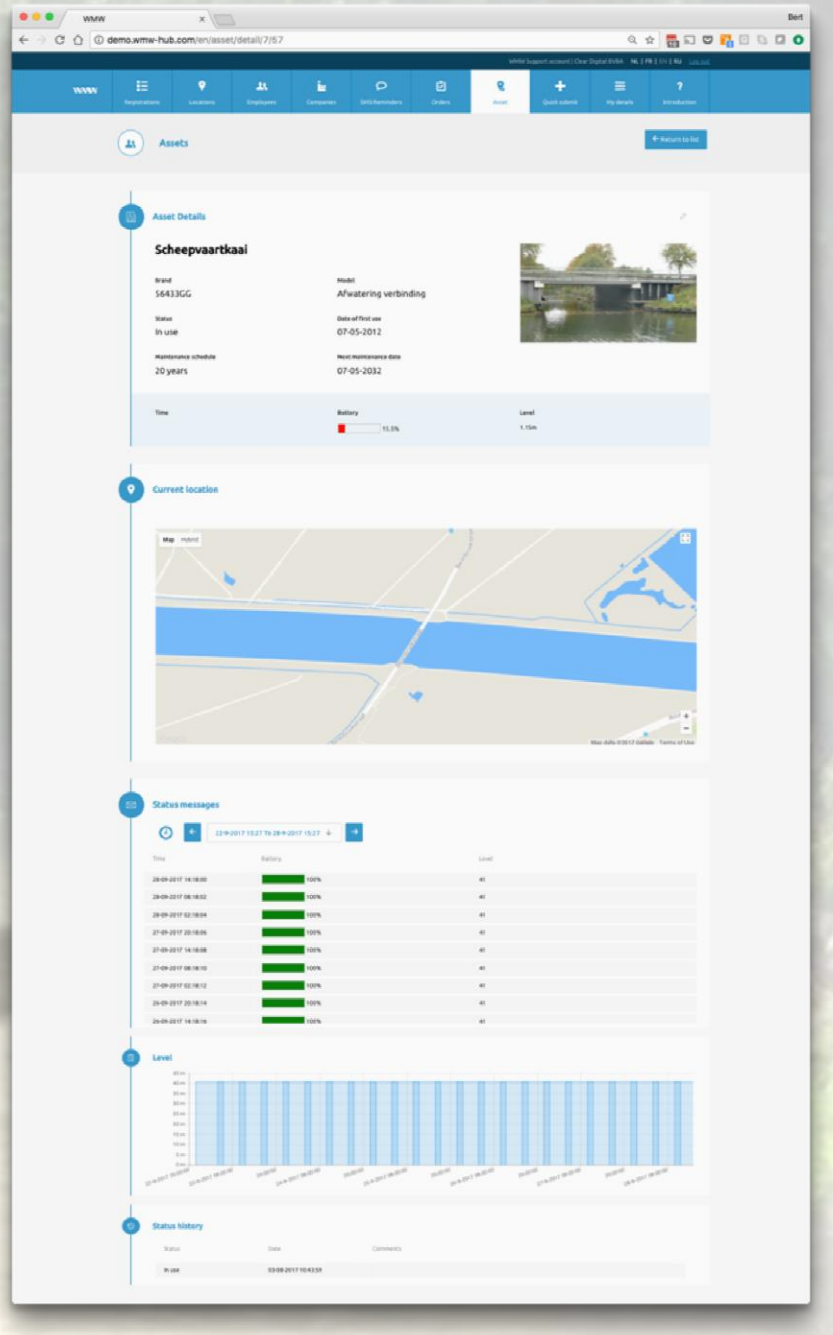
Phase 1 to Phase 2





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SBIR Key Benefits

➢ **SBIR funded development from prototype to commercial offering**

- **Cost effective real-time flood alerting to drainage personnel by Voice call/SMS/App with effective Comms.**
- **Challenge - Easy to deploy and easy removal for gully cleaning purposes.**
- **R and D into multiple communications networks - Lowra, Sigfox, 3G/4G.**
- **Enhanced Interface - monitoring platforms for on call, maintenance, weather app and reporting.**

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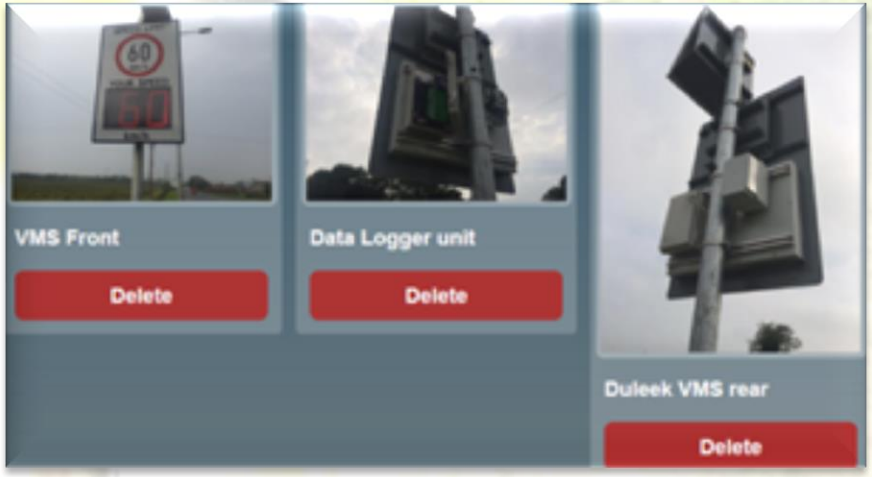
Comms Hub – Data Collection / Alerting



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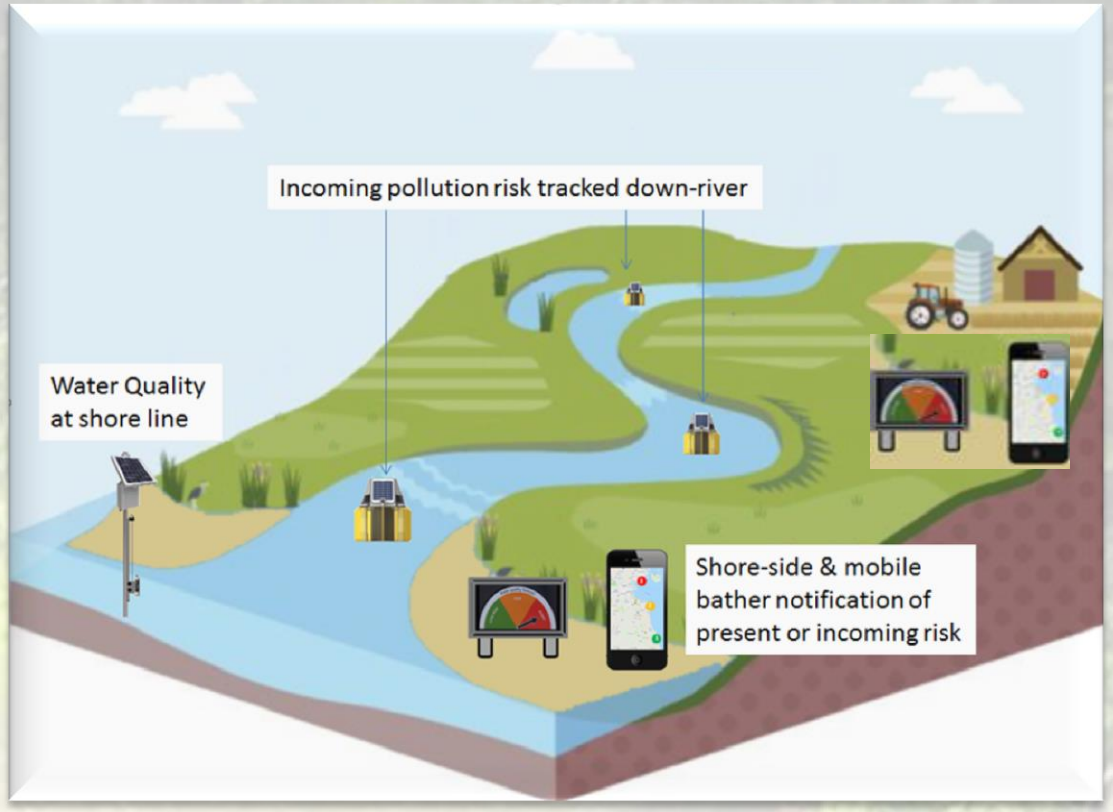
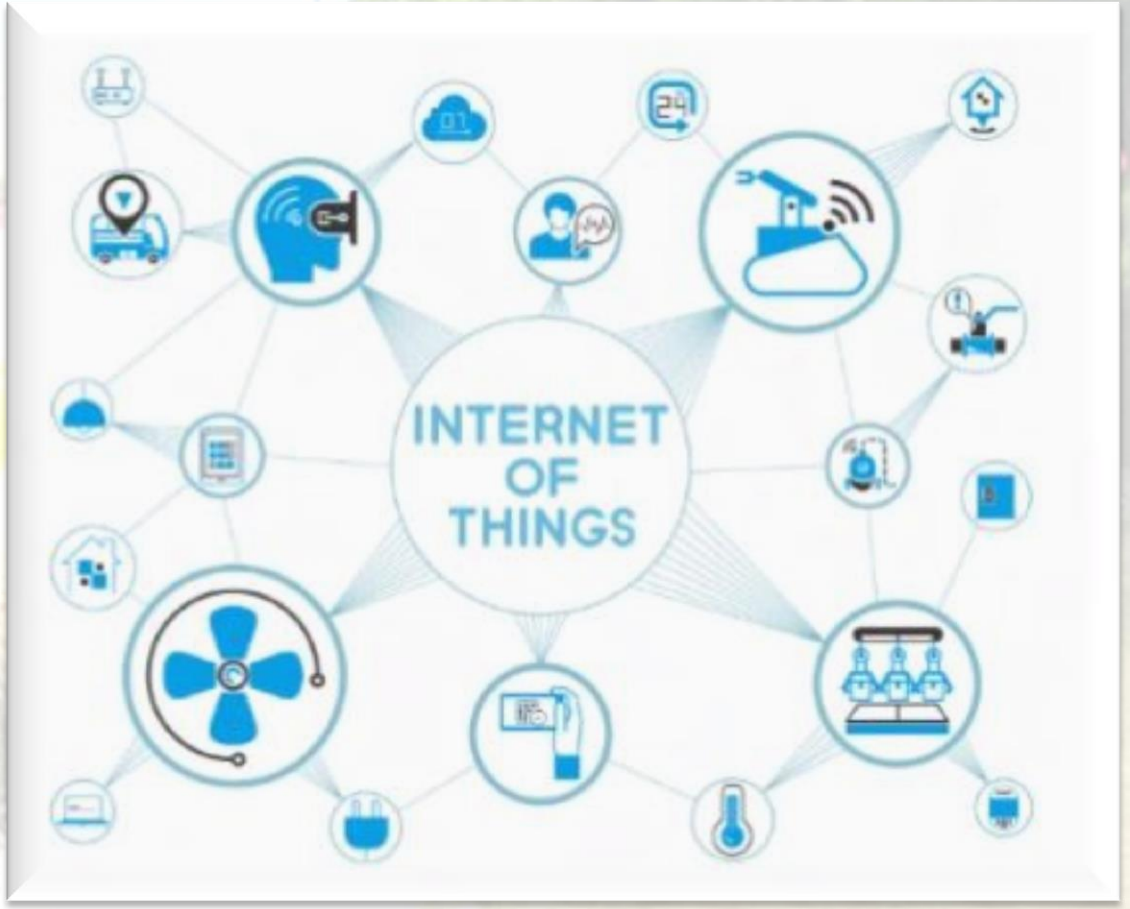
Comms Hub

- Water Quality
- Ag tech
- Emissions/Air quality



Thank you …The end or maybe just the beginning……..!oT



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