

Advanced NanoSensor Tech Focused on Agri-Foods

On-Field/In-line Reagentless Monitoring Solutions

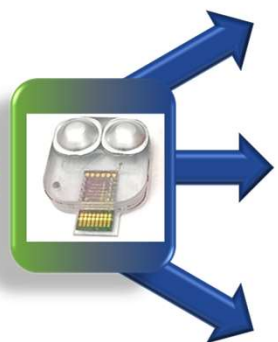


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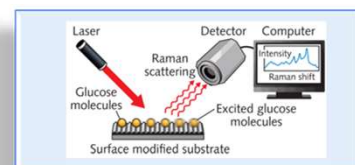
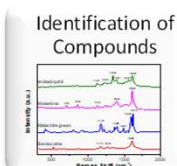
Expertise

Novel Sensors for On-Field / In-Line Monitoring

The Advanced Nanosensors Groups specialises in the development and assessment of novel sensors based on three general platforms.



Surface-Enhanced
Raman
Scattering



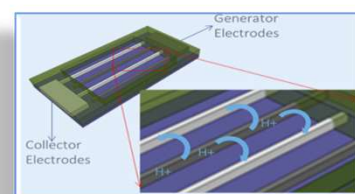
Electrochemistry

Organics

- Metabolites
- Pesticides

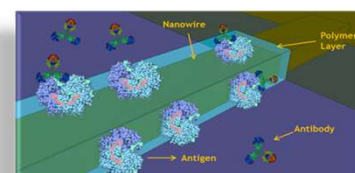
Inorganics

- pH Control
- Pb, Hg, NO₃, Cl⁻



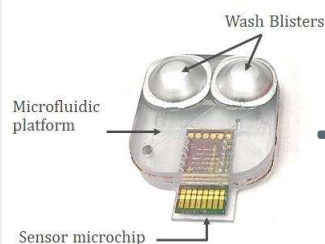
Proteins &
Antigens

- Parasites
- Viruses
- Antibodies
- Biomarkers
- Metabolites

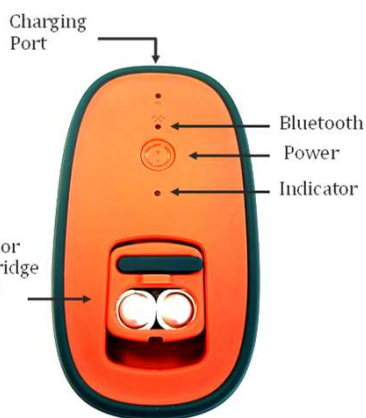


Core Platform

All our nanosensors are compatible with our prototype sensor base system, allowing for seamless transition from the lab to the field.



Sensor cartridge
inlet

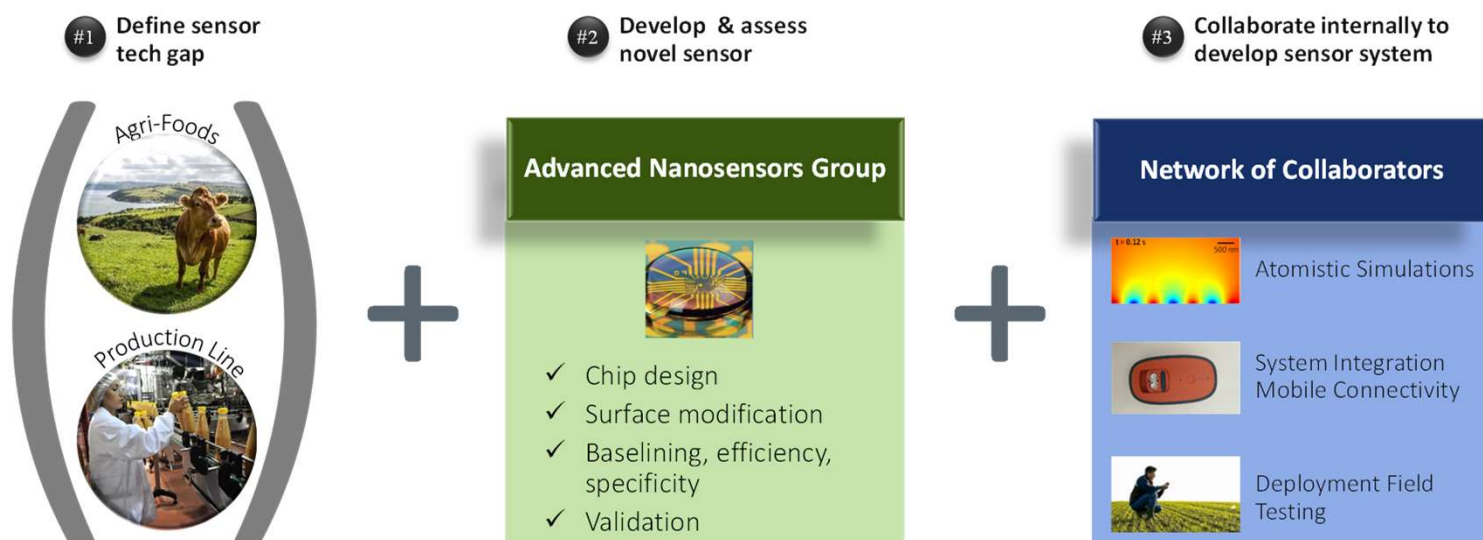


Contact:

For more information on collaborative research involving this research group please contact: **Dr Gerry Mouzakitis, Programme Manager Agri-Foods**

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Typical Sensor Development Strategy



We work with our industrial and academic partners to define their monitoring requirements, produce a detailed statement of work, timeline and budget.

Ireland government support schemes are available for companies with a base/subsidiary in Ireland.

Due to the breadth of work at Tyndall National Institute, we collaborate with a wide range of other research groups to integrate our nanosensors and provide additional functionality and validation.

Advantages



	Agri-Foods	Production Line
Compatibility	On-Farm Diagnostics	PAT & QbD
Staff Requirement	Farm Manager	Line Manager, QC
Connectivity	Mobile Phone	QC
Data Tagging	GPS, NFC	NFC
Detection Targets	Inorganics, Organics, Biomarkers	CQAs

About Us

Nanosensor-based monitoring solutions in Agriculture, Food and the Environment.

- 20 Researchers
- Diverse expertise:
 - Nanotechnology
 - Electrical Engineering
 - Chemistry/Physics
 - 3D Rapid prototyping
- Dedicated project manager

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