



Living Laboratory for the Forth Valley

*Forth ERA: A regional
recovery platform*

EAUC Scotland Forum

Sam Barnett – SIEC Interim Prog Lead

Scotland's International Environment Centre

An opportunity for us to take a different approach, transforming and reimagining innovation to deliver sustainable, inclusive growth.

1. **Forth ERA (Catchment Scale)**
2. **SIEC Data Centre**
3. **Low Carbon Accelerator**

- Next generation big data
- Test and demonstration facilities
- Skills training and enterprise
- Business innovation and incubation
- Creating the future world of work
- Made in Scotland for the global market

CITY REGION DEAL

Working together to deliver – The Why?!

Supporting the Region in its transition to Net Zero

SIEC Phase 1 will contribute to the delivery of the City Region Deal's four strategic outcomes;

Inclusive Economic Growth; Higher Value Jobs; Shared Prosperity; Inclusive Skills

Ecosystem. Over 15 years SIEC will deliver multiple benefits including;

- The creation of 125 Jobs within the city region
- Delivering an SIEC skills portfolio supporting 8669 individuals
- Development of 100 industry led partnerships
- Working with 300 SMEs providing specialist 'low carbon' business support
- Supporting 200 start-ups in the low carbon economy
- Contributing an additional £ 114M GVA to the city region

SIEC – Phase 1: 2021 - 2023



- **Forth ERA** – World leading catchment environmental monitoring infrastructure

- **Environmental Data Centre** – Including High Performance Computing, Visualisation Theatre and Immersive technologies

- **Business Accelerator** – Specialist low carbon incubator and support services for SMEs

- ✓ £1.6m procurement
- ✓ Recruitment underway
- ✓ Use Case Strawman
- ✓ SIEC Intern Model
- ✓ Bus Requirements
- ✓ Project Manager Incoming
- ✓ HPC PoC
- ✓ Target Procurement end of 2021
- ✓ 5GC partnership
- ✓ SIEC Staff team

New Technologies

*Skills (Interns, PhDs,
Secondments)*

Partnerships

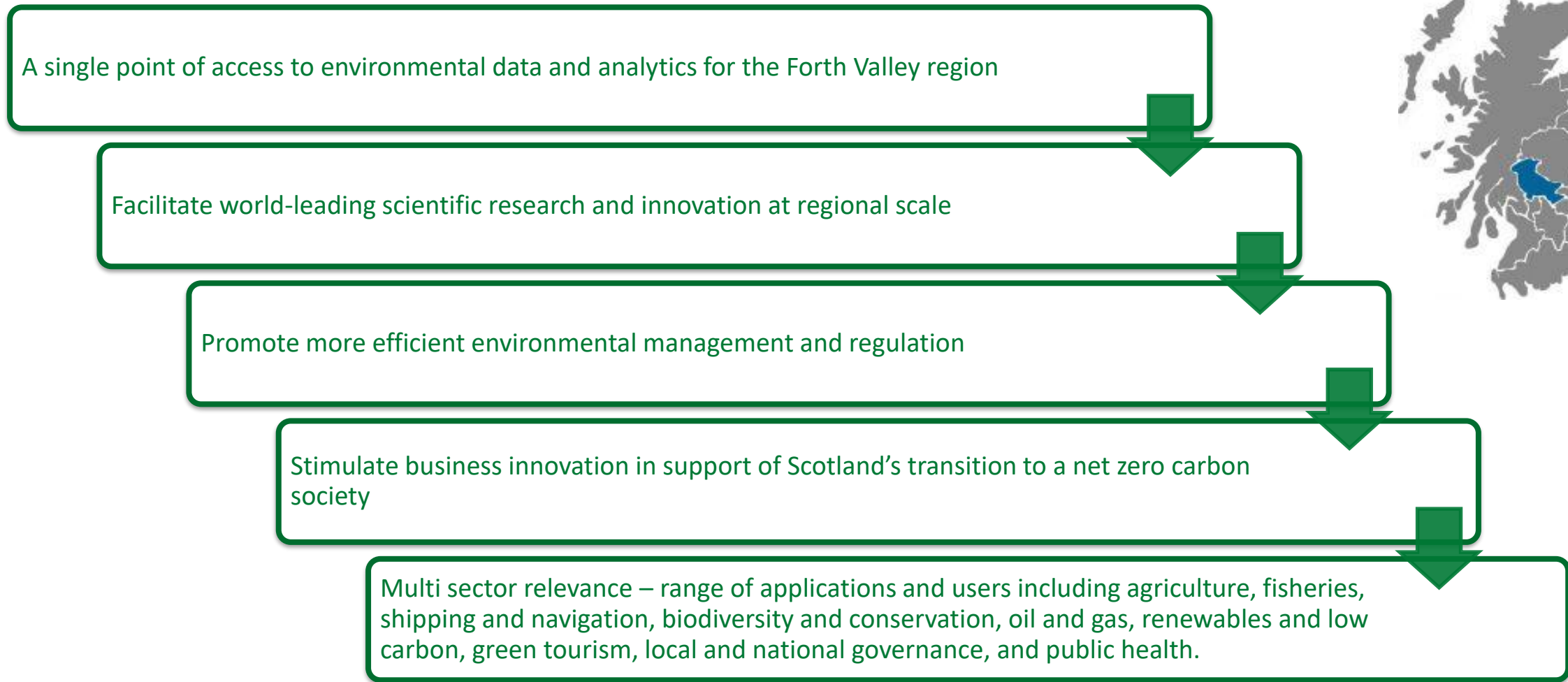
Co-funding

Test Bed

BE THE DIFFERENCE

Forth-ERA AIMS

Scotland's first regional recovery platform



UNIVERSITY of
STIRLING



Supported by:



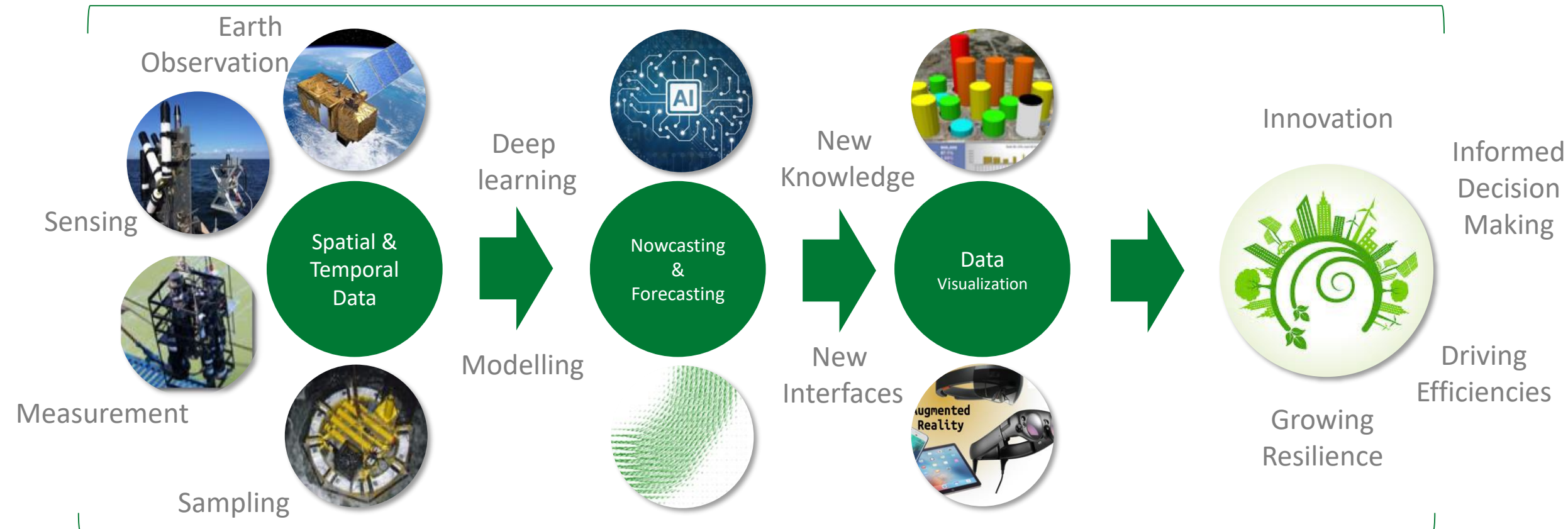
Scottish
Water
Trusted to serve Scotland

DIAGEO



FORTH ERA Recap

Co-Development – Value Proposition



LoRaWan, 4G, NB-IoT & **5G Digital Fabric**

Forth ERA Full Catchment Design – Progress

Need and Value

Phase 1 – May 2021

- Engage, Scope and Co-design
- Refine use cases
- Commence Catchment Design
- Initial infrastructure and comms requirements
- Feasibility
- Lessons Learned
- Recruit new resources

Design and Buy

Phase 2 – Sep 2021 onwards

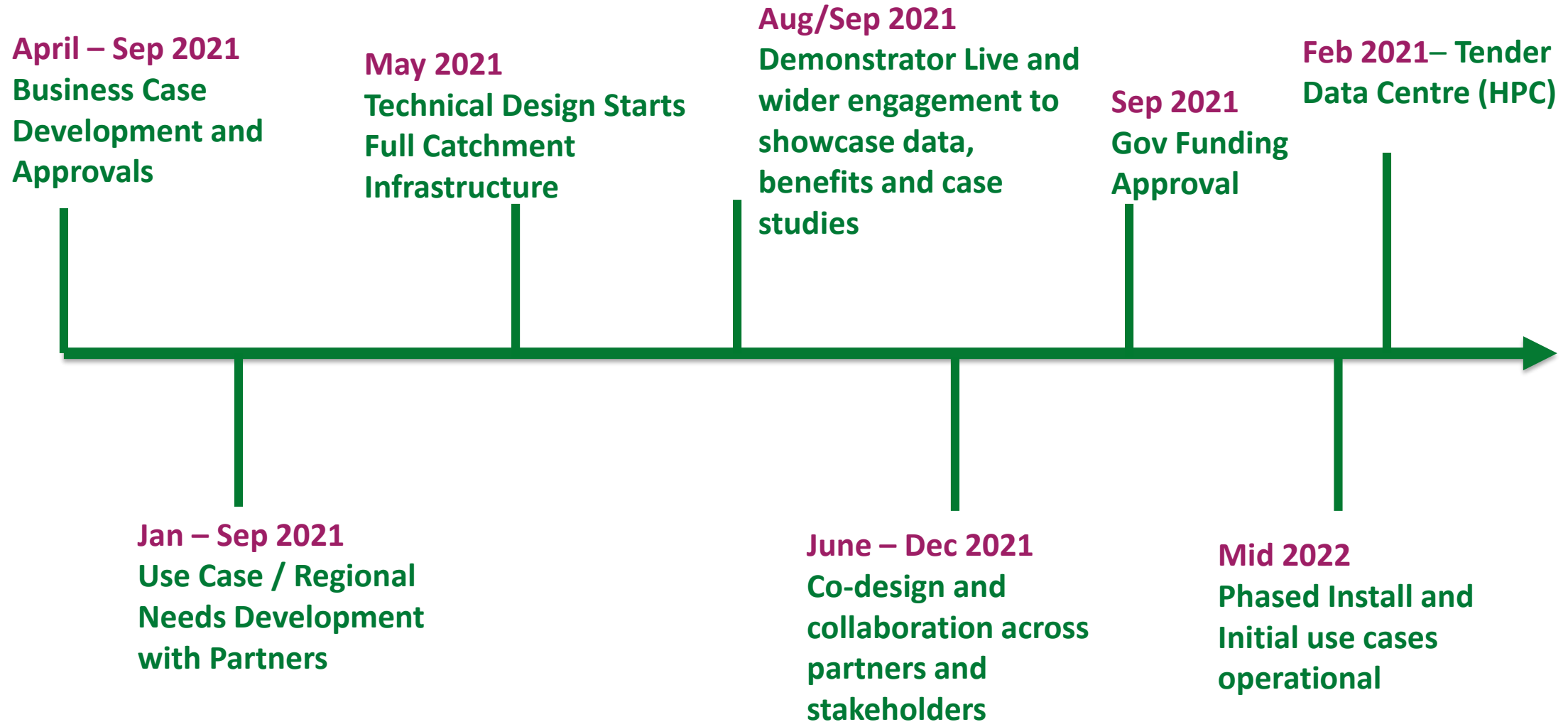
- Test, Refine and Co-design
- Recruit new team
- Procure and Purchase
- Catchment Design – Sensors and Comms
- Client Led Use Cases
- Research / Partner projects live
- COP26
- Test bed for orgs

Build and Demand

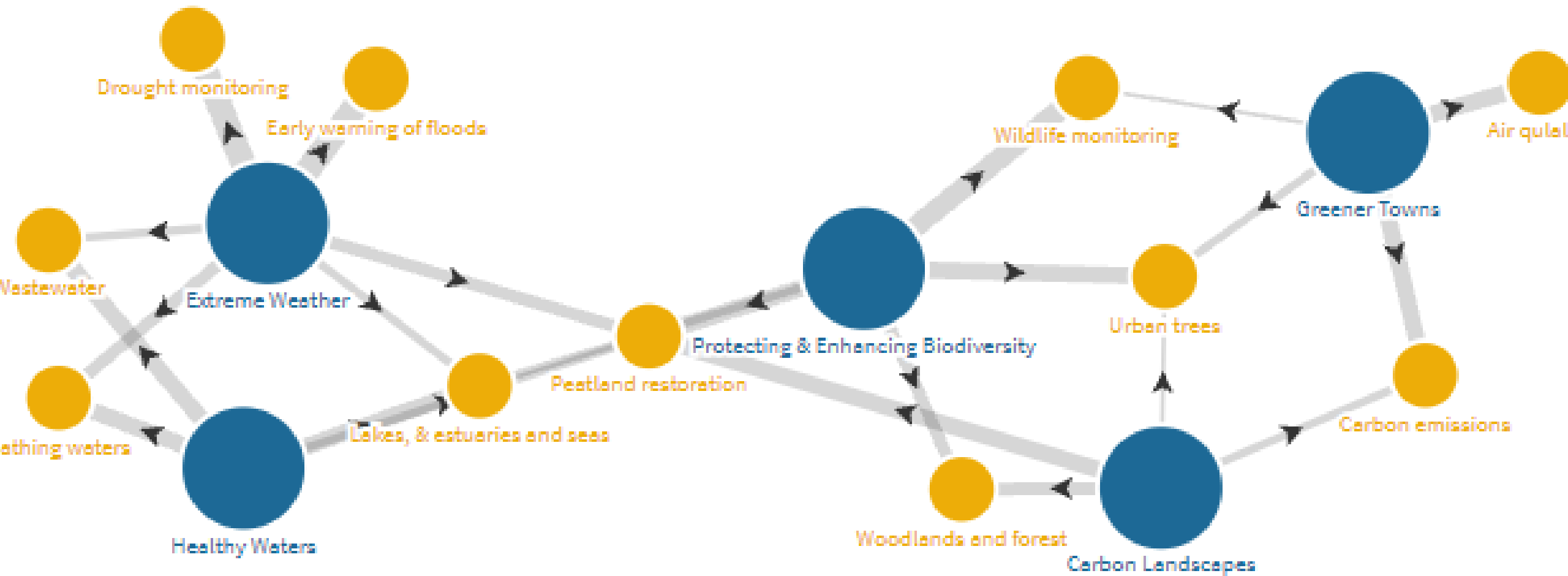
Phase 3 – mid 2022 onwards

- Phased installation
- First set of data outputs
- Detailed modelling and big data processing
- Pipeline of regional use cases
- First immersive applications in use
- KPI metrics

Indicative Timeline – 2 year development period



Forth ERA Science and Solutions





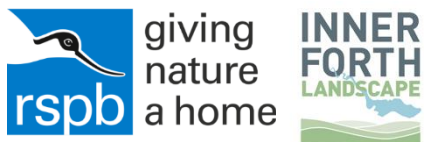
Scotland's First 5G Innovation Hub – Environmental Sensing



Scotland Hydro Nation Chair - £3.5 million investment



Forth Priorities: Peatlands, Water Quality, Tree Canopy Internship



Community Action: Climate Resilience



Sustainable Growth Agreement, Regional Pioneers Fund (Leven and Grangemouth), Data Centre, Water Innovation Lead



Forth ERA Proof of Concept



Partnership and Leadership



BE THE DIFFERENCE

Thank You!

Discussion and Questions

[Forth Environmental Resilience Array | About | University of Stirling](#)

Sam.Barnett@stir.ac.uk