

# Field trial plan



### Phase 1 – Testing monitoring architecture

- Review of existing monitoring infrastructures
- Consultation with University of Nottingham ETC (
  <a href="http://www.nottingham.ac.uk/etc/">http://www.nottingham.ac.uk/etc/</a>) and Estates (
  <a href="http://www.nottingham.ac.uk/estate/">http://www.nottingham.ac.uk/estate/</a>) regarding current monitoring capabilities of University of Nottingham and local workplaces
- Acquiring suitable sensors and sensor hub (e.g. M2M module) check compatibility/portability with China
- Deploying and testing sensor infrastructure in test site (Horizon Research)





- Phase 2 Testing data store for monitoring
  - Developing schema for data store
  - Deploying data store on suitable web platform
  - Linking sensor infrastructure to data store and testing scalability of data store for long-term monitoring





### Phase 3 – Prototype (monitoring) user interfaces

- Review of existing user interfaces for Carbon emission awareness
- Rapid iteration of prototypes based on paper prototyping and short test deployments at local sites (student halls of residence at University of Nottingham, Horizon Research)
- Internationalise interfaces





#### Phase 4 – Test control architecture

- Acquire and integrate suitable control hardware with monitoring hardware
- Modify data store to support control
- Test control functionality (reliability and response speed)





- Phase 5 Prototype enhanced UI3
  - Modify UI3 to enable control functionality
  - Rapid iteration of UI3 prototype in consultation with various potential end-users





#### Phase 6 – Formal field trials

- Determine observation/data capture method + sites
- Installation of monitoring/control infrastructure + UI devices on sites
- Pre-trial interviews/focus groups with users
- Trial
- Post-trial interviews/focus groups with users





### Phase 7 - Analysis

- Data sessions/workshop with stakeholders
- Dissemination of results
- Plan for follow-on proposals





|       | Months |                  |               |       |       |          |             |       |
|-------|--------|------------------|---------------|-------|-------|----------|-------------|-------|
| Phase | 1-3    | 4-6              | 7-9           | 10-12 | 13-15 | 16-18    | 19-21       | 22-24 |
| 1     |        | Impl. monitoring |               |       |       |          |             |       |
| 2     |        | Impl. data store |               |       |       |          |             |       |
| 3     |        | Prototype UIs    |               |       |       |          |             |       |
| 4     |        |                  | Impl. control |       |       |          |             |       |
| 5     |        |                  |               |       |       |          |             |       |
| 6     |        |                  |               |       |       |          | Field trial |       |
| 7     |        |                  |               |       |       | Analysis |             | S     |



