

Feed me, Feed me

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Motivation

What are the requirements for engineering adaptive software for the Internet of Things (IoT)?

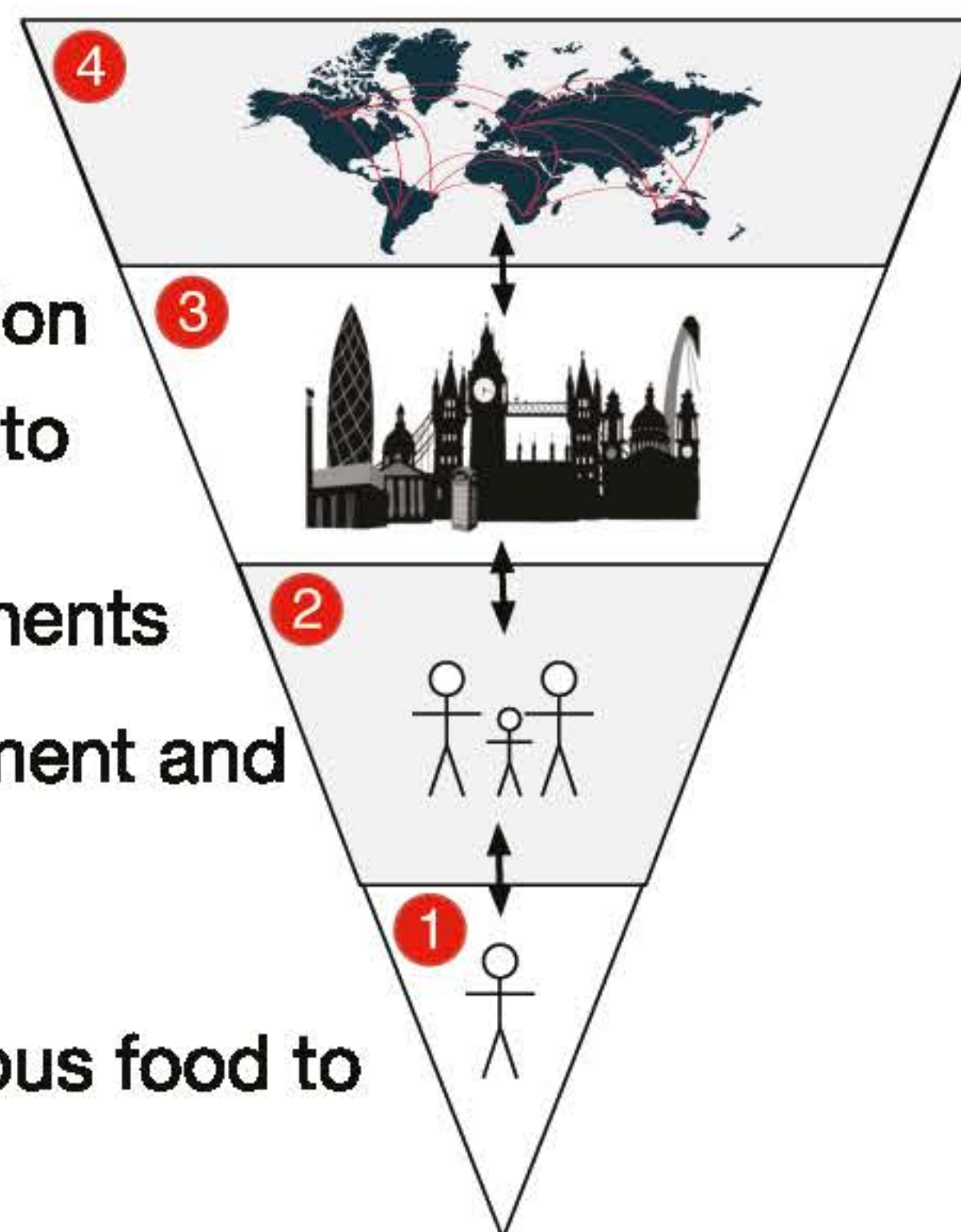
- IoT promises to deliver targeted, optimised, and adaptive support to individuals and groups
- Food security is a global techno-socio-economic challenge
- Elicit and formulate user requirements for IoT-based adaptive software around food security



Exemplar for Engineering Adaptive Software

Levels of Granularity

- Individual:** Trading off health benefits, costs, and consumption
- Home:** meal planning adapted to families' health goals, daily schedules and dietary requirements
- City:** improving stock management and minimising wastage
- Nation:** ensuring food security, i.e., sufficient, safe, and nutritious food to the global population



Challenges

- Interplay between digital, physical and social aspects
- Integration and interoperability of systems of systems
- Complex and emergent security and privacy requirements
- Dynamic (runtime) adaptation

Early Results

Identify and communicate the research challenges for engineering IoT-based adaptive software

- ContraVision:** Positive and negative versions to elicit a wide spectrum of requirements
- Preliminary study:** explore users' reactions to the Feed me, Feed me exemplar
- Publication:** Feed me, Feed me, SEAMS 2016

