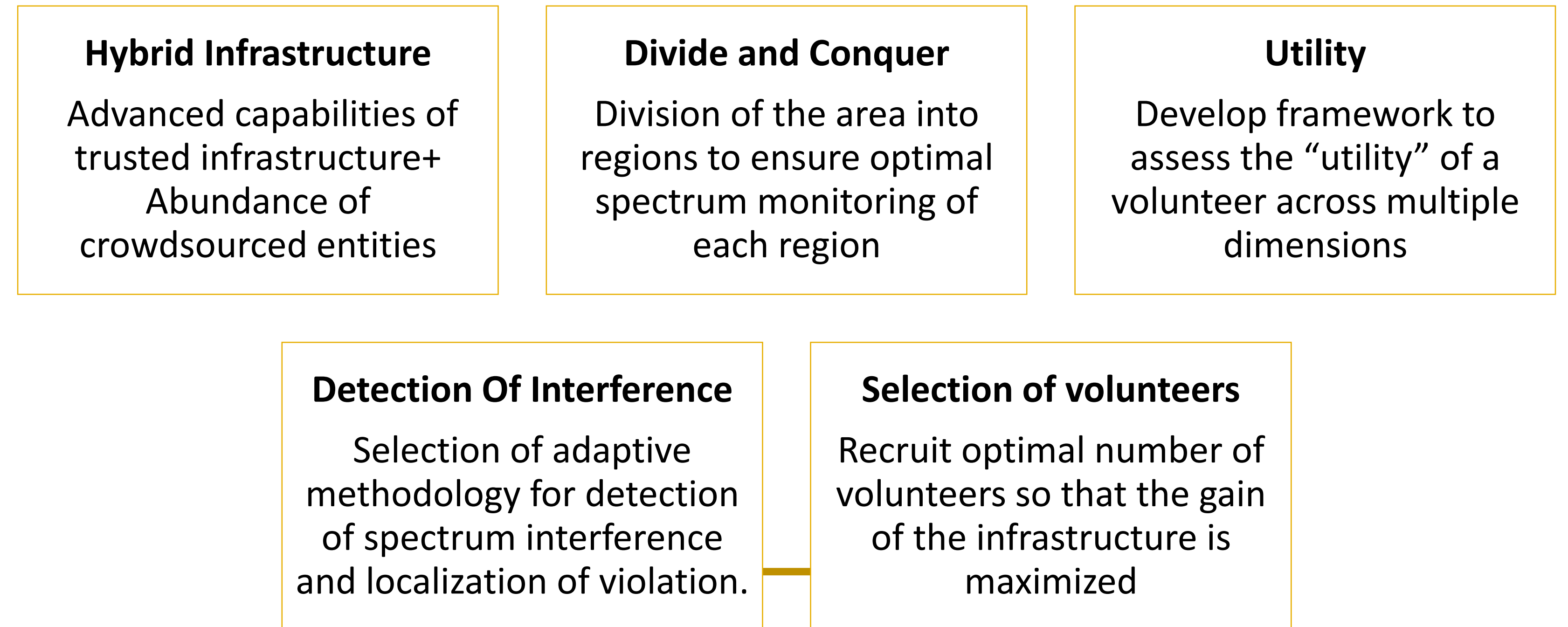


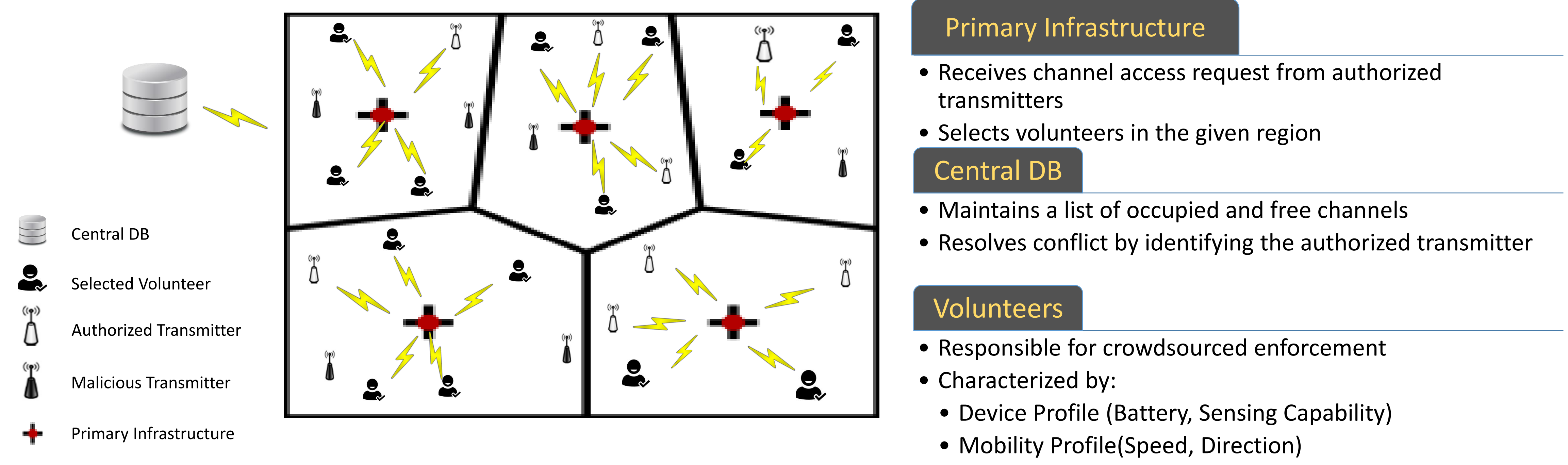
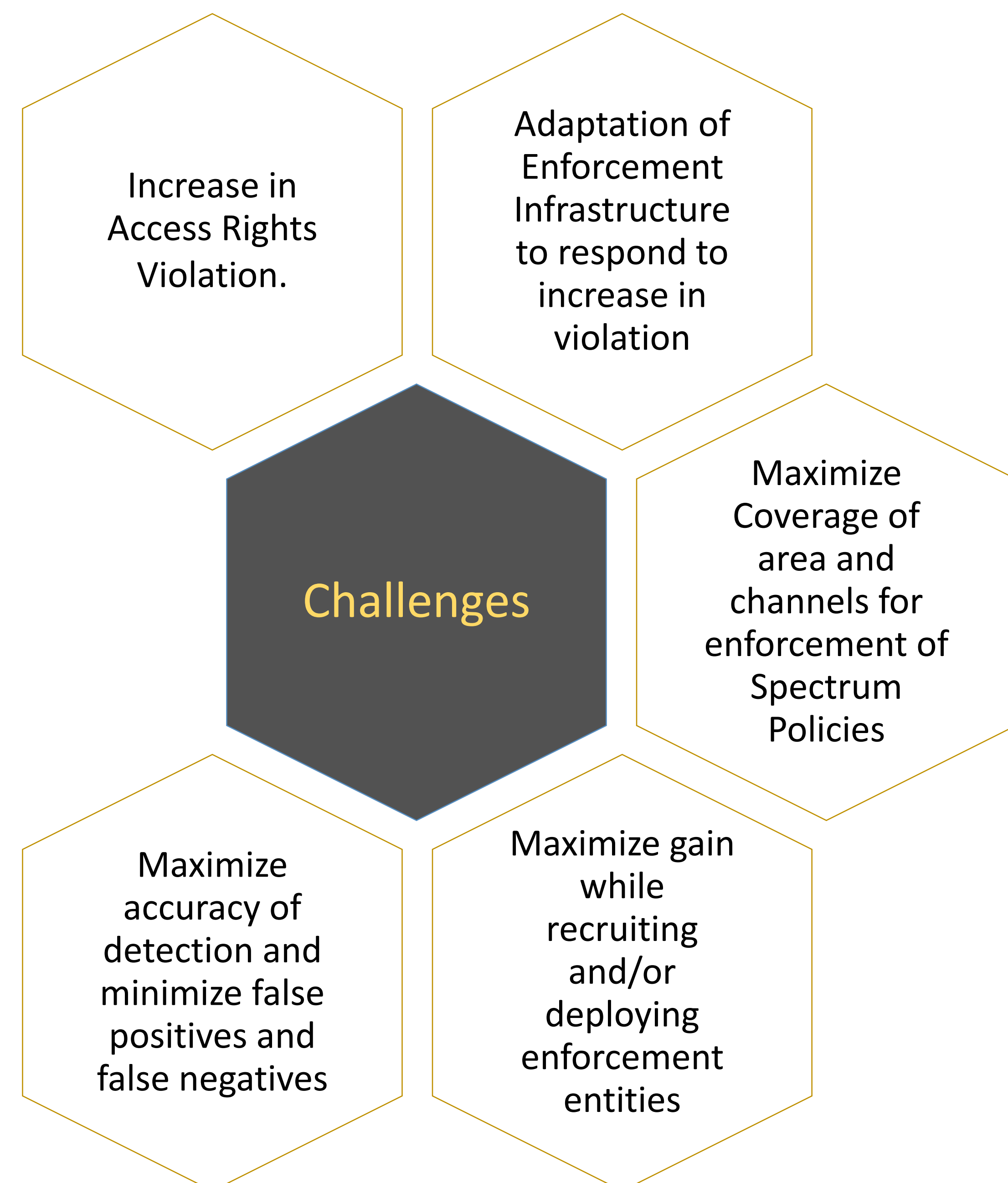
PROBLEM STATEMENT

- In April 2015, the FCC adopted a three-tiered infrastructure
 - Incumbents in tier 1
 - Priority Access Licensed (PAL) devices in tier 2
 - General Authorized Access (GAA) devices in tier 3
- The Federal Communications Commission (FCC) mandates the deployment of a network of Spectrum Access Systems (SASs) for managing spectrum sharing. The SAS manages three types of interference:
 - Interference to incumbents by tier 2 and tier 3 devices
 - Interference among tier 2 devices
 - Interference of tier 2 devices by tier 3 devices
- Until now, there has been more focus on automating *ex ante* enforcement. We focus on automating *ex post* enforcement for *optimal* event detection of spectrum access violation.
 - We aim to ensure high Quality of Enforcement (QoE) – high accuracy, credibility and sustained coverage.

APPROACH



MAIN COMPONENTS



FUTURE WORK

- Implementation of *ex post* enforcement by developing an agent based simulation model
- Formulation, implementation and analysis of optimal methods for selection of volunteers, to have maximum gain and optimal coverage of channels
- Comparative study of optimal volunteer selection methods against incentive based auction methods for selection of volunteers
- Formulation of adaptive interference detection mechanism for higher detection accuracy.