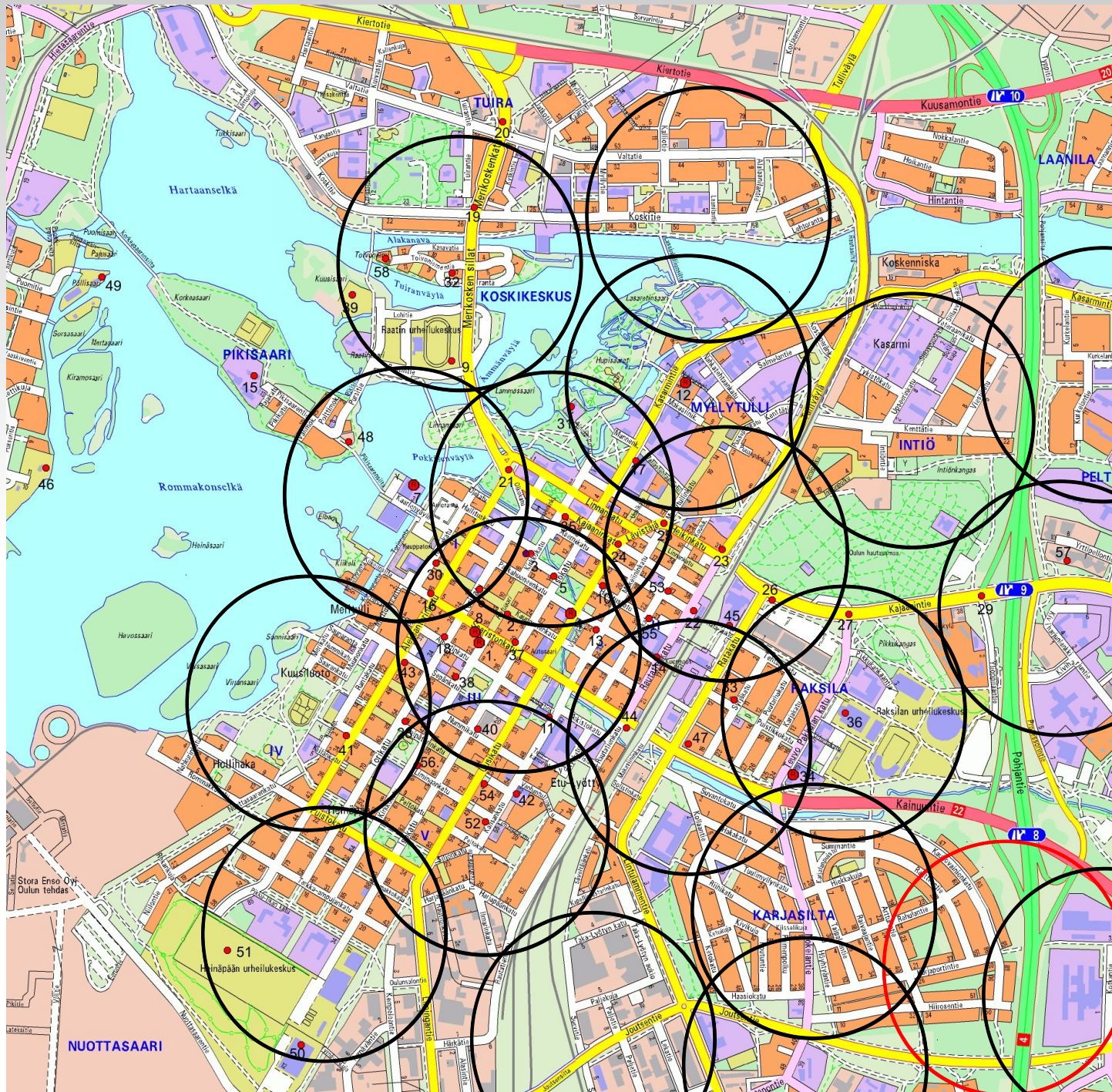


UbiCity Task #1: Proposal for 6LoWPAN network

- Workshop E: IP-Based Wireless Sensor Network
- Instructor: Zach "Sakke" Shelby, Sensinode
- 17 students from Finland, Italy, France, Switzerland, Germany, Japan, Slovenia, Poland and Sweden

6LoWPAN routers

- Approximately 20 Sensinode's 6LoWPAN (868 MHz) base stations to cover downtown and populated areas (karjasilta, intiö, raksila, myllytulli and heinäpää)
- Installations next to (or inside if installing outdoors) the existing PanOulu WiFi routers
- Only one new location: Karjasilta telecom hub
- Diameter of one circle is approximately 850m



Addressing and routing

- PanOulu will deliver native IPv6 addresses to 6LoWPAN base stations (via autoconfig or static addresses)
- Each 6LoWPAN base station routes IPv6 traffic to one stub network: 2001:708:510:c0XX/64
- PanOulu IPv6 ingress traffic is not filtered: 6LoWPAN routers use local Linux Netfilter firewall rulesets
- PanOulu exit gateway (2001:708:510:84::1) is using static routes
- 6LoWPAN routers use static default routes

Topology Example

