

Automation in Aviation

The vision of skyguide

16th of September 2020

From Situation **today**

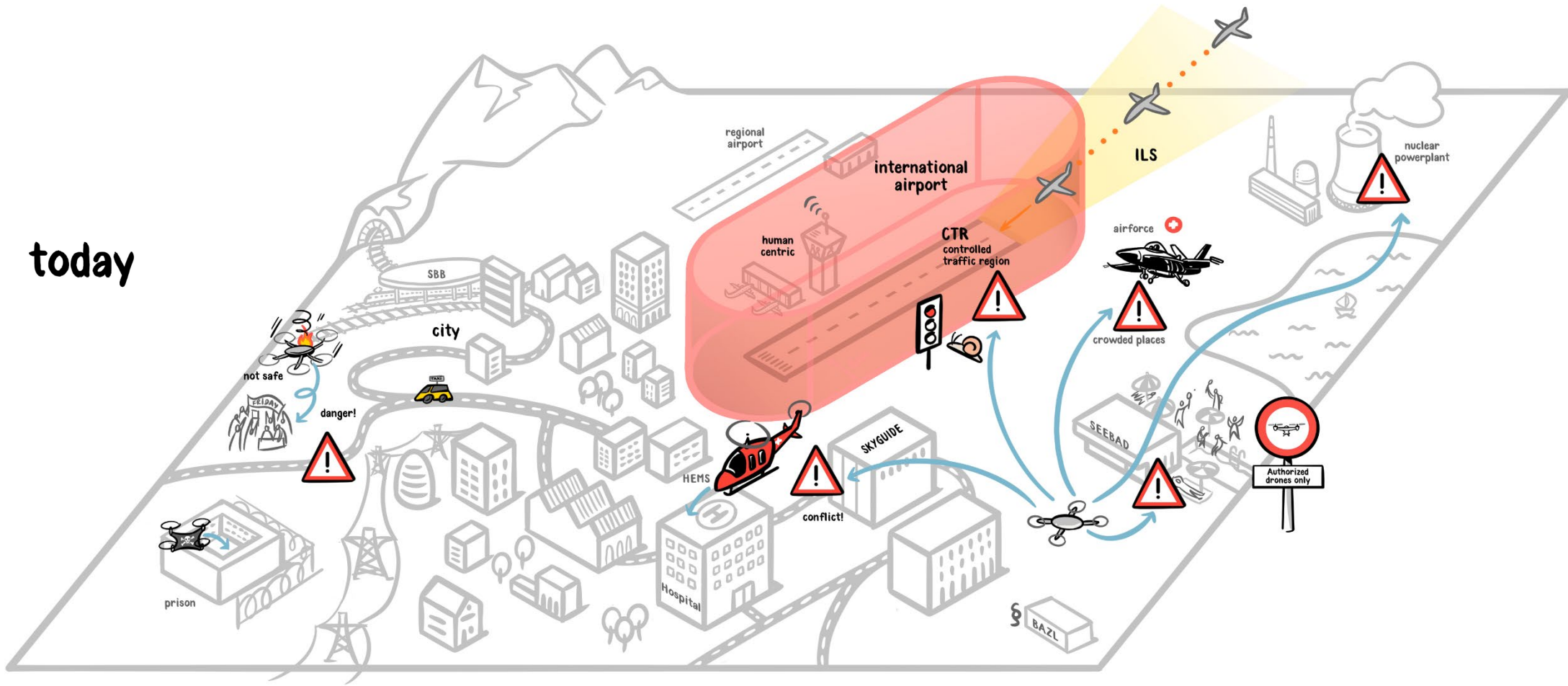
to

Situation **tomorrow**

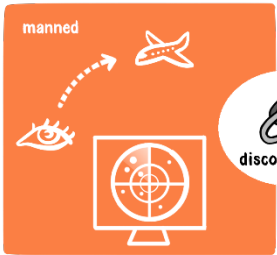
to

Situation **after tomorrow**

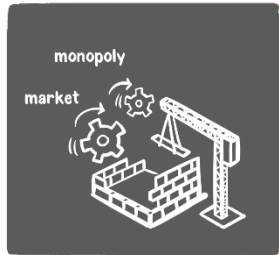
today



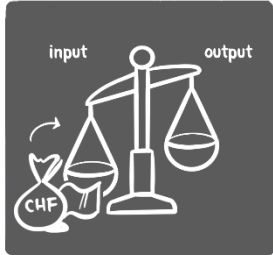
Key Elements



Airspace Management

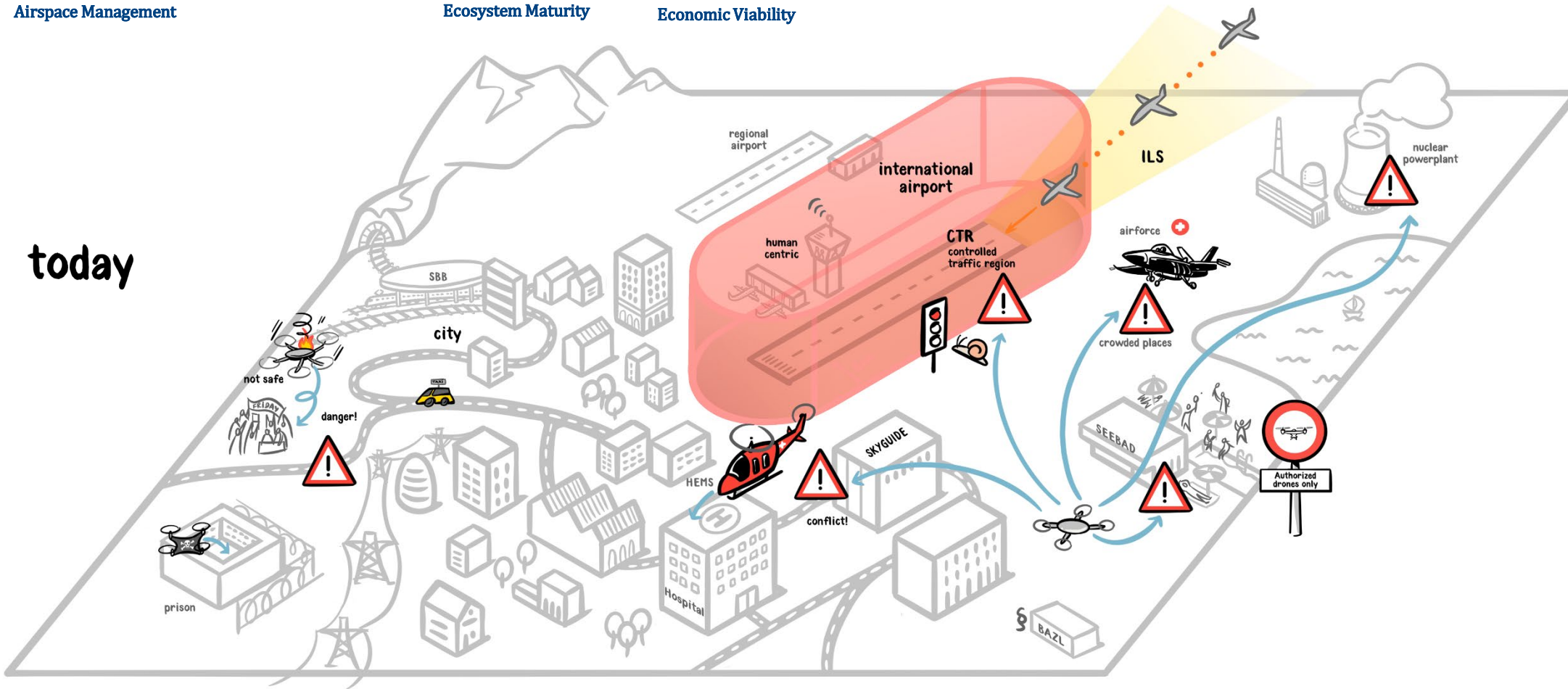


Ecosystem Maturity

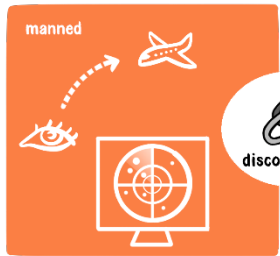


Economic Viability

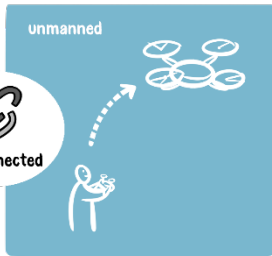
today



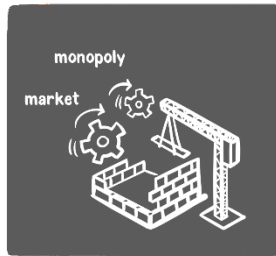
System Elements



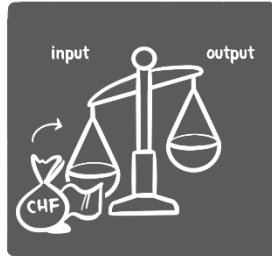
Airspace Management



Ecosystem Maturity



Economic Viability



Stakeholder Elements

visual line of sight



no easy access



manual workflow



drone pilots



human centric



unmanned traffic

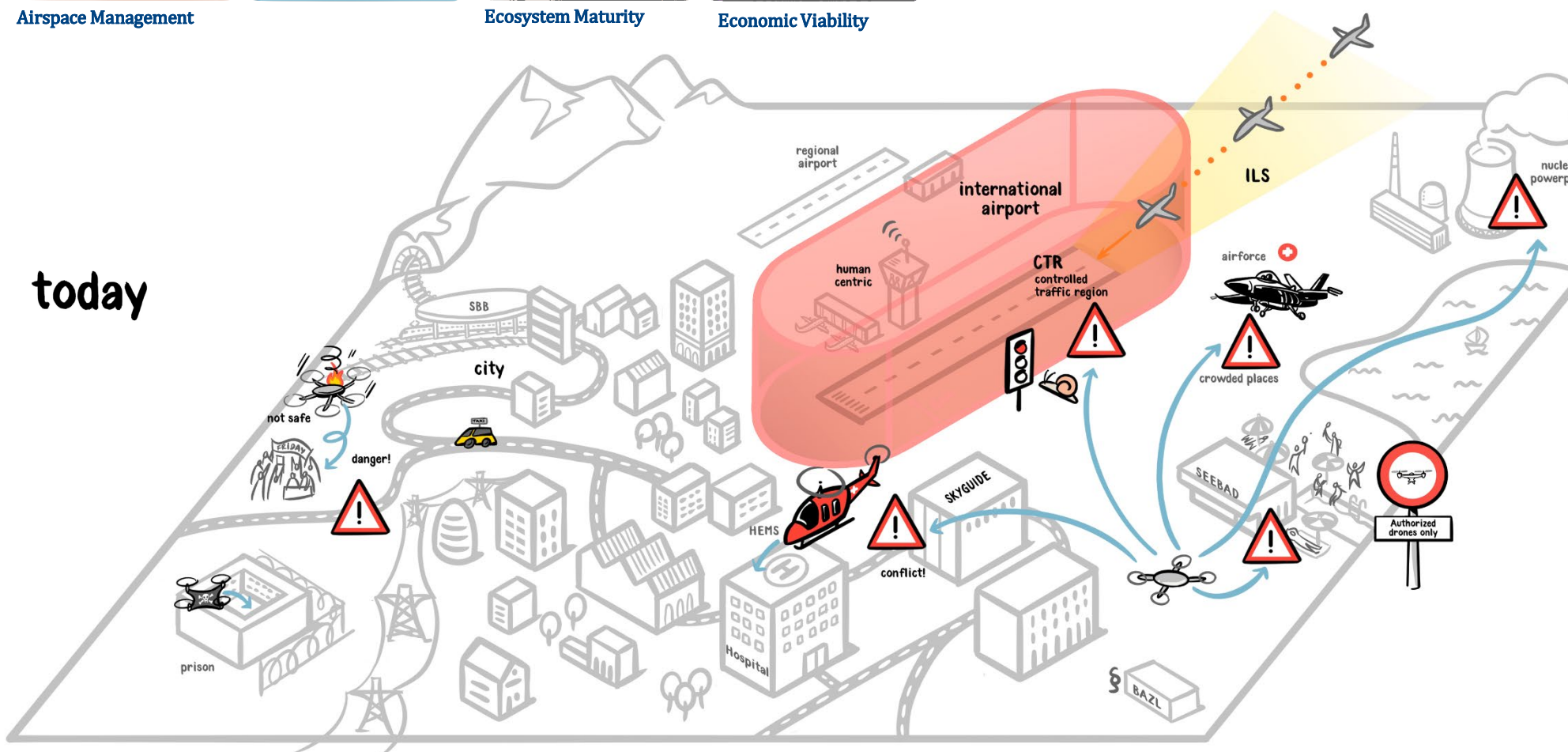


paper based



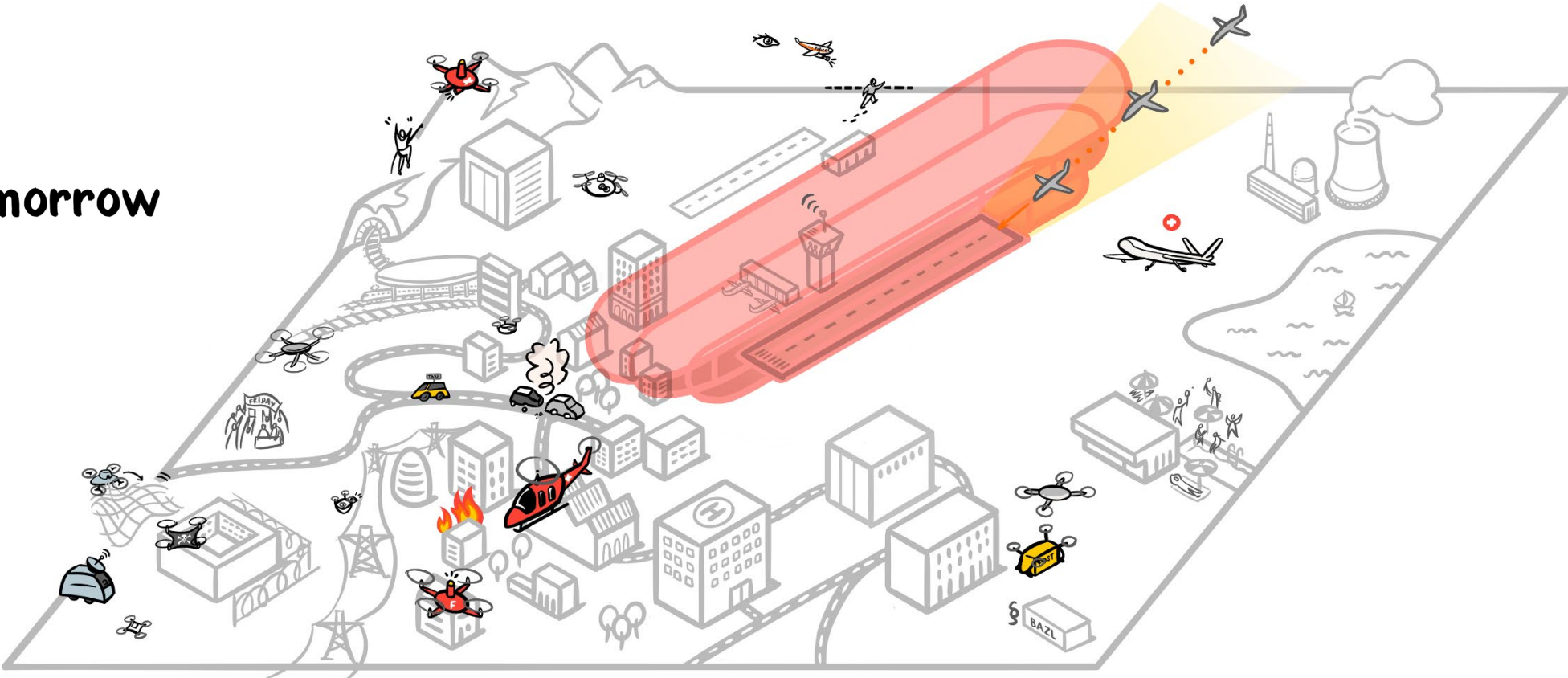
disconnected

today

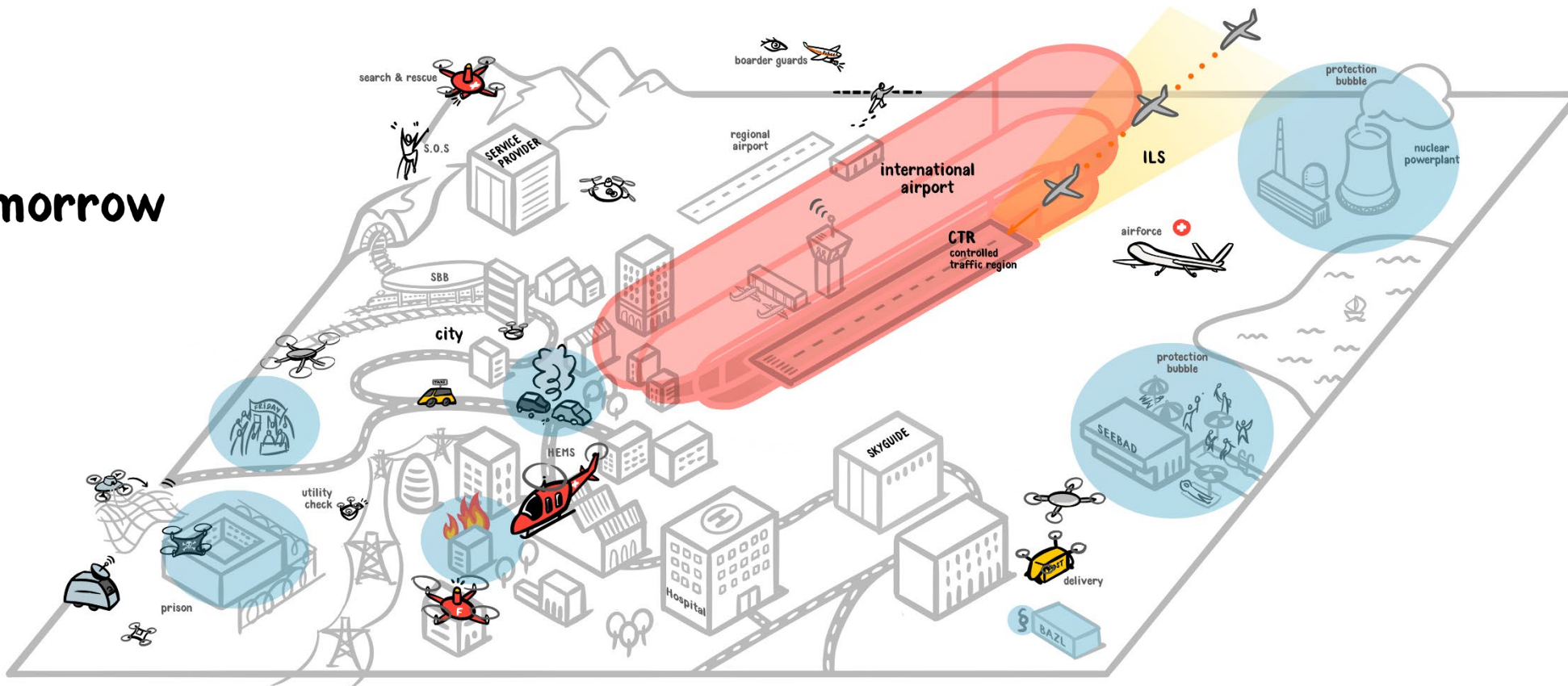


Situation tomorrow

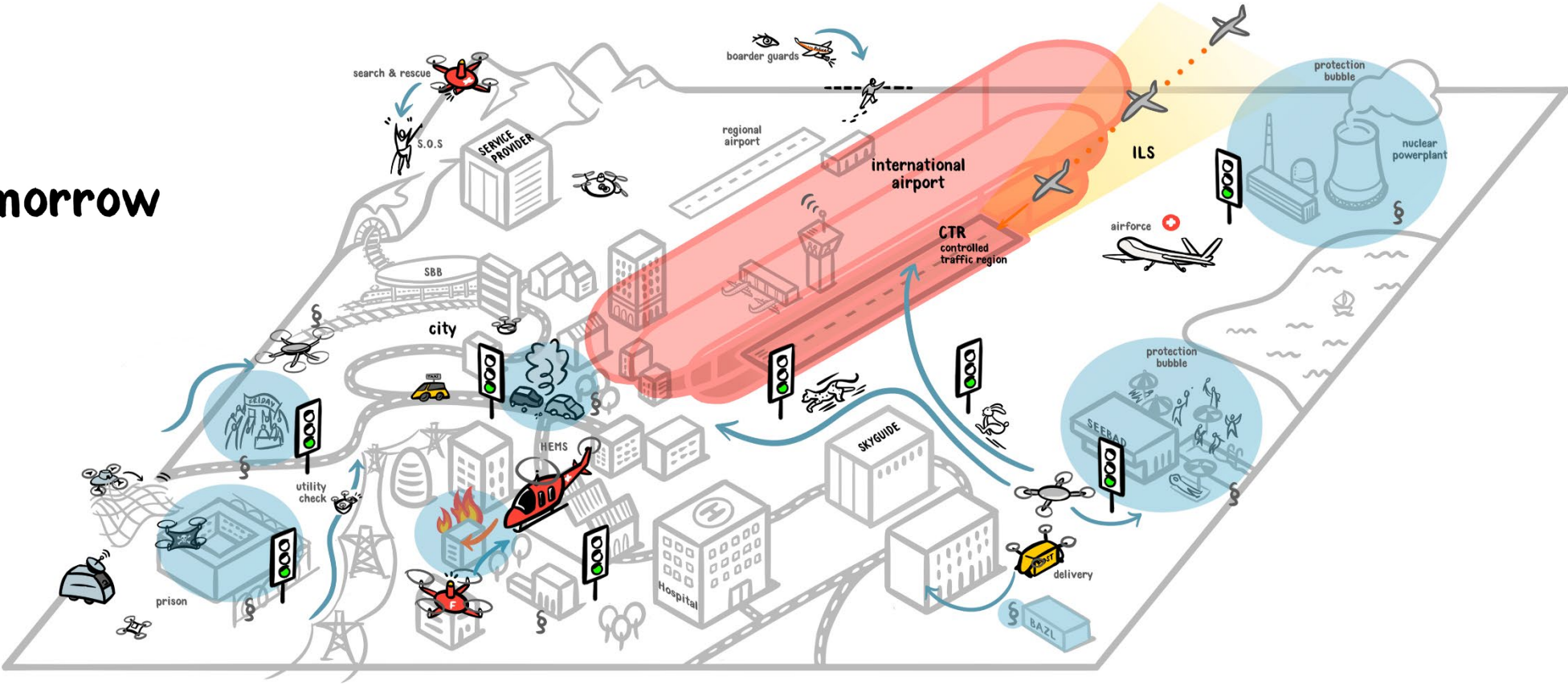
tomorrow



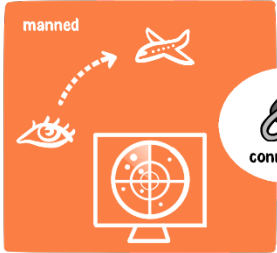
tomorrow



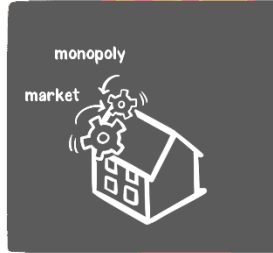
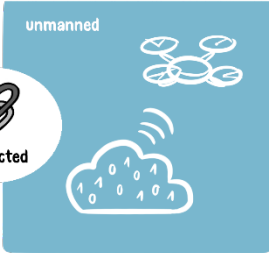
tomorrow



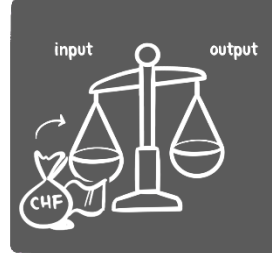
Key Elements



Airspace Management

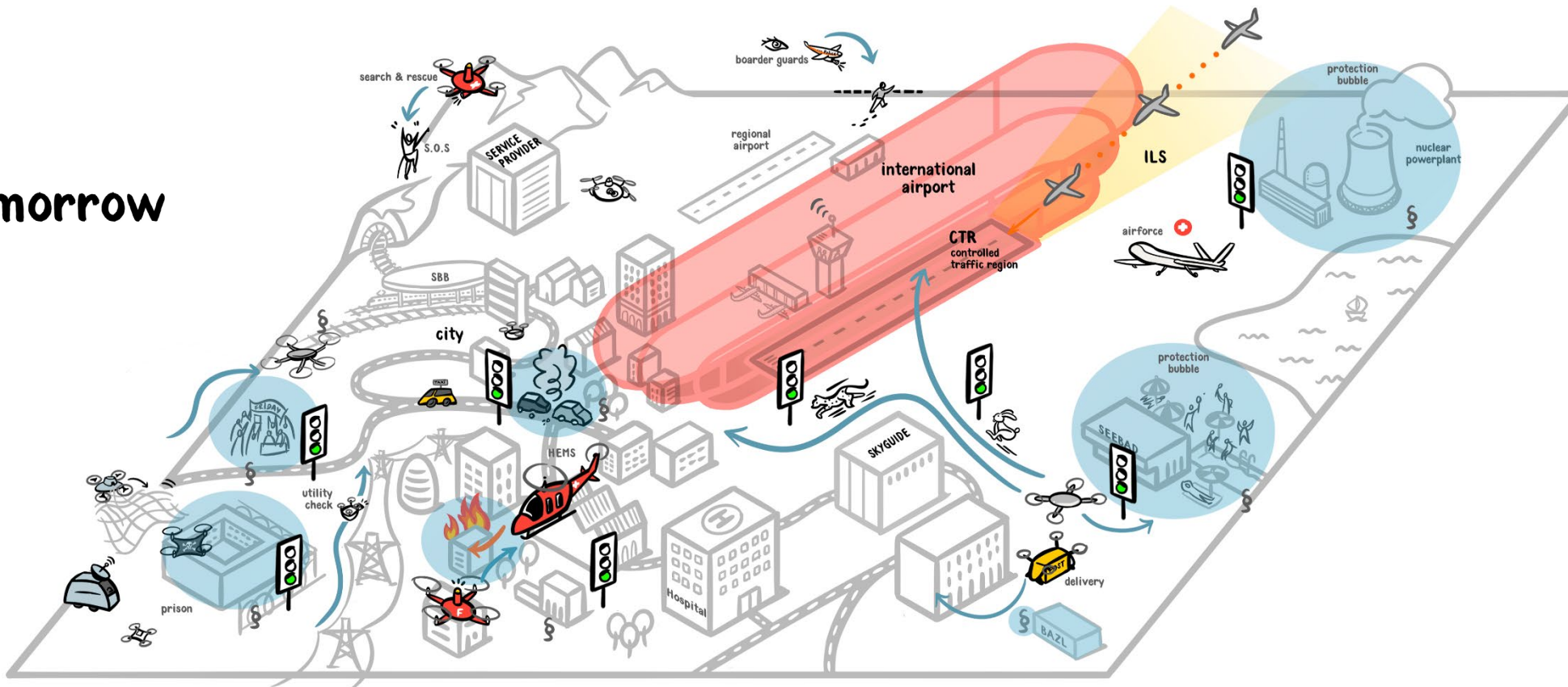


Ecosystem Maturity

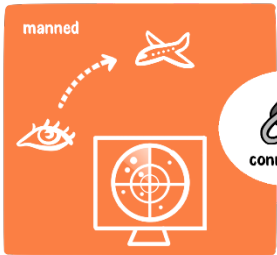


Economic Viability

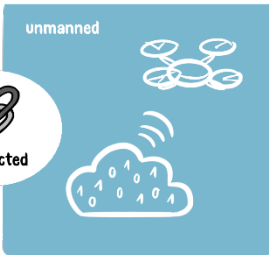
tomorrow



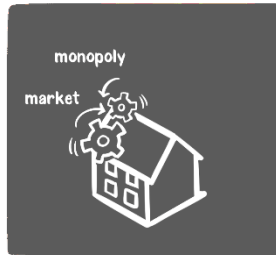
System Elements



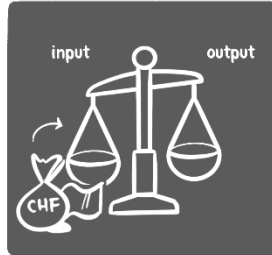
Airspace Management



Ecosystem Maturity



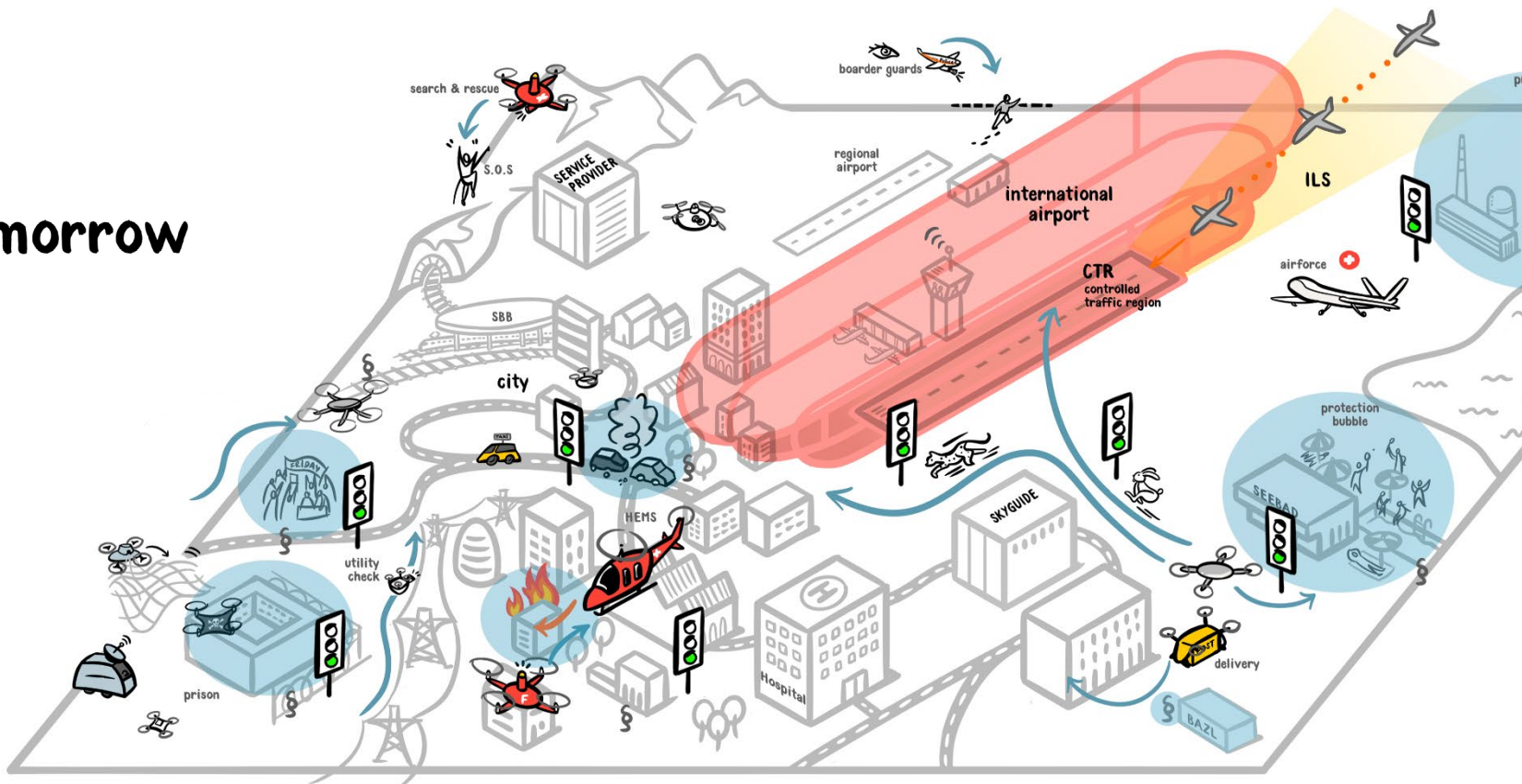
Economic Viability



Stakeholder Elements

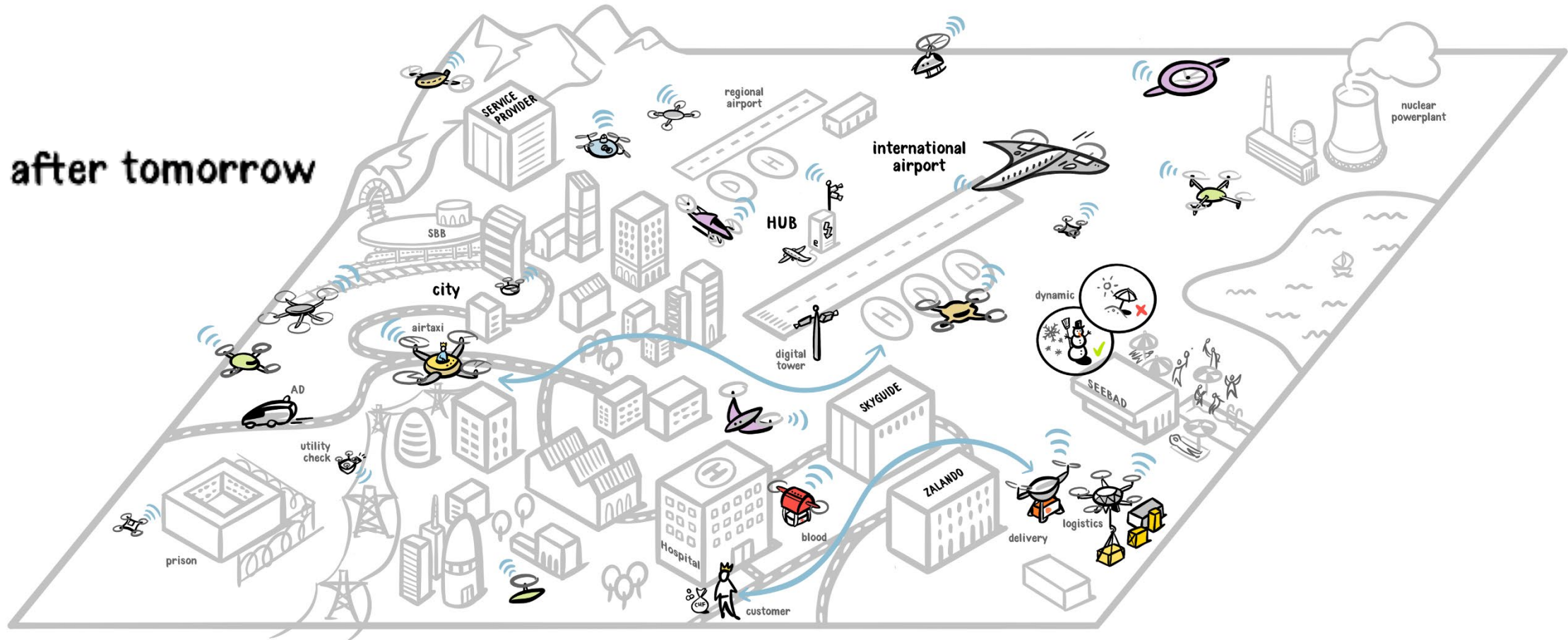
| | | |
|-------------------|-----------------------------|------------------------------|
| drone defend | beyond visual line of sight | protected areas |
| airforce | delivery | authorizat. service |
| police | unmanned traffic | manual workflow |
| protection bubble | SEERAD | manual workflow |
| prison | delivery | both GENEVA ZURICH connected |

tomorrow

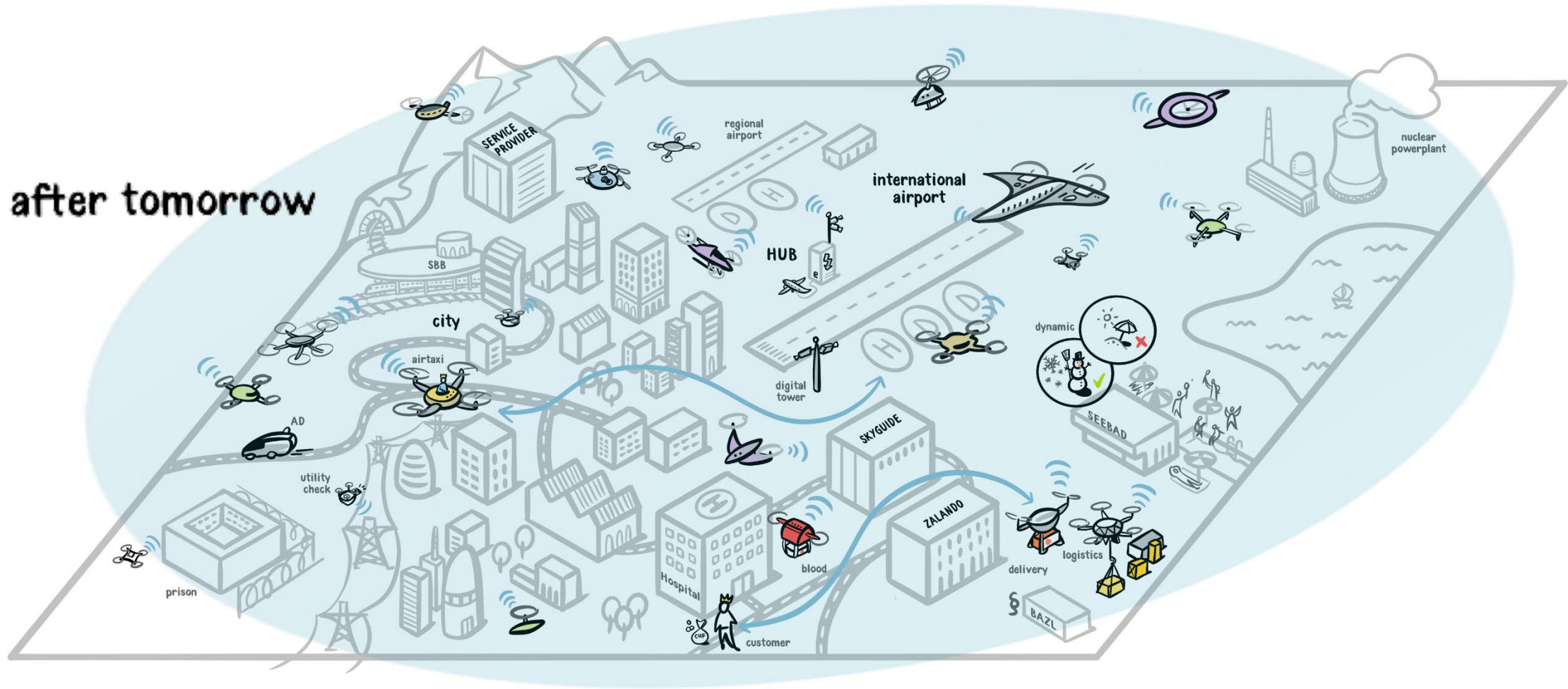


Situation after tomorrow

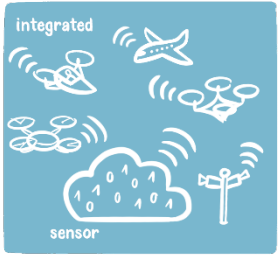
after tomorrow



after tomorrow



Key Elements



Airspace Management

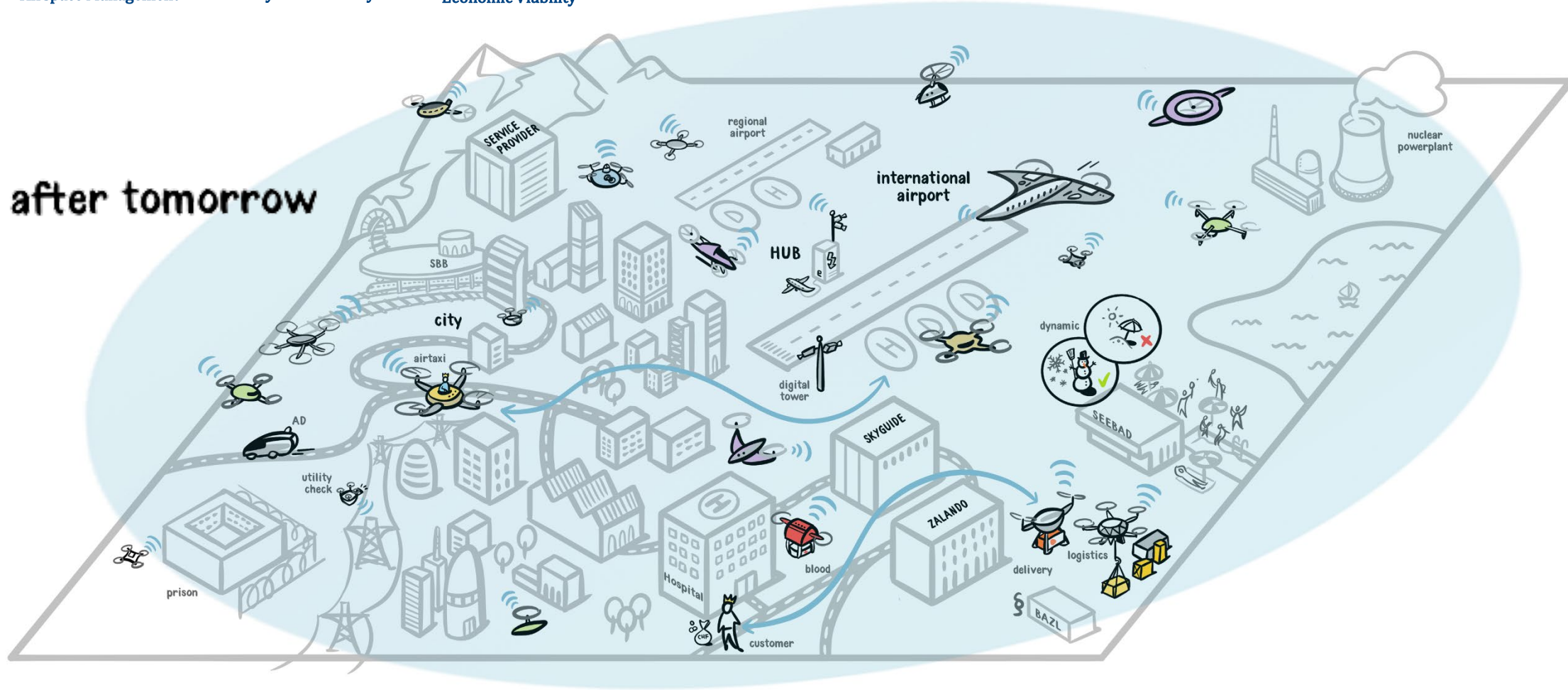


Ecosystem Maturity

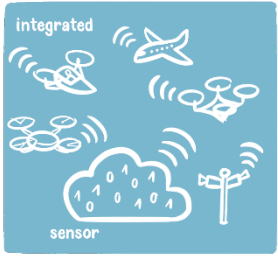


Economic Viability

after tomorrow



System Elements



Airspace Management

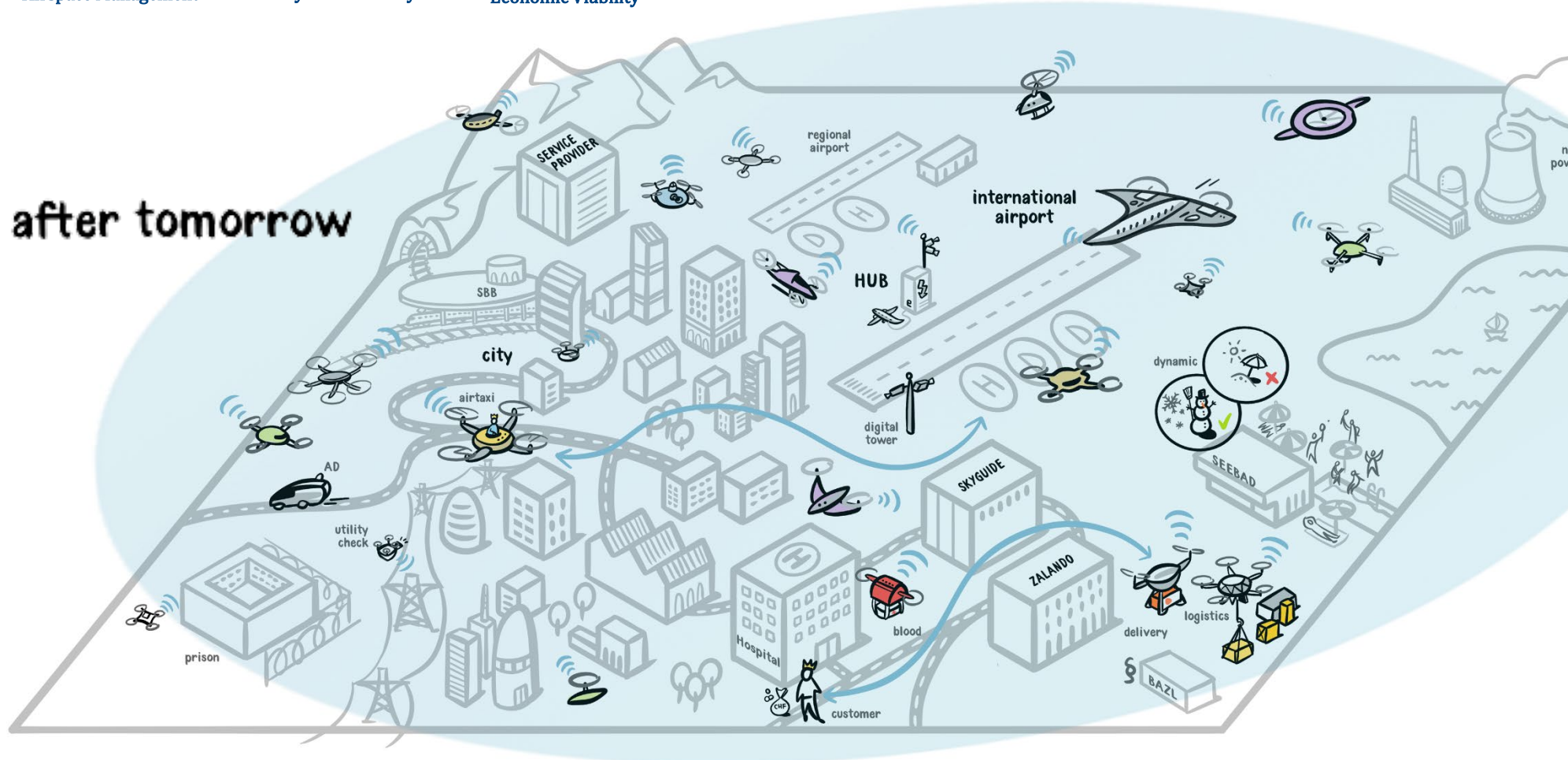


Ecosystem Maturity



Economic Viability

after tomorrow



Stakeholder Elements



intelligent realtime management



airtaxi



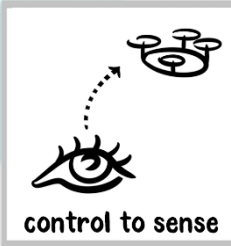
dynamic



logistics



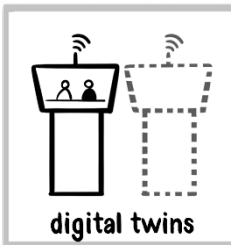
office skyguide



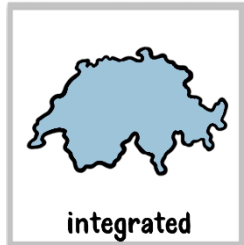
control to sense



IT based/automated



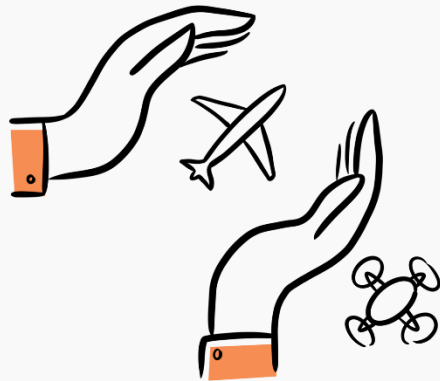
digital twins



integrated

Transition from manned protection to fully integrated

today



tomorrow



after tomorrow



