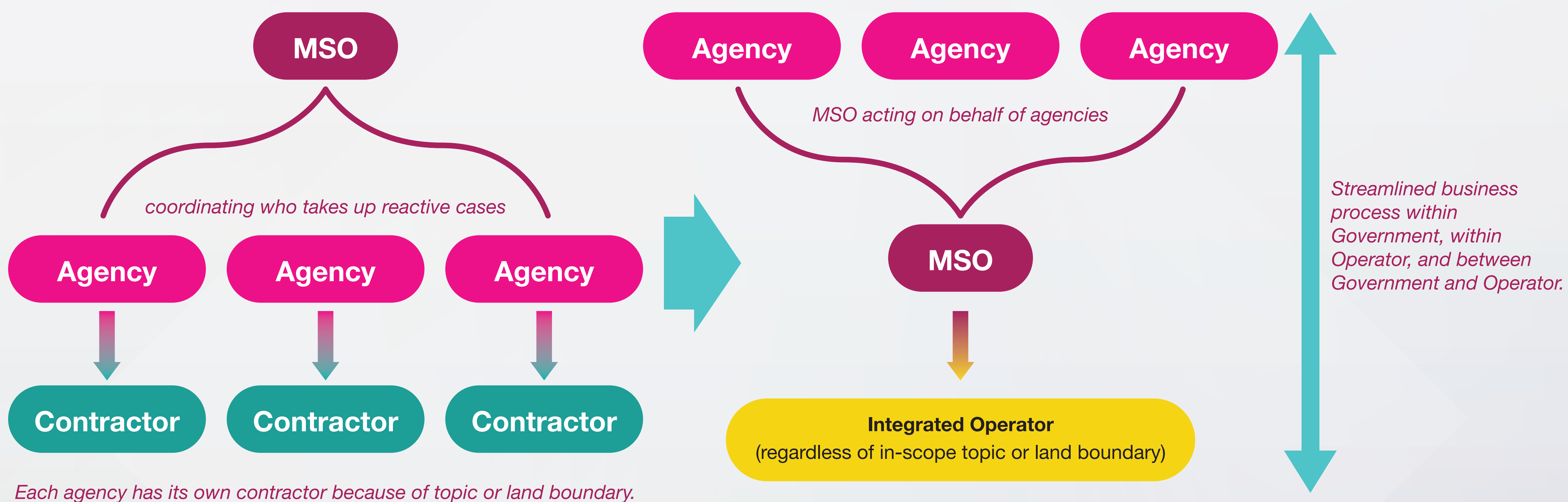


INTEGRATED MUNICIPAL OPERATIONS PILOT

As part of Public Service Transformation efforts in the municipal services sector, the Municipal Services Office (MSO), with Housing & Development Board, Land Transport Authority, National Environment Agency, National Parks Board and PUB, Singapore's National Water Agency, has been working with an Integrated Facilities Management Operator to pilot the integrated delivery of common municipal services in Tampines town since February 2022 and subsequently, Pasir Ris-Punggol town from February 2024.

These services include cleaning, infrastructure maintenance, vector and pest control on State land, as well as enforcement against smoking and littering offences in public areas, which agencies already outsource to multiple contractors today. Under the pilot, service delivery will be seamless to residents under a single Integrated Operator.



Since the pilot commenced, issues have been resolved more quickly and resident satisfaction has improved, all while using less manpower through the adoption of appropriate operations-technology.

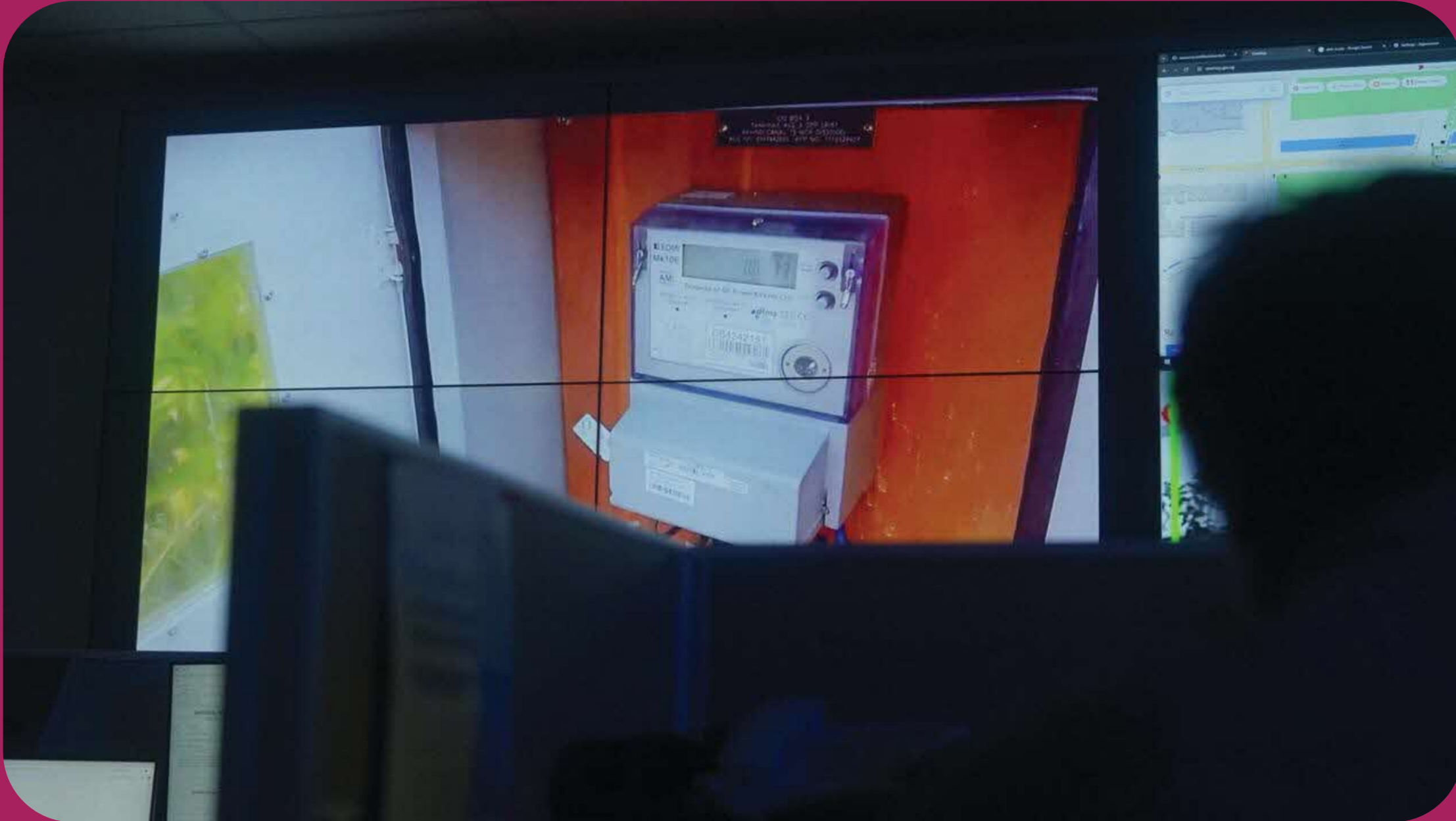
Process Streamlining, Job Redesign and Adoption of Operations-Technology

MSO has worked with agencies to streamline backend contracting processes and focus on outcomes rather than inputs. This gives the Integrated Operator more flexibility to activate or re-deploy the nearest available worker(s) quickly to pre-empt issues or address cases that come through public feedback.

Workers are also cross-trained to take on adjacent taskings. For example, cleaners and landscape workers help to spot and report infrastructure defects as they do their rounds. This has helped the Integrated Operator to address issues pre-emptively before they affect residents.

To enhance workers' productivity, we have also adopted operations-technology. The application of such operations-technology, coupled with job redesign, will raise the attractiveness of municipal jobs to locals over time.

AR-enabled smart glasses



Live video streaming of ground conditions to the Integrated Command Centre where just a small number of technical experts can remotely guide multiple roving teams to cover more ground and more topics, including complex/specialised topics.

Thermal-imaging drones



Facilitates quick inspections across large areas, providing precise locations for subsequent, targeted vector treatment. Uses significantly fewer manhours than manual inspections.

CCTV with thermal-triggered public announcement



CCTV warns smokers to stop smoking once thermal signature is detected. If smokers persist, enforcement officers will be deployed and can take quicker action based on CCTV footage. Facilitates better use of enforcement manpower.

Robotic mower



Autonomous lawn mowers are deployed to efficiently maintain large green spaces. The green spaces are maintained more regularly, to consistent standards, with fewer manhours spent.