 The volume of files transmitted by mobile devices is growing by 71 per cent a year

of-concept to actual implementation. “Big Data is much talked about, but few have taken action and fewer still know how to use it,” says Kai Chan, economist and distinguished fellow at French business school Insead. “Yet Big Data has so much possibility to help improve society, especially as we live in an age with big computing power.”

Data on traffic patterns, for example, can be used to smarten up traffic lights to reduce queuing and stopping times. “All the data is there ... but few are taking advantage of it to help us reduce our consumption of energy, or to deliver services more efficiently,” says Chan.

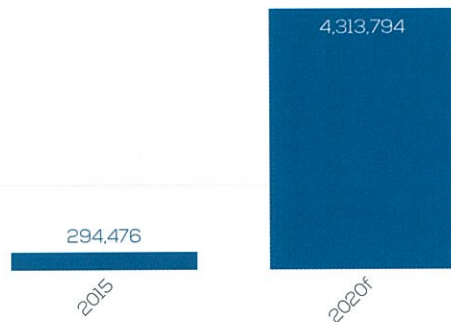
But as Big Data solutions become increasingly sought after, the region faces a familiar challenge: a lack of skills. Chan says the lack of data scientists – people equipped with the skills to extract data intelligently and run the analytics to tease out the kind of information that will allow greater societal benefits – is holding the region back from realising the opportunities Big Data has to offer.

“Big Data is literally having billions, trillions, gazillions of data points,” says Chan, who advises the UAE federal government on matters of competitiveness and initiatives related to data and statistics. “Converting this into actionable intelligent data is still the preserve of humans, and at the moment the region lacks sufficient levels of this kind of talent.”

“A successful Big Data implementation relies strongly on an organisation’s ability to ask the right questions and on a strong

MOBILE DATA GROWTH IN MEA

Terabytes a month



MEA=Middle East and Africa; f=Forecast.
Source: Cisco Visual Networking Index 2016

the data generated by the tramway, including passenger tap-in and tap-out, which identifies the beginning and end of each journey; data from the tramway operating system; the trains’ location and passage time at stations; and tram and station occupancy.

Urban Engines’ Big Data algorithms process this data to generate metrics such as selection, sorting, filtering, pivot charts and dynamic replay. The various

business lines at Casablanca Tramway are given online access to the processed data to personalise their analysis and create performance dashboards, which have resulted in a more consistent and prompt tramway network service.

The system allows the operator to adapt its services to near real-time changes in demand, for example by increasing frequency of trips on peak hours, effectively increasing passenger comfort while optimising the process to combat fraud.

This increased efficiency has also been achieved without ignoring the privacy of passengers. “We anonymised all the information collected in order to follow the card number not the individual,” says Yassine ben Mbarek, commercial, marketing and communications director at Casablanca Tramway.

The firm, however, is among a handful of companies across the region with a live Big Data implementation. Few projects have so far moved from proof-