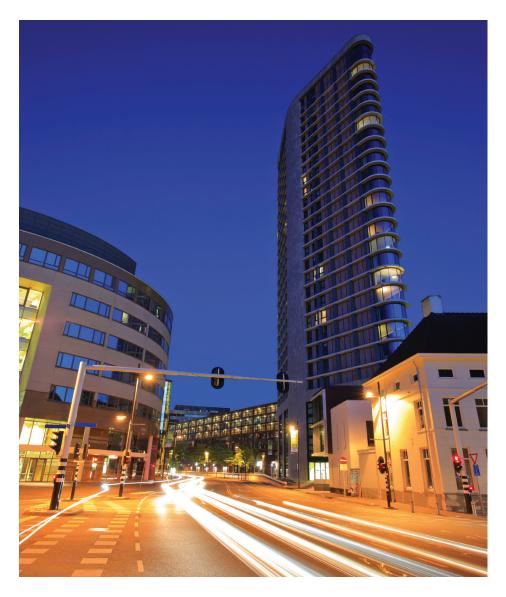


# intelligent city management

CityPulse - using big data for real time incident response management

Many cities are considering how to extract the maximum benefit from the opportunities presented by big data, but Eindhoven is one step ahead and already putting them into action with an innovative pilot project to manage a busy area of the city that's famous for its nightlife.

The CityPulse pilot scheme was developed by Atos and a number of partners including Intel, The City of Eindhoven and The Dutch Institute of Safety and Security (DITSS). Its aim is to help the City of Eindhoven manage a street in the centre of town - Stratumseind - the longest and most vibrant street in the Netherlands with more than 50 bars and nightclubs and where 15-20,000 people visit every weekend.





# Combining data from multiple existing sources

Capturing data from a range of existing sources including visitor numbers and sound levels this "on the ground" information is combined with data gathered from social media sources to create a powerful picture of the street and help authorities better forecast and react to situations and de-escalate them before they develop.

For the City of Eindhoven and Stratumseind, the data gathered is primarily used to change the colour and intensity of the street lighting. This can be done automatically, or manually. Big Data Analytics ensure that any anomaly to what is considered a 'normal' data pattern can be cross referenced against the other data sources. If these data sources confirm an incident, the CityPulse dashboard alerts the police control room allowing them to make informed decisions on any additional action that might be required.

For Eindhoven, the CityPulse project is focussed on adapting lighting levels, but the concept of using Big Data analytics for data that's gathered from a variety of existing sources can be extended to include a number of other areas for example giving citizens alerts when pollution levels reach a certain threshold, or automatically redirecting traffic when parking or congestion parameters are reached. There are no limits to the challenges this solution can help your city address…only your imagination.

### **Benefits to Eindhoven**

- Safer and more sociable environment for visitors and citizens
- ▶ Police resources can be focussed where they are really required.

"The CityPulse pilot project is important for the City of Eindhoven because we are an innovative city and we want to use public spaces to develop new, innovative ideas." CityPulse is helping us to make Stratumseind a safer and more enjoyable place for everyone."

Bianca Kaathoven - Alderman, City of Eindhoven

- ► The city and business owners have lower repair and clean-up costs
- Less need for hospital and medical resources due to fewer alcohol related incidents
- ▶ More business and tourism attracted to the city due to a fall in negative PR

# Big analytics for big data

CityPulse uses Intel technology to enable data to be gathered from a wide variety of sources without the need for specialist sensors. Data Scientists from Atos are then able to create intelligent patterns and insights from this data which can in turn inform a range of specific actions

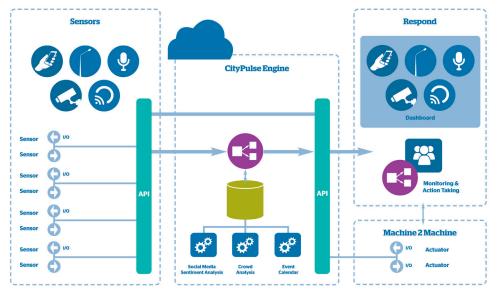
We have over 3,000 Data Scientists and 30 years' practical experience in both operational and information technologies. We're ready to help you explore the next wave of data-driven solutions, exploring the landscape, defining strategy and identifying compelling targets for immediate experiment and reward.

## **About Atos**

Atos SE (Societas Europaea) is a leader in digital services with 2013 pro forma annual revenue of €10 billion and 86,000 employees in 66 countries. Serving a global client base, the Group provides Consulting & Systems Integration services, Managed Services & BPO, Cloud operations, Big Data & Security solutions, as well as transactional services through Worldline, the European leader in the payments and transactional services industry. With its deep technology expertise and industry knowledge, the Group works with clients across different business sectors: Defense. Financial Services, Health, Manufacturing, Media & Utilities, Public Sector, Retail, Telecommunications and Transportation.

Atos is focused on business technology that powers progress and helps organizations to create their firm of the future. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and is listed on the Euronext Paris market. Atos operates under the brands Atos, Atos Consulting, Atos Worldgrid, Bull, Canopy, and Worldline.

For more information, visit: atos.net/MyCity



In partnership with:





For more information:

Please contact Albert.Seubers@atos.net