

# Smart Cities

## Cities Are Becoming Smarter



**Theme:**  
**Subject:**  
**Domain**

Smart Cities  
Cities Are Becoming Smarter  
Technological Change

More information at [Tools4T.eu](https://Tools4T.eu)

## Introduction

You may have heard the term Smart City. A Smart City is a city that is (partially) managed based on data. There are various ways for a city to collect data, such as sensors, cameras, and other smart devices. A lot of data is also available online. For example, some cities monitor the behavior of citizens on social media. By connecting all this data, information and insights are generated that can be used to improve daily life in a city.

Many countries are developing Smart City projects. For example, cities like Amsterdam, Barcelona, and Singapore are implementing smart traffic lights, license plate parking, public Wi-Fi, or smart trash cans that signal when they need to be emptied.

## In practice

Making decisions based on data might sound a bit vague, so let's look at some examples.

Important themes in a city include air quality, traffic safety, and parking availability. By using cameras and sensors, drivers can receive advice via digital traffic signs about the optimal speed or where parking spaces are available. If sensors indicate that air quality in the city center is poor in certain areas, city officials might decide to reduce pollution by limiting traffic or restricting more polluting vehicles.

Another example is when a large number of people plan to gather at a public place, as seen on social media. Cameras can then be used to monitor safety, sometimes automatically using smart software. This software can even determine whether a group is having a conflict or just being noisy.

If data shows that a particular problem frequently occurs at a specific time or place, efforts can be made to prevent it. Technology can thus play a key role in preventing or solving problems.

## Did you know?

Singapore is a true Smart City. Every traffic light in the city is smart and gives more time to cross a road to those with mobility issues through their NFC card. How amazing is that!

## The future of parcel delivery

Drones as parcel deliverers. The future of parcel delivery will also change with the use of drones. These smart drones with cameras can ensure that you receive your package faster and possibly even cheaper. Amazon is already heavily involved in this development. They plan to deliver small packages with drones in the future.

This means that over 80 percent of all Amazon orders could be delivered this way. Cool, right? But there are also downsides. What does this development mean for our privacy, jobs, and safety?



### Task

You have the opportunity to see what such a delivery process will look like in the near future. Experience the VR Movie Smart Cities. Experience the VR Movie Smart Cities. Go to your teacher, receive the VR headset, and enjoy this amazing experience.



## Opportunities and risks

These developments offer many opportunities and benefits, but also risks and dangers. You can make your city smarter, more friendly for its residents, or better for the environment, but what happens to all the data and your privacy? Who has access to this data, and what is the power of the technology companies involved? What if we become highly dependent on technology? A whole city could come to a standstill if the central system fails. And what if all our data is stolen by cyber hackers? The consequences would be unimaginable!

An example of how this knowledge and information can be used against citizens is seen in China with the social credit system. Based on your (online) behavior, you receive a score linked to a reward and punishment system. Access to public services like air travel, train travel, and even jobs can be denied. This way, the government can almost force you to do or not do certain things.

### Did you know?

Amazon is working on using data for 'anticipatory shipping.' This means that drones will take off with products that they expect someone in the region will want to buy. This way, you'll get your package even faster. Convenient, right?

## Conclusion

The future is fun, exciting, and challenging, but we must also be careful. What happens to our data, and are we careful enough with our privacy? Together, we must ensure that this technology helps us as people and makes the world a better and more beautiful place. Cities are becoming smarter, but are we?

## Task

The YouTube video "Amazing Invention- This Drone Will Change Everything" by Mark Rober showcases an innovative drone technology developed by Zipline. This company utilizes drones to deliver essential supplies to remote areas, revolutionizing the delivery system. These drones, equipped with advanced GPS technology, can autonomously navigate and precisely deliver packages, making them especially effective in regions with challenging terrain.



In the video, Rober highlights Zipline's operations in countries like Rwanda, where drones are used to transport critical medical supplies such as blood and vaccines to remote hospitals and clinics. This technology significantly reduces reliance on traditional, often unreliable transportation methods, ensuring timely and efficient delivery of lifesaving materials. The impact of this innovation is profound, with the potential to save lives by improving the speed and reliability of medical supply deliveries. Moreover, the technology holds promise for broader applications in global commercial package delivery.

Watch: 'This Drone Will Change Everything' (17 minutes) <https://edu.nl/ywfdm>

## Questions?

1. Given the benefits of Smart City technologies, such as improved traffic management and air quality monitoring, what are some potential privacy concerns that could arise from the widespread use of cameras and sensors in public spaces?
2. With the rise of drone technology for parcel delivery, such as Amazon's plans for anticipatory shipping, how might this development impact employment in the delivery sector, and what ethical considerations should be taken into account regarding privacy and data usage?