Mobidatalab

Hello everyone and greetings from Eindhoven, right in the heart of the Breempoort region in The Netherlands. As one of this year's Datatom participating cities we are thrilled to bring some exciting challenges to the table. Our city is a hub of cutting-edge technology and we're excited to see what kind of insights and solutions you will come up with using our unique data sets. My name is Miels Wiersma and I work as a senior consultant for mobility data on the city.

I'm happy to introduce Eindhoven and its challenges to you, but first i would like to take you on a short trip through history to present and the future of our city and our efforts to make it a great place to live work and come to visit.

Eindhoven has a rich history dating back over 800 years. The city was founded in 1232 over the centuries Eindhoven grew into a bustling trade center known for its textile and leather industries. In the 18th century, the city underwent that major transformation with the introduction of steam power which spurred the growth of the manufacturing sector. By the mid 19th century Eindhoven had become a major industrial hub the factories producing everything from light bulbs to textiles this area of growth and innovation laid the foundation for the modern city that Eindhoven today is. After the second world war, Eindhoven continued to grow and evolve but the post-war planning period can be marked as very car oriented as you can see here this led to the construction of highways large parking lots and a sprawling urban landscape that prioritized automobiles over pedestrians and public transport luckily not all of that has come to be realized but today we are still coping with the inheritance of it as we work to create more sustainable liveable city in the recent years Eindhoven has made significant strides towards more sustainable transportation options including an extensive network of bike paths

Brainport region centered around the city of Eindhoven has become a European and global operating center for high technology and design knowledge. The region is home to world leaders such as Philips, ASML, NXPAY as well as vibrant ecosystem of startups and innovative companies with a population of 230,000 Eindhoven has a remarkably high number of jobs with 175 000 positions available and if you consider the entire metropolitan region which has a population of 775 000 inhabitants there are an impressive 440 000 jobs available. The Eindhoven region is home to several world-renowned work campuses including the Heideg campus, ASML campus, Philips campus, NXPAY campus and Eindhoven campus. The Eindhoven region is home to several world-renowned work campuses including the Heidig campus, ASML campus, Philips campus, NXPAY campus and Eindhoven campus.

The Eindhoven region is home to several world-renowned work campuses including the Heideg campus, Automotive campus Helmond and Brainport industry campus. These campuses are the centers for innovation and collaboration attracting top talent from around the world to work on cutting-edge technologies in industries such as semiconductor manufacturing healthcare lighting and smart mobility. The campuses are strategically located around Eindhoven neighboring towns. In 2013 the city council of Eindhoven adopted the first Mobility Master Plan called Eindhovens Mobility Master Plan which was developed by Eindhoven on-route. The master plan's guiding principles were to create a balanced approach to transport modes in the city with an emphasis on slow motion fast forward traffic calming and promoting more cycling walking and public transports. The plan also included place making initiatives to redesign public places in favor of active transport this was a trend breaking approach compared to the city's previous car oriented planning and image the plan led to significant decisions being taken on the positioning of transport nodes in various parts and routes in the city as measures have been

carried out. Eindhoven is a city that loves cycling and for good reason, the city has dedicated cycling infrastructure including separate bike lanes and innovative junctions that make cycling a safe and enjoyable experience Eindhoven also excellent connections between neighborhoods and destinations making it easy to get around by bike additionally the city is known for its cycling related art it's a unique touch to the cycling experience finally Eindhoven has ample bike parking facilities making it easy to park and lock up your bike while you explore the city they are also committed to providing excellent public transportation options for its residents and visitors one of the most exciting developments is the unfolding of a bus rapid transit system which will improve the speed and reliability of buses service in the city we're also working on a network development and electrical connection between the city and Eindhoven. Eindhoven is an example of a bus fleet which will make public transportation more sustainable and eco-friendly additionally the city is in the process of improving bus stations and has two park and ride locations but making it easy to connect to public transportation and leave your car behind Eindhoven is also a city that embraces value of smart mobility solutions to improve the transportation experience for its residents and visitors one of the most exciting developments is the use of Eindhoven transport services which are central locations that offer various mobility services and options we're also investing in intelligent traffic systems which use real diamond data and analytics to improve traffic flow and reduce congestion additionally the city is embracing mobility as a service which integrates different modes of transportation into a single platform making it easier to plan and execute trips finally Eindhoven is focused on promoting behavior change which uses emission-free modes of transportation all of these solutions are backed by a data driven approach which helps the city to continually measure and impact and improve its transportation infrastructure and services our efforts to reduce car traffic in the city center have been successful we have seen a significant decline in car density with a reduction of up to 25 percent in some areas indicated by the red and orange lines on the map meanwhile the use of scent of this center area ring road by cars has increased indicated by the green gray line we're also seeing positive growth curve for bus and train passengers and cyclists while the pedestrian data is still in development we are confident that our efforts will continue to make the city center a more accessible and enjoyable place for everyone our focus on smart mobility has led us to embrace the potential of shared mobility as a key component of our transportation system to fully realize the potential of shared mobility in Eindhoven we have embraced several key principles which you can read here we understand that public space is a valuable resource and should be available to everyone that is why our shared mobility policy ensures that parking publicly is available is used more efficiently and effectively by prioritizing shared mobility options we create a more inclusive city where everyone can access transportation options to their own convenience and make it easier for them to get around and enjoy their time and that are safe affordable and sustainable and now for the challenges we have found three challenges that we would like to present to you the first one is optimizing traffic around in two construction sites in the city of Eindhoven with the city embarking on the construction of over 15 000 new residential buildings it's important to address the mobility challenges that come along with such developments for instance the construction material and heavy equipment need to be transported to the building adding to the already crowded roads and with the associated noisy noise and air pollution together with major construction companies Eindhoven has implemented a construction hub to combine loads and reduce the ride to the construction site the goal of this challenge is to develop additional solutions to optimize traffic flow and estimate the time of arrival around the construction site with a specific focus on minimizing disruptions to regular traffic the challenges divided in two parts first parts involve traffic flow optimization participants will explore ways to optimize traffic flow to and from the construction site in mixed

traffic the cities has intelligent traffic lights that can be used for all kinds of priority rules the focus will be on maximizing the interaction of construction vehicles and regular traffic while identifying bottlenecks and developing strategies to minimize delays in construction this will require analyzing data on traffic patterns road networks and historical data on traffic flow to and from construction sites the second part of the challenge focuses on construction vehicle optimization participants will optimize the number of trips made by construction vehicles and lorries while taking into consideration closed and heavy traffic roads this will involve analyzing historical data and traffic flow again construction sites and road closures as well data on car traffic and demand for construction vehicles by optimizing the number of trips made by construction vehicles we can reduce the number of vehicles on the road leading to reduced congestion and fewer disruptions to regular traffics for the second challenge analyzing the impact of new mobility services in eindhoven low-car neighborhood development this challenge provides a unique opportunity to assess mobility impact on a neighborhood scale developed as a new tiny housing community in the north of eindhoven it's designed as a low-car neighborhood where there are no parkings next to the tiny houses instead there is a hub for central parking and shared vehicles utilization of the standard mobility if the shared mobility is quite slow and travel times with public transport to the city center is long due to the decentral location we'd like to better that in the first part of the challenge participants will use the journey planet services to assessthe impact of new public transport line services on the neighborhood's economic and environmental sustainability the assessment should consider factors such as air quality energy uses and accessibility to opportunities such as jobs education and leisure participants could use historical data or mobility demand data from mobility services associated with economic data household income education jobs things like that to support their analysis in second step of the challenge participants will propose additional transportation driven actions to support urban planning decisions such as bicycle stations pedestrian routes and other infrastructure the proposals should be based on objective data and analysis and they should aim for to further support economic and environmental sustainability in the neighborhood by the end of the challenge participants should present their findings and proposals to support urban planning decisions based on objective data and this we believe that this challenge provides an exciting opportunity to explore the impact of public transportation on sustainability and to propose new transportation driven actions to support urban planning decisions in the third and final dataton challenge participants will work towards helping the city of eindhoven in its efforts to create a more sustainable and environmental friendly transportation system the challenge focuses on exploring the city's transfer data to identify areas with the greatest potential for reducing emissions participants will have access to open source measurements from the low emission zone area to gather insights into the environmental impact eindhoven already has a zero mission zone in the city center and towards 2025 it will be more strict and in 2035 2030 no vehicles of emission on exhaust pipes are allowed however eindhoven is growing and the area outside the city center will also get a higher population density as well so the problem of permission and pollution will shift currently we have a limited set of measures that will help to get the sustainable mobility goals in the rest of the city we challenge you to help with this participants will explore the data and identify significant sources of emissions in the city then you will propose strategies to reduce emissions considering factors such as economic viability and practicality this will involve analyzing data on alternative transportation modes visibility of introducing electric vehicles or other low emission vehicles and other strategies to reduce emissions by the end of this challenge participants will present their findings and proposals to reduce emissions in the city the city of eindhoven may utilize the findings and propose from this challenge to inform planning decisions in the future so that are the three challenges for

eindhoven we're wishing you very much good luck in finding solutions that will help us i wish you two great days from eindhoven and we hope to hear from you soon bye you