









Launch of the NIMFEA project in April 2022: a unique pilot project of an autonomous shared shuttle service between Vernon and Giverny (Eure, France)

Giverny, October 7, 2021 – The NIMFEA (Navettes Innovantes Modulaires du Futur Expérimentales et Autonomes = Innovative Modular Experimental and Autonomous Shuttles of the Future) pilot project is a multi-partner operation bringing together public and private players, including Seine Normandy Conurbation, Transdev Autonomous Transport Systems, Transdev Normandy and the NextMove competitiveness cluster. NIMFEA's ambition, as announced today, is to set up a public experimentation of shared autonomous shuttle services between April and October 2002 during the tourist season.

The project will be conducted with three autonomous electric EasyMile Level 4 vehicles, which can welcome on board up to 12 passengers. The route chosen for NIMFEA is a 12km round-trip path, which will provide a regular link between the Vernon-Giverny train station and the Museum of Impressionisms in Giverny, including roundabouts, a secondary road, an urban environment and the Giverny tourist site. This is the longest route on mixed open roads ever tested by this type of autonomous vehicle! A first in Europe!

The technological challenges to be met in the context of this experiment are significant and constitute an essential link for the future deployment of autonomous mobility services: establishing a traffic speed compatible with the use of the road by other road users, crossing complex junctions, and ensuring remote supervision based on the architecture already deployed for the Rouen Normandy Autonomous Lab project, and thanks to the partnership with the Rouen Normandy Metropolis and Transdev Rouen. The project will also focus on measuring the social appropriation of this autonomous transport service.

The objectives of the NIMFEA project are to:

- ensure accessibility to the mobility of the future for all travelers: inhabitants, employees and tourists;
- contribute to the advancement of regulations, deployment principles and the economic model of autonomous mobility services;
- implement a remote supervision system in partnership with the Rouen Normandy Metropolis;
- train and support the emergence of new skills in the mobility ecosystem.

Seine Normandy Conurbation (Seine Normandie Agglomération, SNA) wishes, with this project, to continue its commitment to innovative and sustainable mobility. Indeed, since 2017, the elected









officials have been interested in experimenting an autonomous electric shuttle. The choice of a link between Vernon and Giverny was easily found. This service serves Claude Monet's house and gardens, as well as the Museum of Impressionisms visited by more than 800,000 visitors per year. Today more than ever, the revival of the tourist activity must be accompanied. The route is also interesting for several reasons. The three autonomous shuttles will have to deal with three constraints: traffic in a city center, the crossing of several intersections and roundabouts as well as the traffic on a departmental road where they will be able to drive up to 25 km/h, a first in Europe on a route of this length on an open road! The project also aims to measure the social acceptability of this new technology by analyzing the reactions of passengers and motorists and studying how they will appropriate this new mode of transport. In a second phase, the service will be available to a wider public. This new mobility offer aims at answering the mobility needs of the inhabitants, shopkeepers and seasonal workers in Giverny as well as tourists and visitors coming from all around the world and arriving in the area via the Vernon-Giverny train station.

Frédéric Duché, President of Seine Normandy Conurbation:

"Tomorrow's mobility had to find its place in our young territory with a rural structure, and thus be an actor of this dynamic movement. This has now been achieved with the NIMFEA experiment, which fits in perfectly with our ambition to contribute to economic development and technological innovation along the Seine axis. It is also environmentally- friendly and actively participates in sustainable development in a region that will be using 100% renewable energy by 2040."

François Ouzilleau, Mayor of Vernon, Delegate President of Seine Normandy Conurbation:

"Setting up an experimental, electric and autonomous shuttle to link our city center to the tourist site of Giverny meets our permanent concern to innovate while placing Vernon and SNA ahead of their time. It is also a symbol of the audacity and ingenuity that drives us every day. This experimentation is fully in line with the economic and tourist development of New Normandy. Private partners who share these values are of course invited to join the project by making their contribution in any way they can."

In this project, Transdev Autonomous Transport Systems - ATS - is the integrator of the autonomous transport system, including the supervision software, the autonomous shuttles and the connected infrastructure. Transdev ATS is involved in all the technical stages of the NIMFEA project and also provides its supervision software. This software has three main functions: fleet management, system monitoring and customer experience.

This supervision software is a necessary tool to operate a mobility service with autonomous vehicles that has the required quality of service and safety level. For this project, and for the first time, supervision will be possible by a supervision operator located at 70km from the operating site. This will be located in Rouen within the Operational Control Center (OCC) of the Rouen Normandy Metropolis, thanks to the implementation of remote supervision. Supervision operators, trained beforehand, will be able to monitor the service in real time and access all the information relating to the service.









For Transdev Normandy and Transdev ATS, this project is complementary to other projects carried out or planned on the Seine axis, including the Rouen Normandy Autonomous Lab¹ and NAVETTY² at Les Mureaux on the ArianeGroup site.

For NextMove, the Automotive and Mobility competitiveness cluster, NIMFEA is perfectly in line with its ambition: to embody, animate and promote the Mobility Valley, an area of European excellence where solutions are being invented, developed, tested and industrialized to meet the challenges of future mobility. As a founding partner, NextMove is responsible for the operational coordination of this ambitious project.

Around Seine Normandy Conurbation (SNA), the Transdev Group, and NextMove, the ecosystem of new mobilities is mobilized, placing SNA among the pioneers of autonomous public transport experimentation in France.

The NIMFEA project is the winner of the 5th edition of the French Mobilities – Territories of sustainable mobilities "Tenmod" call for expressions of interest, sponsored by the French ADEME agency. This is an additional recognition in line with the objectives of this call for expressions of interest: how to adapt to meet the mobility needs of citizens, what solutions in suburban and rural areas?

The NIMFEA project is also supported by a second scheme to which Seine Normandy Conurbation had responded in 2018: City center (2018: Cœur de Ville) via the Bank of Territories (Banque des Territoires, Caisse des Dépôts Group), a program dedicated to the revitalization of the city centers of medium-sized towns.

Note for journalists:

urban area.

Founding partners of the project: Seine Normandy Conurbation, Transdev Autonomous Transport Systems, Transdev Normandy and NextMove.

Institutional and/or funding partners: the French State, ADEME and the Ministry of Ecological Transition, the Eure Department, the Bank of Territories (Banque des Territoires) of the Caisse des Dépôts Group, the City of Vernon, the City of Giverny, the Rouen Normandy Metropolis. Private partners: Crédit Agricole Normandie Seine, NGE, CITEOS, SEPUR, McArthurGlen, L'aura des villes, Enedis, Effia, SNCF.

Players who would like to take part in the project, both financially and technically, can contact Seine Normandy Conurbation (SNA), Transdev Normandy, Transdev ATS and NextMove.

About Seine Normandie Agglomération:

Between Paris, Rouen and Le Havre, Seine Normandie Conurbation (SNA) stretches along the Seine river axis and offers a balanced territory, including four central cities (Vernon, Les Andelys, Pacy s/ Eure and Vexin sur Epte). Its assets are numerous, starting with the great accessibility of the area, a particularly preserved living environment and an ambitious dynamic of development projects. Because it is essential to preserve the good

¹ The Rouen Normandy Autonomous Lab is a precursor project for a shared autonomous mobility service, integrated into the public transport network, initiated in 2017. RNAL's partners are: Caisse des Dépôts Group, Metropole Rouen, the Normandy Region, Transdev Group, Renault Group, Matmut Group and Europe/ERDF. ² The NAVETTY R&D project is being carried out by VEDECOM, R&D institute for energy transition in mobility, ArianeGroup, Transdev Autonomous Transport Systems, EasyMile and the Yvelines County Council (CD78). The aim is to deploy a fully autonomous mobility service with no on-board operators on a site representative of an









life together, Seine Normandy Conurbation is committed to building a coherent and united territory by structuring it, developing the elements of attractiveness or by deploying mobility solutions in particular. By offering more alternatives and quality of service, the conurbation is able to provide mobility solutions adapted to each individual.

www.sna27.fr

Technical contacts

Elodie Allot - <u>eallot@sna27.fr</u>

Marie Bayle Argueyrolles - mbayle@sna27.fr

Media contacts: Charlotte Cognon – ccognon@sna.vernon27.fr

About Transdev

As an operator and global integrator of mobility, Transdev—The mobility company—gives people the freedom to move whenever and however they choose. Transdev is leader in the operation of autonomous mobility services with more than 3.5 million passengers transported worldwide. To achieve this, Transdev relies on Transdev Autonomous Transport Systems (ATS), a dedicated expert entity developing the necessary technological tools and engineering services for the daily operation of shared autonomous vehicle fleets, for public or private transportation services.

Transdev provides11 million3 passenger trips everyday thanks to efficient, easy to use and environmentally friendly transportation services that connect people and communities. Transdev's approach is rooted in long-term partnerships with businesses and public authorities, and in the relentless pursuit of the safest and most innovative mobility solutions. We are a team of people serving people, and mobility is what we do. Transdev is jointly held by Caisse des Dépôts Group (66%) and the RETHMANN Group (34%). In 2020, with 83,000 employees in 17countries, the Group generated total revenues of 6.75billion euros.

For more information: www.transdev.com

Media contacts:

Groupe Transdev:

Coralie Renard (Transdev ATS) – coralie.renard@transdev.com/ Tél: +33 6 24 22 51 11

Olivier Le Friec (Groupe Transdev) — olivier.le-friec@transdev.com/ Tél: +33 1 74 34 22 94 — +33 6 10 60 58 45

Sophie Geng(Groupe Transdev) — sophie.geng@transdev.com/ Tél: +33 1 74 34 27 68 - +33 6 24 12 1 3 70

About NextMove

NextMove is a French competitiveness cluster created in June 2006, based in Normandy & Paris regions (70% of French automotive R&D). NextMove embodies, animates and promotes the French "Mobility Valley", an area of European excellence where solutions are invented, developed, tested and industrialized to meet the mobility challenges of today and tomorrow. Bringing together the main French players in mobility and automotive industry, NextMove weaves and animates links between major manufacturers, SMEs, start-ups, academics, research centers and local authorities in a dynamic network capable of meeting the technological challenges of innovative and responsible mobility. NextMove federates more than 600 members and supports more than 500 accredited projects (among them, 250 funded projects). It is the largest French network of scientific and technical excellence where sustainable collaborations are built between the players of the Automotive and Mobility ecosystem.

Media contacts:

³ 6,2 million in 2020.

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Agence Wellcom | 01 46 34 60 60 | Charlotte Filaudeau & Sarah Chabane | nextmove@wellcom.fr Eric Bégin | NextMove | Communication Manager | 06 09 95 74 11 | eric.begin@nextmove.fr