

2018 AdWheel Awards

CATEGORY: Best Marketing and Communications Educational Effort SUBCATEGORY: Comprehensive Campaign - the Vehicle Innovation Center (VIC) as an educational hub for electric bus technology and adoption.



VIC VEHICLE INNOVATION CENTER

Our vision.

To be America's leader in the exploration and advancement of bus and coach technology connecting people to places.

Led in partnership by New **Flyer of America the Vehicle Innovation Center** (VIC) opened October 2017 in Anniston, Alabama.

The VIC will lead America in the exploration and advancement of bus and coach technology connecting people to places. Through ongoing delivery of interactive experiences and collaboration with industry leaders, the VIC mission is to:

Explore and advance bus and coach technology through sustainable research and development, fresh innovation, progressive manufacturing, and bold thinking. Foster dialogue through discussion, education, and m training on the latest zero-emission, connected and autonomous driving vehicle technologies.



hands-on experiences, and observations. Generate energy and commitment to clean





air quality, safety, and economic benefits for people, communities, and business.

Engage learning through current and interactive exhibits, simulation and

Harness the positive influence of collaboration, environmental stewardship, and social change to advance smart mobility solutions.

Putting the 'T' in tech.

Development of the VIC was supported by New Flyer of America partners, each contributing interactive learning experiences that highlight the company's electric and autonomous vehicle technologies.

\$25 Million USD

Renovation and expansion, to be completed 2018.

50

Years experience manufacturing zero-emission buses (ZEBs)

31 Fabrication,

manufacturing, distribution & service centers



First innovation lab in North America dedicated to the advancement of bus and coach technology.



We proudly employ more American workers than any other bus manufacturer in North America.

newflyer.com/VIC

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Target Audience

Transit Agencies across America

- Many electric-bus transit agencies and public/private entities are first-time buyers, seeking zero-emission transit buses for trial programs and purchase.
- They are seeking insight and education in new propulsion technology and need a source for educational
 programming, content, and collaboration that helps deliver innovative knowledge and solutions to meet
 real-world demands.

Regulators, Elected Officials & The Public

- This audience is focused on transforming communities with zero-emission, clean technology solutions and wants to invest in building sustainable communities.
- They need a reliable manufacturer that can support smart cities with technology, training, and collaborative research and development.

Suppliers

VIC

They need a forum for zero-emission collaboration, research and development, and education.

New Flyer Team

• They need a source of innovative training and hands-on education.

ION

• They expect New Flyer to continue leading the public transit bus industry. They are interested in a solid growth path for their careers, maintaining disruption while building the future of public transportation.





Situation

With greater commitment to zero-emission adoption across America, transit agencies and other industry stakeholders need information at their fingertips, programming that empowers informed decision making, and a place to come and learn in a hands-on environment.

Challenge

- We needed to become more competitive with our branding efforts, specifically we needed to redefine our zero-emission battery-electric brand to be fresh and innovative.
- With our long history of electric propulsion, we needed to tell our story and host open conversations on smart, zero-emission transportation.
- For many reasons, our proven Xcelsior[®] platform made sense with the simplicity of our electric propulsion design. The bus also uses many of the same traditional parts that have been around for many years, making it easy to maintain. We did not want to create a complex product, but we needed to rebrand the outside of the bus to highlight the fresh, innovative components that do make a difference in daily operation.
- We needed more visibility in a highly competitive environment. Decision-makers need to demonstrate progress to their communities, and education in the electric-bus market needs more effort than ever.
- There was a need for in-depth knowledge across the industry with respect to electric bus technology, procurements, and infrastructure development and electric bus launch requirements.

Objectives

- Deliver informative, consistent zero-emissions content and programming in a comprehensive manner.
- Establish New Flyer as the zero-emission bus experts.
- Build credibility and be the trusted zero-emissions bus manufacturer for customers.
- Redefine the New Flyer electric bus brand to be innovative, fresh, and exciting.
- Create excitement in transit agency and industry stakeholder communities to encourage electric bus adoption.
- Educate our target audiences on the latest zero-emission, connected, and autonomous vehicle technologies.
- Increase our public and media presence.
- Engage a wide variety of demographics and stakeholders by delivering content through digital, social, in-person (classroom), and interactive video mediums.



Results

Overall this comprehensive campaign has increased public awareness of New Flyer:

- Over 1,000 industry leaders have visited our VIC to learn from our experts, including transit properties, decision makers, media, investors and other organizations.
- Obtained 40 positive media articles from over 39 different publications.
- Realized 1,000,000 impressions and over 9,400 followers on Twitter since launching.
- On Facebook we have had over 222,000 impressions.
- Our YouTube videos (6) received a total of 10,000 views within the last year.

Why should we win?

We focused our efforts on comprehensive and consistent branding, thought and content leadership, and zeroemission programming, content, and education while executing a campaign that strategically positioned New Flyer in the electric bus industry. We redefined our brand image, and ultimately engaged, educated, surprised, and delighted our target audiences.

Through this, we have established New Flyer and the Vehicle Innovation Center as an industry destination for learning, education, collaboration, and research and development. Together, we are advancing our industry and communities for the better.



Xcelsior CHARGE[™] Demonstrations Buses

This battery-electric, zero-emission bus fleet travels across North America offering hands-on learning and a "real-time" electric bus experience.













Videos: VIC Battery-Electric Bus Technology and More

YouTube Channel: https://www.youtube.com/c/NewFlyerVideos



Xcelsior CHARGE[™] | Interoperable Charging Solution:..



New Flyer Connect®



New Flyer's Vehicle Innovation Center



Electric Buses 101



Welcome to the Vehicle Innovation Center



Vehicle Innovation Center



Do's and Don'ts of Designing an Electric Bus



New Flyer Xcelsior CHARGE[™] in Action | Electric Bus





E-Newsletters LEADING THE CHARGE

May: http://mailchi.mp/newflyer/advancing-innovation July: https://mailchi.mp/newflyer/leadingthecharge_telematics August: http://mailchi.mp/newflyer/interoperability-and-oppcharge September: http://mailchi.mp/newflyer/infrastructure

CENTER



NEW FLYER OF AMERICA

E-Newsletters vehicle innovation center quarterly update

Q1: https://www.newflyer.com/site-content/uploads/2018/10/VIC-Quarterly-Update_Q1-2018.pdf Q2: https://mailchi.mp/4c0191c8548d/vehicle-innovation-center-quarterly-update-516951



VEHICLE

INNOVATION CENTER



Brochures

https://www.newflyer.com/news/brochures/













Vehicle Innovation Center

Video: https://www.youtube.com/watch?v=Da5pLbsY2gQ Video: https://www.youtube.com/watch?v=P0Yv4edviIM



















Websites

www.newflyer.com www.newflyer.com/VIC



VEHICLE

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VIC





Editorials LEADING THE CHARGE

New Flyer Connect is supporting data driven smart cities with advanced performance analytics

Advertorial

newflyer.com/news/leading-the-charge



New Flyer Connect[®] is Supporting Data-Driven Smart Cities with **Advanced Performance Analytics**



What is CONNECT?

on all New Flyer models.

technology from New Flyer that commu-

nicates real-time GPS and analytic data to optimize bus performance, driver efficien-cy, safety, and preventative maintenance.

First introduced in 2011, CONNECT is currently installed on over 6,500 New Flyer

transit buses throughout North America.

CONNECT Is now standard on every new zero-emission Xcelsior CHARGE™ bat-

tery-electric bus, and optionally available

Simply put, "livability" is the element of a community that makes people want to live there. It is the result of several factors that add up to create a community's quality of life.

By David Warren, Director, Sustainable Transportation and Lindy Norris, Director, Marketing Communications, New Flyer of America

New Flyer of America Inc. (New Flyer) is constantly building upon its legacy of in-dustry-leading innovation, and a key area It's exclusive on-board telematics of its focus is enabling smart mobility in transit throughout North America. More specifically, an exclusive technology from New Flyer is supporting the smart mobil-ity transformation: New Flyer Connect® (CONNECT).

CONNECT is progressive technology that provides smart city connectivity to enhance transportation mobility.

18 Mass Transit Mass Transitman.com UULY/AUGUST 2018

How Does it Work?

CONNECT monitors all vehicle on-board controllers and databus systems, while recording GPS location to enable remote real-time monitoring and to allow two-way communication with the bus. CONNECT utilizes cellular communications and stateof-the-art cybersecurity technology to send and receive data. Cloud-computing provides valuable performance analytics, anytime and anywhere – whether on a laptop, desktop, or (newly-introduced) CONNECT mobile app from any mobile smartphone or tablet.

How it Leads to Real World Payback for Transit Authorities.

San Francisco Muni (Muni) recently called on New Flyer In Muni's effort to further reduce bus Idling while parked, with the objective of minimizing noise. fuel consumption, and emissions. New Flyer Implemented an engine shutdown

It's bright ahead.



ly featured at New Flyer's Vehicle Inno vation Center (VIC) based in Anniston, Alabama, Transit authorities and city representatives are invited to collaborate directly with CONNECT engineers at the VIC in a unique and interactive hands-on learning environment, to learn how CONNECT can power bus fleets in a

New Flyer of America is headquartered





For more information, visit www.MassTransitmag.com/10064883

JULY/AUGUST 2018 | MassThansitmag.com | Mass Transit | 19





Editorials (CONT'D)

Electric Bus Infrastructure: Charge Success with the Right Partners and Right Solution

newflyer.com/news/leading-the-charge



Electric Bus Infrastructure: Charge Success with the Right Partners and Right Solution

STEPHANIE LAUBENSTEIN, Director, Sales and Business Development, New Flyer of America Inc DAVID WARREN, Director, Sustainable Transportation, New Flyer of America Inc.

The power requirements for an electric bus fleet can be astonishing. Averaging 175 miles daily per bus, the energy consumption

100-bus fleet at one location would approach 50 MWh. Charging the bus at 150 kWh over a 3-hour period would require a continuous peak power demand of 16 MW to charge all the buses simultaneously. This equates to the output of a small hydro power plant in the Northeast, or the size of 100 acres of solar field in the Southwest.

Implementing an optimal electric bus system involves matching a charging strategy to the bus design (battery ca-pacity on-board) while avoiding excessive utility upgrades required for the power demand - the amount of electrical power that must be generated and delivered through the

SPECIAL ADVERTISING SECTION

VEHICLE INNOVATION CENTER

grid at any given time

Transitioning to a successful electric transit bus system requires thoughtful planning and attention to optimize the existing utility power infrastructure with smart charging technology that curtails unnecessary capital and excessive operational costs.

A critical process to optimizing an electric bus system is es-tablishing organized stakeholder roles and responsibilities Stakeholders may include the transit agency bus operations and the facility department, the bus manufacturer, charger equipment supplier, civil and electrical engineering capable firms, construction contractors, and the utility power provider. For on-route charging, added stakeholders may include

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anners and archin for risk mitiga riables that are un ble. Risk planning to be addressed in

utive sponsor

and approved.

es the partnership ment to technical visits, route modeland charging stratation of the chargof the buses to the

) in Anniston, Alctric bus charging ract with charging ry partners includractive classroom pot and on-route

charger projects throughout North America. VIC visitors will become familiarized with the current state of indus-try charging standards that ensure the interoperability and the longevity of non-proprietary charging infrastructure for years to come.

A successful electric bus system requires capable, proficient and organized partners. At New Flyer, we're uniquely qualified as a partner to provide "The Complete Solution": • Proven Xcelsior[®] Platform

- American-Based Lithium-Ion Battery Technology
- Established Supply Chain, Parts and Service Organization
 Highest Gross Vehicle Weight Rating (GVWR) and Pas-
- senger Capacity Infrastructure and Charging System Project Mana
- New Flyer Connect[®] telematics for Real-time Optimized Performance and Analytics

In the early days of deploying electric propulsion, the challenge for electric buses was providing overhead lines through city streets to power trolley-electric buses. Today's infrastructure requires similar consideration, except the challenge for supporting battery-electric buses lies in finding the right part-ners to assist in building infrastructure that provides adequate power at the right location and the right time, to charge a fleet of zero-emis on battery-electric buses that will me community forward.

It's bright ahead.

More @ newflyer.com/leadingthecharge

SPECIAL ADVERTISING SECTION



Editorials (CONT'D)

Building Livable Cities through connected collaboration

newflyer.com/news/leading-the-charge



Building Livable Cities Through Connected Collaboration

Simply put, "livability" is the element of a community that makes people want to live there. It is the result of several factors that add up to create a community's quality of life.

By Lindy Norris, Director of Marketing Communications, New Flyer of America

Smart Mobility: Creating Livable Cities

In 2017, American Public Transportation Association (APTA) Chair Nat Ford Identi fled five priority areas, one of which called out the need for multi-faceted approaches on how to move Americans: a new mobility program. Indeed, Ford Is one of several leading the conversation on the need for connected multi-modal infrastructure (or Smart Mobility"), as the population continues to increase and urbanize.

The statistics alone lend staggering clarity on why Smart Mobility is required to support livable communities: • By 2030, the world is projected to have

41 mega-cities with more than 10 million inhabitants.

More than 82% of people live in urbanized areas in North America.

 Americans spend 14.5 million hours every day stuck in traffic, and, since 1970:

 The U.S. population has grown
 4. We engage with stakeholders. by 32%,

» The number of registered vehicles

has grown by 90%.

» The number of vehicle miles traveled has grown by 131%, but

road miles grew by only 6%.

Little room exists to accommodate any additional cars or time spent on the road, and this reality imposes the need for stake-holders to work collaboratively in creating

solutions for seamless mass transportation connected and powered by real-time data. A "livable" city is one where people

want to live, and part of this is connected. multi-modal mobility solutions. This is why New Flyer is committed to Smart Mobility - supporting development of Smart Cities through advanced transit solutions. It's also why New Flyer is the first bus

manufacturer in the world to support the Shared Mobility Principles for Livable Cities. The Principles, launched at the 2017 Ecomobility World Festival in Kaohslung, Talwan, include ten commitments ma by stakeholders in sustainable, efficient,

and collaborative mobility development: 1. We plan our cities and their mobility together.

2. We prioritize people over vehicles.

3. We support the shared and efficient use of vehicles, lanes, curbs, and land.

5. We promote equity.

6. We lead the transition towards a zero-emission future and renewable energy.

7. We support fair user fees across all modes.

Since then, the total number of 8. We aim for public benefits via open data.

9. We work towards integration and seamless connectivity. 10. We support that autonomous vehicles

ed only in shared fleets

Reduces the likelihood of charging in dense urban areas should be operat-

Since launching, C40 Citles, Transpor tation for America, Uber and Zipcar have joined as "Signatories" - and the growing roster reflects industry leaders with a com mon Interest of developing Smart Mobility around the globe.

Advertorial

Smart Infrastructure across North America

Momentum for smart city development is building, and North American stakeholders have jumped on board in an effort to tackle urbanization.

In February 2018, leaders from the Department of Homeland Security (DHS), Congress, Senate, The White House and other agencies converged for the first Smart Regions Congress, and officially formed the Congressional Smart Cities Caucus. Together, they discussed connectivity in urban, suburban, and rural cores; smart infrastructure and mobility (connected and autonomous transportation); cybersecurity; energy and sustainability.

They also announced the 2018 Smart Infrastructure Challenge, aiming to "empower cities, councils, and government agencies to work together in putting forth innovative plans that reflect residential needs and improve connected infrastructure and transportation in their city or region".

With Interoperability, Everyone Wins

With a growing interest in Smart Mobility paired with electrification of public transit, dialogue has been building for interoperable vehicles and charging infrastructure ("interoperability")

The use of common charging standards by bus manufacturers and charging equipment suppliers:

equipment becoming obsolete, le



ity in the face of cities with greater livability.

new, critical reality that will shape ou future and power the development of Smart Cities.

We Can Build cted Future stakeholders have woken lity of urbanization, and the age Smart Mobility in the pur unities - their o cipation is clear.

right ahead. cities like smart mobility

24 Mass Transit Mass Transitimag.com APRIL/MAY 2018



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APRIL/MAY 2018 MassTransitmag.com Mass Transit 25

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Editorials (CONT'D)

New Flyer: Working to Drive the Development of Smart Cities Forward

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New Flyer: Working to Drive the Development of Smart Cities Forward ARTICLE FEB 10, 2018



New Flyer's VIC is dedicated to advancing bus and coach technology in North America to serve the Smart Cities of the future.

Photo credit: New Flyer

Defined by the global Institute of Electrical and Electronics Engineers (IEEE), the world's largest technical professional organization for the advancement of technology, a Smart (Sustainable) City is an innovative city that uses information and communication technologies (ICTs) and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social, and environmental aspects.

In North America alone, more than 82 percent of people live in urbanized areas, and by 2030 the world is projected to have 41 "mega-cities" with more than 10 million inhabitants. Smart Cities of the future connect business sectors (smart mobility, smart neergy, smart buildings, smart retail) with the Internet of Things to provide a seamless consumer experience in our communities. With a very real threat of urbanization choking existing transportation infrastructure, "Smart Mobility" creates safe, clean, efficient and connected multimodal transportation system — combining mass transit, ridesharing services, biking, and walking. New Flyer is committed to leading collaboration, cooperation, and the technological advancement of Smart Mobility.

As the concept driving highly automated, connected, and data-driven communities, "Smart Cities" use sophisticated technology and advanced analytics to help city planners operate cities in a more predictive and increasingly responsive way, working in collaboration with the private sector to operate and maintain city infrastructure that supports an increasingly on-demand lifestyle in urban centers.

At a moment in time where the need for Smart Cities is equal parts opportunity and crisis, the average person has started to grasp just how significantly the daily commute impacts quality of life for most North Americans, and also how increasing traffic congestion and pollution affect the world in which we live. During CES, Smart Mobility, which includes the automation of vehicles and innovation in public transit, came to the forefront of the conversation.

The importance of advanced technology and human ingenuity was echoed by Secretary of Transportation Elaine Chao, whose address at CES focused on innovation. Secretary Chao reiterated the role autonomous vehicles will play in revolutionizing transportation, and further entrenched the Department of Transportation's role in cultivating innovation by eliminating obstacles to development and integration of new technology. Subsequently, she announced the U.S. Department of Transportation's (USDOT) release of automated vehicle requests for public comment, soliciting input from across the transportation industry to identify barriers to innovation and help shape initiatives.

INNOVATION CENTER The announcement marks a clear evolution in the USDOT's approach to innovation, and underscores the importance in the investment, research, and development of technology in transportation. If America is to execute on the vision and intention for Smart Cities, development of technologically sophisticated transportation is vital. All stakeholders in the transportation industry (and beyond) stand to gain from collaborating on development, and can shape the future of America through investing in autonomous technology, advanced analytics, innovation, and related connectivity and infrastructure development.

In October 2017, New Flyer of America celebrated the grand opening of the Vehicle Innovation Center (VIC) at its Anniston facility in Alabama. As the first and only innovation lab of its kind, the VIC is dedicated to advancing bus and coach technology in North America to serve the Smart Cities of the future. Through ongoing delivery of interactive experiences and collaboration with industry leaders, the VIC features a world-class manufacturing lab, exhibit space, and training areas to:

 Explore and advance bus and coach technology through sustainable research and development, fresh innovation, progressive manufacturing, and bold thinking;

•Foster dialogue through discussion, education, and training on the latest zero-emission, connected and autonomous driving vehicle technologies;

•Engage learning through current and interactive exhibits, simulation and hands-on experiences, and observations;

•Generate energy and commitment to clean air quality, safety, and economic benefits for people, communities, and business; and

•Harness the positive influence of collaboration, environmental stewardship, and social change to advance smart mobility solutions.

The VIC is a hub for public private collaboration and exploration, with respect to zero-emission and autonomous vehicle technologies that can and will power our society forward. Indeed, 2018 will illustrate the convergence of multiple sectors to innovate and power the next several decades of public transit. Ultimately, we can expect emergence of unlikely partnerships to power and support an increasing on-demand lifestyle of North Americans. These partnerships, an approach coined "co-opetition" in light of competitive advantage, will further dynamics already in motion by the likes of Ford, Lyft, and Dominoes, who have come together to offer Smart Mobility solutions on demand via autonomous vehicles.

While public transit often comes second to headlines about the latest in Apple technologies, Smart Cities have never been a more newsworthy topic. North American brand movements like Amazon's HQ2 [venue] search catapulted the need for Smart Cities, as its 2017 contest sparked public interest (and subsequent city mania) for the "perfect city" to play host to its new headquarters. With over 238 places bidding for HQ2, the Wall Street Journal reported bold promises by cities, tackling everything from traffic to housing in hopes of luring Amazon's 50,000 jobs and minimum \$5 billion investment in infrastructure development. But, it cannot operate in a city anything less than smart, and the pressure is on for all urban centers to step up their game.

New Flyer's Vehicle Innovation Center is a venue where collaboration amongst industry stakeholders will drive bus and coach technology towards our collective vision of Smart Mobility within our communities. As a pioneer of industry "firsts" on many occasions over recent decades, New Flyer has no intention of slowing down as the Smart City of the future becomes reality.

