



FROM THE PRESIDENT



As President of the IBTTA in 2012, I have adopted the theme “Delivering Real Solutions.” I decided on this theme as I have watched the tolling industry evolve quickly to a 21st century powerhouse; able to provide cheap, flexible, dependable, customer oriented, efficient, transparent, and accountable highway transportation services in our demanding and changing marketplace.

More than ever, we work harder and we work smarter, because we are in a constant state of evolution, keeping alive our values of good engineering judgment for the public interest, and constantly reinventing our ingenuity and embracing the technology and management tools our industry produces.

The financial crunch and the fiscal crisis have created a new scenario, which is here to stay. Nothing is going to be the same as before. It looks like a number of quantum leaps are coming in the very near future. We still do not know what many of these new realities are going to look like, but it seems clear that paying for the use of surface transportation infrastructure will soon be a daily aspect of our lives. Governments need our hard work to deliver sustainable and reliable solutions.

Now is the perfect time to step up as that powerhouse. Our industry is coming together in ways we only hoped for just a few years ago; we are learning from each other every day and participating in discussions that generate real ideas. Our advocacy is reaching out even further to gather the support we so greatly need. Our ideas are highlighted even more so in this edition of *Tollways*. We hope you enjoy them!



Jordi Graells
President, Abertis USA Corp., 2012 IBTTA President



FROM THE EXECUTIVE DIRECTOR & CEO



This issue of *Tollways* is full of robust articles supporting the theme “Delivering Real Solutions.” We explore important topics such as electronic tolling and Vehicle-Miles Traveled (VMT) Charging versus current fuel-based taxes. We’ll then travel across the United States to explore how state infrastructure projects are flourishing, and how Public-Private Partnerships (P3s) in Europe can be a positive influence on United States infrastructure policy. Finally, we get a look at what it takes to ensure successful infrastructure project delivery.

Bob Poole discusses why current infrastructure funding sources are inadequate in today’s economy. He then goes on to highlight a three-tiered system for gaining public acceptance of VMT Charging.

Building on Poole’s foundation, Bern Grush looks at the progress of VMT Charging in the United States through the lens of a popular management model that focuses on five critical components: Vision, Skills, Incentives, Resources, and a unique, viable Action Plan.

Gretchen Ivy examines the critical success factors that enabled the Missouri Department of Transportation (MoDOT) to receive approval to toll the I-70 under the Interstate System Reconstruction and Rehabilitation Pilot Program (ISRRPP).

Massoud Moradi, P.E., and Dr. Haitham Al-Deek, P.E., further explore the possibility of mileage-based user fees by comparing the current per gallon motor fuel taxes in Florida with a theoretical VMT Charging system.

Dr. James Weiss, Jerzy Smagoswki, and Nigel Lewis document the story of private sector participation in the development of the Polish A2 Toll

Motorway in the corridor between Warsaw and Berlin. At the time of financial close in October 2000, it was one of the largest public-private partnership (PPP) infrastructure projects in Central and Eastern Europe.

Emanuela Stocchi describes EasyWay, the first European project on Intelligent Transportation Systems (ITS) aimed at defining and sustaining the use of the most up-to-date technologies applied to road transportation.

Fred Philipson explores the evolution of toll technologies around the world that are paving the way to All-Electronic Toll (AET) collection and Vehicle-Miles Traveled (VMT) fees.

Finally, IBTTA President Jordi Graells examines the market potential of converting roughly 10,000 miles of interstate highways into revenue generating, self-sustaining toll roads.

We hope you enjoy this collection of articles that further explore the possibility of “Delivering Real Solutions.”

A handwritten signature in black ink, appearing to read "Patrick Jones". The signature is stylized and fluid, with a large initial "P" and "J".

Patrick Jones

Executive Director & CEO, IBTTA, Washington, DC

TOLLWAYS

Tollways strives to be a principal agenda-setting publication for the transportation industry, providing a serious source of original thinking to advance the performance of organizations engaged in tolling and other direct user-fee financed transportation services and their leaders. *Tollways* is published by the International Bridge, Tunnel and Turnpike Association and distributed to its member company representatives. IBTTA also distributes copies to key public officials and policy makers.

PUBLISHING IN *TOLLWAYS*

Submitted articles are reviewed by members of the *Tollways* Editorial Advisory Board and other peer reviewers. Author guidelines are available at www.ibtta.org. For additional copies, permissions and reprints, please email wklayman@ibtta.org or call 202.659.4620.

Tollways, Volume 9, Number 1, is published by IBTTA. © 2012 IBTTA

Opinions expressed in *Tollways* articles are those of the authors. IBTTA does not endorse trademarked products mentioned in *Tollways*; their inclusion is solely at the discretion of the authors.

TOLLWAYS EDITORIAL ADVISORY BOARD

Michael Ascher, P.E.

Metropolitan Transportation Authority (Retired)

Thomas Bamonte, J.D.

North Texas Tollway Authority

Terry Brechtel

Alamo Regional Mobility Authority

Cedrick Fulton

The Port Authority of New York & New Jersey

Joseph Giglio, Ph.D.

Northeastern University

Nigel Lewis

The Louis Berger Group

Timothy McGuckin

OmniAir Consortium, Inc.

Jean Mesqui

ASFA

Edward Regan

CDM Smith

Jim Wilson, PMP

TransCore, Inc.

Harold Worrall, P.E., Ph.D.

Transportation Innovations, Inc.

George Zilocchi

GeoPat Consulting LLC

PUBLISHER

Patrick Jones • pjones@ibtta.org
Executive Director & CEO, IBTTA

EDITORIAL, CREATIVE AND CONTENT DIRECTORS

Neil Gray • neilgray@ibtta.org
Director of Government Affairs, IBTTA

Wanda Klayman • wklayman@ibtta.org
Deputy Executive Director, IBTTA

Sarah Shields • sshields@ibtta.org
Content Writer, IBTTA

DESIGN

Pages Marketing & Design
www.pagesmarkdesign.com



TABLE OF CONTENTS

7

VMT CHARGES AND THE FUTURE OF TOLL ROADS

Bob Poole

17

PROGRESSING VMT CHARGING IN THE UNITED STATES

Bern Grush

29

TOLLING U.S. INTERSTATES: Lessons Learned from Missouri's Interstate 70

Gretchen Ivy

39

LET'S TALK DOLLARS AND SENSE: FLORIDA'S CASE TO FUND INFRASTRUCTURE WITH MILEAGE-BASED USER FEES

Massoud Moradi and Dr. Haitham Al-Deek

49

POLAND: ENHANCING THE BERLIN-WARSAW MOTORWAY WITH PRIVATE SECTOR PARTICIPATION

Dr. James Weiss, Jerzy Smagowski, and Nigel Lewis

59

THE EASYWAY PROJECT FOR A HARMONIZED DEPLOYMENT OF ITS SYSTEMS IN EUROPE

Emanuela Stocchi

69

PAVING THE WAY TO VEHICLE MILES TRAVELED

Fred Philipson

81

REBUILDING INTERSTATES: A Basic To-Do List for Project Delivery

Jordi Graells