SeeBridge Demonstration Workshops

Host	Location	Date
GDOT	Atlanta	14th August, 2017
Netivei Israel	Tel Aviv	18th September 2017
University of Cambridge	Cambridge	18th September 2017
BAST	Munich	25th September 2017

Demonstration Workshop Audience

- Highway agencies, DOTs

- Bridge inspectors

- Bridge designers and engineers

- Policy makers

- Academics and researchers

Program

Time	Content	Responsible Presenter
9:00	Welcome and introduction	Rafael Sacks
9:10	Motivation	Amir Kedar
9:25	Background	Ling Ma
9:50	Vision - Why use BIM for Bridge Management Systems?	Andre Borrmann and Amir Kedar
10:15	Walk-through of the SeeBridge process	Alistair Wells, Habib Fathi, Patricio Vela, Ruodan Lu, Uri Kattel and Philipp Huethwohl
11:30	Hands on demo	Raz Yosef and Philipp Huethwohl
12:15	Where are we today ?	Rafael Sacks
12:35	Q & A	
13:00	Close & Lunch?	

Welcome and Introduction

- What is Infravation?

- What is SeeBridge?

- Who are the partners?

- Who are the supporters?

What is Infravation?

Infravation is….

- an **ERA-NET Plus EU FP7 framework program**

- a **pooled research fund** to develop **transport infrastructure innovations**

- aimed at **cost-effective advanced systems, materials and techniques** in road infrastructure **construction and maintenance, including repair, retrofitting and revamping**.

- The solutions called for include materials technology, methods and processes, and supporting systems, such as for monitoring, communication and energy.

See http://www.infravation.net

What is SeeBridge?

SeeBridge is a proposed process for automatically compiling BIM models of existing concrete highway bridges that includes precise information about their components, geometry and surface defects

What is SeeBridge?

SeeBridge

The name represents two ideas:

- that digital tools can **see and measure** a bridge visually (laser scanning and photogrammetry)

- that digital tools can **see and understand** a bridge, interpreting what they see as bridge components and defects

What is SeeBridge?

SeeBridge

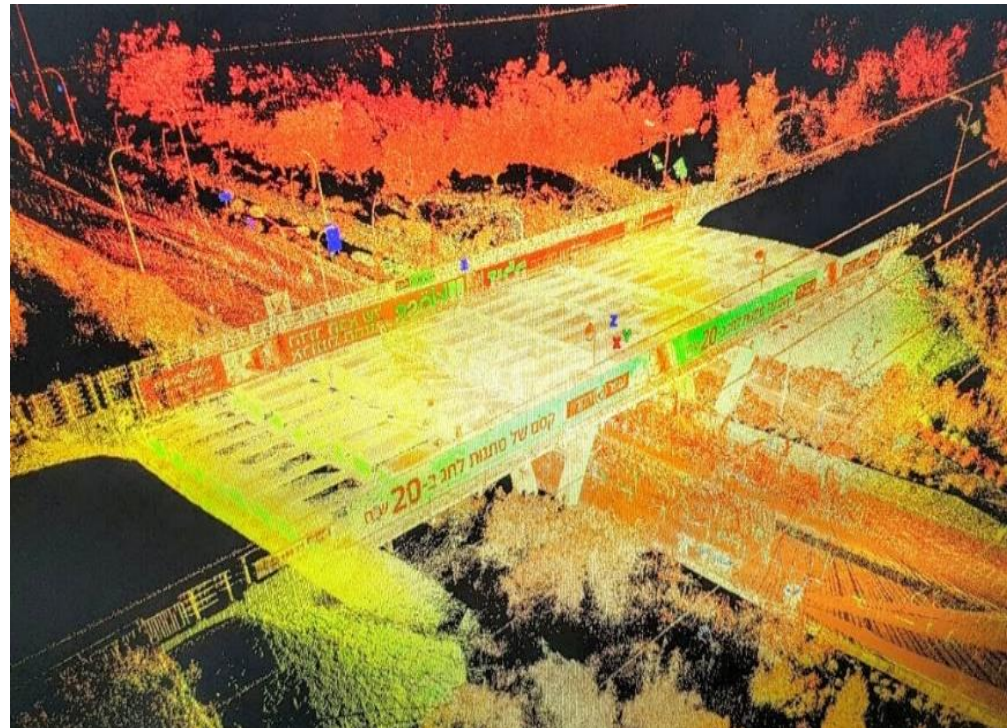The name is also an acronym for

Semantic Enrichment Engine for Bridges

Semantic enrichment is a method for using artificial intelligence tools to supplement a 3D geometry model with meaningful information
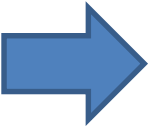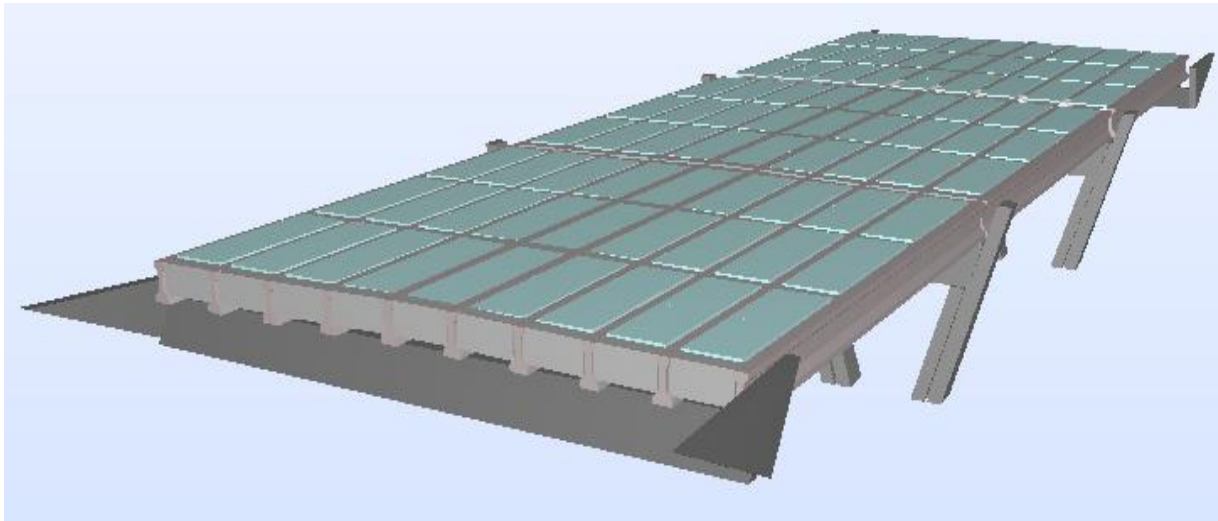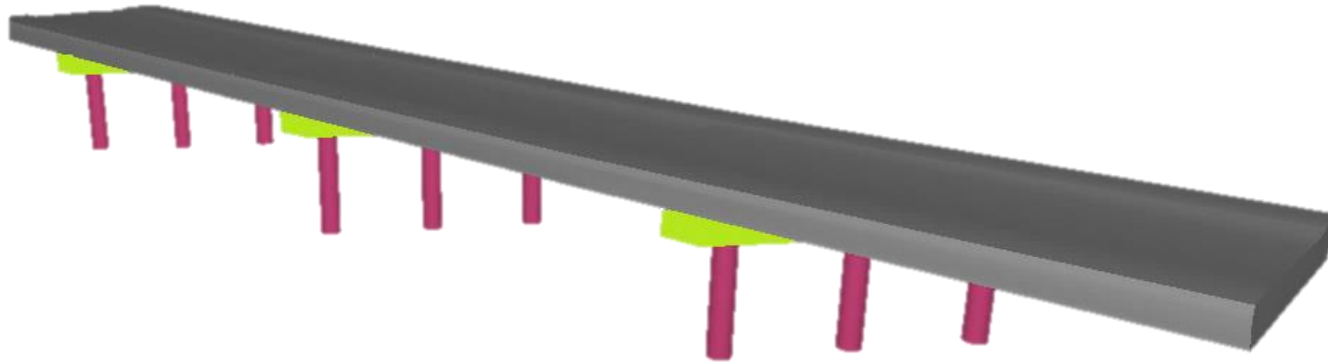
What is SeeBridge?
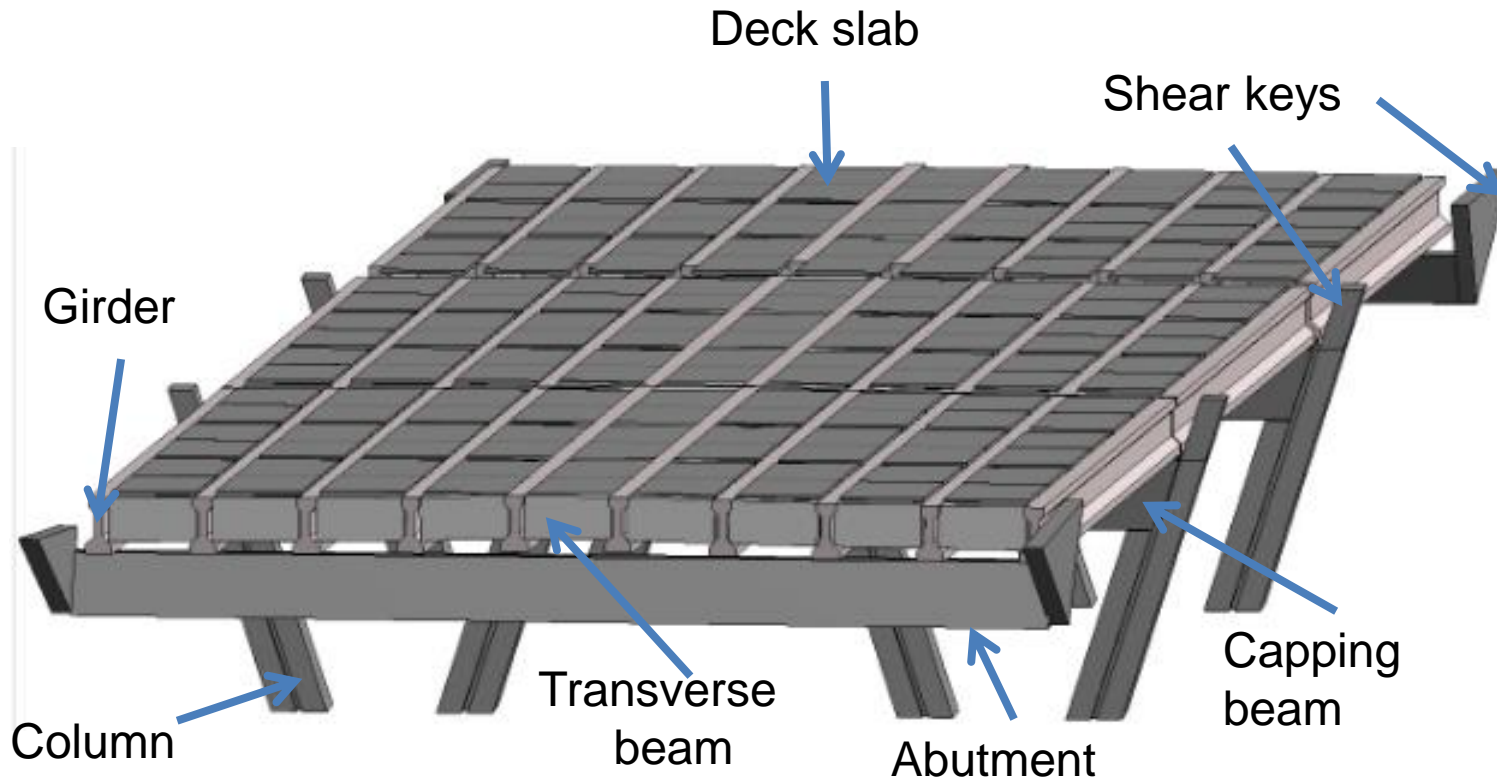
1 Laser / photogrammetry survey
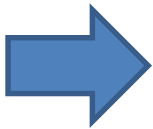
What is SeeBridge?

2 3D geometry reconstruction

What is SeeBridge?

3 Semantic enrichment

Deck slab

Shear keys

Girder

Column

Transverse beam

Abutment

Capping beam

What is SeeBridge?

4   Defect identification & modeling
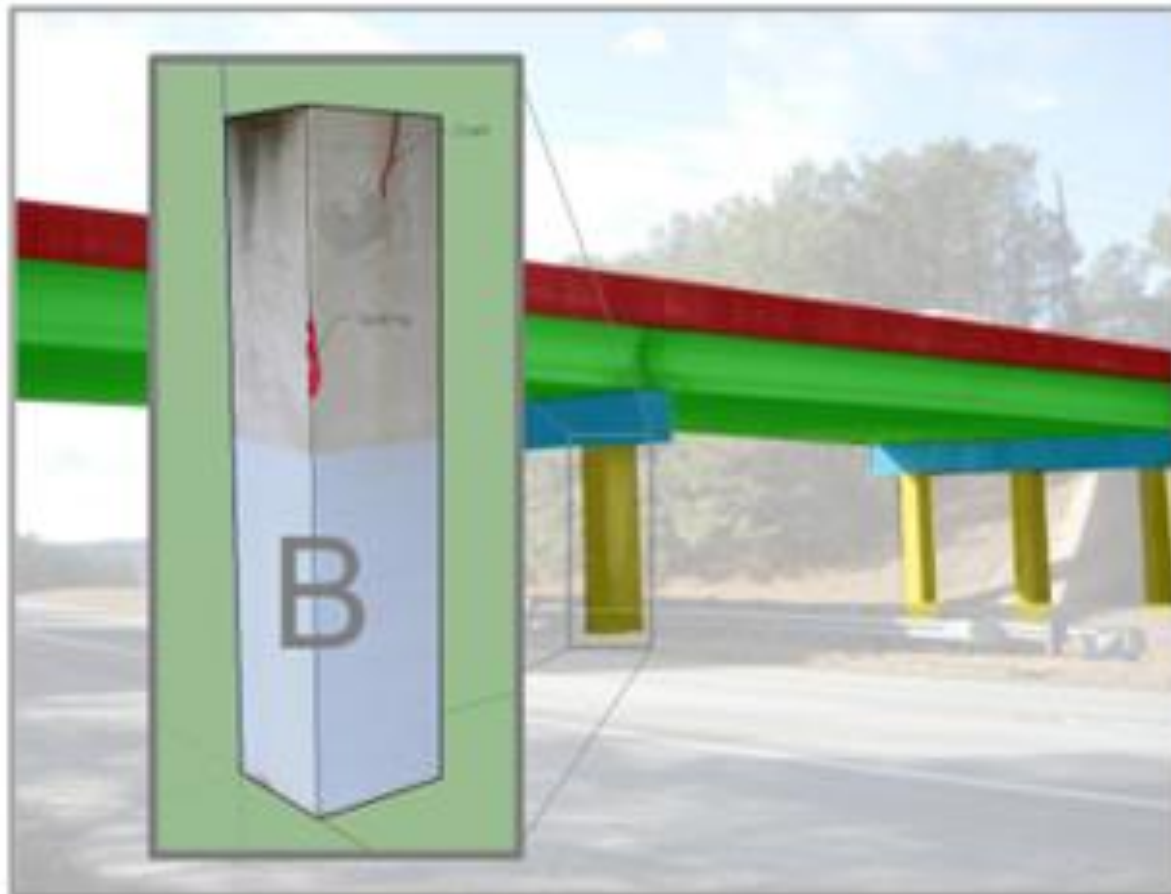
Who are the SeeBridge partners?

Technion

Georgia Tech

Pointivo, Inc.

University of Cambridge

Kedmor Engineers Ltd.

Technische Universität München

Trimble Navigation, Ltd.

Who are the SeeBridge partners?

SeeBridge Subcontractors

Georgia Department of Transportation

AEC 3 Germany

Who are the SeeBridge supporters?

London Underground

Federal Ministry of Transport and Digital Infrastructure

Bundes Ministerium fur Verkehr and Digitale Infrastruktur BMVI

Netivei Israel