

I PIC 2016

3rd International Physical Internet Conference

Welcome

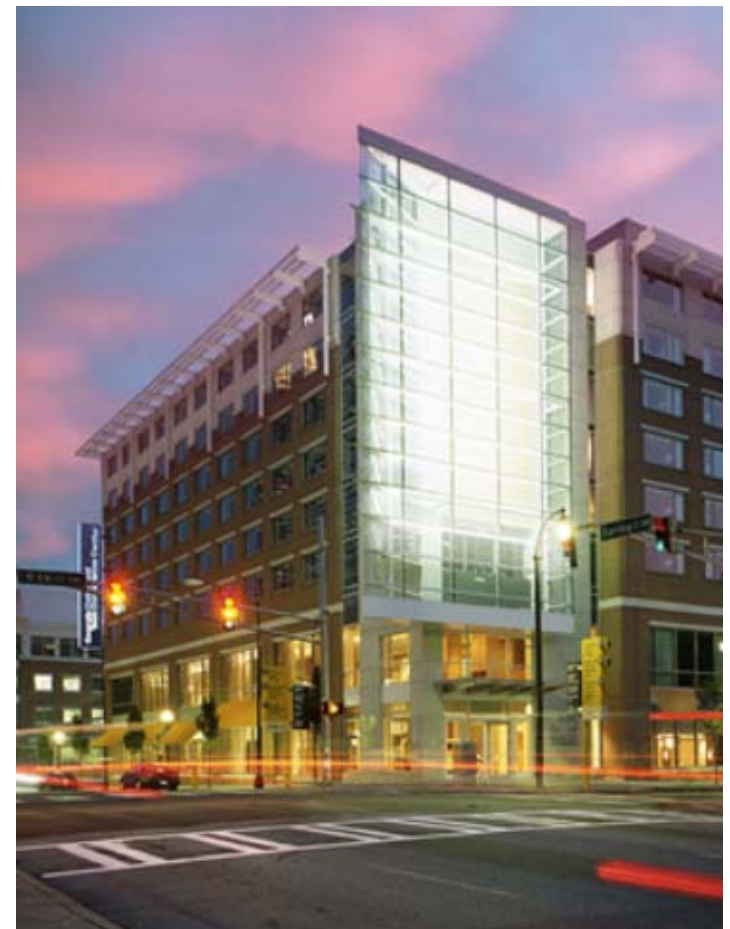
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Partners



Towards a smart hyperconnected era of efficient and sustainable logistics, supply chains and transportation
IPIC 2016 - 3rd International Physical Internet Conference
June 29-July 1, 2016 | Atlanta, GA USA





U.S. Rankings

GLOBAL RANKINGS

#6

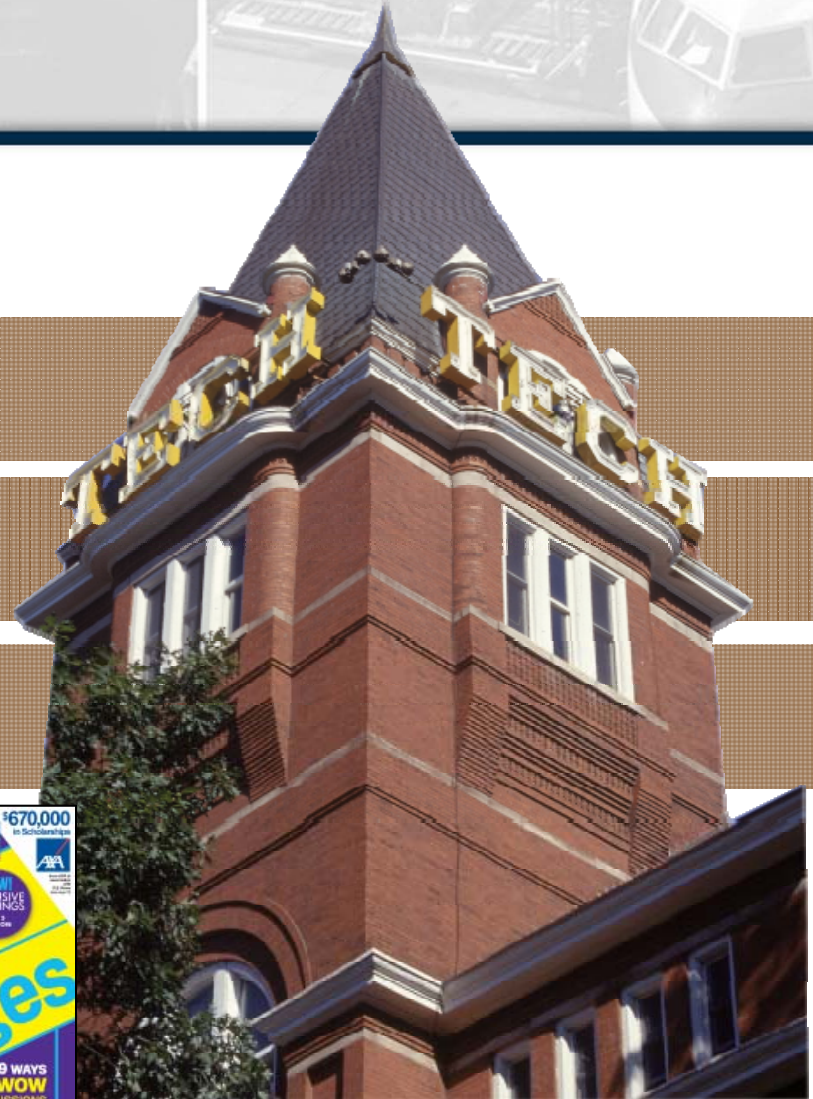
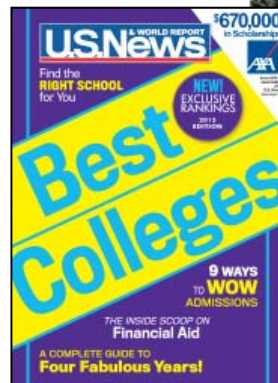
ENGINEERING SCHOOL

#4

INDUSTRIAL ENGINEERING

#1

U.S. News & WORLD REPORT



**Georgia
Tech**



ISyE

Stewart School of Industrial
& Systems Engineering

*Welcome to the
H. Milton Stewart School of
Industrial & Systems
Engineering*

Georgia Tech **Stewart School of Industrial
& Systems Engineering**
College of Engineering

Rankings:

- #1 Undergraduate Program**
- the 21st consecutive No. 1 ranking for ISyE
(USNWR's America's Best Colleges)
- #1 Graduate Program in the industrial/manufacturing/systems specialty**
- the 25th consecutive No. 1 ranking for ISyE
(USNWR's America's Best Graduate Schools)
- #4 Statistics & Operational Research**
(2015 QS World University Rankings)
- #5 Supply Chain Engineering Programs**
(2015 SCM World Ranking of Top Supply Chain Universities & 2014 Gartner Top U.S. Supply Chain Graduate University Programs)



MISSION

“To enable supply chain professionals, businesses, and governments to transform complex supply chains and trade corridors to improve logistics performance by providing education, innovation, and solutions for global and domestic supply chains”



IPIG 2016

Enjoy the conference



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CENTERS of INNOVATION

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Georgia Department of Economic Development*

SANDY LAKE

Associate Director, Center of Innovation for Logistics



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Georgia's Center of Innovation **Advancing Logistics**

VISION



GEORGIA LOGISTICS SUMMIT



TRANSFORMATION



World's first steamship sailed from Savannah in 1819

SAVANNAH:

- Fourth Busiest Port in the U.S.
- Fastest Growing

PORT	2000	2015	15-year CAGR
1. Los Angeles	4,879,429	8,160,458	3.5%
2. Long Beach	4,600,787	7,192,066	3.0%
3. NY/NJ	3,050,746	6,371,720	5.0%
4. Savannah	948,669	3,737,425*	9.5%
5. Seattle/Tacoma	2,102,410	2,760,811	1.8%
6. Virginia	1,347,364	2,549,270	4.3%
7. Oakland	1,776,922	2,277,515	1.7%
8. Houston	1,061,525	2,130,544	4.8%
9. Charleston	1,632,747	1,973,202	1.3%
10. Port Everglades	676,760	1,056,524	3.0%
Top 10 Total	22,090,564	38,209,535	3.7%

Source: AAPA, includes loads and empties in TEUs

*New Record

LAST YEAR'S HEADLINES

“LA /Long Beach, Oakland, PNW Congestion Reaches Critical Stage”

“NY-NJ Terminals Battle Cargo Backlogs”

“Virginia Port Grapples with Near-Unprecedented Congestion”

“Savannah’s TEU Growth Outpaces US Average, with no Congestion”



Georgia Ports Authority

Right "Ingredients" = Right Results

- ✓ **Single terminal**
- ✓ **Continuous reinvestment –**
Next decade: \$1.9B
(capacity of 20% above demand, currently the size of 151 football fields)
- ✓ **2 on-terminal Class I railroads**
- ✓ **Labor partnership**
- ✓ **Customer confidence**

March 2015: ↑ 28% YoY
April 2015: ↑ 26% YoY
May 2015: ↑ 16% YoY

Truck Gate Passage remained within 1 hour

CY 2015

- Total Tonnage: 31.5M
+3.6%
- TEUs: 3.7M
+11.7%



SAVANNAH HARBOR DREDGING HAS BEGUN!



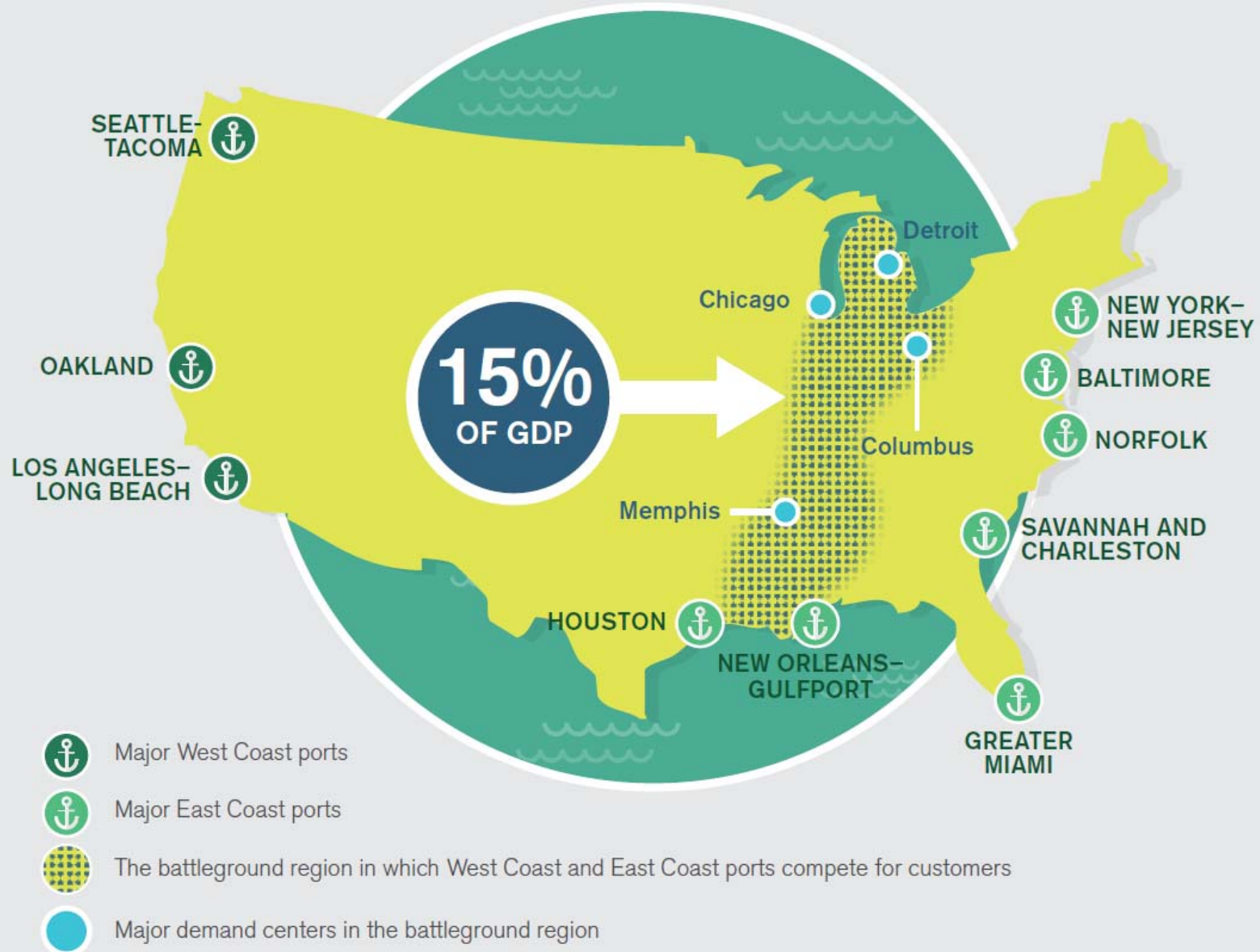
Macro Factors in the Logistics Industry

Demand from Global Commerce

Panama Canal Expansion

- ✓ Opened June 2016
- ✓ 70% of Canal cargo traffic is going to or coming from the U.S.
- ✓ 39-foot depth → 50-foot depth (~5K TEUs to 14K TEUs)
- ✓ Operating costs East Asia to East Coast ↓ ~30%
- ✓ Result: Midwest is in play for East Coast ports
(=15% of US GDP)

A Battleground Region Representing **15 Percent** of GDP Will Be in Play Between West Coast and East Coast Ports



Sources: U.S. Department of Commerce Bureau of Economic Analysis; BCG analysis.

Port of Savannah...

Coming to Northwest Georgia!

- ✓ GPA initiative to improve port connectivity inland
- ✓ 1 location in use – Cordele, GA (SE GA)
- ✓ 1 location in development – Appalachian Regional Port in Murray County on Route 411 (10 miles south of TN border)
 - *CSX rail route will reduce Atlanta truck traffic by 40,000 moves*
- ✓ Other locations under consideration
 - Port Atlanta
 - I-95 Corridor North
 - I-95 Corridor South
 - Middle Georgia



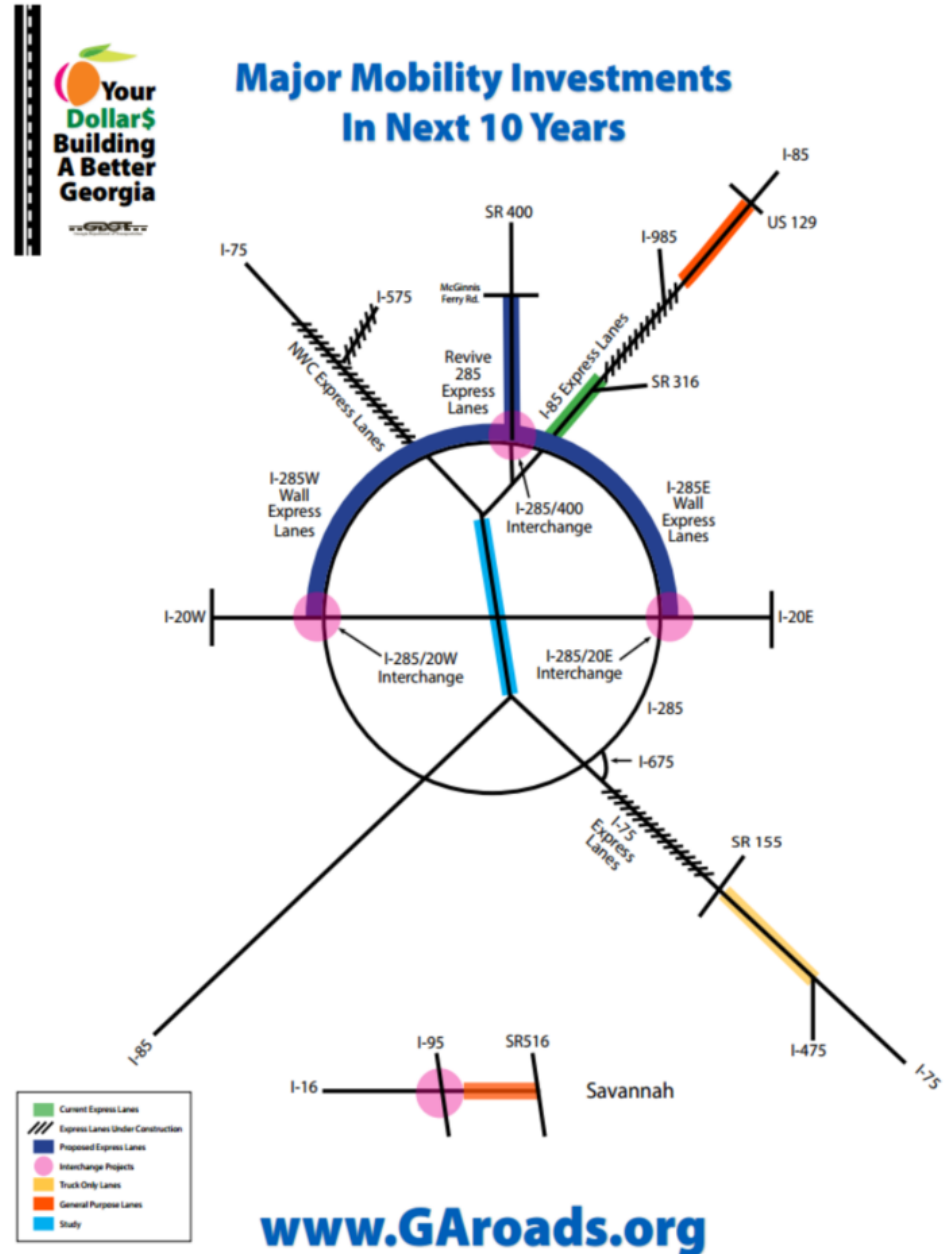
NETWORK GEORGIA

Zones:

1. SW Georgia - Cordele
2. NW Georgia
3. Port Atlanta
4. I-95 Corridor - North
5. I-95 Corridor - South
6. Middle Georgia

“HB 170” and Georgia’s Freight Network: Major Projects

- Savannah Port to I-95
- 45 miles of truck-only lanes between Atlanta and Macon (~16,000 trucks/day)
- 8 Interstate expansions throughout metro Atlanta
- \$13.8 billion in 10 years



CONNECTIVITY

Georgia Logistics Technology



Thank You
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Georgia leads in Supply Chain Technology

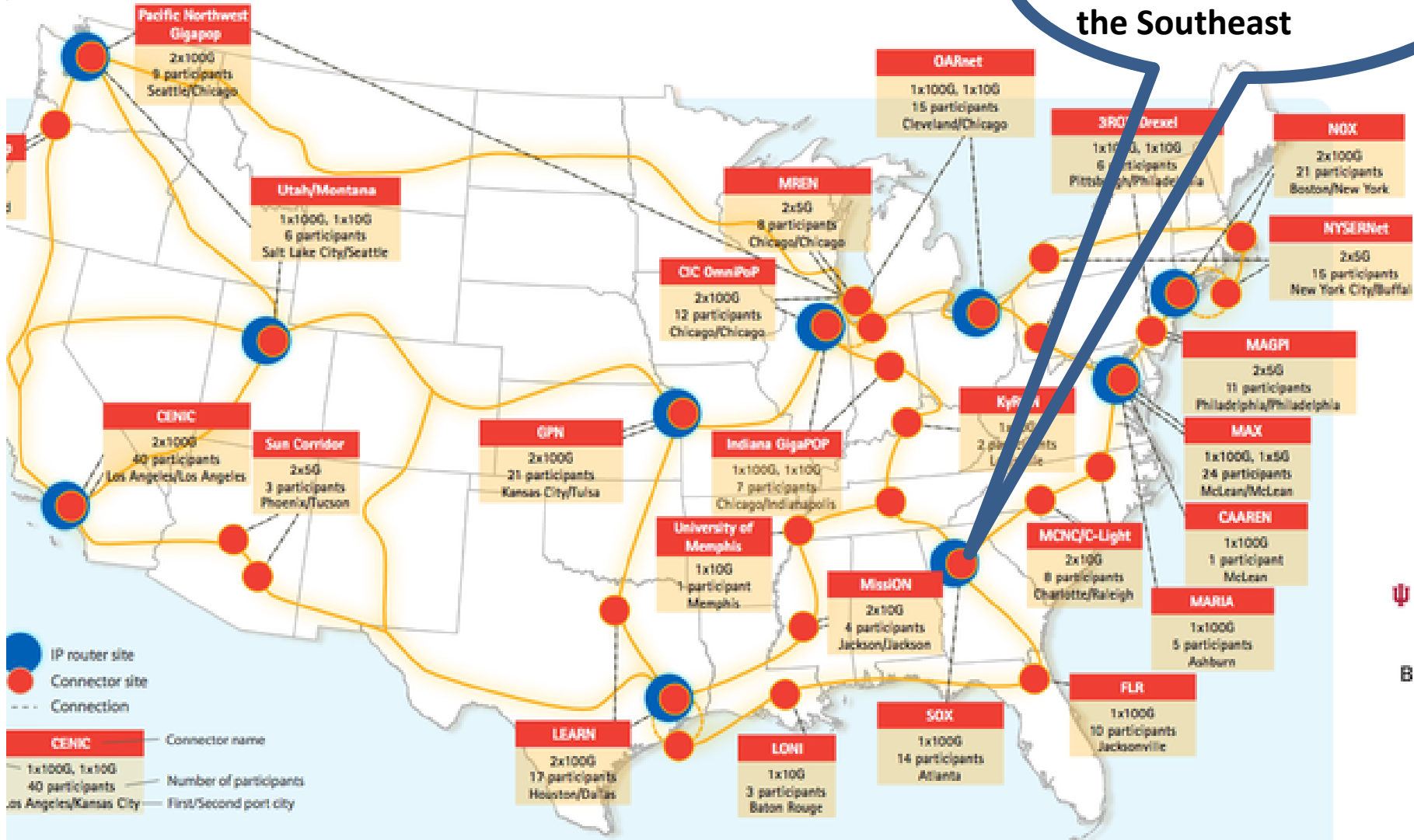
- ✓ Atlanta has the largest cluster of IT employment in the Southeast
- ✓ 4th in the nation for information and communication technology
- ✓ 6th largest information industry employer in the US w/3rd fastest growth projected over the next 10 years.
- ✓ More than 2,700 IT Post secondary degrees granted annually.
- ✓ Georgia has earned a world-class reputation for excellence in information and communication technology.
- ✓ **Atlanta is one of a handful of cities nationwide chosen by Google for its expanding high-speed fiber offering.**



Internet2 Network Connectors

www.Internet2.edu/connectors - April, 2014

Unparalleled Internet Infrastructure Access in the Southeast



Georgia's Centers of Innovation

Exclusive to Georgia, the **Centers of Innovation** provide

- ✓ **Technical Industry Expertise**
- ✓ **Collaborative Research**
- ✓ **Partnerships**
- ✓ **Integrated approach** that accelerates businesses ability to **connect, compete and grow...** in strategic industries
 - ❖ Aerospace
 - ❖ Agribusiness
 - ❖ Energy Technology
 - ❖ Information Technology
 - ❖ Advanced Manufacturing
 - ❖ **LOGISTICS**



GA Department of Economic Development

Results in 2015 (state fiscal year)

329 companies expanded or located in Georgia
and filled **17.5M square ft** of industrial space.

(the most in 1 yr. since 1990)

More than **26,000** new jobs

\$4.75 billion in investment...

(logistics-enabled companies: \$3.6 billion)

Leading industries:

- software/tech
- aerospace
- food processing (\$578 million and 2,800 jobs)

Keys Takeaways

Economy is growing in the Southeastern U.S.

- Fastest growing region – cargo moves where people are!

Georgia is ready

- Logistics thought leadership
- Savannah Harbor deepening
- Surface transportation infrastructure improvements
- Technology and communications infrastructure
- Business climate built for growth!

And Georgia has all the components for continued transformation in interconnected logistics!



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SETRIS/ALICE in IPIC2016

Atlanta, 29th of June – 1st of July 2016

Research and Innovation roadmap on the Physical Internet

Fernando Liesa. ALICE Secretary General

fliesa@etp-alice.eu

Friday 10:20-11:50 Plenary Forum FB:

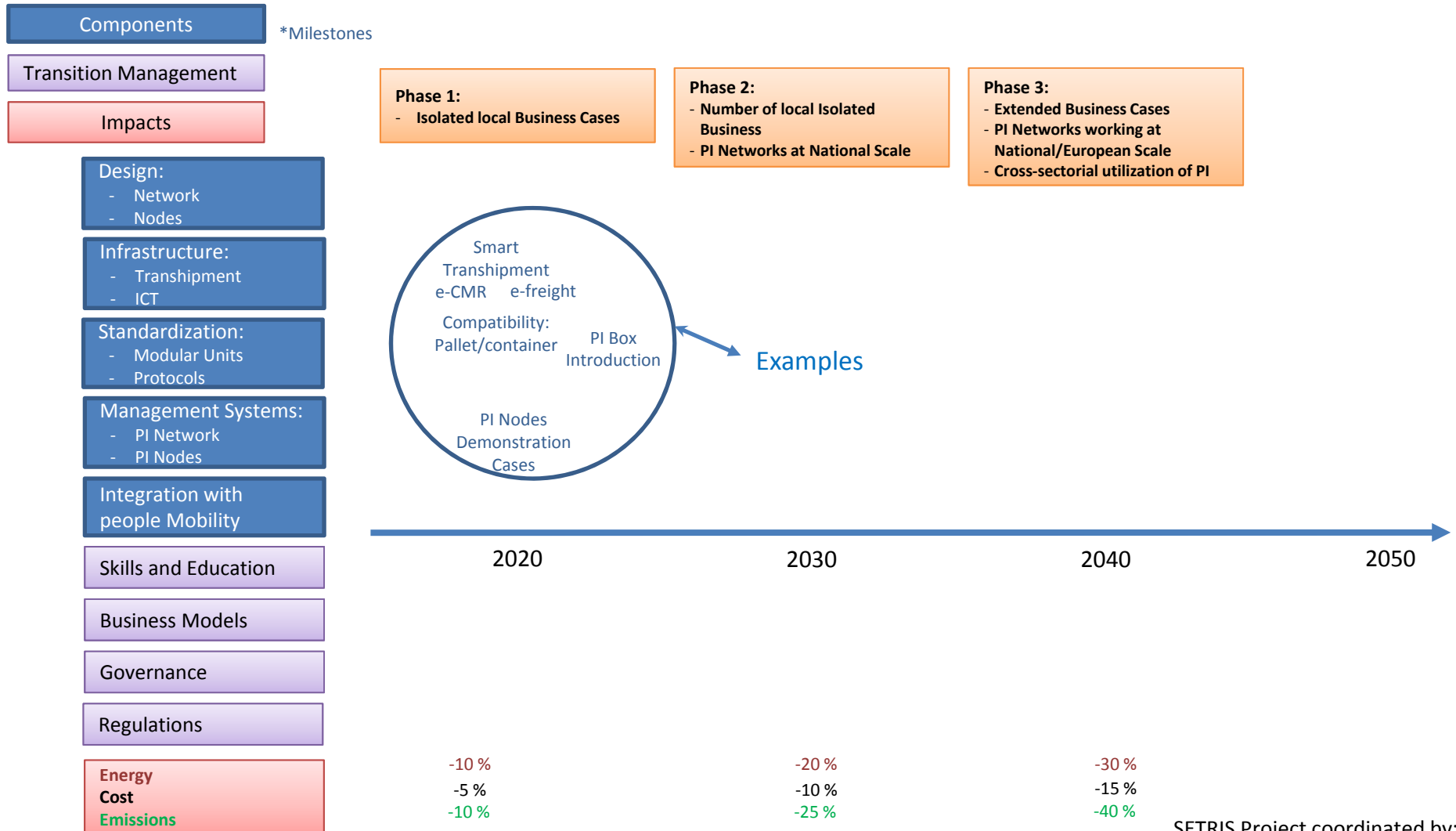
**Roadmapping Our Way Toward Achieving The Physical Internet
Vision (room 222).**

Your input and ideas are key!!!

Survey:

http://www.etp-logistics.eu/?page_id=849

Physical Internet Roadmap Draft Structure



Physical Internet Roadmap Additional Aspects included

Barriers:

- ✓ New paradigm will leave winners and losers → **Conservative position in the sector.**
- ✓ **Data Sharing and Cyber Security.**
- ✓ **Uncertainty on governance models.**
- ✓ **Role of Government's and their control over PI.**
- ✓ **Financing of required Infrastructure**

Triggers and Enabler:

- ✓ **Societal push on environmental, congestion, energy challenges**
- ✓ **Digitalization**
- ✓ **Demonstration of Strong Business Cases.**
- ✓ **Easy Life:** Robust processes, increase resiliency flexibility, schedule and execution.
- ✓ **Reconciliation of people needs vs Sustainability** → Instant consumption vs efficiency and emissions. Not anymore a trade of with PI.
- ✓ Increased **collaboration** and social economy: crowdsourcing.
- ✓ New sources of **market competition** may promote fast implementation.
- ✓ Proper **communication** of the benefits of Physical Internet concept.
- ✓ **Endorsement by authorities.**
- ✓ **Current public investments** supporting PI leveraging tangible benefits: CEF, GALILEO, IoT, ITS and savings in future investments due to better asset utilization

Infrastructure and Investments:

- ✓ Infrastructure paid by public: **Connecting Europe Facility (EU), Urban Consolidation Centres (Cities)**
- ✓ **Interfaces and Standards** need to be built by Private, also some IT infrastructure.
- ✓ **Users paying per use**
- ✓ **Public Investment monitoring**
- ✓ **Intermodal hubs organization and Standardization**

Mechanisms:

- ✓ **Public-private partnerships.**
- ✓ **Private Business Cases demonstrating value to public.**

Remaining Questions:

- ✓ **Could Galileo be used?**
- ✓ **Role of military and environmental policy?**
- ✓ **Do we have the right TEN-T network relevance/ sufficiency**

Examples other sectors and rudimentary PI:

- **Travel booking: flights, hotels (Amadeus)**
- **Telecommunication Services.**
- **Energy Network & Utilities**
- **Mobility as a Service.**
- **Pay per use warehouses: ES3**
- **Postal Sector.**
- **Collaborative Routing Centers**
- **Groupage networks**
- **Pallet Express Networks.**

Survey:

Chapter 1: **Components & Technical developments needed to achieve PI implementation**

Chapter 2: **Transition Management: business models, regulations and governance**

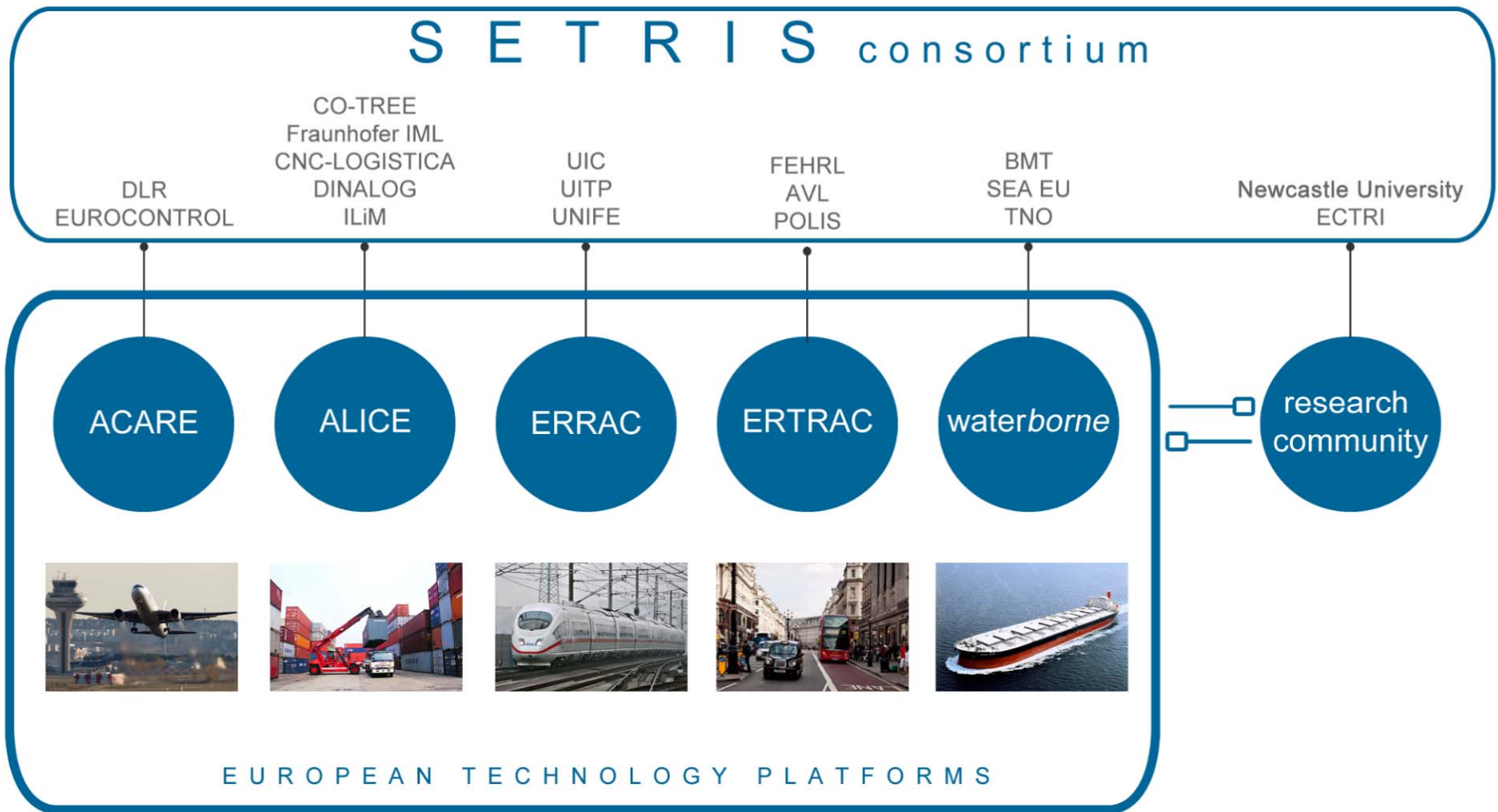
Chapter 3: **Expected Impacts of Physical Internet realization**

Chapter 4: **Barriers, Opportunities/Triggers and Infrastructural Investments for PI**

Please respond on-line through the link:

http://www.etp-logistics.eu/?page_id=849

The survey is also available in word format for your convenience!!!



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Research and Innovation roadmap on the Physical Internet

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