

Megaregions: 21st-Century Way of Understanding 21st Century Issues Challenges

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Megaregions

Megaregions.....

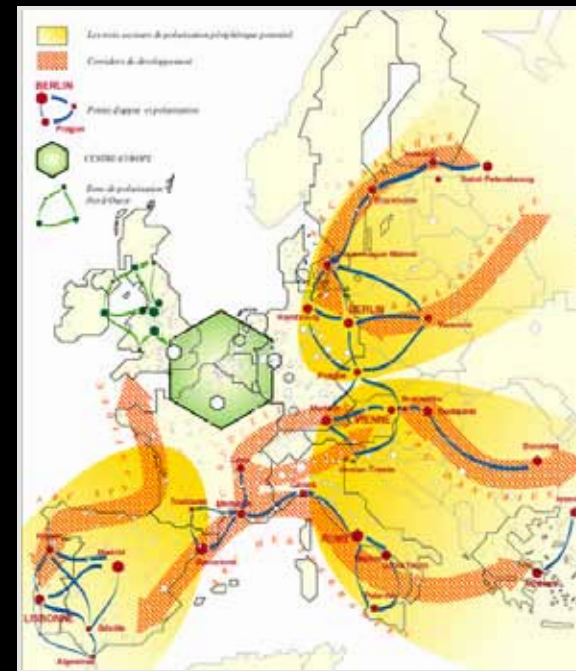
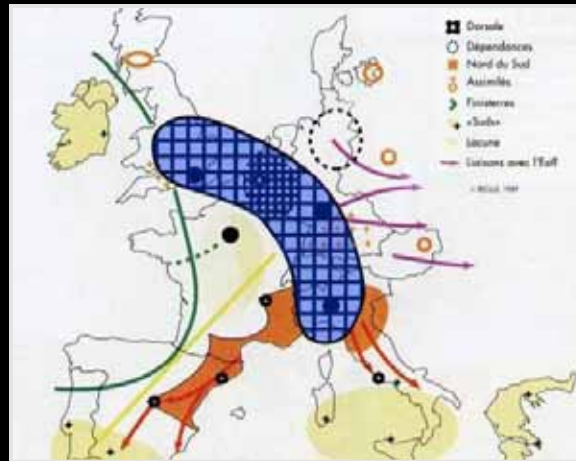
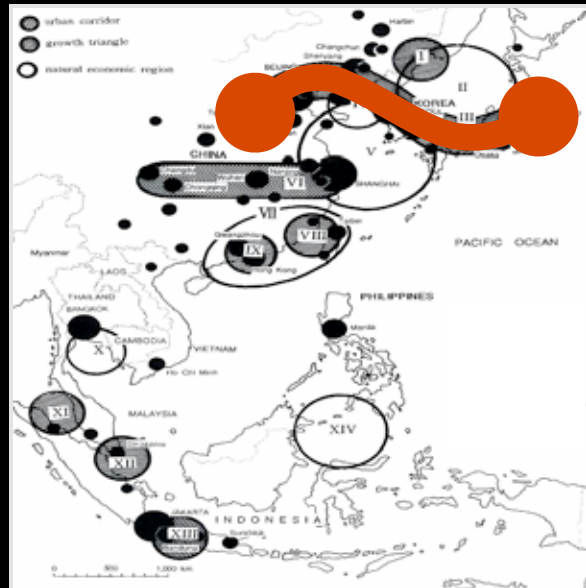
Networks of metropolitan centers and their surrounding areas, connected by existing environmental, economic and infrastructure relationships.

UN report: World's Biggest Cities Merging into 'Mega-Regions'



The world's first mega-city, comprised of Hong Kong, Shenzhen and Guangzhou, home to about 120 million people. Photograph: Nasa

Megaregions- Overview



Global Precedent

BESETO Corridor
[Beijing, Seoul, Tokyo]
100 million
Inhabitants
112 cities each
with population of
over 200,000
1,500 kilometer
strip

Sources: presentation by Sang-Chuel Choe, Seoul National University, United Nations Industrial Development Organization Conference, July 2005; Ingérop, Elaboration of a long term polycentric vision of the European space, December 2000; United Nations Secretariat, World Urbanization Prospects: The 1999 Revision.

Megaregions

**21st-century infrastructure is
called on to support individual,
local, regional, and global
mobility needs.**

Megaregions: 21st Century Planning

Megaregions represent a new context for American Transportation Planning

- ◆ funding
- ◆ policy and project selection
- ◆ implementation to address economic competitiveness and environmental issues

Megaregions capture economic and network interactions in a spatial context

New Directions

A healthy city (region/megaregion) is a place with:

- ☐ a high quality of life (places to walk in a safe environment, opportunities to interact with other citizens/neighbors)
- ☐ good jobs
- ☐ cultural amenities/cultural attractions – how we perpetuate society
- ☐ natural assets and resources, from parks to ports.

Megaregions

“The neighborhood is a critical building block for a city, cities are now the building blocks for megaregions which in turn are the new economic unit in world markets.”

Ross, Catherine. Megaregions: Planning for Global Competitiveness, Island Press, 2009

Megaregions: 21st Century Planning

By 2050, the U.S. population will exceed 400 million. More than 70 percent of those people will probably reside in or live near one of 10 mega-regions scattered across the country.

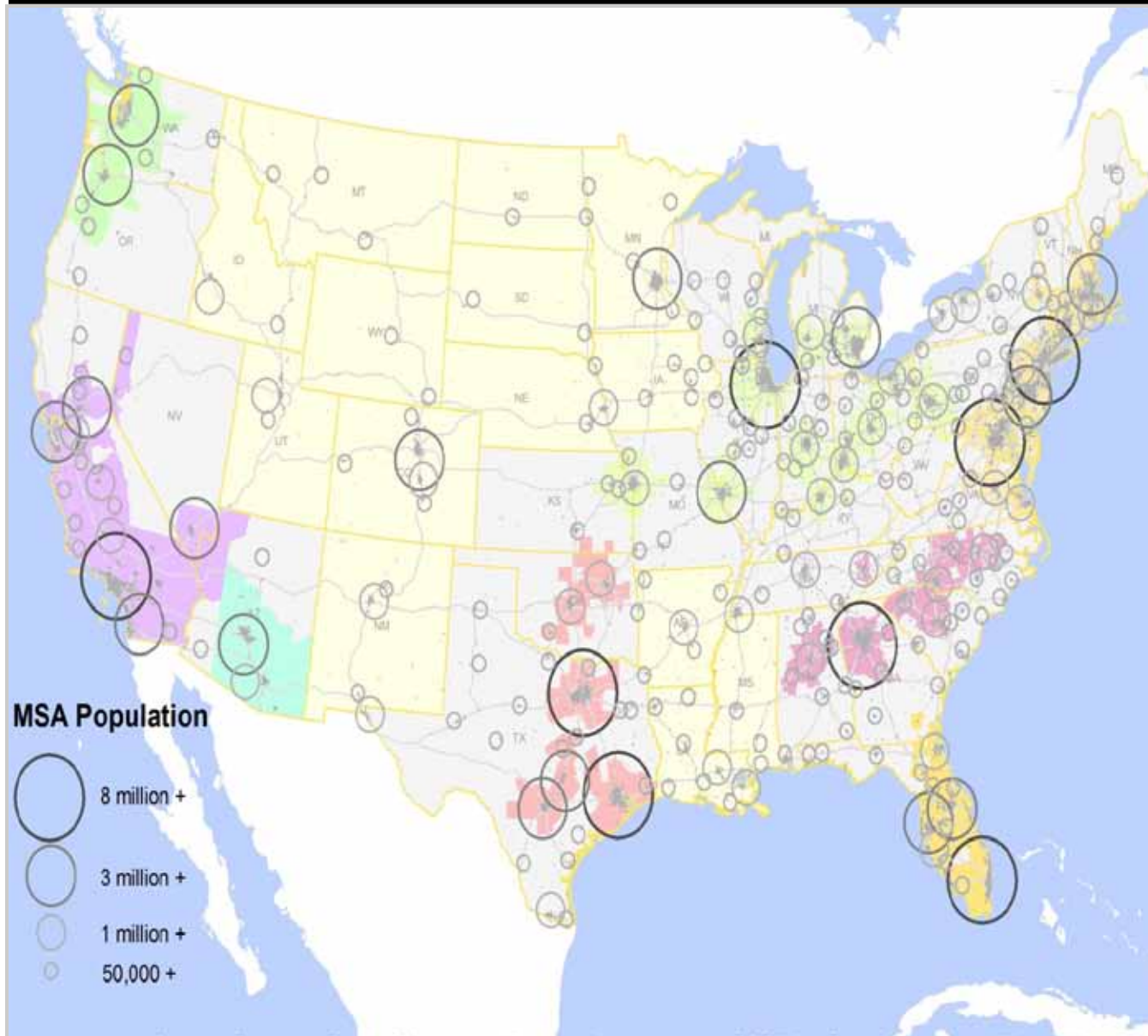
Cities Anchor Megaregions



Top 100
Metropolitan
Regions in
the US

Source: *Transportation, Invest in Our Future: A Vision for the 21st Century*, AASHTO, July 2007.

Megaregions- A National View



Megaregions in
2050

**8 -10 EMERGING
MEGAREGIONS
in the U.S.**

Estimated population of each megaregion by 2050 is more than 10 million

Megaregions	2007 (observed)	2040 (wood&poo le)	2050 (CQGRD)
Arizona	6,296,238	11,092,530	11,455,268
California	38,333,016	53,730,432	60,330,531
Cascadia	8,597,720	12,680,926	13,448,032
Central Plains	7,138,741	9,415,844	10,051,065
Florida	16,290,110	26,114,382	29,195,929
Midwest	52,245,174	62,291,088	66,186,390
Northeast	47,569,659	56,062,292	59,047,751
Piedmont	21,243,165	31,052,858	32,744,171
Texas Triangle	18,770,478	29,743,314	30,805,799
D.C.-Virginia	10,334,763	14,945,460	15,616,250

Source: Ross, Catherine,
**Delineating Existing and
Emerging Megaregions, July,
2009**

**Funded by the Federal
Highway Administration,
USDOT**

Megaregion Statistics

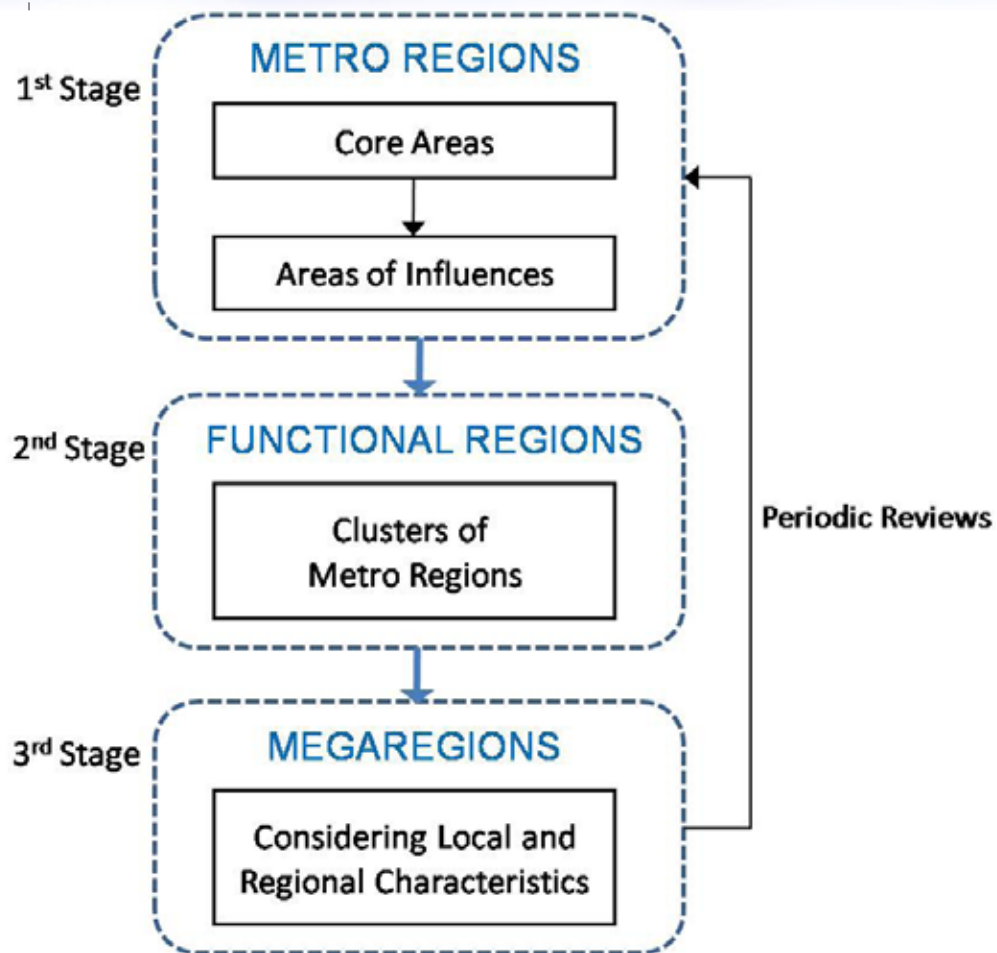
	Area	Population (2008)	Employment (2008)	GRP (2008)	CO ₂ emission (2002)	Fortune 500 companies' revenue (2008)	Patent (1999)
Megaregion	29.60%	76.54%	76.98%	81.47%	67.82%	92.07%	86.77%
Non- megaregion	70.40%	23.46%	23.02%	18.53%	32.18%	7.93%	13.23%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Ross, Catherine, **Delineating Existing and Emerging Megaregions**, July, 2009

Funded by the Federal Highway Administration, USDOT



3. Procedure of Delineating Megaregions



Metro Regions:
measuring centralit

measuring interactions

considering
physical
relationships

Megaregions: 21st Century Planning

Conceptual Framework for delineating Megaregions

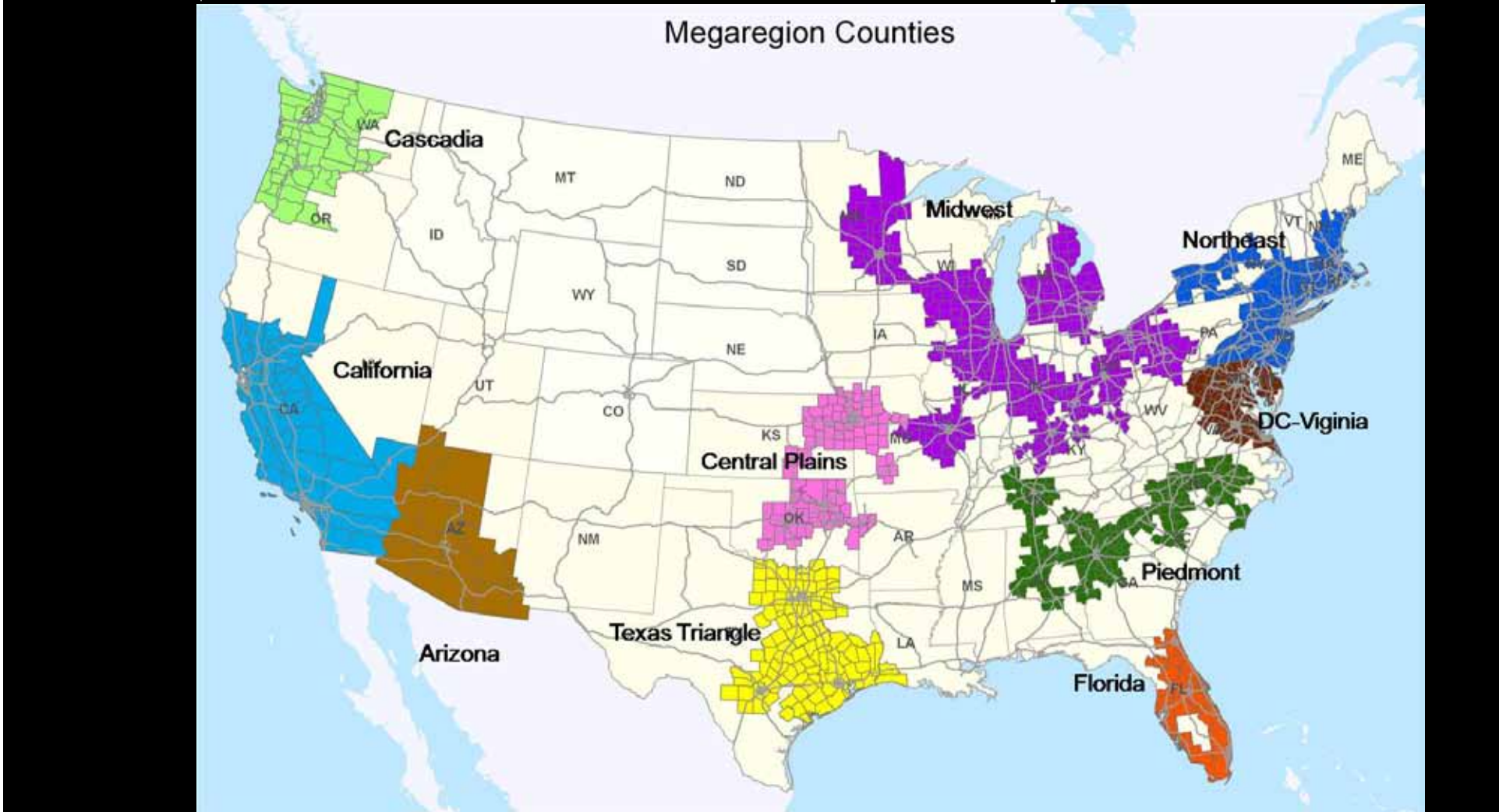
Structure of megaregions

- ◆ **Urban cores**

- highly agglomerated,
physically and functionally
interconnected ,
interacting with each other via certain
types of network

- ◆ **Areas of influences**

- support the functions of the core areas,
characterized by shared characteristics,
such as history, culture, and environmental
corridors

[illegible]

Megaregions: 21st Century Planning

21st Century requires

.....a web of seamless connectivity,
metropolitan centers **linked** by roads,
high-speed rail, commuter rail, water
resources ,alternative technologies,
regional economic initiatives,
connected international gateways a
more perfect union.

21st Century Megaregion and Infrastructure Planning

Creation of freight corridors and networks linked to international trading opportunities and partners with expanded rail and transit

Achieving greater sustainability through synchronizing transportation policies with policies for housing, land use, energy, the economy and the environment.

Implications for Future Development: Facilitating Urban Redevelopment

About 63% of the proposed mileage for High Speed Rail (HSR) service in the United States is included in HSR corridors that cross state lines.

Foreword by Richard Florida

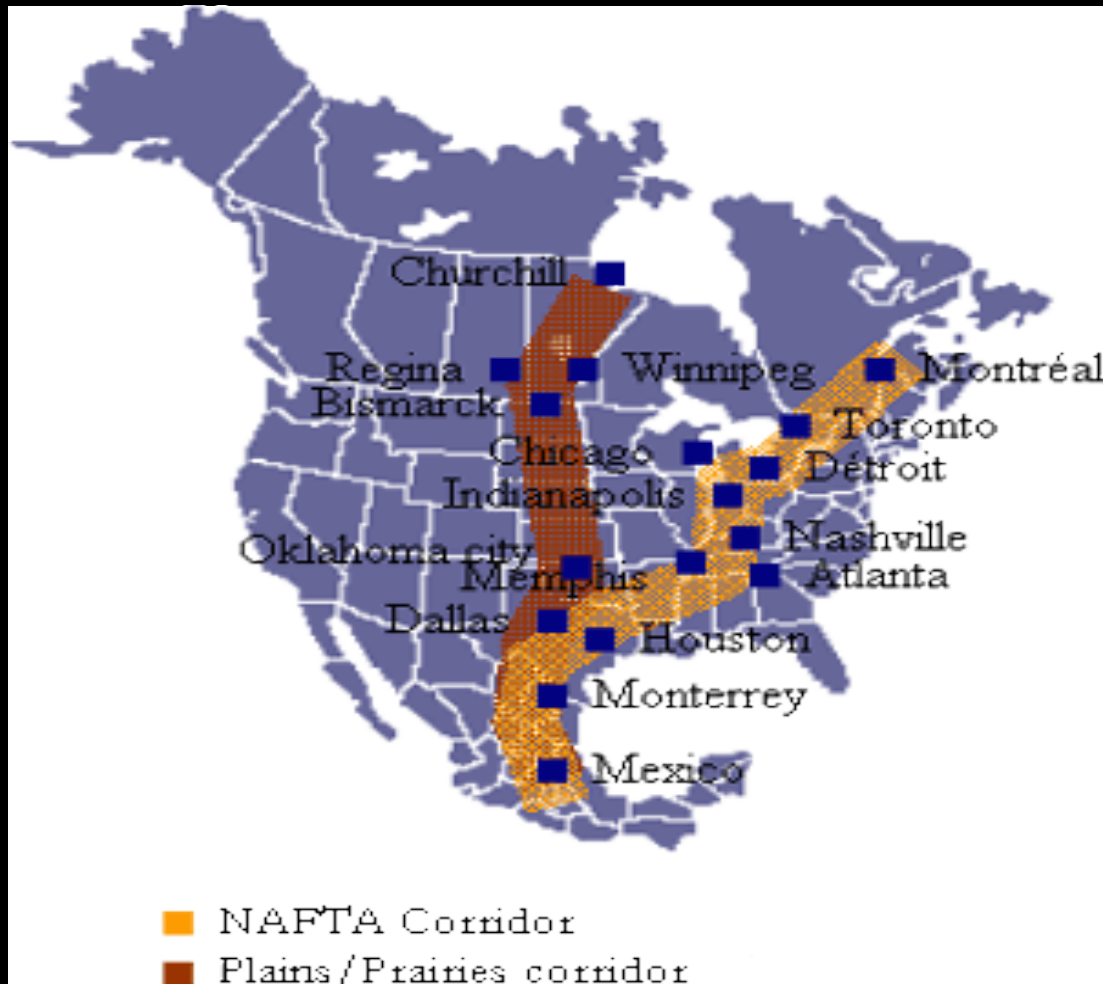
MEGAREGIONS

Planning for Global Competitiveness



Edited by Catherine L. Ross

Mobility in the Megaregion



Trade Corridors

- Production
- Transformation
- Access
- Link infrastructure investment with economic growth

Source: FINA-Nafi <http://www.fina-nafi.org/eng/integ/corridors.asp?>

What is Sustainability

Mathis Wackernagel
stated this sustainability
goal succinctly as,

*“Sustainability is
securing peoples
quality of life within the
means of nature.”*

Piedmont Alliance for Quality Growth

Piedmont Alliance for Quality Growth

- MOU
- Implementation Focus
- WET
(Water,Energy,Transportation)

Climate Change

Approximately 80% of the world's carbon emissions are produced in urbanized area, therefore megaregions can have significant impact on carbon emissions by:

- Encouraging land-use patterns that contribute to higher density**
- Coordination of gasoline and transport prices**
- Implement megaregion freight transport planning**
- Adapt existing and new transportation infrastructure to more extreme climate events at the level of the megaregion.**

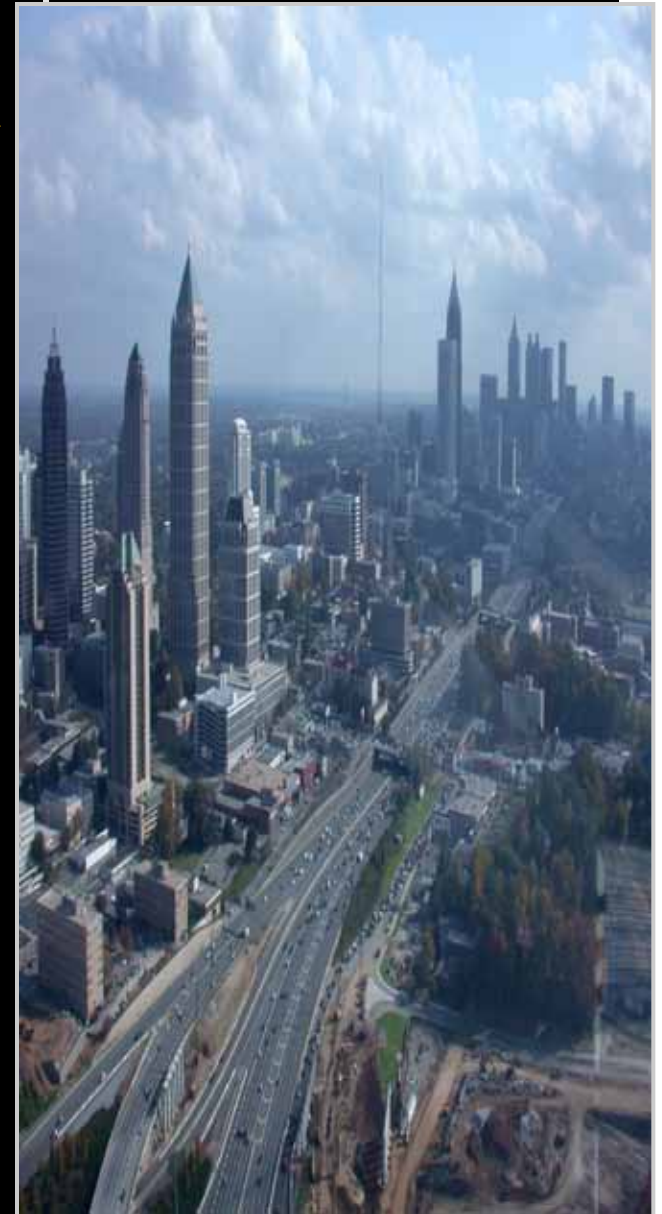
Universities & Megaregions

- ❑ Interactions Enhanced between all universities
- ❑ Greater University-industry cooperation has positive impact on regional economy.
- ❑ More venture capital investments needed in R&D.

21st Century Megaregion and Infrastructure Planning

Identify infrastructure and projects of national significance critical to our economy and global competitiveness. They are:

- ❑ Intercity and international commerce (port access, access to intermodal facilities, etc.)**
- ❑ National defense**
- ❑ National Standards for (air quality, safety, security)**
- ❑ Preservation of existing “national” investments**
- ❑ Diversify modal investments linked to enhanced economic productivity**

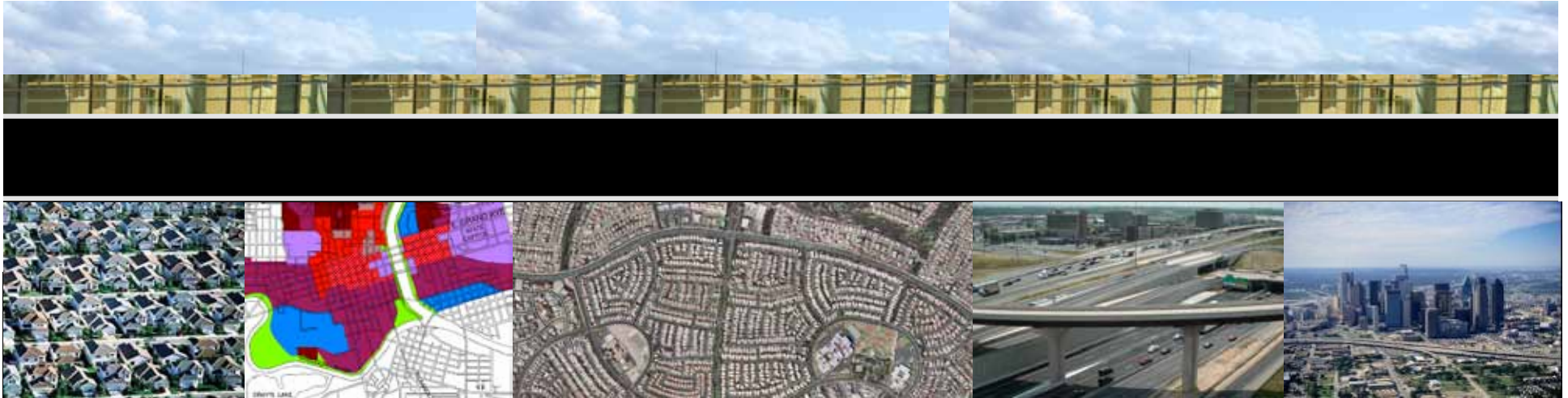


21st Century Megaregion and Infrastructure Planning

Identify infrastructure and projects of national significance critical to our economy and global competitiveness. They are:

- ☐ **Coordinate transportation, housing, energy and land use policies**
- ☐ **Assuring National and international connectivity**
- ☐ **Secure economic competitiveness (megaregions)**
- ☐ **Health**
- ☐ **Security**
- ☐ **New technologies**
- ☐ **Supra-regional coordination**
- ☐ **Develop Global Freight System**





Megaregions: A 21st-Century Approach to 21st century challenges

Thank You

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SOURCES: Christian Science Monitor; City of Des Moines; The Reinforced Earth Company; Google; USA Today.



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