



# Inspiring Innovation

## *A Strategy for Economic Recovery*

**Egils Milbergs**

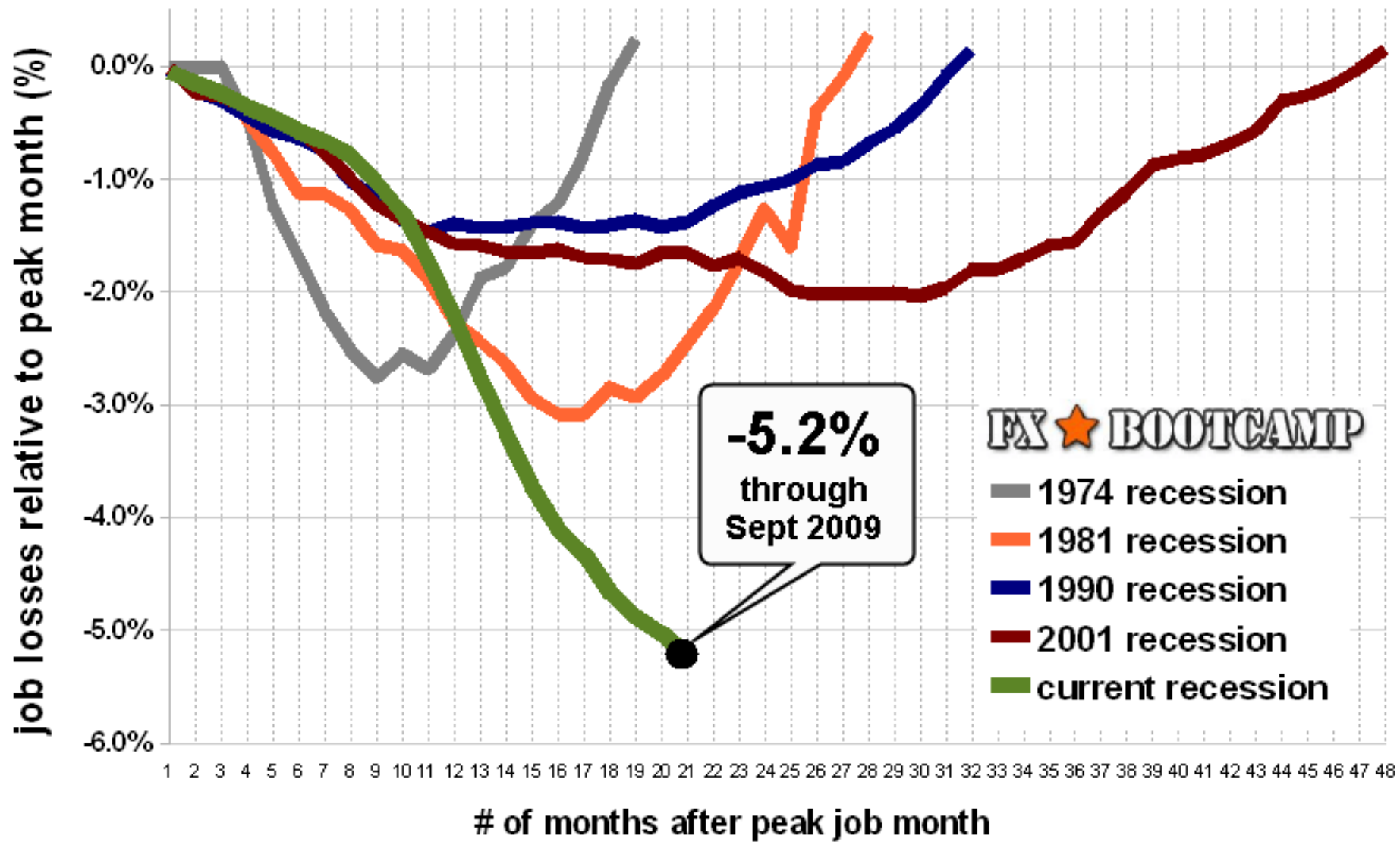
Washington Economic Development Commission

December 3, 2009

Senate Committee for  
Economic Development, Trade and Innovation  
Olympia, Washington

V.1.3

# U.S. Job Losses in Recent Recessions



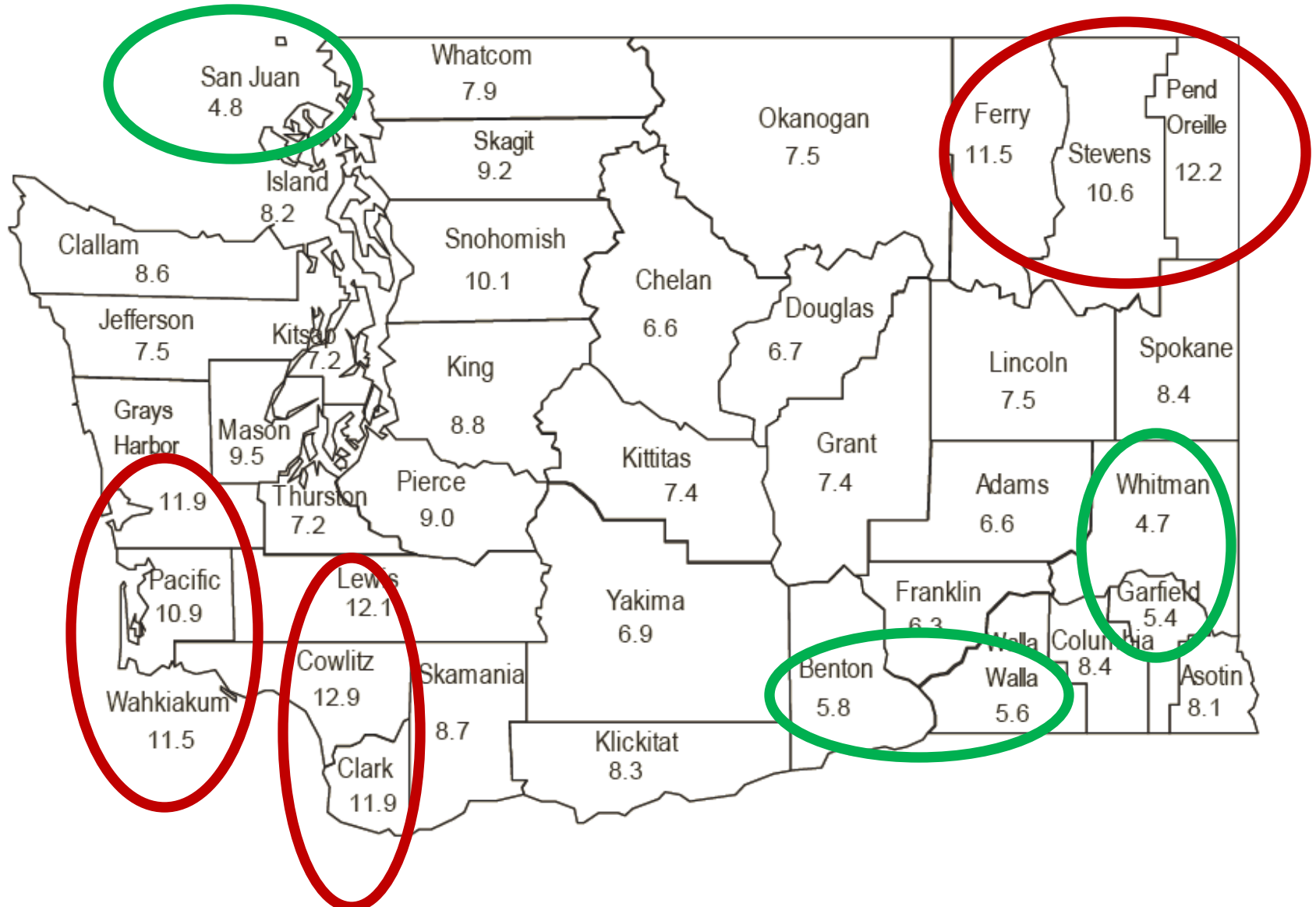
**FX ★ BOOTCAMP**

- 1974 recession
- 1981 recession
- 1990 recession
- 2001 recession
- current recession

Source: U.S. Labor Department

FxBootcamp.com

# Geography of Unemployment(Sept. NSA)



# Innovation is key to economic recovery

*Over half of Fortune 500 and just under half of 2008 Inc. list began during a recession or bear market.*

Dane Stangler, Kauffman Foundation

**2000s**  
Advantage is Innovation  
Strategy is  
“Make something new”

**1980s & 1990s**  
Advantage is Quality  
Strategy is  
“Make it Better”

**1960s & 1970s**  
Advantage is Cost  
Strategy is  
“Make it Cheaper”

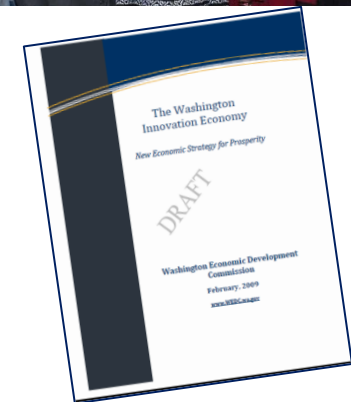
*There is no better time like a downturn to innovate.*

# The Commission's Ten Year Vision

*We should not fear to lead*



**Make Washington State the most attractive, creative and fertile investment environment for innovation in the world.**



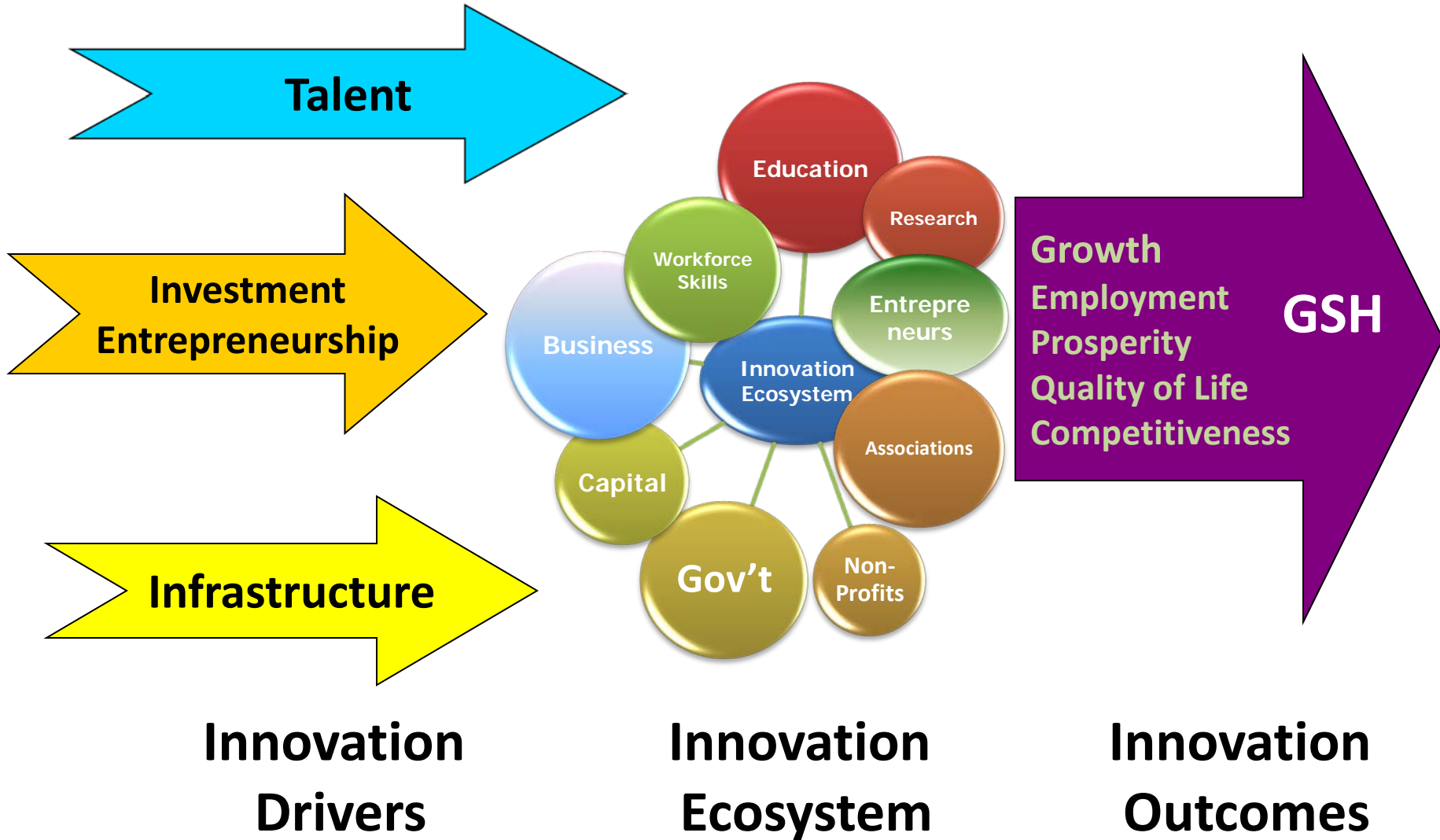
*..., we can't rest on our laurels, so let's commit today to grooming a workforce and leaders who are agile, creative, and embrace innovation.*

*Gov. Chris Gregoire  
March 10, 2009*

*We must look over the horizon and prepare for the new economy that will emerge when this recession passes.*

*Commerce Secretary Gary Locke  
March 18, 2009*

# Innovation Policy Framework



# An opportunity to innovate: Unprecedented global recovery underway

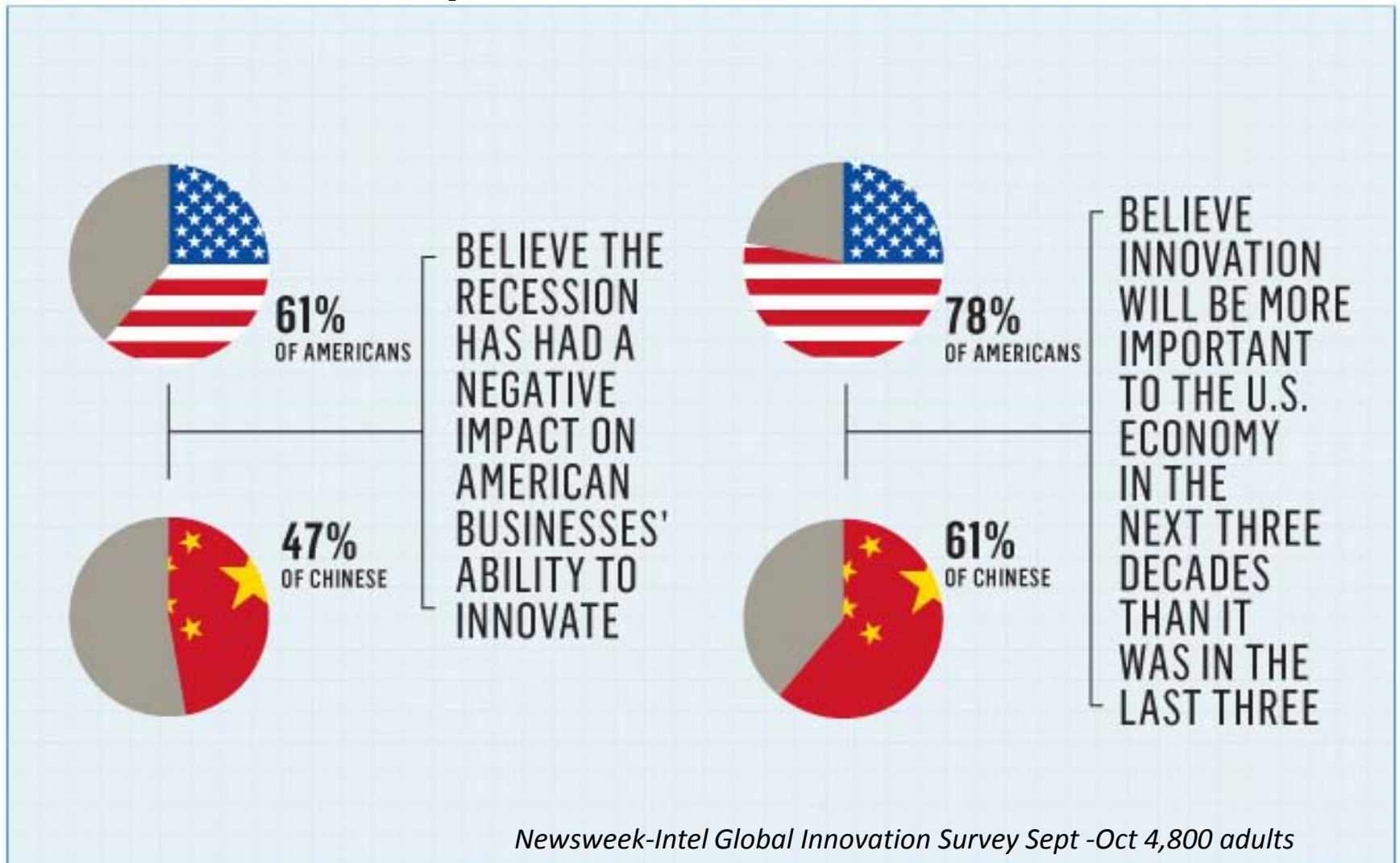
These economies represent 32% of global GDP.

The US is 25% of global GDP

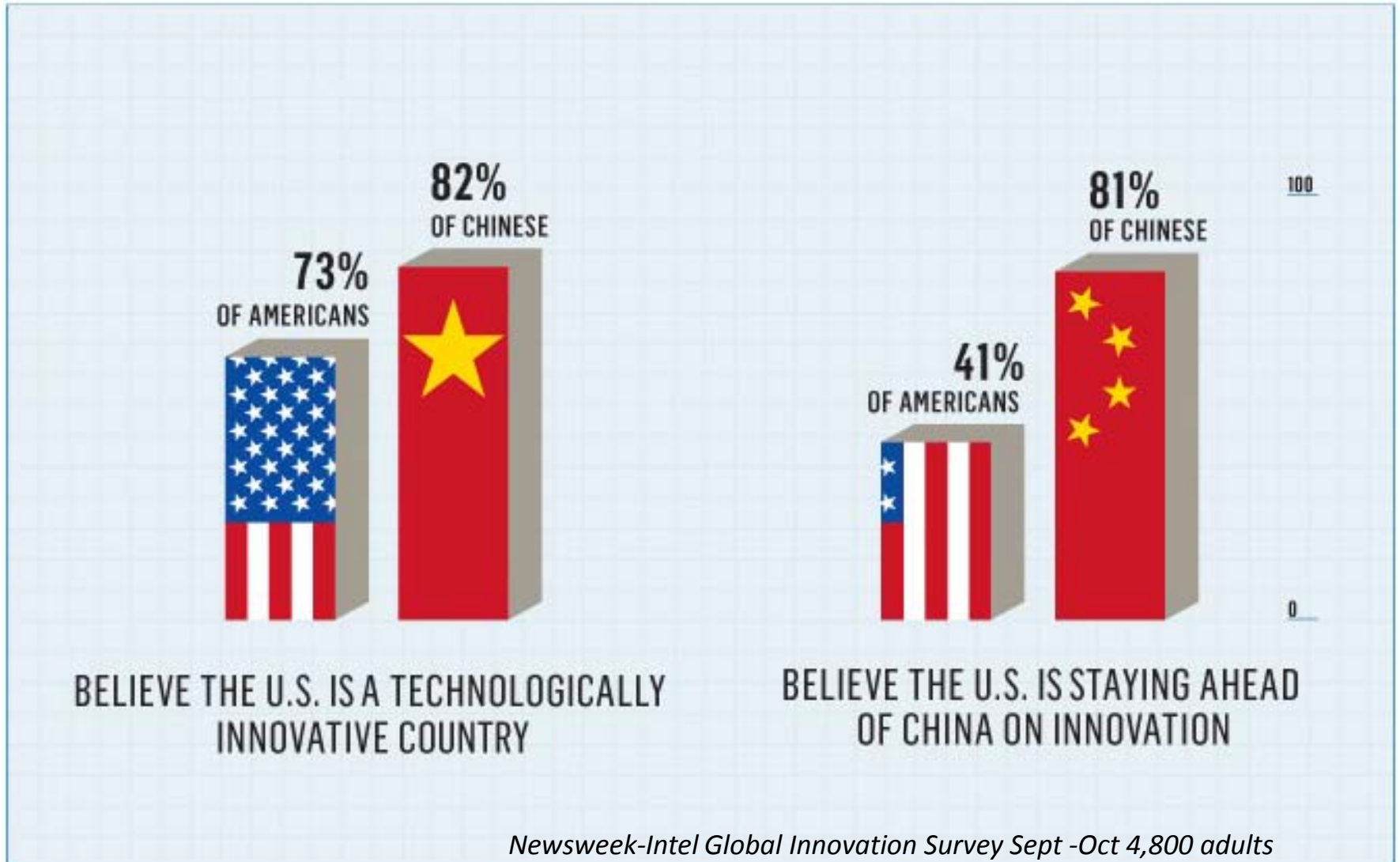
|               | GDP share | Q/Q, SAAR % |         |
|---------------|-----------|-------------|---------|
|               |           | 2009 Q1     | 2009 Q2 |
| Japan         | 8.0%      | -14.2       | 3.7     |
| China         | 6.2%      | 5.6         | 16.0    |
| Germany       | 6.0%      | -13.4       | 1.3     |
| France        | 4.7%      | -5.7        | 1.2     |
| India         | 2.0%      | 7.0         | 6.5     |
| Korea         | 1.9%      | 0.5         | 9.7     |
| Indonesia     | 0.8%      | 3.7         | 5.3     |
| Taiwan        | 0.7%      | -3.2        | 9.1     |
| Thailand      | 0.4%      | -7.2        | 9.6     |
| Hong Kong SAR | 0.4%      | -14.7       | 13.8    |
| Malaysia      | 0.3%      | -17.7       | 13.2    |
| Singapore     | 0.3%      | -12.2       | 20.7    |
| Philippines   | 0.3%      | -7.1        | 11.0    |

Source: IMF, ERFC

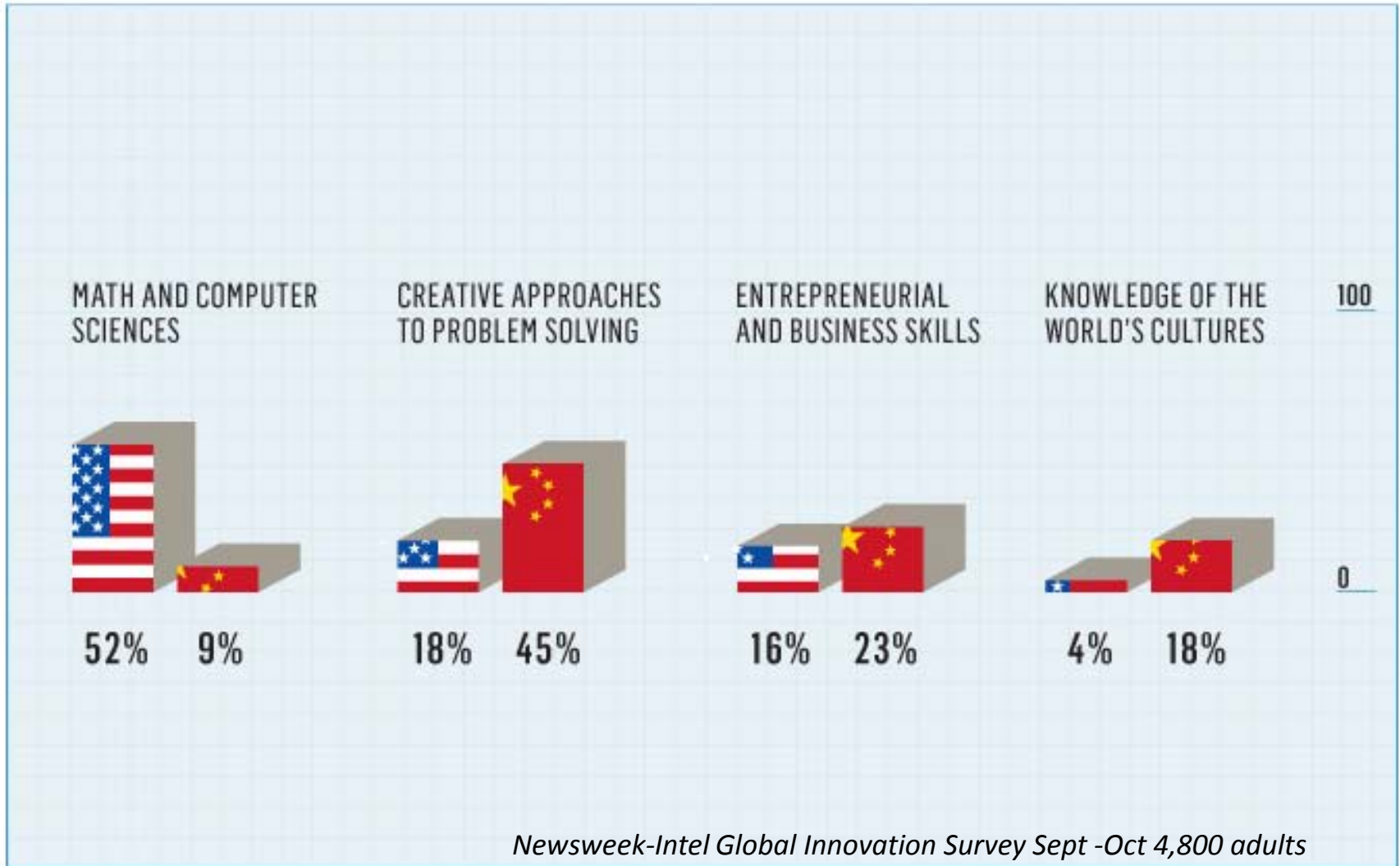
# Despite recession innovation is more important than ever



# Chinese more bullish on US Innovation



# Parents disagree about skills to drive innovation

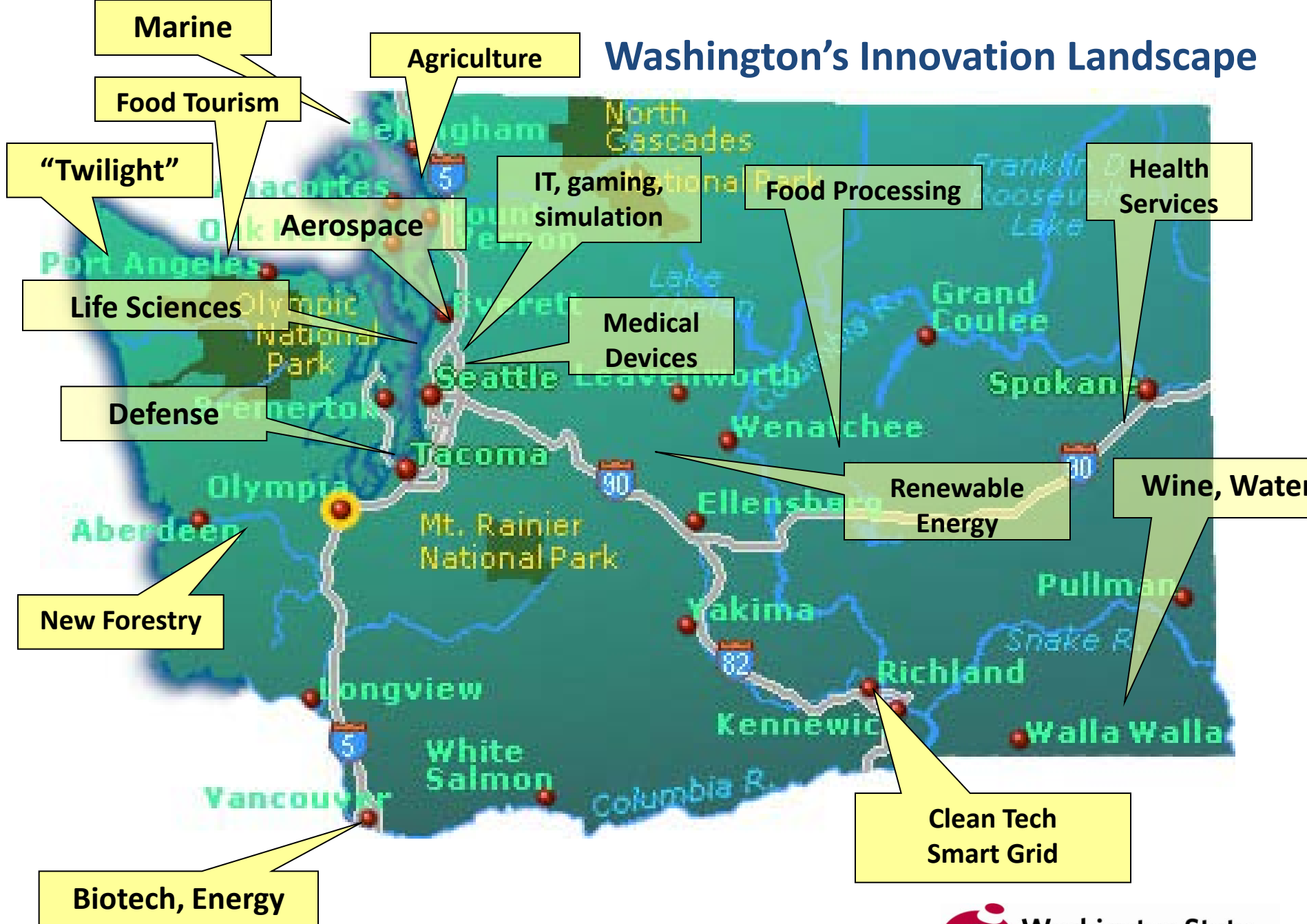


# New Model for Economic Development

| <b>Traditional Model</b>         | <b>Innovation Driven Model</b>                            |
|----------------------------------|---|
| Attract and retain companies     | Invest in talent, ideas and infrastructure                |
| Jobs                             | Quality of jobs, per capita incomes                       |
| Lowest cost of business inputs   | Higher value inputs, increasing productivity and outcomes |
| Top down economic development    | Bottom-up and organic growth                              |
| Competing regions: zero sum game | Collaborating regions: value creation                     |
| Closed linear innovation system  | Open innovation ecosystem                                 |
| Single disciplines, functions    | Multiple disciplines, integration                         |
| Locally linked clusters          | Globally linked clusters                                  |



# Washington's Innovation Landscape



# Talent Recommendations

- Build a world class K-99 pipeline: K-12, community college, technical schools, higher education and life-long learning
- Align learning methodologies and resources to business demand
- Coordinate economic and workforce development programs
- Ensure financial capacity for education

# Investment and Entrepreneurship Recommendations

- Bridge the “valley of death” through redesign of technology transfer system for more market pull
- Compete robustly for federal R&D funds in emerging growth sectors.
- Invest in promising entrepreneurial science and technology talent (e.g. STARS)
- Strengthen linkages in innovation partnership zones with operational funds
- Increase capital access, especially for high impact start-ups, small and medium sized business
- Create innovation awards and prizes

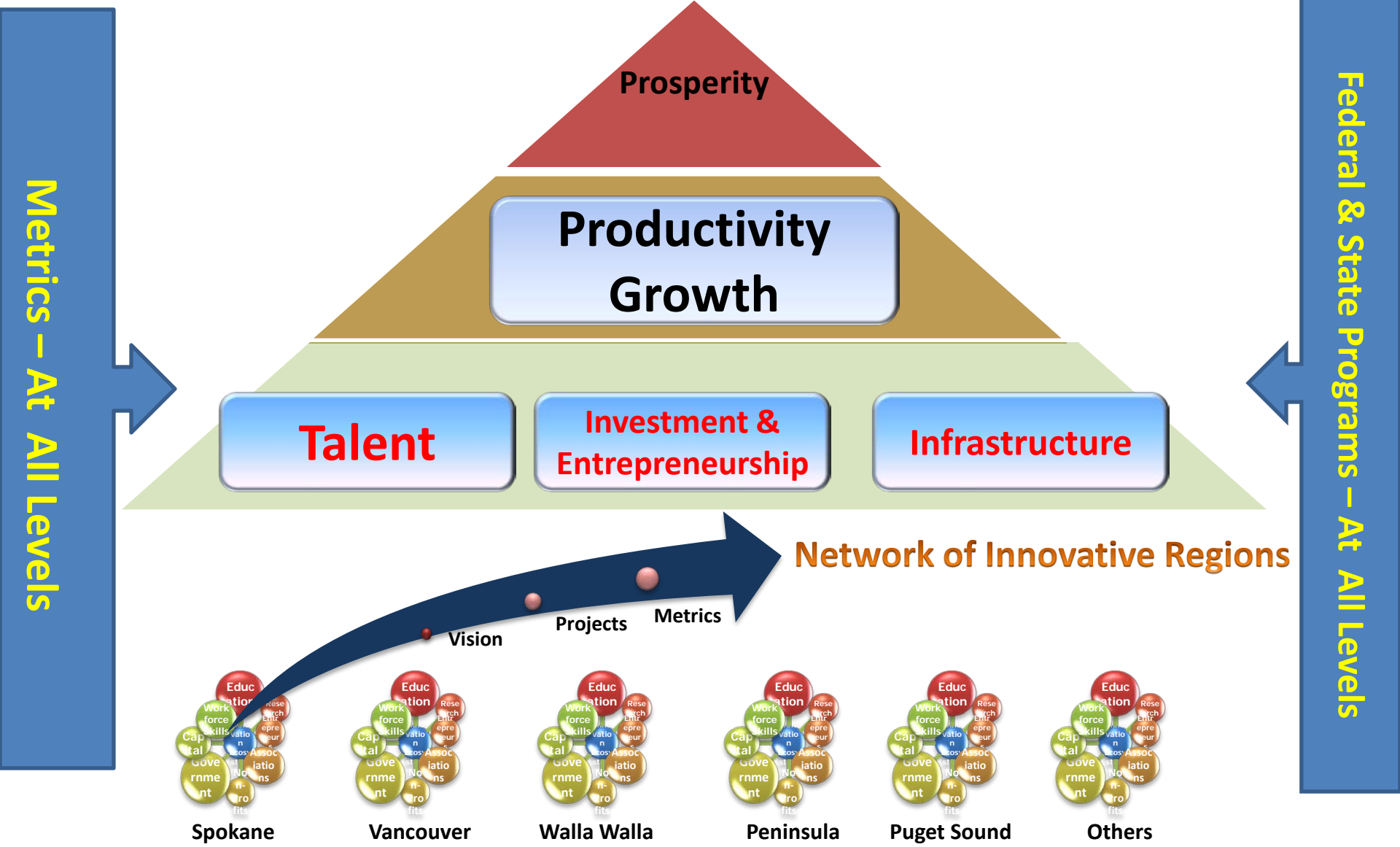
# Infrastructure Recommendations

- Deploy infrastructure of all types to support innovation
- Accelerate “smart” systems: electricity, water, wastewater, communications.
- Design less congested, efficient and greener freight mobility system.
- Reduce dependence on oil by deploying electric car charging infrastructure, smart grid and purchasing incentives
- Ensure access to next generation broadband and emerging applications

# Implementation Progress

- Innovation adopted as core mission of new Commerce Department
- Aligning innovation strategies across agencies, industry sectors, geographies and policy areas
- Optimizing ED program inventory
- Monitoring and benchmarking performance. Metrics Expert Panel and Commerce collaboration
- Energizing the edge: bottom up vision, projects and collaboration across regions. Roadmapping Forums and IPZs
- Innovation Economy Summit 2010
- Leveraging ARRA for innovation advantage
- Fostering culture of imagination, creativity and innovation in the Pacific Northwest

# Innovation Strategy





**The best way to predict the future is to invent it.**

allows investment in



## Talent

- Supply of middle skills
- S&E attainment
- Verbal, math, science proficiency
- Educational attainment
- R&D personnel
- Life long learning

## Investment

Entrepreneurship

- University R&D
- Private R&D intensity
- Intellectual property generated
- Company startup

Investment

- Equity investment
- Federal investment
- Foreign capital attracted

## Infrastructure

Transport

- Freight
- Information delivery
- Commuting

Business Climate

- Cost of business
- Business attractiveness

## Competitive Companies

- New products/services
- Productivity growth
- Export growth
- Market share
- High impact firms
- Profitability
- More investment

## Increased, Better Employment

- Income growth
- Employment
- Reduced income disparity

## Wealth Generated

- GDP by state
- Standard of living

## Increased State Revenue

- Aligned policy & investment
- State revenue generated

# Success Metrics for the Innovation Economy

Source: WEDC and Washington Technology Center

# Summary

- Nations, states and regions are giving innovation top level policy attention as the driver of future growth and jobs.
- No one factor independently leads to superior economic performance--rather it is the interaction of policies and processes that lead one region to outperform others.
- Many are well known—sound fiscal and monetary conditions, regulatory efficiency, flexible labor markets, quality of life, access to capital.
- What is new is the growing role of knowledge, human talent, collaborative relationships, entrepreneurship, speed of technology commercialization and importance of dynamic innovation ecosystems.
- **Implication:** An innovation strategy that is bottom up flexible, and leverages the diversity of the state's unique innovation capabilities.
- **Result:** Collectively come out of the “Great Recession” with high job creation potential and a stronger, competitive and prosperous state.