Script for GIS Utility Business Case Synthesis presentation

Slide 1
This presentation is a synthesis of the results of the GIS Utility Business Case contained in several lengthy documents. We begin with examples of business purposes that support the Governor's Principles. Supporting those principles requires that agencies at all levels of government collaborate. navigatOR enables that collaboration.

Slide 2
Governor Kulongoski's Economic Development Principle: The future of Oregon depends on its ability to strategically invest in human capital and infrastructure to facilitate the growth of business and jobs. We must increase our capacity to innovate and foster business development to create and retain enduring jobs for Oregonians.

Here we examine the role of on-line prospecting applications using geographic information. Is Oregon competitive?

Slide 3
Let's imagine a grocery business is looking for a distribution center to accommodate growth in the western U.S. Areas in several states are being considered, including the Willamette Valley in Oregon and the Treasure Valley in Idaho. A site location team is searching for an existing warehouse with more than 130,000 square feet and freezer space. They require good freeway access, a commercial airport within 10 miles and a railroad spur. Also important are community demographics to assess the local workforce. Initial screening is accomplished by Internet research. In order to be a serious contender, areas under consideration must support the initial on-line evaluation.

Oregon offers Oregon Prospector which supports searches for available property statewide. It's difficult to find, by search engine or through the state's website, and the functionality, although adequate, isn't apparent and might be overlooked. The data comes from commercially available sources for most parts of the state, rather than from up-to-date local government sources.

Similar but local online applications exist here and there. For instance, this one is for the communities in Douglas County. However, scope and functionality are limited. Moreover, many Oregon communities lack sufficient data, technology or expertise to replicate even this much, making inquiries hit or miss. Both applications lack an indicator of currency.

Given the obscurity of Oregon's property inventory search application and its less-flexible interface, the Willamette Valley might be in danger of being dropped from the company's list.

Slide 4
In contrast, Idaho has an easy-to-find statewide, online application that quickly enables the Treasure Valley to meet the company's initial screen.
(http://cl.idaho.gov/applications/propertylisting/default.aspx).

Our search results include the tax lot boundary over imagery, coupled with salient details about the property and building, the infrastructure context, contact information and a date stamp.

Today's toolkit for successful business recruitment demands current, comprehensive data, as well as an intuitive interface and multiple approaches to location discovery. To be consistently successful, Oregon must provide easy access to resources sufficient to capture the attention of desirable businesses. navigatOR will help realize the economic development principle by providing consistent, quality base data through a robust architecture to support a comprehensive map-based, searchable inventory of available properties.

Slide 5 - Transition

Slide 6
Let's look at a natural resources example. In 2001, the Klamath Basin experienced a severe drought due to the low snow fall the previous winter. For protection of endangered fish, irrigation water normally sent to farms in the basin was cut off. This action triggered anger toward federal agencies with responsibility for water and species management, spawned a series of demonstrations featured prominently in national news, and rekindled a national debate about saving endangered species versus providing livelihoods.

Slide 7
Governor Kulongoski's Liveability and the Environment Principle: Oregon's environment and its economic health are inextricably linked. We must enhance and protect our natural resources while also contributing to Oregon's economic growth through responsible infrastructure development.

Balancing rights to water--for industry, domestic use, agriculture, recreation and fisheries—is an increasingly significant challenge.

Slide 8
The Water Resources Department conducts the Klamath River Basin Adjudication process which establishes water rights. Thousands of claims have been submitted and must be mapped and then compared to tax lots. Without accurate, current, statewide digital tax lots, manual processes and approximations prevail, leading to inefficiencies of extra labor and over-notification, to name only two. More seriously, an affected landowner may not be notified, resulting in legal liability and extended proceedings costing more time and money. navigatOR helps minimize errors and maximize efficiencies.

Slide 9 - Transition

WILDFIRE RESPONSE
<<2.5 minutes>>

The Governor's Public Safety Principle: Public safety is essential to our citizens. We must hold criminals accountable for their actions, prevent crime and reduce recidivism. We must also provide for safe buildings and places of work, prevent fraud and abuse, and maintain the ability to prepare for and swiftly respond to emergencies to preserve life and property.

Wildfire is one of the main disasters we face here in Oregon. In 2002, we experienced one of the worst fire seasons on record. But the response to at least one of those fires was remarkably more successful, measured in lives and property saved, than any of the other major fires that season. The reason, according to the response crews and support personnel, was the availability of important geographic information and the ability to share and integrate that data quickly.

Slide 11
The Sheldon Ridge fire occurred in Wasco County just a few miles southwest of The Dalles.

Slide 12
Less than 200 acres in size when fire response began on July 24, 2002, within 24 hours, it exploded into a 6000-acre blaze that threatened to engulf more than a hundred homes. Many of these properties were at the end of long driveways with locked gates, making it difficult for fire crews to locate and get to them in time.

Slides 13, 14, 15
As it turned out, the Wasco County GIS manager had just completed several key data sets: a local roads file, an address point file, a locked gates file, and a wildfire water source file. These datasets were easily combined with the state roads, elevation, and aerial imagery files to provide exact locations of homes within the fire perimeter, plus information about locked gates and owner occupancy that was essential to rapid response.

Slide 16
Not a single life or home was lost in the Sheldon Ridge fire. But the local GIS data so crucial to fighting this fire didn't exist in the counties surrounding Wasco or in most other parts of Oregon. It still doesn't. If this fire had occurred 50 miles to the south, the results would have been much different.

Another wildfire-related incident had a tragically different outcome. In 2003, two people were killed in a helicopter crash while flying low, surveying for water sources. One was a long-time employee of ODF. If the data had existed, as it did in Wasco County, this flight would not have been necessary. And if data showing the location of the electrical lines they clipped had been available and shared with government agencies, they wouldn't have died.

Slide 17 - Transition

Slide 18

The Governor's Education and Workforce Development Principle: Children must be ready to learn when they enter school and the education they receive must prepare them for success at every stage, including college and the workforce. Communities and families should be engaged in supporting the success, safety, and well-being of all children. Oregon must also invest in

Important ways of realizing this goal are good planning and optimizing transportation services. Good planning can: Minimize overcrowding and lopsided enrollment. Get ahead of capital requirements. Discover kids' needs. And adapt facilities to new uses, such as adult training centers, based on changes in the community. This slide illustrates the system being developed for the Salem Keizer school district. navigatOR is designed to provide the current, consistent base data needed for systems like this to be developed in every part of the state.

Slides 19, 20, 21, 22
A less obvious approach is to reduce associated expenses. For instance, efficient use of transportation resources can significantly reduce expenditures. The savings can be redirected to the primary mission: Education. A good example comes from North Carolina, where the Department of Public Instruction wanted to manage school buses more efficiently. The result saved money and the environment!

Slide 23 – Transition

Slide 24

FOSTER KIDS AND METH
<<3 minutes>>

The Governor's Health and Basic Needs Principle: Oregon is a place where we value taking care of those who are the most vulnerable, including children, seniors and people with disabilities. All of us benefit and communities prosper when our citizens' basic health, food and shelter needs are met.

In a recent interview with OPB, Umatilla County Sheriff John Trumbo said, "Rarely have I served a search warrant on a meth house where there were not children present. Many times there are babies in diapers crawling through trash on dirty floors, inhaling the toxic fumes from the in-house production of meth by their parents. The future will bring on another epidemic of medical issues for those kids related to second-hand exposure to meth chemicals. And those innocent children were not given a choice."

Slides 25 and 26
Meth addiction and the related social problems for the children of meth addicts are hitting Oregon hard. Half the children removed from Oregon homes and placed in foster care come from meth-affected families. Oregon government agencies at all levels are involved in dealing with children's health and safety issues related to meth addiction.

Slide 27
This past year more than 13,000 children were in foster care in Oregon. On an average daily basis, there are over 8,000 children in foster care. This DHS map of Salem shows the deficiency of foster homes for one small area.

Slides 28 and 29
Historically, change of placement of the child, from the family home and between foster homes, has meant an almost automatic change of school. Yet for every school change, a child

experiences serious loss and suffers academically. The single most important thing that can be done to improve the educational outcomes for foster children is to ensure that their school placement remains stable.

The huge influx of children to the foster care system is a statewide problem, but the spatial data and information needed to manage it doesn't exist consistently across the state. Access to school attendance areas, bus routes, and locations of schools is available in a few urbanized areas, but not in most areas of the state and not to the government agencies that need it to manage this problem.

Slide 30
Furthermore, the data showing where meth arrests and meth house busts are being made, indicating the trends as the epidemic moves around the state and where the next foster care needs are likely to occur, are not mapped and shared between government agencies statewide.

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Slide 34
The Governor's Government Efficiency and Accountability Principle: State government must be a responsible steward of the public's money. This means we must work in a cooperative and coordinated manner with our partners in the private sector and with local government - counties, cities, and special districts. We serve the same constituency and they must know that our mutual goal is to provide them with superior customer service.

Better government involves:

Efficient Services
Accountability
Citizen Participation
Partnerships

Currently, there's a patchwork of data-rich and data-poor areas around the state, resulting in uneven and sometimes opaque operations. navigatOR provides avenues for improving stewardship of public monies and enhancing services delivered more quickly by providing all agencies access to consistent, current and comprehensive spatial data. The results are better decisions, greater efficiency, and higher accountability.

Slide 35
Other states have done this. Arkansas has implemented a GIS Utility similar to what we propose for Oregon.

- Innovative portal with clip, zip and ship, extensive formatting options and sophisticated architecture
- Governance consists of 12-member board established by legislation; supported by Coordinator and staff
- Diverse user community consisting of all levels of government and the private sector
- Stable funding established by legislature, with expenditures overseen by the Governor

Slide 36
Other states have similar aspects to their programs. Local and regional governments have also implemented outstanding examples of GIS utilities.

Slide 37
You may be wondering just exactly what is a GIS utility? It has a few essential components:
A common Framework of base data
The technology to manage and access that data
Partnerships for collaborative effort
All overseen by governance board and supported by a coordination team.

Slide 38
To best serve Oregon, navigatOR includes these critical components.

Slide 39
navigatOR supports these types of business activities
Field operations
Spatial modeling and analysis
Work and asset management
Geoprocessing/address data management
E-government and public information
Location-based services
Decision support and strategic planning

Slide 40
navigatOR is an enterprise approach:
- Much more than GIS—it involves a wide range of programs and business processes that are seamless across departments and jurisdictions
- Promotes sharing and wide use of information
- Focuses on data and technology to support organizations' missions and business
- Manages data as an asset
- Includes governance and organizational structure for sound coordination and operational management

Now to the business case.

Slide 41
This chart illustrates the capital requirements for each aspect of building navigatOR. You can see that data development is by far the largest investment of the $183 million cost over ten years.

Slide 42
A summary of the business case includes these highlights:

- Staff efficiency/productivity improvements with **annual** value over $80 million for state agencies and at least $100 million for local governments
- Opportunities for actual cost savings and revenue enhancement of well over $80 million over a ten-year period
- Greatly increased opportunities for securing outside funds for navigatOR development and related technology projects
- Tangible benefits in quality of service, enhanced emergency preparedness, information security, better management of the state's environment and infrastructure
- Support for state-regional-local collaboration and the extension of information technology capabilities to currently underserved jurisdictions
- Stimulus for economic activity and public-private partnerships.

Slide 43
Costs and benefits by fiscal year demonstrate benefit gains dwarfing costs as the development period progresses.

The line graph depicts this even more clearly.

The break-even point occurs in Year 3, after which benefits grow at an exponential rate while costs remain about the same.

Slide 44
You may be wondering how the benefits were calculated. First, we ascertained the total budget for each agency, then the amount of that budget spent on activities dependent on geographic information. You see examples here from the Oregon State Police and the Department of Business and Consumer Services. Personnel costs were carved out for those activities that rely on geographic information. Then, productivity gains were estimated after examining each agency's activities in more detail. A risk factor was applied to reflect uncertainties. The resulting figure is a conservative estimate of benefits and suggests that productivity gains equal to nearly one percent of total budget could be expected if navigatOR is fully implemented. This is a very conservative estimate, but the total size of the benefits over a ten year period, $1.2B, is still substantial.

Given the compelling business case, we put together a detailed implementation plan, an overview of which is presented next.

Slide 45
We are now wrapping up Phase 1 which provides the foundation for moving navigatOR forward.

Slide 46
Phase 2 focuses on laying the institutional and technical foundation of navigatOR, along with development of the highest priority data.

Slide 47

Phase 3 establishes the governing board and at least one regional center. High-priority data development will be completed, and stewards will maintain it according to agreement. Enhancements to data management applications and services are part of this phase as well.

Slide 48
Institutions and practices mature during Phase 4, while data development efforts focus on moderate-priority data. The rest of the Regional Centers will begin operations, and agency business practices continue to be refined and improved.

Slide 49
Phase 5 concentrates on continuing existing institutions and practices while widening the circle of participants. System upgrades and enhanced services will be necessary to successfully serve the growing demand for navigatOR.

Slide 50

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We'll never solve the social, environmental, public safety, infrastructure, and economic problems of our times if we continue to act as individual agencies primarily concerned with the deconstructed pieces of the problem assigned to our agency. navigatOR provides the information and tools that enable agencies at every level of government to coordinate their activities and collaborate in pursuit of real success.

Slide 51
navigatOR isn't about convincing individual agencies to use more GIS technology within the silos at the state, county, city and federal level. And it's not about finding ways to create more workarounds to make up for the lack of information and to deal with the impediments to collaboration.

If we could focus our collective efforts among the federal, state, regional, and local governments on the problems Oregon faces, we could solve our shared problems instead of chipping away at them year after year.

What keeps us from solving them now? We're not working together in a coordinated, efficient manner, because the information we need to make decisions together, perform joint activities, and eliminate duplicated efforts between levels of government doesn't exist.

Slide 52
Why do we need to do this now? Government just doesn't have what it needs now to get the job done efficiently and effectively. The silo approach isn't very productive for developing and managing information about problems that cut across the silos. Solving

those problems requires complete, accurate, accessible, and updated information, shared among all agencies and levels of government.

navigatOR is consistent, statewide, standardized information and the technology to share and use it to solve problems as a government enterprise. It's about developing the information infrastructure that enables individual agencies to collaborate in solving shared problems.

Slide 53
These are the immediate next steps needed to bring this vision into reality.

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