

Broadband Investment

Daniel Holbrook, Broadband Manager

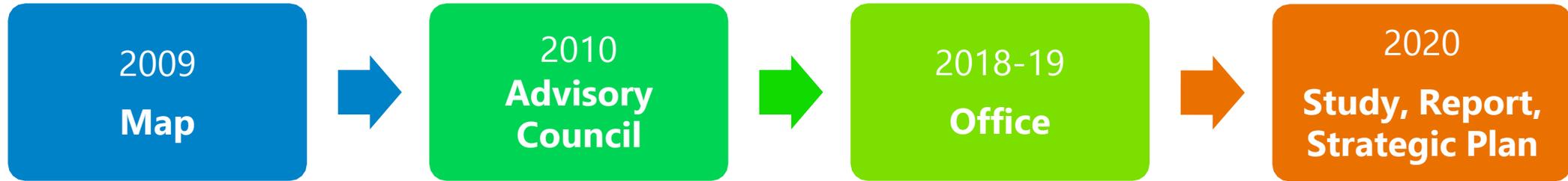
Oregon Broadband Office

April 21, 2021

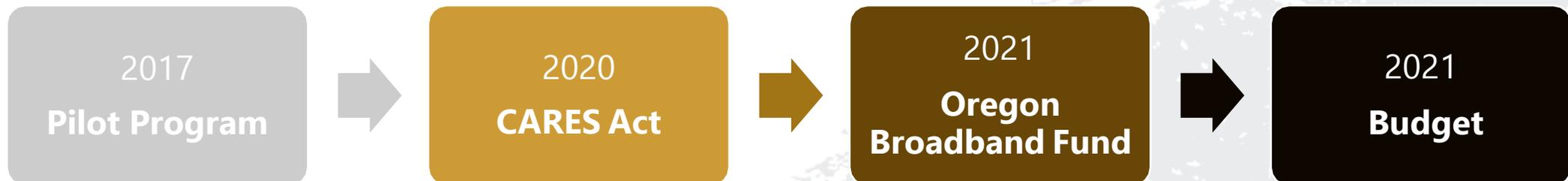


State Engagement - Foundation

Policy



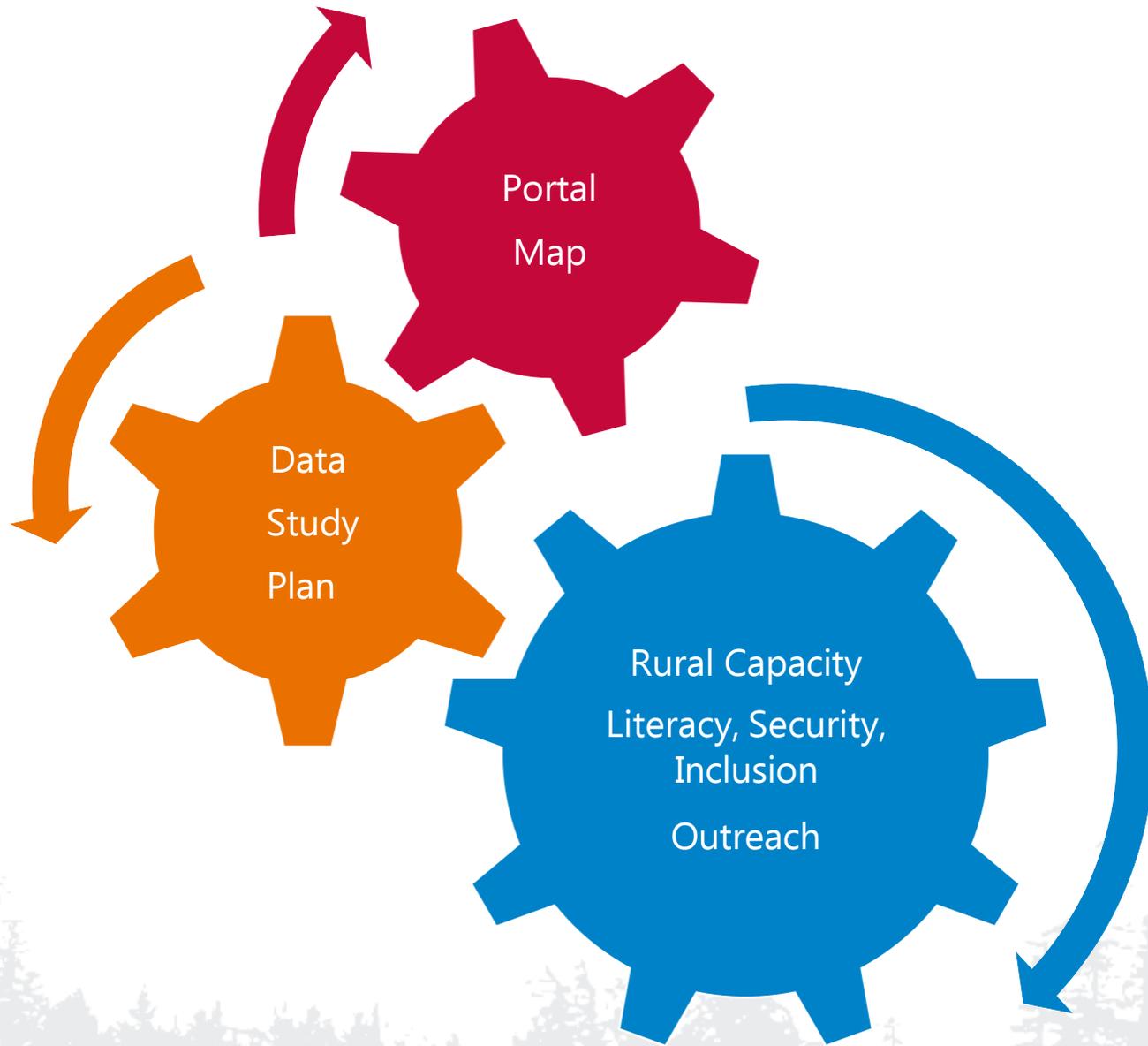
Funding



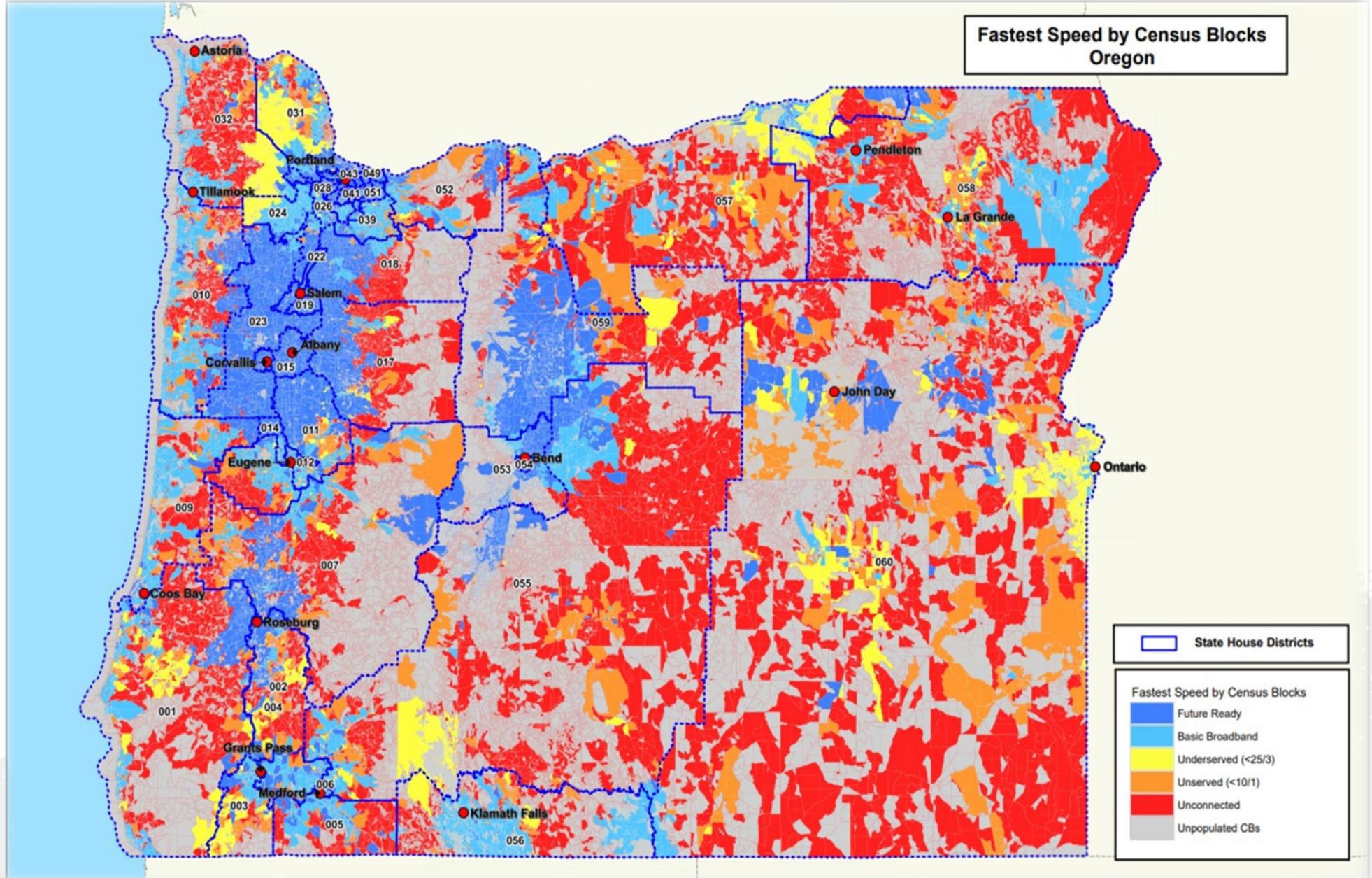
Broadband Strategy

Requirement:

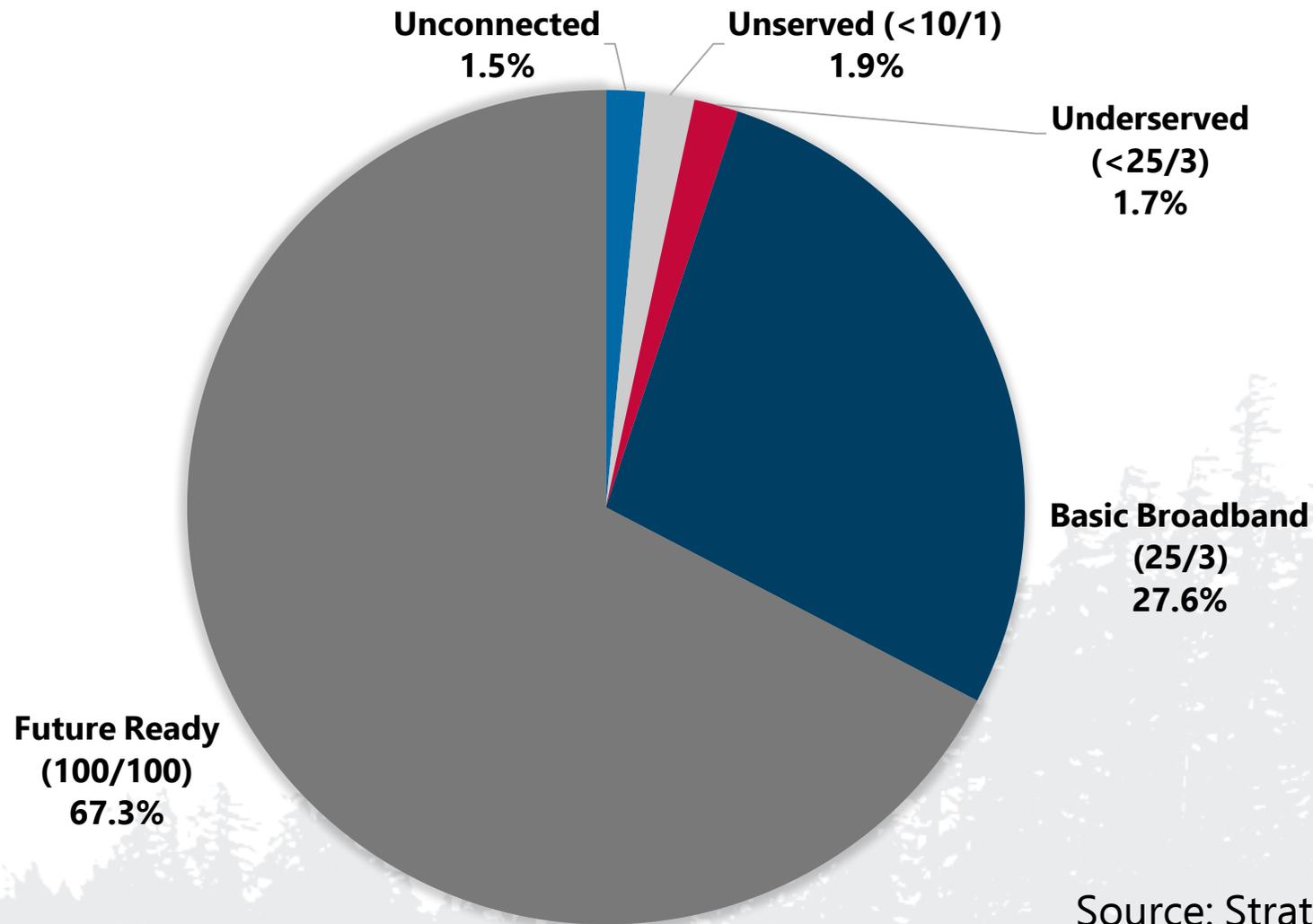
Office expansion to accomplish strategy



Digital Divide



Percent of Population by Speed Block

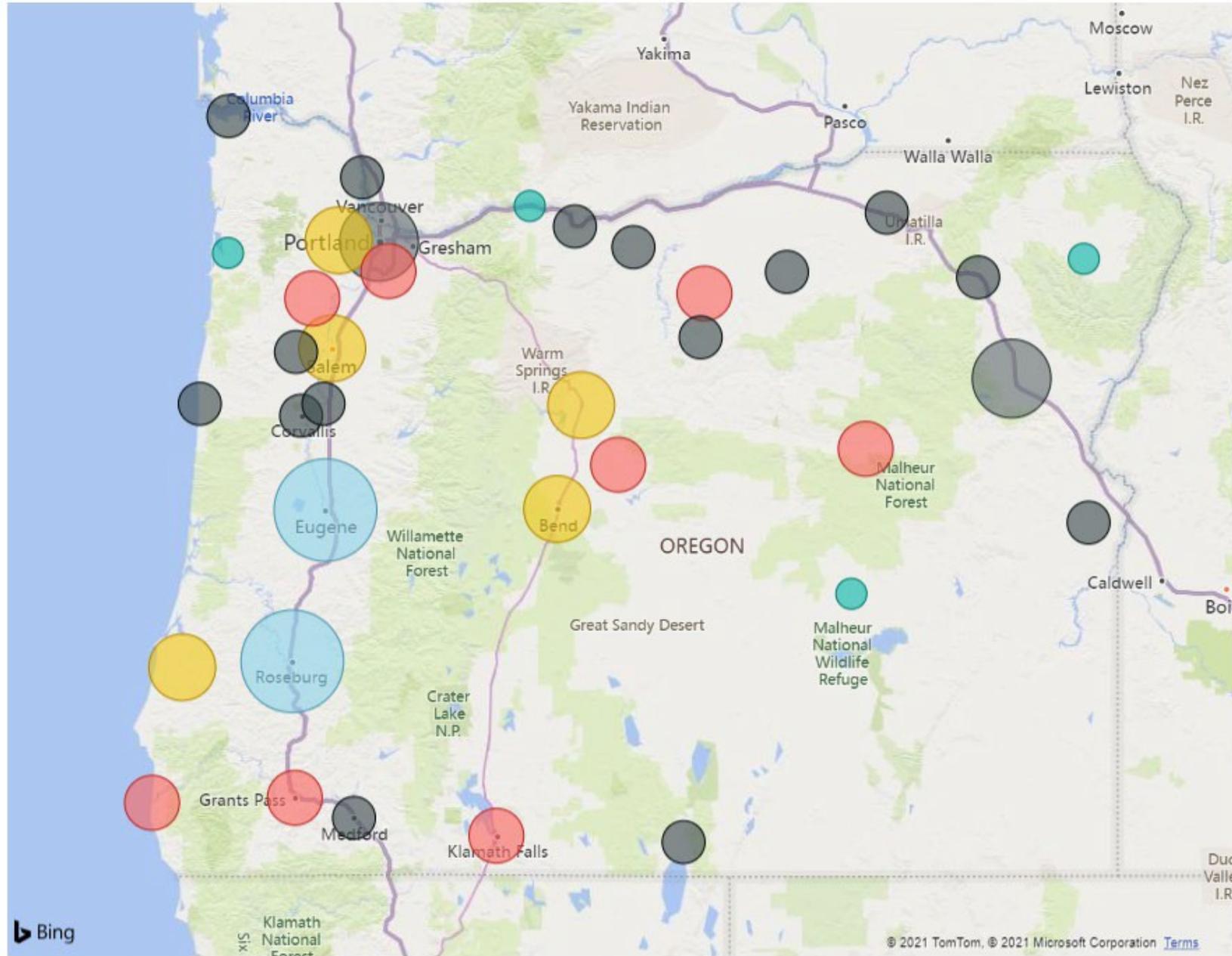


2021 Request for Information

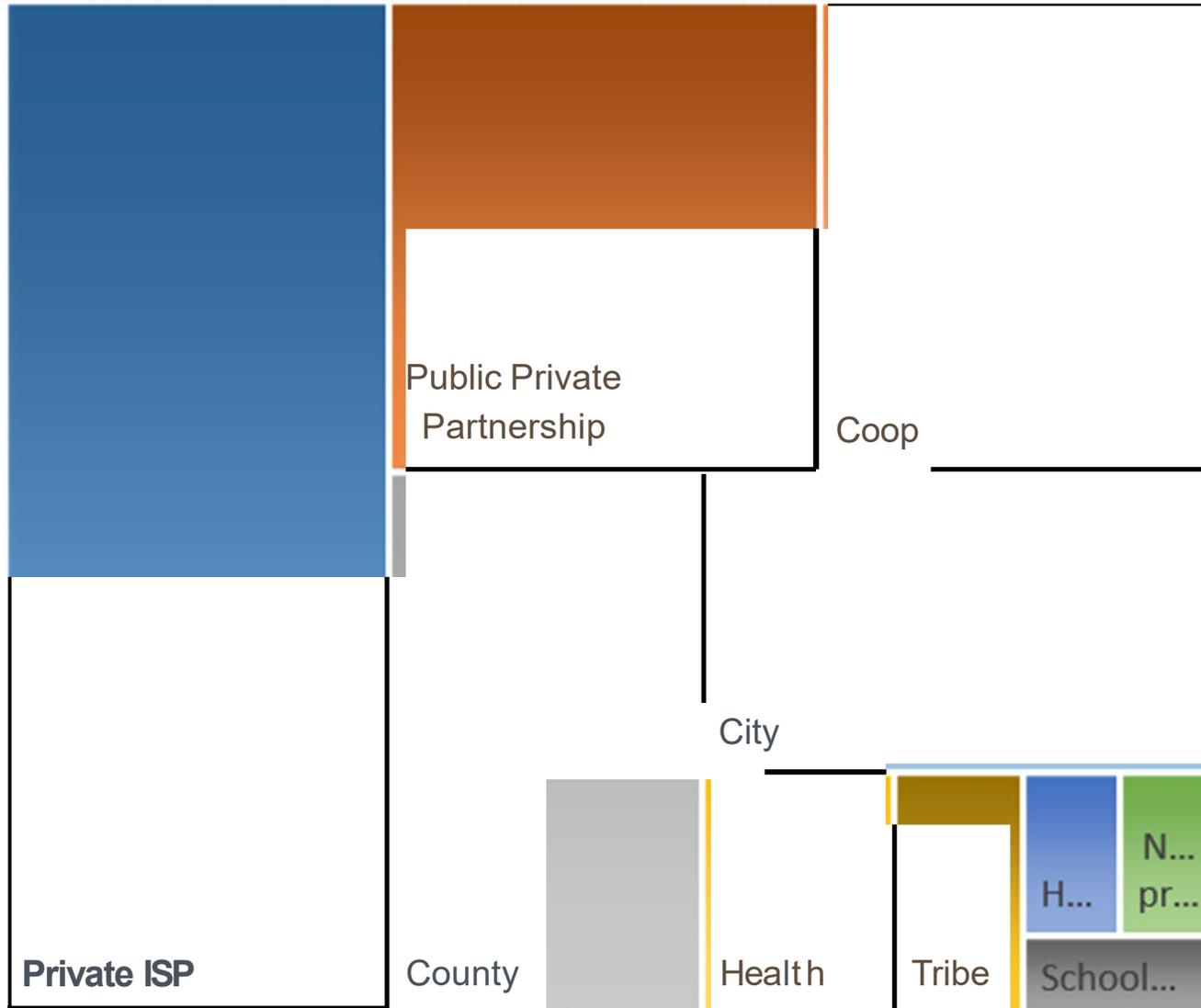
- Total Projects: 78
- Total Cost: \$501M
- Total Grants Needed: \$345M
- Technical Assistance Requested: 32

RFI Projects_2 by County/St and RFI Projects_2

RFI Projects_2 1 2 3 4 5 7



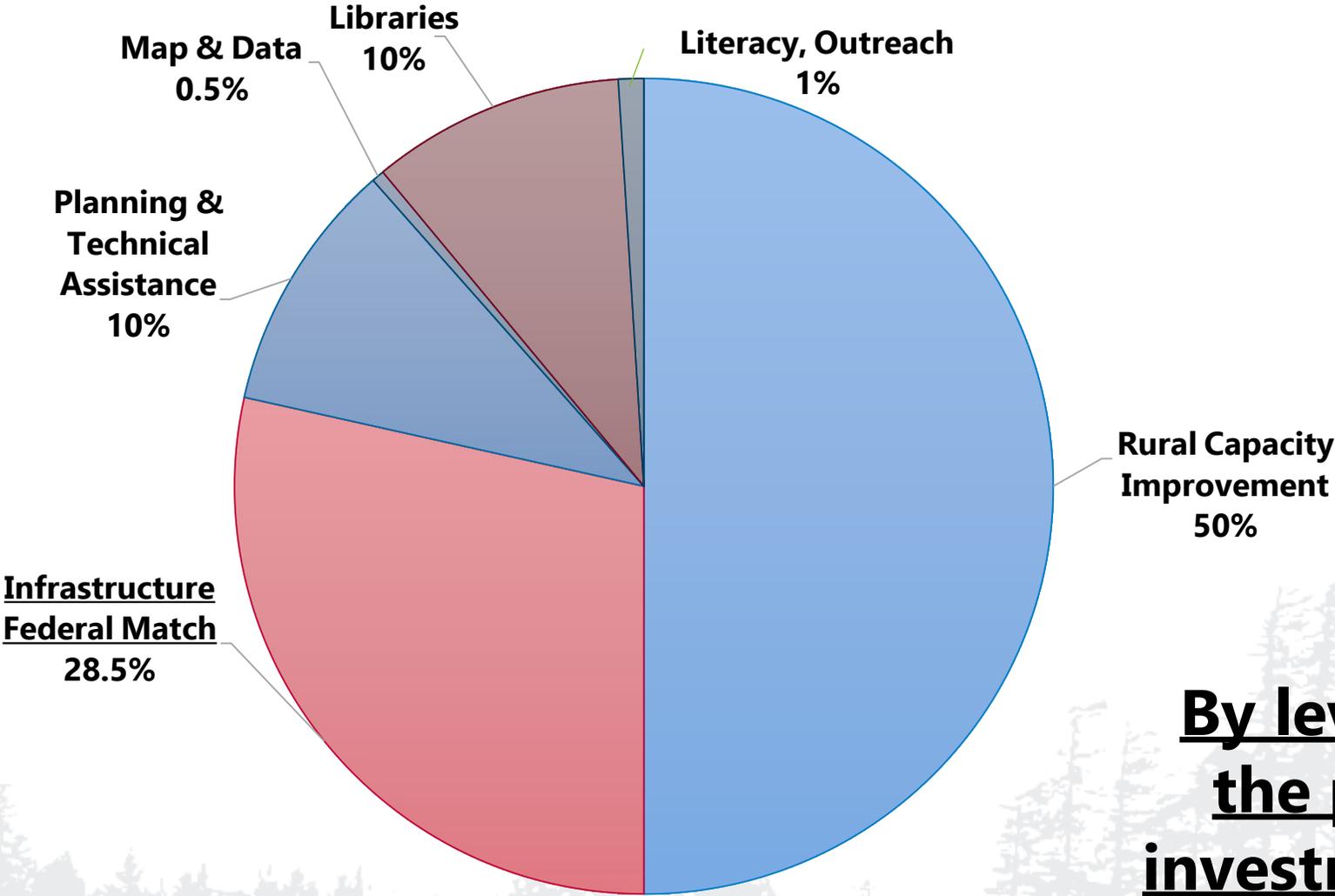
Projects by Organization Type



- City
- Coop
- County
- Health
- Hospital
- Non-profit
- Private ISP
- Public Private Partnership
- School District
- Tribe

Investment Strategy

Budget: \$100M



By leveraging Federal funds, the potential impact of this investment could be \$185.5M

Application Approach

Connect:

- **Businesses**
- **Community Anchors**
- **Governments**
- **Homes**
- **Hospitals**
- **Libraries**
- **Schools**

Quick Action

\$-\$\$

Open (decision in 45 day)
Internal review process

Examples: conduit, match, small projects, emergency response, planning

Capacity Projects

\$\$-\$\$\$\$

Annual (decision in 120 days)
Review Committee Process
Criteria scoring

Examples: long-term infrastructure expansion (last & middle mile)



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Governor's Broadband Investment

Connecting Oregon Schools Fund

Rick Crager

Assistant Superintendent of Finance and Information Technology

April 21, 2021

Oregon Department of Education

Governor's Budget Proposal

Expanding Access to Broadband

Regardless of income level or zip code, the pandemic has demonstrated that every child must have access to broadband internet connections and digital learning devices for distance learning. The Governor's budget includes a \$17.7 million investment of Lottery-Backed Bonds for expanding Internet connectivity in Oregon schools and maximizing the use of available federal resources.



Oregon Department of Education

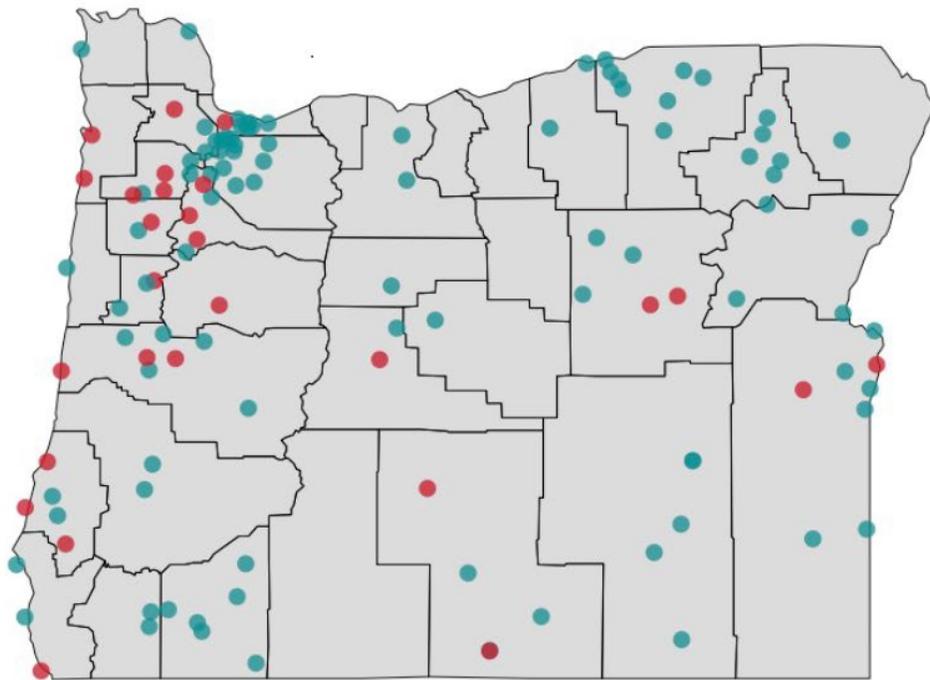
Oregon Connectivity Snapshot

- Federal Connectivity Goals
 - ✓ 100 kbps per student Internet bandwidth with a goal of 1 Mbps per student Internet bandwidth.
 - ✓ 1 Gbps for point to point district connectivity – wide area networks.
- 78% of Oregon school districts meet the minimum 100 Kbps/student goals.
- 84% have WAN circuits at 1 Gbps or greater.
- 12% of schools are estimated to lack scalable infrastructure that enables capacity to meet every changing student needs.
- An estimated 48% of school districts may have at least one school not on fiber.



Oregon Department of Education

Oregon Connectivity Snapshot



District goal status

- Meets 100 kbps per student
- Does not meet 100 kbps per student

Goals

78% of
districts

61% of
students

meet the minimum
100 kbps per student
goal for bandwidth

Oregon Department of Education

Connecting Oregon School Funds – Pilot (May 2016)

May 2016 State Investment - \$199,571
Federal Funds Leveraged - \$1.95 million

School District	Project Cost	FCC Discount	FCC Funds	Original Funding Gap	State GIA Match	FCC Increase	Final Funding Gap
Lake ESD (Paisley SD)	\$1,419,500	70%	\$993,650	\$425,850	\$141,950	\$141,950	\$141,950
Columbia Gorge ESD (Sherman Co. SD)	\$223,481	77%	\$172,080	\$51,401	\$22,348	\$22,348	\$6,704
Columbia Gorge ESD (S. Wasco SD)	\$32,680	77%	\$25,164	\$7,516	\$3,268	\$3,268	\$980
Santiam Canyon SD	\$20,046	80%	\$16,037	\$4,009	\$2,005	\$2,005	\$0
Glendale SD	\$600,000	90%	\$540,000	\$60,000	\$30,000	\$30,000	\$0
Total	\$2,295,707		\$1,746,931	\$548,776	\$199,571	\$199,571	\$149,635

- Five school districts located in very rural and remote areas of the state with districts less than 2,500 students.
- Every \$1 of state investment leveraged an additional \$12.50 for project cost.
- Included upgrades to aging fiber for up to 10 Gbps and updates from 30Mbps Microwave Internet to 10 Gbps per 1,000 users.

Oregon Department of Education

Connecting Oregon School Funds – Pilot (October 2018)

October 2018 State Investment - \$338,687
Federal Funds Leveraged - \$5.31 million

School District	Project Cost	FCC Discount	FCC Funds	Original Funding Gap	State GIA Match	FCC Increase	Final Funding Gap
South Lane SD	\$1,068,167	80%	\$854,534	\$213,633	\$106,817	\$106,817	\$0
Columbia Gorge ESD - Dufur SD	\$438,426	90%	\$394,583	\$43,843	\$21,921	\$21,921	\$0
Imbler SD	\$45,000	80%	\$36,000	\$9,000	\$4,500	\$4,500	\$0
Huntington SD	\$3,300,000	90%	\$2,970,000	\$330,000	\$165,000	\$165,000	\$0
Elgin SD	\$808,981	90%	\$728,083	\$80,898	\$40,449	\$40,449	\$0
Total	\$5,660,574		\$4,983,200	\$677,374	\$338,687	\$338,687	\$0

- Five school districts located in Union, Wasco, Baker, and remote areas of Lane.
- Every \$1 of state investment leveraged an additional \$15.71 for project cost.
- Nearly 84 miles of fiber constructed between Eastern Oregon schools.
- Leveraged ESD point to point connection from 30 Mbps to 1 Gbps

Oregon Department of Education

Investment Versus Benefits

Connectivity Investments for Oregon Schools - \$17.7 million



- ✓ Leverages an estimated \$70.8 million of additional local and federal resources for 40-60 school district projects focused on improving both school and wide area network connectivity.
- ✓ Incentizes school districts that have typically not applied for federal Erate funding due to inability to finance project funding gap.
- ✓ Provides access to communities that have been disproportionately impacted during the pandemic, including rural, Black, Indigenous, Latino, Latina, Latinx, Asian, Pacific Islander, Native American, and Tribal communities.
- ✓ Creates local and state economic stimulus related to increased construction activity.

Oregon Department of Education

Questions

For More Information Contact:

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Connecting Oregonians: Broadband Assistance

- OHCS Policy Package 90 Broadband Assistance
 - \$6.4 million for an Urban Connectivity program to provide financial assistance to Oregonians
 - Partner with non-profit housing providers
 - Request for Proposals to explore different delivery mechanisms
- National interest in broadband support for affordable housing
- Dovetails with new assistance to low-income Oregonians, allows for new strategies



Investor and Rating Agency Considerations for Broadband Initiative



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April 21, 2021

Joint Subcommittee on Ways and Means
Subcommittee on Transportation and Economic Development

ESG Concepts



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ESG Concepts

Environmental

- Climate Change
 - More extreme weather events, including flooding and drought
 - Exposure to wildfires
- Pollution
 - Impacts of carbon and other emissions

Social

- Health pandemics
 - COVID-19
 - Quality and equity of healthcare delivery
- Income inequality and related demographic trends
- Inequities in access to education
- Unaffordability and unequal distribution of government services

Governance

- Federal and state interface/dependence
- Management and policy
- Headline risk
- Social, civil, and racial unrest
- Deferred maintenance
- Legacy cost
- Business climate

Evolution of ESG Investing

- Increasingly, investors and credit rating agencies are incorporating ESG risk factors into their credit assessments
- ESG refers to risk factors that could affect the credit profile of an issuer and the long-term sustainability of an investment
- Socially responsible investing targets investments in projects that address ESG concerns; in some instances, it avoids or places a penalty on investing in projects that may increase ESG risk factors
 - Investors link long-term favorable investment performance to assets with fewer ESG risks or issuers actively managing ESG risks
 - Issuers with good ESG practices are less likely to experience a decline in credit quality and are likely to proactively implement policies to address ESG risks and adapt to a changing world

Issuer Disclosure of ESG Risks and Mitigants

State and local government disclosures will increasingly focus on ESG risk factors and long-range plans to address them:

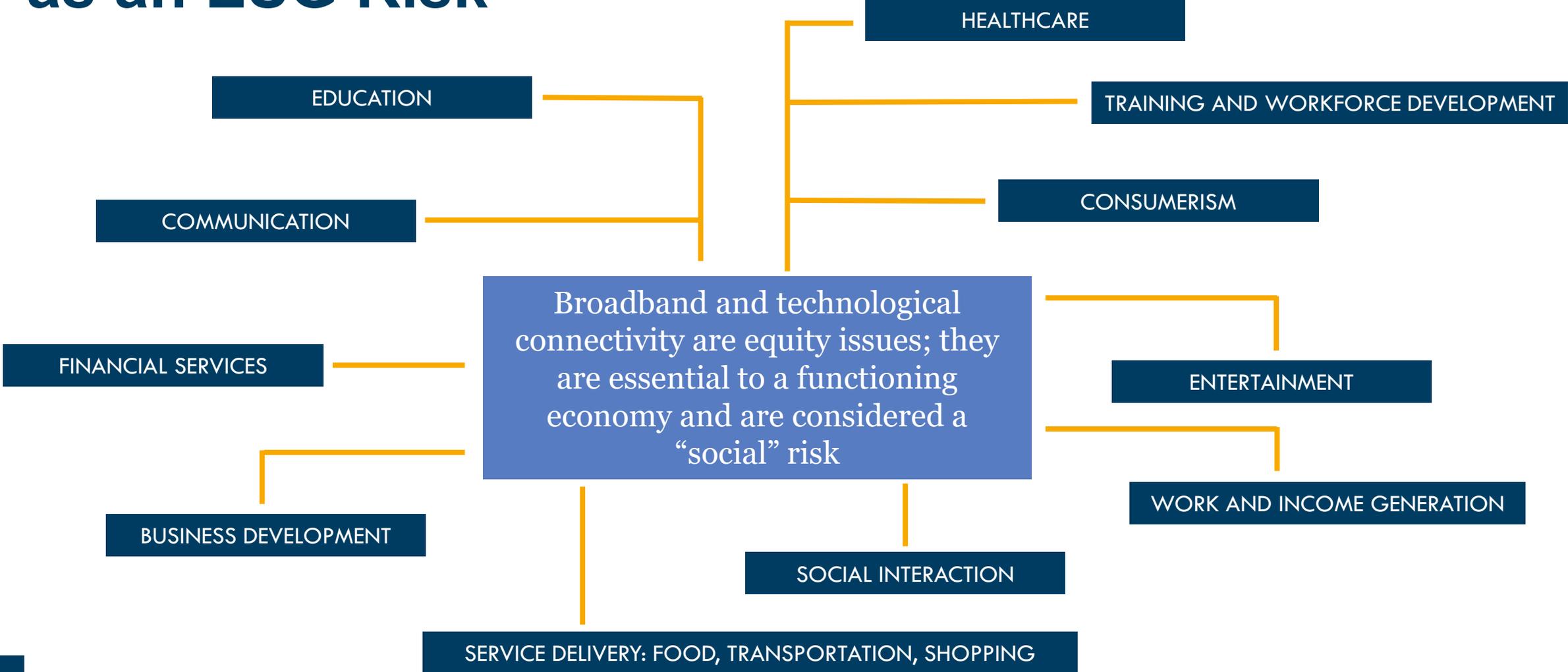
- **Vulnerability Assessment**
 - Climate Change
 - Social unrest
 - Health/education disparity
 - Workforce development and training
 - Affordable housing/homelessness
 - Internet connectivity/cyber attacks
 - Drinking water/pollution
- **Preparedness/Plans to Enhance Sustainability**
- **Progress Updates**
 - Key Performance Indicators
 - Periodic reporting of progress relative to benchmarks

Broadband and ESG Risk Factors



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COVID-19 Underscores Internet Connectivity as an ESG Risk



Broadband is a Major Component of Infrastructure

- Technology has emerged as dominant infrastructure
 - Access to the internet is critical for economic development and progress
 - Communities or people without connectivity are significantly disadvantaged on many levels
- Broadband infrastructure is critical for economic activity and prosperity
 - Affords remote and/or underserved communities to become part of Main Street
- Poor or disenfranchised communities require training and technology to realize social and economic benefits of connectivity
- Measurements of broadband effectiveness include:
 - Reliability and speed of communication
 - Effectiveness in supporting key initiatives such as education
 - Quality of life improvements
 - Eliminating the distance between people and communities



OREGON STATE TREASURY

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