Springfield Telecommunications Enhancement Project
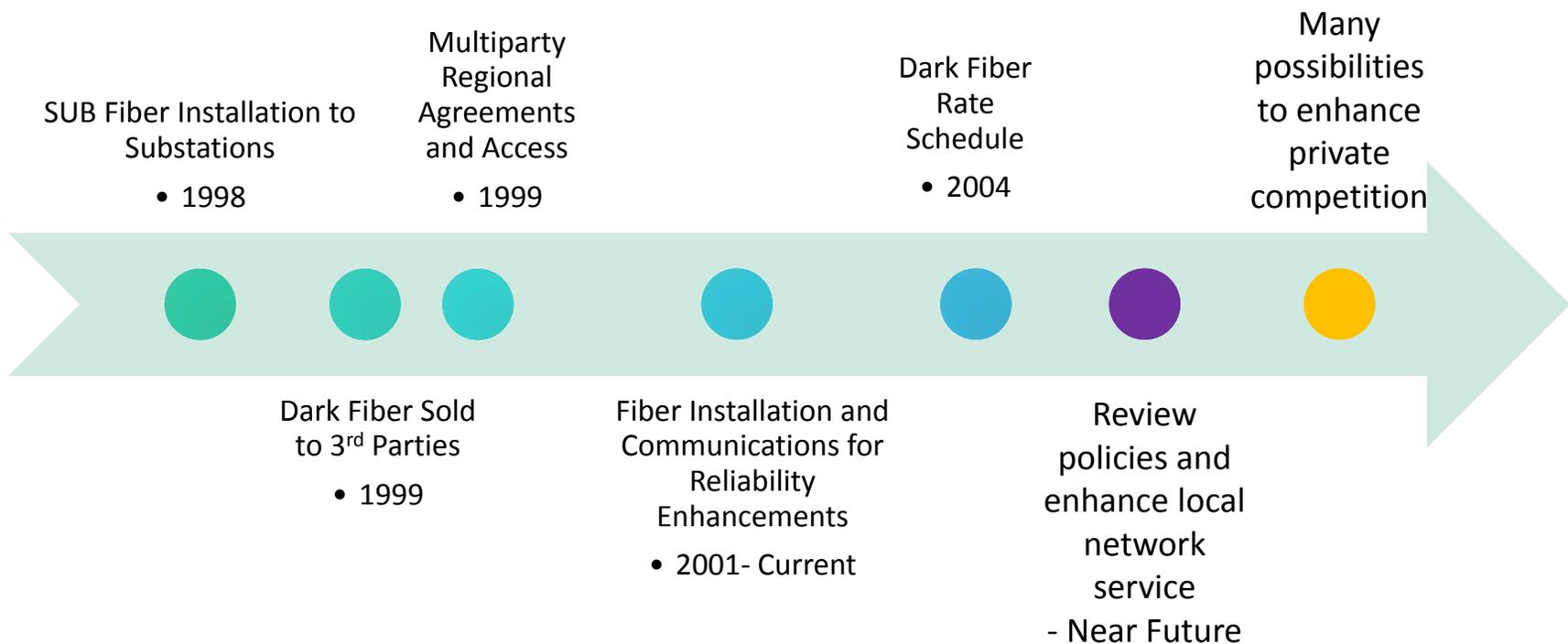
SPRINGFIELD UTILITY BOARD

JULY 19, 2017

SUB's Telecom Timeline

SUB Fiber Installation to Substations
- 1998

Multiparty Regional Agreements and Access
- 1999

Dark Fiber Rate Schedule
- 2004

Many possibilities to enhance private competition

Dark Fiber Sold to 3rd Parties
- 1999

Fiber Installation and Communications for Reliability Enhancements
- 2001- Current

Review policies and enhance local network service
- Near Future

Telecom Terms

Open Access - The network infrastructure provider creates an open market for internet service providers.

Internet Hub – Large demand centers where bandwidth is purchased

Backhaul – The portion of the network between the Internet Hub and local Internet Exchange Point.

Internet Exchange Point (IX) – The infrastructure where internet service providers exchange internet traffic (local or regional/hub).

Internet Service Provider (ISP) – An entity providing services accessing and using the internet.

Local Network – The portion of network between the local internet exchange point and the last mile.

Last Mile – The portion of the network between the local network and the customer.

Broadband District – A targeted area of end use customers that is connected to the Local Network and Last Mile.

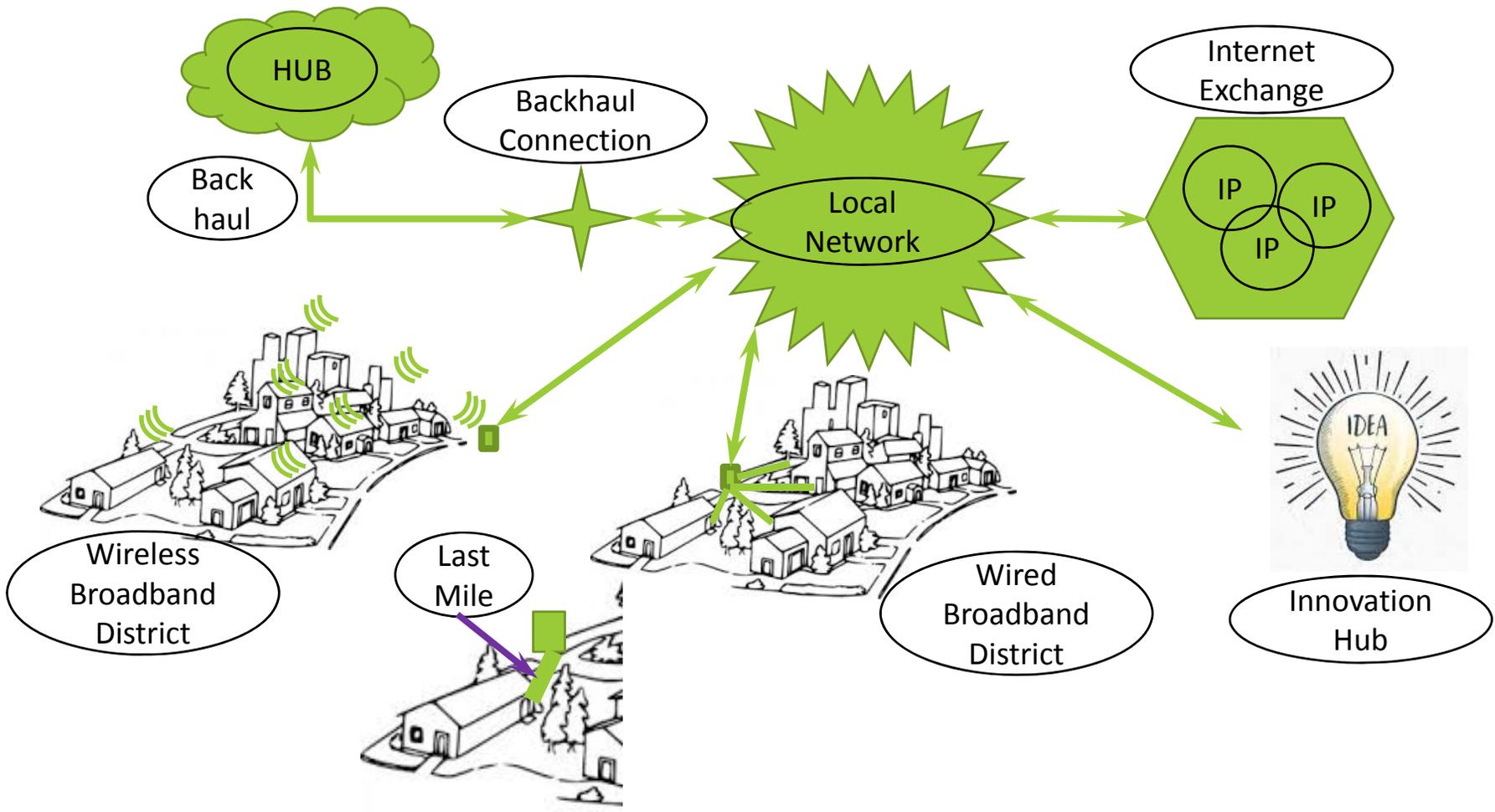# SUB's Current Telecom Policies

Vision:
Economic health is critical to the long-term future of Springfield. As our society moves into the information age, advanced telecom services are essential for the economic health and quality of life of Springfield.

Mission:
SUB's mission is to facilitate the provision of state-of-the-art, broadband telecom services for the benefit of the community on a low-risk basis.

Strategy:
SUB's general strategy to fulfill the vision and mission, is to stimulate and facilitate telecom competition for the benefit of the city's residents and the businesses that support the citizens who live here. Leveraging SUB's existing infrastructure and resources to minimize the cost of entry for service providers is a key element.

Challenge & Goal

SUB's publicly owned Local Network is open access, but there is limited open network access to the Internet Hub, Backhaul, and Exchange Point.

Last mile to buildings can be open access but often internet providers secure the last mile rather than the building owner (limited access). Publicly controlled last mile service could be installed to allow building owners more flexibility.

What is SUB doing now?

◦ When new development occurs, SUB engages in conversations with developers about last mile installation.
◦ Existing development could have open access infrastructure extension for last mile service.
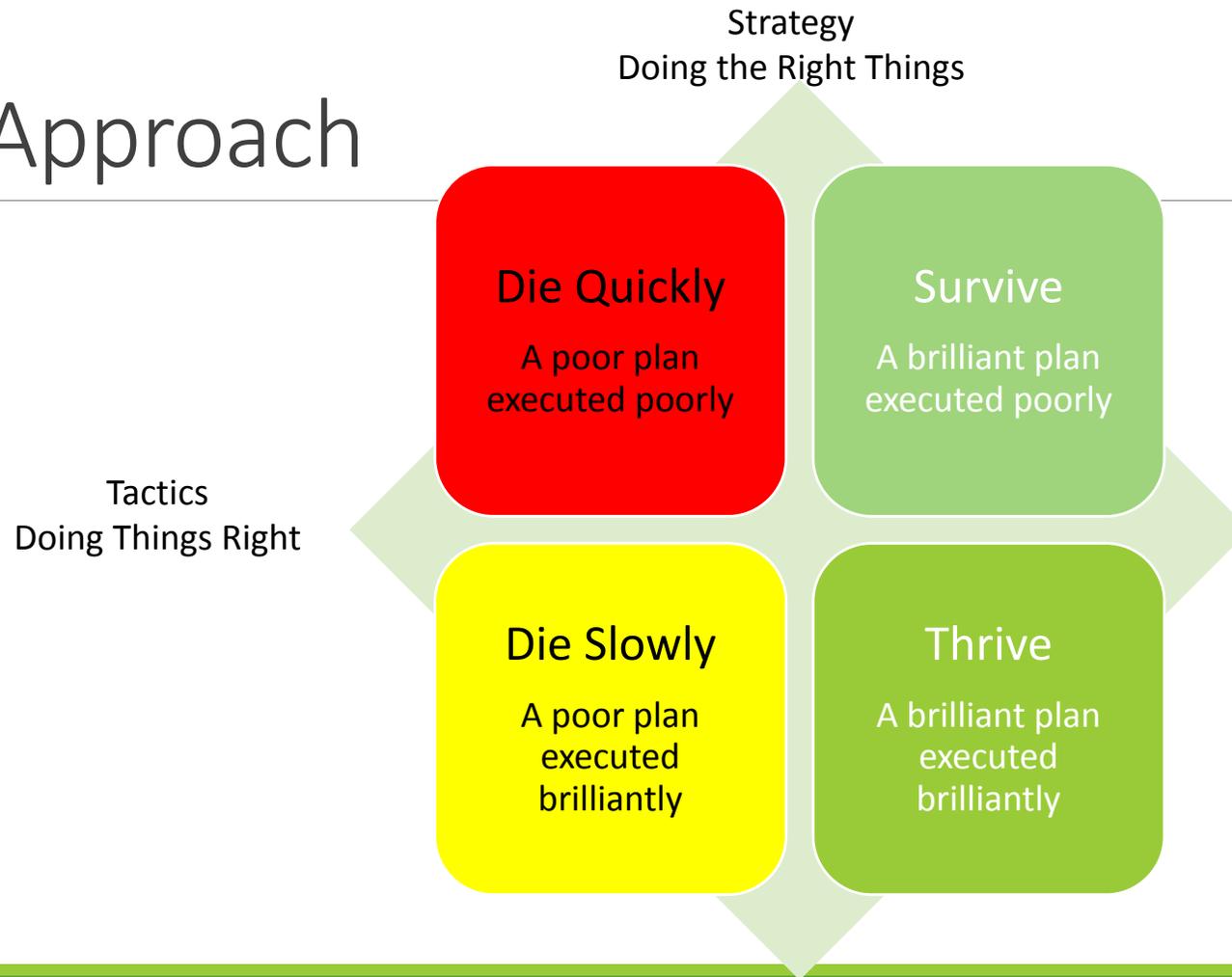
Goal: "Leverage public assets to facilitate private competition"

Interests Over Time

Interest	Pre-SUB Fiber	Initial SUB Fiber	SUB Dark Fiber Service	Potential Enhancement
Utility Reliability	🟥	🟩	🟩	🟩
Smart(er) Grid	🟥	🟨	🟦	🟩
Efficient Government	🟦	🟦	🟦	🟩
Education	🟦	🟦	🟦	🟩
Emergency Communications	🟦	🟦	🟦	🟩
Public Safety	🟦	🟦	🟦	🟩
Tele-Medicine	🟦	🟦	🟦	🟩
Economic Development	🟨	🟨	🟦	🟩
Innovation	🟨	🟨	🟨	🟩
Livability/Access	🟨	🟨	🟨	🟩
Affordability	🟨	🟨	🟦	🟩

Approach

Strategy
Doing the Right Things

Tactics
Doing Things Right

Die Quickly

A poor plan
executed poorly

Survive

A brilliant plan
executed poorly

Die Slowly

A poor plan
executed
brilliantly

Thrive

A brilliant plan
executed
brilliantly

Eugnet
Eugene/EWEB/LCOG/TAO – Case Study

EWEB's Local Network is connected to Lane Council of Government's (LCOG) Willamette Internet Exchange (WIX). LCOG secures backhaul to and internet HUB. The Technology Association of Oregon (TAO) is also part of the effort.

EWEB connects fiber from the WIX to downtown buildings. Internet providers have equipment in the WIX.

Internet HUB connection, backhaul, internet exchange, local network, and last mile are controlled by the public.

Seven buildings were originally connected in a pilot.

The City of Eugene received a $1.9 million grant from the U.S. Department of Commerce's Economic Development Administration. The $1.9 million grant was matched with $1.9 million in increment property tax financing (Local Improvement District).

The ~4 million project is designed to connect ~120 buildings.

Why now…or rather, again?

SUB has been evaluating and engaging in telecommunications opportunities for decades.

The City's recent "Springfield Look" process around economic development has created renewed interest in a collaborative effort.

This effort dovetails with a SUB interest to enhance our telecommunications local network product offering, regardless of any other outcome.

I am the lead for the Springfield effort. Next steps identified included updating elected officials to test political support to move forward.

Springfield Telecommunications Enhancement Project (STEP)

STEP involves multiple parties to gather interests (City, LCOG, County, TAO, etc…)

The process includes updating other areas for SUB's internal interests:

- Provide update on existing telecommunications services provided by SUB and SUB Board buy in on the mission (or Board changes to mission) and general dedication of resources to this project (Jeff – July 19 update at Board meeting)
- Develop landing page on SUB's website to communicate SUB's efforts in the context of the larger group.. Explain what SUB is doing and what we are not doing with this project. Place status updates on SUB's landing page
- Potential migration of this material to the web site developed by the larger group.(TBD)
- Review of SUB's telecommunication service policies – Provide recommendation
- Review of City's telecommunication service policies/ordinances– share findings with City to ensure that City policies/ordinances and SUB polices work together
- Review of SUB's telecommunication IRU contract – pull out language that will reside in any updated telecom policies which an updated contract will refer to
- Potential creation of transitioning telecommunication department to a telecommunications utility in the budget process

Example Next Steps

Identify what we would like

Evaluate alternatives and costs

Identify what we can afford and when (potential grant?)

Potential Outcomes (may be independent)

Broadband district(s) identified

Funding source secured (e.g. City LID) with possible matching grant funds.

Engage private internet providers on their interest and need

Agreements reached with public counterparties on management of segments of non-local network infrastructure.

With SUB connects to backhaul and WIX (or new Springfield Internet Exchange)

City evaluates updates to municipal code to enhance private competition

SUB evaluates payment structure for last mile requests

Direction

Is SUB's Board supportive of dedicating the General Manager's time and staff resources to this effort?

◦ Future 3rd party studies in excess of the General Manager's authority would be subject to Board approval.

◦ Any changes to SUB's Board Policies would be subject to Board approval.

◦ Future infrastructure investments in excess of the General Manager's authority would be subject to Board approval.

Is the Board interested in modifying SUB's Board Policies regarding vision/mission/strategy for telecommunications at this time?