Community Broadband Planning and Strategy

Joanne Hovis, President

December 2020

ctc technology & energy

engineering & business consulting

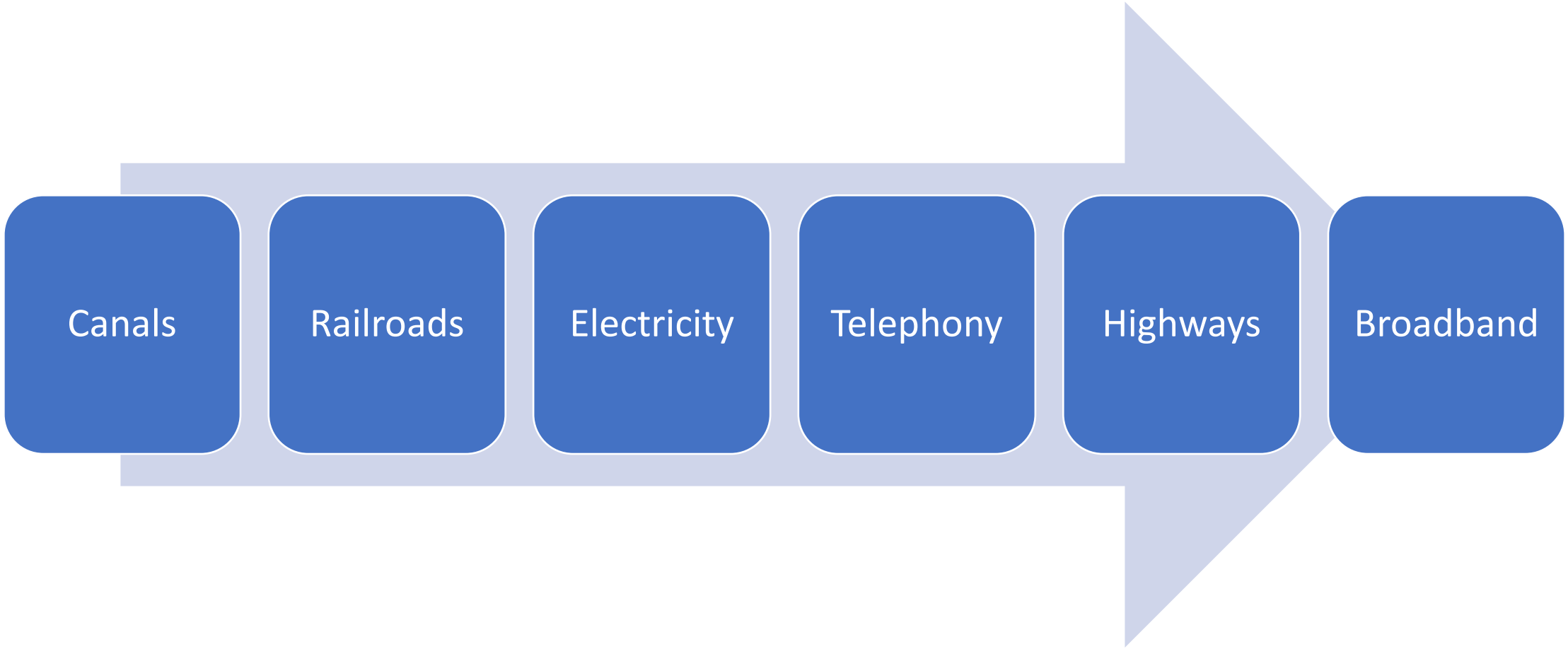
Agenda

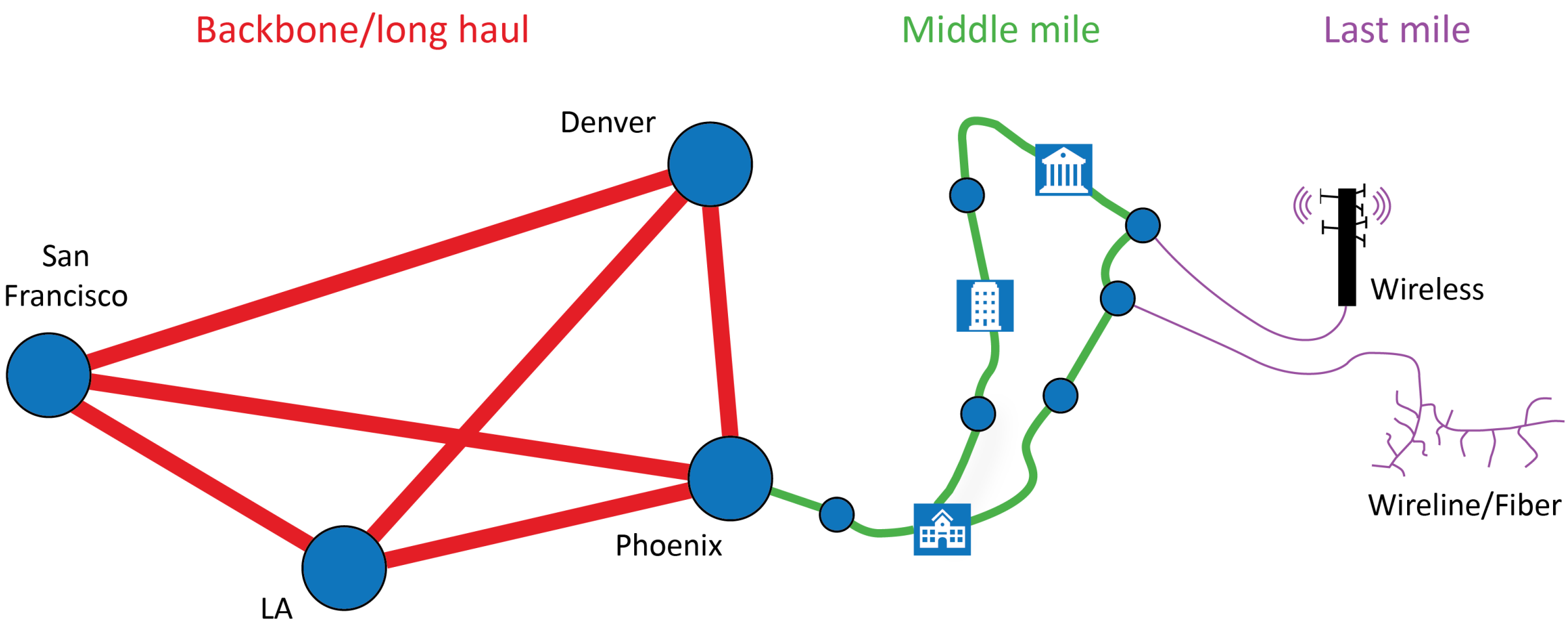
Technology

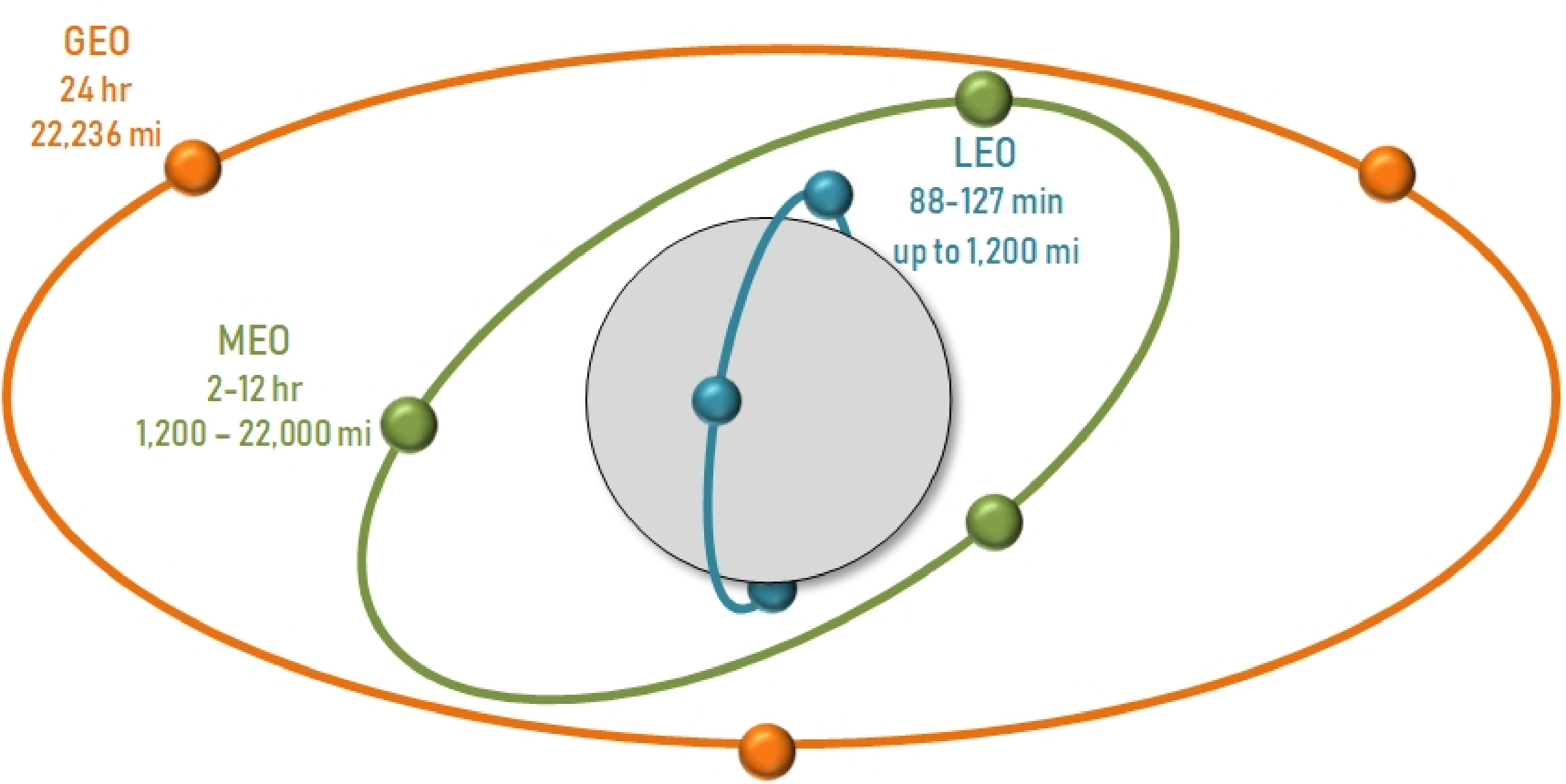
Process and planning

Best practices

Economic Foundations



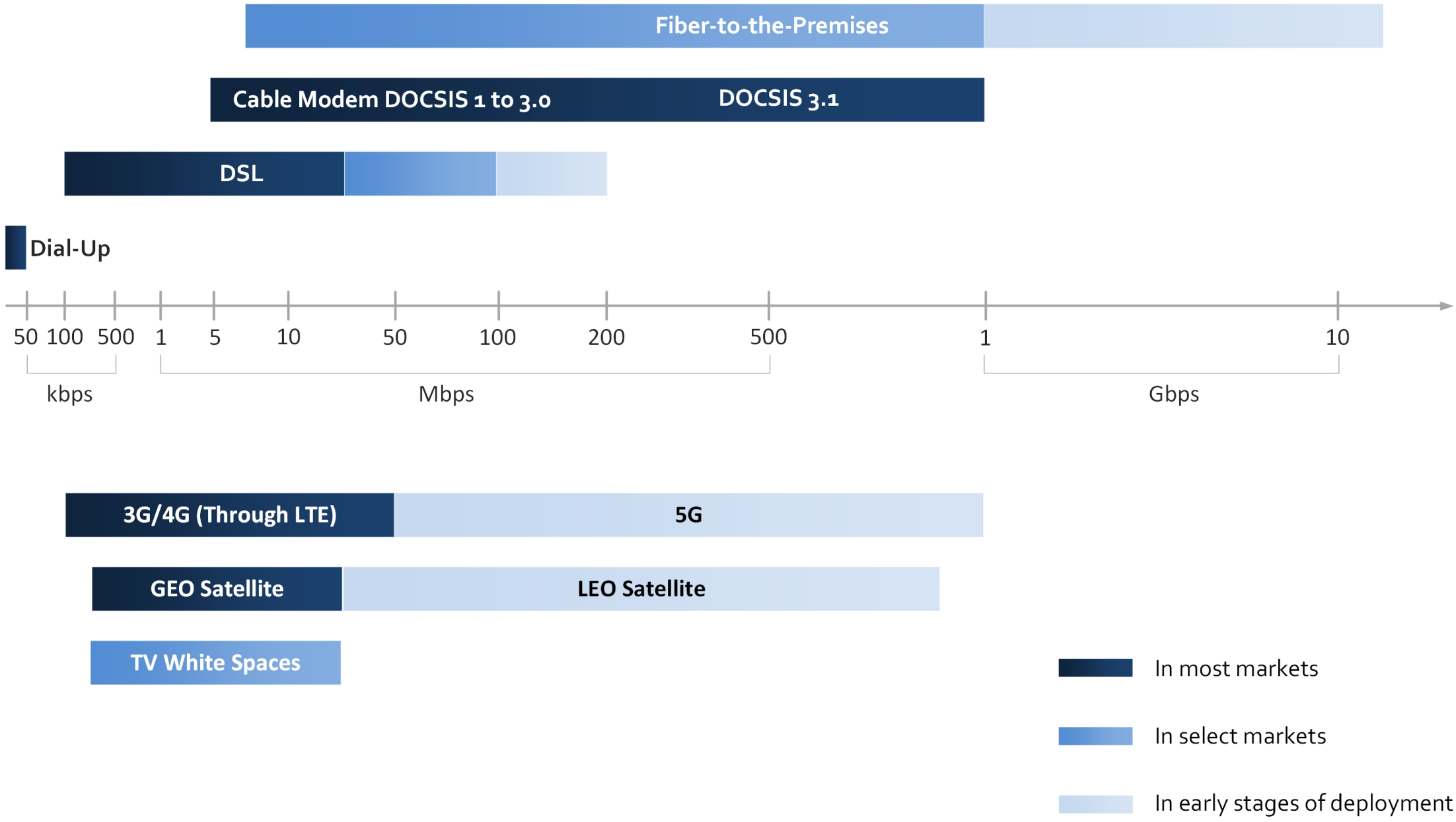

Backbone/long haul
Middle mile
Last mile
Denver
San Francisco
Phoenix
LA
Wireless
Wireline/Fiber


GEO
24 hr
22,236 mi
LEO
88–127 min
up to 1,200 mi
MEO
2–12 hr
1,200 – 22,000 mi

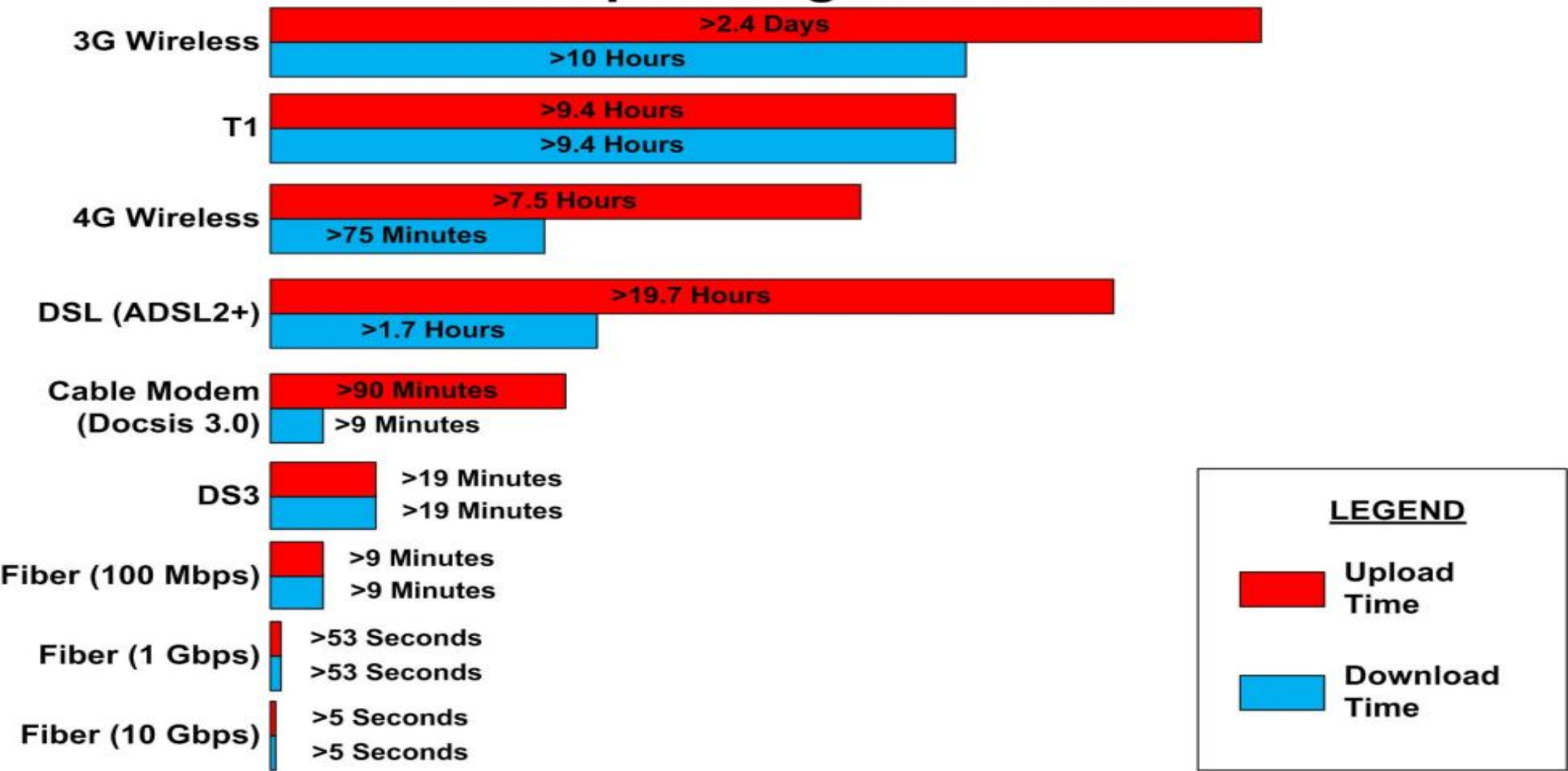
Satellite broadband: orbit and latency

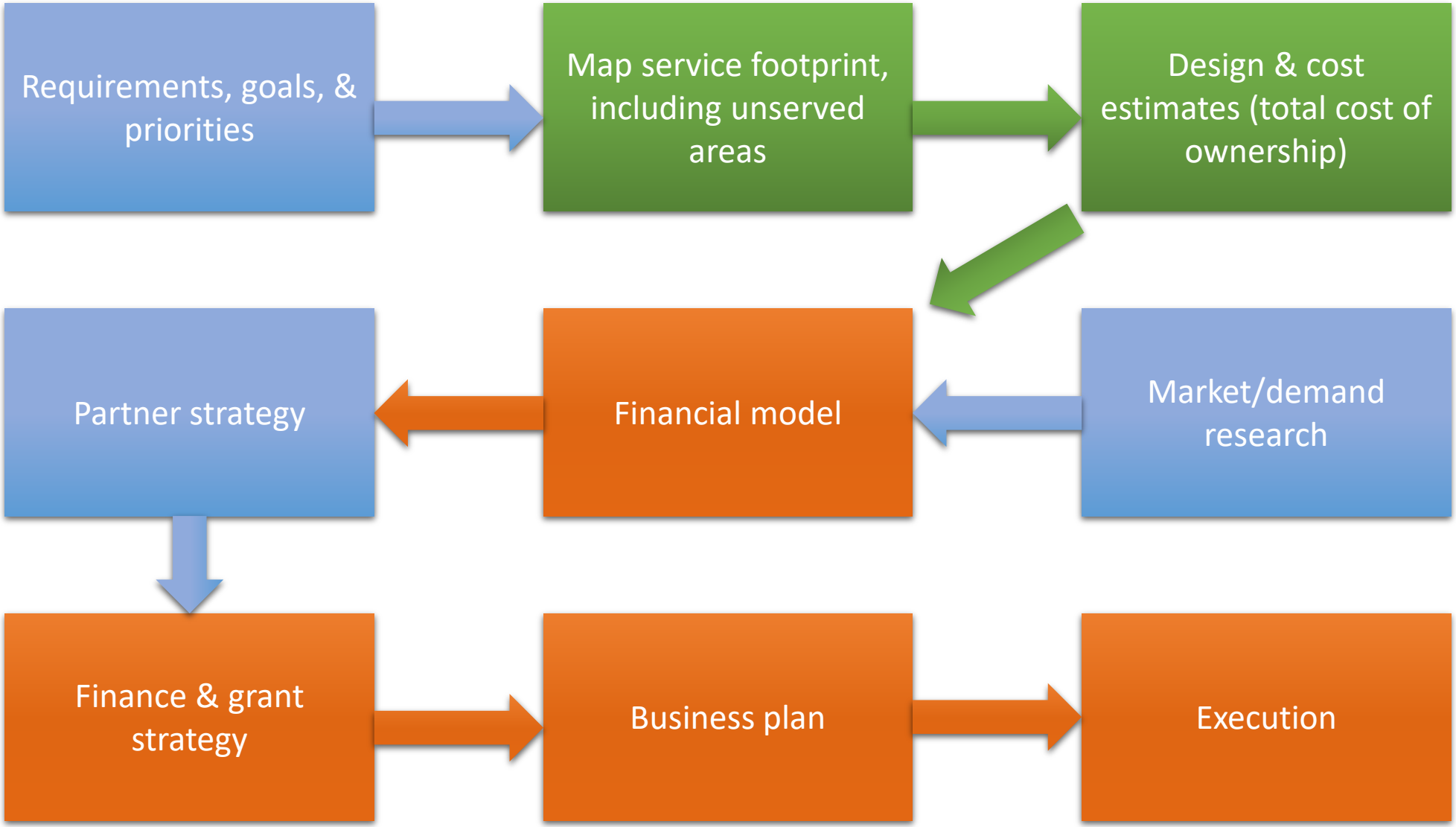
	Orbit	Broadband speed	Latency
Geostationary • Hughes • Viasat	22,236 mi	• 2 to 30 Mbps down • Far less up	600+ ms
Low earth orbit • StarLink (SpaceX) • Telesat • Project Kuiper (Amazon)	up to 1,200 mi	?	25+ ms

Data Speed Capacity

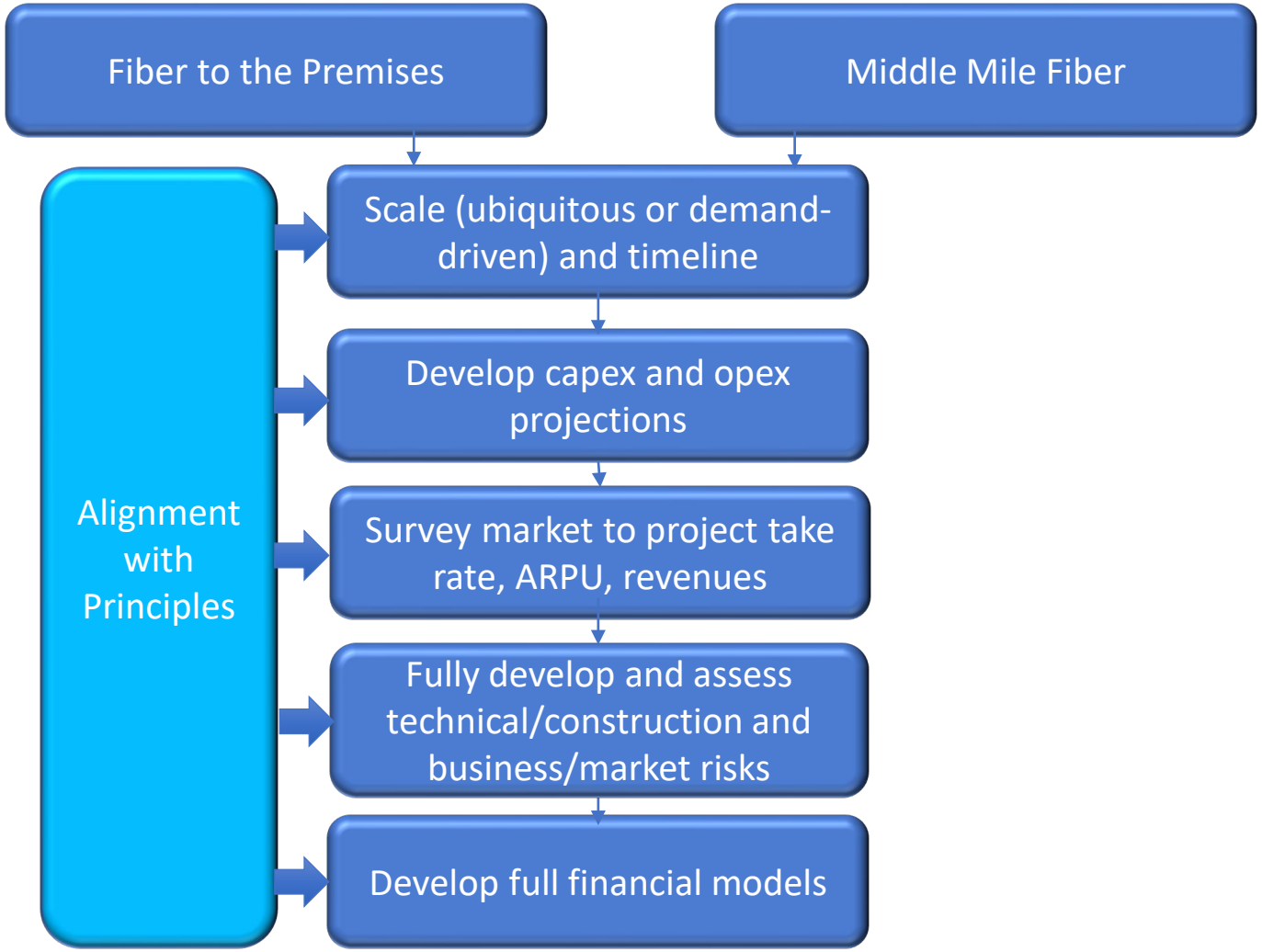


Minimum Time Required for Downloading and Uploading a 5 GB File

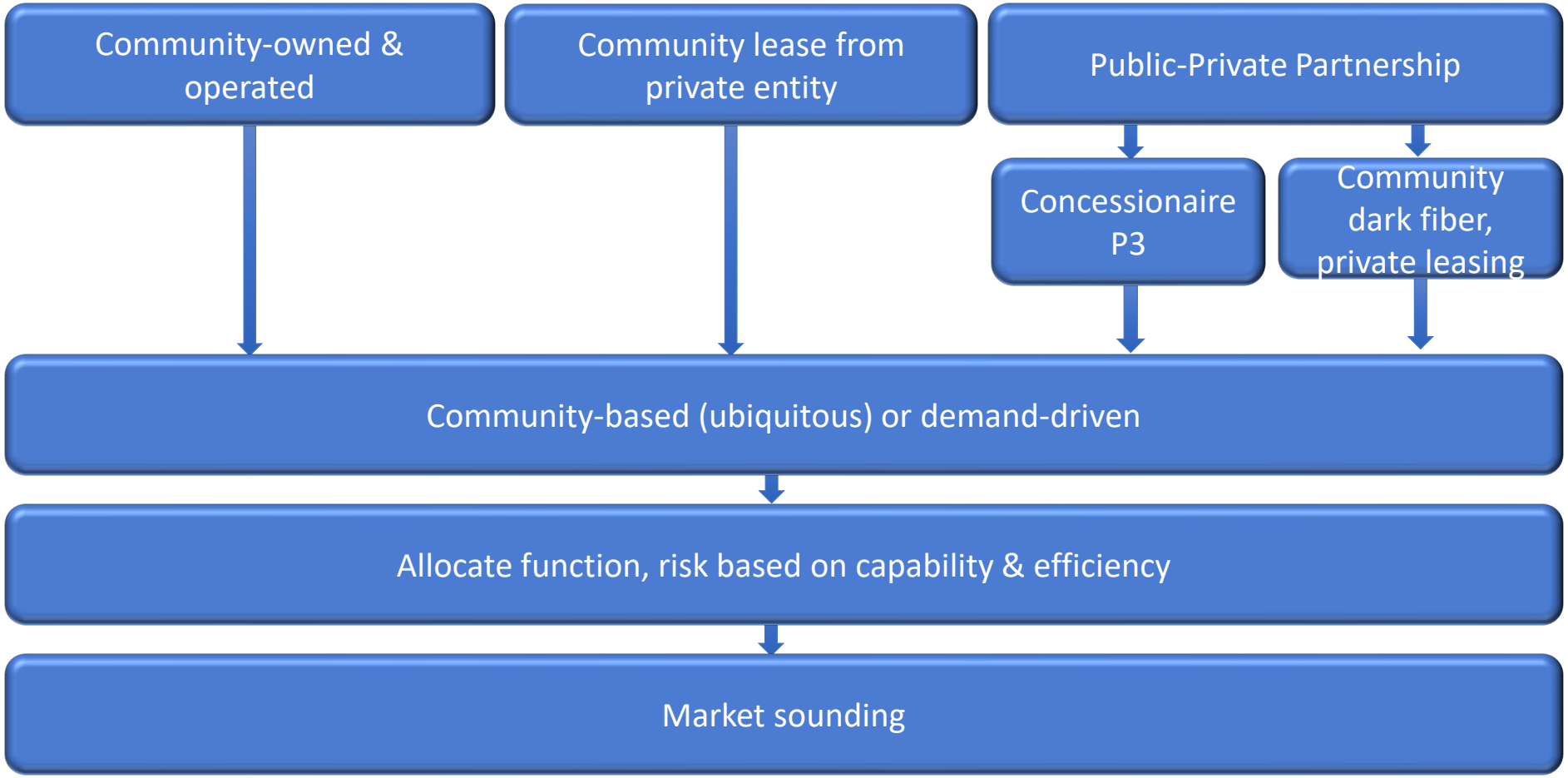



Requirements, goals, & priorities
Map service footprint, including unserved areas
Design & cost estimates (total cost of ownership)
Partner strategy
Financial model
Market/demand research
Finance & grant strategy
Business plan
Execution

Rigorous process enables consideration of multiple solutions for technology, scale, phasing, timeline, & risk allocation



Rigorous process enables consideration of multiple arrangements



Broadband grants & funding opportunities

CARES Act funding

- Federal and state distribution

Federal grants

- US Department of Agriculture
- US Department of Commerce

State grant programs

FCC funding programs

- E-rate, Lifeline, Health Care Connect
- Rural Digital Opportunities Fund

THE EMERGING WORLD of BROADBAND PUBLIC-PRIVATE PARTNERSHIPS A BUSINESS STRATEGY and LEGAL GUIDE

Joanne Hovis and Marc Schulhof
Jim Baller and Ashley Stelfox
Coalition for Local Internet Choice

May 2017

GIGABIT COMMUNITIES

Technical Strategies for Facilitating Public or Private Broadband Construction in Your Community