FLIRT H2 Deployment

LOSSAN Agency Board Meeting

September 15, 2025

Caltrans has purchased new FLIRT H2 trainsets to strengthen zero-emission passenger rail capabilities in California

Zero-emission multiple unit procurement

- California is investing in 10 zero-emission FLIRT H2 trainsets
- These trainsets will modernize the fleet and reduce emissions, driving the State to be an innovation leader in zero-emission mobility
- Procurement is progressing as planned
- Delivery of initial trainsets scheduled for 2027-28
- Focus must now shift to the infrastructure required to support FLIRT trainsets in operation

The FLIRT is a hydrogen/battery-powered multiple unit designed for regional and intercity travel

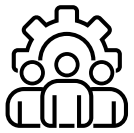
Key facts, final configuration still pending

- **Fleet size**: 10 trainsets ordered, ability to exercise 19 options
- **Propulsion**: PEM Hydrogen Fuel Cell + Battery Hybrid
- **Seats**: 200 – 220 (with a spacious seat pitch[1]) at 320 ft. vehicle length per trainset. Two trainsets can operate together.
- **Boarding height**: ~24” (610mm)
- **Amenities**: Vending options, bike storage
- **Accessibility**: 2 accessible restrooms, vending access, 4 wheelchair spaces and transfer seating per trainset

(1) 35 1/2" compared to 30" commonly found on airlines

FLIRT H2 deployment corridors were evaluated. LOSSAN South identified as preferred candidate for testing and initial service

Decision/assessment framework

Constraints & Show Stoppers *Which corridors can the FLIRT H2 operate on?*		Operations	Evaluated **corridor feasibility**: range, fueling logistics, supply chain, and service capacity
		Infrastructure	Assessed infrastructure **readiness**: future timeline, civil compatibility, and maintenance facilities
		Organization	Reviewed **access and organizational factors**: track access for testing, agency readiness, and commercial viability
Benefits *Which corridor benefits most from FLIRT operations?*		Value-add	Measured **broader impact**: passenger experience, environmental benefits, and State alignment

Corridor selection

LOSSAN SOUTH

Demonstrates the optimal balance of:

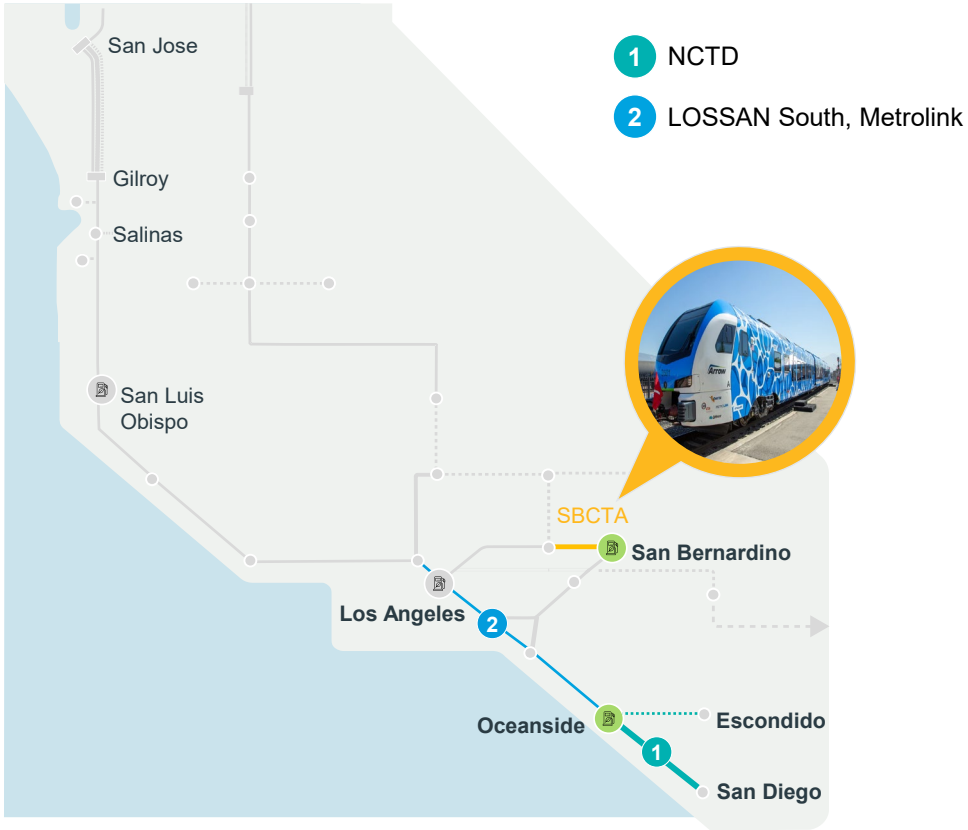
- Implementation feasibility,
- Operational readiness,
- Demand growth,
- Strategic benefits, and
- Visibility opportunities with the 2028 Olympics[1]

(1) Dependent on delivery and testing schedule

Testing and Piloting FLIRTs on the LOSSAN Corridor

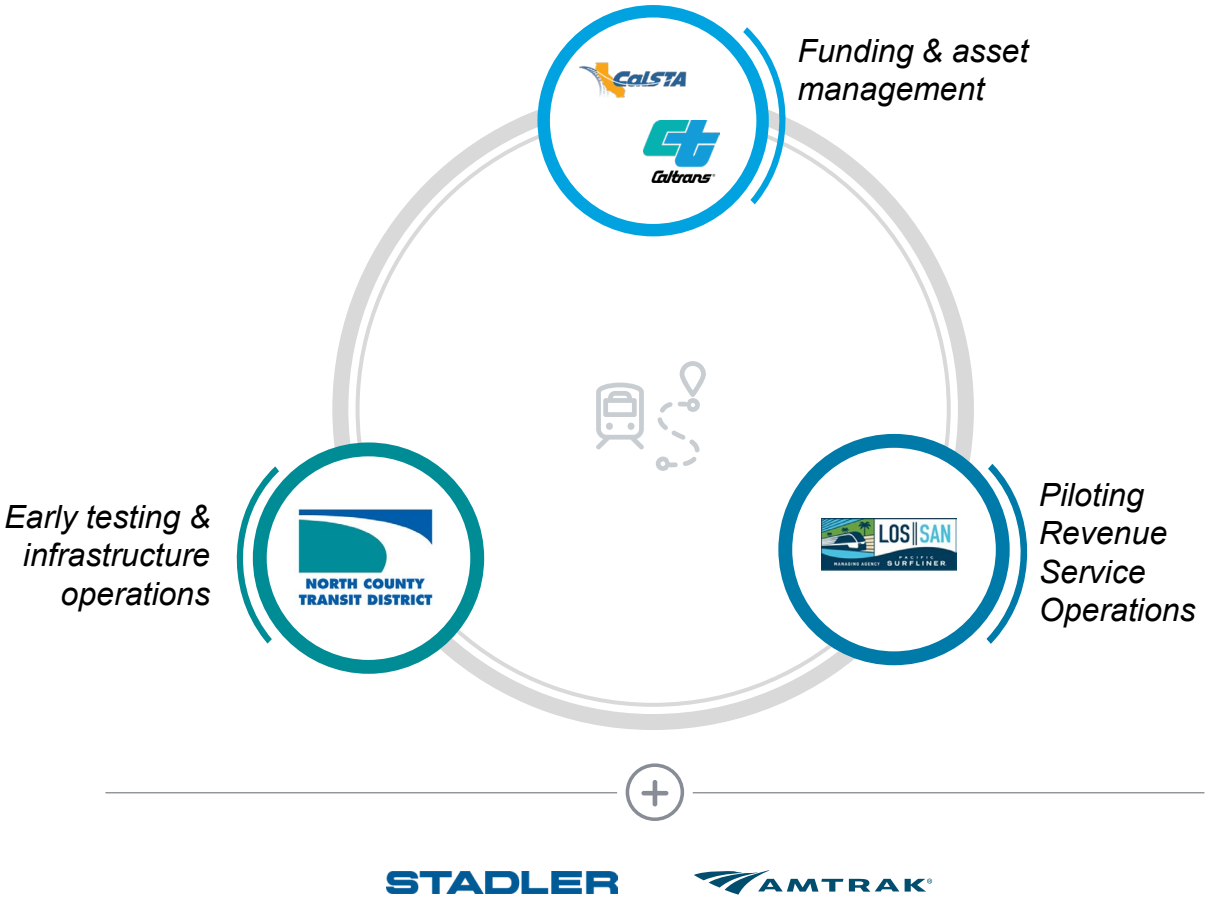
Preliminary

Potential H2 network expansion and FLIRT deployment



Time frame: Existing 1 Phase 1 2 Phase 2

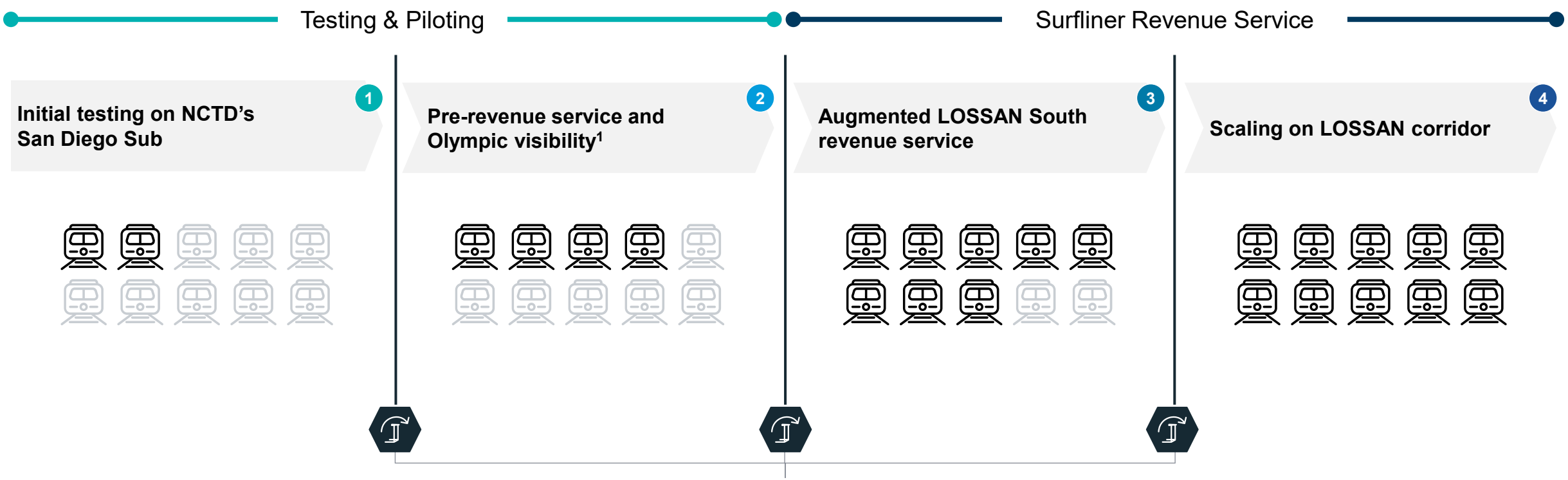
Key partners for deployment success



The FLIRT deployment would be carried out in three phases across two stages – (1) testing and piloting and (2) Surfliner revenue service

Preliminary

Potential deployment phasing



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