

# SwissCal Conference on the Swiss Public Transportation Ecosystem

Final Report

May 5, 2022

San Francisco Bay Area



# Table of Contents

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<b>Executive Summary</b>	<b>3</b>
<b>1   Introduction</b>	<b>5</b>
Goals and Objectives	5
Conference Agenda	5
Summary Context	7
<b>2   Summary of Swiss Transportation Expert Presentations</b>	<b>8</b>
Summary of Key Takeaways: Day 1	8
Summary of Key Takeaways: Day 2	12
Summary of Key Takeaways: Day 3	16
<b>3   Follow-up Workshop Summary</b>	<b>20</b>
Goals	20
Participants	20
Needs, Challenges, and Ongoing Efforts	22
Key Themes and Prioritization	24
Relevant Findings for the Bay Area, Prioritization of Themes	24
Summarized Key Themes, Findings, and Prioritization of Swiss Transit Practices	26
Initial Actions to Advance within 1-2 Years	28
<b>4   Next Steps</b>	<b>32</b>
<b>Acknowledgements</b>	<b>33</b>
<b>Appendix: Links to Presentations and Recordings</b>	<b>34</b>



# Executive Summary



Zurich urban rail station (Image: Fairtiq)

In February and March of 2022, approximately fifty representatives from the San Francisco Bay Area region and Northern California participated in the SwissCal Conference on the Swiss Public Transportation Ecosystem, joining an additional forty representatives from other parts of the state. The goal of the virtual conference, which connected senior leaders and professionals from across California with Swiss transit experts, was to learn about Swiss best practices associated with transit coordination that could be applied in California.

The virtual conference was organized by Seamless Bay Area, a non-profit group, and included four other co-hosting partners -- Caltrans, Stanford University's Bill Lane Center for the American West, Los Angeles County Metropolitan Transportation Authority (LA Metro), and Southern California Association of Governments (SCAG). Additional San Francisco Bay Area local partners included SPUR and MTC.

Experts presented virtually from Switzerland about how public transit is structured across the country and its regions in such a way that

delivers very high transit ridership and a seamless customer experience in an environment with many different local transit agencies and a fragmented set of local governments. Following six hours of conference sessions with Swiss presenters conducted over three days, a subset of Bay Area and Northern California participants participated in a two hour in-person workshop on March 4 to reflect upon lessons learned and develop a set of actions to advance improved coordination within the next 1-2 years.

Conference participants identified eleven main themes from the various presentations as being relevant to California regions:

## Themes of SwissCal Presentations identified by participants as most relevant to California

- ▶ Organization & Roles of Different Levels of Government
- ▶ Customer Experience
- ▶ Customer Information
- ▶ Coordinated Service / Schedules
- ▶ Standards / Quality Control
- ▶ Perseverance and Political Leadership
- ▶ Workforce Development Programs
- ▶ System Leadership - Designating certain coordination authority to operators
- ▶ Collaboration / Cooperation / Culture
- ▶ Fare Integration & Ticketing
- ▶ TOD / Land Use
- ▶ Mobility Management / Emerging Mobility Integration



At the March 4th workshop of the SwissCal conference, Bay Area/Northern California participants ranked the top themes for the region to focus on in the next 1-2 years as:

**1. Organization & Roles of Different Levels of Government**

**2. “System Leadership”** - Designating certain coordination authority to operators

**3. Customer Experience**

To implement lessons from the Swiss practices, participants recognized the importance of several ongoing initiatives within the regions, including the Transformation Action Plan, a plan that was unanimously adopted by the Blue Ribbon Transit Recovery Task Force and by MTC in late 2021. Specifically, participants expressed the importance of Action 13/14 - Network Management Business Case, Action 16 - Rail Partnership and Governance Assessment, and Action 18 - Bay Area Connected Network Plan, and made additional recommendations for how these projects should proceed, such as prioritizing identifying a lead regional rail authority for the Bay Area for both passenger and freight rail planning.

Notable other action items to advance within 1-2 years that didn’t correspond to existing

Transformation Action Plan actions included:

- ▶ **‘System Leadership’** - Operators should internally identify strengths/weaknesses & what they could take the lead on, including capacity bandwidth; generally work to formalize working groups
- ▶ **Customer Experience** - Begin to complete audits and assessments of stations, passenger amenities across the network and track progress
- ▶ **Political leadership** - Civic groups, advocates, and existing political leaders should work together to develop a pipeline of future transit champions well-informed in best practices
- ▶ **Schedule coordination** - Leverage existing staff-led working groups and relationships to advance clockface scheduling and rail service planning among key rail agencies.

To promote the advancement of applicable Swiss best practices in the Bay Area and statewide, the Swiss expert presentations, key findings and action items identified in this report will be available to all partners and participants; and conference presentations and recordings will remain available for reference indefinitely as a resource at [www.swisscal.com](http://www.swisscal.com).



Participants at the March 4th Bay Area workshop.



# 1 | Introduction



*Participants at the March 4th Bay Area workshop.*

The SwissCal Virtual Conference on the Swiss Public Transportation Ecosystem was hosted in partnership with Caltrans, LA Metro, Southern California Association of Governments, Stanford University’s Bill Lane Center, the Metropolitan Transportation Commission, SPUR and other partners across three two-hour conference sessions on February 1st, 8th, and 22nd as well as three region-specific workshops on March 1st, 2nd, 4th.

The conference offered Californian policymakers and senior leaders rare access to Swiss transportation experts who presented on how their system is structured to provide a seamless transit experience for riders in an environment with many local agencies and jurisdictions. This effective system of coordination has been identified in the California State Rail Plan as a model for California. It offered an opportunity to do a ‘deep dive’ into a particular model of networked transit that is likely to be considered in the regionally-led studies, but which is less well understood in the United States.

## Goals and Objectives

Specific goals of the conference were to:

- ▶ Expand understanding of how to deliver a rider-first seamless transit experience across fragmented and complex jurisdictions;
- ▶ Learn from best practices from Switzerland’s highly effective public transportation ecosystem;
- ▶ Understand institutional arrangements that enable seamless coordination; including roles of:
  - ▷ State/Federal Governments
  - ▷ Industry Association
  - ▷ Regional Governments
  - ▷ Transit Agencies
  - ▷ Local Jurisdictions
  - ▷ Private Sector; and
- ▶ Identify actionable steps applicable to each California region

## Conference Agenda

During the first three two-hour sessions of the conference, participants got direct access to Swiss transportation experts, presenting virtually from Switzerland, on a range of subjects including integrated service planning, customer experience, payment, mobility-as-a service, and other topics. The Swiss experts came from a variety of Swiss authorities including the Federal Government, Swiss Railways (SBB), Alliance Swisspass, Regional Transport Associations, and private Swiss transportation companies.



## Conference Agenda (continued)

The following is the complete agenda for the conference speakers:

Session 1: Why Switzerland and Regulatory Overview	Session 2: Understanding Roles in Delivering Seamless Transit & Fares	Session 3: User Experience Innovation & Translating to California	Session 4: Regional Wrap-Up Workshops
<b>Feb. 1, 2022</b> , 8-10am PST / 17h-19h CET	<b>Feb 8, 2022</b> , 8-10am PST / 17h-19h CET	<b>Feb 22, 2022</b> 8-10am PST / 17h-19h CET	Regional workshops convene a subset of participants in 3 separate sessions:  <b>March 1, 2022</b> 8-10am PST <i>Southern California Association of Governments (SCAG)</i>  ----- <b>March 2, 2022</b> 9-11am PST <i>LA Metro</i>  ----- <b>March 4, 2022</b> 9:30-11:30am PST <i>Northern California / San Francisco Bay Area</i>
<p><b>8:00-8:30</b> <b>Welcome &amp; Context Setting for California Policymakers</b></p> <p>Ian Griffiths, Policy Director, <b>Seamless Bay Area</b></p> <p>Kyle Gradinger, Chief, DRMT, <b>Caltrans</b></p> <p>Kome Ajise, Executive Director, <b>SCAG</b></p> <p>Mark Vallianatos, Executive Officer, OEl, <b>LA Metro</b></p> <p>Alix Bockelman, Deputy Executive Director, <b>MTC</b></p> <p><b>8:30-9:15</b> <b>Overview of Swiss Transport Ecosystem / Role of Federal Government / Regulatory Landscape</b></p> <p>Anna Barbara Remund, Vice Director of Infrastructure, <b>Swiss Federal Office of Transport (FOT)</b></p> <p><b>9:15-9:45</b> <b>Role of Agreement between Operators &amp; Tariff communities</b></p> <p>Kathrin Räss, Project Leader, <b>Alliance SwissPass</b></p> <p><b>9:45-10:00</b> <b>Facilitated wrap-up discussion</b></p>	<p><b>8:00-8:10</b> <b>Recap of Session 1 Learnings</b></p> <p><b>8:10-8:40</b> <b>Role of Transit Operator &amp; Industry Association</b></p> <p>Bernhard Adamek, Vice Director, <b>VOV/UTP (Association of Swiss Transit Operators)</b></p> <p><b>8:40-9:10</b> <b>Role of National Regional Rail Provider in User Experience</b></p> <p>Eva Krueger, Customer Experience &amp; Insights</p> <p>Daniel Boos, Product Owner, User Experience <b>Swiss National Railways (SBB)</b></p> <p><b>9:10-9:40</b> <b>Role of Public Sector Decision-makers / Local and Regional authorities</b></p> <p>Anne Hornung-Soukup, Chair of the Board of Directors, <b>Transports Public Genevois (TPG)</b></p> <p><b>9:40-10:00</b> <b>Facilitated wrap-up discussion</b></p>	<p><b>8:00-8:30</b> <b>Recap of Sessions 1 + 2 Learnings</b></p> <p><b>8:30-9:15</b> <b>Role of Startups and Private Vendors</b></p> <p>Jonas Lutz, Head of Product &amp; Marketing, <b>FAIRTIQ</b></p> <p><b>9:15-9:45</b> <b>Governance and Integrating with Emerging Mobility</b></p> <p>Arnd Bätzner, Member of the Board of Directors, <b>Mobility Carsharing</b></p> <p><b>9:45-10:00</b> <b>Applying Swiss Practices to California</b></p> <p>Kyle Gradinger, Chief Division of Rail and Mass Transportation, <b>Caltrans</b></p> <p><b>9:45-10:00</b> <b>Facilitated wrap-up discussion</b></p>	

Three final sessions were held on March 1, 2, and 4th, each with a different sub-regional focus, with the goal of distilling pertinent lessons for each region and identifying opportunities to apply best practices.



## California Regions vs. Switzerland: A Snapshot



*(representations of each region are at same scale)*

	Switzerland <sup>1</sup>	San Francisco Bay Area Region (MTC)	Southern California Region (SCAG)
Population	8.63 million	7.75 million	19.1 million
Area	15,940 sq. mi.	7,000 sq. mi.	38,000 sq. mi.
Pre-COVID Transit Mode Share (% of All Trips)	21%	4-6% <sup>2</sup>	3-5% <sup>3</sup>
Average Daily Miles Traveled	22.9 miles (2016)	22.9 miles (2015) <sup>4</sup>	23.2 miles (2016) <sup>5</sup>

The following pages provide a summary of key learnings from each session. Full presentations from each of the presenters are available in the appendix to this report.

1 <https://www.bfs.admin.ch/bfs/en/home/statistics/mobility-transport/passenger-transport/travel-behaviour.html>

2 [UCLA What's Behind Recent Transit Ridership Declines in the Bay Area?](#) (2020)

3 [UCLA Falling Transit Ridership: California & Southern California](#) (2018)

4 [https://bayareaequityatlas.org/sites/default/files/Final\\_9\\_County\\_BayAreaProfile\\_0.pdf](https://bayareaequityatlas.org/sites/default/files/Final_9_County_BayAreaProfile_0.pdf)

5 <https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-05-plan.pdf?1604533599>



# 2 | Summary of Swiss Transportation Expert Presentations

## Summary of Session 1: Why Switzerland & Regulatory Overview

### Presenters:



**Anna Barbara Remund**

Vice Director and Head of the Infrastructure Division,  
Swiss Federal Office of Transport



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra



**Kathrin Räss**

Project Leader,  
Alliance Swisspass



### Main Takeaways:

- ▶ **Switzerland has one of the highest ridership transit networks in the world**, despite being a country with four language regions, a complex geography, and hundreds of different transit operators.
- ▶ **Coordination is viewed as key to its success**, which is done at both a federal and regional level.
- ▶ **A critical factor in its successful coordination is the federal government setting goals and standards for the system as a whole.**
- ▶ **An organized industry association plays a central role**, collaborating across multiple operators to develop unified plans on how to meet the federal goals and standards. An example of this is the federal requirement of providing “direct service”, or unified fares, requiring transit operators to maintain and regularly update a unified fare structure.
- ▶ **The federal government also sometimes designates a specific transit operator to lead coordination among transit companies**, such as in the areas of customer information and setting real time data standards.





## Overview of Swiss Transport Ecosystem / Role of Federal Government / Regulatory Landscape

Switzerland is a small country with a population of 8.6 million people. It is slightly more populous than the San Francisco Bay Area and double the area in terms of size. Only about 8% of Switzerland represents settled areas, so a strong public transportation system serves as a vital connection between different regions and destinations.

Despite the country's size, Switzerland has a total of 460 transportation companies, which includes 80 railway companies. There are different actors at each level who play a key role in ensuring seamlessness in the Swiss transport system.

Public transit in Switzerland is generally organized into three different levels:

### Governmental Level:

The federal government, or the Federal Office of Transport (FOT), oversees strategic planning and fully finances railway infrastructure, is the safety authority for the entire public transport sector, and defines the legal framework for public transport in Switzerland.

The cantonal actors (roughly analogous to "counties" in the US) and municipalities, are the other actors at the governmental level. They are

in charge of financing regional and local transport services.

### Semi-Public Level:

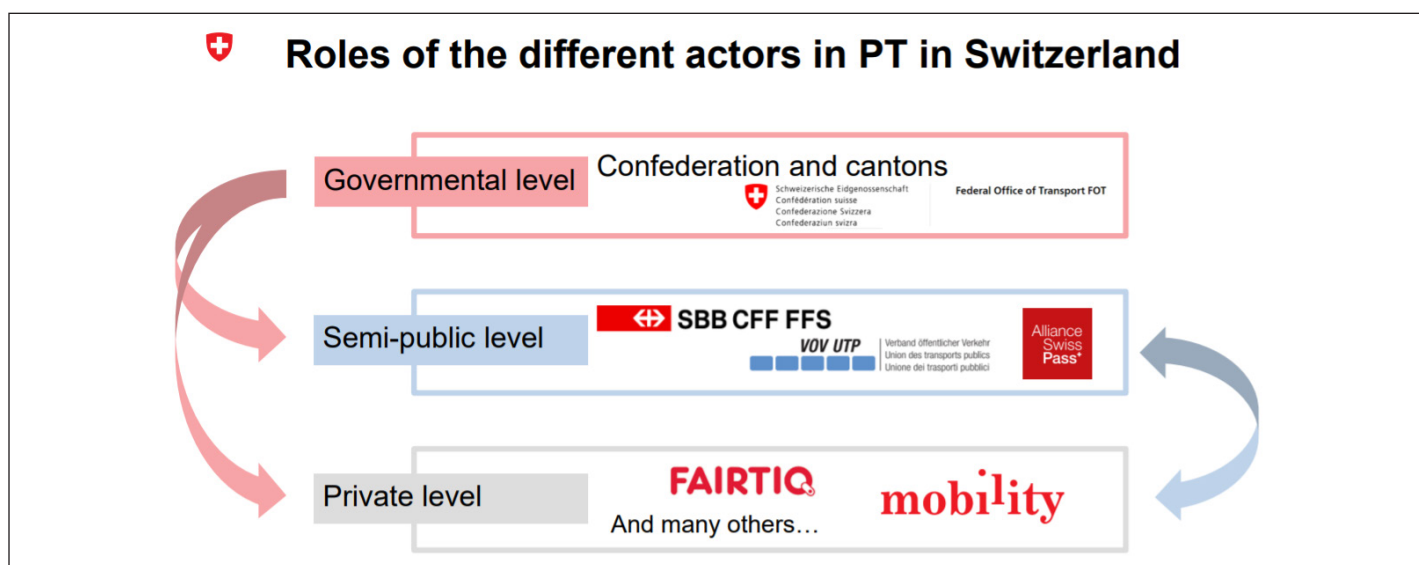
At the semi-public level are companies that are entirely or partially owned by the state. They operate a majority of the transit and oversee some aspects of coordination when such authority is delegated to them by the FOT. The FOT sets targets for them for a period of four years at a time, and these targets are reviewed on a regular basis. The semi-public companies and associations are free to implement these targets in any way they see fit.

### "Private" Level:

While called the "private" level, this tier consists mostly of publicly-owned and governed public transit operators. Most transit operators are arms-length companies fully owned by public jurisdictions. However, fully private (and not publicly-owned) companies are also included in this level.

Swiss public transport's structured timetable shortens connections and travel times for users. Public transport is treated as one system regardless of the connection a rider is using (bus, tram, rail, etc.).

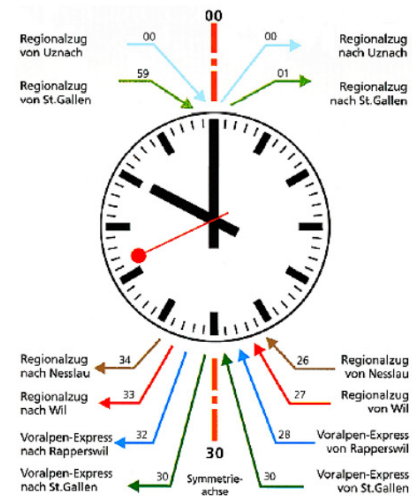
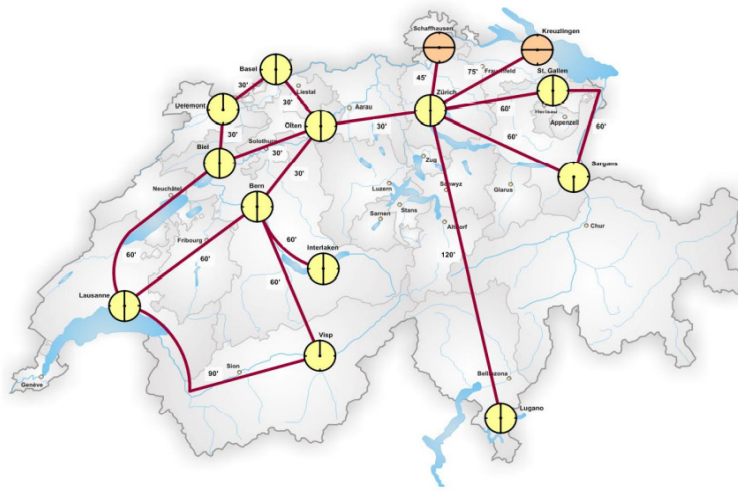
Switzerland utilizes the concept of the node principle and a structured timetable for its transit scheduling. This means that long distance trains



Slide from Remund's presentation showing the three main levels of institutions in the Swiss public transport ecosystem.



## Nodes for passenger transport



Remund's presentation demonstrating the principle of 'clockface' scheduling across key transit nodes.

leave right after the hour and reach the next big station right before the hour. At the corresponding connection, a rider can change to another long distance train, leaving again, just after the hour. They can also catch a regional train or bus as their timetables are coordinated with the time tables of the long distance trains.

### Role of Agreements between Operators & Tariff Communities

There is one ticket for the entire Swiss public transport system, which is referred to as "direct service." This is a legal obligation for all public transport providers and requires close cooperation between public transport providers. Through this direct service system, customers are able to buy simple and universal multi-modal, one-way trip tickets as well as travel cards and travel passes that are valid for multiple forms of transportation. This enables the user to have choices while using the system. They can choose any train or operator and just need to arrive the same day. All 250 operators and 18 fare network associations sell the tickets. Longer distances are discounted.

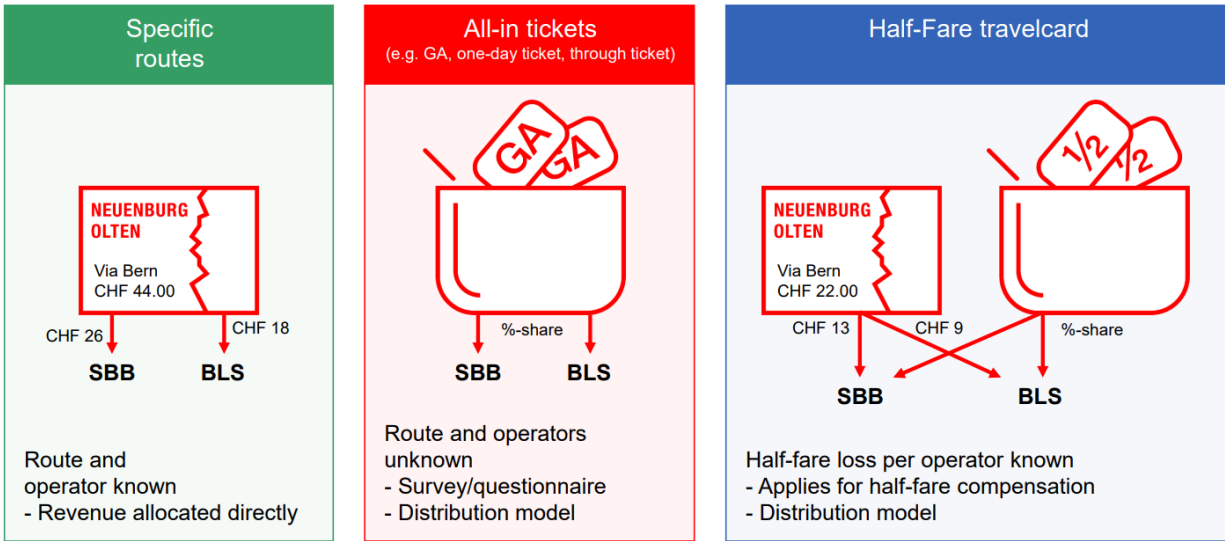
### Fare Collection and Fare Distribution Across Operators

Half of the cost of transit in Switzerland is covered by the user, and the other half is covered by subsidies from the confederation, cantons, and municipalities. Alliance SwissPass, the transport companies, and fare network associations work on products that include all-inclusive travel cards and passes, as well as common rules and standards for tickets. This is crucial to securing income. The NOVA platform, used for ticketing across operators, is a common database on the sales backend.

Fare revenue distribution for tickets that use only one transit agency is straightforward. To distribute income from travel passes such as one-day tickets, where riders may use multiple agencies, Alliance SwissPass conducts regular surveys of usage. Respondents are asked to fill out a questionnaire on their public transportation usage patterns over a given week. Alliance SwissPass is working to improve and test more accurate ways of assessing usage via sensors in vehicles.



# How do we distribute the joint revenues?



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Key slide from Rass' presentation demonstrating how revenues from integrating ticketing products are distributed among multiple operators.



## Summary of Session 2: Understanding Roles in Delivering Seamless Transit & Fares

### Presenters:



**Bernhard Adamek**

Vice Director,  
Association of Swiss Transit Operators (VOV/UTP)



**Eva Krueger**

Customer Experience & Insights,  
Swiss National Railways (SBB)



**Daniel Boos**

Product Owner, User Experience,  
Swiss National Railways (SBB)



**Anne Hornung-Soukup**

Chair of the Board of Directors,  
Transports Public Genevois (TPG)



### Main Takeaways:

- ▶ **The association of Swiss public transit operators (VOV/UTP) holds a unique role within the Swiss public transit system**, with many of its goals and requirements set out by the Federal government. The industry association collaborates across its many operators through a number of specialized commissions to develop standards and undertake joint programs such as workforce development and training.
- ▶ **SBB, the national rail agency, provides leadership at a nation-wide scale in creating a unified customer experience**, investing heavily in internal specialists that oversee a range of programs focused on collecting user feedback, deploying new technologies, and inter-agency collaboration.
- ▶ **Despite the federal framework for coordination, local transit agency operators have an important role to play in spearheading local coordination.** Perseverance and commitment to serving the needs of riders is essential to overcoming complex jurisdictional challenges - which may take many years - but which are viewed ultimately as worthwhile and an important component to gradual improvement of the system. In the case of Geneva, perseverance despite the existence of international boundaries led to the creation of an international rail line and a common fare pass between France and Switzerland.



## Role of Transit Operators & Industry Association

### *A Cooperation-Based Model of Public Transport*

The National Association of Public Transport Operators (UTP) is an umbrella organization of public transport companies in Switzerland. It includes 130 “full” members who represent a variety of Swiss transit operators such as railway companies, bus companies, and funicular/aerial railway companies and 180 “friendly” members which include industrial and business enterprises, associations, and educational institutes.

The Federal Office of Transport (FOT) established the legislative framework that ensures a cooperation-based model of public transport in Switzerland. FOT licenses transport operators and outlines requirements operators must meet. There are many transport operators in different geographical and legal contexts who must follow the same standards established by the confederation and the cantons (roughly analogous to “counties” in the US). Some of the rationale at UTP behind the pooling of interests includes the promotion of best practices in customer-friendly public transport solutions and the standardization of technical regulations for railway companies.

Essentially, the federal government gives directions about desired outcomes of the transit network, and it’s the industry sector itself that works on how these technical regulations should be implemented on a daily basis.

Another role that UTP plays is in leading workforce development and training for the public transit sector in Switzerland, working in partnership with the Swiss government. The Swiss educational system employs a dual track approach to learning. Workforce development entails on-the-job training (apprenticeships) and vocational school to learn theory. UTP is the recognized organization within public transport for all educational and professional development in the sector. Along with members in the educational commission, they come together to determine content for this

learning. They also collaborate with authorities and other stakeholders, including schools.

## Role of National Regional Rail Provider in User Experience

### *A Seamless Customer Experience*

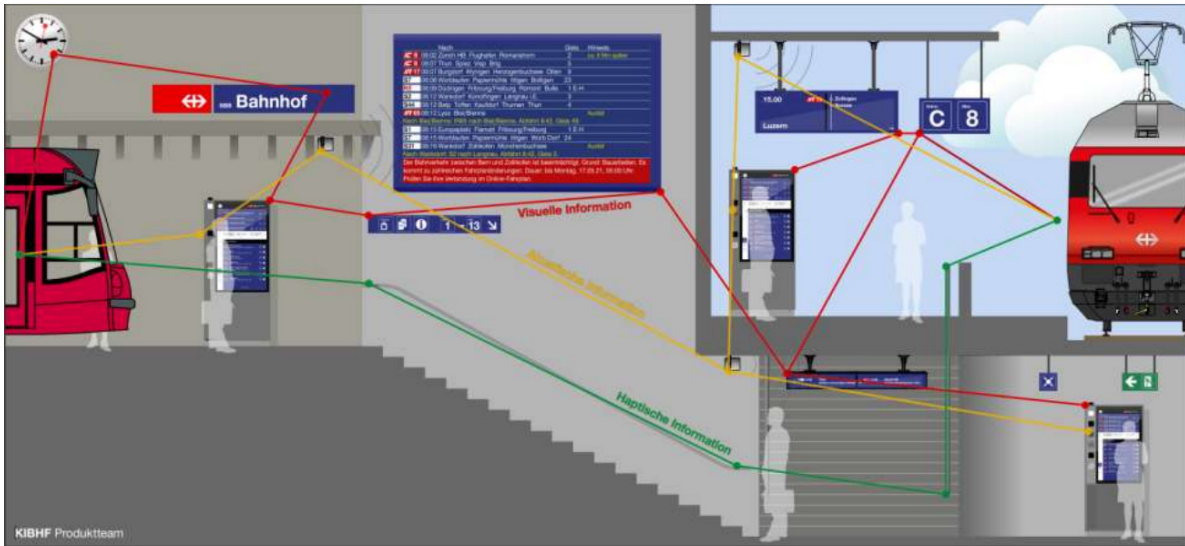
There are many places where Swiss transport users can get transit information. One place where they can get information is through mobile apps. Mobile apps help with ticketing, include timetables, provide real-time information, and recommendations if a train or bus is running late. They look simple, but involve a lot of coordination and data standardization.

One aspect that is key to the customer experience is the positioning of transit-related information. On the tram, users get display information from the tram operator that shows what the next stops are, but they also get information on different connections (see image). At larger train stations, there is usually large signage (shown in the middle of the image) that has current track times and information if there is a delay or change. It also displays information if there is a disturbance somewhere, and what riders can do next. Train stations also have other information readily available to help riders plan their trip better.

SBB provides a variety of additional services to improve the customer experience, coordinating with external parties. For example, they work with ski regions to combine ski tickets with train tickets, so customers only buy a single ticket. Users can even load their ski pass onto their SwissPass. SBB also works with providers to combine different event tickets with train tickets. SBB even provides luggage service, picking up luggage from a customer’s starting location and bringing it to their destination.



## Customer Information – across different touchpoints.



Slide from Krueger & Boos' presentation showing the different touchpoints of customer information within a user's journey through a transit station.

According to SBB, to ensure a seamless customer experience, transit providers should 1) invest in a customer centric culture and customer experience competencies, 2) collaborate across divisions and companies with a vision about the seamless experience, and 3) orchestrate seamlessness across channels and touch points.

### Role of Public Sector Decision-makers/ Local and Regional Authorities

#### *The Canton of Geneva and Coordination Across Borders*

Switzerland has a unique confederation system that is built on cooperation between regions. There is also a national commitment to climate change, which underlies the country's broader commitment to public transit. At the national level, they plan to reduce emissions by 90%, reduce car travel by 40%, and double public transport usage from 21% to 40%, by the year 2050. The Geneva canton hopes to reduce emissions by 30%, reduce car travel by 40-50%,

and increase the usage of public transit by 2030.

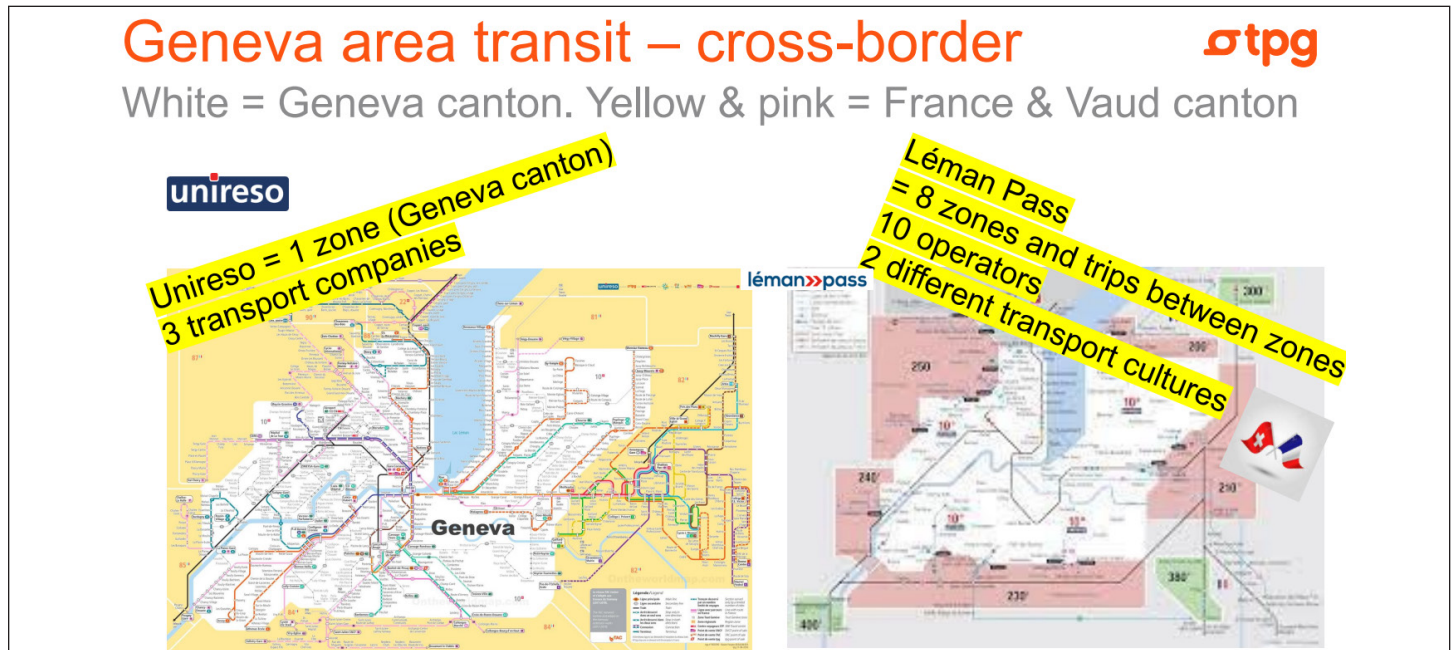
Transit has not always been highly coordinated either at the national level or at the regional level. In Geneva, there has been an evolution towards coordination in particular over the past twenty years, with Unireso, the common fare association for the canton of Geneva, having only been created in 2001. Switzerland's first regional fare association, in the Zurich region, was only created in 1990.

The Unireso pass works within the canton (county) of Geneva canton, while the LemmanPass allows the user to travel around/between eight different zones in the greater Geneva area, which includes many parts of France (the canton of Geneva is surrounded by France on most sides). One can purchase a Unireso or LemmanPass through agencies and third party vendors; ticket machines at stations; bus and tram stops; rural buses; on apps or websites; and also through SMS. The SMS system for purchasing tickets was launched in 2012. It required France to change its national law to allow purchasing the pass through SMS.



Now that same system is all over France. While the specific challenge of having to connect transit across an international boundary does not exist in the Bay Area or Southern California, Hornung Soukup’s example of the LemmanPass and the train connecting the two countries nevertheless demonstrates how with the perseverance of transit agency leaders, and a focus on putting

the customer first to promote seamless mobility, these jurisdictional obstacles can be overcome. She noted several examples of where French law had to be amended to allow for seamless integration - and yet that was viewed as worth doing, as quality mobility is seen as important to both countries’ climate and livability goals.



Slide from Hornung-Soukup’s presentation showing the Canton of Geneva’s transit network and fare zone on the left, and the broader region on the right. The creation of the cross-border LemmanPass to accompany the new train was revolutionary in terms of fare networks in Switzerland and especially in the Geneva area. Fares apply only if a trip crosses the border between Switzerland and France. Every trip has a specific fare based on departure and arrival stations or urban zones and distance.



# Summary of Session 3: User Experience Innovation & Translating to California

## Presenters:



**Jonas Lutz**  
Head of Product & Marketing,  
FAIRTIQ



**Arnd Bätzner**  
Member of the Board of Directors,  
Mobility Carsharing



**Kyle Gradinger**  
Division Chief,  
Caltrans Division of Rail and Mass Transportation



## Main Takeaways:

- ▶ **Several important conditions in Switzerland’s transport ecosystem have enabled the innovation of easy to use mobile ticketing technologies** such as the FAIRTIQ app across the entire country: Existing rules & regulations (including common definitions of users, the common NOVA database) and pooled marketing and investment in the technology among operators.
- ▶ **Switzerland employs a national strategy regarding emerging mobility**, including a national car share operator. It is integrated with the national public transportation network, in terms of both the planning of the networks - pods of shared vehicles and bikes placed at key hubs - and integrated on fare payment products and media.
- ▶ **The state of California’s approach to transit and rail planning is adopting Swiss practices.** The state supports the establishment of distinct roles and responsibilities for different levels of government in California (strategic/network planning, implementation/project development, and service delivery); service-led network design principles (structured timetables); and a phased implementation approach for major infrastructure projects (long-term development).

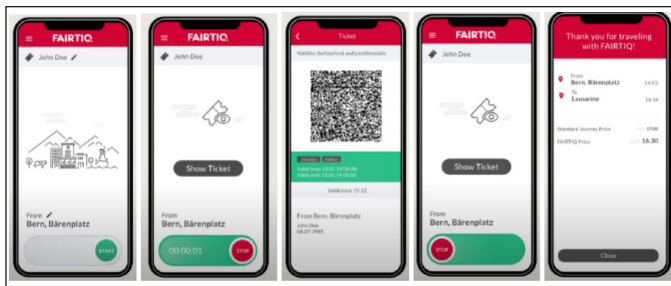




## Role of Startups and Private Vendors

### One Swipe for Your Entire Transit Journey

FAIRTIQ, a Swiss mobile app launched five years ago created with the aim to make a rider's journey easier. Through a single swipe, a transit rider can travel from one destination to another, accessing any of the 250 Swiss transit operators, without knowing which service provider they will use, how much it will cost, or having to pre-load funds. Agencies receive the appropriate revenue, while also benefiting from origin-destination data as a by-product of this system.



The rider swipes START from left to right to begin their journey (image 1). The correct ticket is then generated for the user based on the smartphone's location (image 2). The rider can show the ticket to ride on any system (image 3). Once finished traveling, the rider swipes left to end their journey (image 4) and then an optimized ticket price is generated according to tariff rules (image 5).

Within five years, FAIRTIQ has grown from use on just three initial operators to all 250 operators in the system.

In Switzerland, there are five layers of tariffs for public transportation: local tariffs (short-distance prices), regional tariffs, regional tariff overlaps, metaregional tariffs, and the national tariff (direct service). After a rider completes their journey, the app checks from all those layers of tariffs to determine the best fare, taking away that burden from the user.

FAIRTIQ's success in Switzerland is built off several conditions related to the Swiss transport ecosystem's overall structure:

- ▶ Close collaboration and mutual trust among operators
- ▶ Leveraging existing rules and regulations and creating new rules only where needed: There

are already integrated fares at the regional level and established statewide, distance-based fares in which all operators participate. Additionally, there are designated agencies who distribute cash collected.

- ▶ Cross-selling of tickets and having a central broker (the NOVA system)
- ▶ Common definitions: A child is a child everywhere (someone under the age of 6). Children travel for free.
- ▶ Common standards: Barcode standard for tickets (started as an SMS standard then a QR code that can be retrieved through the NOVA platform)
- ▶ Understanding barriers and pooling resources: FAIRTIQ had worked in distribution ticketing before at SBB, so they knew developing and creating an app would be challenging for operators and challenging to maintain. Thus, they pooled financial resources. Every new partner that joined would pay its share of a reasonably-priced technology that it would not be able to finance itself. As a result, there was no need to reinvent the wheel; one app is available everywhere, is easy to use, and remains the same across operators.
- ▶ Open-source data: FAIRTIQ does not have run after all the data as SBB provides General Transit Feed Specification (GTFS) data for each transit operator.



## Governance and Integrating with Emerging Mobility

### *Emerging Mobility as an Extension of the Public Transportation System*

Switzerland has a national strategy for emerging mobility, especially carshare, which is integrated with the national public transportation network. Mobility Carsharing, which covers the majority of organized carshare in the country, has 1,300 carshare pods nationwide, leveraging public transportation hubs for its vehicle locations.

Carshare vehicles are branded with public transportation provider logos, signaling that they are part of the national public transportation network. This shows they are not a private vehicle, but a public one.

The carshare vehicles offered include both round trip and free-floating (one-way) vehicles, serving the different needs that users might have. They are available at convenient locations like different airports and rail stations. In addition to carshare vehicles, Mobility has also rolled out scooters that travelers can use. All of these modes can be unlocked using a SwissPass, the national ticketing system.

## Applying Swiss Practices to California

### *The 2022 California State Rail Plan: Swiss Inspirations, California Applications*

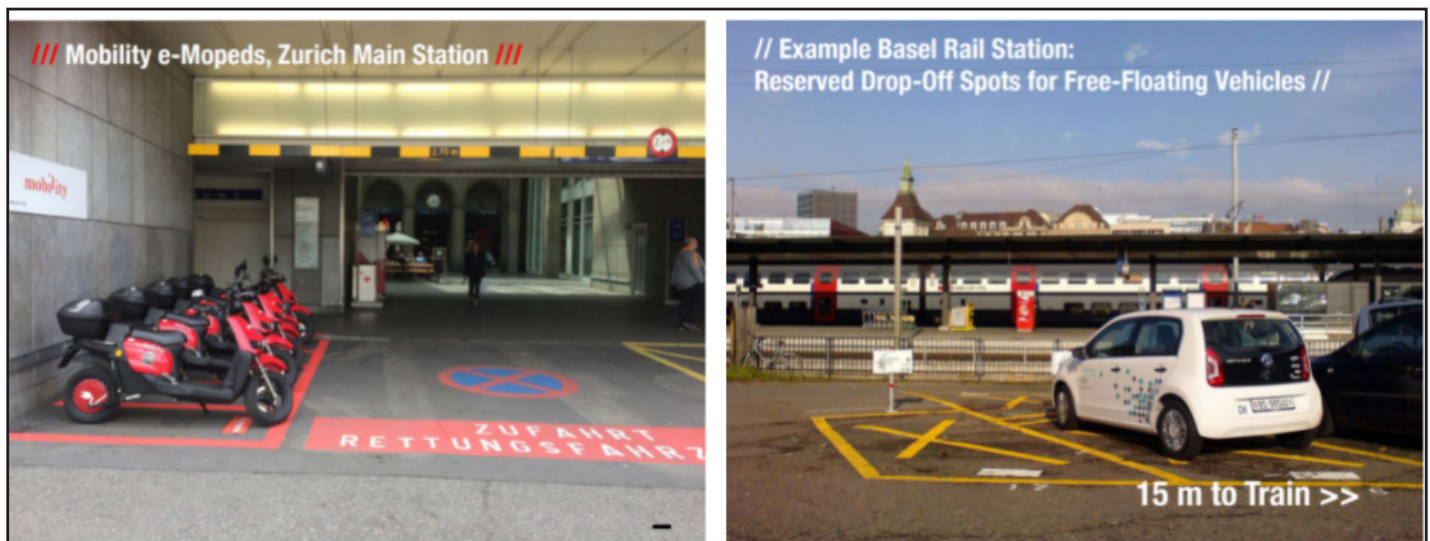
Swiss practices are already being adopted by the state of California, with the following areas as a source of inspiration:

1. Setting effective roles and responsibilities;
2. Service-led network design principles (a structured timetable);
3. Phased implementation (long-term development).

### *Setting effective roles and responsibilities*

Having effective transportation network integration demands that California has effective planning and governance integration.

Currently, there can be confusion about roles and responsibilities which leads to siloed efforts and duplicate work, as well as stranded investments and incompatible solutions. As a result, users face the consequences of this uncoordinated governance every day. Thus, having a clear strategic planning framework and network design principles can be used to guide downstream implementation planning and project development. This approach ensures service delivery is consistent and serves the public good. In this vision, each transportation entity should



Slides from Batzner's presentation: Mobility works with regional rail providers to prioritize access close to train platforms.



travel times and ensuring connectivity throughout the network. Ultimately, this will also minimize capital costs and operations costs.

The agency’s [2022 California State Rail Plan](#), currently being developed, will have a 2050 long-term vision. The Rail Plan establishes California’s strategic vision and the framework for partners to coordinate.

**Policy Goals and Tactical Tools within the California State Rail Plan**

Caltrans seeks to lead analysis, policy, and funding at the statewide level, while working with regions to determine the shared vision for the statewide transportation network. They are working towards planning and funding a mode-agnostic platform for statewide mobility for delivering equity (moving from peak-hour service to robust all-day, competitive service with designed connections between services) and responding to the climate emergency. They are also working to deliver statewide fare integration and design-targeted fare discounts by working with the California State Transportation Agency to develop the [California Integrated Travel Plan](#) (CAL-ITP).

**Phased Implementation**

The [Caltrain Business Plan](#) was cited as an example of the application of Swiss principles.

In terms of setting effective roles and responsibilities, Caltrain was able to leverage this strategic framework for a long-term vision of blended service between Caltrain and high-speed rail on the Peninsula corridor.

In terms of design principles, the statewide network design principles for regularized scheduled timed connections and pulse style service allows the corridor to serve local express and high-speed service while minimizing additional infrastructure investment.

In terms of phased implementation, the technical work developed for the plan provides direct input to statewide modeling of future iterations of the Rail Plan and other regional efforts like [Link 21](#) (the new Transbay passenger rail crossing between Oakland and San Francisco).

Grading closed by mentioning that the success of the Swiss network provided not just aspiration, but inspiration, for California. It did not just inform the network that California wishes it had, but instead it informs how it will plan, design, and ultimately deliver it.

**California State Rail Plan; Investing in an equitable, zero-emission, fully integrated future network**

*Transportation is changing and Caltrans is leading analysis, policy, and funding as we work together with regions to determine our shared vision for the statewide transportation network.*

Policy Goals	Tactical Tools
<p><b>A Platform for Statewide Mobility</b></p> <p>The network is a mode-agnostic platform for transportation mobility and economic opportunity for all Californians. Caltrans is providing the strategic framework to reach all parts the state.</p>	<p><b>Leveraging Network Effects</b></p> <p>More service and more connections mean more access to more destinations for more passengers. Through network analysis we can understand where and how benefits or impacts accrue.</p>
<p><b>Defining and Delivering Equity</b></p> <p>Past decisions divided communities and amplified racial inequalities. Investment must enhance access and improve service for those who have been displaced to auto-dependent communities.</p>	<p><b>Enhancing Off-Peak Service</b></p> <p>To address equity, we must plan, fund, and deliver robust, all-day service with connectivity by design. Transit must solve gaps in non-competitive service, resulting in poor / non-existent options.</p>
<p><b>Zero-Emission System</b></p> <p>The network must be delivered with zero-emissions, leading mode-shift and decarbonizing the transport sector. Caltrans will provide the policy tools and funding support to bend the curve on climate change.</p>	<p><b>Delivering Fare Integration</b></p> <p>CalSTA &amp; Caltrans are developing tools through Cal-ITP that make the administration of means-based and other targeted fares simpler and less costly to implement statewide.</p>

*"CalSTA strongly condemns systemic racism and discrimination in all forms, including those historically entrenched in transportation. Enhancing the lives of all Californians – particularly people of color and disadvantaged communities – by connecting individuals to jobs, healthcare, education and other opportunities lie at the heart of what we do and why."*

*- Secretary David S. Kim  
June 12, 2020*

Slide from Grading’s presentation summarizing the goals of the State Rail Plan.



# 3 | Follow-up Workshop Summary

## Goals

The goals of the San Francisco Bay Area follow up workshop were to:

- ▶ Articulate lessons learned from the Swiss presenters that are applicable to the Bay Area context
- ▶ Identify additional needs / challenges with current coordination efforts
- ▶ Prioritize areas for progress
- ▶ Identify actions for next 1-2 years that build off of the Transformation Action Plan



*Participants in the March 4th workshop hosted by SPUR*

## Participants

The following were representatives from the Bay Area/Northern California region who registered for one or more days of the SwissCal conference (those with an asterisk participated in all or a portion of the final fourth workshop on March 4th, 2022).

Name	Title	Organization
Robert del Rosario	Director of Service Development & Planning	AC Transit
Farra Bracht	Chief Consultant	Assembly Transportation Committee
David Sforza	Senior Consultant	Assembly Transportation Committee
Michael Eiseman*	Director of Financial Planning	BART
Hannah Lindelof	Strategic Planning and Policy Group Manager	BART
Rebecca Saltzman*	Board President	BART
Sandy Stadtfeld	Manager, System Capacity Planning	BART
Gwen Litvak	Senior Vice President, Public Policy	Bay Area Council
Kate Gibson*	Program Manager	Stanford Bill Lane Center for the American West
Theodore Burgwyn*	Director of Rail Network & Operations Planning	Caltrain
Anthony Simmons	Director, Systemwide, Stations, & Capital Planning	Caltrain
Shirley Qian*	Principal Planner	Capitol Corridor
Jim Allison*	Manager of Planning	Capitol Corridor
Ruby Horta	Director of Planning, Marketing & Innovation	CCCTA



## Participants (continued)

Name	Title	Organization
Rick Ramacier	Independent Contractor	CCCTA
Ria Hutabarat Lo	Transportation Manager	City of Mountain View
Ben Pacho*	TDM Coordinator	City of Mountain View
Eric Eidlin*	Station Planning Manager	City of San Jose
Mark Moulton*	Vice Chair, Board of Directors	EPACANDO
Kenji Anzai*	Transit Funding Programs Analyst	MTC
William Bacon*	Principal, Transit Programs and Financial Analysis	MTC
Cheryl Chi*	Transit Operations Funding Manager	MTC
Melanie Choy*	Assistant Director, Funding Policy and Programs	MTC
Shruti Hari*	Principal	MTC
Rebecca Long	Acting Director, Legislation & Public Affairs	MTC
Theresa Romell*	Director of Funding Policy and Programs	MTC
Kara Vuicich*	Principal Planner	MTC
Nick Josefowitz	Commissioner / Chief Policy Officer	MTC / SPUR
Margaret Abe-Koga	Mountain View Councilmember	MTC Commissioner / VTA Board
Alix Bockelman	Deputy Executive Director - Policy	MTC/ABAG
Ryan Park*	Transportation Planner	-
Edna Stanley	Vice President, Light Rail Operations	Sacramento Regional Transit
Hope Cahan	Senior Policy Advisor	Santa Clara County Supervisor Cindy Chavez
Nicole Restmeyer	Legislative Director	Senator Josh Becker
Melissa White	Consultant	Senate Transportation Committee
Monique Webster	Regional Government Affairs Manager	SFMTA
Alex Hallowell*	Manager, Transit Performance and Analysis	SFMTA
Suzanne Smith	Executive Director	Sonoma County Transportation Authority
Dana Turrey	Senior Transportation Planner	Sonoma County Transportation Authority
Laura Tolkoﬀ*	Transportation Policy Director	SPUR
Jonathon Kass*	Transportation Policy Manager	SPUR
Patrick Miller	Market Lead - Transportation Strategy	Steer
Hayley Currier	Policy Advocacy Manager	Transform
Katherine Howe	Principal	VIA Perkins Eastman
Raania Mohshen	Deputy Chief of Staff	Councilmember Chappie Jones, VTA Board
Mike Gougherty	Principal Planner	WETA
Jale Yoldas*	Cultural and Public Diplomacy Officer	Consulate General of Switzerland in San Francisco



## Needs, Challenges, and Ongoing Efforts

To inform the identification of potential next steps based on the lessons from the Swiss experience, workshop attendees were given an update of all the ongoing coordination efforts already underway or planned that were identified with the Transformation Action Plan from MTC staff.

Participants were then asked to reflect on what was potentially missing from this plan, or what initiatives identified may be challenging, in order to help guide the development of next steps. The following were identified:

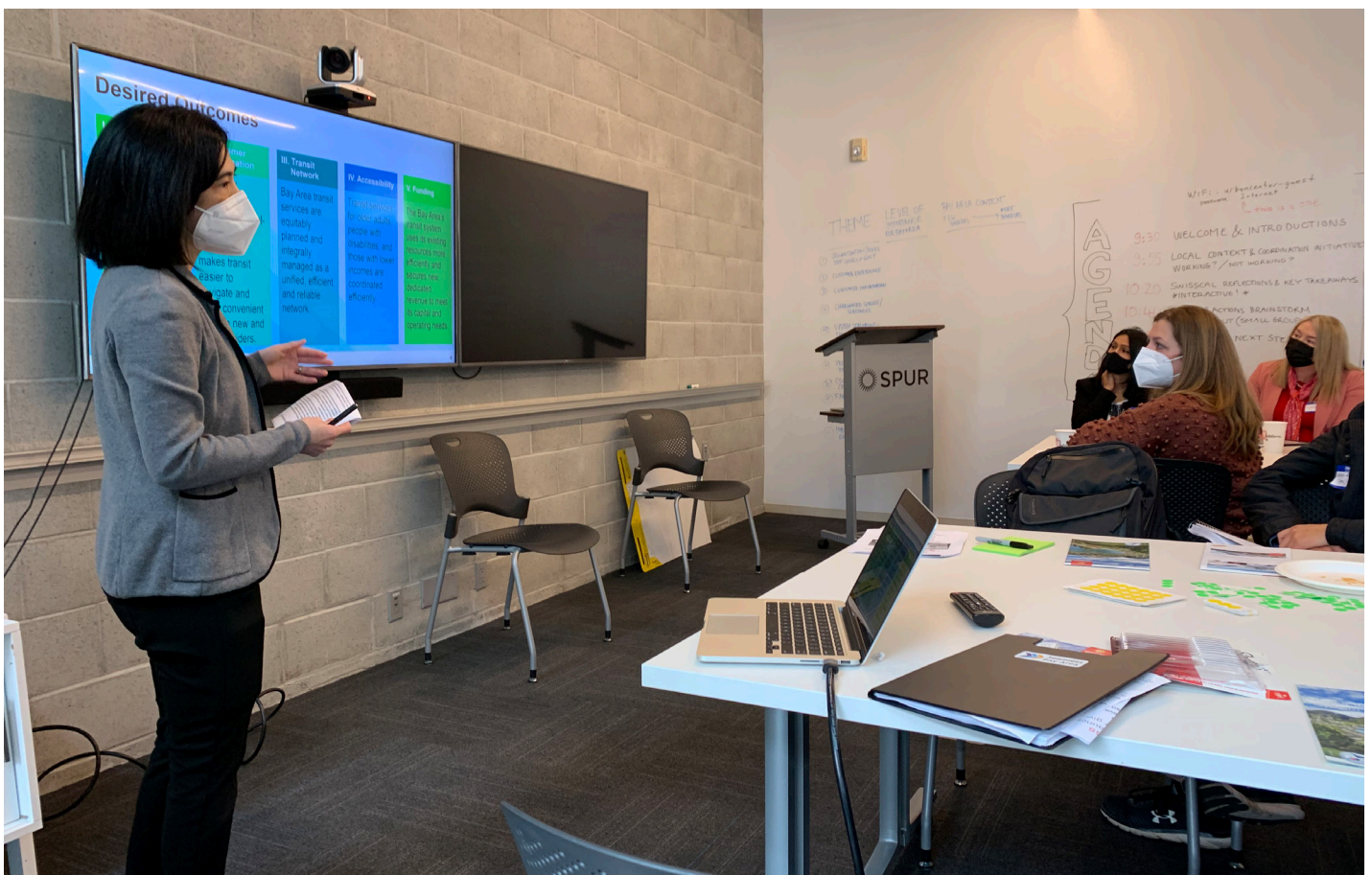
### General Challenges

- ▶ Bandwidth for collaboration
- ▶ Articulating the benefits of coordination - it's difficult to quantify

- ▶ Lack of funding / current funding realities of bay area transit

### Specific Challenges

- ▶ Action 11: Define cooperative agreement process. This will be challenging because it requires local jurisdictions to acknowledge the need for regional transit priorities to strongly influence the process, speed, and outcome of local roadway design decisions, policies, and enforcement priorities.
- ▶ Action 18: Challenging to plan & implement Connected Network Plan without identified funding
- ▶ Action 24: Insufficiently clear direction on Paratransit reforms - this will be difficult as there are so many paratransit fiefdoms and no clear actor bringing them together.



# TRANSIT TRANSFORMATION ACTIONS SCHEDULE

NETWORK MANAGEMENT OUTCOMES		ACTIONS	TARGET COMPLETION DATE											
			2021			2022			2023			2024		
			MID	LATE	EARLY	MID	LATE	EARLY	MID	LATE	EARLY	MID	LATE	
FARES AND PAYMENT	1. Act on the FCIS recommendations		X											
	2. Determine whether existing authority is sufficient for FCIS implementation		X											
	3. Seek state legislation for additional authority, if needed				X									
CUSTOMER INFORMATION	4. Fund and finalize regional mapping and wayfinding standards							X						
	5. Fund and complete 1-3 subregional mapping and wayfinding pilot projects												X	
	6. Fund and develop a regional mapping data services digital platform								X					
TRANSIT NETWORK	Bus Transit Priority (Speed and Reliability)	7. Request a Caltrans Deputy Directive on Design Exceptions		X										
		8. Sponsor legislation to remove barriers to implementation			X									
		9. Fund design and delivery of prioritized transit corridor projects				X								
		10. Select near-term HOV lane operating policies to advance to the State				X								
	Bus/Rail Network Management Reform	11. Define a Cooperative Agreement process					X							
		12. Fund, develop and adopt a Transit Priority Policy and Corridor Assessment								X				
		13. Fund and complete a Network Management Business Case analysis				X								
		14. Establish and support an advisory group to guide business case	X											
		15. Provide financial incentives for Integration Efficiencies initiatives		X										
		16. Deliver Rail Partnership and Governance Assessment (2 phases)		PH 1					PH 2					
17. Adopt Transit Equity Principles and a process for applying them					X									
Connected Network Planning	18. Fund, develop and adopt a Bay Area Connected Network Plan								X					
	19. Adopt a transit hub toolkit to optimize station design and connectivity								X					
Data Collection & Coordination	20. Establish protocols and implement uniform Realtime and transit pathway data collection							X						
ACCESSIBILITY	21. Designate a Mobility Manager in each county				X									
	22. Fund one-seat paratransit ride pilot projects					X								
	23. Identify steps for ADA-paratransit integration on Clipper Next Generation					X								
	24. Identify paratransit challenges and recommend reforms						X							
	25. Adopt standardized eligibility practices for disability programs					X								
FUNDING	26. Identify efficiencies and network management funding needs			X										
	27. Convene stakeholders to guide transportation funding ballot measure								X					

Table from the [Bay Area Transit Transformation Action Plan](#)



## Key Themes and Prioritization

After each of the three first days of the conference, workshop participants were asked what policies or practices from the Swiss experience seemed most applicable to California regions. The responses to this question, which were collected using an online polling software, Slido, were arranged on a Google Jamboard, clustered into eleven themes:

- ▶ Organization & Roles of Different Levels of Government
- ▶ Customer Experience
- ▶ Customer Information
- ▶ Coordinated Service / Schedules
- ▶ Standards / Quality Control
- ▶ Developing Political Leadership and Perseverance to Pursue Change
- ▶ System Leadership - Designating certain coordination authority to operators
- ▶ Collaboration / Cooperation / Culture
- ▶ Fare Integration & Ticketing
- ▶ TOD / Land Use
- ▶ Mobility Management / Emerging Mobility Integration

On the following page is the full set of responses to the question “Which practices or policies seem most applicable to your region in California?” displayed on a virtual ‘Jamboard’, grouped by theme.

## Relevant Findings for the Bay Area, Prioritization of Themes

Workshop participants were asked to reflect upon the information from the Swiss expert sessions across the eleven theme areas and develop key “findings” statements, phrased with either the word “should” or “can”.

Participants evaluated the level of importance of the themes to the Bay Area. Each participant selected three top themes that were most important to the Bay Area and indicated the perceived degree of barriers to making progress for each of those themes.



Result of the prioritization exercise at the Bay Area workshop - yellow sticky dots indicate the participants' views of the highest priority themes for the Bay Area, while the green sticky dots indicate the perceived level of barriers to making progress.



# What felt most relevant?

## organization & roles of different levels of government

**Federal and state governments' involvement in facilitating the legislative process and promotion for single fare, single cohesive system. Public transport companies help each other.**

**The difference in the role of the "federal" governments is striking.**

**The high-level state planning, MPO level, and local level planning at different stages in development**

**Integrated governance**

**Layers of gov't/quasi public agencies down and up of policy authority and delivery**

## designating certain coordination authority to operators (system leadership)

**The approach the Swiss Federal Office of Transport takes by designating an individual transport operator as the lead coordinator (across all operators) for a particular issue.**

**Delegating regional coordination duties to operators.**

**System Leadership: "one for all"**

- One PT service provider is responsible for the entire sector for a certain domain / task
- Planned 100% by confederation (PT)
- Quality, security, user-friendliness, efficiency, quality, interoperability
- Standards
- Having timetables and real-time information available for public transport in Switzerland
- System Leader: SBB
- Product: [www.sbb.ch/transportation](http://www.sbb.ch/transportation)
- Open data platform

## fare integration & ticketing

**How to divide revenue from an all-agency pass**

**Being able to buy the ticket from multiple locations/formats**

**fare integration - practice of multiple operators coordinating fare integration and taking on the burden as opposed to the public**

**One ticket system**

**A better universal fare card**

**What fare costs.**

**Need government subsidies to standardize ticketing/fares**

**Shared decision on fare pricing and distribution of fare revenue**

**One ticket for everything**

**Universal transit passes**

**Integrated fares**

**Universal fare structure**

**Seem less trip planning and fare payment**

**Intergovernmental agreements for cost and revenue sharing**

**Universal fare system is key**

**Ability to combine heterogeneous fare structures within an integrated system**

**Integrating fares and leveraging political will is important**

**universal fare media**

**Land use**

**transit oriented development**

**Land use**

**How do we distribute the joint revenues?**

## customer experience

**The beautiful video with vision of a seamless trip is a great goal for both CA and Switzerland, but the Swiss are much closer to delivering.**

**measuring customer experience (painpoints, touchpoints)**

**everything should be customer oriented**

**Customer service and experience across agencies**

**Seamless high quality customer experience**

**The 2020 go app helps us to understand customer journey and touch-point ratings.**

## standards / quality control

**Organizing gov't when scale/ standards make sense**

**Having a "quality control system" for transit**

**Standardization - Timetables, Fares, Definitions, etc.**

**Coordination around standards/emerging technology.**

**Quality Control System for Regional Public Transport**

- Legal obligation to meet basic standards in terms of quality
- Measurement using the Quality Control System
- Goals
- Controlling task of the Confederation and cantons
- Harmonized measurement system for RPT quality
- Transparency about the services
- Make quality comparable between PT service providers (benchmarking)
- Basis for future offers
- Creates new incentives for public transport providers
- Ensures permanently good quality of service in the RPT
- High level of customer satisfaction

## customer information

**Customer Information - across different touchpoints.**

**Single source of transit information**

**mobile app**

**On passenger-centric information, the slide about how to think about different senses as shown in the graphic of the staircase to the train platform was really enlightening.**

## perseverance & political leadership

**Patience... These policies take a LONG time to implement!**

**The part where it takes several centuries to get any meaningful political thing done**

## TOD/land use

**transit oriented development**

**Land use**

## coordinated service / schedules

**Fare coordination and clock face schedules**

**Pulse scheduling, integrated ticketing**

**Funding, timetable integration**

**Service optimization and equity**

**clock scheduling**

**Pulse scheduling**

**Integrated service planning and optimization among multiple agencies**

**Pulse scheduling in so cal region with 3 different providers**

**Planning based on timetable goals**

**Unified Planning Approach**

**Needs for passenger transport**

## collaboration / cooperation / culture

**Collaboration between operators is similar to how we work currently**

**How cross border issues were managed between agencies.**

**Cooperation**

**Institutional relationships among mobility providers**

**I love the way you make it all seamless, all companies working together.**

**Boarding/PTP**

## mobility management / emerging mobility integration

**More proactive integration of private (TNC, car share etc) services with public transit.**

**the practice that is most noticeable is focusing on removing cars, not just replacing gas with electric....that need more roads, etc.**

**Reducing the number of automobiles is a challenge for present plans encourage car ownership, such as creating more charging stations, but perhaps starting with smaller areas would help implementation of shared vehicles**

**more intermodal integration**

**Getting cars off the roads and integrating travel.**

**not allowing TNCs on the most congested streets**

**riders pay 50% of the cost**

**statewide rail plan**

**I loved seeing how Swiss practices and ideas has been adapted to the needs of California!**

**"Lines" for buses. Does that mean dedicated lanes?**

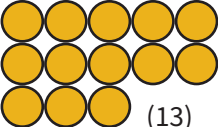
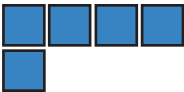


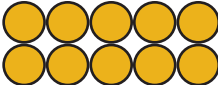

**seeing return on investment in transit**

**other**



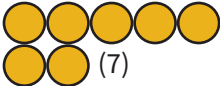

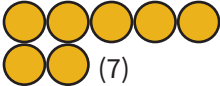









## Summarized Key Themes, Findings, and Prioritization of Swiss Transit Practices

The following is a summary of the eleven theme areas, the summarized “findings statements” based on the workshop, and the assessment of level of importance and perceived barriers to progress. The asterisks indicate the themes for which separate breakout groups were assembled in the final part of the workshop to identify specific actions within the next 1-2 years.

Theme	Findings Statements	Level of Importance	Perceived Barriers
Organization & Roles of Different Levels of Government*	<p>We <b>should</b> develop the capacity to sustain momentum through process and relational work.</p> <p>We <b>should</b> have greater role clarity and crispness between roles and responsibility between different levels of government/agencies.</p> <p>Region &amp; state <b>should</b> make policies and investments to advance an integrated customer-centric transit network; play a larger role for this to occur, and create an implementation plan linked to funding.</p> <p>We <b>should</b> try not to pursue funding systems that entrench current fragmentation.</p> <p>Resources &amp; mandates from upper levels of government <b>can</b> help to overcome challenges of local funding fragmentation &amp; local control.</p> <p>It <b>can</b> be difficult to introduce new systems that people have grown accustomed to.</p>	 (13)	 <p>Most Barriers</p>
“System leadership”*	<p>Transit agencies <b>should</b> pursue some kinds of system leadership.</p> <p>We <b>should</b> designate some kind of system leader for data standards.</p>	 (10)	 <p>Some Barriers</p>
Customer Experience*	<p>The system <b>should</b> be more accessible for people with different abilities.</p> <p>There <b>should</b> be a single window to buy tickets.</p>	 (10)	 <p>Many Barriers</p>



## Summarized Key Themes, Findings, and Prioritization of Swiss Transit Practices (cont.)

Theme	Findings Statements	Level of Importance	Perceived Barriers
Perseverance & Political Leadership*	<p>Bay Area leaders <b>should</b> persevere to champion customer-oriented policies and practices.</p> <p>Leaders and staff <b>should not</b> let the perfect be the enemy of the good.</p>	 (7)	 Some Barriers
TOD / Land Use	<i>no findings statements generated</i>	 (7)	 Many Barriers
Fare Integration & Ticketing	<p>There <b>should</b> be a best price guarantee.</p> <p>There <b>should</b> be someone meshing fares to be encourage mobility and improve customer experience.</p> <p>It <b>should</b> be easier to pay and add money.</p>	 (6)	 Many Barriers
Coordinated Service / Schedules*	Regional governments <b>should</b> play a critical role in defining the transit network design to meet the daily travel needs of individuals.	 (4)	 Some Barriers
Standards / Quality Control	<p>We <b>should</b> standardize data, including what types of data.</p> <p>Standards <b>should</b> exist for real time accuracy and quality standards.</p> <p>Performance measures <b>should</b> be released publicly.</p>	 (3)	 Fewer Barriers
Emerging Mobility	<i>no findings statements generated</i>	 (1)	 Some Barriers
Customer Information	<p>There <b>should</b> be clear instructions for newcomers</p> <p>There <b>should</b> be one app for all services</p> <p>There <b>should</b> be common standards for wayfinding and good wayfinding between services</p>	(0)	<i>not assessed</i>
Collaboration / Culture	<i>no findings statements generated</i>	(0)	<i>not assessed</i>



## Initial Actions to Advance within 1-2 Years

In the final section of the workshop, participants in subgroups identified possible actions to advance within 1-2 years in a way that built off of the initiatives that were already underway or expected to begin soon as a result of the Transformation Action Plan. Actions were focused on five of the key top themes that had been identified as higher priorities by the group. Where possible, participants identified what agencies should lead and who would support each action item - however several of the action items identified did not have specific leaders identified.



## Initial Actions to Advance within 1-2 Years (continued)

Long Term Goal	Initial Action to Advance within 1-2 years:	Potential lead	Potential partners
<b>Organization and Roles of Different Levels of Government</b>			
Clear authorities to manage the transit network as a whole	Proceed with TAP Action #13/14, Network Management Business Case & Advisory Group	MTC, Elected leaders	Transit agencies
Rationalize regional rail governance; Create lead regional rail/transit agency (like SBB)	Within TAP Action #16, Rail Partnership & Governance Assessment; prioritize assessment of having a lead rational rail provider as part of the regional rail study	MTC, Transit Agencies	-
	Identify state & federal funding to implement reforms	Elected leaders	MTC, Transit agencies
Clear state or federal level governance of freight rail system	Engage freight rail; Encourage TAP Action #16, Rail Partnership & Governance Assessment, and Action #18, Connected Network Plan, to include freight system vision	CALSTA, Caltrans, MTC  Operators should internally identify strengths/weaknesses & what they could take the lead on, including capacity bandwidth	Rail operators
<b>System Leadership</b>			
Convene and designate operator leads on roles for the region	Operators should internally identify strengths/weaknesses & what they could take the lead on, including capacity bandwidth	Operator Group/MTC, or new task force that builds off of Blue Ribbon Transit Recovery Task Force	Transit Staff
	Establish methods of convening formal working groups	-	-
	Address staff resourcing issues	MTC, State	-



## Initial Actions to Advance within 1-2 Years (continued)

Long Term Goal	Initial Action to Advance within 1-2 years:	Potential lead	Potential partners
<b>Customer Experience</b>			
Improved stations, station access	Complete and publish audits	-	-
	Identify stable source of funding to keep improving	-	-
Passenger amenities at stops	Complete assessments of stop quality & location	-	-
	Identify new sources of funding to go beyond ad revenue	-	-
Address sense of safety and security	Discuss it - it's real	-	-
<b>Political Leadership</b>			
Widespread support/ a structure that can withstand turnover	Develop pipeline of leaders in bureaucracy (e.g. mentorship between board members)	Civic groups, advocates	Political leaders
	Identify who is responsible for internal capacity & expertise development within TAP Action #13, Network Management Business Case	MTC	-
A policy basis / shared understanding of why integration is important, what it is	Proceed with TAP Action #13, Network Management Business Case	MTC	-
	Regional and state funding guidelines that enshrine policy goals	MTC, Caltrans	-
System vision grounded in values and principles	Proceed with TAP Action #18 Connected Network Plan	MTC	Transit Agencies, Advocates
State level champions (& funding programs)	State funding programs that put policy aspirations in program guidelines	Legislators, Caltrans	-



## Initial Actions to Advance within 1-2 Years (continued)

Long Term Goal	Initial Action to Advance within 1-2 years:	Potential lead	Potential partners
Schedule Coordination			
Customer-focused regional network with fewest barriers	Organize rail service planning coordinating group among agencies via regular call	Caltrain	Local agencies, Caltrain, VTA, BART
	Caltrain promoting clockface schedule, encourage other agencies to join	Caltrain	BART, Capitol Corridor
Data sharing	Centralize / standardize collecting and analyzing of transfer data	MTC, Transit Agencies	-
More efficient use of resources	Look to state school start time policy for unintended consequences that would increase costs for transit agencies	Transit agencies	-
More options more security/ certainty for passengers	Attention to low frequency connections (including owl service)	Transit agencies	-
	Regional TNC pilot for late night / early morning service	-	-
	Regionally coordinated guaranteed ride home	-	-

[Links to original images of breakout group materials](#)



## 4 | Next Steps

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While the SwissCal Conference was not officially led by any Bay Area public agencies, there are significant opportunities to advance the ideas developed in this report. To support, progress toward a higher performing Bay Area transit system that adopts Swiss best practices, the following are planned as next steps from the SwissCal Virtual Conference:

- ▶ This report and its findings, including the action items identified, will be made available to all partner institutions and participants
- ▶ Conference presentations and recordings will be available for reference and downloading indefinitely as a resource at [www.swisscal.com](http://www.swisscal.com), and in links included in the Appendix to this report
- ▶ A summer 2022 event is planned to share the key learnings of Swiss Practices with the broader public, and engage an even broader group of leaders
- ▶ Opportunities for follow up conference sessions - virtual and in-person - are being actively explored to both deepen understanding of Swiss practices and bring practices from other relevant regions and countries to California policymakers.





# Acknowledgements

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## Swiss Presenters:

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- ▶ [Bernhard Adamek](#), Association of Swiss Transit Operators (VOV/UTP)
- ▶ [Daniel Boos](#), Swiss National Railways (SBB)
- ▶ [Eva Krueger](#), Swiss National Railways (SBB)
- ▶ [Jonas Lutz](#), FAIRTIQ
- ▶ [Kathrin Räss](#), Alliance SwissPass

## Co-Hosting Partners:

- ▶ [Kyle Gradinger](#), Caltrans
- ▶ [Priscilla Freduah-Agyemang](#), Southern California Association of Governments (SCAG)
- ▶ Philip Law, Southern California Association of Governments (SCAG)
- ▶ Mark Vallianatos, LA Metro
- ▶ Kate Gibson, Stanford University's Bill Lane Center for the American West

## Additional Partners:

- ▶ William Bacon, Metropolitan Transportation Commission (MTC)
- ▶ Laura Tolhoff, SPUR
- ▶ [Antoine Belaieff](#), FAIRTIQ

## Seamless Bay Area:

- ▶ [Adina Levin](#), Seamless Bay Area
- ▶ [Ian Griffiths](#), Seamless Bay Area
- ▶ Sana Ahmed, Seamless Bay Area



# Appendix: Links to Presentations & Recordings

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\*All links available at [www.swisscal.com](http://www.swisscal.com)

## Feb 1, 2022: Session 1 Presentations

- ▶ 8:00-8:30am | [Welcome & Context Setting for California Policymakers](#) (Key Partners: Seamless Bay Area, SCAG, Caltrans, LA Metro, MTC)
- ▶ 8:30-9:15am | [Overview of Swiss Transport Ecosystem / Role of Federal Government / Regulatory Landscape](#) (Anna Barbara Remund, Vice Director of Infrastructure, Swiss Federal Office of Transport)
- ▶ 9:15-9:45am | [Role of Agreement between Operators & Tariff communities](#) (Kathrin Räss, Project Leader, Alliance Swisspass)

## Feb 1, 2022: Session 1 Additional Resources

- ▶ [Session 1 Recording](#)
- ▶ [Session 1 Recap Blog Post](#)

## Feb 8, 2022: Session 2 Presentations

- ▶ 8:10-8:40am | [Role of Transit Operators & Industry Association](#) (Bernhard Adamek, Vice Director, VOV/UTP - Association of Swiss Transit Operators)
- ▶ 8:40-9:10am | [Role of National Regional Rail Provider in User Experience](#) (Eva Krueger,

Customer Experience & Insights and Daniel Boos, Product Owner, User Experience, Swiss National Railways - SBB)

- ▶ 9:10-9:40am | [Role of Public Sector Decision-makers / Local and Regional authorities](#) (Anne Hornung-Soukup, Chair of the Board of Directors, Transports Public Genevois - TPG)

## Feb 8, 2022: Session 2 Additional Resources

- ▶ [Session 2 Recording](#)
- ▶ [Session 2 Recap Blog Post](#)

## Feb 22, 2022: Session 3 Presentations

- ▶ 8:10-8:30am | [Role of Startups and Private Vendors](#) (Jonas Lutz, Head of Product & Marketing, FAIRTIQ)
- ▶ 8:30-9:00am | [Governance and Integrating with Emerging Mobility](#) (Arnd Bätzner, Member of the Board of Directors, Mobility Carsharing)
- ▶ 9:00-9:30am | [Applying Swiss Practices to California](#) (Kyle Gradinger, Chief Division of Rail and Mass Transportation, Caltrans)

## Feb 22, 2022: Session 3 Additional Resources

- ▶ [Session 3 Recording](#)
- ▶ [Session 3 Recap Blog Post](#)





[www.seamlessbayarea.org](http://www.seamlessbayarea.org)