

# SKI-Roadmap – Milestone Plan SJYID

[https://transportdatamanagement.ch/content/uploads/2021/03/Roadmap\\_SKI\\_Milestone\\_Plan\\_2021.pdf](https://transportdatamanagement.ch/content/uploads/2021/03/Roadmap_SKI_Milestone_Plan_2021.pdf)

Change	Type of Interface <sup>1</sup>	MS (1)	MS (2)	MS (3)	MS (4)	MS (5)
SKI-CH002 - Swiss Journey ID (SJYID)	T, R	Done	Done	2021.4	2023.1	2025.4

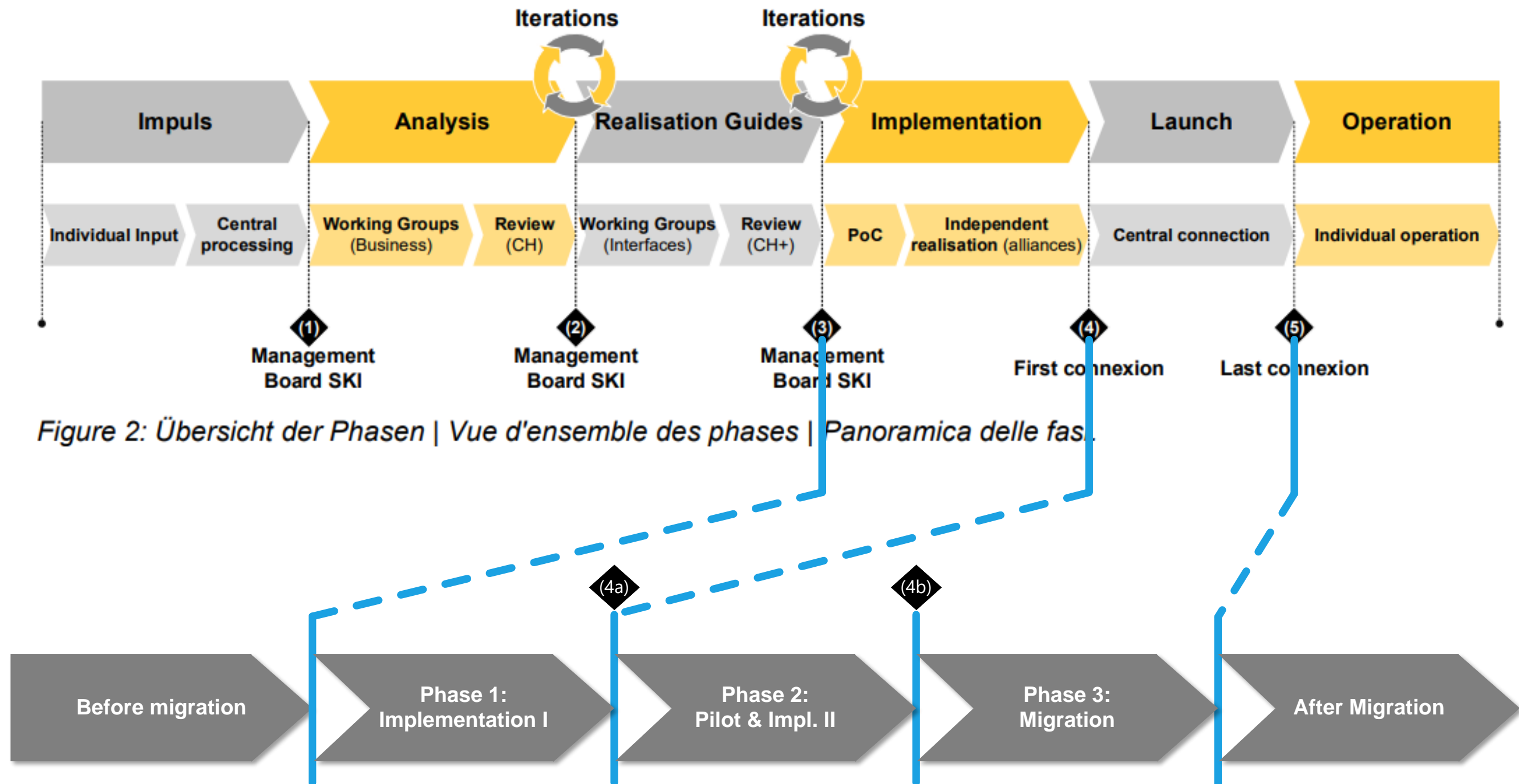
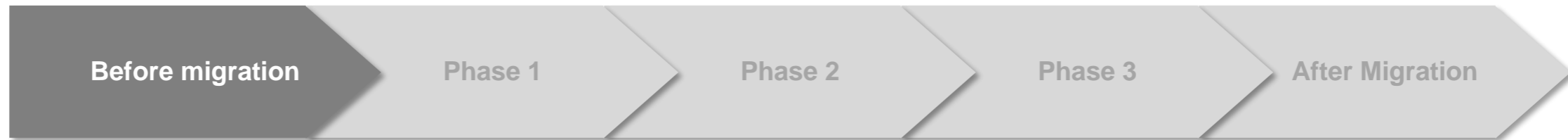


Figure 2: Übersicht der Phasen | Vue d'ensemble des phases | Panoramica delle fasi.

## Relation between Roadmaps

The roadmap presented in the following is a refinement of the SKI-Roadmap as referenced above. An additional «Pilot» phase with milestone (4b) is introduced in which stakeholder that don't participate in the pilot may complete their implementation in the «Launch» phase. Core players and participants of the pilot, in particular SKI CUS and related railway producers as well as consumers, must still be ready (to fully support SJYID) by the end of 2023.1 as mandated by the SKI-Roadmap.

# Migration Plan for SJYID



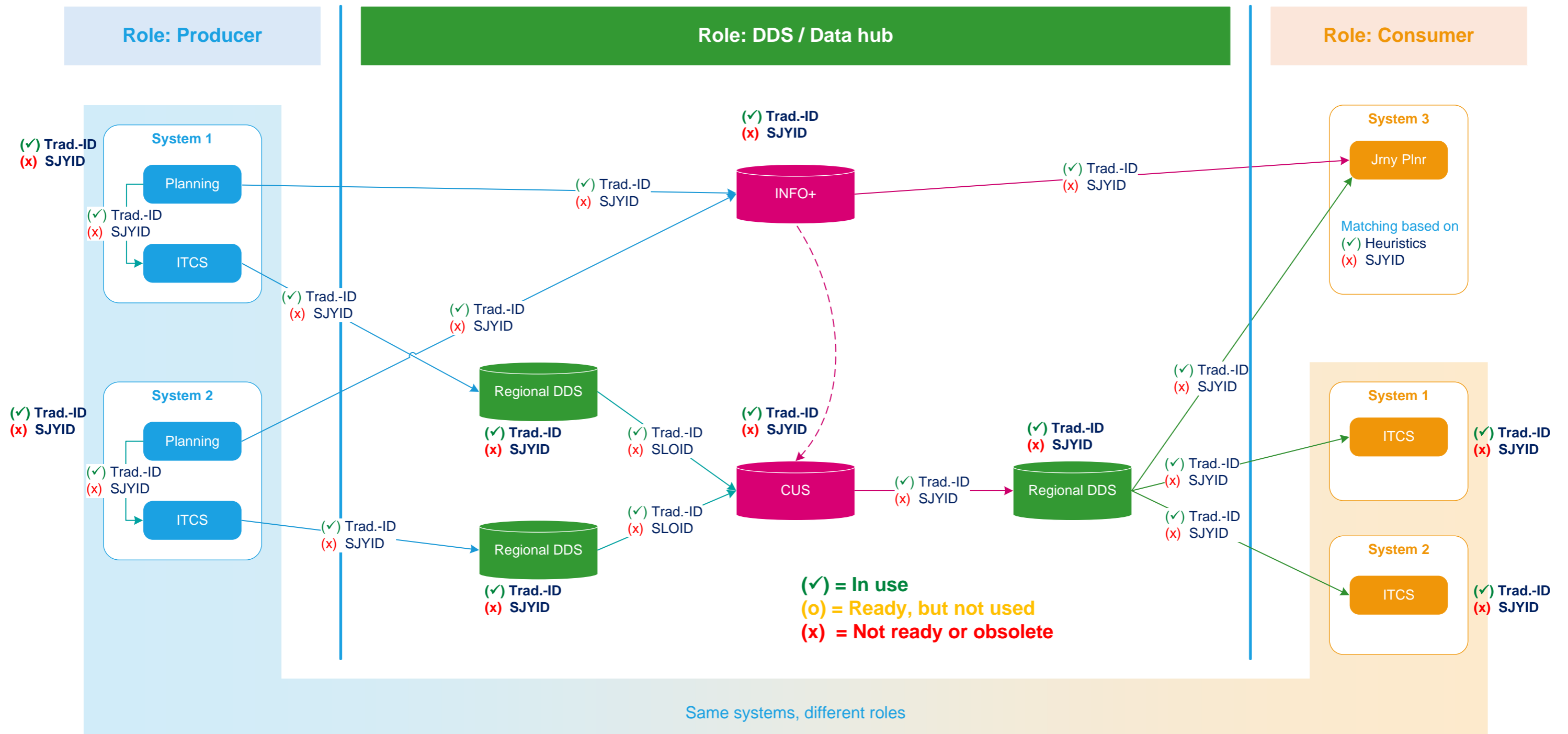
## Before Migration

The traditional journey ID applies and its schema differs depending on rail or local public transport.

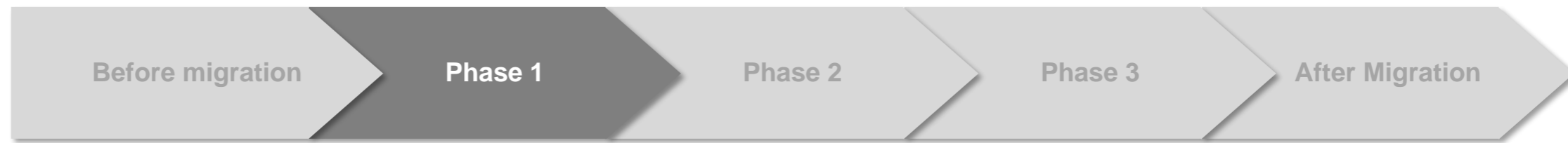
No relation between planned and actual data in some local public transport implementations, i.e., the HAFAS journey number of the periodic INFO+ timetable and the VDV453/454 journey ID («Fahrtsbezeichner») are generated independently of each other. In rail implementations, however, journey IDs in planned and actual data are generally related to each other.

Participants for the pilot phase are chosen with SKI CUS as leader. The pilot will consist of a small group of systems producing and consuming the SJYID on a test environment.

- CUS and INFO+ process the traditional ID's.
- Data hubs process the traditional ID's.
- Data producer (e.g ITCs) process the traditional ID's.
- Data consumer (e.g. Journey Planner) process the traditional ID's.



# Migration Plan for SJYID



## Phase 1: Implementation I (SKI Roadmap - Implementation Phase, MS 3 → MS 4, until 2023.1)

SKI CUS, data hubs, first mover and other related systems start implementing the SJYID with the goal that each and every consuming system as well as selected producers (SKI CUS and first mover) are ready to generate, receive and process SJYID data by the end of phase 1.

SKI systems INFO+ together with CUS support the SJYID and **activate** it as producers of railway data (on VDV interface version XSD2017) as early as **2022.4**.

Organisational agreements between the participants of the pilot are worked out. This lays the basis for carrying out the pilot with the selected systems in the phase 2.

**CUS** and **INFO+** deliver the traditional journey IDs while implementing support for SJYID:

- Ready to receive, process and deliver data with SJYID.
- Arrangements with pilot participants.

The SJYID and consequently the VDV FahrtBezeichner generated in SKI CUS uses the same logic as INFO+, i.e., the SKI implementation neither contains an UUID nor the SystemType (differentiation between the types of source systems). SKI SJYID example: «ch:1:sjyid:100001:2876-048»

**Data hubs** deliver the traditional journey IDs while implementing support for SJYID:

- Ready to receive, process and deliver data with SJYID.
- Arrangements with pilot participants.

**Data producer (Pilot / First Mover, system 1)** deliver the traditional journey IDs while implementing support for SJYID:

- Resolve dependencies to other IDs or properties (most notably VDV LinienID, VDV454 Verkehrsmittelnummer and VDV453 FahrBezeichnerText).
- Ready to deliver VDV or SIRI data with SJYID within VDV FahrtBezeichner or SIRI DatedVehicleJourneyRef.
- Arrangements with pilot participants.

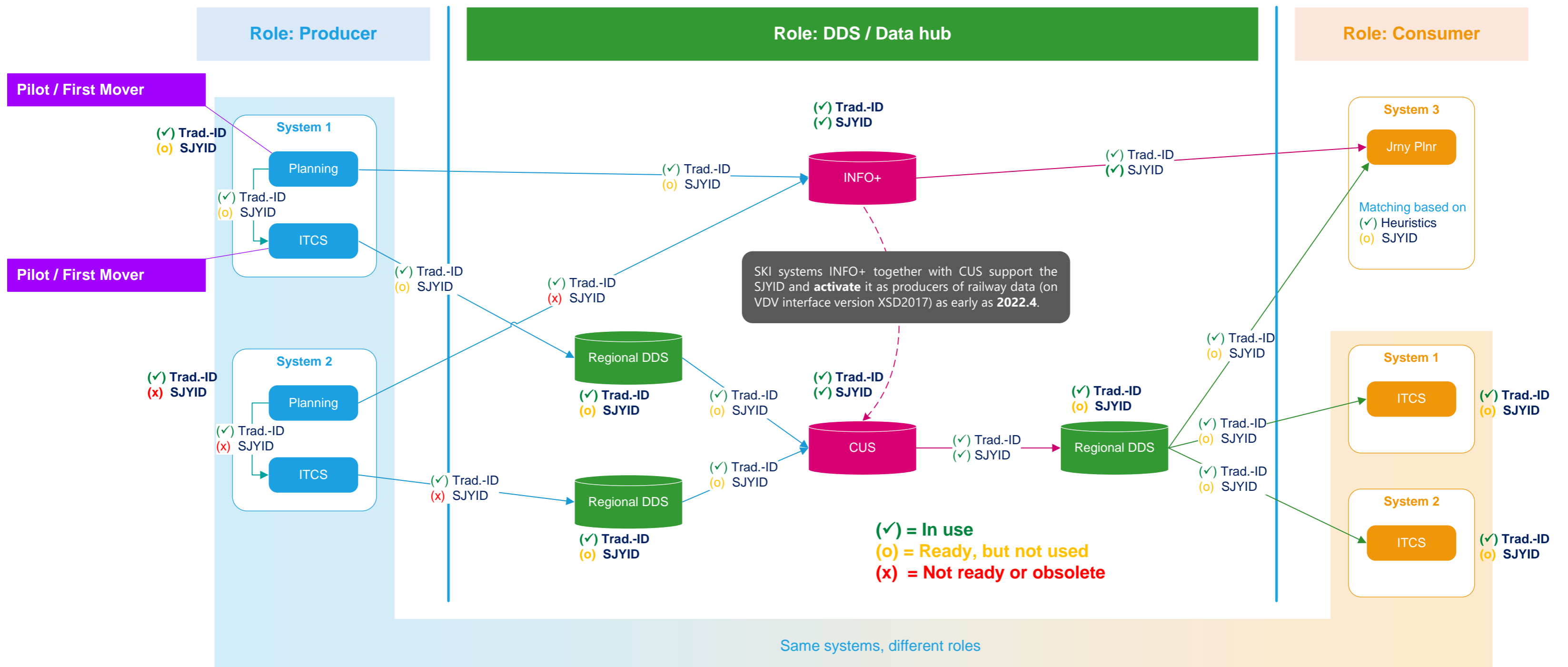
**Data producer (system 2 and all others)** deliver the traditional journey IDs while implementing support for SJYID:

- Resolve dependencies to other IDs or properties (as described above).

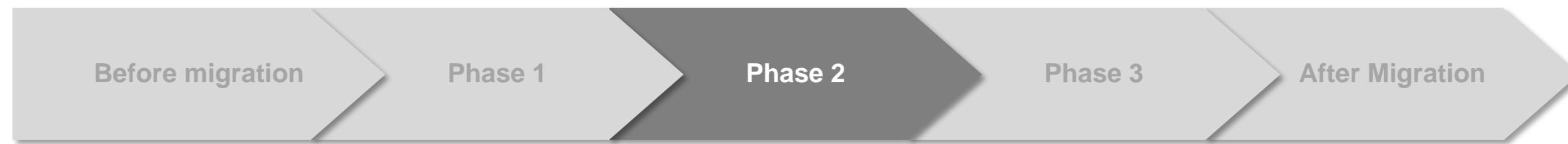
VDV Verkehrsmittelnummer must contain the 6-digit «journey number» according to the INFO+ timetable (corresponds to the first column of the \*Z row in HRDF). In VDV453 (where the former element is not supported) FahrtBezeichnerText must be used instead.

**Data consumer** implement support for SJYID in addition to the traditional values:

- Ready to receive and process data with SJYID.
- Ready to match journeys based on SJYID.
- Arrangements with pilot participants.



# Migration Plan for SJYID



## Phase 2: Pilot & Implementation II (SKI Roadmap - Launch Phase, MS 4 → MS 5, until 2025.4)

Pilot / First Mover and all correlated systems activate the SJYID, i.e., stop producing traditional journey IDs.

**CUS** and **INFO+** forward data as it is received:

- Activate processing of SJYID on the corresponding environments / channels.
- Receive, process and forward SJYID from the **Pilot / First Mover**.

**Data hubs** forward data as it is received:

- Activate processing of SJYID on the corresponding environments / channels.
- Receive, process and forward SJYID from the **Pilot / First Mover**.

**Data producer** (**Pilot / First Mover**, system 1) activates the SJYID :

- Delivers data with SJYID only, i.e., stop producing traditional journey IDs.

**Data producer** (system 2 and all others) deliver the traditional journey IDs while implementing support for SJYID:

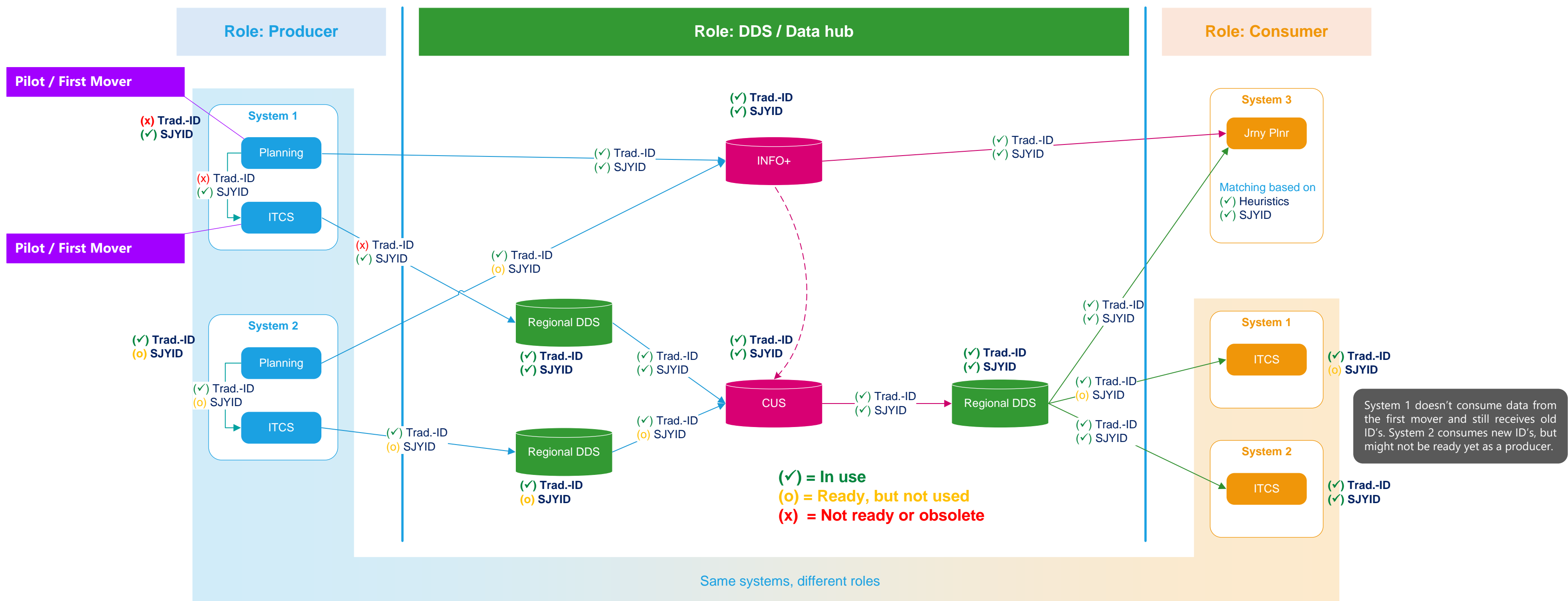
- Resolve dependencies to other IDs or properties (as described in phase 1).
- Ready to deliver VDV or SIRI data with SJYID within VDV FahrtBezeichner or SIRI DatedVehicleJourneyRef.

**Data consumer** (that are part of the pilot):

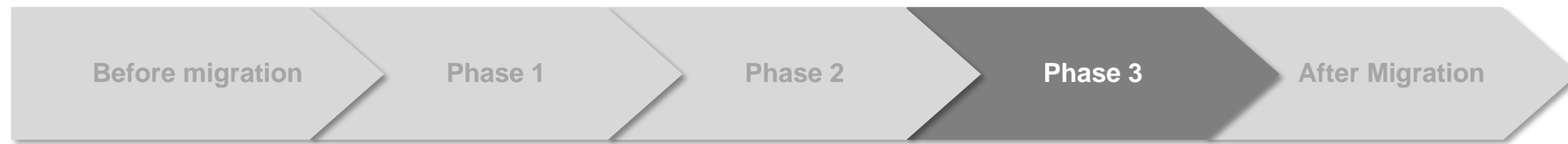
- Activate processing of SJYID on the corresponding environments / channels.
- Receive and process SJYID from the **Pilot / First Mover**.
- Match journeys from the **Pilot / First Mover** based on SJYID or heuristics.

For data producer that do not (yet) provide a SJYID in the periodic INFO+ timetable, the existing processing of the VDV FahrtBezeichner does not change. Conversely, all VDV data producers that still use interface version XSD2015 must retain the traditional journey IDs and thus VDV FahrtBezeichner in accordance with the agreement in version 1.2 of the VDV realisation guide for public transport CH.

In case of replacement transport and multiple involved organisations, the participating systems must agree upon which data producer is responsible for the generation of the SJYID. Moreover, it is highly recommended that the original and replacement journey reference each other (or SJYIDs are linked respectively), i.e., that a VDV FahrtBeziehung or SIRI JourneyRelation is communicated via the respective interfaces.



# Migration Plan for SJYID



## Phase 3: Migration (SKI Roadmap - Launch Phase, MS 4 → MS 5, until 2025.4)

System 2 and all other participants (that were not part of the pilot) activate the SJYID, i.e., stop producing traditional journey IDs.

**CUS** and **INFO+** forward data as it is received:

- Receive, process and forward SJYID from the **Pilot / First Mover** and the other participants as well.
- Support the traditional IDs until the last **Data Producer** has activated the SJYID

**Data hubs** forward data as it is received:

- Receive, process and forward SJYID from the other participants as well.
- Support the traditional ID's until the last **Data Producer** has activated the SJYID (see difference between data hubs connected to system 1 vs. system 2).

**Data producer** (**Pilot / First Mover**, system 1):

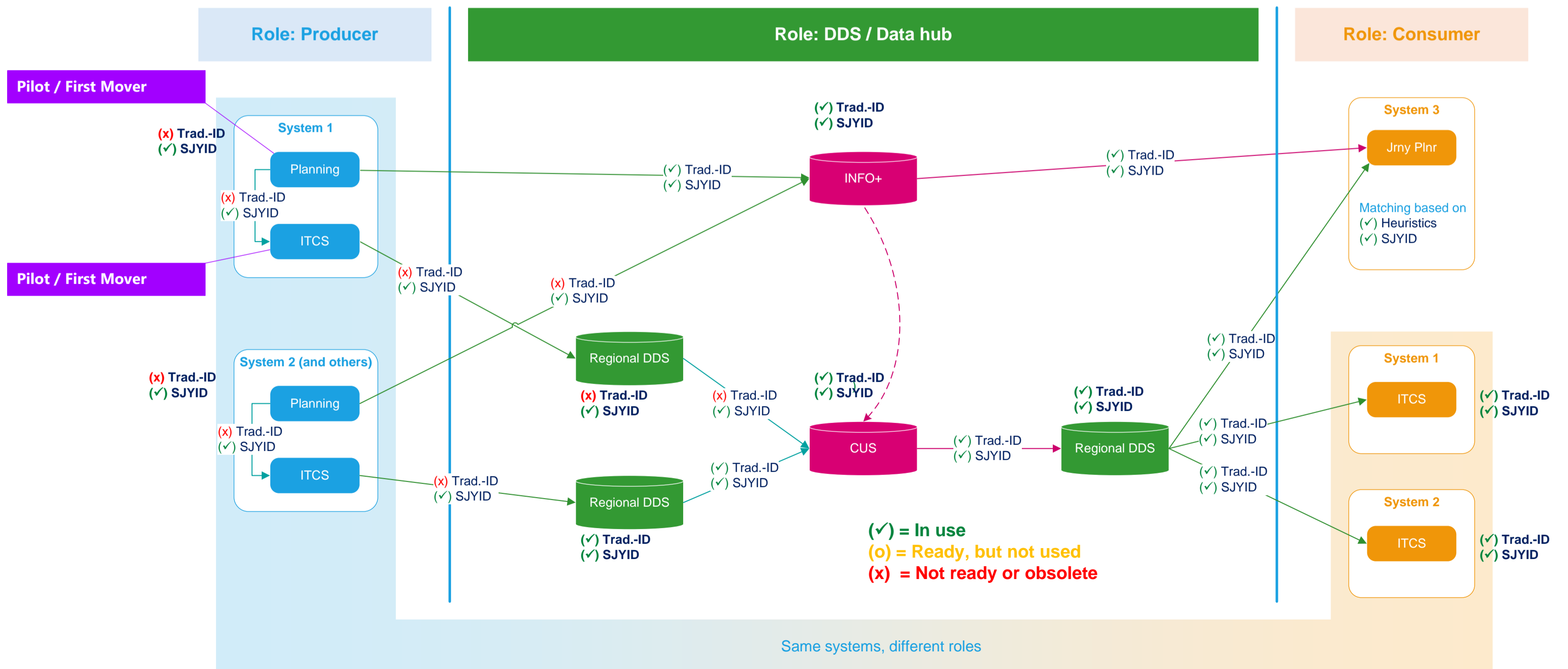
- Has already migrated, thus no changes in this phase.

**Data producer** (system 2 and all others) activate the SJYID (and replace):

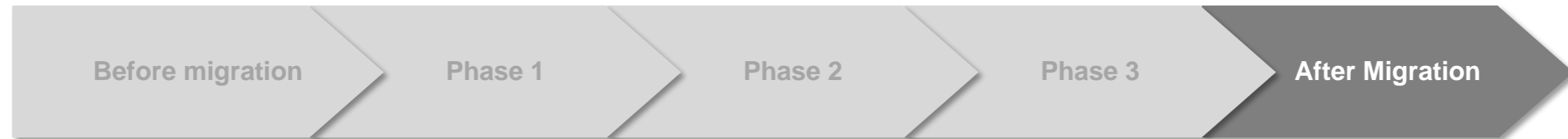
- Deliver data with SJYID only, i.e., stop producing traditional journey IDs.
- There is no need for overall coordination since all subsequent systems are ready for SJYID (dates of the SKI Roadmap apply).

**Data consumer:**

- Receive and process SJYID from the **Pilot / First Mover** and the other participants as well.
- Match journeys from the **Pilot / First Mover** and other participants based on SJYID or heuristics.



# Migration Plan for SJYID



## After Migration

All systems have migrated, hence the traditional IDs are no longer in use.

CUS and INFO+ stop processing of traditional ID's.

Data hubs stop processing of traditional ID's.

Data producer stop processing of traditional ID's.

Data consumer have activated matching based on SJYID and stop processing of traditional ID's via Heuristics.

Since the SJYID specification only applies within public transport CH, consumer and customer systems must support non-SJYID compliant journey IDs or VDV FahrtBezeichner even after completion of the SJYID migration.

A foreign journey ID must be used unaltered throughout all systems in public transport CH if, and only if:

- (1) Uniqueness per operating day is guaranteed.
- (2) The ID is used equally in the INFO+ timetable and in real-time data exchanges, i.e., guarantees an unambiguous matching.

In all other cases (e.g., if only the operator code and train number are provided by the foreign organisation) SKI CUS generates a new journey ID and thus VDV FahrtBezeichner which meet the above requirements.

