Interreg
EUROPEAN UNION
Danube Transnational Programme
Linking Danube

Project co-funded by the European Union

LinkingDanube

A chance to leave the shores of stranded investments

Alexander Hausmann

The challenge

- Cross-border travel demand in the EU is huge: over 300 Million cross border trips every year by EU residents and a further 600 Million cross-border trips made by international tourists

- 125 providers of traveller information services in Europe and 160 services at local, regional, national and pan-European level

- 3 key barriers:
  - → Insufficient accessibility of travel and traffic data
  - → lack of data & service interoperability
  - → Insufficient data quality

- There is no "one size fits all" solution for EU-wide multimodal travel information services → **a flexible concept is needed that supports all possible solutions**

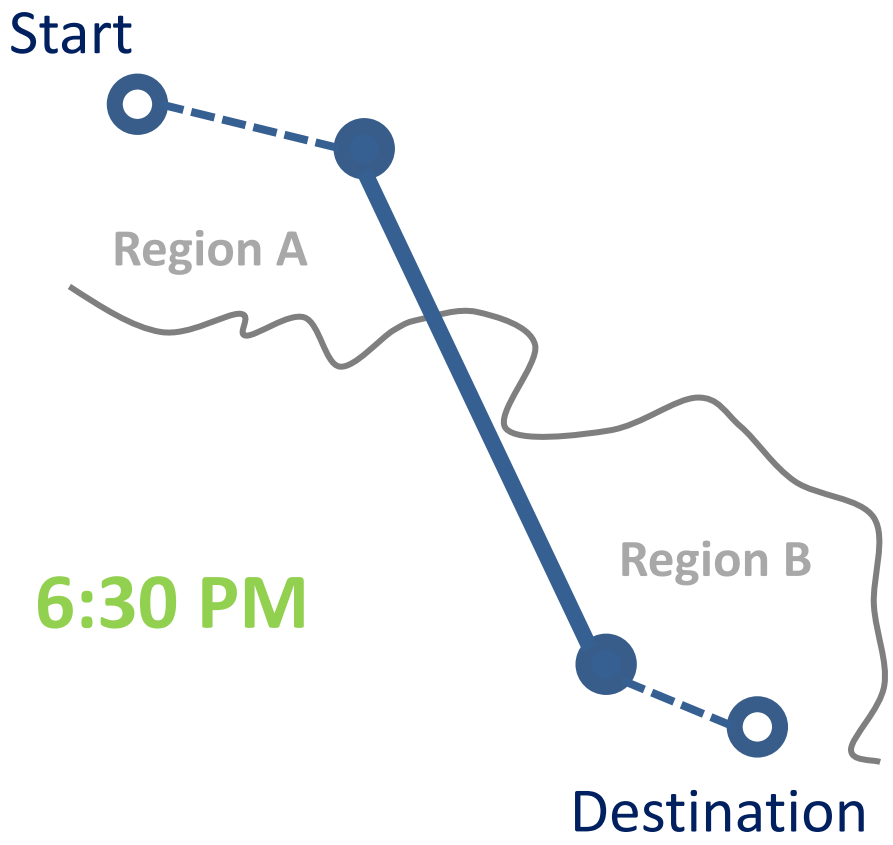
The challenge

Service architectures in Multimodal Travel Information Services

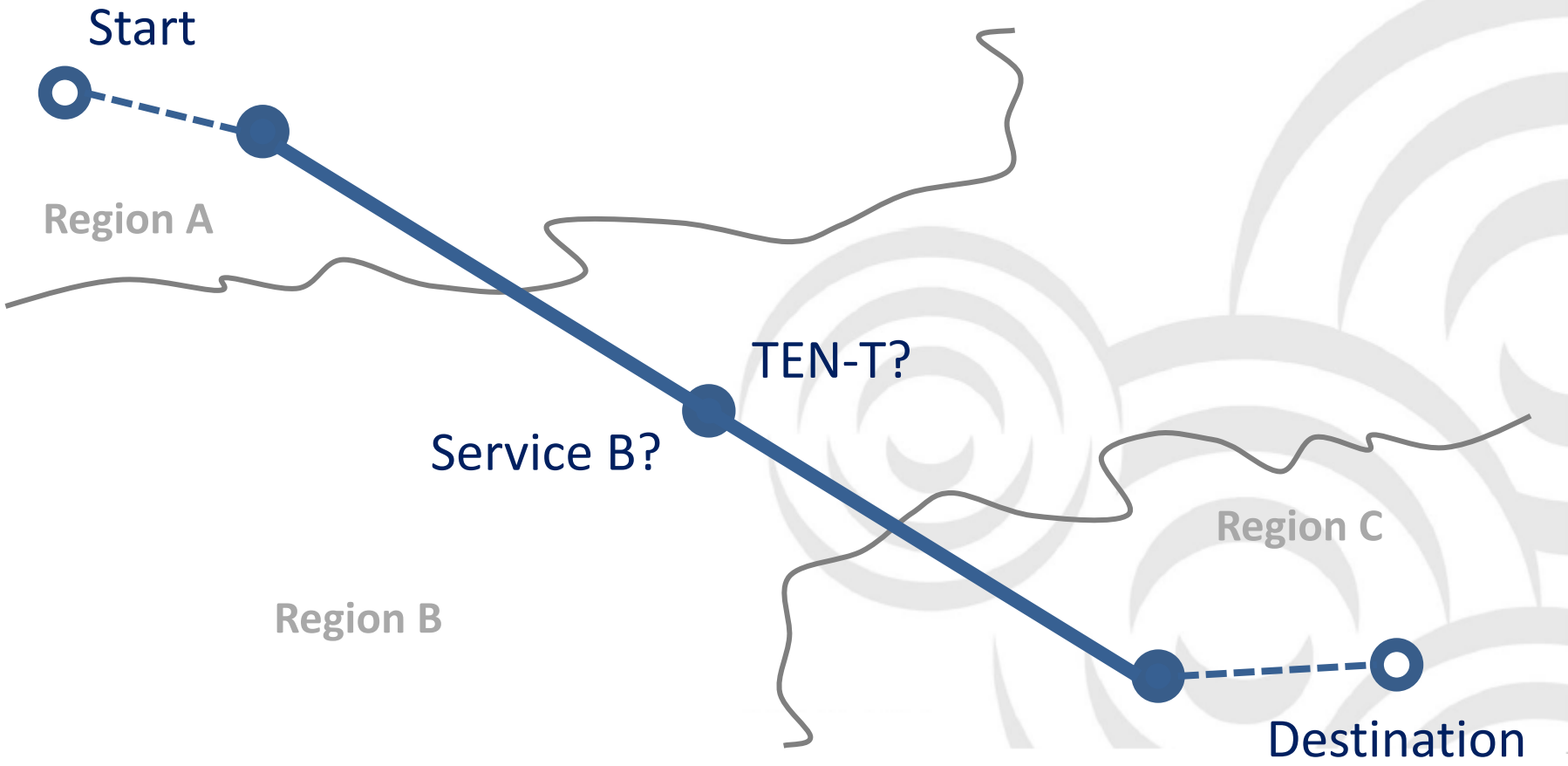
Centralised/monolithic | Decentralised/distributed | Chained/hybrid

Fell, M. (2016): Client Project Report: Study on ITS Directive, Priority Action A: The Provison of EU-wide Multimodal Travel Information Services, Transport Research Laboratory

The problem with hubs – where to hand over?



The problem with hubs – where to hand over?



The need for harmonised cross-border services

- **Danube Region urban areas often lack reliable cross-border connections**
  → Hubs – like major cities – are not sufficiently interlinked with each other

- **No consistent multimodal travel information in the Danube Region**
  → Services show considerable variation with regards to modal coverage and available routing options

- **Negative effect on mobility behaviour of cross-border travellers**
  → Commuters abandon public transport options and use their car instead

Need for better cross-border information on public and multimodal transport solutions!

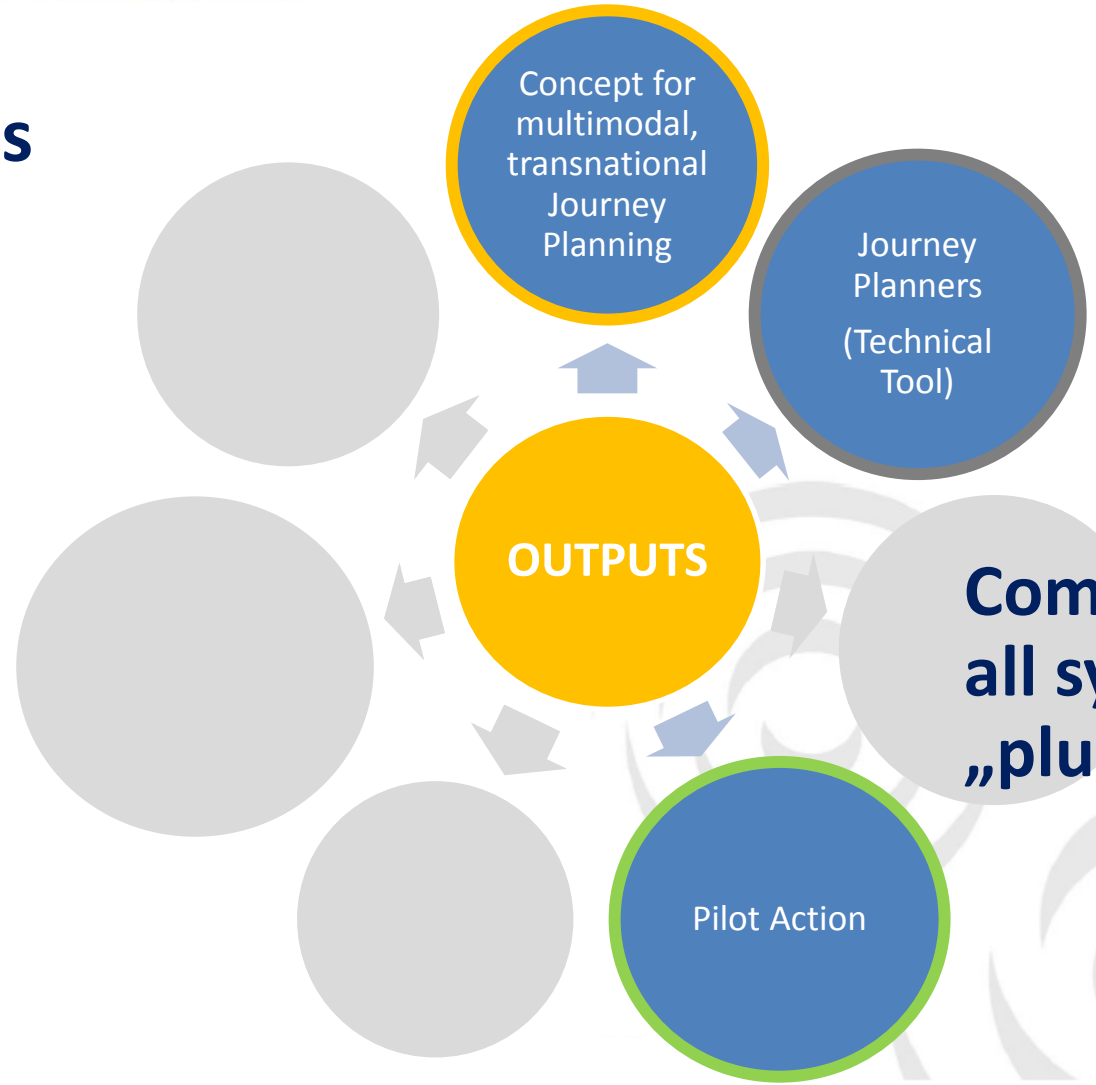
LinkingDanube: Goals

- Decentralised transnational routing service (chained/linked)
- Interconnection of systems via commonly developed interface that allows “centralised” transnational journey planning
- Build on existing systems (durability of systems and public investments)
- Use existing European standards → Open API standard…
- Proof-of-concept: after implementation and testing, the technical feasibility will be demonstrated for the respective regions in relevant use cases (Pilots)

Outputs

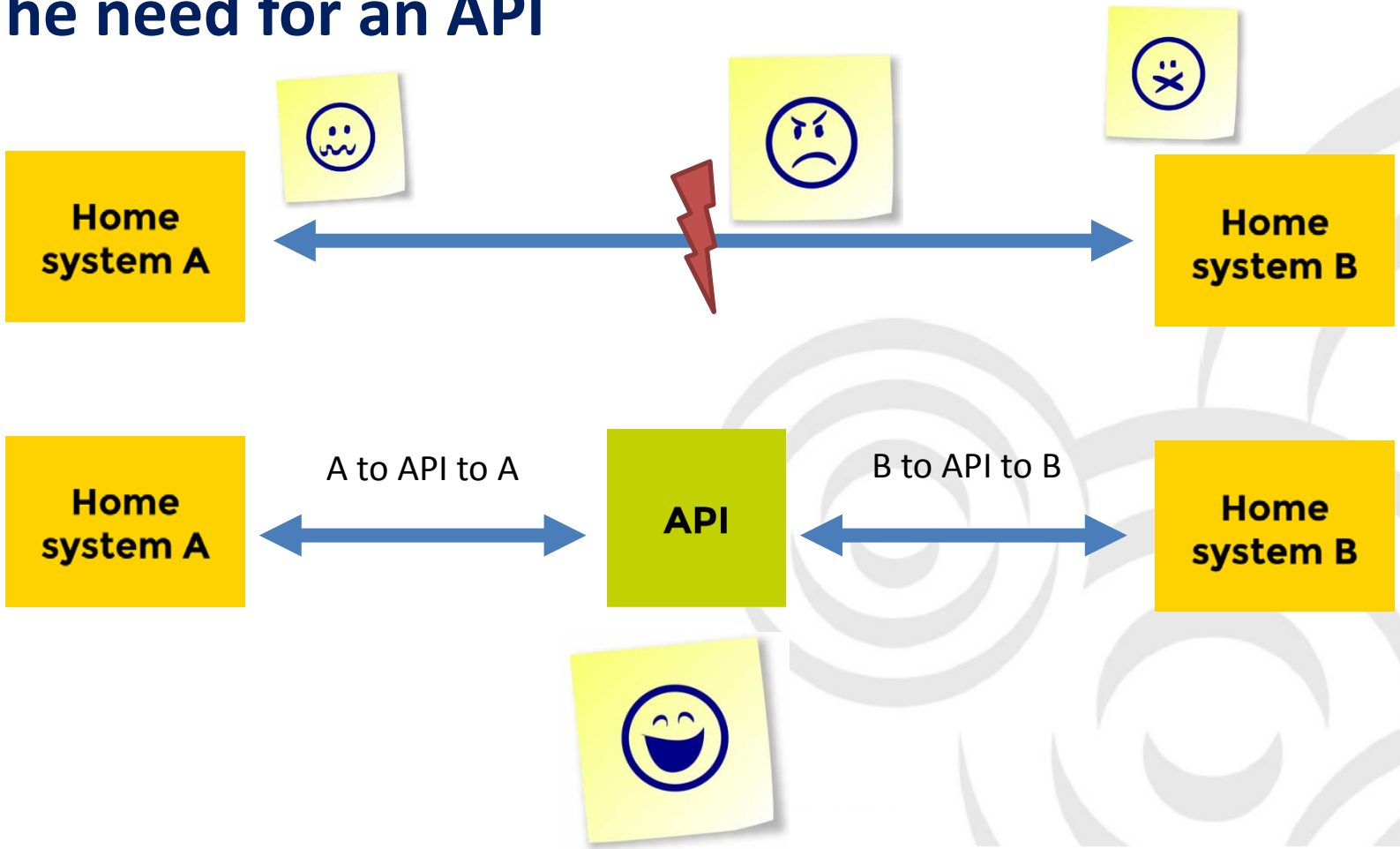

Concept for multimodal, transnational Journey Planning
Journey Planners (Technical Tool)
DanubeScout
Pilot Action
Strategy Workshop
Local Dissemination Workshops
Exploitation Strategy
OUTPUTS

Outputs

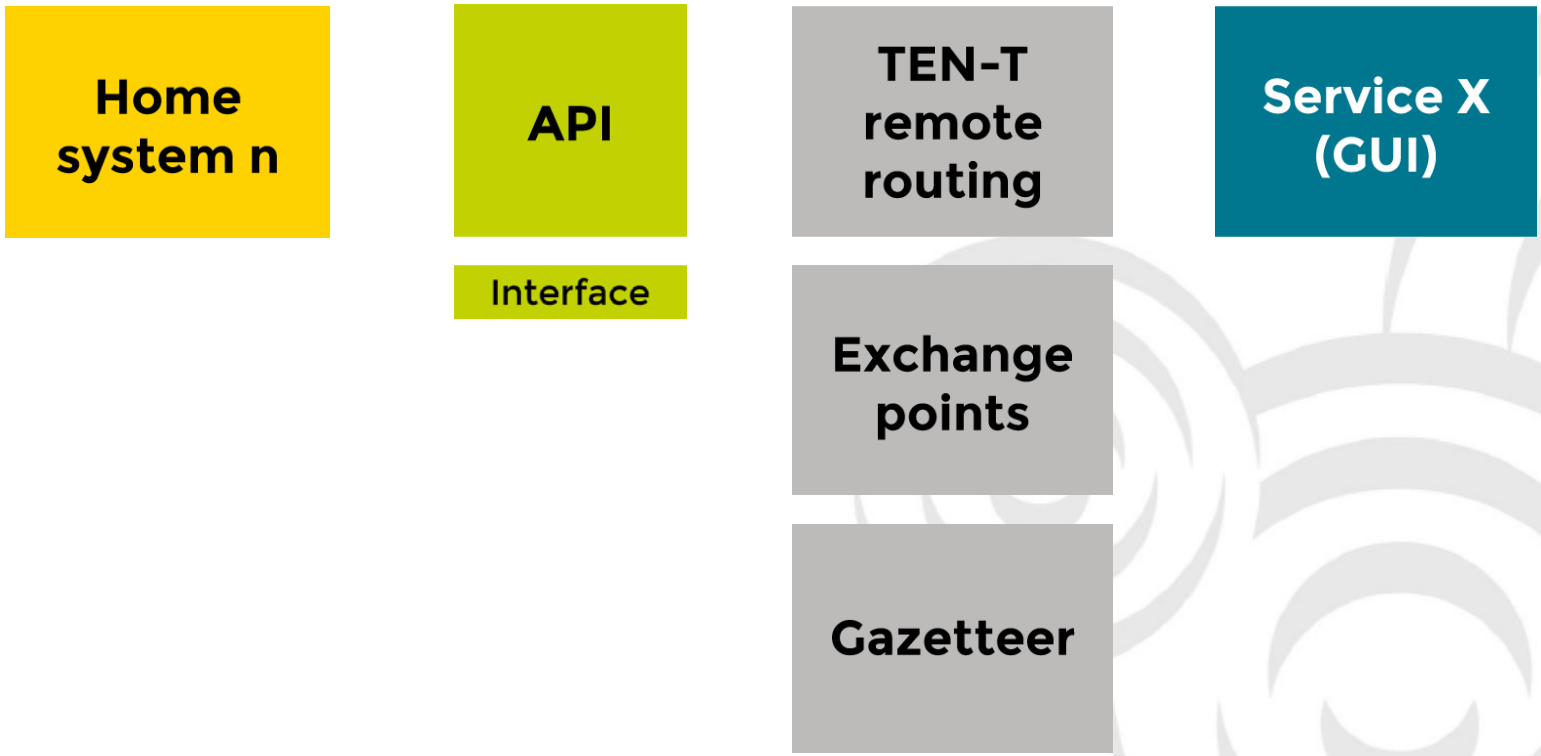


Common API for all systems to „plug into“

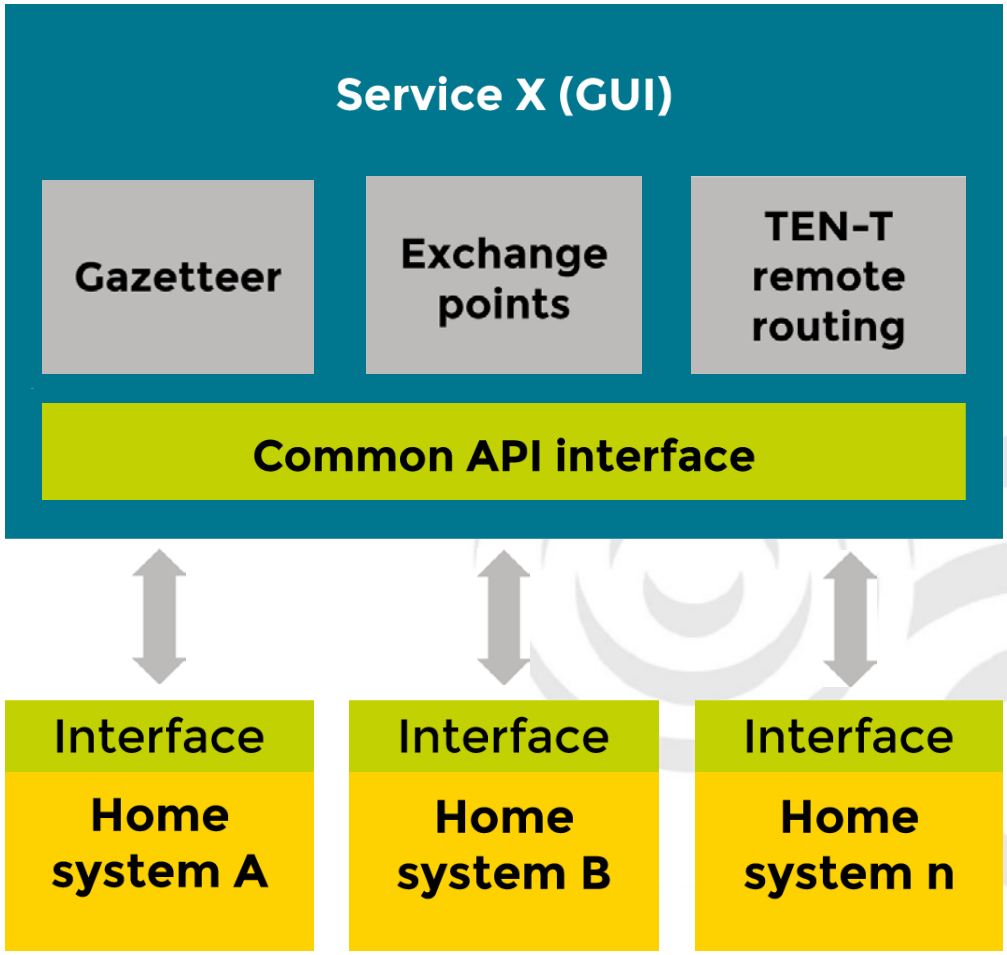
The need for an API



System architecture – necessary components



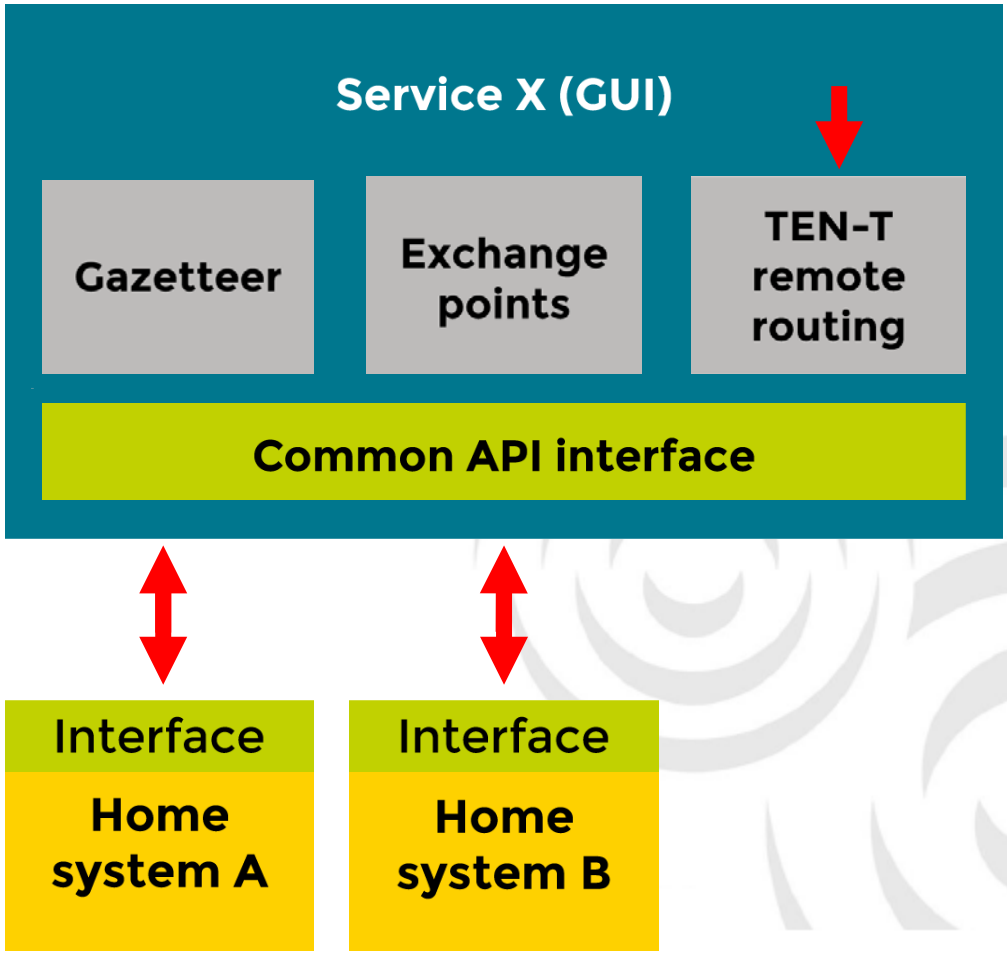
System architecture in LinkingDanube



Handling of routing requests in LinkingDanube

End user request:
Address A – POI B

Split request:
- **A ……. EP A**
- **EP A …… EP B**
- **EP B …… B**



Combined routing result:
Address A – POI B

EP A …… EP B

A …… EP A

EP B …… B

Recommendations

- Gather coordinated knowledge about regional mobility needs
- Link services on digital (traveller information and mobile ticketing) and physical level (timetable and tariff coordination)
- Gradually harmonise and update user interfaces with cross-border traveller information and market the improvements on broad level

Linking services: a win-win situation

- **End users**: More information of higher quality and experience individual benefits of multimodal mobility options
- **Service providers**: Extend coverage, improve features and thus reinforce their position on the market
- **Accessibility**: Changing mobility behaviour will result in more balanced use of transport and improve the interconnection of cities and regions
- **Investments**: Current and previous investments in regional development will not be stranded but linked along with the services thus contribute to converging regions and services

LinkingDanube

A chance to leave the shores of stranded investments

Thank you!

Alexander Hausmann