ACTIF
French Interoperable Transport System Design Assistant

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Agenda

Introduction

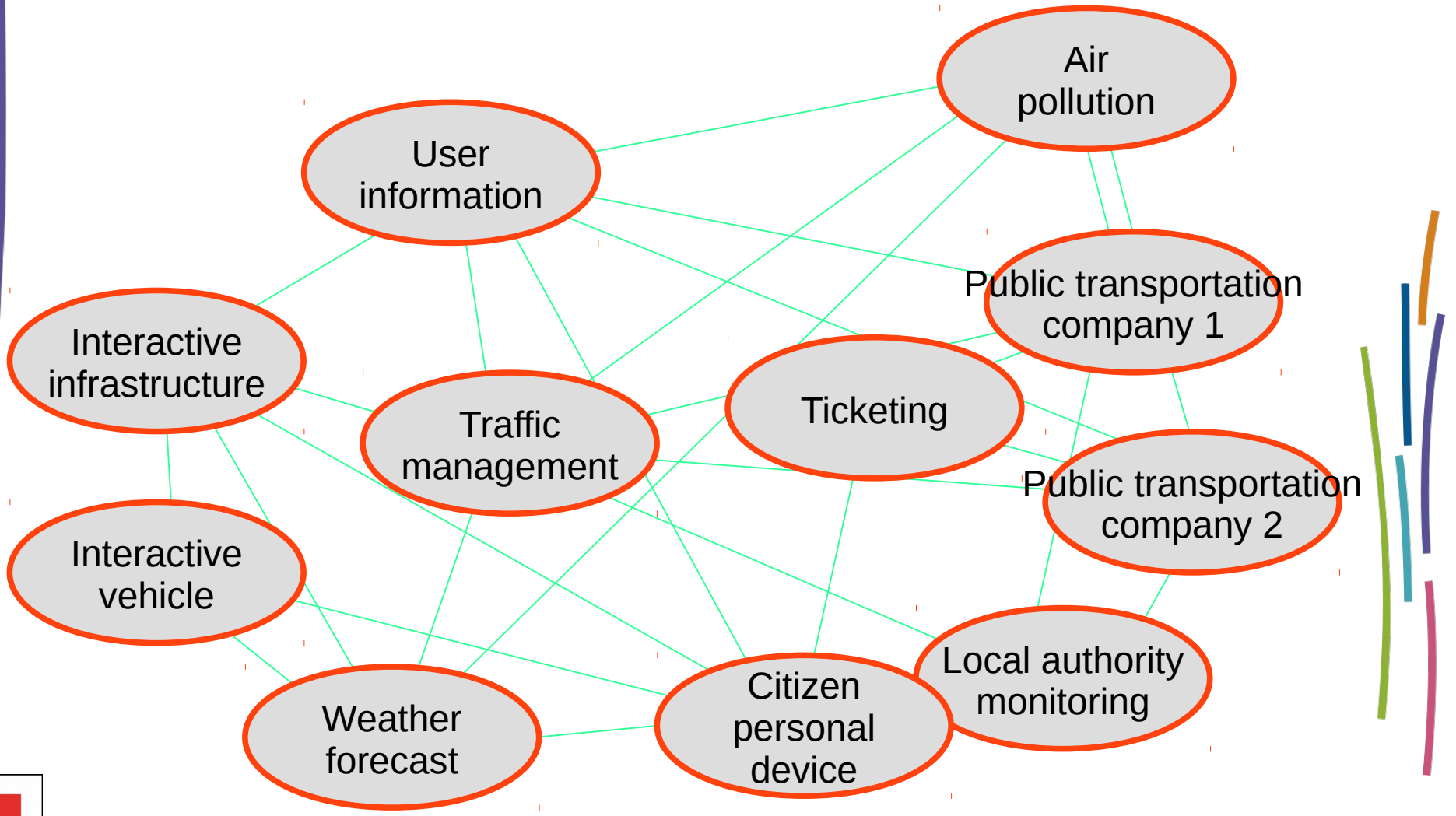
Presentation of ACTIF

ACTIF case studies

Next developments

Conclusion

Presentation of ACTIF



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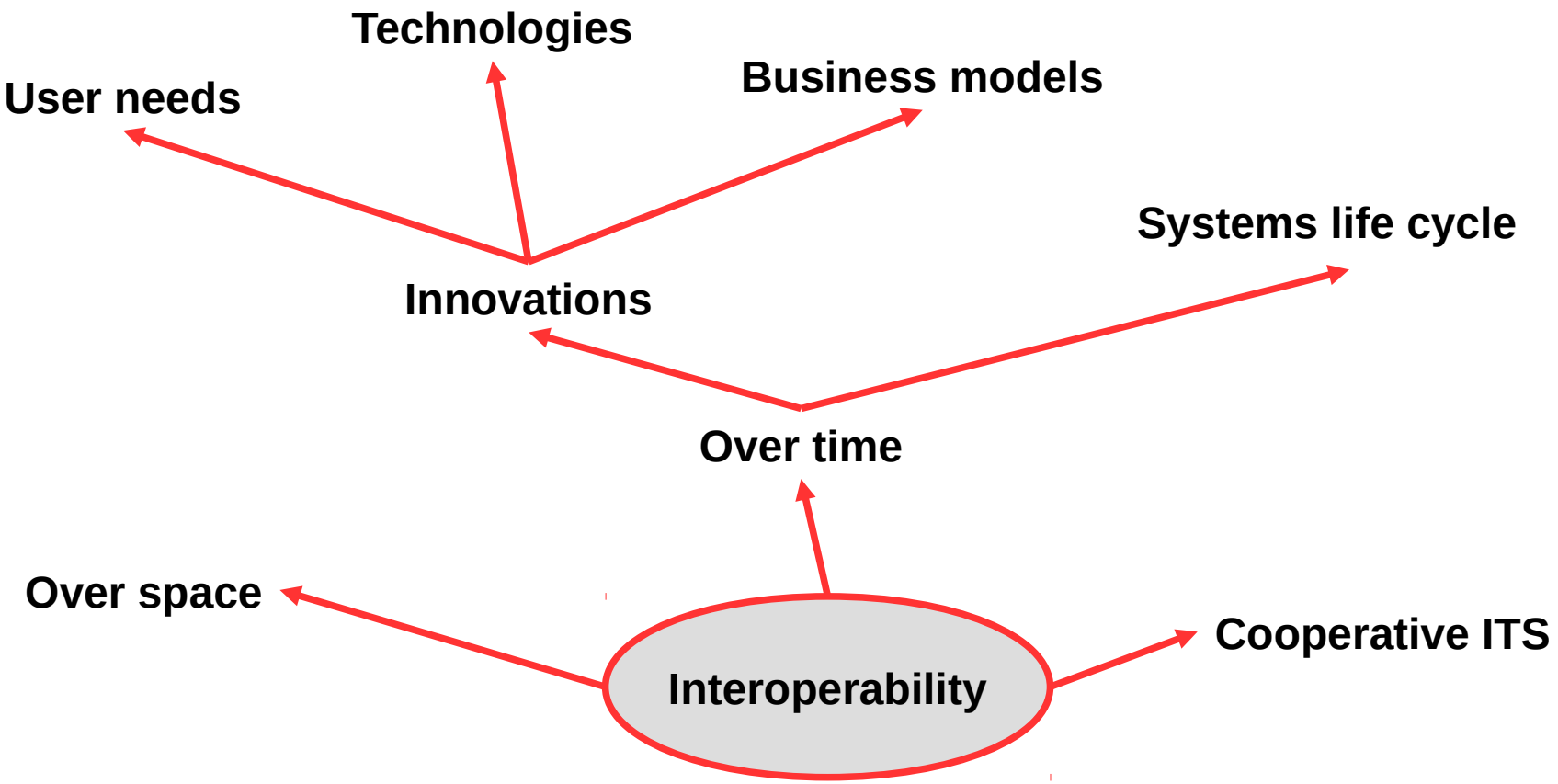
actif

Presentation of ACTIF

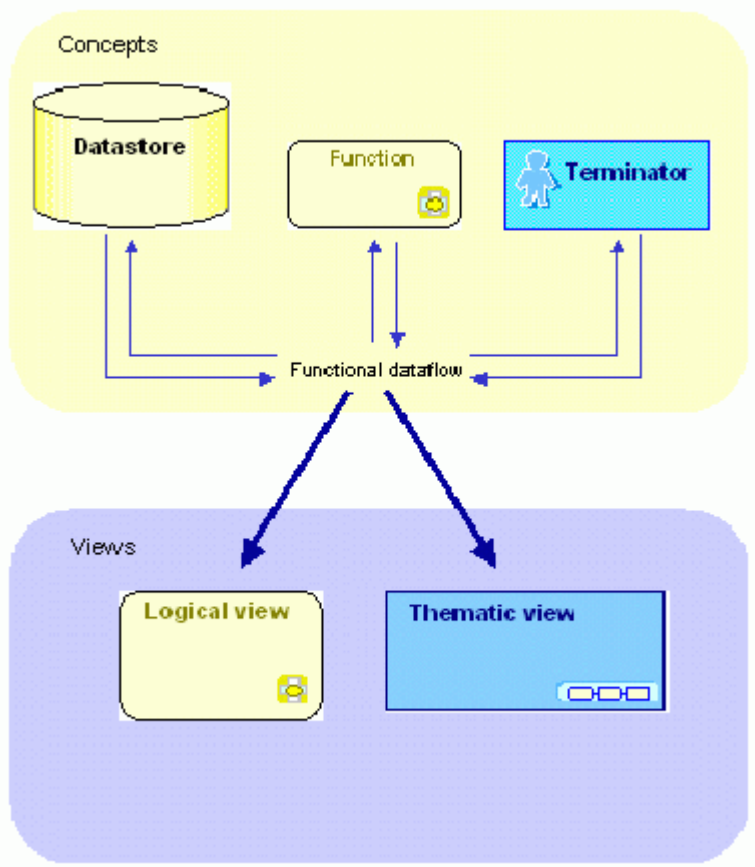


Interoperability is a key issue for ITS.

Interoperability is a multidimensional concept.

Presentation of ACTIF

ACTIF provides a model of Information Systems in Transport Industry



ACTIF components

Presentation of ACTIF

ACTIF provides a model of Information Systems in Transport Industry

Functional area
Defined according to job-activities breakdown

1. Provide Electronic Payment Facilities
2. Manage Safety and Emergency Services
3. Manage Traffic and Travel
4. Manage Public Transport Operations
5. Provide Advanced Driver Assistance Systems
6. Manage and inform on transportation coordination
7. Enforce regulations
8. Manage Freight and Fleet Operations
9. Manage shared data

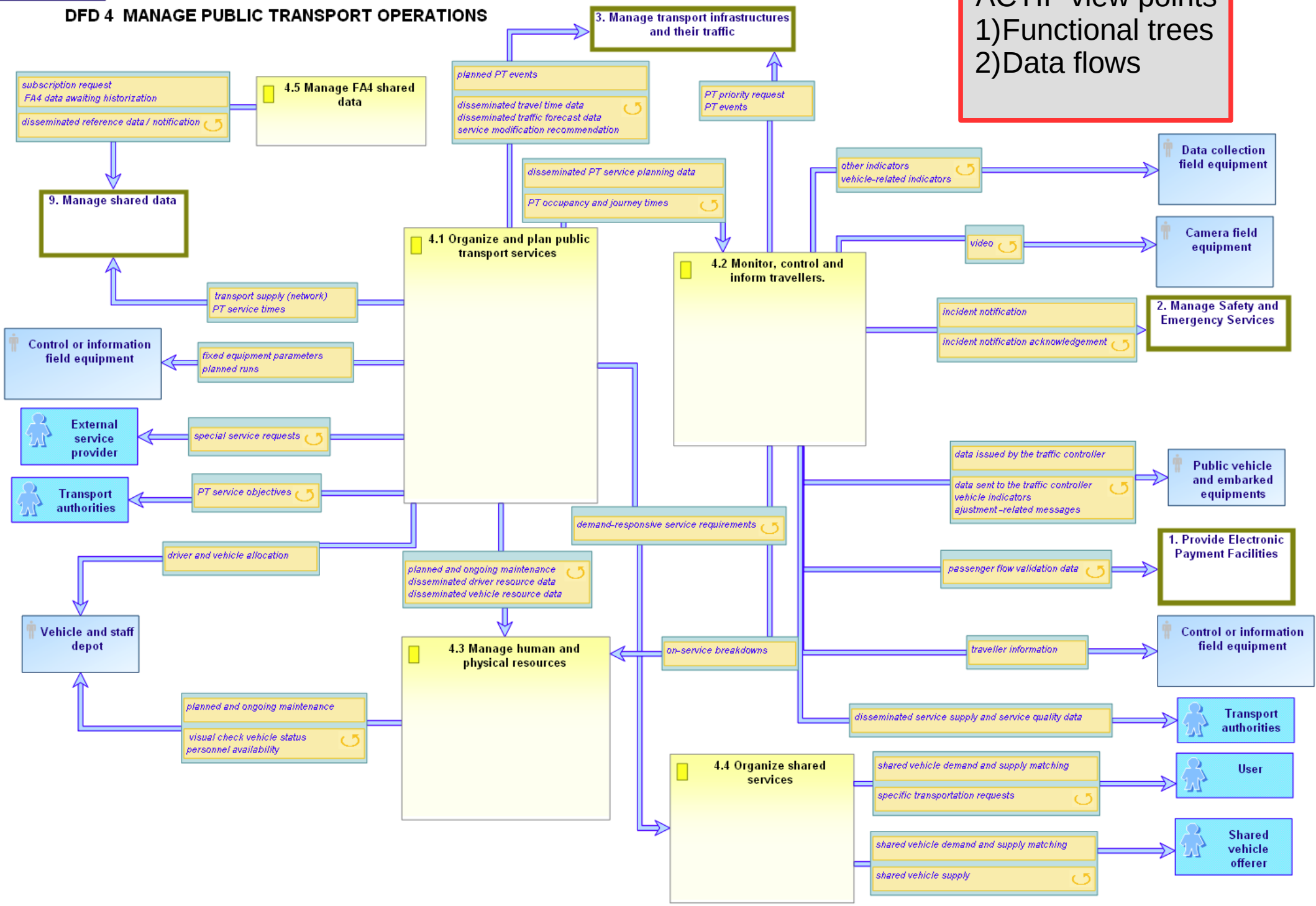
Functional sub-area

Function and Data Flows

ACTIF hierarchical organisation

DFD 4 MANAGE PUBLIC TRANSPORT OPERATIONS

ACTIF view points
1)Functional trees
2)Data flows



Presentation of ACTIF

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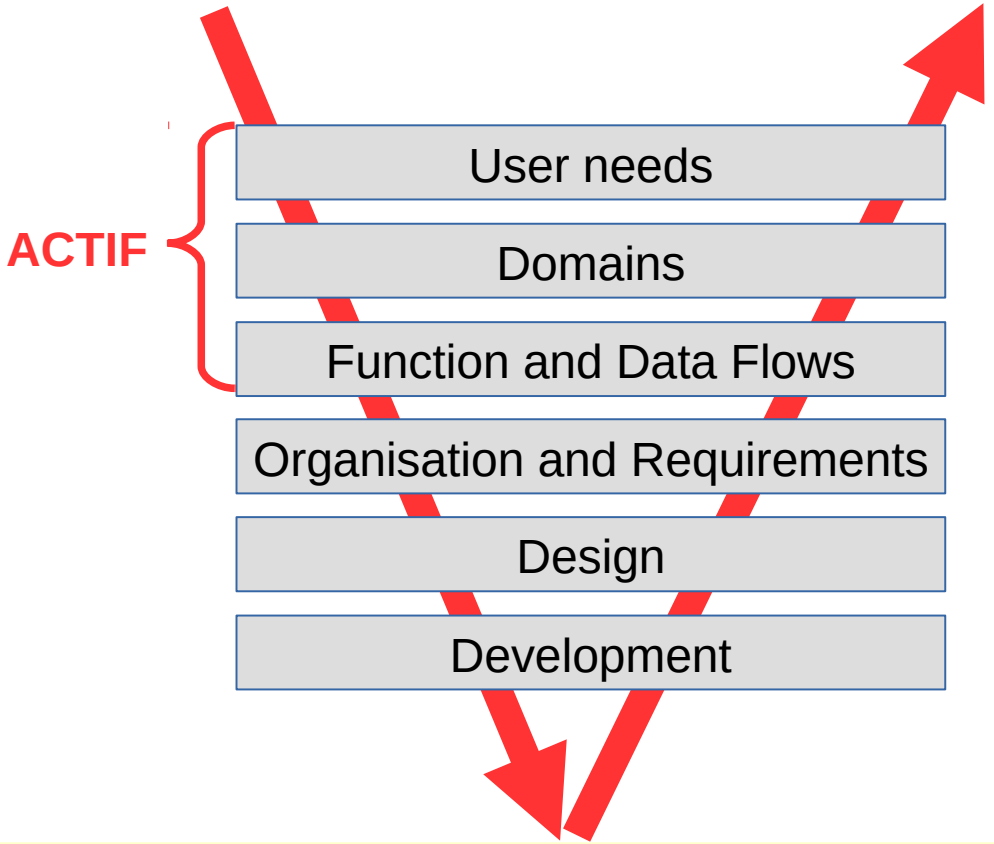

ACTIF position in Intelligent Transport Systems engineering process

Presentation of ACTIF

ACTIF is also made of :

- One methodology
- One tool (OSCAR) to instantiate the model at the project level
- A web site :
  - ✓ automatically updated from the model
  - ✓ documentation
- Training sessions

ACTIF case studies

Case study is the main way to apply ACTIF architecture to real projects :

- projects benefit from long term expertise embodied in ACTIF architecture (diagnosis, requirements, interfaces, standards ...)
- ACTIF is updated taking into account case studies' feedbacks.

24 case studies have been realized covering almost all the scope of ACTIF functional areas.

Latest case studies are about :

- traffic management system architecture
- ITINISERE, a multimodal passenger information system
- GERFAULT II, functional and technical requirements
- Applying ACTIF to a NFC transportation project
- Functional and technical design of a mulltimodal hub

ACTIF updates have been collected and validated and are currently integrated to the next version 6.

ACTIF next

1) Transportation based trends

- Connected and autonomous vehicles
- Smart cities
- Growing place of user as a data consumer/producer

2) Promote ITS architecture among ITS stakeholders

ACTIF next

3) System of systems trends

- Model Base Design / Integration / Verification / Validation
- Systems' life cycle management
- Integration du numérique dans les produits
- Cybersafety
- Big data & Internet of Things (IoT)

Conclusion

1) ITS architects should promote architectures, models and expertise through concrete contributions to ITS projects

2) it is an open domain for international cooperation

FIN

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