



# removing barriers to deployment

SAFESPOT - BLADE  
Business modelling Legal Analysis and DEployment

[han.zwijnenberg@tno.nl](mailto:han.zwijnenberg@tno.nl)

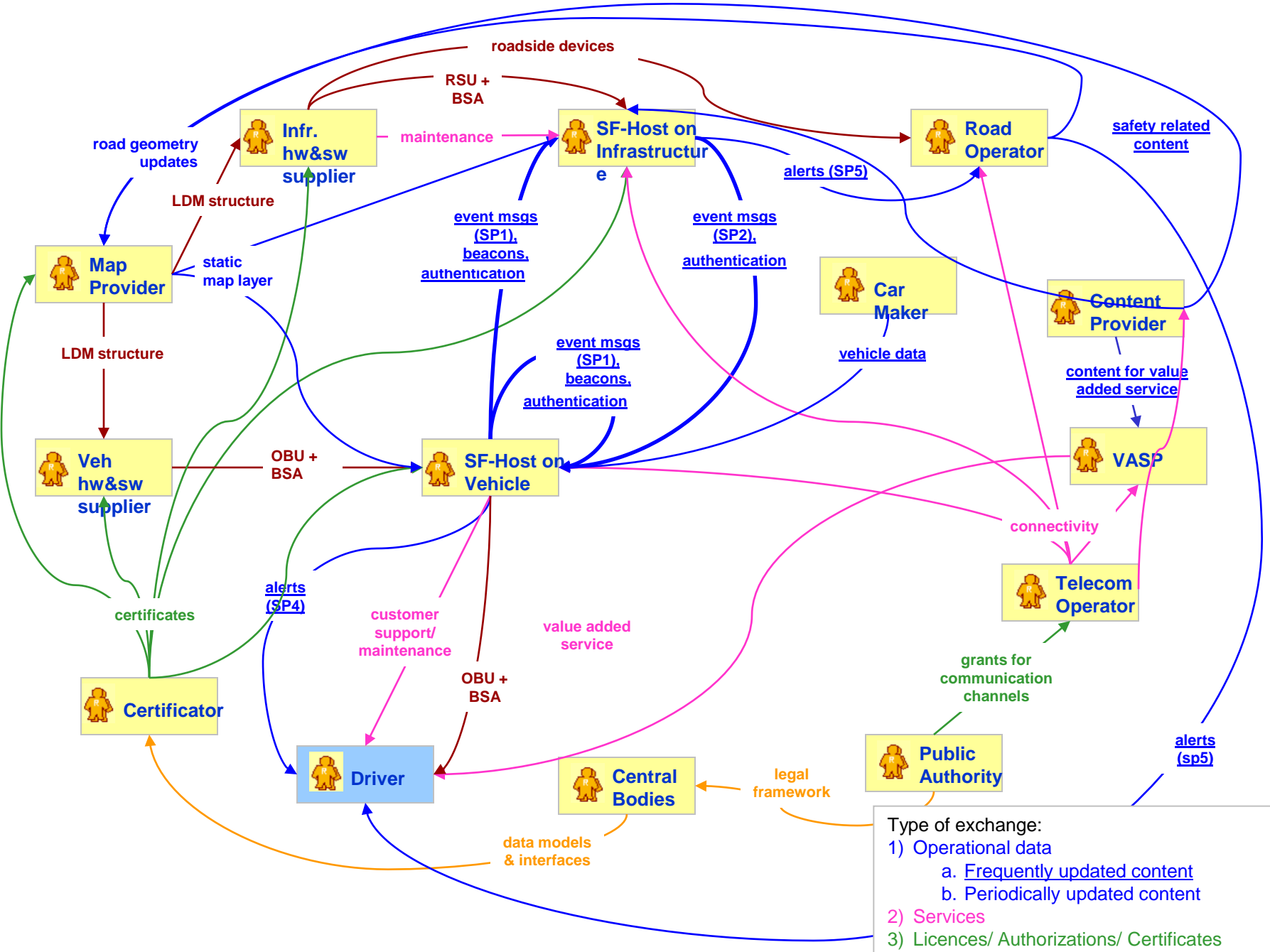


# BLADE tool suite supports deployment

1. **Cost Benefit Analysis methodology** for comprehensive societal impact assessment
2. **Balanced Score Card** for defining coherent government strategies
3. **Multi Criteria Analysis** for ranking business models from different perspectives
4. **Decision Making Arenas** for coordination and structuring the decision making process
5. **Contractual Matrix** as part of a legal framework for identifying required institutional arrangements
6. **Organisational Architecture** for assigning unambiguous responsibilities and independent roles
7. **Scenarios Approach** for exploring viable deployment paths, including challenges and recommended actions

# SAFESPOT organisational architecture

- rationale: for deployment of CS all organisational **functionalities**, **responsibilities** and **relationships** need to be **defined**. This is a requirement for a risk-safe involvement of stakeholders
- a modular approach based on the **concept of roles** (ARTIST), where roles are elementary organisational units that are assumed by specific organisations/stakeholders for each implementation of homogeneous functionalities
- the **13 SAFESPOT roles** were **identified** and **profiled** in terms of motivation, commercial, institutional and legal responsibilities, agreements needed and business arrangements
- the relationships between roles involve **different exchanges** (e.g. information, products, services, rules) that are identified and described at a strategic and operational level

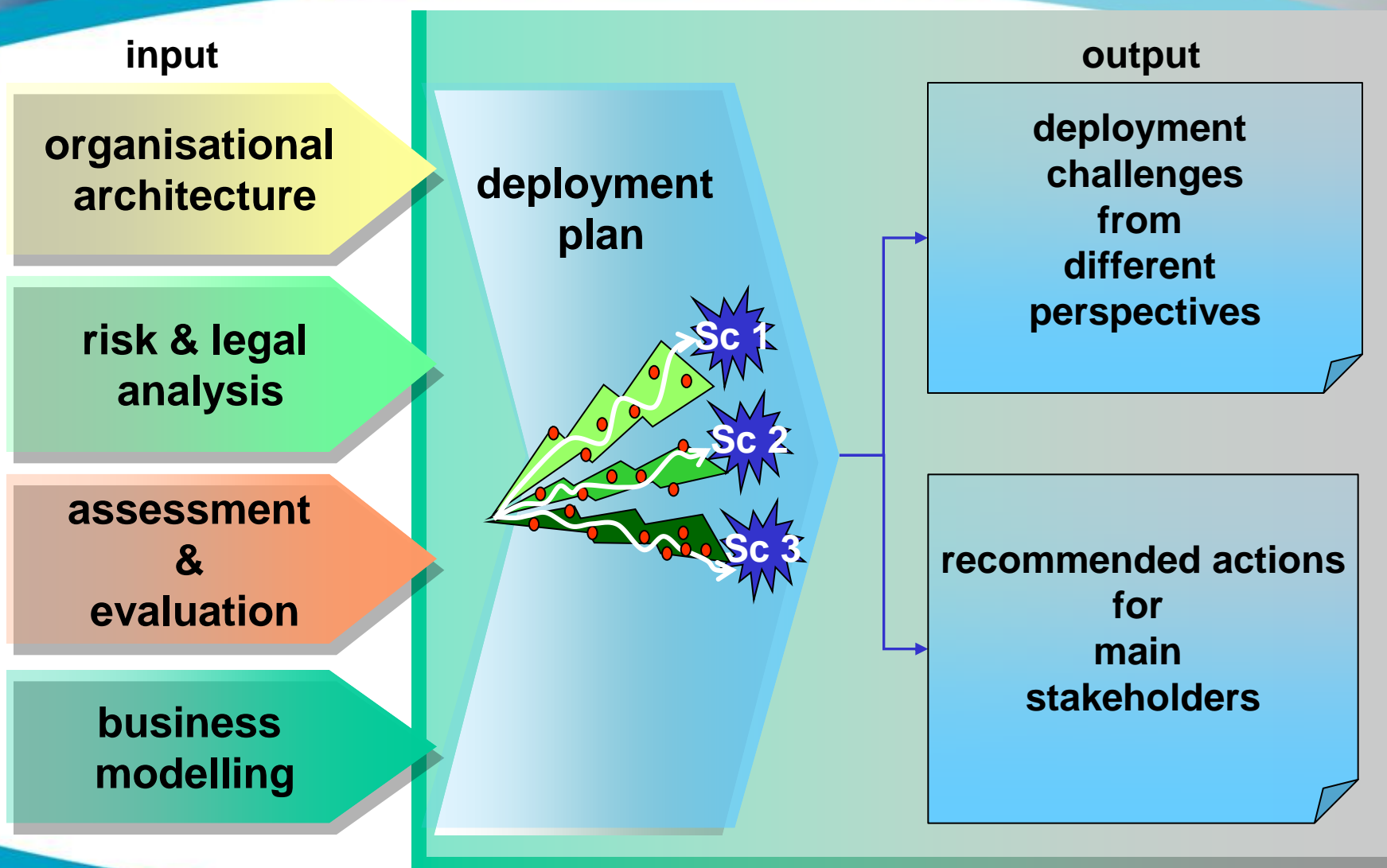


- Type of exchange:
- 1) Operational data
    - a. Frequently updated content
    - b. Periodically updated content
  - 2) Services
  - 3) Licences/ Authorizations/ Certificates
  - 4) Rules
  - 5) Hw and sw products

# the SAFESPOT Organisational Architecture tool involving stakeholders in cooperative systems

- the tool enabled us to define and describe the organisational structure required to deploy SAFESPOT under different business and deployment assumptions (D6.3.2)
  - the tool was applied to depict the most promising SAFESPOT business models
  - the tool was used to represent the envisaged deployment scenarios for SAFESPOT and for cooperative systems in general
- this methodology supports the investigation of the legal implications underlying the relationships between different roles, i.e. different stakeholders
- some SAFESPOT test sites were organisationally described assuming the different roles

# SAFESPOT deployment plan



# scenario: 'extended traffic management'

## milestones deployment path

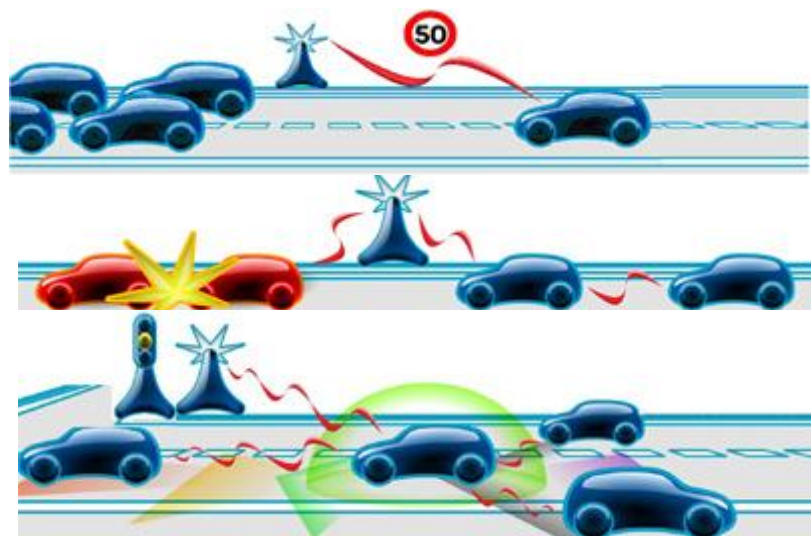
- step 1: road authorities invest in intelligent roads
- step 2: industry provides OBUs for I2V traffic mngt and safety apps
- step 3: alliances between the service providers and car manufacturers enable V2V services based on 802.11p



short + long range communication

## SAFESPOT system

- V2I & V2V (e.g. road pricing, local hazard warning, speed alert, etc.)
- cellular & short range communication
- factory fit OBU
- road authorities finance infra, car-driver finances OBU



safety + traffic man. applications

# deployment challenges and solutions

- step by step deployment path → start using existing technologies  
reduce complexity
- reach critical mass → deploying intelligent road side  
infrastructure
- realise a European market → standardisation
- business case → exchange risk and benefits
- for all stakeholders
- cooperation among stakeholders → coordination of the decision  
making process

# recommended actions (removing barriers)

## road authorities and policy makers

- role: deployment of an intelligent infrastructure to meet their network management responsibilities
- no regret action: invest and participate in field operational tests

## car industry

- role: provide an in-vehicle platform with an industry standard interface
- no regret action: develop an interface to the proprietary in-vehicle network

## (navigation) service providers

- role: introduce cooperative service to the driver and sell services on the vehicle platform
- no regret action: offer Speed Alert or Local Hazard Warning on the current nomadic (navigation) platform based on cellular communication.

# SAFESPOT deployment roadmap

