# *Secure Vehicle Communication*

# Joint C2C-CC/eSafety/Prime workshop

## Conclusions

## Coordination actions

# Coordination Actions

- Architecture
  - Functional viewpoint Issue
    - Integration or projects contribution into FRAME
    - Action
      - Contributions to COMeSafety for consistency
      - COMeSafety finalise results for C2C CC, Sevecom
      - State to the commission that resources are needed for maintenance
  - Subsystems and alternatives aspects issue
    - There will be several alternatives. See if we can use FRAME to highlights those alternatives
    - Action
      - Contributions to COMeSafety for consistency
      - COMeSafety finalise results for C2C CC, Sevecom

# Coordination Actions

- Security architecture
  - Relationship to Frame issue
    - Check for the integration of fonctional aspects.
    - Action
      - SEVECOM to get input from other projects
      - Results to be provided to COMeSafety
  - The CA entity
    - Is an important functional entity
    - Action
      - SEVECOM to get input from other projects for specific needs
      - Include the CA authority in the frame architecture
  - Secure communication architecture
    - High-level GST-SEC architecture versus U.Ulm software architecture
    - Action
      - SEVECOM to check how to combine a high-level communication architecture (GST SEC) with a software architecture (U.Ulm)

# Coordination Actions

- **Security architecture**
  - Footprint issue
    - how many vehicles? Response time? Multi-hopping?
    - Action
      - COMeSafety to get footprint info from projects
  - Configuration
    - Need for methodology to assess solutions / Toolbox
    - Action: sevecom to publish a document
  - Future-proof solution
    - Action
      - SEVECOM/COMeSafety to get confirmation that it is needed

# **Coordination Actions**

- **Security architecture**
  - Identity management and privacy issues
    - Many Identities are used. Need to list identities used by projects (including those created by implementation choices)
    - Anonymous tunnel and identity mgt to be provided by SEVECOM?
    - Action
      - Assumptions to be provided by all projects
      - Guidelines to be provided by SEVECOM
  - Multiple Channels, Overlayed protocols
    - Privacy can be defeated by such configurations. Check them
      - IP communication on top of anonymous tunnels should work.
      - The use of other « legacy » protocols should be taken into account
    - Action
      - Panos (EPFL) to work with Thierry Ernst (Inria) on validating the use of IP on top of anonymous tunnels

# **Coordination Actions**

- **Implementation Technologies**
  - Internal architecture issue
    - OK for distributed system assumption, but CVIS architecture seems complex, raising security issues
    - Action :
      - CVIS to provide the rationale behind the platform architecture
  - Network QoS
    - Network QoS not properly ensured. Has an impact on platform implementation. Need to use design approach to ensure it (cf Hermann Haertig 4 steps)
    - Action:
      - Herman to send an e-mail with the 4 steps
      - Architects for C2C communication to assess impact of QoS, including on scheduling and platform implementation

- Implementation technologies
  - CPU QoS
    - QoS is not ensured today on Java based platforms. Deployment is not possible. Out of the scope of eSafety issue to tackle
    - Action
      - Raise hands in other IST communities.
  - Security module
    - One or several? The user and the car
    - Cross layer?
    - Action
      - Further issue to discuss