



# **WP5: Overall platform integration and validation UMOBILE**

Plenary Meeting  
September 2016, Cambridge (UK)

# Outline

This slide summarizes the topics that are going to be discussed during the presentation.

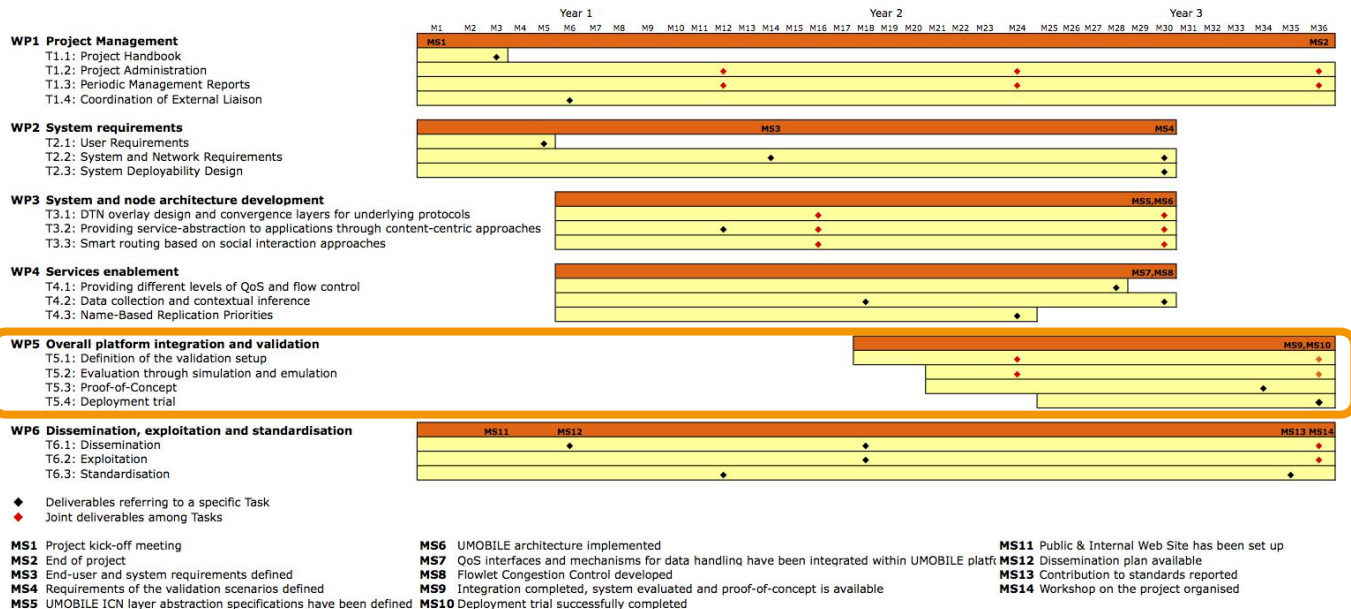
- Work plan - Gantt Chart
- Deliverables
- Outline for the final demonstration
- Infrastructure for the demo
- Demonstrators
- Demo plans
- Final demo

# Work Plan Gantt Chartt

WP5 has started on M18  
(July 2016).

By the moment, task 5.1  
is the only one that is  
active.

Tasks 5.2 and 5.3 start  
on M21 (October 2016)



## Deliverables

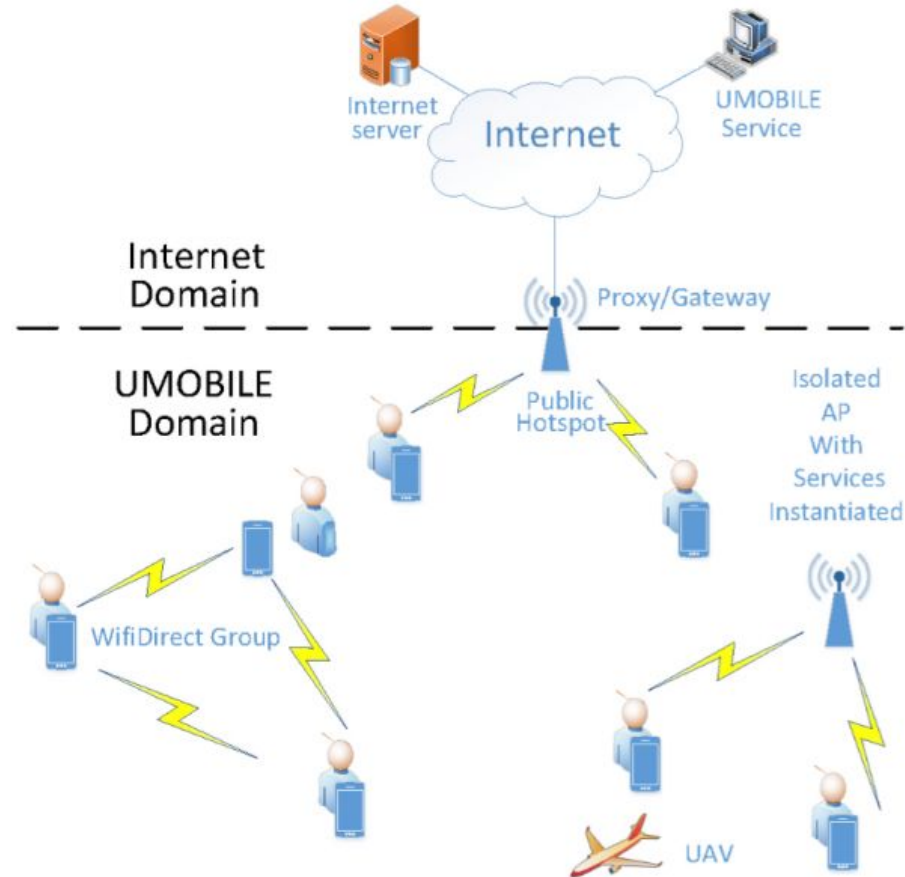
D5.1 and D5.2 have to be sent by M24 (January 2017).

Demo story document is a good starting point for D5.1.

- D5.1 Validation methodology and evaluation report [M24, M36]
  - Validation setup for the system and its individual components
  - Results of the detailed evaluation of the platform through simulations
- D5.2 Proof-of-concept [M24, M34]
  - Proof-of-concept software: data methodology aspect and demos
  - POF described on M24 with an envisioned set of first demos
  - M34: full aspects concerning the POF and SW
- D5.3 Report on the validation of the deployment trial [M36]
  - Results and lessons learned

# Outline for the final demonstration

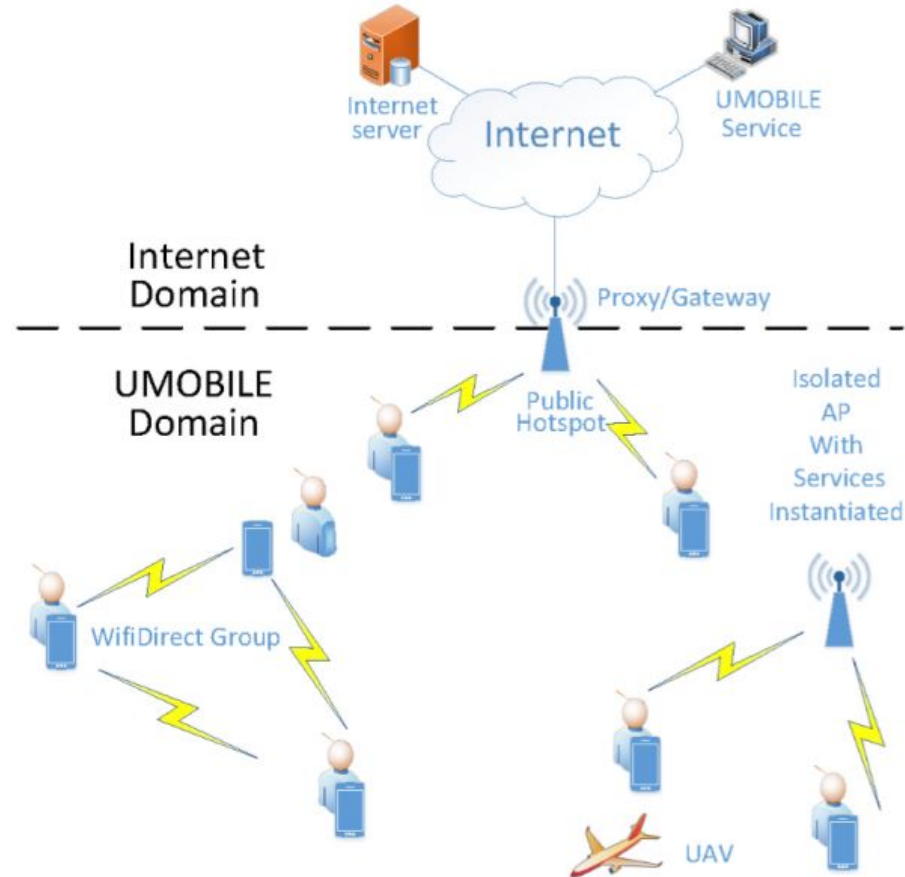
UMOBILE provides an architecture that merges ICN with DTN.



# Outline for the final demonstration

## Comments

What is the role of the UAVs in the general picture?  
Should we show Bluetooth in this general picture?



# Infrastructure

This slide summarizes the needed infrastructure for the demo

- Proxy/gateway (UCL and AFA)
- UMOBILE Hotspots
  - Forwarding/relaying capabilities
- Devices
- UAVs
- UMOBILE service

# Demonstrators

In order to demonstrate UMOBILE's architecture, we focus on two demonstrators:  
Emergency and civil protection, Service announcement and social routine.

- Demonstrator 1: Emergency and Civil Protection Scenarios
  - It demonstrates the services introduced by UMOBILE for reaching **disconnected areas and users**.
  - UMOBILE provides mechanisms that may **assist responsible authorities** in the case of challenged events.
- Demonstrator 2: Service announcement and social-routine scenarios
  - This demonstration corresponds to providing **new types of services** such as micro-blogging and social-routine.



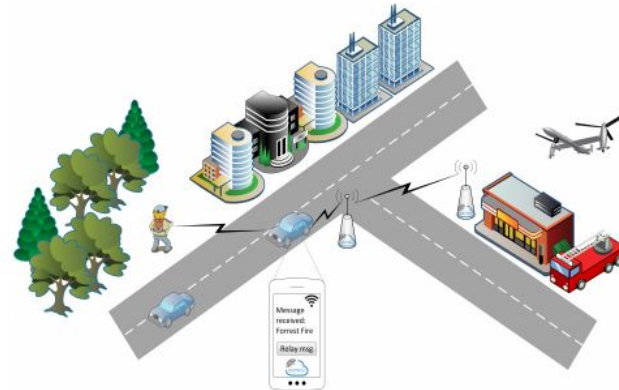
# Demonstrator 1 Emergency and Civil Protection

## Emergency scenario & Emergency message dissemination

A user in a disconnected area sees an emergency, sends a message to the local authority tagged as “urgent”. UMOBILE manages to send this message to the authority.

A UAV is sent by the authority to video-record the emergency.

A UAV equipped with WiFi can create a local communication infrastructure if necessary.

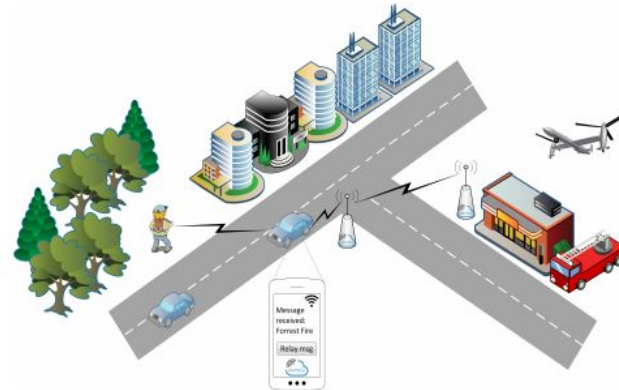


# Demonstrator 1

## Emergency and Civil Protection

Emergency scenario &  
Emergency message  
dissemination

- Oi! app allows messages to be sent to a specific devices.
- Now@ app allows to send messages to an unknown group of recipients.
- How are we going to implement opportunistic communications in order to send those messages?
  - Do Now@ and/or Oi! Support opportunistic communications?
- UAVs
- Emergency services? Legal framework?

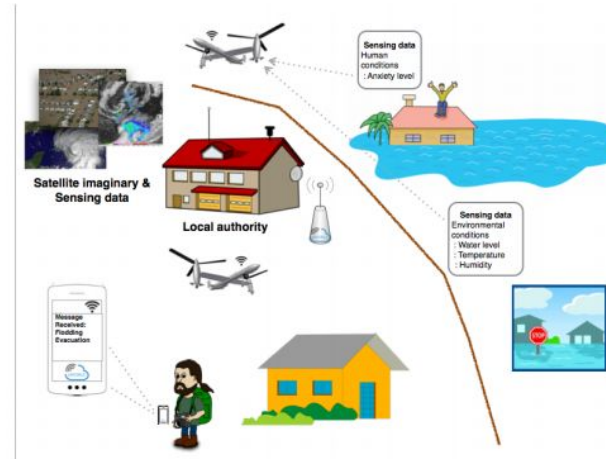


# Demonstrator 1

## Emergency and Civil Protection

Civil protection scenario. Data dissemination in a disaster situation

A user gets a notification from UMOBILE that says that something goes wrong.  
The app can provide a recommendation on a new path.  
UAVs can set up communication deploying WiFi networks.

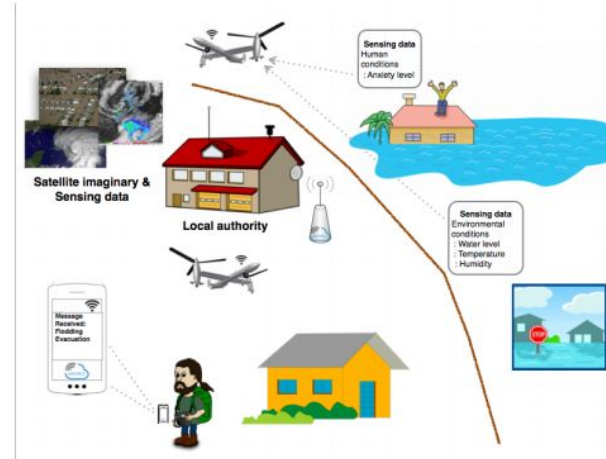


# Demonstrator 1

## Emergency and Civil Protection

Civil protection scenario. Data dissemination in a disaster situation

- The only new functionality is that the authority sends information to the user instead of the user to the authority.
- Recommendation on a new path??



## Demonstrator 2

### Service announcement and social-routine

Micro-blogging scenario.

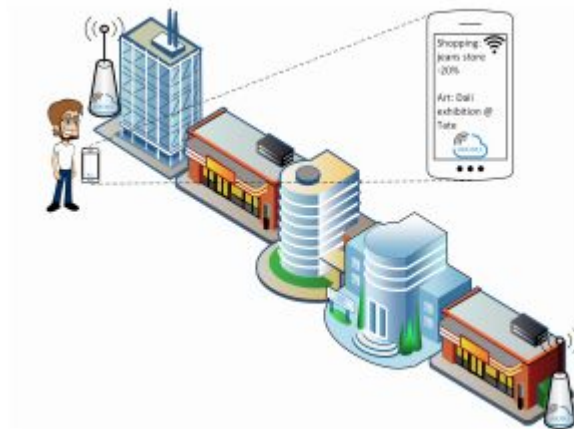
Context-aware information retrieval.

This demonstrator corresponds to providing new types of services such as **micro-blogging** and **social-routine**.

A user generates and shares an expression of interest in the form of tagged information.

UMOBILE users will be able to exchange and share information (photos, videos...)

The UMOBILE hotspots deployed along this scenario will store data based on its local meaningfulness.

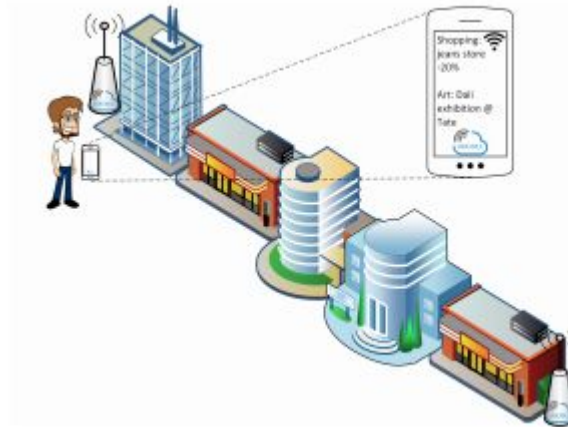


## Demonstrator 2

### Service announcement and social-routine

Micro-blogging scenario.  
Context-aware information retrieval.

Regarding retrieving and disseminating information, UMOBILE system takes advantage of all available connectivity. UMOBILE system will provide the user with additional information regarding their personal expressed interests. Another aspect supported by UMOBILE is the capability to capture personal data of UMOBILE users.



## Demonstrator 2

### Service announcement and social-routine

Micro-blogging  
scenario.

Context-aware  
information retrieval.

- SOCIO framework
  - Supports opportunistic networking
  - Supports Oi! and it will support Now@
  - It will support NDN
- KEBAPP hashtags
- PerSense Mobile Light for trust circles
  - Running on users' mobile phones
  - Collects all the information from the available networks with the aim of evolving the routing mechanism.
  - It improves the network availability of a certain user at certain time periods.
- Service announcement? What is the idea?

## Demo Plans

- UCL Demos
  - Name-based replication priorities (**Not for the review**)
  - KEBAPP (**TBC for the review**)
- DUTH Demo
  - NDN - IBR - DTN integration (**For the review** with three laptops)
- UCAM Demo
  - **TBC for the review**
- PerSense Mobile Light Information (Tecnalia / Senception / Copelabs)
  - First version **for the review**.
- AFA demo
  - **For the review**, access to UMOBILE Lab.



## Final demo

- What kind of demo do we want?
  - Small demos to be presented in different events such as conferences.
  - UMOBILE event with all the demos
  - ...



# Conclusions

- Work plan for this WP
  - Task 5.2 and task 5.3 should start on October
- Deliverables
  - D5.1 and D5.2 have to be submitted by January 2017.
  - Demo story document is a starting point for D5.1
- UMOBILE infrastructure for the demo
- Demonstrators
  - Define use cases and scenarios that are deployed in the infrastructure.
  - Map the solutions developed by the partners in those scenarios and use cases.
- Demo plans
- Demos for the review
- Define the kind of event for the final event



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