



BILBAO PILOT SITE

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Linked in Grupo: MLC ITS Euskadi

Member



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BILBAO PILOT SITE



1. Available systems
2. Available services
3. New services to be implemented within Co Cities project



ITS ARCHITECTURE AND AVAILABLE SYSTEMS



ITS Architecture in Bilbao

MONITORIZATION

- GAUGING
- CCTV



CONTROL

- TRAFFIC LIGHT
- ON-STREET PARKINGS
- PARKINGS
- VMS



ENFORCEMENT

- PEDESTRIAN AREAS ACCESS CONTROL
- RED LIGHT CONTROL



DATA CENTRE



OPTICAL FIBRE NETWORK

CONTROL CENTRE





AVAILABLE SERVICES



	Website	Variable Message Panels	Mobile phone application
1. Traffic levels information-Current	- Roadwork - Camera's location - Panels location - Traffic situation in concrete roads		
2. Roadwork information	-Location		
3. Parking spaces information-Current	-Availability indication - Location	-Availability indication -Orientation about how to arrive to the parking	-Availability indication
4. Parking tariffs	-Tariffs - Location		-Tariffs
5. Parking Opening hours	-Timetables - Location		
6. Bus network information	-Lines -Stops --Time of arrival (ETA)	-Time of arrival (ETA) -Accessibility features of the bus	-Timetables -Connections -Time of arrival (ETA)
7. Bus service timetable	-Timetable	-Timetable	-Timetable
8. Bus tariff information	-Tariff	-Tariff	-Tariff
9. Train service network information	-Lines -Stops		
10. Train service timetable	-Timetable		
11. Tram service timetable	-Timetable		
12. Tram service network information	-Stops		
13. Tube service network information	-Lines -Stops		

Out of Bilbao Council's competence: Tube, tram, train



Train - Basque Government, Spanish Government



Tram - Basque Government

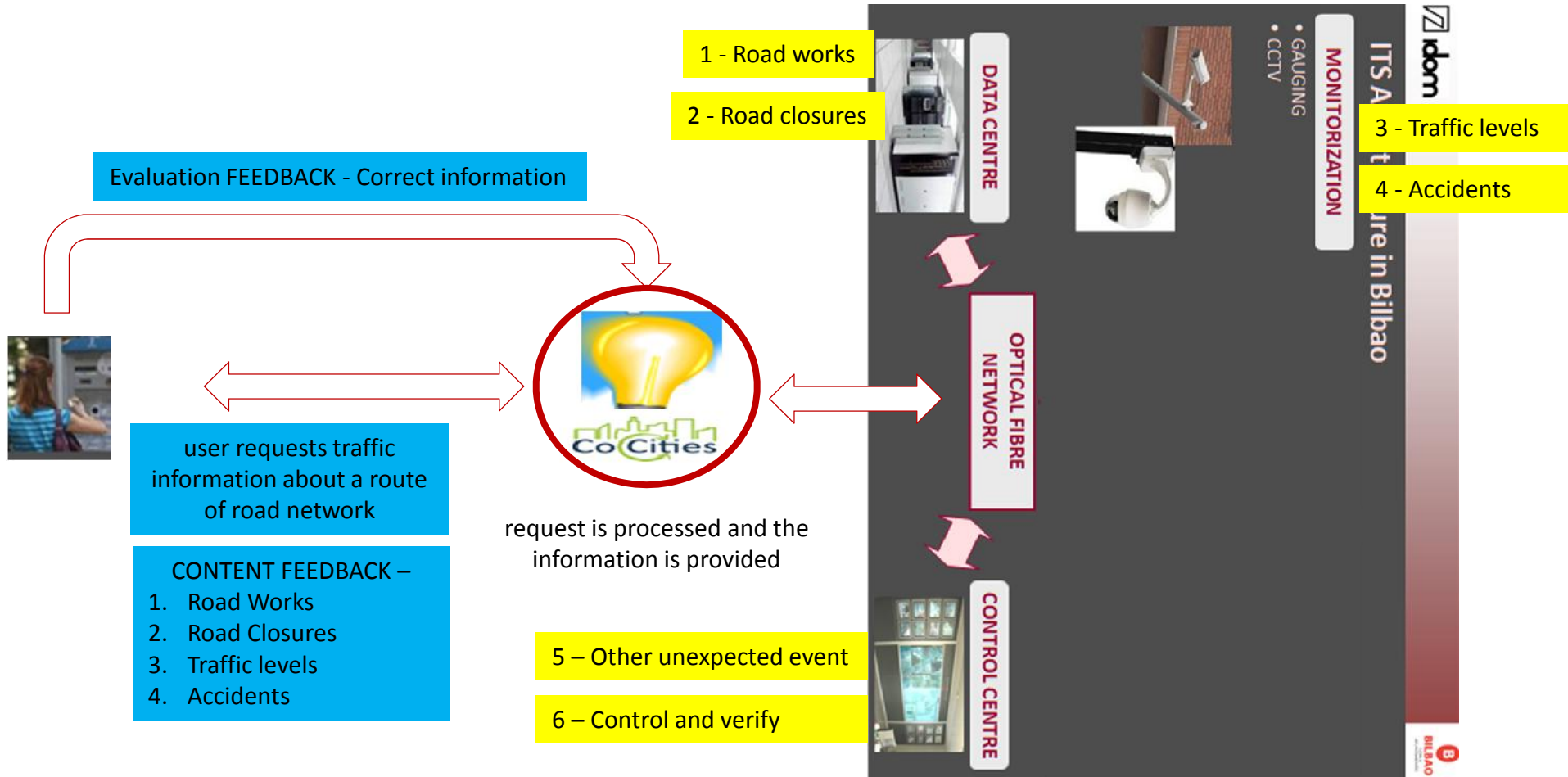


Tube - Bizkaia Transport Consortium (County)



NEW SERVICES TO BE IMPLEMENTED

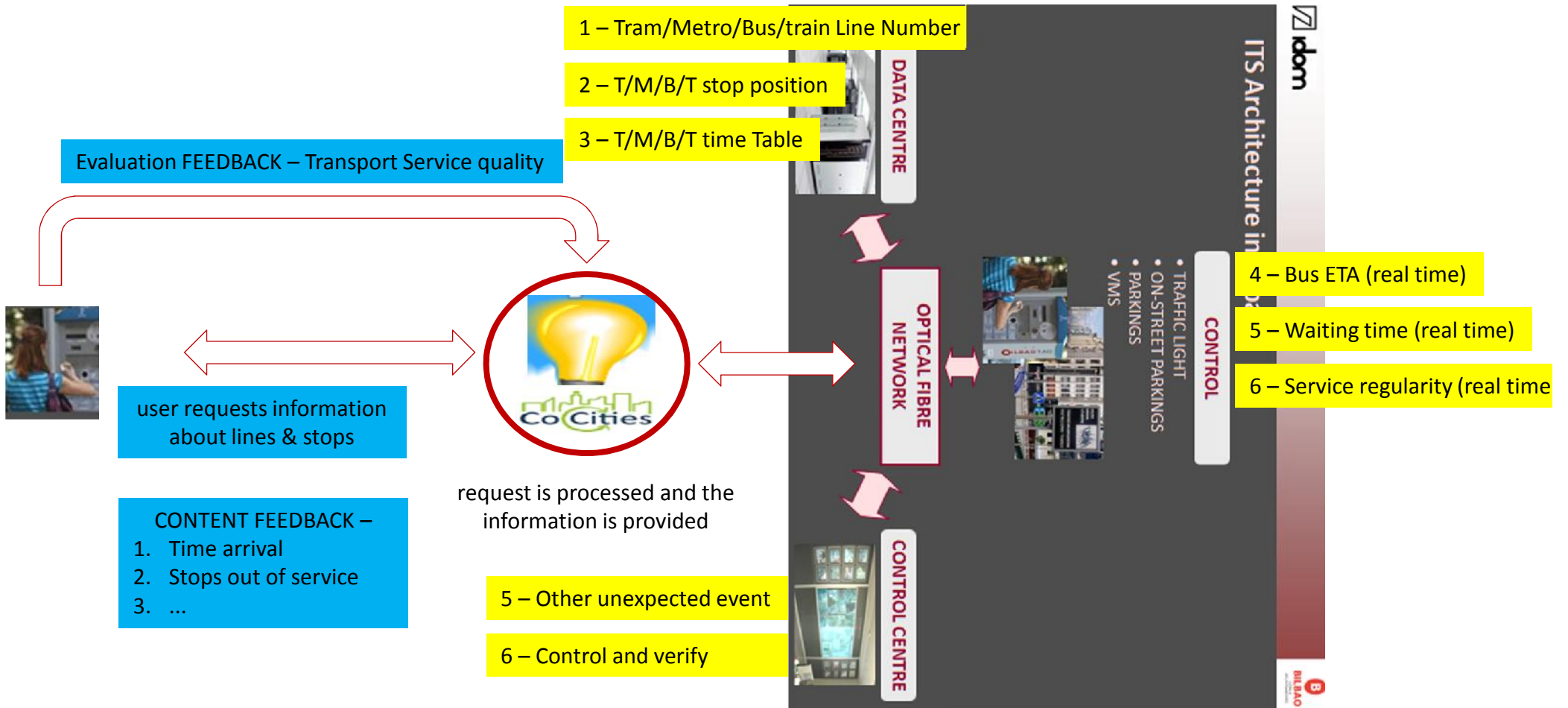
DYNAMIC ROAD TRAFFIC INFORMATION/ TRAFFIC EVENT INFORMATION WITH FEEDBACK





NEW SERVICES TO BE IMPLEMENTED

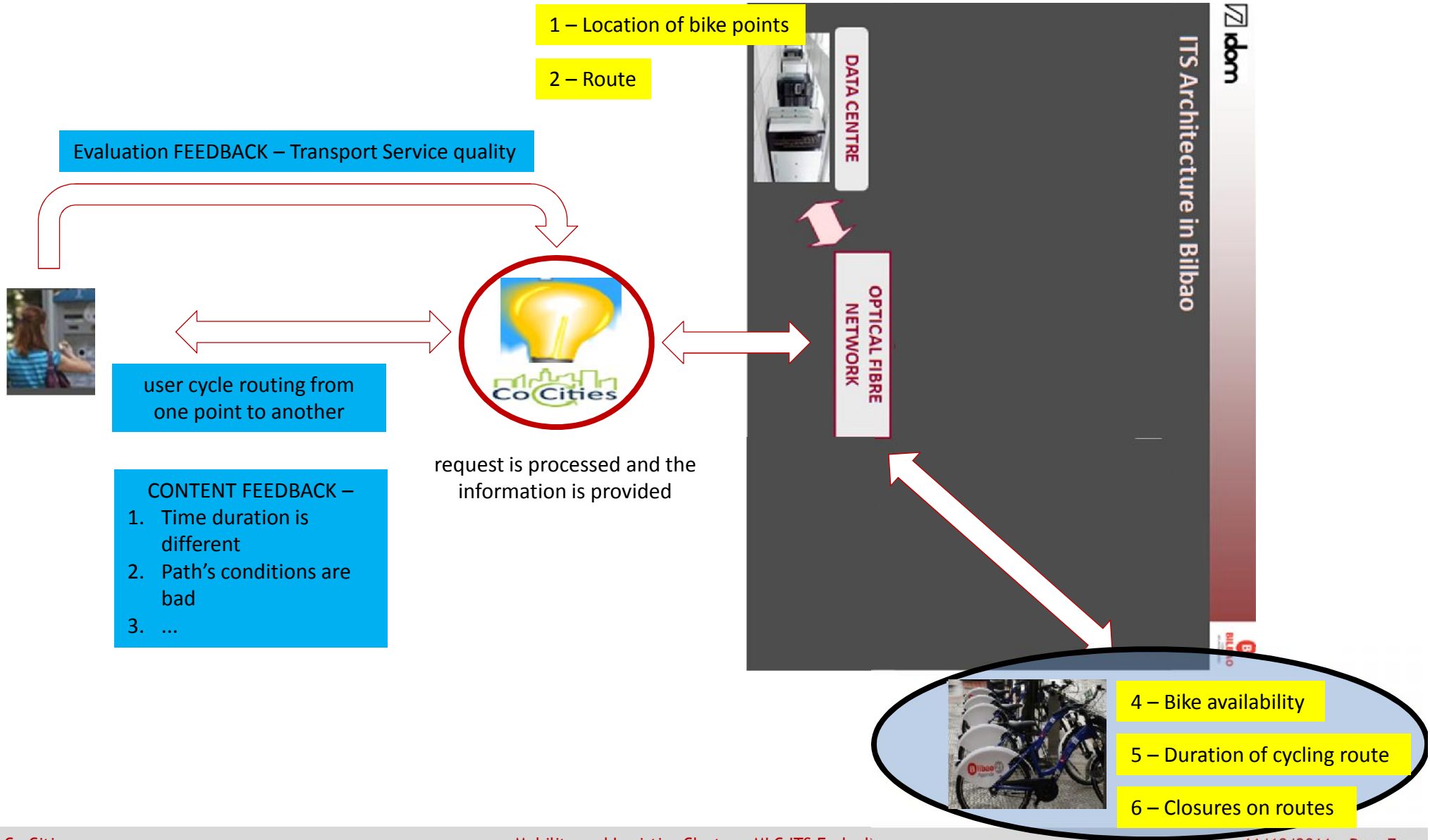
DYNAMIC PUBLIC TRANSPORT INFORMATION WITH FEEDBACK- Bus





NEW SERVICES TO BE IMPLEMENTED

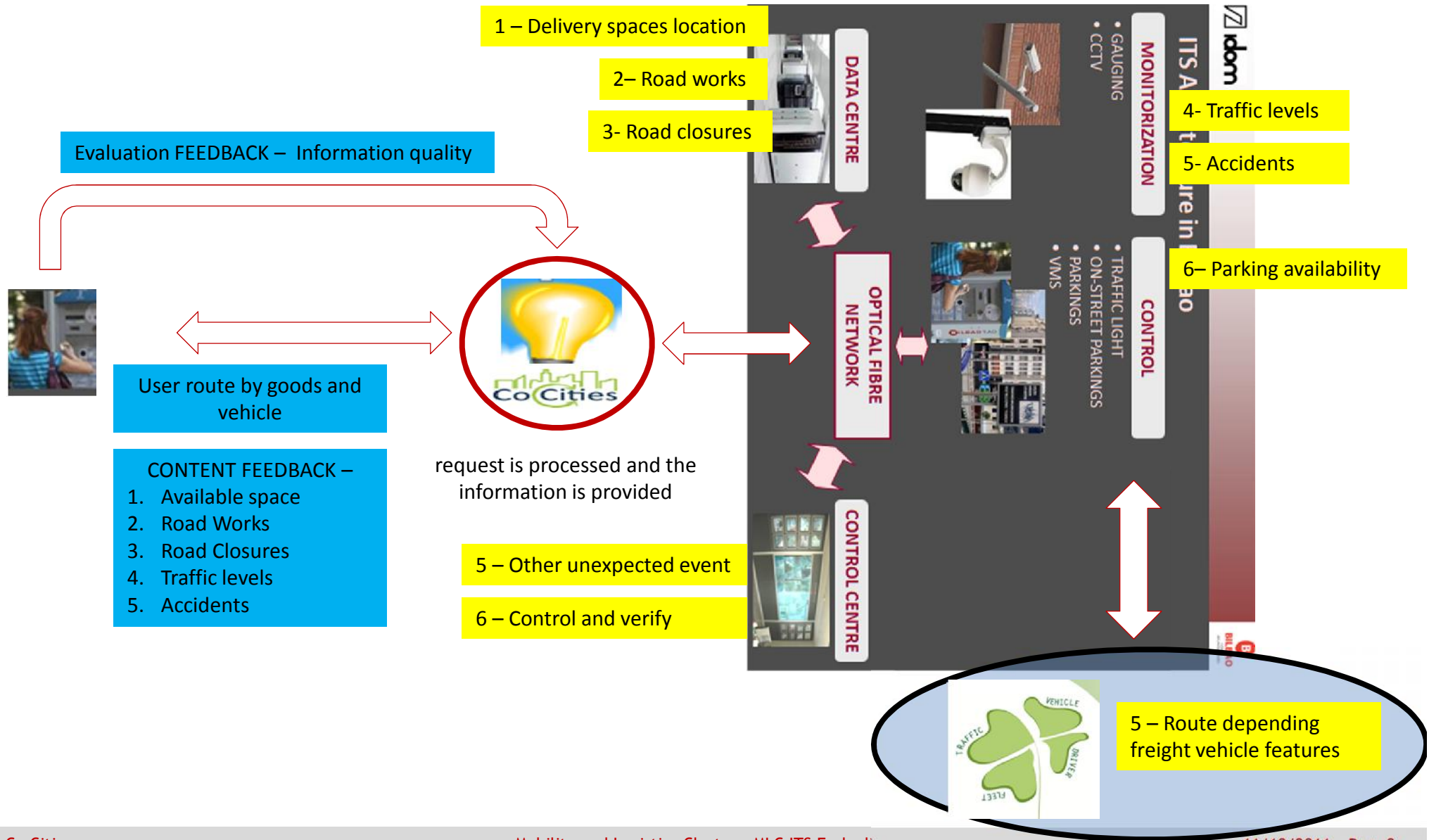
DYNAMIC CYCLING PLANNING WITH FEEDBACK





NEW SERVICES TO BE IMPLEMENTED

DYNAMIC FREIGHT TRAFFIC INFORMATION WITH FEEDBACK





NEW SERVICES TO BE IMPLEMENTED OVERALL SERVICE ARCHITECTURE

1 – Tram/Metro/Bus/train Line Number



2 – T/M/B/T stop position

1 – Delivery spaces location

1 - Road works

2- Road works

3 – T/M/B/T time Table

3- Road closures

1 – Location of bike points

Evaluation FEEDBACK – Information & service quality

2 – Route



User request ...



request is processed and the information is provided

CONTENT FEEDBACK –

1. Available space
2. Road Works
3. Road Closures
4. Traffic levels
5. Accidents
6. Time duration is different
7. Path's conditions are bad
8. Time arrival
9. Stops out of service
10. ...

5 – Other unexpected event

6 – Control and verify

OPTICAL FIBRE NETWORK

CONTROL CENTRE

MONITORIZATION

CONTROL

4- Traffic levels

5- Accidents

6- Parking availability

4 – Bus ETA (real time)

5 – Waiting time (real time)

6 – Service regularity (real time)



4 – Bike availability

5 – Duration of cycling route

6 – Closures on routes



5 – Route depending freight vehicle features