Session Structure

Part 1 – Definition and SUMP Role
• Basic definition of monitoring and evaluation (M&E)
• Where it fits in to SUMP process

Part 2 – Targets
• Why have targets in SUMPs?
• Different types of targets
• Setting targets
• Measuring targets

Part 3 – Examples of M & E in practice
• Edinburgh, Nottingham and York (UK)
• Ljutomer, Ljubljana (Slovenia)
• Copenhagen (Denmark)
• Gdynia (Poland)

Part 4 – Challenges and Conclusions
Part 1

• Basic definition of monitoring and evaluation (M&E)
• Where it fits in to SUMP process
Why monitor, evaluate and appraise?

• Monitoring - what happened
• Evaluation – why it happened
• Appraisal – what will happen, is it worth doing

Why do it?:
• To know where you want to go and what you work for
• To know if you are on track (and so you can change if you’re not)
• To compare with other places
• To show funders what you’ve done

SUMP Monitoring and Evaluation process
Image source: City of Dresden, CH4LLENGE
Link to the Sustainable Urban Mobility Plan (SUMP) process

For learning material on all aspects of SUMP see:

Eltis

The SUMP concept
Guides and learning materials

SOLUTIONS webinar: Sustainable Urban Mobility Plans (64 mins long)
Other available EU resources on M&E

• EU CH4LLENGE project - [http://www.sump-challenges.eu/kits](http://www.sump-challenges.eu/kits)

Available in **nine languages**: Croatian, Czech, Dutch, English, French, German, Hungarian, Polish and Romanian
Basic requirements for M&E in SUMPs

- Must relate to objectives
  - E.g. Improve road safety
- Must include indicators
  - Quantified change in local air quality
- Should relate to target(s) for some objectives
  - Output: Make our local bus fleet 100% CNG by 2020
  - Outcome: Meet EU target for local air quality in existing hotspots by 2020
  - Note though – not all objectives will necessarily have targets
- Should cover process
  - How did we work to achieve this objective? What went well? What didn’t? How could we do better in future?
  - Plan what you’re going to do!
Basic requirements for M&E in SUMPs

Objectives

Targets

Indicators

OUTPUT

OUTCOME

Target for some Objective

M&E

**Process**

- How did we work to achieve this objective?
- What went well
- What didn’t work well
- How could we do it better in the future?
Part 2

• Why have targets in SUMP s?
• Different types of targets
• Setting targets
• Measuring targets
Why have targets?

- Objectives – what the SUMP should achieve
- Typical objective: SUMP should reduce local air pollution
- How to judge whether objective achieved? Set a target

Set targets to:

- **Satisfy legal requirements** e.g. EU targets for local air pollution - by 2022 keep annual average PM2.5 concentrations \(\leq 25 \mu g/m^3\)
- **Get different bodies to work together** e.g. Vision Zero for road safety
- **Something to aspire to** e.g. 10% trips by bike in Scotland by 2020
- **Because it’s what we can achieve** (pragmatic target)
Two key types of targets

**Output targets**

- E.g. by 2020, we will have installed 30km of bike lane
- We will have traffic calmed 50 km of streets

**Outcome targets**

- By 2020 cycle mode share will have doubled
- By 2020 we will have reduced numbers of people killed and seriously injured on our roads by 40% compared to 2010
Some typical SUMP objectives and possible targets – *with comments*
Objective: *Improve accessibility for disabled people*

**Output**
- 100% of pedestrian crossings to be fully accessible to disabled people by 2019

**Outcome**
- Increase percentage of disabled people who perceive accessibility to be improving by 3%/year

**Comment**
- Set *target* related to budget
- *Measure existing situation!*

**Comment**
- Use small (100 person) survey to *measure existing* and every year
Objective: *improve city center economy*

**Output**

- 100% of city-controlled parking in city center priced to encourage short-stay (shoppers)
- 2 new park and ride sites implemented within 4 years

**Outcome**

- % of citizens satisfied with street quality increases by 3%/year
- % of empty shops in city centre falls by 5% per year
Objective – *improve quality of life*

**Output**
- Pedestrianise 4 key city centre streets within 4 years
- 50% of city streets – 30kph zones within 4 years
- Parking target also relevant

**Outcome**
- % of citizens satisfied with street quality increases by 3%/year

*Comment*
- *Measure existing. Base on small (200 person) annual survey*
Solutions to Target Problems.........?
Problem 1 - “we don’t know what measures achieve”

How can you set targets if you don’t know what measures will achieve?

1. Set output targets
2. Consider your ambitions!
3. Look at what measures achieved elsewhere
   - www.eltis.org
   - www.leeds.ac.uk/konsult
4. Use Roadmap tool
5. Build a model (good for some measures)
How can you set targets if you don’t have data?

1. Set simple targets
2. Have few targets
3. Mix of output and outcome targets
4. Use simple data gathering - examples:
   - Small sample sizes in surveys
   - Roadside counts once or twice a year around city center for mode share
   - Queue counts once or twice a year at key junctions for congestion
Part 3

• Experience of indicators and targets in real life SUMPs
Edinburgh (UK) SUMP

LTS (SUMP) aims to:

• Support a sustainable and growing local and regional economy;
• Improve safety for all road and transport users;
• Reduce the environmental impacts of travel;
• Promote better health and fitness; and
• Reduce social exclusion
# Edinburgh SUMP - Targets

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support a sustainable and growing local and regional economy</td>
<td>No target</td>
<td>Congestion Traffic volumes Connectivity by rail and air to other cities</td>
</tr>
<tr>
<td>Improve safety for all road and transport users</td>
<td>40-50% reduction in all casualties, ped, cycling and walking casualties by 2010 on 1994-98 average</td>
<td>Perceptions of security on public transport Number of killed and seriously injured people on the roads</td>
</tr>
<tr>
<td>Reduce the environmental impacts of travel</td>
<td>Meet EU standard for NOX and PM10 by 2010</td>
<td>Improved bus and taxi emissions standards</td>
</tr>
<tr>
<td>Promote better health and fitness</td>
<td>Mode share target for walking and cycling</td>
<td>% of trips by different modes for different trip purposes</td>
</tr>
<tr>
<td>Reduce social exclusion</td>
<td>No target</td>
<td>Increased public transport accessibility to key locations Increase use of specialised transport services Increase availability of low floor buses and stops they can use</td>
</tr>
</tbody>
</table>
## How Edinburgh gathers that data

<table>
<thead>
<tr>
<th>Indicator</th>
<th>How it is measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  Congestion</td>
<td>1.  Traffic counters measure queues at key junctions</td>
</tr>
<tr>
<td>2.  Traffic volumes</td>
<td>2.  Traffic counters</td>
</tr>
<tr>
<td>3.  Connectivity by rail and air to other cities</td>
<td>3.  Journey times and services to key cities</td>
</tr>
<tr>
<td>5.  Improved bus and taxi emissions standards</td>
<td>5.  Bus company data; taxi-licencing data</td>
</tr>
<tr>
<td>6.  Increased public transport accessibility to key locations</td>
<td>6.  Bus frequencies at key locations</td>
</tr>
<tr>
<td>7.  Increase use of special transport services</td>
<td>7.  Public service records of passengers carried</td>
</tr>
<tr>
<td>8.  Increase availability of low floor buses and stops they can use</td>
<td>8.  City’s own records on bus stops improved. Bus company fleet data.</td>
</tr>
<tr>
<td>9.  % of trips by different modes for different purposes</td>
<td>9.  National household survey, sample boosted for city</td>
</tr>
</tbody>
</table>
Ljutomer (Slovenia) - Real targets

SUMP aims to:

- Outmigration reduces to zero by 2020
- Balanced modal split by 2020 (on estimated baseline)
- Zero deaths and half injured by 2020 compared to 2010...
- 10% trips by public transport 2020
- Double cycling to work to 20% by 2020
Gdynia (Poland) – Targets

First SUMP includes:

- Objectives
- Targets
- Indicators
- Units of measurement
- Data source
- Baseline measurements for M&E
Gdynia, Poland, first SUMP – 25% of its indicators shown here – too many?

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit of measurement</th>
<th>Description</th>
<th>Category</th>
<th>Initial value (2015)</th>
<th>Target value (2018)</th>
<th>Measurement method / data source</th>
<th>Relation to a specific objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual motorisation rate in Gdynia</td>
<td>pas. cars/ 1,000 people</td>
<td>Number of passenger cars/ 1,000 inhabitants</td>
<td>STRATEGIC</td>
<td>542 (2015)</td>
<td>550</td>
<td>City Hall</td>
<td>scenarios, Objective 1, 2 and 3.</td>
</tr>
<tr>
<td>Transport mobility of Gdynia’s inhabitants</td>
<td>number of trips per business day</td>
<td>Average number of trips per inhabitant per business day, excluding trips on foot</td>
<td>STRATEGIC</td>
<td>1.65</td>
<td>stable or slightly increased</td>
<td>ZKM Gdynia</td>
<td>scenarios, Objective 1, 2 and 3.</td>
</tr>
<tr>
<td>Accidents with pedestrians</td>
<td>case</td>
<td>Number of pedestrians injured in accident</td>
<td>key</td>
<td>53</td>
<td>decreased</td>
<td>the Police</td>
<td>1.1.</td>
</tr>
<tr>
<td>Share of pedestrian traffic in trip distribution</td>
<td>%</td>
<td>Number of pedestrian trips at the distance of more than 500 m/ total non-pedestrian trips on the day before the survey</td>
<td>key</td>
<td>10.9%</td>
<td>increased</td>
<td>ZKM Gdynia</td>
<td>1.1.</td>
</tr>
<tr>
<td>Share of the bicycle traffic in trip distribution</td>
<td>%</td>
<td>Number of bicycle trips on the day before the survey/ total non-pedestrian trips on the day before the survey</td>
<td>key</td>
<td>1.8%</td>
<td>3%</td>
<td>ZKM Gdynia</td>
<td>1.3.</td>
</tr>
<tr>
<td>Cycling system density</td>
<td>km/ km²</td>
<td>Length of the cycling system related to the surface of Gdynia</td>
<td>auxiliary</td>
<td>0.42</td>
<td>increased</td>
<td>ZDiZ report</td>
<td>1.3.</td>
</tr>
<tr>
<td>Middle school students obesity rate</td>
<td>%</td>
<td>Percentage of overweight or obese middle school students</td>
<td>auxiliary</td>
<td>[data only for middle schools]</td>
<td>decreased</td>
<td>the Health Department</td>
<td>1.1., 1.3.</td>
</tr>
<tr>
<td>Traffic calming</td>
<td>%</td>
<td>Length of roads in 30 km/h zones/ total length of roads in Gdynia</td>
<td>key</td>
<td>15.4%</td>
<td>20%</td>
<td>ZDiZ report</td>
<td>1.3., 1.4.</td>
</tr>
<tr>
<td>Improved road traffic safety near education facilities</td>
<td>case</td>
<td>Number of schools and preschools near D and L-rated roads with limited speed zones</td>
<td>key</td>
<td>19</td>
<td>24</td>
<td>ZDiZ report</td>
<td>1.4.</td>
</tr>
<tr>
<td>Management of parking in the city centre</td>
<td>case</td>
<td>Number of parking places in Śródmieście and Kamienna Góra</td>
<td>auxiliary</td>
<td>5966</td>
<td>maintained or slightly reduced</td>
<td>ZDiZ report</td>
<td>1.4.</td>
</tr>
</tbody>
</table>
Ljubljana (Slovenia) – Targets

Targets in SUMP –

• Very tough?
• Aspirational?
Nottingham (UK) SUMP

2006-2011 SUMP
<table>
<thead>
<tr>
<th>Objective</th>
<th>Target</th>
<th>Measured by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut congestion</td>
<td>At least 5 bus routes in city to reduce journey times by 5 mins each by 2011 (2004 base)</td>
<td>Bus timetables</td>
</tr>
<tr>
<td>Improve accessibility</td>
<td>7 bus routes fully accessible by 2011 (2005 base)</td>
<td>Survey of buses and stops on routes</td>
</tr>
<tr>
<td>Local economy</td>
<td>85% of new housing built on re-used land by 2011 (2004 base)</td>
<td>Monitoring planning system</td>
</tr>
<tr>
<td>Quality of life</td>
<td>67% of people using bus at night feel safe with whole journey, by 2011 (2004 base)</td>
<td>Annual survey of 600 bus passengers</td>
</tr>
</tbody>
</table>
York (UK) SUMP

SUMP Achievements 2001-2006:

• Bus patronage growth of 45%
• Peak-hour urban traffic lower than 1999 levels
• A high quality Park & Ride service
• A 10% increase in non-car modes for trips to the city centre at peak times
• Over 20% reduction in road accidents
Reviewing achievements: York

### Socio-Economics

| DKK 1.22 | Gain to society per extra km travelled by bicycle in Copenhagen |

| DKK 1.13 | Cost to society per extra km travelled by car in Copenhagen |

### Health Benefits of Cycling

| 30% | Reduction of mortality for adults who cycle to and from work every day |

| 1.7 Billion | Value of health benefits from cycling in Copenhagen (DKK) |

#### Five Times More Bicycles Than Cars

2012 Copenhageners owned approximately 650,000 bicycles and 125,000 cars, corresponding to 5.2 bicycles for each car.

#### 4 Out of 5

All of Copenhagen have access to a bicycle.

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**Copenhagen (Denmark) SUMP**

**S-Train Walking Bus Car Metro Bicycle**

Primary mode of transport for trips to work or education in the City of Copenhagen, 1996-2012

**Image source: City of Copenhagen**

** Communicating progress to the public**

(Excerpts from the Copenhagen Green Accounts 2012 report.)
Part 4

M & E Challenges
## Challenges in Monitoring and Evaluation!

<table>
<thead>
<tr>
<th>Challenge in M&amp;E</th>
<th>Ways to address challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convincing people that it’s worth doing</td>
<td>Use resources as argument – need to know that what we spend money on works. Publicise results</td>
</tr>
<tr>
<td>Resources – people and money – to do it</td>
<td>Fit your activity to your resources</td>
</tr>
<tr>
<td></td>
<td>Ensure that a % of all implementation money goes to M&amp;E</td>
</tr>
<tr>
<td>Having too many indicators &amp; targets</td>
<td>Have fewer!</td>
</tr>
<tr>
<td>Right balance of output and outcome targets</td>
<td>In early SUMPs, for measures where a lot of other factors could affect outcomes – use output</td>
</tr>
<tr>
<td>Data availability</td>
<td>Carefully review what data are already available</td>
</tr>
<tr>
<td></td>
<td>Cut number of indicators and targets as well as increasing data collected</td>
</tr>
<tr>
<td>Rigour of data collection</td>
<td>For first SUMPs, small cities – don’t worry too much about rigour. Repeating same not very rigorous method gives trend</td>
</tr>
<tr>
<td>Process evaluation – how to do it?</td>
<td>Lots of guidance but basically ask yourselves: what went well, what went less well, and why?</td>
</tr>
<tr>
<td>The more we do it, the more work it causes us</td>
<td>Limit numbers of indicators and targets</td>
</tr>
</tbody>
</table>
Conclusions

✓ Don’t get too stressed by monitoring and evaluation
✓ Keep it simple especially for first SUMP
✓ Important to have some targets BUT
  • Don’t try to have too many
  • Don’t worry if they are not based on absolutely robust data
✓ Data gathering - not as complicated as you might think
Prof Tom Rye

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