ENSCC - Smart and Mobile Work in Growth Regions

Deliverable 1.2: Survey results of the mobile workers’ needs
Work package No. and title: WP1 User needs

Task No. and title: 1.3 Country surveys

Lead partner of the WP: Aalto University

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Johannes Asamer / AIT
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Version history

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>6.6.2017</td>
</tr>
<tr>
<td>1.1</td>
<td>15.6.2017</td>
</tr>
</tbody>
</table>

Final Version

Released by: Tero Haahtela
Date: 15.6.2017
Smart Commuting – Smart and Mobile Work in Growth Regions

This project explores new ways of combining work and life on the move with intelligent and sustainable transport system services. The first objective of this project is to identify the changing needs of mobile workers. For this objective, the consortium will collect data by surveys, interviews and workshops in Austria, Finland and Switzerland. The second objective is to increase the sustainability of mobility by supporting the implementation of new mobility concepts. These implementations help scale up our partners’ operations, evaluate how these new concepts meet the evolving needs of mobile workers and discover some common ground for city planning policies.

Partners
Aalto University, AIT Austrian Institute of Technology, tbw research GesmbH, ZHAW Zurich University of Applied Sciences, Virta Ltd. (Liikennevirta Oy), AC2SG Software Oy, Tuup Oy, ISTmobil GmbH, Growth Corridor Finland, Office for Mobility of the Canton of Basel-Stadt

https://smartcommuting.eu/
Survey results of the mobile workers’ needs

The population densities and railroad infrastructure in the focus areas

- The selected case areas are intentionally different by nature for analyzing different policies and mobility with related services.
  - The graphs illustrate the differences and similarities between the areas.
  - Therefore, the results are not representative for the respective countries.
  - In order to draw conclusions beyond the sample, the results should be weighted and extrapolated according to the respective national distributions.
This deliverable presents the basic results of the commuting survey conducted in Austria, Finland and Switzerland. Future deliverable 1.3 will present more detailed analysis of the survey.

The questions are presented in APPENDIX (see slides 49-57)

The questions were related to the following topics (no. of questions):
- Background (18)
- Commuting environment (5)
- Present commuting (13)
- Satisfaction and motivations (5)
- Future commuting (3)

The questionnaire was issued in Oct. 2016 – Feb. 2017

The data was collected in Dec. 2016 – May 2017
Survey results of the mobile workers’ needs

- Three identical (region-adjusted) commuting surveys
  - Austria, N = 531, reps. the whole country
  - Finland, N = 523, reps. the Finnish Growth Corridor
  - Switzerland, N = 549, reps. the Basel-region

- The geographic focus in each country reflects in part policy priorities in developing sustainable commuting
- Owing to the large sample sizes in each country, the data enables statistical analysis and
  - comparisons of the results across the three regions
  - identification of commuting profiles within each region
Survey results of the mobile workers’ needs

Data collection in Finland

- The Finnish data (n=521) was collected from the Growth Corridor Finland
- The data was collected using the internet panel of Taloustutkimus
- Half of the responses represents municipalities and small towns, while the other half represents the four large cities (Helsinki, Espoo, Vantaa, Tampere) located in the Helsinki-Tampere growth corridor.
- Along with the place of living, representative sampling was applied also to other central background variables e.g. age and gender
Survey results of the mobile workers’ needs

Data collection in Switzerland

- ZHAW contacted 2504 companies and other employers in the canton of Basel-Stadt by e-mail, based on a random sample out of the official business register
- Companies and other employers were asked to forward the link to the online questionnaire to their employees.
- The questionnaire was available both in German and French
  - Total responses (completed questionnaires and all types of drop-outs): 1’186
    - Completed responses: 549
    - Completion rate: 46.37%
  - Of the respondents with completed responses
    - 462 lived in Switzerland
    - 65 in Germany
    - 22 in France
Survey results of the mobile workers’ needs

Data collection in Austria

- The survey was implemented by ZHAW in unipark (online survey tool)
- The survey was distributed to registered users of a market research institute (iterative and selective to collect a representative sample)
- The questionnaire was available in German and English
- Total responses (completed questionnaires and all types of drop-outs): 724
  - Completed responses: 531
  - Completion rate: 73,34%
## Survey results of the mobile workers’ needs

### Background – Country of Living

<table>
<thead>
<tr>
<th>Country</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>462</td>
<td>28.8</td>
</tr>
<tr>
<td>Germany</td>
<td>65</td>
<td>4.1</td>
</tr>
<tr>
<td>France</td>
<td>22</td>
<td>1.4</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.1</td>
</tr>
<tr>
<td>Austria</td>
<td>531</td>
<td>33.1</td>
</tr>
<tr>
<td>Finland</td>
<td>521</td>
<td>32.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1603</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Survey results of the mobile workers’ needs

Background – Gender

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>839</td>
<td>52,3</td>
</tr>
<tr>
<td>Male</td>
<td>737</td>
<td>46,0</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0,1</td>
</tr>
<tr>
<td>Not answered</td>
<td>26</td>
<td>1,6</td>
</tr>
<tr>
<td>Total</td>
<td>1603</td>
<td>100,0</td>
</tr>
</tbody>
</table>
Survey results of the mobile workers’ needs

Background - Age of the respondents
### Survey results of the mobile workers’ needs

#### Background - Educational levels

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Basel TTWA</th>
<th>GCF</th>
<th>Austria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral or equivalent level</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Master or equivalent level</td>
<td>10%</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Bachelor or equivalent level</td>
<td>20%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>Higher professional education</td>
<td>30%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>Diploma of higher education</td>
<td>40%</td>
<td>60%</td>
<td>70%</td>
</tr>
<tr>
<td>Primary and secondary education</td>
<td>50%</td>
<td>70%</td>
<td>80%</td>
</tr>
<tr>
<td>No school education</td>
<td>Not shown</td>
<td>Not shown</td>
<td>Not shown</td>
</tr>
</tbody>
</table>
Survey results of the mobile workers’ needs

Background - Employment status

- Full time employment
- Part time employment
- Incidental work periods
- Maternity leave
- Currently without work
- Student
- Other

Basel TTWA  GCF  Austria
Survey results of the mobile workers’ needs

Background - Household size (number of people)
Survey results of the mobile workers’ needs

Background - Number of working and studying persons in household
Survey results of the mobile workers’ needs

Background - Number of children living at home

Austria
GCF
Basel TTWA
Survey results of the mobile workers’ needs

Background - Number of cars in household
Survey results of the mobile workers’ needs

Background - Number of bicycles in household

Austria
GCF
Basel TTWA
Survey results of the mobile workers’ needs

Background - Number of motorcycles and e-bikes in household

Motorcycles

- Austria
- GCF
- Basel TTWA

E-bikes

- Austria
- GCF
- Basel TTWA
Survey results of the mobile workers’ needs

Background - Household monthly net income

For example, in Basel TTWA 80% of respondents’ households earns less than €11 000 per month.
Survey results of the mobile workers’ needs

Background - Having driving license

- Austria: 95.0%
- GCF: 92.1%
- Basel TTWA: 89.6%
Survey results of the mobile workers’ needs
Commuting environment - Type of the living environment

% 50,0
45,0
40,0
35,0
30,0
25,0
20,0
15,0
10,0
5,0
0,0

Rural  Village  Suburban  Urban  City center

Austria  GCF  Basel TTWA
Survey results of the mobile workers’ needs
Commuting environment - Access to basic necessities within walking distance

- Public transport access point
- School or kindergarten
- Groceries or supermarket
- Pharmacy / drugstore
- Other public services

Graph showing the percentage of access to these necessities in GCF, Basel TTWA, and Austria.
Survey results of the mobile workers’ needs

Commuting environment - Walking distance to the closest public transportation point

<table>
<thead>
<tr>
<th>Location</th>
<th>GCF</th>
<th>Basel TTWA</th>
<th>Austria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus stop</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tram stop</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxi station</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Train station</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subway station</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bike- or carsharing station</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GCF, Basel TTWA, Austria
Survey results of the mobile workers’ needs
Commuting environment - Places of work

- At main workplace
- At home
- During commuting
- At other places
- While visiting a client
- During business trips

Basel TTWA, GCF, Austria
Survey results of the mobile workers’ needs
Commuting environment - Workplace location type

- Rural
- Village
- Suburban
- Urban
- City center

Austria
GCF
Basel TTWA
Survey results of the mobile workers’ needs

Present commuting - Number of times commuted to the main workplace in a week

[Bar chart showing percentage distribution for different ranges of commuting frequency: Austria, GCF, Basel TTWA]
Survey results of the mobile workers’ needs

Present commuting - Distance between home and workplace

For example, in Basel TTWA of Switzerland, 80% of respondents have commuting distance less than 30 km.
Survey results of the mobile workers’ needs

Present commuting - Daily commuting time

For example, in Growth Corridor Finland, 80% of respondents use less than 100 minutes for commuting.
Survey results of the mobile workers’ needs

Present commuting - Access to a private or a company car for commuting

<table>
<thead>
<tr>
<th>Country</th>
<th>Private Car</th>
<th>Company Car</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>60%</td>
<td>10%</td>
</tr>
<tr>
<td>Austria</td>
<td>60%</td>
<td>10%</td>
</tr>
<tr>
<td>Finland</td>
<td>70%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Survey results of the mobile workers’ needs

Present commuting - The most important means of transport used for commuting*

* Share of respondents answering “often” or “nearly always”
Survey results of the mobile workers’ needs

Present commuting - Other modes of transportation used for commuting

- Ridesharing
- Skiing and kick sledge (in the winter)
- Roller-skating
Survey results of the mobile workers’ needs
Present commuting - PT ticket types used commonly in commuting

- Value ticket
- Flatrate month pass
- Single/return ticket, one-day ticket
- Discount card (e.g. pension)
- Multi-trip ticket
- Route-specific month pass
- Year ticket / year subscription
- Single/return ticket, one-day ticket

GCF, Basel TTWA, Austria
Survey results of the mobile workers’ needs

Present commuting - Combining other activities with commuting*

0,0 %  20,0 %  40,0 %  60,0 %  80,0 %  100,0 %

Shopping
Social activities
Leisure or sports
Using public services
Education
Picking-up someone

*share of respondents answering often or sometimes

GCF  Austria  Basel TTWA

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Survey results of the mobile workers’ needs
Present commuting - Use of Internet for info seeking during commuting

- Switzerland
- Austria
- Finland

never  rarely  sometimes  often  every workday
Survey results of the mobile workers’ needs
Present commuting - Use of Internet for booking trips during commuting

Switzerland
Austria
Finland
0 % 20 % 40 % 60 % 80 % 100 %
never rarely sometimes often every workday
Survey results of the mobile workers’ needs

Present commuting - Use of Internet for paying trips during commuting

- Switzerland
- Austria
- Finland

- never
- rarely
- sometimes
- often
- every workday
Survey results of the mobile workers’ needs

Present commuting - Activities during commuting

- Reading (newspaper, magazine, book)
- Using electronic devices for leisure (music, video, news, games, internet surfing)
- Calling
- Working/studying with electronic devices
- Personal communication with fellow travelers
- Eating / Drinking
- Sleeping
- Working/studying without electronic devices
Survey results of the mobile workers’ needs
Present commuting - Reasons to commute during peak hours
Survey results of the mobile workers’ needs
Satisfaction and motivations - Satisfaction with the most common mode of commuting

- Easy to use
- Reliability/punctuality
- Comfort
- Service frequency
- Price for service
- Travel time
- Enjoyment of travel

GCF, Basel TTWA, Austria
## Survey results of the mobile workers’ needs

### Satisfaction and Motivations - Reasons to use car in commuting; rank order

<table>
<thead>
<tr>
<th>reason</th>
<th>Austria</th>
<th>Switzerland</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Speed</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Transportation of goods</td>
<td>6</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Free parking-space at work</td>
<td>4</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Reliability</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Bad access to public transport</td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>No other alternative</td>
<td>3</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Privacy</td>
<td>8</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Weather</td>
<td>9</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Price</td>
<td>10</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Safety</td>
<td>11</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>To avoid traffic jams</td>
<td>12</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Medical reasons</td>
<td>13</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Transportation of other people</td>
<td>15</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Environmental concerns</td>
<td>14</td>
<td>14</td>
<td>15</td>
</tr>
</tbody>
</table>
Survey results of the mobile workers’ needs
Satisfaction and motivations - Reasons to use public transportation in commuting; rank order

<table>
<thead>
<tr>
<th>Reason</th>
<th>Austria</th>
<th>Switzerland</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental concerns</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Price</td>
<td>1</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>To avoid traffic jams</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Reliability</td>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>No other alternative</td>
<td>5</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Speed</td>
<td>6</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Weather</td>
<td>6</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Safety</td>
<td>8</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Possibility to work while commuting</td>
<td>9</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Flexibility</td>
<td>10</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Transportation of goods</td>
<td>11</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Medical reasons</td>
<td>12</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Privacy</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>
### Survey results of the mobile workers’ needs

Satisfaction and motivations - Reasons to use bicycle in commuting: rank order

<table>
<thead>
<tr>
<th>Reason</th>
<th>Austria</th>
<th>Switzerland</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Price</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Environmental concerns</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Speed</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Do sports / health</td>
<td>7</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>To avoid traffic jams</td>
<td>5</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Weather</td>
<td>6</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Reliability</td>
<td>8</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Privacy</td>
<td>9</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Transportation of goods</td>
<td>11</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>No other alternative</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Safety</td>
<td>12</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Possibility to work while commuting</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>
## Survey results of the mobile workers’ needs

### Satisfaction and motivations: Reason to walk when commuting

<table>
<thead>
<tr>
<th>Reason</th>
<th>Austria</th>
<th>Switzerland</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Health/do sports</td>
<td>5</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Flexibility</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Environmental concerns</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Weather</td>
<td>7</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>No alternative</td>
<td>2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Reliability</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Privacy</td>
<td>9</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>To avoid traffic jams</td>
<td>6</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Speed</td>
<td>10</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Safety</td>
<td>11</td>
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</tr>
<tr>
<td>Transportation of goods</td>
<td>12</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Possibility to work while commuting</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>
## Survey results of the mobile workers’ needs

Future commuting – The required improvements encouraging to use more public transport: rank order

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Austria</th>
<th>Switzerland</th>
<th>Finland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheaper tickets</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Better connecting services (decreased waiting time)</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Decreased travel time</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Tickets provided by the employer</td>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>More frequent service</td>
<td>6</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Improved reliability</td>
<td>5</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>More comfort in public transport vehicles</td>
<td>7</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Better bicycle-transport opportunities</td>
<td>10</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Park &amp; ride offers</td>
<td>8</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Opportunities to work during the trip</td>
<td>12</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Better transport possibilities for luggage/goods</td>
<td>11</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Better safety-feeling</td>
<td>9</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Better walking accessibility</td>
<td>14</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Better bicycle parking opportunities</td>
<td>15</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Street tolls for private cars in city centers</td>
<td>13</td>
<td>13</td>
<td>15</td>
</tr>
</tbody>
</table>
Survey results of the mobile workers’ needs

Future commuting - Better tools, infrastructure and services needed to work during trips

• Internet connection and electricity
• More space for laptop or a table for a laptop
• A place to sit in public transport
• Quiet working space in train
• Quiet space for calling
• Employer should give better tools for that (e.g. a tablet)
• Permission from employer to work during commuting
• Loud alarm that would tell me when I should get out of the bus/train
Survey results of the mobile workers’ needs
Future commuting – The market potential for new modes of commuting

*The question: “Could you imagine using one or more of the following transport modes for your commuting trips?”
Survey results of the mobile workers’ needs

APPENDIX – the questionnaire

<table>
<thead>
<tr>
<th>Question(s)</th>
<th>Item(s) and preliminary scale</th>
<th>Additional info</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Language choice</td>
<td>Scale: 1x Y</td>
<td>Defines language of survey</td>
</tr>
<tr>
<td>2. In which country do you live?</td>
<td>Open_______</td>
<td>Presupposes an independent survey-implementation for each study-region FI: “municipality”</td>
</tr>
<tr>
<td>3. In which country do you work?</td>
<td>Open_______</td>
<td>FI: “municipality”</td>
</tr>
<tr>
<td>4. What is your gender?</td>
<td>female, male, other</td>
<td>Scale: 1x Y</td>
</tr>
<tr>
<td>5. In which year were you born?</td>
<td>____ (Four digit number)</td>
<td></td>
</tr>
<tr>
<td>6. What is the highest education grade you have completed?</td>
<td>- No school education - Primary education - Secondary education (e.g. high school or vocational school) - Diploma of higher education - Bachelor or equivalent level - Master or equivalent level - Doctoral or equivalent level</td>
<td>Scale: 1x Y</td>
</tr>
<tr>
<td>7. Which is your current employment status?</td>
<td>full time employment, part-time employment, incidental work periods, maternity leave, currently without work, student, other: ____</td>
<td>Scale: 1x Y to all If student -&gt; Show comment that the term “workplace” also refers to “place of study”</td>
</tr>
</tbody>
</table>
# Survey results of the mobile workers’ needs

## APPENDIX – the questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. How many persons live in your household (including you)?</td>
<td>___ (number)</td>
</tr>
<tr>
<td>9. How many persons in your household are currently working or studying (including you)?</td>
<td>___ (number)</td>
</tr>
<tr>
<td>10. How many persons in your household are younger than 18 years (including you)?</td>
<td>___ (number)</td>
</tr>
<tr>
<td>11. How many of the following vehicles does your household own?</td>
<td></td>
</tr>
<tr>
<td>cars: ____ (number)</td>
<td></td>
</tr>
<tr>
<td>motorcycles: _____ (number)</td>
<td></td>
</tr>
<tr>
<td>bicycles: _____ (number)</td>
<td></td>
</tr>
<tr>
<td>e-bikes: _____ (number)</td>
<td></td>
</tr>
<tr>
<td>12. What is your household’s total net income per month?</td>
<td>___ EUR</td>
</tr>
<tr>
<td>13. Do you hold a driving license?</td>
<td>Yes</td>
</tr>
<tr>
<td>- Yes</td>
<td></td>
</tr>
<tr>
<td>- No</td>
<td></td>
</tr>
<tr>
<td>If N: Skip Q24</td>
<td></td>
</tr>
<tr>
<td>14. How would you describe the environment you’re living in?</td>
<td>Rural</td>
</tr>
<tr>
<td>- Rural</td>
<td></td>
</tr>
<tr>
<td>- Village</td>
<td></td>
</tr>
<tr>
<td>- Suburban</td>
<td></td>
</tr>
<tr>
<td>- Urban</td>
<td></td>
</tr>
<tr>
<td>- City center</td>
<td></td>
</tr>
<tr>
<td>Scale: 1x Y</td>
<td></td>
</tr>
</tbody>
</table>

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Survey results of the mobile workers’ needs

APPENDIX – the questionnaire

15. Are these basic necessities within walking distance from your place of residence?
- Public transport access point
- Groceries or supermarket
- School or kindergarten
- Pharmacy / drugstore
- Other public services

Scale: Y/N to all

16. Which of the following public transport access points are in walking distance from your home?
- Bus stop
- Tram stop
- Train station
- Subway station
- Taxi station
- Bike- or Carsharing station
- Other______

Scale: Y/N to all
If there’s more than one Y -> We know the access point is an intermodal hub.

17. In which of the following places do you work during your typical work week?
- At main workplace
- At home
- During business trips
- During commuting
- While visiting a client
- At other places: _____

Scale: Y/N to all

18. How would you describe the environment your primary workplace is located in?
- Rural
- Village
- Suburban
- Urban
- City center

Scale: 1x Y

19. How many days you go to your main workplace in average per week?
- _____ days

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Survey results of the mobile workers’ needs

APPENDIX – the questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. What is the estimated distance between your home and your main workplace?</td>
<td>____ km</td>
<td></td>
</tr>
<tr>
<td>21. Which means of transport do you use for commuting trips and how often?</td>
<td></td>
<td>- Car - as driver</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Car - as passenger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Motorcycle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Bus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Train</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Tram</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Subway/Metro</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Bicycle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- e-bike</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Walking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Other</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scale: 1=never; 5=every workday</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If none of the PT-Answers were chosen, skip Q25.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If one of the “Car”-Options are chosen: Ask Q30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If one of the “PT”-Options are chosen: Ask Q31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If one of the “Bike”-Options are chosen: Ask Q32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If “walking” is chosen: Ask Q33</td>
</tr>
<tr>
<td>22. Please estimate the daily total time spent for commuting on average?</td>
<td>____ minutes</td>
<td></td>
</tr>
<tr>
<td>23. Which other means do you consider for commuting, if any?</td>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>24. Do you have access to a private or company owned vehicle for commuting?</td>
<td></td>
<td>- Private vehicle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Company vehicle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scale: Y/N to all</td>
</tr>
<tr>
<td>25. Do you use one of the following forms of PT-tickets for commuting?</td>
<td></td>
<td>- Single/return ticket</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Daily ticket</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Multi-trip ticket</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Value on travel card</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Season ticket</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Route-specific season ticket</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Year ticket</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Discount card (e.g. discount card for pensioners or students)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Other</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scale: Y/N to all</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Example should be country-specific</td>
</tr>
</tbody>
</table>
# Survey results of the mobile workers’ needs

## APPENDIX – the questionnaire

26. How often do you combine workplace commuting with other activities?
- Shopping
- Social activities
- Picking-up someone
- Leisure or Sports
- Education
- Using public services
Other: _________

Scale: 1=never; 5=every workday

27. How often do you use the Internet for the following actions related to commuting?
- Information seeking (e.g. routes)
- Booking
- Paying
Other: _______

Scale: 1=never; 5=every workday

28. What are you doing while using your main mode of commuting?
- Reading (newspaper, magazine, book)
- Working/studying without electronic devices
- Using electronic devices for working/studying
- Using electronic devices for leisure (music, video, news, games, internet surfing)
- Calling
- Eating/Drinking
- Sleeping
- Personal communication with fellow travelers
Other: _______

Scale: Y/N to all

29. How satisfied are you with following aspects of your current main mode of commuting?
- Price for services
- Reliability / punctuality
- Service frequency
- Comfort
- Travel time
- Easy to use
- Enjoyment of travel

Scale: 1 =not at all; 5 = very much
Answer-categories based on Swiss “Micro-sensus 2010” Q5.29
Main mode of commuting is deduced from Q21.
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Other</th>
<th>Scale: Y/N to all Answer-categories based on Swiss “Micro-sensus 2010” Q5.26 – 5.29</th>
</tr>
</thead>
</table>
| 30. Why do you use the car for commuting? | - No alternative  
- Security  
- Reliability  
- Medical reasons  
- Weather  
- Faster  
- Cheaper  
- More flexible  
- Privacy  
- Environmental concerns  
- Transportation of goods  
- Transportation of other people  
- To avoid traffic jams  
- Free parking-space at work  
- Bad access to public transport |       |                                                                                  |
| 31. Why do you use public transport for commuting? | - No alternative  
- Security  
- Reliability  
- Medical reasons  
- Weather  
- Faster  
- Cheaper  
- More flexible  
- Privacy  
- Environmental concerns  
- Transportation of goods  
- To avoid traffic jams  
- Possibility to work while commuting |       |                                                                                  |
### Survey results of the mobile workers’ needs

**APPENDIX – the questionnaire**

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Scale: Y/N to all Answer-categories based on Swiss “Micro-sensus 2010” Q5.26 – 5.29</th>
</tr>
</thead>
</table>
| **32. Why do you use a bicycle/e-bike for commuting?** | - No alternative  
- Security  
- Reliability  
- Medical reasons  
- Weather  
- Faster  
- Cheaper  
- More flexible  
- Privacy  
- Environmental concerns  
- Transportation of goods  
- To avoid traffic jams  
- To do sport  
- Other: _____ |                                                                                   |
| **33. Why do you walk for commuting?**        | - No alternative  
- Security  
- Reliability  
- Medical reasons  
- Weather  
- Faster  
- Cheaper  
- More flexible  
- Privacy  
- Environmental concerns  
- Transportation of goods  
- To avoid traffic jams  
- To do sport  
- Bad public transport allotment  
- Other: _____ |                                                                                   |
### Survey results of the mobile workers’ needs

**APPENDIX – the questionnaire**

| 34. Which of the following aspects would encourage you to use PT more frequently for commuting? | - Cheaper tickets  
- Tickets provided by the employer  
- More comfort in public transport vehicles  
- Better connecting services (decreased waiting time)  
- More frequent service  
- Decreased travel time  
- Improved reliability  
- Street tolls for private cars in city centers  
- Better safety-feeling  
- Better transport possibilities for luggage/goods  
- Park & ride offers  
- Better bicycle-transport opportunities  
- Better bicycle parking opportunities  
- Better walking accessibility  
- Opportunities to work during the trip  
- Other:________ | Scale: Y/N to all  
Answers based on Swiss “Micro-sensus 2010” Q9.6  

| 35. What tools, infrastructure or services would you need to work during trips? | Open________ |  

| 36. Could you imagine using one or more of the following transport modes for your commuting trips? | - Car sharing  
- Ride sharing (e.g. carpooling)  
- Bike sharing  
- On-demand service (taxi, uber, etc.)  
- Shared on-demand service  
- Other________ | Scale: Y/N/haven’t heard of it to all |
## Survey results of the mobile workers’ needs

**APPENDIX – the questionnaire**

| 37. If you commute during peak hours, why? | - Childcare / school opening hours  
- Requirement of job  
- Company culture  
- Habit  
- Better connectivity / timetable  
- Other __________ | **Scale: Y/N to all**  
If no answer to this question - >  
They don’t commute during peak hours. |