

Gender equality and the City

A methodological approach to mobility in space-time



EEA Grants | PT 07

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University of Lisbon



GenMob

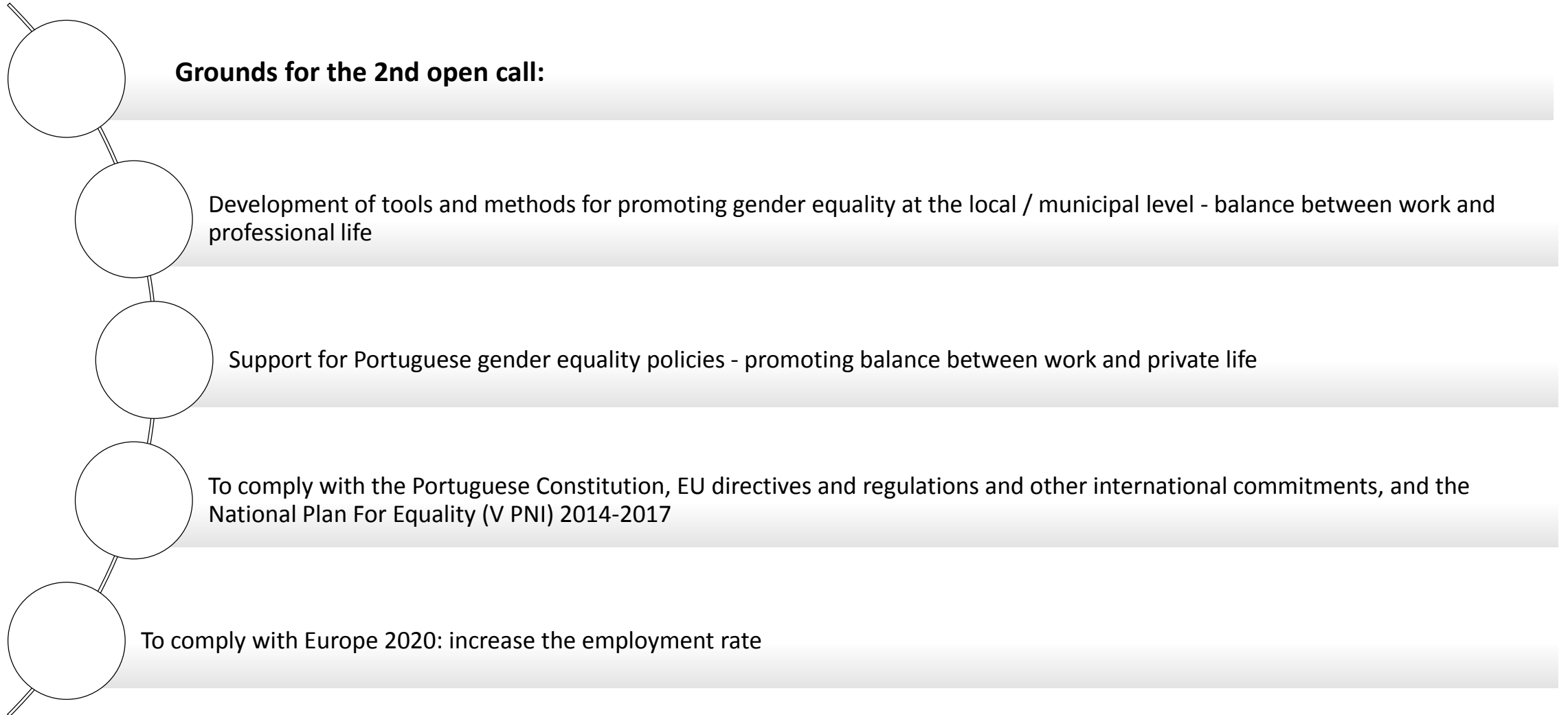
Outline

1. GenMob: context and overview
2. Methodology
3. Outputs/results
4. Methodology issues
5. Communication strategies

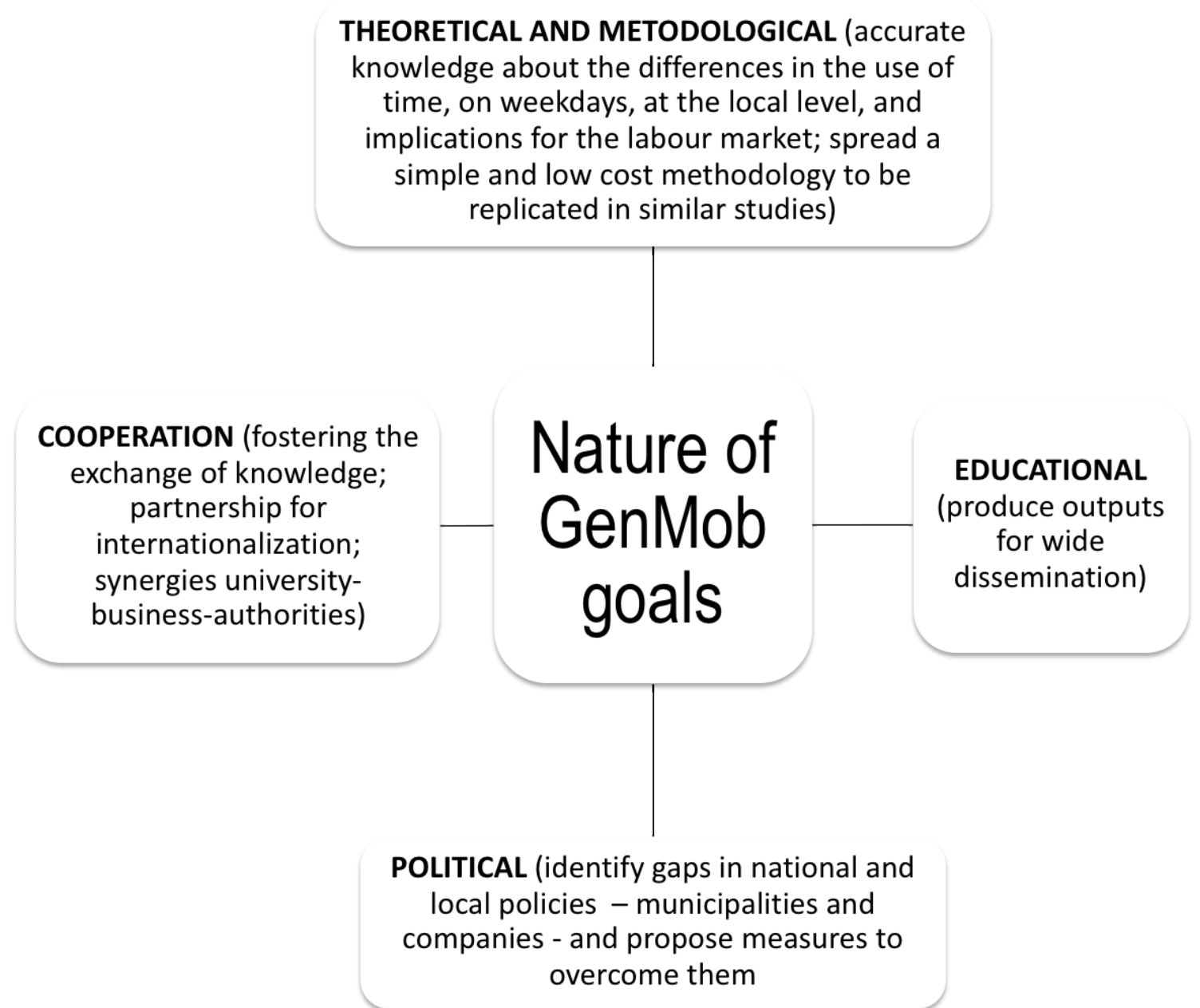
GenMob – Gender and Mobility Space-Time Inequality (June 2015 to December 2016), promoted by CEG / IGOT University of Lisbon, financed by the European Economic Area Financial Mechanism (EEA Grants), Program Area PT07 – Integration of Gender Equality and promotion of the balance between work and professional life (Second Open Call – Development of instruments and methods promoting gender equality at the local level).

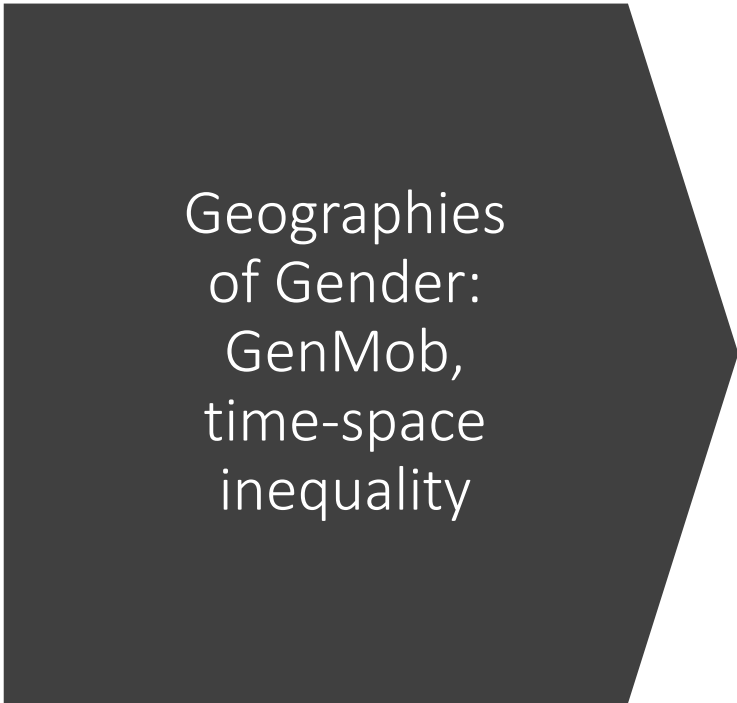
1. GenMob: context and overview

GenMob was designed to respond to the PT07 (2nd Open Call), under the European Economic Area Financial Mechanism



GenMob Goals






Geographies
of Gender:
GenMob,
time-space
inequality

Traditional explanations of mobility patterns, often within the spatial analysis centred on the “**rational mobile man**” making mobility decisions in which gender is absent, have generated a **feminist critique of research and planning of gender-neutral transport**, which has led to the geographer Robin Law to label the subject of everyday mobilities as the ‘**neuter commuter**’.

With the GenMob project, we intend to explore, from a plural perspective, the mobilities of men and women and their time-use, recognizing the need to overcome the “**false neutrality**” of many studies that support and shape transport and mobility policies in large cities and reproduce visions and practices of patriarchy.

With this project we hope to ‘turn a page’ of our experiences and contribute to the project of a more **just society**



New and
inclusive
methodology



Mobile technology



Volunteered Geographic Information (VGI)

BIG DATA



The amount of data matters
 Velocity, fast rate at which data is received
 Variety, many types of data
 Integrate, manage, analyze

Why not do we use “XXI century technology” / mobile operating systems?

GenMob project fills this gap tracking data using GPS, using a reliable, original and innovative methodology:

- makes use of smartphones/trackers with GPS and Apps available at no market charge (Moves)
- enables the implementation of the data collected by its application to a digital platform for geovisualization
- the project volunteers are co-producers of information (VGI)



VGI
turning
people into
sensors

TURNING PEOPLE INTO SENSORS

Participatory/Citizen Sensing

Big, messy data \Rightarrow real-time insights.

The smartphone as a mobile sensor platform...

... and the willingness of people to contribute to data to causes that matter

2. Methodology

Time use diaries / Surveys	GenMob Methodology
Rely on people's memory	Real-time acquisition
Subjective: each person's perception of time	Accurate Georeferenced data
Census data are home-work or home-school based, by parish and municipality	Detailed spatial statistics
High cost data acquisition	Low cost data acquisition
Time consuming data processing	Fast data processing
Status-quo	VGI – Bottom-up and open data co-creation process

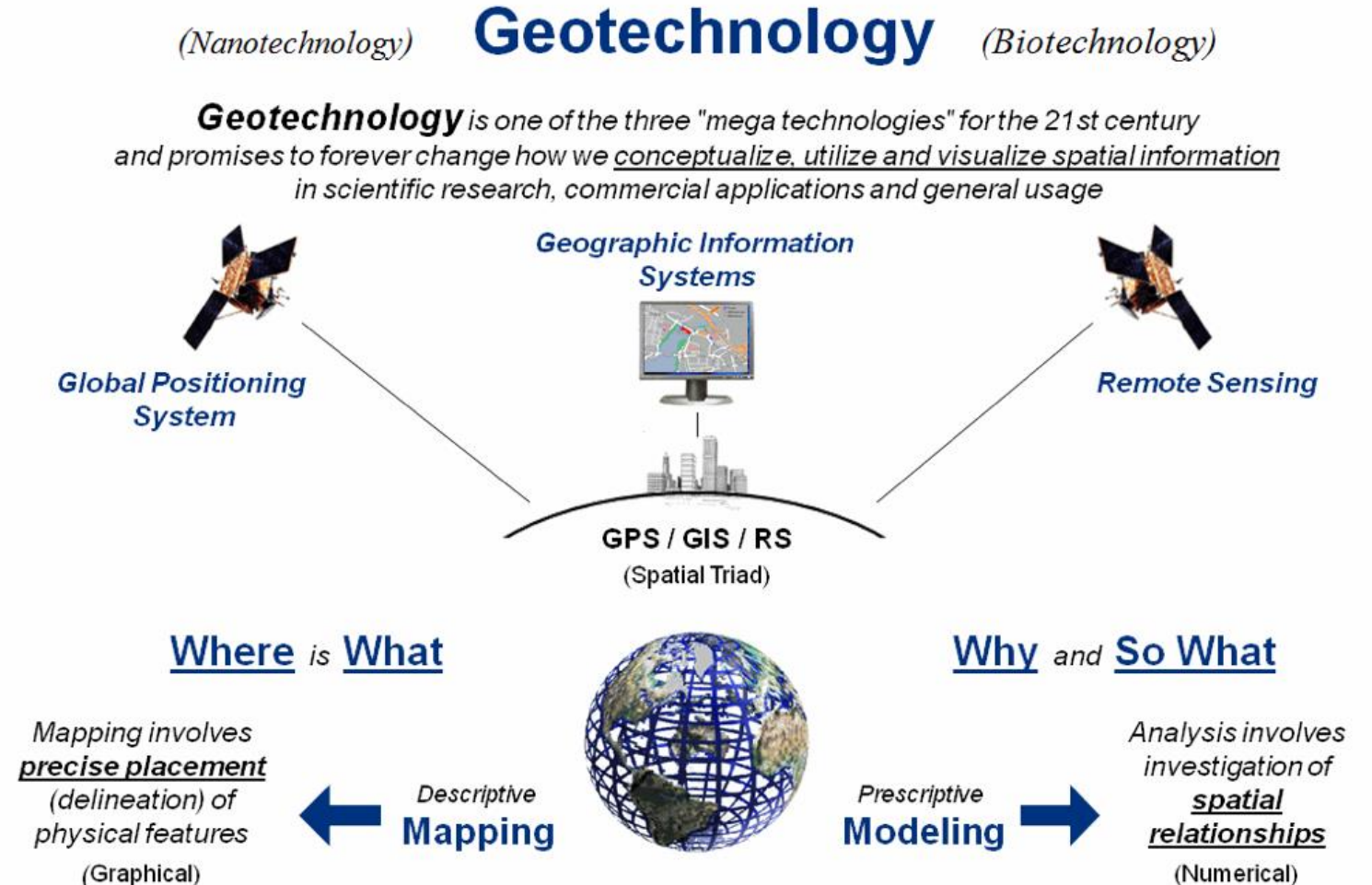
Low cost, fast data acquisition, transferable methodology

Geographical knowledge-based society

The Economic and Social Council (ECOSOC) established the Committee of Experts as the apex intergovernmental mechanism for making joint decisions and setting directions with regard to the production, availability and use of **geospatial information** within national, regional and global policy frameworks.

Led by United Nations Member States, UN-GGIM aims to address global challenges regarding the use of geospatial information, including in the development agendas, and to serve as a body for global policymaking in the field of geospatial information management

Committee of Experts on Global Geospatial Information Management (UN-GGIM)



Selection of the study areas based on location coefficients and employment catchment areas for the Lisbon Metropolitan Area and Alentejo

Within the areas selected, those of greatest attraction regarding employment were identified, along with their respective employers

GenMob geographical scope

Volunteer
recruitment
areas



SELECTED TERRITORIES

Contact with the managers and leaders of all previously identified employers, explaining the project's aims and a request for an interview

When the response to the initial contact was positive, the team held awareness-raising sessions at various locations in order to publicize the project and attract volunteers



GEN MOB
INFORMAÇÕES SOBRE O ESTUDO
2015/2016

O Projecto GENMOB – Gender and Mobility: Inequality in Space é desenvolvido por investigadores pertencentes ao Centro de Estudos Geográficos, do Instituto de Geografia e Ordenamento do Território, da Universidade de Lisboa e por investigadores da Noroff University College, Kristiansand, Noruega, coordenado pela Professora Margarida Queirós e tem como parceiro técnico a Município.

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O Projecto GENMOB – Gender and Mobility: Inequality in Space é desenvolvido por investigadores pertencentes ao núcleo Modelação, Ordenamento e Planeamento do Território, do Centro de Estudos Geográficos, Universidade de Lisboa (MOPT, CEG, ULisboa) e por investigadores da Noroff University College, Kristiansand, Noruega, coordenado pela Professora Margarida Queirós e tem como parceiro técnico a Município.

O Projecto foi desenvolvido para responder à segunda chamada PT07 (2nd Open Call), no âmbito do Mecanismo Financeiro do Espaço Económico Europeu para a Integração da Igualdade de Género e promoção do equilíbrio entre o trabalho e a vida profissional e desinvestimento de instrumentos e métodos promotores de igualdade de género a nível local, constando também estes objectivos na Constituição da República Portuguesa, na Legislação Europeia e no V Plano Nacional para a Igualdade de Género, Cidadania e Não-Discriminação (2014-2017).

O Projecto tem como metodologia a mobilização de um dia (1DD) do percurso da vida de um(a) trabalhador(a) com o objetivo de analisar o seu padrão de deslocações diárias. Essa aquisição de dados é feita através de um Personal Tracker, fornecido pela equipa IEGCIS, no âmbito da instalação e utilização de uma aplicação (Moves) para Smartphones. Em ambos os cenários, cada participante preenche um questionário complementar. A equipa do projecto garante uma utilização dos dados de base com fins académicos e a confidencialidade dos mesmos. Os resultados terão como objectivos informar políticas públicas e institucionais que promovam o equilíbrio entre o trabalho e a vida privada. A grande maioria de dados é fornecida através de um grande equipamento de recolha em rede e GPS.

OBJETIVOS
Analisar a instalação, de forma gratuita, da aplicação Moves, sendo para tal necessário o fornecimento temporário de suporte de aplicação à equipa de investigação para que seja feita acesso à informação resultante para aplicação. Após a instalação e funcionamento dos dados o utilizador deverá instalar e passar para garantir a privacidade dos dados.

PERSONAL TRACKER
É através do participante um personal tracker. Mediante a instalação do personal tracker, a equipa do projecto garante que os dados são recolhidos com um equipamento que garante que o personal tracker não é transportado sempre pelo mesmo, mas por um sistema de recolha de dados, desenvolvido especialmente, durante a utilização do personal tracker e institucional.

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Caracterização pessoal dos/s voluntário/s

Género: Masculino Feminino Outros
 Idade: ____ Anos de idade: 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

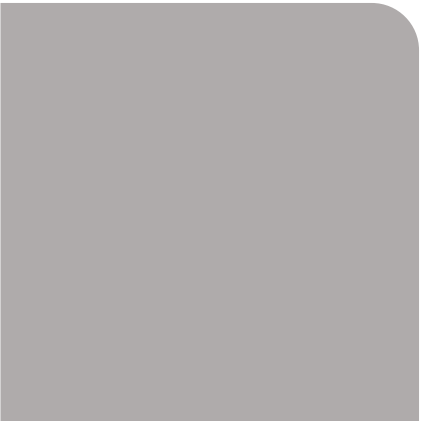
Estado Civil: Solteiro Casado Divorciado Viúvo Outros Não sabe
 Qual o seu nível de escolaridade? Não concluiu o 1.º ciclo 1.º ciclo 2.º ciclo 3.º ciclo 4.º ciclo 5.º ciclo 6.º ciclo Licenciado Mestrado Doutor Não sabe

Caracterização pessoal dos/s domígio
 Tipo de habitação: Própria Alugada Partilhada Outra Não sabe
 Localização: Centro urbano Subúrbio Área rural Outra Não sabe
 Densidade populacional: Muito baixa Baixa Média Alta Muito alta Não sabe

Caracterização do agregado familiar

Parente	Idade	Local de residência	Tenente de cartão de cidadão	Atividade profissional principal

Número de indivíduos no agregado familiar: ____ Incluir si em, quem utilize esta expressão? Sim Não
 Número de indivíduos no agregado familiar: ____ Incluir si em, quem utilize esta expressão? Sim Não
 Número de indivíduos no agregado familiar: ____ Incluir si em, quem utilize esta expressão? Sim Não
 Que atividades exercem no agregado familiar? Não sabe Não sabe Não sabe Não sabe
 Atividades do agregado familiar: Não sabe Não sabe Não sabe
 Outras atividades exercidas no agregado familiar: Não sabe Não sabe Não sabe
 Atividades exercidas no agregado familiar: Não sabe Não sabe Não sabe
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Training sessions with the volunteers

- During these sessions an individual questionnaire was administered, concerning the sociodemographic characteristics of the volunteers, their households and daily mobility
- ethics in research: data transfer and protection

Termos de Responsabilidades

1. DADOS DE IDENTIFICAÇÃO

2. OBJETIVO

3. ÂMBITO

4. METODOLOGIA

5. PARTICIPAÇÃO

6. RESPONSABILIDADES

7. CONCLUSÃO

8. ASSINATURAS

9. DATA

10. LOCAL

11. OUTROS

12. OBSERVAÇÕES

13. ANEXOS

14. REVISÃO

15. VALIDAÇÃO

16. APROVAÇÃO

17. REVISÃO

18. VALIDAÇÃO

19. APROVAÇÃO

20. REVISÃO

21. VALIDAÇÃO

22. APROVAÇÃO

23. REVISÃO

24. VALIDAÇÃO

25. APROVAÇÃO

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93. VALIDAÇÃO

94. APROVAÇÃO

95. REVISÃO

96. VALIDAÇÃO

97. APROVAÇÃO

98. REVISÃO

99. VALIDAÇÃO

100. APROVAÇÃO

Training sessions with the volunteers

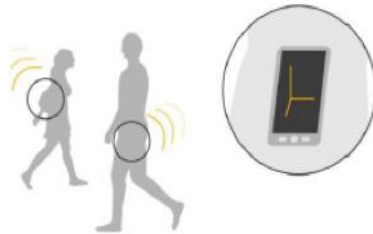
APLICAÇÃO MOVES

1 DOWNLOAD E INSTALAÇÃO DA APP



Abriu a Google Store, pesquisou por Moves e instalou

3 FAZER O PERCURSO NORMAL DO DIA-A-DIA



Não é necessário o seu smartphone estar à vista. Pode guardá-lo no bolso ou na sua mala.

2 CERTIFICAR QUE O GPS ESTÁ LIGADO

Activar os serviços de localização:

- 1) No MENU Secundário primir para activar GPS
- 2) No MENU principal, aceder às DEFINIÇÕES -> SERVIÇOS DE LOCALIZAÇÃO



PERSONAL TRACKER

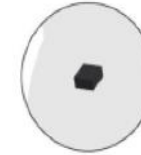
1 MANTER O PERSONAL TRACKER SEMPRE CONSIGO



2 FAZER O PERCURSO NORMAL DO DIA/A-DIA



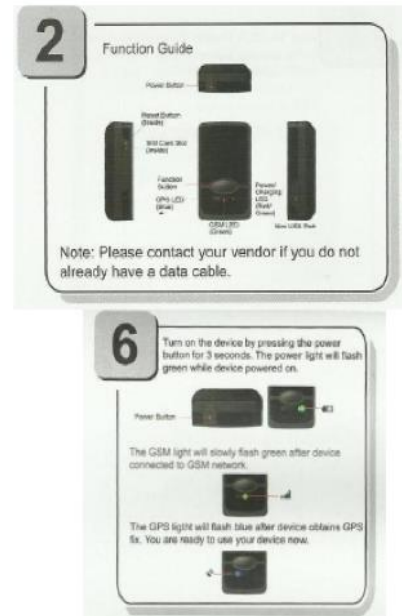
3 ANTES DE DEITAR COLOCAR O PERSONAL TRACKER A CARREGAR



4 LIGAR À REDE WI-FI PARA UPLOAD DOS DADOS



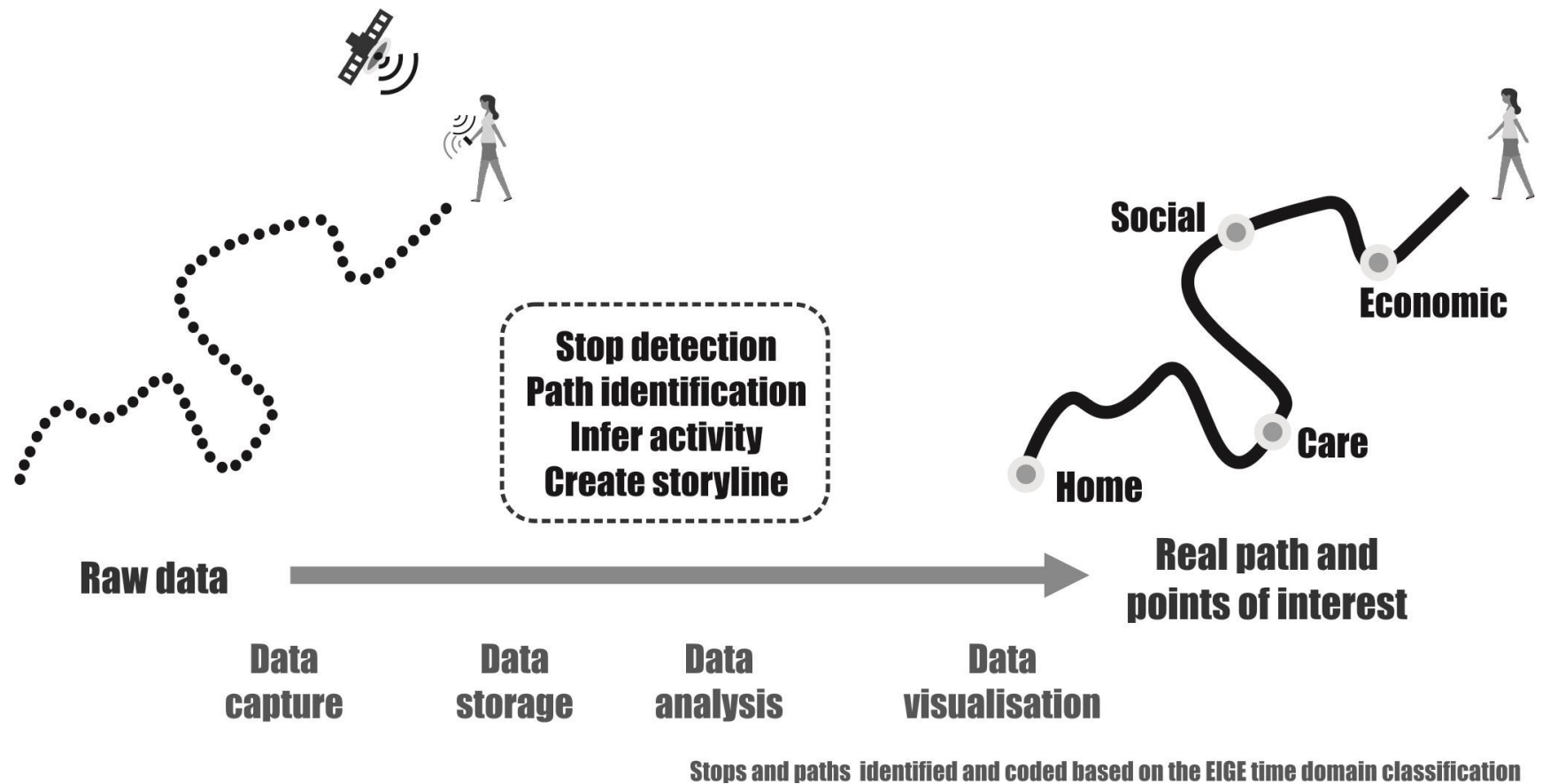
Ligue o seu telefone à uma rede Wi-Fi, para que seja feito o upload da informação para a cloud, para que posteriormente os nossos técnicos possam utilizar.



Tomei conhecimento do fim a que os meus dados pessoais se destinam, colaborarei voluntariamente e dou autorização para o estudo e tratamento dos meus dados.

Learning and handling of mobile devices and to collect information

How do we address the issue?



Understand the profiles of mobility and time use of the volunteers of GenMob

How did we address the issue?

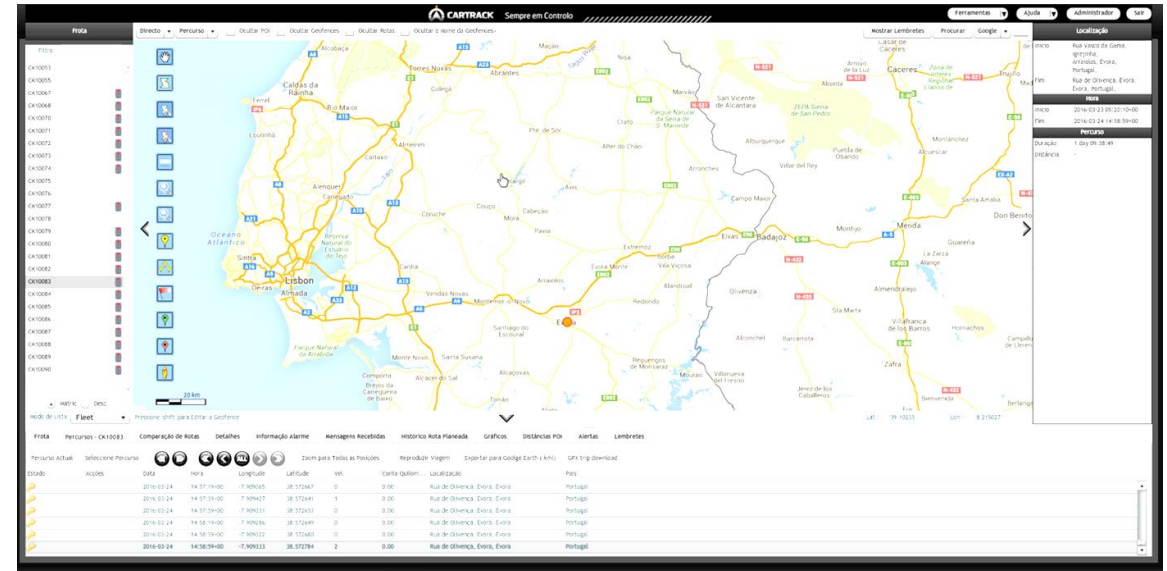
OBJECTID	Id	StartTime	EndTime	Distance	Motive	Mode	Duration	COD_Part	Shape_Length
1	0	9.043889	9.376111	7612.638017	7	2	0.332222	PT_021	7612.638017
2	0	22.565	22.836389	27960.13657	1	2	0.271389	PT_021	27960.13657
3	0	18.543611	18.582222	131.1870432	9	2	0.038611	PT_021	131.1870432
4	0	17.240556	18.393889	379.3570786	9	2	1.153333	PT_021	379.3570786
5	0	14.246389	14.578056	1002.152543	9	2	0.331667	PT_021	1002.152543
6	0	11.48	11.524722	193.2722925	9	2	0.044722	PT_021	193.2722925
7	0	11.12	11.153056	95.92861207	2	2	0.033056	PT_021	95.92861207
8	0	11.219722	11.302778	175.2366431	2	2	0.083056	PT_021	175.2366431
9	0	10.125278	10.208333	593.4369599	9	2	0.083055	PT_021	593.4369599
10	0	9.719722	9.780556	2382.821496	9	2	0.060834	PT_021	2382.821496
11	0	9.043889	9.376111	29518.26522	6	2	0.332222	PT_021	29518.26522
12	0	18.720833	18.864722	2922.191737	9	2	0.143889	PT_021	2922.191737
13	0	15.265556	16.825278	347.8600803	9	2	1.559722	PT_021	347.8600803
14	0	12.534444	12.686944	506.7674759	4	2	0.1525	PT_021	506.7674759
15	0	9.596111111	9.689166667	507.4835507	2	1	0.093055556	PT_002	507.4835507
16	0	9.899166667	10.13916667	398.521387	2	1	0.24	PT_002	398.521387
17	0	13.35138889	13.51777778	811.9529081	2	1	0.166388889	PT_002	811.9529081
18	0	13.70638889	13.72305556	84.27963684	2	1	0.016666666	PT_002	84.27963684
19	0	13.72861111	14.45416667	22355.50116	9	2	0.725555556	PT_002	22355.50116
20	0	14.45972222	14.51777778	178.4719868	9	1	0.058055556	PT_002	178.4719868
21	0	15.70972222	15.79833333	333.1515366	9	1	0.088611111	PT_002	333.1515366
22	0	16.33777778	17.05527778	23315.05547	9	2	0.717500001	PT_002	23315.05547
23	0	17.28527778	17.43194444	546.5402443	9	1	0.146666667	PT_002	546.5402443
24	0	18.00527778	18.06055556	198.0421168	3	1	0.055277778	PT_002	198.0421168
25	0	18.35555556	18.52166667	734.0132004	3	1	0.166111111	PT_002	734.0132004
26	0	18.60833333	18.87416667	3219.170574	3	2	0.265833333	PT_002	3219.170574
27	0	18.92555556	19.26083333	1495.890296	3	1	0.335277778	PT_002	1495.890296
28	0	20.69666667	20.79888889	578.8558782	4	1	0.102222222	PT_002	578.8558782
29	0	21.05388889	21.11472222	247.669294	1	1	0.060833333	PT_002	247.669294
30	0	8.118055556	8.433888889	409.9931532	2	2	0.315833333	PT_003	409.9931532
31	0	8.576111111		510.3994506	1	1	0.138611111	PT_003	510.3994506
32	0	7.515833333		3694.210849	1	0.574444444	PT_003	3694.210849	

Walking	1
Automobile	2
Bus	3
Underground	4

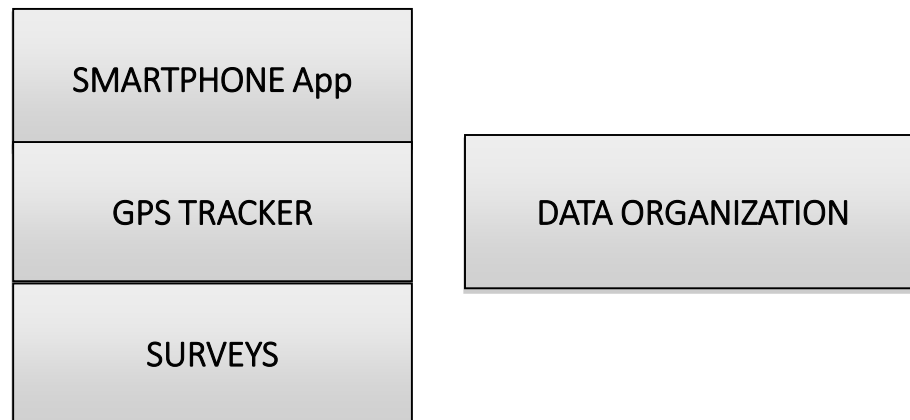
Motive: Travel
Activity: Points of Interest

OBJECTID	Id	COD_Part	Activity	Duration
1	1	0	PT_002	12.4
2	2	2	PT_002	5.69
3	3	3	PT_003	13.7
4	4	4	PT_003	6.5
5	5	5	PT_004	13.35
6	6	6	PT_004	8.64
7	7	7	PT_005	12.39
8	8	8	PT_005	10.63
9	9	10	PT_006	15.2
10	10	11	PT_006	8.12
11	11	12	PT_010	13.04
12	12	13	PT_010	9.98
13	13	14	PT_011	13.04
14	14	15	PT_011	9.58
15	15	18	PT_013	13.84
16	16	19	PT_013	8.21
17	17	20	PT_014	9.64
18	18	21	PT_014	13.28
19	19	28	PT_008	11.92
20	20	29	PT_008	6.15
21	21	30	PT_008	7.234
22	22	31	PT_002	3.19
23	23	32	PT_002	4.022
24	24	36	PT_003	3.119
25	25	37	PT_003	1.98
26	26	38	PT_003	6.016
27	27	39	PT_005	6.013
28	28	40	PT_017	
29	29	42	PT_017	
30	30	43	PT_017	
31	31	44	PT_017	
32	31	44	PT_017	

Home	1
Work	2
Leisure	3
Shopping and services	4
School	5
Transportation	6
Health	7
Others	8
In Service	9
Sports	10



How did we address the issue?



TRACKING SPATIAL DATA:

- Creation of a geographic database for GPS Tracking Data and Smartphone Tracking Data
- Disaggregating the whole table and dividing by participant
- Importing tables to GIS Software and Converting into shape files for spatial analysis
- Disaggregating Time column and dividing into Day, Hour and Decimal Hour
- **Coding Tracking Data into two different files:**
 - Points of Interest:* Coding activities; Calculation of the duration of each participant on each activity; (note: calculation of 25mt buffer for counting points on each activity)
- **Coding Paths:**
 - Paths:* Coding Activities and Modes of Transportation; Calculation of Starting and Ending Time of the Path, Duration and Distance

SURVEY DATA:

- Coding each question and answer
- Importing to a matrix
- Importing to a database for crossing with spatial data collected



Moves raw JSON Export

Settings

Export from Date:

Export your data

All exported data will be added below:

No data showing? You might need to [re-authenticate](#).

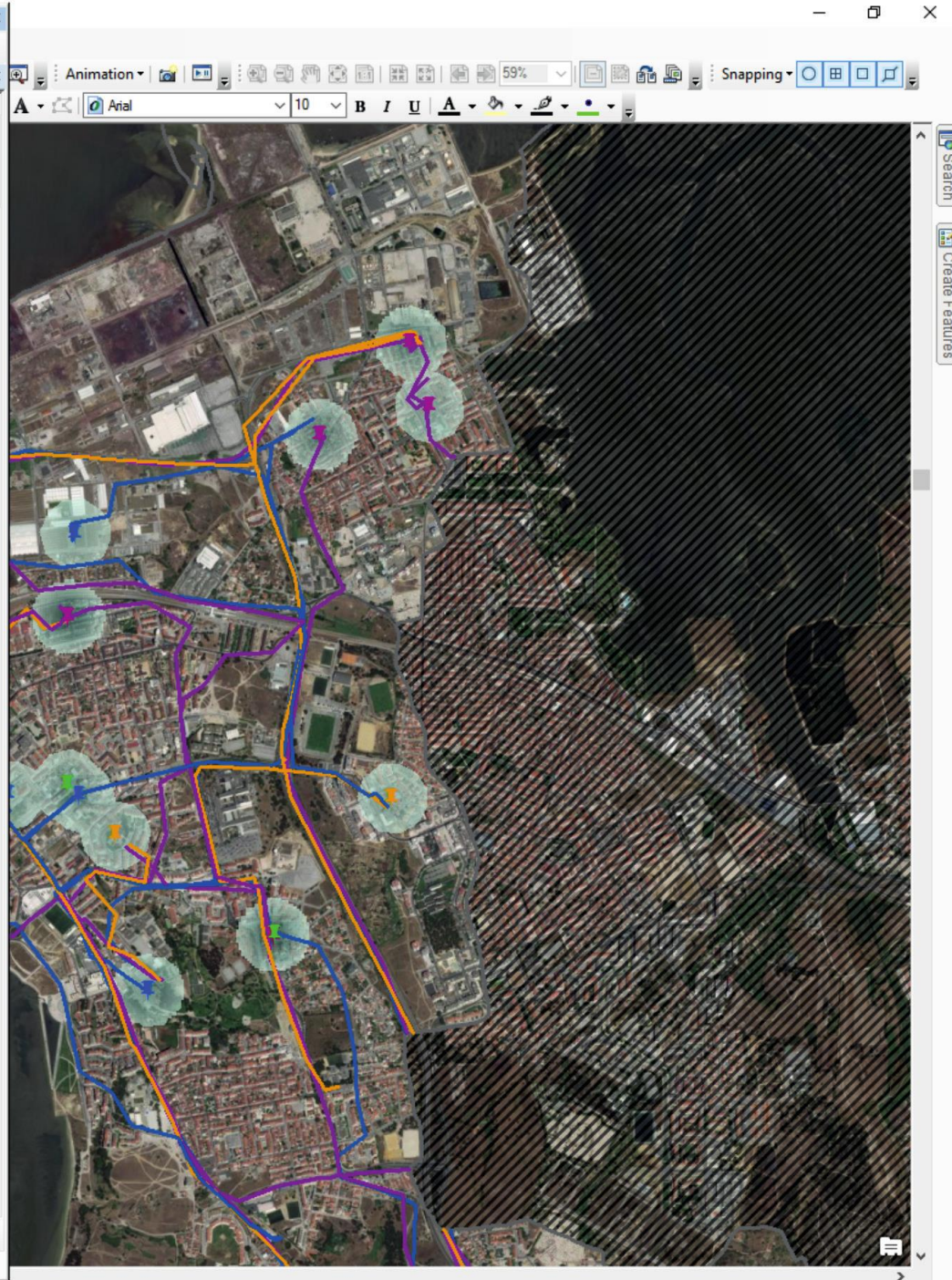
```
[{"segments":[{"place":{"type":"unknown","id":121879831,"location":{"lat":52.00236,"lon":5.04425},"type":"place","activities":{"duration":60,"distance":40,"activity":"wtk","startTime":"20130823T222709Z","trackPoints":{"lat":52.00241,"lon":5.04407,"time":"20130823T222709Z"},endTime":"20130823T222809Z","steps":80},{"duration":60,"distance":46,"activity":"wtk","startTime":"20130823T232714Z","trackPoints":{"lat":52.00241,"lon":5.04407,"time":"20130823T232714Z"},endTime":"20130823T232814Z","steps":93},{"duration":60,"distance":25,"activity":"wtk","startTime":"20130824T000512Z","trackPoints":{"lat":52.00241,"lon":5.04407,"time":"20130824T000512Z"},endTime":"20130824T000612Z","steps":50},{"duration":120,"distance":105,"activity":"wtk","startTime":"20130824T0640Z","trackPoints":{"lat":52.00241,"lon":5.04407,"time":"20130824T0640Z"},endTime":"20130824T070840Z","steps":141},{"duration":120,"distance":45,"activity":"wtk","startTime":"20130824T081300Z","trackPoints":
```

FID	Shape *	StartTime	EndTime	Distance	Motive	Mode	Duration	Gender	ordemviage	antes trab	entre trab	apos trab	EIGE	Metodo	Casa	trabalho	viagem	viatrabcas	socasatrab	casaapostr	via troco	COO Part	
214	Polyline	13.523889	13.720278	893.74963	2	1	0.196389	1	3				Work	Tracker	BARRERO	BARRERO	3					viagem	PT_037
215	Polyline	13.62	13.84778	100.252326	4	1	0.027778	1	4		4		Care	Tracker	BARRERO	BARRERO	4					viagem	PT_037
216	Polyline	13.936389	14.008333	299.880088	2	1	0.071944	1	5				Work	Tracker	BARRERO	BARRERO	5					viagem	PT_037

FID	Shape *	Activity	StartTime	EndTime	Gender	Duration	x	y	Local	Metodo	Casa	trabalho	IDADE	ESCOLARID	FILHOS	REFORMENTO	PROF COD	TIPO PER	antes trab	entre trab	apos trab	viatrabcas	OBS	FILHOS0 12	COO Part	FILHOS13 18			
0	Point		1	0	8.3775	0	8.3775	-81813.0599	-112117.7461	Barreiro	MOVES	BARRERO	BARRERO	2	5	3	3		4	1					0	PT_028			
1	Point		2	14.380833	17.36805	0	2.987222	-81340.4109	-112026.8224	Barreiro	MOVES	BARRERO	BARRERO	2	5	3	3		4							0	PT_028		
2	Point		2	8.368611	13.37388	0	5.005278	-81070.6568	-112030.5934	Barreiro	MOVES	BARRERO	BARRERO	2	5	3	3		4			1				0	PT_028		
3	Point		10	17.382222	19.37222	0	1.99	-81112.5606	-111988.2887	Barreiro	MOVES	BARRERO	BARRERO	2	5	3	3		4				10				0	PT_028	
4	Point		2	13.173056	17.4675	1	4.294444	-82274.1048	-111346.5906	Barreiro	MOVES	BARRERO	BARRERO	2	6	1	3	3	4								1	PT_029	
5	Point		2	10.333611	13.17277	1	2.839167	-82065.7488	-111388.7895	Barreiro	MOVES	BARRERO	BARRERO	2	6	1	3	3	4				1				0	PT_029	
6	Point		1	0	7.846111	1	7.846111	-80960.604	-113167.3813	Barreiro	MOVES	BARRERO	BARRERO	2	6	1	3	3	4	1							1	PT_029	
7	Point		6	9.914167	10.03333	1	0.119167	-81966.4107	-111529.3332	Barreiro	MOVES	BARRERO	BARRERO	2	6	1	3	3	4	6							0	PT_029	
8	Point		10	19.040278	20.24111	1	1.200833	-80290.3002	-113454.9814	Barreiro	MOVES	BARRERO	BARRERO	2	6	1	3	3	4				10				1	PT_029	
9	Point		2	17.782778	19.15583	1	1.373056	-80547.0638	-113418.8515	Barreiro	MOVES	BARRERO	BARRERO	2	6	1	3	3	4								0	PT_029	
10	Point		1	19.373611	24	0	5.627778	-81813.0599	-112117.7461	Barreiro	MOVES	BARRERO	BARRERO	2	5	3	3	4				1	U				0	PT_028	
11	Point		4	18.372222	19.37666	0	0.003056	-81504.6448	-111959.1845	Barreiro	MOVES	BARRERO	BARRERO	2	5	3	3	4				4					0	PT_028	
12	Point		1	20.504554	24	1	3.495446	-80960.604	-113167.3813	Barreiro	MOVES	BARRERO	BARRERO	2	6	1	3	3	4				1	U			0	PT_029	
13	Point		10	17.063333	18.05944	1	0.996111	-92459.3958	-100094.1177	Lisboa	MOVES	MONTUO	LISBOA	2	6	1	2	3	3				10				1	PT_073	
14	Point		2	13.958889	16.28138	1	2.3225	-88457.9174	-101508.9425	Lisboa	MOVES	MONTUO	LISBOA	2	6	1	2	3	3								1	PT_073	
15	Point		2	11.081389	12.95888	1	1.8775	-88405.2513	-101512.5256	Lisboa	MOVES	MONTUO	LISBOA	2	6	1	2	3	3				1				1	PT_073	
16	Point		1	18.496667	24	1	5.503333	-68946.9973	-106138.9896	Lisboa	MOVES	MONTUO	LISBOA	2	6	1	2	3	3				1	U			1	PT_073	
17	Point		1	0	9.099444	1	9.099444	-68946.9973	-106138.9896	Lisboa	MOVES	MONTUO	LISBOA	2	6	1	2	3	3	1							1	PT_073	
18	Point		4	20.5625	22.54916	0	1.986667	-70207.3888	-107762.9259	Alcochete	MOVES	MOITA	MONTUO	2	5	0	2	90	2				4				0	PT_162	
19	Point		1	22.979167	24	0	1.020833	-74456.4921	-112875.2258	Alcochete	MOVES	MOITA	MONTUO	2	5	0	2	90	2				1	U			0	PT_162	
20	Point		4	18.189722	18.37527	0	0.185556	-70127.1174	-101603.3608	Alcochete	MOVES	MOITA	MONTUO	2	5	0	2	90	2				4				0	PT_162	
21	Point		2	14.614444	17.68111	0	3.066667	-71619.4952	-101468.7812	Alcochete	MOVES	MOITA	MONTUO	2	5	0	2	90	2								0	PT_162	
22	Point		2	9.624167	13.61444	0	4.090778	-72136.3067	-101261.5588	Alcochete	MOVES	MOITA	MONTUO	2	5	0	2	90	2				1				0	PT_162	
23	Point		2	18.520833	19.78888	0	1.268056	-72301.7663	-101606.7733	Alcochete	MOVES	MOITA	MONTUO	2	5	0	2	90	2								0	PT_162	

Format JSON (JavaScript Object Notation): Id; Lat; Long; Duration; startTime; endTime; Distance

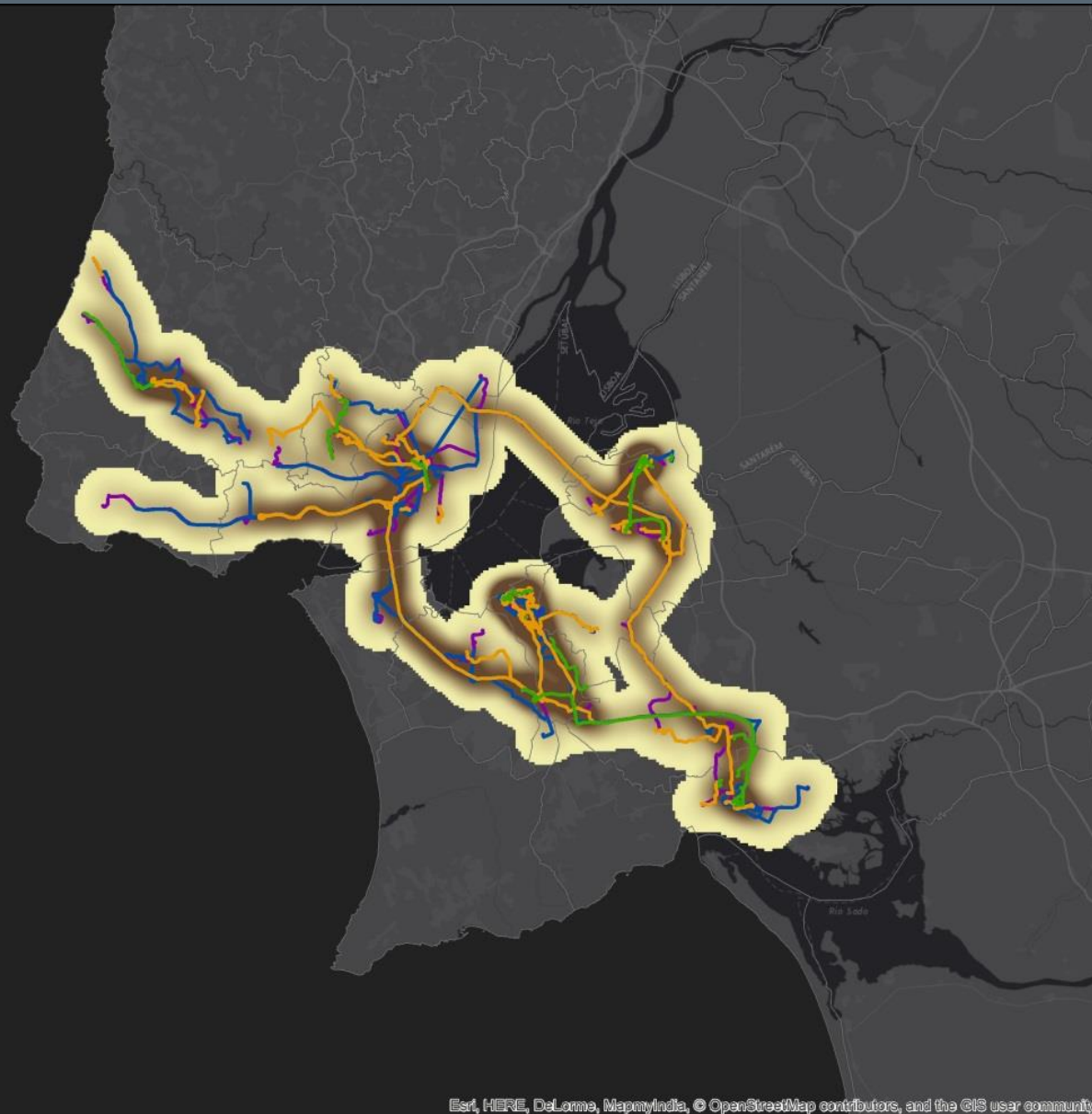
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8,674722	17,295833	1	7,621111	-75881,2076	-101
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8,744167	18,025	0	8,280833	-80815,9795	-101
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18,520278	24	0	5,479722	-75857,7979	-101
19,391389	24	0	4,608611	-80147,6373	-101
16,904167	19,158611	0	2,254444	-79393,1282	-101
8,260556	16,776667	0	7,516111	-80815,9795	-101
0	8,023056	0	8,023056	-80147,6373	-101
7,241111	16,107222	0	7,866111	-80815,9795	-101
16,2125	16,921389	0	0,708889	-79391,2287	-101
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17,898611	19,114444	0	1,215833	-82692,6879	-101
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8,861111	17,083333	1	7,222222	-80815,9795	-101
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19,005278	24	1	4,994722	-79721,3245	-101
8,744167	17,348889	1	7,604722	-80815,9795	-101
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17,886111	18,135556	1	0,249445	-81945,1583	-101
0	9,25	0	9,25	-101287,5798	-101
10,025278	13,543333	0	3,518055	-101864,0756	-101
13,701667	14,9375	0	1,235833	-101287,5798	-101



The data provided by the volunteers for at least 24 hours of a working day were collected and associated to the data from the questionnaires.

A georeferenced GenMob Database was later created, where gender differences in mobility and time use can be demonstrated

3. Outputs



What do we get?

Accurate data on people's movements through space and time

0 10 km

Data source: GENMOB, 2016





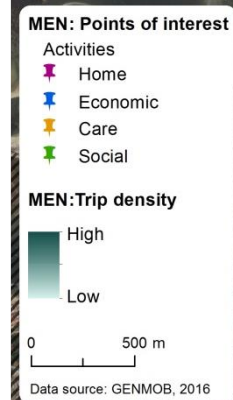
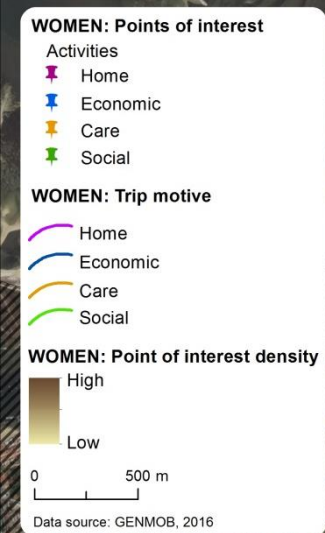
What do we get?

Accurate data on people's movements through space and time



What do we get?

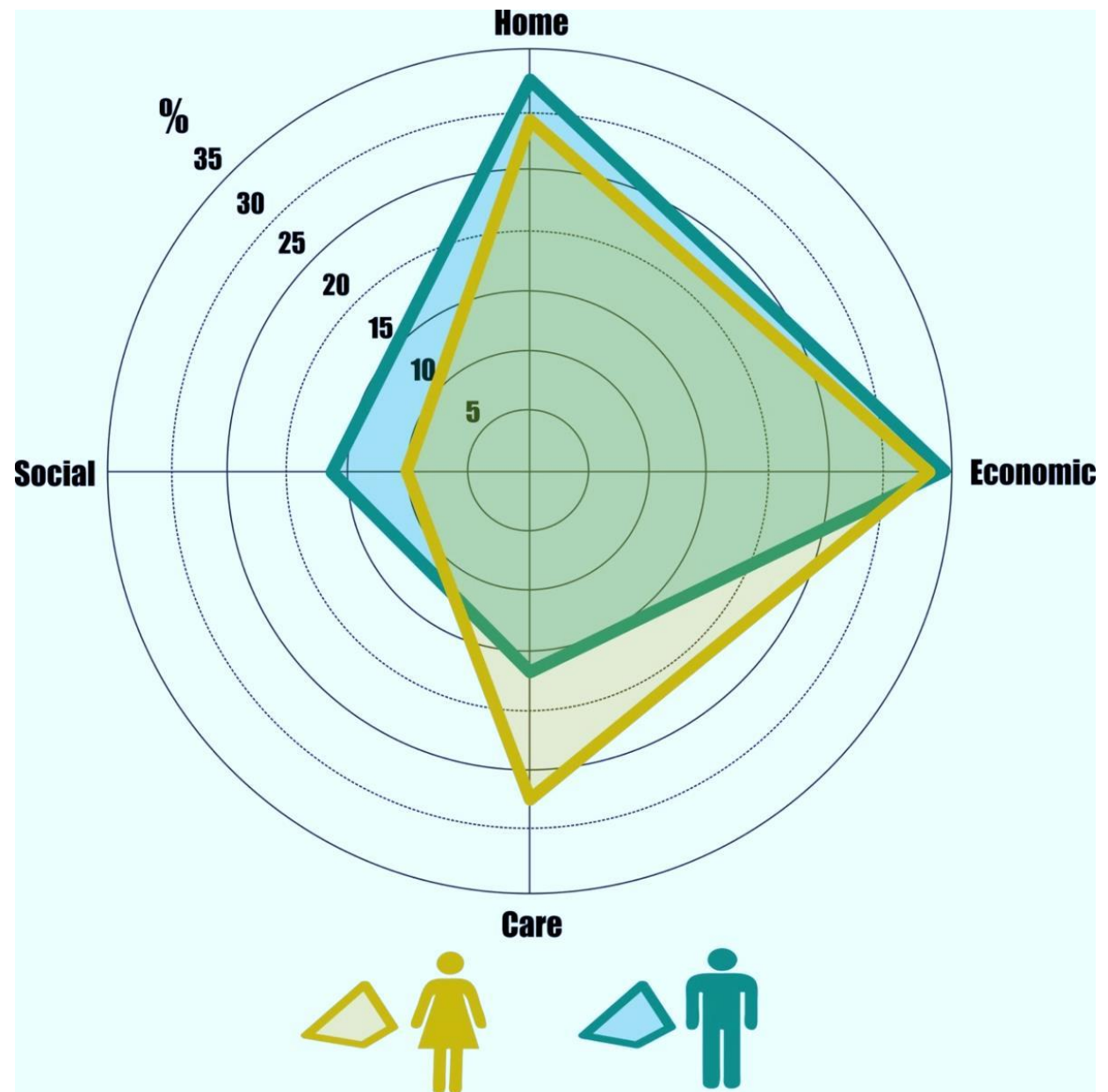
Accurate data on people's movements through space and time



What do we get?
Accurate data on people's movements through space and time

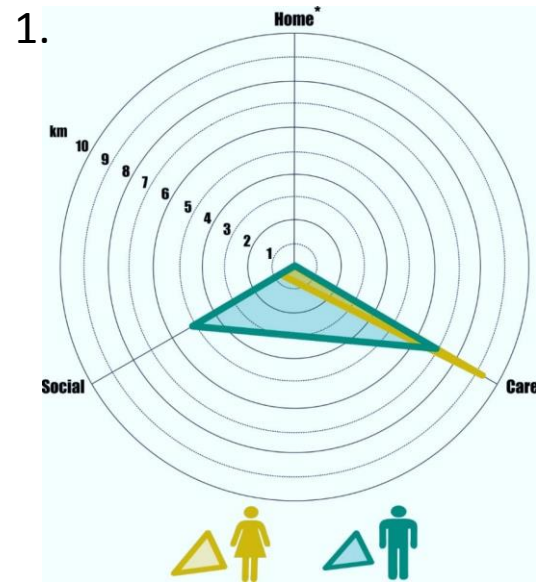
Travel Motives

% Women and Men

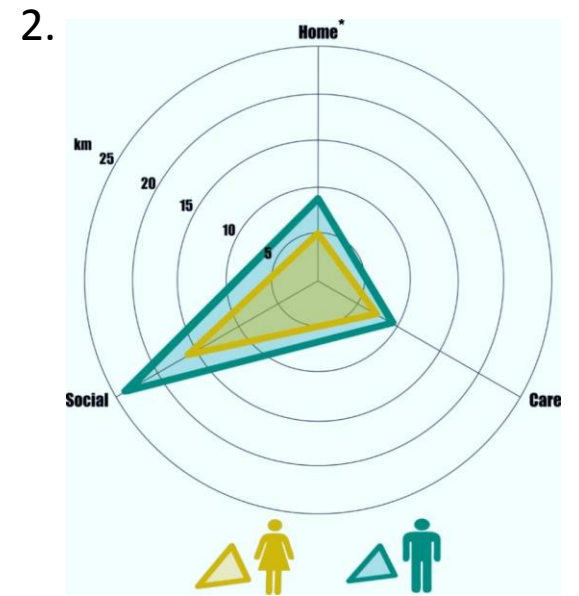


Mobility: travel | trips | distances | duration and modes

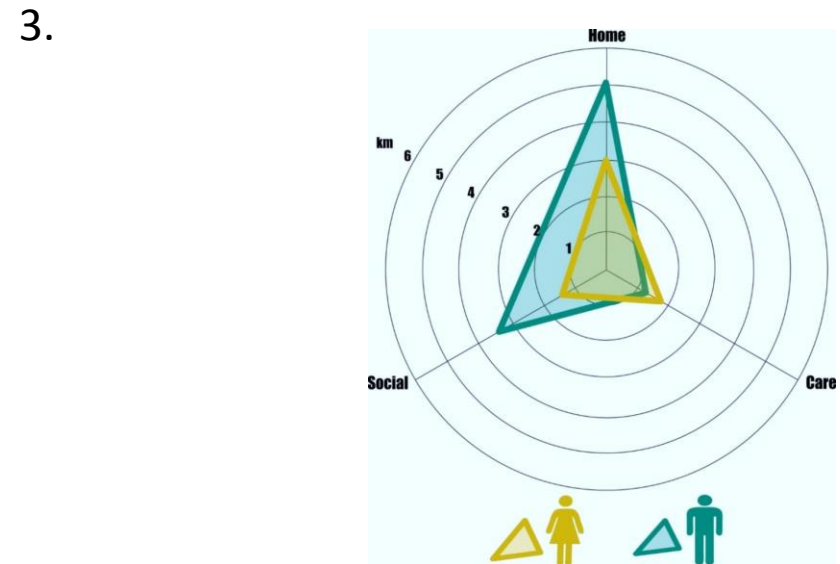
1: Average distance of trips before work, by Motive, per week

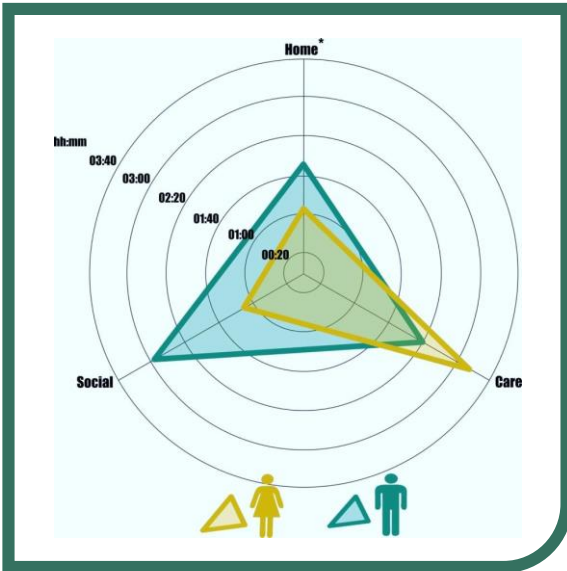
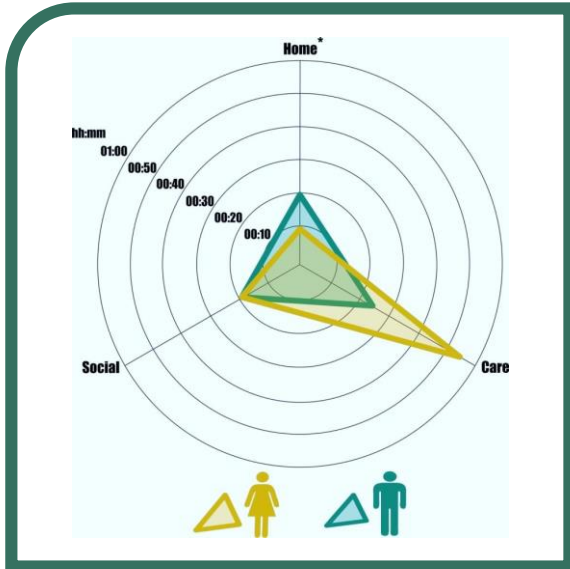


2: Average distance of trips during work break, by Motive, per week



3: Average distance of trips after work, by Motive, per week





Average duration of the Activities performed before work, per week (includes travel time)

Average duration of the Activities performed after work, per week (includes travel time)

Results: 4 types of mobility and time use profiles in LMA

From the **16 active variables** related to mobility and time use of our sample, that defined the factors and the configuration of the final clusters, and **12 illustrative variables**, related to the **biographic profile of the volunteers**, we could find **4 clusters**.

The final result reveals a balanced group distribution with 29 individuals in the first one, 43 on the second, 27 on the third and 24 on the fourth.

Type 1

Luísa has 58 years, lives in Alvalade and works at Av. da República, in Lisbon.

Luísa has not completed high school, with only the former 7th year (actual 11th grade).

She is divorced and her children no longer live with her.

Luísa makes few and short daily trips.

Paid working time is reduced and she spends a lot of time at home. She doesn't have a driver's license and does not use the car for daily trips. She walks to work and, when she need to, use public transport.

Type 3

Sara and Rafael are a couple, they both have 36 years and do not have children.

They live in Loures and work in Cascais. Both have a high school degree and have a housemaid.

Commuting is the only trip that they do usually, and it is long and consumes a lot of time.

Type 2

David has 41 years, lives in Massamá and works in Lisbon.

He lives with his wife and two children of 8 and 13 years.

David has a middle course in hotel management and use his car for daily trips.

His commuting trip is long and takes a lot of time. He does not use public transport.

Paid working time is too long, therefore reduced the time at home.

David spends some time in sport and leisure activities.

Type 4

Sónia has 46 years and lives with her husband and a 10-year-old daughter.

Sónia has a degree in chemistry and lives and works in Barreiro.

During the day, she makes several short and quick trips. She spends a lot of time at home and in sports and leisure activities.

Sónia will walk to work and usually don't use the car for daily trips.

Outputs

Women	Men
Women do more trips by public transportation and walking, although this is more so when they don't have any children	Men have longer path distances than women, but they do fewer trips a day
Women have shorter path distances but more daily trips than men, which means a travel pattern associated with social and family care activities	Men tend to use cars in their daily trips, which are essentially home-work, work-leisure and shopping-related trips
Women spend about 03:00h a week on care activities	Men spend about 01:40m a week on care activities
But there is more...	

Technical:

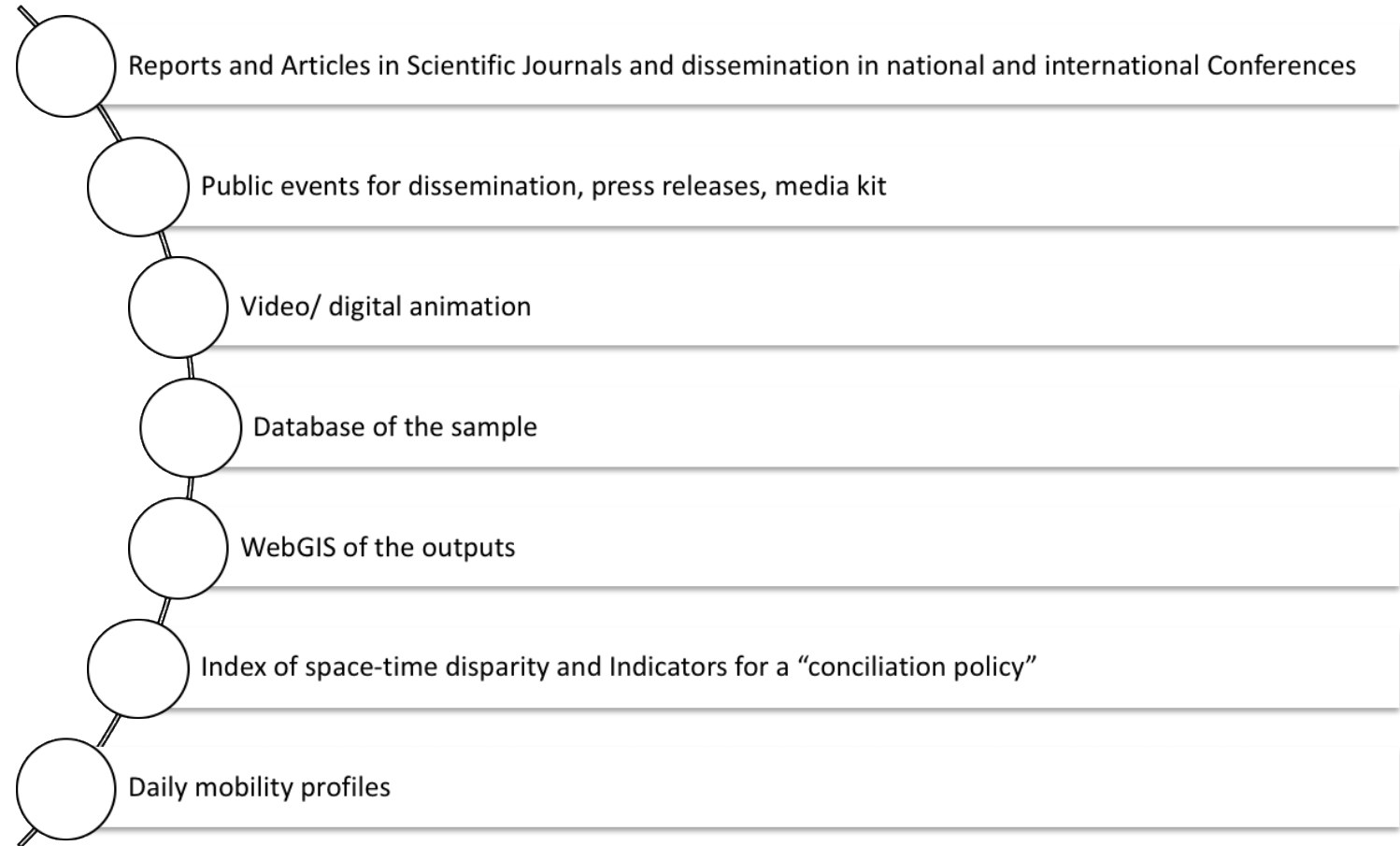
short battery life
and/or loss of signal of
the device

Human:

providing the team with the
wrong MOVES app e-mail or
password,
forgetting to turn the device on,
forgetting to charge their device

4. Methodology issues

4. Communication strategies



Communicating the results: Website, Dashboard, **Film animation**

OBJECTIVES

- Reach the most and widest public possible



STRATEGY

- Produce a short and appealing **video animation** (<3min)
 - Give a broad overview of the methodology
- Include simple and brief information and show some results
- Distribute video on social networks

PRODUCTION FASE 1

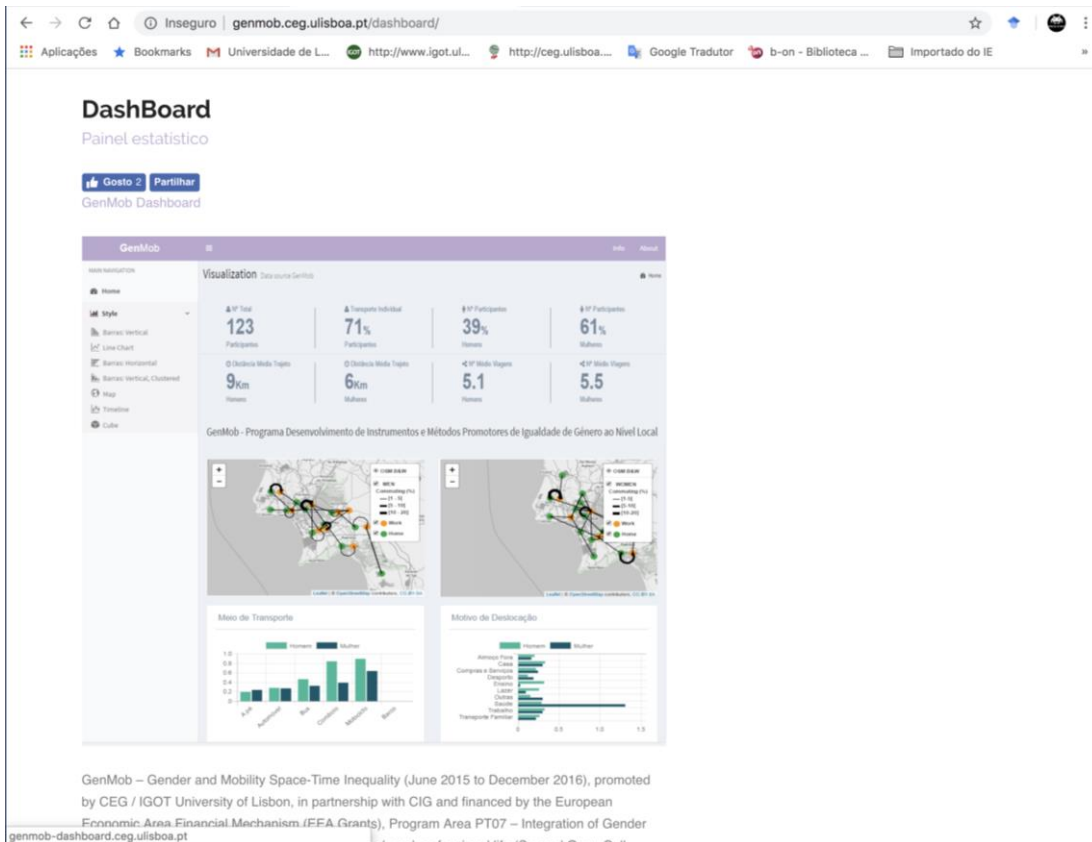
- Script
- Concept drawings and character studies
(inspired by Stephan Schmitz illustrations)
- Sound speech reference
- Animatic



PRODUCTION FASE 2



- Character animation
- Motion graphics
- Color grading
- Sound mixing



GENMOB

- NEWS
- PROJECT
- TEAM
- PARTNERS
- PUBLICATIONS
- FINAL CONFERENCE
- DASHBOARD**
- POLICY BRIEF
- LINK
- NOTÍCIAS
- O PROJETO
- EQUIPA
- PARCEIROS
- PUBLICAÇÕES
- CONFERÊNCIA FINAL
- PAINEL ESTATÍSTICO
- INFORMAÇÃO/POLÍTICAS
- LIGA

GenMob Dashboard

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Mario COLETTA



Publishing results

- Bottom-up methodology and synchronic data production
- Turning people into sensors (VGI, the willingness of women and men to contribute to data collection, sharing and ... to causes that matter)
- Creating knowledge on gender time-space mobility and influencing more engaged, inclusive and shared urban social policies
- Place-based indicators for place based gender balanced policies

WRAP UP: simple and transferable methodology results

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Thanks for
receiving and
listening to me!