

Joint UNECE/Eurostat Work Session on Statistical Data Confidentiality
(Tarragona, Spain, 26-28 October 2011)

INFORMATION NOTICE No. 1

The meeting will be held at the Presidence Building, Universitat Rovira i Virgili,
Carrer Escorxador s/n, Tarragona,
from 26 to 28 October 2011, starting at 9.30 a.m.

I. PURPOSE OF THE MEETING

1. The main objectives of the meeting are to facilitate the exchange of experience and identify the best practices in dealing with technical issues related to statistical data confidentiality in national statistical offices. The meeting is primarily intended for experts from national and international statistical offices as well as invited academics dealing with statistical disclosure limitation. At the kind invitation of the Universitat Rovira i Virgili, the meeting will be held from 26 to 28 October 2011 in Tarragona (Spain).
2. Statistical disclosure limitation is an important issue influencing public perception of official statistics. Statistical confidentiality and protection of respondents' privacy is included in the Fundamental Principles of Official Statistics, which the United Nations Economic Commission for Europe adopted at its 1992 annual session.

II. AGENDA OF THE MEETING

3. The work programme of the meeting will consist of the following substantive topics:
 - (i) Disclosure risk assessment;
 - (ii) Software research and development;
 - (iii) Census and other applications;
 - (iv) Balancing data quality and data confidentiality;
 - (v) Privacy for new types of microdata: sequence data and mobility data;
 - (vi) Data integration;
 - (vii) International projects, groups and forum dealing with data access, release and related methodologies;
 - (viii) Trans-border access to microdata;
 - (ix) Statistical disclosure limitation for table and analysis servers: how to make outputs of modern data access infrastructures safe.
4. Detailed explanatory notes on the nature and expected outcomes of topics (i) – (ix) are provided in Section V of this Information Notice.

III. PARTICIPATION AND ACCREDITATION

5. Representatives of all Member States of the United Nations and of interested intergovernmental organizations are welcome to participate in the meeting. Participants representing non-governmental organizations in a consultative status with the United Nations Economic and Social Council may also attend.

All participants must be accredited by the competent authorities of their country or international organization. All participants attending the meeting are requested to have a valid passport and, if required, a visa. Applications for visas should be made as soon as possible to the Embassy of Spain in the country in which the participant resides, with a reference to the joint UNECE/Eurostat Work Session on Statistical Data Confidentiality.

6. Statistical Offices are requested **to inform the UNECE secretariat before 30 June 2011** whether they intend to participate at the meeting and/or submit a contribution on the topics mentioned above. Please indicate the topic to which the paper will refer as well as *participant(s) name(s) and their contact data*.

7. Participants are requested to fill in the attached Conference registration form, which is found on the last page of this document and which will also be available in Word format on the website at the address indicated in paragraph 14. It should be sent to both the UNECE secretariat and to the UNESCO Chair in Data Privacy at URV (E-mail unescoprivacychair@urv.cat), as indicated on the form by **23 September 2011** so that it may be processed well in advance of the meeting.

8. The organizers regret not being able to assist participants in their travel arrangements (air tickets, trains, local transportation, etc.). The UNECE secretariat cannot take any responsibility for financial arrangements with respect to travel or accommodation.

9. The UNESCO Chair in Data Privacy (<http://unescoprivacychair.urv.cat>) sponsors a limited number of travel grants for contributors and delegates from transition countries. For further information please contact unescoprivacychair@urv.cat (att. Antoni Fernandez).

IV. DOCUMENTATION, METHODS OF WORK AND OFFICIAL LANGUAGES

10. The official language of the meeting is English. The documents should, therefore, be submitted in English only. The following deadlines and requirements apply:

- The papers, not exceeding 10 pages in length, should be sent to the UNECE secretariat **by 23 September 2011 at the latest**.
- Papers should be submitted in electronic format in **MS Word** or PDF by e-mail to Ms. Diane Serikoff (diane.serikoff@unece.org).
- Templates in Word and Latex will be made available on the web site or may be requested by e-mail (diane.serikoff@unece.org).

11. For each substantive item on the agenda the organizers will invite a small number of speakers to write an **invited paper** and to present them at the meeting. All other participants are welcome to submit a **supporting paper** on any topic of the agenda.

12. Authors of invited papers will have about 20 minutes per paper for their presentation. Time permitting, authors of supporting papers may have the opportunity to highlight the main issues raised in their papers. Presenters may use PowerPoint presentations or Adobe Acrobat full screen presentations. The UNECE secretariat cannot provide translations of the presentations.

13. Presentations in PowerPoint or Adobe Acrobat should be sent to the UNECE secretariat by **12 October 2011 at the latest**, so that these can be reviewed by Discussants and installed on the conference room computer prior to the meeting.

14. UNECE and Eurostat will publish the proceedings of the conference on their respective websites. It would greatly facilitate the task if authors could adhere strictly to the layout in the document template that will be uploaded to the UNECE website at the address below.

15. Prior to the meeting, all invited and supporting papers will be made available on the website of the UNECE. Presentations made during the meeting will also be uploaded to the website:

<http://www.unece.org/stats/documents/2011.10.confidentiality.htm>

Participants are encouraged to download the papers from the website and bring their own copies to the meeting. Documents posted on the website before the meeting will not be distributed in the conference room.

V. EXPLANATORY NOTES TO THE AGENDA

Topic (i): Disclosure risk assessment

Session Organizer: Luisa Franconi (ISTAT), Italy (franconi@istat.it) and Michelle Simard, Statistics Canada (michelle.simard@statcan.gc.ca)

16. The paradigm of data release has seen, in recent years, much research devoted to the development of statistical disclosure limitation methods that would offer attractive statistical properties. However, there is still need for reflection and debate on proper and formal definitions of disclosure risk as well as sound methodologies for its assessment. Research and experiences building on risk assessment for complex microdata where units exhibit hierarchical and longitudinal structures or are characterized by multi-dimensional continuous identifying variables (such as in business microdata) are most needed. As more and more institutions are considering the release of synthetic data, methods for assessing risk of disclosure in such data are foreseen.

17. Besides these traditional areas of investigation, the emerging field of integrated data poses new challenges that need to be carefully addressed both in the case of microdata release as well as in other forms of dissemination. Issues related to risk definition and means to properly measure and assess it in new types of products released by public statistics such as small area estimations, detailed tabulations and linked tables, queries to databases and others are also welcome. Real life applications that address these issues and implications of different approaches are encouraged.

Topic (ii): Software research and development

Session Organizer: Anco Hundepool, Statistics Netherlands (aj.hundepool@cbs.nl)

18. Software always plays a central role in statistical data confidentiality (SDC). Traditionally there is always a strong link between the methods proposed and the software implementation. Without a proper implementation, the proposed methods will not be used in practice. For this reason, software is a topic at almost all work sessions on SDC.

19. During this work session we will take a different approach to the topic of software tools. Apart from papers devoted to recent developments in software, we plan to organize a fair/poster session where producers of SDC tools will have the opportunity to present their tools.

20. For this topic we are looking for both papers on recent developments as well as proposals for participation in the poster session. Presenters are expected to bring their own laptop for the demonstration. The meeting organizers will provide a computer screen or a beamer. Wifi will also be available.

Topic (iii): Census and other applications

Session Organizer: Eric Schulte Nordholt, Statistics Netherlands (e.schultenordholt@cbs.nl)

21. Almost all countries in the world conduct a Census in 2010 or 2011. At the Work Session on Statistical Data Confidentiality in October 2011 most countries will have published their first results. Census operations are normally huge and very detailed tables are the typical output. However, other kinds of output could also become available as, for example, protected microdata.

22. The level of detail sometimes conflicts with confidentiality rules of the National Statistical Institutes (NSIs) conducting their 2010/2011 Censuses. Problems with municipal data are well-known. Information

for large cities will be published but similar information for villages contains too sensitive information to be published. Also, other spanning variables cause very detailed information that often leads to confidentiality problems.

23. Contributions will report on on-going initiatives related to the protection of Census and other detailed data covering the entire field of statistical disclosure control. They should, however, focus on practical implementation and solutions. Papers documenting progress in the state of development of standard tools, and implementations of recently proposed methods including prototypes, are encouraged.

Topic (iv): Balancing data quality and data confidentiality

Session Organizer: Lawrence H. Cox, National Institute of Statistical Sciences, United States of America
(cox@niss.org, statdisclosure@aol.com)

24. Accuracy, precision, reliability, and usability are key measures of the quality of statistical data that are quantifiable. The degree to which statistical disclosure limitation (SDL) controls or reduces the risk of disclosure to data subjects is the key measure of data confidentiality protection, albeit not yet well-quantified. The challenge to SDL procedures and methods is to achieve a proper balance between data quality and data confidentiality. The challenge to confidentiality researchers is to provide metrics for doing so. This topic is concerned with these issues. Papers dealing with aspects of the quality-confidentiality spectrum--new SDL methodologies, evaluation of particular methodologies, new SDL-quality metrics--that contribute to improved understanding of how to measure, control and evaluate quality-confidentiality tradeoffs are welcome. Particular areas of interest include: synthetic public use microdata; synthetic tabular data; measures of disclosure risk including differential privacy; input perturbation versus output perturbation; transparency of disclosure limitation policies and procedures; the effectiveness for quality and confidentiality of combined or hybrid SDL methodologies; and, analysis and verification servers.

Topic (v): Privacy for new types of microdata: sequence data and mobility data

Session Organizer: Josep Domingo Ferrer, Rovira i Virgili University of Tarragona, Spain
(josep.domingo@urv.net, josep.domingo@urv.cat)

25. Sequence data are increasingly collected from many sources. Examples are transactions of a customer over time, time series, places visited by tourists, etc. How to anonymize such data for analysis is a new challenge, due to their sequential nature.

26. Mobility data are a particular type of sequence data in which space and time coordinates, that is, trajectories are collected for a moving object (car, person, etc.). Mobility data anonymization faces specific challenges, because time and space coordinates cannot be independently modified from each other and from the physical environment where objects move.

27. Papers on both topics are solicited.

Topic (vi): Data integration

Session organiser: Steven Vale, UNECE (steven.vale@unece.org)

28. Data integration is concerned with linking and combining unit record data from different administrative and/or survey sources to compile new statistical outputs. Integrated data sets may be used to support a range of economic and social research not possible using traditional single sources. In some cases the use of integrated data sets can introduce additional legal and policy concerns, including privacy and data protection requirements.

29. In 2009 the Conference of European Statisticians endorsed a set of "Principles and Guidelines on Confidentiality Aspects of Data Integration Undertaken for Statistical or Related Research Purposes"

(www.unece.org/stats/publications/Confidentiality_aspects_data_integration.pdf). The practical implementation of these principles and guidelines will be reviewed by the Conference in June 2011.

30. This session will include practical examples of the implementation of these guidelines, as well as papers on other issues relating to confidentiality protection for integrated data sets.

Topic (vii): International projects, groups and forum dealing with data access, release and related methodologies

Session Organizer: Luisa Franconi (ISTAT), Italy (franconi@istat.it) and Michelle Simard, Statistics Canada (michelle.simard@statcan.gc.ca)

31. Lately, there has been a sharp increase in the development of projects, in the creation of groups and in the opening of a forum dealing with various aspects of data access and release, on issues related to confidentiality and ways to improve the services offered to the general public and to specific segment of users. The session, organized through short presentations, is intended for project leaders to promote initiatives and for participants to acquire information on the different experiences in these areas and to improve the exchange of views, experiences and ongoing actions in these fields.

Topic (viii): Trans-border access to microdata

Session organiser: Aleksandra Bujnowska, Eurostat (Aleksandra.Bujnowska@ec.europa.eu)

32. The statistical offices are usually offering access to microdata to researchers at a national level. It enables researchers to conduct detailed analysis of the given phenomena. There are however limited possibilities to get access at an international level. This becomes an important barrier for researchers willing to perform comparative studies for different countries.

33. There are now many international projects and initiatives aiming at facilitating the trans-border access to microdata. At the European Union (EU) level the modalities of access are now being reviewed and if approved the access will be much more flexible and simplified.

34. This session aims at presenting various means of trans-border access with the emphasis on legal and organizational aspects. Participants are invited to share their ideas and discuss options allowing researchers to work with other countries' microdata, ensuring the full respect of statistical confidentiality issues and privacy of respondents.

Topic (ix): Statistical Disclosure Limitation for table and analysis servers: how to make outputs of modern data access infrastructures safe

Session Organizer: Sarah Giessing, Federal Statistical Office, Germany (sarah.giessing@destatis.de), Tim Hochgürtel, Federal Statistical Office, Germany (tim.hochguertel@destatis.de)

35. In recent years, many statistical agencies have started to set up infrastructure to provide secure remote access to confidential microdata for scientists and also to make production of tabular data more convenient by setting up facilities to generate user requested tables. Ideally, these new infrastructures should be accompanied by suitable methodologies to ensure non-disclosiveness of output generated through the system in a convenient automated way. The goal of the session is to consider established as well as new emerging methods for this purpose, to encourage discussion of their merits and potential disadvantages, and eventually giving directions for future research in the area.

36. Typically the methods used or suggested in this context fall into a wide range of categories like, e.g. perturbation of the input data (microdata anonymization), query control (blocking of certain types of queries), suppression (manual or automated) of output data (output checking, cell suppression), or perturbation of output data (rounding, post tabular stochastic noise, controlled tabular adjustment, etc).

37. We invite papers that describe the various methodologies implemented in an infrastructure, as well as papers that propose or discuss one particular method, or how to adapt an existing method to the context of such an infrastructure.

VI. CONFERENCE VENUE AND ACCOMMODATION

38. Participants are reminded that they are responsible for making their own hotel reservations and are encouraged to do so as early as possible. The Work Session will take place at the Presidence Building, Universitat Rovira i Virgili (c. Escorxador s/n) in Tarragona (see map in annex). Below is a list of hotels located within walking distance. Please note that all prices are indicative only, and may be subject to change.

HOTEL CIUTAT DE TARRAGONA 4*

SINGLE ROOM	79 €
DOUBLE ROOM FOR INDIVIDUAL USE:	98 €
Prices per room per night, breakfast and 8% VAT included	
http://www.hotelciutatdetarragona.com/	
Tel: 977 250 999	

HOTEL AC TARRAGONA 4*

SINGLE ROOM	75 €
DOUBLE ROOM	75 €
Prices per room per night, breakfast (12€/person and day) and 8% VAT not included	
http://www.ac-hotels.com/118-AC_TARRAGONA.html	
actarragona@ac-hotels.com	
Tel: 977 247 105	

HUSA IMPERIAL TARRACO 4*

DOUBLE ROOM FOR INDIVIDUAL USE.....	67 €
DOUBLE ROOM.....	95 €
Prices per room per night, breakfast included (8% VAT not included)	
http://www.hotelhusaimperialtarraco.com/	
hotelimperialtarraco@husa.es	
Tel: 977 233 040	

HOTEL ASTARI 3*

SINGLE ROOM	62 €
DOUBLE ROOM	62 €
Prices per room per night, breakfast optional (7.90€/person and day)	
http://www.hotelastari.com/	
astari@key-hotels.com	
Tel: 977 236 900	

HOTEL EXPRESS TARRAGONA 3*

SINGLE ROOM	50 €
DOUBLE ROOM FOR INDIVIDUAL USE	65 €
Prices per room per night, breakfast and 8% VAT included	
http://www.hotelexpresstarragona.com/ssalas@bgroup.com	
Tel: 977 221 050	

HOTEL LAURIA 3*

SINGLE ROOM	59 €
DOUBLE ROOM	55 €
Prices per room per night, breakfast included (8% VAT included)	
http://www.hotel-lauria.com/es/index.phpreservas@hotel-lauria.com	
Tel: 977 236 712	

HOTEL URBIS 3*

SINGLE ROOM	52.50 €
DOUBLE ROOM	67.75 €
DOUBLE ROOM FOR INDIVIDUAL USE.....	59.50 €
Prices per room per night, breakfast and 8% VAT included	
http://www.hotelurbiscentre.com/tarragonahotel/esp/ubicacion.htm	
info@hotelurbis.com	
Tel: 977 240 116	

APARTHOTEL ALEXANDRA 3*

SINGLE ROOM	53 €
DOUBLE ROOM	64 €
Prices per room per night, breakfast and 8% VAT included	
http://www.ah-alexandra.com/hotel-overview.html	
hotel@ah-alexandra.com	
Tel: 977 248 701	

HOTEL PLAÇA DE LA FONT 1*

SINGLE ROOM	45 €
DOUBLE ROOM	55 €
Prices per room per night, breakfast optional (5€/person and day)	
http://www.hotelpdelafont.com	
hotel@hotelpdelafont.com	
Tel: 977 246 134	

VII. FURTHER INFORMATION

39. For further information, please contact the following organizers:

**Universitat
Rovira i
Virgili:** Mr. Josep Domingo-Ferrer
Professor
Department of Computer Engineering and Maths
ETSE-URV
Av. Països Catalans 26
E-43007 TARRAGONA, Catalonia, Spain
Tel: +34-97 755 8109
Fax: +34-97 755 8109
e-mail: josep.domingo@urv.cat

UNECE: Mr. Steven Vale
Head of Statistical Information and Methodology Unit
Statistics Division, United Nations Economic Commission for Europe
Palais des Nations
1211-GENEVA 10, Switzerland
Tel: +41 22 917-3285
Fax: +41 22 917-0040
e-mail: steven.vale@unece.org

Eurostat: Ms. Aleksandra Bujnowska
Statistical Office of the European Communities
Unit B2 Methodology and Research
5, rue Alphonse Weicker
L-2721 Luxembourg
Tel: +352 4301 30037
Fax: +352 4301 34149
e-mail: aleksandra.bujnowska@ec.europa.eu

REGISTRATION FORM

Joint UNECE/Eurostat Work Session on Statistical Data Confidentiality (Tarragona, Spain, 26-28 October 2011)

This form should be completed in duplicate by each participant and returned by **23 September 2011**

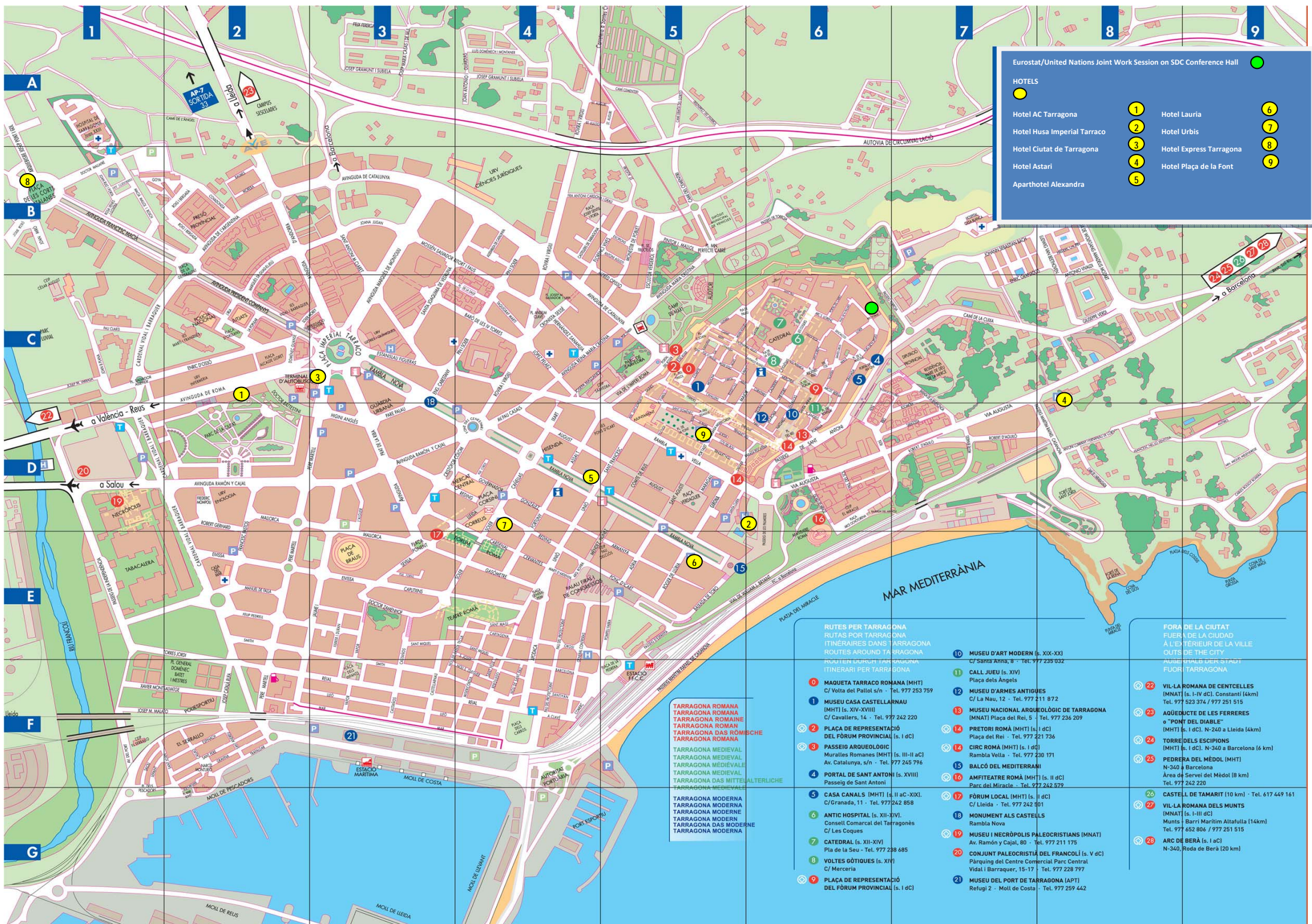
1 copy to: Ms. Diane Serikoff
Tel: +41-22 917-2241
E-mail: diane.serikoff@unece.org

1 copy to: Antoni Fernandez (UNESCO Chair, URV)
Tel: +34-977 558270
E-mail: unescoprivacychair@urv.cat

1. Surname (Family name): Mr. <input type="checkbox"/> Ms. <input type="checkbox"/>	2. First name:
3. Representing (country or organization):	
4. Official function (in home country):	
5. Mailing address:	
6. Tel. No.:	7. Fax No.:
8. E-mail address:	
9. Please indicate topic ((i)-(ix)) and title, if you intend to present a paper:	
10. Date and time of arrival in Tarragona:	11. Date and time of departure from Tarragona:
12. Special requirements:	

Date _____

Signature _____



Eurostat/United Nations Joint Work Session on SDC Conference Hall

HOTELS

Hotel AC Tarragona	1	Hotel Lauria	6
Hotel Husa Imperial Tarraco	2	Hotel Urbis	7
Hotel Ciutat de Tarragona	3	Hotel Express Tarragona	8
Hotel Astari	4	Hotel Plaça de la Font	9
Aparthotel Alexandra	5		

TARRAGONA ROMANA
TARRAGONA ROMANA
TARRAGONA ROMAINE
TARRAGONA ROMAN
TARRAGONA DAS RÖMISCHE
TARRAGONA ROMANA
TARRAGONA MEDIEVAL
TARRAGONA ROMANA
TARRAGONA MODERNA
TARRAGONA MODERNE
TARRAGONA DAS MITTELALTERLICHE
TARRAGONA MEDIEVALE
TARRAGONA MODERNA
TARRAGONA MODERNE
TARRAGONA DAS MITTELALTERLICHE
TARRAGONA MODERNA

- RUTES PER TARRAGONA**
ITINERARIES DANS TARRAGONA
ROUTES AROUND TARRAGONA
ITINERARI PER TARRAGONA
- 1 MAQUETA TARRACÒ ROMANA (MHT) C/ Vots del Pallot s/n - Tel. 977 253 759
 - 2 MUSEU CASA CASTELLANAU (MHT) (s. XIV-XVIII) C/ Cavallers, 14 - Tel. 977 242 220
 - 3 PLACA DE REPRESENTACIÓ DEL FÒRUM PROVINCIAL (s. I dC)
 - 4 PASSEIG ARQUEOLÒGIC Murallat Romanes (MHT) (s. III-II aC) Av. Catalunya, s/n - Tel. 977 245 796
 - 5 PORTAL DE SANT ANTONI (s. XVIII) Passeig de Sant Antoni
 - 6 CASA CANALS (MHT) (s. II aC-XXI) C/ Granada, 11 - Tel. 977 242 858
 - 7 ANTIC HOSPITAL (s. XII-XVI) Consell Comarcal del Tarragonès C/ Les Coques
 - 8 CATEDRAL (s. XII-XIV) Pla de la Seu - Tel. 977 238 485
 - 9 VOLTES GÒTIQUES (s. XVI) C/ Merceria
 - 10 PLACA DE REPRESENTACIÓ DEL FÒRUM PROVINCIAL (s. I dC)
 - 11 MUSEU D'ART MODERN (s. XIX-XXI) C/ Santa Anna, 5 - Tel. 977 239 032
 - 12 CALL JUEU (s. XIV) Plaça dels Àngels
 - 13 MUSEU D'ARMES ANTIGUES C/ La Nau, 12 - Tel. 977 211 872
 - 14 MUSEU NACIONAL ARQUEOLÒGIC DE TARRAGONA (MNAT) Plaça del Rei, 5 - Tel. 977 236 209
 - 15 PRETORI ROMÀ (MHT) (s. I dC) Plaça del Rei - Tel. 977 221 736
 - 16 CIRC ROMÀ (MHT) (s. I dC) Rambla Vella - Tel. 977 230 171
 - 17 BALCÓ DEL MEDITERRANI
 - 18 AMFITEATRE ROMÀ (MHT) (s. II dC) Parc del Miracle - Tel. 977 242 579
 - 19 FÒRUM LOCAL (MHT) (s. I dC) C/ Lleida - Tel. 977 242 301
 - 20 MONUMENT ALS CASTELLS Rambla Nova
 - 21 MUSEU I NECRÒPOLIS PALEOCRISTIANS (MNAT) Av. Ramón y Cajal, 80 - Tel. 977 211 175
 - 22 CONJUNT PALEOCRISTIÀ DEL FRANCOJÍ (s. V dC) Parc del Centre Comercial Parc Central Vidal I Barraquer, 15-17 - Tel. 977 228 797
 - 23 MUSEU DEL PORT DE TARRAGONA (APT) Refugi 2 - Moll de Costa - Tel. 977 259 442

- FORA DE LA CIUTAT**
FUERA DE LA CIUDAD
À L'EXTÉRIEUR DE LA VILLE
OUTRE DE THE CITY
AU-DEHORS DE LA VILLE
AUßER STADT
TARRAGONA
- 24 VIL·LA ROMANA DE CENTELLES (MNAT) (s. I-IV dC) Constantí (4km) Tel. 977 523 374 / 977 251 515
 - 25 AQUÈDUC DE LES FERRERES o "PONT DEL DIABLE" (MHT) (s. I dC) N-240 a Lleida (4km)
 - 26 TORRE DELS ESCIPIONS (MHT) (s. I dC) N-340 a Barcelona (6 km)
 - 27 PEDRERA DEL MÈDOL (MHT) N-340 a Barcelona Àrea d' Servei del Mèdol (8 km) Tel. 977 242 220
 - 28 CASTELL DE TAMARIT (10 km) - Tel. 617 449 161
 - 29 VIL·LA ROMANA DELS MUNTS (MNAT) (s. I-III dC) Munt i Barri Marítim Altafulla (14km) Tel. 977 452 806 / 977 251 515
 - 30 ARC DE BERÀ (s. I aC) N-340, Roda de Berà (20 km)