DATA MANAGEMENT PLAN

Project reference:
MYGEOSS Third Call For Innovative Apps in the environmental and social domains
(http://digitalearthlab.jrc.ec.europa.eu/mygeoss/info_thirdcall.cfm)

Name of the App:
MIGRATE – MIGRation pATterns in Europe

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1. Introduction: Description and purpose of the App

MIGRATE – MIGRation pATterns in Europe is a Web mapping application aimed at educating and raising awareness about the phenomenon of migration in Europe. This goal is achieved using a gamification approach, i.e. users interact with the application by playing a map-based game, where questions are asked, and answers are provided and explained, about a number of topics related to migration. According to their answers, users are awarded with points and badges, and are ranked into a publicly available ranking which allows to keep them motivated in further using the application. Users' answers will help to understand the current knowledge and perception of migration-related issues.

2. Data sources and licenses

A number of data sources are used within the MIGRATE application. These sources are in full compliance with the guidelines of the MYGEOSS Third Call, i.e. all the data are available under the conditions of full and open access with no restrictions for reuse except for the obligation to mention the source of the input data. The data sources exploited provide both geospatial and non geospatial datasets, which are described in the following together with their license.

2.1 Geospatial data sources

2.1.1 OpenStreetMap

OpenStreetMap (OSM, http://www.openstreetmap.org) is a free and open geospatial database of the whole world which is created and regularly updated by volunteers. The whole OSM database is available under the Open Data Commons Open Database License (ODbL) (http://opendatacommons.org/licenses/odbl).
MIGRATE makes use of the following geospatial vector datasets extracted from the OSM database:

- world countries (identified by the OSM tags *boundary=administrative* and *admin_level=2*)
- world countries regions and subregions (identified by the OSM tags *boundary=administrative* and *admin_level=X*, where *X* > 2)

2.2 Non geospatial data sources

2.2.1 United Nations High Commissioner for Refugees (UNHCR) – The UN Refugee Agency

Founded in 1950, the United Nations High Commissioner for Refugees (UNHCR) (http://www.unhcr.org) is the UN agency which protects the rights and well-being of refugees all over the world. UNHCR provides and maintains up-to-date an impressive amount of datasets containing population statistics on migration for any country in the world. UNHCR datasets are accessible from the Humanitarian Data Exchange (HDX) portal (https://data.humdata.org) and they can also be accessed and browsed from the UNHRC Population Statistics page (http://popstats.unhcr.org/en/overview) as well as from an Application

Programming Interface (API) (http://data.unhcr.org/wiki/index.php/API_Documentation). They are available under the following open licenses, listed at the page https://data.humdata.org/about/license:

- Creative Commons Attribution for Intergovernmental Organisations (CC BY-IGO) (https://creativecommons.org/licenses/by/3.0/igo/legalcode)
- Creative Commons Attribution (CC BY) (https://creativecommons.org/licenses/by/4.0/legalcode)
- Creative Commons Attribution-ShareAlike (CC BY-SA) (https://creativecommons.org/licenses/by-sa/4.0/legalcode)
- Open Database License (ODC-ODbL) (http://opendatacommons.org/licenses/odbl/1.0)
- Open Data Commons Attribution License (ODC-BY) (http://opendatacommons.org/licenses/by/1.0)
- Open Data Commons Public Domain Dedication and License (PDDL) (http://opendatacommons.org/licenses/pddl/1.0)
- Public Domain/No restrictions (CC0) (https://creativecommons.org/publicdomain/zero/1.0/legalcode)

These datasets are also made available by UNHCR in aggregated form within specific documents and reports, which – as they derive from the very same source datasets – are exploited as well in MIGRATE. Examples are the UNHCR web page on the Mediterranean Refugees/Migrants Emergency Response (http://data.unhcr.org/mediterranean/regional.php) and the UNHCR report on the global trends in 2015 (https://s3.amazonaws.com/unhcrsharedmedia/2016/2016-06-20-global-trends/2016-06-14-Global-Trends-2015.pdf). Finally, some UNHCR source data are aggregated through manual computation to derive other data used within MIGRATE.

2.2.2 International Organization for Migration (IOM)

Established in 1951, the International Organization for Migration (IOM) (https://www.iom.int) is the leading inter-governmental organization in the field of migration. IOM provides and maintains up-to-date datasets about migration flows throughout the world. IOM datasets are again accessible and downloadable from the Humanitarian Data Exchange (HDX) portal (https://data.humdata.org). Again, they are available under the following open licenses, listed at the page https://data.humdata.org/about/license:

- Creative Commons Attribution for Intergovernmental Organisations (CC BY-IGO) (https://creativecommons.org/licenses/by/3.0/igo/legalcode)
- Creative Commons Attribution (CC BY) (https://creativecommons.org/licenses/by/4.0/legalcode)
- Creative Commons Attribution-ShareAlike (CC BY-SA) (https://creativecommons.org/licenses/by-sa/4.0/legalcode)
- Open Database License (ODC-ODbL) (http://opendatacommons.org/licenses/odbl/1.0)
- Open Data Commons Attribution License (ODC-BY) (http://opendatacommons.org/licenses/by/1.0)
- Open Data Commons Public Domain Dedication and License (PDDL) (http://opendatacommons.org/licenses/pddl/1.0)
- Public Domain/No restrictions (CC0) (https://creativecommons.org/publicdomain/zero/1.0/legalcode)

These datasets are also made available by IOM in aggregated form. Of particular interest for MIGRATE are:

- the Migration Flows – Europe web page (http://migration.iom.int/europe), providing detailed statistics as well as up-to-date documents on migration flows to Europe;
- the Missing Migrants project by IOM (http://missingmigrants.iom.int), which is focused on dead and missing migrants along migratory routes worldwide, and makes also use of data from UNHCR. The whole Missing Migrants project by IOM is licensed under the Creative Commons Attribution 4.0 International License (https://creativecommons.org/licenses/by/4.0).

Again, some data used within MIGRATE derive from the manual aggregation of IOM datasets.

2.2.3 The Migrants' Files

Started in mid-2013, the Migrants' Files (http://www.themigrantsfiles.com) is a consortium of journalists from over 15 European countries who have built a detailed database on migrants' deaths in their attempt to reach or stay in Europe from 2000 to 2016. The project was discontinued at the end of June 2016. The Migrants' Files database includes e.g. data about the money spent my migrants to reach Europe, the money spent by the European governments to stop/limit migration and to deport migrants, and the count of migrants' deaths. The whole Migrants' Files database is made available under the Open Database License (ODbL) (http://opendatacommons.org/licenses/odbl/1.0). Again, some data used within MIGRATE derive from the manual aggregation of datasets provided by the Migrants' Files.

2.2.4 Eurostat

Established in 1953 and based in Luxembourg, Eurostat (http://ec.europa.eu/eurostat) is the statistical office of the European Union (EU). Its task is to provide the EU with reliable and objective statistics at European level that enable comparisons between countries and regions. The database is provided under a customized copyright/license policy (http://ec.europa.eu/eurostat/statistics-explained/index.php/Copyright/licence_policy) which grants permission for data download, reproduction, adaptation, modification, dissemination and reuse for any purpose. Within the database of Eurostat (http://ec.europa.eu/eurostat/data/database), MIGRATE makes use of the following dataset:

- population of European countries on 1 January by age and sex (available for download and for online view at http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjan&lang=en)

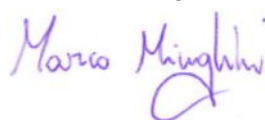## 3. Reuse of data collected by the users

The registration to the MIGRATE game is totally anonymous, i.e. users do not have to provide personal details (name, surname and e-mail). Registration happens by only providing gender, level of education, country of origin, age range, and a username and password (required for logging in). As users' answers to the game questions will be stored (and may be potentially aggregated to extract trends on a geographical, sex or age base), during the registration process a document will be shown to ask for the users' informed consent to the data reuse (e.g.for scientific and statistical purposes). This document will show the terms of use and conditions, which will detail the terms of reuse and state who the collected data will be accessible to. The terms and conditions stated in this document will be agreed together with the European Commission, who will be the final owner of the application.

4. Possible modifications

The information about the data sources and licenses included in the present document should be considered valid at the date this document is produced. Should any of the aforementioned datasets be made available in the future with a different license, or be no longer available, an updated version of the Data Management Plan will be delivered within the final release of the MIGRATE application and report (November 30, 2016).

Como, August 12, 2016

Marco Minghini