

## PERSONAL INFORMATION

### Stefania Morrone



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Sex Female | Date of birth 08/07/1968 | Nationality Italian

## WORK EXPERIENCE SUMMARY

MSc in Computer Engineering, more than 20 years' experience in data modelling and software design, more than 10 years' experience in Geographic Information Systems and Spatial Data Infrastructures.

Since its entering into force, she has been deeply involved in activities related to the implementation of INSPIRE (Infrastructure for Spatial Information in Europe) European Directive.

She is experienced in the overall INSPIRE harmonisation process:

- production / transformation of data and metadata in accordance to INSPIRE
- validation of datasets and metadata against INSPIRE requirements
- setup of INSPIRE Network Services
- publication of INSPIRE conformant datasets and metadata

She's a member of the [INSPIRE Helpdesk](#), the initiative from Epsilon Italia specifically targeted to support the INSPIRE implementers in all the activities related to the fulfilment of the Directive legal obligations.

She is currently supporting the Government of Malta (MITA – *Malta Information Technology Agency* - and ERA – *Environment and Resources Authority*) for the full INSPIRE implementation in Malta.

She is awarded an expert contract by the **European Commission (EC)** as the [INSPIRE Thematic Clusters](#) Facilitator for the [Biodiversity and management areas cluster](#).

She is contributing, in direct cooperation with relevant software teams, to the creation and the maintenance of a list of known bugs specifically related to INSPIRE data for two of the most used Open Source software for spatial data infrastructures: 'GeoServer' (<https://github.com/geosolutions-it/inspire-issues/>) and 'deegree' (<https://github.com/deegree/deegree3/issues/860>).

She is supporting the **European Environment Agency (EEA)** in

- '*INSPIRE data harmonisation and related services*' specific contract implementing the Framework Service Contract No EEA/IDM/15/014-lot2. In this context, she has also been involved in feasibility studies related to the creation and publication through INSPIRE Download and View services of pan-European INSPIRE datasets, with particular focus on the usability of so-created data and services in GIS environment.
- *Services supporting the operation and evolution of the Copernicus Reference Data Access node – CORDA* – Framework Contract EEA/IDM/RO/17/007

She has been in the pool of expert of the [INSPIRE Data Specification Extensions](#) study (2016), supported by the JRC and the EEA, aiming at the development of guidelines for the extension of INSPIRE data models in conformity to INSPIRE Generic Conceptual Model.

She has been involved in EEA initiatives related to the reuse of INSPIRE for e-Reporting, more specifically in the development of the data models for the e-reporting of the [Nationally Designated Areas \(CDDA 2018\)](#) and the [EU Registry on Industrial sites](#).

WORK EXPERIENCE  
DETAILED

September 2016 - ongoing

## 1. INSPIRE Thematic Cluster Facilitator for the Biodiversity and Management Areas Cluster.

**Name of the Contractor:** European Commission - Joint Research Centre

As an INSPIRE expert, she's required to assist the contracting party in formulating recommendations for:

- the achievement and functioning of the European Research Area (ERA)
- implementing the EU research and innovation policies or programmes set up by the 'Horizon 2020 Framework Programme Regulation No 1291 /2013' and 'Horizon 2020 Specific Programme Decision 2013/743/EU
- Contribute to [INSPIRE Thematic Clusters](#) platform activity, helping to ensure active contribution of INSPIRE implementation stakeholders communities, and to initiate and moderate discussions on the on-line collaboration thematic platform.

Oct 2006 – on going

## INSPIRE, SDI, GIS, Data Modelling and DBMS Senior expert

**Name of the Company:** Epsilon Italia, Italy ([www.epsilon-italia.it](http://www.epsilon-italia.it))

**Business domain:** Geomatics, Research & Development for Environment

**Most relevant projects and customers:**

### 2. European Environment Agency (EEA)

*Services supporting the operation and evolution of the Copernicus Reference Data Access node – CORDA – Framework Contract EEA/IDM/RO/17/007*

**Dates:** June 2018 – ongoing

**Roles and responsibilities:** Senior expert. Professional support in

- preparing geospatial data sets for use by the Copernicus Services - with particular focus on Copernicus Emergency Management Service (CEMS) – combining, where possible, INSPIRE data sets to create (quasi) pan-European products.
- testing of so created data e services in GIS environments
- possible extension of INSPIRE data models for Copernicus

**Technologies:**

- GIS software: QGIS – ArcGIS
- spatial RDBMS: PostgreSQL with PostGIS extension, Oracle Spatial
- query language: SQL
- SDI software: GeoNetwork, GeoServer, degree
- data transformation software: hale studio, FME
- programming languages: Java, JavaScript
- test scripting language: CTL (OGC Compliance Test Language)
- mark up languages: XML, GML, HTML5 , XHTML
- rule-based validation language: Schematron
- modelling language/ sw tool: UML / Enterprise Architect
- XML editor / validation tool :INSPIRE Validator, Oxygen XML Editor, eENVplus Validation Service

### 3. European Environment Agency (EEA)

*'Support in the field of INSPIRE data harmonisation and related services' specific*

#### **contract implementing the Framework Service Contract No EEA/IDM/15/014-lot2**

Dates:	April 2016 – on going
Roles and responsibilities:	Senior expert. Professional support in <ul style="list-style-type: none"><li>• provision of INSPIRE conformant data through web services</li><li>• testing of INSPIRE data e services in GIS environments</li><li>• extension of INSPIRE data models</li></ul>
Technologies:	<ul style="list-style-type: none"><li>• GIS software: QGIS – ArcGIS</li><li>• spatial RDBMS: PostgreSQL with PostGIS extension, Oracle Spatial</li><li>• query language: SQL</li><li>• SDI software: GeoNetwork, GeoServer, degree</li><li>• data transformation software: hale studio, FME</li><li>• programming languages: Java, JavaScript</li><li>• test scripting language: CTL (OGC Compliance Test Language)</li><li>• mark up languages: XML, GML, HTML5 , XHTML</li><li>• rule-based validation language: Schematron</li><li>• modelling language/ sw tool: UML / Enterprise Architect</li><li>• XML editor / validation tool :INSPIRE Validator, Oxygen XML Editor, eENVplus Validation Service</li></ul>

#### **4. Malta Information Technology Agency MITA**

##### ***EC INSPIRE Directive Data Conformance And Data Harmonisation Services***

Dates:	September 2017 – on going
Roles and responsibilities:	Senior expert. Professional support in the activities related to INSPIRE Directive obligations: <ul style="list-style-type: none"><li>• data transformation, set up of INSPIRE network services, data publication and validation, creation and validation of INSPIRE metadata</li><li>• testing of so created INSPIRE data e services in GIS environments</li></ul>
Technologies:	<ul style="list-style-type: none"><li>• GIS software: QGIS – ArcGIS</li><li>• spatial RDBMS: PostgreSQL with PostGIS extension, Oracle Spatial</li><li>• query language: SQL</li><li>• SDI software: GeoNetwork, GeoServer, degree</li><li>• data transformation software: hale studio</li><li>• programming languages: Java, JavaScript</li><li>• test scripting language: CTL (OGC Compliance Test Language)</li><li>• rule-based validation language: Schematron</li><li>• modelling language/ sw tool: UML / Enterprise Architect</li><li>• XML editor / validation tool :INSPIRE Validator, Oxygen XML Editor, eENVplus Validation Service</li></ul>

#### **5. Malta Environment and Resources Authority**

##### ***Provision of INSPIRE Professional Services***

Dates:	May 2018 – on going
Roles and responsibilities:	Senior expert. Professional support in the activities related to

INSPIRE Directive obligations:

- data transformation, set up of INSPIRE network services, data publication and validation, creation and validation of INSPIRE metadata
- testing of so created INSPIRE data e services in GIS environments
- GIS software: QGIS – ArcGIS
- spatial RDBMS: PostgreSQL with PostGIS extension, Oracle Spatial
- query language: SQL
- SDI software: GeoNetwork, GeoServer, degree
- data transformation software: hale studio
- programming languages: Java, JavaScript
- test scripting language: CTL (OGC Compliance Test Language)
- rule-based validation language: Schematron
- modelling language/ sw tool: UML / Enterprise Architect
- XML editor / validation tool :INSPIRE Validator, Oxygen XML Editor, eENVplus Validation Service

Technologies:

**6. “GeoSmartCity - Open geo-data for innovative services and user applications towards Smart Cities”**

[www.geosmartcity.eu](http://www.geosmartcity.eu)

European project, co-funded by DG CONNECT of the EC within the ICT-PSP (Policy Support Programme).

The project contributes to the Smart City implementation focusing on two different scenarios: Green-Energy scenario (aiming to support the implementation of energy efficiency policies lifecycle, with focus on energy performance of buildings) and Underground scenario (aiming to support integrated management of underground utility infrastructures). INSPIRE Directive is taken into consideration for the design of common (trans-national) data models. The GSC cross-platform open hub publishes geographic information and provides specialized services based on open standards.

Dates:

March 2014 – February 2017

Roles and responsibilities:

- Design and development of INSPIRE-extended data models which maintain the richness of information of the national models and at the same time are compliant to INSPIRE
- Validation of GML datasets against GSC extended models.
- Test the usability of datasets in GIS environment

Technologies:

- GIS software: QGIS – ArcGIS
- spatial RDBMS: PostgreSQL with PostGIS extension, Oracle Spatial
- query language: SQL
- SDI software: CKAN, GeoNetwork, GeoServer, degree
- data transformation software: hale studio
- programming languages: Java, JavaScript
- test scripting language: CTL (OGC Compliance Test Language)
- mark up languages: XML, GML, HTML5 , XHTML
- rule-based validation language: Schematron
- modelling language/ sw tool: UML / Enterprise Architect

- XML editor / validation tool :Oxygen XML Editor, eENVplus Validation Service

## 7. “LIFE+IMAGINE - Integrated coastal area Management Application implementing GMES, INSPIRE and SEIS data policies”

[www.life-imagine.eu](http://www.life-imagine.eu)

European project co-funded by the LIFE+ Programme Environmental Policy and Governance in the framework of the objective “strategic approaches”. The project deals with the integrated management of coastal zone and the implementation of the related environmental policies, aiming to support planning and decision-making and focusing on Landslides and Soil consumption in coastal zones and integrating specifications of INSPIRE Directive.

Dates:	July 2013 – December 2016
Roles and responsibilities:	Data modelling, data harmonization and validation
Technologies:	<ul style="list-style-type: none"> <li>• GIS software: QGIS – ArcGIS</li> <li>• spatial RDBMS: PostgreSQL with PostGIS extension, Oracle Spatial</li> <li>• query language: SQL</li> <li>• SDI software: GeoNetwork, GeoServer, degree</li> <li>• data transformation software: hale studio</li> <li>• programming languages: Java, JavaScript</li> <li>• test scripting language: CTL (OGC Compliance Test Language)</li> <li>• mark up languages: XML, GML, HTML5 , XHTML</li> <li>• rule-based validation language: Schematron</li> <li>• modelling language/ sw tool: UML / Enterprise Architect</li> <li>• XML editor / validation tool :Oxygen XML Editor, eENVplus Validation Service</li> </ul>

## 8. MITA - Malta Information Technology Agency

Dates:	April 2016 – December 2016
Roles and responsibilities:	Support in the INSPIRE harmonization and validation of 24 datasets belonging to INSPIRE Annex I, II and III.
Technologies:	<ul style="list-style-type: none"> <li>• spatial RDBMS: PostgreSQL with PostGIS extension</li> <li>• query language: SQL</li> <li>• technical SW tools: Enterprise Architect, Oxygen XML Editor, hale studio, degree, GeoServer, eENVplus Validation Service</li> </ul>

## 9. “eENVplus – eEnvironmental services for advanced application within INSPIRE”

[www.eenvplus.eu](http://www.eenvplus.eu)

European co-funded ICT-PSP (Policy Support Programme) project, supporting the implementation of INSPIRE and SEIS at European and national levels through deployment and integration of e-Environmental services and application.

Dates:	January 2013 – December 2015
Roles and responsibilities:	<ul style="list-style-type: none"> <li>• Responsible for the design and implementation of the eENVplus Validation Service providing online executable tests to evaluate whether a GML dataset fulfils the requirements of the INSPIRE Directive</li> <li>• Production of Schematron files to test INSPIRE data themes specific requirements</li> <li>• Support in the transformation of national dataset into INSPIRE conformant ones</li> <li>• Validation of GML datasets against INSPIRE</li> </ul>

- models.
  - Test the usability of datasets in GIS environment
- Technologies:
- GIS software: QGIS – ArcGIS
  - spatial RDBMS: PostgreSQL with PostGIS extension, Oracle Spatial
  - query language: SQL
  - SDI software: GeoNetwork, GeoServer, degree
  - data transformation software: hale studio
  - programming languages: Java, JavaScript
  - test scripting language: CTL (OGC Compliance Test Language)
  - mark up languages: XML, GML, HTML5 , XHTML
  - rule-based validation language: Schematron
  - modelling language/ sw tool: UML / Enterprise Architect
  - XML editor / validation tool :Oxygen XML Editor, eENVplus Validation Service

#### 10. “LINKVIT - Leveraging INSPIRE Knowledge into Vocational Innovative Training”

[www.linkvit.eu](http://www.linkvit.eu)

European project co-funded under the LLP (Life Learning Programme) Leonardo da Vinci of the European Commission. The project addresses the vocational training aiming to support the practical implementation of the INSPIRE Directive.

- Dates: October 2013 – October 2015
- Roles and responsibilities: Responsible for the production of vocational INSPIRE training modules related to procedures and examples of INSPIRE data and metadata harmonization and validation
- Technologies:
- MicroSoft Power Point
  - aTube Catcher, Movie Maker

#### 11. “SmeSpire - A European Community of SMEs built on Environmental Digital Content and Languages”

[www.smespire.eu](http://www.smespire.eu)

FP7 Support Action aiming to turn the challenges of the INSPIRE implementation into business opportunities for the Geo-ICT European SMEs, led by Epsilon Italia with a consortium with 15 partners coming from 12 EU Member States.

- Dates: May 2012 – April 2014
- Roles and responsibilities: Creation of training modules and in dissemination activities (video tutorials, online hackathon and smeSpire day event) related to procedures and examples of INSPIRE data and metadata harmonization and validation
- Technologies:
- MicroSoft Power Point
  - aTube Catcher, Movie Maker

#### 12. “ArcFUEL - Mediterranean Fuel Maps Geodatabase for Wildland & Forest Fire Safety”

[www.arcfuel.eu](http://www.arcfuel.eu)

European project, co-funded by the LIFE+ 2010 Programme with the aim of producing updated fuel cover maps based on satellite data and field validation to fulfil the needs of local, regional or national users in forest fire management operations..

- Dates: October 2011 – December 2013
- Roles and responsibilities: Creation of logically and semantically consistent mappings and subsequent transformation of source data and metadata in

order to obtain compliance to the requirements of INSPIRE Data Specification on Land Cover and INSPIRE Metadata Implementing Rules

Technologies:

- mark up languages: XML, GML, HTML
- Technical SW tools: Oxygen XML Editor, Snowflake GoPublisher, hale studio

### 13. “SIPITEC2- Sistema Informativo per il Piano Territoriale di Coordinamento”

<http://sipitec.provincia.cosenza.it>

Design and development of the GIS and WEBGIS of the Territorial Coordination Plan of the Province of Cosenza, design and implementation of the Geoportal of the Planning Department of the Province of Cosenza

Dates: 2008 –2012

Roles and responsibilities: Technical Support in WEBGIS development. Responsible for the ETL processes and for the design and implementation of DataWarehousing applications.

Technologies:

- GIS software: QGIS
- programming languages: C++, Java, JavaScript
- mark up languages: XML, HTML
- Technical SW tools: MapServer, Pentaho (Data Integration, Business Analytics), Enterprise Architect, Oxygen XML Editor

### 14. Other projects and clients

- “MIRASAT – A Methodology for the assessment of Indicators of Environmental Risks by means of Satellite Remote Sensing Techniques” – funded by the Scientific Research Department of the Calabria Region. (2008 – 2010)
- Several projects dealing with:
  - Design and implementation of GIS for the Italian Local Authorities
  - Activities of spatial data modelling for spatial planning, particularly focused on the encoding of the requirements/recommendations contained in the Regional Urban Law (of Calabria Region- Southern Italy) into a spatial data model to be used by Municipalities within their Council Structural Plans

Oct 1993 – Apr 2001

### 15. Software Developer, Data Modelling and DBMS expert

Name of the Company: Saigese (later on Sintax) , Italy

Business domain: Tax Software

- Software developer in AS400 environment (languages: RPG, COBOL, C++)
- DB Administrator (technology: Oracle)

May 2001 – Dec 2006

### 16. DBMS expert, web designer and web developer

External consultant for several companies as:

- Database administrator (technology: MySQL, PHP)
- web designer and web developer (technologies: Wordpress, Joomla, MySQL , PHP).

## EDUCATION AND TRAINING

October 1986 – April 1993

### Master's degree in Computer Science and Engineering

University Training

Università della Calabria - Arcavacata, Rende, 87036 Italy.



- Computer Technologies
- Software Design
- Database Management
- Queue networks : performance optimization algorithms

February 2007

### Specialized training course "GIS - Geographic Information Systems"

Professional Training

EPSILON Italia srl, Kreade Inno

Training sessions:

- Geographical data
- Fundamentals of mapping and reference systems
- Management of raster and vector data (CAD, shapefile).
- Use of Geographic Information Systems: open source software;
- Use of Geographic Information Systems: Geomedia Professional software

#### PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)

UNDERSTANDING

SPEAKING

WRITING

Listening

Reading

Spoken interaction

Spoken production

English

C2

C2

C2

C2

C2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user / Common European Framework of Reference for Languages

Communication skills

Very used to public speaking, since she has been a rapporteur in many international meetings.

Expert in the development of vocational training modules (also video tutorials such as the [INSPIRE in pills](#)), both for advanced users and beginners.

Organisational / managerial skills

Natural ability to team-working, reinforced by multi-year experience in international technical teams

#### ADDITIONAL INFORMATION

Publications

In the framework of '2016 Study on Inspire Services' of the European Environment Agency (<http://projects.eionet.europa.eu/eea-inspire-activities/library/2016-study-inspire-services> )

- S.Morrone "Corine Land Cover dataset: data transformation and web services setup"
- S.Morrone "CDDA: GeoServer web services setup"
- S.Morrone "CDDA: deegree web services setup"
- S.Morrone "CDDA: data transformation"

Congresses and Conferences Proceedings:

- Stefania Morrone, Jose Miguel Rubio Iglesias, Darja Lihteneger and Giacomo Martirano "Technological approaches to reuse INSPIRE in e-Reporting" - INSPIRE Conference 2018, Antwerp, Belgium, 18-21 September
- Katharina Schleidt, Stefania Morrone, Lena Hallin-Pihlatie, Sylvain Grellet, Mickaël Beaufils and Nuno Oliveira "More Practical INSPIRE Practice"- INSPIRE Conference 2018, Antwerp, Belgium, 18-21 September
- Giacomo Martirano, Stefania Morrone, Fabio Vinci, Thorsten Reitz, Carlo Cipolloni and Claudio Piccini "INSPIRE based e-Reporting in Italy"- INSPIRE Conference 2018, Antwerp, Belgium, 18-21 September
- Katharina Schleidt, Stefania Morrone, Lena Hallin-Pihlatie, Sylvain Grellet and Lurie Maxim "Practicing Practical INSPIRE" , INSPIRE Conference 2017



- Stefania Morrone, Giacomo Martirano, Fabio Vinci and Carlo Cipolloni "The eENVplus Validation Service: a complete solution to validate INSPIRE Annex I, II, III datasets and INSPIRE extended schemas/datasets" - INSPIRE Conference 2017
- Stefania Morrone and Christian Ansoerge "INSPIRE as an effective tool for e-reporting: the EEA "EU Registry on Industrial Sites" data model - INSPIRE Conference 2017
- S. Morrone, G. Martirano, F. Vinci, " INSPIRE data validation in action: the eENVplus Validation Service ", INSPIRE Conference 2016, Barcelona (E), 26-30 September 2016.
- Christian Ansoerge, Paul Hasenohr, Stefan Jensen, Stefania Morrone " INSPIRE View and Download Services - Fit for purpose? ", INSPIRE Conference 2016, Barcelona (E), 26-30 September 2016.
- S. Morrone" INSPIRE Land Cover GML datasets: validation and use ", INSPIRE Conference 2016, Barcelona (E), 26-30 September 2016.
- G. Martirano, F. Vinci, S. Morrone, "INSPIRE data usability beyond formal conformance", INSPIRE Conference 2016, Barcelona (E), 26-30 September 2016.
- S. Morrone, F. Vinci, G.Martirano " The GeoSmartCity extension for the INSPIRE Building Data Specifications ", INSPIRE Conference 2016, Barcelona (E), 26-30 September 2016.
- G.Martirano, S. Morrone "The eENVplus Validation Service", Validation workshop, organised by EuroGeographics,JRC and EuroSDR, Marne La Valee (FR), 2-3 June 2016.
- S.Morrone "OGC4INSPIRE" , OGC CITE SC Meeting 2016, Washington (US) 8th March 2016
- G. Martirano, S. Morrone, F. Vinci "INSPIRE Data validation: the eENVplus experience & Extension of the INSPIRE DS: the GeoSmartCity experience", Eionet NRC Environmental Information Systems (EIS) meeting 2015, EEA - Copenhagen (DK), 25-26 November 2015
- G. Martirano, F. Vinci, S. Morrone, L. Bermudez, "An On-line Executable Test Suite to Validate Annex I-II-III INSPIRE Datasets", INSPIRE & GWF Conference 2015, Lisbon (PT), 25-29 May 2015.
- G. Martirano, F. Vinci, S. Morrone, "How to assess the degree of conformity to the requirements specified by Commission Regulation (EU) No 1089/2010 relevant to a dataset belonging to INSPIRE Annex II/III data themes", INSPIRE Conference 2014, Aalborg (DK), 18-20 June 2014.
- ([http://inspire.ec.europa.eu/events/conferences/inspire\\_2014/schedule/submissions/249.html](http://inspire.ec.europa.eu/events/conferences/inspire_2014/schedule/submissions/249.html)).
- G. Martirano, F. Vinci, S. Morrone, M. Bonazountas, A. Astyakopoulos, A. Trypitsidis, "INSPIRE Land Cover Data Specifications to model fire access time in Europe: the experience of the eENVplus project", INSPIRE Conference 2014, Aalborg (DK), 18-20 June 2014.  
([http://inspire.ec.europa.eu/events/conferences/inspire\\_2014/schedule/submissions/212.html](http://inspire.ec.europa.eu/events/conferences/inspire_2014/schedule/submissions/212.html)).

