



Federal Agency for
Cartography and Geodesy

INSPIRE and CRS

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INSPIRE

- Infrastructure for SPatial InfoRmation in Europe
 - directive 2007/2/EC of the European Union (Parliament and Council)
 - published on April, 25, 2007, official on May, 15, 2007
- Spatial data: is any data with a direct or indirect reference to a specific location or geographical area
- Infrastructure for spatial information: are special data sets and spatial data services; but covers much more, e.g. agreement on access and use etc.
- INSPIRE should assist policy-making in relation to policies and activities that may have direct or indirect impact on the environment

INSPIRE

- Annexes I to III: 34 spatial data themes needed for environmental applications, with „coordinate reference systems“ and „geographical grid systems“ in Annex I
- Drafting Teams
- Thematic Working Groups: are elaborating the descriptions of the themes in detail and generate draft Implementing Rules
- Implementing Rules (IR)
- Spatial Data Interest Community (SDIC): approx. 500 (EGU, EG, not: EUREF)
- Legally Mandated Organisation (LMO): more than 250 organisations registered

INSPIRE

- Technical Guidelines on „Data Specification“, deliverable D2.3
 - For the horizontal component, INSPIRE will mandate the use of the European Terrestrial Reference System (ETRS89)
 - For the vertical component, INSPIRE will mandate the use of the European Vertical Reference System (EVRS)
- See Torres, 2008, 2009 and 2010 for all the details of the contribution of EUREF to INSPIRE
- Latest version of the „Data Specification on Coordinate Reference Systems – Technical Guidelines“ is D2.8.I.1_v3.2 from 2014-04-17
 - Mainly section 5 „Coordinate Reference System“

INSPIRE

- 2005 – 2006 Preparatory phase to elaborate draft Irs
- 2007 – 2008 Transposition phase to transpose INSPIRE into national legislation
- December 2009: Approval of the IR by INSPIRE Committee
- 2009 – 2013 Implementation phase
- 23.11.2010 Commission Regulation (EU) No 1089/2010 with four follow-up regulations during the years 2011-2014 about „interoperability of spatial data sets and services“

Legal Aspects

The screenshot shows a web browser window displaying the 'INSPIRE' page on the data.gov.uk website. The page title is 'INSPIRE' and it was submitted by rahmad on Tue, 15/10/2013 - 16:42, updated on Mon, 20/04/2015 - 10:20. The page content includes the following sections:

- The INSPIRE Directive 2007**

European Directive 2007/2/EC is known as 'INSPIRE'. INSPIRE establishes an infrastructure for spatial information in the European Union and it was transposed into UK law in December 2009.

The aim of INSPIRE is to facilitate better environmental policy across the EU. This will be achieved by:

 - improving the joining up of and access to existing spatial data across the European Union at a local, regional, national and international level;
 - facilitating improvements in the sharing of spatial data between public authorities;
 - and improving public access to spatial data.

Under INSPIRE Member States must make available in a consistent format spatial datasets which come within the scope of the Directive and also create network services for accessing the datasets. Datasets in scope of INSPIRE are ones which come under one or more of the 34 environmental themes set out in the Directive Annexes. Milestones are set for when metadata, data, and network services for datasets in each Annex are to be available. Technical Implementing Rules have subsequently been made by the EC to support implementation of INSPIRE.

The Directive was incorporated into the European Economic Area Agreement by EEA Joint Committee Decision (JCD) No 55/2010 of 30 April 2010, which entered into force on 1 July 2011. Switzerland has also passed legislation to incorporate INSPIRE standards although it has no obligation to do so.
- The UK INSPIRE Regulations**

To implement INSPIRE in the UK separate but broadly consistent regulations covering England, Northern Ireland and Wales (SI 2009 No 3157) and Scotland (SSI 2009 No 440) came into effect on 31 December 2009. The INSPIRE (Amendment) Regulations 2012 continue the transposition into UK law of INSPIRE. The Amendment Regulations came into effect on 1 August 2012. The INSPIRE (Scotland) Amendment Regulations 2012 came into effect on 23 November 2012.

An informal consolidated text of the England, Northern Ireland and Wales INSPIRE Regulations can be read [here](#).

The INSPIRE (Amendment) Regulations 2012 update the INSPIRE Regulations 2009 to take account of technical Implementing Rules made by the European Commission since the INSPIRE Directive was made. Further amending Statutory Instruments will be introduced to complete transposition as new EC Implementing Rules are made.

An Impact Assessment for implementation of INSPIRE in England, Wales and Northern Ireland is available as part of the [Explanatory Memorandum](#) which accompanies the INSPIRE Regulations 2009.
- UK Member State monitoring and reporting**

All EU Member States are required annually in May to submit to the European Commission a monitoring report with details of available datasets. The UK's most recent monitoring report can be found [here](#).

On the right side of the page, there is a section titled 'UK LOCATION INFRASTRUCTURE' which states: 'The UK Location infrastructure enables you to find, share and reuse, location data, including data published under the INSPIRE Directive.'

Below this, there are several links categorized under 'Find data...', 'Find out about INSPIRE', 'Find out about publishing metadata', and 'Find out about view and download services'.

At the bottom of the page, there is a search bar with the text 'INSPIRE' entered, and a button 'Ausdruck nicht gefunden'. There is also a footer note: 'Firefox sendet automatisch einige Daten an Mozilla, damit die Benutzerzufriedenheit verbessert werden kann.'

Legal Aspects

The screenshot shows a web browser window with the address bar displaying "www.coib.com/paper/2135/85". The page title is "Geodesija in direktiva INSPIRE : Geodesy And INSPIRE Directive". The page is from "Geodetski Vestnik 2008". The author is "Tomaž Petek". The keywords are "Geodesija, direktiva INSPIRE, prostorska podatkovna infrastruktura, Geodesy, INSPIRE Directive, spatial data infrastructure, SDI, Slovenia". The page has buttons for "Full-Text", "Cite this paper", and "Add to My Lib". The abstract is in Slovenian and English. The Slovenian abstract states that the INSPIRE Directive was adopted by the European Parliament on April 24, 2008, and entered into force on May 15, 2008. The English abstract states that the Directive was adopted on 24th April 2008 and entered into force on 15th May 2008. The page also has a search bar, a sidebar with "Relative Articles", and a footer with a Firefox notification.

Geodesija in direktiva INSPIRE : Geodesy And INSPIRE Directive

Geodetski Vestnik 2008

Tomaž Petek

Keywords: Geodesija, direktiva INSPIRE, prostorska podatkovna infrastruktura, Geodesy, INSPIRE Directive, spatial data infrastructure, SDI, Slovenia

Full-Text Cite this paper Add to My Lib

Abstract:

SI: Direktiva Evropskega parlamenta in Sveta EU INSPIRE je bila sprejeta 24. aprila 2008 in je za ela veljati 15. maja 2008. Zdaj se kon uje obdobje njenega prenosa v pravni red dr av lanic in se za enja njeno izvajanje. Direktiva INSPIRE ureja izhodi a za vzpostavitev evropske podatkovne infrastrukture za prostorske informacije v dr avah lanicah EU, imenovane tudi INSPIRE (Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)). V veliki ve ini evropskih dr av bo uskladitev dolo b Direktive INSPIRE z nacionalno zakonodajo izvedena s pripravo novega zakona, ki bo dodeli osrednje mesto dr avnim geodetskim in kartografskim slu bam. Dr avne geodetske slu be so v obveznostih, ki jih dr avam lanicam nalaga direktiva, videle prilo nost za aktivno udejstvovanje. Za uspe no izvedbo Direktive INSPIRE je namre klju nega pomena, da pri tem sodelujejo vsi upravljavci in uporabniki podatkov o prostoru in okolju (v nadaljevanju prostorskih podatkov), ki so navedeni v prilogah k direktivi. Tako je treba vzpostaviti tudi dolo ene organizacijske strukture. Direktiva INSPIRE namre opredeljuje na in usklajevanja na podro ju prostorske podatkovne infrastrukture med dr avami lanicami EU in institucijami EU. Izvajanje Direktive INSPIRE bo vplivalo na poslovanje vseh organov javne uprave, ki vodijo in vzdr ujejo prostorske podatke. Ve kot dve tretjini podatkov, navedenih v prilogah k Direktvi INSPIRE, so podatki, ki jih v Sloveniji e danes vodi in vzdr uje dr avna geodetska slu ba. EN: The Directive of the European Parliament and of the Council INSPIRE was adopted on 24th April 2008 and it entered into force on 15th May 2008. The transposition period into national legal framework is finishing and we are at the beginning of the implementation period. The purpose of the Directive is to lay down general rules aimed at the establishment of the infrastructure for spatial information in the European Community (hereinafter referred to as INSPIRE), for the purposes of Community environmental policies and policies or activities which may have an impact on environment. In many European countries the transposition phase will be done with adoption of a new law, where national mapping and cadastral agencies will have leading role. Successful implementation calls for strong cooperation between all stakeholders (data providers and users) from environmental and spatial fields. So it is necessary to establish appropriate coordination mechanisms and structures. Dire

Podatkovna infrastruktura na

Legal Aspects

The screenshot displays the Geoportal.sk website in a Mozilla Firefox browser window. The page features a header with the 'Geoportal' logo, a search bar, and navigation links for 'Log in', 'Site map', 'Text version', and language options (SK, EN). Below the header is a main navigation bar with links for 'GEODETTIC CONTROL', 'CADASTRE', 'ZBGIS', 'ARCHIVE', 'APPLICATIONS', 'SERVICES', 'INSPIRE', and 'FAQ'. The 'INSPIRE' section is highlighted, showing a sidebar with links to 'View services', 'Download services', and 'Discovery service'. The main content area provides a detailed overview of the INSPIRE initiative, including its purpose, basic principles, and the transposition of the Directive into Slovak law. The page is published on 02.01.2015 and updated on 23.11.2015.

INSPIRE

View services
Download services
Discovery service

LINKS

- GD
- Products and services (Slovak only)
- SLPOS
- Cadastre portal
- ÚGKK SR
- Geoportal purpose

INSPIRE (Infrastructure for SPatial Information in Europe) is an initiative of the European Commission, The European Commission and Council Directive (2007/2/ES) of the same name entered into force on 14th March 2007, geared to create the European legislation framework necessary for establishing the European spatial information infrastructure. The Directive lays down general rules for establishing this infrastructure, primarily to support environmental policies and policies having impact on the environment. The main goal of INSPIRE is to provide access to large quantity of high-quality and standardized spatial information on the Union and Member States levels.

Basic principles of INSPIRE:

- Data are gathered only once and at level where this can be done most effectively,
- Problem-free possibility to combine spatial data from various resources and to share the data between numerous users and applications,
- Spatial data are created at one level of state administration and used at all other levels,
- Spatial data will be accessible under conditions not restricting the extensive use of the data,
- Easier search for accessible spatial data, assessment of their use suitability for the given purpose and accessibility of information about conditions under which these data can be used.

Transposition of the responsibilities following from this Directive is ensured by adopting a separate law in Slovak legislation, namely the Act No. 3/2010 Coll. on the national infrastructure for spatial information (NII Act), which came into force on 1st February 2010. Technical frames of implementation are determined by implementing regulations, i.e. by implementation rules, which are directly applicable. Among further rules entering the INSPIRE Directive implementation process is e.g. Act of the National Council of the Slovak Republic (NR SR) No. 215/1995 Coll. on Geodesy and Cartography as amended by later regulations, which is implemented by the Decree of the Geodesy, Cartography and Cadastre Authority of the Slovak Republic (ÚGKK SR) No. 300/2009 Coll. and which lays down e.g. the parameters of binding coordinate systems, or location standards for map series.

In the Slovak Republic, the duty of an administrator for the INSPIRE Directive has been assigned to the Ministry of the Environment of the Slovak Republic (MŽP SR) by the Decree SR No. 745 of 3rd October 2007. Official professional organization, performing for MŽP SR the function of the National Contact Point (NCP), is the Slovak Environmental Agency (SAŽP), which operates the Slovak portal INSPIRE.

Published: 02.01.2015 / Updated : 23.11.2015

Legal Aspects

NEWS

INSPIRE Solution for Poland

The Head Office of Geodesy and Cartography in Poland (GUGiK) is implementing an Esri-based solution to support compliance with the European Union's Infrastructure for Spatial Information in Europe (INSPIRE) Directive. The directive sets out a framework and timetable for implementing a pan-European spatial data infrastructure (SDI) to address multinational and multi-agency issues.

Esri's ArcGIS technology will be used to create GUGiK's GeoPortal2, a project designed to improve access to government datasets and provide mapping and survey services to other government agencies, citizens, and businesses. GUGiK is the central state administration unit responsible for national policy related to geodesy and cartography.

GeoPortal2 includes Esri's ArcGIS for INSPIRE product as well as software from Esri business partner con terra GmbH. The project is being implemented by Esri distributor ESRI Polska sp. z o.o.; Esri partner GISPartner; and the largest IT company in the country, Asseco Poland SA.

GeoPortal2 is scheduled to be completed in November 2012.

Passed by the member states of the European Union and the European Parliament, INSPIRE's goal is to tie European geospatial information producers and users together into a single community to improve decision making and operations for a productive and sustainable Europe.

<http://www.gim-international.com/content/news/inspire-solution-for-poland>



Legal Aspects

Ein Service des Bundesministeriums der Justiz und für Verbraucherschutz
in Zusammenarbeit mit der juris GmbH - www.juris.de

Gesetz über den Zugang zu digitalen Geodaten (Geodatenzugangsgesetz - GeoZG)

GeoZG

Ausfertigungsdatum: 10.02.2009

Vollzitat:

"Geodatenzugangsgesetz vom 10. Februar 2009 (BGBl. I S. 278), das durch Artikel 1 des Gesetzes vom 7. November 2012 geändert worden ist"

Stand: Geändert durch Art. 1 G v. 7.11.2012

*) Dieses Gesetz dient der Umsetzung der Richtlinie 2007/2/EG des Europäischen Parlaments und des Rates vom 14. März 2007 zur Schaffung einer Geodateninfrastruktur in der Europäischen Gemeinschaft (INSPIRE-Richtlinie) (ABl. L 108 vom 25.4.2007, S. 1) in deutsches Recht.

Fußnote

(+++ Textnachweis ab: 14.2.2009 +++)

(+++ Amtlicher Hinweis des Normgebers auf EG-Recht:

Umsetzung der
EGRL 2/2007

(CELEX Nr: 307L0002) +++)

Abschnitt 1 Ziel und Anwendungsbereich

§ 1 Ziel des Gesetzes

Dieses Gesetz dient dem Aufbau einer nationalen Geodateninfrastruktur. Es schafft den rechtlichen Rahmen für

1. den Zugang zu Geodaten, Geodatendiensten und Metadaten von geodatenhaltenden Stellen sowie
2. die Nutzung dieser Daten und Dienste, insbesondere für Maßnahmen, die Auswirkungen auf die Umwelt haben können.

§ 2 Anwendungsbereich

(1) Dieses Gesetz gilt für geodatenhaltende Stellen des Bundes und der bundesunmittelbaren juristischen Personen des öffentlichen Rechts.

(2) Natürliche und juristische Personen des Privatrechts können Geodaten und Metadaten über das Geoportal nach § 9 Absatz 2 bereitstellen, wenn sie sich verpflichten, diese Daten nach den Bestimmungen dieses Gesetzes bereitzustellen und hierfür die technischen Voraussetzungen zu schaffen.

(3) Dieses Gesetz gilt auch für Geodatendienste, die sich auf Daten beziehen, die in den Geodaten enthalten sind, auf die dieses Gesetz Anwendung findet.

(4) Dieses Gesetz gilt nach Maßgabe des Seerechtsübereinkommens der Vereinten Nationen vom 10. Dezember

Legal Aspects

- Maximum of 17 laws of that kind in Germany due to the federal structure
- In some German countries called „Geodateninfrastrukturgesetz“
- GeoZG (Bund) covers
 - German data only
 - Available in electronic form
 - Data must be in the responsibility of a data holding authority of German federal administration

EuroGeographics – INSPIRE KEN

- EuroGeographics (EG)
 - More than 40 NMCAAs
 - 60 organisations from 46 countries
- EG established several so-called Knowledge Exchange Networks (KEN), e.g.
 - BIKEN (Business Interoperability)
 - CLRKEN (Cadastre and Land Registry)
 - CoKEN (Copernicus)
 - POLKEN (Policy)
 - POSKEN (Positioning)
 - Q-KEN (Quality)
 - SBE KEN (State Boundaries of Europe)
 - INSPIRE KEN

EuroGeographics – INSPIRE KEN

■ Main tasks

- Establish a network of experts
- Follow the development of the INSPIRE regulations
- Support EG policy towards European data interoperability
- Share knowledge amongst members
- Promote experiences on implementation of the INSPIRE directive among members.

■ Main activities

- Public briefing: webinars, e.g. on thematic clusters (e.g. on Elevation, Orthoimagery, Reference systems, and Geographical grids), ...
- Public meetings: workshops on transformation of the different INSPIRE themes

ISO

- International Standardisation Organisation
- Many ISO standards with respect to CRS
 - EN ISO 19111:2007: about “Geographic information – Spatial referencing by coordinates”
 - EN ISO 19111-2:2012: about an accessible reference, e.g. extension for parametric values
 - ISO 19112: Spatial referencing by geographic identifiers
 - EN ISO 19115:2005: about “Geographic information – Metadata”
 - ISO/TS 19127:2005: about “Geographic information – Geodetic codes and parameters”
 - ISO 19128:2005: about “Geographic information – Web Map Server Interface”

ISO

- International Standardisation Organisation
- Many ISO standards with respect to CRS
 - ISO 19131 or ISO 19131:2007: about “Geographic information – Data product specifications”
 - EN ISO 19135:2007: about “Geographic information – Procedures for item registration”
 - ISO 19136: about GML as standard (as default encoding for INSPIRE)
 - ISO 19156: about “observations and measurement” guidelines, to be used within INSPIRE
 - ISO 6709:2008: about Standard representation of geographical point position by coordinates

ISO

- EN ISO 19111:2007
 - (long) list of terms, definitions and conventions
 - Coordinate system: set of mathematical rules for specifying how coordinates are to be assigned to points
 - Coordinate reference system: a coordinate system that is related to an object by a datum
 - Reference system
 - Packages and classes, e.g.
 - Coordinate Operation package with a
 - CC_Transformation class
- New elements in ISO 19111:2015
 - Coordinates change over time („dynamic datums“)
 - (artificial) concept of a CRS collection

EPSG / IOGP

- EPSG: European Petroleum Survey Group Geodesy
 - Founded in 1986
 - Situated in London
- IOGP: International Association of Oil and Gas Producers
 - Since 2005 EPSG is the „Survey and Positioning Committee“
- Web pages related to EPSG/IOGP
 - www.epsg.org: main page
 - www.epsg-registry.org: interactive portal
 - spatialreference.org/ref/epsg: returns one page for each available code

EPSG / IOGP

- EPSG codes
 - Worldwide unique set of numbers of geodetic data sets
- Examples
 - EPSG code 4326 is „WGS84 and geographic 2D“
 - UTM zones 32N and 33N related to ETRS89 have the numbers 25832 and 25833
 - EPSG codes 2175-8 are ETRS89 / Poland CS2000 zone 5-8
- (Huisman, 2014) gave a nice overview of using EPSG codes in the Netherlands, with examples of other countries
 - National Transformation version 2 (NTv2)
Datum 1 – NTv2 shift grid – Datum 2
 - „EPSG is the key to implement transformation procedure in GIS“

EPSG / IOGP

←

→

http://www.epsg-registry.org/

EPSG Geodetic Parameter R... X

Datei Bearbeiten Ansicht Favoriten Extras ?

Vorgeschlagene Sites

query by filter

retrieve by code

Name:

[Click to choose](#)

[Search on geometry](#)

Type:

BBOX

North Latitude

West Longitude

Search

Area:

Show Map

South Latitude

East Longitude


Reset

?

EPSG Geodetic Parameter Registry

Version: 8.9

Welcome guest! | [login or register](#) | [help](#)


International
Association
of Oil & Gas
Producers

Welcome to the EPSG Geodetic Parameter Dataset

The EPSG Geodetic Parameter Dataset is a structured dataset of Coordinate Reference Systems and Coordinate Transformations, accessible through this online registry (www.epsg-registry.org) or, as a downloadable zip files, through IOGP's EPSG home page at www.epsg.org. The geographic coverage of the data is worldwide, but it is stressed that the dataset does not and cannot record all possible geodetic parameters in use around the world. The EPSG Geodetic Parameter Dataset is maintained by the Geodesy Subcommittee of IOGP's Geomatics Committee.

The EPSG Geodetic Parameter Dataset, offered through IOGP's web pages, may be used free of charge, but its use is subject to the acceptance of the [Terms of Use](#).

Registry users may query and view the data and generate printable reports. The Registry supports anonymous (guest) access, but also permits the user to register for additional services, such as the export of the entire dataset as GML 3.2 dictionaries.

Additionally the Registry provides a web service interface, permitting geospatial software to query and retrieve geodetic parameters. Information on how to access the service is available in [Guidance Note 7-3: EPSG Registry Developers Guide](#).

If you are interested in receiving news about the EPSG Dataset, please register on IOGP's EPSG home page at www.epsg.org or contact EPSGadministrator@iogp.org.

Links

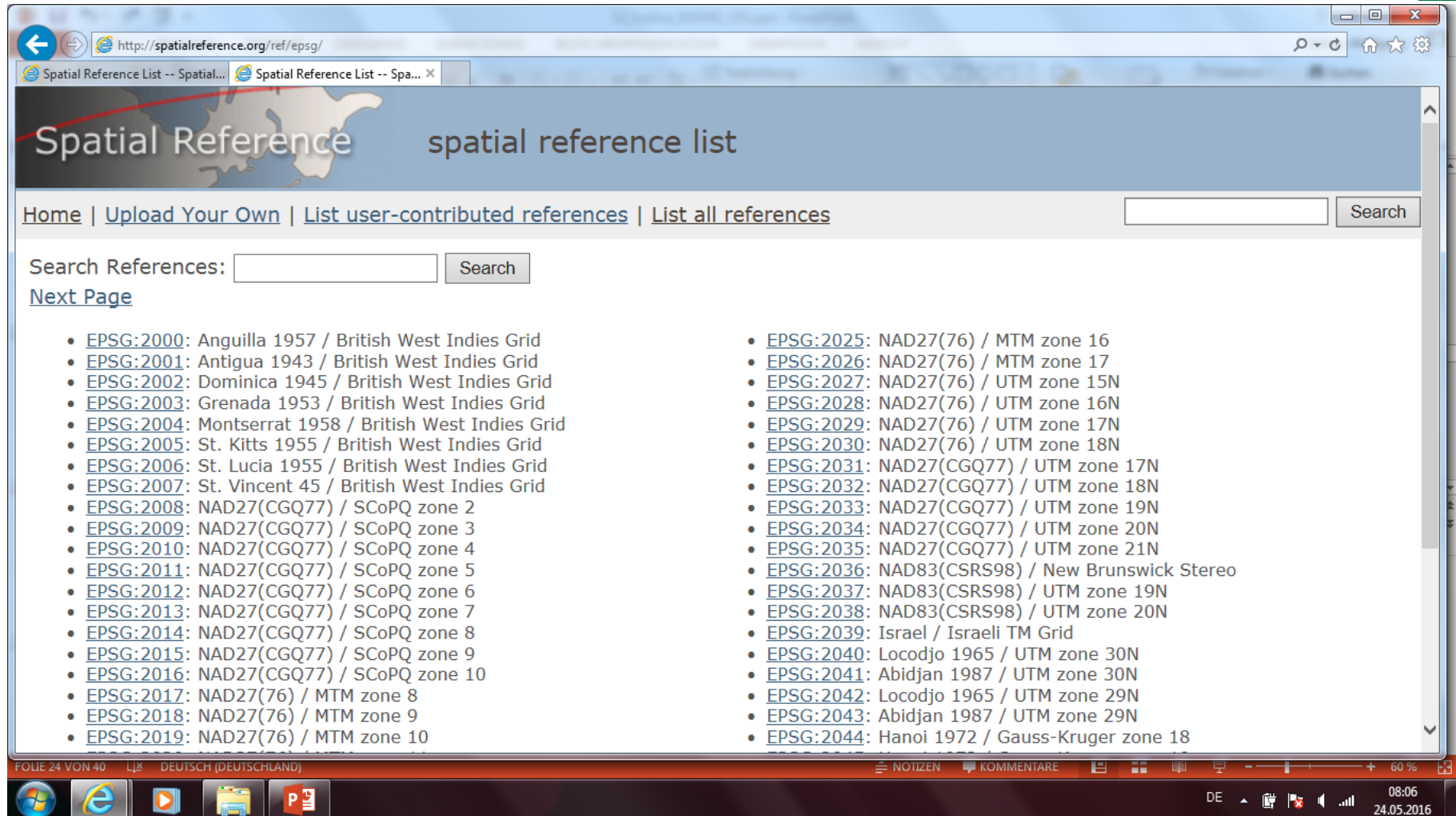
- [IOGP's EPSG home page](#)
- [IOGP's Geomatics area](#)
- [IOGP's home page](#)
- [What is new to the current version](#)
- [EPSG Dataset supporting documentation](#)
- [Submit Feedback or Change Request](#)

[Back](#) to IOGP's Geomatics area

Developed by: [Galdos Systems Inc.](#)

Version: 2.5.2

EPSG / IOGP



The screenshot shows a web browser window displaying the 'Spatial Reference List' website. The page has a blue header with the text 'Spatial Reference' and 'spatial reference list'. Below the header, there are navigation links: 'Home', 'Upload Your Own', 'List user-contributed references', and 'List all references'. A search bar is located on the right side of the navigation bar. Below the navigation bar, there is a section titled 'Search References:' with a search input field and a 'Search' button. Below this, there is a 'Next Page' link. The main content area displays a list of EPSG codes and their corresponding coordinate systems, organized in two columns. The list includes codes from EPSG:2000 to EPSG:2044, covering various regions and coordinate systems.

Home | [Upload Your Own](#) | [List user-contributed references](#) | [List all references](#)

Search References:

[Next Page](#)

- [EPSG:2000](#): Anguilla 1957 / British West Indies Grid
- [EPSG:2001](#): Antigua 1943 / British West Indies Grid
- [EPSG:2002](#): Dominica 1945 / British West Indies Grid
- [EPSG:2003](#): Grenada 1953 / British West Indies Grid
- [EPSG:2004](#): Montserrat 1958 / British West Indies Grid
- [EPSG:2005](#): St. Kitts 1955 / British West Indies Grid
- [EPSG:2006](#): St. Lucia 1955 / British West Indies Grid
- [EPSG:2007](#): St. Vincent 45 / British West Indies Grid
- [EPSG:2008](#): NAD27(CGQ77) / SCoPQ zone 2
- [EPSG:2009](#): NAD27(CGQ77) / SCoPQ zone 3
- [EPSG:2010](#): NAD27(CGQ77) / SCoPQ zone 4
- [EPSG:2011](#): NAD27(CGQ77) / SCoPQ zone 5
- [EPSG:2012](#): NAD27(CGQ77) / SCoPQ zone 6
- [EPSG:2013](#): NAD27(CGQ77) / SCoPQ zone 7
- [EPSG:2014](#): NAD27(CGQ77) / SCoPQ zone 8
- [EPSG:2015](#): NAD27(CGQ77) / SCoPQ zone 9
- [EPSG:2016](#): NAD27(CGQ77) / SCoPQ zone 10
- [EPSG:2017](#): NAD27(76) / MTM zone 8
- [EPSG:2018](#): NAD27(76) / MTM zone 9
- [EPSG:2019](#): NAD27(76) / MTM zone 10
- [EPSG:2025](#): NAD27(76) / MTM zone 16
- [EPSG:2026](#): NAD27(76) / MTM zone 17
- [EPSG:2027](#): NAD27(76) / UTM zone 15N
- [EPSG:2028](#): NAD27(76) / UTM zone 16N
- [EPSG:2029](#): NAD27(76) / UTM zone 17N
- [EPSG:2030](#): NAD27(76) / UTM zone 18N
- [EPSG:2031](#): NAD27(CGQ77) / UTM zone 17N
- [EPSG:2032](#): NAD27(CGQ77) / UTM zone 18N
- [EPSG:2033](#): NAD27(CGQ77) / UTM zone 19N
- [EPSG:2034](#): NAD27(CGQ77) / UTM zone 20N
- [EPSG:2035](#): NAD27(CGQ77) / UTM zone 21N
- [EPSG:2036](#): NAD83(CSR598) / New Brunswick Stereo
- [EPSG:2037](#): NAD83(CSR598) / UTM zone 19N
- [EPSG:2038](#): NAD83(CSR598) / UTM zone 20N
- [EPSG:2039](#): Israel / Israeli TM Grid
- [EPSG:2040](#): Locodjo 1965 / UTM zone 30N
- [EPSG:2041](#): Abidjan 1987 / UTM zone 30N
- [EPSG:2042](#): Locodjo 1965 / UTM zone 29N
- [EPSG:2043](#): Abidjan 1987 / UTM zone 29N
- [EPSG:2044](#): Hanoi 1972 / Gauss-Kruger zone 18

EPSG / IOGP

The screenshot shows a web browser window with the URL <http://spatialreference.org/ref/epsg/?search=25833&srtext=Search>. The page title is "Spatial Reference" and the subtitle is "spatial reference list". The navigation bar includes links: [Home](#), [Upload Your Own](#), [List user-contributed references](#), and [List all references](#). A search bar on the right contains the text "25833" and a "Search" button. Below the navigation bar, there is another search bar with the text "Search References: 25833" and a "Search" button. A message states: "You are only searching EPSG references. [Search All?](#)". Below this, it says "Did you mean one of:" followed by a list of results:

- [EPSG:25833](#): ETRS89 / UTM zone 33N

Other Results

- [EPSG:3763](#): ETRS89 / Portugal TM06
- [EPSG:7417](#): ETRS89 / UTM zone 33N + DVR90 height
- [EPSG:25833](#): ETRS89 / UTM zone 33N
- [EPSG:27222](#): NZGD49 / Okarito Circuit
- [EPSG:27228](#): NZGD49 / Mount Nicholas Circuit

The bottom of the browser window shows a Windows taskbar with the following elements: "FOLIE 24 VON 40", "DEUTSCH (DEUTSCHLAND)", "NOTIZEN", "KOMMENTARE", "60%", "08:10", and "24.05.2016".

EPSG / IOGP

Spatial Reference epsg projection 25833 - etrs89 / utm zone 33n

Home | [Upload Your Own](#) | [List user-contributed references](#) | [List all references](#)

Previous: [EPSG:25832: ETRS89 / UTM zone 32N](#) | Next: [EPSG:25834: ETRS89 / UTM zone 34N](#) [Link to this Page](#)

Input Coordinates: 16.5, 57.775 Output Coordinates: 589214.883675, 6404648.67696

EPSG:25833

ETRS89 / UTM zone 33N ([Google it](#))

- **WGS84 Bounds:** 12.0000, 35.5000, 21.0000, 80.0500
- **Projected Bounds:** 227879.8880, 3932632.6543, 1044484.3835, 8893131.0281
- **Scope:** Large and medium scale topographic mapping and engineering survey.
- **Last Revised:** June 24, 2008
- **Area:** Europe - 12°E to 18°E and ETRS89 by country

- [Well Known Text as HTML](#)
- [Human-Readable OGC WKT](#)
- [Proj4](#)
- [OGC WKT](#)
- [JSON](#)

WORLD MAP WITH RED LOCATION PIN OVER EUROPE

FOHIE 25 VON 41 DEUTSCH (DEUTSCHLAND) NOTIZEN KOMMENTARE 60 % 08:11 24.05.2016

CRS-EU

- Information system for European Coordinate Reference Systems

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Coordinate Reference Systems in Europe

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Information and Service System for European Coordinate Reference Systems


This Information and Service System for European Coordinate Reference Systems was established to support the users of spatial information in Europe.

It is a common project of:




Bundesamt für
Kartographie und Geodäsie

Bundesamt für Kartographie und Geodäsie (Federal Agency for Cartography and Geodesy), Germany

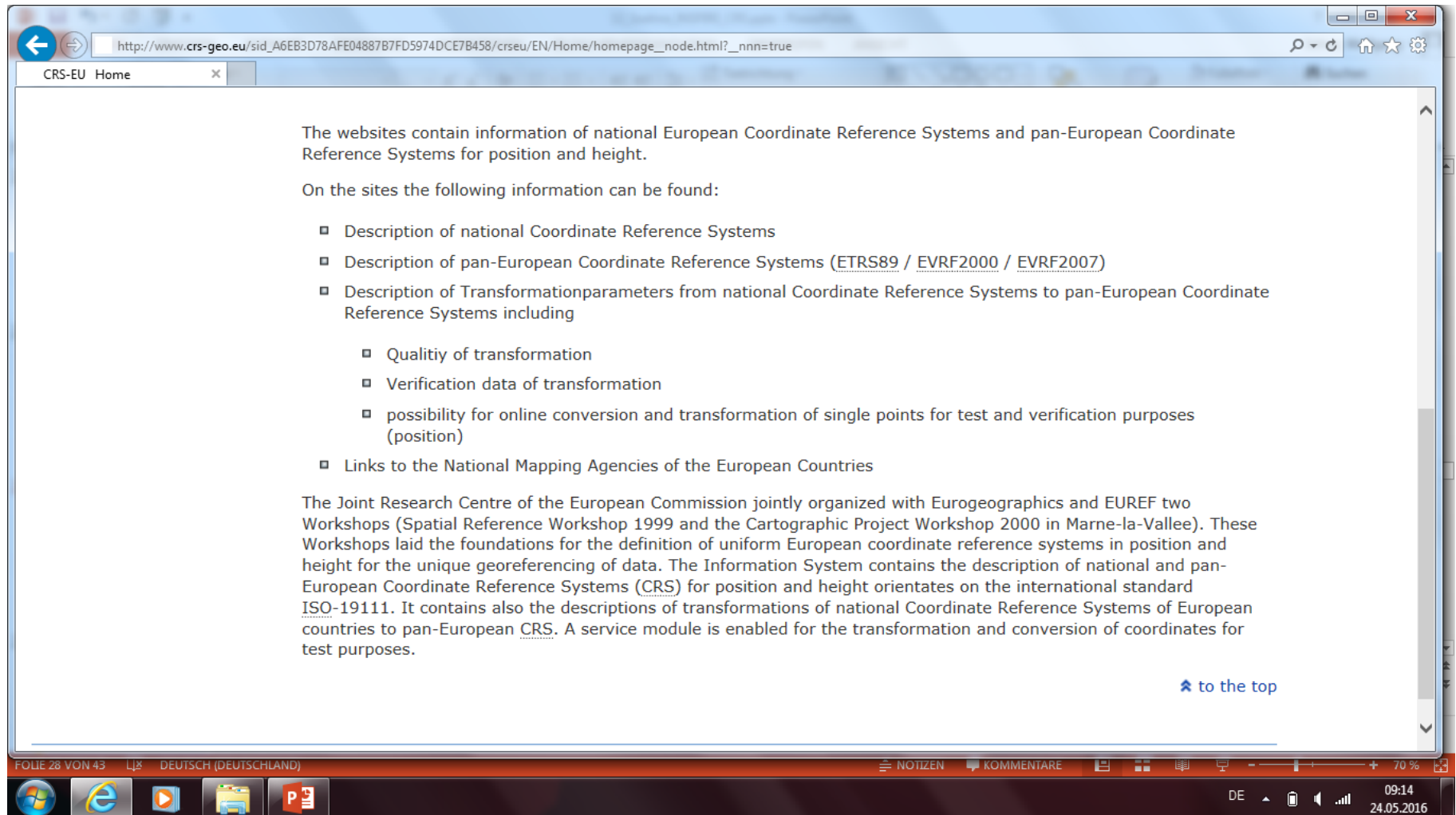


EuroGeographics as the central-hub for Europe's Geographic Information (GI) developments
- a unique and diverse network working of all concerned with European GI, National Mapping and Cadastral Agencies (NMCAs), the European Commission and others



EUREF (European Reference Frame) as Sub-Commission of IAG's (International Association of Geodesy) Commission X on Global and Regional Geodetic Networks with the main task to established and maintenance of the European Reference Frames

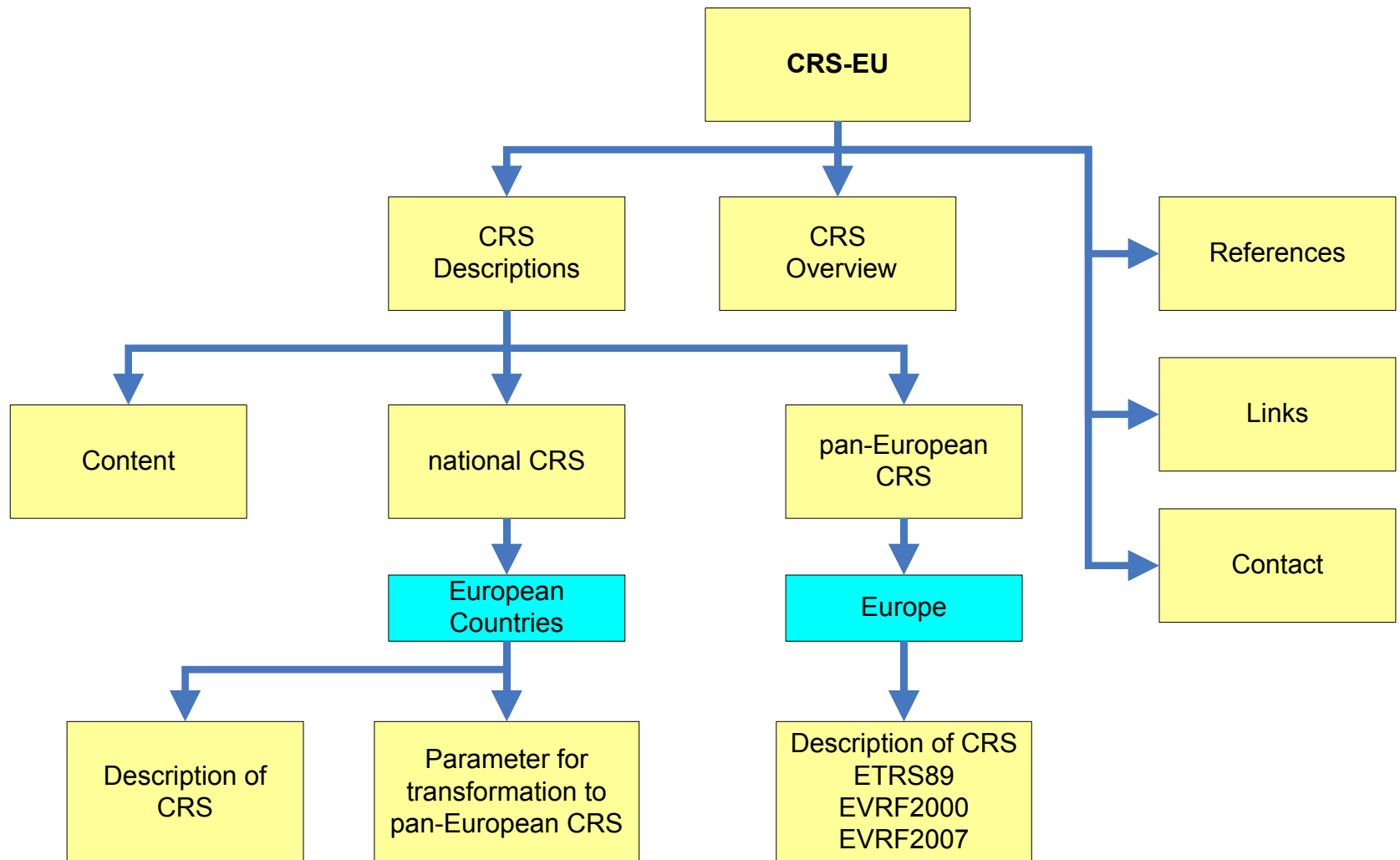
CRS-EU



CRS-EU

- Common project of EUREF / EuroGeographics / BKG
- In 2005, DIN (Germany) nominated BKG for the registry CRS-EU
- Since 2009, the web portal is www.crs-geo.eu (formerly crd.bkg.bund.de/crs-eu)
- Information
 - Provided by the National Mapping Agencies (NMAs)
 - Or prepared / compiled by BKG and agreed with the NMAs
 - Always unified and prepared regarding ISO standard 19111

CRS-EU – structure



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Description of national Coordinate Reference Systems (CRS) of European Countries

Contains

- ▣ descriptions of Coordinate Reference Systems
- ▣ transformation parameters to pan-European CRS [ETRS89](#), [EVRF2000](#) and [EVRF2007](#)
- ▣ verification data for transformation
- ▣ online-transformation of single points for position and height from national CRS of a country to pan-European CRS [ETRS89](#), [EVRF2000](#) and [EVRF2007](#) for test and verification purposes

To get the information select a country in the list or click on the corresponding red dot in the map

Albania
Austria
Belgium
Bosnia / Hercegovina
Bulgaria
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Gibraltar
Great Britain
Greece
Hungary
Iceland
Ireland
Italy



Latvia
Lithuania
Luxembourg
Macedonia
Malta
Netherlands
Northern Ireland
Norway
Poland
Portugal
Romania
Russia
Slovak Republic
Slovenia
Spain
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Switzerland
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Coordinate Reference Systems of Latvia - LV

CRS Identifier	CRS Annotation	Select		
		Descr. of CRS	Descr. of Transf.	Online Transf.
Position				
LV_LKS-92 / LV_TM	Datum LKS-92 in Transverse Mercator Projection with special Latvian parameters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Height				
LV_KRON / NH	normal heights referred to tide gauge Kronstadt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LV_AMST2000 / NH	normal heights referred to tide gauge Amsterdam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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The screenshot shows a web browser window with the URL http://www.crs-geo.eu/nn_124226/crseu/EN/CRS_Description/crs-national_node.html?_nnn=true. The page title is "CRS-EU national CRS". The main heading is "Coordinate Reference Systems in Europe". The left sidebar contains a navigation menu with "national CRS" selected, and a "Service" section with links to "Sitemap", "Contact", and "Imprint".

The main content area is titled "Online transformation" and shows the conversion from "LV_LKS-92 to ETRS89". A red warning message states: "at present input only for ellipsoidal coordinates possible".

The transformation tool is divided into two columns: "Source" and "Target".

Source (national Datum LV_LKS-92 in):

- LV_TM [m]:** X / northing, Y / easting, ellip. height (input fields).
- ellipsoidal coordinates [DMS / m]:** Latitude (dd, mm, ss.ssss), Longitude (dd, mm, ss.ssss), ellip. height (hhhh.hhhh). Note: Longitude wrt Greenwich and positive to East.
- cartesian coordinates [m]:** X, Y, Z (input fields).

Target (pan-European Datum ETRS89 in):

- ETRS-TM xx [m]:** North, East, ellip. height (input fields).
- ellipsoidal coordinates [DMS / m]:** Latitude, Longitude, ellip. height (input fields). Note: Longitude wrt Greenwich and positive to East.
- cartesian coordinates [m]:** X, Y, Z (input fields).

A "Compute" button is located at the bottom right of the input fields. Below the tool, a disclaimer states: "Although we strive for the highest quality of data and data products, we can not make any warranty for the correctness and for damage from the application of this service. Any liabilities is excluded by the operator of the websites." Navigation links for "back" and "to the top" are at the bottom.

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Coordinate Reference Systems of Germany - DE

CRS Identifier	CRS Annotation	Select			
		Descr. of CRS	Descr. of Transf.	Online Transf.	
Position					
DE_DHDN / GK_3	Datum DHDN with Gauss-Krüger-System (also known as Rauenberg or Potsdam Datum)	↗	↗	↗	
DE_ETRS89 / UTM	Datum ETRS89 with UTM Projection	↗	↗		
DE_ETRS89 / UTM_BB	Datum ETRS89 in UTM projection with special modification for federal state Brandenburg	↗	↗		
DE_PD/83 / GK_3	Datum PD/83 with Gauss-Krüger-System (realisation of Potsdam Datum for federal state Thüringen)	↗	↗	↗	
DE_RD/83 / GK_3	Datum RD/83 with Gauss-Krüger-System (realisation of Rauenberg Datum for federal state Sachsen)	↗	↗	↗	
DE_42/83 / GK_3	Datum 42/83 with Gauss-Krüger-System	↗	↗	↗	
Height					
DE_AMST / NH	normal heights referred to tide gauge Amsterdam (also known as DHHN92)	↗	↗	↗	
DE_AMST / NOH	normal-orthometric heights referred to tide gauge Amsterdam (also known as DHHN85)	↗	↗	↗	
DE_KRON / NH	normal heights referred to tide gauge Kronstadt (also known as SNN76)	↗	↗	↗	

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http://www.crs-geo.eu/nn_124226/crseu/EN/CRS_Description/crs-pan-european_node.html?_nnn=true

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Description of CRS - ETRS89-LatLonh

Attribute	Entry
Country	pan-European CRS
Country identifier	EU
CRS identifier	ETRS89-LatLonh
CRS alias	ETRS89 Ellipsoidal CRS in INSPIRE: ETRS89-GRS80h EPSG code: 4937
CRS valid area	Europe
CRS scope	Geodesy, Cartography, Geoinformation Systems, Mapping
CRS remarks	primary coordinate system (CS), basis for all projected CS of ETRS89
Datum identifier	ETRS89
Datum alias	European Terrestrial Reference System 1989
Datum type	geodetic
Datum anchor point	
Datum realization epoch	
Datum valid area	Europe
Datum scope	European datum consistent with ITRS at the epoch 1989.0 and fixed to the stable part of the Eurasian continental plate for georeferencing of GIS and geokinematic tasks
Datum remarks	see Boucher, C., Altamimi, Z. (1992): The EUREF Terrestrial Reference System and its First Realizations. Veröffentlichungen der Bayerischen Kommission für die Internationale Erdmessung, Heft 52, München 1992, pages 205-213 - or - http://etrs89.ensg.ign.fr/

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Selection of transformation version for CRS: DE_AMST / NH

Transformation	Selection
DE_AMST / NH to EVRF2000	+
DE_AMST / NH to EVRF2007	+

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CRS-EU – Onlinetransformation Heights

Online transformation

DE_AMST / NH to EVRF2007

Source			
national height			
DE_AMST / NH [m] (DHHN92 EPSG code: 5783)	<input type="text" value="102.34"/>		
ETRS89 position of point			
Latitude [DMS]	<input type="text" value="50"/>	<input type="text" value="12"/>	<input type="text" value="1.8"/>
Longitude [DMS]	<input type="text" value="12"/>	<input type="text" value="34"/>	<input type="text" value="12.2"/>
Longitude wrt Greenwich and positive to East			
Target			
pan-European height			
EVRF2007 [m]	<input type="text" value="102.361"/>	RMS of transf. [m]	<input type="text" value="0.002"/>

Compute

CRS-EU – Status of the information (height, 2011)

Country	CRS-Description	CRS-Description (new)	Transformation to EVRF2000	Transformation to EVRF2007
Austria	released		released	existing
Belgium	released		released	released
Bosnia / Hercegovina	existing		existing	existing
Bulgaria	released		released	released
Switzerland	released		released	released
Czech Republic	released		released	released
Germany	released		released	released
Denmark	released		released	existing
Estonia	released		released	released
Spain	released		released	existing
Finland	released	existing	released	existing
France	released		released	existing
Great Britain	released		released	existing
Croatia	released	released	released	released
Hungary	released		released	existing
Italy	released		released	released
Lithuania	released		released	released
Latvia	released		released	released
Netherlands	released	existing	released	existing
Norway	released	existing	released	existing
Poland	existing	existing	existing	existing
Portugal	released		released	existing
Romania	released		released	released
Russia	existing		<i>EVRF2000 not available</i>	<i>EVRFxx will be available future</i>
Sweden	released	released	released	released
Slovenia			released	existing
Slovak Republic	released	released	released	released
Turkey	released		<i>EVRF2000 not available</i>	<i>EVRFxx will be available future</i>
Ukraine	existing		<i>EVRF2000 not available</i>	<i>EVRFxx will be available future</i>

CRS-EU – News

CRS-EU News

www.crs-geo.eu/nn_124210/crseu/EN/News/news__node.html?_nnn=true

Suchen

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News

Latvia
- adding description of new national CRS for height LAS-2000,5 and its transformation to EVRF2007
01-Apr-2015

Ukraine
- adding of transformation parameters from UA_UCS-2000 to ETRS89
22-May-2013

Ukraine
- correction of URL of Research Institute of Geodesy and Cartography to www.gki.com.ua
21-May-2013

Ukraine
- regarding information of Research Institute of Geodesy and Cartography in Kiev CRS descriptions for CRS
UA_UCS-2000 / XYZ
UA_UCS-2000 / Lat_Lon_h
UA_UCS-2000 / GK_6
UA_UCS-2000 / UA_TM
were added

Thank you for your kind attention!

Contact:

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