

# ISO Geodetic Registry

<i>Item class</i>	VerticalCRS	
<i>Name</i>	<b>EVRF2019 - NHt</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	765	
<i>Alias</i>	European Vertical Reference Frame 2019	
<i>Alias</i>	EVRF2019	
<i>Information source</i>	<i>Title</i>	Conventions for the Definition and Realization of a European Vertical Reference System (EVRS) - EVRS Conventions 2007
	<i>Author</i>	J. Ihde, J. Mäkinen, M. Sacher
	<i>Publisher</i>	International Association of Geodesy Subcommission 1.3a EUREF
	<i>Revision date</i>	2019-01-11
	<i>Other citation details</i>	<a href="https://evrs.bkg.bund.de/SharedDocs/Downloads/EVRS/EN/Publications/EVRFConventions2007.pdf">https://evrs.bkg.bund.de/SharedDocs/Downloads/EVRS/EN/Publications/EVRFConventions2007.pdf</a> (accessed 2020-11-30)
<i>Information source</i>	<i>Title</i>	EVRF2019
	<i>Author</i>	Bundesamt fuer Kartographie und Geodäsie
	<i>Publisher</i>	Bundesamt fuer Kartographie und Geodäsie
	<i>Revision date</i>	2020-09-07
	<i>Other citation details</i>	Website. <a href="https://evrs.bkg.bund.de/Subsites/EVRS/EN/EVRF2019/evrf2019.html">https://evrs.bkg.bund.de/Subsites/EVRS/EN/EVRF2019/evrf2019.html</a> (accessed 2020-11-30)
<i>Information source</i>	<i>Title</i>	EVRF2019 as new realization of EVRS
	<i>Author</i>	M. Sacher, G. Liebsch
	<i>Publisher</i>	International Association of Geodesy Subcommission 1.3a EUREF
	<i>Publication date</i>	2019-05-22
	<i>Series/Journal name</i>	EUREF Symposium 2019, Tallinn, Estonia
<i>Data source</i>	<i>Other citation details</i>	<a href="http://www.euref.eu/symposia/2019Tallinn/01-01-Sacher.pdf">http://www.euref.eu/symposia/2019Tallinn/01-01-Sacher.pdf</a> (accessed 2020-11-30)
	<i>ISO Geodetic Registry</i>	
	<i>Remarks</i>	European Vertical Reference Frame 2019 in zero tide system. See EVRF2019mean-NHt for mean-tide realization of EVRF2019. Replaces EVRF2007-NHt.
	<i>Scope</i>	Spatial referencing
	<i>Datum</i>	European Vertical Reference Frame 2019
<i>Coordinate System</i>	Vertical CS. Axis: height (H). Orientation: up. UoM: m.	

## Extent

<i>Description</i>	<b>Europe - onshore - Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France - mainland, Germany, Gibraltar, Hungary, Italy - mainland, Latvia, Liechtenstein, Lithuania, Luxembourg, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russia - west of approximately 60 deg E, San Marino, Slovakia, Slovenia, Spain</b>
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**- mainland, Sweden, Switzerland, Ukraine,  
United Kingdom - Great Britain mainland,  
Vatican City State.**

*Geographic Bounding Box*

*West-bound longitude*

-9.56

*North-bound latitude*

77.07

*East-bound longitude*

69.16

*South-bound latitude*

35.95

# ISO Geodetic Registry

<i>Item class</i>	VerticalDatum	
<i>Name</i>	<b>European Vertical Reference Frame 2019</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	763	
<i>Alias</i>	EVRF2019	
<i>Information source</i>	<i>Title</i>	EVRF2019
	<i>Author</i>	Bundesamt fuer Kartographie und Geodaesie
	<i>Publisher</i>	Bundesamt fuer Kartographie und Geodaesie
	<i>Revision date</i>	2020-09-07
	<i>Other citation details</i>	Website. <a href="https://evrs.bkg.bund.de/Subsites/EVRS/EN/EVRF2019/evrf2019.html">https://evrs.bkg.bund.de/Subsites/EVRS/EN/EVRF2019/evrf2019.html</a> (accessed 2020-11-30)
<i>Information source</i>	<i>Title</i>	Conventions for the Definition and Realization of a European Vertical Reference System (EVRS) - EVRS Conventions 2007
	<i>Author</i>	J. Ihde, J. Mäkinen, M. Sacher
	<i>Publisher</i>	International Association of Geodesy Subcommission 1.3a EUREF
	<i>Revision date</i>	2019-01-11
	<i>Other citation details</i>	<a href="https://evrs.bkg.bund.de/SharedDocs/Downloads/EVRS/EN/Publications/EVRFConventions2007.pdf">https://evrs.bkg.bund.de/SharedDocs/Downloads/EVRS/EN/Publications/EVRFConventions2007.pdf</a> (accessed 2020-11-30)
<i>Information source</i>	<i>Title</i>	EVRF2019 as new realization of EVRS
	<i>Author</i>	M. Sacher, G. Liebsch
	<i>Publisher</i>	International Association of Geodesy Subcommission 1.3a EUREF
	<i>Publication date</i>	2019-05-22
	<i>Series/Journal name</i>	EUREF Symposium 2019, Tallinn, Estonia
	<i>Other citation details</i>	<a href="http://www.euref.eu/symposia/2019Tallinn/01-01-Sacher.pdf">http://www.euref.eu/symposia/2019Tallinn/01-01-Sacher.pdf</a> (accessed 2020-11-30)
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	EVRF2019 is realized by an adjustment of geopotential numbers of the Unified European Levelling Network in the zero-tide system, followed by computation of Normal heights, referenced to the GRS80 ellipsoid. Measurements of BY, CH, DK, EE, FI, LT, LV, NO, RU, SE were reduced to epoch 2000 using the vertical velocity model NKG2016LU for Nordic countries and a set of velocities for Switzerland, provided by Swisstopo. See EVRF2019mean for the mean-tide realization of EVRF2019. Replaces EVRF2007.	
<i>Anchor definition</i>	Height at Normal Amsterdams Peil (NAP) is zero, realised by least squares fit to 12 datum points of EVRF2007 solution.	
<i>Release date</i>	2020-09	
<i>Coordinate Reference Epoch</i>	2000.0	
<i>Scope</i>	Spatial referencing	

## Extent

<i>Description</i>	<b>Europe - onshore - Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France - mainland, Germany, Gibraltar, Hungary, Italy - mainland, Latvia, Liechtenstein,</b>
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**Lithuania, Luxembourg, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russia - west of approximately 60 deg E, San Marino, Slovakia, Slovenia, Spain - mainland, Sweden, Switzerland, Ukraine, United Kingdom - Great Britain mainland, Vatican City State.**

*Geographic Bounding Box*

*West-bound longitude*

-9.56

*North-bound latitude*

77.07

*East-bound longitude*

69.16

*South-bound latitude*

35.95

# ISO Geodetic Registry

<i>Item class</i>	VerticalCS	
<i>Name</i>	<b>Vertical CS. Axis: height (H). Orientation: up. UoM: m.</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	42	
<i>Information source</i>	<i>Title</i>	ISO 19111 Geographical information - Spatial referencing by coordinates
	<i>Author</i>	International Organization for Standardization (ISO)
	<i>Publisher</i>	International Organization for Standardization (ISO)
	<i>Publication date</i>	2007-07-01
	<i>Edition</i>	Second Edition
	<i>Series/Journal name</i>	International Standard
	<i>Issue identification</i>	ISO 19111:2007
	<i>Data source</i>	ISO Geodetic Registry
<i>Remarks</i>	Used in vertical coordinate reference systems.	

## Axes

<i>Item class</i>	CoordinateSystemAxis	
<i>Name</i>	<b>Gravity-related height</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	35	
<i>Information source</i>	<i>Title</i>	ISO 19111 Geographical information - Spatial referencing by coordinates
	<i>Author</i>	International Organization for Standardization (ISO)
	<i>Publisher</i>	International Organization for Standardization (ISO)
	<i>Publication date</i>	2007-07-01
	<i>Edition</i>	Second Edition
	<i>Series/Journal name</i>	International Standard
	<i>Issue identification</i>	ISO 19111:2007
	<i>Data source</i>	ISO Geodetic Registry
<i>Remarks</i>	Used in a 1D vertical coordinate system.	
<i>Abbreviation</i>	H	
<i>Direction</i>	up	
<i>Unit</i>	metre	