

# NATIONAL REPORT OF LITHUANIA TO EUREF 2015

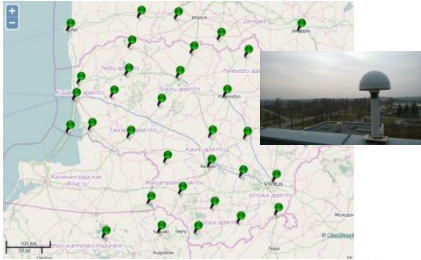
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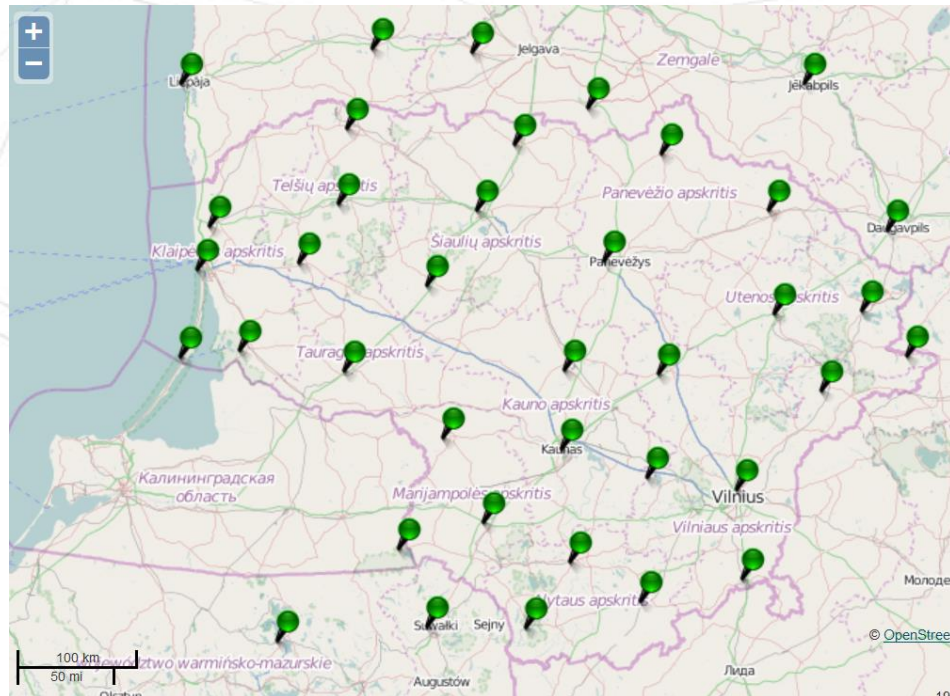
Leipzig, Germany 2015



- CORS Network LitPOS
- New height and gravity system
- Orthophotomapping

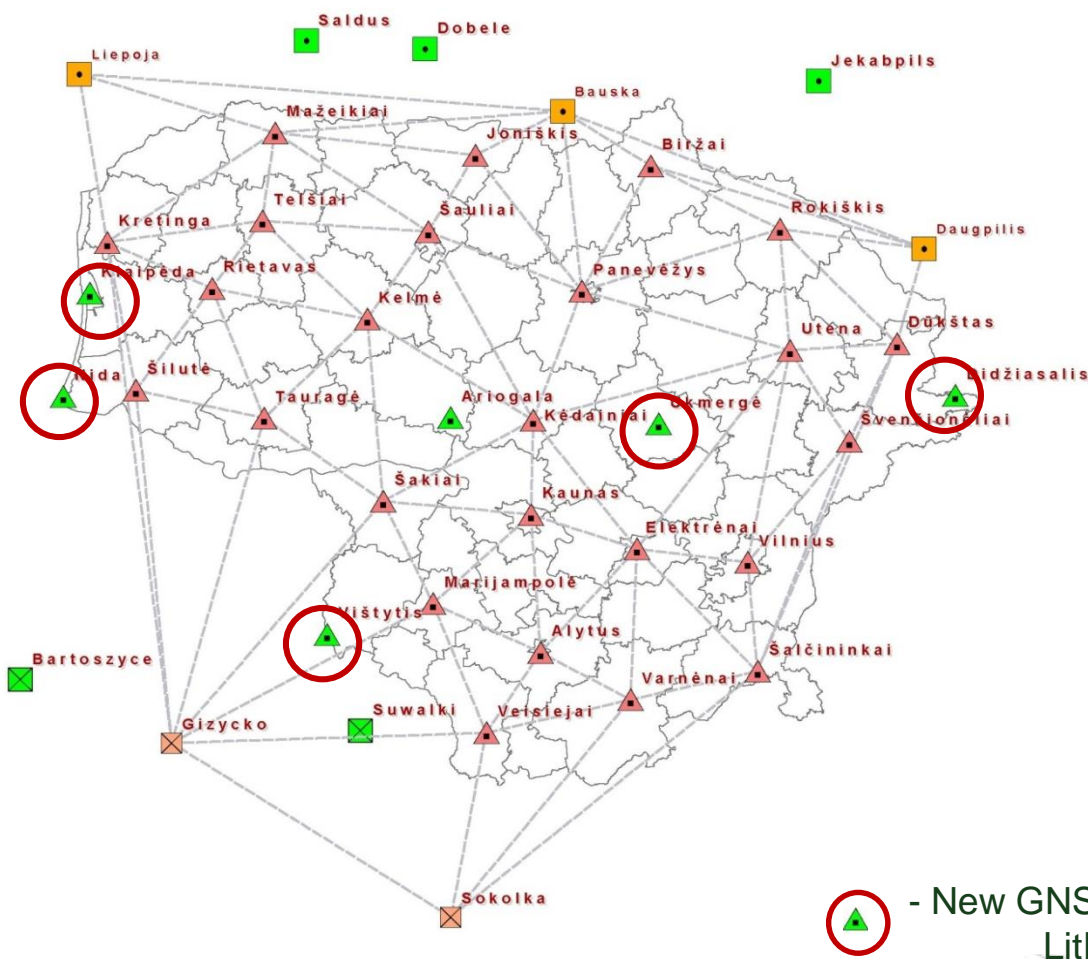


LitPOS (Lithuanian Positioning System), the network of permanent reference GNSS stations, became operational in July 2007. It provides data both for real-time and post-processing applications.



CORS Network - LitPOS

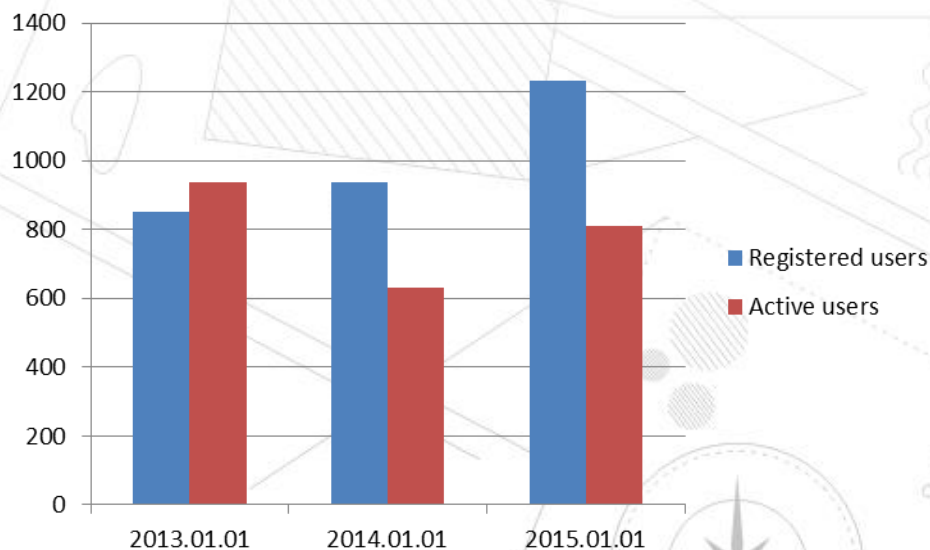
2014: added 5 new GNSS stations.



LitPOS stations cover the whole territory of Lithuania. Total number of LitPOS GNSS stations is 30. LITPOS users can use 2 ASG-EUPOS Polish stations and 6 LATPOS Latvian stations.

User statistics (2015-05-01):

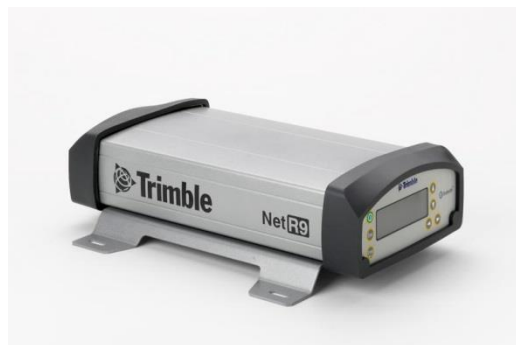
- **Number of LitPOS registered users: 1232(+296)**
- **Numbers of active users: 809 (+180)**





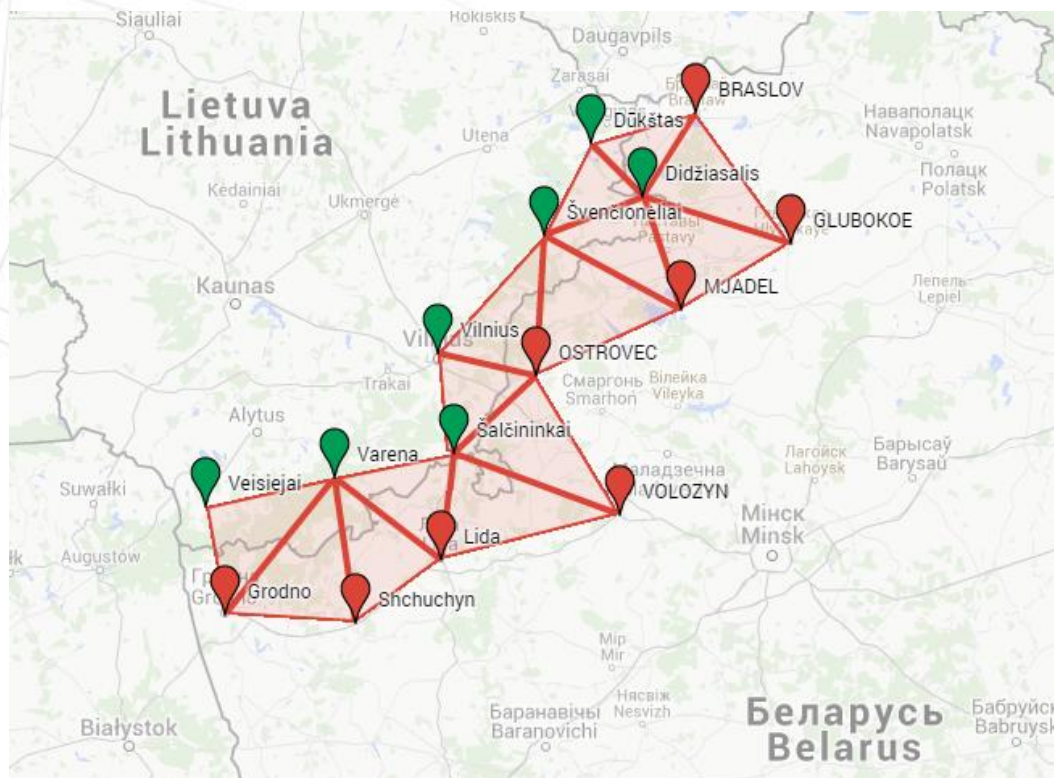
2014-2015: renewed all 30 stations (receivers + antennas) and software:

- **New receivers – Trimble NetR9**
- **New antennas – Trimble GNSS-Ti Chokering**
- **New software – Trimble Pivot**



Plans for 2015-2016:

- **Connect 8 stations to LitPOS from Belarus to cover border area.**



# New height and gravity system (1)



In August 20, 2014, the Government of Lithuania issued the decision No791 to introduce in Lithuania new height system LAS07 and gravity system LSS07 from the January 1st, 2016. The new height system coincides with the European Vertical Reference System 2007, and new gravity system is based on absolute gravity measurements.





# New height and gravity system (2)



2013-2015 Precise levelling (second order, 2200km)



# New height and gravity system (3) NŽT

Precise levelling (second order, 2200km)

Total length of lines – 2800 km:

Ready - 300 km (in 2007) + 300 km (in 2012);

Foreseen – 2200 km (in 2013-2015);

Total number of points - 3300 (new –2800);

## Characteristics of projected 2nd order Network

Region	Average length of line, km	Area, thousand km <sup>2</sup>	Perimeter of projected network, km	Projected lines			Density of projected network, km/1000 km <sup>2</sup>
				Number of lines	Runs which coincide with lines of old levelling, km	New runs, km	
South	27,4	12,6	958	35	692	266	76,0
East	32,8	11,5	854	26	276	578	74,3
North	29,6	15,3	1094	37	635	459	71,5
West	27,5	15,2*	1154	42	812	342	75,9
Centre	31,5	10,2	818	26	708	110	80,2
	<b>29,4</b>	<b>64,8</b>	<b>4878</b>	<b>166</b>	<b>3123</b>	<b>1755</b>	<b>75,3</b>



# ORTOPHOTO MAPS (1)



M 1:10 000 (1996–1999)

M 1:10 000 (2005–2006)

M 1:10 000 (2009–2010)

M 1:5 000, M 1:10 000 (2012–2013)



# UPDATING OF ORTHOPHOTO MAPS IN 2015–2017 (2)



Starting from the Y 2015 updating of orthophoto maps in Lithuanian territory will be done **in period of 3 years**. **Each year 1/3 of Lithuanian territory** will be covered with orthophoto maps.

Spatial resolution (pixel size) less than **25 cm** on the ground.

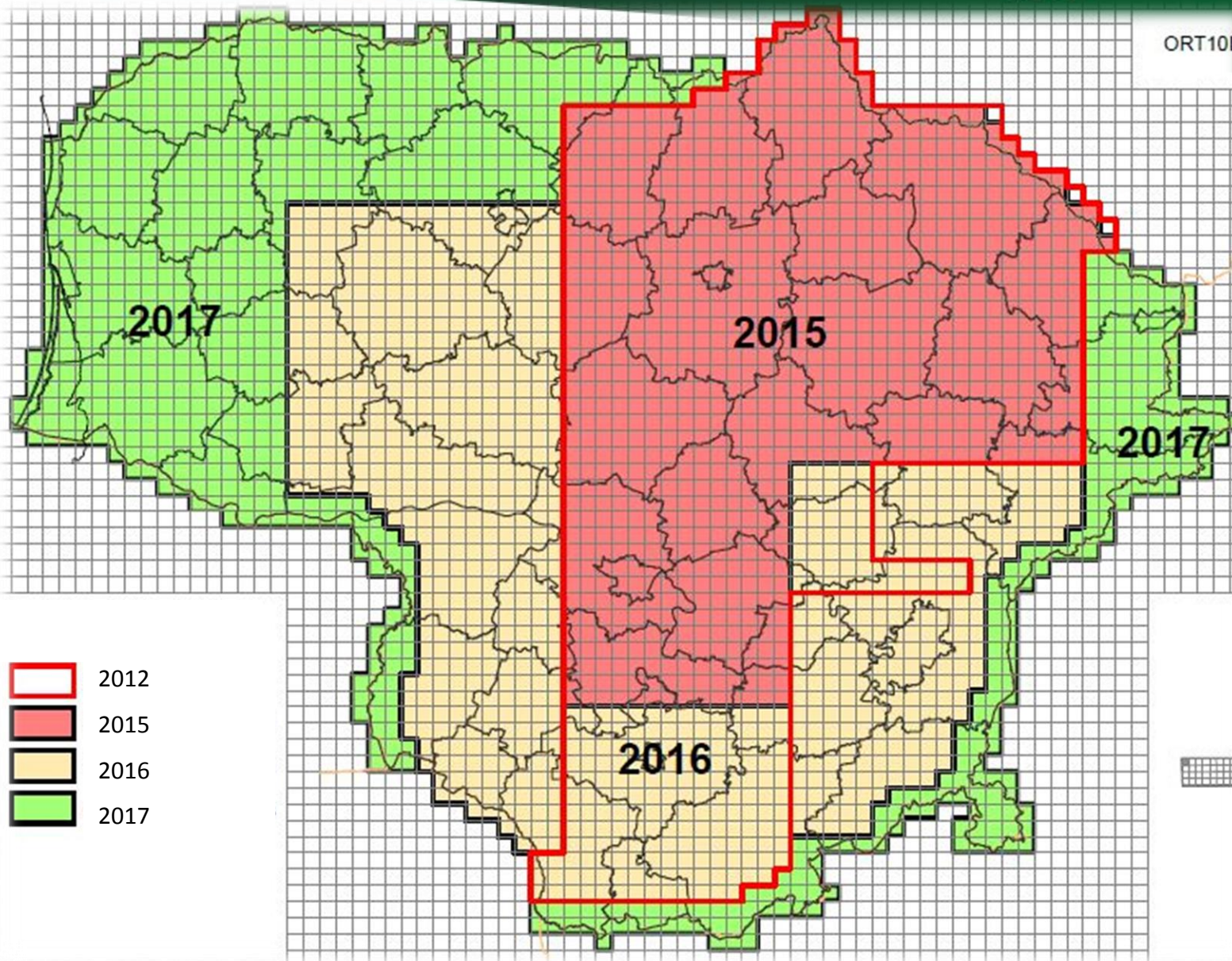
Accuracy of orthophoto maps, described in RMSE, do not exceed **1,25 m**.







ORT10LT





***THANKS FOR YOUR ATTENTION !***

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