LVĢMC

PRIORITY SUBSTANCES INVENTARIZATION AND MONITORING PROGRAMME OPTIMIZATION

2016

ICELAND LIECHTENSTEIN NORWAY
eea grants
EEE PARAMA LIETUVAI:
partnerystė vertybėms kurti ir išsaugoti

Main tasks

1. **Analysis of available data** on priority and hazardous substances **in** Lithuanian **environment**, **determination of pollution sources** (both – point and diffuse sources) and **amounts**;
2. **Monitoring** of priority and hazardous substances **in water, bottom sediments** and **biota**, as well as in **wastewaters** and **wastewater sludge** in Lithuania during year 2015;
3. **Assessment of** water **chemical quality**, taking into account long-term data and results from implemented projects, trend analysis;
4. **Preparation of** optimized **monitoring program for priority and hazardous substances** for period 2016-2021, taking into account results from first three tasks, for rivers, lakes, Couronian lagoon and Baltic Sea.

These steps will help to implement requirements of WFD and it's daughter directive – EQS directive, and results will be useful for River basin management plans.

Task 1 – Data analysis

Finished (presented in midterm report)**:**

- Data analysis on point source data and diffuse point pollution (agriculture and atmosphere)
- Data analysis form AIVIKS data base about used, placed on market, imported and exported priority substances
- Summarized results from previous projects in all matrixes

Task 1 – Problems occurred

- Data about point pollution in years 2013 and 2014 was not complete
- Poor data from IS AIVIKS database, especially, data on import and export, which reduces possibility to prepare an inventory on priority substances
- Lack of data about diffuse pollution from atmosphere

Task 2 - Monitoring

- Within current project all **45 priority substances from EQS Directive 2013/39/EU are analyzed**

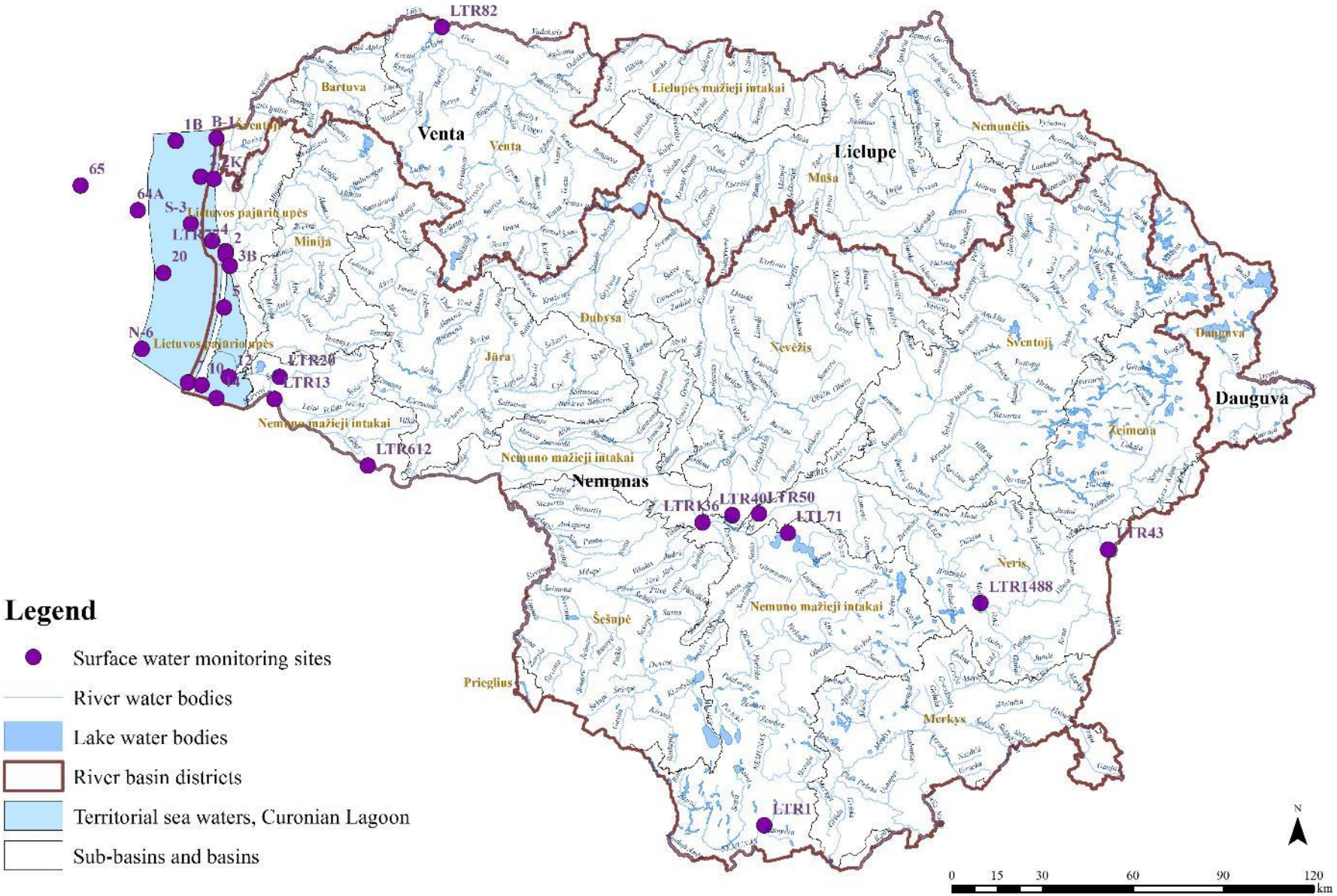
- **Monitoring** of **surface waters, sediments and biota** in rivers and lakes, Baltic Sea and Couronian lagoon, is **almost finished:**

  ~250 samples have been collected and analyzed during year 2015 (98 %). Missing samples from Baltic Sea were collected on March 2016.

- **Watch list monitoring** (EC decision 2015/495)

  has started on beginning of March, first 4 samples (33%) were collected

Sites for surface water monitoring



Task 2 - Monitoring

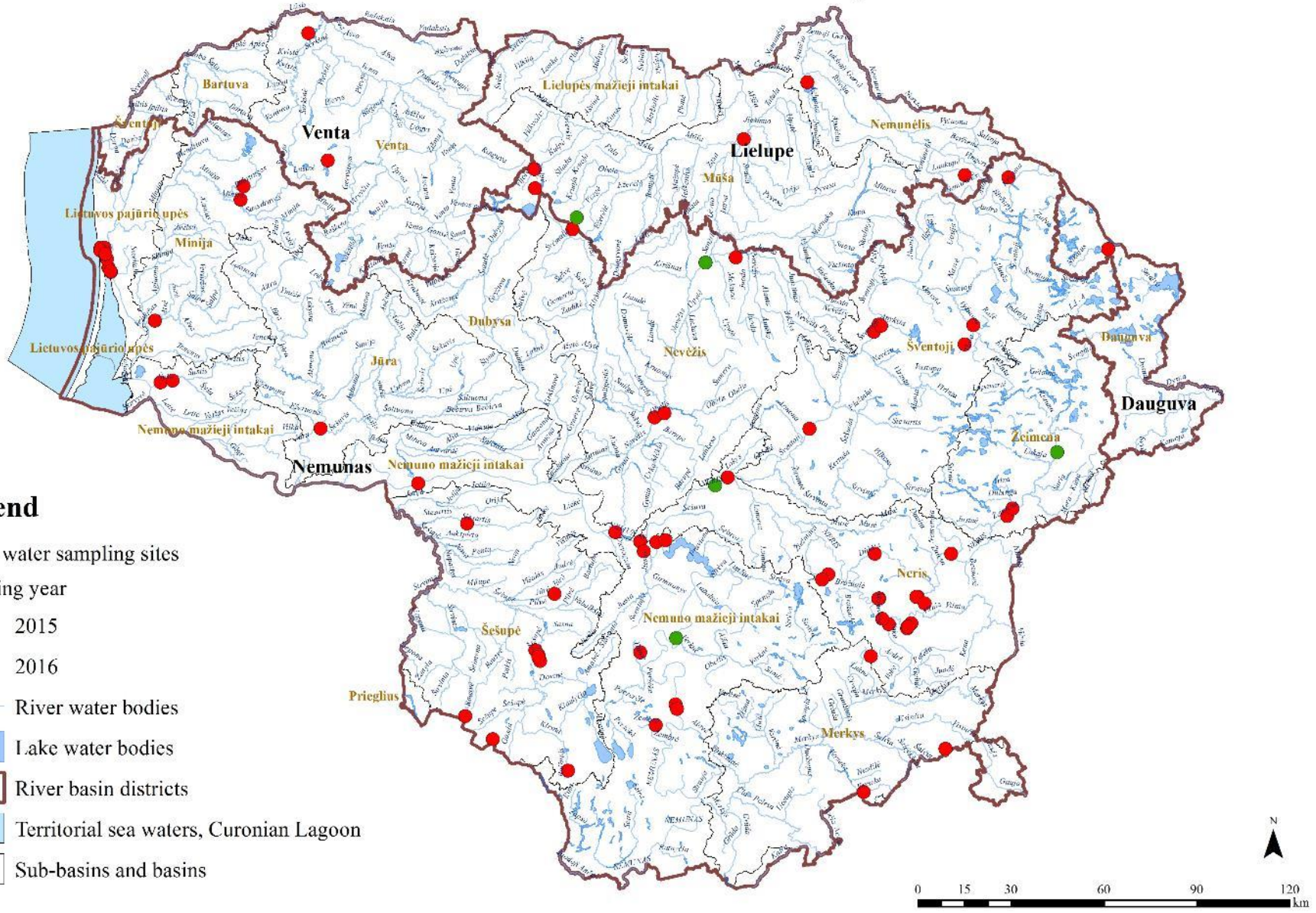
- **Waste water monitoring** started in **July 2015**

  78 sampling sites have been monitored during year 2015 2 times each (96% of samples collected), missing samples will be collected on April and May 2016.

  Amounts of samples planned:

  - 160 waste water samples;
  - 90 surface water samples;
  - 40 sewage sludge samples;
  - 40 bottom sediment samples.

Sites for waste water monitoring



Amounts of samples (SW and WW)

Parameter	Samples in Total
C10-C13 Chloroalkanes	357
DEHP	196
PAH	491
PFOS/PFOA	399
Phenols	333
Pesticides	520
VOCs	248
HBCDD	496
POPs	423
Tributyltin	472

The test reports will be prepared after **all** analyses will be finished

Task 3 – Assessment of water chemical quality

- **Monitoring and project results** during last 15 years (2000-2015) are **evaluated**
- **Data analysis** by monitoring stations and by matrices (water, sediments and biota) **is almost finished**

  - Content and format of the data analysis has been accepted by contracting organization (80 % of work already done)

Task 3 – Assessment of water chemical quality

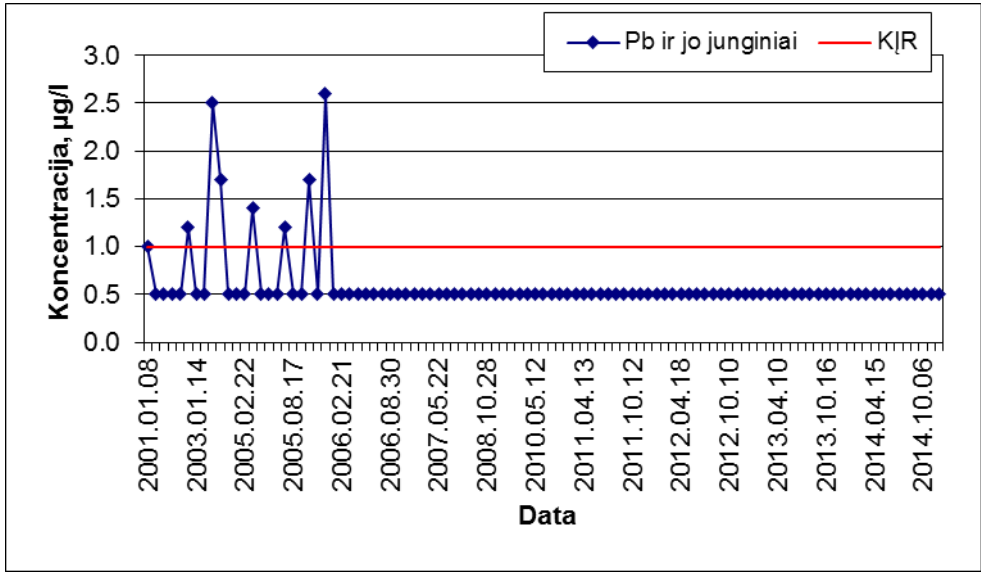
Medžiagų koncentracijų DLK-AKS ir MV-AKS viršijimai 2001-2013 m.

LTR127 Skirvytė ties Rusne

Metai	Medžiaga				
	Cd ir jo junginiai (Nr. 6)	DEHP (Nr. 12)	Pb ir jo junginiai (Nr. 20)	Hg ir jo junginiai (Nr. 21)	Poliaromatiniai angliavandeniliai (Nr. 28)
2001				DLK-AKS	
2003			MV-AKS		
2007	DLK-AKS				
2011		MV-AKS			
2012				DLK-AKS	
2013					DLK-AKS

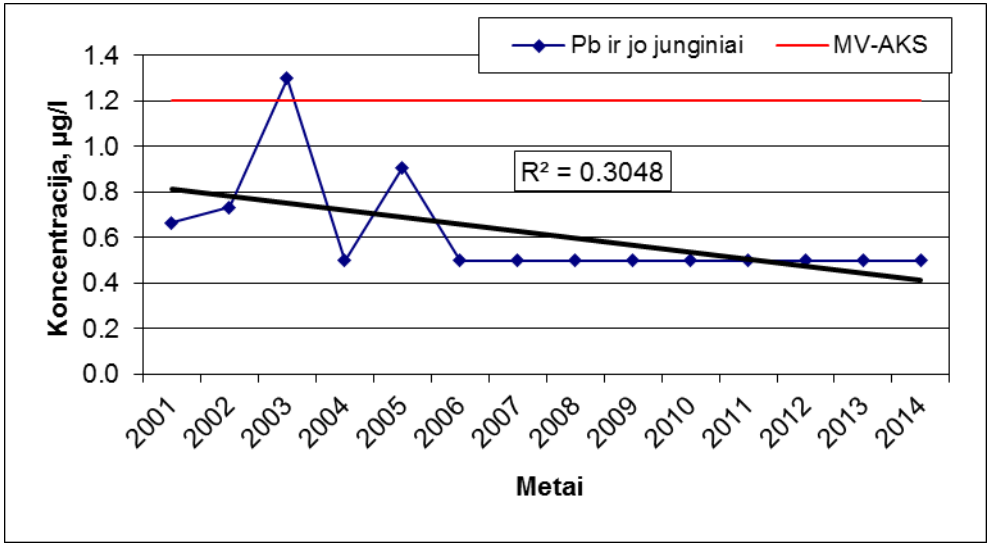
Prepared for each monitoring station with multiple EQS exceedances

Task 3 – Assessment of water chemical quality



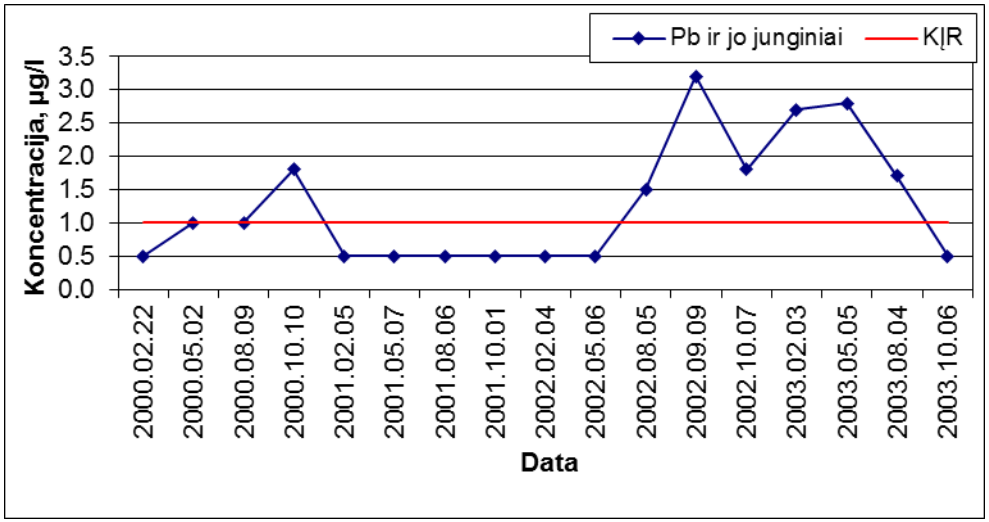
LTR127 Skirvytė ties Rusne

Pb ir jo junginių (medžiaga Nr. 20) monitoringo vandenyje duomenys 2001-2014 m.



Pb ir jo junginių (medžiaga Nr. 20) vidutinių metų koncentracijų vandenyje duomenys 2001-2014 m.

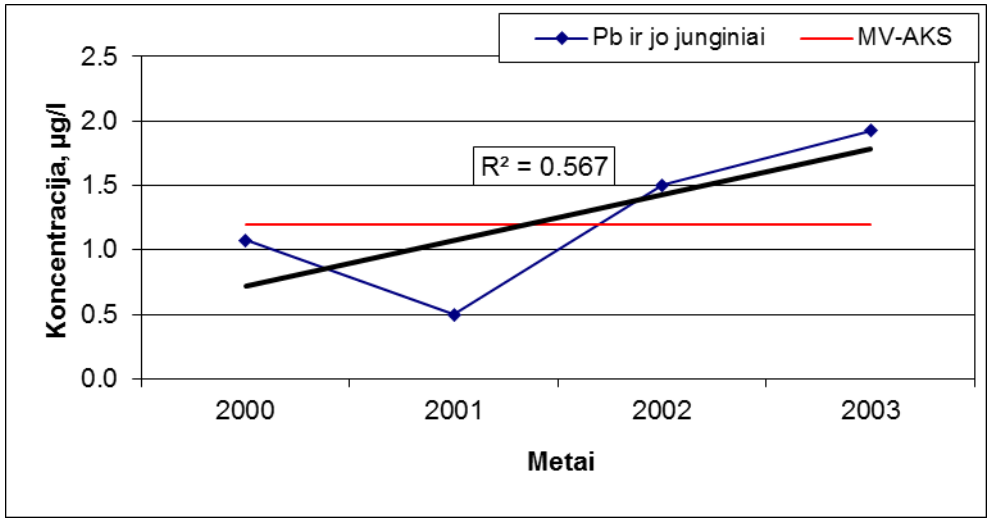
Task 3 – Assessment of water chemical quality



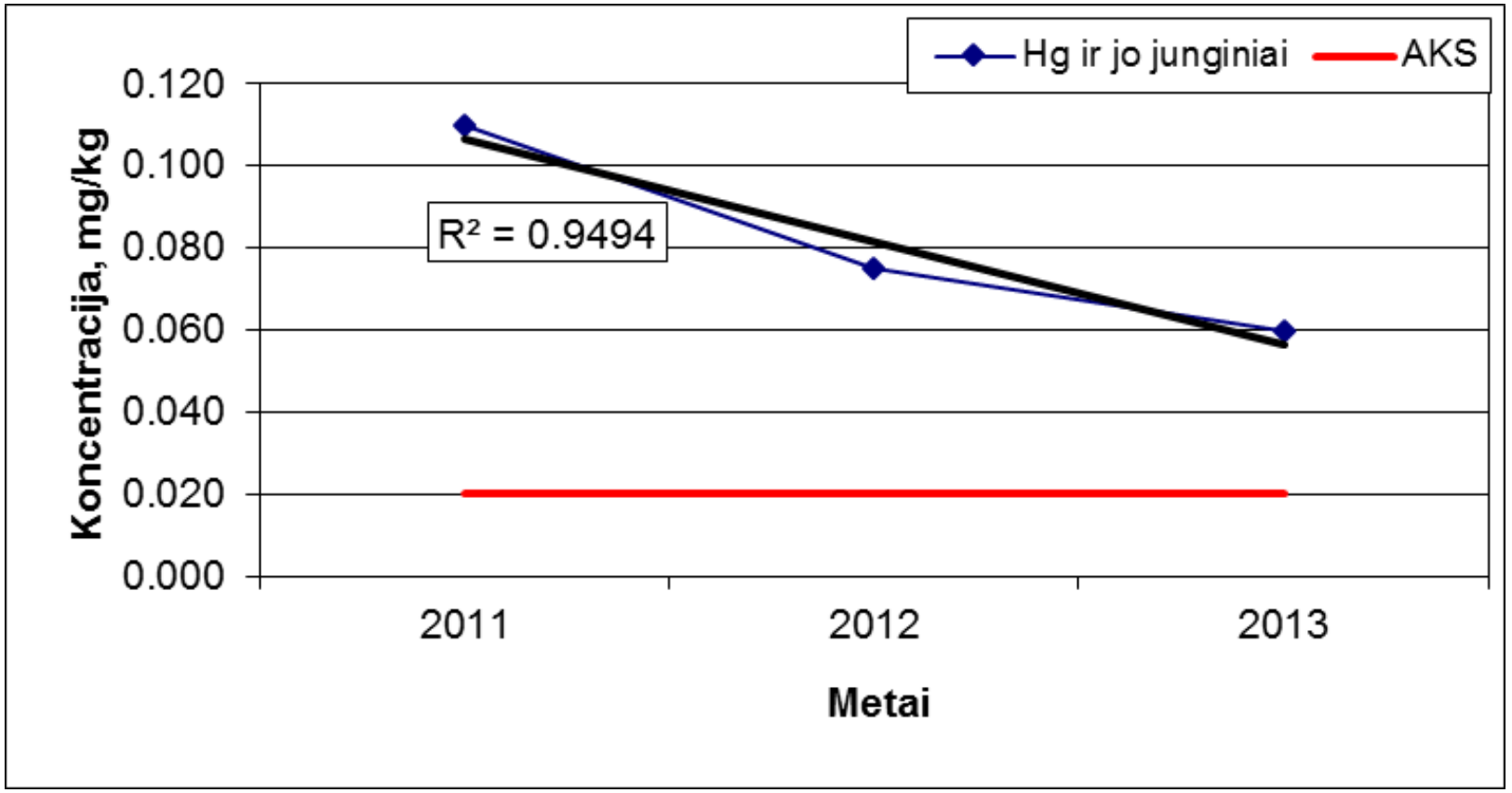
LTR49 Neris žemiau Jonavos

Pb ir jo junginių (medžiaga Nr. 20) monitoringo vandenyje duomenys 2000-2003 m.

Pb ir jo junginių (medžiaga Nr. 20) vidutinių metų koncentracijų vandenyje duomenys 2000-2003 m.

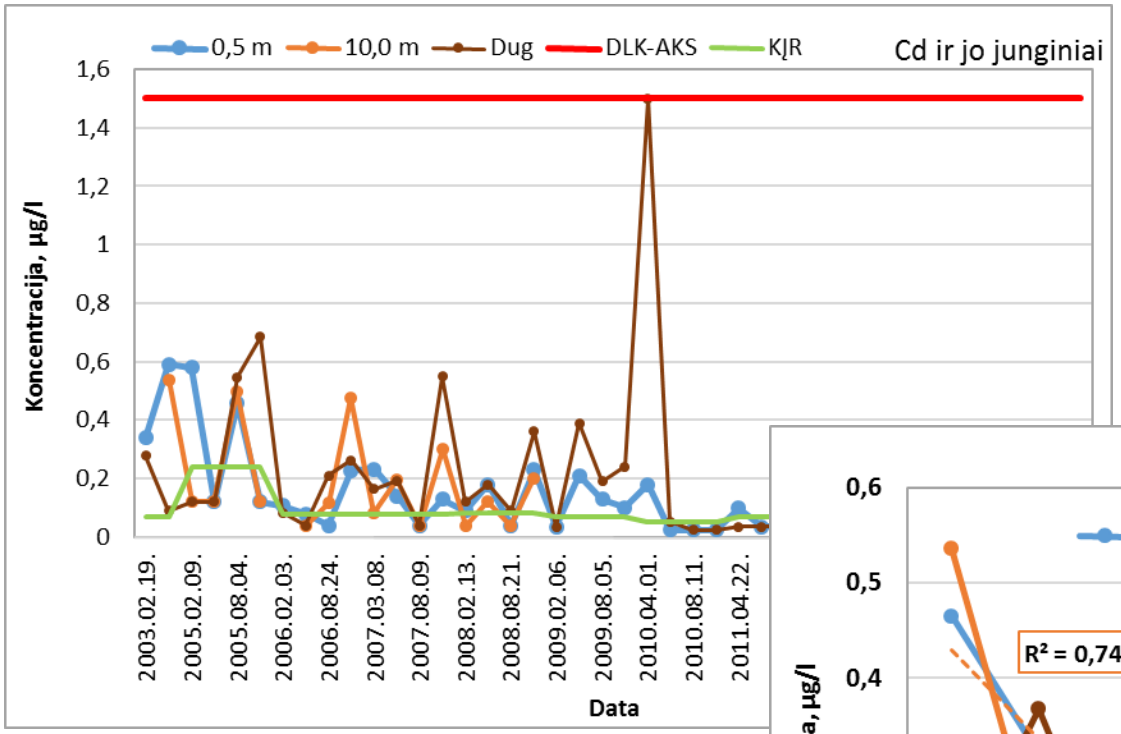


Task 3 – Assessment of chemical quality - biota

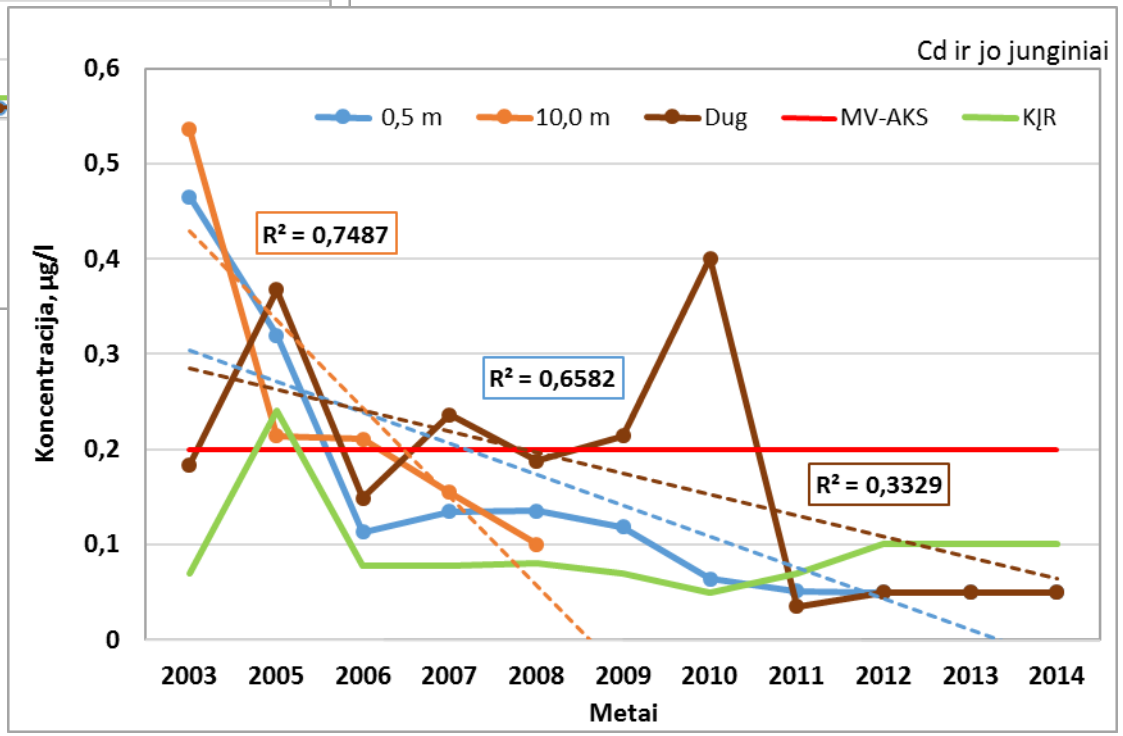


LTR49 Neris žemiau Jonavos

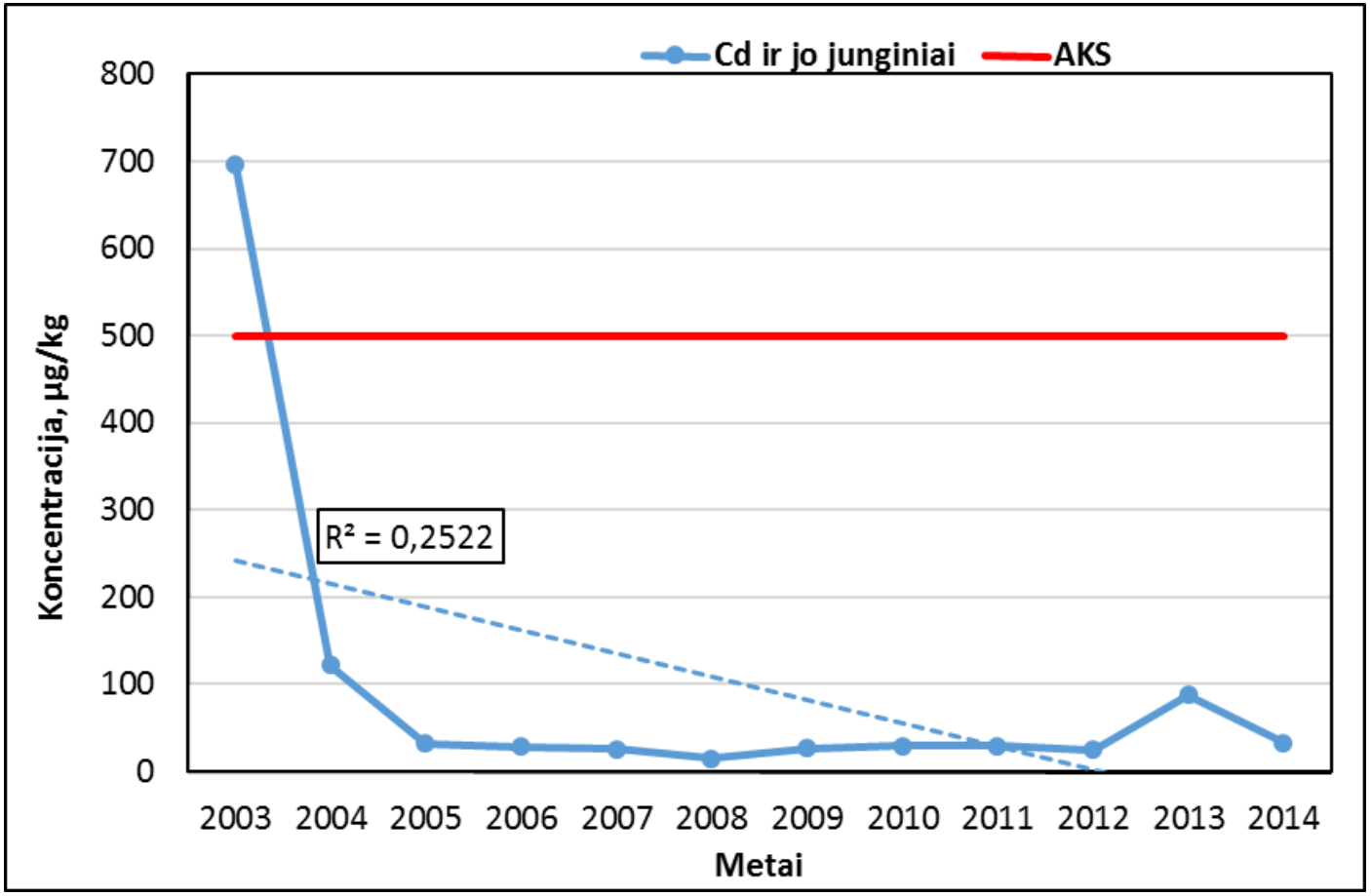
Task 3 – Assessment of water chemical quality



Baltijos jura (monitoringo vietos Nr. 7)



Task 3 – Assessment of chemical quality sediments



Baltijos jura (monitoringo vietos Nr. 7)

Task 4 – monitoring program optimization

- **Surface water monitoring program by water type** (Baltic sea, Couronian Lagoon, Rivers and Lakes) and **by matrices** (water, bottom sediments, biota) **will be developed**
- Surface water monitoring **program will be compared with 2 EU countries**
- **Will start**, when most part of previous tasks will be finished

Summary

- All task results will be summarised and supplemented by **GIS data**
- In general **implementation of project is progressing according to prolonged plan**, all tasks are expected to be completed on time
- **Communication** with contracting organization is **in good level**

VSIA “LATVIJAS VIDES, ĢEOLOĢIJAS UN METEOROLOĢIJAS CENTRS”

Maskavas 165, Rīga
www.meteo.lv
www.lvgmc.lv
lvgmc@lvgmc.lv
Tālr. 67032600,
Fakss 67145154