

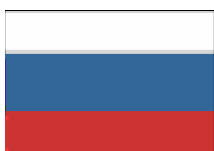


# **„INTEGRATED SUSTAINABLE WASTE MANAGEMENT“ FOR SIBERIAN COMPANIES AND AUTHORITIES**



*EUROPEAN EDUCATIONAL COOPERATION PROJECT  
WITHIN THE PROGRAM **TEMPUS IV***

*with the participation of Russia, Germany, Austria, Denmark, and Greece*



## **REPORT WORKPACKAGE NO. 9 “DISSEMINATION OF RESULTS”**

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*Ulan-Ude, 2016*

**TEMPUS IV** is a programme supported by the European Union. It is aimed to encourage the modernization processes in the higher education of the partner countries of the Eastern Europe, Central Asia, Western Balkans and the Mediterranean region mainly through inter-university cooperation projects. The main goal of the programme is to widen the cooperation in the higher education between the European Union and the partner countries in the context of the realization of the Lisbon Strategy and the Bologna Process. Besides the improvement of the cooperation at the level of educational institutions, TEMPUS contributes to establishing and developing the interpersonal communication.



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## **1. DESCRIPTION OF WORKPACKAGE NO. 9**



### **WORKPACKAGE NO. 9: “DISSEMINATION OF RESULTS”**

1-36 months

#### **Related assumptions and risks**

- Missing financial resources for conference participations

#### **Description of workpackage**

A detailed coordination of activities is determined within the consortium to disseminate contents and results of the project. Results will be presented at conferences, at fairs and other events of the industry. An dissemination is ensured by specific activities in public relations (press releases (at least one per semester), press articles (at least one per semester), interviews with media). Final results will be presented at the final conference (planned participants: 200-300), which is conducted in month 34 in Irkutsk (ISTU) in connection with coordination meeting 4. Participating representatives of other Russian cities and regions (professional associations, authorities, companies) ensure an dissemination of the training course/ results of the project on an national level.

The course materials addressing determined industry sectors (6 textbooks with each 300 copies) are produced (print).

Moreover, an important source of information is the website to disseminate project results. The website will be developed in the first three month of the project and is continuously updated with current contents and outcomes and is provided in Russian, English and German. The website consists of a intranet, a documents centre (download area), will offer a forum for discussions, presents project partner, presents the Baikal Wasma Centre and presents latest results.

The results are made known on a scientific level by means of published papers and conference articles. Company associations (RB UIE, EuroRuss, NUEWM) disseminate results via their networking activities, at events (self-organized or participation) and by releasing publications. The journal “ECOmonitoring” is used to make important results of the project accessible to a broad public: Russian authorities, competent state of local governments of Russia as well as company associations and educational and scientific institutions in Russia and Europe. Results will be published in Russian, English and German language.

#### **9.1. Further development of dissemination of results**

A detailed coordination of activities is determined within the consortium to disseminate contents and results of the project.

It includes

- the search for possible conferences for participation,
- possible journals for publication,
- possible media events,
- possible interviews with possible media and
- possible events of the project consortium as well as company associations (NUEWM, EuroRuss, RB UIE) for presenting the project and its outcomes on a national and international level.

#### **9.2. Presentation of intermediate results**

An dissemination of intermediate results is ensured by

- specific activities in public relations (press releases (at least one per semester), press articles (at least one per semester), interviews with media).

-

### 9.3. Production of course materials

- finalized course materials are printed (6 textbooks with each 300 copies)

### 9.4. Papers, participations at conferences

An dissemination of (intermediate) results is ensured by

- publishing of papers at journals (e.g. Waste Management)
- participation at determined, specific conferences, (e.g. Venice Symposium 2014, Sardinia 2015)
- participation at fairs (e.g. IFAT)
- participation at other events of the industry (e.g. events of EuroRuss)

### 9.5. Final conference and dissemination

Final results will be presented at the final conference

- planned participants: 200-300, from industry, authorities and universities across Russia and Europe

- conducted in month 34 in Irkutsk (ISTU) in connection with coordination meeting 4.

Participating representatives of other Russian cities and regions (professional associations, authorities, companies) ensure an dissemination of the training course/ results of the project on an national (Russia) and international level (Europe).

### 9.6. Updating of website

- website will be developed in the first three month of the project
- is continuously updated with current contents and outcomes
- is provided in Russian, English and German.

The website consists of

- an intranet (access only for Project partners and participants, to exchange documents)
- a documents centre (download area for public visitors),
- forum for discussions,
- different slides that presents project partner, the Baikal Wasma Centre and latest results.
- link area to related topic

**Lead partner ESSUTM, (Ulan Ude), RF**

**Tab: 9.1. Role and tasks in the workpackage**

Role and tasks in the workpackage	Partner	Number of staff days
<ul style="list-style-type: none"> <li>- Coordination of the work package</li> <li>- Publication of (intermediate) results</li> <li>- Collaboration in preparing the final conference</li> </ul>	ESSUTM	39
<ul style="list-style-type: none"> <li>- Publication of (intermediate) results</li> <li>- Participation at the final conference</li> <li>- Writing and publishing of papers and conference contributions</li> <li>- Public relations</li> <li>- contributions to contents of website</li> </ul>	TUD	27
<ul style="list-style-type: none"> <li>- Participation at the final conference</li> <li>- Writing and publishing of papers and conference contributions</li> <li>- Public relations</li> </ul>	BOKU	5



<ul style="list-style-type: none"> <li>- Publication of results</li> <li>- Participation at the final conference</li> <li>- Writing and publishing of papers and conference contributions</li> <li>- Public relations</li> </ul>	DTU	5
<ul style="list-style-type: none"> <li>- Publication of results</li> <li>- Participation at the final conference</li> <li>- Writing and publishing of papers and conference contributions</li> <li>- Public relations</li> </ul>	TUC	5
<ul style="list-style-type: none"> <li>- Publication of results</li> <li>- Participation at the final conference</li> <li>- Writing and publishing of papers and conference contributions</li> <li>- Public relations</li> <li>- Contributions to Internet website</li> </ul>	ISTU TU Irkutsk	48
<ul style="list-style-type: none"> <li>- Publication of results</li> <li>- Participation at the final conference</li> <li>- Writing and publishing of papers and conference contributions</li> <li>- Public relations</li> </ul>	STU	10
<ul style="list-style-type: none"> <li>- Publication of results</li> <li>- Participation at the final conference</li> <li>- Writing and publishing of papers and conference contributions</li> <li>- Public relations</li> </ul>	FEFU	6
<ul style="list-style-type: none"> <li>- Publication of results</li> <li>- Participation at the final conference</li> <li>- Writing and publishing of papers and conference contributions</li> <li>- Public relations</li> </ul>	RB UIE	10
<ul style="list-style-type: none"> <li>- Publication of results</li> <li>- Participation at the final conference</li> <li>- Writing and publishing of papers and conference contributions</li> <li>- Public relations</li> <li>- Writing and publishing of project results in the journal "ECOMonitoring"</li> </ul>	EuroRuss	15
<ul style="list-style-type: none"> <li>- Participation at the final conference</li> <li>- Dissemination of project results to contacts of Russian authorities</li> </ul> <p>(No staff costs are accounted for Russian authorities, as the law of corruption prohibits the payment of Russian employees of authorities by funds of the EU)</p>	MNREI MNR RB AI	3 3 3
<ul style="list-style-type: none"> <li>- Participation at the final conference</li> <li>- Dissemination of project results to contacts of Russian authorities and companies</li> </ul>	NUEWM	15

### Printing and publishing

- Project folder for dissemination of project results to stakeholders
- Print of course materials (in Russian) for the training course (6 textbooks with each 300 copies)
- Writing and publishing of project results in the journal "ECOMonitoring"

### Other costs

- Translator at final conference in Irkutsk and at networking events (guaranteeing an accurate communication)
- "Interproject coaching" to exchange experiences and lessons learned with other Tempus projects working on related topics

## **2. RESULTS OF THE PERFORMED ACTIVITIES OF WORKPACKAGE NO. 9**

### **9.1. FURTHER DEVELOPMENT OF DISSEMINATION OF RESULTS**

The project results were disseminated through the following events.

#### ***Opening of the project***

Opening of the project and the first coordination meeting took place in May 2014 at the Ministry of Natural Resources of the Republic of Buryatia and at ESSUTM. Representatives of waste management enterprises, specialists of the mining, wood, and engineering industries were invited to the meeting and, thus, were informed about the project and the advanced training course.

Opening of the project was **promoted** through the following media:

- the "Istok" newspaper (Irkutsk);
  - the "Chas Pik" newspaper, the article entitled "Coordination meeting of the TEMPUS project", Ulan-Ude (No. 5 (180) of 22.05.2014);
  - the newspaper of the Agricultural University of Vienna (Entwicklung eines abfallwirtschaftlichen Weiterbildungskurses für Unternehmen und Behörden in Russland)
- On the **websites of the universities**, the following information was published:
- the Department of Ecology and Life Safety won the second joint Tempus project "Integrated sustainable waste management" for the period 2014–2016  
<http://www.esstu.ru/uportal/news/view.htm?newsId=2644>;
  - on May 12-14, 2014, the Department of Ecology and Life Safety holds the first coordination meeting within the TEMPUS IV programme the European Union on the TIWaSiC project  
<http://www.esstu.ru/uportal/news/view.htm?newsId=3012>;
  - on May 12-14, 2014, the Department of Ecology and Life Safety held the first coordination meeting within Tempus programme of the European Union IV – 2013 TIWaSiC  
<http://www.esstu.ru/uportal/news/view.htm?newsId=3083>
  - the Department of Mineral Enrichment and Environmental Engineering NR ISTU won the grant of the Tempus programme for the second time  
<http://www.istu.edu/news/15269/>

#### ***Dissemination through seminars***

The seminar "Current state and problems in the sphere of industrial waste management in the main industries in the Siberian region and the Primorskiy krai" held at TbSU (Chita) was devoted to the issues of the waste management system in the regions. The event was attended by the representatives of administrative bodies and industries, who were informed about the project owing to the seminar and were interested in the advanced training courses. In addition, during the seminar, Altes TV channel broadcast the reportage about the project.

At the event, the website of the project was presented, which is one of the main sources of information about project for all the parties interested in waste management.

After the seminar, the following materials **were published**:

- Ostrov.ru newspaper "TEMPUS on the way to FEFU" <http://ostrov.dvfu.ru/-/tempus-na-puti-v-dvfu>;
  - Chas Pik newspaper "Seminar on the TEMPUS project in Chita" (No. 8 (183) of 28.10.2014)
- Seminar "The system of economic incentives for waste management businesses: the EU-Russia experience" was held at the Agricultural University of Vienna. The seminar was attended by the representatives of State Duma of the Russian Federation I.I. Nikitchuk and N.N. Burtseva, the representative of the Federal Ministry of Agriculture, Forestry, Environment and Water Management of Austria, and the administration of the Vienna city. Their participation contributed to the dissemination of the project results.

A special issue of the Russian–European journal "ECOmonitoring" devoted to the project was released for the seminar, which provides the comprehensive information on project for all the interested parties.



Also, the results of the survey at enterprises were discussed at the seminar. The data were published in the “ECOmonitoring” journal (O. Ulanova, F. Schneider, S. Salhofer. Sociological survey: analysis of problems and obstacles in the economic incentive system for industrial and waste management enterprises in the regions of the Russian Federation). Owing to the survey, the project was promoted in 13 regions of Russia because the questionnaires contained the brief information about the project and the project website. In total, about 510 questionnaires were distributed and 120 questionnaires were filled in. The questionnaires were offered to managers of enterprises, heads of production departments, ecologists, chief engineers, and people in charge of waste management dealing with industrial and municipal wastes.

The seminar was **promoted** through the following media:

- the newspaper of the Agricultural University of Vienna;
- the “Chas Pik” newspaper, “Seminar in Vienna”, Ulan-Ude (No. 1 (186) of 02.02.2015)

On **websites of universities**, the following information was published:

- The workers of NR ISTU studied the economic incentive systems for waste management enterprises at the Agricultural University of Vienna <http://www.istu.edu/news/17755/>;
- Scientists from Irkutsk studied the economic incentive systems for waste management enterprises in Vienna

<http://irkutsk.newsbomb.ru/listnews/predpriyatij-v-sfere-obrasheniya-s-othodami/28193728/>

- On December 8, 2014, the seminar “Economic incentive system for waste management enterprises. EU-Russia” in Vienna (Austria) will take place;  
<http://www.esstu.ru/uportal/news/view.htm?newsId=3345>;

- The international TEMPUS project

<http://www.esstu.ru/uportal/news/view.htm?newsId=3403>

The most significant seminar within the project was the international distance seminar meeting “Development of the regional network of environmentally oriented “green business” enterprises”. The event was attended by the project participants from Russia and the EU, the representatives of the Ministry of Natural Resources and Environment of the Irkutsk region, the administration of the Irkutsk city, the local branch of the JSC RZD, and the local “green business” enterprises of the Irkutsk region. The remote participants through the videoconference were the project partners from the cities of Ulan-Ude, Chita, Vladivostok, Kaliningrad, Moscow, and the regional branches of the TZD in 16 Russian cities.

The result of the international meeting was the decision to develop the Regional Association of waste management enterprises in the Irkutsk region. The creation of a network of environmentally oriented enterprises was one the project goals.

This event united more than three hundred workers of TZD branches from Vladivostok to Kaliningrad, who were informed about the project owing to the seminar.

At all the seminars and meetings **flyers** of 2 types were disseminated: three-language (Russian, English, German) and Russian. In total, 400 flyers were printed and disseminated.

The results of the seminar **were promoted** by the following media:

1. Regional Association of waste management enterprises was created in the Priangarie with the support of the INRTU

<http://irkutsk.newsbomb.ru/listnews/priangare-pri-podderzhke-irnitu/45748992/>

2. Association of waste management enterprises was created in the Irkutsk region

<http://irkutsk.newsbomb.ru/listnews/pererabotchikov-othodov-sozdan-v-irkutskoj/45764947/>

3. Association of waste management enterprises was created in the Irkutsk region

<http://irkutsk.newsbomb.ru/listnews/pererabotchikov-sozdan-v-irkutskoj/45765922/>

4. More than 50 enterprises of the Priangarie united in the Association of waste management enterprises

<http://irkutsk.newsbomb.ru/listnews/obedinilis-v-soyuz-pererabotchikov/45774004/>

### **Dissemination through the advanced training courses**

During the realization of the TIWaSiC project, the participants from 4 Russian universities underwent the internship on waste management on the following issues: “Waste analytics” at



the Technical University of Dresden; "Material flow analysis and life cycle assessment of waste" at the Technical University of Copenhagen; "Waste analysis" at the Agricultural University of Vienna; "Remediation of contaminated sites" at the Technical University of Crete. The internship was held at the partner universities, where the meetings with the heads of institutes and faculties, heads of laboratories, and tutors were organized. At websites of universities, the information about the courses and the project was published, the participants were interviewed, and the interviews were published in the university newspapers. All that contributed to the dissemination of the information about the project and its results.

In addition, in December 2015, the internship at the industrial enterprises of Germany took place. The most active participants of the first advanced training course (representatives of regional waste management enterprises) were also invited.

The excursions were aimed at visiting waste management enterprises in Germany and intensifying the contacts between the TIWaSiC project partners, regional enterprises of Russia, and European companies.

The courses were most actively **promoted** by the project participants:

1. the "Chas Pik" newspaper, "Foreign internships within the TEMPUS project", Ulan-Ude, (No. 10 (195) 26.11.2015)
2. Teachers of INRTU were trained to sort waste in Austria within the Tempus project <http://www.istu.edu/news/19575/>
3. Scientists of INRTU underwent the advanced training at the Technical University of Copenhagen (Denmark) <http://www.istu.edu/news/19208/>
4. Scientists of INRTU studied the approach of Greece to the waste management at industrial enterprises <http://www.istu.edu/news/21636/>
5. Workers of the Department "Ecology and Life Safety" underwent the internship at European universities within the international TEMPUS project <http://www.esstu.ru/uportal/news/view.htm?newsId=3836>
6. "International internships of the workers of the Department "Ecology and Life Safety" within the TEMPUS project" <http://www.esstu.ru/uportal/news/view.htm?newsId=4057>
7. Workers of the School of Engineering improved their qualification in Greece <http://www.dvfu.ru/schools/engineering/news/gresiu/>
8. Workers of the TbSU underwent the advanced training course in Germany, Denmark, and Austria within the Tempus project [http://www.zabgu.ru/php/open\\_news.php?query=sotrudniki\\_zabgu\\_proshli\\_kursy%27\\_povy%27\\_sheniya&news\\_page=1](http://www.zabgu.ru/php/open_news.php?query=sotrudniki_zabgu_proshli_kursy%27_povy%27_sheniya&news_page=1)
9. On December 7 to 11, "The meeting on the TEMPUS project TIWaSiC "Integrated sustainable waste management" for Siberian companies and authorities took place in Dresden" <http://www.esstu.ru/uportal/news/view.htm?newsId=4200>
10. The experience of waste management enterprises of Kaliningrad was recognized at the international level <http://rspoko.ru/news/opyt-kaliningradskih-pererabotchikov-othodov-poluchil-priznanie-na-mezhdunarodnom-urovne>
11. Workers of INRTU visited industrial enterprises of Germany within the TEMPUS project <http://irkutsk.newsbomb.ru/listnews/irnit-u-posetili-otraslevie-predpriyatiya/41621106/>

During the internships, the project participants took part in excursions and made the acquaintance of not only the international waste management experience but also the organizers of the waste management process. The parties could exchange business cards and flyers with the information about the project.

### ***Dissemination of results at the advanced training courses***

The internship for lecturers was a powerful incentive for the development of the new educational courses for participants from industrial enterprises and the for continuation of the international scientific and educational activities.

In autumn 2015, the first distance advanced training course "Integrated sustainable waste management. Housing and Communal Services" were held at the Far Eastern Federal

University in Vladivostok. The second course “Integrated sustainable waste management. Industry and Municipal Service” were held at the technopark of the INRTU in spring 2016.

The courses were broadcast to three universities. The long preparation preceded the courses: the invitation letters were sent to the environmental authorities and waste management enterprises of 5 industries with the information about the courses, the project, and the program of courses.

The advanced training courses attracted interest from both the regional authorities and enterprises directly implementing the waste management technologies.

The goal of the project was the organization of the knowledge transfer system to the representatives of all the levels in the process of waste management, thus, the distance courses proved efficient. In total, the advanced training courses were attended by about 200 people.

The courses were actively **promoted** by the project participants:

1. Department of Ecology and Life Safety of the Faculty of Ecology and Humanities of the Institute of Sustainable Development ESSUTM continue the active work within the international Tempus project

<http://www.esstu.ru/news/view.htm?newsId=3952>

2. The environmental education from the Russian Island to the coast of Baikal.

<http://www.istu.edu/news/21394/>

<http://irkutsk.newsbomb.ru/listnews/ekologicheskoe-obrazovanie-ot-ostrova/38456724/>

3. Achievements of INRTU in the environmental education system were presented at the international conference in Vladivostok. <http://www.istu.edu/news/21396/>

4. Second distance advanced training course “Integrated sustainable waste management”

<https://esstu.ru/uportal/faculties/viewNews.htm?newsId=4589>

5. The first distance advanced training course for enterprises of Chita were held at TbSU within the Tempus-IV project TIWaSiC

[http://www.zabgu.ru/php/open\\_news.php?query=pervy%27e\\_distancionny%27e\\_kpk\\_dlya\\_sotr\\_udnikov\\_predpriyatij\\_chity%27&news\\_page=1](http://www.zabgu.ru/php/open_news.php?query=pervy%27e_distancionny%27e_kpk_dlya_sotr_udnikov_predpriyatij_chity%27&news_page=1)

6. Distance course on waste management in industry and municipal services started at INRTU within the TEMPUS IV programme

<http://irkutsk.newsbomb.ru/listnews/distantcionnie-kursi-po-upravleniyu-othodami/45465843/>

7. INRTU suggests to unite efforts for solving important environmental problems (newspaper “Argumenty nedeli. Eastern Siberia” No. 12 (503) of March 31, 2016)

8. Make way for green business in Irkutsk (newspaper “Argumenty nedeli. Eastern Siberia” No. 13 (504) of April 7, 2016.

9. Environmental education crew (“Argumenty nedeli Irkutsk” No. 13 (504) of April 7, 2016)

<http://argumenti.ru/economics/n533/441820>

During the advanced training courses, a number of TV channels broadcast the information about the project in the news blocks, released videos, and interviewed the project participants.

1. Vesti Irkutsk TV channel. “Vesti 24” news program of April 4, 2016. Video and interview <http://vesti.irk.ru/watch/180574/>

2. Vesti Irkutsk TV channel. News program of April 4, 2016. Foreign specialists came to Irkutsk to share the experience of struggle with waste

[http://vesti.irk.ru/news/news\\_day/180598/](http://vesti.irk.ru/news/news_day/180598/)

3. OTR TV channel (Public Television of Russia). Program of April 4, 2016. Video “International project devoted to new technologies for the utilization of municipal and industrial waste launched in Irkutsk”

<http://www.otr-online.ru/news/v-irkutske-startoval-56588.html>

The direct dissemination of results was performed through the events of the workpackage no. 9 “Dissemination of results”.

## 9.2. PRESENTATION OF INTERMEDIATE RESULTS

The intermediate results were reported in PR papers (press releases), articles in periodicals, and interviews to mass media. Those were planned within the project and specified for each event.

The published materials included flyers and programs of training courses.

In addition, the intermediate results of the project were presented at the III Russian Industrial and Environmental Forum “**RosPromEco-2015**” on November 9-10 in the administrative buildings of the Moscow Government. The project was presented by the coordinator O. Ulanova. The forum was attended by more than 600 delegates. The forum included more than 90 reports within 10 sectoral conferences and round tables.

The speakers at the plenary session were the member of the Council under the Chairman of the Federation Council of the Federal Assembly of the Russian Federation on agriculture and wildlife, the president of the Forum “RosPromEco” **Nikolai Churkin**, the First Deputy Chairman of the Federation Council Committee on Agrarian and Food Policy and Environmental Management **Sergei Lisovsky**, Vice-Minister of Natural Resources and Environment of the Russian Federation, the Head of the Federal Forestry Agency **Ivan Valentik**, etc. At the round table “Development and realization of regional programs in the sphere of waste management”, the coordinator of the TIWaSiC project O. Ulanova spoke on the intermediate results of the international environmental project TIWaSiC with the report entitled “Formation of the professional training system for specialists on integrated waste management and best available techniques for industrial enterprises of Russia”.

Within the forum, the awarding ceremony in the nomination “**Best environmentally responsible enterprise in 2015**” took place. In accordance with the decision of the members of the organizing committee, the international environmental project TIWaSiC was also awarded a diploma and a prize.

(“The environmental project TIWaSiC project was recognized at the forum RosPromEco-2015”)

<http://www.istu.edu/news/21756/>

<http://irkutsk.newsbomb.ru/listnews/tiwasic-poluchil-priznanie-na-forume/40487308/>

Also, the TIWaSiC project was presented on June 2-3, 2016 by the project coordinator O. Ulanova at the Russian-Swiss Forum “Innovation Day” in Samara. The forum opened on June 2 at the Samara State Technical University with the plenary session “**Partnership of Russia and Switzerland. Demand for innovation**”. The plenary session was opened by the First Vice-President on the Russian Engineering Union, coordinator of the Russian State Duma's Group “Russia–Switzerland” **Vladimir Gutenev**. The other speakers at the plenary session were the Honorary Consul for the Russian Federation in Lausanne **Frederik Paulsen**, the member of the Council of States of the Federal Assembly of the Swiss Confederation, the Co-Chairman of the Russian State Duma's Group “Russia–Switzerland” **Filippo Lombardi**, the Vice-Minister of Industry and Trade of the Russian Federation **Sergey Tsyb**, the Head of the Samara State Technical University **Dmitry Bykov**, etc.

O. Ulanova spoke at the section “**Innovative technologies in waste management**”.

<http://irkutsk.newsbomb.ru/listnews/shvejtcarskom-forume-den-innovatcii/47746754/>

## 9.3. PRODUCTION OF COURSE MATERIALS

Based on the performed survey and the results of the seminars “Current situation and problems in the sphere of industrial waste management in the main industrial sectors in the Siberian region and the Primorskii krai”, “System of economic incentives for enterprises in the sphere of waste management: the EU-Russia experience”, and “Development of the regional network of environmentally oriented “green business” enterprises”; with consideration of the wishes of participants of the training courses; based on the study of the global and Russian experience in the sphere of waste management; after the training in the European universities; with consideration of the consultations of the European colleagues on the waste management issues, textbooks for five industries were developed. The textbooks were published at the Russian Academy of Natural History (Moscow):

1. Integrated sustainable waste management. Housing and Communal Services
2. Integrated sustainable waste management. Mining
3. Integrated sustainable waste management. Wood industry and pulp-and-paper production
4. Integrated sustainable waste management. Metallurgy
5. Integrated sustainable waste management. Chemistry and Petrochemistry



#### 9.4. PAPERS, PARTICIPATION IN CONFERENCES

Special issue of the ECO Monitoring Journal of December 2014 was devoted to the TIWaSiC project.

The publications within the project include 9 articles by the project consortium members covering the relevant issues:

- O. Ulanova, C. Wünsch. International educational project. Development of advanced training course on integrated sustainable waste management for Siberian companies and authorities // ECO monitoring – December 2014.
- J. Ebbing. Incentive systems in waste management: European experience // ECO monitoring – December 2014.
- O. Ulanova, F. Schneider, S. Salhofer. Sociological survey: analysis of problems and obstacles in the economic incentive system for industrial and waste management enterprises in the regions of the Russian Federation // ECOmonitoring – December 2014.
- N. Alberg, S. Sanzhieva. Waste management system in the Republic of Buryatia // ECO monitoring – December 2014.
- E. Zelinskaya, N. Tolmacheva, V. Barakhtenko. Development of Siberian scientists. Flame retardant construction materials based on waste from coal power plants of the Irkutsk region // ECO monitoring – December 2014.
- J. Ebbing. Advanced training courses in the sphere of waste management – Experience of Germany // ECO monitoring. – December 2014.
- O. Ulanova, C. Wünsch. Training of highly qualified waste management specialists for industrial complexes in the regions of the Russian Federation // International herald on DAAD scholarship. – 2014, No. 11.
- N. Alberg, S. Sanzhieva, B. Angaev. How to manage waste? // Mir Baikala – March 2015.
- N. Alberg, S. Sanzhieva, O. Ulanova. Environmental education in the realization of the TIWaSiC project. // Electronic journal: science, technology, education – autumn 2016.

The TIWaSiC project was presented at the following conferences:

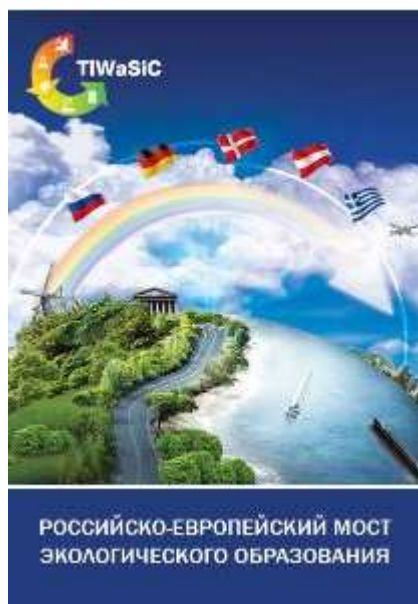
- A. Valuoma, E. Gidaracos. Development of advanced training course on integrated sustainable waste management for Siberian companies and authorities – Tempus project TIWaSiC, 4th International conference on industrial and hazardous Waste, Crete September 4, 2014.



- N. Alberg, S. Sanzhieva. Realization of the Tempus project in the universities of the Baikal region, Scientific conference of teachers, research workers, and post-graduate students devoted to the 90th anniversary of D. Sh. Frolov, Ulan-Ude, April 7, 2015.
- N. Alberg, S. Sanzhieva, B. Angaev. Transfer of innovative solutions for the integrated waste management in the Republic of Buryatia, the Environmental Forum “Science and education for the sustainable development: from the environmental ethics to the environmental technologies”, Ulan-Ude, May 22, 2015.
- O. Ulanova, C. Wünsch: Integrated sustainable waste management: new program for the advanced training of specialists from industrial enterprises of the Siberian region, Management systems for MSO: legal, financial, and technical solutions. WasteTech 2015, Moscow.
- N. Alberg, S. Sanzhieva Waste management, Scientific conference for teachers, research workers, and post-graduate students of ESSUTM, Ulan-Ude, April 19, 2016.
- O. Ulanova, C. Wünsch. Professional training of specialists in the sphere of waste management for industrial enterprises of the Siberian region and the Primorskii krai. International scientific conference “Advanced technologies and development of polytechnic education”, September 14-18, 2015, Vladivostok.
- O. Ulanova, C. Dornak, C. Wünsch. EU-Russia bridge of environmental education. Main results of the Tempus project TIWaSiC, International scientific conference “Advanced technologies and development of polytechnic education”, September 19-23, 2016, Vladivostok

**Materials of the “EU-Russia bridge of environmental education”**

The published materials cover the main results within the TIWaSiC project. The first chapter is overview of the project, the main phases of its realization, the data on the results of the survey among Russian industrial and waste management enterprises and the efficiency analysis of the performed distance advanced training courses. In addition, the main results, the monitoring, and the efficiency evaluation of the project are briefly described. The second chapter presents the opinions of the European and Russian experts, the comments and suggestions of the project participants. The publication was disseminated at the State Duma at the round table. Also, it was disseminated by the consortium members at their universities and environmental structures, at conferences and forums.



## 9.5 FINAL CONFERENCE, COORDINATION MEETING NO. 4, AND DISSEMINATION

On May 30, 2016, in the State Duma, the round table “Partnership between the state government, business, and science as the decisive factor for the personnel modernization of the Russian economy in the sphere of the integrated sustainable waste management” took place, which was the main event for the dissemination of experience of the project at the federal level. More than 120 people took part in the round table including Deputies of the State Duma, representatives of federal executive authorities, representatives of executive and legislative authorities of subjects of the Russian Federation, Russian specialized, scientific, and public organizations, large public non-profit business associations in the sphere of waste management, and the TIWaSiC project consortium members.

As a result of the round table, the State Duma Committee on Property prepared the recommendations addressed to the Minister of Education and Science and the Minister of Natural Resources and Environment of the Russian Federation.

The information about the round table was widely **disseminated** by not only the project participants but also by the media:

[http://www.zabqu.ru/php/open\\_news.php?query=zabqu\\_na\\_kruglom\\_stole\\_v\\_gosudarstvennoj\\_dume&news\\_page=2](http://www.zabqu.ru/php/open_news.php?query=zabqu_na_kruglom_stole_v_gosudarstvennoj_dume&news_page=2)

<http://www.istu.edu/news/24775/>

<http://rspoko.ru/news/v-gosudarstvennoy-dume-sostoyalsya-kruglyy-stol-po-voprosam-podgotovki-kadrov-dlya>

<http://argumenti.ru/society/n543/452727>

<https://esstu.ru/index.htm?jsessionid=48A58362DBCAFC3BD3980A73022E9F88>

<http://www.mosoblduma.ru/folder/3934/item/61323/>

<http://baikal24.ru/text/27-06-2016/proekt/>

<https://kaliningrad.er.ru/news/2016/6/2/kaliningradskie-ekologi-v-gosdume-prinyali-uchastie-v-obsuzhdenii-perspektiv-razvitiya-profilnogo-ekologicheskogo-obrazovaniya/>

<http://eco-rt.ru/2016/06/01/v-gosudarstvennoj-dume-sostoyalsya-kruglyy-stol-po-voprosam-podgotovki-kadrov-dlya-othodopererabatyvayushhej-otrasli/>

<http://www.nprating.ru/news/2034/>

[http://www.mvslipenchuk.ru/news/article.wbp?article\\_id=7c5f7c65-63a7-4a00-b775-eccb3a688a11](http://www.mvslipenchuk.ru/news/article.wbp?article_id=7c5f7c65-63a7-4a00-b775-eccb3a688a11)

<https://petrsu.ru/news/2016/30763/petrqu-na-zasedanii->

<http://www.bossonline.ru/vlast/voprosy-kadrovoj-modernizatsii-v-sfere-upravleniya-othodami-obsudili-v-gosdume.html>

<http://smart-lab.ru/blog/332534.php>

<http://vspress.ru/problems-kotorye-kopilis-godami-vmeste-s-otxodami/>

15 links

### Final meetings within the project

The coordination meeting, the final conference, and the presentation of the educational movie were held in Vladivostok at the Far Eastern Federal University. The project consortium members took part in the international scientific conference “Advanced technologies and development of polytechnic education”. At the plenary session, the presentation of the educational movie “Waste management in Germany”, which had been shot during the internship of the project partners and the participants of the advanced training courses at the industrial enterprises of Germany, took place.

The project participants made the reports at the section “Waste management”.

The information about the meetings **disseminated** through the following events:

1. INRTU took part in the final events of the Tempus project on the Russky Island

<http://irkutsk.newsbomb.ru/listnews/mezhdunarodnogo-proekta-irritu-tiwasic/48076137/>  
<http://www.istu.edu/news/26035/>

2. The final meeting within the TEMPUS project

<https://www.esstu.ru/uportal/faculties/viewNews.htm?newsId=4863>

3. Kaliningrad ecologists share the experience in waste management

<http://rspoko.ru/news/kaliningradskie-ekologi-delyatsya-opytom-pererabotki-othodov>

4. The newspaper "Chas Pik" of 26.10.2016, the article "The TIWaSiC project finishes"

### Further dissemination of project results

From September 2016 to November 2016, the events for the dissemination of project results took place, which were organized in the form of seminars and reports at conferences and forums.

1. On September 13-14, in Kaluga, the Second International environmental forum "Environmental protection and rational use of natural resources: current state and trends of development" was held; at the plenary session, the **report** was made entitled "Waste management. Environmental education during the realization of the TIWaSiC project".
2. The following state officials took part in the forum: Special Presidential Representative Sergei Borisovich Ivanov, Minister of Natural Resources and Environment of Russia Sergey Yefimovich Donskoy, Governor of Kaluga Oblast Anatoly Dmitriyevich Artamonov. In total, there were 500 participants from different cities and regions of Russia.

<https://www.esstu.ru/uportal/faculties/viewNews.htm?newsId=4862>

3. On October 5-6, 2016, the international conference "Environmental construction and sustainable development. Green campus and schools as elements of sustainable development of cities" (GBSD 2016) took place at the Perm National Research Polytechnic University (Perm, Russia), where the **report** entitled "Sustainable waste management: results of the TIWaSiC international environmental project" was made.
4. On October 9-12, the international scientific conference "Prospects of the development of science at higher educational institutions" took place in Sochi; at the plenary session, the **report** was made entitled "International cooperation of universities in the sphere of environmental education: the case of the TIWaSiC project" devoted to the dissemination of results of the project.
5. On November 2, 2016, the **seminar** "TIWaSiC advanced training on integrated sustainable waste management for companies and authorities: main ideas and goals of the project. Development and implementation of new educational courses" was held in Vladikavkaz at the North Caucasian Institute of Mining and Metallurgy at the departments "Ecology and technosphere safety", "Life safety", and "Non-ferrous metallurgy".
6. On November 3, 2016, the **seminar** "Results and prospects of the TIWaSiC international project. Main ideas and goals of the project" was held at the Grozny State Oil Technical University named after M.D. Millionshikov (Grozny) at the department "Chemical technology of oil and gas".
7. On November 16, 2016, the **seminar** "Management of international environmental projects: the case of TEMPUS project TIWaSiC" took place at the Saint Petersburg State University of Economics.
8. On November 17, 2016, the **seminar** "TIWaSiC advanced training on integrated sustainable waste management for Siberian companies and authorities: main ideas and goals of the project" was held at the Kaliningrad State Technical University (Kaliningrad) at the faculty of bioresources and nature use.
9. On November 25, 2016, the **seminar** "TIWaSiC advanced training on integrated sustainable waste management for Siberian companies and authorities: main ideas and goals of the project" was held in Kazan at the Central Scientific Research Institute of Geology of Industrial Minerals.



10. On November 28, 2016, the **international seminar** "Integrated sustainable waste management: new program for the advanced training for workers of industrial enterprises" took place at the Ural Federal University (Yekaterinburg).
11. On November 29, 2016, the **seminar** "Development and implementation of new educational courses integrated sustainable waste management for workers of Russian industrial companies and authorities within the TIWaSiC project" was held at the Voronezh State Forestry University named after G. F. Morozod (Voronezh) at the Department of Ecology, forest protection, and forest hunting of the Faculty of Forestry.

### 9.6. UPDATING OF WEBSITE

The website of the project is an important tool for the dissemination of results of the project and the results of the activities within and outside the project ([www.tiwasic.de](http://www.tiwasic.de)).

- the website is in three languages: Russian / English / German
- the website is regularly updated to deliver the information about the upcoming events and the results of the performed activities
- the intranet zone: the website serves for the information exchange between the project partners. All the internal documents of the project are uploaded to the intranet.

**As a result of all the planned activities**, during the realization of the workpackage no. 9 "Dissemination of Results", the information on the sustainable waste management and the TIWaSiC project became available to the wide range of users and contributed to the long-term dialogue and the sustainable integration: "government-education-industry".

**Visit of web site (31-01-2017) - 3855 people**

### 3. EFFICIENCY ANALYSIS

Participation in conferences and forums	12
Publications in journals and meeting papers	15
Number of interviews and publications in periodicals (mass media)	25
Publications on project events on the websites of consortium members	50
Publications on project events on the websites of interested parties	21
Number of university teachers participating in the additional dissemination of project experience	11
Number of participants who attended the events for the additional dissemination of project experience (from September 2016 to November 2016)	800