



# **Needs for waste management technologies. Case for Russia and EurAsEC - countries**

**Vladimir Maryev**

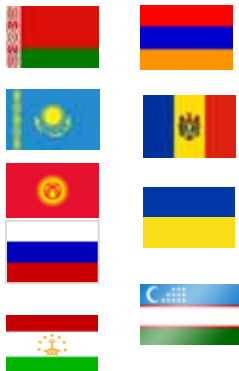
Director of ICBET



# Sub-Regional Secretariat for Russia and EurAsEC countries



Eurasian  
Economic  
Community



**Population**  
268,0 mln.

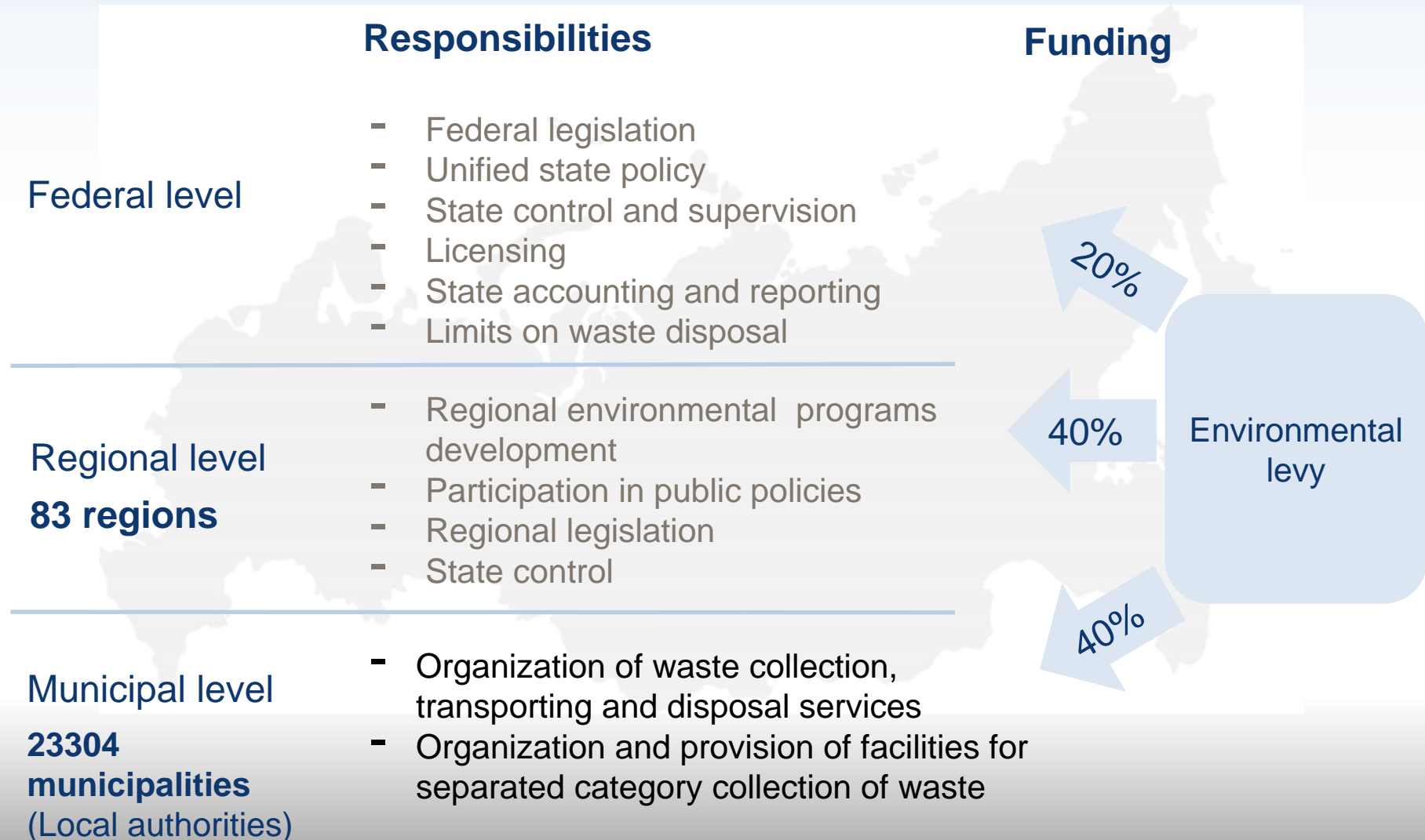
## What does it mean: Russia and EurAsEC cooperation



- Similar problems and tasks
- Customs Union
- Close mentality



## WM in Russia: Governmental role and responsibilities





## Waste in Russia: Industrial and Municipal



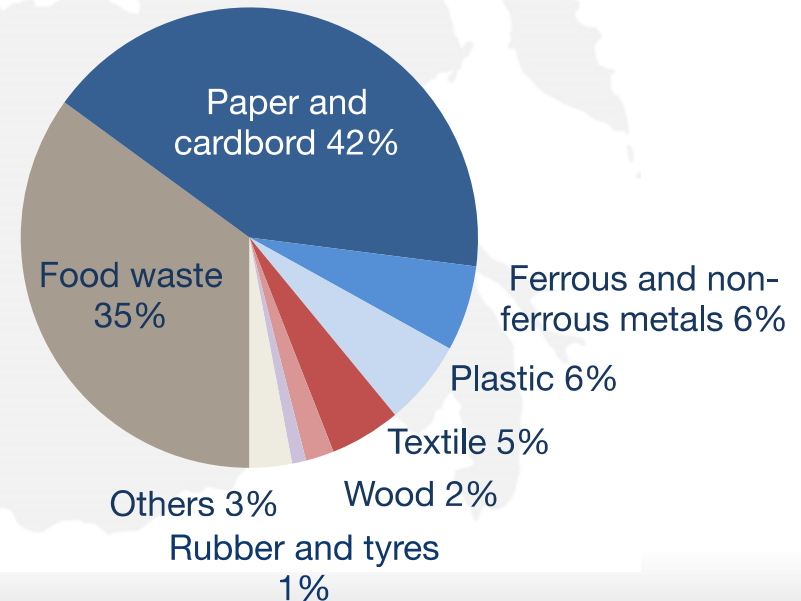
**90 bln. t**  
**accumulated**  
(MSW + Industrial)  
**2 000 000 Ga**  
Under legal and  
illegal landfills  
**3,5**  
**bln.t/year**

**MSW**  
**+3% annually**



**40 mln.t/year**

### MSW components





## The existed System for waste collecting and recycling in the Soviet Union From 1920-th to 1990-th

**GOSSNAB** – *State Ministry responsible for resource supplying*  
**VIVR** - *Science-research, project, technological Institute for SR*



Separate  
collecting



Public actions  
“SUBBOTNIC”



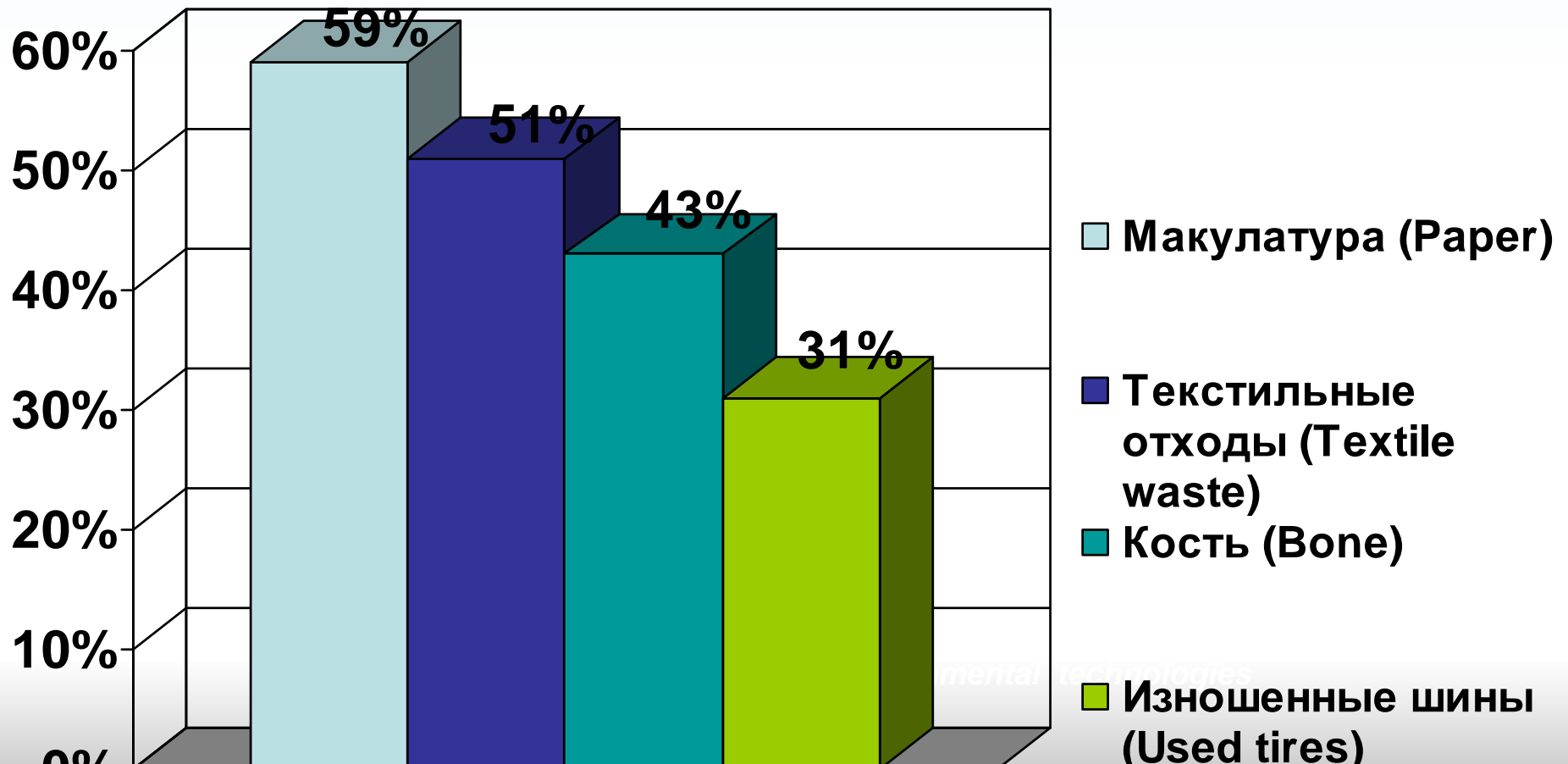
Industrial  
waste  
collecting

Exchange: Used paper  
for books

**STATE RESPONSIBILITY AND INVOLVING PEOPLE –**



Level of secondary  
law materials collection  
in the USSR (1987)





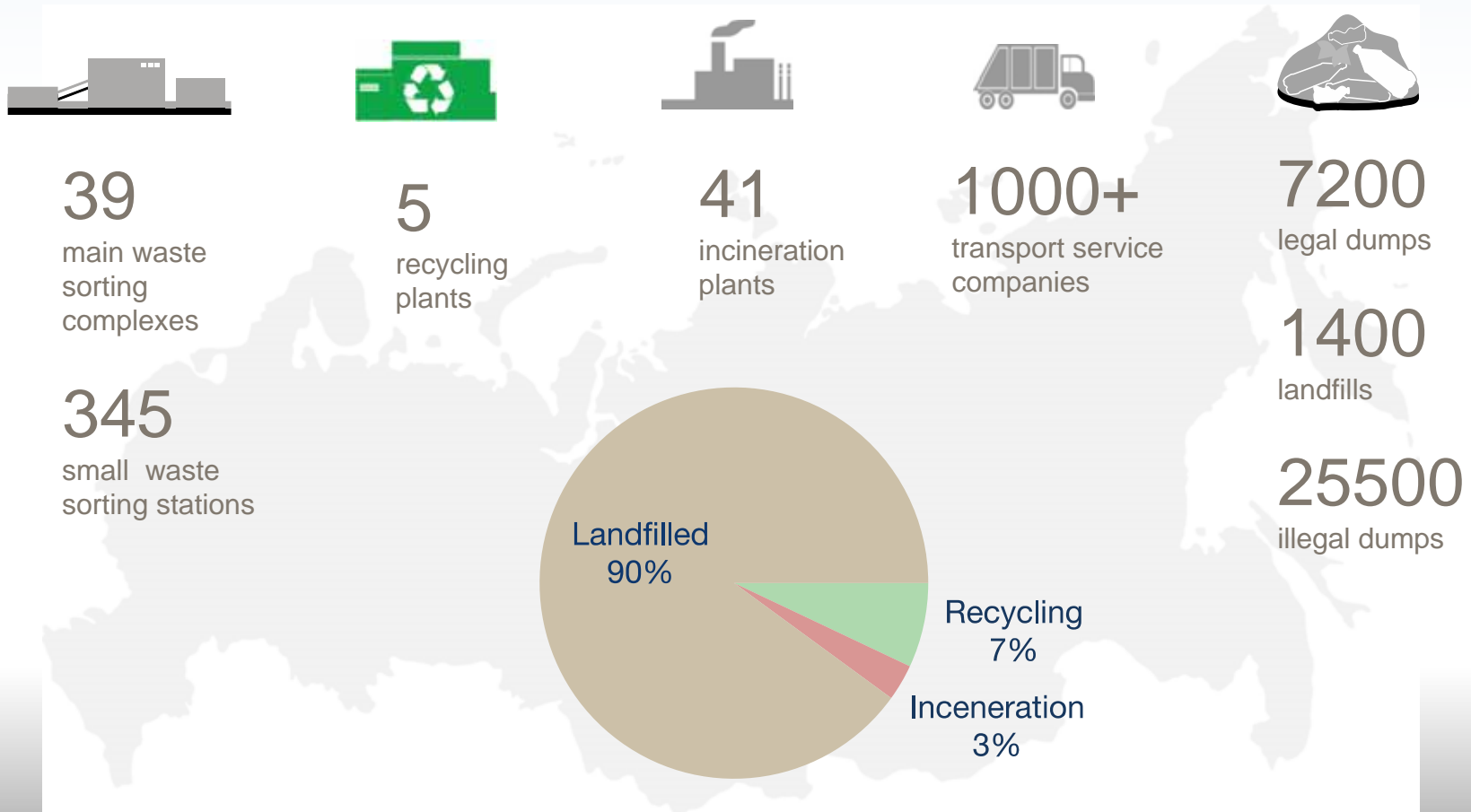
## The level of collection secondary raw materials in Russia



Source: N. Sokolova "The "Disappeared Empire" – Empire of waste recycling"



## Current WM practices in Russia







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## Russian legislation

**24th June 1998**

Federal Law 89-FZ «Concerning production and consumption wastes»

The basic environmental law, defines the main approaches and definitions in Russian WM

## Recent legislative initiatives

**21<sup>st</sup> June 2011**

The list of orders of the President of the RF on the results of State Council Presidium meeting in Dzerzhinsk City

To improve existing environmental legislation

**4<sup>th</sup> March 2011**

The resolution of the government of the RF 148 – amended act

The Efficiency Assessment Methodology in environmental policies implemented by regional governments has been introduced

**29<sup>th</sup> March 2011**

The President's order Pr-781

Regions have to develop their regional WM programs ( 88 % of Gouverners adopted such Programs)

**28<sup>th</sup> July 2012**

Federal Law 128-FZ

Scrapping charges for transport vehicles – first step to implement EPR system

2013 year was announced by the President of Russia as the **YEAR OF ENVIRONMENT**



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## Waste-Tech – 2013 in Moscow

May, 28-31, 2013



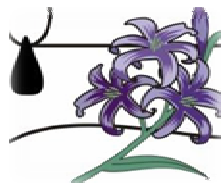
CIIC  
Russia

### Workshops



**ШИНОЭКОЛОГИЯ**

**Establishing Complex system for worn tires collecting and recycling, based on Expanded producers responsibility in Russia**



**Legislation and new technologies for oil sludge recycling. Reclamation ( remediation ) of contaminated land.**



**Coordination of legislative and executive power activity in Russia together with private sector to fulfill the Stockholm Convention demands.**



## REGIONAL COMPLEX WASTE MANAGEMENT PROGRAMMES

88 % Regions adopted  
Complex waste management  
Programs

**TOTAL BUDGETING  
( PLANNED) – 4 BLN. USD  
Including outside investments**



### 2012 YEAR

Regions planned to  
spend **1 bln. USD**  
from regional budgets  
for environment  
activities

13 Regions plan to build  
18 Waste sorting and  
waste recycling plants



**9 Pilot  
Regions in  
central**

**Amendments to the Law, providing the  
guarantees for Investors**



## Moscow Region

**20 mln. Inhabitants**

**Annually:**

- 30 mln. tons of industrial wastes

- 9 mln. tons of MSW

- 39 landfills

- 24 of them must be closed in 2013

19 eco – technoparks  
(eco-town) based on  
BAT/BEP must be built

**The main Problems: Legislation; Lack of adopted WM technologies; Lack of real knowledge of “Zero Waste principles”**



## **Federal Target Program for 2014 – 2025 years**

“Elimination of the environmental damage of past years”

### **• Approximate budget ( from all sources )**

- **7 bln USD**
- **The main aims: to reclaim 640 sq.km of landfills, to reduce the amount of waste for 85 mln tonnes**
- **To make the inventory work for all contaminated territories**
- **To prevent the rising of the waste amount ( industrial and municipal)**
- **To create BAT/BEP Atlas for waste recycling**



## NEEDS FOR TECHNOLOGIES



**20 000 sq. km of landfills. Ecologically safe reclamation and remediation technologies**



Waste incineration plants, steel mills, boiler plants, electricity generating plants.

ASH, SLAG – **technologies to neutralize and to use.**



Mining dumps and lakes. **Technologies to extract useful materials and minerals. NEED for investors.**



Chemical plants. **Technologies to neutralize the hazardous wastes.**



## NEEDS FOR TECHNOLOGIES



Treatment plant sludge fields. **Ecologically safe neutralization technologies**



**BIOGAS equipment for liquid wastes ( agricultural and municipal ).**

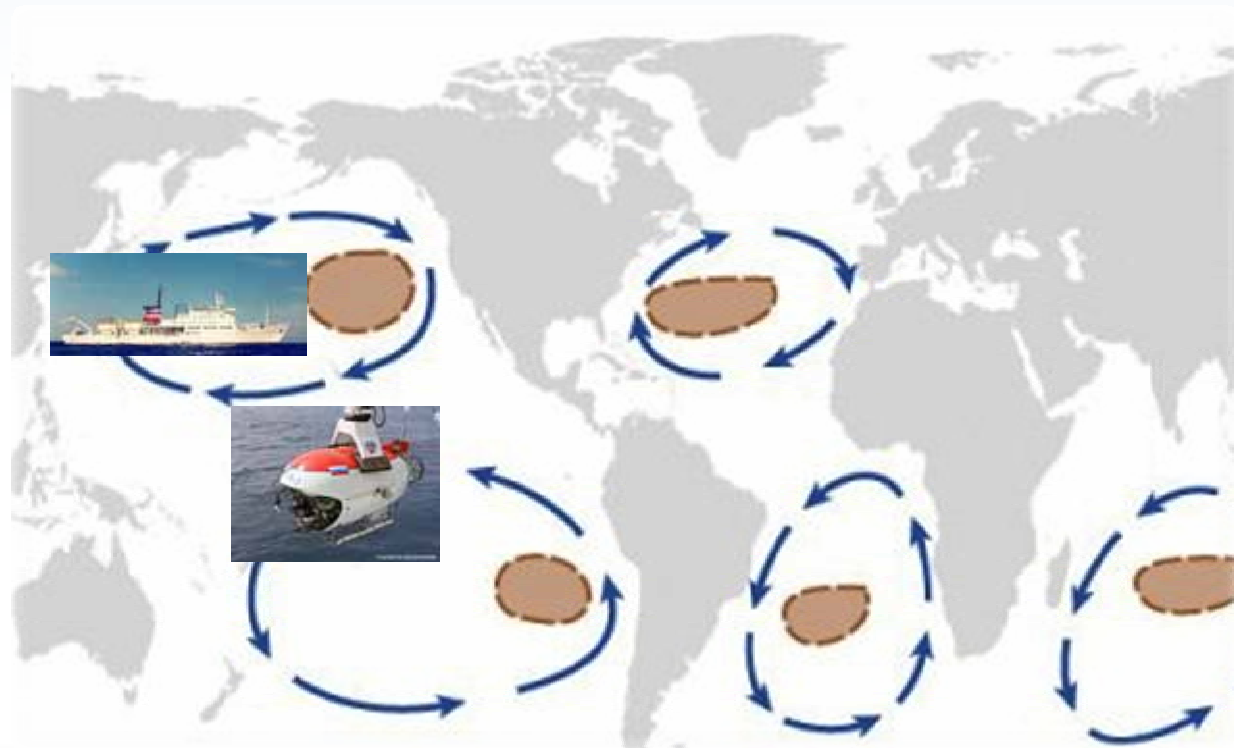
## ZERO WASTE

- Technologies for recycling municipal solid wastes into goods and building materials ( Plastic, paper, wood, glass, rubber, etc.)
- Methods for ecologically safe management in the underpopulated territories.
- Harmonization of the environmental legislation



## Garbage Islands

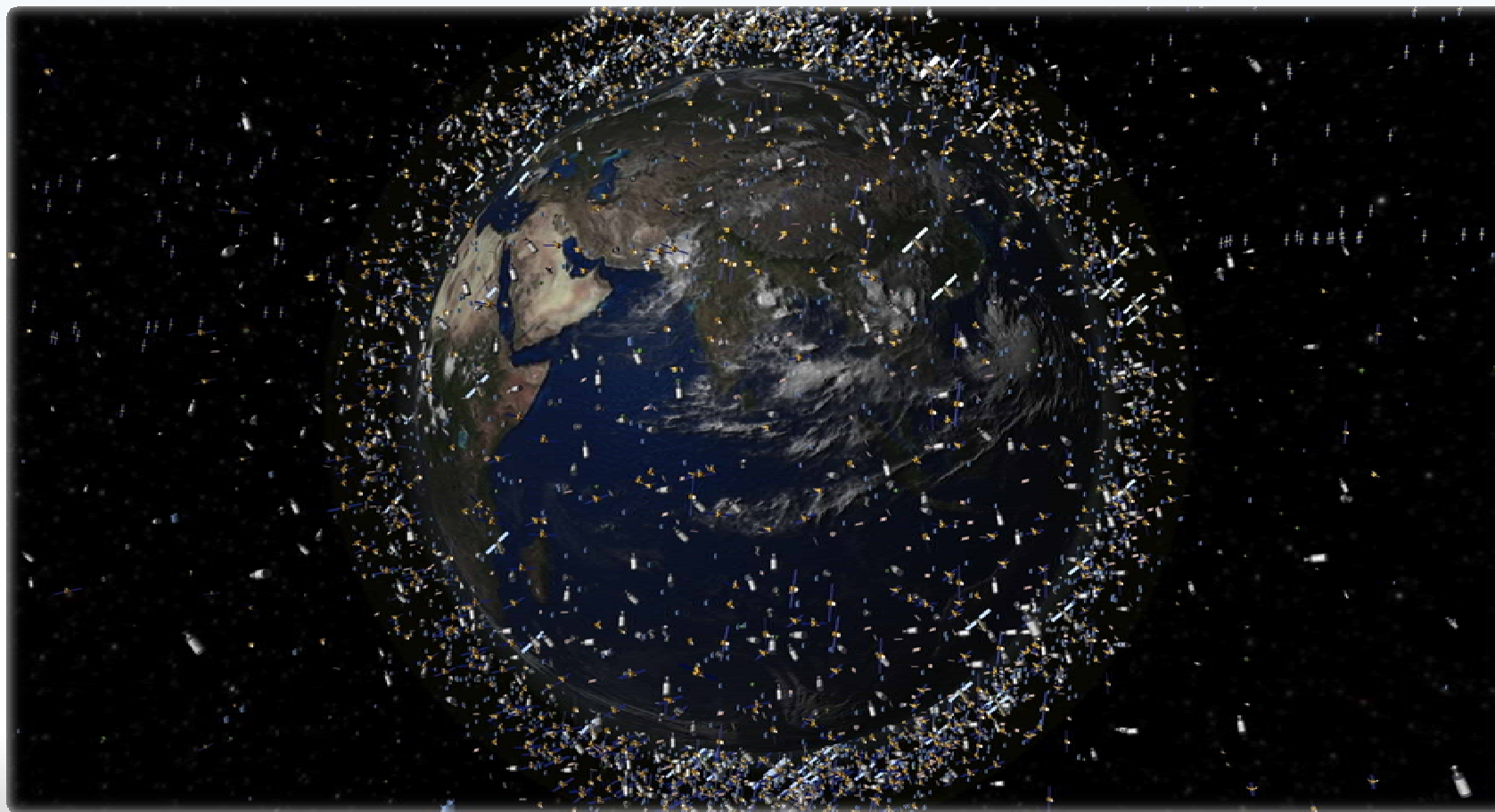
The great Pacific  
garbage Patch  
**1 760 000 sq. km-** the  
size of 3 Ukraine ( State  
of Texas )  
**100 mln. tones** of  
plastic and other trash





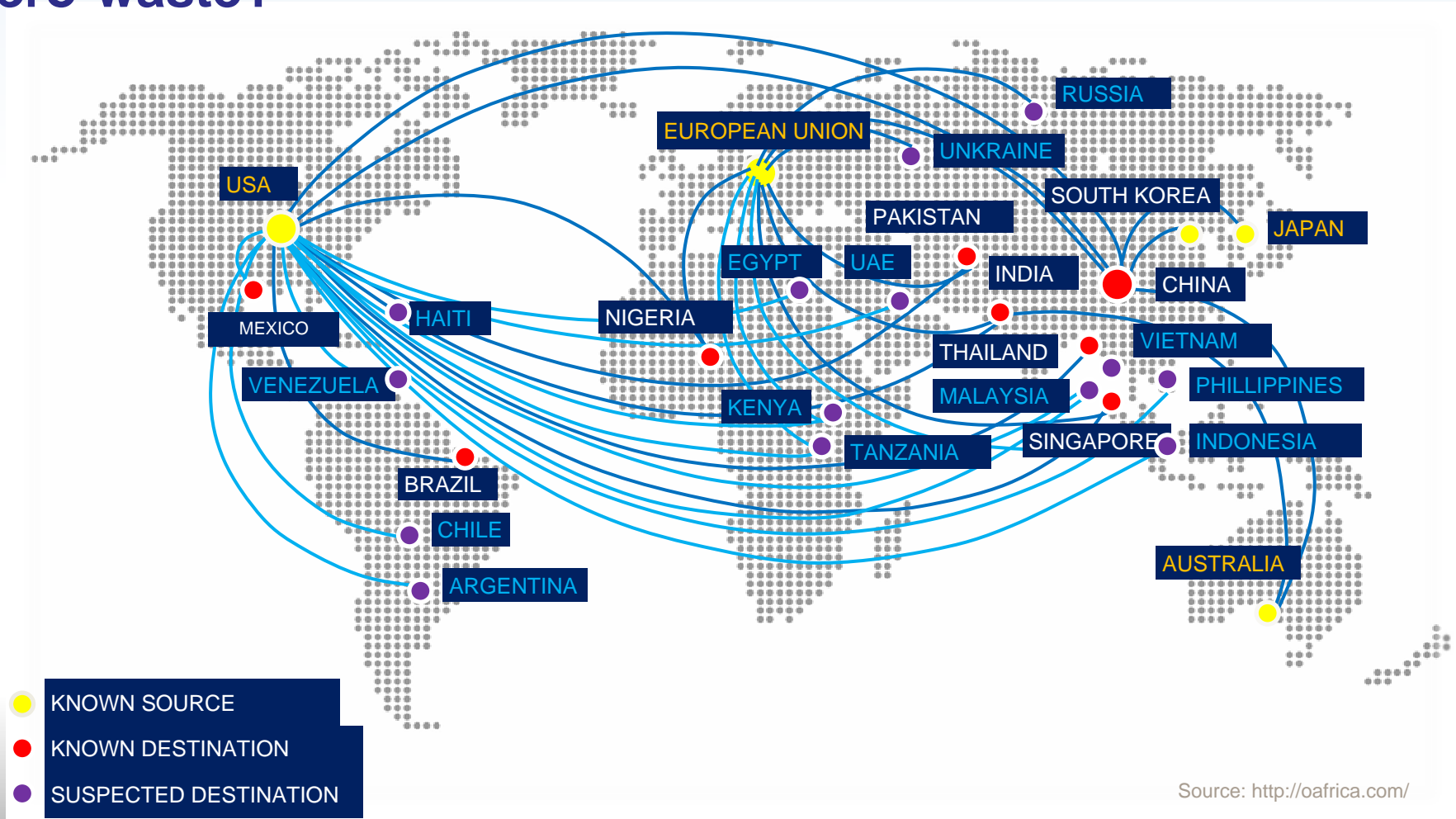


## Our Planet



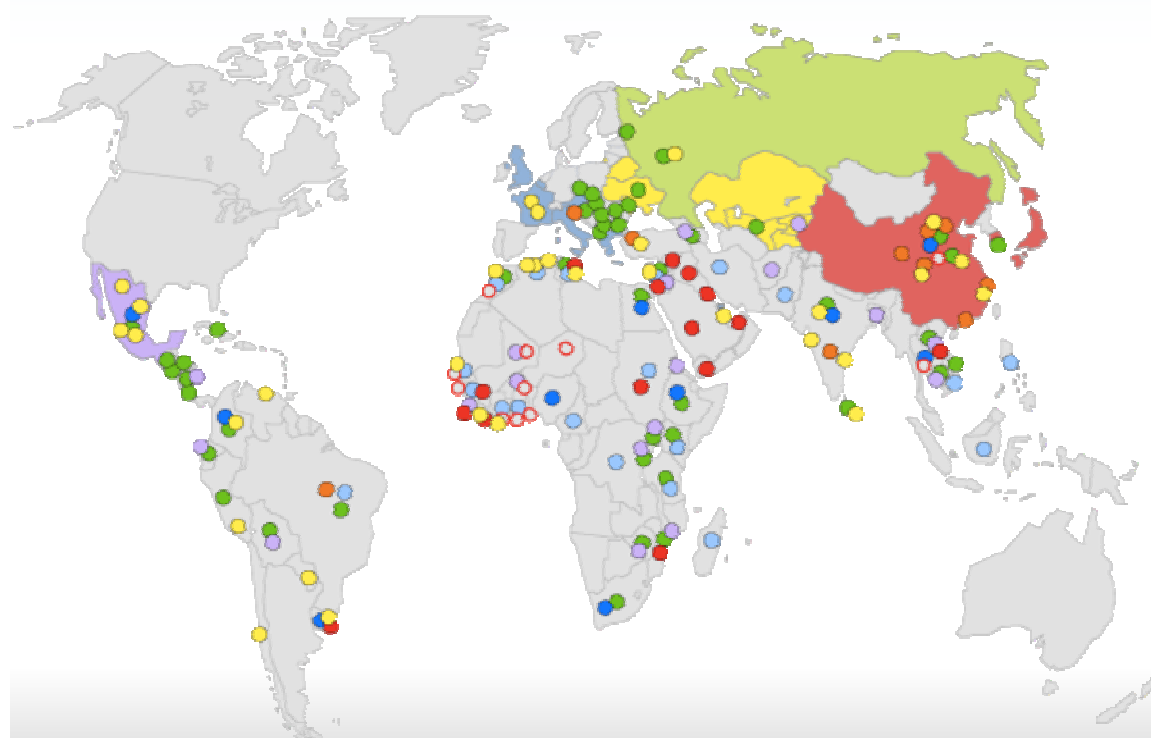


## Zero-waste?





## UNIDO networks



### UNIDO ITPO Regional Networks:

■ Europe / Arab	Bahrain, Belgium, France, Greece, Italy, Russian Federation, United Kingdom	
■ Asia	China, Japan, Rep. of Korea	12
■ Latin America	Mexico	

### Network Development in EurAsEC:

■ EurAsEC	Armenia, Belarus, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Ukraine	/
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### Other UNIDO programmes:

● National Cleaner Production Center (NCPC)	53
● International Technology Center (ITC)	10
● UNIDO regional offices	10
● UNIDO Country offices	20
● UNIDO Desks	18
● Enterprise Development and Investment Promotion (EDIP)	15
○ EDIP - in process	10
● Subcontracting and Partnership Exchanges (SPXs)	32

Total UNIDO Network 189



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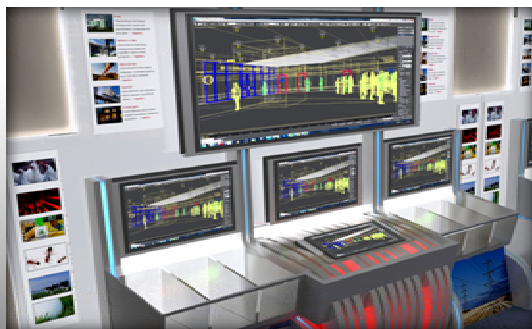


## Information Analysis Portal



Industry Competencies Center

Interactive Engineering System





## Industry Expert Councils



## Unified Software and Technology Platform



Commercial  
Information  
Cataloging



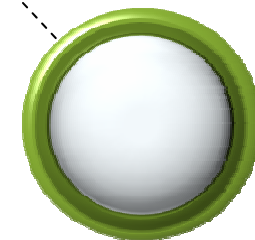
Integration of  
Information  
Resources



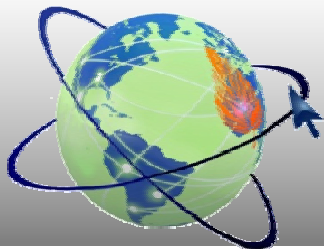
Unified System of  
BAT/BEP databases



Media Projects



Integration of  
Management  
Systems

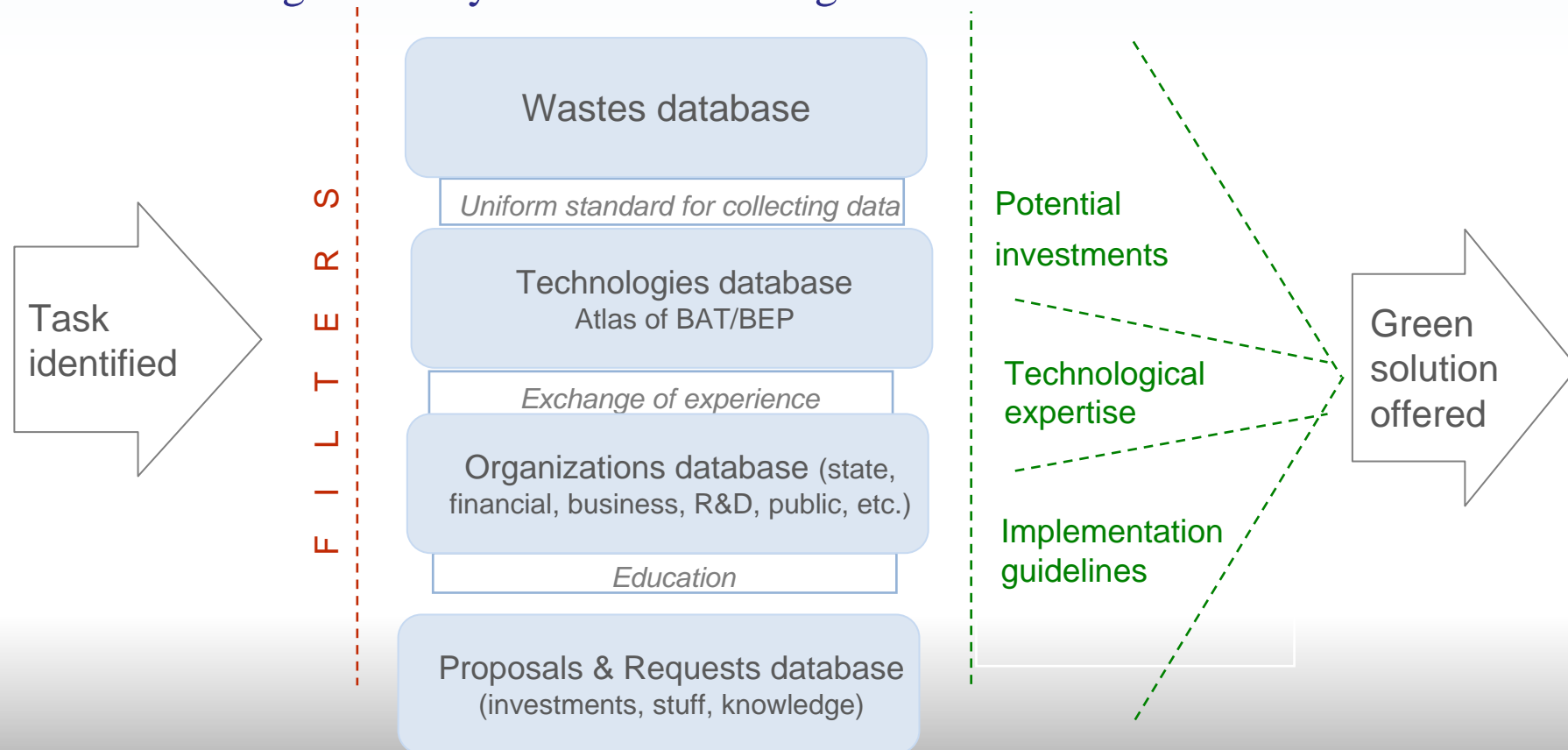


*UNIFIED INFORMATION ANALYSIS SYSTEM*



## UNIFIED INFORMATION ANALYSIS SYSTEM

- Quick response to existing problems.
- Global information space.
- Data for regular analysis and monitoring.





## UNIFIED INFORMATION ANALYSIS SYSTEM

Effective local waste markets development through enhancing connections and strong international cooperation

**FOR**

Governments

Helps in decision-making and market monitoring

Businesses

Increases market transparency

Waste processing facilities

Provides information about best available technologies and best environmental practices developing and implemented

R&D institutions

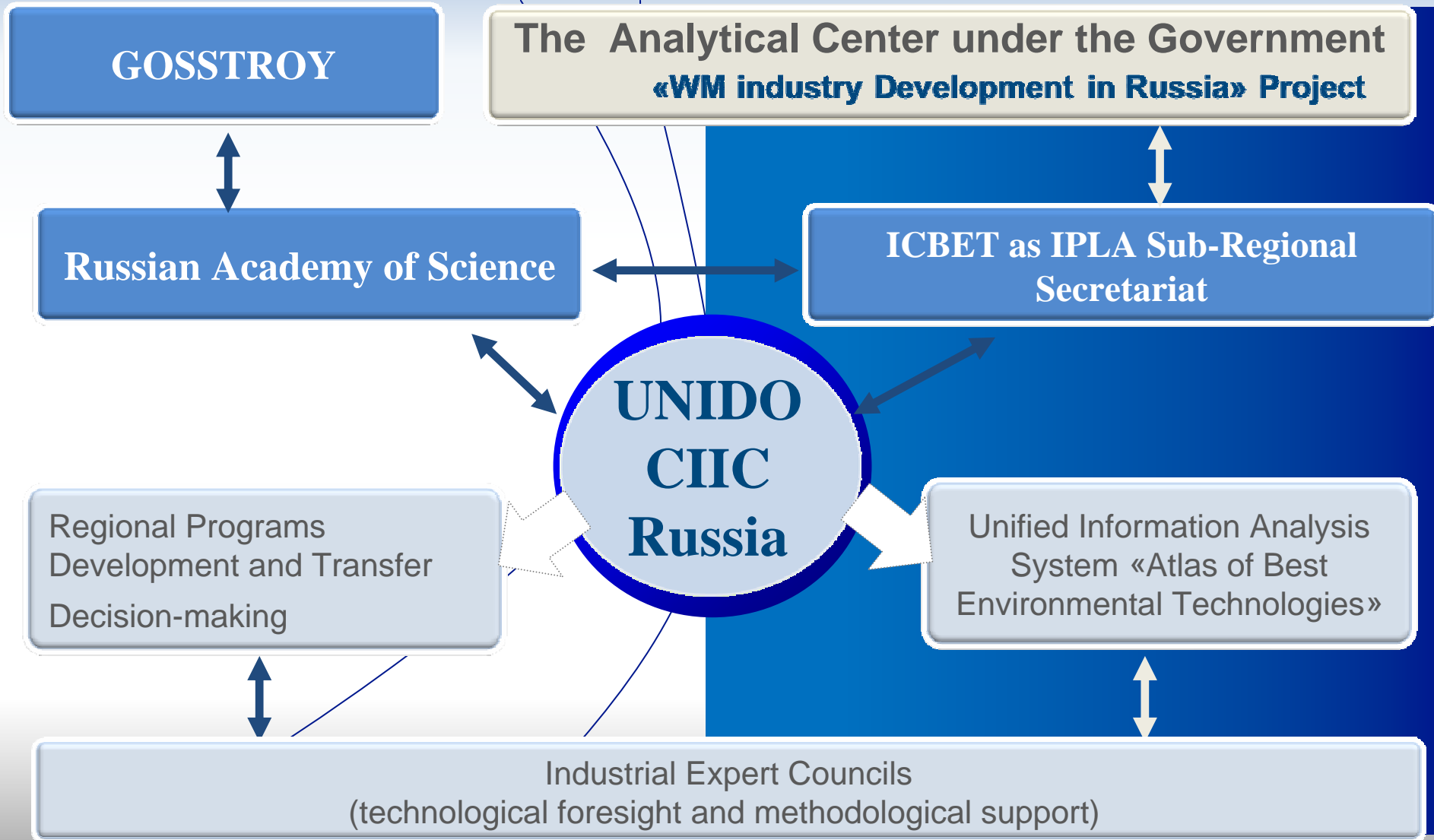
Assists in sharing experience and collaborative work

Market Associations

Provides information for market control and development



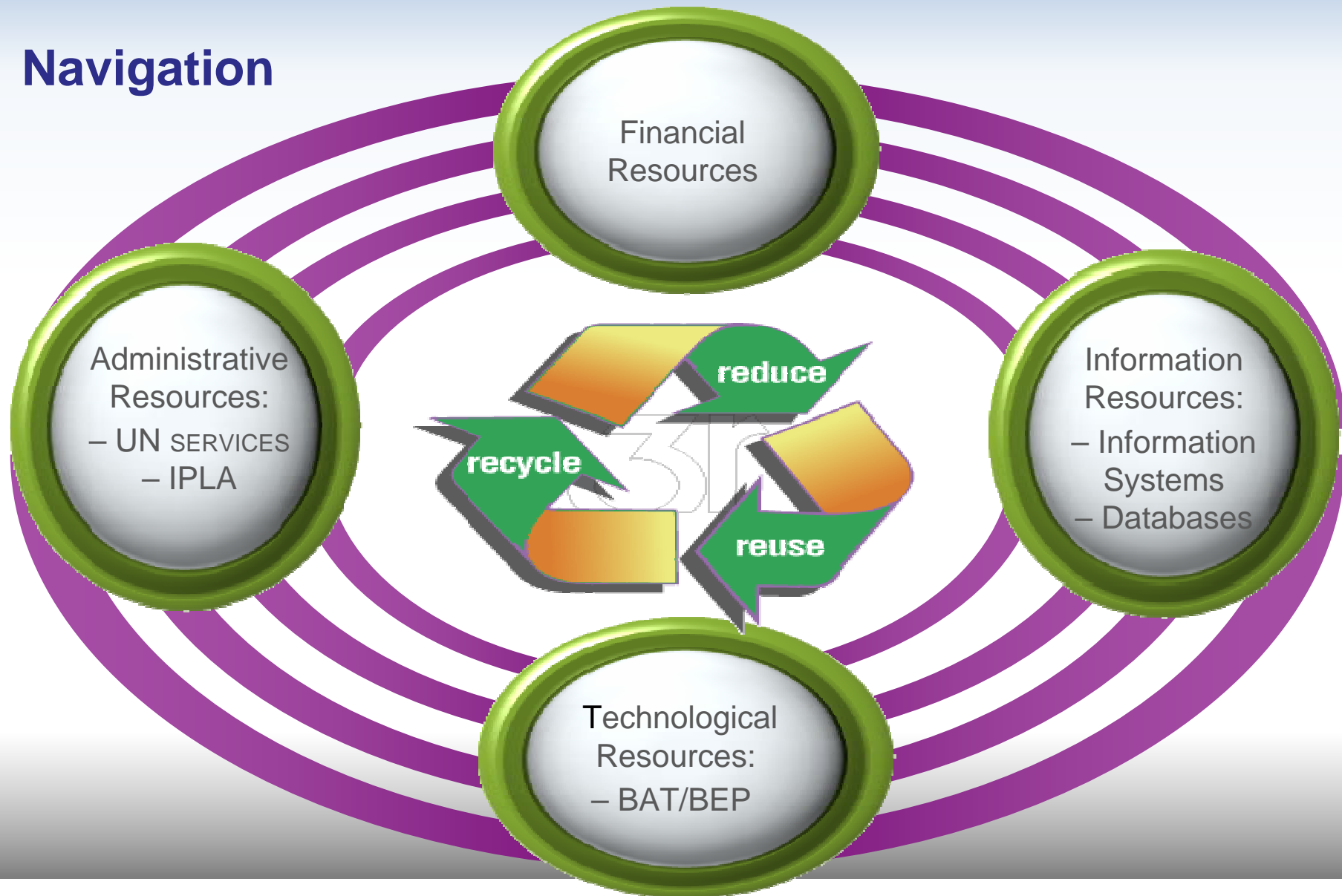
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## Navigation





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IS



IES



LRF



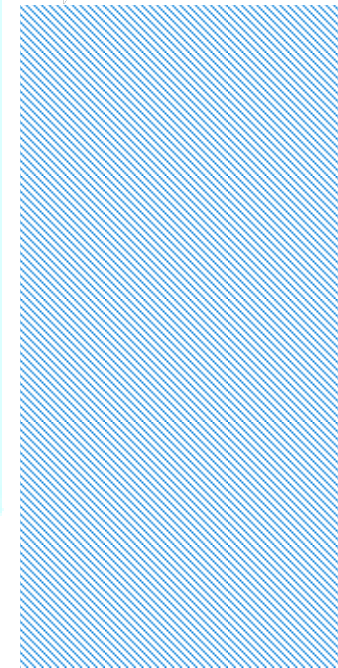
Contacts

Interactive Engineering System



Personal Account

Registration



UNIFIED INFORMATION ANALYSIS SYSTEM



Electronic Exhibition



# Sub-Regional Secretariat for Russia and EurAsEC countries



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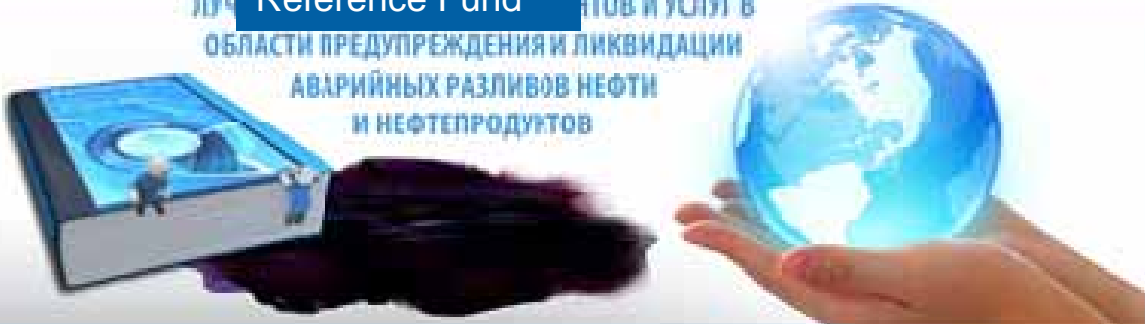
LRF



Contacts

Legislative & Reference Fund

ЛУЧШИЕ ДОКУМЕНТЫ И УСЛУГИ В ОБЛАСТИ ПРЕДУПРЕЖДЕНИЯ И ЛИКВИДАЦИИ АВАРИЙНЫХ РАЗЛИВОВ НЕФТИ И НЕФТЕПРОДУКТОВ



ГЛАВНОЕ МЕНЮ

- Главная
- События, мероприятия
- Услуги
- Справочная служба
- Ссылки, контакты
- О нас
- Контакты

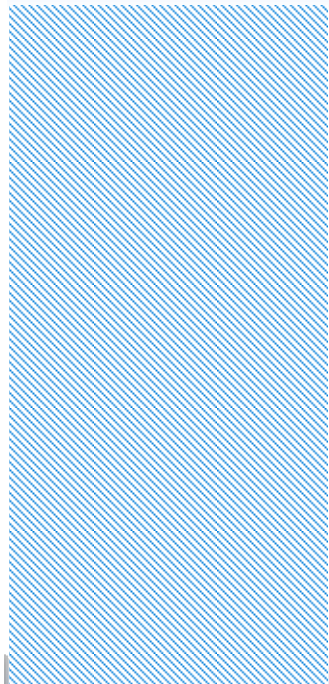
**АКТУАЛИЗИРОВАННЫЙ ФОНД НОРМАТИВНОЙ ДОКУМЕНТАЦИИ**

МЕЖДУНАРОДНЫЕ ДОКУМЕНТЫ

- Европейская конвенция о международном дорожном парке грузовых автомобилей (ДПГП), 1967 (Венна, 30.06.1967 г.)
- Конвенция о Восточноевропейском дорожном парке грузовых автомобилей (ДПГП), 1992 (Рига, 04.06.1992)
- Конвенция о водно-болотных угодьях: внесение международных изменений, полный обзор

Personal Account

Registration




UNIFIED INFORMATION ANALYSIS SYSTEM



Electronic Exhibition



# Sub-Regional Secretariat for Russia and EurAsEC countries



The selection of technologies and development of standard project solutions as well as the service order in the form of **an electronic trade and exhibition center** which includes a virtual exchange network on the basis of **UNIDO Exchange online platform** containing «Projects Exchange» and «Technologies Transfer Network»

Environmental Certification of regions

Ecological and economic evaluation, expert and methodological support and distance management of environmental projects

Cataloging and Implementation of BAT/BEP

Regional WM Programs

Object-oriented training

Cost reduction in regional offices

*UNIFIED INFORMATION ANALYSIS SYSTEM*

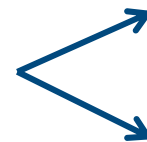




## Priorities



Information exchange between international / national experts, business partners and Governments

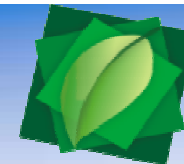


Expenditures

Investments



Collaborative projects implementation based on the «Green Industry» and «3R» principles



### Expected results for Russia and EurAsEC countries

1. Certification and cataloging of BAT/BEP with the possibility of combining the information from UNIDO and IPLA offices, Governments and business partners;
2. Development of an unified software and technology platform for expertise, consulting and engineering;
3. Ecological and economic evaluation. Online distance management of environmental projects from the local to the international level and back;
4. Collaborative projects” implementation based on the «Green Industry» and «3R» Principles;
5. Cost reduction for recruitment, BAT/BEP transfer and implementation;
6. Involvement of international scientific and financial institutions.



### CONCLUSIONS

1. The worldwide countries have similar problems with waste due to trans - boundary pollutions and globalization.
2. International Center for the Best environmental Technologies as the IPLA Sub-regional Secretariat continue to work on collecting and providing the implementation of the BAT/BEP for Waste management, adopted for Russia and EurAsEC countries.
3. Currently the environmental Law in these countries is changing and demands new methods and technologies due to high penalties and ecological levy.
4. Russia has a very rich resource – fundamental science of the Russian Academy of Science. The great potential of the Russian scientific and engineering centers and laboratories could be used to resolve the ecological problems in the world.
5. Only joint efforts of Governments, Business and Public organizations could save the Earth from the ecological catastrohy.
6. ICBET proposes to create the Unified Analyses System ( worldwide ecological network ) on the base of IPLA web-portal. The possibilities of the UN services could be involved.





# Sub-Regional Secretariat for Russia and EurAsEC countries



**We have an opportunity to save  
our Planet.  
And we do it!**



Firstly we always



For your cooperation



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