The National Telemedicine System is effective facility for improvement over health services to population in the Russian Federation

Mikhail Ya. Natenzon

Chairman of Board of the "National Telemedicine Agency" Research-and-Production Union,
General Director of the "TANA Telemedicine Services Ltd.",
Deputy Head of the Working Group for Telemedicine of the ITU-D sector
of the International Telecommunication Union (ITU),
Deputy Head of the Regional Working Group for Telemedicine
of the Regional Commonwealth for Communication of the CIS Countries

UN Millennium Development Goals

- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, Malaria and others diseases:
  - Halt and begin to reverse the spread of HIV/AIDS
  - Halt and begin to reverse the incidence of malaria and other major diseases

"We will have time to reach the Millennium Development Goals – worldwide and in most, or even all, individual countries – but only if we break with business as usual.
We cannot win overnight. Success will require sustained action across the entire decade between now and the deadline. It takes time to train the teachers, nurses and engineers; to build the roads, schools and hospitals; to grow the small and large businesses able to create the jobs and income needed. So we must start now. And we must more than double global development assistance over the next few years. Nothing less will help to achieve the Goals."

United Nations Secretary-General

World Health Organization

The Fifty-eighth World Health Assembly,

Noting the potential impact that advances in information and communication technologies could have on health-care delivery, public health, research and health-related activities for the benefit of both low- and high-income countries;

. . . . . .

Aware that advances in information and communication technologies have raised expectations for health;

. . . . . .

Stressing that e-Health is the cost-effective and secure use of information and communications technologies in support of health and health-related fields, including health-care services, health surveillance, health literature, and health education, knowledge and research,

. . . . . .

URGES Member States:

to consider drawing up a long-term strategic plan for developing and implementing e-Health services in the various areas of the health sector, including health administration, which would include an appropriate legal framework and infrastructure and encourage public and private partnerships;

to develop the infrastructure for information and communication technologies for health as deemed appropriate to promote equitable, affordable, and universal access to their benefits, and to continue to work with information and telecommunication agencies and other partners in order to reduce costs and make e-Health successful;

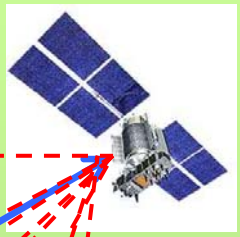
From WHA58.28 e-Health Resolution

The «National Telemedicine Agency» Research-and-Production Union

leading developer and supplier of telemedicine systems in Russia based on the newest information and telecommunication technologies, proposes to interested organizations the cooperation in creation in the Russian Federation of the National telemedicine system based on use of Mobile Telemedicine Complexes.

Availability of such complexes helps to raise essentially the level of health services to the population especially in the rural area, remote and hard-to-get-to districts.

Suggested Map of the Telemedicine Network of the Russian Federation

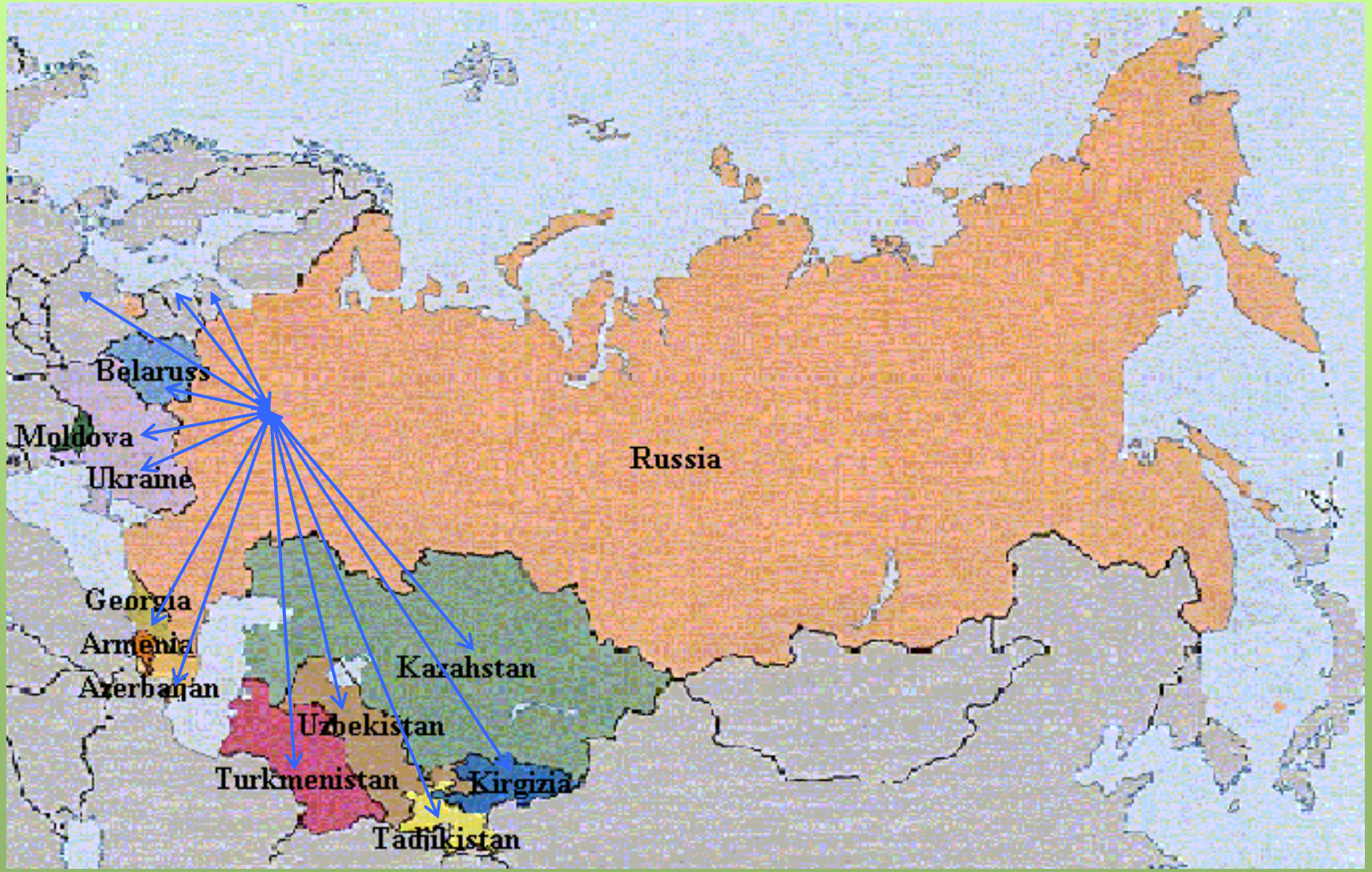


The National Telemedicine System (NTS) consists of two parts: network of telemedicine consulting-diagnostic centers, established in medical institutions in the Russia and info-communicated with them system of the Mobile Telemedicine Units (MTU) of different purposes. MTU's are intended for solving the wide spectrum of medical tasks and rendering of medical and social services to population in the rural area, remote and hard-to-access regions. Based on the International standards NTS can be integrated with similar systems of other countries.

- Stationary Telemedicine points

- Mobile Telemedicine Units

The telemedicine system of the Russian Federation is the basis for the subsequent its association with telemedicine system of the CIS and East Europe countries



Suggested Telemedicine Network represents 4-levels system:

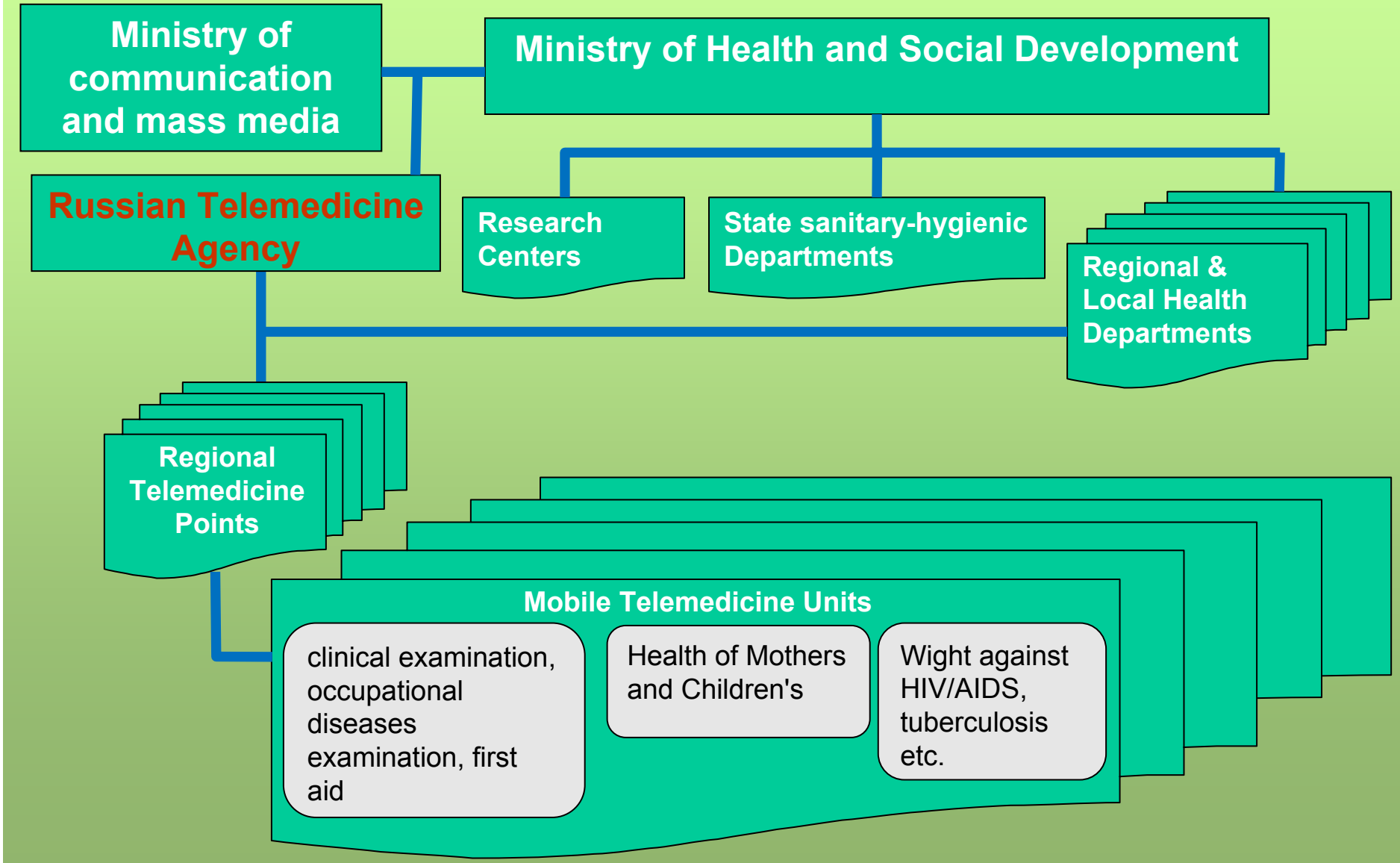
International Level

State Level

Regional Level

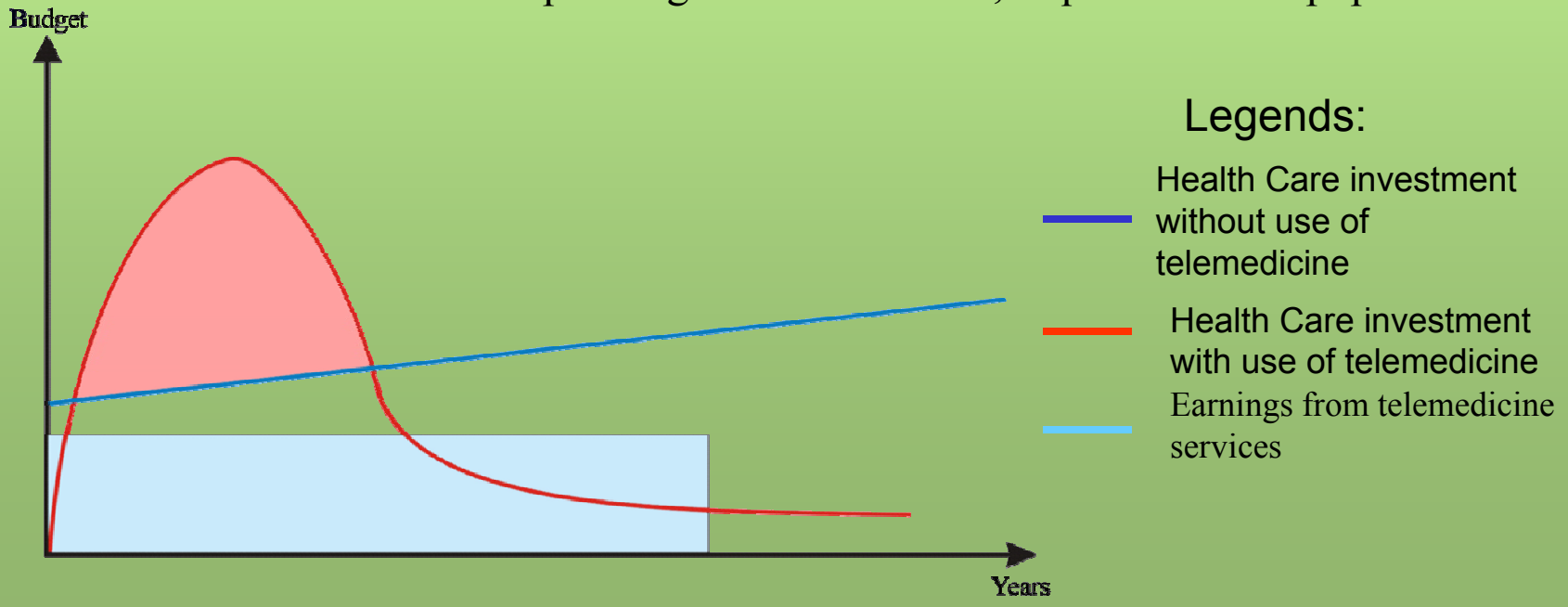
Local Level

Suggested Management Plan of the Russian Telemedicine Agency



Economical benefits of Telemedicine Technologies

Economical efficiency of using of telemedicine technologies consists in achievement of medical and social results with at charges essentially decreased financial expenditure, than it would be necessary by traditional methods, without use of Telemedicine technologies. In particular, optimization of expenditure is achieved due to expansion of primary medical and sanitary services according to modern standards, kinds and corresponding level of diseases, requirements of population.



Sphere of Using of Telemedicine Systems

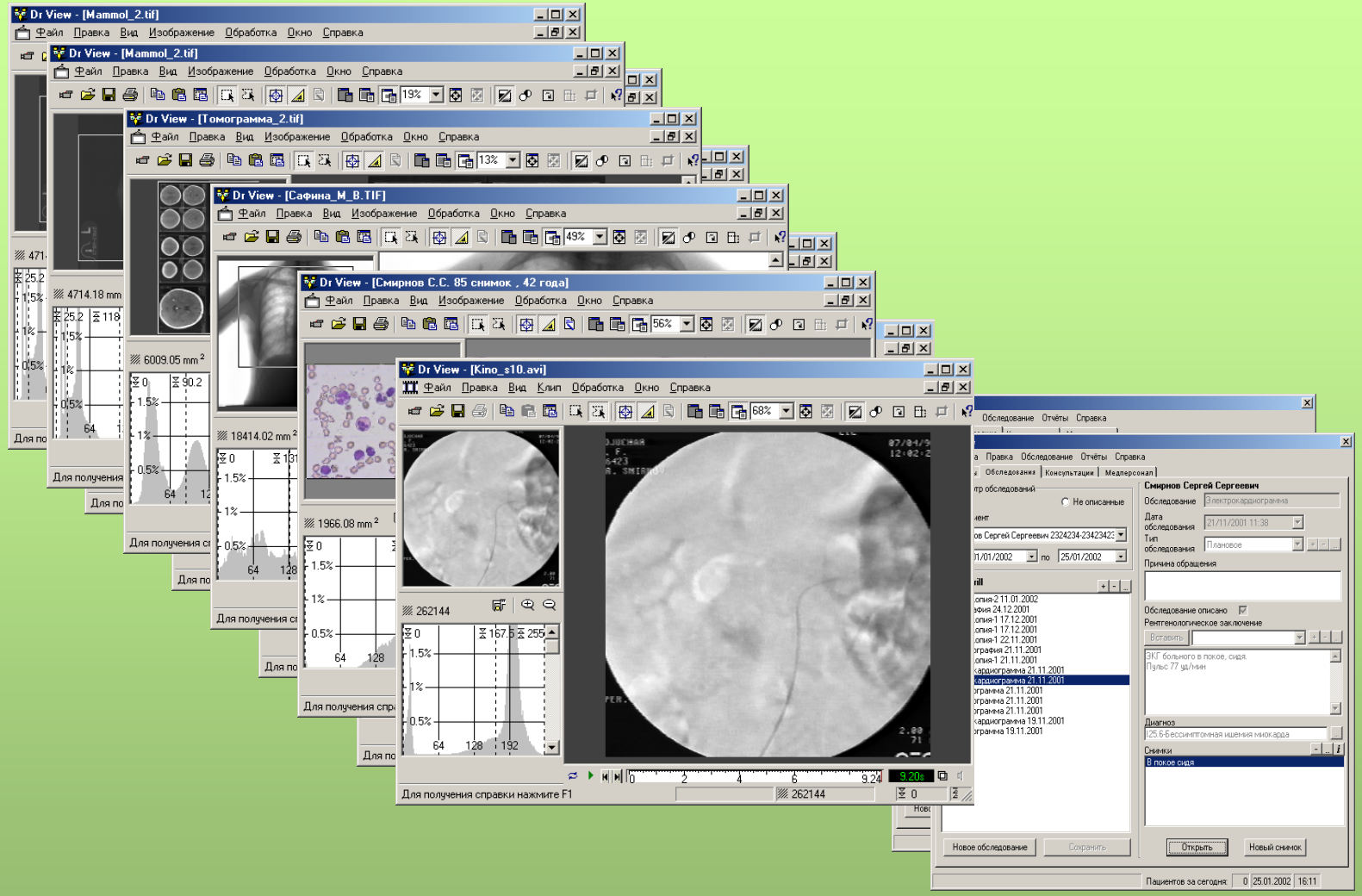
- Clinical Telemedicine
- Emergency Telemedicine
- Medical examinations and preventive health care
- Remote education
- Telemedicine in the rural area, remote and hard-to-access Regions
- Rendering of complex social services to the population in the rural area, remote and hard-to-access regions
- Telemedicine for militarized structures and assigned risk enterprises
- Monitoring and Control of epidemic situation in the Russian Federation
- «Personal» and «Home» Telemedicine

MOBILE TELEMEDICINE UNIT

Mobile telemedicine unit (MTU) is the basic component of the telemedicine project. The MTU is the leading telemedicine machine equipped for massive scale screening of large populations and provides primary medical care for individuals in undeveloped countries out of medical hospitals with help of telemedicine support and under control of the national medical centers. The MTU medical capabilities include the screening of large groups, X-rays by low radiation digital equipment, sampling for biochemical express-investigations and to carrying out functional diagnostics. The MTU telecommunication and telemedicine equipment includes satellite communication station VSAT, equipment for telemedicine consultations support, including videoconference communication, workstations for radiologist and biochemist, local network. MTU is meant for long autonomous raids.

General View of Mobile Telemedicine Unit in a working position

Interior of Mobile Telemedicine Unit



Types of electronic images on results of medical examinations, transmitted from MTU to the central medical institutions for inspection

Hall for telemedicine video conferencing
with telemedicine terminal

Telemedicine in actual fact - preparation for consultation

world summit
on the **information society**
Geneva 10-12 December 2003

Honorary diplomas and certificates awarded for RPU «National Telemedicine Agency's» Mobile Telemedicine Units

DIPLÔME

SALON INTERNATIONAL DES INVENTIONS

GENÈVE

Après examen, le Jury International a décidé

de remettre à: Vladimir TARNOPOLSKY, Mikhail NATENZON, Mikhail PERELMAN, Vladimir SERGIEV

pour l'invention: Procédé de diagnostic des maladies infectieuses

UNE MEDAILLE D'OR

Genève, le 2 avril 2004

Le Rapporteur du Jury

Le Président du Comité d'Organisation du Salon

"РОССИЙСКИЕ ИЗОБРЕТЕНИЯ - НА БЛАГО ЧЕЛОВЕЧЕСТВА!"

ЖЕНЕВА - 2004

ДИПЛОМ

Российского Организационного комитета по подготовке и проведению Международного Салона "Женева - 2004"

INTERNATIONAL TELECOMMUNICATION UNION

Telecommunication Development Bureau

24 December 2003

LETTER OF APPRECIATION

Within the framework of the World Summit of Information Society (WSIS), 10-12 December 2003, Geneva, Switzerland, this Letter of Appreciation was granted to the Project "Telemedicine System to Fight HIV/AIDS, Tuberculosis and Malaria" for making the best use of information and communication technologies and, in particular, to its key component "Mobile Telemedicine Unit" represented by the Administration of the Russian Federation and displayed publicly by the following companies:

- The Federal State Unitary Enterprise "Russian Satellite Communications Company";
- The Joint Stock Company "VITANET"; and
- The Group of Companies "TANA";

The "Mobile Telemedicine Unit" was recognized as most innovative real contribution to bridging the digital divide in line with the key strategic objectives for development of the Information society, endorsed at the World Summit of Information Society.

Under the auspices of ITU, the concept of this Project has been elaborated by a team of nine leading international experts, predominantly from the Russian Federation.

Hamadoun I. TOURE
Director
Telecommunication Development Bureau

ДИПЛОМ

Золотая медаль — Лауреат международного Форума

награждается: ВИТАНЕТ

За мобильный комплекс «Телемедицина»

Заместитель председателя оргкомитета международного Форума, заместитель Министра МЧС России М.И. Фалеев

Председатель жюри, Заслуженный писатель России, Герой России В.Д. Легошин

Директор выставки С.П. Тадеевчук

Москва 25-29 мая 2004 г.

DEUTSCHER ERFINDERVERBAND e. V.

IDEEN HABEN DIE WELT VERÄNDERT UND VERÄNDERN SIE HEUTE NOCH

Wir beglückwünschen

TARNOPOLSKY Vladimir, NATENZON Mikhail, PERELMAN Mikhail, SERGIEV Vladimir

zu einer hervorragenden Erfindung mit der Bezeichnung

Satellite Communication AntiEpidemic Screening Network, MOBILE TELEMEDICINE UNIT

und zeichnen hiermit diese Idee mit dem

PREIS DES DEUTSCHEN ERFINDERVERBANDES 2004

anläßlich der 32. Internationalen Messe für Erfindungen in Genf aus.

Nürnberg, im April 2004

Dipl.-Ing. Karl Bösch
Vorsitzender des Deutschen Erfinderverbandes

2005, Mr. Leonid D. Reyman, Minister of Information technologies and communication of the Russian Federation hands over MTU breadboard to Dr. Yoshio Utsumi, Secretary General of the International Telecommunication Union

During the International summit on information society taken place in Geneva in 2003, Dr. Hamadoun Toure, Deputy Secretary General of the International Telecommunication Union at that time, has examined MTU

world summit
on the information society
Geneva 10-12 December 2003

This MTU project is one of greatest Contributions to the Digital Divide Bridge - I am confident that together with the International Telecommunication Union (ITU) and the member States we will ensure a successful implementation of this project in many Countries in the world - MTU saves lives -!

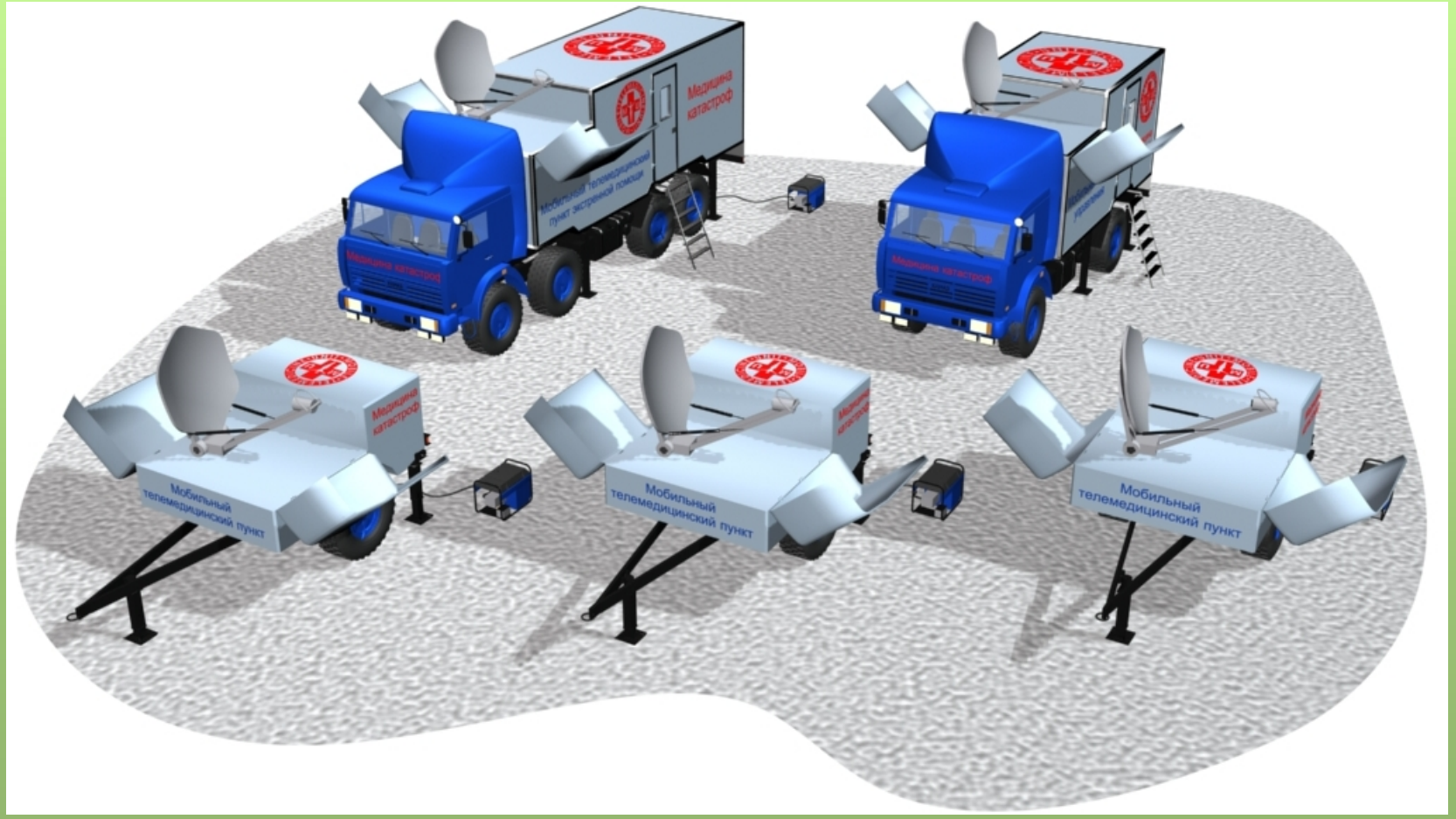
Thank you.

Hamadoun. I. TOURE
Director BDT/ITU.

10/12 - 2003. GENEVE.

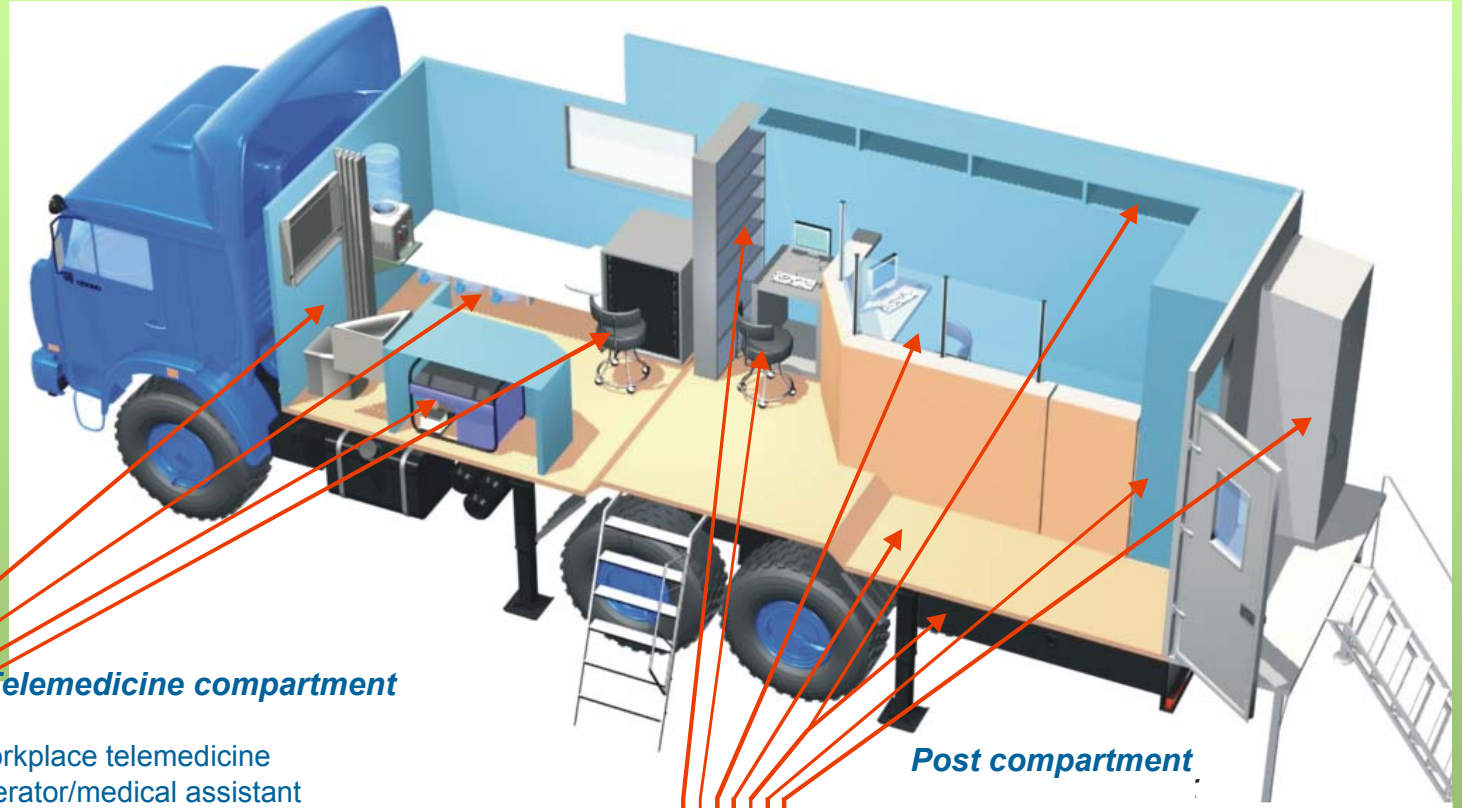
Telemedicine system for rendering medical services to the population during emergence situations

Mobile part of Telemedicine system for emergence situations



Small Mobile Telemedicine point of the Telemedicine System for emergence situations

Multipurpose mobile
Post complex «Cyber Twin»



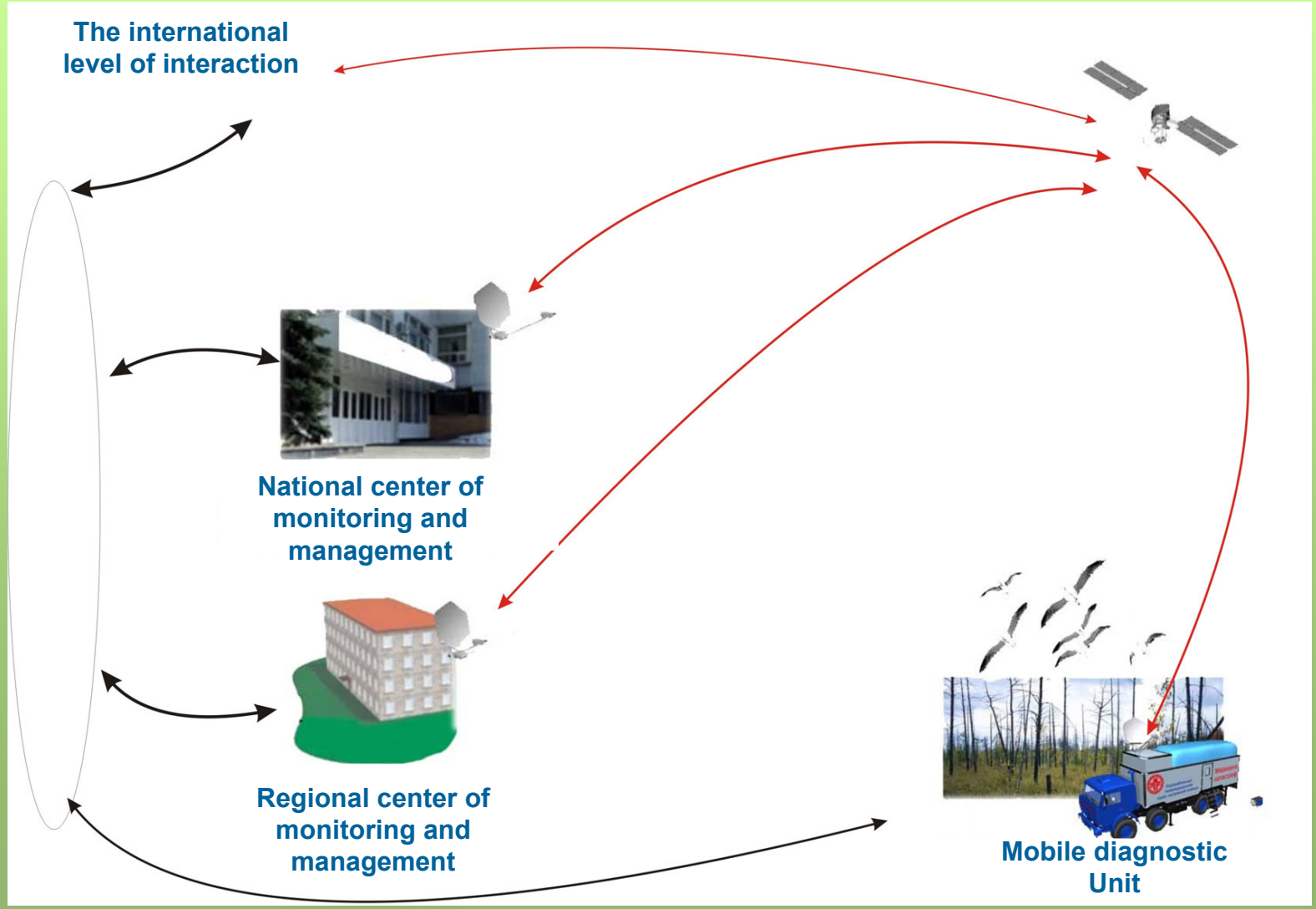
Telemedicine compartment

Workplace telemedicine
operator/medical assistant
Diesel generator
Household zone
Lavatory

Post compartment

Safe's compartment
The monetary safe
Containers for storage post
Departures container and the post operator
Zone of clients of the post operator
Workplace «Cyber Twin»
Workplace of the post operator
Show-window for accommodation of the consumer goods

System of monitoring and management of epidemic situation with use of info-communication technologies.



Intentional use of the SCAESNet (Satellite Communication AntiEpidemic Screening NETwork) system against a threat of pandemics (including A/H1N1 and its subtypes A (A/H1N1, A/H1N2, A/H3N1, A/H3N2 and A/H2N3) allows to support the following functions:

- on-site situation screening with the help of mobile units, including in remote and hardly accessible regions;

- transmission of information to the single situation center to provide control and management;

- fulfillment of the center directions in localities.

Implementation of system for epidemical monitoring allows:

- To locate in proper time the infected places and to prevent epidemic expansion;

- To provide epidemiological mapping of the area with the purpose of forecasting and mathematical modeling of opportunity of epidemic occurrence;

- To provide the coordination of the supervising and control authorities actions during detection and liquidation of infection niduses within the frame of the actions for prevention of infection drift on the territory.

Mr. Vladimir Putin, the President of Russian Federation, inspect the MTU
(The State Council of the Russian Federation in Kurgan City, October, 2, 2006)

The State Council of the Russian Federation
(Kurgan City, October, 2, 2006)
Mr. Vladimir V. Putin, the President of the Russian Federation, visits Mobile Telemedicine Unit

2006, conversation with Dmitriy A.Medvedev, Vice-Chairman of the Government of the Russian Federation, about the work of MTU

CIS Heads of Governments Summit
Kishinev (Moldova), November, 14, 2008
Presentation of the RPU «National Telemedicine Agency» telemedicine project

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«National Telemedicine Agency»
Research-and-Production Union

TANA GROUP

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