

# **ALIPRO NATIONAL REPORT**

## **LATVIA**

### **Overview of national research programmes on mobile telecommunications in Latvia**

#### **Executive Summary**

##### **ALIPRO objective**

ALIPRO<sup>1</sup> aims at supporting the alignment of the NMS' national and regional research programmes with the European IST research in the area of mobile technologies, applications, and services.

##### **Purpose of the document**

The national report endeavours to present the findings of ALIPRO carried out in Latvia. It comprises an overview on mobile IST situation and a detailed description of R&D programmes together with their evaluation. It contains also the conclusions drawn from the evaluation of the R&D funding system in Latvia. It is meant for institutions and individuals active in the field of mobility.

##### **The mobile sector in Latvia**

Latvian ICT Sector became entirely private in the early nineties after the completion of the privatisation process of state-owned enterprises. In 2004 there were around 150 IT and telecommunication companies operating in Latvia and the ICT sector employed around 5400

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<sup>1</sup> ALIPRO is an EU research project under Framework Programme 6. For more information on ALIPRO, please refer to <http://alipro.eurescom.de>.

people<sup>2</sup>. The Latvian mobile telephony market is developing very rapidly. During the period from 1996 till 2002 the number of subscribers of public mobile phone operator's network has increased from 28 5000 till 917 196<sup>3</sup>, but in the end of 2004 has reached 1,55 milj. subscribers<sup>4</sup>. It will continue to grow over the next years, thanks to the rapid expansion of mobile telephony, data transmission, and broadband internet access.

## Regulatory background

The market of wireless communication and mobile technologies in Latvia is regulated by the "Electronic Communication Law" adapted on 28th October 2004<sup>5</sup>. Above mentioned Law determines competencies, rights and obligations of the users, communication service providers, electronic communication networks owners and governmental institutions that are connected with electronic branch regulation, electronic connection providing, electronic services providing, as well as with using and management of limited resources. The Law is related to electronic communication networks for radio or television programmes distribution. The Law is not related to providing of information society services and the content of information transmitted or received within electronic communication networks using public electronic communication services.

The Ministry of Transport and Communications of Republic of Latvia is the main institution that is responsible for the telecommunication branch development in the Latvia.

Public Utilities Commission<sup>6</sup> according to the Cabinet of Ministers Republic of Latvia issued order No. 450 (14.09.2001) "About delegation of functions to Public Utilities Commission" is responsible for dealing with the regulating topics in the field of electronic communications.

The stable and fast growth in the sector is accompanied by the continuation of a market - oriented policy. The accession of Latvia to European Union in May 2004 prompted market regulators to push harmonisation of Latvian telecommunication law with European standards.

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<sup>2</sup> Central Statistical bureau of Latvia, <http://www.csb.lv>, 20.07.2005.

<sup>3</sup> The Ministry of Transport and Communications of Republic of Latvia, <http://www.sam.gov.lv/branchos/telecommunication/statistics/>, 20.07.2005

<sup>4</sup> <http://www.sprk.gov.lv/index.php?id=4060&sadala=336>, 25.07.2005.

<sup>5</sup> <http://www.likumi.lv/doc.php?id=96611>

<sup>6</sup> Public Utilities Commission, <http://www.sprk.gov.lv/>

## National research strategy

The Latvian Council of Science has developed a document describing the new national R&D policy entitled “**Guidelines for development of higher education, science and technologies 2002 - 2010**”<sup>7</sup>. This general document previews modifications of the legal system as well as identifies key R&D areas. The defined R&D priorities are information technologies, organic synthesis and biomedicine, material sciences, forest sciences and wood-pulp technologies, as well as Latvian studies. Therefore activities in the field of development of mobile technologies and services are under the information technologies as sub-branch and are defined as priority for development of the national economics.

It is planned that until 2010 high-tech products proportion in the Latvian export will reach 20-25%, as well as state financing for R&D will reach 1% of GDP but private financing for R&D will be attracted from 1,0-1,3 % of GDP.

On 8th April 2003 the Cabinet of Ministers of Republic of Latvia approved "**National innovation programme for 2003-2006**"<sup>8</sup> that main aim is to promote development of national capacity of innovations.

## National system of R&D financing

The system of science financing in Latvia is regulated and managed by the Ministry of Education and Science. Now it is in the transition phase, because new principles regarding financing European Structural Funds should be implemented.

In the initial phase of ALIPRO, a thorough exploratory research was conducted to identify ongoing national and regional research programmes covering mobility. Acquired information proved that there are no particular mobility-related research programmes in Latvia and that within existing programmes the share of mobility-related project in the total support granted is marginal. Public funds supporting R&D activities are allocated to all scientific disciplines by the Latvian Council of Science through two programmes “Fundamental and applied

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<sup>7</sup> Latvian Council of Science, [http://www.lzp.lv/latv/Vadlinijas5\\_Me.htm](http://www.lzp.lv/latv/Vadlinijas5_Me.htm), 15.07.2005.

<sup>8</sup> Ministry of Education and Science republic of Latvia, <http://www.izm.gov.lv/default.aspx?tabID=10&lang=1&id=435>

researches” and “Co-operation projects” and by the Ministry of Education and Science through one programme “Market oriented researches”.

Regarding the aims of ALIPRO all Latvian R&D programmes are evaluated basing on answers of IST projects' co-ordinators and/ or partners in above-mentioned programmes. The "Co-operation projects" programme has special subprogram for IST called "Research Supporting Latvian Informatics Industry" which is evaluated and described in this report. Therefore R&D financing programmes covering mobility are the following:

1. Fundamental and applied researches (FARES);
2. Research Supporting Latvian Informatics Industry (RSLII);
3. Market oriented researches (MORES).

## **Programme evaluation**

### ***“Fundamental and applied researches”***

FARES programme is founded and managed by Latvian council of Science. Funding covers the area of Latvia and is earmarked for state research institutions. It supports basic research. FARES is not specifically related to the area of mobility, however also the mobility-related projects fall within its scope. Operational goals of the programme are unfortunately not clearly defined. The defined R&D priorities for Latvian science are information technologies, organic synthesis and biomedicine, material sciences, forest sciences and wood-pulp technologies, as well as Latvian studies.

Annual budget for computer science branch is slowly decreasing, in year 2005 it is 259.231 EUR. Maximum single grant is approximately 15.300 EUR/year. Projects are financed in a form of reimbursement of expenses and amounts for 100% of the total expenses. Programme applicants submit project proposals in Latvian language till 1st June in two copies and electronic version as well. Application forms are available on the Latvian Council of Science website. The procedures of project evaluation and monitoring are not complex and are easy to understand. Registered project proposal goes to proper expert commission. Evaluation process takes about two weeks. During the one month period after the call is closing the Latvian Council of Science publish the list of financed projects in newspapers. The contract about project implementation is signed with project manager during the two weeks after the

decision about project financing. Every quarter the project manager has to submit a cost statement and till 1st February project manager has to submit yearly report about the project progress and results achieved.

FARES programme comprehensiveness is average. First of all, the programme is not specifically related to mobile IST neither in its entirety not in some part. Though some mobility-related projects were sponsored in the past, this is not a planned action which also reveals the quality and relevance of programme goals. The quality of communications within FARES programme is average. No one of the respondents has encountered information lack. The programme is known and recognised in the Country. The information regarding the programme respondents got from Internet. Programme information is not available in foreign language. FARES programme is inert and does not stimulate innovation. Its malfunction is based on lack of research objectives and strategic goals. The goals of the programme are neither specific nor measurable, neither aimed at restructuring Latvian research scene nor addressing the needs of Latvian economy in general. On the other hand, all respondents agreed that the programme goals correspond with their real research needs. As it supports projects from all disciplines of science, it is flexible in scope. This signifies that FARES might be a useful mean of support for the researchers. The administrative complexity of FARES programme is acceptable. The reporting procedures are apparent and reporting forms are available at the LSC website.

There are no specific financial guarantees or authentication required from the applicants. The application process efficiency within programme is fairly high. Average time dedicated by the beneficiaries for the proposal preparation is reasonable and the submission time constraints are convenient. Additionally, no specific formal constraints are applied within the application process. FARES programme is a passively opened programme since the participation of foreign partners is possible but without receiving founding. The projects funded by FARES can be supported from other programmes, however; this is neither stimulated nor widespread. Information on the programme is not available in English and the proposals cannot be submitted in English. FARES programme has a low financial capacity. The founder contributes usually in 100% to the budget of the supported projects. The maximum single grant is not determined by any legal documents, but practically is relatively low. Unfortunately, the budget of the programme is not increasing and for the last few years it has constituted a fixed percentage of the budget of science. Financial efficiency of FARES is

good. Programme management is not bureaucratic. Respondents did not experience any payment delays at founders fault. The quality of FARES programme management is average. The programme founder is supervising the supported projects. The quantity of supported projects is not big and do not need to implement a special software supervision tools. Unfortunately the programme is not revised nor adapted according to the changing circumstances. This might result in a decrease of the programme's impact. The transparency within FARES programme is acceptable. Inquired programme applicants are receiving report on proposal evaluation and are agree with the justifications provided in the aforementioned report. FARES programme has a substantial impact however it cannot be accurately measured. The programme facilitates development of the human capital as far as researchers and scientists are concerned. It also enables the scientists to carry their small research projects which often result in publications (books, articles). The respondents believe it is valuable as it facilitates them to achieve their research goals. The programme however has no direct impact on economy or industry. It influences the market rather in the long term.

The perspectives for FARES programme integration within the European Research Area are considerable. Recent focus of Ministry of Education and Science as well as and Latvian Council of Science attention on the European issues is evident.

### ***"Research supporting Latvian Informatics Industry"***

RSLII programme is founded and managed by Latvian council of Science. Funding covers the area of Latvia. The basic programme goal is to establish a scientific base for the corresponding profile of Latvian IT companies. The defined R&D priorities for Latvian RSLII is aimed for investigation and further development of system and software engineering methods, for transferring these methods to the Latvian IT companies. The programme is focused on further development of computer networks, on development of widely applicable innovative Digital Alias - free Signal Processing macro - modules for direct digital versatile processing of radio and microwave signals. Annual budget for Computer science for last four years is constant and it is 130.000 EUR. Application and evaluation procedures of programme are quite similar with "Fundamental and applied researches" programme procedures, because it is basing on the same rules. The difference is only in the field of project monitoring, project co-ordinator submits project that contains several subprojects for branch development. When the decision about project financing is made the project co-ordinator organises project board

from the participants of subprojects. The board is responsible for implementation and co-ordination of whole project, distribution of financing, changing of structure, partner organisations and subprojects` managers etc. Projects are financed form annual state funding for research and is supported by 100%. The contract about project implementation is signed with project co-ordinator during the two weeks after the decision about project financing. Project co-ordinator has to submit yearly reports about the project progress and results achieved to Latvian Council of Science.

RSLII programme comprehensiveness is average. First of all, the programme is not specifically related to mobile IST neither in its entirety not in some part. The comprehensiveness of RSLII is limited as participation of private R&D entities is restricted without a good reason. Small private R&D entities could turn out to be more innovative and efficient than public R&D organisations. The quality of communications within RSLII programme is low. One of the respondents answered, that the programme is not recognised in the Country. Programme information is not available in foreign language. RSLII programme does not stimulate innovation, but it is stimulating researchers for joint projects in one specific field. Programme is flexible in scope. Respondents agreed that the programme goals correspond with their real research needs. This signifies that RSLII might be a useful mean of support for the researchers. The administrative complexity of RSLII programme is acceptable. The reporting procedures are apparent and reporting forms are available at the website. There are no specific financial guarantees or authentication required from the applicants. All respondents consider RSLII programme procedures not excessively bureaucratic. The application process efficiency within RSLII programme is fairly high. Average time dedicated by the beneficiaries for the proposal preparation is reasonable and the submission time constraints are convenient. Additionally, no specific formal constraints are applied within the application process. RSLII programme is a passively opened programme since the participation of foreign partners is possible but without receiving founding. The projects funded by RSLII can be supported from other programmes, however this is neither stimulated nor widespread. RSLII programme budget is relatively high comparing to other Latvian R&D programmes. The founder contributes usually in 100% to the budget of the supported projects. The maximum single grant is not determined by any legal documents, but it is practically depend from money resources, subdivided for this branch of science. Unfortunately, the budget of the programme is not increasing. Financial efficiency of RSLII is good. The

programme management cost rate is not monitored (or not available publicly), but it is practically low, because programme management is not bureaucratic. Respondents did not experience any payment delays at founders' fault. The quality of RSLII programme management is average. The programme founder is supervising the supported projects. The quantity of supported projects is small and do not need to implement a special software supervision tools. The programme is relatively new and does not need revision at the moment. The transparency within RSLII programme is average. Inquired programme applicants are receiving report on proposal evaluation and are agree with the justifications provided in the aforementioned report. RSLII programme has a substantial impact however it cannot be accurately measured. The programme facilitates development of joint research projects. The respondents believe it is valuable as it facilitates them to achieve their research goals. The programme however has no direct impact on economy or industry. It influences the market rather in the long term. The perspectives for RSLII programme integration within the European Research Area are considerable.

### ***“Market oriented researches”***

MORES programme was opened in 1993 in order to finance small applied research projects, to promote integration of science and industry as well as development of technologically oriented SMEs. The Programme founder is Ministry of Education and Science Republic of Latvia and managing institution is Department of Science in the same Ministry. Programme is founded for all knowledge based branches and priorities aren't defined. Therefore programme is open for mobility related research projects proposals. Project could be implemented in higher educational institutions, state research institutes and centres, companies and other organisations that promote science and industry co-operation. Comparing with the very beginning the annual programme budget has increase double however during the last 5 years it is in the frames of 1 200 00 - 1 400 000 EUR. Maximum single grant is approximately 14.000 EUR. There is no term for project application, it means that project applications could be submitted throughout the year. Application forms are available on the Ministry of Education and Science website. Experts of Latvian Council of Science take scientific expertise and they evaluate qualification and experience of project team on the proposed topic, competitiveness and novelty of scientific idea, accomplishment of the deliverables and how reasonable are planned costs. If the project planned costs from state budget overrun 10

000 LVL (approx. 14.285 EUR) than a statement of a body of branch experts from Latvian Council of Science is needed. Independent branch experts do the economical expertise. They evaluate company possibilities to co-finance the project, how reasonable are planned costs, possibilities to reach the objectives and impact to national economy. The project has to be implemented as well as financed in the frames of stages. Each stage is not longer than 6 months. Advance payment is paid for each stage - 50-80% of all stage costs. At the end of the stage the project co-ordinator has to submit informative report, handing - over protocol, cost statement and report about contractors. The main aims of the programme have not been changed since 1993, only the project evaluation procedures have become stricter and complicated.

MORES programme comprehensiveness is average. First of all, the programme is not specifically related to mobile IST neither in its entirety not in some part. Though some mobility-related projects were sponsored in the past, this is not a planned action which also reveals the quality and relevance of programme goals. However, MORES supports projects from all disciplines of science, therefore it has no thematic gaps. Nevertheless the MORES programme gives a great opportunity for small private high-tech enterprises to attract researchers for development of actual research works, int. al., - in the field of wireless or other mobility-related branches. The quality of communications within MORES programme is average. The programme is known and recognized in the Country. The information regarding the programme respondents got from Internet. Most of them not used other information sources for preparing the proposal, as well as were quite satisfactory according quality of support provided by the programme founder. Programme information is not available in foreign language.

MORES programme really stimulates innovation, because projects are oriented to industry needs. In a lot of cases high-tech companies are participating in applied research. Its malfunction is based on lack of research objectives and strategic goals. All respondents agreed that the programme goals correspond with their real research needs. As it supports projects from all disciplines of science, it is flexible in scope. This signifies that MORES might be a useful mean of support for the researchers. The administrative complexity of MORES programme is acceptable. The reporting procedures are apparent and reporting forms are available at the Ministry's website. There are no specific financial guarantees or authentication required from the applicants. All respondents consider MORES programme

procedures not excessively bureaucratic. The application process efficiency within MORES programme is fairly high. Average time dedicated by the beneficiaries for the proposal preparation is reasonable and the submission time constraints are convenient. MORES programme is a passively opened programme since the participation of foreign partners is possible but without receiving founding.

The projects funded by MORES can be supported from other programmes. Information on the MORES programme is not available in English and the proposals cannot be submitted in English. MORES programme has a low financial capacity. The founder contributes usually in 50% to the budget of the supported projects. The maximum single grant is not determined by any legal documents, but practically is relatively low – not exceed 14 thousands EUR. From 2006 the budget of the programme will be increasing – European Structural Funds will be available, but the rules of financing will be changed too. Financial efficiency of MORES is good. Programme management is not bureaucratic. Respondents did not experience any payment delays at founders' fault. Unfortunately some respondents indicated that the founder reimbursed not all-eligible costs. The quality of MORES programme management is average. The programme founder is supervising the supported projects.

The quantity of supported projects is not big and does not need to implement a special software supervision tools. The programme founder is planning to do programme revision in this year already, because will available new financial resource. The transparency within MORES programme is acceptable. Inquired programme applicants are receiving report on proposal evaluation and are agree with the justifications provided in the aforementioned report. Nobody of the evaluation survey participants believe that the results of the evaluation process depend on lobbying activities. MORES programme has a substantial impact however it cannot be accurately measured. The programme facilitates development of applied research for new technologies and products. The respondents believe it is valuable as it facilitates them to achieve their research goals. The programme has small, but direct impact on industry, because supported projects for innovative industrial companies. The programme could be practically used for Latvian researchers` involvement in the ERA because EUREKA projects have been financed too, as well as this programme is like a first step for submitting projects to EU Framework Programme.