



**National Institute of Research-  
Development on Labor Protection**

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**INSTITUTIONAL  
DEVELOPMENT PLAN**

**2012-2015**

**December 2011**

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## Introduction

INCDPM promotes and develops applicable research within the national and international field of safety and health at work in the benefit of private and public companies. By developing the technological innovation for its beneficiaries, INCDPM increases their competitiveness both in Romania and in Europe. The research activity promotes the economic development of the society for its social well-being in compatibility with the environment. INCDPM provides the development of the professional training giving access at responsibility positions at the level of the institute, industry and other scientific areas.

### 1. Scientific Swot Analysis

The strategy is meant to lead INCDPM to a maximum “market quote” in a fast changing world. Applying such strategy having in account abilities and competence of our employees, organization structure (which is flexible, but allows planning) and possibilities of performance monitoring for the correction of deviations. The management will have as main task to achieve the strategic plan objectives and to carry out possible changes.

An analyse of the competitive environment would help to define the strategy for the next period. **According to Porter model** the profitability of the environment of an organization is affected by five forces:

#### **a) Intensity of the competition based on the domain structure :**

In the field of basic research is a competitor at national that covers 75% of the research services market. The research services market offered by INCDPM pointed out in the last 4 years a regress period (2008-2009) followed by a linear increase. The services offered by the competitors are similar but the quality makes a difference based on the employees qualification. INCDPM prices are relatively fixed and are direct correlated with the competence level of the employees because INCDPM has experts of high qualification in the expertise field.

#### **b) Threats from the newcomers**

Some of the research services offered by INCDPM (ex. work accidents expertise) needs the existence of a specialised research infrastructure, in fact this means a brake of newcomers on the market entry.

On the other sight the existence of non-refundable funds, public assistance for the business development could be considered as common factor for the market entry of newcomers, but usual clients prefer to turn to entities that can demonstrate the anterior experience in the field (OPC, ITM)

The entry on such a market is not easy, clients prefer to work with companies that can present “success stories”. The Institute CV and experts employee CV is very important, so that the newcomers are faced with serious barrier at the moment of their market entry.

#### **c) The negotiation power of the clients**

INCDPM has traditional clients with major contractual values (Hidroelectrica, Enel), equipment producers that need product certification but this clients can not impose contractual values because there is no possibility of similar services at the national level and the purchasing of this services on the European market can bring illegitimate price rising.

The INCDPM clients are in good commercial relations, not in constrained positions.

#### **d) The negotiation power of the suppliers**

The INCDPM suppliers are not selling unique products and services, but there are some particular situations where at European level is a single supplier. The cost to work with another supplier is high because of the incompatibility risk with the existent infrastructure.

The suppliers do not depend on the INCDPM field evolution and can not perform the services offered by INCDPM.

**Conclusion:** The suppliers are not in a force position with INCDPM however the Institute can not neglect the consequences of their changing.

#### **e) Threat from the products or services replacers**

The dynamic of policy and European legislation requires the replacement necessity of existent products/services with new services types, every new service bringing the possibility of new competitors entry on the market.

Conclusion: It's mandatory like the offered services to contain a innovative component and bring the real added value for their beneficiaries.

### Scientific Swot Analysis

<b>Strengths</b>		<b>Weaknesses</b>	<b>internal environment</b>
<ul style="list-style-type: none"> <li>-the organisation has positive evolution as for the produces/services offered;</li> <li>-the organisation has management systems implemented (ISO 9001, OHSAS 18001, ISO 14001);</li> <li>-quality and structure of human resources, well defined competences of personnel;</li> <li>- varied R&amp;D infrastructure which has been recently acquired</li> <li>- appropriate communication infrastructure ;</li> <li>-the organisation has personnel of unique qualifications at national level on certain research areas: identification and assessment of risk factors in all industries; technical solutions to improve the OSH performance;</li> <li>-interdisciplinary teams of experts trained in various areas: chemistry, biology, physics, mechanical and electric engineering, psychology, humanities, economy, etc;</li> <li>-possibility of approaching multidisciplinary topics</li> <li>-laboratories accredited by RENAR</li> <li>-EU notified body for the Directive 89/686/CEE</li> <li>-body accredited by RENAR EN45011</li> <li>-reputation acknowledged at national and international level;</li> <li>-experience of the team members in produce/service oriented research</li> <li>-specific country niche for a part of provided services</li> <li>-for certification exists a niche at EU Regional (Cyprus, Bulgaria, Moldova ,Turkey etc)</li> </ul>		<ul style="list-style-type: none"> <li>-lack of procedures to allow building upon the opportunities identified on the market in due time;</li> <li>-little experience in developing international projects;</li> <li>-rather low international visibility (relatively low number of ISI publications in recent years);</li> <li>-relatively aged personnel;</li> <li>- lack of personnel specialized in marketing and promotion;</li> <li>- lack of personnel specialized in PR</li> <li>-inefficient motivation diagram of personnel.</li> </ul>	
<b>Opportunities</b>		<b>Threats</b>	<b>external environment</b>
<u>S</u> ocial	Increase the importance of safety and health at work issues – part of the European strategy. Lack of amenity for careers in research	Migration of the work force in the research area can result in decreasing the interest of the target group due to the lack of young human resource in the area.	
<u>T</u> echnological	Existence of research equipment and devices on the market that facilitate the INCDPM service offer	Possible crisis to occur at finding technical personnel specialized in developing such equipment	
<u>E</u> conomic	The OSH implementation is compulsory by all types of organisations and generates an increasing number of contracts.	The present economic state pushes competitors to diversify their portfolio on certain client domains that will implicitly increase competitiveness. The budgetary constraints that limit the funding of research activities in the safety and health at work area; high fees of international patents - insufficient funding of research out of private funds	

<u>E</u> cological	The necessity to comply with certain environment requirements according to EU regulations brings about the necessity to invest in the environment infrastructure of the target groups and implicitly, get certifications for their produces/services/technologies	The integration in EU has lead to strong rules on environment requiring investment costs in this respect, impossible to cover by a great part of the target group.	
<u>P</u> olitics	-Presence of national legislation harmonized with the provisions of the European Directives in the area	-Including claims in the contract that allow the unduly cuts of budget	

## 2. Objectives and priority and strategic scientific directions

The experience of the 4 teams is the base of the following scientific lines, objectives and targets:

### **Direction 1: research of occupational risks, their impact on the employees health and safety, prevention of professional illness and work accidents risks**

#### **Objectives:**

- research on work equipment risk and on complex interfaces human-machine
- research on psychosocial risks and mental health promotion at the work place
- research on musculoskeletal disorders, dangerous substances
- research on reproduction risks
- research on risks of combined factors (example: combined exposure at physical and chemical agents)
- research on potential risk associated with nanotechnology
- research on demographic evolution impact risks
- assessment and prevention of risks that can lead to serious or lethal accidents (example: electrical risks, height falling risks)

#### **Main indicators:**

- Number of objectives: minimum 4
  - Number of projects: minimum 8
  - Number of published articles: minimum 8
  - Number of conference, work-shops participation: minimum 4
- work organization and creating workplaces, ergonomics

### **Direction 2: research on the national regulation system settlement in the field of safety and health at work and on the support of the national legislation adjustment policy at the community aquii and to develop and improve the legislative frame of safety and health at work**

#### **Objectives:**

- development of theoretical and conceptual safety and health at work base
- settlement of the national regulations system in the field of safety and health at work
- adaptation at social and demographic changes of workforce changes including the individual workers
- development of new tasks of costs assessment of work accidents and professional illness

#### **Main indicators:**

- Number of objectives: minimum 2
- Number of projects: minimum 4
- Number of published articles: minimum 4
- Number of conference, work-shops participation: minimum 2

### **Direction 3: research for establishing the general requests regarding the safety and heath at work place and work environment that lead to the improvement of safety and health at work level**

#### **Objectives:**

- setting up of safety and heath requests for the prevention of workers exposure at psychosocial risks
- research on the decreasing of noxious emissions (noise, carbon emissions) at the work place

- research on the creation of chemical noxious neutralization equipment
- work organization and creation of work places
- development of new tasks for the audit of labour systems

**Main indicators:**

- Number of objectives: minimum 4
- Number of projects: minimum 8
- Number of published articles: minimum 8
- Number of conference, work-shops participation: minimum 4

**Direction 4: research for establishing the safety and health requests applicable to products and equipments and products accomplishment (individual protective equipment, technical equipment) according to the present technical progress for Romanian product competitively increase on the European market**

**Objectives:**

- research on the definition of new testing methods and new minimum requests/characteristics of protection or security applicable on specific groups of work equipments and individual protective equipments
- research for the creation of test stands for work equipments and individual protective equipments
- research on new control methods and assurance of work equipments quality
- research on development of new test methods and assessment of individual protective equipments for pesticide work
- research on protective footwear in case of exposure at ice slipping risk
- research on individual protective equipment against height falling
- research on protection level of the electro insulating tools and equipments

**Main indicators:**

- Number of objectives: minimum 3
- Number of projects: minimum 6
- Number of published articles: minimum 6
- Number of conference, work-shops participation: minimum 6
- Number of test procedures: minimum 3
- Number of assessment procedures: minimum 3
- Number of infrastructure procedures of testing created or procured: minimum 3
- Number of accredited tests: 1
- Number of articles: minimum 1

**Direction 5: applicable researches for the support of Romanian companies, especially of small and medium companies, in their improvement actions of work conditions according to legislative requires of safety health at work**

**Objectives:**

- elaboration of methodologies and guides for the legislation applicability, elaboration of safety and health instructions for economic agents
- elaboration of informatics systems for the promotion and dissemination of knowledge
- elaboration of grids, standards and instructions for safety and health at work
- research on the creation of specific protective devices
- research on the noxious level at the work place and on the establishing of measures necessary to improve the work conditions
- research on the assessment of work places and calculation of the safety level at the work place
- elaboration of software for the assessment and databank of risk, work organization

**Main indicators:**

- Number of objectives: minimum 3

- Number of projects with economic agents: minimum 100
- Number of methodologies: minimum 2
- Number of published articles: minimum 4
- Number of conference, work-shops participation: minimum 4

**Direction 6: Development of a prevention culture by continuous training in the field of safety and health at work**

**Objectives:**

- improvement of national system of the training and further training system of employees necessary in the field of safety and health at work
- elaboration of requests and competences necessary for the training of workers with tasks in the safety and health at work field
- elaboration of expert systems for training – testing
- elaboration of informatics systems for the promotion and dissemination of knowledge
- elaboration of documents for the training and further training of employees (books, handouts, guides, knowledge tests)

**Main indicators:**

- Number of objectives: minimum 3
- Number of projects: minimum 8
- Number of new approved trainings: minimum 3
- Number of trainings: minimum 16

**Direction 7: widening of the research field for safety and health at work related fields**

**Objectives:**

- research on the environment and impact of dangerous noxious at the work place upon the environment and population
- research on corporatist social responsibility
- research on waste products in the labour process
- research on major risks (Seveso II) , assessment of this risks, management of the risks at the company level and their reporting
- loss control beginning with the unjustified stop of production, trash and finishing with major calamities
- quality management

**Main indicators:**

- Number of objectives: minimum 4
- Number of projects with economic agents: minimum 4
- Number of methodologies: minimum 4
- Number of published articles: minimum 4

The research lines are correlated with:

- National strategy regarding safety and health at work during 2008-2012 establishing as objectives the decrease of work accidents and improvement of safety and health at work level for the economy and consider research as one of the factor that can have a major influence on the objectives achievement.
- Community strategy during 2007-2012 regarding the health and safety at work “quality and productivity improvement” with the main objective reduction with a rate of 25% of work accidents at 100 workers, with main tasks to accomplish this objectives the implementation of legislation, support of SMC in applying the legislation, development of methods for the identification of new potential risks, promoting of safety and health at work.
- European strategy “Europa 2020 – A European strategy for the intelligent, ecologic, development and favourable inclusion” that underlines the role of research innovation as main elements of the future economic development and has in the program targets: decrease the greenhouse gas emissions, decrease

of carbon emissions, but also education, training and continuous learning, development of digital society, disseminating online the knowledge.

### **3. Human resource strategy**

The main factor that can assure the accomplishment of INCDPM major objective, to obtain excellence in research and training in the field of safety and health at work is given by the human resources. In consequence, the development of human resources through actions and selection activities of new employees and training and further training must represent a necessary, complex, continuous and full of responsibility process in the next period.

The elaboration of INCDPM policy and strategy in the field in human resources is based on the present situation analyse and on the social economic context and is correlated with the strategy in field of research-development.

Out of the main problems INCDPM is faced with, resulting from the analysis of the present situation in the area, it should mentioned:

- relatively low number of certified research and development staff and increase of the average age;
- average age of the INCDPM research and development staff is about 45 years old;
  - in a department the staff average age is above 45 years old;
  - average age of CSI and CSII is above 55 years old;
  - number of uncertified scientific researchers is still low;
- still low capacity of scientific collaboration and integration at European and international level.

As determining factors for the evolution of the human resources, it should be mentioned:

- commitments assumed in bilateral and international treaties in the area of science and technology;
- necessity to apply in Romania the European policy in the health and safety area, implying an increase of the research activity in the area;
- present R&D contracts that justifies such necessity
- increase of demand for research generated by the economic environment due to the pressure of technical and economic requirements at the company level (technological level, quality, environment, trade requirements, etc.) to access European and international market;
- existence of skilled workforce on the market having the necessary qualifications (engineers, sociologists, psychologists) who, with specific and adequate training could get the necessary competencies to carry out research activities in the area;
- existence of INCDPM specialists implied in international cooperation ( 1 researcher developing a PhD abroad, 1 researcher working temporarily abroad);
- identifying the research sectors uncovered with specialists and attracting the young graduates of university studies (sociologists, psychologists, physicians, chemists, construction engineers, electronic engineers) towards research.

The strategy in the human resources area shall be based on permanent communication with employees on the institute policy, including the economic development plan in order to make them aware of the proposed measures, their deadlines and motivation.

#### **3.1 Recruiting policy**

INCDPM aims at increasing the research and development potential and proving on long term a sufficient number of specialists that have the capacity to develop multidisciplinary projects in all departments and compartments by recruiting young people skilled in specialties which lack at the level of the institute and train them as researchers in the safety and health at work area and related disciplines. INCDPM will permanently have in view completion of necessities on specific competences in carrying



out the R&D projects through public – private partnerships agreed in fixed time and/or part time contracts.

.For this objective, INCDPM will:

- promote the institute in technical universities;
- employ mainly young specialists;
- settle clear employment assessment criteria, with focus on professional training and basic knowledge of foreign languages;
- train as researchers under the surveillance of the senior researchers.

### **3.2 Training of Staff**

INCDPM provides and/or facilitates the continuous professional training of research and development staff as basic element in improving the quality and level of professional training for the research and development staff and the research potential in order to increase the capacity of facing the challenging environment in Romania and European Union.

INCDPM provides and/or facilitates the staff professional training in the area of administration, marketing in order to increase work performances and productivity.

.In this respect, INCDPM will:

- provide research staff training to acquire new competences, specializations and degrees (masters, post-university courses, PhDs in the areas of safety and health at work, environment, quality management, safety and health at work, social responsibility, audit management) and foreign languages (preferably English) through:
- support staff to attend masters, PhDs by flexible work schedule and infrastructure; 4 masters and 7 PhDs are being developed;
- Provide funds for staff to attend external courses: 5 courses/year;
- Organize courses with external lecturers at INCDPM venue 1 course/year;
- Support staff to attend certified courses organized by INCDPM together with other universities providing flexible working program: 3 courses/year;
- Specialize potential project managers in the management and administration of research and development projects to improve the percentage of the accepted projects at the auctions organized in the national and international research programs: 2/year;
- Provide training for the staff of administration and auxiliary compartments through training courses in the use of computers and eventually foreign languages 1/year.

### **3.3 Mobility**

INCDPM aims at supporting the mobility of the research and development staff within the organization, among departments, as well as collaborations or partnerships with other organizations and universities as elements that favor multidisciplinary training of experts and increase capacity to cope with the challenging environment in Romania and European Union.

At the same time, INCDPM will have in view to reduce the permanent leave of valuable researches.

Thus, INCDPM will:

- send specialists to trainings at foreign prestigious universities and institutes;
- support mobility of researches; attract young candidates for PhD, post doctoral researchers, as well as experienced researchers;
- carry out research and development partnerships with institutes and universities;
- increase international collaboration and support participation of young specialists in programs and projects;
- develop and provide an adequate work environment, decent work places that meet all the requirements of fire fighting, safety and health at work and environment protection;
- increase motivation degree also by raising the wages.

### 3.4 Mechanisms for Staff Assessment and Stimulation

The INCDPM objective is institutional development, settlement and application of management procedures and instruments that provide better participation of researchers in decision making and improve promotion criteria. Consequently, the following mechanisms will be applied:

- settle objective promotion criteria that have in view the participation level in national or international projects, international patents and publication of research outcomes;
- increase national and international visibility of organization and specialists, mainly the young ones.

### 3.5 Gender Policy

INCDPM provides the equality of opportunities and treatment among employees, women and men, within the working relations. INCDPM does not discriminate by using practices that creates disadvantages based on gender in relation to work.

All staff has equal treatment irrespective of gender, race, age, civil status, family, sexual orientation, nationality, religion, disability, political or trade union activity. INCDPM has a transparent employment and stimulation policy of staff in recruiting and promoting as only personal qualities and achievements related to professional position are taken into consideration and not the above mentioned factors.

Thus, it results a good working and training environment in which everybody's rights and dignity, without discrimination, prejudice, intimidation and any form of harassment.

The main objectives and proposed targets are presented in the table bellow:

<b>Specific Objectives</b>	<b>Proposed Measure</b>	<b>Performance Indicator</b>	<b>Deadline</b>
1. Increase in research and development potential	- Employ young specialists in the areas lacking staff	- Number of newly employed persons with university studies: minimum 2/department - Maximum age of newly employed: 35 years old	- No later than 20.12.2012 - PPE Department: June 2011 - WE Department: December 2011
-	- Apply flexi security principles at employing the research staff	- Number of researchers of part time employment	- Minimum 4 /year with annual monitoring
-	- Actions to attract future university graduates	- Number of presentations at universities: minimum 2/year -	- 30.06.2012 for the first presentation
-	- Promoting competitions based on scientific and objective criteria	- Increase in number of researchers with 30% in the next 4 years	- minimum 10%/year, annual monitoring
-	- Support for young researchers to complete their PhDs	- Increase in the total number of PhDs: minimum 6	- 2/year, annual monitoring
-	- Promotion of young specialists as certified researchers	- Increase the percentage of researchers of under 45 average age from about 60% at present to about 75%	- 20.12.2012: 65% - 20.12.2014: 75%
2. Raise the employees' professional skills and research potential	- Introduce the number of communications in magazines of conferences as professional assessment criterion	- Number of communications per researcher: minimum 2/year	- Annual monitoring
	- Support the continuous training of	- Number of new specialists as	2/year, annual

	specialists to acquire new competences in the area of safety and health at work as well as multidisciplinary and related areas with INCDPM funding the participation	candidates for PhD: 8 - Number of specialists that attend post university courses or certified courses: 16 - Number of specialists attending notified/certified courses of foreign languages - Number of specialists attending project management courses	monitoring 4/year, annual monitoring  1/year, annual monitoring  1/year, annual monitoring
3. Increase professional performances of employees in the administrative area	- INCDPM funding the courses on computer use for the staff	- Number of trained persons: 1/year	Annual monitoring
4. Increase national and international visibility of organization and specialists	- Support the young researchers to participate in congresses, round tables and works of European and international professional organizations by funding such actions	- Number of participation: minimum 4/year	- Annual monitoring
5. Institutional development	- Settle remuneration and motivating promotion criteria including mainly professional degrees, participation in national and international projects, elaboration of articles and books published in impact magazines or well known publishing houses, participation in international conferences	- Remuneration criteria - Updated promotion criteria	- 30.06.2012
-	- Institutionalization of a consulting system for employees on decisions of INCDPM research and development infrastructure	- Elaboration of procedure on consulting and participation of research staff in decision making - Registration of proposals and directing them to the top management	- 20.03.2012  - Once a semester

## 2. Mechanisms for stimulating the appearance of new research directions

To encourage the approach of new research topics, INCDPM shall put in place the following instruments:

### a) INCDPM Scientific Council's Meetings

At present, the Scientific Council's Meetings of INCDPM represent a valuable instrument generating new research directions and objectives, particularly when it comes to approaching general topics applicable at national or sectorial level.

Improvements are expected as a result of the Scientific Council's activity providing that information materials are issued on the R&D directions, policies and programmes as set up at European and national level or by similar R&D institutes in the area.

A person shall be nominated to periodically analyse any 'call of proposals' regarding the participation in European projects and to transmit the information to the institutes' departments.

### b) Setting up a centralised system of 'call of proposals' collection from the researchers.

At present, this mechanism is operating but in an informal way. This task shall be assigned as a mandatory work task to the certification personnel and the heads of departments.

- c) **Strengthening the collaboration** relations with the universities and other institutes with related research activities of the country and setting up a consultancy mechanism to be operating at least once a year and prior to initiating a national R&D programme.

At present, INCDPM has collaboration relations with important universities in the country e.g. the Academy of Economic Studies (ASE), the 'Carol Davilla' University of Medicine and Pharmacy of Bucharest, the 'Gheorghe Asachi' Polytechnic University of Iasi, 'Petrosani' Technical University etc. Similarly, the institute collaborates with institutes of the textile industry. It's essential to develop such collaborations particularly with universities having OSH related disciplines in their curricula e.g. the Polytechnic University of Bucharest.

- d) **Collection of data based on the customers feedback**

Many of the previous mentioned objectives have been set up upon the customers' direct request or following a synthesis of the information supplied by these ones. The customers shall be formally asked to indicate which are the precise research areas they envisaged as being helpful to be investigated at national level through questionnaires for the customers' satisfaction assessment.

- e) **Organization of workshops**, at least on a yearly basis, in order to identify the needs of the economic agents in terms of research & development, and services.

At present, INCDPM's prospective approach is mostly based on the data supplied by the economic agents during contracting meetings or during the meetings of the Standardization Committees given that INCDPM holds the Secretariate of eight Standardization Committees and has designated members in at least ten of the overall Standardization Committees.

- f) **Setting up of strategic partnerships with DG Research and Innovation** of the European Commission and with other European institutions thus allowing the identification of the main research directions as established at European level. INCDPM is one of the very few research institutes of Eastern Europe that has kept on operating in the OSH area. Thus, the institute may represent a solid core of development and dissemination of information on occupational safety both at national level and for the other countries of the region.

- g) **Establishing strategic partnerships** with similar EU organisations e.g. IFA – Germany, Prevent-Belgium, INRS and INERIS-France, HSL-UK, TNO-The Netherlands, CIOP-PIB – Poland and 'Josef Stefan' institute of Slovakia. INCDPM has developed collaboration relations with a series of the above institutions without concluding formal partnerships agreements.

Partnerships with similar Eastern Europe institutions may be very useful given the opportunity of setting up joint research policies when considering the common socialist economy background and the contributions these institutions might bring in to the European development process.

- h) **Setting up of precise medium and long term objectives**, together with the governmental institutions involved in the institute's coordination and other interested structures e.g. the Ministry of Health, the Romanian Ministry of Environment and Forests etc., correlated with the European trend towards the sustainable development, the increase in the quality of life and the wellbeing at work in view of the prolongation of the working life and a late retirement. INCDPM participates in the establishing of the medium and long term objectives of the Ministry of Labour, Family and Social Protection and has already been involved in research topics meant to attain these objectives. The INCDPM management shall contact other authorities as well.

- i) **An increased participation of INCDPM in European organizations** e.g. the European Coordination of the Certification Bodies on Machinery, PPE, Electrical Equipment (vertical and horizontal groups), European and International Technical Committees of Standardization (CEN, CENELEC, ISO) and the initiation of the process of acquiring the membership of at least one important European organization such as the European Process Safety Center- EPSC.

In the recent years, INCDPM has attended a series of meetings that have proved to be very useful in terms of identifying the problems faced by the economic agents i.e. users or producers of equipment to be used at work and the directions or new requirements of testing methods. It is necessary to widen this

participation both as concerns the number of organizations (at least 4 organizations) and the number of meetings to be attended (at least 4 meetings per year).

#### 4. Financial SWOT Analysis

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>- Taxes and contributions to the state budget are paid in due time.</li> <li>- The financial and account system is computerized.</li> <li>- No bank loans</li> <li>- Cash level daily checked, optimum cash flow</li> </ul>	<ul style="list-style-type: none"> <li>- Activities of marketing, promotion and distribution have a limited development.</li> <li>- Prepayment to executors with no reserve currency on recovering the sums settled by executory title.</li> <li>- Losses of claims and expenses to recover claims</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>- Setting up a fund meant to well balance the syncope of the Romanian economy.</li> <li>- Developing of the reserves within a bank system that allows credits.</li> <li>- Developing financial incentives to provide supplementary funds for development.</li> <li>- Attracting possible income from the Structural Development Fund, European Research Programs, bilateral programmes as well</li> </ul>	<ul style="list-style-type: none"> <li>- Decrease in development funds following reduction of specific activities portfolio.</li> <li>- Bankruptcy and insolvency of several beneficiaries.</li> <li>- Evolution of the economic crisis.</li> <li>- Loss in value of the Romanian currency 'leu' in relation to foreign currencies: euro, dollar, Swiss frank.</li> </ul>

INCDPM has financial autonomy and permanently fulfilled its financial obligations assumed. No delays in the payment of the wages due to the employees have been registered. There were also no delays in the payment of the invoices of the suppliers. In addition, INCDPM did not ask for bank credits to cover its current expenses.

The effects of the crisis have been counteracted through the surveillance and the control of the general expenses i.e. monitorizing the invoices from the third parties and the increase in the number of contracts concluded with the economic agents.

In the period to come, INCDPM has as economic-financial objective the continuous increase its turnover by at least 5% yearly. The increase in the incomes shall be achieved both on the basis of the increase in the research incomes and from other sources such as small-scale production, technological transfer, joint research actions. Concomitantly, a rigorous control shall be applied for the expenses.

The objectives to be attained are as follows:

- A rigorous surveillance of the costs by each type of activity and products performed and the continuous reduction of these costs,
- An increased efficiency of the services for the third parties through the improvement of the incomes planning, follow up and accomplishment,
- The improvement of the marketing department activity i.e. of the Transfer Centre.

#### 6. Infrastructure. Investment plan

To attain its research objectives, the following apparatus and equipment shall be purchased during 2012 – 2015:

No.	Scientific directions	Equipment/Instruments	Estimated value [euro]	Acquisition deadline
1.	Researches on occupational risks	Apparatus for ordinary determinations (balance, incubators, shaking incubator) Microprocessor for temperature and time	7,000 8,500 5,000	Dec. 2012  Dec. 2013

		control Visual and audible alarm Capacity 150 L Shaking frequency 10-250 rev/min		Dec. 2014
2.	Applicative researches to support the Romanian companies, particularly the SMEs, for the improvement of the working conditions	Apparatus for the determination of the noxious agents level at the workplace, software included e.g.: - The Radiant Protective Performance - Narda Broadband Field Meter - TESTO 435 - Sound analyzer type 2270 Bruel&Kjaer - Noise dosimeter type 4448 Bruel&Kjaer - Noise pollution modelling software - Automated colony counter	34,300 64,600	Dec 2012 Dec. 2013
3.	Researches for setting up the health and safety requirements to be applied to the products and equipment used in the work process	- Apparatus for the determination of material innocuity and colorimetric characteristics - Devices and software for the existing testing apparatus - Apparatus for PPE testing against the fall from heights	10,000 20,000 60,000	Dec. 2012 Dec. 2013 Dec. 2014

The financial sources shall be provided through research projects financed out of the state budget and contracted within the national competitions or through private funded projects.

The purchasing of the above equipment shall lead to the attainment of the set up indicators and the approach of new research areas.

The acquisition of the above equipment is meant to:

- maintain the RENAR certification of the Machinery and PPE certification bodies,
- maintain the certification and extending the areas of determinations for the testing laboratories.

Simultaneous with the acquisition of the equipment mentioned, it is also provided the calibration and the metrological examination of the existing apparatus in accordance with the calibration/metrology diagram.

## 6. Technology transfer and the attraction of non-public funds

INCDPM's strategy in terms of the technological transfer and providing non-public funds shall aim at attaining the following strategic objectives:

- a) The technological transfer of the research outcomes to other compartments of the institute – **1/year**,
- b) The improvement of the industry – institute co-operation, particularly as regards the development of private- public partnerships and the transfer of the research results to the private sector – **2 contracts/year**,
- c) The increase in the number of technologies and products transferred to the industry through the improvement of the technological transfer activity e.g.:
- d) an increase in the number of patents – **2 patents/year**,
- e) an increase in **the incomes** obtained out of the patents **by 10%**.
- f) The development of studies and researches regarding the transfer of knowledge to the economic sectors through:

- g) the improvement of the marketing compartment activity, i.e. of the technological transfer activity,
- h) the development of the institute's website highlighting INCDPM offer in a more attractive manner, both in Romanian and English version.
- i) The development of an e-learning platform for ongoing training on OSH, the OSH management systems in accordance with OHS SAS 18001, the risks management system in accordance with ISO 31000 and the good practices on prevention for the personnel in the health care sector, until the end of 2013.

## **7.Strategic partnerships and visibility**

INCDPM strategy in terms of partnerships aims at the following objectives:

### **a) Improving the co-operation between the institute and the industry, particularly through the development of the private-public partnerships**

In Romania, there is an important number of equipment producers e.g. the PPE manufacturers mostly consisting of SMEs producing a certain category of products that have to be tested for evaluation and/or quality improvement. The apparatus used for these tests are very complex and highly costing. Through the participation of a significant number of partners in the acquisition of these apparatus, the individual economic cost shall diminish and thus become acceptable.

The accomplishment of **at least two private-public partnerships** will be provided for the development of a high value R&D infrastructure. The following objectives are thus established:

- the initiation of a private-public partnership for the achievement of an infrastructure for the determination of the thermal insulation of the protective covering,
- the initiation of a private-public partnership for the achievement of infrastructures for the determination of the protection characteristics against the effects of the electric arc of the protective covering.

### **b) Extending the partnerships with Romanian and foreign institutes and universities and initiating the formalities meant to achieve the institute's affiliation to international organisations in the area**

In the recent years, INCDPM has been engaged in close partnerships with important universities from the country and from abroad.

-At **least two new partnerships** shall be concluded with universities or institutes from the country and a minimum of two partnerships with other EU institutes e.g. IFA – Germany, Prevent- Belgium, INRS and INERIS-France, HSL-UK, TNO-The Netherlands, CIOP-PIB – Poland and 'Josef Stefan' institute of Slovakia.

- the accomplishment of research strategic partnerships with EU major R&D institutes such as IFA – Germany, Prevent- Belgium, INRS and INERIS-France, HSL-UK, TNO-The Netherlands, etc. An important advantage resulting of INCDPM participation in such partnerships within a consortium would consist of a large volume of statistic data and knowledge on the Romanian OSH system. Therefore, Romania could provide good practice examples for projects such as iNTeg-Risk and PROMISLingua.

-setting up of strategic partnerships with DG Reaserch and Innovation of the European Commission and with other European institutions thus allowing the identification of the main research directions as established at European level. INCDPM is one of the very few research institutes of Eastern Europe having an uninterrupted activity in the OSH area.

### **c) Raising the economic agents' awareness on the importance of the R&D on OSH to ensure the employees safety and wellbeing at work**

This objective shall be pursued on permanent basis through the organization of **at least two groups** for specialists' training on OSH. Thus, over 80% of the requirements will be covered at national level.

**d) Raising the awareness of the economic agents from the PPE and machinery manufacturing industry on the importance of the R&D to ensure socio-economic benefits and the increase in competitiveness of the products of the European market**

INCDPM has multiple contractual relationships with big companies in the electric power and the construction sectors as well as with manufacturers of work equipment and personal protective equipment (PPE).

Among the measures aiming at reaching the above objective there are the following:

- strengthening the co-operation with the Chamber of Commerce of Romania and the organization of **at least two meetings per year** to identify concrete collaboration opportunities,
- the organization of **at least two round-tables per year** by INCDPM to investigate the collaboration opportunities with the manufacturers of the machinery and PPE industry.

**e) An increased participation of INCDPM experts in the meetings of the professional organizations they are members**

The proposed measures are as follows:

- the increase in INCDPM experts' participation in the meetings of the European Standardization Committees, particularly to the meetings corresponding to the Romanian Committees where INCDPM holds the Secretariate e.g. ergonomics, PPE, machinery – **at least 1 participation/year/Technical Committee**,
- the increase in INCDPM experts' participation in the European Co-ordination Meetings of the Certification Bodies for the machinery and PPE scopes as well as in the horizontal and vertical working groups. This will allow the INCDPM experts to express their opinion on the technical specifications provided – **at least 3 participations/year**.

**f) An increased domestic and international visibility of INCDPM through the organization of scientific events meant to promote the outcomes of the reseraches performed**

INCDPM benefits of good visibility at European and national level due to the expertise and the high professionalism of its experts and also given its involvement in the organization of a series of scientific events, the participation in fairs and exhibitions, issuance of guides and other documentary publications, including its own review on OSH. An improvement in terms of visibility is also envisaged, particularly at European and international level.

The following measures are provided on this purpose:

- the ongoing support of the European Week organization that is yearly carried out by the European Agency for Safety and Health at Work through the Romanian Focal Point, thus contributing to the improvement of the image it has in the OSH area and to outstanding socio-economic and cultural benefits for the business environment and the community, in general, as regards the promotion of a prevention culture,
- an increased domestic and international visibility through the organization of scientific events, the participation in such events, the increase in the number of articles published in international circulation reviews,
- an increase in the number of articles published in ISI quoted reviews – two articles per year,
- participation in national and international fairs and exhibitions with exhibits, posters, catalogues meant to promote INCDPM products and services,
- providing a mandatory provision within INCDPM's operating regulation that shall stipulate the support of the below listed activities out of the institute budget e.g.:
  - the publication of **at least 1 ISI quoted** article per year,
  - the participation with scientific communications to at least one conference per year.
- issuing of the 'Risk and Safety at Work' review of the institute on regular basis i.e. at least on quarterly basis. The introduction of a double blind 'peer to peer' review selection for all the articles and the follow up of the increase in the review indicative towards ISI quotation,
- Organization of **one yearly symposium** of scientific communications temporarily entitled 'Researches on Occupational Safety and Health – 201..', for which an appropriate financing



should be requested from the National Authority for Scientific Research (ANCS) prior to the organization (in the preceding year). This event shall become an annual manifestation gathering researchers and experts from the academic institutions. Symposium registering within ISI quoted events category is also envisaged,

- **Investments in the development and re-arrangement of INCDPM library** – as a reference source of documentation in the area. A collaboration with the BCUB (the Central University Library) could be envisaged with the support of the Ministry of Labour, Family and Social Protection.

INCDPM has been repeatedly invited to join PEROSH thus widening its partnership and collaboration opportunities with the most important research actors in EU. At present, INCDPM analysis the possibilities to become a full member of PEROSH under more convenient financial terms given its restricted funding capabilities.

The adherence to PEROSH as full member is envisaged by INCDPM in the near future, once the financial terms will allow this to happen (reduced membership tax in accordance with INCDPM turnover).

INCDPM intends to continue its collaboration in The NOMAD (NOise MACHinery Directive) project has been developed by the ADCO (ADministrative COoperation) group (Machinery Directive - Market surveillance), the thus ensuring the premises of improved knowledge on the noise emissions at EU level as the projects results will be disseminated and shared with all the partners.

INCDPM will also support the Romanian FOP to run the European Agency's Campaigns based on the experience acquired through the nine campaigns carried out till present, via the organization of seminars, workshops and conferences, presentation of scientific communications, poster sessions, etc. INCDPM activity within the Romanian FOP will enlarge and consolidate the institute's partnership premises in the OSH area thus highly enhancing its visibility at European level (towards the European Agency of Bilbao and the major institutes in the area) and participation in a wider range of research projects/network