POMORSKIE SMART SPECIALISATIONS
Dear Sir or Madam,

The Pomorskie Region boasts several years’ experience in building relations between self-governments, businesses and higher education institutions in the area of supporting the development of clusters and in the process of identifying industries with the greatest potential. This period has not been easy, but it has borne fruit in the form of concrete results, including the most valuable of all – trust between partners.

The positive experiences have allowed us to build adequate capital to enter the new financial perspective for the European Union 2014–2020. For this reason, the Board of the Pomorskie Region has decided to strongly involve business and scientific circles in shaping the direction of EU funding in the area of innovations. In the Pomorskie Region, we strive to create the optimum environment for the development of R&D undertakings which will be favourable not only for the establishment of innovative companies and new initiatives, but first and foremost for their long-term, sustainable functioning. We have been consequently implementing the Regional Innovation Strategy set out in the "Pomorskie Creativity Port" Regional Strategic Programme for Economic Development. We promote partnership, openness and the establishment of contacts, as well as the adoption of creative initiatives between industries.

Encouraging partners and regional stakeholders to think and act in terms of innovation development – through implementation of undertakings and R&D projects – has required us to apply a bottom-up partnership-based process of selecting smart specialisations, which is unique compared with other regions. A key element of our approach has been the competition for the best concepts of co-operation in the thematic areas which are of greatest significance for the regional economy and have the potential to create high added value in the future.

The competition-based mode in which the Pomorskie Smart Specialisations were selected launched an active entrepreneurial discovery process which engaged the co-operation of various partners from the region, representing business, science, business environment institutions and non-governmental organisations. The process involved a total of 430 entities, the most numerous group comprising enterprises (nearly 300 companies), more than 40 schools...
and higher education institutions, approximately 40 business environment institutions, as well as municipalities and their associations, hospitals, and numerous non-governmental institutions. The process of identification of smart specialisations culminated in the signature of four Agreements on Pomorskie Smart Specialisations between the regional authorities and the entities identifying with a given specialisation on 28 January 2016. These agreements are still open to new entities.

In order to organise permanent dialogue between entities operating under smart specialisations, as well as between such entities and the self-government, the so-called Councils of the Pomorskie Smart Specialisations were created – one for each specialisation. The Councils are also a ground for joint actions and initiatives. They consist of representatives of the companies from each specialisation and representatives of the scientific sector and business environment institutions, including clusters. In cooperation with the regional self-government, the Councils set directions for the development of specialisations with regard to R&D undertakings and internationalisation of products and services, among other issues.

I can say with complete satisfaction that the process of entrepreneurial discovery connected with the selection of Pomorskie Smart Specialisations has encouraged the search for ideas for innovative projects designed to meet market needs. The first calls for project proposals under the Regional Operational Programme for the Pomorskie Voivodeship for the years 2014–2020 showed the great application potential of Pomeranian entrepreneurs in the area of investment in R&D. However, this is not the only effect of smart specialisations. Another visible benefit resulting from the functioning of Pomorskie Smart Specialisations is the process of establishing co-operation between entities and regional stakeholders which previously operated individually, failing to notice not only each other, but more importantly the benefits and opportunities arising from such co-operation. The above-mentioned activities result in the creation of specific products and services designed to meet market needs, often with great prospects of expansion onto international markets. The activity of Pomeranian entities operating under the Pomorskie Smart Specialisations is also manifested through initiatives for the creation of industrial consortia, focusing companies around joint innovative undertakings, as well as new ideas for unique start-up support programmes, e.g. in the form of specialised incubators.

I am convinced that the bottom-up organisation of the entrepreneurial discovery process of Pomorskie Smart Specialisations which we have adopted and have been consistently implementing is the right choice.

Mieczysław Struk
Marshal of the Pomorskie Region

Introduction

In accordance with guidelines of the European Commission, each region should have a smart specialisation strategy. Having such a strategy is a condition for the mobilisation of funds for research, development and innovation. The region should concentrate its efforts on a selected and limited number of priorities (economic specialisations) with significant innovation potential in which it has actual competencies and resources, may achieve excellence and be competitive on a global scale.

In response to the need to satisfy the requirements specified by the European Union in relation to the selection of smart specialisations, the Self-Government of the Pomorskie Region has initiated a process leading to their identification. The process began in 2011 with the updating of the Pomorskie Regional Development Strategy. As a result, the smart specialisation principle was included in the Strategy as one of the key principles for its implementation. In accordance with this principle, public intervention concentrates on enabling and utilising potentials relevant for the region and selected smart specialisations. The smart specialisation principle was then transposed into the provisions of the “Pomorskie Creativity Port” Regional Strategic Programme for Economic Development and the Regional Operational Programme for the Pomorskie Voivodeship for the years 2014-2020 (ROP PV). In accordance with those provisions, development enterprises falling within the areas of Pomorskie Smart Specialisations (PSSs) will be prioritised when granting financial support for research and development during the programming period of 2014-2020.

The Pomorskie Region has adopted a bottom-up approach to defining smart specialisations. The approach has consisted in inviting business and scientific circles, organised into partnerships and interested in developing specific specialisations, to submit concrete proposals under the Call for proposals for the selection of Pomorskie Smart Specialisations. The regional authorities selected proposals with the highest development potential among those submitted. The process of selecting PSSs was carried out with the involvement of independent experts comprising the Selection Board, in the period between 14 May and 20 November 2014. The proposals for smart specialisations were assessed through the prism of the following criteria:

- **A. Challenges, tendencies, potential market**
- **B. Economic and technological potential**
- **C. Benchmarking (domestic and international)**
- **D. Strategy and action plan**
- **E. Partnership and activities undertaken thus far in support of the development of specialisations**

The Self-Government of the Pomorskie Region supports the development of PSSs on many levels. We entered into negotiations with Partnerships representing areas of Pomorskie Smart Specialisations, which led to the conclusion of Agreements on Pomorskie Smart Specialisations on 28 January 2016, in order to specify the scope of smart specialisation areas, concentrate efforts on the most attractive and prospective segments (development directions), and facilitate the assessment of R&D and innovative projects applying for financing under operational programmes utilising EU funds.
Under the Agreements on PSSs, Councils of PSSs were chosen from among the signatories. They constitute a “channel of communication” between the business, scientific sectors and the administration with regard to any activities within the given area of PSS. The Councils determine the direction of specialisation development and take measures to strengthen the area of PSSs.

The negotiations between the PSSs Partnerships and the Self-Government of the Pomorskie Region also led to agreeing on specific undertakings (so-called horizontal projects) which are relevant for the development of the PSS as a whole and which may be given preference in access to finance within the framework of the ROP PV 2014–2020 or support in applying for financing at the national level. The idea behind horizontal projects is to create an adequate critical mass of human and financial capital aimed at implementation of development investments in the specialisations.

More specifically, the process of identifying PSSs was carried out in six steps:

**STEP 1**
Reviewing and supplementing analyses concerning the region’s economic profile to specify its characteristic (endogenous) resources, advantages, development barriers, and economic activity areas with high growth potential.

**STEP 2**
Inviting circles that identify with the issue of development of the above-mentioned economic activity areas to present initial proposals for smart specialisations and actions aimed at strengthening their potential and improving the region’s competitive position in the call for proposals (first stage of the Call for Proposals).

**STEP 3**
Presenting the submitted initial concepts and reviewing (analysing) them with the involvement of the Selection Board.

**STEP 4**
Inviting the Partnerships preparing initial applications to present final concepts of smart specialisations (second stage of the Call for Proposals).

**STEP 5**
Negotiations of the Board of the Pomorskie Region with PPSs Partnerships.

**STEP 6**
Concluding Agreements on Pomorskie Smart Specialisations between the Partnerships and the Board of the Pomorskie Region.

**PSS 1**  OFFSHORE, PORT AND LOGISTICS TECHNOLOGIES

**PSS 2**  INTERACTIVE TECHNOLOGIES IN AN INFORMATION-SATURATED ENVIRONMENT

**PSS 3**  ECO-EFFECTIVE TECHNOLOGIES IN THE GENERATION, TRANSMISSION, DISTRIBUTION AND CONSUMPTION OF ENERGY AND FUELS, AND IN CONSTRUCTION

**PSS 4**  MEDICAL TECHNOLOGIES IN THE AREA OF CIVILISATION- AND AGEING-ASSOCIATED DISEASES
PARTNERSHIPS UNDER THE FOLLOWING NAMES:

a) Smart equipment and technologies in the economic utilisation of marine resources and coastal areas, under the leadership of Centrum Techniki Okrętowej S.A. [the Ship Design and Research Centre];

b) SMART PORT & CITY Smart processes and technologies for port complexes and their hinterlands as a driver of the growth of communication and information accessibility of the Pomorskie Region, under the leadership of Zarząd Morskiego Portu Gdańsk S.A. [The Port of Gdańsk Authority].

OBJECTIVE OF SPECIALISATION
To gradually strengthen international competitiveness and accelerate the growth rate of enterprises of the maritime economy sector in the Pomorskie Region by carrying out R&D work and developing innovative products, services and technologies in the field of environmentally-sound exploration and exploitation of marine resources.

SCOPE OF SPECIALISATION
1. Universal solutions for the exploitation of marine resources.
2. Vehicles and vessels to be used in the marine and coastal environment.
3. Equipment, techniques and systems for monitoring and cleaning the marine environment and its facilities.
4. Innovative ways and technologies for utilising unique natural compounds produced by marine organisms.
5. Technologies, equipment and processes aimed at improving the safety and efficiency of transport and logistics services in ports as well as their hinterlands and forelands.

HORIZONTAL PROJECTS
1. A system for improving the quality of practical training for the purposes of seaport and offshore enterprises.
2. Innovative design and technologies of construction of inland transport units and coastal shipping as in the case of solutions dedicated to the lower Vistula in relation to the sustainable growth of the Pomorskie Region.
3. A system of integrated practical training based on the development of higher education for the purposes of the seaport and offshore industry (implemented in the form of 5 separate projects).

Website address of PSS 1: www.cto.gda.pl/pl/isp-1
OBJECTIVE OF SPECIALISATION
To build and strengthen international competitiveness and accelerate the growth rate of ICT sector enterprises in the Pomorskie Region by carrying out R&D work and building the intellectual potential to develop innovative products and services in the field of interactive technologies in an information-saturated environment.

SCOPE OF SPECIALISATION
1. Multimodal man-machine interfaces.
2. Embedded systems for smart spaces, the Internet of things.
3. Data transmission, databases, data security, big data processing.
4. Space and satellite engineering.

SELECTED HORIZONTAL PROJECTS
1. Developing models of functioning for Smart City solutions.
2. Creation of the Pomeranian Crisis Management Laboratory at the Gdańsk Technical University.
3. Smart City Living Lab.

Website address of PSS 2: www.interizon.pl
OBJECTIVE OF SPECIALISATION

To build and strengthen the competitiveness of business entities focusing on the development of new products and services based on the results of R&D and implementation work, including in the field of improving distribution efficiency, generating and processing energy, extracting raw materials and processing of fuels, and reducing the impact on the natural environment.

SCOPE OF SPECIALISATION

1. Improvement of energy efficiency in construction and industry.
2. Renewable energy sources, distributed generation and prosumer energy.
3. “Smart grid” technologies in energy distribution.
4. Energy storage.
6. Prospecting for, extracting and processing energy resources.

HORIZONTAL PROJECTS

1. Timber 4.0 – sustainable development of the environment and modern civil engineering plus energy based on timber.
2. Training of personnel for the development of eco-effective technologies in the generation, transmission, distribution and consumption of energy and fuels – infrastructure.
3. Training of personnel for the development of eco-effective technologies in the generation, transmission, distribution and consumption of energy and fuels – training.

Website address of PSS 3: www.isp3.pl
OBJECTIVE OF SPECIALISATION

To create an international health competence centre in the Pomorskie Region that will strengthen the competitiveness and attractiveness of companies through investments in R&D, building competitiveness and development of innovative products and technologies.

SCOPE OF SPECIALISATION

4. Systems for support of persons with disabilities.

HORIZONTAL PROJECTS

1. Creation of the University Centre for Applied Research – an element of the Pomorskie Region Network of LHL Laboratories in the scope necessary for conducting R&D activity in the area of PSS 4 by the University of Gdańsk.
2. Translational Medicine Centre of the Gdańsk Medical University.
3. R&D Centre of Integrated Care Programmes and e-Health.

Website address of PSS 4: www.intrel.gumed.edu.pl/41878.html