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# SMART-FRAME FOR GENERATING SMART SMES

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*Abstract:* The paper presents the Central Europe Regional Development Fund's SMART-FRAME project, its present results and plans for the next period. The consortium of 5 CE countries , 7 partners join their forces, as SMART HUBS, to promote the innovation results for the SMES, especially for start-ups, and Spin-offs. The focus areas are limited to the most high-tech. filed of technologies, like material sciences, surface technologies, sensor-techniques, production technologies, and their integration into the manufacturing of SMART PRODUCTS.

*Keywords:* new materials, sensors, surface treatment, production engineering, integration, SMEs, coaching , Start-ups, Spin-offs, innovation,

## 1 Introduction

The Central Europe Programme aims to combine the resources within the region to promote innovation and generate benefits for enterprises , by promoting the results and successful achievements of laboratories in the field of the target-areas, to diffuse into the products and productions entities , especially for SMEs. Entrepreneurs, from this region should get technology , scenario and mechanism push to achieve a strong , solid settlement, and enjoy the benefits of being close to the SMART-HUBS, represented by the smart institutions being formed by the project partners.

The main message for the targeted enterprises are straightforward:
Products to be manufactured, and production means for their manufacturing in the future, must be sustainable, green, high-added-value, and competitive. To achieve these , we must adopt the best, smart materials (like the new, novel materials: nano-, composite-, bio-, intelligent,….), should have smart sensors integrated, should have smart surface-features, should be mass-produced in s smart way (New production models, etc.), should integrate all these with smart idea-based elements.
The project thus aims to involve the SMEs to integrate the best of these new technologies, and to generate those international industry-research R&D&I projects, that will produce those fancy results. [1].

## 2 Project's general objectives

The overall objectives of the project are :
1) to strengthen the existing technology-focused SME and
2) to increase the number of technology-focused SME by providing them with a strong and attractive framework of technology structures and innovation networks for RTD activities and co-operations in high-potential fields of technology.

Following these general objectives the project aim is to provide major contributions for the mobilisation of innovation potentials in the participating regions and beyond – given the "network of technology networks" approach that was applied when forming the project partnership with every partner functioning as a central node in their own innovation network.
With its focus on several high-potential technology fields which are of joint interest for all partner regions the project has chosen a double approach toward transnational cooperation - both on a thematic and on an institutional level.

On the other hand first analysis showed that there is already considerable know-how regarding single addressed topics existing in CENTRAL EUROPE, albeit not in a structured way that could be simply transferred to the different partner regions. The idea grew up to collect existing good approaches towards the main addressed problems and - on the basis of joint analysis carried out by the project partners -to deduct an advanced methodology of target-group orientated intervention tools that will be implemented by all partners in their regions thus tightening the networks of cooperation in the addressed technology fields and strengthening the regional innovation potentials in CENTRAL EUROPE.
During the project preparation process ecoplus already colaborated with partners from the CENTRAL EUROPE-ean countries and beyond, setting up tight cooperation links which allowed to collect relevant expertise inputs from all partners involved and to develop and prepare a commonly carried project.

## 3 Specific objectives

The project will collect and distribute know-how on how to improve the regional innovation framework by
a) establishing know-how hubs,
b) running up transnational R&D cooperations,
c) improving regional settlement strategies,
d) improving the processes of spin-off creation
with special reference to five thematic topics, i.e.
1) materials,
2) surfaces,
3) process technologies,
4) sensors/actors and
5) the integration of these technologies.

## 4 Structure of the undertaken activities

The actions planned in the project will directly strengthen transnational co-operations within CENTRAL EUROPE and beyond. They will support the implementation of know-how elaborated in R&D centers by SME and will sustainably enhance the innovation support framework of the project partners. Tasks to be performed are grouped into workpackages (WPs), as in the case of most EU projects.

WP1 cares for the management administrative issues among the project partners and between the EC and the project consortium.
The WP2 objective of communication, knowledge management and dissemination of project achievements is planned to provide a maximum of active involvement for all relevant target groups and stakeholders.
The WP3 objective of establishing - interconnecting regional know-how hubs will provide a new framework for specialized intermediary services interlinking the industry and the research sector in the thematic fields addressed.
For reaching the goal of WP4, i.e. strengthening transnational RTD cooperation, systematic processes for generating a pipeline of joint RTD projects under utilization of available funding schemes will be set up.
The WP5 objective which is to attract technology-focused companies for settlement will require a SWOT analysis of the partner locations. Following activities will foster a sustainable improvement of the local technology portfolios based on companies´ demand.
The WP6 objective is to identify/implement win-win models for spin-off creation to provide new know-how for RTD managers, prospective founders and intermediaries in order to set up a systematic and sustainable approach for enhanced creation of high-tech spin-offs in regional technology environments

Targeted at the improvement of innovation frameworks based on modern industrial technologies the project addresses the main goals of the CENTRAL EUROPE programme. With a partner consortium consisting of institutions from main technology locations actively involved in the development and implementation of joint innovation activities the project will significantly contribute to enhanced transnational cooperation all over CENTRAL EUROPE even including further actors from other European regions through direct partnership or through the involvement of the partners´ networks.
The involvement of all relevant stakeholders (innovative enterprises, esp. SME, RTD institutions, intermediaries) will support internal integration of the innovation-driven forces in and between the partner regions and within CENTRAL EUROPE as a whole. Cooperation links will be set up with the aim to become sustainable network structures that will be open for further European partners to join.

The project is thematically focused on modern industrial technologies - it will provide in-depth analysis of existing technological infrastructures and work out approaches for improved use of these resources through cooperation.
Thematic technology-focused interlinking of RTD and enterprise sector will lead to higher competitiveness of CENTRAL EUROPE in these technology fields. Complementarity reached through better cooperation between the technological partner regions will allow for enhanced innovation and new product developments in joint projects involving know-how partners from different CENTRAL EUROPEan regions. The project results will help to create employment in high-potential fields of technology.
Well in line with the Lisbon strategy the innovation-driven partner network will contribute to the implementation of the technological know-how in all CENTRAL EUROPEAN partner regions and beyond.

# 5 Smart knowledge HUBs

In particular, the planned SMART knowledge hubs (WP3) address the problem that companies, esp. SME, often suffer from a lack of time, resources and know-how necessary to access the information about existing R&D facilities or financing/support mechanism for R&D projects. The project will create a network of intermediary actors who can fill this gap by interlinking SME with RTD/funding institutions acc. to companies´ needs.

# 6 SMART cooperation

SMART cooperation – tackles the problems arising from a lack of structured frameworks for interlinking expertise and RTD infrastructure in CENTRAL EUROPE regarding five targeted thematic fields of modern industrial technologies. These technologies face enormous challenges and offer high potentials for the development of new products and improvement of processes. Technological Know-how in these fields is highly needed for the future development of European industry. It is mandatory to establish enduring know-how access especially for SME in order to secure their competitiveness and mobilize their innovation potentials. Within the project a pipeline of joint RTD activities will be set up to create sustainable know-how cooperation networks between regional companies and RTD institutions. Examples of Smart R&D topics are in [2],[3],[4],[5],[6].

# 7 Smart settlements

Project activities regarding SMART settlement (WP 5) refer to the problem faced by many technology locations and regions regarding their attractiveness for the settlement of innovative companies. RTD centers, with all their knowhow and infrastructure, could act much more as a gateway to the industry on a mutual benefit "win-win" basis. In many cases an unclear strategic positioning together with communication deficits leads to under-usage of high-tech settlement offers and insufficient development of the innovation environments. The project partners plan joint efforts to work out SWOT-based settlement proposals and communication strategies for every partner region. The complementarity of technology infrastructures and the transnational technology networks developed in the projects will make sure that regional settlement strategies will strengthen the positioning of the addressed technology fields as a whole in CENTRAL EUROPE.

# 8 Smart Spin-offs and Start-ups

Activities in WP 6 – SMART spin-off - address the problem that managers of R&D centers mostly try hard to keep high potential employees in the institution and show little motivation to support employed researchers in case that they will have an idea to run up a new company. This deficit causes major problems for technology-focused regions which have problems to approach the target group of prospective spin-off founders and cannot activate their own potentials for the creation of high-tech jobs in new technology-focused companies. On the other hand cooperation links between spin-off founders and RTD institutions as their former employers are often interrupted leading to a loss of cooperation and innovation potentials.
The reluctance of RTD managements towards spin-off creation will be addressed pro-actively in the project.

# 7 Conclusion

The SMART-FRAME project brings high-value benefits for the SMEs, especially for those Start-ups and Spin-offs, that lack the international cooperation experiences.

We believe, that the efforts will generate fruits for the benefits of both targeted partners, and also for the partners, that presently run the SMART-HUB network. We recommend all SMEs and research labs, to join the network,, enjoy the benefits, and promote the new technologies. Contact links are available through the project web-page: smart-frame.eu

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