

## DT1.1.7

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Set-up and pilot operation  
of a transnational network  
of smart KET access points:  
Validated Strategy

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## 1. Executive Summary

KETGATE has launched a network with tailor-made and jointly validated tools and processes for effective SME support. The KETGATE network strategy is mainly implemented by the so called KETGATE Points which work as dedicated regional access points for SME installed at local BSOs (Business Support Organisations) and RTOs (Research Technology Organisations) across Central Europe.

Together KETGATE Points and RTOs offer a tested and exhaustive service package to support SMEs in Central Europe in accessing Key Enabling Technologies.

In addition to the original KETGATE project partners, the network has been enlarged with new members and it is open to new organisations willing to join the network as KETGATE Points (BSOs) or as RTO (RTOs) via an accreditation procedure.

An action plan has also been defined to guarantee the future sustainability of the KETGATE network and a revenue stream identified and jointly approved to fund the network activities after the project ends. The KETGATE partners have also involved national/regional public authorities (PA) and policy makers presenting them a set of recommendations to encourage the use of ERDF and other public funds to sustain regional Technology Centres and Infrastructures to collaborate with other KETs Infrastructures across borders so to bridge the service and technology gap in their region.



## 2. Introduction

The KETGATE validated strategy has been developed after the pilot phase through which the KETGATE services and the working mode was tested.

The referring documents that deepen the different topics mentioned in this deliverable are the following:

1. Network members' role:
  - D.T1.2.6 Smart KET access point Validated Model profile
  - D.T1.2.8 Smart KET access point at RTO Validated Model profile
2. Network vision and members accreditation
  - D.T4.1.2 Institutional commitments
  - D.T4.3.2 Action Plan for a CE-wide smart KET Access and Service Network
3. Network working mode and services
  - D.T4.1.1 Agreement on future working mode of the network
  - D.T1.2.10 Smart KET access point: Validated Starter Kit
  - D.T4.2.2 Knowledge compendium of tools for Access Point Operation



### 3. Why a KETGATE network strategy

KETGATE aims to launch a network with tailor-made and jointly validated tools/processes/models for effective SME support. The network links the so called KETGATE Points (Smart KET Access Point) which work as dedicated regional access points for SME installed at local BSOs (Business Support Organisations) and accredited RTOs (Research Technology Organisations) across Central Europe, in order to assess SMEs' KET service needs and to guide them toward the most competent and need's fitting RTO service partners.

The first pilot network included the KETGATE partner members, which have concretely tested the service package, the tools and the methodology developed. In order to additionally enlarge the competences and the scope of the KETGATE network, the partners have afterwards also opened and promoted the network to involve potential new BSOs and RTOs that could work as new KETGATE Points or new RTOs.



Figure 1: First initial nodes of the KETGATE network

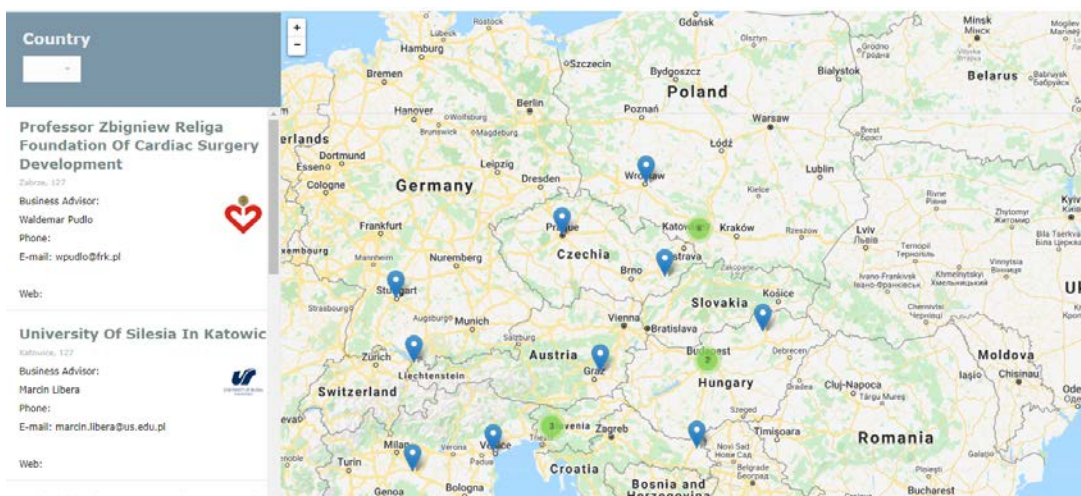


Figure 2: Graphical presentation of the KETGATE network on the webpage ketgate.eu



The aim of the pilot phase was also to validate a sustainable network model that could last beyond the project duration and to release a set of validated processes, operational structures and business models transferable to other sectors, technologies and territories.

Moreover, as analysed in the literature (Deliverable D.T1.2.2), networks could fail due to different causes such as the lack of identification of common and realistic targets, the focus on individual short term benefits instead of long term collective benefits, the low level of communication among members, the lack of trust and commitment and the absence of an operational system to manage the collaboration.

This document is therefore intended to act as a structured strategy that could support the present KETGATE network members and other interested organisations to work together for a common goal with a clear and shared vision. A first draft of the strategy was already released in the first part of the project (D.1.1.6) proposing some elements on the basis of some good practices analysed (D.1.1.2) and the outcomes of the analysis of the KETGATE ecosystems (D.1.1.3) and companies' expectations (SMEs survey results reported in D.1.1.5).

After the pilot phase, a more detailed strategy has been defined and delivered.



## 4. The KETGATE network vision, goals and working mode

The main objective of KETGATE is to deliver validated tools and network structures to facilitate the SMEs access to high quality KET services and infrastructure in all central European (CE) regions. This contributes with the overall goals to speed up the uptake by SMEs of new technologies and transfer them into smarter solutions, which results in economic growth and answer to societal challenges.

KETGATE has set up a new network of regional smart access points for SMEs to KET technology services that respond to their needs and open new opportunities through transnational collaborations. These points offered personalised services and SME support in the language of the region.

The KETGATE network consists of RTOs and KETGATE access Points (KPs). These are the core members of the network. Main clients of the KETGATE network are SMEs and other companies, which have technical problems which they wish to solve with the help of KET research infrastructure and expertise at the RTOs.

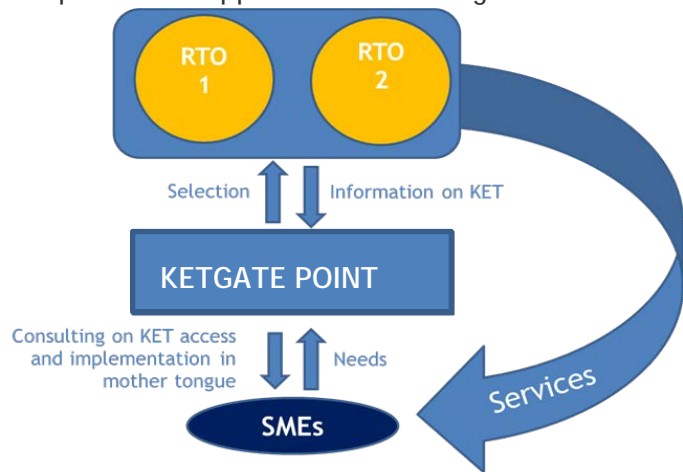


Figure 3 the KETGATE Point interface role

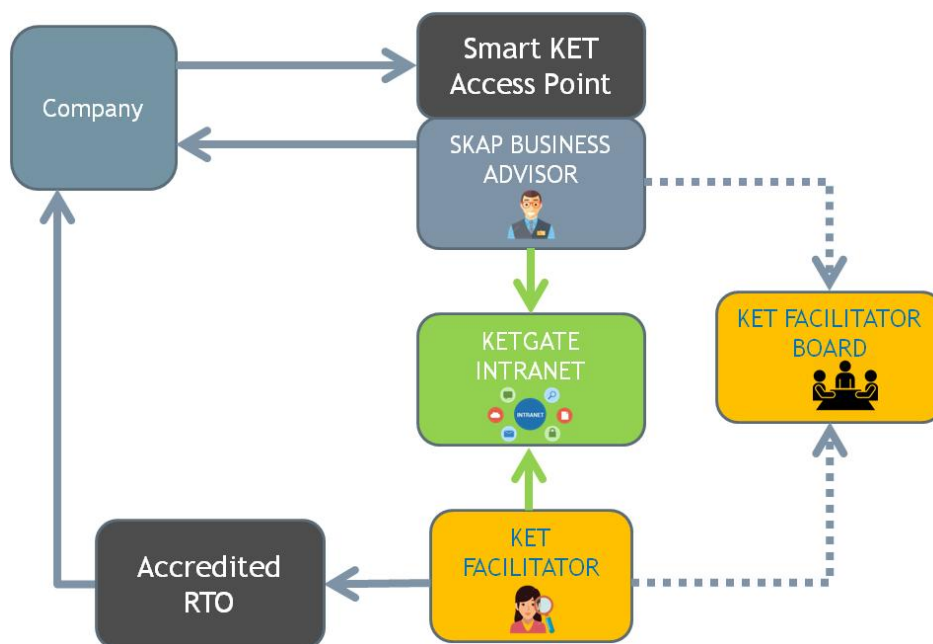


Figure 4 the KETGATE standard working mode





## 5. Actors (KETGATE Points and RTOs) roles and service package

The KETGATE Point is a dedicated access point acting as trusted bridge to foster the cooperation among companies and KETs service providers (RTOs). The KETGATE Points are not seen in our model as individual organisation providing services toward companies but as active hubs operating in the KETGATE network. Each KETGATE Point is made up of units or departments located within individual host organisations.

These institutions are typically business support organisations with already much experience in providing business and/or innovation support. They are for instance regional/national development agencies, Enterprise Europe Network nodes, technology centres, cluster support organisation or other business support agencies. Each host organisation should have access to a large pool of local clients.

Each Point is called to perform the following tasks:

1. Acting as entry point for clients and KETGATE partners (other KETGATE Points and RTOs) that need information about the service offer and methodology used;
2. Providing the KETGATE service package toward companies and RTOs (see matrix below) in line with the operative procedures agreed
3. Collecting the information needed to track and monitor the service quality
4. Promoting the KETGATE services toward potential clients (companies), following RTOs and toward their local KET ecosystem.

At least one **Business Advisor (BA)** is present at the KETGATE Point. The BA is a specialised expert with a professional background both able to understand the companies needs and culture and translating these needs toward research institutes and technicians with scientific background. The KETGATE Point should inform the network about the BA availability in terms of competence (qualification, experience and skills) and in terms of capacity (total full-time equivalent, personnel availability). The Business Advisors in the Point are trained on the KETGATE standards.



The Research Technology Organisations play in the KETGATE network the role of service and knowledge providers. They are submitted to an accreditation process (see the next paragraph) that assure they are not only excellent from the scientific and technological point of view but also ready to provide services toward companies.



In each RTO is present a dedicated staff member, the **KET FACILITATOR (KF)**. The KF is a typically a researcher or a KETs expert acting as pivot among the researchers in his/her institute, the KETGATE Point's BA and the companies directly asking for services. The KF in fact is entitled to deepening the information collected by the BA, further contacting the company and in case of need working with other KF to provide joint propositions and solutions for companies,

The KETGATE network offers a complete package of services targeting both, the Small and Medium-sized Enterprises (SMEs) and the Research Technology Organisation (RTOs).



The network in fact offers companies a qualified and complete support to successfully apply KETs in their own business but at the same time, support the RTOs to increase their visibility and to grow their relationship with companies and other KETs providers.

The services are primary provided by the KETGATE Points. However, also the RTOs accredited in the network are requested to understand the provided services, since they have several tasks to fulfil, such as processing the companies' request and delivering the outcomes.

The services targeted for SMEs are strictly connected with the ones targeted for RTOs so that in some cases they resemble. Therefore, crosslinks among tools and template are underlined.

Table 1: Services targeted for SMEs and RTOs

<b>SERVICES FOR SMES</b>	Evaluating the innovation capacity of your company	Facilitating your cooperation with RTOs	Providing you information on RTO services	Providing you information on funding schemes
<b>SERVICES FOR RTOS</b>	Promoting your latest developments and services	Connecting you with SMEs across Europe	Strengthening your cooperation with other RTOs across Europe	Providing you information on funding schemes



## 6. Accreditation of new members and governance model

The success of the KETGATE-network is substantially dependent on the quality of service it can be provided for SMEs.

A procedure is established to welcome new interested Business Support Organisation as KETGATE Point. It has to be proved the BSO is able to provide the support needed toward companies.

In case of knowledge providers, it is imperative to ensure that the participating RTOs meet international scientific excellence standards. This assessment is done by the KETGATE-Board. However, there are also other important criteria to consider when evaluating the capabilities of potential follower RTOs, concerning SME service provision.

Accordingly, to the EU definition<sup>1</sup> RTO are public or private organisations carrying out applied research and close-to-market innovation in Key Enabling Technologies.

Moreover, based on a classification proposed by the EU, the KETGATE-network has decided to use the following criteria to decide whether a follower-RTO is suitable or not to join the network:

1. Technology centres have to comply with 3 qualitative criteria
  - o Provide services to industry and SMEs;
  - o Be active in at least one Key Enabling Technology;
  - o Be active in the higher Technology Readiness Levels (TRL) - have activities in TRL5, TRL6, TRL7 or TRL8.

These three criteria (services, KET, TRL) are mandatory for all follower-RTOs willing to join the network.

2. In addition, Technology centres have to comply with at least 2 additional quantitative criteria among the following 4:
  - o More than 10 projects with SMEs in the last two years;
  - o More than 2 major investments in equipment for close-to-market R&D activities with industry in the last 3 years. The Centre should provide a short description of these investments (type, functionality and investment amount);
  - o At least 15% in the total annual funding of the Centre in the last 2 years, must comes from industrial projects;
  - o At least 7% in the total turnover of the Centre in the last 2 years derives from projects with SMEs.

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<sup>1</sup> [https://ec.europa.eu/growth/tools-databases/kets-tools/kets-tc/map#criteria\\_inclusion\\_mapping](https://ec.europa.eu/growth/tools-databases/kets-tools/kets-tc/map#criteria_inclusion_mapping)



The second set of criteria should be fulfilled, however if an RTO does not achieve these key figures at the time of the application for membership, the KETGATE-board can decide to admit the follower-RTO on a trial membership. In this case, after three years an evaluation is done to award full membership, if the criteria are then fulfilled.

Table 1 summarizes the integration process of the new KETGATE member organizations. RTOs and BSOs that comply with the criteria set by KETGATE consortium can contact local KETGATE point through KETGATE website. After that local KETGATE point sends them institutional commitment to be signed. After new organization and coordinator SEZ signs the commitment, it is sent to JSI, which integrate them on the webpage ketgate.eu and invite them to the platform Microsoft Teams, where Service Requests of SMEs and toolboxes are shared. New members are also invited to provide more information about their organization, Business Advisor, KET Facilitator, RTO service offers, patents, etc. to be published on the webpage. This information is sent to JSI, which uploads it on the webpage.

As an example, the integration of newly joint RTO INSTITUTE OF TECHNICAL PHYSICS AND MATERIALS SCIENCE, CENTRE FOR ENERGY RESEARCH on the webpage can be observed on Figure 2.

Table 2. Summary of integration process of new KETGATE members.

What	Who
1. New member signs the commitment (KETGATE point/RTO)	New member with support of regional project partners
2. Logo, webpage and description of new member organization (max 500 characters) is sent to JSI	New member with support of regional project partners
3. Integrate the new member on ketgate.eu	JSI
4. New KG point receives access to KETGATE platform Microsoft Teams to publish tech. service request New RTO receive access to KETGATE platform Microsoft Teams to receive tech. service request	JSI
5. New member receives templates for providing detailed information about KG Point / RTO (KET services, technology offers, publications, etc.), information is sent to JSI to be published on ketgate.eu.	New member, JSI



## INSTITUTE OF TECHNICAL PHYSICS AND MATERIALS SCIENCE, CENTRE FOR ENERGY RESEARCH

[Home](#) / [RTO](#) / [Institute of Technical Physics and...](#)

### Mission of the Institute:

- Interdisciplinary research on complex functional materials and *nanometer-scale* structures, exploration of physical, chemical, and biological principles, their exploitation in *integrated micro- and nanosystems*, and in the development of characterization techniques.
- Dissemination of the results in international programs, education and industrial R&D, with special attention to the needs of SMEs.

### Medium term R&D plan:

- Research of new 2D semiconductors. Defect-engineering: the properties of novel 2D materials through atomic scale modification and investigation of the novel properties. Precise fabrication of 2D hetero-structures (artificial crystals) built layer-by-layer from various 2D crystals with controlled rotational orientation, and investigating the atomic and electronic structure of the new materials by experimental and computer simulation methods.
- Research of semiconductors in cooperation with EU partners in the field of nitride transistors, metal based transistors, microscopy of novel 2D semiconducting layers, superconductors. Research on MEMS / NEMS sensor principles, development of autonomous, flexible, wearable and integrated micro and nanosystems for environmental sensors, physical (mechanical, optical, thermal), medical (microfluidic, biochemical sensors,) applications and their validation in real conditions. Development special microfluidic systems for sample transport, for preparation, for molecule detection and for analysis in Lab-on-a-Chip devices.
- Development of various semiconductor micro and nanosystems, application of new materials, structures and functions, transfer the results to SMEs and industrial partners.
- Synthesis of layers with appropriate bandgap for solar cell applications including Fe<sub>2</sub>S<sub>2</sub> and FeSi<sub>4</sub>. Research of ceramic



Institute of Technical Physics and Materials  
Science, Centre for Energy Research

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**Phone number of the KET facilitator:**  
+3613922222

**Website of the RTO:**  
[www.mfa.kfki.hu](http://www.mfa.kfki.hu)

Figure 5. Example of integrated new RTO on the webpage ketgate.eu.



## 7. The KETGATE network sustainability

The first step for an action plan for sustainability was the definition of a service portfolio for both SMEs and RTOs, which can be commercialised and will constitute the revenue streams for the KETGATE network. This portfolio was defined and validated during the project work and pilot tests. For a more detailed analysis, the project partners carried out a workshop to prepare a cost/benefit analysis and to develop the KETGATE business model canvas for both, the SMEs and RTO services (Figure 5 and Figure 6). The different activities of the business plan were discussed and defined.

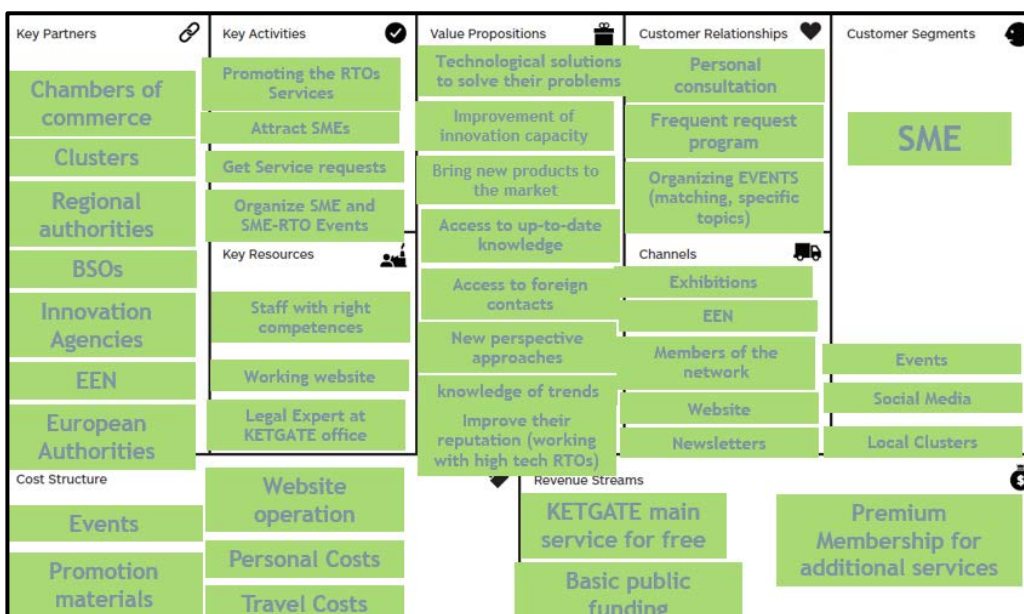


Figure 6 KETGATE business model canvas for SMEs

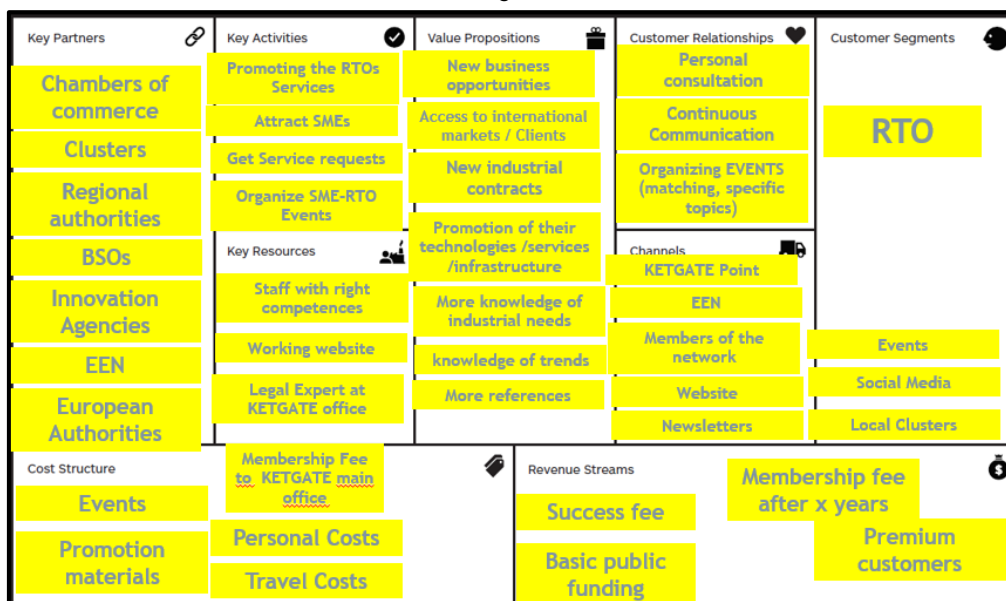


Figure 7 KETGATE business model canvas for RTOs



Regarding the revenue model, the revenue streams result from the value delivered to the customer segments by the KETGATE Network. The options that were defined are: success fee paid by RTOs by contracts with SMEs, membership fees, premium membership for additional services, fees for events, etc. The details of the business plan including costs analysis can be found in the deliverable D.T4.1.1.

Additionally to a business plan, the project partners have organised regional roundtables with policy makers to discuss about the possibilities of regional funding for the KETGATE network.

Consistently with the regional S3 strategy, policymakers are encouraged to make use of ERDF and other funds to engage their regional Technology Centres and Infrastructures to collaborate with other KETs Technology Infrastructures across borders so to bridge the service and technology gap in their region.

KETGATE project partners mapped and identified national/regional public authorities (PA) and policy makers (for example ministries, ministerial departments, state or regional agencies/organisations, funding managing authorities and bodies etc.) whom they would approach, create their awareness and organize meetings to handle policy recommendations.

The KETGATE project for instance, recommends offering incentives, financial mechanisms, financial instruments and enabling frameworks for policy makers to support their regional SME to use KET technology services across borders, in accordance with their Research and Innovation Strategies for Smart Specialisation (RIS3). The aim can be also to escalate regional smart specialisation strategies to EU level and vice versa. The use of EU cohesion and other EU funds/funding sources for implementing KET financial instruments rather than national/regional funding sources possibly support cooperation of technology knowledge bases and enhance potential investment of blended public and private financial sources in Central Europe.

## 8. Conclusions

The activities implemented in the second phase of KETGATE gave us the possibility to better define the strengths and weaknesses of the proposed model. As a consequence, the elaboration of different business model canvas, oriented to the different kinds of KETGATE members (KETGATE Points and RTOs), helped the Consortium in better defining the path toward a successful implementation of the model, with a specific view on its sustainability in time.

The Consortium also used the last period activities to face the aspects already mentioned in the first analysis, namely the network reputation, the market approach and the availability of resources. The implementation of specific, public and private events, such as the public launch of the network and the internal discussions about the future of the network, were also used to reinforce the network structure. This gave us the possibility to deepen the commercial aspects of the network that will be fundamental for the economic sustainability of the model. At the same time, the contacts established with the local Policy Makers have been focused on the necessity to maintain a high level of awareness about this initiative in the framework of the development of the tools for the new programming period.



Altogether these actions have defined a good environment for the further development of the network also taking into consideration the unavoidable weaknesses recognized during the KETGATE implementation.

As a final observation, it is worth reporting the fact that the mostly virtual structuring of the interactions that lead to the development of contracts between companies and RTOs has been a winning move especially in this period, strongly undermined by the impacts of the COVID-19 pandemic.