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Abstract:

The CLINES consortium foresees common actions to be implemented together in the future. This report contains an analysis if these actions are conducive for the goals of the CLINES consortium.

The statistics that form the basis for the analysis were obtained from a virtual application of the planned actions to already running projects, gaining projections and insight from the managers of those projects. Graphs allow for an easy assessment and comparison of the action evaluations.

Keyword list: evaluation report, action evaluation, virtual evaluation, action evaluation chart, sub goals, actions

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Summary

The CLINES consortium foresees 22 common actions to be implemented together in the future as part of the Joint Action Plan. This document contains an analysis if these actions are conducive for the goals of the CLINES consortium.

The statistics that form the basis for the analysis were obtained from a virtual application of the planned actions to already running projects, gaining projections and insight from the managers of those projects.

1 Introduction

The CLINES project is planning common actions to be implemented by the project partners after the project end. The first draft of the action plan – the mid-JAP – is already available (as deliverable D4.2). The proposed actions are evaluated twice: by the local interest groups, and via a virtual evaluation.

This document contains the results of the virtual evaluation: We evaluated planned actions by virtually applying those actions to ongoing projects, and then making a delta analysis of the projection and baseline. That is, the managers of selected projects were asked to evaluate if the actions would have been beneficial, had they been implemented in the scope of their projects. The answers of the project managers were collected, and aggregated in the Delta Analysis deliverable (D6.3).

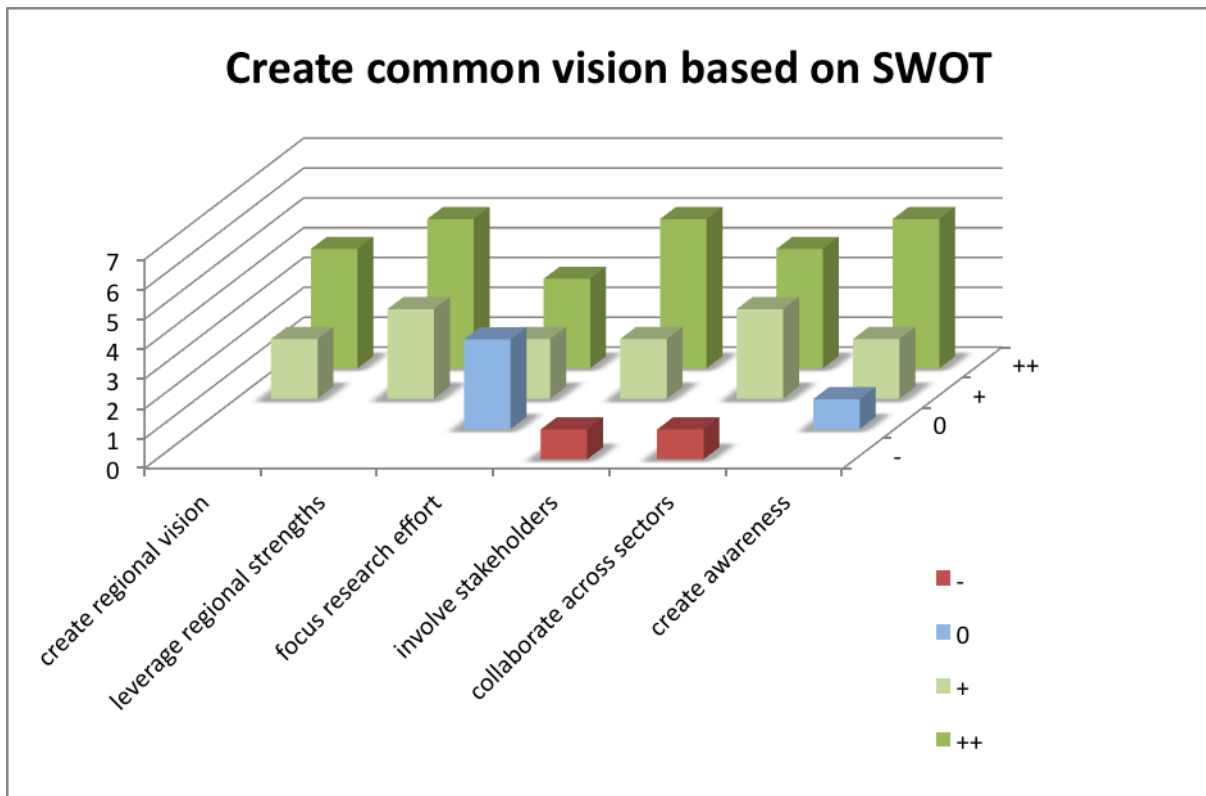
The statistics from the Delta Analysis were used by the CLINES partners to visualise the valuations of the actions, and for each action evaluate if, according to the virtual application, it is conducive for the CLINES sub goals – culminating in a recommendation if the action has to be kept, or amended.

An analysis of the sustainability of the then revised actions – specifically how they will be financed – is part of the upcoming deliverable D6.4 (Final Evaluation and Sustainability Report).

The document is structured as follows: In Chapter 2, the evaluation background to analyse the statistics is explained. Chapter 3 contains an analysis for each action foreseen.

2 Evaluation background

For each action, there is an evaluation chart available in how far the action is promoting the CLINES goals that it was intended to support. See example:



Example for an action evaluation chart

For the action of “Create common vision based on SWOT”, the example graph shows how the six sub goals (from “create regional vision” to “create awareness”) are expected to be promoted by the action.

Each valuation was chosen from the following range:

- ++ action helps goal (back row in chart)
- + helps a little
- 0 no effect on goal
- hurts goal (foremost row in chart)
- na not applicable in this project

A sub goal could receive at most eight valuations from the project managers. For example, six valuations say that the action is great to leverage regional strengths, and one says that it actually hurts the sub goal of collaborating across sectors.

Valuations stating that the action was “not applicable” in the virtual project are not shown in the charts, since they are irrelevant. Of course, the virtual projects have been selected to be representative for CLINES projects, so if an action has a high number of “not applicable” votes (such as the “Public procurement” action”), this is an indicator that the action might not be suitable for CLINES.

A hierarchical description of the actions and sub goals can be found in deliverable D4.2 (Mid Joint Action Plan).

The underlying valuation numbers for each planned action are available in the deliverable D6.3 (Delta Analysis).

For each action, a cluster expert analyses the virtual project evaluation graphs. The analysis is presented in the next chapter.

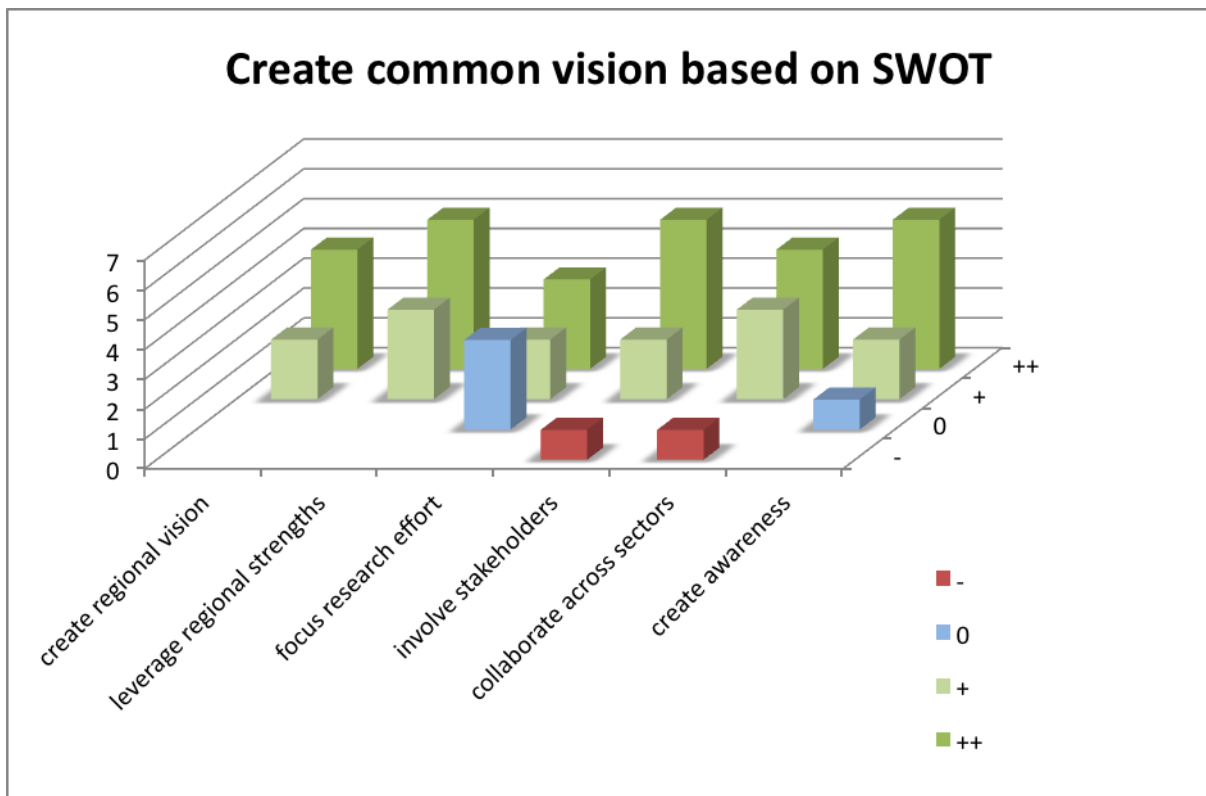
3 Evaluation of Planned Actions

Each evaluation of a planned action consists of the following:

- Brief explanation of the action (see also D4.2, pages 8ff), formatted in italics.
- Overall impression of the action in view of the valuations distribution.
- Mention of sub goals that are especially representative, or stand out by (not) benefitting much – including possible explanations and remedies.
- Recommendation if the action is to be kept in the Joint Action Plan, and if yes with which focus and restrictions.
- For some actions, a comment or suggestion by the project managers interviewed is noted.

In some cases, action ideas surfaced during the evaluation. They are presented in the appropriate goal sections.

3.1 Create common vision based on SWOT



Create a common vision for ESSC that is well founded in the SWOT analyses and in the trend roadmaps and shows how the common vision links to both regional strongholds as well as other European clusters within ESSC.

The actions seem to be beneficial since evidence links common vision of regional strengths, as well as other European groups within ESSC.

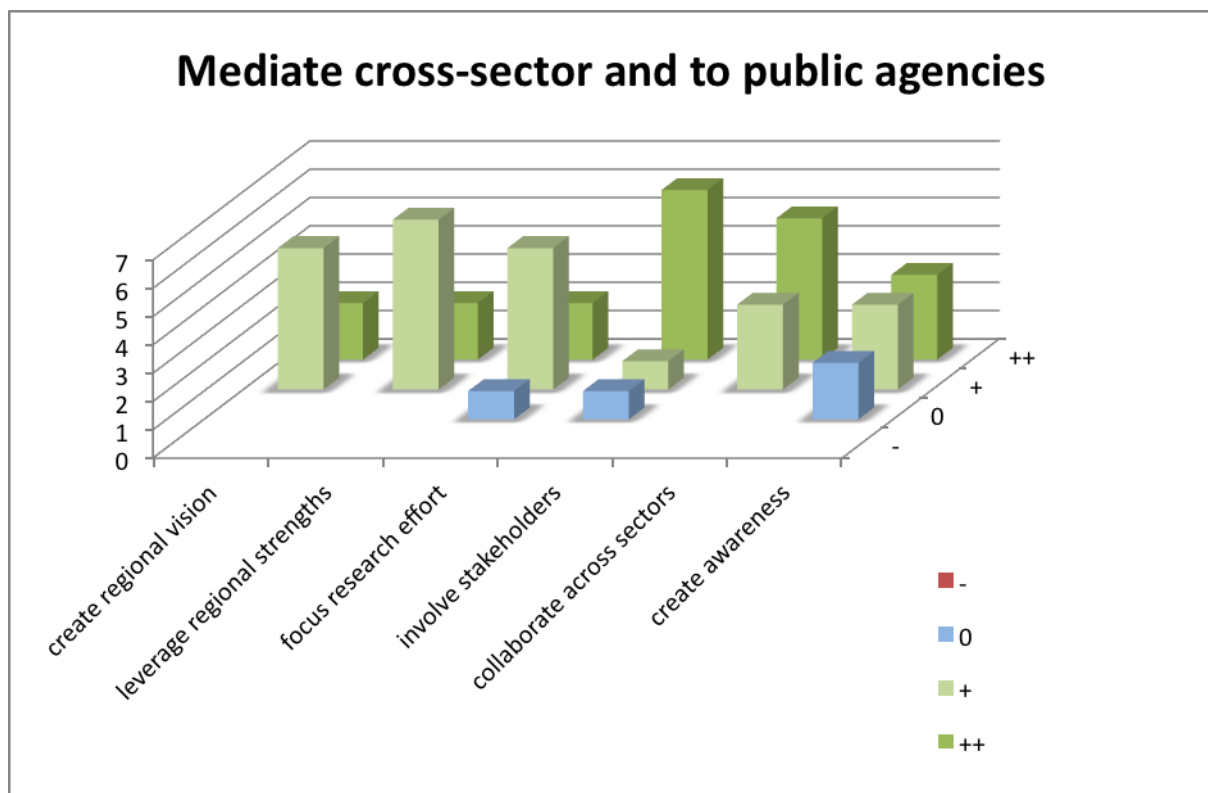
Compared with other actions, “create a common vision based on SWOT analysis” is expected to be much more beneficial. The most of the action would have seen a highly positive impact.

The main positive thrust of this action seems to be to leverage regional strengths and involve stakeholders, and to foster the cooperation across sectors.

The conclusion is to keep the action, but to focus it on improving visibility and creating awareness, and a shared consciousness to collaborate. The CLINES stakeholders in each region should have a common regionally specialised CLINES vision to develop an ecosystem around Smart City and Embedded Systems topics. The danger is to connect too many sectors, or too many different stakeholders.

Comment by project manager interviewed: “SWOTs for specific industries are required.”

3.2 Mediate cross-sector and to public agencies



Mediate between the business sectors otherwise separated and among public agencies because they need to work together to raise the area of ESSC. Support public procurement agencies in ESSC to foster collaboration.

Overall, this is a very relevant action.

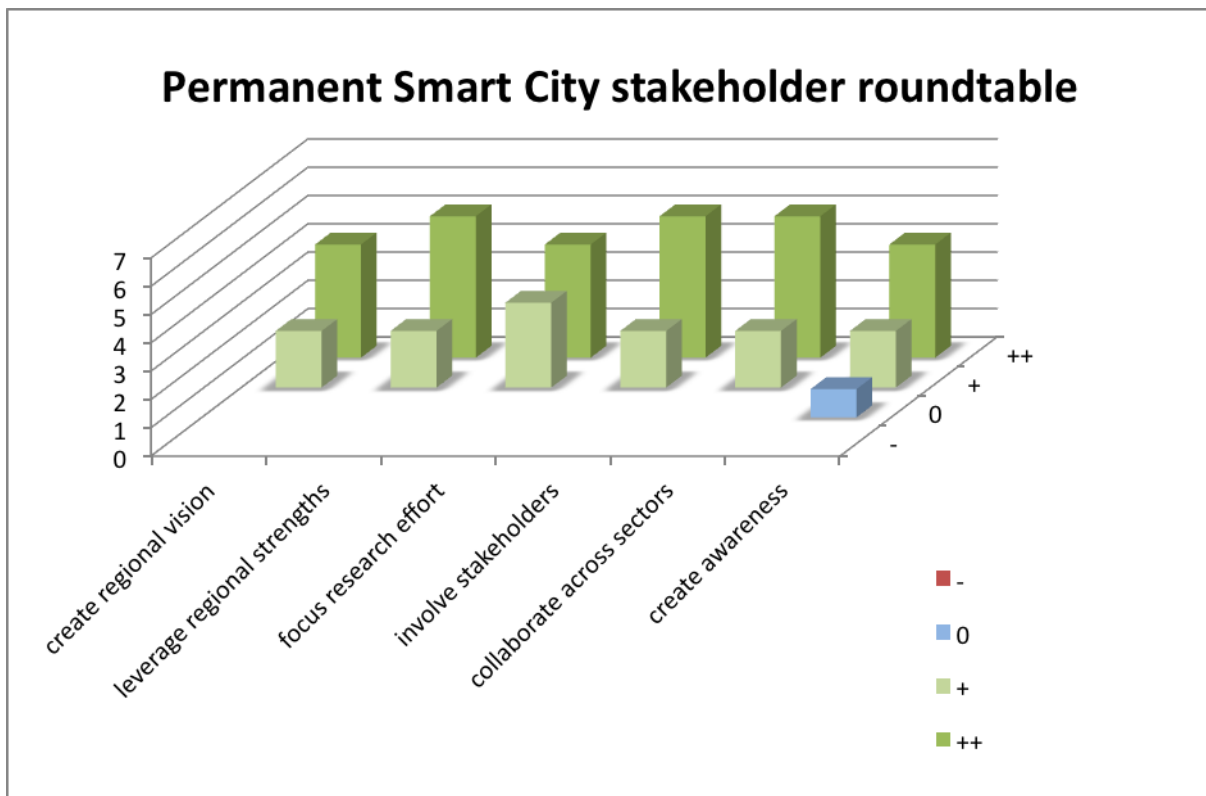
Compared to other actions, mediating cross-sector and to public agencies is far more expected to be beneficial. Many initiatives have this double complicity particularly when it comes to push the collaboration between sectors and involving stakeholders. Maybe this is the main positive thrust of this action.

However there are some sub goals (leverage regional strengths create regional vision and focus research effort) that are expected to benefit only mildly from the action.

The conclusion is to keep the action, but to focus it on involving stakeholders and collaborating across sectors.

Comment by project manager interviewed: "Need for "translation services" between domains."

3.3 Permanent Smart City stakeholder roundtable



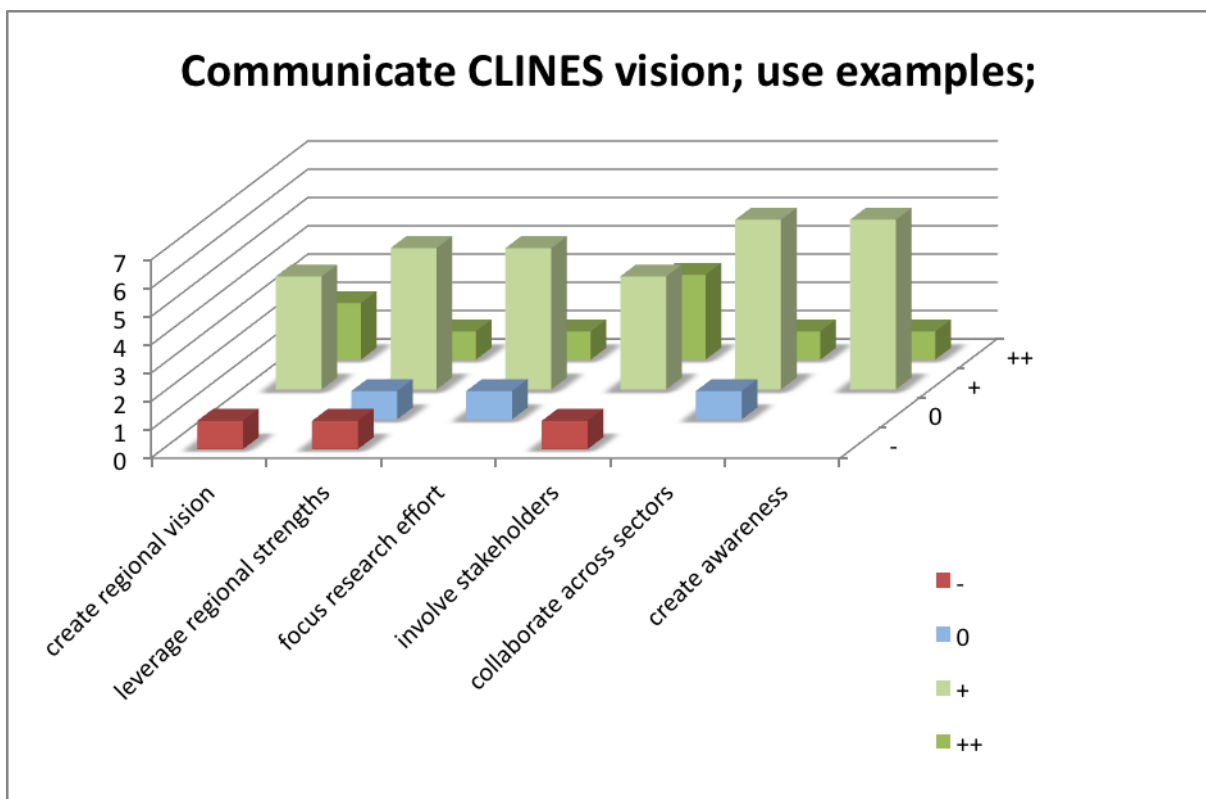
Creating a permanent smart City stakeholder roundtable, means that regional stakeholders should move from being specific to the project to becoming useful for regional smart specialization beyond the project by involving a broader set of stakeholders, including influential businessmen and those responsible for public policy.

Compared to other actions (such as “connecting to similar projects”), this one is far more expected to be beneficial, all of the sub goals have a highly positive impact from the first to the last sub goal.

The main positive thrust of this action seems to be to leverage regional strengths, involve stakeholders, and to foster the cooperation across sectors.

The conclusion is to keep the action, to focus it on bringing in the regional stakeholders to become useful for regional smart specialization beyond the project and improve collaboration between different agencies, both public and private.

3.4 **Communicate CLINES vision; use examples;**



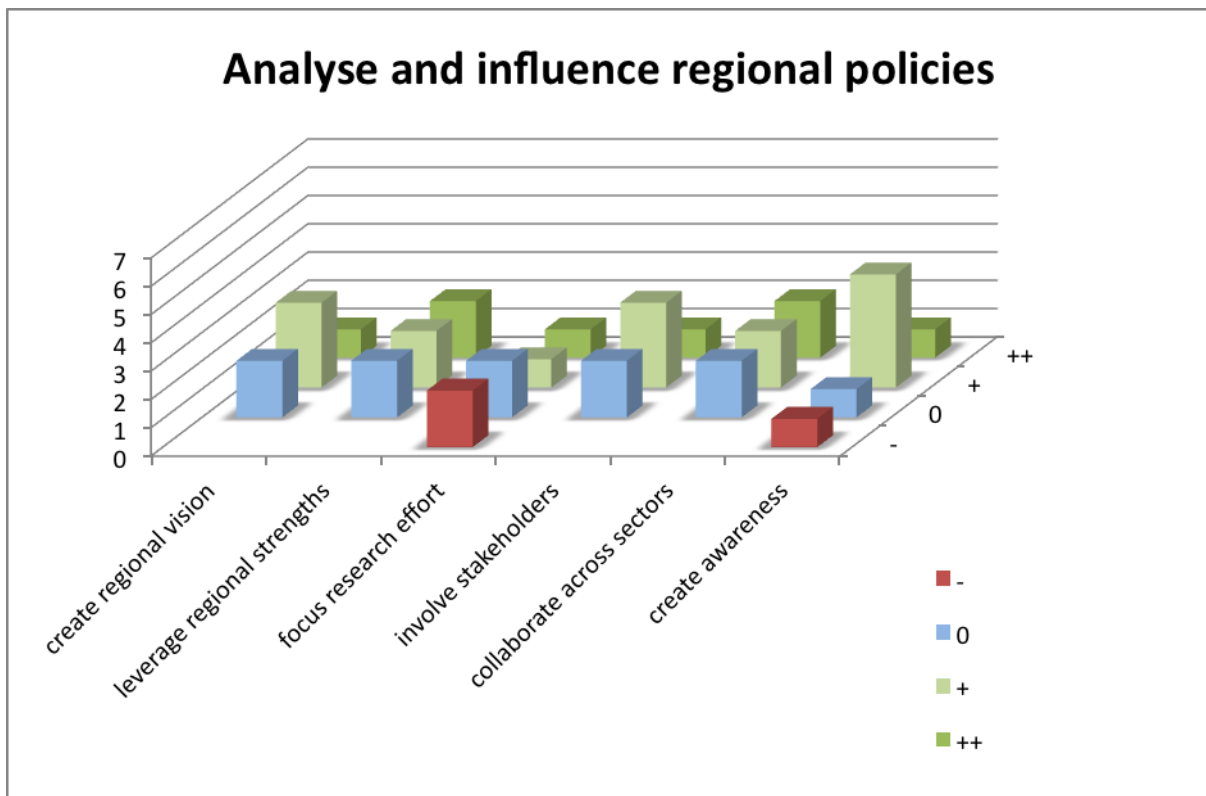
Communicate the common CLINES vision means how it links with regional smart specialisation strategies through: exemplar stories of collaboration within the ESSC vision; the CLINES show cases; and identified important ESSC problems.

Compared to other actions the valuation says that this action is seen as mildly positive for the bulk of the sub goals. Some strong support only for the sub goals of “involve stakeholders” and “create regional vision”.

The conclusion is to keep the action. This means that each region of the CLINES consortium can use the CLINES vision as a means to tighten the local ecosystem. No cross-region effects should be expected from this action.

Comment by project manager interviewed: “Useful, if shown what technical solutions are available.”

3.5 Analyse and influence regional policies



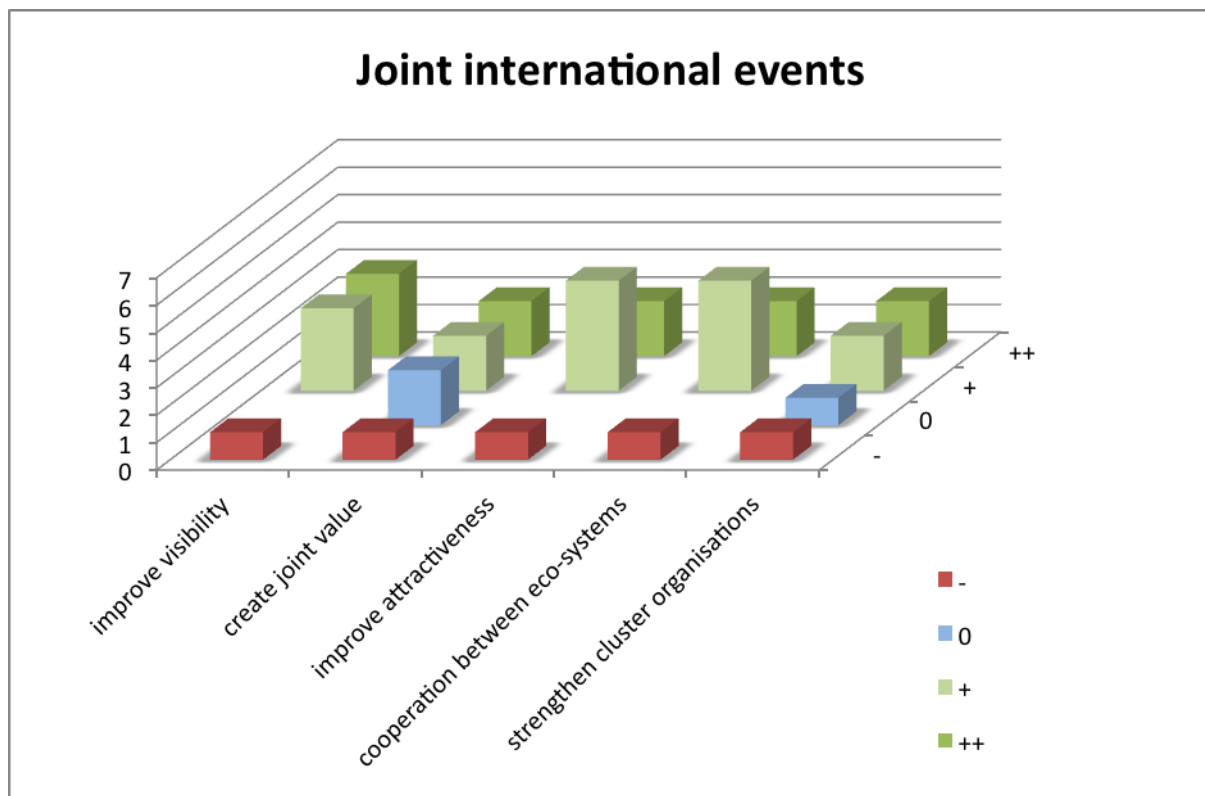
Analyses and influence regional policies means that it is convenient to influence the regional smart specialisation strategies to link with structural funds and to link ESSC initiatives to structural funds.

However compared to other actions, analysing and influencing regional policies seems not to be very relevant. The evaluations say that the action isn't so great, the highest value, with three, is for the sub goal to create regional vision and create awareness, but the rest of the sub goals have been assessed positively with two or one point only, for all partners, which is meaning that this action is actually hurtful to put in practise.

The conclusion is to not keep the action, or at least if we keep it just in the way of creating regional vision and creating awareness.

Comment by project manager interviewed: “Local decisions will rarely be influenced by external data. Action idea: Motivate municipalities to act on Smart Cities by demonstrating how they can shape their town by being involved.”

3.6 Joint international events



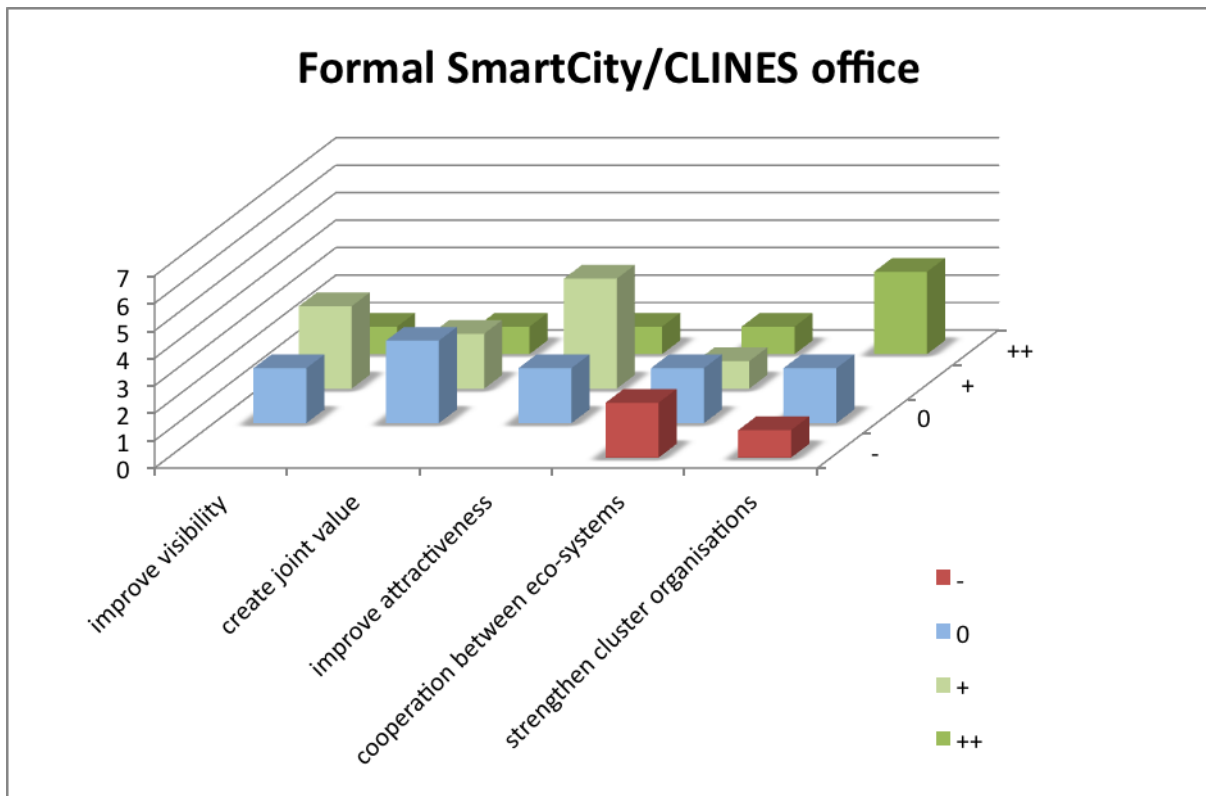
Create joint events with common ESSC agendas and use these for frequent exchanges of information on funding opportunity, calls, projects, knowledge and research on ESSC and possibly involve the RIGs as well.

Overall, joint international events are rated cautiously; with one project even saying it would have hurt their goals.

Looking more closely, there are three sub goals that benefit from the action: “improve visibility”, “improve attractiveness”, and “cooperation between ecosystems” with six positive votes each. Hence, joint events are more seen as a marketing measure. Concrete results (sub goal “create joint value”) are only expected by 50% of the projects.

The verdict thus is to keep the action, but to be aware that it is there to promote the CLINES consortium and its companies. An alternative would be to hold the international meetings via video conference between the cluster partners. For concrete cooperation results, other actions are required.

3.7 Formal Smart City / CLINES office



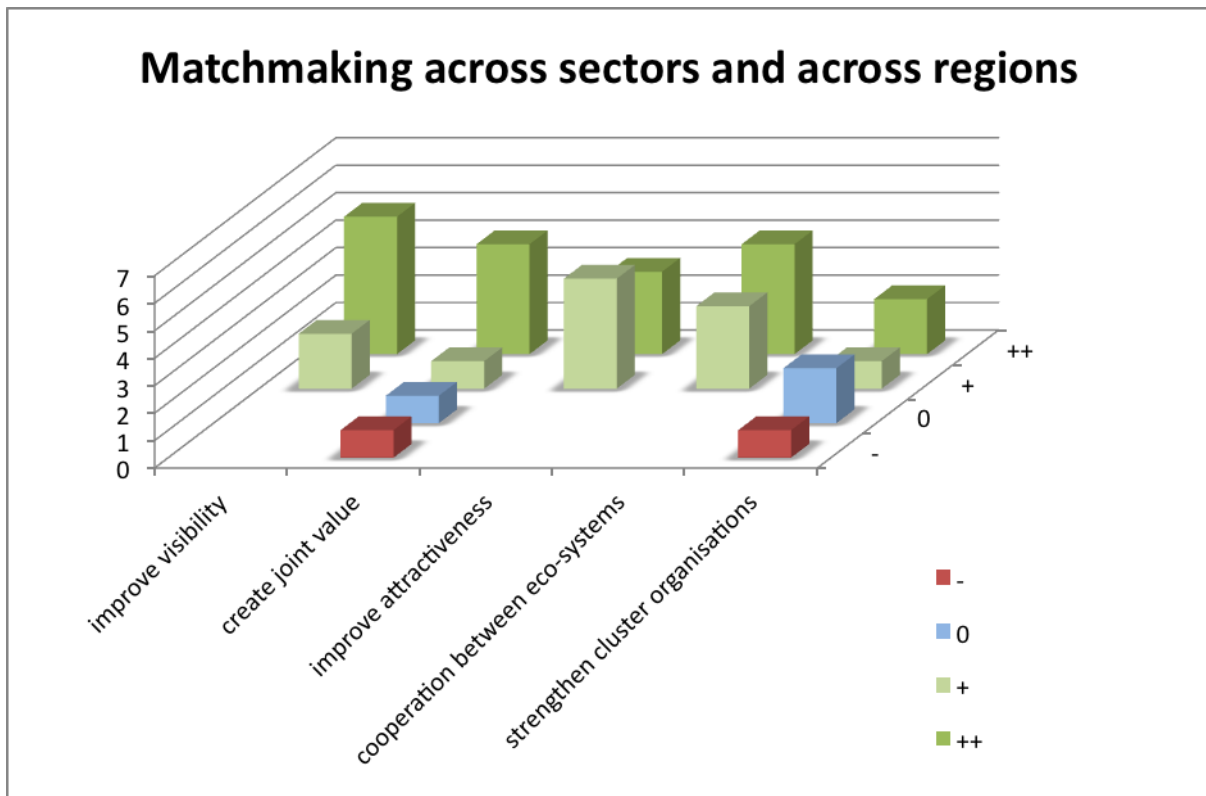
Establish a formal CLINES office to organise the cluster cooperation for the regional clusters.

For cooperation between ecosystems, a formal cluster office does not seem to be necessary. However, the action supports the goals “improve visibility” and “create joint value”. A full 62.5% assume it will have a positive impact on the attractiveness. Three projects gave a “++” to the action in strengthening the role of the cluster organisations.

A formal office thus would seem to have the role of a branding anchor that can promote the visibility and attractiveness of the regions.

Comment by project manager interviewed: “Required as driving force; optimally with permanent funding scouts;”

3.8 Matchmaking across sectors and across regions



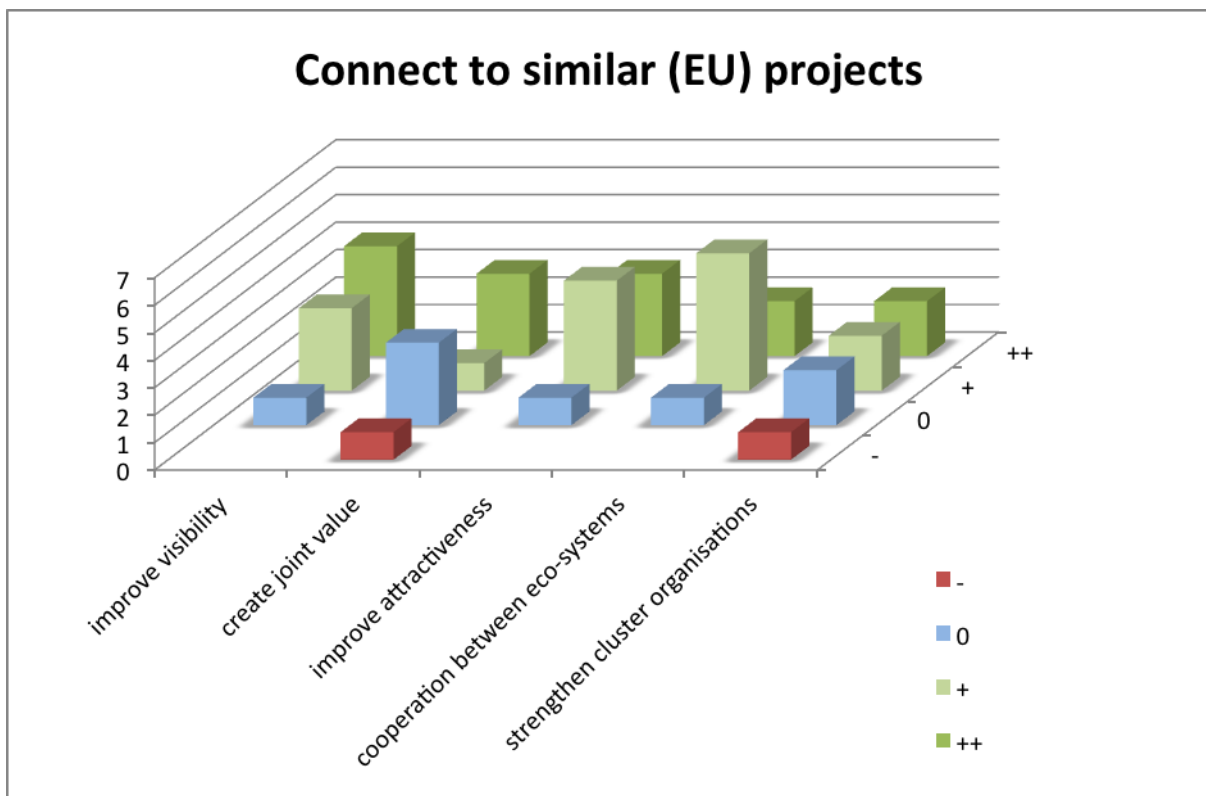
Create matchmaking across sectors and across regions driven by quadruple helix thinking and with an elaborate knowledge of interests and competences of businesses, public agencies, research institutions, and other relevant stakeholders.

This action is seen as overall having a very positive impact. Similarly to the formal Smart City office, the visibility and attractiveness are considered to be promoted (voted entirely positively!). But, it is also strongly assumed that matchmaking will strengthen the cooperation between the eco systems. The cluster organisations don't necessarily benefit from this action.

To create joint value, matchmakings receive the highest vote off all actions!

The recommendation is to keep the action.

3.9 Connect to similar (EU) projects



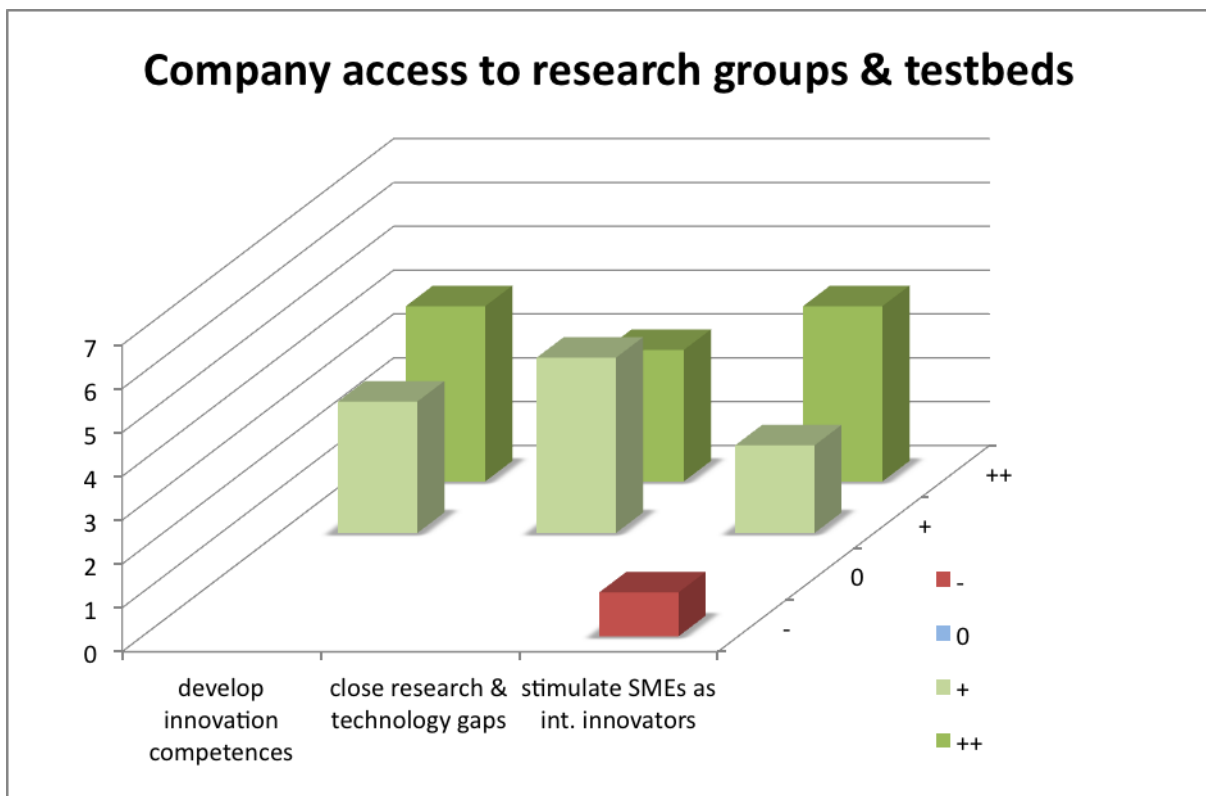
Connect to similar projects within Smart Cities, Embedded Systems, and their combination, and exchange experience and information.

Compared to other actions, connecting to similar projects is far less expected to be beneficial. Many virtual projects would have seen only a mildly positive impact, and a comparatively high number even no impact. Two projects would even have been hurt by this (possibly by the use of resources for no gain). The cluster organisations themselves have to expect few gains from the connection.

The main positive thrust of this action seems to be to improve the visibility and attractiveness of the CLINES project, and to foster the cooperation between ecosystems.

The conclusion is to keep the action, but to focus it on improving visibility on the way, and if a very good fit exists, to connect the CLINES ecosystem with the one of the other project. The danger is to connect to too many projects, or trying to partner with non-yet developed ecosystems.

3.10 Create access to research groups

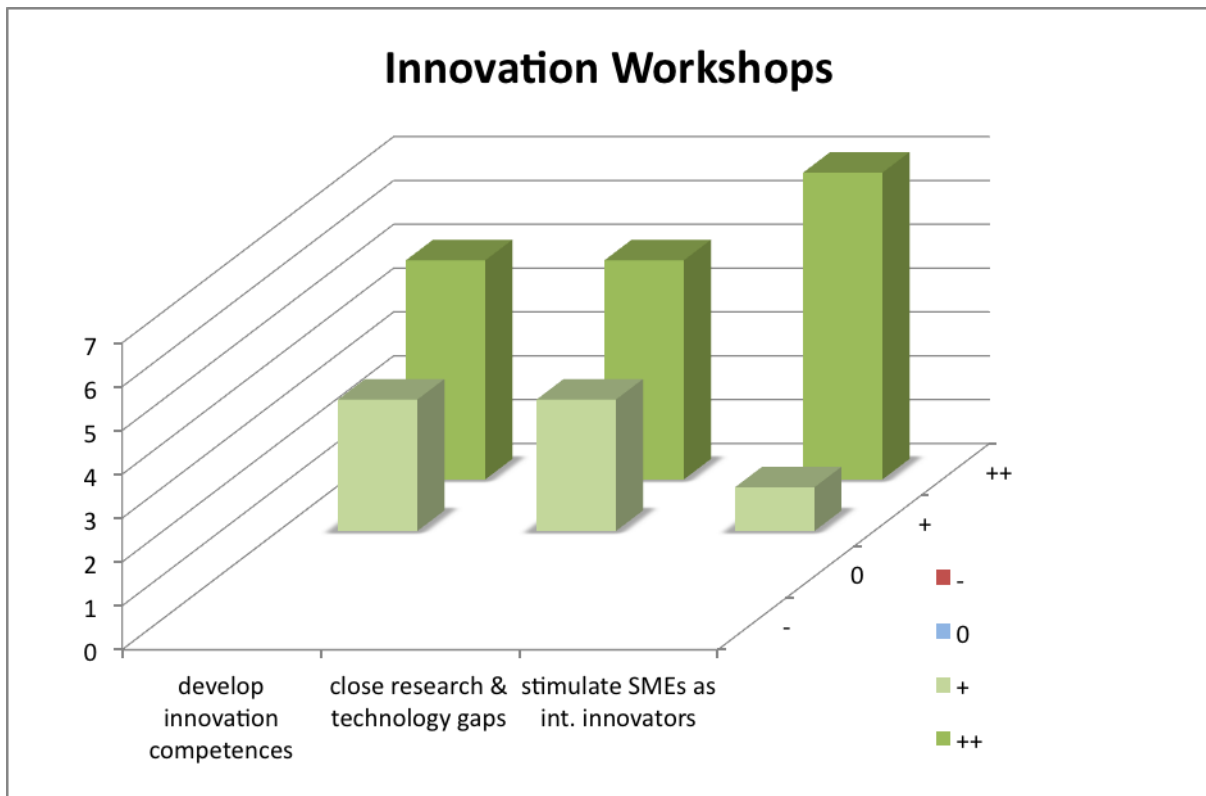


Create access to research groups, research labs, testbeds, and technical infrastructure for ESSC companies and utilise collaboration and alliances with researchers to close research and technology gaps.

The overall effect of creating access to relevant research knowledge and infrastructures is generally very positive for the JAP goal of “develop innovation capacities” as seen from the virtual projects. For the sub goals “develop innovation competences” and “close research & technology gaps”, the positive evaluation is unanimous, whereas for the sub goal “stimulate SMEs as international innovators”, a single project indicates a negative effect.

Based on the overall positive evaluation, the recommendation is that the action should be kept. However, the reason for the single negative answer should be investigated further in order to clarify the expected effect for SMEs.

3.11 Innovation workshops



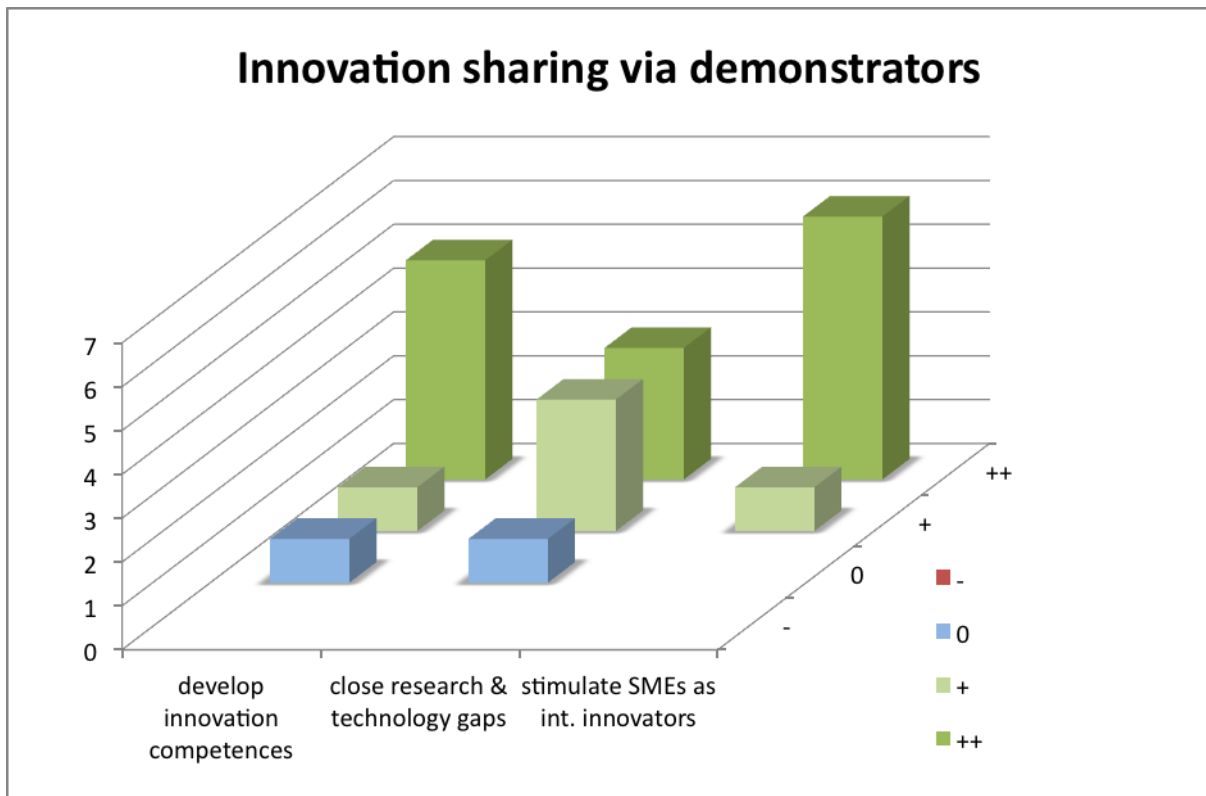
Support comprehension and communication of innovation specifically for ESSC through innovation workshops, which also help to transfer knowledge and experience to the regions involved.

The use of innovation workshops for supporting the JAP goal “develop innovation capacities” is generally evaluated as having a very positive effect on all sub goals.

Based on the unanimous, positive evaluation, the innovation workshop activity should be kept in the JAP. However, based on the preliminary experiences from the first two innovation workshops of the CLINES project, the pros and cons of the different workshop formats should be emphasized in the final recommendations.

The second CLINES workshop was attended by a number of representatives from the Danish Region North and from SMEs, and the impression from the attendees was very positive.

3.12 Innovation sharing via demonstrators

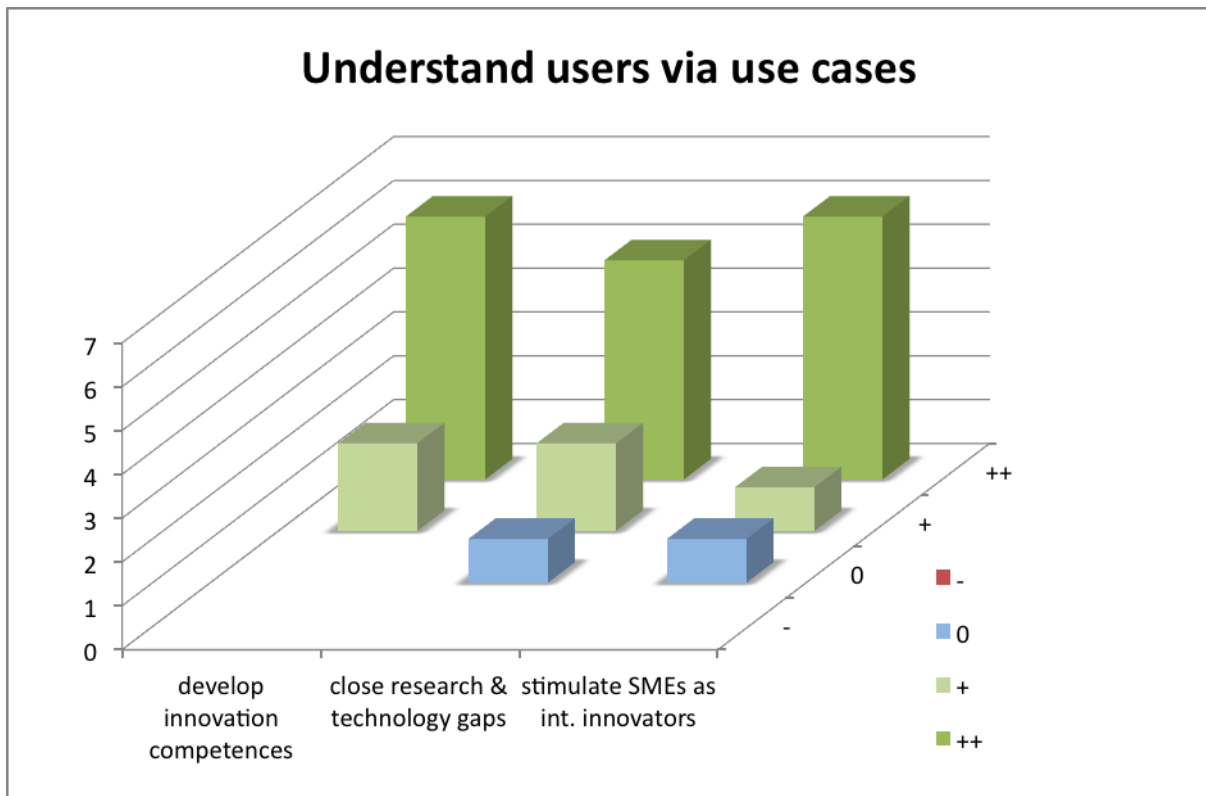


Support comprehension and communication of innovation specifically for ESSC through expositions, show cases, demonstrators, and knowledge sharing demonstrating both existing and future innovation.

This action is generally evaluated as having a positive effect on the JAP goal of “develop innovation capacities”. However, for all sub goals, one project considers the effect as being neutral and one project rated the action as not applicable.

Based on the overall positive evaluation, this action should be kept in the JAP. However, a further investigation should be made in order to understand the differences to the answers of the “access to research groups” action, as there is some overlap between the two actions.

3.13 Understand users via use cases

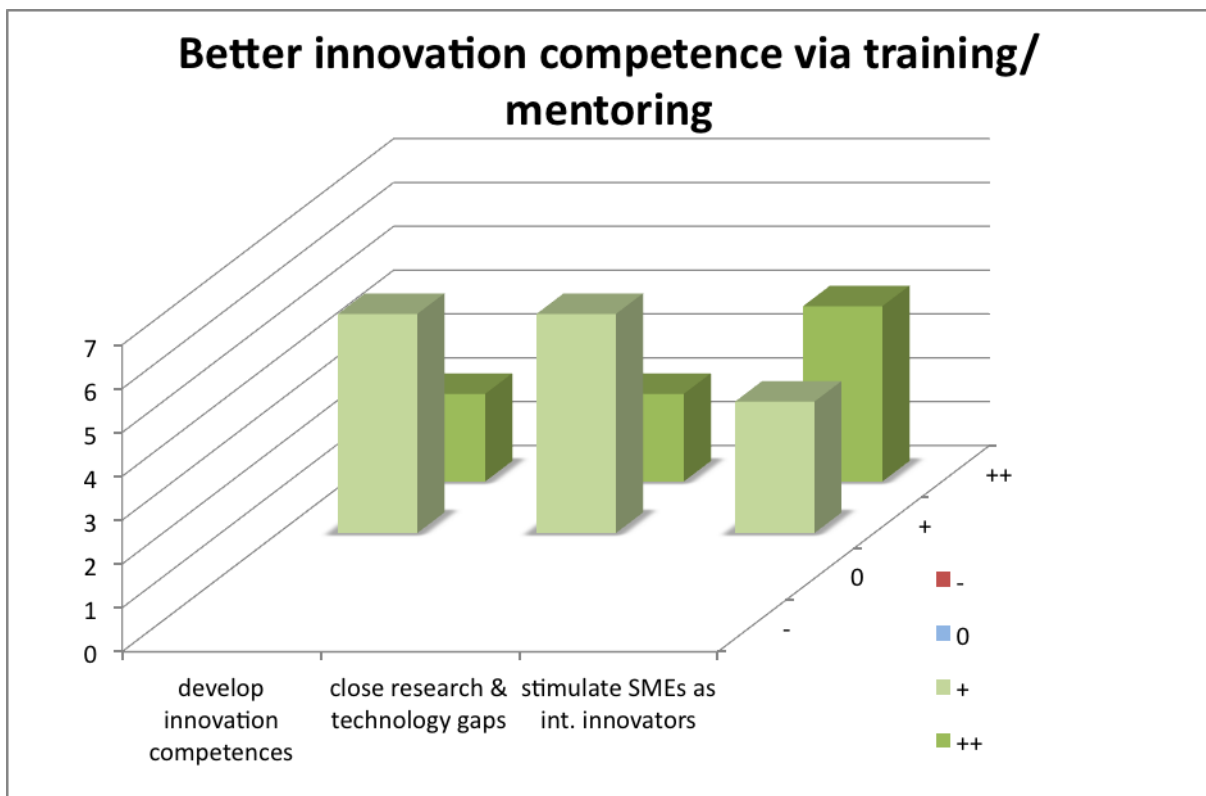


Support understanding of users and consumers through use cases, business cases, and by exchanging user analyses as background for creating value for customers and citizens.

This action has been rated overwhelmingly positive.

It can be seen as preparation for concrete international projects, and should of course be kept. Some work should be invested into the question if only the use cases are important to know about, or if it is necessary to work in actual projects on those use cases.

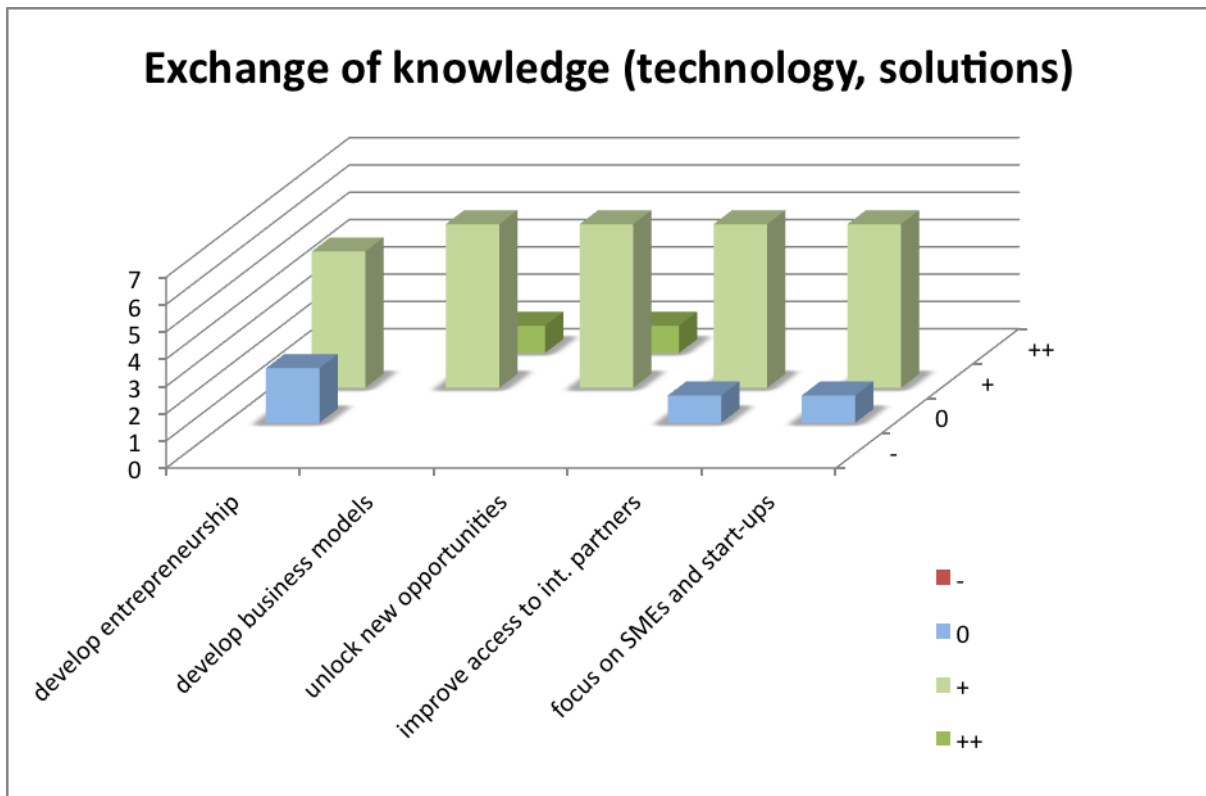
3.14 Training/mentoring



Support business and public agency access to innovation competence, mentors, coaches, and training for relevant stakeholders.

Generally, this action is evaluated as having a positive effect on the JAP goal of ‘develop innovation capacities’. So, from the evaluations, there is no doubt that this action should be kept in the JAP. However, the same as for the innovation workshops there should be put some effort into clarifying which kind on training/mentoring activities are recommended.

3.15 Exchange of knowledge



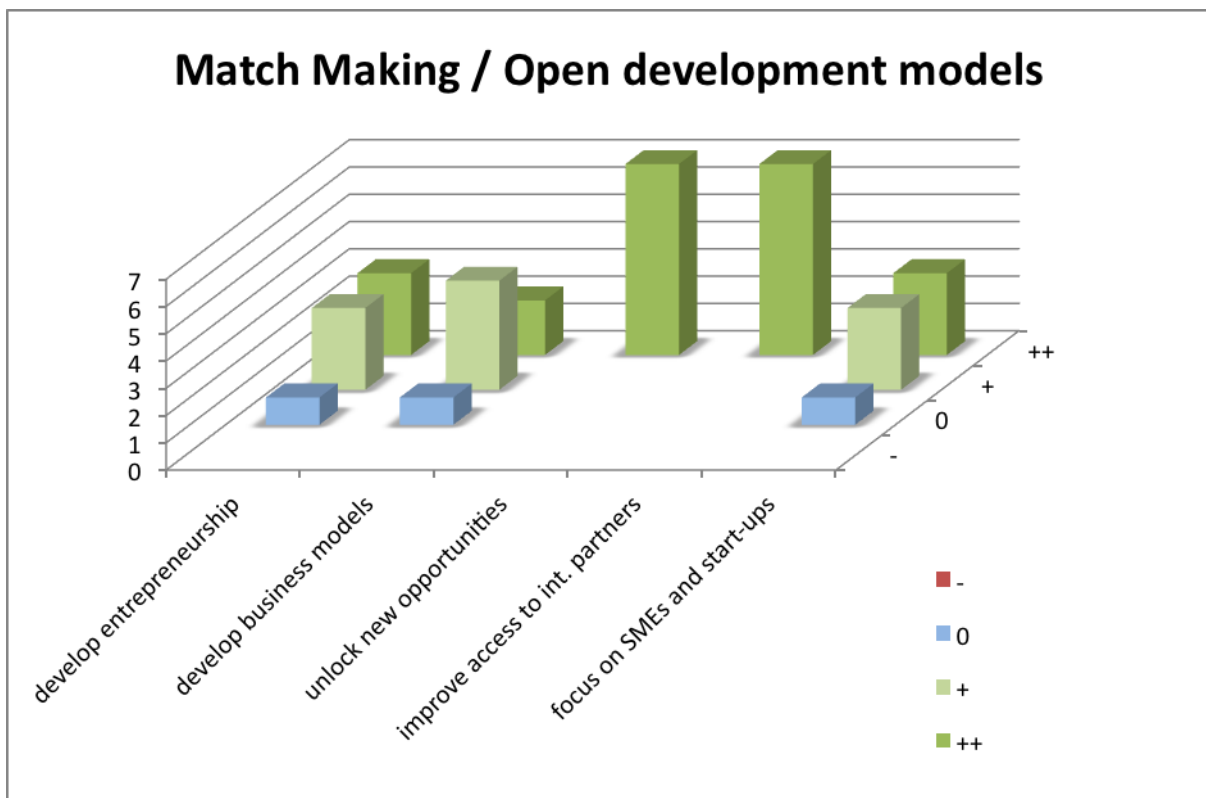
Facilitate exchange of ESSC knowledge, its problems, consumers and citizens, solutions, and technologies.

Exchange of knowledge can be regarded as beneficial for reaching the goal of creating more business. Only a limited number (12.5%) of the responses rated this action as not applicable whereas 87.5 % of the responses rated this action as beneficial for the goal.

Exchange of knowledge is especially relevant for the sub goals “develop business models” and “unlock new opportunities”. However the impact it has on the other sub goals is only scored a little bit lower.

Exchange of knowledge can be regarded as an action which is beneficial for creating new business and must be further elaborated in the JAP.

3.16 Match making/Open development models



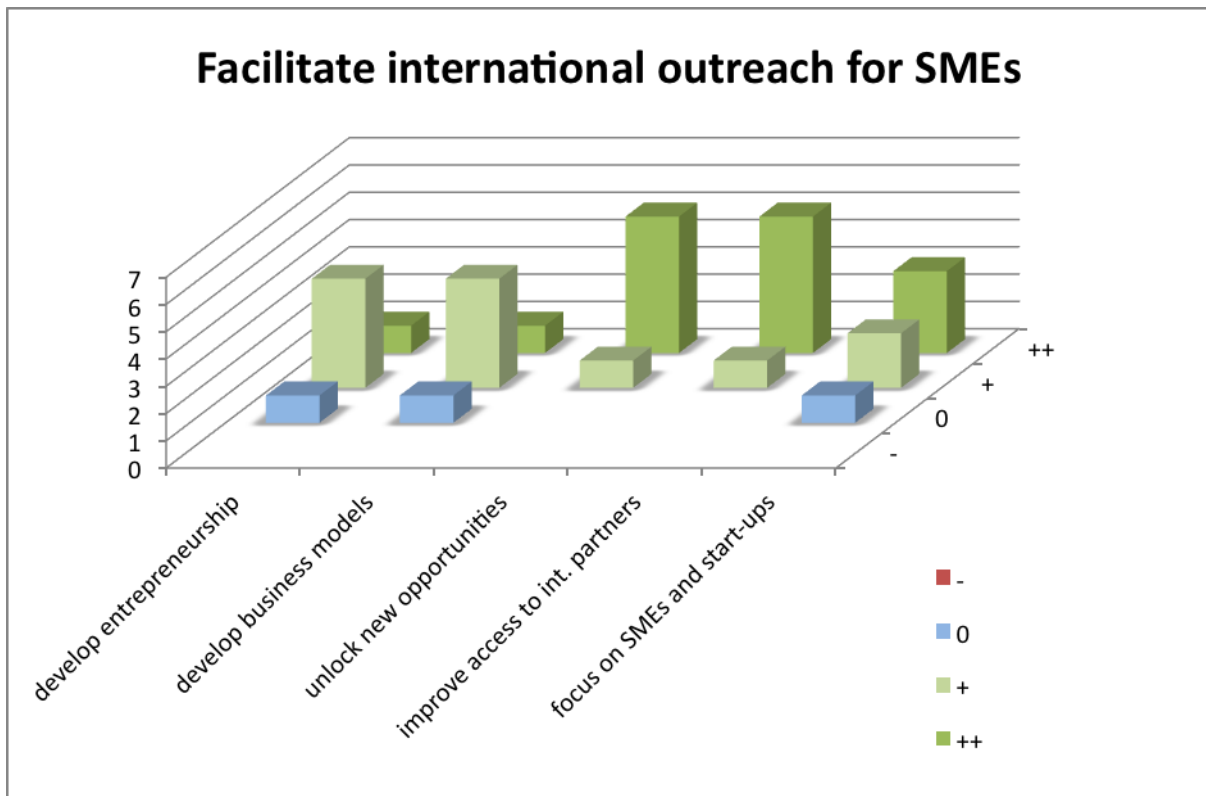
Match making both regionally and between regions supported by scouting for new business, utilisation of open development models, consortia creation, SME bundling, and SME and large enterprise linking.

Match making and open development are rated as very important. With regard to the “not applicable” ratings this actions has the same number of n/a as “exchange of knowledge”. However this action has been rated higher when looking at the impact on each of the sub goals.

The evaluators find match making specifically beneficial for the sub goals “unlock new opportunities” and “access to international partners”.

Match making/open development models must be part of the joint activities developed by the CLINES consortium.

3.17 Facilitate international outreach for SMEs



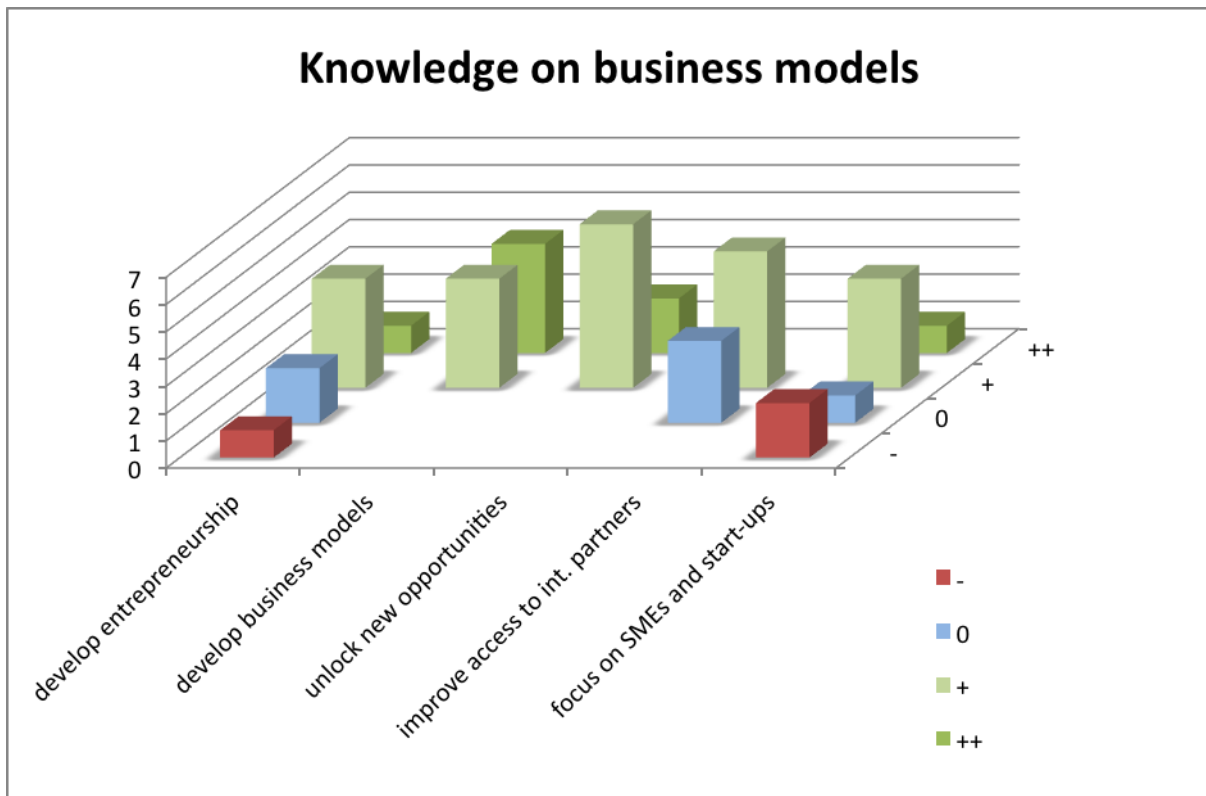
Facilitate international outreach for regional businesses.

This is a little bit less important for creating more business. 25% of the responses indicated the score N/A. Whereas 75% of the responses indicated that this action is applicable to create more ESSC business, but usually only using the cautionary “helps a little” + valuation.

Specifically the sub goals “unlock new opportunities” and “improve access to international partners” were rated high. This is the same rating as the previous action with regard to match making. One could conclude that the match making activities must have an international character.

Facilitating international outreach for SMEs has to be part of the joint actions.

3.18 Knowledge on business models



Develop and diffuse knowledge of business models and value creation based on quadruple helix, alliances, and networks, and train SMEs in developing business models.

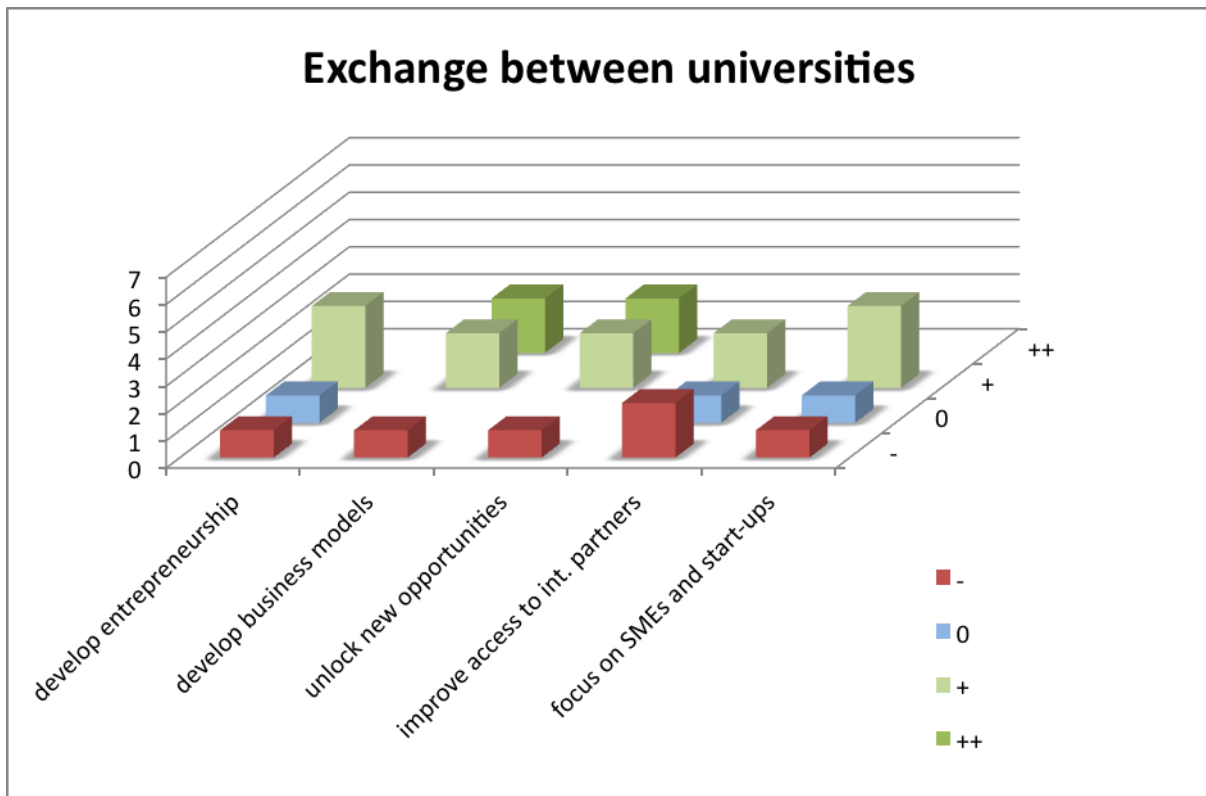
All of the project reviewers rate this action as applicable to reach the goals of developing business models, and to unlock new opportunities.

However, for the sub goals of “develop entrepreneurship” and “focus on SMEs”, 37% reported no or even negative impact.

Creating insight and knowledge on business models should be part of the joint action plan, but it must be taken in account that this will mostly not benefit SMEs.

Comment by project manager interviewed: “Exchange on business models only with strict IP regulations.”

3.19 Exchange between universities



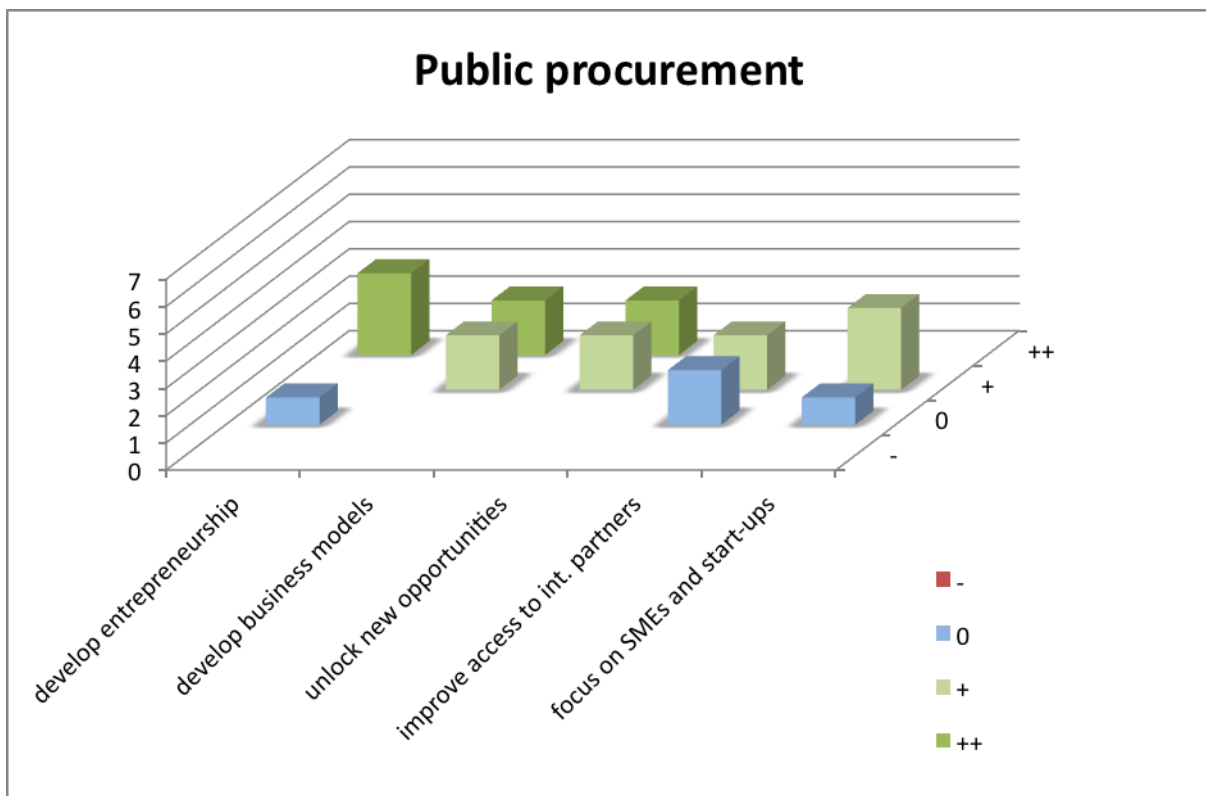
Exchange knowledge and experience between universities to address both entrepreneurial skills and technical skills.

The respondents were rather negative on the impact of this action. 37.5% of the responses indicate N/A and 15% of the responses were referring to a negative impact on creating new business and 7.5% evaluated this action as having no impact.

The responses were somewhat positive on the sub goals “develop business models” and “unlock new opportunities”.

“Exchange between universities” has to be revised as action related to the creation of new business. Perhaps CLINES has to focus more on the interface between business and academia.

3.20 Public Procurement



Public procurement as a lever for private-public-partnering in particular within ESSC.

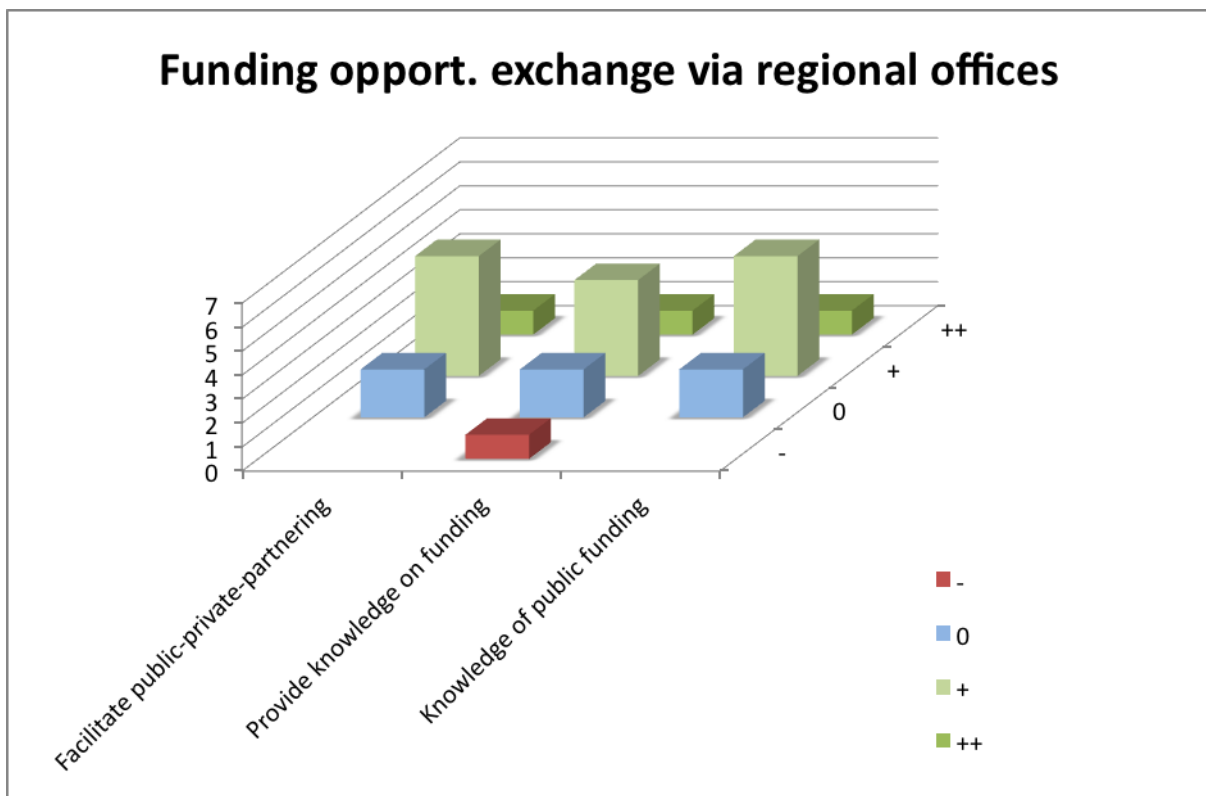
The respondents were rather sceptic on the impact of this action on creating more business. 50% of the responses indicate a score n/a. This clearly indicates that the relevance of this action is discussable.

Regardless of overall impact of this action on the goal of creating more business, the respondents indicate that public procurement can be beneficial for the sub goals “develop entrepreneurship”, “develop business models” and “unlock new opportunities”.

Although public procurement can be beneficial, it has to be revised as action to stimulate “creating more business”.

Comment by project manager interviewed: “Don’t make tenders for specific technologies, but for solutions.”

3.21 Funding opportunities exchange via regional offices

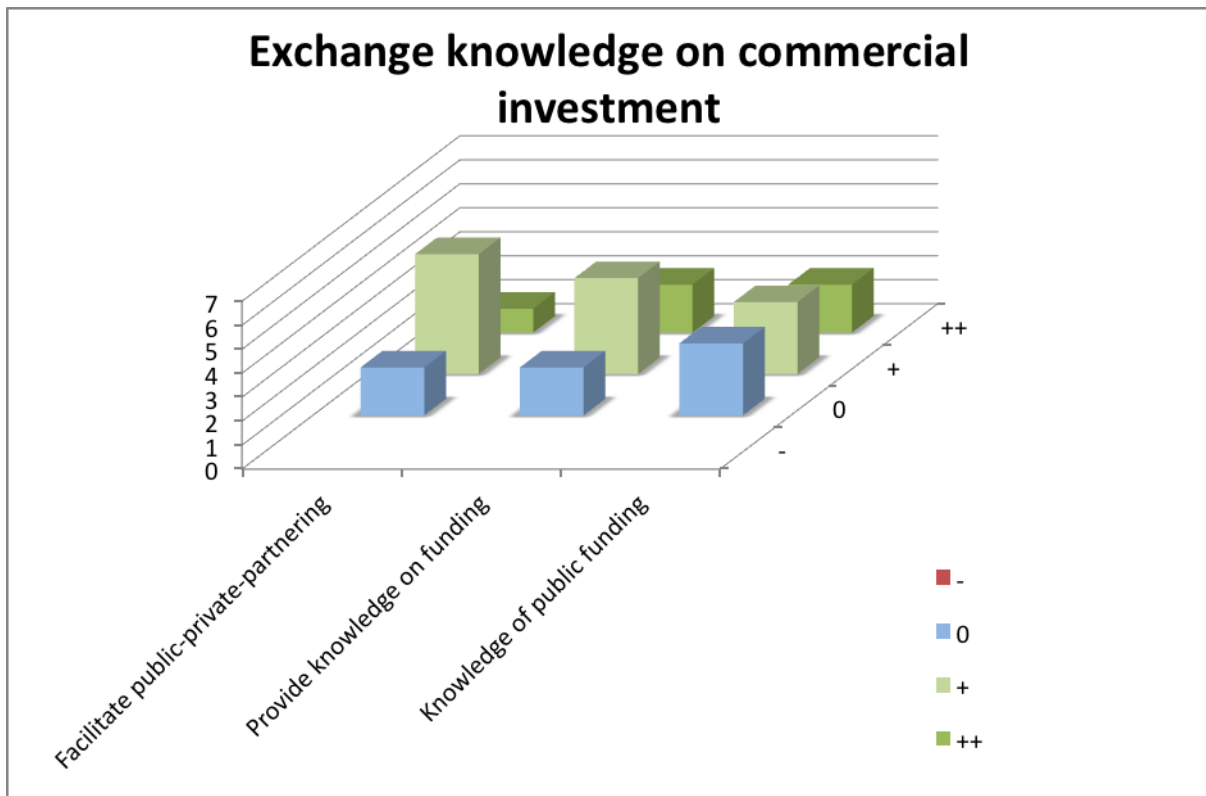


Facilitate the exchange of knowledge of funding by the EU as well as national and regional funding through regional lobby and funding offices whether these are for research, business, public agencies, or for partnerships.

The verdict on this action is distributed quite evenly over all sub goals. Two or three projects estimate that a common funding office would have had no impact on their project, and three to five consider a positive impact. A big impact is only expected by two projects.

The conclusion is to keep the action, but to stress that it is not about the creation of such an office, but to connect to existing ones.

3.22 Exchange knowledge on commercial investment



Facilitate the exchange of knowledge of commercial investment in entrepreneurial business, of venture capital, and of crowd funding.

Having more knowledge on the working of commercial investment would benefit the majority of the projects. Only two to three projects expected no impact of this action.

The recommendation is thus to keep the action, but to formulate more clearly a way to accumulate and communicate this knowledge.