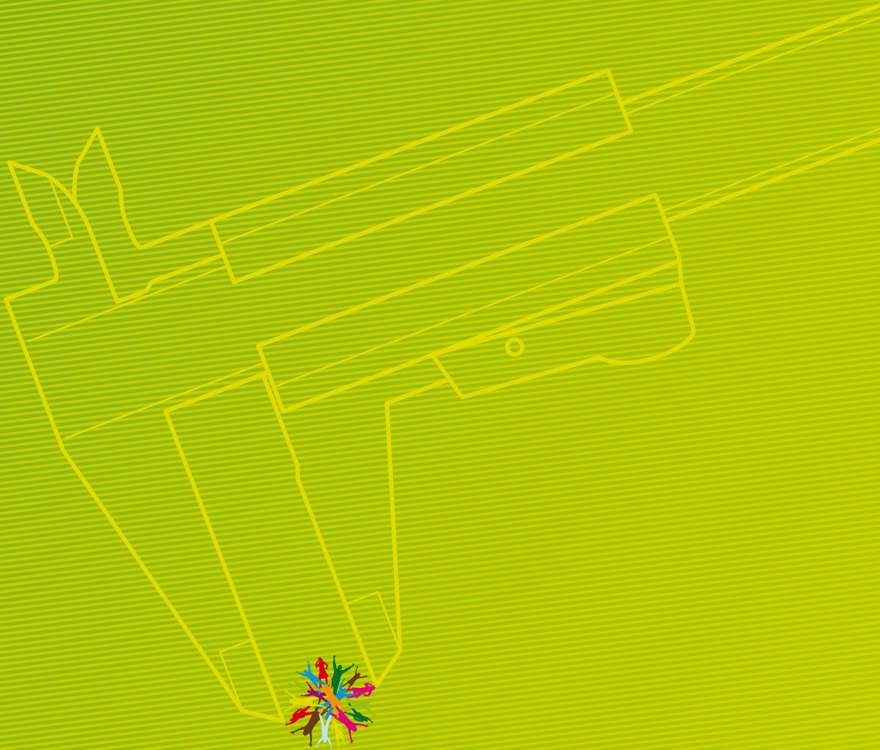


Øresund IT

Benchmark Report

Øresund IT
Benchmark Report

the Agency of the Kompetenznetze Deutschland Initiative
&
the Institute for Innovation and Technology

Always in close collaboration

Øresund January 2010

It takes about 10 years for a cluster to start performing. Facing the fact that Øresund IT celebrated its 10 years anniversary in November 2009, the findings in this cluster benchmark analysis is no big surprise. Developing the cluster from a networking focus to a more mature cluster with regional development on the agenda has been a natural way of developing Øresund IT.

Looking at statistics that show that Øresund IT is one of the leading ICT clusters in Europe, must be done with a humble attitude. As many wise men have said, you can proof almost everything with statistics. This benchmark report gives us a confirmation that we are doing some things right, but also encourages us to try even harder in the future. And always in close collaboration with industry, academia, the public sector and users.

Photo: Alfred Gunnarsson

Micael Gustafsson
Managing Director, Øresund IT

Content

Challenging but important

Benchmarking cluster initiatives are challenging but important undertakings. At its worst, it is a matter of measuring the immeasurable in order to compare the incomparable. At its best, it gives invaluable management insights and essential pointers on where to focus one's efforts.

The research we conducted for the Cluster Initiative Greenbook in 2003 suggested that the performance of cluster initiatives varies greatly. The conditions under which they operate differ as do the results they produce. Our research also showed that comparisons require a solid methodology and reliable data. The Kompetenznetze method applied in this study has both, and the method represents a valuable contribution to our understanding of how cluster initiatives operate and how they can be compared to each other.

The Øresund IT is an interesting case of a cluster initiative from many aspects. It is an old, established initiative, which can tell us a lot about long-term performance. It is active in a sector which attracts considerable attention; according to the European Clus-

ter Observatory data, ICT is the sector with the largest number of cluster organisations in Europe. Øresund IT is also a cross-border organization which is unusual for a cluster collaboration. All these factors makes it a particularly interesting case to study. The fact that it ranks so high in this benchmarking analysis makes Øresund IT even more worthy to study.

Photo: Cecilia Nordstrand

Göran Lindqvist
The European Cluster Observatory
Stockholm School of Economics

Summary

The Øresund IT is embedded in the Øresund Science Region (ØSR), a Swedish-Danish cross border organisation with the aim to increase the cooperation between universities, the public sphere and the business community on both sides of Øresund. The ØSR was rewarded in 2008 the prestigious EU Commission RegioStars award for its work (category "Best Supporting Cluster and Business Networks"). To remain successful, Øresund IT believes that collaboration and joint initiatives will be essential.

The cluster management participated in the benchmarking analysis along with other clusters from the ICT area in November 2009. In total 47 indicators were calculated and categorised into 7 different sub-dimensions. The following report reveals the findings of this benchmarking, comparing the Øresund IT with other well performing ICT clusters (mainly from Germany) as well as all Quality clusters registered in our comparative portfolio.

Figure 1 shows a summary of the benchmarking findings in comparison with a "Perfect Cluster" (further explanation can be found in connection with indicator 61). A "Perfect Cluster" is defined in such a way as its indicators all show ideal values. The "Perfect Cluster" can be understood as a high level benchmark in order to reveal the closeness of the Øresund IT in comparison to that "Perfect Cluster". Values of 100 % in each sub-dimension mean that the Øresund IT fully complies with the "Perfect Clus-

ter“. Compared to that, the actual achieved scores from Øresund IT, expressed as a percentage, are depicted as well as the average values of the other clusters from the comparative portfolio. Again we compared the Øresund IT with all registered clusters from the same technological domain.

The Øresund IT exceeds the average values of both the comparative portfolio in six out of seven sub-dimensions. As far as the sub-dimension “Cluster typology and governance” is concerned the max. value of 100 % was reached. Which means that all these indicators are on the level pf that of a “perfect cluster”. This is really impressive, e. g. the overall cluster governance is well structured as well as the clarity of tasks and objectives. Objectives of the cluster work and added-values gained a good conformity so far. Very good findings were archived in the sub-dimension “Internationalisation”, since the cluster organisation and its members are operating very internationally. This is also backed by a broad range of supporting measures offered by the cluster organisation.

The benchmarking report emphasises that the Benchmarking Team was really impressed by the Øresund IT and its cluster organisation. According to the findings, the cluster organisation ranks top among the ICT clusters benchmarked so far. In addition, it also ranks among the top 10 clusters benchmarked to date (compared with all other cluster organisations benchmarked as yet). Consequently, the Institute for Innovation and Technology and the Agency of Kompetenznetze Deutschland would like to register the Øresund IT as Quality Cluster in its comparative cluster portfolio.

The second graphic – the so-called cluster profile - enables an explicit overview in terms of the specific indicators. It shows whether a specific indicator from the Øresund IT is located in the reference area (50% of all respective values), which is the area between upper and lower quartile (explanations are given in Figure 3) or whether it is below the lower quartile or above the upper quartile. To reflect, it is important to know that data, which are potentially below or above the reference area do not necessa-

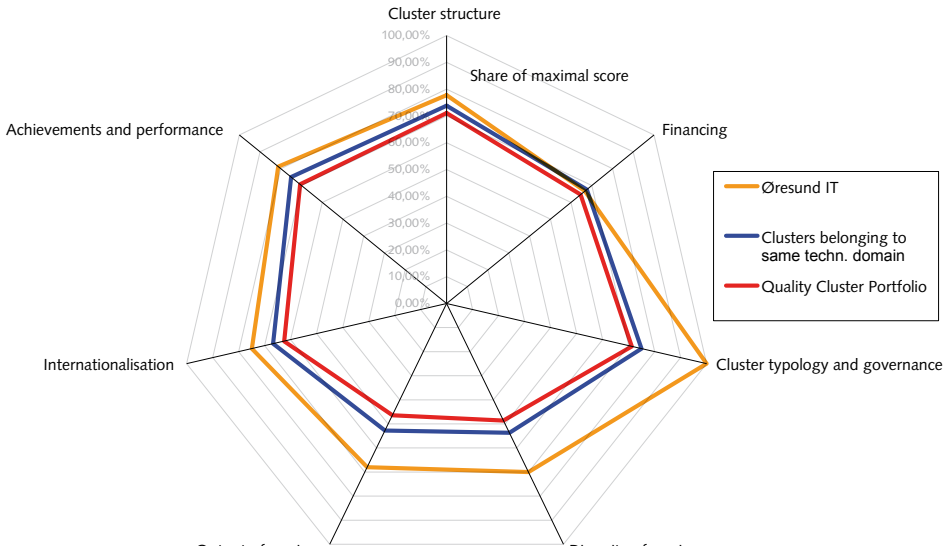


Figure 1: Pattern of the seven sub-dimensions of Øresund IT compared to a „Perfect Cluster"
(100 % in each sub-dimensions) as well as to the comparative portfolios (ICT and all registered Quality Cluster), further explanations can be found in connection with indicator No. 61

rily mean good or bad. An interpretation of such findings should be made by the cluster management itself or in close discussion with the benchmarking team. 29 out of 46 indicators that are used in the cluster profile from Øresund IT are within the reference area and 14 are above. Thus, the overall profile appears very impressive. Above the upper quartile are mainly the indicators of the sub-dimensions cluster structure as well as cluster services & output because the Øresund IT is very well structured as well as very active. Only three indicators are located below the lower quartile. The majority of ICT clusters benchmarked so far have chosen a specific legal form, which normally leads to a stronger commitment of all members. Here the benchmarked cluster did not have chosen any legal form so far.

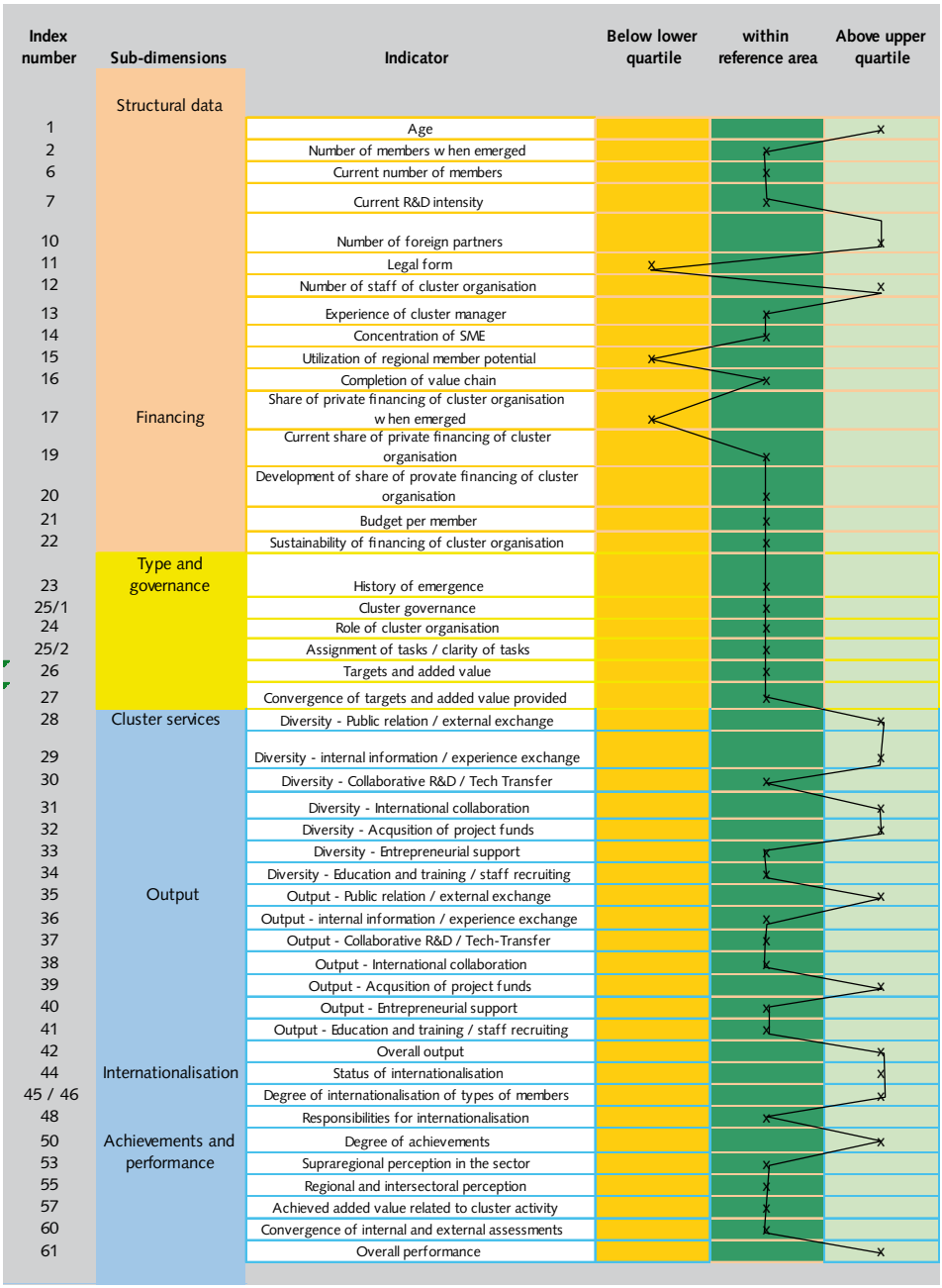


Figure 2: Profile of Øresund IT based on 46 indicators that were applied

Introduction

Benchmarking of clusters describes the process of comparing the cluster structures, processes, developments and methods as well as service with those from other clusters. The comparison within the benchmarking process is not based on an universally valid definite rating scale. but on individual comparison criteria. Thereby benchmarking provides a very good orientation on how the own cluster is placed and how it performs compared to similar clusters. The procedure is organised by an impartial Benchmarking-Team – the Agency of the Kompetenznetze Deutschland Initiative as well as the Institute for Innovation and Technology.

Unlike other rankings benchmarking gives the opportunity to learn actively from one another. Benchmarking is therefore not only a goal-oriented way to a skills assessment but also an attempt to compare with others, learn from each other ("What is necessary and what is possible?") to optimise one's performing. Thus benchmarking is also an instrument for a steady improvement of one's own work .

For clusters it is important to reflect the defined goals and tasks every so often and to analyse the specific structures and procedures of the cluster that have evolved since its foundation. That is especially important in terms of the continuously changes of the economic and technological conditions. Besides the cluster managements stakeholders often take a reasonable interest in an impartial assessment of the cluster, like

- executive boards,
- policy makers and funding authorities
- members

For such analyses of cluster structures, services, added-values for the members and potentials of clusters benchmarking, namely the comparative analysis with similar clusters, is especially advisable. An extensive evaluation as it's being frequently used as assessment instrument as well as for impact analyses of clusters often doesn't achieve the desired results especially for the cluster management as an input for future corrective actions. Compared to that, benchmarking is to be recommended. One of the essential benefits of benchmarking its the limited efforts needed for the cluster managements and the fact that the members and partners of the cluster do not need to be involved. Interested members can of course be included in the benchmarking process.

The significance of the benchmarking process depends highly on the comparative portfolio against the benchmarking is made. There exist several methods that can be chosen from.

- Technological domain-specific benchmarking (the cluster compares itself to other clusters operating in the same innovation field)
- Trans-sectoral benchmarking (the cluster compares itself to the entire existing comparative portfolio, e. g. only young or small cluster, all clusters registered in the comparative portfolio) or
- Benchmarking with selected clusters (comparative portfolio is assorted individually)

Usually the technological domain-specific comparative portfolio is chosen, because

- It is applicable to all clusters in a specific technological domain
- Of similar operation conditions, structures, processes and similar pattern of services,
- Market and competitive position within the same technological domain can be classified and compared,

- The data of the comparative portfolio is sufficiently detailed and comparable ,
- There is a high significance due to the availability of similar structured information.

Aim

In the present case, the Øresund IT asked to be benchmarked in order to be able to be compared with other clusters in the ICT sector. In addition to that comparative portfolio another was chosen as well, containing all clusters benchmarked and registered as "Quality Cluster" in our comparative cluster portfolio database Up to now, this portfolio contains about 60 clusters benchmarked so far. It mainly consists of the member clusters of the German Initiative Kompetenznetze Deutschland (currently 80 %) as well as of the foreign clusters from Austria, Denmark, Norway and Switzerland. All of these foreign clusters are likewise in compliance with the requirements of the Initiative Kompetenznetze Deutschland. Both comparative portfolios were chosen because the Øresund IT had expressed an interest in being compared with the best clusters that have been benchmarked so far. At the end of this benchmarking process stands a substantial set of about 46 cluster-specific indicators, that refer to the sub-dimensions

- Cluster structure,
- Financing of cluster organisation ,
- Typology and governance of the cluster,
- Spectrum of services implemented
- Output of services,
- Internationalisation,
- Achievements and performance

and compare them with other clusters. The indicators are listed in appendix I.

The indicators (compared to the others) can be interpreted either internally (by the cluster management) or externally (e. g. by the benchmarking team). Both groups will be able to deduct recommendation for improving actions (if needed).

The results of the benchmarking show the strengths and weaknesses of Øresund IT as well as its development potential in the future. It also conveys how the cluster is structured and how it acts compared to others. This benchmarking can be conducted frequently (often times on a regular basis) in order to reveal how the cluster developed over time.

Methodology

The underlying methodology of the benchmarking process was developed by the Agency of Competence Networks Germany in close collaboration with the Institute for Innovation and Technology (iit) and selected clusters, advised by a scientific advisory board.The comparative portfolios include data made anonymous of the clusters from the same technological domain as well as those from all clusters labelled as Competence Networks Germany.

The 44 indicators that were applied for the Øresund IT are depicted comparatively in the report and are complemented with some short comments. Some of the indicators were not used because they didn't fit together with Øresund IT.

Øresund IT was benchmarked by Gerd Meier zu Köcker from the Agency of Competence Networks Germany in October 2009. The relevant aspects were discussed in an half day face-to-face benchmarking meeting. Estimations that were based on a self-assessment were reflected by the Agency of Kompetenznetze Germany afterwards (supported by external experts). The results are shown in questionnaire, which was verified by Øresund IT to avoid misunderstandings.

The results are displayed in three different kinds of expressions to support the process of visualisation. As far as numeric values could be used, box plot method was applied, which has become

the standard technique for presenting the 5-number summary. It consists of the minimum and maximum range values, the upper and lower quartiles, and the median. This collection of values is a quick way to summarize the distribution of the dataset. The typical construction of the box plot, which can be seen in Figures 3 and 4, partitions a data distribution into quartiles, that is, four subsets with equal size. The box is used to indicate the positions of the upper and lower quartiles; the interior of this box indicates the inner quartile range, which is the area between the upper and lower quartiles and consists of 50% of the distribution (called reference area in the following). 25 % of all value lie above the upper quartiles, 25 % of all value lie below the lower quartile. Lines are extended to the extrema of the distribution, either minimum and maximum values in the dataset1. The specific indicator value of the benchmarked cluster is marked within the box-plot figures.

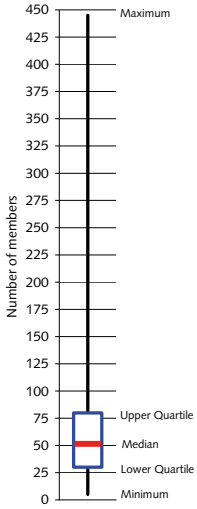


Figure 3: Number of committed members of a cluster portfolio according to the box plot method

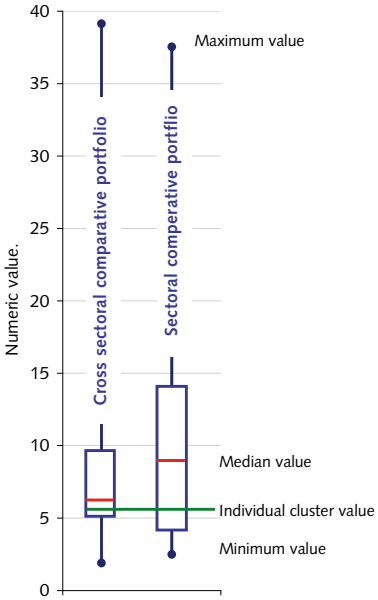
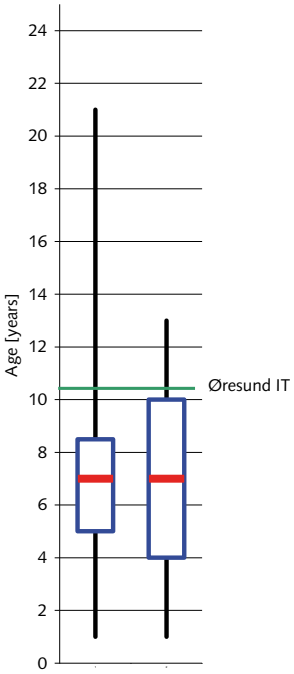


Figure 4: Number of committed members of a cluster according to the box plot method (on the left comparative portfolio: members of the Initiative Competence Networks Germany, on the right clusters from the same technological domain)

Findings

In the following the findings based on the calculated indicators are described, structured according to the seven different sub-dimensions. Alongside the graphs a short comment is given to explain and describe the findings further.

Structure of the clusters

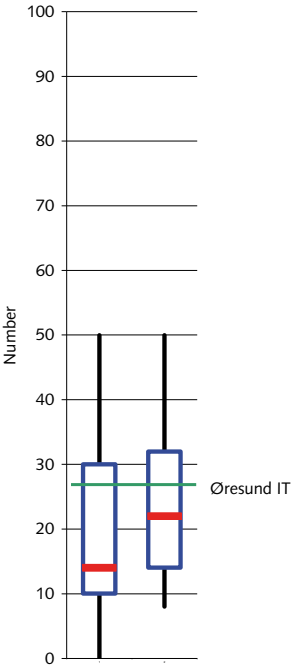


Indicator No.1: Cluster's age

In this chart the cluster ages are compared. Both, the clusters of the same technological domain (ICT, right) and all registered clusters (labelled here as Quality Clusters) show a median value of about 7 years. Being 10 years old, the Øresund IT cluster is just slightly older than those of both reference areas (between lower and upper quartile, containing 50 % of all values).

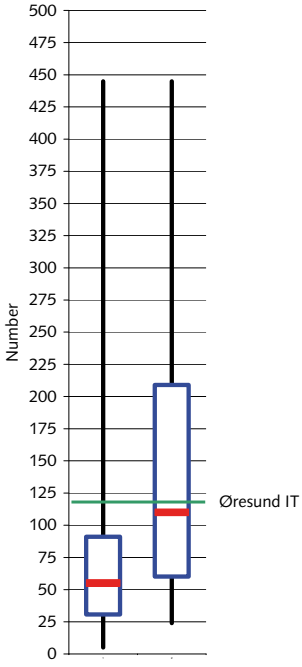
Indicator No. 2: Number of members when emerged

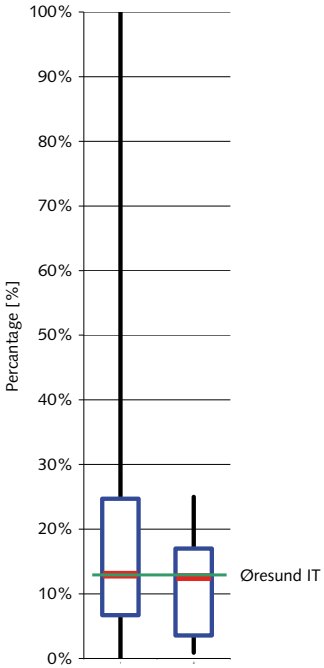
At the time of emergence the Øresund IT had an average number of members. The corresponding value lies in the reference areas (in which 50 % of all values lie) of both comparative portfolios. Clusters from the ICT sector tend to have a higher number of members when emerged than clusters from other technological sectors. This indicator only takes members into account who entered into a commitment in writing or by paying membership fees.



Indicator No. 6: Number of Members in 2009

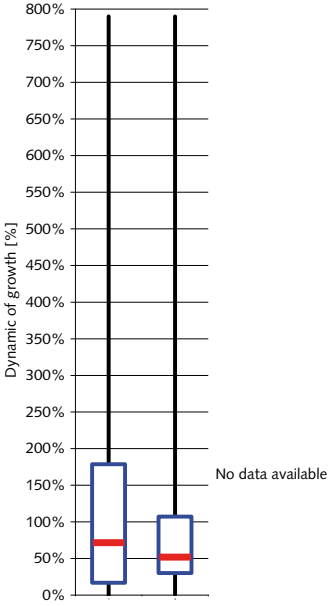
At present the Øresund IT shows an average value in terms of number of members (related to clusters from the same technological sector), who have committed themselves to the collaboration within the cluster. However, attention should be paid to indicator No. 15 (utilisation of regional member potential).





Indicator No. 7: Share of R&D Institutions in the Cluster

The percentage of the R&D institutions within the Øresund IT is exactly the same than the median values of both reference portfolios. In absolute terms however, the value of 15 research partners among the members which is very sufficient. ICT clusters tend to reveal a lower share of R&D institutions among the members than clusters within other technological domains. The reference area of the comparative portfolio "Quality Clusters".lies above that of the ICT clusters.

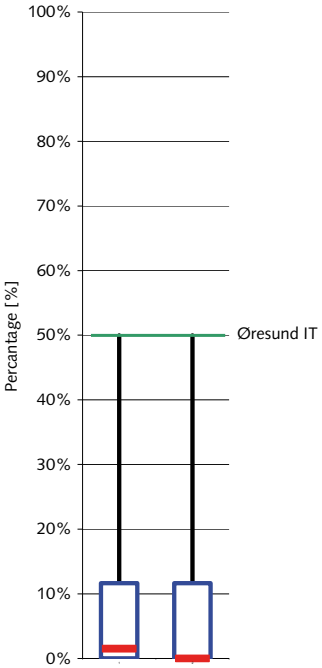


Indicator No. 9: Dynamic of growth (2005 – 2009)

No data were available to benchmark the dynamics. Nevertheless, there was a significant increase in terms of members since the cluster emerged. This figure is only for information.

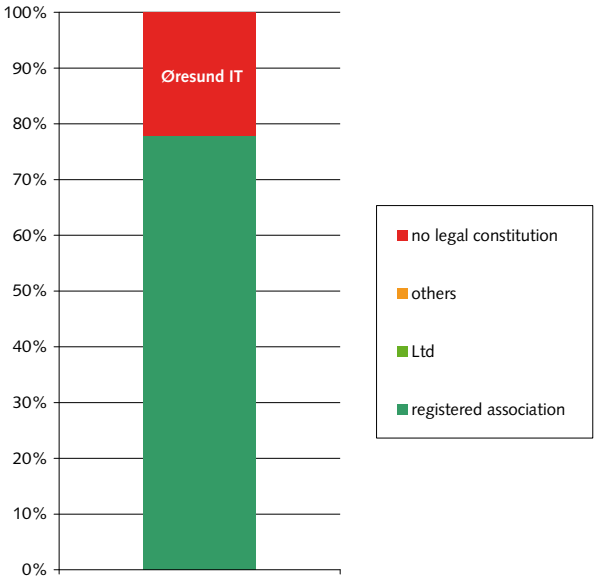
Indicator No. 10 Share of foreign partners

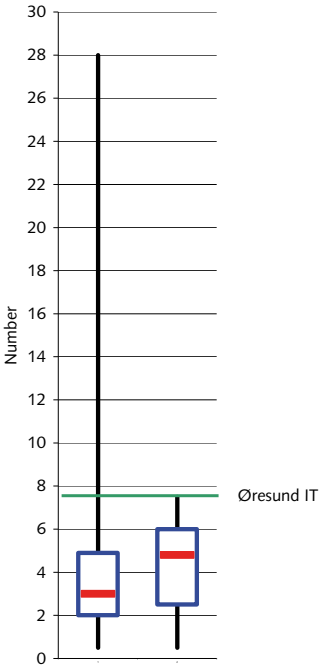
The cluster has a very high share of foreign committed members and reaches maximum values in both comparative portfolios. Located in the Øresund area, many members are coming from Sweden. This very high share of foreign members can be considered as a crucial comparative advantage The mean values of both comparative portfolios are much lower.



Indicator No. 11: Legal Form

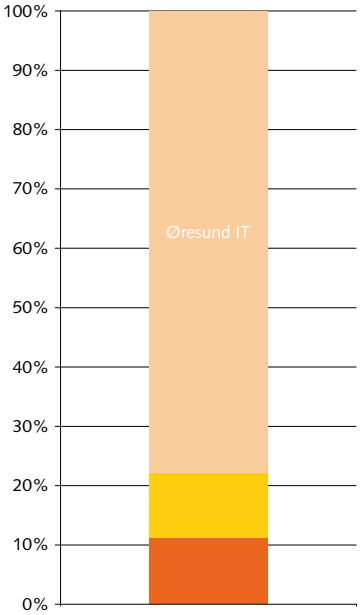
Øresund IT does not possess any legal form, such as registered association, which shows that its members are strongly committed. Within the comparative portfolio (same technological domain) this type of legal constitution was chosen by almost 80% of the clusters and it is therefore predominant. Clusters without any certain legal form are rather an exception.





Indicator No. 12: Number of staff in cluster organisation

Compared to clusters of both comparative portfolios, cluster organisation of the Øresund IT is well staffed. Thus, it achieves correlating maximum values compared to ICT clusters.



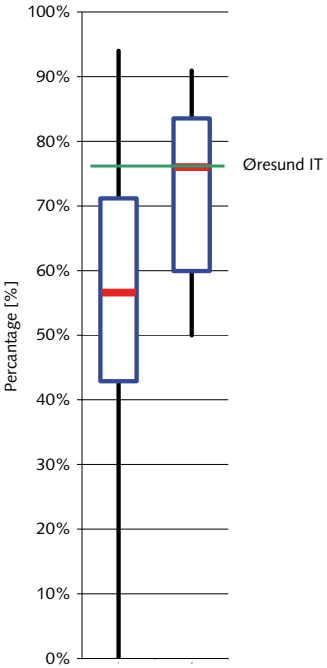
Indicator No. 13: Experience of cluster manager

In this Figure the experience of the cluster's managers coming from the same technological domain is described. The manager of the Øresund IT considers himself as not only an expert in his domain but also in communicating and networking. Most cluster managers assess themselves in a similar way. Such a category represents the majority compared to the comparative portfolio (same technological domain).

- Network manager considers himself as technical expert and networker
- Network manager considers himself as networker
- Network manager considers himself as technical expert

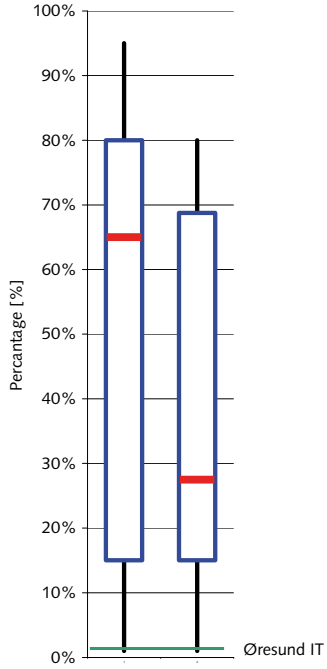
Indicator No. 14: Concentration of SME

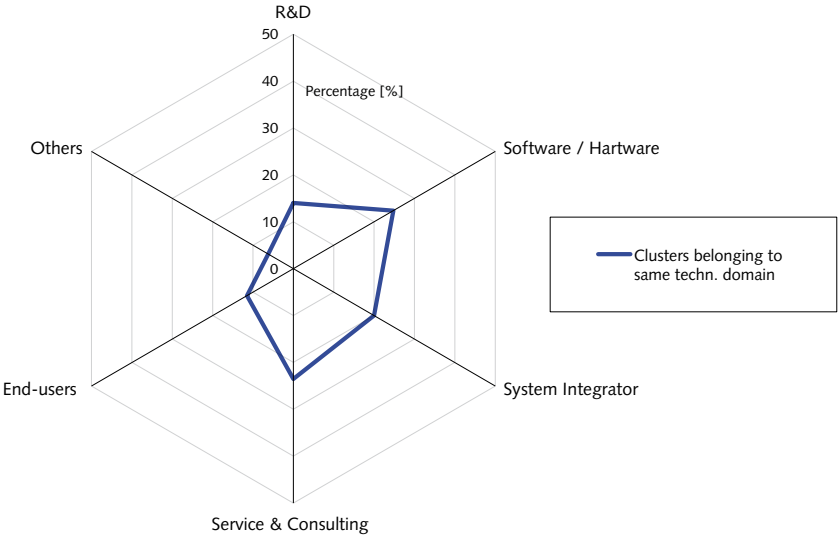
Concerning the share of SME within the Øresund IT the corresponding value is just the median compared to the right comparative portfolio (same technological area). Since SMEs are known as drivers for innovation, a sufficient high share of SME is important. ICT clusters tend to have a higher share than clusters form other technological areas. The reference area of the comparative portfolio "Quality Clusters" lies significantly below that of the ICT clusters.



Indicator No. 15: Utilization of regional membership potential

According to a self estimation of the cluster management, the cluster has gained about 1 % of the potential actors in the corresponding region (average size about 100 km). This value is very low compared to both comparative portfolios, although the absolute number of members is good. When comparing this finding with that of indicator 6, it becomes obvious that the number of actors in the ICT sector in the Øresund region is extremely high compared to other regions (of benchmarked ICT clusters). Thus, it is not a surprise that the corresponding value appear to be low, which should not be understood as a weakness.

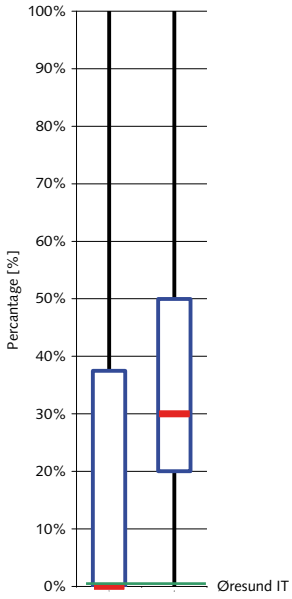




Indicator 16: Completion of the value chain

This figure shows the pattern how the members of ICT clusters are grouped according to defined elements of the ICT specific value chain. There were no reliable value available for the members of the Øresund IT.

Financing

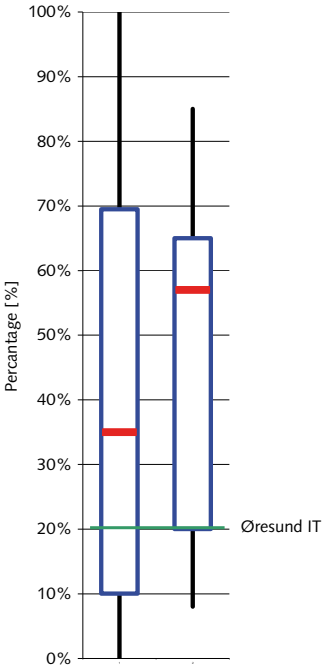


Indicator No.17: Share of private financing of cluster organisation when emerged

At the time of its emergence, the Øresund IT was completely public-financed, which is not common for ICT clusters. The median lies at 20 % private financing when emerged. ICT clusters tend to have a higher share of private financing when emerged than clusters form other technological areas. The median of the comparative portfolio "Quality Clusters" lies significantly lower than that of the ICT clusters.

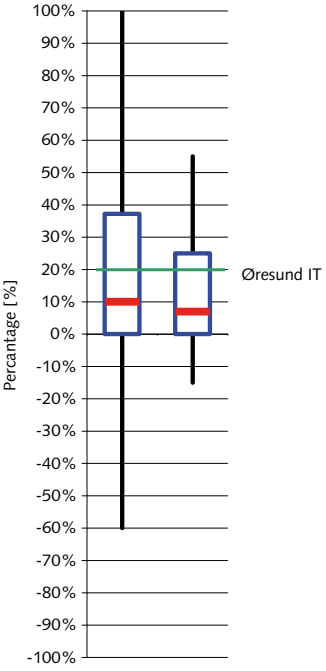
Indicator No. 19: Current share of private financing of cluster organisation

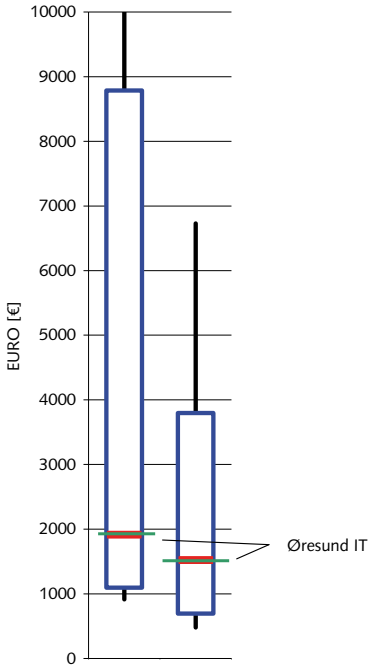
The financial structure of the Øresund IT has changed over a period of time. In 2009 a higher share of private financing has been gained (20 % private financing). Compared to other ICT clusters, this value is just within the reference area. Clusters of the comparative portfolio "Quality Clusters" reveal higher values compared to ICT clusters.



Indicator No. 20: Development of the share of private funding over time (since emergence to 2009)

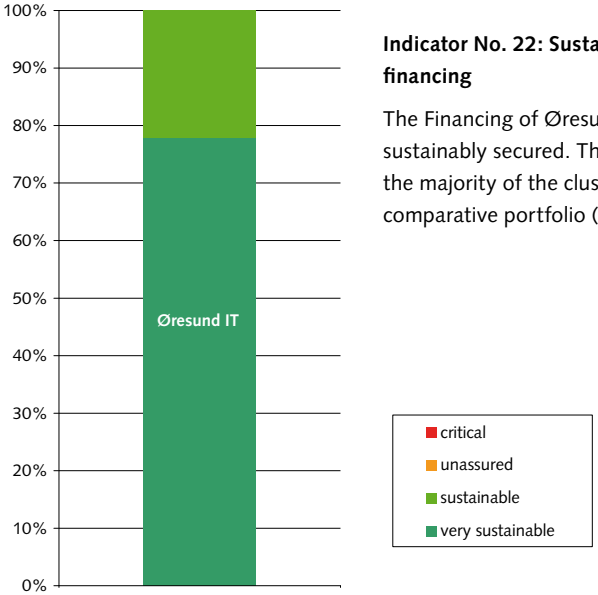
As a result of the very positive development of the share of private financing, the Øresund IT again gains a maximum value for this indicator. The share private financing increased by 33 % since its emergence, which is generally quite high compared to both comparative portfolios.





Indicator No. 21: Budget per member

This Figure shows the budget per cluster member. The left box-plot refers to the total amount (without the funds for R&D projects) while the right one refers to the staff costs. The graphic reveals how low the budget per member is, or rather how low each member's costs are. As far as Øresund IT is concerned, the values are near to the median. Thus, the costs per members can be considered to be comparable low.

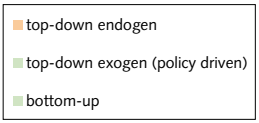


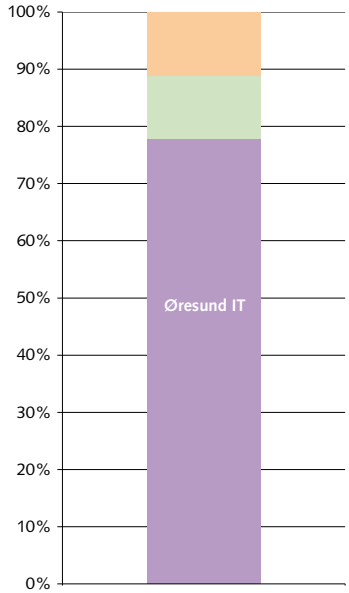
Indicator No. 22: Sustainability of financing

The Financing of Øresund IT is sustainably secured. This applies to the majority of the clusters in the comparative portfolio (ICT).

Indicator. 23: Type of cluster emergence

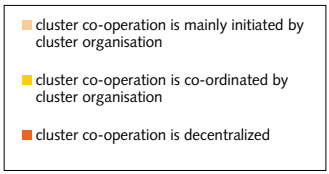
Øresund IT was mainly initiated by a bottom-up approach. The majority of the clusters of the same technological domain has been emerged according to the same approach. Around 10 % can be considered as policy driven.

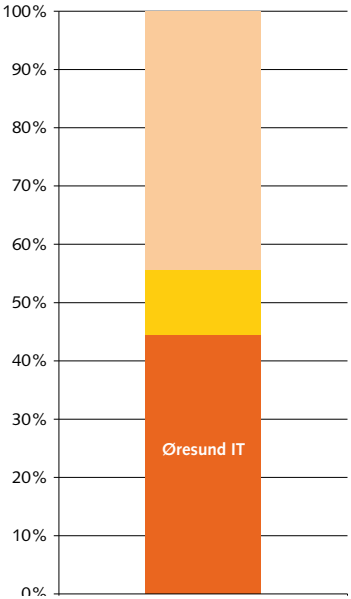


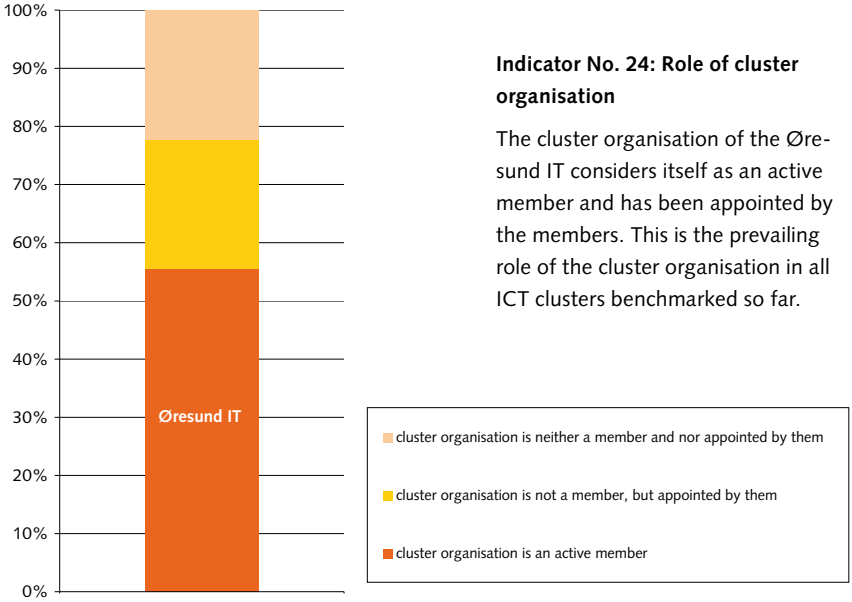


Indicator No. 25-1: Cluster governance

Networking and co-operation are mainly decentralised and, in general, not initiated by the cluster organisation of Øresund IT. In more than 40 % of all cases, the cluster organisation acts in the centre of all activities and can be considered as the main driver of cluster related networking activities. As far as Øresund IT is concerned, a decentralized internal co-operation prevails. This can be considered as a proof of maturity of the cluster.

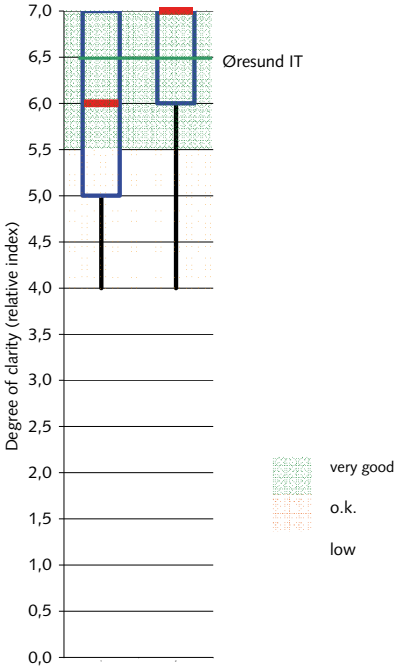






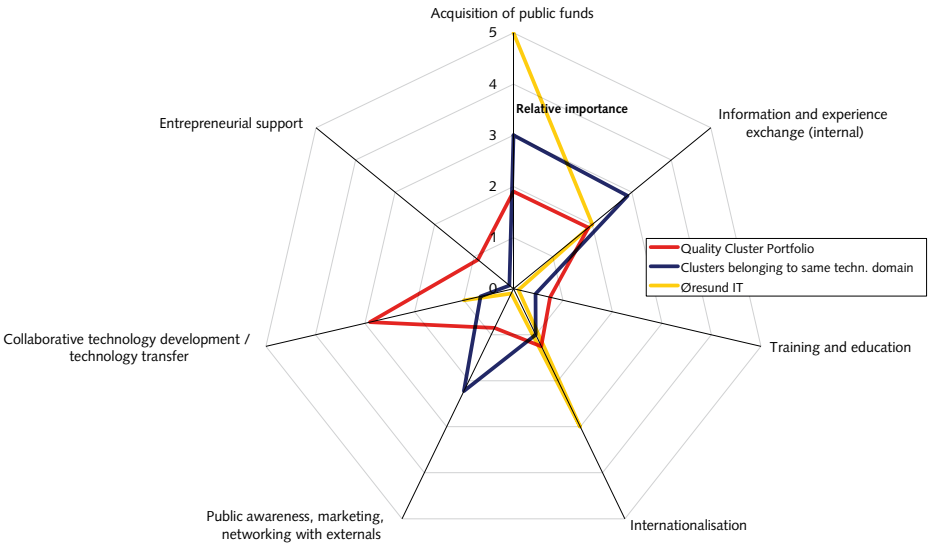
Indicator No. 24: Role of cluster organisation

The cluster organisation of the Øresund IT considers itself as an active member and has been appointed by the members. This is the prevailing role of the cluster organisation in all ICT clusters benchmarked so far.



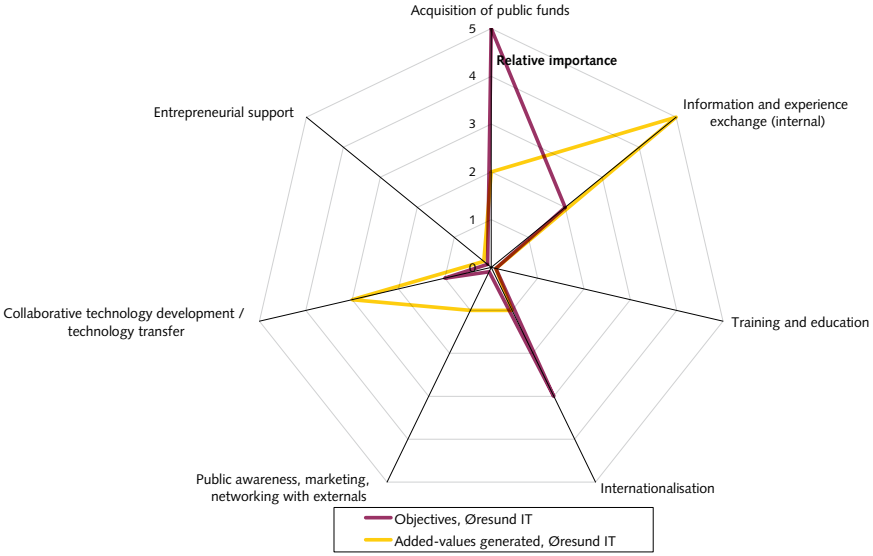
Indicator No. 25-2: Assignment and clarity of tasks

The assignment and clarity of tasks of the involved actors within the Øresund IT are obviously existent and clearly defined. This generally leads to a clear allocation of roles and tasks. The values related to this indicator are lying in the reference area of both comparative portfolios. Choosing a specific legal form of the cluster could increase the responsibilities and clarities of tasks among the cluster actors even more.



Indicator No. 26: Objectives of the cluster

The focus of the work of clusters in the field of ICT lies mainly in the fields of exchanging experience and information, acquisition of public (R&D) funds as well as public relations. The Øresund IT also addresses most of these objectives, whereby dedicated emphasis is given to internationalisation issues, too. At this point it is important to note that only selecting of a maximum of 4 objectives was permitted (According to priority 1 - 4). That doesn't mean that the Øresund IT does not set any other focus in other fields.

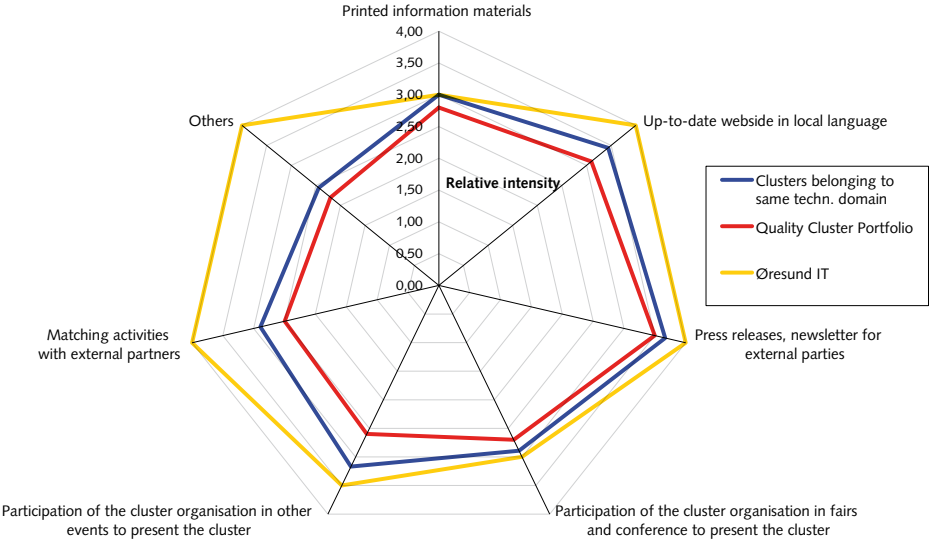


Indicator No. 27: Congruence of objectives and added values of Øresund IT

According to its self assessment, the Øresund IT generates the highest added values for its members in the same areas that are considered to be of high priority (see previous indicator, high values stand for especially significant added values, a maximum of 4 fields of activities was allowed in this context). The congruence between objectives and added value is o.k., since the priorities between both differ.

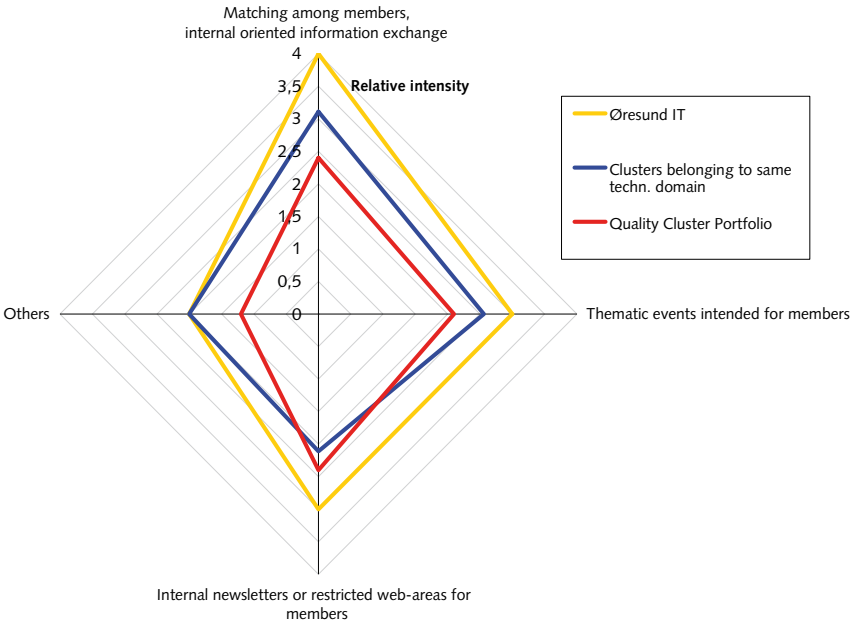
Cluster Services

The activities of this sub-dimension are grouped into seven different fields of services which were predefined in interview guideline. The amount of activities was calculated into a value called "Relative Intensity" (0 = no activities 1 = low activities, 2 = moderate activities, 3 = significant activities, 4 = many activities). Thus, high values mean that there is a large number of actions reported or a high intensity of activities implemented by the cluster organisation. As far as this sub-dimension is concerned, a well balanced pattern / variety of services per indicator is of more importance than the relative intensity of single services.



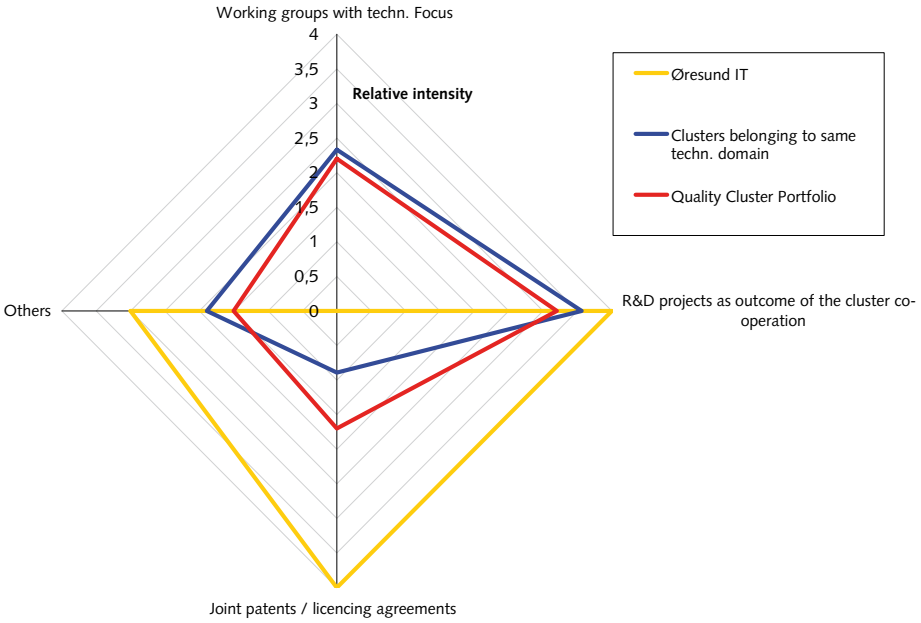
Indicator No. 28: Diversity of services – Public Relations and external information exchange

Indicator 28 reveals the pattern of services that Øresund IT offers within the field of public relation and information exchange with external actors. The outline of the range of services within the scope of public relations and external information exchange is very evenly spread. As far as the relative intensity of the services are concerned, in most cases the Øresund IT looks better than the pattern of the clusters of both comparative portfolios. Maximal scores are reached in four out of seven categories. Especially the category "Others" means that the cluster organisation has implemented some innovative activities to increase visibility or information exchange with external actors.



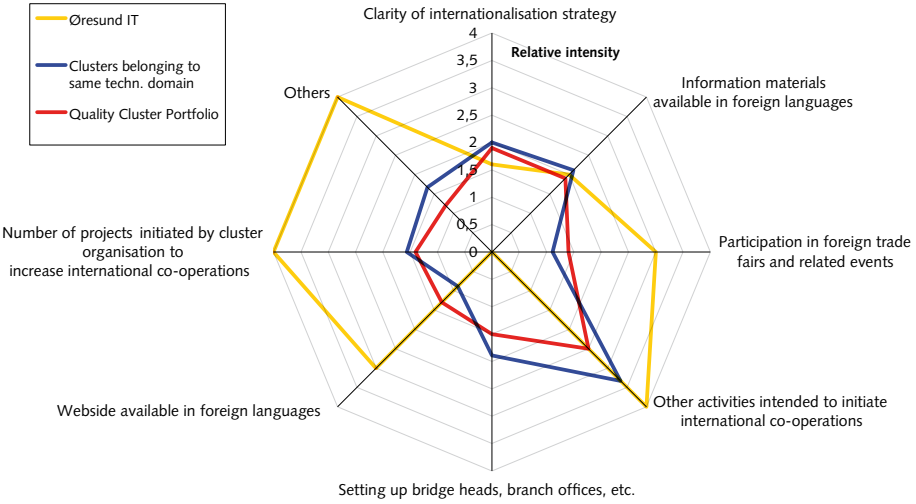
Indicator No. 29: Diversity of services – Internal information and experience exchange

Indicator 29 compares the range of services provided by cluster organisations in terms of the exchange of information and experience (intended for members only). The Øresund IT offers a good variety of services for their members. The overall pattern appear quite well balanced.



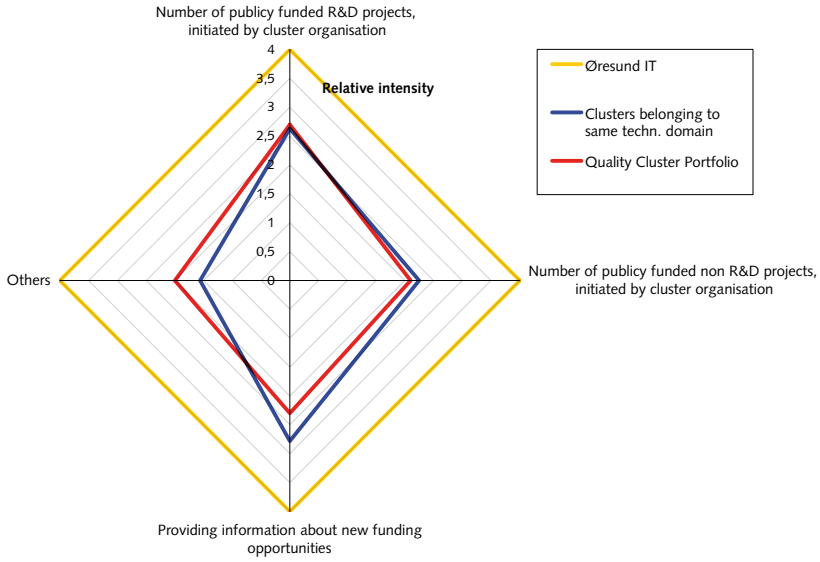
Indicator No. 30: Diversity of services – Collaborative Technology Development / Technology transfer

Indicator 30 compares the diversity and intensity of measures provided by Øresund IT to stimulate collaborative technology development and technology transfer among the members. This includes joint working groups, R&D projects initiated by the cluster organisation (also without public funding) and patents / licenses that can be considered as outcome of the collaboration. The Øresund IT hasn't set any thematic working groups into force, but initiated many R&D projects over the last 12 months. In both categories the cluster management was much more active compared to both comparative portfolios. Especially the category "Others" means that the cluster organisation has implemented some innovative activities to increase visibility or information exchange with external actors.



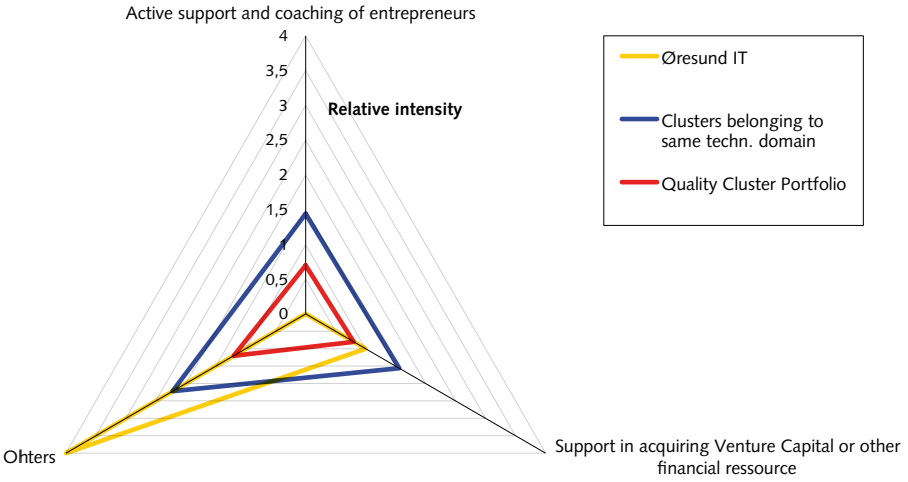
Indicator No. 31: Diversity of services – International co-operation and collaboration

Indicator 31 reveals the diversity of services performed by the cluster organisation regarding the internationalisation of members or the initiation of international co-operation. Øresund IT offers a broad spectrum of services, which doesn't surprise, since internationalisation is among the four top priorities. The pattern of services doesn't appear to be well balanced. The cluster organisation focus on some dedicated services. One of the most evident outcomes are a significant number of international projects, initiated by the cluster organisation. High values are also reached in the category "Others", which means that the cluster organisation has implemented different innovative activities to stimulate international co-operations or increase international visibility (compared to other "standard services").



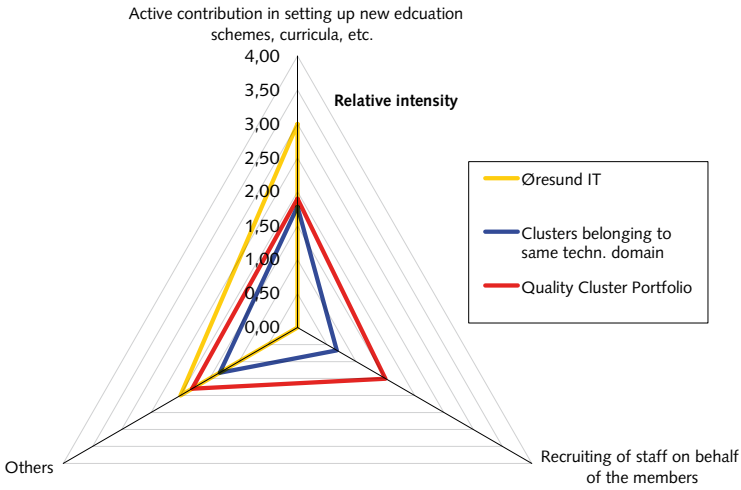
Indicator No. 32: Diversity of services – Acquisition of project funds, access to public funding

Indicator 32 shows the range of measures exerted by the cluster organisation to successfully acquire public funds. Øresund IT has already initiated a significant series of projects (R&D projects and others), in which many cluster members are involved, and also informs its members regularly about current funding opportunities. Altogether its range of actions is broader than the one in the comparative portfolios, maximum values are reached in all categories. The cluster management sets a new "standard" in this subdimension, which is really impressive.



Indicator No. 33: Diversity of services – Support of entrepreneurs and start-ups

Indicator 33 compares the range of actions offered by cluster organisation regarding the support of start-up companies. In this field Øresund IT is only partly active, whereas the clusters of the comparative portfolios reveal a well balanced pattern of services with medium intensity. Nevertheless, the cluster organisation offers several different supporting measures for the benefit of entrepreneurs. Since there are other entities existing in the Øresund region, offering standardised support services for entrepreneurs, the cluster organisation reduced their services in this field.



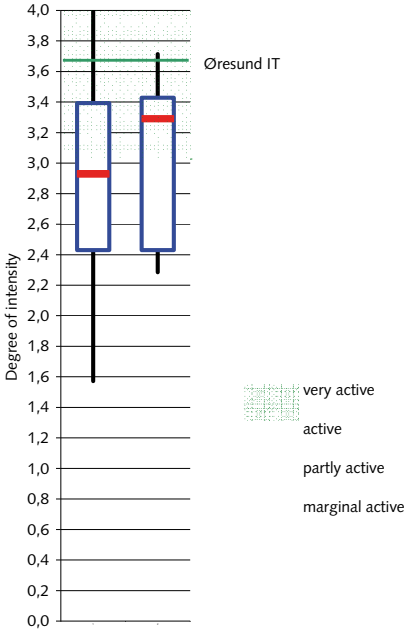
Indicator 34: Diversity of services – Education and training / staff recruiting

Indicators 34 depicts the range of actions completed by cluster organisations with reference to education and further training as well as to staff recruiting. Øresund IT is quite active in some particular fields of this area, but not in the area of recruiting of staff on behalf of the members (it is forbidden according to internal rules).

Output

In the following the intensity of the offered services in the different field are calculated by a specific algorithm and then compared whereas in the former chapter the diversity of the services was more relevant. The results are based on the assessments that were made in chapter Z 4 of the interview guideline. The quantitative values we gained from the calculation were then grouped in different categories and finally standardised with a scale from 0 to 4 (0 - 1 = no activities, 1 = low – low number of activities provided 2 = fair - moderate number of activities performed, 3 = good – many activities performed, 4 = excellent – plenty of activities provided). Again the Box-Plot-approach was applied, as described in the introduction, to visualize the results.

Due to the high expressiveness of the following diagrams there are no further comments on the findings, which are self explanatory. As before the left box-plot shows the comparative portfolio consisting of all clusters registered in the comparative cluster database (Quality clusters), the right box displays the relevant comparative portfolio of clusters belonging to ICT.

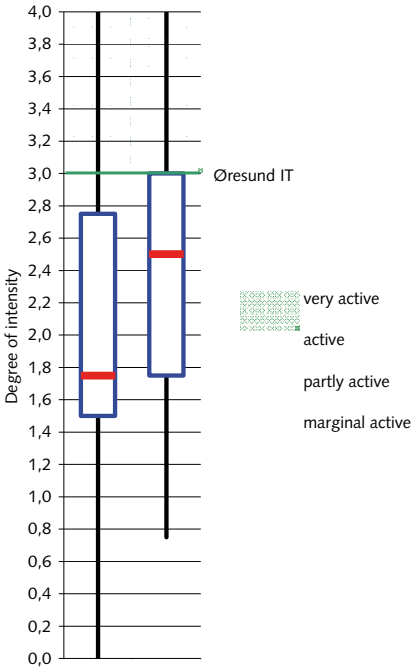


Indicator No. 35: Output - Public relations and external information exchange

Indicator 35 depicts the intensity of all activities and measures related to public relations and internal information exchange, thus it combines all measures, unlike indicator 28.

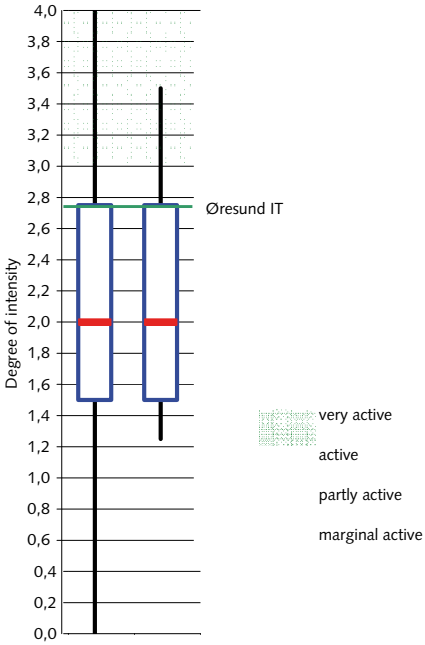
Indicator No. 36: Output – Internal information and experience exchange

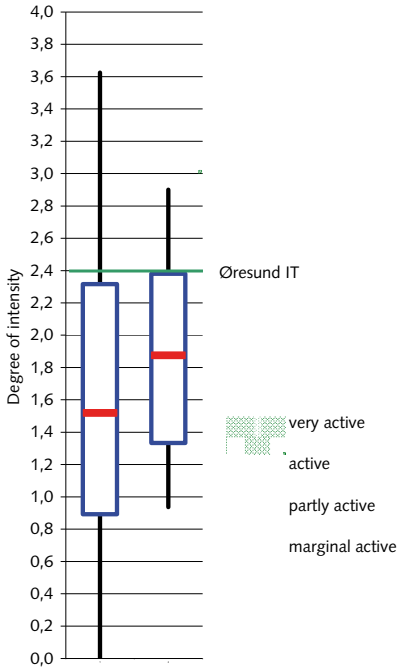
Indicator 36 displays the intensity of all activities and measures in the exchange of information and experience. (primarily for members) as a whole. In contrast to indicator 29 it embraces all measures. Since the strategy of the Øresund IT is to offer the respective services to all interested parties and the cluster organisation doesn't offer any specific services intended to members only, this indicator was not measured. Thus, the figure is only for information and regards the finding from the both comparative portfolios.



Indicator No 37: Output – Collaborative Technology Development / Technology transfer

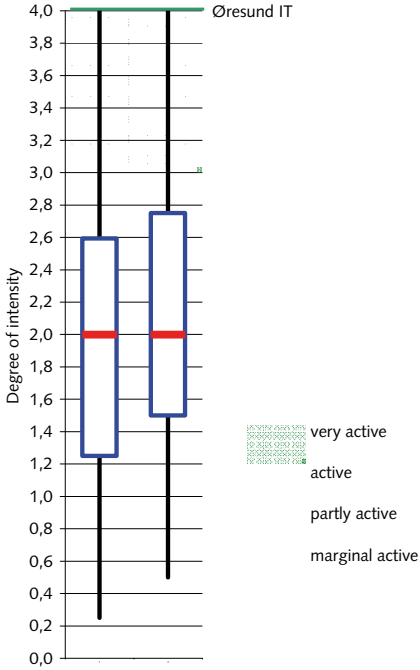
Indicator 37 outlines the intensity of all activities and measures in the field of collaborative technology development. In contrast to indicator 30 it summarises all measures.





Indicator No. 38: Output – International co-operation and collaboration

Indicator 38 shows the intensity of all activities and measures of the cooperation or rather of its members, hence all measures are included, unlike indicator 31

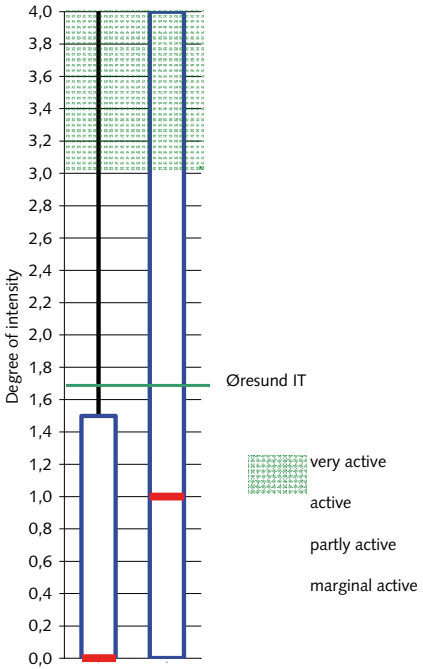


Indicator No. 39: Output – Acquisition of project funds, access to public funding

Indicator 39 reveals the intensity of all activities and measures performed by cluster organisations to acquire public funds of R&D or other project as well as to facilitate access to public funding for their members.

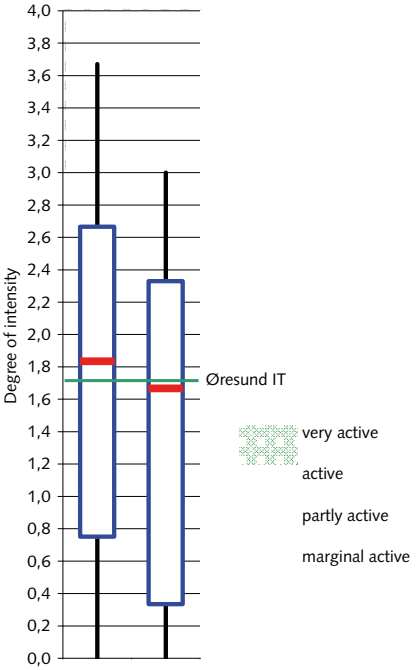
Indicator No. 40: Output – Support of entrepreneurs and start-ups

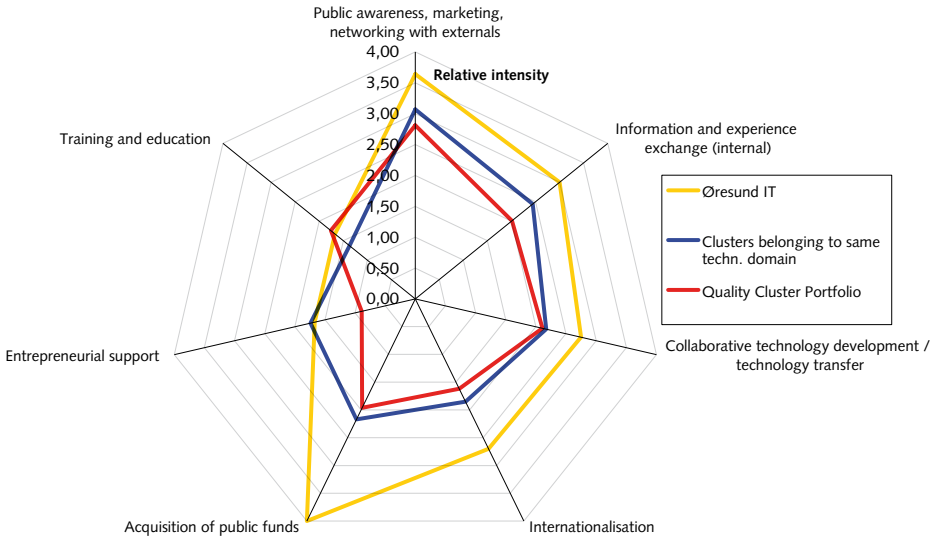
Indicator 40 reveals the intensity of all activities and measures undertaken by the cluster organisations concerning entrepreneurial support. Altogether the clusters belonging to both comparative portfolios are rather inactive in this field.



Indicator 41: Output – Education and training / staff recruiting

Indicator 41 reveals the intensity of all the activities and measures undertaken by the cluster organisation in the context of training and education as well as staff recruiting.



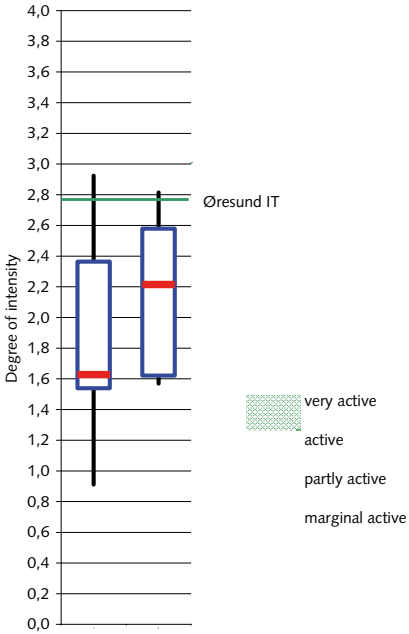


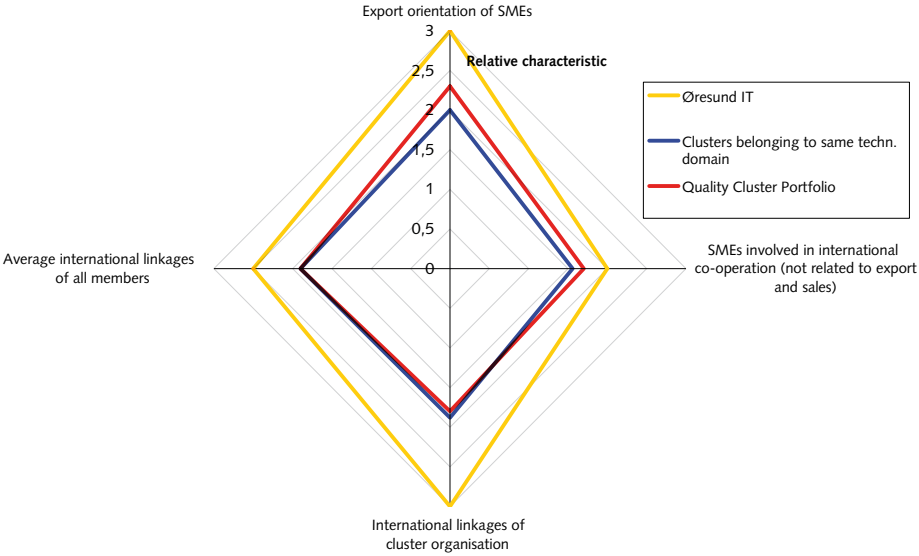
Indicator No. 42: Output overall

Indicator 42 compares the complete pattern of services offered in all seven different service fields (summary of indicators 28 – 34). Altogether Øresund IT´s range of services is very good and well balanced. Dedicated attention is given to supporting actions and services which are considered to be the main objectives of the cluster work (s. indicator 26/27). The excellent pattern of services offered by Øresund IT exceeds those from both comparative portfolios in most cases. Only in the fields of entrepreneurial support and training / education, the intensity of services offered are similar. As far as the acquisition of public funds are concerned, the maximum value was reached.

Indicator No. 42-1: Intensity of output

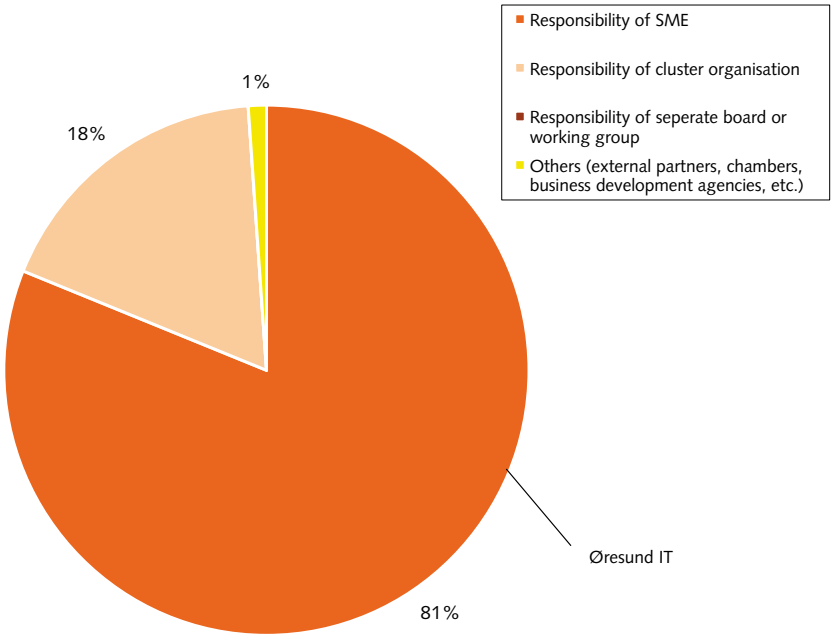
Indicator 42 summarises the intensity of all measures and services provided by the cluster organisation in all of the 7 service fields. Compared to both comparative portfolios Øresund IT achieves a very high value, which is slightly below the maximum. Compared to other ICT clusters benchmarked so far the cluster organisation of the Øresund IT appears to be the second most active one. This finding is very impressive by the Benchmarking Teams perspective. Also in combination with broad range of services offered.





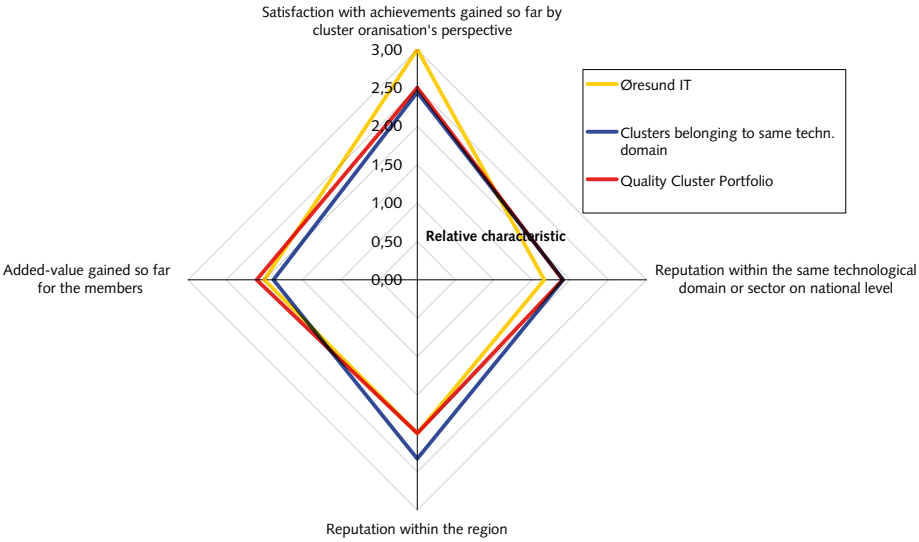
Indicator No. 44 - 47: Status of Internationalisation

Members of Øresund IT accomplish a very high degree of internationalisation that is significantly higher comparable to clusters of both comparative portfolios. SMEs of the Øresund IT very export oriented and a little bit less involved in other kinds of international co-operation. The cluster organisation of Øresund IT assesses itself as very much internationally linked. In summary, all members of cluster feel well linked to international partners.



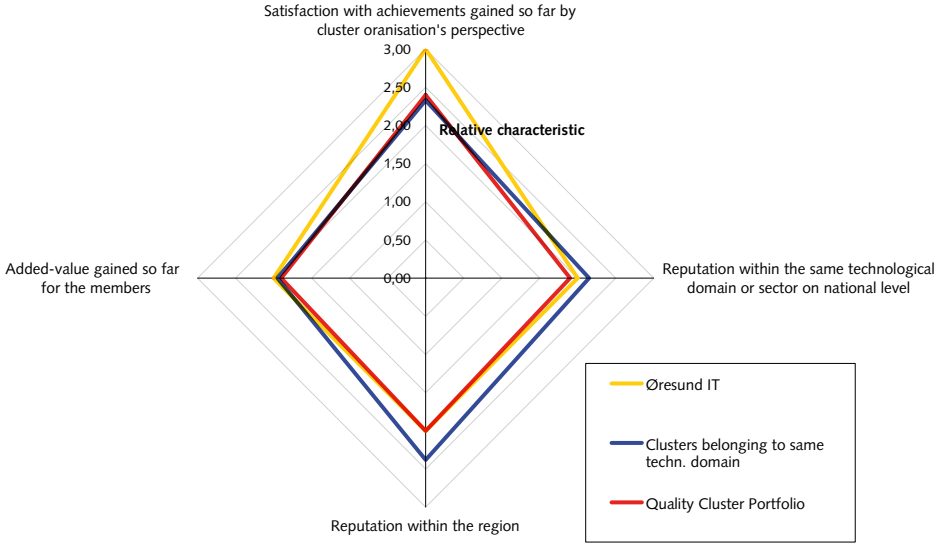
Indicator 48: Responsibility for international co-operations

Indicator 47 deals with the responsibility for international co-operation within a cluster. Regarding international co-operations, typically the members themselves (81 %) feel responsible for international issues. The findings of Øresund IT reveal that the members themselves feel directly responsible in terms of internationalisation. Nevertheless, the broad range of services offered by the cluster organisation very much facilitates the SME to initiate international co-operations.



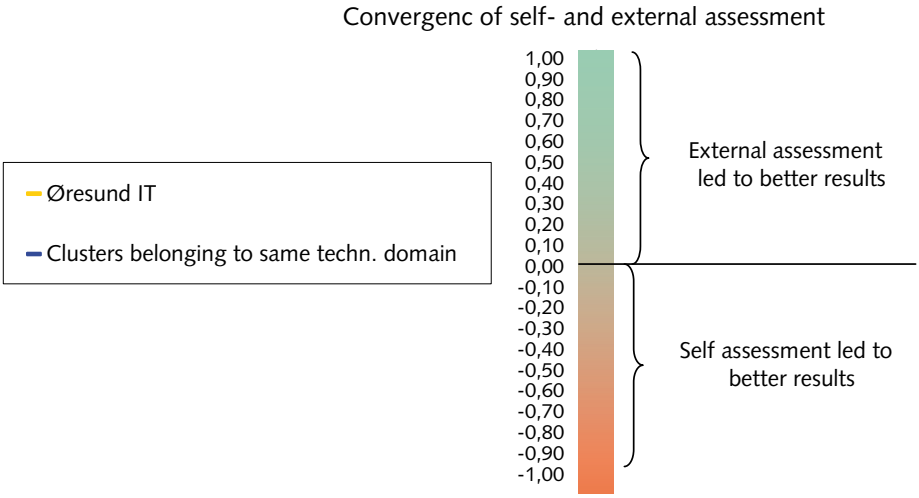
Indicators No. 50/52/54/56: Assessment of achievements (Self-assessment)

The indicators 50/52/54 und 56 that are summarised in the figure are based on a self-assessment done by the cluster managements. It becomes plainly visible that the cluster management of Øresund IT management is very satisfied with the achievements gained so far and satisfied with the reputation gained within the region. Altogether the management sees many added-values for their members gained so far. The values of the self assessment are very much in line with the results from the comparative portfolios.



Indicators No. 51/53/55/57: Assessment of achievements (Assessed by the benchmarking team)

The indicators 51/53/55 and 57 that are summarised in this figure are based assessment of the Benchmarking-team, supported by external judgements. Altogether the self-assessment and the external perception are very similar, only one of the indicator (53, sector-specific reputation on national level) was rated slightly higher than the cluster organisation of the Øresund IT was. The benchmarking team received the impression that the reputation within the same technological domain on national level is better than assessed by the cluster organisation itself.



Indicator No. 60: Convergence of internal and external assessments

As already mentioned above, the self-assessment and the external evaluation concerning the achievements and reputation are closely matched most of the times. All in all the self-assessment made by the cluster management of Øresund IT and the verification conducted by the Benchmarking-Team of the Agency of the Competence Networks Germany are very similar. This result applies to most of the clusters (comparative portfolio: all Quality clusters registered in the comparative portfolio) as the most cluster managements are usually quite self-critical.

Indicator No. 61: Overall assessment

Indicator 61 is calculated by comparing 39 out of 46 indicators with a "Perfect Cluster". A Perfect Cluster is defined in such a way that its indicators all gain ideal values. The perfect cluster can be understood as a high level benchmark in order to reveal how close the Øresund IT is compared to that Perfect Cluster. Again we grouped the 39 indicators according to the 7 different sub-dimensions we have defined beforehand. Values of 100 % in each sub-dimension mean that the Øresund IT fully complies with the „Perfect Cluster". Compared to that, the actual achieved scores from Øresund IT, expressed as a percentage, are depicted as well as the average values of the other clusters from the comparative portfolio. Again we compared the Øresund IT with all registered cluster from the same technological domain.

The Øresund IT exceeds the average values of both the comparative portfolio in six out of seven sub-dimensions2. As far as the sub-dimension “Cluster typology and governance” is concerned the max. value of 100 % was reached. Which means that all these indicators are on the level of that of a “perfect cluster”. This is really impressive, e. g. the overall cluster governance is well structured as well as the clarity of tasks and objectives. Objectives of the cluster work and added-values gained a good conformity so far. Very good findings were archived in the sub-dimension “Internationalisation”, since the cluster organisation and its members are operating very internationally. This is also backed by a broad range of supporting measures offered by the cluster organisation. Nevertheless, in all other sub-dimensions excellent values were gained as well, outperforming the comparative portfolios. Only for the sub-dimension “Financing” the values are comparable with the comparative portfolios.

t In addition, it also ranks among the top 10 clusters benchmarked to date (compared with all other cluster organisations benchmarked as yet).

Appendix I

Survey indicators

Index number	Sub-dimensions	Indicator
	Structural data	
1		Age
2		Number of members w hen emerged
6		Current number of members
7		Current R&D intensity
9		Dynamic of grow th
10		Number of foreign partners
11		Legal form
12		Number of staff of cluster organisation
13		Experience of cluster manager
14		Concentration of SME
15		Utilization of regional member potential
16		Completion of value chain
17	Financing	Share of private financing of cluster organisation w hen emerged
19		Current share of private financing of cluster organisation
20		Development of share of provate financing of cluster organisation
21		Budget per member
22		Sustainability of financing of cluster organisation
23	Type and governance	History of emergence
25/1		Cluster governance
24		Role of cluster organisation
25/2		Assignment of tasks / clarity of tasks
26		Targets and added value
27		Convergence of targets and added value provided
28	Cluster services	Diversity - Public relation / external exchange
29		Diversity - internal information / experience exchange
30		Diversity - Collaborative R&D / Tech Transfer
31		Diversity - International collaboration
32		Diversity - Acqusition of project funds
33		Diversity - Entrepreneurial support
34		Diversity - Education and training / staff recruiting
35	Output	Output - Public relation / external exchange
36		Output - internal information / experience exchange
37		Output - Collaborative R&D / Tech-Transfer
38		Output - International collaboration
39		Output - Acqusition of project funds
40		Output - Entrepreneurial support
41		Output - Education and training / staff recruiting
42		Overall output
44	Internationalisation	Status of internationalisation
45 / 46		Degree of internationalisation of types of members
47		Responsibilities for internationalisation
50	Achievements and performance	Degree of achievements
53		Supraregional perception in the sector
55		Regional and intersectoral perception
57		Achieved added value related to cluster activity
60		Convergence of internal and external assessments
61		Overall performance

Benchmarking Report

Øresund IT

Operating as a cluster organization for more than 10 years, Øresund IT is one of the most experienced and developed cluster organizations in Europe. With the mission of developing the ICT sector in the Øresund Region; attracting companies, talent and capital as the main objectives, Øresund IT has observed the region becoming one of the fastest growing regions in Europe.

The ICT sector in the Øresund Region is one of the largest concentrations of ICT knowledge in Europe with over 100,000 people working in the sector, over 10,000 companies and around 6,000 researchers.

The benchmark study, performed by Dr. Gerd zum Köcker and Kompetenznetze, shows that Øresund IT represents one of the "Excellent clusters" in Europe. The cluster is top ranked in almost every variable, which is a great guidance for clusters that are not yet that mature and wish to increase their performance. The study also provides valuable indications of critical factors in cluster work and how to actually measure the benefit of clusters.