Interreg Baltic Sea Region

Monitoring of the state of institutional capacity in the region

FINAL REPORT TASK 1.1

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Interreg Baltic Sea Region
Managing Authority / Joint Secretariat
Investitionsbank Schleswig-Holstein
Grubenstrasse 20, 18055 Rostock
GERMANY

by
Silke Haarich, Kai Böhme and Giacomo Salvatori, from
Spatial Foresight GmbH
7, rue de Luxembourg
L-7330 Heisdorf
LUXEMBOURG
www.spatialforesight.eu

as well as by senior consultant Sandra Spule.

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LIST OF ABBREVIATIONS

BSR	Baltic Sea Region
ERDF	European Regional Development Fund
ESF	European Social Fund
ETC	European Territorial Cooperation
EU	European Union
EUSBSR	European Union Strategy for the Baltic Sea Region
HACs	Horizontal Action Coordinators (in EUSBSR)
IB.SH	Investitionsbank Schleswig-Holstein
IBSR	Interreg Baltic Sea Region Programme
MA/JS	Managing Authority/ Joint Secretariat
MC	Monitoring Committee
PACs	Policy Area Coordinators (in EUSBSR)
R&D	Research and Development
R&I	Research and Innovation
SO	Specific Objective
TEN-T	Trans-European Transport Network

Executive summary

The aim of this Report is to provide a milestone update of the Programme's result indicator contribution at its mid-term. The Interreg Baltic Sea Region Programme established that the most significant impact of the Programme in the region is its contribution to institutional capacity building. For the monitoring of institutional capacity in the region, five dimensions of institutional capacity have been defined in the original study that established baseline values for all Specific Objectives of the Programme in 2015. Each of the five dimensions has been operationalised further with a different set of characteristics.

The methodology used for this up-date and the measurement of the 2018 situation with regard to institutional capacities in the Baltic Sea Region follows the initial methodology as defined by the Baseline Study in 2015[1]. This methodological coherence is necessary to achieve comparability and a certain level of scientific robustness. Data gathering for the study took place between May and July 2018. The two methods used to gather relevant data from experts have been: i) an online survey to experts in different thematic policy fields, corresponding to the Specific Objectives of the Interreg Programme. A total of 115 experts was invited to take part and the final number of complete and usable responses is 58 questionnaires from 54 respondents (47% response rate); ii) in-depth interviews to 13 experts in order to gain background knowledge on the situation of capacities in the different thematic fields and to validate the measurement based on the survey data.

The overall picture for the baselines shows that, overall, a consistent path towards the reaching of target values established in 2014 is underway. The respondents under all but one thematic focus (based on Interreg Baltic Sea Region 2014-2020 specific objectives) show increases and appear to be on a feasible path toward reaching the target value. SOs 1.2 (Smart Specialisation) and 3.5 (Environmentally friendly urban mobility) show the largest increase in the level of institutional capacities. An important increase can also be observed for SOs 2.2 (Renewable Energy) and 2.3 (Energy efficiency). A more moderate yet notable increase can be observed for SOs 1.1 (Research and innovation infrastructure), 1.3 (Non-technological innovation), 2.1 (Clear waters), 2.4 (Resource-efficient blue growth), 3.1 (Interoperability of transport models), 3.3 (Maritime safety) and 3.4 (Environmentally friendly shipping). The only SO whose value for institutional capacities stays constant is SO 3.2 (Accessibility of remote areas and areas affected by demographic change). As can be observed in the detailed analysis, a possible explanation might be the perception that demographic change is progressing at a faster pace than public authorities are able to react, therefore making the existing improvement – in terms of organisational structures as well as technological innovations – insufficient and undersized with respect to the growing magnitude of the phenomenon. The only dimension presenting an improvement, albeit small, is the capacity to improve governance structures and organisational set-up.

With regard to the reliability of the data the following can be observed. The overall standard deviation from the mean value of given ratings has been 0.9, with maximum 1.4 for any given question. This measure means that the responses had a high degree of consistency among them, and therefore the

[1] Ramboll Management (2015): "Final Report: Analysis of projects in 2007-2013 and setting baselines and targets for the indicators 2014-2020".

overall reliability of collected responses can be deemed as high. However, particular care should be put when analysing results for SOs which had a limited number of responses (three or less): SOs 1.1, 1.3, 2.3, and 3.3. In these cases, the limited number of responses may pose a threat to the reliability of the figures. However, in all four cases, the standard deviation is below the general value of 0.9, meaning that the answers for these SOs have been few but relatively consistent. Overall, this increases confidence in the reliability and usability of the figures and confirms the validity of the overall study.

It can be observed that this measurement tool has a large potential to be used not only for monitoring of institutional capacities (as result indicator of the IBSR) but also for producing input for the impact assessment of the Interreg Programme and for the analysis of institutional capacities in the Baltic Sea Region from a wider perspective. Even if it still can be optimised, the tool offers already valuable insights into the evolution of capacities and needs for further development in different thematic fields in the BSR which can be of interest also to other relevant stakeholders, namely the EUSBSR presidency or PACs/HACs.

With regard to the next update measurement in 2020, some limitations of the methodology can be overcome, inter alia, through the following improvements:

- Work with a larger database of thematic experts.
- Try to define well the different thematic fields/SO, so that experts only answer in one field, in order to reduce confusion or biased responses.
- Invite more experts to answer the survey through clarifications in the accompanying text and email and streamlining the survey.
- Add pre-survey interviews, so that relevant external factors can be identified and relevant questions for the relevance of these external factors can be included into the survey.
- Increase slightly the number of post-survey interviews, so that the answers can be validated more thoroughly.
- Add questions about the level of influence of the IBSR Programme as one factor that contributes to changes in institutional capacities.

With regard to the next programming period 2020+, the approach and this study offer meaningful input to on how to define, understand and measure/monitor relevant result indicators for ETC programmes. Having established a baseline in 2014/2015 and with regular up-dates, the measurement tool can be even more meaningful in the years after 2020. The results of the detailed analysis of needs with regard to the different capacities and thematic fields can even be an input for the programming of a possible future Interreg Programme for the Baltic Sea Region.

1 Introduction

For the programming period 2014-2020 the EU Commission has proposed a stronger result orientation in the field of Structural Policy. As a response to the requirement Interreg Baltic Sea Region has established its contribution to institutional capacity building as the most significant impact of the Programme in the region. The definition, set-up, and measurement of a set of qualitative indicators for institutional capacity is a complex task. In 2015 it was entrusted to the Danish company Ramboll, which elaborated a methodology, co-ordinated it with the MA/JS and performed the task accordingly[2]. The methodology is briefly described in section 3. The output are values which are intended as benchmarks of the region's development during the funding period.

1.1 Objective

The aim of this Report is to provide a milestone update of the Programme's result indicator contribution to institutional capacity building at its mid-term.

It will assist verifying the Programme's present performance with regards to its goal of increased institutional capacity in the BSR. The capacity measurement at this point will allow to assess the existing trends towards possible achievement of the result indicators. It might also indicate at certain risks for potential failures which perhaps could be still mitigated at the Programme's mid-term phase.

The present monitoring exercise would also be useful to validate the methodological approach used in 2015 in order to establish and monitor the overall institutional capacity in the BSR as an important indicator alongside the GDP and several others.

1.2 Background

For the programming period 2014-2020 the EU Commission proposed a stronger result orientation in the field of Structural Policy. Among others, one requirement in this context is to define a result indicator for each specific objective of a Cooperation Programme. The indicator should show the intended change in the region within a specific area or thematic field (e.g. research and innovation, SMEs,) and thereby should focus on the intervention's main effects. Compared to output indicators, which only capture the actual operation supported with the funding, result indicators should relate to the target group in the programme region as a whole. It therefore should include all potential beneficiaries of the interventions under one specific objective. By including all potential beneficiaries as the reference for result indicators, they would not only capture effects that can be directly linked to the programme intervention but also effects that are dependent on other factors outside the programme's influence. Examples of such indicators could either be quantitative measures or more qualitative indicators, such as increased capacity within public administration or enhanced transnational cooperation.

[2] Ramboll Management (2015): "Final Report: Analysis of projects in 2007-2013 and setting baselines and targets for the indicators 2014-2020".

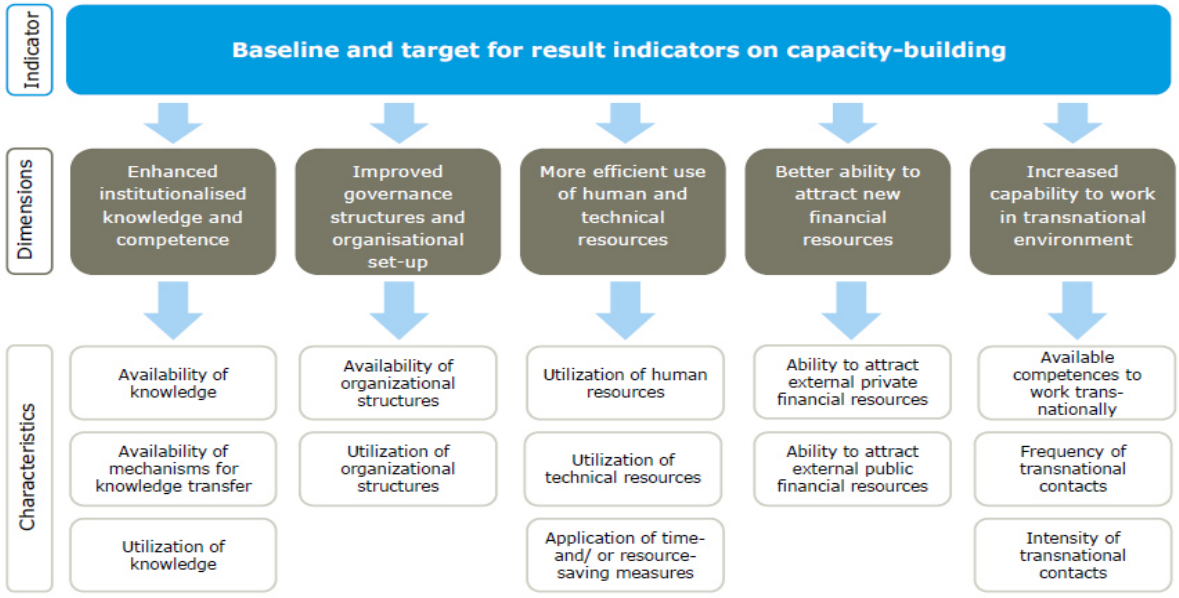
In line with these requirements, the Interreg Baltic Sea Region Programme established that the most significant impact of the Programme in the region is its **contribution to institutional capacity building**.

For the monitoring of institutional capacity in the region, five dimensions of institutional capacity have been defined in the original study in 2015:

i. Enhanced institutionalised knowledge and competence;
ii. Improved governance structures and organisational set-up;
iii. More efficient use of human and technical resources (databases, technical solutions, small infrastructure etc.);
iv. Better ability to attract new financial resources; and
v. Increased capability to work in transnational environment.

Each of the five dimensions has been operationalised further with a different set of characteristics. The aim of these characteristics is to specify what is understood by each of the five dimensions in the context of Interreg Baltic Sea Region.

Figure 1: Dimensions and characteristics of capacity-related result indicators.



Source: Ramböll Management Consulting in cooperation with MA/JTS

In order to use the elaborated indicators as an effective instrument to monitor changes in the programme region, it was decided that the situation on institutional capacity needs to be captured at the beginning, mid-term and at the end of the funding period.

In 2014/2015, qualitative baseline and target values for result indicators were set according to a five-point scale developed in an external evaluation in 2014-2015 in order to ensure comparability of results over the course of the funding period. 4 The scale ranges from 'no capacity' (1) to 'full capacity (5).

In order to define baselines and targets, a wide range of thematic experts of the Baltic Sea region were involved. The experts represented the thematic fields and participating countries in the Programme. They were identified by the MC and were familiar with the target group(s) in their country and their thematic field without being directly involved in funded projects. The baseline and target values for the indicators were based on online surveys, supplemented by interviews to reflect on the results of the survey and fill remaining gaps.

The Cooperation Programme foresees – in line with European Commission's requirements – to carry out respective trend measurements in the mid-term of the Programme, i.e. in 2018, upon finalizing the Programme in 2020 and in three years' time after its closure in 2023.

This report covers the 2018 up-date and measurement of trends in the different thematic areas of the Programme.

1.3 Methodology used for the 2018 up-date

The methodology used for this up-date and the measurement of the 2018 situation with regard to institutional capacities in the Baltic Sea Region follows the initial methodology as defined by the Baseline Study in 2015[3].

This methodological coherence is necessary to achieve comparability and a certain level of scientific robustness. This is even more important as the research requires a strict application of similar methodological guidelines to convert the expert opinions about the qualitative situation of institutional capacities into a more objective and semi-quantitative set of values.

Data gathering for the study took place between May and July 2018. The two methods used to gather relevant data from experts have been:

- An **online survey** to experts in different thematic policy fields, corresponding to the Specific Objectives of the Interreg Programme. A total of 115 experts was invited to take part and the final number of complete and usable responses is 58 questionnaires from 54 respondents (47% response rate).
- **In-depth Interviews** to 13 experts in order to gain background knowledge on the situation of capacities in the different thematic fields and to validate the measurement based on the survey data.

Both methods are presented more in detail below.

Following the general purpose to assign a set of "marks" to the status of institutional capacity in the Region in its different aspects and thematic fields, a questionnaire was sent out to a number of thematic experts in all of the Region's member states, for them to provide a rating of the progress of all public

[3] Ramboll Management (2015): "Final Report: Analysis of projects in 2007-2013 and setting baselines and targets for the indicators 2014-2020".

authorities towards a set of target capacity levels. Ratings from the experts were then collected and aggregated by theme.

The applied method is repeatable and comparable procedure allowing for analysis of the situations at different points in time. As a result of the common work by MS/JS and the external consultant in 2015, presently the Programme has a set of result indicators at its disposal for which the time has come for the mid-term update.

1.3.1 Survey

The experts have been proposed by the Member States and other Third Countries that take part in the Interreg Programme Baltic Sea Region. In some thematic fields and countries with a low number of proposed experts, the consultants identified and added experts to the list on an ad-hoc basis.

Table 1: Survey response rate by country and specific objective

Specific objective	Country											Total
	BY	DE	DK	EE	FI	LT	LV	NO	PL	RU	SE	
1.1 Research and innovation infrastructure	0	0	1	1	0	1	0	0	0	0	0	**3**
1.2 Smart specialisation	0	1	0	0	0	1	2	1	0	0	0	**5**
1.3 Non-technological innovation	0	0	0	0	0	0	1	1	0	1	0	**3**
2.1 Clear waters	0	1	0	1	2	0	0	0	1	0	0	**5**
2.2 Renewable energy	0	0	0	1	0	1	1	1	1	0	1	**7**
2.3 Energy efficiency	0	0	0	0	0	1	0	0	1	0	0	**2**
2.4 Resource-efficient blue growth	0	1	1	1	0	1	0	1	2	0	1	**8**
3.1 Interoperability of transport models	0	1	1	0	1	1	3	0	0	0	0	**7**
3.2 Accessibility of remote areas and areas affected by demographic change	0	0	0	1	1	0	2	1	1	0	1	**7**
3.3 Maritime safety	0	0	1	0	0	1	0	1	0	0	0	**3**
3.4 Environmentally friendly shipping	0	1	0	1	0	1	0	0	0	1	0	**4**
3.5 Environmentally friendly urban mobility	0	0	0	0	0	1	1	1	0	1	0	**4**
Total	**0**	**5**	**4**	**6**	**4**	**9**	**10**	**7**	**6**	**3**	**3**	**58**

Source: Spatial Foresight survey to thematic experts (May-June 2018)

A first questionnaire was sent out to a set of experts in 2015, in order to set the baseline values of the different aspects of institutional capacities, as well as target values for the year 2023, in a scale of 1 to 5 toward the reaching of a defined ideal level of capacity. The present report shows the results of the follow-up questionnaire carried out in 2018 with the same methodology, in order to update the initial

values and assess the progress. A third and instance of the questionnaire will be administered to thematic experts in 2020, and a final one is planned for 2023.

A survey was designed for each specific objective (SO), and each was sent to the relevant experts, including background information on the SO and reference values from the baseline setting study carried out in 2015. The set of surveys to thematic experts in the Baltic Sea Region to update the baselines of institutional capacity in the Region was launched to a first batch of recipients on the 8th of May 2018, and collected responses until the 29th of June 2018. A total of 115 experts was invited to take part, and were invited to complete a total of 126 questionnaires (as some experts were invited to surveys for more than one SOs) and the final number of complete and usable responses is 58 questionnaires from 54 respondents (response rate of 46% counting on questionnaires and 47% counting on experts).

The coverage is overall satisfactory, with an average coverage of 4.8 surveys per SO, and 5.8 surveys per Member State (excl. Belarus). A minimum of 3 expert surveys per country and per SO has been collected in all but one case: SO 2.3 “Energy efficiency”, which has proven to be highly challenging.

1.3.2 Interviews

Altogether 13 interviewees have been made in order to get first-hand explanations behind the assessments of various dimension and characteristics of the institutional capacity within the BSR.

The interviewed persons represent various public and non-governmental institutions of pan-European, national and regional level organisations active in the area of a respective specific objective. All 12 SOs have been covered by the interviews, nine countries in total. The list of persons interviewed is an annex to this report.

The interviews were structured based on the survey questions asking the interviewees to justify and explain their numeric assessment.

The comments from interviewees are included in this report under each Specific Objective.

1.4 Limitations and challenges

Even if it has been possible to apply the original methodology and to achieve a set of relevant results, the methodology faces several limitations and challenges to get to meaningful results. It is only fair to identify these limitations and put the results of the trend measurement into context.

The first limitation of the low number of experts that answers the survey. This limitation is even more prominent as the survey results are not treated together as one group, but are analysed individually for each thematic field/Specific Objective. The survey is the more representative, the more thematic experts participate. In general, the robustness and reliability of results is generally higher with a minimum number of responses in each SO (4-10). On the contrary, the reliability suffers from a very low number of responses per SO (1-3). With few responses, the margin of error increases and the role of external factors that might influence the final result becomes more important. This obstacle can be overcome be assuring from the beginning a high number of experts in a given database that also needs to be updated regularly or in adequate time before the update study.

The second limitation is linked to the fact that sometimes the delimitations and concrete definition of the thematic fields (of the Specific Objectives) are rather artificial and not easy to control for the thematic experts. In particular, this hampers data gathering in areas where experts are invited to assess the situation in two or more related thematic fields (e.g. SO 1.1 and 1.2, or for SO 3.3 and 3.4). Then, their assessment might be biased. Also for the general analysis, it is difficult to establish a clear line between similar thematic fields that influence each other such as energy efficiency and renewable energy. This challenge might be solved by a sufficient number of experts for each SO and consulting experts only for one SO.

The third limitation is the influence of numerous external factors on the assessment of institutional capacities by thematic experts. These can include overall macro-economic factors (e.g. there might be a tendency to make a more positive assessment in a positive macro-economic-situation in a given country) or even personal factors (e.g. older experts might tend to assess the evolution differently compared to younger colleagues or the personal job situation might have an influence). These external factors cannot be completely identified and, by no means, calculated and excluded from the expert assessment within the given methodology. This obstacle can be overcome partially by defining possible external factors and asking experts in the survey or in interviews about the relevance they would give to these external factors in their assessment. The identification of external factors can also be improved with pre-survey interviews to experts and a higher number of post-survey interviews (to validate the findings also on external factors).

The fourth limitation is linked to the second one. The impossibility to identify and take into account all external factors limits the possibility to establish an analysis of causal inference between the Interreg Programme and the situation of institutional capacities in the Baltic Sea Region. The interviews highlight mostly evidence on causal relationships that, from the personal perspective of the experts, led to a change on the level of institutional capacities. However, to be able to establish reliable causal relationships, wider analyses and the use of additional methods (either qualitative such as the Most significant change technique, or quantitative based on statistics and counterfactual analysis) would be necessary. However, this would change also the setting of the established methodology (e.g. through adding additional questions to the survey) and thus, make the measurements less comparable to the baseline situation. This limitation can only be overcome by an additional impact assessment study to establish the potential contribution of the Interreg Programme to the observed change in institutional capacities.

In the next update of the measurement in 2020, the relevant and possible measures can be taken to reduce the negative effect of these limitations.

1.5 Recommendations to optimise the methodology and the analysis

First of all, it has to be said that the analysis shows that the approach to assess institutional capacities in a given context with the help of thematic experts and the aggregation of their estimation of capacities in their field has proved to be useful and produces meaningful results. However, the methodology still presents some limitations and challenges (see the previous section 1.4) that still can be (partially) solved through methodological adjustments.

Overall, the methodology proposed in the Baseline study is an interesting approach to establish a meaningful measurement tool characterizing situation in the BSR, in addition to other indicators or variables. The tool seems to have an important potential that has not been fully exploited yet.

Given the fact that the approach tries to measure institutional capacities in the Baltic Sea Region in general, one can even think about a wider application and use at a larger scale. There seems to be no evident reason that this valuable measurement should be limited only to the context of the Interreg Baltic Sea Region 2014-2020 evaluations. In fact, it has to be noted that the limitation of the study to the Interreg Programme (even if the questions are about general capacities in the BSR) led to a certain confusion among some of the thematic experts during the survey and the interviews.

Of course, the tool represents a necessary pre-condition to start analysing and evaluating the contribution to change in capacities motivated by the Interreg Programme. However, with the corresponding adjustments (e.g. on thematic fields) the tool would also allow to produce useful information to other stakeholders in the Baltic Sea Region, including of course also the EUSBSR stakeholders.

This leads to the recommendation to present this or a similar tool and its results to other relevant stakeholders in the region. With support from other stakeholders – not only in terms of resources, but also offering names and contacts of thematic experts – the exercise could reach a higher level of confidence and reliability, increasing the number of experts involved and the number of responses.

With regard to the next programming period 2020+, the approach and this study offer meaningful input to on how to define, understand and measure/monitor relevant result indicators for ETC programmes. Having established a baseline in 2014/2015 and with regular up-dates, the measurement tool can be even more meaningful in the years after 2020, when more data and information is available on the evolution of capacities. The results of the detailed analysis of needs with regard to the different capacities and thematic fields can even be an input for the programming of a possible future Interreg Programme for the Baltic Sea Region.

With regard to the next update measurement in 2020, it is recommended to

- Work with a larger database of thematic experts, so that at least 7 experts per SO can answer to the survey. Given the current response rate, this would imply to have approx. 15 experts per SO in the database. This would require an additional effort in order to a) identify and add experts to the existing database and to b) update/refresh the database shortly before the next survey. It can be considered that the MA/JS also would benefit in other areas from this database as it can also be used to communicate general programme information and results to them.

- Try to define well the different thematic fields/SO, so that experts only answer in one field, in order to reduce confusion or biased responses.

- Clarify in the accompanying email and in the introductory text that the survey is not specifically on the Interreg Baltic Sea Region Programme and that knowledge on the Interreg Programme or any of its projects is not a pre-condition for filling in the survey. Clarify in the e-mail that the

survey is not time-consuming. Reduce the accompanying text within the survey and make it more straightforward.

- Add pre-survey interviews, so that relevant external factors can be identified and relevant questions for the relevance of these external factors can be included into the survey.

- Increase slightly the number of post-survey interviews, so that the answers can be validated more thoroughly.

- Add questions about the level of influence of the IBSR Programme as one factor that contributes to changes in institutional capacities. This would offer valuable information for the evaluation of impact of the Programme after 2020 and facilitate the implementation of further impact assessments.

To sum up, it can be observed that this measurement tool has a large potential to be used not only for monitoring of institutional capacities (as result indicator of the IBSR) but also for producing input for the impact assessment of the Interreg Programme and for the analysis of institutional capacities in the Baltic Sea Region from a wider perspective. Even if it still can be optimised, the tool offers already valuable insights into the evolution of capacities and needs for further development in different thematic fields in the BSR which can be of interest also to other relevant stakeholders, namely the EUSBSR presidency or PACs/HACs.

2 Results of survey and interviews to thematic experts

The overall picture for the baselines shows that, overall, a consistent path towards the reaching of target values established in 2014 is underway. The respondents under all but one thematic focus (based on Interreg Baltic Sea Region 2014-2020 specific objectives) show increases and appear to be on a feasible path toward reaching the target value.

Table 2: Overall update of institutional capacity baselines, by SO

Capacities per Specific Objective	Baseline Value (2014)	Up-date of Milestone (2018)	Target Value 2023 (established in 2014)	Comments
1.1 Research and innovation infrastructure	2,7	3,0	3,6	Slight increase, positive trend towards target value
1.2 Smart specialisation	2,9	3,4	3,8	Sizeable increase, positive trend, target is in reach
1.3 Non-technological innovation	2,9	3,2	3,7	Slight increase, positive trend towards target value
2.1 Clear waters	2,7	2,9	3,6	Slight increase, positive trend towards target value
2.2 Renewable energy	2,4	2,8	3,5	Increase, positive trend towards target value
2.3 Energy efficiency	2,6	3,0	3,5	Increase, positive trend towards target value
2.4 Resource-efficient blue growth	2,8	2,9	3,6	Slight increase, positive trend towards target value
3.1 Interoperability of transport models	2,3	2,5	2,9	Slight increase, positive trend towards target value
3.2 Accessibility of remote areas and areas affected by demographic change	2,8	2,8	3,8	Constant. Target is far from reach.
3.3 Maritime safety	2,5	2,8	3,4	Slight increase, positive trend towards target value
3.4 Environmentally friendly shipping	2,9	3,2	3,8	Slight increase, positive trend towards target value
3.5 Environmentally friendly urban mobility	2,7	3,3	3,5	Sizeable increase, positive trend, target is in reach

Source: Spatial Foresight survey to thematic experts (May-June 2018)

SOs 1.2 (Smart Specialisation) and 3.5 (Environmentally friendly urban mobility) show the largest increase in the level of institutional capacities.

An important increase can also be observed for SOs 2.2 (Renewable Energy) and 2.3 (Energy efficiency). A more moderate yet notable increase can be observed for SOs 1.1 (Research and innovation infrastructure), 1.3 (Non-technological innovation), 2.1 (Clear waters), 2.4 (Resource-efficient blue growth), 3.1 (Interoperability of transport models), 3.3 (Maritime safety) and 3.4 (Environmentally friendly shipping).

The only SO whose value for institutional capacities stays constant is SO 3.2 (Accessibility of remote areas and areas affected by demographic change). As can be observed in the detailed analysis, a possible explanation might be the perception that demographic change is progressing at a faster pace than public authorities are able to react, therefore making the existing improvement – in terms of organisational structures as well as technological innovations – insufficient and undersized with respect to the growing magnitude of the phenomenon. The only dimension presenting an improvement, albeit small, is the capacity to improve governance structures and organisational set-up.

With regard to the reliability of the data the following can be observed. The overall standard deviation from the mean value of given ratings has been 0.9, with maximum 1.4 for any given question. This measure means that the responses had a high degree of consistency among them, and therefore the overall reliability of collected responses can be deemed as high.

However, particular care should be put when analysing results for SOs which had a limited number of responses (three or less): SOs 1.1, 1.3, 2.3, and 3.3. In these cases, the limited number of responses may pose a threat to the reliability of the figures. However, in all four cases, the standard deviation is below the general value of 0.9, meaning that the answers for these SOs have been few but relatively consistent. Overall, this increases confidence in the reliability and usability of the figures and confirms the validity of the overall study.

The detail of survey results is presented in an annex to this report and in the next chapters.

2.1 Specific objective 1.1: Research and innovation infrastructure

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
1.1 Research and innovation infrastructure	2,7	3,0	3,6	Slight increase

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Questionnaires for specific objective 1.1 have been answered by three respondents from three different countries. The number of responses is low and should be interpreted with caution. The overall estimated score of administrative capacity has slightly increased with respect to the baseline, however the pace of the progress is insufficient in order to meet the target value of 3.6 in 2023.

The picture for dimensions 1, 4, and 5 has seen little or no improvement, while dimension 2 “Improved governance structures and organizational set-up” has seen a substantial increase and is close to

reaching the target. A more efficient use of human and technical resources 3 has seen a relevant increase and may be in close reach of the target if the efforts continue at the same pace.

Table 3: Baseline and updated values summary for SO 1.1 Research and innovation infrastructure

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,7	
	Milestone 2018	3,0	Change +11%
	Target set in 2014	3,6	Progress 33%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	2,8	
	Milestone 2018	2,8	Change +0%
	Target set in 2014	3,6	Progress 0%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	2,4	
	Milestone 2018	3,2	Change +33%
	Target set in 2014	3,4	Progress 80%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,6	
	Milestone 2018	3,1	Change +19%
	Target set in 2014	3,7	Progress 45%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	2,5	
	Milestone 2018	2,7	Change +8%
	Target set in 2014	3,4	Progress 22%
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	3,1	
	Milestone 2018	3,1	Change +0%
	Target set in 2014	3,9	Progress 0%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

According to the interviewees, availability of knowledge and competence is good all over the BSR region. The institutional capacity has increased slightly during the last years. There have also been improvements as to levelling between the institutionalized knowledge and competence in the western and eastern parts of the region, i.e. the Nordic and the Baltic countries. While certain variances still exist, they are to a lesser extent. The various knowledge transfer mechanisms are present and well-visible in the Scandinavian countries and Germany. The situation is progressing also in the Baltics and Poland. INTERREG programmes are seen as very good mechanisms for knowledge transfer. Mutual learning,

harmonisation of legislation and other measures are very much appreciated as they facilitate the lining-up of the various regions within the BSR.

Dimension 2: Improved governance structures and organisational set-up

As for the organisational set-up the structures are in place and functioning considerably well. The main stakeholders are known and there are regular contacts with and between them. Despite the fact that the institutions are used quite regularly, some inefficient use of the different structures has also been noted. There are still many improvements to be done for more efficient use of the structures as well as gaining trust to each other which especially concerns transnational co-operation.

Dimension 3: More efficient use of human and technical resources

There are excellent human resources all around the BSR. There is a lot of young generation entering the labour market. “We need to let them work” and fully utilise their potential. As for the existing workforce, it is sometimes due to the inefficiency of the organisational structures that the human resources are not exploited to their full potential.

The technical resources and their use is estimated as overall good. It is recognized that there are plenty of them all around the BSR. Another issue is their distribution which might not be always optimal from the BSR perspective. As this depends very much on the national policies, transnational co-operation via projects such as INTERREG is seen as means for certain adjustment in other to achieve the necessary concentration of technical resources in the areas with higher necessary potential.

Dimension 4: Better ability to attract new financial resources

While ability to attract public financial resources is seen as overall satisfactory, there are still a lot of challenges with the private sector. Some parts of the region are more advanced in this; however, in general the situation is rather weak. A lot of activities; however, are being implemented right now, such as establishing business clusters, in order to get the private sector more involved into the avant-garde processes of the research and innovation. Some INTERREG projects are considered to be very good catalysts of these developments.

Dimension 5: Increased capability to work in transnational environment

There are good skills and competences for working in a translational environment all over the BSR. The institutions usually are very willing to join international projects and regularly use such opportunities. The intensity of co-operation though is varied, but mostly can be deemed as good.

2.2 Specific objective 1.2: Smart specialisation

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
1.2 Smart specialisation	2,9	3,4	3,8	Sizeable increase, target is in reach

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Questionnaires for specific objective 1.2 have been answered by five respondents in four countries. Overall, there has been a relevant increase in capacity for smart specialisation, and the final target for 2023 is within reach if the current pace of development is sustained. All dimensions show a similar and coherent path of improvement, with dimension 4 (ability to attract financial resources) being the closest to the goal.

Table 4: Baseline and updated values summary for SO 1.2 Smart specialisation

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,9	
	Milestone 2018	3,4	Change +17%
	Target set in 2014	3,8	Progress 56%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	2,8	
	Milestone 2018	3,5	Change +25%
	Target set in 2014	4,0	Progress 58%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	3,2	
	Milestone 2018	3,5	Change +9%
	Target set in 2014	3,8	Progress 50%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,9	
	Milestone 2018	3,4	Change +17%
	Target set in 2014	3,9	Progress 50%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	2,7	
	Milestone 2018	3,4	Change +26%
	Target set in 2014	3,6	Progress 78%
Dimension 5: Increased capability to work in a transnational environment	Baseline 2014	2,8	
	Milestone 2018	3,3	Change +18%
	Target set in 2014	3,9	Progress 45%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

The interviewees point at an increased availability of knowledge during the previous years; however, they still estimate it as being between satisfactory and good. It is assessed as good within the circle of people who have developed and work directly with the RIS3, but barely sufficient beyond it, where higher awareness is also vital for introduction of the strategy.

The interviewees admit that presently there are many mechanisms available that provide connectivity between academia and other stakeholders. Many good developments have taken place over the recent years, but the capacity to absorb the knowledge is still seen to be somewhat limited.

Dimension 2: Improved governance structures and organisational set-up

Recent reforms in the R&I sector enhanced the overall organisational structure greatly and it is performing quite well. As put by one of the interviewees "the whole eco-system" is pretty much in place and well-known by now. It might be still fragmented in some countries, with some functions overlapping between the too many institutions; however, it works well at the policy making level. The organisational structures are perceived to be useful by most stakeholders.

Another interviewee agrees to the fact that in terms of organisational structure the situation is good, but it is assessed not that well as to its utilisation. There is deemed to be more room for a better and more trustful mutual co-operation both nationally and transnationally. It is directly related to a more efficient use of existing resources. This can be explained by the fact that the structures and the system are quite new in some countries and thus still evolving. Too much fragmentation is observed in some countries which results in overlapping functions.

Dimension 3: More efficient use of human and technical resources

The existing situation with human resources in smart specialisation can be described as good. There is a slight problem with a number of people who understand and can work with RIS3. Certain lack of a critical mass can be observed. For some countries the whole R&I area is comparatively new and yet not perfect with regards to the human resources and their use, in particular.

There are a lot of good technical resources (databases, etc.) and also time saving measures made available, but the usage of them is still not reaching full potential as described by on the interviewees. On the national level there are data bases about the stakeholders as well as all various activities. There are programmes that assist in developing technical capacities.

Dimension 4: Better ability to attract new financial resources

The opportunities to attract private funding are limited where only some institutions have the existing networks and know-how to do that. In some countries the private sector is described as rather conservative as to where it tends to invest. The project should be very good to attract financial support.

R&I is mostly funded by public financial resources. Among the public resources, which are comparatively easy to attract the EU structural fund investments are mentioned. The state funding is deemed to be more difficult to attract. However, where there is a good and well-justified project, it would normally raise public funds.

Dimension 5: Increased capability to work in transnational environment

INTERREG is very helpful to boost international contacts and competences to work transnationally. A lot of networking can be carried out thanks to INTERREG. Thus overall there have been major improvements to working transnationally; however, there still is a lot of progress to be made to reduce the gap between some of the countries.

With availability of transnational contacts being abundant the only issue now lies in utilizing them. This is where language barriers and experience come into play. Though this problem is considerably diminishing there still might be cases where this is a certain impediment.

2.3 Specific objective 1.3: Non-technological innovation

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
1.3 Non-technological innovation	2,9	3,2	3,7	Slight increase

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Questionnaires for specific objective 1.3 were answered by three experts in three countries. The number of responses is low and should be interpreted with caution. The overall score shows a small increase, which could however, in case the growth pace is slightly increased, allow for reaching the set target of 3.7.

Most dimensions show a modest improvement of around 0.3 points in comparison with the baseline, while dimension 3 “more efficient use of human and technical resources” outperforms the other dimensions and could easily reach the target in case of maintained improvement rate. Dimension 2 “improved governance structures and organizational set-up” is also on track to meet the target, while in other dimensions more effort would be needed in order to close the gap.

Table 5: Baseline and updated values summary for SO 1.3 Non-technological innovation

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,9	
	Milestone 2018	3,2	Change +10%
	Target set in 2014	3,7	Progress 38%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	2,9	
	Milestone 2018	3,2	Change +10%
	Target set in 2014	3,9	Progress 30%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	3,0	
	Milestone 2018	3,3	Change +10%
	Target set in 2014	3,6	Progress 50%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,5	
	Milestone 2018	3,0	Change +20%
	Target set in 2014	3,3	Progress 63%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	3,0	
	Milestone 2018	3,2	Change +7%
	Target set in 2014	3,6	Progress 33%
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	2,9	
	Milestone 2018	3,2	Change +10%
	Target set in 2014	3,9	Progress 30%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

Overall the knowledge is available; however, this knowledge should be updated and disseminated more widely. More information, clarification, motivation and awareness building and encouragement activities are still needed. There are active industry and research organizations that engage and promote the use of knowledge through associations, clusters and competence centres. It has to be noted that this is a very wide field and many different types of knowledge and competence are required, that might not be overlooked by the relatively low number of experts that answered the survey/interviews.

Dimension 2: Improved governance structures and organisational set-up

Good organizational structures have been set up to provide a well-organized and effective agenda at public institutions, business and research institutions and organizations. Access to the competences and knowledge is provided to all stakeholders and clients. These structures are utilised frequently.

Dimension 3: More efficient use of human and technical resources

There are no obstacles for the use of human resources; however, there is a room for improvement for its planning and efficiency.

R&D equipment, design and prototyping labs and other open infrastructures, co-working and networking spaces are available, but they are not sufficiently homogeneous and require a more coherent and unified approach for their access.

Dimension 4: Better ability to attract new financial resources

The ability to attract private investment is considered as moderate. Most SMEs would not have sufficient resources for R&D activities. Certain lack of awareness as to importance of such investments for increasing the company's competitiveness can be observed. Where the awareness persists, the companies try to attract the EU funding. The public funding is deemed to be easier to attract.

Dimension 5: Increased capability to work in transnational environment

Transnational cooperation is well developed and increasingly used in international, cross-border and joint interest projects. Recent years have shown progress in intensity of transnational co-operation, but it is still cannot be described as very intense, but rather quite frequent.

2.4 Specific objective 2.1: Clear waters

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
2.1 Clear waters	2,7	3,0	3,6	Slight increase

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Results for SO 2.1 are based on responses from five experts in four countries. The overall score for clear waters shows some improvement in institutional capacity; however, the pace of growth is too slow, and at the current rate it may be uneasy to reach the target. The situation is especially serious in considering that for one dimension (dimension 1 about institutional knowledge and competence), the score has not improved in comparison with 2014, but it has deteriorated slightly.

Dimensions 2 and 4, on the other hand (improved governance structure and organisational set up, and ability to attract financial resources), show relevant improvements and are likely to get closer to the

target if the pace of improvement is continued. Dimensions 3 and 5 have seen very little improvement and are far from reaching the goal.

Table 6: Baseline and updated values summary for SO 2.1 Clear waters

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,7	
	Milestone 2018	3,0	Change +11%
	Target set in 2014	3,6	Progress 33%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	3	
	Milestone 2018	2,9	Change -3%
	Target set in 2014	3,8	Progress -13%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	2,6	
	Milestone 2018	3,0	Change +15%
	Target set in 2014	3,6	Progress 40%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,7	
	Milestone 2018	2,8	Change +4%
	Target set in 2014	3,7	Progress 10%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	2,1	
	Milestone 2018	2,6	Change +24%
	Target set in 2014	3,1	Progress 50%
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	3,0	
	Milestone 2018	3,2	Change +7%
	Target set in 2014	3,9	Progress 22%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

Main critical aspects highlighted by survey respondents involve the lack of use of scientific knowledge at the institutional level, and the continued sole reliance on established technical solutions. In some member states, there are insufficient and non-functional structured tools and methods for institutional knowledge sharing.

The interviewee recognizes that there is enough knowledge on what to do; nevertheless, the research should continue in certain areas. The situation with knowledge transfer improves, but at the same time researchers are expected to provide the information more promptly, especially to the politicians. It is

deemed that the available information and knowledge does not fully reach the decision-makers. It has been mentioned that sometimes and in some countries the researchers tend to monopolize certain information/knowledge.

Dimension 2: Improved governance structures and organisational set-up

Good organizational structures have been created. Structures and responsibilities are established. The interviewee suggests that more cooperation is expected though; both within the sector as well as cross-sectoral. Cross-sectoral work is done mainly at the level of Maritime Policy or VASAB-HELCOM working groups, but is deemed to be insufficient on the national levels, in particular. It is too often that informal relations are utilised. Hopes are expressed that Natura 2000 management plans perhaps will come back and will play the coordination role.

Dimension 3: More efficient use of human and technical resources

People working in the area are very knowledgeable and devoted. However, there is a space for improving the efficiency of their use.

Technical resources like research vessels are available, but again a lack of consistency for their optimal use can be observed. This is due to the fact that funding of the programs for the use and maintenance of the technical resources may vary from year to year not allowing for efficient and sustainable planning.

Dimension 4: Better ability to attract new financial resources

A person interviewed stated that the ability to attract new financial resources is quite high. The private sector gets more and more engaged. Nevertheless, the scientific work is based mainly on public funds such as INTERREG or HORIZON 2020. Many projects are being conducted in co-operation with public authorities where the scientific institutions take a lead. The situation where the projects rely on funding that is coming from the EU is deemed as not satisfactory. National governments should step in with more commitment of their own.

Dimension 5: Increased capability to work in transnational environment

Scientific institutions work in numerous international networks like ICES, VASAB-HELCOM, transnational projects etc. Public authorities are involved in VASAB-HELCOM and many transnational projects like BalticScope or Pan-Baltic Scope. Though there are transnational structures that provide a basis for collaboration on the national level, one should keep in mind that local and regional authorities very rarely take part in the work of these structures.

There is a plenty of room for improvement. Some kind of fear still persists and there is still a kind of resistance to cooperate with other countries at some institutions. An interviewee would like to see cooperation and networking as a basis for sustainable and modern governmental everyday agenda.

2.5 Specific objective 2.2: Renewable energy

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
2.2 Renewable energy	2,4	2,8	3,5	Increase

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Responses to the survey for SO 2.2 renewable energy came from seven thematic experts in seven different countries. The indicator has seen a notable improvement; however, it is moving too slowly for the ambitious target of 3.5 to be met in 2023.

All dimensions show a modest progress toward the goal, except for dimension 2 “improved governance structures and organizational set-up”, which is well advanced in reaching its target. This dimension was regarded as the weakest in 2014, but now it improved to exceed the average value for the SO.

Table 7: Baseline and updated values summary for SO 2.2 Renewable energy

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,4	
	Milestone 2018	2,8	Change +17%
	Target set in 2014	3,5	Progress 36%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	2,6	
	Milestone 2018	2,9	Change +12%
	Target set in 2014	3,7	Progress 27%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	2,2	
	Milestone 2018	2,9	Change +32%
	Target set in 2014	3,3	Progress 64%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,4	
	Milestone 2018	2,7	Change +13%
	Target set in 2014	3,5	Progress 27%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	2,3	
	Milestone 2018	2,6	Change +13%
	Target set in 2014	3,2	Progress 33%
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	2,7	
	Milestone 2018	3,0	Change +11%

		Estimated value (average)	% increase / progress toward target
	Target set in 2014	3,8	Progress 27%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

Satisfactory knowledge is available in most areas. At the same time there are still issues regarding its implementation, financing and legislation which sometimes make practical application not efficient enough. Also mechanisms for knowledge transfer to end users are deemed to be not sufficiently effective. Lack of cooperation between different stakeholders in exchange of knowledge is observed.

Dimension 2: Improved governance structures and organisational set-up

The overall governance is assessed as good. A lot of various work groups and councils exist that manage the topics and collect information. Sometimes however, a lack of independence, impartiality and transparency is observed in the organisational structures which lead to certain inefficiencies.

Dimension 3: More efficient use of human and technical resources

Overall the countries have high quality human resources which are also well-networked internationally. Lack of effective institutional cooperation sometimes does not allow for the use of the human resources at their full capacity. At the same time there are also situations which are so specific that it is difficult to find experts. This is where international cooperation becomes very important.

The use of technical resources still is not as efficient as it could be. Often it is difficult to access and use very specific technical resources. There are certain measures in place in order to maximise efficiency of human and technical resources.

Dimension 4: Better ability to attract new financial resources

In some cases investors and researchers collaborate when there are common interests. Overall the renewable energy is quite an attractive industry in the eye of private investors. The projects with short pay-back periods are of a particular interest. Different compensation and support mechanisms exist.

Sometimes these might be the public authorities that are afraid of cooperation with private entities because of inflexible regulations. Where the cases are straight forward and well-worked out, one can see various forms of public support to the projects involving municipalities, regional energy agencies etc., like for example, grants for solar cell installations.

Dimension 5: Increased capability to work in transnational environment

Most often the colleagues from various countries meet and work together in Brussels. There they have the most frequent contacts. Overall, it can be concluded that public authorities, practitioners and researchers have enough knowledge and competences to work together with transnational partners. They are able to communicate in a common language. They are geographically mobile and have a profound knowledge of the institutional landscape and cultural characteristics of other countries. Transnational collaboration, however, could be more intense.

2.6 Specific objective 2.3: Energy efficiency

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
2.3 Energy efficiency	2,6	3,0	3,5	Increase

Source: Spatial Foresight survey to thematic experts (May-June 2018)

For SO 2.3 on energy efficiency, two thematic experts from different countries have provided responses. The number of responses is low and should be interpreted with caution. In order to offset the low response rate, two experts have been interviewed in order to validate the calculated milestone.

The overall picture shows a consistent increase to almost 50% of the original distance from the goal. Dimensions which are very close to the target are dimension 1 (institutional knowledge) – for which the baseline was set already high and not far from the goal – and dimension 5 (capability to work in transnational environment). Other dimensions are doing relevant improvements but the speed of improvement should be increased in order to meet the targets.

Table 8: Baseline and updated values summary for SO 2.3 Energy efficiency

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,6	
	Milestone 2018	3,0	Change +15%
	Target set in 2014	3,5	Progress 44%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	3,0	
	Milestone 2018	3,2	Change +7%
	Target set in 2014	3,3	Progress 67%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	2,8	
	Milestone 2018	3,0	Change +7%
	Target set in 2014	3,6	Progress 25%

		Estimated value (average)	% increase / progress toward target
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,4	
	Milestone 2018	2,7	Change +13%
	Target set in 2014	3,3	Progress 33%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	2,3	
	Milestone 2018	2,8	Change +22%
	Target set in 2014	3,7	Progress 36%
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	2,7	
	Milestone 2018	3,2	Change +19%
	Target set in 2014	3,4	Progress 71%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

The knowledge available is assessed as good. It can be characterised as technical while economic and systemic knowledge is sometimes missing. The knowledge is utilised; however, too often its use is shaped by an economic framework that requires the projects to be profitable.

Certainly there is always a room for more and improved research and development activities as the whole subject is complex and constantly evolving. The same regards to the knowledge transfer, especially, what regards the knowledge created internationally. Also utilisation of the knowledge can strive for better. Often there is too much scepticism about new practices that hinders their trial and introduction.

Dimension 2: Improved governance structures and organisational set-up

Domestically the governance structures are relatively good. A lot of co-operation and work is being done on a project basis. This creates rather many temporary institutions. Internationally the governance could be better, especially on the BSR level.

The use of structures is estimated only as satisfactory, which means improvements are expected. Utilisation of the organisational set-up depends greatly on economic benefits that the certain area can produce. The areas with bigger potential are better utilised.

Dimension 3: More efficient use of human and technical resources

The human resources and their use can be evaluated as good. Skilful and knowledgeable workforce able to come with more innovation is good to have, but at the same time the information dissemination is of the same importance. The technical innovation should be developed together with the social responsibility, i.e. people must become increasingly aware of the need for energy saving and develop their special attitude respectively.

The technical resources are assessed as limited. Data gathering is complicated as it usually goes beyond the regular statistics. The data collection issues have not been addressed properly. Without comparable data it is difficult to work and develop projects internationally. It is necessary to find a balance between energy efficiency and renewable energy.

Dimension 4: Better ability to attract new financial resources

The overall ability to attract private funding is seen as satisfactory, while for public funding as good. The private sector is keen to invest, if they see direct benefits. These are usually various support and compensation mechanisms that they find attractive. It would be good to aim for a wider variety of these mechanisms for the private companies in order to get their full-fledged involvement in the search for most efficient solutions. Meanwhile good and justified research and development projects are able to attract also public funding, but the EU funds, in particular.

Dimension 5: Increased capability to work in transnational environment

Sometimes the institutions do not have the right staff and attitude for international activity. Programmes, such as the BSR INTERREG programme, contribute a lot in building the necessary capacities for working transnationally. The frequency of contacts and cooperation increases steadily. The cooperation intensity is also relatively high. It depends on projects and goals of the project partners.

2.7 Specific objective 2.4: Resource-efficient blue growth

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
2.4 Resource-efficient blue growth	2,8	2,9	3,6	Slight increase

Source: Spatial Foresight survey to thematic experts (May-June 2018)

The survey for SO 2.4 “Resource-efficient blue growth” collected eight responses from seven countries, being the single most successful in terms of response rate.

The progress in comparison with the 2014 baselines is very little overall: no improvement was identified in dimensions 2 and 4, despite the former’s ambitious goal, and the latter’s low baseline. A slight worsening was regarded in dimension 1. Dimension 3 saw little progress, while dimension 5 about the

capability to work in a transnational environment, seems to be the only one in which substantial improvement has taken place.

Table 9: Baseline and updated values summary for SO 2.4 Resource-efficient blue growth

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,8	
	Milestone 2018	2,9	Change +4%
	Target set in 2014	3,6	Progress 13%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	2,9	
	Milestone 2018	2,8	Change -3%
	Target set in 2014	3,8	Progress -11%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	2,8	
	Milestone 2018	2,8	Change +0%
	Target set in 2014	3,7	Progress 0%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,6	
	Milestone 2018	2,8	Change +8%
	Target set in 2014	3,5	Progress 22%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	2,4	
	Milestone 2018	2,4	Change +0%
	Target set in 2014	3,3	Progress 0%
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	3,2	
	Milestone 2018	3,5	Change +9%
	Target set in 2014	4,0	Progress 38%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

The available knowledge is characterised as basic. It depends on which level it is being assessed. Both the interviewees agree that the national and regional level institutions would most likely have appropriate knowledge available, while the local institutions too often lack it due to their limited capacities.

There is much information about the general cause-effect relations; however, the overall knowledge of the complexity of the problem is somewhat overlooked. A lot of research still has to be done. Quite the same regards also to the various thematic areas. While for some of them the knowledge is pretty much

available, for example, tourism, in other sectors it is rather scarce, for example, off-shore energy and blue bio-tech.

Blue growth has no actual framework for institutional knowledge transfer except for one-off activities such as scientific conferences, campaigns, pilot projects, etc. Thus in many cases the use of knowledge is sporadic and slow. Investors, especially, the big ones try to absorb new knowledge and so do the public authorities. The latter have problems with cross-sectoral approach.

Dimension 2: Improved governance structures and organisational set-up

Though the overall assessment of the governance structures is satisfactory, according to the interviewees there are still a lot of developments to be done before it can be called good. For the existing organizational set-up blue growth is not their top agenda. There is also a long way for the project ideas to catch attention of the decision-makers in order to be implemented at the government level. It is seen a bit easier at regional and local levels.

The governance structures do not cover all the respective areas of the blue growth. So, for example, for tourism they are plenty, but for technologies rather limited. The governance structures are used occasionally. There are some initiatives that are being developed; however, too much depends on motivation of the individual employees who work with EU projects.

Dimension 3: More efficient use of human and technical resources

There is a good use of existing human resources, but their quantity, relevance and in some cases also knowledge and competences could be increased. One interviewee admitted that the institutions are short of employees. This shortage causes drawbacks in reaching the targets of their institutions, including also communication to the decision-making levels. It would help greatly if the decision-makers would be dedicated at proactively collecting knowledge from the projects and putting them into a good use. This is expected to increase the practical impact coming from the projects. One way to achieve this would be through a greater involvement of the decision-makers into the projects.

Same refers also to the technical resources. A lot of projects generate guidelines, policies, etc. They are available at the project websites, some individual employees may know them, but there is a lack of communication on the technical possibilities for their implementation. There is also a lack of data basis. The projects produce good results which should have a more adequate attention.

Dimension 4: Better ability to attract new financial resources

Some success can be observed in attracting private partners in certain countries as well as in some specific areas of the blue growth. The projects try involving private companies by organizing workshops and other events. They are usually responsive and interested, but when it comes to financial contributions one interviewee thinks that is comparatively difficult, while the other one assessed it as satisfactory.

The public funding varies from country to country. One interviewee reports that usually the projects would run on very tight budgets and they are regarded as “nice to have” rather than “need to have”. The other interviewee admits that there are programmes elaborated to meet certain needs; however, these programmes should be more flexible to adjust to the ever-changing environment.

Dimension 5: Increased capability to work in transnational environment

The overall ability to work in transnational environment is considered as good; however, it is recognized that these are mostly rather closed circles of public authorities, practitioners and researchers who would have high abilities, whereas the others have them comparatively low. It may vary from country to country though, but this is still true that that the institutions which are active internationally continue to cooperate for years, whereas for the other ones transnational cooperation poses difficulties.

It is no secret that, for a lot of public authorities, knowledge sharing with the neighbouring countries and transnationally is among the things that are “nice to have” and not a “need to have”. Therefore cooperation projects often get lower priority. When the project finishes the activity level drops significantly. As to one interviewee the intensity of transnational cooperation at the national level is particularly low beyond the necessary legislation harmonization activities.

2.8 Specific objective 3.1: Interoperability of transport models

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
3.1 Interoperability of transport models	2,3	2,5	2,9	Increase

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Responses about specific objective 3.1 were collected from seven respondents in five countries. The overall progress is positive, however the pace should be accelerated in order to meet the target of 2.9 set in 2014. The target is relatively low and not excessively distant from the current situation, therefore it is still possible that it will be attained with a slight enhancement of efforts.

The picture is mixed when it comes to the single dimensions, with dimension 3 recording a slight worsening, dimension 1 sees no improvement, dimensions 2 and 5 enjoyed only limited progress, but dimension 4 has seen the largest increase from its low starting point, and is now very close to the target.

Table 10: Baseline and updated values summary for SO 3.1 Interoperability of transport models

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,3	
	Milestone 2018	2,5	Change +9%
	Target set in 2014	2,9	Progress 33%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	2,6	
	Milestone 2018	2,6	Change +0%
	Target set in 2014	3,0	Progress 0%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	2,1	
	Milestone 2018	2,3	Change +10%
	Target set in 2014	2,9	Progress 25%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,4	
	Milestone 2018	2,3	Change -4%
	Target set in 2014	3,0	Progress -17%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	1,9	
	Milestone 2018	2,3	Change +21%
	Target set in 2014	2,4	Progress 80%
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	2,5	
	Milestone 2018	2,7	Change +8%
	Target set in 2014	3,2	Progress 29%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

There is sufficient knowledge available at the national levels, especially, for simple transport chains like road transport. Less knowledge is observed locally and among the general public. Also where it comes to intermodal chains the knowledge is assessed as not sufficient. As to the BSR countries the knowledge is more or less the same among them.

The knowledge transfer mechanisms function differently in various countries and these mechanisms depend greatly on the overall public administration, but the communication between various levels of governance, in particular. These mechanisms are performing better in the Scandinavian countries and Germany, whereas in Poland and the Baltic states there are some problems observed. Other factors for success are stakeholder involvement and resources.

Dimension 2: Improved governance structures and organisational set-up

TEN-T policy has its own organisational set-up in a form of various forums and substructures around the main transport corridors. It has been indicated by an interviewee that the circles are comparatively closed and would not necessarily represent all the interests. The governance structures are also present at various levels such as the EU level, national levels and even further down to the regions.

The TEN-T policy being implemented through transport corridors does not incorporate all the potential aspects of the overall transport policy. This especially regards such disciplines as the environment and its quality, new modes of transportation, interoperability with the public transportation on the national levels.

Dimension 3: More efficient use of human and technical resources

In transportation there is a high level of remuneration in the private sector, which makes it challenging for the public sector to attract highly qualified human resources. Nevertheless, the availability of the human resources is satisfactory. In the Baltic countries a lot of experienced experts have left the public administration to work for the Rail Baltic project creating the situation where the junior ones left behind now overtake their responsibilities including their supervision.

Various sub-sectors of transportation have different situations with the use of human and technical resources. The aviation is seen as the most advanced and progressing, whereas the railways experience difficulties. One explanation for this is that aviation is very international and compatible, while railways are still often difficult to connect transnationally. Efforts to introduce Pan-European railways are fragmented in the BSR.

Dimension 4: Better ability to attract new financial resources

From the perspective of private financial institutions the transport objects are seen as the most attractive projects for funding because usually they are guaranteed by the state governments. Such projects would normally also have historic data that prove their feasibility. There are plenty of mechanisms available. They are comprehensible and well-worked out. It means there are no major problems with the funding, including the private one.

At the same time the capabilities and skills for implementing these projects are sometimes insufficient. The direct EU funding is being reduced in order to utilise the private funding. The private funding, however, is not a solution for all the problems, for example, transportation to/from and within the scarcely populated areas.

Dimension 5: Increased capability to work in transnational environment

The ability to work in transnational environment is overall satisfactory. There are various structures, groups and forums to work within the BSR. Despite that the cooperation in the transportation area is not that comprehensive, if compared, for example, with the environmental sector. A number of practical

impediments exist that does not always allow for international cooperation other than soft projects. Cooperation would normally take place within the projects.

Regular international contacts are being maintained mostly by the national institutions, which have appropriate capacities. The intensity of the cooperation though is rather low.

2.9 Specific objective 3.2: Accessibility of remote areas and areas affected by demographic change

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
3.2 Accessibility of remote areas and areas affected by demographic change	2,8	2,8	3,8	Constant. Target is far from reach

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Results for SO 3.2 are based on seven responses from experts in six countries.

Accessibility of remote areas and areas affected by demographic change is the only SO for which no improvement was recorded with respect to the 2014 baseline values. Without considering the effect of the rounding, the measure has actually decreased slightly, and is placed between 2.7 and 2.8. All but one dimensions have witnessed a slight deterioration of the situation when compared to 2014.

By analysis feedback from experts, a possible explanation to the fact that this SO has deteriorated, is the perception that demographic change is progressing at a faster pace than public authorities are able to react, therefore making the existing improvement – in terms of organisational structures as well as technological innovations – insufficient and undersized with respect to the growing magnitude of the phenomenon. Some interviewees also highlight that there is little time to work on long-term challenges such as demographic change, as they are working mostly on short-term organisation of services (e.g. public transport). Other interviewees mention that there is "a lack of knowledge of the population in the areas", training and awareness raising is needed. In general, there seems to be a lack of awareness and interest of relevant stakeholders in remote and sparsely populated areas, concentrating rather on solving problems in areas with high traffic and high demand.

The only dimension presenting an improvement, albeit small, is the capacity to improve governance structures and organisational set-up.

Table 11: Baseline and updated values summary for SO 3.2 Accessibility of remote areas and areas affected by demographic change

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,8	
	Milestone 2018	2,8	Change +0%
	Target set in 2014	3,8	Progress 0%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	2,9	
	Milestone 2018	2,7	Change -7%
	Target set in 2014	4,2	Progress -15%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	2,7	
	Milestone 2018	2,9	Change +7%
	Target set in 2014	3,7	Progress 20%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,8	
	Milestone 2018	2,6	Change -7%
	Target set in 2014	3,7	Progress -22%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	2,7	
	Milestone 2018	2,5	Change -7%
	Target set in 2014	3,5	Progress -25%
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	3,2	
	Milestone 2018	3,0	Change -6%
	Target set in 2014	4,0	Progress -25%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

The interviewee admitted that there is some knowledge around, but the challenge remains as it is difficult to find cost-efficient solutions to serve the remote areas. The size and characteristics of the issue is varied all over the region; however, the common problem of some parts depopulating and thus creating problems for public service providers remains the same. Nevertheless, the countries do not have much practical cooperation on this issue. This is perhaps due to the specificity and long-term character of the problem in each the country which does not allow for standard solutions.

Some countries see the increase in public administration capacity via national territorial administration reforms as a necessary prerequisite to start solving the problem. At the same time despite the available knowledge and mechanisms for its transfer, the knowledge cannot be fully utilised due to the financial

constraints. The countries seem to be somewhat clueless on how to handle the remote areas not imposing inadequate costs to the budget.

Dimension 2: Improved governance structures and organisational set-up

While some countries claim they have a good governance structure, they also admit that the structure is there for solving transportation problems, rather than long-term demographic ones. The problems seem to be easier to solve in the countries having smaller geographic areas with the people living more compact, whereas the countries having vast areas with little population face enormous challenges. For some of them the new technologies promise certain solutions.

The existing governance structures may not be perfect, but they are utilised frequently. The responsibilities are being divided between the state and the municipal levels. The relevant strategies and mobility plans are being elaborated with the national, regional and local levels cooperating and sharing infrastructure costs.

Dimension 3: More efficient use of human and technical resources

The efficiency of use of human and technical resources varies between the countries, but overall it is seen as not very satisfactory. The traditional technical resources like transportation are coming at too high costs. At the same time also the new technologies take some time before they become affordable. One good example is a coverage of the mobile phones which nowadays becomes an integral part of the infrastructure.

The overall sentiment in the region; however, is that the use of resources in areas that provide fewer and fewer customers is not sound.

Dimension 4: Better ability to attract new financial resources

The traditional private transport companies have no much interest in going into the less populated and remote regions, unless there are public funds available. The public authorities have to weigh carefully the budget spending on this problem. For some countries it is not an issue of available budgets, but rather a precaution against overheating the local economies.

Dimension 5: Increased capability to work in transnational environment

There is some transnational cooperation going on in some of the countries of the BSR especially those having common physical borders and common spoken language roots, like Latvia and Estonia cooperating on the border areas and the Scandinavian countries. The local authorities of the border area have long-standing traditions of mutual cooperation via the cross-border cooperation projects.

2.10 Specific objective 3.3: Maritime safety

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
3.3 Maritime safety	2,5	2,8	3,4	Increase

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Answers for SO 3.3 were collected from three sectoral experts in three different countries. The number of responses is low and should be interpreted with caution. Overall, there has been an increase in the indicator, however the current growth rate is slightly too low to reach the goal for 2023.

The picture for this SO is peculiarly mixed, with dimensions 2 and 3 seeing a slight decrease, dimension 1 showing little progress, dimension 5 solidly on track to reach the goal, and dimension 4 presenting the single highest increase in all analysed dimensions across all SOs, and covering more than twice the distance from its target, resulting in also being the only dimension in any SO to reach and pass its set target for 2023. However, it is to be noted that, as detailed in the relevant paragraph below, interviews have shown that for this dimension there are notable differences across different countries and sectors, and therefore the result could be influenced by the small size of the sample.

Table 12: Baseline and updated values summary for SO 3.3 Maritime safety

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,5	
	Milestone 2018	2,8	Change +12%
	Target set in 2014	3,4	Progress 33%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	2,5	
	Milestone 2018	2,7	Change +8%
	Target set in 2014	3,6	Progress 18%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	2,4	
	Milestone 2018	2,2	Change -8%
	Target set in 2014	3,5	Progress -18%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,5	
	Milestone 2018	2,3	Change -8%
	Target set in 2014	3,8	Progress -15%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	1,9	
	Milestone 2018	3,4	Change +79%
	Target set in 2014	2,6	Progress 214%

		Estimated value (average)	% increase / progress toward target
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	2,9	
	Milestone 2018	3,3	Change +14%
	Target set in 2014	3,6	Progress 57%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

The interviewees assess the knowledge that is available as only basic. As the overall area is very complex, in some areas there might be more knowledge, while in the others there is less. The knowledge transfer mechanisms are regarded as satisfactory. It has been also admitted that this kind of knowledge is rather difficult to transfer, which leads to a situation where each the institution involved has to think about the most appropriate means of capacity building for themselves.

Nevertheless, it has been recognized that the countries have to make more efforts on knowledge exchange, especially, on sharing the knowledge that is being created within the projects such as INTERREG. One potential way of doing this is creating a web platform instead of flagship projects where all the knowledge created in certain area is being stored and available to all interested parties. There are already first attempts by the project to introduce this approach.

Dimension 2: Improved governance structures and organisational set-up

The governance structures are available. Their cooperation is much more inside the country rather than transnationally. Every national or regional institution has its own tasks and agenda, with the international cooperation not always being a topicality. The existing organisational set-up is frequently utilised; however, more commitments should be anticipated for international cooperation as the issue cannot be solved without it.

Dimension 3: More efficient use of human and technical resources

The situation with the human resources is deemed as not satisfactory, even difficult. Knowledgeable human resources are limited. At the same time the use of the limited resources is deemed as good.

What concerns the technical resources, the interviewees recognize that there are really good technical resources available, but they are insufficiently utilised.

Dimension 4: Better ability to attract new financial resources

Ability to attract private finances is estimated as mixed. In some industries and some countries the private companies are more willing to participate, whereas in the others not that much yet. Most often

the participation would be in some strictly technical areas, which are usually very costly. If private companies see immediate or longer-term benefits for them they would gladly involve. It is; however, different in different countries. The increase compare to the baseline value is striking but cannot be fully explained by the interviewees.

Public authorities are very well aware of what public finances are available. The practitioners utilize ERDF, ESF and also INTERREG funding.

Dimension 5: Increased capability to work in transnational environment

There is a common language and organisations are geographically mobile. Thus the ability to cooperate is good and contacts are frequent. The intensity can also been characterised as high.

2.11 Specific objective 3.4: Environmentally friendly shipping

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
3.4 Environmentally friendly shipping	2,9	3,2	3,8	Increase

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Questionnaires for SO 3.4 have been completed by four respondents in four different countries. Overall, there has been an increase in the indicator's value, albeit small.

The picture for each dimension shows different patterns, with dimension 2 slightly deteriorating with respect to 2014, dimensions 3 and 5 bearing small increases, and dimensions 1 and 4 making substantial progress.

Table 13: Baseline and updated values summary for SO 3.4 Environmentally friendly shipping

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,9	
	Milestone 2018	3,2	Change +10%
	Target set in 2014	3,8	Progress 33%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	2,5	
	Milestone 2018	3,3	Change +32%
	Target set in 2014	3,5	Progress 80%

		Estimated value (average)	% increase / progress toward target
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	3,0	
	Milestone 2018	2,8	Change -7%
	Target set in 2014	3,8	Progress -25%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	3,1	
	Milestone 2018	3,2	Change +3%
	Target set in 2014	3,9	Progress 13%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	2,4	
	Milestone 2018	3,0	Change +25%
	Target set in 2014	3,5	Progress 55%
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	3,3	
	Milestone 2018	3,6	Change +9%
	Target set in 2014	4,1	Progress 38%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

The interviewee regards that techniques and solutions are available to different degree to the various areas of this specific objective. The overall aim is very complex and thus the stakeholders are struggling to work for it as sometimes clear strategies are missing. For example, the alternative fuels is a 'hot' issue right now and would need a lot of risky investments into the research; however, it might turn out that the investments are lost with appearance of other new technologies. Too often the research done by public institutions is not linked to the actual business needs.

An overarching European platform is missing, which would direct knowledge transfer and innovation towards common and agreed goals. Lack of such platform means that presently the research done and investments made are not well-considered and coordinated.

Dimension 2: Improved governance structures and organisational set-up

A certain organisational set-up exists having relevant governance structures; however, they are hardly compatible within the region and thus the cooperation is sporadic. The most developed are structures for shipping in the sea and ocean, whereas inland waterways are somewhat overlooked. The existing structures are comparatively well used.

Dimension 3: More efficient use of human and technical resources

Availability of human resources is rather good, but too often their efficient use is determined by limited financial resources. The situation with availability of technical resources is also deemed as good, but too dependent on financial constraints. Too much bureaucracy might sometimes cause inefficiency of the use human and technical resources, especially, in the eastern countries of the BSR.

Dimension 4: Better ability to attract new financial resources

Public authorities, practitioners and researchers are able to attract various public resources. It is difficult; however, with the private ones. Partly this problem persists due to strict public procurement regulations, which do not allow for prompt and efficient cooperation between the public and private investors.

Dimension 5: Increased capability to work in transnational environment

Geographical mobility has increased a lot due to low travel costs and well-developed infrastructure. Using a common language is sometimes still a challenge, especially in the eastern countries of the region. Due the transnational cooperation programmes, a profound intercultural basis has been developed.

2.12 Specific objective 3.5: Environmentally friendly urban mobility

Overview capacities	Baseline Value (2014)	Milestone (2018)	Target Value (2023, established in 2014)	Comments
3.5 Environmentally friendly urban mobility	2,7	3,2	3,5	Sizeable increase, target in reach

Source: Spatial Foresight survey to thematic experts (May-June 2018)

The survey for SO 3.5 has been completed by four respondents in four countries.

The overall value shows promising progress which, if the current pace is maintained, will lead to the reaching of the overall target in advance of 2023. All dimensions present increases, however it is dimensions 4 and 5 that show the largest improvements, allowing for the targets to be reached in these two cases. The lowest improvement is found in dimension 2.

Table 14: Baseline and updated values summary for SO 3.5 Environmentally friendly urban mobility

		Estimated value (average)	% increase / progress toward target
Overall	Baseline 2014	2,7	
	Milestone 2018	3,2	Change +19%

		Estimated value (average)	% increase / progress toward target
	Target set in 2014	3,5	Progress 63%
Dimension 1: Enhanced institutionalised knowledge and competence	Baseline 2014	2,9	
	Milestone 2018	3,3	Change +14%
	Target set in 2014	3,8	Progress 44%
Dimension 2: Improved governance structures and organizational set-up	Baseline 2014	2,9	
	Milestone 2018	3,0	Change +3%
	Target set in 2014	3,5	Progress 17%
Dimension 3: More efficient use of human and technical resources	Baseline 2014	2,9	
	Milestone 2018	3,1	Change +7%
	Target set in 2014	3,5	Progress 33%
Dimension 4: Better ability to attract new financial resources	Baseline 2014	2,2	
	Milestone 2018	2,9	Change +32%
	Target set in 2014	2,9	Progress 100%
Dimension 5: Increased capability to work in transnational environment	Baseline 2014	2,8	
	Milestone 2018	3,8	Change +36%
	Target set in 2014	3,8	Progress 100%

Source: Spatial Foresight survey to thematic experts (May-June 2018)

Detailed comments from survey and interviews

Dimension 1: Enhanced institutionalised knowledge and competence

There is a good knowledge available, especially, in the big cities. A great number of policy, NGO and professional networks are working together on urban mobility issues. Decisions by policy-makers are well-informed and usually based on local, sector-wide, cross-border surveys and/or analysis. At the stage of implementation of projects and/or technical solutions, the responsible employees seek advice and recommendations from various partners and/or stakeholders.

At the same time the transfer of knowledge and competencies among participants is assessed as rather slow, especially between business and authorities. Some basic tools exist, but they are cumbersome to use. Thus much of the knowledge transfer is through informal channels that do not guarantee accuracy. People learn by doing, face-to-face meetings, on the job trainings. They make good use of best practice databases and other on-line tools, expert systems, brainstorming sessions, conferences, seminars, etc.

Organizations can easily use new knowledge. But when an integrated approach is required, it is difficult to establish cooperation with partners. This seriously hampers the process of using new knowledge.

Dimension 2: Improved governance structures and organisational set-up

Organizational structures are comparatively well organized in business companies and academic institutions. Staff can and does participate in on-line platforms, live meetings when needed. However this is hardly the case in the public sector, where, although variety of structures exists, in reality they are rarely efficient.

Dimension 3: More efficient use of human and technical resources

Overall the human resources are good and highly skilled. They are better; however, in some areas of the region, for example, Norway. Other respondents complain about the lack of planning and development for the systematic use of resources, admitting at the same time that competencies are good.

The availability of technical resources is also good and greatly they are also being efficiently utilized. Some countries; however, are more productive than the others. Lack of relevant human capacity for a better use of technical resources has been mentioned in some countries.

Dimension 4: Better ability to attract new financial resources

Cooperation on mutual funding of the projects sectors has increased in the recent years. Private public partnerships and cooperation between the business and academic institutions on R&D is in place. Some countries offer a big mix of various and sometimes also quite complicated policy instruments that result in PPSs for urban bikes and/or charging systems for electric fleet as an example.

Dimension 5: Increased capability to work in transnational environment

There are numerous good examples of transnational cooperation. Not only business and R&D institutions are willing and capable to establish, maintain contacts and work internationally. Cross-border practices and experiences within the last few years have markedly increased on municipal and government levels. At the same time, such cooperation still has a room for improvement on the regional, pan-Baltic and pan-European levels.

3 Annex

List of Interviews

Specific Objective	Interviewee	Organisation
1.1 Research and innovation infrastructure	Cecilia Johansson	Agency for Economic and Regional Growth, Sweden
1.2 Smart specialisation	Martins Jansons	Ministry of Economics, Latvia
1.3 Non-technological innovation		
2.1 Clear waters	Kaj Forsius	Finnish Environmental Institute
2.2 Renewable energy	Liisa Ruuder	Ministry of Economic Affairs and Communications, Estonia
2.3 Energy efficiency	Madis Laaniste	Ministry of Economic Affairs and Communications, Estonia
	Wolfgang Schulz	Ministerium für Wirtschaft, Verkehr, Arbeit, Technologie und Tourismus des Landes Schleswig-Holstein, Germany
2.4 Resource-efficient blue growth	Tobias Grindsted	Danish Nature Agency
	Joanna Przedrzymirska	Maritime Institute in Gdansk, Poland
3.1 Interoperability of transport models	Talis Linkaits	Spatial Planning Initiative VASAB located in Riga, Latvia
3.2 Accessibility of remote areas and areas affected by demographic change	Henrik Severin Hansen	Danish Regions
3.3 Maritime safety 3.4 Environmentally friendly shipping	Linas Kasparavičius	Lithuanian Maritime Safety Administration
	Cilia Sonne Allermann	Danish Maritime Authority
3.5 Environmentally friendly urban mobility	Tore Leite	Ministry of Local Government and Modernisation - planning department, city development section, Norway
TOTAL	**13**	

Detailed results (Up-date Milestone 2018)

Charac-teristic / Specific Objective	1.1		1.2		1.3		2.1		2.2		3.1		3.2		3.3		4.1		4.2		5.1		5.2		5.3		Overall	
	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev	Avg	Dev
1.1	3,0	0,0	2,7	1,2	2,7	0,6	3,3	0,6	3,0	1,0	3,0	1,0	3,3	1,2	3,0	1,0	2,3	0,6	3,0	1,0	3,7	0,6	3,0	1,0	2,7	0,6	3,0	0,8
1.2	3,4	0,9	4,0	0,7	3,0	0,7	3,8	0,4	3,2	0,8	3,4	0,5	3,4	0,5	3,5	0,6	3,0	1,0	3,8	0,4	3,2	0,8	3,4	0,9	3,2	0,8	3,4	0,7
1.3	3,3	0,6	3,3	1,2	3,0	1,0	3,3	0,6	3,3	1,2	3,3	1,2	2,7	0,6	3,0	1,0	2,7	0,6	3,7	0,6	3,0	1,0	3,7	0,6	3,0	1,0	3,2	0,8
2.1	3,2	0,8	2,8	0,8	2,8	0,8	3,0	1,0	2,8	1,0	2,8	1,0	2,8	1,1	2,3	1,0	2,6	1,3	2,6	1,1	3,2	0,8	3,0	1,0	3,4	0,9	2,9	1,0
2.2	3,3	0,8	2,6	0,8	2,7	1,1	3,0	1,2	2,7	1,0	2,7	1,0	3,0	0,6	2,6	0,8	2,6	0,8	2,7	0,8	3,4	0,8	3,0	1,4	2,6	1,0	2,8	0,9
2.3	3,5	0,7	3,5	0,7	2,5	0,7	3,5	0,7	2,5	0,7	2,5	0,7	2,5	0,7	3,0	1,4	2,5	0,7	3,0	1,4	3,0	1,4	3,5	0,7	3,0	1,4	3,0	0,9
2.4	2,9	0,8	2,8	1,0	2,9	0,6	2,9	1,0	2,6	0,9	2,9	0,8	2,6	0,7	2,8	0,7	2,3	0,7	2,6	0,5	3,6	0,9	3,4	1,1	3,4	1,1	2,9	0,8
3.1	3,3	1,0	2,7	0,8	2,5	1,0	2,3	0,5	2,3	0,5	2,7	1,0	2,2	0,8	2,2	0,4	1,8	1,2	2,7	1,2	3,0	1,1	2,7	0,5	2,3	0,8	2,5	0,8
3.2	3,0	0,9	2,7	0,8	2,5	0,8	3,3	0,8	2,5	0,9	2,9	0,8	2,5	1,1	2,4	1,1	2,0	0,9	3,0	0,9	3,0	1,1	3,3	0,7	2,9	1,0	2,8	0,9
3.3	3,0	1,0	2,3	0,6	2,7	1,2	2,3	1,2	2,0	1,0	2,3	0,6	2,7	0,6	2,0	0,0	3,5	0,7	3,3	0,6	3,3	1,2	3,3	0,6	3,3	0,6	2,8	0,7
3.4	3,3	0,5	3,0	0,8	3,8	0,5	3,0	0,8	2,5	0,6	3,3	1,0	3,3	1,0	3,0	0,0	2,3	0,6	3,5	1,3	3,8	0,5	3,5	1,0	3,5	1,3	3,2	0,8
3.5	3,5	0,6	3,3	1,0	3,0	0,0	3,3	0,5	2,8	1,0	3,5	0,6	3,0	1,4	2,8	0,5	2,5	1,9	3,3	1,0	4,0	0,0	3,5	0,6	4,0	0,0	3,3	0,7
Total	3,2	0,8	2,9	0,9	2,8	0,8	3,1	0,9	2,7	0,9	2,9	0,8	2,8	0,9	2,6	0,8	2,4	1,0	3,0	0,9	3,3	0,9	3,2	0,9	3,1	1,0	2,9	0,9