



Interim evaluation of Twinning and ERA Chairs in Horizon 2020



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European Commission
Directorate-General for Research and Innovation
Directorate B — Open Innovation and Open Science
Unit B.5 — Spreading excellence and widening participation
Contact Annamaria Zonno
E-mail Annamaria.zonno@ec.europa.eu
RTD-PUBLICATIONS@ec.europa.eu
European Commission
B-1049 Brussels

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EUROPEAN COMMISSION

Interim Evaluation of Twinning and ERA Chairs in Horizon 2020

edited by

COWI

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1. ABSTRACT

The Twinning and ERA Chairs programmes were created under Horizon 2020 and FP7 to strengthen and develop research excellence in low-performing Member States. The ERA Chairs programme focuses on the appointment of excellent international researchers to institutions in low-performing Member State. The Twinning programme facilitates the establishment of collaboration between the coordinating institution and two or more high-profile international institutions. The objectives of both programmes are to enhance the coordinating institutions' research excellence, their networking capabilities and their ability to compete for international funding. Furthermore, the ERA Chairs programme focuses on implementing the European Research Area priorities at the hosting institutions.¹

This interim evaluation of the ERA Chairs and Twinning programmes, carried out by COWI, presents the findings of the evaluation covering the programmes' achievements, relevance, effectiveness, efficiency, coherence, EU added value, and lessons learnt.

The interim evaluation concludes that both the Twinning and the ERA Chairs programmes have been, to date, a success. The projects have been achieving results according to the programmes' objectives and are proceeding according to plan. Both programmes are, albeit with a separate focus, addressing previously unmet needs of the institutions enabling the institutions to enhance their networking, scientific and institutional capabilities.

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¹ For more information on European Research Area priorities: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0392&from=en>. Accessed on 06-12-2016.

2. EXECUTIVE SUMMARY

This interim evaluation of the ERA Chairs and Twinning programmes was carried out by COWI A/S in August-November 2016 and focused exclusively on approved projects. The duration of the ERA Chairs projects is five years and the Twinning projects will be completed within three years. For both actions, most of the projects are in their first year of implementation.

Based on a methodological approach that employs three research methods – a desk study, a survey questionnaire and 14 qualitative interviews – this report investigates evaluation questions regarding the programmes' achievements, relevance, effectiveness, efficiency, coherence and EU added value.

2.1. Achievements: impacts and results

2.1.1. ERA Chairs

The objective of the ERA Chairs programme is to increase the attractiveness of the coordinating institutions for international high-profile researchers. The ERA Chairs programme is expected to support the coordinating institutions in increasing research excellence, improving competitiveness and ensuring institutional changes within the ERA priorities, including openness and transparency. The objectives of the ERA Chairs programme will be achieved by appointing an international high-profile researcher to work as Chair holder within the coordinating institute. The questionnaire survey reveals that the majority (70%) of ERA Chairs projects are in the process of delivering upon their expected results. For instance, the main result mentioned in the qualitative interviews was the recruitment of the Chair holder and research team. Almost three out of four Chair holders are recruited from the EU Member States.

2.1.2. Twinning

The objectives of the Twinning programme are to strengthen research excellence and to increase the reputation, attractiveness and networking capabilities of the coordinating institute. The objectives of the Twinning programme will be achieved by facilitating networking activities between the coordinating institute and international high-profile research institutions. The questionnaire survey reveals that the majority of Twinning (80%) projects are achieving the expected results. In view of the early stage of implementation, the establishment of cooperation between the Twinning collaborating institutions was highlighted as the most important result achieved so far. Currently the institutions are preparing conferences, staff exchanges or submitting publications or grant applications.

When looking at supporting networking capacities and opening new opportunities of cooperation of the targeted institutions, it is to be noted that in about half of the Twinning projects, the collaborating institutions were part of a network before the Twinning collaborations. In 40% of the projects, one institution was part of the network and the other was not. In 12% of the projects, none of the collaborating institutions were part of the institution's network.

2.2. Relevance

2.2.1. ERA Chairs

It can be concluded that the ERA Chairs programme is highly relevant to the needs of the coordinating institutions. The survey shows that a large majority believe that the objectives correspond to the overall needs and challenges of the coordinating institutions. 94% of the ERA Chairs respondents concur with this to a very high or a high degree. The survey and the qualitative interviews show that the project coordinators and Chair holders believe that the cost of research, which is presently not covered, is nonetheless relevant and should be covered.

2.2.2. Twinning

It can be concluded that the Twinning programme is highly relevant to the needs of the coordinating institutions. The survey shows that a large majority finds the objectives to correspond to the overall needs and challenges of the coordinating institutions. 95% of the Twinning project coordinators concur with this to a very high or a high degree. However, the project coordinators find that the cost of research, which is presently not covered, is nonetheless relevant and should be covered.

2.3. Effectiveness

2.3.1. ERA Chairs

From the questionnaire survey and qualitative interviews it can be concluded that the projects are attaining the expected results and that some results have already been achieved. The majority of the ERA Chair coordinators and Chair holders believe that the ERA Chairs programme has enabled the institutions to attract international high profile researchers to the institutions and enhanced competitiveness and networking capabilities. The qualitative interviews showed that the ERA Chair holders share the concern for the sustainability of the projects and wish to know about the future of the projects after the end of the grant.

2.3.2. Twinning

It can be concluded that the projects are attaining the expected results and some results have already been achieved. The majority of the Twinning projects have achieved results such as establishing partnerships with the collaborating institutions, and find that the institution's capabilities in networking and competing for international funding have been increased.

2.4. Efficiency

2.4.1. ERA Chairs

The questionnaire survey showed that 65% of the ERA Chairs survey respondents find that the budgets are adequate to achieve the desired effects. The qualitative interviews showed that the project coordinators perceive national bureaucracy to be cost intensive e.g. the administrative cost of recruiting foreign researchers for the ERA Chair holder's research group is high.

2.4.2. Twinning

The questionnaire survey showed that 68% of the Twinning project coordinators find that the eligible costs are adequate for achieving the desired effects of the programmes. The project coordinators find that the projects are progressing according to the planned budget.

2.5. Coherence

2.5.1. ERA Chairs

The questionnaire survey shows that the majority of the coordinating ERA Chairs institutes receive funding from other EU sources. Furthermore, the survey and qualitative interviews show that the project coordinators perceive the ERA Chairs programme to be highly complementary with other EU, regional, national or international interventions. The ERA Chairs programme thus addresses needs of the institutions that have not been met previously.

2.5.2. Twinning

The questionnaire survey shows that the majority of the coordinating Twinning institutes receive funding from other EU sources. The project coordinators perceive the ERA Chairs and Twinning programmes to be highly complementary with other EU, regional, national or international interventions. The Twinning programme addresses needs of the institutions that have not been met previously.

2.6. EU Added Value

2.6.1. ERA Chairs

The questionnaire survey and the qualitative interviews show that the projects are expected to provide additional value compared with what could have been achieved through national or regional funding. **According to the interviewees, the most important EU added value is their increased attractiveness to international researchers and institutions as well as increased capacity to compete for international funding.** If the projects were funded from national or regional sources, these results would not have been achieved. The ERA Chairs facilitate collaborations with international high profile researchers, which enables the coordinating institutions to be visible actors at the international level. An example of this is how the interviewed project coordinators noted that an increased number of foreign researchers or students are visiting the hosting institutions for collaborations.

2.6.2. Twinning

The questionnaire survey and the qualitative interviews indicate that the projects are expected to result in additional EU value. According to the interviewees, the most important added value is the increased international attractiveness of the institutions, international networking capabilities and increased competitiveness. These results would not have been achieved if the projects were funded from national or regional sources. The Twinning programme enables the coordinating institutions to be acknowledged at the international level.

2.6.3. Lessons learnt and conclusions

The above evaluation findings of the ERA Chairs and Twinning programmes achievements, relevance, effectiveness, efficiency, coherence and EU added value highlight a number of lessons and conclusions.

A lesson regarding the relevance of the ERA Chairs and Twinning projects is that the coordinating institutes are concerned with how to ensure research funding in the application process. Moreover, the Chair holders at the early stage of the implementation process are concerned about the sustainability of the projects, and they believe that the future of the projects after the grant's completion is unsure.

A lesson regarding the efficiency of the ERA Chairs projects is that factors external to the projects influence their cost-effectiveness. This concerns barriers posed by national bureaucracy e.g. when recruiting foreign researchers to the research teams.

A lesson regarding the effectiveness of the projects is that some of the Twinning institutions are experiencing for the first time the management of a large scale project. While the extent of this challenge was not expected, the project coordinators are valuing the learning outcome and perceive the challenges to be overcome.

2.6.4. Recommendations

We recommend that the coordinating institutions be encouraged to apply for the EU Structural Funds to ensure that the non-salary costs of research related to the Twinning

or ERA Chairs projects are covered. For future calls, we recommend that the coordinating institutions consider how to ensure funding of non-salary costs of research in the starting period for the projects.

For future Twinning calls, we recommend that the eligible travel costs be specified and clarified in the grant agreement to avoid that collaborating institutions interpret the rules differently.

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3. INTRODUCTION

The interim evaluation of the ERA Chairs and Twinning programmes was carried out by COWI A/S in the period August-November 2016.

This evaluation report presents the background and purpose of the ERA Chairs and Twinning evaluation. The report then briefly outlines the evaluation methodology in which three methodological tools have been applied: desk research, a questionnaire survey and qualitative interviews. The evaluation findings are then presented including the answers to the evaluation questions, which follow the evaluation criteria (i.e. achievements, relevance, effectiveness, efficiency, coherence, EU added value and lessons learnt). The final section of the report provides conclusions and recommendations.

3.1. Background

The ERA Chairs and Twinning programmes were created under FP7 and Part IV of Horizon 2020, Spreading Excellence and Widening Participation (SEWP). The overall objective of Horizon 2020 is to increase and develop research excellence in EU regions. Under Horizon 2020, SEWP aims at unlocking research excellence in the Widening countries, which are low-performing Member States and Associated Countries. The specific objectives of the ERA Chairs and Twinning programmes is to strengthen the networking capabilities of the research institutions located in the Widening countries with a focus on facilitating transnational collaboration with respectively international high-profile researchers and institutions. Through this, the institutions in the Widening countries are expected to experience increased participation in Horizon 2020 and inclusion into the realization of the European Research Area.

Under SEWP, 67 Twinning projects have been approved, each with an allocation of about 1,000,000 EUR. 14 ERA Chairs projects have been approved under SEWP and have been allocated approximately 2,500,000 EUR each. Under FP7, 11 ERA Chairs projects have been selected. Most of the Twinning projects have been active for more or less one year, whereas most of the ERA Chairs projects under H2020 started in July 2015 and under FP7 in July 2014. The Twinning projects are planned to last for three years and the ERA Chairs projects will last five years.

The ERA Chairs programme facilitates the recruitment of excellent international researchers to work in institutions located in the low-performing widening countries. The ERA Chairs programme provides funding for establishment of research teams supervised by the Chair holder.

The Twinning programme seeks to enable and develop transnational collaboration between institutions in the Widening countries and international leading institutions. The programme provides funding for various collaborative research activities such as staff exchange, experts' visits, workshops, conferences, summer schools, dissemination and outreach activities.

3.2. Purpose

The overall purpose of this interim evaluation is to provide DG RTD with evaluation results focused on the progress and achievements of the projects in an early stage of their implementation process. The interim evaluation also assesses the likely success of the implementation of the projects. Doing so, the interim evaluation will provide information on the achievements, relevance, effectiveness, efficiency, coherence, EU added value and lessons learnt under the ERA Chairs and Twinning programmes. The following evaluation criteria will guide the analysis:

Achievements concerns the initial short-term effects and long-term effects on society. The initial short-term effects focuses on the results and impacts of the projects achieved so far as well as on the progress towards achieving results. Specific indicators for results of ERA Chairs and Twinning are e.g. new publications sent to peer review, new researchers or PhD's hired or organisation of specific research activities.

Relevance is the extent to which the objectives of the ERA Chairs and Twinning interventions have been relevant to the issues and needs described above. As the projects are in an early stage of implementation and assessed according to newly agreed objectives, the assessment is of whether the project seems more or less relevant than expected at its start.

Effectiveness is the extent to which the objectives are achieved. The effectiveness of Twinning and ERA Chairs is assessed according to how the interventions are coordinated and linked with the strategies of the coordinating institutes. Furthermore, the achievement of aspects such as gender balance, open and merit based recruitment systems, and developing research performance are also considered.

Efficiency is the extent that the effects of the ERA Chairs and Twinning projects are achieved at the lowest possible cost.

Coherence is about how well different actions work together. We explore if the ERA Chairs and Twinning actions are complementary or overlapping with other activities funded at EU, regional or national level.

EU added value concerns the additional value of the ERA Chairs and Twinning actions compared with what the added value would be if the projects were nationally or regionally funded.

4. METHODOLOGY

The methodology applied in this interim evaluation is based on three sources: Desk research, a questionnaire survey and qualitative interviews. The evaluation questions are answered on the basis of information originating from these three sources.

4.1. Desk research

Existing background material has been reviewed by COWI in a desk study. Various Twinning and ERA Chairs materials have been reviewed, among others the H2020 Work Programme² and the Horizon 2020 Indicators made available through the website of DG Research & Innovation or received directly from DG RTD. This has provided the preliminary information on the Twinning and ERA Chairs actions under Part IV of Horizon 2020, Spreading Excellence and Widening Participation (SEWP). This information includes information on the relevant indicators.

Applications from the funded projects made available through CIRCABC² have been studied. These have provided information on the specific projects under the Twinning and ERA Chairs actions. Furthermore, the reviewed documents have contributed to the assessment of various evaluation questions, among others the factual evidence of the implementation of the Horizon 2020 specific objective(s) as well as the EU added value and relevance of the Twinning and ERA Chairs actions.

4.2. Questionnaire survey

Two questionnaire surveys were developed and the questionnaires sent out electronically to the project coordinators of the 67 Twinning and 25 ERA Chairs projects (including both FP7 and H2020 projects). In addition, the 25 ERA Chair holders also received the questionnaire.

The surveys covered questions on relevance, efficiency, effectiveness, coherence, EU added value, results and impacts. The surveys were furthermore designed to cover selected indicators from the Horizon 2020 indicator catalogue.

The surveys were sent out using the questionnaire tool Questback. The respondents were given four working days to respond, after which they received the first reminder. A second reminder was sent after two weeks and the survey was finally closed around a

² European Commission, Horizon 2020 Work Programme 2016-2017 - Spreading Excellence and Widening Participation.

week after. The final response rate for the ERA Chair respondents was 76% and for the Twinning respondents, 67%. Both response rates are fully acceptable compared to similar electronic surveys.

As indicated above, the ERA Chairs survey respondents included ERA Chairs project coordinators as well as the Chair holders. The answers from coordinators and Chair holders do not differ significantly. Thus, the survey results are not split between project coordinators and Chair holders.

4.3. Qualitative interviews

To investigate the evaluation questions further, 14 qualitative interviews were carried out. Six of the interviews were carried out with the project coordinators of six Twinning projects. Eight interviews were conducted with respectively the four project coordinators and four Chair holders of four ERA Chairs projects, three of which were from Horizon 2020 and one from FP7. To ensure a high degree of validity, a geographical spread among the selected countries was ensured as well as diversity in research topics. In addition to the 14 interviews, the desk in DG RTD responsible for the Twinning and ERA Chairs actions was also interviewed. All interviews were carried out by phone and lasted between 40 and 60 minutes.

Table 1: Four selected ERA Chairs projects for qualitative interviews

Action	Project number	Project title	Country	Field of research
ERA Chairs, FP7	621368	CEITEC_ERA	Czech Republic	Technology
ERA Chairs, H2020	669026	BIORISE	Cyprus	Bioinformatics
ERA Chairs, H2020	669014	PaRaDeSEC	Croatia	Astrophysics
ERA Chairs, H2020	667387	SupraChem Lab	Romania	Chemistry

Table 2: Six selected Twinning projects for qualitative interviews

Action	Project number	Project title	Country	Field of research
Twining	692097	MaXIMA	Bulgaria	X-ray breast imaging research
Twining	691818	UPTAKE	Estonia	Russian and East European studies
Twining	691942	Umi-TWINN	Hungary	Logistics systems
Twining	692162	FORWARIM	Malta	Water, Agriculture
Twining	692197	SuPREME	Poland	Renewable and Sustainable Energy
Twining	692103	eHERITAGE	Romania	Cultural Heritage, Virtual Reality

The qualitative interviews were conducted in a semi-structured way. A questionnaire guide was prepared to cover the key evaluation questions: achievements, relevance, effectiveness, efficiency, coherence, EU added value and lessons learnt.

In the following sections, the evaluation findings will be presented for each of the evaluation criteria, presented with separate findings for the ERA Chairs action and the Twinning action.

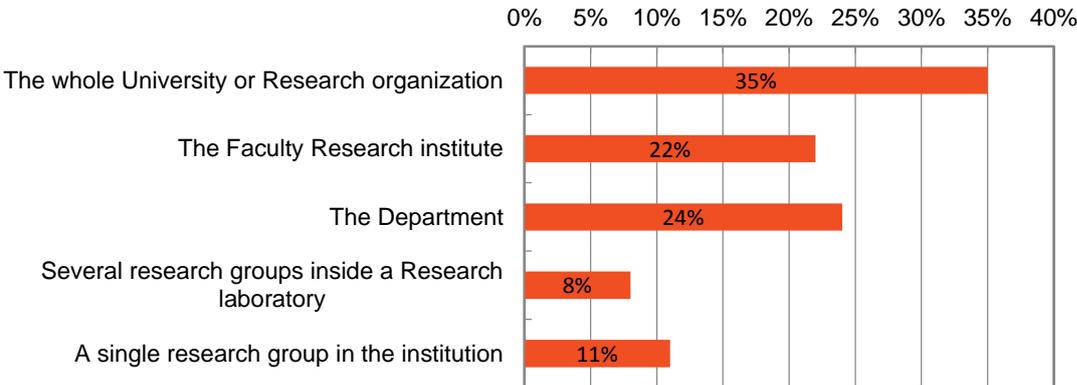
5. EVALUATION FINDINGS

5.1. The coordinating ERA Chairs institutions

About half of the ERA Chairs institutions are universities, the other half being research institutions. As shown in the table below, in 35% of the projects the entire university or research institution is directly involved in the implementation of the project. In 24% of the projects, departments are involved and for 22% of the projects, faculty research institutes.

Figure 1: Research institutions involved in ERA Chairs

2. What part of your institution (legal entity) is directly involved in the implementation of the project?



n=37

Source: COWI Twinning and ERA Chairs survey, 2016

For a majority of the institutions, between 10 and 50 senior researchers work at the selected part of the institutions, and in 23% of the institutions there are more than 50 senior researchers. A similar distribution of employed junior researchers is found. In 50% of the institutions there are between 10 and 50, and in 26%, there are more than 50 junior researchers working at the institutions. 24% of the institutions have less than 10 junior researchers.

About half of the Chair holders are affiliated to an institute that was already collaborating with the coordinating organisation. The remainder were not affiliated with an already collaborating institute.

Table 3 shows that the nationalities of the Chair holders are predominantly EU Member States (72%). Slightly less than one third comes from non-EU Member States. Out of those coming from the EU Member States there are 28%, who come from the Widening countries.

Table 3: Nationality of the ERA Chair holders

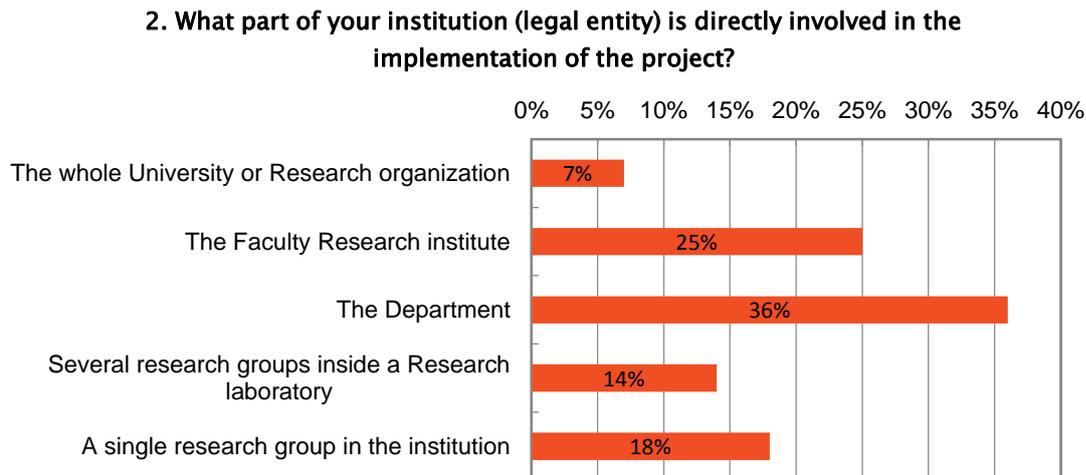
Project acronym	Project country	ERA Chair nationality
<i>ERA Chairs FP7</i>		
RE-SIZED	Belgium	Greece
CEITEC_ERA	Czech Republic	Ireland
EcoAqua	Spain	India
leapFROG M-ITI	Portugal	USA
MAGBIOVIN	Serbia	Poland
ISO-FOOD	Slovenia	United Kingdom
GRO	United Kingdom	United Kingdom
TUTIC-Green	Estonia	United Kingdom
VetMedZg	Croatia	India
BIO-TALENT	Poland	Poland
ERAdiate	Slovakia	Austria
<i>ERA Chairs H2020</i>		
CREATE	Poland	Poland
SupraChem Lab	Romania	Romania / France
EXCELLtoINNOV	Portugal	Netherlands
CySTEM	Cyprus	Spanish
EnvMetaGen	Portugal	Australia / UK
FoReCaST	Portugal	South Korea / India
TransGeno	Estonia	Iran
COEL	Estonia	Pakistan
SynBioTEC	Estonia	Sweden
PaRaDeSEC	Croatia	Finland
BIORISE	Cyprus	Greece
BioEcon	Poland	Portugal
CEITER	Estonia	German
ERAatUC	Portugal	Portugal

5.2. The coordinating Twinning institutions

For 95% of the Twinning projects, it has been more than 6 months since the arrangements with the foreign research institutions were formalized.

The majority of the Twinning institutions are universities (68%) and the remaining 32% are research institutions. The figure below shows the distribution of the legal entities involved in the implementation of the projects. In 36% of the projects, the departments are involved, whereas in 25% the faculty research institutes are involved in the implementation of the projects.

Figure 2: Research institutions involved in Twinning



n=44

Source: COWI Twinning and ERA Chairs survey, 2016

In a majority of the institutions (45%), between 10 and 50 senior researchers are working at the institutions. In 34% of the institutions, the number of senior researchers is less than 10. The number of junior researchers working at the department varies more, as 41% of the projects have less than 10, 34% have between 10 and 50 and 25% have more than 50 junior researchers working at the institution.

In about half of the Twinning projects, the collaborating institutions were part of the coordinating institutions network before the Twinning collaborations. In 40% of the projects, one institution was part of the network and the other was not. In 12% of the projects, none of the collaborating institutions were part of the institution's network.

5.3. Achievements: impacts and results

- We are the most important achievements of your project to-date?
- Do you observe effects, which you did not foresee (positive and negative)?
- Can you already at this stage observe progress towards achieving impacts? Please describe.
- Which of the following results indicators have changed as a results of Era Chairs / Twinning: New publications sent to peer-review; New proposals submitted; New researchers hired; New PhDs; Changes in recruitment/procurement/remuneration rules/structures/practices

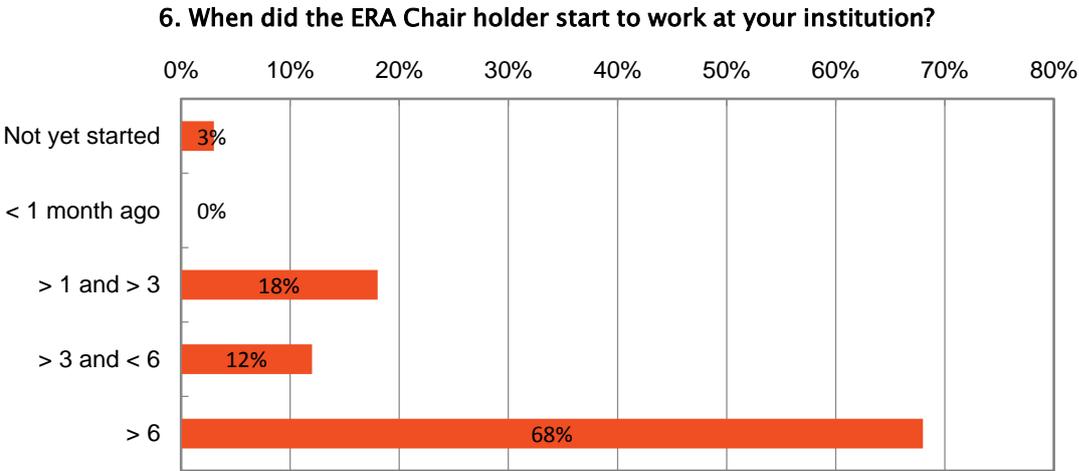
The majority of the Twinning projects have been active since January 2016, whereas the ERA Chairs projects started earlier. Most of the ERA Chairs projects under H2020 started in July 2015 and those under FP7, in July 2014. The questionnaire surveys show that 80% of the Twinning project coordinators and 70% of the ERA Chair project coordinators and holders find that support from the actions has led to results. In the following, the achievements and results from the ERA Chair and Twinning projects will be presented.

5.3.1. ERA Chairs

The qualitative interviews have provided an insight into the specific achievements of a sample of the ERA Chairs projects. The interviewees from the ERA Chairs projects point to recruiting the Chair Holder and establishing research groups as the main achievements of the ERA Chairs projects to date. In some of the projects there have been some delay in recruiting the Chair holders and consequently in the recruitment of the research group members and preparation of grants and publications has only recently started. In the projects in which the Chair holder was recruited according to the original time schedule, the processes of preparing grant applications and submitting papers for peer review have started. Several of the projects have submitted papers and are currently waiting for the results of these.

The average time between the official approval of the ERA Chair grant and the time when the Chair holder started working at the institution is 9.1 months. The figure below illustrates the time the Chair holders have worked at the institution. The majority of the ERA Chair holders (68%) have worked at the hosting institutions for more than six months.

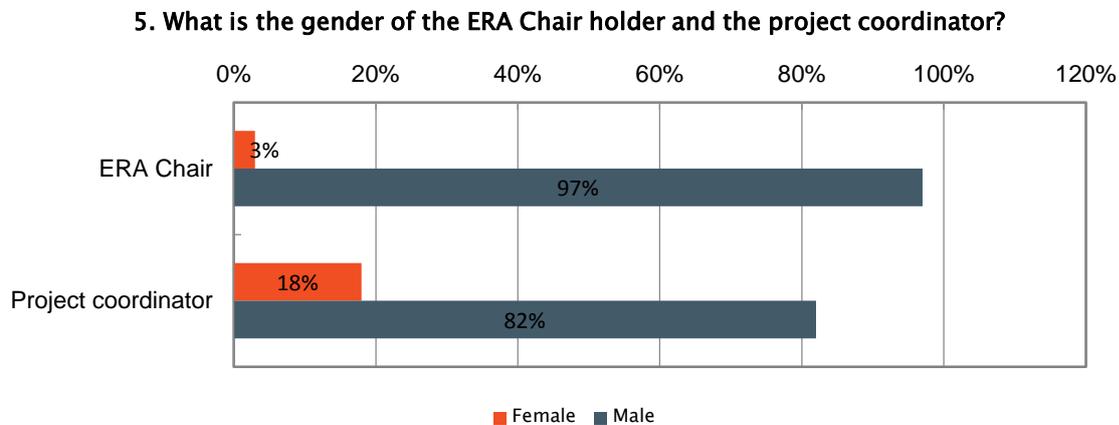
Figure 3: Start of the ERA Chair holder



n=34
 Source: COWI Twinning and ERA Chairs survey, 2016

As shown in the table below, a large majority of the project coordinators and Chair holders are male. Only 3% of the Chair holders and 18% of the project coordinators are female.

Figure 4: Gender equality in ERA Chairs



n=34

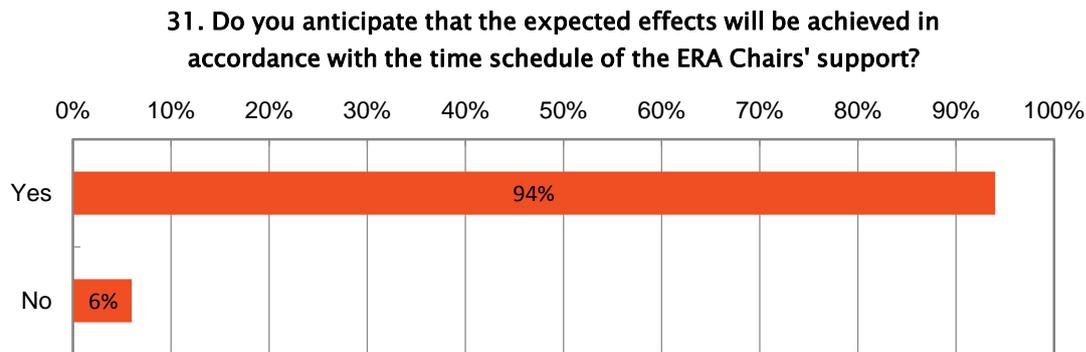
Source: COWI Twinning and ERA Chairs survey, 2016

One of the interviewed ERA Chair project coordinators highlighted the open call recruitment as an important result and the most transparent recruitment in the history of the hosting institution. While another noted how they have to follow the national recruitment procedure, they have strived to make the recruitment as transparent as possible and published the position on EURAXX. Two of the interviewed ERA Chair project coordinator stated that the institution followed Western standards of recruitment before receiving the ERA Chairs grant and therefore do not see this as an accomplishment in itself. The survey shows that all of the Chair holders were selected through an international call.

The majority of the survey respondents have not observed any unintended or unexpected effects, respectively 72% and 78%. The interviewees have so far not experienced any unforeseen effects. However, some point to experience such as one of the PhD's deciding to leave a research group and the need for spending additional time recruiting a new candidate. The selected candidate came from an EU Member State and the bureaucracy of hiring a foreign PhD student was found to be very time consuming. The Chair holders point to the differences between the countries and the institutions such as ways of doing research, national legislations, cumbersome administrative procedures, or a different culture at the institutions. The Chair holders also mention that they were prepared to adapt to the new country and institution. A few project coordinators made a similar comment; while they expected it would be a big task to employ and host an international high-profile researcher, they were surprised by the magnitude of this task. One project coordinator mentioned that beyond the salary levels, the institution was facing challenges to live up the Chair holder's standards such as access to day care and that all written material had to be in English. While it was difficult for the institutions to comply with the required standards, they managed and believe they can live up to the challenge.

The survey shows that 25% of the ERA Chairs projects have not yet published any peer reviewed publications, while 31% have published 1-4 peer reviewed publications. The majority of the projects report that partnerships have been established, 75% of the ERA Chair projects having made two or three new partnerships. Furthermore, 47% of the ERA Chairs projects have submitted 1-5 new research proposals, whereas 35% have submitted between 6-10.

Figure 5: Expectations of ERA Chairs effects according to time schedule



n=32

Source: COWI Twinning and ERA Chairs survey, 2016

As shown in the figure above, 94% of the respondents expect that the effects will be achieved in accordance with the time schedule. Some of the selected ERA Chairs projects from the qualitative interviews are progressing according to plan, while others have experienced delays. These are due to delays in the recruitment of the Chair holders and research teams.

5.3.2. *Twining*

According to the project coordinators the main achievement of the Twinning projects is research collaboration, which they believe have had a successful start. Some of this collaboration is planned to continue after the completion of the projects. Of the selected Twinning projects, four have submitted one or more papers for peer review and are currently waiting for the results, one project has recently finished writing a textbook and one has not yet submitted papers, but is working on them.

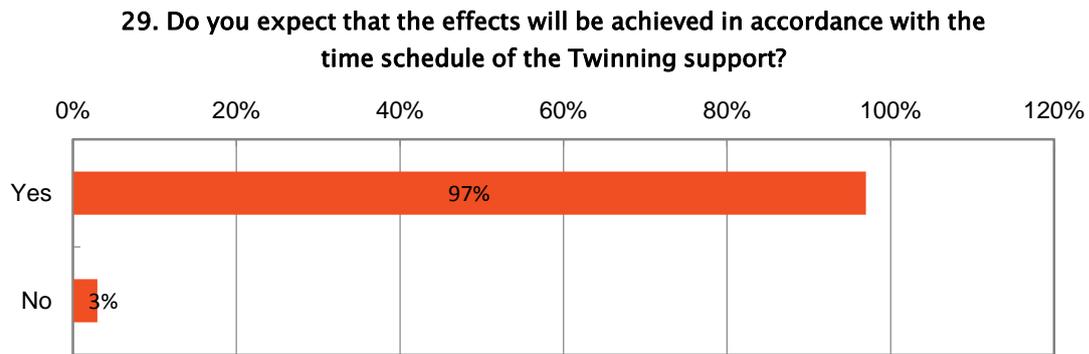
Two of the interviewed Twinning projects have held or participated in conferences and the remaining four have had staff exchange visits. Currently the institutions are preparing conferences, staff exchanges or submitting publications or grant applications.

The survey shows that a minority (13%) of the projects has experienced unintended effects so far, and only 5% have experienced unexpected effects.

Some of the interviewed Twinning project coordinators have experienced unforeseen problems such as the time needed to apply for research funding in order to enable the project to continue. One project coordinator finds that the project has enabled the institution to establish collaboration with local research partners and sees this as an unexpected but positive effect.

The Twinning survey shows that 43% of the projects have had 1-5 publications peer reviewed. The number of newly established partnerships varies between one to five, where 37% of the Twinning projects have established one new partnership and 17% have established two. Furthermore, 25% of the projects have submitted one new research proposal and 17% have submitted two such proposals.

Figure 6: Expectations of ERA Chairs effects according to time schedule



n=38

Source: COWI Twinning and ERA Chairs survey, 2016

As seen in the figure above, a large majority of the respondents expect the results to be achieved within the project's time schedule. The interviewees of the Twinning projects perceive the projects as progressing according to plan.

5.4. Relevance

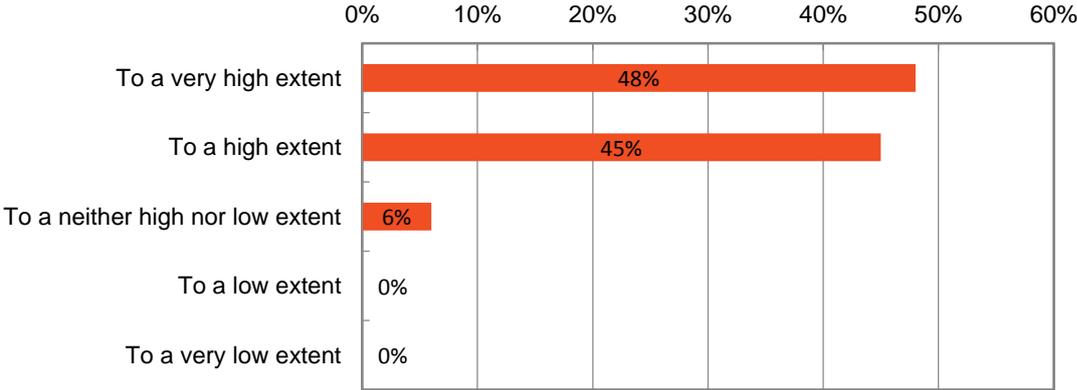
- Do you feel that the objectives of the actions are responding to your needs?
- Are there any emerging needs that the project does not cover?
- To what extent is the project based on foresight studies?
- To what extent and how will the project be relevant for EU beneficiaries (citizens, institutions, etc.)?

5.4.1. ERA Chairs

The survey shows that the objectives of the ERA Chair actions are perceived as corresponding to the needs of the institutions. As the figure below shows, 48% of the respondents find that the objectives of the ERA Chair action to a very large extent correspond to the needs whereas 45% agree to a large extent.

Figure 7: Match between objectives and institutional needs/challenges

24. To your knowledge, to what extent do the objectives of the ERA Chairs' support correspond to the overall needs/challenges of your institution?



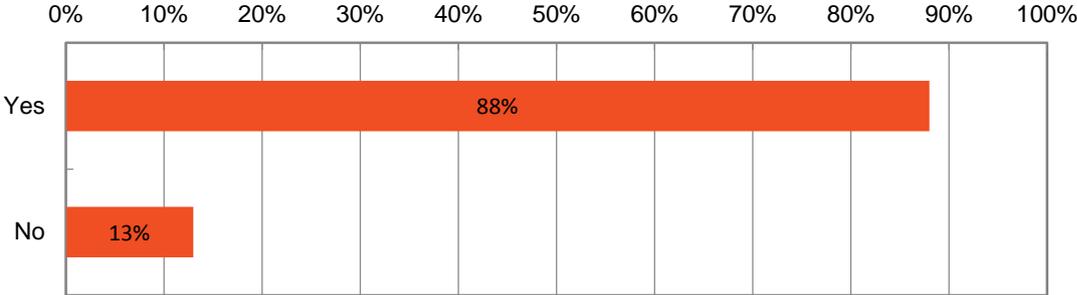
n=33
Source: COWI Twinning and ERA Chairs survey, 2016

This finding is supported by the qualitative interviews in which all the interviewed ERA Chairs project coordinators and Chair holders express the opinion that the actions respond to the needs of either the specific department, overall institution or both. They find that the actions enable them to make stronger links to high profile researchers. Through the collaboration, they experience an increased ability to compete for international funding and an enhanced publication profile. Furthermore, ERA Chair project coordinators and Chair holders noted that having an experienced and talented international researcher at the institution would not otherwise be possible.

The survey and the interviews show that there are some needs of the institutions that are not covered by the actions. Among the ERA Chair holders and coordinators, 88% found that there are relevant costs not covered by the action.

Figure 8: Relevant costs not covered by the grant

38. Are there relevant cost which are not covered by ERA Chair?



n=32
Source: COWI Twinning and ERA Chairs survey, 2016

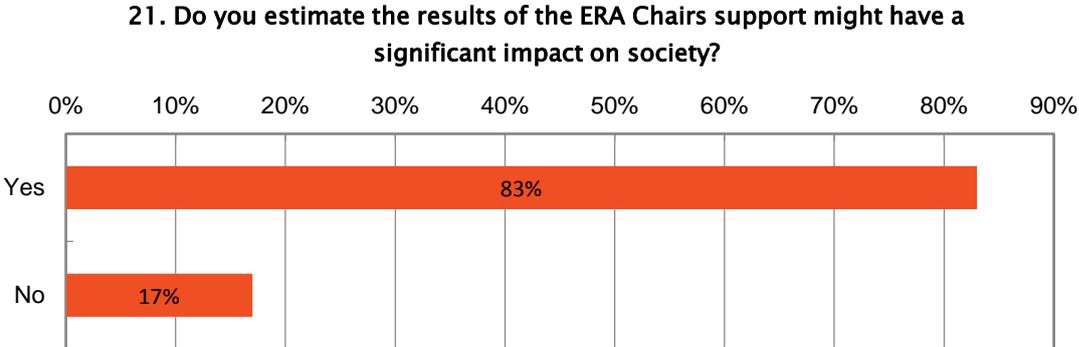
Most interviewees noted that the ERA Chairs grant does not cover the cost of research e.g. equipment and infrastructure. Instead, the institutions apply for research funding from other sources. Most interviewees pointed to national grants covering research costs,

and some have received funding from the Structural Funds. For some of the projects this has been and still is a problem to overcome. While they will have the expertise of talented researchers, there will be no equipment or infrastructure on which to use these talents. One of the ERA Chair project coordinators noted that they have recruited the chair holder who has joined the institution but they have to utilise his time making research applications before being able to do research. Some of the interviewees suggested that a small amount of the ERA Chair grant could cover the research costs at the beginning of the projects so as not to need to use time to apply for research funds.

For other projects, the lack of research funding is not perceived as a problem. Some noted that the hosting institutions fund their research from their own resources. Others accept that they have to apply separately for funding and activities.

The survey shows that the projects under the ERA Chairs action are expected to have a significant impact on the coordinating institutions (87%). Furthermore, the action will benefit the wider population of the hosting countries and the EU citizens as the standards of science will be raised. The figure below shows that 83% of the respondents find that the results will have a significant impact on society.

Figure 9: Do the results of the ERA Chairs impact society?



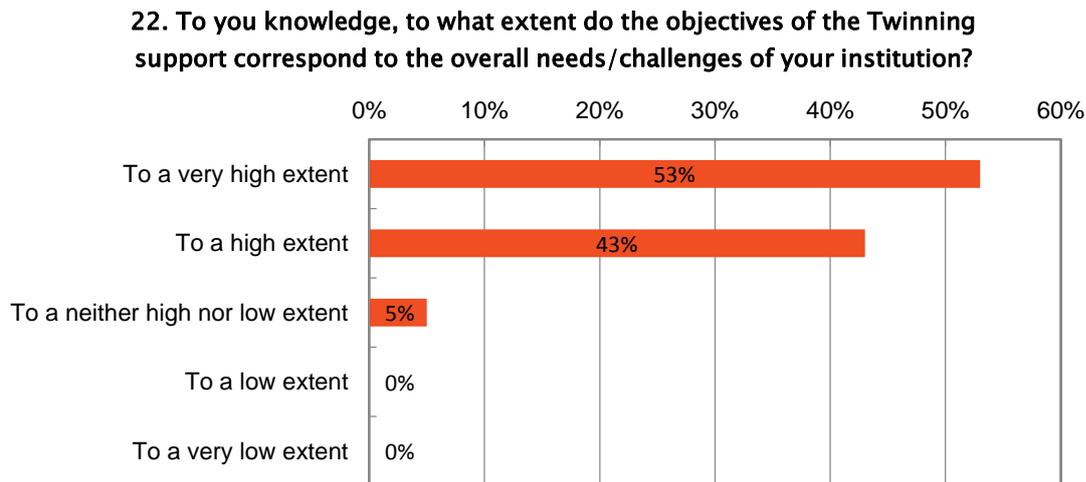
n=23
 Source: COWI Twinning and ERA Chairs survey, 2016

The interviews provided a deeper insight into this issue and pointed to how the development of the specific research fields of the ERA Chair holder will benefit all citizens in terms of e.g. development medicine, hospitals or nuclear and terrorism research. One of the interviewed Chair holders hoped to engage the hosting institution in a Chinese space rocket programme. Because of the large scale of the project, it would be of great importance to the country of the hosting institution.

5.4.2. Twinning

The figure below shows that 53% of the Twinning respondents find that the objectives of the Twinning actions correspond to the needs of the institutions, to a very high degree, whereas 43% find this to a high degree.

Figure 10: Match between objectives and institutional needs/challenges



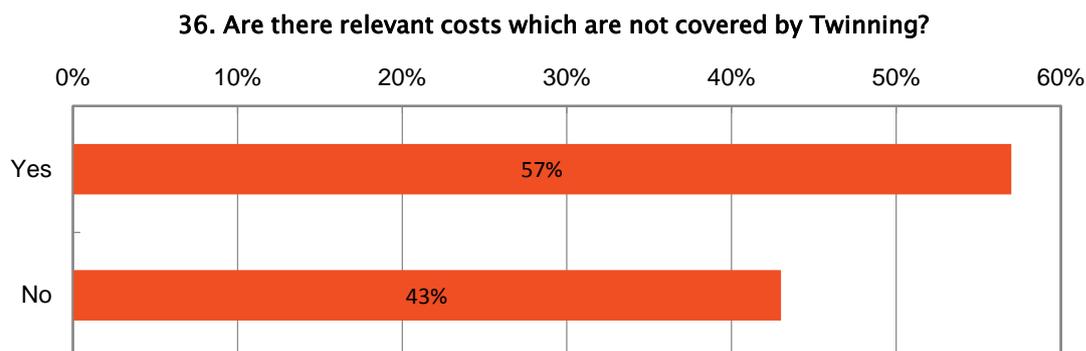
n=40

Source: COWI Twinning and ERA Chairs survey, 2016

The qualitative interviews with the Twinning project coordinators gave similar results, as all the interviewees find that the action corresponds to the needs of their institutions. The interviewees especially noted that the actions enable them to forge stronger links to international institutions. This collaboration enabled them to learn from the institutions, increase their ability to compete for international research funding and enhance their publication profile.

The survey and the interviews show that there are some needs of the institutions that are not covered by the actions. Among the Twinning coordinators, 57% of the respondents found that there are relevant costs not covered by the action, as shown below.

Figure 11: Relevant costs not covered by the grant



n=40

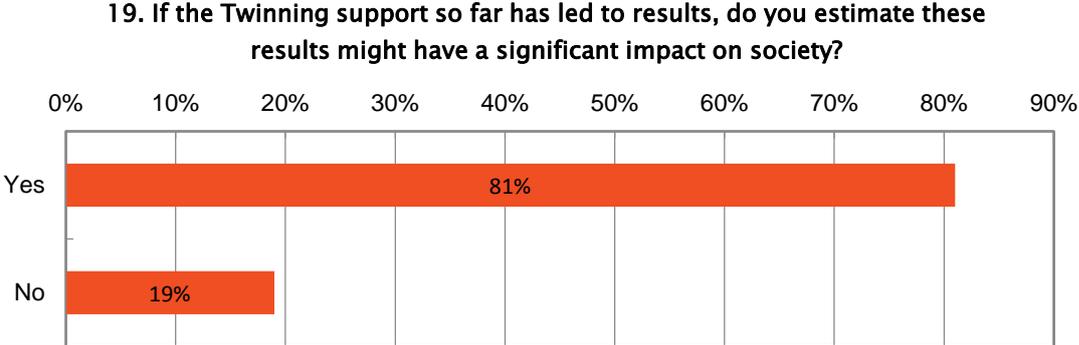
Source: COWI Twinning and ERA Chairs survey, 2016

The interviewees noted that the Twinning grant does not cover the cost of research equipment. While one Twinning project coordinator noted that they have established excellent collaboration with their research partners, they need to spend a lot of time applying for research funds. Overall, opinions on time spent on applying for research funds varied as some saw it as an obstacle while others as acceptable.

The projects under the Twinning actions are perceived by the interviewees as beneficial as the standards of science will be raised. 88% of the survey's respondents expect that the results of the Twinning projects will have an impact on the coordinating institutions.

As shown in the table below, 81% of the respondents expect that the achieved results will have a significant impact on society.

Figure 12: Do the results of the Twinning programme impact society?



n=36
 Source: COWI Twinning and ERA Chairs survey, 2016

In the interviews, stakeholders confirmed that the development of the research fields and the new knowledge generated is expected to benefit both the local populations and the citizens of the EU. Some of the Twinning projects have established partnerships with local institutions or ministries who approach them for advice or invite them to collaborate on other projects.

5.5. Effectiveness

- Did your institution already have a strategy for developing research excellence prior to receiving the ERA Chairs / Twinning grant? If so, when was it developed? Is it being reviewed regularly?
- Are there any obstacles that will be difficult to overcome in the implementation process? If so, how do you intend to overcome these?
- Has there been any unexpected effects (negative and positive that came as a surprise)
- Has there been any unintended effects (negative and positive effects that could not have been predicted)
- Do you expect that the grant will achieve the planned objectives (short-term and long-term)? I.e. Establishing partnerships with internationally excellent research institutions; Access to new markets; Access to innovation; Increased attractiveness for the institution for internationally excellent researchers; Increased research excellence in the specific fields covered by the ERA Chair holder; Improved capability to compete for internationally competitive research funding; Increased access to research facilities or infrastructure; Increased transparency in the recruitment (open and merit-based); Increased gender equality in the institution; Other – please specify
- What are the factors driving or hindering progress towards achievement of the objectives?
- Which of the assumptions can influence the achievement of the objectives most (positively and negatively)?

5.5.1. ERA Chairs

Most of the interviewed project coordinators noted that their institutes did not have an outlined research strategy before receiving the ERA Chairs grant. Some are in the process of drafting one and receive guidance from the Chair holder on the strategy process. Some institutions did have strategies and norms for developing research

excellence, which, however, were not documented. Few institutions already had an outlined, regularly reviewed research strategy before receiving the ERA Chair grant.

In the process of implementing the ERA Chairs projects, the institutions face obstacles of various kinds and degrees, some of these being common to all the projects.

The ERA Chair project coordinators and chair holders mention bureaucracy as an obstacle to overcome. e.g. obtaining permits and visas when hiring foreign researchers to the research teams, other than the chair holder.

The interviewed ERA Chair holders and project coordinators hope that the projects will be sustainable and last beyond the time frame of the projects. However, all but one mentioned that this will be difficult. Although the projects are in an early phase of implementation, the Chair holders were concerned about the future of the projects. One key sustainability challenge is to maintain the salary levels. Most of the interviewed Chair holders would not have accepted the position if they were not offered the salary made possible by the ERA Chairs grant. If the hosting institutions cannot offer the same salaries after the conclusion of the projects, they are not sure they can extend their employment. For the same reasons, the Chair holders do not expect other international high profile researchers to join the institutions. According to one of the Chair holders, the hosting institutions are used to employ local researchers. Thus, the institutions are not used to focus strategically on keeping international high profile researchers at the institutions. The Chair holders find that the sustainability of the projects should be addressed sooner than a few months before the end of the projects, or when the projects end. One Chair holder hopes to keep working at the institution after the duration of the project and continue to work with the newly established research group. (S)he is now working towards making the newly founded research group a department at the institute to ensure sustainability.

One objective of the ERA Chairs grant is to internationalize the research institutions. Therefore, it is relevant to investigate the nationalities of the Chair holders. Most of the ERA Chairs holders' nationalities are different from the country of the hosting institution. Thus, the objective of establishing international networks with high profile researchers is met in the majority of the projects. Three Chair holders are from the same countries as the hosting institutions. A majority of the ERA Chair holders are from Western European countries, and five are from Asian countries e.g. India, Pakistan and South Korea. One Chair holder is from USA and one is from Australia.

The majority of the respondents find the research field of the Chair holder to correspond to the needs of the institutions, 56% to a high degree and 35% to a very high degree. The figure below illustrates the prioritized criteria of the institutions for the selection of the Chair holders. Record of scientific excellence stands out as the priority for the majority of the institutions as was proven excellence in research leadership. Gender was not as a top three criterion for any respondent.

Figure 13: Important criteria when selecting the ERA Chair holder

9. Which three criteria were the most significant for your institution when selecting the ERA Chair holder?



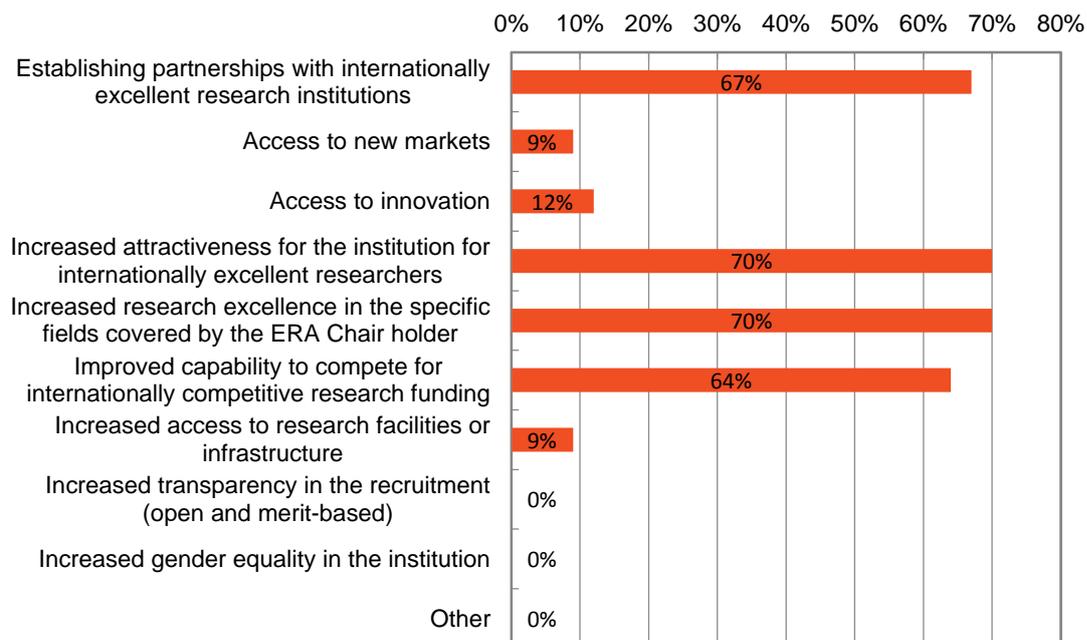
n=33

Source: COWI Twinning and ERA Chairs survey, 2016

The table below shows the expected effects of the ERA Chairs projects. Four effects are prioritized by about 70% of the projects: Establishing partnerships with high profile international institutions, increasing attractiveness for high profile international researchers, increasing excellence in the field of the Chair holder and improving their ability to compete for international research funding.

Figure 14: Expected effects from participation in the ERA Chairs programme

26. Which three of the following options best describe the expected effects of your institution from participating in ERA Chairs?



n=33

Source: COWI Twinning and ERA Chairs survey, 2016

A majority of the institutions, 70%, have developed a strategy that supports the achievements of these ERA Chairs objectives. The table below shows the results of the survey questions concerning the extent to which the planned objectives of the ERA Chairs action have been achieved. 75% of the ERA Chair project coordinators and Chair holders find that the projects have to a high degree (53%) resulted in increased attractiveness for international excellent researchers or to a very high degree (22%). The majority of the respondents find that the institution has become more capable to compete for international funding (50% to a high degree and 25% to a very high degree). Furthermore, the survey shows that the majority find increased research excellence in the field of the chair holder, with 44% finding this to a very high degree and 44% to a high degree. A majority of the respondents (60%) perceive the transparency in the recruitment procedures to have increased, where 23% to a neither high nor low degree believe the transparency has increased and 13% find this to a low degree. This reflects how some of the institutions perceived their recruitment procedures to be transparent before receiving the ERA Chairs grant. The opinions on whether the access to new markets as well as innovation, have increased are more evenly spread. 43% of the respondents find that access to new markets has neither increased nor decreased, 27% find that access to new markets has increased to a high degree and 17% find that access has increased to a low degree. A similar spread is seen regarding the access to new innovation. 40% of the respondents find that gender equality has increased in a neither high nor low degree. As mentioned previously, the gender of the Chair holder was not highlighted as a main reason to choose the Chair holder which indicates that gender is given less importance than other indicators.

Table 4: Extent to which the expected effects of the ERA Chairs support was achieved

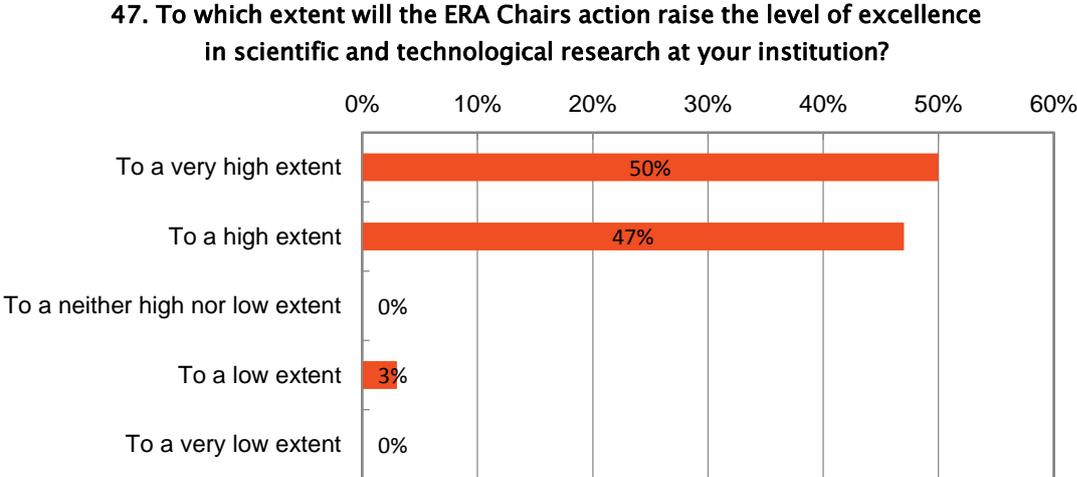
	To a very high extent	To a high extent	To a neither high or low extent	To a low extent	To a very low extent
Establishing new partnerships with internationally excellent research institutions	39%	45%	16%	0%	0%
Reinforcing existing partnerships with internationally excellent research institutions	13%	63%	20%	3%	0%
Access to new markets	7%	27%	43%	17%	7%
Access to innovation	16%	29%	35%	19%	0%
Increased attractiveness for the institution for internationally excellent researchers	22%	53%	22%	0%	3%
Increased research excellence in the specific fields covered by the ERA Chair holder	44%	44%	13%	0%	0%
Improved capability to compete for international research funding	25%	50%	16%	9%	0%
Increased transparency in the recruitment (open and merit-based)	23%	37%	23%	13%	3%
Increased gender equality in the institution	20%	17%	40%	17%	7%
Other	0%	8%	85%	0%	8%

n=32

Source: COWI Twinning and ERA Chairs survey, 2016

The figure below shows the expected improvement of the level of research excellence in scientific and technological research at the institutions. A large majority of the respondents expects the level to raise to a very high degree (50%) or a high degree (47%).

Figure 15: Expected results of participation in the ERA Chairs programme



n=32

Source: COWI Twinning and ERA Chairs survey, 2016

5.5.2. Twinning

Most of the interviewed project coordinators noted that the institution did not have an outlined research strategy before receiving the Twinning grant. Some are now in the process of drafting one and receive guidance from the research institutions with whom they collaborate. Other institutions have strategies and norms for developing research excellence which, however, were not documented. Few institutions had an outlined, regularly reviewed research strategy before receiving the Twinning grant.

Some Twinning project coordinators pointed to the new experience of managing a H2020 project. Some have found that it is a challenge to initiate and formulate the collaboration with the partnering institutions and to combine research strategies. However, they find that these obstacles can be overcome or already have been.

Two Twinning project coordinators mentioned that understanding the definitions of eligible travel costs in the Twinning call is difficult. This concerns e.g. eligible travel costs for the research partners or the daily benefits given to the PhD students. The project coordinators found this to be a challenge, because the eligible costs were defined somewhat vaguely in the call and there had been disagreements between the institutions on defining specific eligible travel costs in the projects. The project coordinators have had negotiations with respectively the research partners and the head of the institution to find solutions to these obstacles.

The majority of the survey's respondents find that the research fields of the collaborating institutions correspond to the strengths of the institutions to a high degree (58%) or to a very high degree (33%). The figure below illustrates the prioritized criteria for selecting the Twinning institutions. The two main criteria were the research field (91%) and the institution's record of scientific excellence (95%). Proven ability in obtaining competitive funding was selected by 33% of the respondents as was proven leadership in research teams.

Figure 16: Criteria for selection of Twinning partners

7. Which three criteria were the most significant for your institution when selecting the Twinning institutions?



n=43
Source: COWI Twinning and ERA Chairs survey, 2016

The figure below shows the expected effects of the institutions' participation in the Twinning projects. 93% of the respondents expect the establishment of partnerships with international, excellent research institutions. 78% expect an increased research excellence in the fields covered by the Twinning partners and about 50% expect increased attractiveness and capability of the institution to compete for research funding.

Figure 17: Expected effects of Twinning participation

24. Which three of the following options best describe the expected effects of your institution from participating in Twinning?



n=40

Source: COWI Twinning and ERA Chairs survey, 2016

The majority (68%) of the projects have developed a strategy that supports the achievement of the Twinning objectives. The table below shows to which extent the planned objectives of the Twinning action have been achieved. To some extent, most of the planned objectives of the Twinning action have been or will be achieved. 24% of the respondents believe that new partnerships will be established with international, excellent research institutions to a very high degree, and 53% believe it to a high degree. Furthermore, 38% expect that existing partnerships will be reinforced to a very high degree, and 54% to a high degree. The majority (57%) of the respondents find to a high or very high degree that the institutions have increased their attractiveness for international, excellent researchers. 34% find this to be the case to neither a high nor a low degree. A large majority (87%) find that research excellence in the field of the Twinning partners has increased, and 77% find that the institution has increased its ability to compete for research funding. Access to new markets is seen as increased by only 3%, whereas 58% find that access to new markets has increased to a neither high nor low degree. Access to innovation is seen as increased by 39%, and 39% find that access to innovation has increased to neither a high nor low degree. Neither recruitment transparency nor gender equality is seen as particularly increased, and the majority finds these to have increased to a neither high nor low degree.

Table 5: Extent to which the expected effects of the Twinning support have been achieved

	To a very high extent	To a high extent	To a neither high nor low extent	To a low extent	To a very low extent
Establishing new partnerships with internationally excellent research institutions	24%	53%	16%	5%	3%
Reinforcing existing partnerships with internationally excellent research institutions	38%	54%	8%	0%	0%
Access to new markets	0%	3%	58%	19%	19%
Access to innovation	3%	39%	39%	15%	3%
Increased attractiveness for the institution for internationally excellent researchers	17%	40%	34%	6%	3%
Increased research excellence in the specific fields covered by the Twinning	34%	53%	11%	3%	0%
Improved capability to compete for international research funding	11%	65%	24%	0%	0%
Increased transparency in the recruitment (open and merit-based)	0%	6%	62%	24%	9%
Increased gender equality in the institution	3%	12%	59%	18%	9%
Other	0%	8%	83%	0%	8%

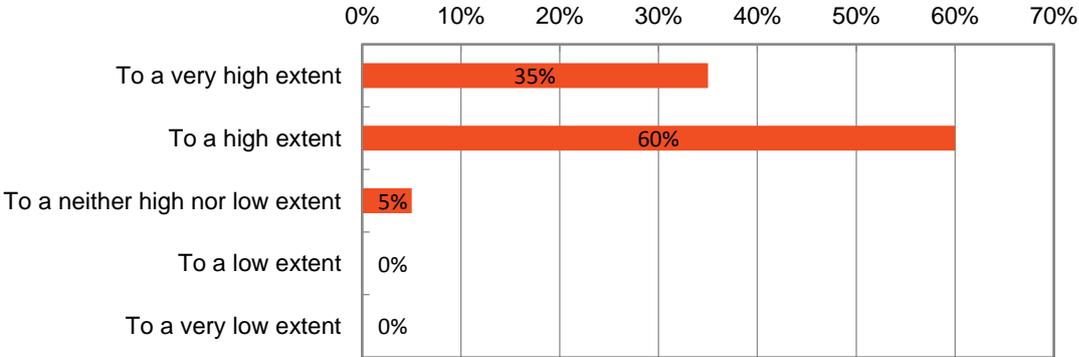
n= 38

Source: COWI Twinning and ERA Chairs survey, 2016

The figure below shows the expected level of excellence in scientific and technological research at the institutions. A large majority of the respondents expect the level to raise to very large extent (34%) or a large extent (60%).

Figure 18: Expectations to the results of the Twinning programme

44. To which extent do you expect that the Twinning support will raise the level of excellence in scientific and technological research at your institution?



n=40
 Source: COWI Twinning and ERA Chairs survey, 2016

5.6. Efficiency

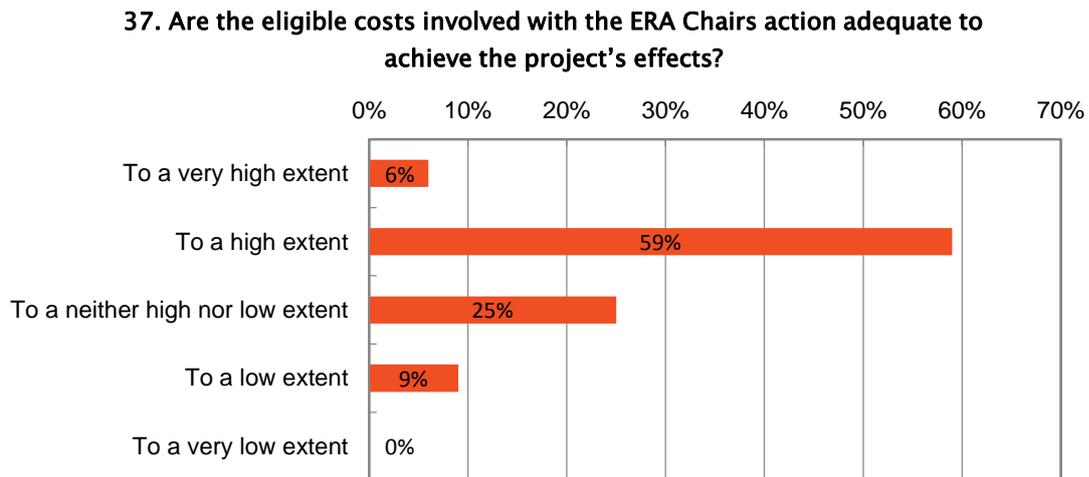
- Are you in a condition to achieve the best results at low costs?
- Are the cost covered by the action suited to achieve best results at lowest costs?
- Which other approach could lower the project cost? (Change/improve procurement rules, reduce administrative burdens, change/improve recruitment rules, etc.)

5.6.1. ERA Chairs

The majority of the interviewed ERA Chair project coordinators and chair holders see the projects as being cost-effective as they have followed the budget that was prepared in the applications.

This can also be seen in the figure below which illustrates that 59% of the survey respondents find that the funds allocated to the projects are adequate to achieve the planned effects to a high degree.

Figure 19: Adequacy of the ERA Chairs grant to achieve the expected effects



n=32

Source: COWI Twinning and ERA Chairs survey, 2016

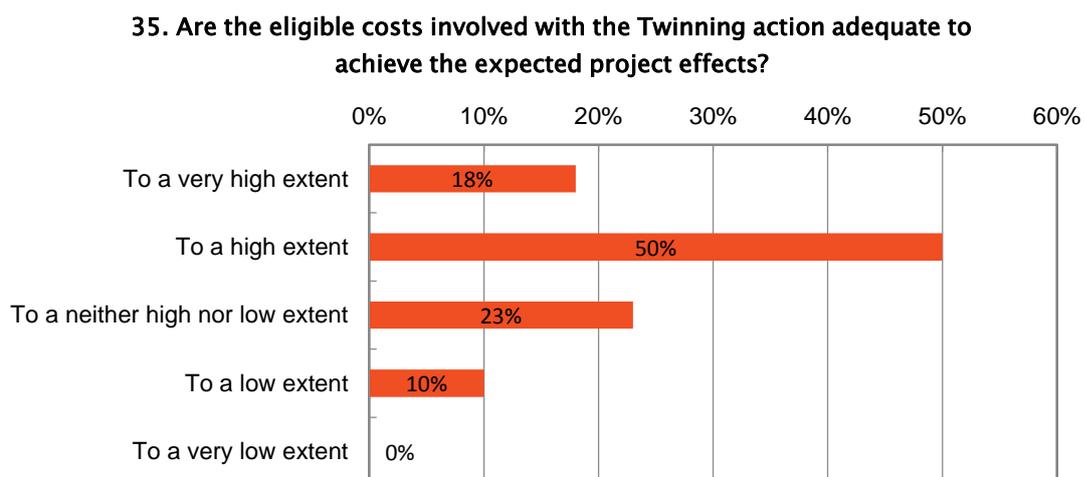
Some comments were made by the interviewees on factors hindering cost efficiency. One of these was paperwork and national bureaucracy e.g. in relation to recruiting foreign PhD students to research teams, or in the approval of a new course by the national ministry of education. Even though most of the interviewees find the projects to be very cost-efficient, external factors such as the national bureaucracy do not contribute to cost efficiency.

5.6.2. Twinning

The majority of the interviewed Twinning project coordinators all find that they are in a condition to achieve good results at low costs. The projects follow the budget that was prepared in the applications.

As illustrated in the figure below, a similar conclusion can be drawn from the survey results. A majority find that the grant for the Twinning action are adequate to achieve the expected effects to a high (50%) or very high (18%) degree.

Figure 20: Adequacy of the Twinning grant to achieve the expected effects



n=40

Source: COWI Twinning and ERA Chairs survey, 2016

Some interviewees find that the hosting institution being located in low cost countries enables them to achieve many results at low cost. On the other hand, one Twinning coordinator points out that the staff exchange visits are costly as the living costs in the countries of the collaborating partners are high.

5.7. Coherence

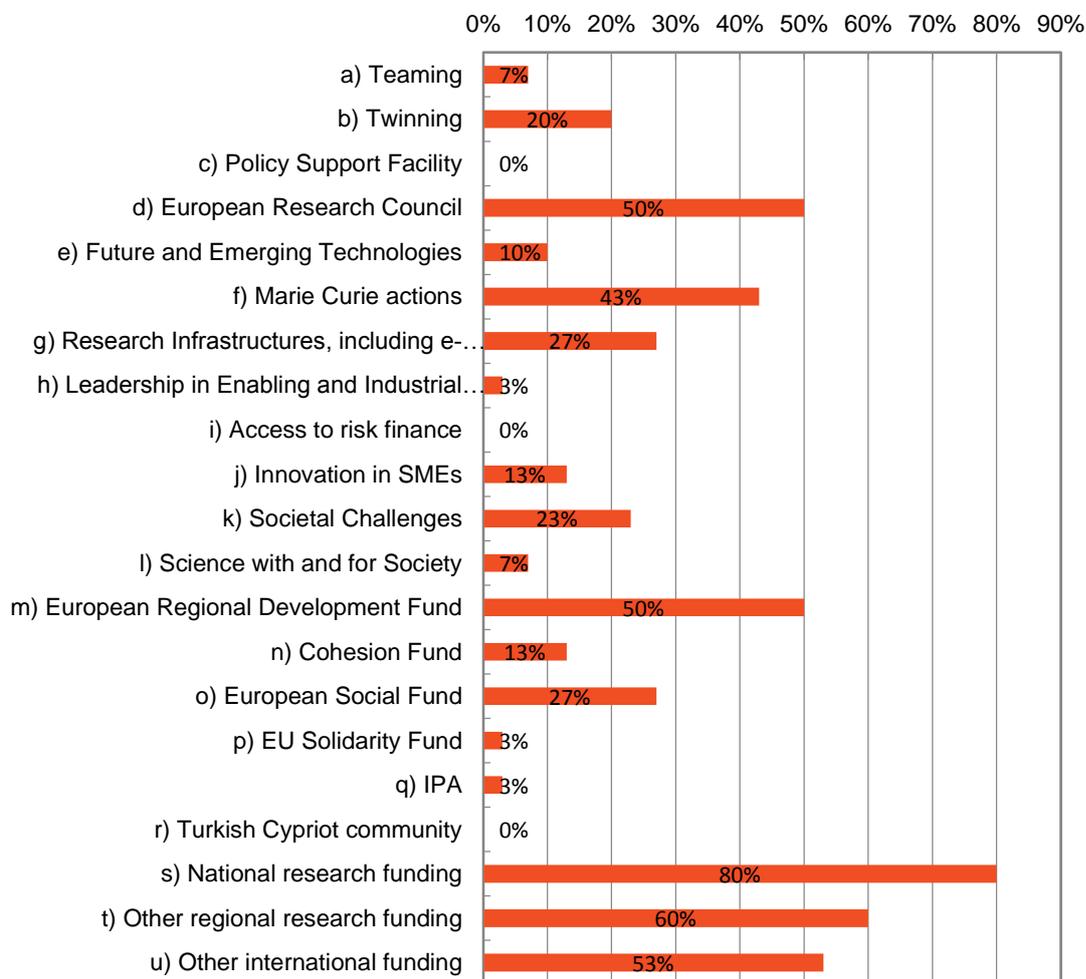
- Are the activities complementary or overlapping with other activities funded at EU/regional/national etc.)?
- Please indicate the complementarities/overlaps and list the funding instruments of other ongoing projects (Horizon 2020, COSME, Life, ESIF national, regional programmes, etc.)

5.7.1. ERA Chairs

88% of the ERA Chairs coordinating research institutes have already received funding from other EU sources. The figure below shows the distribution of these. Regarding other regional, national or international funding, many of these funds cover the cost of research.

Figure 21: Funding received by the ERA Chairs institutions

14. If yes, please specify which one(s)



n=30

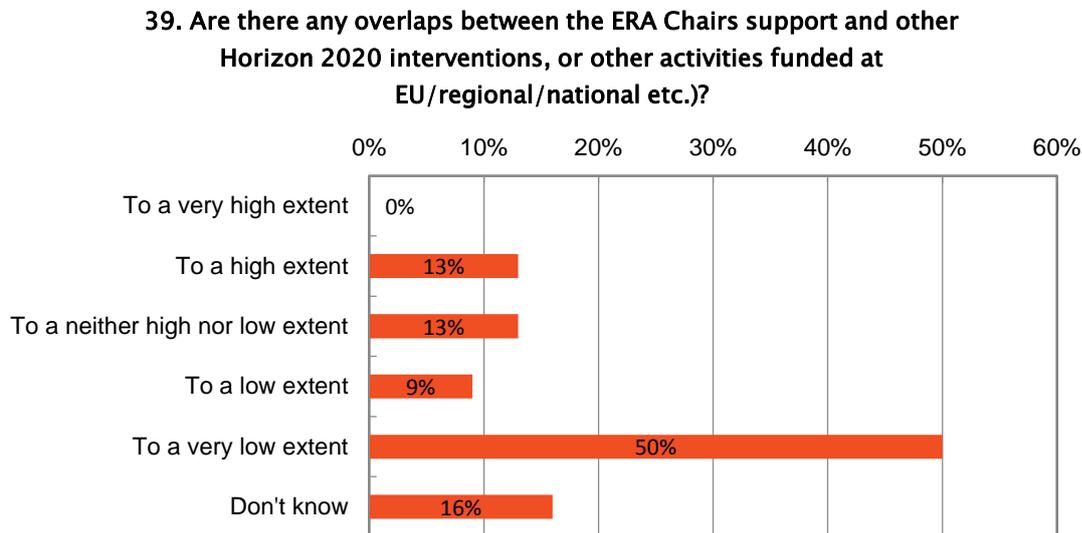
Source: COWI Twinning and ERA Chairs survey, 2016

The ERA Chair projects are perceived by the interviewees to be complementary with other funded activities. As mentioned earlier, some find it challenging and time consuming to apply for funding for research equipment. This can lead to the conclusion that there are no overlaps with other funded activities. However, none of the interviewees received any funding they perceived as overlapping with the ERA Chair

projects. Many of the project coordinators mention that their research costs and infrastructure are funded at national level. Therefore, they find it complementary that the ERA Chairs grant covers the recruitment of researchers.

The figure below illustrates the survey results on the extent of overlap between the ERA Chairs support and other H2020, EU/regional/national activities. A majority of the ERA Chair coordinators and Chair holders (59%) find that there are only few overlaps. A rather small minority find that there are overlaps to a high degree (13%).

Figure 22: Overlaps between ERA Chairs and other interventions



n=32

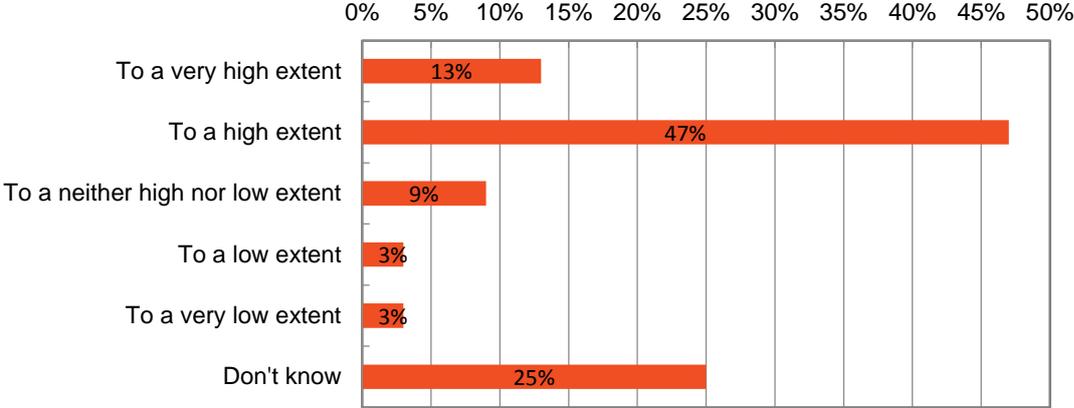
Source: COWI Twinning and ERA Chairs survey, 2016

As illustrated by the figure below, a similar result is found when asking about the perceived coherence with other activities funded at EU, regional, national level with objectives related to the ERA Chairs support.

The majority of the ERA Chairs coordinators and Chair holders perceive the ERA Chairs grant to be complementary with other actions, 47% to a high degree and 13% to a very high degree. From the table below and the table above, it can be concluded that the ERA Chairs support is complementary with other activities funded within both Horizon 2020 and other EU, regional or national levels including activities with objectives related to the ERA Chairs support.

Figure 23: Coherence and complementarity with other EU interventions

40. To what extent are the ERA Chairs support coherent and complementary with other EU interventions or other activities funded at EU/regional/national etc. with related objectives?



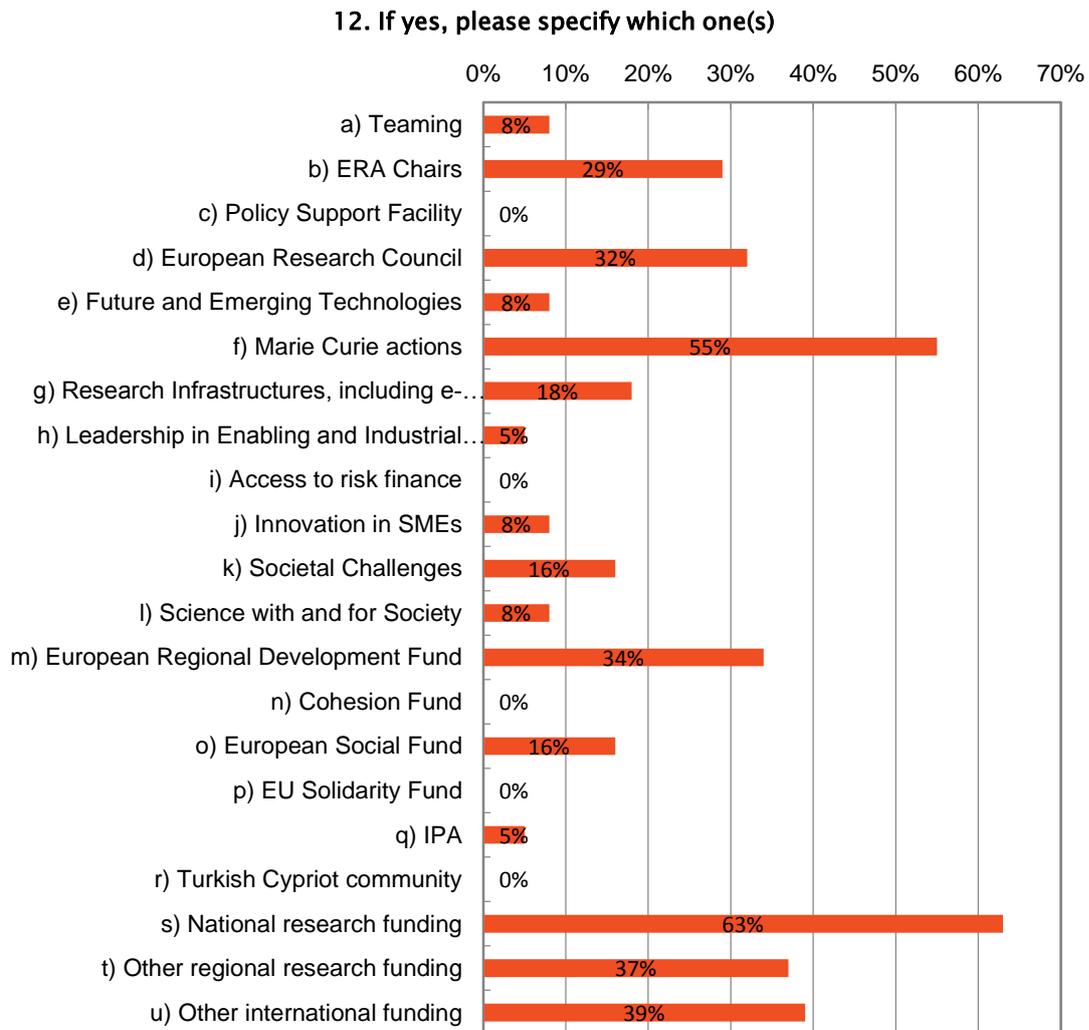
n=32

Source: COWI Twinning and ERA Chairs survey, 2016

5.7.2. Twinning

Of the Twinning institutions, 91% have received funding from other EU sources. The figure below shows the distribution of specific grants. Other regional, national or international funding include among others funding for research.

Figure 24: Funding received by the Twinning institutions



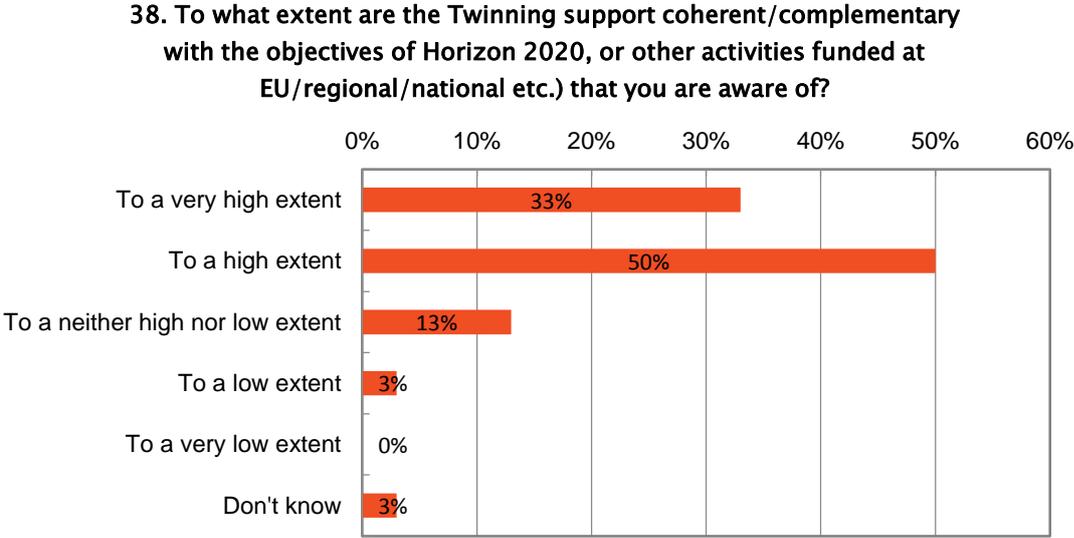
n=38

Source: COWI Twinning and ERA Chairs survey, 2016

Overall, the Twinning projects are considered to be complementary with other funded activities. While some of the coordinators find it challenging and time-consuming to apply for funding for research equipment, none receives any funding that overlaps with the Twinning grant. At many of the supported institutions, research costs and infrastructure are funded at national level. Therefore, they find it complementary that the Twinning grant covers the research and networking activities, which are not covered by national funds.

The figure below indicates a similar result. It shows that a large majority of the Twinning coordinators believe to a high (50%) and very high (33%) degree that the Twinning support is coherent and complementary with the objectives of Horizon 2020 or other activities funded EU, regional or national level.

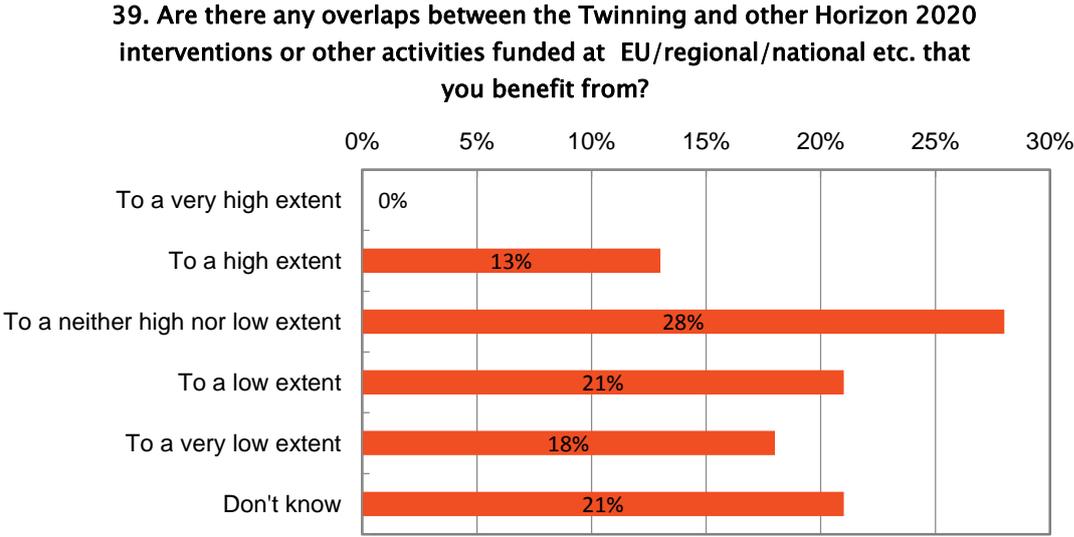
Figure 25: Coherence and complementarity with other EU interventions



n=40
Source: COWI Twinning and ERA Chairs survey, 2016

As illustrated below, a similar result is found from the survey, however, the respondents are somewhat spread. Few find the other funded activities to be overlapping with the Twinning intervention (13%), whereas the majority does not see the funded actions to be overlapping to a low (21%) or a very low (18%) degree. 28% of the respondents find the actions to be neither overlapping nor complementary and 21% do not know.

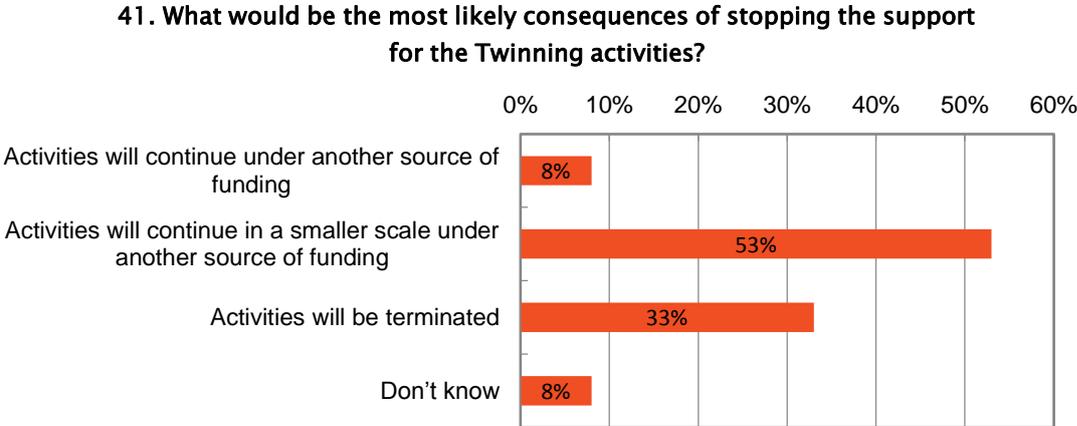
Figure 26: Overlaps between Twinning and other interventions



n=39
Source: COWI Twinning and ERA Chairs survey, 2016

The figure below shows the expected consequences of stopping the support for the Twinning activities. About half of the respondents expect that the activities would continue at a smaller scale under another source of funding. 33% expect that activities would cease and only 8% expect the activities to continue under another source of funding.

Figure 27: Consequences of stopping the support for Twinning activities



n=40
 Source: COWI Twinning and ERA Chairs survey, 2016

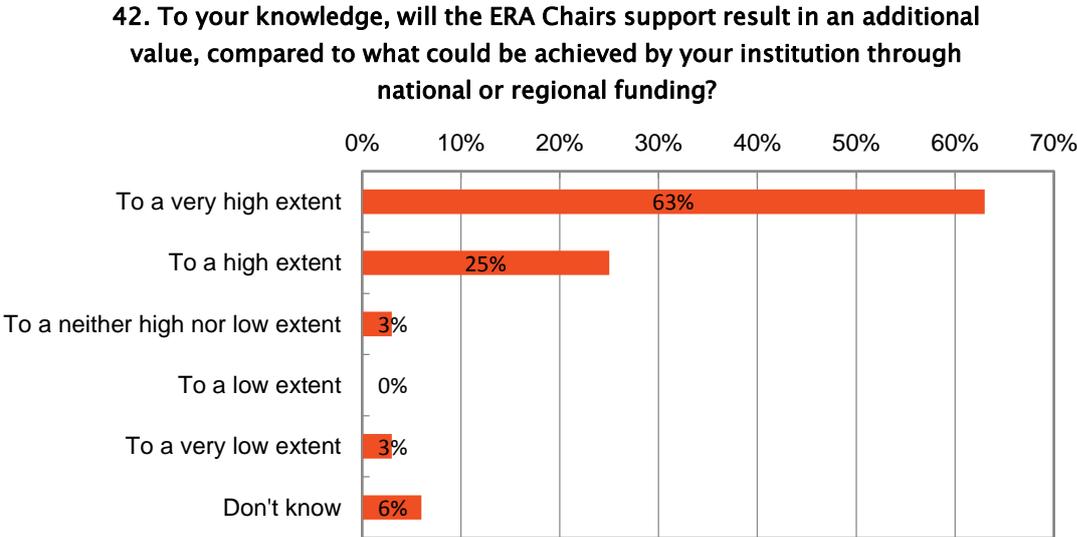
5.8. EU Added Value

- What is the additional value resulting from ERA Chairs / Twinning activities, compared to what could be achieved by Member States at national or regional level?
- Which of the activities have the highest added value?

5.8.1. ERA Chairs

The survey clearly indicates that ERA Chairs project coordinators and Chair holders believe that the projects will result in an additional value. 88% expect the projects to result in additional value to a very high degree or to a high degree. Only 3% of the respondents do not expect any EU added value from the projects.

Figure 28: Additional value of the ERA Chairs programme



n=32
 Source: COWI Twinning and ERA Chairs survey, 2016

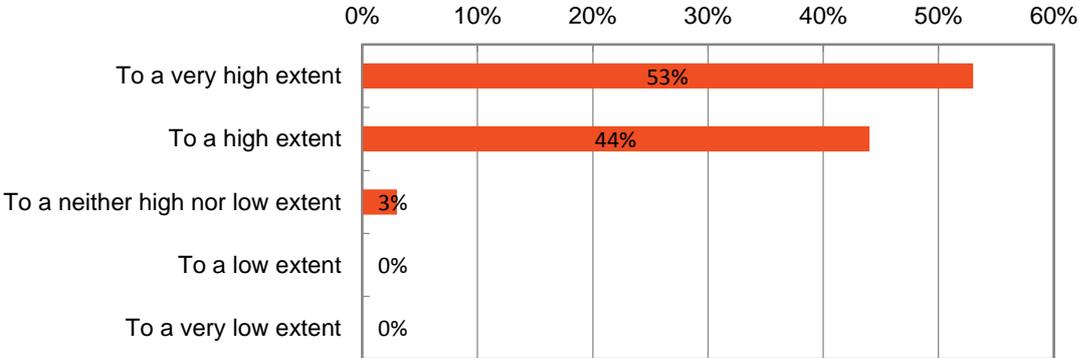
A similar perception was also prominent in the interviews. The most often mentioned additional value resulting from the ERA Chairs projects is the increased attractiveness for other high profile researchers to work at the institutions. Many ERA Chairs project coordinators and Chair holders point out that the ERA Chair recruitment enables the institutions to offer the salaries needed to attract high profile researchers. However, as mentioned earlier some interviewed Chair holders also point out this in relation to sustainability: when the projects end, the institutions can probably not offer the same salary level and expect that researchers will not be attracted to the hosting institutions due to low salaries.

The interviews showed that the Chair holder's network has made networks and collaboration with other high profile researchers as well as international institutions possible. These collaborative networks are expected to last after the end of the projects.

A similar conclusion can be drawn from the survey. As shown in the figure below, a large majority expects that the research institution will experience increased networking capability with world-class institutions.

Figure 29: Increase in networking capability

45. To which extent will the ERA Chairs action ensure that the networking capability of your institution with world class research institutions will increase?

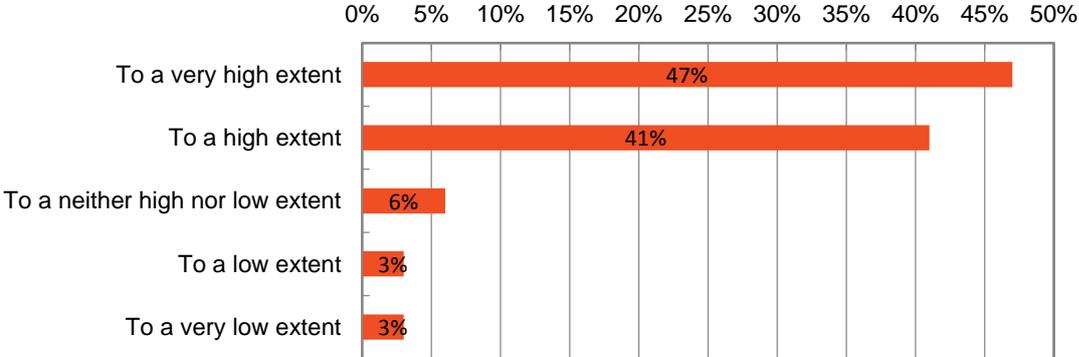


n=32
 Source: COWI Twinning and ERA Chairs survey, 2016

The figure below shows that a large majority of the respondents believe that the ERA Chairs support will create the necessary conditions for high profile researchers and research institutions to collaborate with the institution.

Figure 30: Increase in research attractiveness

46. To which extent will the ERA Chairs support create the necessary conditions for high profile researchers and research institutions to collaborate with your institution?



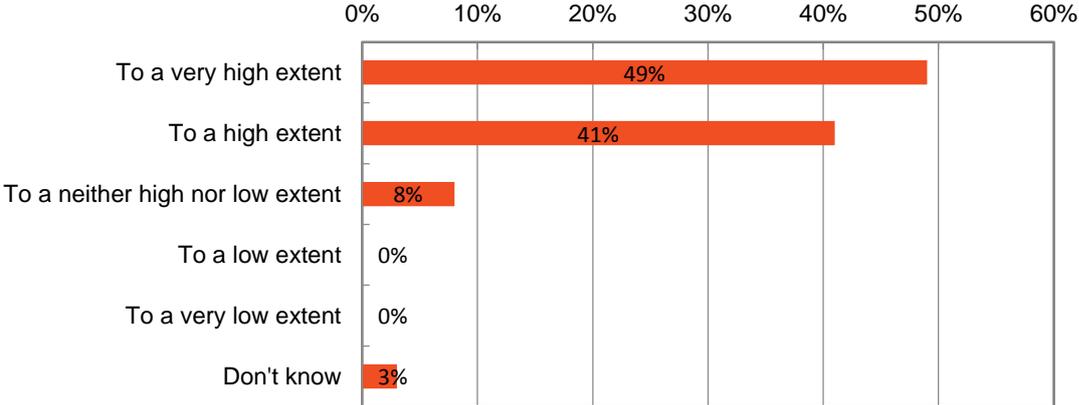
n=32
Source: COWI Twinning and ERA Chairs survey, 2016

5.8.2. Twinning

Respectively 49% and 41% of the survey's respondents expect that the Twinning projects will in a very high or high degree result in an additional value compared with what would be the case if the projects were funded at regional or national level.

Figure 31: Additional value of the Twinning programme

40. To your knowledge, will the Twinning support result in an additional value, compared to what could be achieved by your institution through national or regional funding?



n=39
Source: COWI Twinning and ERA Chairs survey, 2016

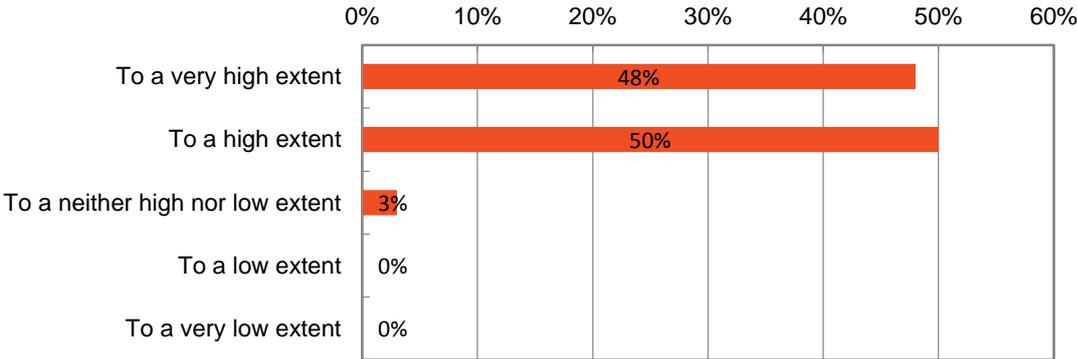
All of the interviewees expect that the projects will result in an EU added value. The most often mentioned additional value is the networks and collaboration with other major institutions. Because of the projects being EU funded, it has been possible to establish this collaboration. The project coordinators pointed out the international aspect and mentioned that if these projects were locally funded they would run at a national level and collaboration would be with other local institutions. Furthermore, these collaborative networks are expected to last after the end of the projects.

The Twinning project institutions experience international researchers coming to conferences at the institutions. Before the Twinning project, they would not have come. Through the contacts with the collaborative institutions, the Twinning institutions can establish contacts with international institutions and researchers outside of the projects.

Looking to the results of the survey, a similar conclusion can be drawn. The majority of the respondents expect the Twinning support to ensure that the institution's networking capabilities with high profile research institutions will increase to a very high (48%) or a high (50%) degree.

Figure 32: Increase in networking capability

42. To which extent will the Twinning action ensure that the networking capability of your institution with world class research institutions will increase?



n=40
 Source: COWI Twinning and ERA Chairs survey, 2016

Furthermore, the majority expects that the Twinning support will create the necessary conditions for high profile researchers and research institutions to collaborate with the coordinating institutions to a high (65%) or a very high degree (30%).

5.9. Lessons learnt

- Which are the key lessons learnt so far?

In the following, the key lessons learnt from the evaluation are presented. These will point to the observed factors from the early stage of the projects that are relevant to keep in mind for the remaining period of the ERA Chairs and Twinning projects.

5.9.1. ERA Chairs

When planning the projects, the ERA Chairs project coordinators and Chair holders expected that the cultural, legislative and scientific differences between the countries would influence the settling in to working and living in the hosting institution and country. For some, this was more difficult than expected and the coordinators and Chair holders see this as a difficulty to overcome.

The objectives of the ERA Chairs programme are highly relevant to the needs of the institutions. However, the project coordinators and Chair holders find that the cost of research equipment is an uncovered but important need. Many mention the time spent applying for research grants, and some worry that they will not succeed in securing the needed research funding to reach the best possible results in the ERA Chairs programme.

The effects achieved by the institutions so far correspond to the expected effects from the ERA Chairs fund. The main effects found by the evaluation are increased

attractiveness for the institutions for internationally excellent researchers, increased collaboration with international excellent institutions and increased competitiveness for international funding.

However, the evaluation shows that in the early stage of the implementation process, the Chair holders have concerns about the sustainability of the projects. One concern is whether the institutions will be able to offer the same salaries after the expiry of the ERA Chairs grants.

The ERA Chairs project coordinators perceive the projects as being implemented in a cost efficient way. However, both ERA Chairs coordinators and Chair holders experience that national bureaucratic procedures are very time consuming and cost intensive. Such procedures are e.g. the recruitment of foreign researchers or getting a new course approved by the ministry of education. Thus, for ERA Chairs programmes it is important not to underestimate the external factors influencing the projects.

Many of the project coordinators pointed out the possibilities when the institution addresses its needs and aspirations: When the major needs are mapped honestly, if the needs are really there, it is possible to get funding. Furthermore, if the aspiration to develop a certain scientific field is clear, other scientists and stakeholders will share the aspirations and together they can increase the research excellence of the institution.

Some of the project coordinators highlighted the positive aspects of not having to compete for the ERA Chairs and Twinning funding with high profile European research institutions. This gave the institutions the opportunity to manage major H2020 projects and to develop further capacity.

5.9.2. Twinning

The objectives of the Twinning programme are highly relevant to the needs of the institutions. However, the project coordinators point out the cost of research as an uncovered, yet important need. Furthermore, some Twinning project coordinators did not expect the actual amount of time needed to apply for research funding in order to enable the project to continue to be as large as it has been.

The achieved effects at this stage of the implementation process correspond to the expected effects from the Twinning fund. The expected and so far achieved effects are especially increased collaboration with internationally excellent institutions and increased ability to compete for international funding.

Many of the institutions are, for the first time, managing large-scale projects. The same applies to coordinating with international research partners. Some project coordinators find this to be challenging. On the other hand, they also find the learning outcome of this process to be of great significance to the institutions.

The Twinning project coordinators noted the learning outcome of collaborating with partnering institutions. One mentioned how all the actors from the different countries could understand each other well. The European language of research is common to the engaged researchers, and they experience few cultural barriers to cooperating.

The project coordinators found that the institutions can do better research when collaborating with excellent research institutions. Furthermore, they see it as very positive that they do not have to compete with Western institutions for the Twinning grant. The Twinning action enables them to learn from their partners and increase their competitiveness for international funding.

6. CONCLUSIONS AND RECOMMENDATIONS

The overall conclusion of the interim evaluation is that both the Twinning and the ERA Chairs programmes are progressing successfully. Both programmes are addressing the need of enhancing the networking, scientific and institutional capabilities with a unique focus for each action. By enhancing the capacity of the research institutions in the Widening countries to establish and develop networks with high profile international research institutions and researchers, the Twinning and ERA Chairs programmes contribute to increase research excellence in the Widening countries.

It should be emphasised that the reviewed projects have only been active for a small part of the planned timeframe, and the following conclusions concern the continuing implementation process of the projects including their sustainability.

In the following, conclusions and recommendations concerning each of the evaluation questions will be presented.

6.1.1. *Achievements*

A large majority of the projects under the ERA Chairs programme have so far achieved important results even though the Chair holders are still in their first year at the hosting institutions. The main results are the recruitment of the Chair holders and other research staff. Some projects have submitted publications for peer review, prepared research grant applications, and others are in the process of preparing these. Almost three out of four Chair holders are recruited from EU Member States.

The Twinning projects have also achieved key results during their first active year. The main achievements are the establishment of partnerships with international institutions. Some of these have facilitated staff exchanges or conferences, submitted publications or grant applications and other partnerships are in the process of preparing these activities.

The ERA Chairs project coordinators and Chair holders expected that the cultural, legislative, scientific etc. differences between the countries would be significant when the Chair holder was to settle in to the work and life in the hosting institution and country. For some the difficulty of this was unexpected and proved to be a challenge for the coordinators and chair holders. At the time of the interviews, the perception was that these challenges were being managed.

6.1.2. *Relevance*

The ERA Chairs programme corresponds to a large extent to so far uncovered needs of the institutions. The programme has managed to increase the attractiveness of the research institutions to high profile researchers.

The Twinning programme is also perceived, to a large extent, to respond to the needs of the institutions. The Twinning programme addresses the, to date, unmet challenge of establishing close networks with international high profile institutions.

However, one need that the ERA Chairs and Twinning programmes does not cover is the funding of research. To some project coordinators, this is acceptable as the respective ERA Chair or Twinning grant then supplements the research grants. However, other projects find this to be an obstacle, both in terms of time spent applying for research funding and of the risk of not being granted the needed funds in order to implement the projects.

For future calls, we recommend that the research institutions consider how to ensure the needed research funds are available at the beginning of the projects. This ensures that research can begin when the Chair holders start working at the institution. For the Twinning projects, the focus can be on establishing the partnerships with the collaborating institutions. It is also recommended that the Twinning and ERA Chairs institutions apply to the EU Structural Funds to ensure that the cost of research is covered.

6.1.3. Effectiveness

The ERA Chairs coordinators and the Chair holders are concerned about the sustainability of the projects. When the projects end, some institutions will no longer be able to offer the same salaries to the researchers, and they expect that the Chair holders will seek other jobs that can meet their salary expectations. Even though the Chair holders are only spending their first year at the hosting institutions, they express concern for the sustainability of the projects.

For the Twinning projects, it is important not to underestimate that this is the first time that many of the institutions manage large-scale projects and coordinate with international research partners. While this can be challenging, the learning outcome of this process is of great significance to the institutions.

Some project coordinators find negotiations on eligible travel costs with the research partners challenging. Often partners interpret eligible travel costs differently. A recommendation for future calls would therefore be to clarify the eligible travel costs in the grant agreement.

6.1.4. Efficiency

The ERA Chairs and Twinning projects are to a large extent perceived as being implemented in a cost-efficient manner. The projects follow the planned budgets and go neither below nor above budget to achieve the planned effects. However, both Twinning and ERA Chairs coordinators and Chair holders note that local bureaucratic procedures, e.g. recruitment of foreign PhD students, demand a lot of their time and increase cost. Thus, for both ERA Chairs and Twinning programmes, it is important not to underestimate the external factors influencing the projects.

6.1.5. Coherence

The ERA Chairs and Twinning programmes are coherent with other interventions, both within the EU, and at regional or at national level. The project coordinators do not perceive the grants to be overlapping with other funded activities. The programmes address needs of the institutions that have not previously been addressed.

6.1.6. EU added value

ERA Chairs coordinators and Chair holders agree that if the projects were funded by national or regional funds, it would not be possible to achieve the same results. The EU added value is the increased attractiveness for high profile international researchers to work at the institution. Furthermore, the establishment of networks with other international research institutions and researchers is facilitated through the network of the Chair holder. The EU added value is the international aspect of the ERA Chairs programme.

The Twinning programme enables the institutions to establish collaboration with international, leading institutions. Such networks are established with the collaborating Twinning partners as well as with international institutions outside of the projects. If the projects were locally funded, the focus would be on establishing networks with other local institutions. The EU added value is the international aspect of establishing networks and collaborations in the EU Member States.

The most important EU added value for the ERA Chairs and the Twinning programmes is that both actions enable the hosting institutions to be more visible, international actors.

7. APPENDIX A: LITERATURE

European Commission (2012), Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – A Reinforced European Research Area Partnership for Excellence and Growth.

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European Commission (2012), Work Programme 2012-2013 Capacities Part 4, Research Potential, Revised.

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FP7-ERACHairs-Pilot Call 2013 (2013), Research Potential, FP7-ERA Chairs Pilot Call-2013, Frequently Asked Questions.

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This interim evaluation of the ERA Chairs and Twinning actions, carried out by COWI, presents the findings of the evaluation covering the programmes' achievements, relevance, effectiveness, efficiency, coherence, EU added value, and lessons learnt.

It focuses exclusively on approved projects, whose duration is five years for the ERA Chairs and three years for the Twinning projects. For both actions, most of the projects are in their first year of implementation. Based on a methodological approach that employs three research methods – a desk study, a survey questionnaire and 14 qualitative interviews – this report investigates evaluation questions regarding the programmes' achievements, relevance, effectiveness, efficiency, coherence and EU added value.

The interim evaluation concludes that both the Twinning and the ERA Chairs programmes have been, to date, a success. The projects have been achieving results according to the programmes' objectives and are proceeding according to plan. Both programmes are, albeit with a separate focus, addressing previously unmet needs of the institutions enabling the institutions to enhance their networking, scientific and institutional capabilities.

Studies and reports

