



The European Network of Innovation
Agencies TAFTIE

***Monitoring systems in TAFTIE Agencies:
outcome and impact indicators***

Conclusions Report

**TAFTIE Structural Network on
Benchmarking (SNB)**



November, 2019



This report is the result of the joint work of the below mentioned Taftie Agencies. During 2019 three meetings were held in Madrid (January) and Brussels (April and September).

We were very pleased to count with presentations by two experts: Martina Kadunc (DG Research & Innovation, European Commission) and Elisabetta Marinelli (Joint Research Center, European Commission) who shared with us their monitoring experiences in Horizon 2020 and Smart Specialization Strategies, respectively.



TAFTIE Structural Network on Benchmarking (SNB)
Participating Agencies in the working group on Monitoring systems in TAFTIE Agencies: outcome and impact indicators

Agency		Contact
	Austrian Research Promotion Agency (FFG)	Rafael Lata Rafael.Lata@ffg.at
	Centro para el Desarrollo Tecnológico Industrial (CDTI)	María-Ascensión Barajas ascension.barajas@cdti.es
	Croatian Agency for SMEs, Innovations and Investments (HAMAG-BICRO)	Ivona Jerković ivona.jerkovic@hamagbicro.hr Neno Rakić Neno.Rakic@hamagbicro.hr
	Enterprise Estonia (EAS)	Tõnis Tänav tonis.tanav@eas.ee
	Innosuisse- Schweizerische Agentur für Innovationsförderung	Adrian Berwert adrian.berwert@innosuisse.ch
	Innoviris	Andreas Boogaerts aboogaerts@innoviris.brussels
	Luxinnovation	Philippe Mayer philippe.mayer@luxinnovation.lu
	Netherlands Enterprise Agency (RVO.nl)	Arjan Wolters arjan.wolters@rvo.nl
	Slovak Innovation and Energy Agency (SIEA)	Peter Adamovský peter.adamovsky@siea.gov.sk
	Technology Agency of the Czech Republic (TA CR)	Zuzana Petříčková zuzana.petrickova@tacr.cz Petr Horák horak@tacr.cz
	The Portuguese National Innovation Agency (ANI)	João Ferreira joao.ferreira@ani.pt
	New Energy and Industrial Technology Development Organization (NEDO) (Observer)	Shumpei Miyajima miyajimaspi01@nedo.go.jp Motoshi Kunugi kunugimts@nedo.go.jp



CONTENT

1. Monitoring the continuum: from inputs to impacts. Scope and limits of the Benchmark report.	5
2. Examples of monitoring systems: lessons	7
a. Practical cases.....	7
b. Lessons learned	10
3. Resources and tools: surveys and existing datasets	11
a. Use of surveys in agencies	11
b. Timeline comparison.....	13
c. Main focus, size and method	15
d. Use of other existing datasets.....	15
4. Challenges and how to address them	17
5. Conclusions and short messages from participating Agencies	19



1. Monitoring the continuum: from inputs to impacts. Scope and limits of the Benchmark report.

In order to enhance the understanding of the performance of innovation instruments, eleven Taftie agencies initiated the Task Force in Benchmarking Impact, Effectiveness and Efficiency (TFBIEE) in 2013. **The overall objective was the development of a reference model for the guidance on indicator selection and a list of programme-level common indicators.** A benchmark analysis of these common indicators between Taftie agencies should provide new insights of the performance of innovation instruments. With the support of Technopolis a reference model and a list of common indicators¹ have been developed for four innovation instruments (R&D grants, cooperative grants, innovation vouchers and competence centres).

Following a two-step approach two indicator sets were developed. The first indicator set includes common indicators for inputs, activity and outputs; the second indicator set suggests a number of indicators for outcome and impact. As noticed in the report, this distinction is considered as important since **the alignment of outcome and impact indicators for international benchmarking requires also the coordination of monitoring and impact evaluation methodologies.** However, since the agencies differ widely in terms of those methodologies, the analysing of the second indicator set is seen as challenging.

Based on the first indicator set, fourteen Taftie agencies have jointly organised their benchmarking efforts in Taftie's Structural Network on Benchmarking (SNB). In 2016 a first benchmark report was published which summarizes key input and output indicators (for instance, budget, grants, beneficiaries and participants) of thirty-eight programmes managed by fourteen innovation agencies for the years 2012-2014. The programme covers four types of instruments (R&D grants, cooperative grants, innovation vouchers and competence centre schemes). A second benchmark report, which addresses the same set of input and output indicators for the years 2015 and 2016 was published in 2018.

A general conclusion of the two benchmarks report was that **Taftie agencies are able to build a continuous network and to issue a periodic benchmark report of their selected programmes.** Also, the common learning and sharing experiences, which led to knowledge spill-overs between the Taftie agencies were key aspects of the preparation of the benchmark reports.

Despite new insights of the performance of selected innovation instruments and the growing database in the background, the two-benchmark reports mainly focus on input, activities and a first approach to outputs. The second set of suggested outcomes and impact indicators has not yet been the focus of the structural network on benchmarking. The reasons for this are, on the

¹ See Technopolis Group (2015), Measuring Innovation Policy Across Europe – Common Indicator Framework, available at <https://www.taftie.org/sites/default/files/Common%20Indicator%20Framework%20for%20publication.pdf>



one hand, the dilemmas and definition issues² that came across during the process of delivering and analysing the data for the first indicator set (see, for an overview, the benchmark reports³). On the other hand, and more importantly, the use of the second set of impact and output indicators requires –not always, but often– the alignment of monitoring and impact evaluation methodologies. As mentioned in the Technopolis document, **the alignment of outcome and impact indicators would require the establishment of standard methodology sets and preferences for counterfactual impact assessment.**

However, the SNB group agreed in 2018 to work on the second set of indicators in order to extend the scope towards output, outcome and impact. **The report at hand is a step towards expanding benchmarking efforts, including outcome and impact indicators.** However, as mentioned above, there is a need to align methodologies. Therefore the SNB group examined in a first step, the various monitoring strategies and processes of the respective agencies. In two meetings (Madrid 31.01.2019 and Brussels 09.04. 2019) several Agencies shared their experience from their monitoring systems and discussed the possibility to extend the data collection towards outcomes and impact indicators. It became apparent that there are huge differences in monitoring methods and data among the agencies. While some agencies have similarities (CDTI and FFG), other agencies have no or minor overlaps. In the joint discussions, challenges were identified, which are explained in detailed in this report. For example, it became clear, that the collection of the relevant databases is difficult, as data on outcomes and impacts go beyond the scope of traditional sources and most data is collected on the basis of surveys. Moreover, the collection of data differs between agencies because of the design of questionnaires and the time of questioning. Also the integration of databases (i.e. survey data, corporate databases) and standardised monitoring systems is not yet achieved in most agencies.

All these aspects constrain an analysis and demonstrate that standardisation of evaluation and monitoring methods is necessary to successfully implement an international benchmark of outcome and impact indicators. In this context, it is particularly important to elaborate all the different facets of evaluation methods in the respective agencies and to give an overview of the different monitoring systems.

The aim of this report is therefore to identify the existing monitoring systems and databases used by the agencies and to present the challenges and opportunities they face. Mutual learning between the agencies was in the focus of this exercise.

² This harmonisation process will remain open for improvement but, at the present time, most agencies are able to provide annual figures on the selected indicators.

³ <https://www.taftie.org/sites/default/files/5b2%20benchmark%20report%20%202012-2014.pdf>



2. Examples of monitoring systems: lessons

a. Practical cases

During the kick-off meeting held at the CDTI in Madrid, five TAFTIE Agencies presented their monitoring system. As invited agency, NEDO presented its case in the second meeting, in Brussels. The objective of these presentations was to explore practical cases and, in doing so, identify lessons and best practices related to developing and implementing monitoring systems. Presenters were invited to give an overview of the instruments monitored by their agencies, to describe the processes, resources, and techniques that are used by their agencies to collect data, and to present some results of monitoring activities. In addition, presenters were asked to reflect on how their agencies use these results, either internally or for external communication. Finally, main benefits and challenges related to the implementation of monitoring systems were debated.

The following table lists the six agencies that presented their experiences and the respective monitoring systems. The paragraphs below briefly describe the six practical cases.

Table 1: Practical cases including brief descriptions of monitoring systems

Case	Agency	Monitoring system
1	CDTI (Spain)	Ex post survey for most instruments. One survey at the end of the project and one survey two years after commercialisation of R&D results.
2	FFG (Austria)	Ex-post survey of supported organisations four years after the project closure.
3	Innoviris (Brussels Region)	Ex-post survey for industrial programs, approximately 3 years after the end of the project.
4	HAMAG-BICRO (Croatia)	Baseline survey during project application phase (collecting data 1 year before the project start) (continuously ⁴), outcome and impact surveys 1, 3, and 5 years after the end of the project (planned action ⁴).
5	RVO (The Netherlands)	In general, monitoring systems are based on assessing the outcomes and impacts at company level using data from the statistical office. Surveys on outcomes and impacts of specific projects are the exception and not the rule.
6	NEDO (Japan)	Surveys are carried out four times: 1, 2, 4 and 6 years after the end of the project, at the participant level (one questionnaire per participant).

⁴ HAMAG-BICRO is introducing the practice of collecting baseline data in the application phase to several calls. However, this practice is still not used for all calls. The collection of outcome and impact data belonging to the baseline data collected is planned but has not yet been put into practice.



Case 1: CDTI

The CDTI monitoring system covers most of CDTI's projects, which are industrial market-oriented R&D projects developed by companies. Two surveys are carried out: one mandatory results survey right after the development phase of the project and one non-mandatory ex-post survey two years after the expected commercial launching.

This implies that the exact timing of the surveys differs between projects. Both surveys are carried out at the project level (implying there is one questionnaire per project). They are automatized, electronic surveys fully integrated with CDTI's software application and responses are stored within the corporate database, linked by a unique identifier by project and by company, allowing a flexible exploitation and a faster analysis of data.

The two questionnaires are complementary: the first one is more focused on technological results and collaborative interactions within the project and the ex-post survey includes, among others, questions on commercial impact, economic results, and effect on innovative capabilities. The aggregated results of the survey are communicated externally and used internally, mainly in promotion activities. From 2012 to 2018, circa 5.500 projects have been surveyed after completion and 3.100 at the commercialisation stage.

Case 2: FFG

R&D funding of FFG can be directed at companies and/or research institutes. FFG has, therefore, two ex-post surveys, one directed at enterprises and another one directed at research institutes. As in the previous case, these surveys are carried out at the project level (one questionnaire per participating organisation and project). Surveys are sent to the beneficiaries of the funding four years after the closure of the project. The surveys are not conducted by FFG itself but by a specialized research institute, namely the Austrian Institute for SME Research. Questions of the survey are organized on the basis of three dimensions: input (e.g. R&D personnel), outputs (e.g. new products, publications, employment effects or turnover), and behaviour (e.g. protection of research results, collaboration). Not all R&D programmes are covered by the impact monitoring system.

Case 3: Innoviris

The programs which are subject to yearly monitoring are Innoviris' industrial programs (including, for instance, Innoviris' R&D projects). Since 2016, Innoviris sends out an electronic questionnaire to beneficiaries whose projects ended three years earlier. The survey is conducted at the level of the project, meaning there is one questionnaire per project. Questions focus on a variety of topics, including projects' objectives, economic impact, protection of results, and societal and environmental impacts. Results have currently not yet



been communicated externally, but they are used internally and some key results may be communicated externally in the near future. In the latest edition of the survey, Power BI was used to visualize the results.

Case 4: HAMAG-BICRO

HAMAG-BICRO monitors the RDI and technology transfer programs funded by the European structural and investment funds and the national budget. A baseline survey (conducted during projects' application phase, collecting data 1 year before the project) is used continuously. Output data are extracted from the final reports. Concerning outcome and impact data collection, data have not been collected systematically. However, a framework has been developed and discussed at the agency level (and also at the national level related to the Smart Specialisation Strategy monitoring). It is planned to collect data for the agreed indicators through electronic ex-post survey one, three and/or five years after projects' end, at both, project and beneficiary level.

Case 5: RVO

The essence of RVO's monitoring system lies in a close cooperation with Statistics Netherlands (CBS) which possesses a wide array of company data based on registrations and company-level surveys. Instead of conducting a specific ex post survey, RVO works together with Statistics Netherlands to link program level data with outcome data at the micro-level of the individual firm. The results of this cooperation – which include next to monitoring also evaluation studies and explorative analyses – are disseminated externally. The challenge to be taken up this (and upcoming years) is to disseminate micro level data on as much programmes within the theme of innovation as possible to Statistics Netherlands. In this way RVO will be able to research the linkages between different programmes and assess better the overall impact of innovation policy. Also challenging is the creation of a procedure to work with both RVO data and data from the statistics office with regard to privacy rules, rules on statistics data etc.

Case 6: NEDO

The monitoring system covers all participants in NEDO's market-oriented projects. Surveys are carried out four times: 1, 2, 4 and 6 years after the end of the project, at the participant level (one questionnaire per participant). They are managed through the electronic platform with original software and responses are stored within the corporate database.

The questionnaire wording varies according to the type of the participant (university or private firm) and the present status of the development of the project (already commercialized or still under development etc.), for example. About 1,000 recipients are surveyed annually with a response rate of 98%.



The questionnaire has a chapter on NEDO's project management, in addition to chapters on the output and outcome of the project. In this chapter the participants are to assess NEDO's activity from their point of view. Questions include one about their "satisfaction level" regarding NEDO's overall management of the project, and one asking how often NEDO's representative had meetings with the participant. The data from the chapter on NEDO's project management have been analysed and used for making "Management Guideline" booklet for NEDO's project managers.

Systematic merging with external database has not been established for NEDO's monitoring system yet, and, at the moment, data from companies are collected every time it is required. As for the internal coordination, the integration of monitoring database with the agency's administrative database is under development.

b. Lessons learned

Based on the above presentations, agencies gained an insight into other agencies' monitoring systems. According to participants, these were the main lessons learned:

- **Which data is used?** Two fundamentally different (yet potentially complementary) approaches exist when developing monitoring systems based on outcome and impact data. On the one hand, one can gather new project-level data by sending out an ex post survey to beneficiaries. On the other hand, one can monitor (or evaluate) projects by valorising existing firm-level datasets. Both approaches come with a particular set of challenges.
- **Who is monitored?** Beneficiaries are not necessarily companies. They can also be research institutes. Depending on the identity of the beneficiary, different monitoring tools may be required. The example of FFG demonstrates that ex-post surveys directed at companies may differ from ex- post surveys directed at research institutes. One additional question surfaced: should non-supported entities be monitored? Even though most agencies believe this could be useful, few agencies currently monitor non-beneficiaries. This question is also linked to the monitoring level – only in the case of monitoring at the level of beneficiaries it is relevant to compare outcome and impact data between beneficiaries and non-beneficiaries.
- **Who monitors?** Monitoring systems, like ex-post surveys, can be managed by the funding agency itself or they can be outsourced. For accessing existing firm-level micro-data on outcomes and impacts, cooperation with an independent statistical institute may be required.
- **When do we monitor?** The exact timing of the ex-post surveys differs between agencies. For most agencies there is a fixed time table that takes the end of the project as a baseline (this implies, for instance, that beneficiaries receive an ex-post survey three or four years after the end of the project). In the case of CDTI, however, there is a



more personalized approach as beneficiaries receive an ex post survey two years after the expected commercial launching date.

- **How do we valorise gathered data?** Two possibilities exist: internal and external use. Internal use implies that outcome/impact indicators are used for managing and redesigning programs or strategic decision taking. External use implies communicating the results of the monitoring exercise, for instance towards (potential) beneficiaries or the broader public. Whether data is used internally or externally, several visualization options exist. One of them is creating dashboard in software programs such as Power BI or Tableau.
- **Is data connected to the agency's administrative database?** The degree to which a connection has been established between the ex-post survey and the internal administrative database differs between agencies. The CDTI case is a clear example of complete and automatic connexion. For most agencies such a connection is, however, seen as desirable.

3. Resources and tools: surveys and existing datasets

Monitoring firms and the results of programs is a central subject in innovation agencies. A common method to acquire data is to send surveys to customers.

The objective of this part is to present the existing databases used by innovation agencies to complete their monitoring and to provide a global overview of the different surveys sent by agencies, the difference between timelines and the treatment of the results.

a. Use of surveys in agencies

Eight of the twelve agencies, are sending ex-post surveys to the firms. Four of them are systematically collecting information on many instruments (TA CR, CDTI, FFG and NEDO) and other do it on an *ad hoc* basis, for selected instruments (Innoviris, ANI, Innosuisse).


Table 1: Practical cases including brief descriptions of monitoring systems
Table 2: Surveys used in ex-post monitoring

AGENCY	METHOD USED	TIMELINE	INSTRUMENT CONCERNED	AVERAGE SAMPLE (Surveys sent/answered annually)
FFG	External research institute, Electronic questionnaire	4 years after the end of the project	Selected instrument Project level	For enterprises: 591/390 For research institutes: 331/210
INNOVIRIS	Electronic questionnaire	3 years after the end of the project	Selected instrument Project level	Small N: 44/30
HAMAG-BICRO	Electronic questionnaire	1,3 or 5 years after the end of the project.	All instruments (planned)	n.a.
TA CR	Electronic questionnaire	1,2 and 3 years after the end of the project	All instruments	ALFA: 937/650 (ongoing) EPSILON: 82/68
ANI	Electronic questionnaire Face-to-face questionnaires	Annually, for a period of 5 years after the end of the project At the end of the project	Only for tax incentive (started in 2019) Demonstration projects	1.291 surveys sent/ answers ongoing 20 questionnaires
CDTI	Electronic questionnaire	At the end of the project and 2 years after entering the market	All instruments (project level)	First survey: 1.400/1.400 Second survey: 900/600
INNOSUISSE	External research institute/ Electronic questionnaire	3-5 years after the end of the project. Focus on companies (Non-beneficiaries). Longer time period for start-ups	Up to now for projects and start-ups On-going innovation survey on firm level (CIS)	Survey for projects (companies): 1.600/450 Survey for start-ups: 750/230
NEDO	Electronic questionnaire	1, 2, 4 and 6 years after the end of the project	NEDO's market-oriented projects	Average value: 1.000/980



b. Timeline comparison

The moment when questionnaires are sent to beneficiaries differs among agencies. As the next graph shows, two milestones are used as reference for surveys timing:

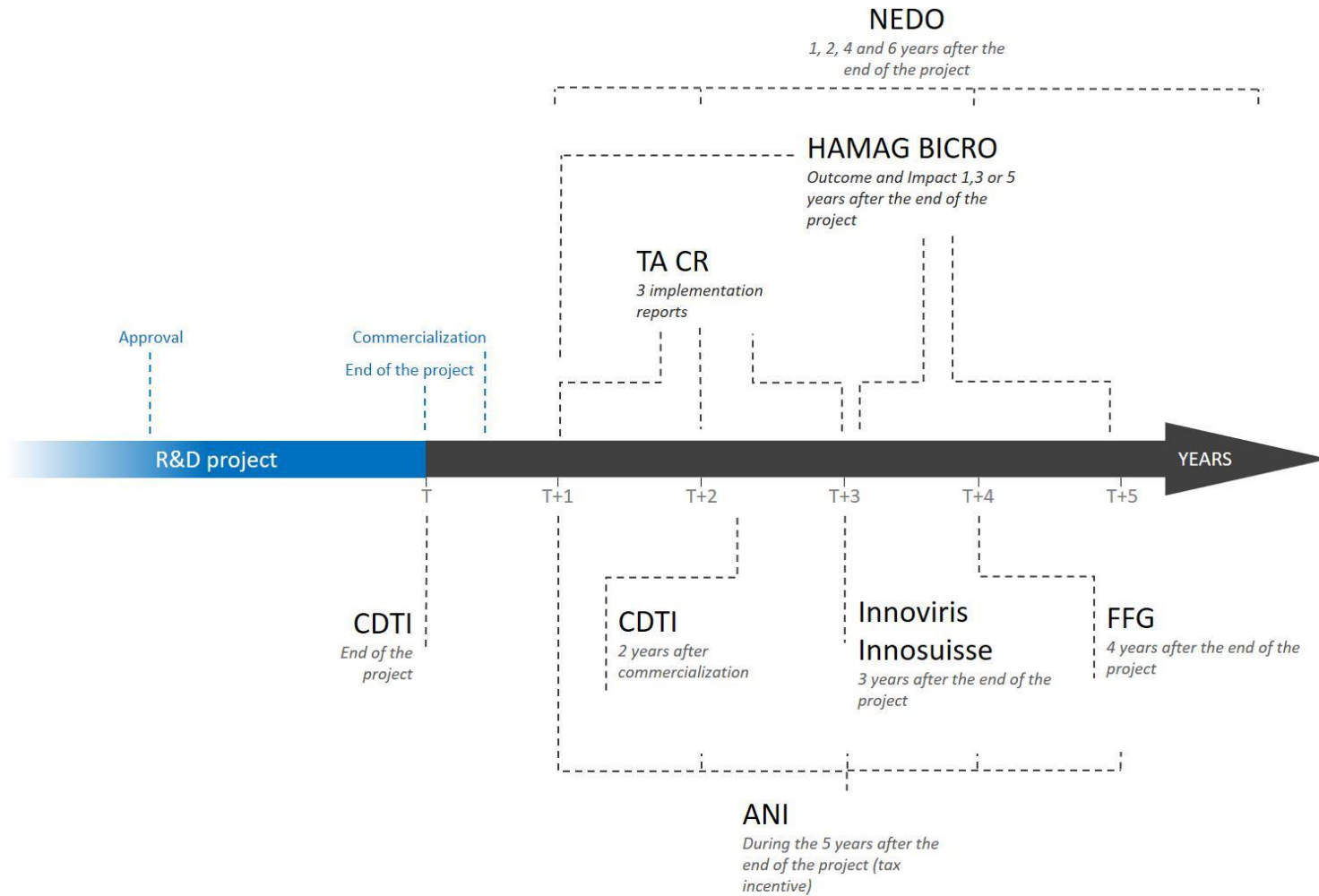
- **End of the project** (this reference is used for most of the agencies)
- **Commercialization** (this reference is used by CDTI)

The survey's timeline is a leading choice in the collection of data. A specific time corresponds directly to a specific type of information.

For example:

- **CDTI** has made the choice to send a first survey at the end of the project; this survey especially focuses on the technological results and expectations on economic returns (including the commercialization year of the obtained innovations). A second survey is sent two years after that the expected commercialization year. This second survey focuses on commercial and economic effects (new market, sales, exports, investments,...)and changes in the innovative capacity of the company.
- **HAMAG BICRO** has prepared a proposal of 3 stages strategy: it is planned to collect data for the agreed indicators through electronic ex-post survey by internal staff, 1 year after the end of the project, focused on the project output data, and additional electronic ex-post survey(s), 3 and/or 5 years after the end of the project, focused on the commercialization activities and/or economic growth of the firm but also including project level data where it is applicable.
- **Innosuisse** had carried out two external impact analysis on projects 3-5 years after completion. It is planned to integrate part of the surveys into Innosuisse's processes and to establish a lean impact monitoring system. Further indicators will continue to be collected on the basis of external impact analyses approximately every four years. In addition for the firm level, the companies supported by Innosuisse will be integrated into the internationally coordinated innovation survey every two years from 2019 (CIS survey).

Ex- post monitoring timeline in Agencies





c. Main focus, size and method

Most of these surveys are electronically completed and managed by internal staff; the exception are FFG and Innosuisse, which outsources this task to an external institute (Austrian Institute for SME Research and KOF Swiss Economic Institute). The comparison of three different ex-post questionnaires (CDTI, FFG and Innoviris), launched in the same or similar time base, has shown that:

- The agencies usually send surveys **with 25-30 questions concerning** these main topics:
 - o **The company** : employment, infrastructure, investments
 - o **The economic impact** : competitive advantage, export, impact of funding
 - o **The project results** compared to the initial objective: evaluation of the innovation
 - o **The property rights** : patents, publication of the results
 - o **The societal** evaluation of the project: societal challenges, environmental (this part is not present in every survey)

- The agencies usually use **multiple choices questionnaires** in order to normalize and homogenize answers. Some of the questions need specific written answers (open questions).

d. Use of other existing datasets

Apart from surveys, there are three main sources of information used for monitoring purposes: administrative data sets, qualitative projects' reports and financial statements from external databases. The use and possibilities to integrate these sources differ among agencies:

- Innoviris, Luxinnovation, Innosuisse and CDTI link survey information with corporative data registers on companies and supported projects
- Innoviris, Luxinnovation, TA CR and SIEA use national „financial statement registers“ in order to follow the financial evolution of the company during time, but they do not link them to the data received in the surveys.
- CDTI links the survey data with data provided by the Spanish version of AMADEUS, to check or complete some firms' figures (basically sales and employment).
- RVO.nl collaborates with the national statistical office in order to link data on the projects with the outcomes of the project (micro-data at firm level).


Table 3: Other databases used in ex-post monitoring

AGENCY	DATASETS USED	METHOD / USE
Innoviris	External database : financial statements (not integrated with ex-post monitoring) Internal administrative database	The ex-post survey's data is combined with some indicators of the administrative database (e.g. company size)
HAMAG-BICRO	Output information based on the project report (at the end of the project)	Future perspective includes data linkage from surveys, internal administrative databases, financial statements and external databases. We explore a possibility of cooperation and data exchange with the Croatian Bureau of Statistics and the Institute of Economics.
TA CR	External database : financial statements INKA : Innovation capacity	Obligatory ex-post report, interviews with representatives of companies
Luxinnovation	External database : financial statements Internal database : goals-achievements	The financial database is integrated into the business intelligence tool.
RVO.nl	Cooperation with Statistics Netherlands : link program with outcomes	
ANI	Output information based on the project report (at the end of the project)	
SIEA	Qualitative research Internal databases External databases – Public „Financial Statement Register“, „Central Register of Projects“, other commercial databases	Qualitative and quantitative data are linked and used in order to perform an analysis related to research and funding programmes evaluation.
CDTI	Financial statements (AMADEUS database) and administrative data on projects and supported companies	Data from surveys, administrative database and financial statements are linked for monitoring purposes throughout a unique firm identifier
Innosuisse	Internal/administrative database on output level. Link planned with the innovation survey on company level	The ex-post survey's data is combined with some indicators of the administrative database (e.g. company size)



4. Challenges and how to address them

The development and implementation of monitoring systems focused on outcomes and impacts is a challenging issue for TAFTIE agencies, but also an opportunity to get information on how their activity is changing or affecting the supported organisations.

The joint work of the Structural Network on Benchmarking is a unique occasion to share experiences and background to accomplish this task from a common perspective. As a result from this collaboration, the following challenges have been identified:

Resources for monitoring

- Skilled human resources and software platforms are needed for surveys management and data analysis
- Internal staff have a broader knowledge of the monitored programs and access to administrative data, but outsourcing could be a solution to minimize bias in answers
- Monitoring could be rarely accomplished by a single department or unit, cooperation among different departments is required (IT, strategy development, analysis, communication...). In this sense, support from top managers is crucial.

Data sources: ex-post surveys v. existing databases

- Although direct surveys to beneficiaries are the most common technique to get data on outcomes and impacts from the public aid, other existing sources should be considered and exploited.
- Administrative data generated during the operative management of the aid exists at every Agency, but this information should be integrated, standardized and available for monitoring purposes. A unique identifier by beneficiary and project is required.
- Qualitative reports on projects (elaborated by program officers or by beneficiaries) are frequently available, but new techniques and skills to manage this kind of information are required (text mining...).
- Financial statements from external datasets (e.g. AMADEUS) are easily available, but they refer to companies, not to projects, and above all, do not contain detailed information on technological assets and R&D expenditures.
- The use of micro-data available at Statistical Offices (mainly from the Community Innovation Survey) is restricted by confidentiality rules. Therefore, merging this information with data from agencies is a complex (and not always feasible) process. One other challenge is to focus on registers, not randomly selected datasets like CIS, in order to be able to do research on as much observations as possible. Leaning on datasets like



CIS, you will probably lose many observations, particularly on very small enterprises. Additionally, this information refers to the firms' activities, and not to results from individual projects. Initiatives aiming to collaborate with Statistical Offices would be very welcome.

Survey design

- Different types of beneficiaries and programs may require different questionnaires. The challenge is how to design questionnaires following a modular approach, with basic common content and adaptive questions for each specific requirement (objectives of the program, type of beneficiary...).
- Timing matters because sectors differ: in the IT sector swift commercialization is expected meanwhile in the biotech sector it could take many years before entering the market. This means that the timing of the ex-post survey matters. A timetable adjusted to the expected commercial launching data may be one option to overcome this challenge.
- Monitoring is not the same than evaluation but could provide useful data for that purpose. In order to find empirical evidence on the "attribution" of impact to a concrete program, the challenge is to collect data from "non-supported" entities: How to get the relevant information from non-supported entities? What incentive does a non-supported entity have to participate?

Use of monitoring data

- Monitoring data are usually a valuable resource for communication purposes, aiming to encourage organisations to participate in programs and diffuse comprehensible messages to the general public. At this respect the challenge is to use tools which allow customizing the message, providing data with an interactive format (e.g. Power BI or Tableau).
- Beyond the communicative use, monitoring should be integrated into the decision-making and strategic development processes of agencies, focused on programs or instruments. At this respect, the challenge is to design use-oriented monitoring systems and engage program officers.
- Coordination among Agencies to set up a common framework for monitoring and definition of indicators is the first step for international benchmarking on outcomes and impacts.



5. Conclusions and short messages from participating Agencies

According to the previous joint work on input, activities and output indicators, and on the more recent debate about monitoring systems focused on outcomes and impacts, the Structural Network concludes that there is a common need and interest for building a set of indicators that could be used by most agencies and be included in the TAFTIE Benchmark report.

This Conclusions report confirms that there is a relevant background for this exercise in the framework of TAFTIE and set up the basis for a further effort on harmonization of indicators and development of monitoring systems, exploring and optimizing all the existing data sources.

Messages from participating Agencies

- **ANI:** *When Agencies face common challenges related to the implementation of monitoring systems it is extremely important to share practices and knowledge. Mutual learning will lead to progress in this field.*
- **CDTI:** *Development of monitoring systems based on common concepts and frameworks is crucial for progressing towards evidence-based policy making. TAFTIE Agencies face similar challenges that could be overcome with the involvement of the organization staff and a smart management of available data.*
- **FFG:** *Very valuable exercise to learn about other agencies' approaches and develop a better understanding of the merits and challenges of different methodologies. Could serve as a starting point to developing a small set of indicators for outcomes and impacts that can be compared. Could also serve as nucleus to discuss a broader concept of impact ("societal impact").*
- **HAMAG-BICRO:** *This overview will be useful for the improvement of the HAMAG-BICRO monitoring system and as information for national policy makers in building evidence-based policy making.*
- **INNOSUISSE:** *Up to now, very useful to identify main questions of a benchmarking concept with the practical focus on concrete implementation with selected indicators.*
- **INNOVIRIS:** *This report shows that the work of TAFTIE SNB has proven to be very useful in advancing mutual learning and exploring current practices and common challenges related to ex post monitoring. It constitutes a good basis for working towards a number of common high-quality impact/outcome indicators.*



- **LUXINNOVATION:** *This group identifies similar monitoring challenges in a wide range of agencies. Sharing all technical practices and knowledge on the collection of indicators, through this common work, is a unique opportunity to improve our monitoring systems in the future.*
- **NEDO:** *The issue of frameworks and practical techniques of monitoring systems is common for both, inside and outside of the EU. We are much grateful for this opportunity to learn from other agencies, and we hope our experience can contribute to the activity of the SNB task force.*
- **RVO:** *This is a useful exercise to benchmark equal type of policies all over Europe. Although it is useful to look at surveys as a way to assess the impact of policies, we stress that other ways to do this should also be explored, like using data from the statistical offices. A kind of standardization all over the EU might be the highest target on the issue of monitoring policy input, output, outcome and impact.*
- **SIEA:** *Clear summary of so far developed data collection techniques and consequent processing and making conclusions used in order to improve funding programmes. TAFTIE Agencies obtained a coherent view on challenged areas, where progress is needed.*
- **TA CR:** *As results of sharing many information and practical experiences during our task force meeting, we try to improve implementation plan and monitoring system in our agency. More meetings like this!*



**The European Network of Innovation
Agencies TAFTIE**

<https://www.taftie.org/>

**TAFTIE Structural Network on
Benchmarking (SNB)**

<https://www.taftie.org/content/benchmarking>



November, 2019